IM C300/C400 series
Machine Code:
D0CA/D0C9/D0C8/D0CB
Field Service Manual
Ver. 1.0

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Important Safety Notices

Warnings, Cautions, Notes

In this manual, the following important symbols and notations are used.

⚠WARNING

- A Warning indicates a potentially hazardous situation. Failure to obey a Warning could result in death or serious injury.

⚠CAUTION

- A Caution indicates a potentially hazardous situation. Failure to obey a Caution could result in minor or moderate injury or damage to the machine or other property.

Important

- Obey these guidelines to avoid problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine.

Note

- This information provides tips and advice about how to best service the machine.

General Safety Instructions

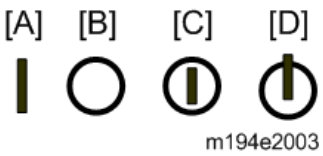
For your safety, please read this manual carefully before you use this product. Keep this manual handy for future reference.

Safety Information

Always obey the following safety precautions when using this product.

Safety During Operation

In this manual, the following important symbols and notations are used.



[A]: ON

[B]: OFF

[C]: Push ON/Push OFF

[D]: Standby

Switches and Symbols

Where symbols are used on or near switches on machines for Europe and other areas, the meaning of each symbol conforms with IEC60417.

For Norway

This product is also designed for an IT power distribution system with phase-to-phase voltage 230V.

Safety Labels of the Machine

For machines with the following label:

⚠CAUTION

DOUBLE POLE/NEUTRAL FUSING

Disconnect main power before changing fuse.

Safety

POWER CORD

As a company policy, Ricoh prohibits any kind of modifications, cutting, puncturing, damage or misuse of the power cords. A modified power cord always carries a high risk of electric shock and fire hazard. When replacing the power cord or adding a conversion adapter, please follow the country's safety laws and regulations as well as the manufacturer's requirements.

Prevention of Physical Injury

1. Before disassembling or assembling parts of the machine and peripherals, make sure that the machine and peripheral power cords are unplugged.
2. The plug should be near the machine and easily accessible.
3. Note that some components of the machine and the paper tray unit are supplied with electrical voltage even if the main power switch is turned off.
4. Always unplug the power cord from the power source before you move the product. Before you move the machine, arrange the power cord so it will not fall under the machine.
5. Disconnect all peripheral units (finisher, LCT, etc.) from the mainframe before you move the machine.
6. If any adjustment or operation check has to be made with exterior covers off or open while the main switch is turned on, keep hands away from electrified or mechanically driven components.
7. The machine drives some of its components when it completes the warm-up period. Be careful to keep hands away from the mechanical and electrical components as the machine starts operation.
8. The inside and the metal parts of the fusing unit become extremely hot while the machine is operating. Be careful to avoid touching those components with your bare hands.
9. To prevent a fire or explosion, keep the machine away from flammable liquids, gases, and aerosols.
10. Do not use flammable sprays or solvent in the vicinity of the machine. Also, avoid placing these

items in the vicinity of the machine. Doing so could result in fire or electric shock.

11. To avoid fire or explosion, never use an organic cleaner near any part that generates heat.
12. Clean the floor completely after accidental spillage of silicone oil or other materials to prevent slippery surfaces that could cause accidents leading to hand or leg injuries.
13. Never remove any safety device unless it requires replacement. Always replace safety devices immediately.
14. Never do any procedure that defeats the function of any safety device.
15. Modification or removal of a safety device (fuse, switch, etc.) could lead to a fire and personal injury. Always test the operation of the machine to ensure that it is operating normally and safely after removal and replacement of any safety device.
16. For replacements use only the correct fuses or circuit breakers rated for use with the machine. Using replacement devices not designed for use with the machine could lead to a fire and personal injuries.
17. For machines with two or more plugs/sockets:
    Disconnect all plug/socket combinations before maintenance.
18. For machines with circuit breaker:
    Do not use circuit breakers to isolate input power supply.
19. For machines installed with the document feeder (ADF, ARDF etc.):
    When a thick book or three-dimensional original is placed on the exposure glass and the document feeder cover is lowered, the back side of the document feeder rises up to accommodate the original. Therefore, when closing the document feeder, please be sure to keep your hands away from the hinges at the back of the document feeder.
20. When using a vacuum cleaner around the machine, keep others away from the cleaner, especially small children.
21. For machines installed with the anti-tip components:
    The anti-tip components are necessary to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. Therefore, removal of such components must always be with the consent of the customer. Do not remove them at your own judgment.
22. Never touch the AC circuits on the PSU board to prevent electric shock caused by residual charge. Residual charge of about 100V-400V remains in the AC circuits on the PSU board even when the board has been removed from the machine after turning off the machine power and unplugging the power cord.

Health Safety Conditions

1. For machines with ozone filters:
    - Never operate the machine without the ozone filters installed.
    - Always replace the ozone filters with the specified types at the proper intervals.
2. The machine, which use high voltage power source, can generate ozone gas. High ozone density

is harmful to human health. Therefore, locate the machine in a large well ventilated room that has an air turnover rate of more than 50m^3/hr/person.

3. Toner and developer are non-toxic, but if you get either of them in your eyes by accident, it may cause temporary eye discomfort. Try to remove with eye drops or flush with water as first aid. If unsuccessful, get medical attention.

Observance of Electrical Safety Standards

1. The machine and its peripherals must be installed and maintained by a customer service representative who has completed the training course on those models with exceptions on some machines where the installation can be handled by the user.

Safety and Ecological Notes for Disposal

- Do not incinerate toner bottles or used toner. Toner dust may ignite suddenly when exposed to an open flame.
- Dispose of used toner, developer, organic photoconductors, and AIO unit in accordance with local regulations. (These are non-toxic supplies.)
- Dispose of replaced parts in accordance with local regulations.
- For machines using replaceable lithium batteries:
  When keeping used lithium batteries in order to dispose of them later, do not put more than 100 batteries per sealed box. Storing larger numbers or not sealing them apart may lead to chemical reactions and heat build-up.
  ⚠CAUTION
  The danger of explosion exists if a battery of this type is incorrectly replaced. Replace only with the same or an equivalent type recommended by the manufacturer. Discard used batteries in accordance with the manufacturer’s instructions.

Handling Toner

- Work carefully when removing paper jams or replacing toner bottles or cartridges to avoid spilling toner on clothing or the hands.
- If toner is inhaled, immediately gargle with large amounts of cold water and move to a well-ventilated location. If there are signs of irritation or other problems, seek medical attention.
- If toner gets on the skin, wash immediately with soap and cold running water.
- If toner gets into the eyes, flush the eyes with cold running water or eye wash. If there are signs of irritation or other problems, seek medical attention.
- If toner is swallowed, drink a large amount of cold water to dilute the ingested toner. If there are signs of any problem, seek medical attention.
- If toner spills on clothing, wash the affected area immediately with soap and cold water. Never use hot water! Hot water can cause toner to set and permanently stain fabric.
- Always store toner and developer supplies such as toner and developer packages, cartridges, bottles (including used toner and empty bottles and cartridges), and AIO unit out of the reach of children.

- Always store fresh toner supplies or empty bottles or cartridges in a cool, dry location that is not exposed to direct sunlight.
- Do not use a vacuum cleaner to remove spilled toner (including used toner). Vacuumed toner may cause a fire or explosion due to sparks or electrical contact inside the cleaner. However, it is possible to use a cleaner designed to be dust explosion-proof. If toner is spilled over the floor, sweep up spilled toner slowly and clean up any remaining toner with a wet cloth.

Lithium Batteries for Taiwan

警告

本機器內的鋰電池如果更換不正確型號會有爆炸的危險。
只能使用相同或製造商推薦同等類型的電池進行更換。
請依製造商說明書處理用過之廢棄電池。

Laser Safety

The Center for Devices and Radiological Health (CDRH) prohibits the repair of laser-based optical units in the field. The optical housing unit can only be repaired in a factory or at a location with the requisite equipment. The laser subsystem is replaceable in the field by a qualified Customer Engineer. The laser chassis is not repairable in the field. Customer engineers are therefore directed to return all chassis and laser subsystems to the factory or service depot when replacement of the optical subsystem is required.

⚠WARNING

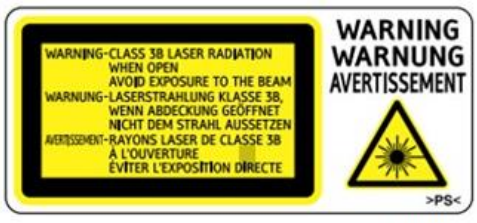
- Use of controls, or adjustment, or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

WARNING FOR LASER UNIT

WARNING:

Turn off the main switch before attempting any of the procedures in the Laser Unit section. Laser beams can seriously damage your eyes.

_safe006



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_safe010

Safety Instructions for the Color Controller

Fuse

The color controller uses a double pole fuse. If this fuse blows, be sure to replace it with an identical fuse.

Batteries

⚠CAUTION

Always replace a battery with the same type of battery prescribed for use with the color controller unit. Replacing a battery with any type other than the one prescribed for use could cause an explosion.

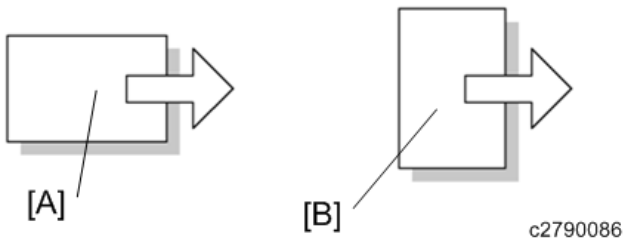
- Never discard used batteries by mixing them with other batteries or other refuse.
- Always remove used batteries from the work site and dispose of them in accordance with local laws and regulations regarding the disposal of such items

Symbols, Abbreviations and Trademarks

Symbols and Abbreviations

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

Symbol	What it means
	Clip ring
	Screw
	Connector
	Clamp
	E-ring
	Flat Flexible Cable
	Timing Belt
SEF	Short Edge Feed
LEF	Long Edge Feed
K	Black
C	Cyan
M	Magenta
Y	Yellow
B/W, BW	Black and White
FC	Full color



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

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- Windows® Internet Explorer® 9
- Internet Explorer® 10
- Internet Explorer® 11

The proper names of the Windows operating systems are as follows:

- The product names of Windows Vista are as follows:

Microsoft® Windows Vista® Ultimate
Microsoft® Windows Vista® Business
Microsoft® Windows Vista® Home Premium

Microsoft® Windows Vista® Home Basic

Microsoft® Windows Vista® Enterprise

- The product names of Windows 7 are as follows:

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Microsoft® Windows® 7 Professional

Microsoft® Windows® 7 Ultimate

Microsoft® Windows® 7 Enterprise

- The product names of Windows 8 are as follows:

Microsoft® Windows® 8

Microsoft® Windows® 8 Pro

Microsoft® Windows® 8 Enterprise

- The product names of Windows 8.1 are as follows:

Microsoft® Windows® 8.1

Microsoft® Windows® 8.1 Pro

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Microsoft® Windows Server® 2012 Standard

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Microsoft® Windows Server® 2012 R2 Essentials

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Table of Contents

1. Product Information 14
Differences between IM C300/C400 and MP C307/C407 14
Machine Codes and Peripherals Configuration 16
Main Machine 16
Machine Configuration 16
Options 17
Specifications 20
2. Installation 21
Installation Requirements 21
Environment 21
Machine Level 21
Machine Space Requirements 22
Machine Dimensions 22
Power Requirements 25
Main Machine Installation: Important Notice on Security Issues 27
Overview 27
Password Setting Procedure 28
Main Machine Installation: Accessory Check 30
For IM C300/C300F 30
For IM C400F/C400SRF 30
Main Machine Installation: Installation Procedures 32
Installation Flowchart 32
Packaging Tapes, Retainers and Toner Bottles 33
Cleaning Cloth Holder 38
Installing the Finisher Extension Tray (IM C400SRF Only) 39
Brand Plate, Decals 39
Telephone Cord (Fax Standard Model) 41
Loading Paper, Image Quality Test 41
Auto Remote Firmware Update (ARFU) Settings 47
Settings Relevant to the Service Contract 52
Settings for @Remote Service 53
Main Machine Installation: When Moving the Machine 57
Network Settings 59
Specifying Network Settings According to Customer's Environment 59
Settings on Displaying an Alert When the Ethernet Cable is Broken or Disconnected 59
Security Settings 60
Security Function Installation 60

Data Overwrite Security 61
HDD Encryption 63
"Web Help Support" Settings 68
Overview 68
How to Enable/Disable Web Help Support 68
"RemoteConnect Support" Settings 71
Overview 71
How to Enable/Disable RemoteConnect Support 71
Uninstalling RemoteConnect Support 74
"Remote Panel Operation" Settings 75
Overview 75
How to Enable/Disable Remote Panel Operation/Monitoring 76
Paper Feed Unit PB1170(D3GQ-17) 77
Accessory Check 77
Installation Procedure 77
Caster Table Type M41 (D3GW03) 80
Accessory Check 80
Installation Conditions 80
Installation Procedure 81
1-Bin Tray BN1040 (D574-59) 90
Accessory Check 90
Installation Procedure 91
Page Keeper Type M28 (D3DQ-17) 103
Accessory Check 103
Installation Procedure 103
Optional Counter Interface Unit Type M12 (B870-21) 113
Accessory Check 113
Installation Procedure 113
NFC Card Reader Type M13 (D3AC-21) 117
Accessory Check 117
Installation Procedure 118
Anti-condensation Heater 123
Accessory Check 123
Installation Procedure 123
Dehumidification Heater (main unit) 130
Accessory Check for IM C300 Series 130
Accessory Check for IM C400 Series 131
Installation Procedure for IM C300 Series 131
Installation Procedure for IM C400 Series 138

Dehumidification Heater (PFU) 141
Accessory Check 141
Installation Procedure 142
Controller Options 155
Overview 155
IEEE 1284 Interface Board Type M19 (D3C0-17) 155
File Format Converter Type M19 (D3BR-04) 157
IEEE 802.11a/g/n Interface Unit Type M19 (D3BR-01) 159
Device Server Option Type M37 (D3GF-10, -11) 163
Enhanced Security HDD Option Type M10 (D792-09) 168
SD Card Options 172
SD Card Appli Move 172
OCR Unit Type M13 (D3AC-23, -24, -25) 175
Data Overwrite Security Unit Type M19 (D3BS-03) 178
Camera Direct Print Card Type M37 (D3GF-30) 182
PostScript3 Unit Type M41 (D0CJ-26, -27, -28) 183
XPS Direct Print Option Type M41 (D0CJ-02, -20) 186
VM CARD Type M37 187
Check All Connections 190
Instructions for the Customers 191
3. Preventive Maintenance 193
Maintenance Tables 193
PM/Yield Parts Settings 194
Replacement Procedure of the PM/Yield Parts 194
After Installing the New PM Parts 199
Preparation before Operation Check 200
Operation Check 200
4. Replacement and Adjustment 201
Notes on the Main Power Switch (SW1) 201
Push Switch 201
Beforehand 203
Special Tools 204
Special Tools and Lubricants 204
Where to Apply Noise-Reduction Grease 205
Exterior Covers 231
Front Cover 231
Upper Left Cover 232
Left Cover 233
Rear Cover 234

Right Rear Cover 234
Paper Exit Tray 236
Scanner Inner Cover 237
Ozone Filter 241
Rear Bottom Cover 242
Right Bottom Cover 242
Operation Panel 244
Operation Panel 244
Internal Parts 247
ADF 248
ADF Unit 248
ADF Rear Cover 251
ADF Front Cover 252
Original Feed Unit 253
Pickup Roller, Feed Roller 254
ADF Friction Pad 256
ADF Relay Board (PCB13) 256
ADF Top Cover Set Sensor (S23), Original Set Sensor (S22) 257
ADF Motor (M8) 257
Original Feed Clutch (CL4) 258
ADF Registration Sensor (S24) 258
Original Feed Sensor (S25) 259
CIS Unit (S21) 262
Scanner 268
Scanner Unit 268
Scanner Unit with the ADF 270
Scanner Front Cover 275
ADF Position Sensor (S19) 276
Scanner HP Sensor (S20) 276
Scanner Motor (M7) 278
Scanner Carriage 279
Internal Finisher (IM C400SRF Only) 283
Removing the Internal Finisher 283
Stapler Unit 285
Gathering Roller Motor (M18) 285
Paper Exit Motor (M17) 286
Shift Roller Motor (M19) 286
Transport Motor (M16) 287
Tray Lift Motor (M22) 287

Jogger Motor (M20) 289
Exit Guide Plate Motor (M21) 292
Shift Roller HP Sensor (S37) 292
Gathering Roller HP Sensor (S38) 293
Jogger Fence HP Sensor (S41) 293
Entrance Sensor (S45) 295
Paper Exit Sensor (S43) 296
Remaining Paper Sensor (S40) 298
Staple Tray Paper Sensor (S42) 298
Tray Lower Limit Sensor (S39) 299
Interlock Switch (SW3) 300
Stopper Solenoid (SOL3) 302
Main Board (PCB25) 303
Laser Optics 306
Warning Decal Location 306
Laser Units 306
LD Unit Cooling Fan (FAN2) 308
PCDU, Toner Supply 311
PCDU (Photo Conductor and Development Unit) 311
Toner Bottle Sensor Board (PCB7) 312
Toner Supply Motors (M1-M4) 313
Toner Transport Section 314
Waste Toner 317
Waste Toner Bottle 317
Waste Toner Full Sensor (S36) 318
Waste Toner Bottle Set Sensor (S26) 318
Image/Paper Transfer 320
ITB (Image Transfer Belt) Unit 320
ITB Lift Motor (M14) 323
ITB Lift HP Sensor (S33) 324
ID Sensor (M27-M29) 325
ID Sensor Shutter Solenoid (SOL2) 328
Paper Transfer Roller Unit 328
Drive 330
Overview 330
Development Motor (CMY) (M9) 332
Drum Motor (CMY) (M10) 333
Drum Motor (M11) 334
Development Clutch (K) (CL5) 334

Drive Unit 335
Tray Lift Motor (M15) 337
Fusing Motor (M13) 339
Paper Transport Motor (M12) 340
Duplex Clutch (CL6), Bypass Feed Clutch (CL7), Registration Clutch (CL8), Paper Feed Clutch (CL9), Vertical Transport Clutch (CL10) 343
Fusing 347
Fusing Unit 347
Fusing Upper Cover 347
Fusing Lower Cover 348
Fusing Entrance Guide Plate 348
Fusing Thermostat (TH6) 349
Fusing thermistor (non-contact sensor) (S10) 349
Pressure Roller Thermistors (TH2-TH4) 350
Pressure Roller 351
Fusing Sleeve Belt Assembly 352
Fusing Entrance Sensor (S3) 356
Fusing Exit Sensor (S8) 357
Fusing Thermopile (TH1) 358
New Fusing Unit Detection Fuse (S9) 359
Actions When SC554-00 Occurs 359
Paper Feed 362
IM C300 series 362
IM C400 series 367
Bypass 374
Bypass Tray 374
Bypass Feed Unit 375
Paper End Sensor (Bypass) (S6) 375
Bypass Paper Width Sensor (S5) 376
Bypass Feed Roller 377
Bypass Tray Lift Sensor (S4) 380
Bypass Tray Lift Clutch (CL1) 380
Paper Exit 382
IM C300 series/IM C400F 382
IM C400SRF 386
Duplex 392
Duplex Unit 392
Duplex Entrance Sensor (S1) 397
Duplex Exit Sensor (S2) 398

Right Cover Sensor (SW2) 400
Electrical Components 402
Electrical Components Overview 402
HDD 402
Controller Board (PCB24) 403
BiCU (PCB1) 409
Controller Box 413
PSU (AC) (PCB17), PSU (DC) (PCB16) 420
AC Detection Board (PCB18) 423
High-Voltage Power Supply (Development) (PCB22) 424
High-Voltage Power Supply (Transfer) (PCB23) 426
PSU Exhaust Fan (FAN4) 427
PCDU Cooling Fan (FAN3) 429
Fusing Unit Cooling Fan (FAN1) 429
Temperature/Humidity Sensor (S18)/Main Power Switch (SW1) 430
Imaging Temperature Sensor (TH5) 431
Interlock Switches 432
Paper Exit Exhaust Fan (FAN5) 434
Image Adjustment 437
How to Use the Color Charts 437
Scanning 442
ADF Adjustment 443
Registration 445
Erase Margin Adjustment 447
Color Registration 448
Printer Gamma Correction 448
Color Skew Adjustment 453
5. System Maintenance 457
Service Program Mode 457
SP Tables 457
Overview of Firmware Update 458
Difference from Previous Machine 458
Overview 458
Firmware Types 459
Firmware Update (Removable Media) 461
Overview 461
Media slot to use when updating 461
Update Procedure 462
Firmware Update (Smart Firmware Update) 469

Overview 469
Immediate Update 469
Update at the Next Visit (Reserve) 472
Firmware Update (Remote Firmware Update) 479
RFU Performable Condition 479
Firmware Update (Auto Remote Firmware Update) 480
Overview 480
Downloading and Updating Process 480
Related SP 485
Firmware Update (Error Screens During Updating) 489
Updating JavaVM 494
Overview 494
Deactivating SDK Applications and Removing the VM Card 494
Updating JavaVM and Inserting the VM Card 496
Activating SDK Applications 497
NVRAM Data Upload/Download 498
Uploading Content of NVRAM to an SD card 498
Downloading an SD Card to NVRAM 499
Address Book Upload/Download 500
Information List 500
Download 500
Upload 501
SMC List Card Save Function 502
Overview 502
Procedure 502
File Names of the Saved SMC Lists 504
Error Messages 505
Capturing the Device Logs 506
Overview 506
Retrieving the Device Logs via Operation Panel 508
Retrieving the Device Logs via Web Image Monitor 510
UP/SP Data Import/Export 514
UP Data Import/Export 514
SP Data Import/Export 516
Possible solutions for import/export problems 518
Test Pattern Printing 521
Card Save Function 523
Overview 523
Procedure 523

Error Messages 525
6. Troubleshooting 526
Self-Diagnostic Mode 526
Service Call Conditions 526
SC Logging 527
SC Automatic Reboot 527
SC Manual Reboot 529
SC1xx: Scanning 531
SC2xx: Exposure 539
When SC285-00 (MUSIC error) Is Displayed 543
SC3xx: Image Processing 546
SC4xx: Image Processing 554
SC5xx: Paper Feed and Fusing 557
SC6xx: Communication 573
SC7xx: Peripherals 593
SC8xx: Overall System 600
SC9xx: Others 634
Process Control Error Conditions 647
Process Control Self-Check Result 647
Line Position Adjustment Result 649
Troubleshooting for Image Quality Problems 651
Flowchart for Identifying Unit Causing Image Quality Degradation (Problem at Regular Intervals) 651
Only Black Is Not Printed 653
Misrecognition of Auto Color Selection When Scanning Originals 654
Misrecognition of Auto Color Selection (Copy/Scanner) 656
Failure to Reproduce Colored Text During Color Copying 658
Line Position Adjustment 660
Blank Print 665
All-Black Print 665
Missing CMY Color 666
Light Print 666
Repeated Spots or Lines on Prints 666
Dark Vertical Line on Prints 667
White Horizontal Lines or Bands 667
Missing Parts of Images 667
Dirty Background 668
Partial CMY Color Dots 668
Dark Irregular Streaks on Prints 668

CMY Color Irregular Streaks 668
Ghosting 668
Unfused or Partially Fused Prints 668
Image Skew 669
Background Stain 669
No Printing on Paper Edge 669
Image Not Centered When It Should Be 670
Troubleshooting for Other Problems 671
When You Cannot Open the Right Door 671
When Fluorescent or LED Lamps Flicker 674
When Abnormal Noise Occurs 676
Electrical Component Defects 679
Sensors 679
Fuse Location 684
Jam Detection 686
Paper Jam History 686
Jam Codes and Display Codes 686
7. Detailed Descriptions 695
Machine Overview 695
Overview 695
Paper Path 698
Drive Layout 700
Component Layout 702
ADF Unit 714
Overview 714
Original Transport Drive 715
Original Set Detection 716
Original Transport Path 716
Double-feed Detection (Optional) 718
Scanner Unit 720
Overview 720
Light Source and Exposure 720
Scanner Carriage Drive 721
Improved Tolerance to Black Lines When Paper Passes through ADF 722
Scanning Position Correction 722
Internal Finisher 724
Overview 724
Component Layout 724
Paper Feed 725

Finisher Free Run 729
Jogger Fence Fine Adjustment 730
Laser Unit 731
Overview 731
Laser Synchronizing System 731
Line Scanning Mechanism 732
Image Skew Adjustment 733
Dust Shield Glass 734
LD Safety Switch 734
PCDU 736
Overview 736
OPC Drum 737
Development Unit 738
OPC Drum/Development Drive 740
Toner Supply Section 741
Overview 741
Toner Supply and Transport Mechanism 741
Toner Bottle Set Sensor Mechanism 742
Toner Near End/End Detection 743
Toner Supply Unit 745
ID Chip (PCB3-PCB6) 746
Waste Toner Collection 748
Waste Toner Transport Mechanism 748
Waste Toner Collection Mechanism 748
Waste Toner Full Detection 749
ITB/ Paper Transfer 751
Overview 751
Transfer Movement and Image Transport 751
Transfer Bias 752
ITB Contact 752
ITB Cleaning 753
Image Position Correction 754
Process Control and MUSIC 755
Process Control 755
MUSIC 761
Fusing 764
Overview 764
Fusing Mechanism 764
Fusing Temperature Control 765

Fusing Drive ... 766
Fusing Mode Control ... 766
CPM Down Control ... 767
Paper Feed and Registration (IM C300 Series) ... 768
Overview ... 768
Paper Transport Motor (M12) ... 768
Tray Lift Mechanism ... 769
Transport control ... 770
Tray Auto-close Mechanism ... 770
Paper Feed and Registration (IM C400 Series) ... 772
Overview ... 772
Paper Transport ... 773
Paper Feed Mechanism ... 773
Paper End Detection ... 775
Tray Lift Mechanism ... 776
Tray Auto-close Mechanism ... 777
Paper Feed and Registration (New Functions) ... 779
Bypass Tray ... 781
Bypass Tray Bottom Plate Lift Mechanism ... 781
Paper Size Detection and Paper End Detection ... 781
Duplex ... 784
Overview ... 784
Duplex Mechanism ... 786
Interleaving ... 788
Paper Exit and Inverter ... 790
Overview ... 790
Paper Exit Operation ... 791
Inverter Operation ... 793
Electrical Parts ... 795
Block Diagram ... 795
Board Outline ... 796
Machine Ventilation ... 798
Overview ... 798
Machine Ventilation ... 800
Energy Save ... 802
Energy Saver Modes ... 802
Power States of this Machine ... 804
Verification of Up Time for each Energy Saving State ... 806
Checking the Up time by Device State ... 806

Recommendation 807
New Functions 808
PS3/PDF Direct Emulation (Clone PS) 808
Other New Features 818
8. Smart Operation Panel 819
Replacement and Adjustment 819
Main Controller Board 819
Wi-Fi Module (PCB21) 821
LCD 822
Speaker 823
Microphone 824
NFC Board 824
Mechanism 827
System Components 827
Panel Components/Screen Layout 834
Electrical Components 837
Controlling the Power Supply 839
System Maintenance 843
Maintenance Modes 843
Login to/Logout from Control Panel Service Mode 843
Service Mode Menu 845
Panel Self Check 853
Recovery Mode 861
Special Key Combinations 862
Backup/Restore for Smart Operation Panel Application/Settings Function 863
Software Update 864
Troubleshooting 870
MultiTouch Misdetection by the Operation Panel due to an AM Radio Signal 870
Problems and Errors Related to Hardware 872
Errors Related to Applications 874
Factory Reset and Restoration 874
Errors that occur during application update from an SD card 876
Errors that occur during update from the eDC Server 877
Other Troubleshooting 879

1. Product Information

Differences between IM C300/C400 and MP C307/C407

The following table describes the differences between IM C300/C400 series and MP C307/C407 series:

Items		IM C300 /C400 series	MP C307/C407
Main power switch position		Front	Right
Agitator mylar for toner supply in sub hopper		2 sheets	1 sheet
Image/Paper Transfer unit	ID sensor (S27-S29)	1 Sensor 1 board, and 3 sensors arranged on one bracket	Three sensors arranged on a single board
VM Features		Provided via an SD card	Standard on board
Smart operation panel	Version	G2.5	G2
	Board with NFC tag	Multiple units (Vanskee Enterprise, SAG)	Only one company (Vanskee Enterprise)
Auto Color Calibration (ACC)		Corrections 1 to 4 Equipped with "Quick Correction Mode" Changed the layout of the correction sheet	Corrections 1 to 4
PS3/PDF Direct Emulation		Provided	Not provided
Settings on Displaying an Alert When the Ethernet Cable is Broken or Disconnected		Provided	Not provided
"Web Help Support" Settings		Provided	Not provided
"RemoteConnect Support" Settings		Provided	Not provided
"Remote Panel Operation" Settings		Provided	Not provided
[Settings] items		Integration of the items in [User Tools] > [Machine Features] and other menus in [User Tools]	-
Internal Finisher		Provided (only for C400SRF)	Not provided
Paper Feed unit (main unit)		500 sheets (only for C400F/C400SRF)	250 sheets
Paper Feed Mechanism		Roller friction system (only for C400F/C400SRF)	Friction pad system

Items		IM C300 /C400 series	MP C307/C407
Machine Ventilation		Paper exit/exhaust fan (FAN5) added (only for C400SRF)	-
Caster Table		Optional	Not supported
Paper feed unit	Maximum installable number	Three	Two
Duplex	Delivery Path	Delivery Path Extension (only for C400SRF)	-
	Duplex paper transport roller	Duplex Paper Transport Roller (Middle) added (only for C400SRF)	-
Paper Feed		Vertical transport clutch (CL10) added (only for C400F/C400SRF)	-
Paper Exit		Paper Exit Transport Roller added (only for C400SRF)	-

Machine Codes and Peripherals Configuration

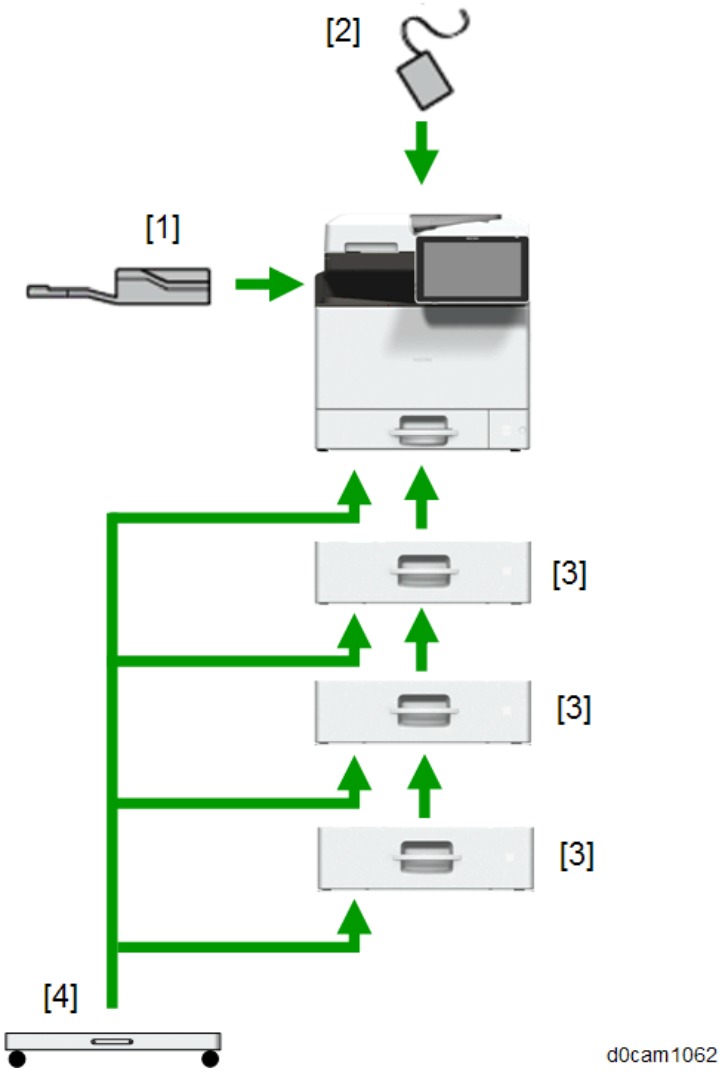
Main Machine

NA = North America, EU = Europe, AA = Asia-Pacific, CHN = China, TWN = Taiwan, KOR = Korea

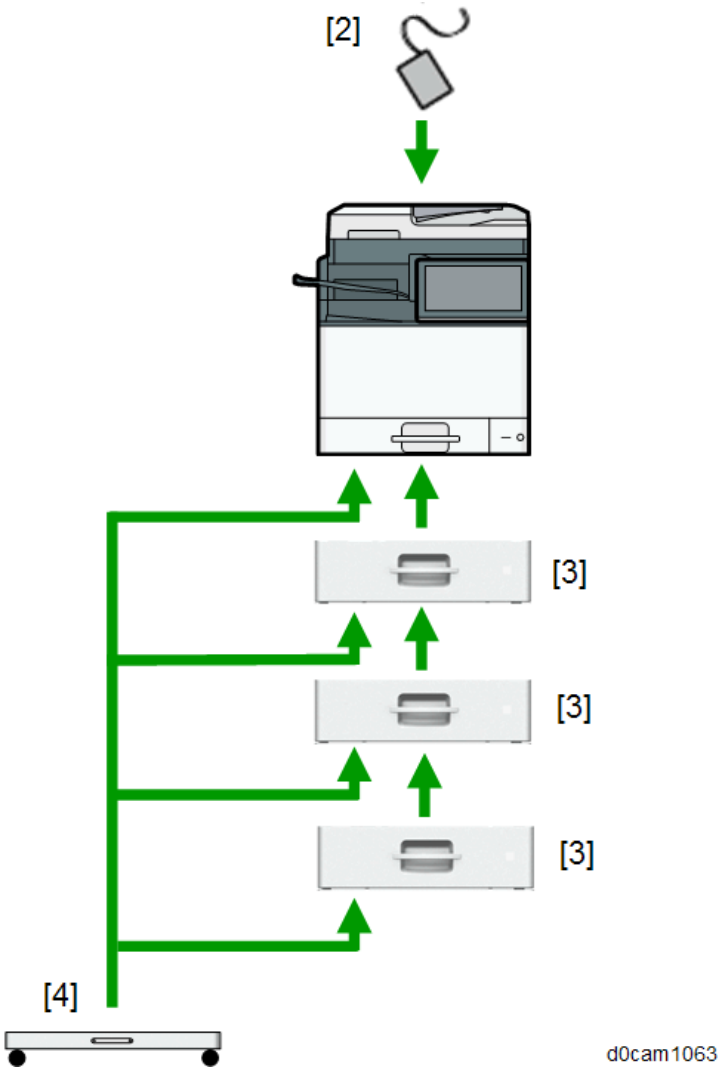
Product name	Machine Code	Remarks	Initial configuration
IM C300	D0CA	IM C300 for EU/AA	-
IM C300F	D0C9	IM C300F for NA/EU/AA/TWN/KOR	FAX
IM C400F	D0C8	IM C400F for NA/EU/AA/CHN	FAX
IM C400SRF	D0CB	IM C400SRF for NA/EU	FAX/Internal Finisher

Machine Configuration

IM C300 series



IM C400 series



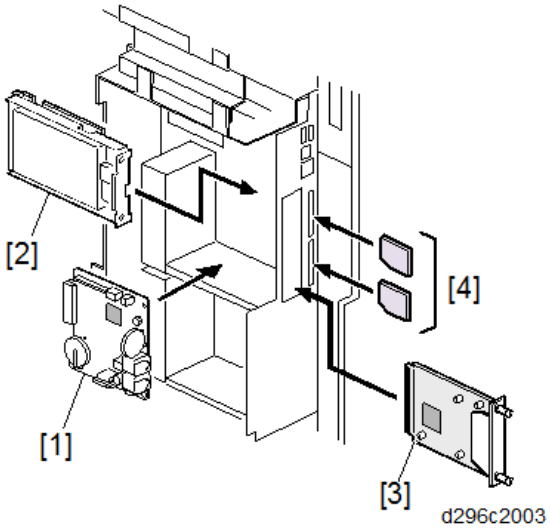
Item	Machine Code	Remarks	New Option?
1 Bin Tray BN1040 [1]	D574	-	Yes
Page Keeper Type M28 [2]	D3DQ	Only for NA/EU	No
Paper Feed Unit PB1170 [3]	D3GQ	Up to 3 can be stacked	Yes
Caster Table Type M41 [4]	D3GW	-	Yes

Options

External Option

Item	Machine Code	Remarks	New Option?
1 Bin Tray BN1040	D574	-	Yes
Page Keeper Type M28	D3DQ	Only for NA/EU	No
Paper Feed Unit PB1170	D3GQ	Max 3 can be installed	Yes
Caster Table Type M41	D3GW	-	Yes

Internal Option / Peripheral Devices



NA = North America, EU = Europe, AA = Asia-Pacific, CHN = China, TWN = Taiwan, KOR = Korea

Item	Machine Code	Remarks	New Option?
Fax Option Type M41 [1]	D0CK-02(EU,AA,KOR)	-	Yes
Fax Connection Unit Type M41	D0CK-00	Only for machines equipped with a fax unit.	Yes
Enhanced Security HDD Option Type M10 [2]	D792-09 (NA, EU)	-	No
IEEE1284 Interface Board Type M19 [3]	D3C0-17	Only one of these cards can be installed at a time.	No
IEEE 802.11a/g/n Interface Unit Type M19 [3]	D3BR-01 (NA, EU, AA,KOR)		No
File Format Converter Type M19 [3]	D3BR-04		No
Device Server Option Type M37 [3]	D3GF-10 (NA) D3GF-11 (EU, AA, KOR)		Yes
Camera Direct Print Card Type M37 [4]	D3GF-30	If multiple applications are required, merge all applications into one SD card with the SP mode. (SD Card Appli Move)	Yes
XPS Direct Print	D0CJ-02 (NA)		Yes

Item	Machine Code	Remarks	New Option?
Option Type M41 [4]	D0CJ-20 (AA, CHN,TWN,KOR)		
PostScript3 Unit Type M41 [4]	D0CJ-26 (NA) D0CJ-27 (EU) D0CJ-28 (Other)		Yes
OCR Unit Type M13 [4]	D3AC-23 (NA) D3AC-24 (EU) D3AC-25 (Other)		No
Data Overwrite Security Unit Type M19 [4]	D3BS-03		No
VM CARD Type M37 [4]	D3GF-32		Yes
NFC Card Reader Type M13	D3AC-21	-	No
Optional Counter Interface Unit Type M12	B870-21	-	No

Specifications

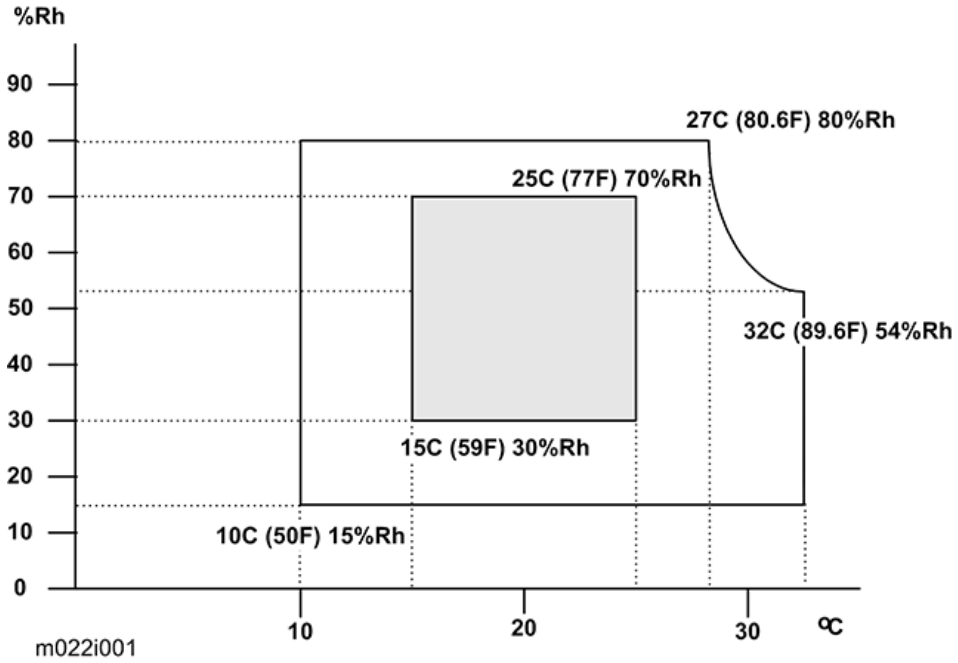
See "Appendices" for the following information:

- Specifications
- Supported Paper Sizes
- Software Accessories
- Optional Equipment

2. Installation

Installation Requirements

Environment



1. Temperature Range: 10°C to 32°C (50°F to 89.6°F)
2. Humidity Range: 15% to 80% RH
3. Ambient Illumination: Less than 1500 lux (do not expose to direct sunlight)
4. Ventilation: 3 times/hr/person or more
5. Avoid direct exposure to the following:
   1) Cool air from an air conditioner
   2) Heat from a heater
6. Do not install the machine in areas that are exposed to corrosive gas.
7. Do not install the machine at any location over 2,000 m (6,500 ft.) above sea level. [NA: Can be installed up to 2,500m (8,202 ft.)]
8. Install the machine on a sturdy, level base. (Inclination on any side must be no more than 5 mm.)
9. Do not install the machine in areas that get strong vibrations.

Machine Level

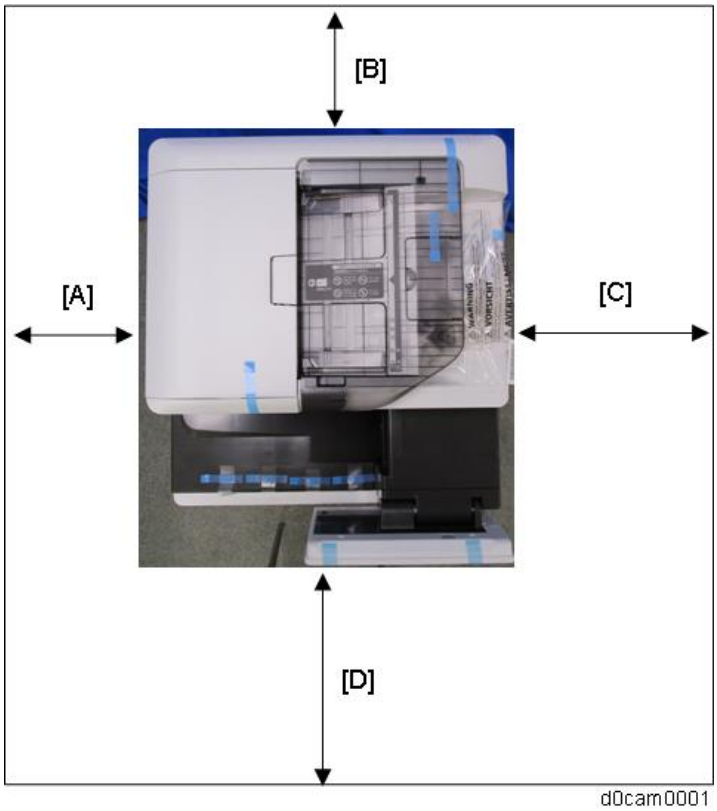
Front to back: Within 5 mm (0.2")

Right to left: Within 5 mm (0.2")

Machine Space Requirements

⚠CAUTION

- This machine uses high voltage power sources and can generate ozone gas. High ozone density is harmful to human health. Therefore, the machine must be installed in a well-ventilated room.



A	**IM C300 series / IM C400F:** Over 7 cm (2.75") **IM C400SRF:** Over 5 cm (1.96")
B	Over 10 cm (3.93")
C	**IM C300 series / IM C400F:** Over 40.2 cm (15.82") **IM C400SRF:** Over 52 cm (20.47")
D	**IM C300 series:** Over 33.3 cm (13.11") **IM C400 series:** Over 32 cm (12.59")

Put the machine near the power source with the clearance shown above.

Machine Dimensions

Overview

Model*	W×D×H
IM C300	498 x 561 x 510 mm (19.6" × 23.0" × 20.1")
IM C300F	554 x 561 x 595 mm (21.9" × 23.0" × 23.4")
IM C400F	498 x 561 x 590 mm (19.6" × 23.0" × 23.2")

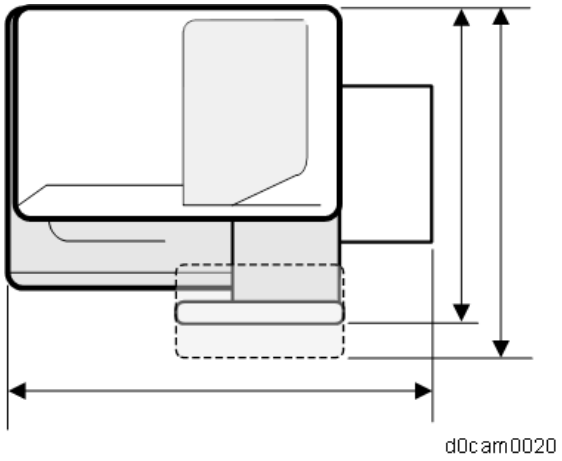
Model*	W×D×H
IM C400SRF	615 x 561 x 706 mm (24.2" × 23.0" × 27.7")

* including ADF and operation panel

IM C300 series / IM C400F (W×D)

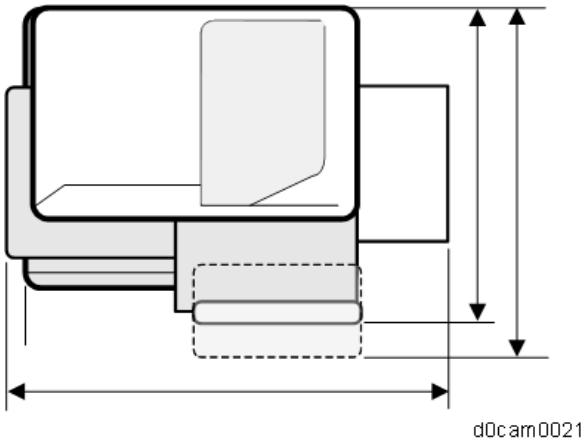
Main unit only

- When the operation panel is upright: 708 x 561 mm
- When the operation panel is face up: 708 x 605 mm



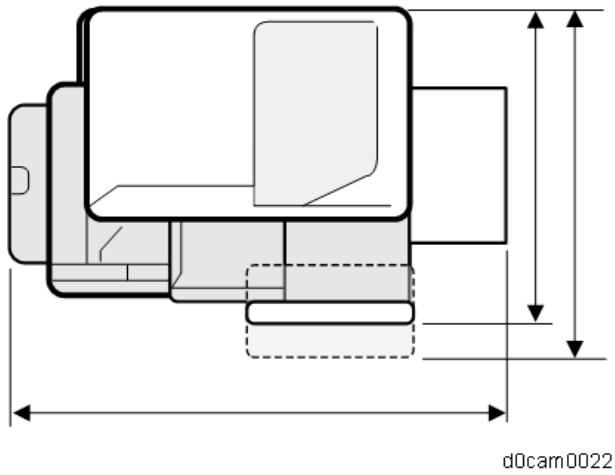
When the 1-bin tray is installed

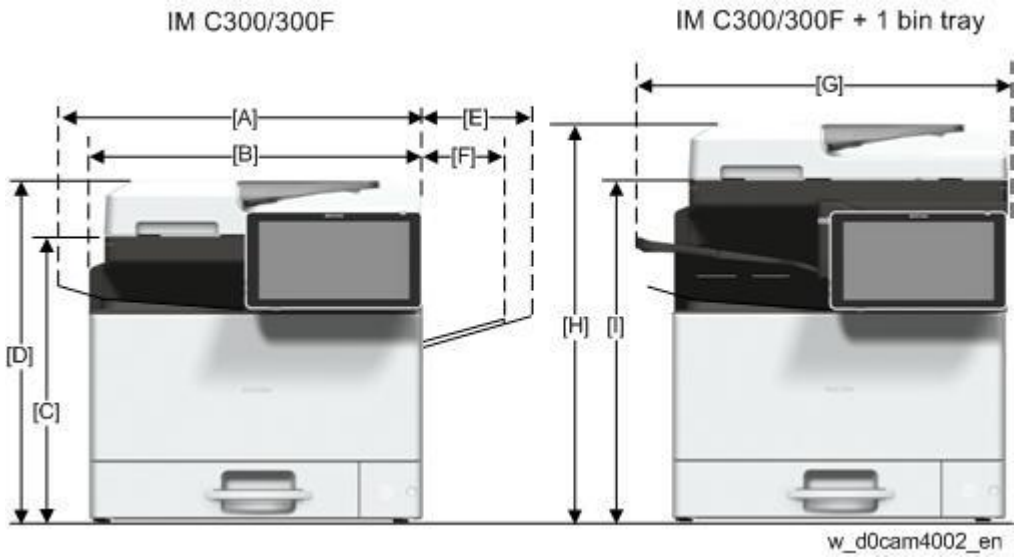
- When the operation panel is upright: 764 x 561 mm
- When the operation panel is face up to the maximum (tilted 20 degrees to the front): 764 x 615 mm



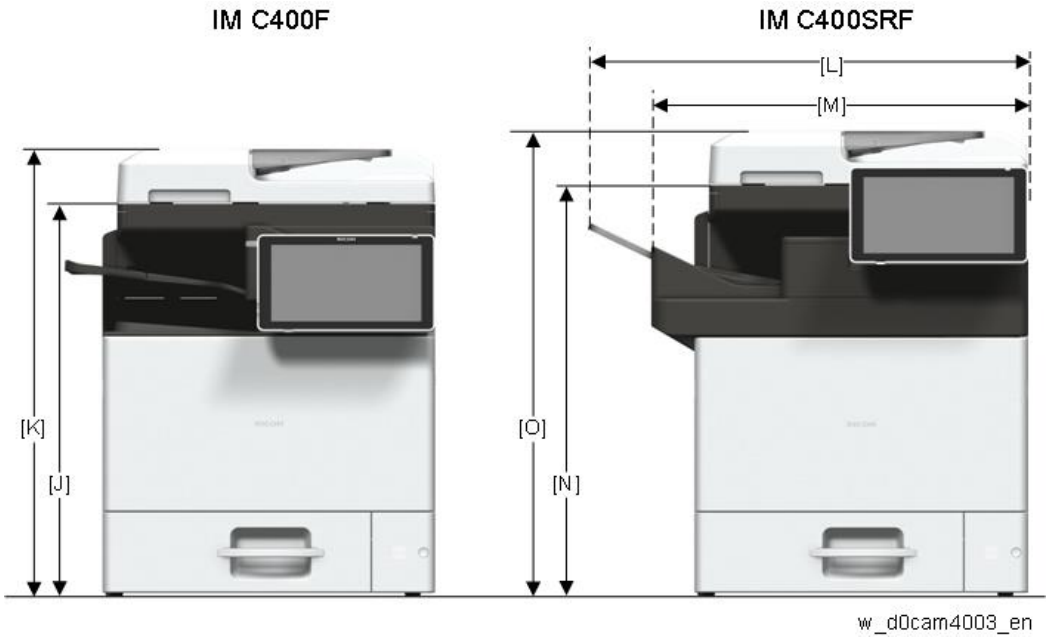
IM C400SRF (Finisher Model)

- When the operation panel is upright: 825 x 561 mm
- When the operation panel is face up: 825 x 605 mm

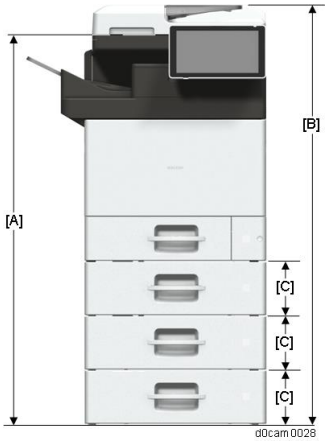




Callout	mm (inch)	Callout	mm (inch)
[A]	546.2 mm (approx. 21.5")	[G]	554 mm (approx. 21.8")
[B]	498 mm (approx. 19.6")	[H]	595 mm (approx. 23.4")
[C]	425 mm (approx. 16.7")	[I]	510 mm (approx. 20.1")
[D]	510 mm (approx. 20.1")	-	-
[E]	280 mm (approx. 11.0")	-	-
[F]	210 mm (approx. 8.3")	-	-



Callout	mm (inch)	Callout	mm (inch)
[J]	505 mm (approx. 19.9")	[L]	654 mm (approx. 25.7")
[K]	590 mm (approx. 23.2")	[M]	560 mm (approx. 22")
-	-	[N]	621 mm (approx. 24.4")
-	-	[O]	706 mm (approx. 27.7")

	Callout	mm (inch)	Note
	[A]	1068 mm (approx.42.0")	IM C400SRF
	[B]	1153 mm (approx. 45.3")	[A] + ADF
	[C]	149 mm (approx. 5.9")	Paper Feed Unit

Power Requirements

⚠CAUTION

- Insert the plug firmly into the outlet.
- Do not use an outlet extension plug or cord.
- Ground the machine.

1. Input voltage level:

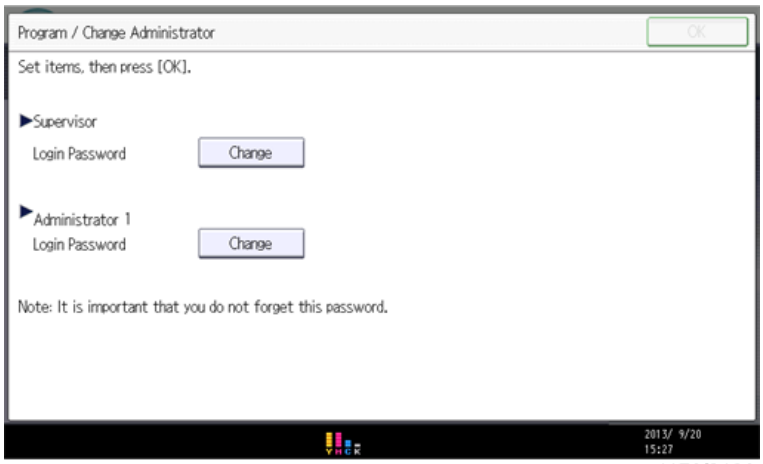
- 110 V, 60 Hz More than 11 A
- 120 to 127 V, 60 Hz: More than 11 A
- 220 V to 240 V, 50 Hz/60 Hz: More than 5.5 A

2. Permissible voltage fluctuation:
   NA: 108 V (120 V-10%) – 138 V (127 V+8.66 %)
   EU/AA: 198 V (220 V-10%) – 264 V (240 V+10 %)
   Taiwan: 99 V (110 V -10%) – 121 V (110 V + 10%)
3. Do not put things on the power cord.

Main Machine Installation: Important Notice on Security Issues

Overview

To increase the security of the MFP and ensure the customer sets an administrator password, an administrator set/change prompt is displayed when the machine is turned on for the first time. .



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After the customer sets the administrator/supervisor login password, the home screen will be displayed. However, customers can remove the administrator password setting screen with the following the procedure.

1. On the Program/Change Administrator screen, press [Change] next to Supervisor and then touch [OK] without inputting any password.
2. Touch [OK] again when the Confirm password display shows up.
3. For Administrator 1, do the same procedure as steps 1 and 2.
4. Press the [OK] button, and then turn the power OFF/ON.

SP5-755-002 (Display Setting: Hide Administrator Password Change Scrn) allows you to skip this screen temporarily and continue the installation procedure without setting an administrator password. However, the Program/Change Administrator screen appears every time you turn the power OFF/ON if the password is not set.

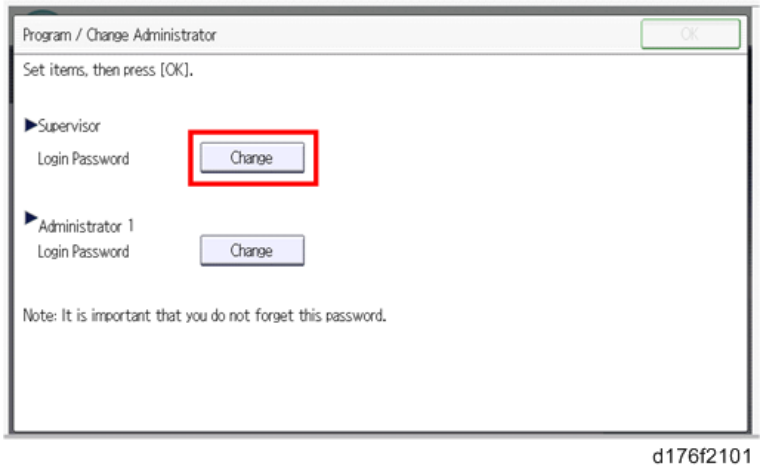
Note

- To enter the SP mode, there are two ways to display the numeric keypad on the screen;
  1. Press the "Document Server" icon.
  2. Press and hold the button [A] located on the left side of the operation panel and "Check Status [B]" at the same time.

- For more details about security issues of MFPs refer to the "Notes on Using Multi-Function Printers Safely" supplied with the MFP.
- When Supervisor/Administrator 1-4 passwords are configured via network, the "Change Supervisor login password" window won't display.

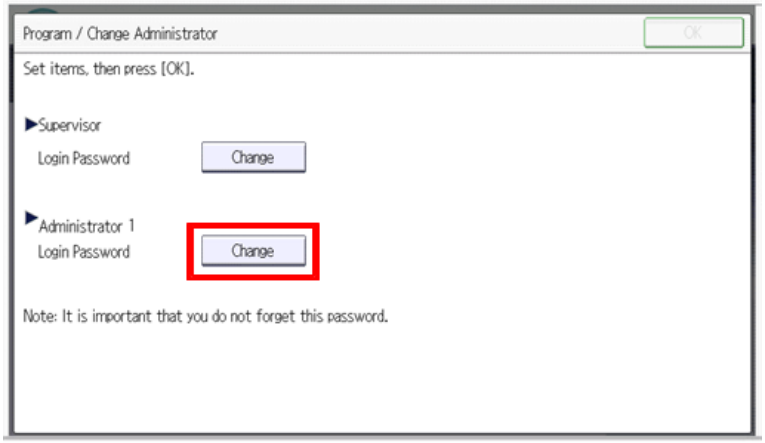
Password Setting Procedure

1. After the installation, turn the power on.
   Password change display appears.
2. Press [Change] and change the supervisor login password.



3. Input the password, and then press [OK].
4. Confirm the password, and then press [OK].

5. Change the administrator 1 login password.



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6. Input the password, and then press [OK].
7. Confirm the password, and then press [OK].
8. Turn the main power OFF and back ON again.

Note

The passwords for Supervisor or Administrator 1 to 4 can be set via "System Settings", but the Program/Change Administrator screen appears every time the power switch is turned ON if the passwords are set with this method. We recommend customers set the passwords via the network or the Program/Change Administrator screen.

Main Machine Installation: Accessory Check

For IM C300/C300F

Check the quantity and condition of these accessories.

Component List

Description	Remark	Q'ty			
		NA	EU	AA/KOR	TWN
Decal – Emblem	For the front cover	1	1	1	-
Decal – Paper Size / Tray Number		1	1	1	1
CE Marking Traceability Information	Only for EU	-	1	-	-
Ferrite Core		-	1	1	1
Modular Cord with Ferrite Core		1	-	-	-
Power Supply Cord		1	1	1	1
CD-ROM (Printer and Scanner Drivers)		1	1	1	-
CD-ROM (Operating Instructions)		-	-	1	-
CD-ROM (Printer and Scanner Drivers/ Operating Instructions)		-	-	-	1
Manual: Safety Information		1	1	1	1
Note to Using This Machine Safely		1	1	1	1
Note to Users in EU Countries		-	1	-	-
Note to Users in the USA		1	-	-	-
Note to Users in Canada		1	-	-	-
Software License Agreement		1	1	1	1
Notes For Users	For printing with AirPrint	1	1	1	1
For Users of This Product	Before using the wireless function	1	-	-	-
Manual: Read This First		-	-	1	1
Manual: Start Guide		1	-	1	-

For IM C400F/C400SRF

Check the quantity and condition of these accessories.

Component List

Description	Remark	Q'ty			
		NA	EU	AA	CHN
Decal – Emblem	For the front cover	1	1	1	-
Decal – Paper Size / Tray Number		1	1	1	1

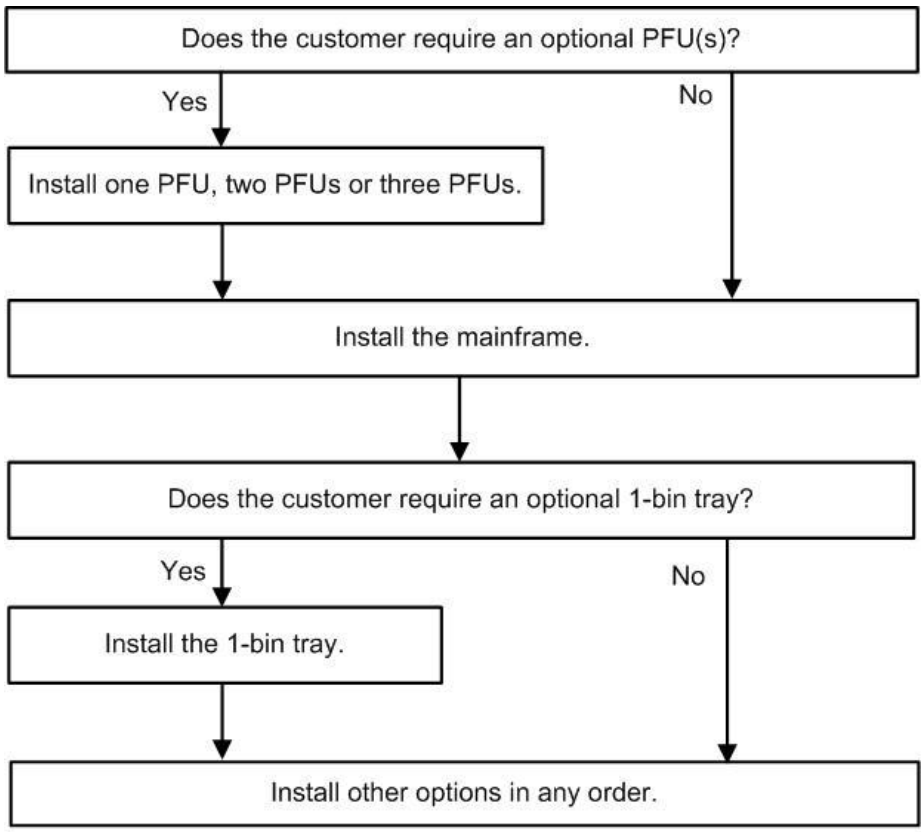
Description	Remark	Q'ty			
		NA	EU	AA	CHN
CE Marking Traceability Information	Only for EU	-	1	-	-
Ferrite Core		-	1	1	1
Modular Cord with Ferrite Core		1	-	-	-
Power Supply Cord		1	1	1	1
CD-ROM (Printer and Scanner Drivers)		1	1	1	-
CD-ROM (Operating Instructions)		-	-	1	-
CD-ROM (Printer and Scanner Drivers/ Operating Instructions)		-	-	-	1
Manual: Safety Information		1	1	1	1
Note to Using This Machine Safely		1	1	1	1
Note to Users in EU Countries		-	1	-	-
Note to Users in the USA		1	-	-	-
Note to Users in Canada		1	-	-	-
Software License Agreement		1	1	1	1
Notes For Users	For printing with AirPrint	1	1	1	1
For Users of This Product	Before using the wireless function	1	-	-	-
Manual: Read This First		-	-	1	-
Manual: Start Guide		1	-	1	-
Sheet:TEL		-	-	-	1
Sheet: Warranty		-	-	-	1

Main Machine Installation: Installation Procedures

Installation Flowchart

The flowcharts as shown below show the best procedure for installation.

IM C300 series/IM C400F



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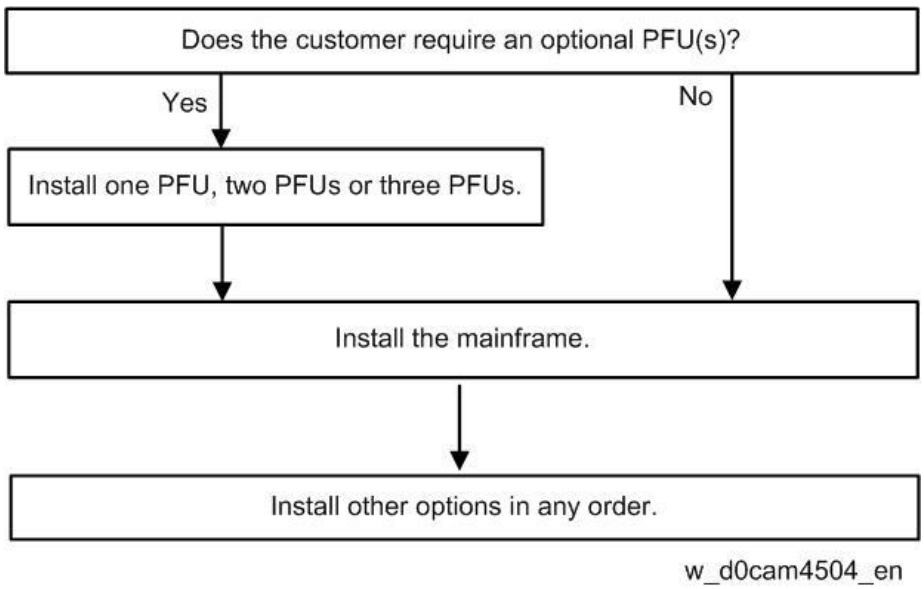
IM C400SRF



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Packaging Tapes, Retainers and Toner Bottles

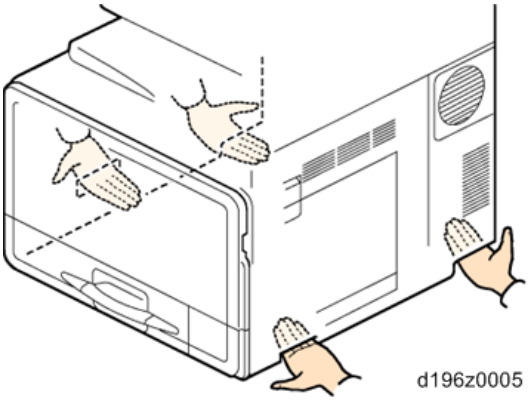
Important

- To install the main unit and the optional paper feed unit at the same time, first install the optional paper feed unit, and then install the main unit and other options.

1. Remove the main unit from the packing box and check the supplied items.

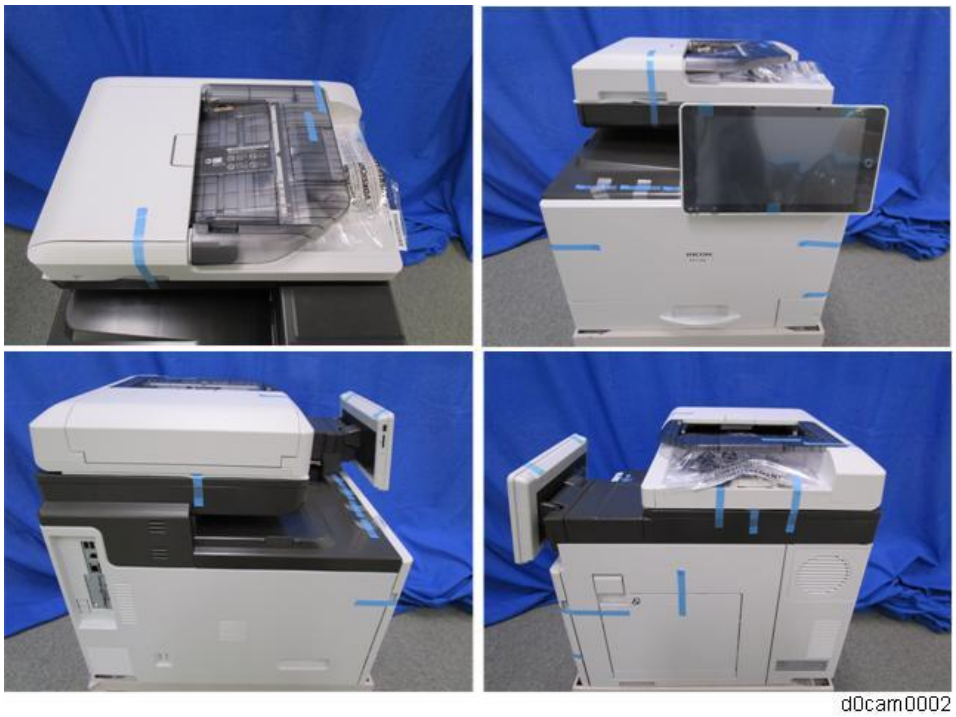
⚠CAUTION

- Grab the specified locations below when lifting the machine. Holding the operation panel or scanner unit might damage the machine.



2. Remove the packaging tapes and the retainers from the machine.

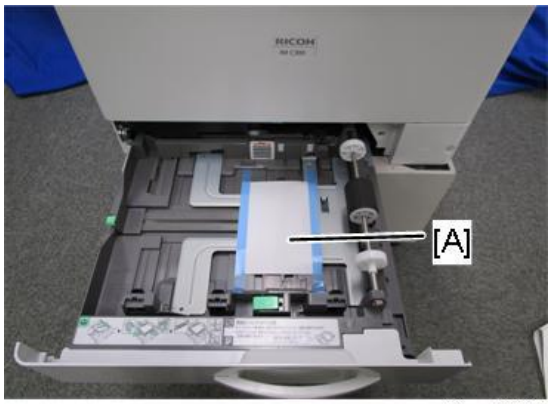
IM C300 series/IM C400F



IM C400SRF

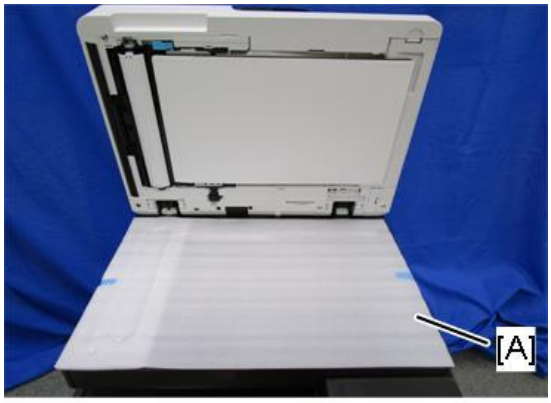
d0cam0024

3. Pull out the paper feed tray and remove the packaging tapes and protective sheet [A] inside.



d0cam0007

4. Open the ADF, and then remove all the tapes and the retainer (protective sheet) [A] from the exposure glass.



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5. Open the front cover [A].

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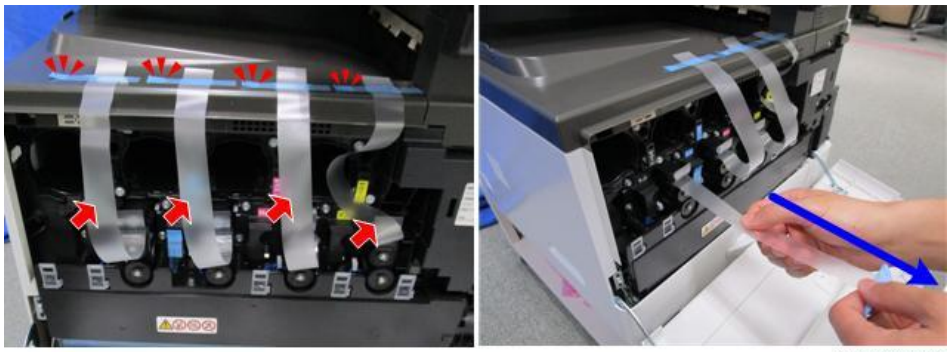
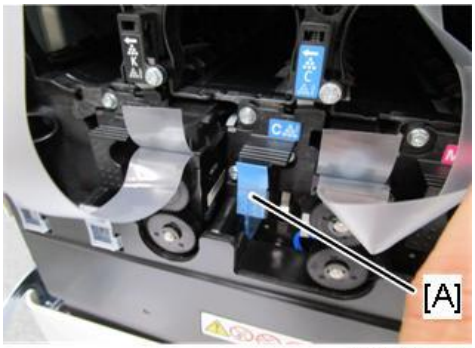
6. Pull out all protection seals on the drums straight out towards the front.



d0cam0005

Note

- Do not remove the packaging tape [A] at this time.



d0cam0006

7. Do the following procedure to remove the waste toner bottle.

IM C300 series

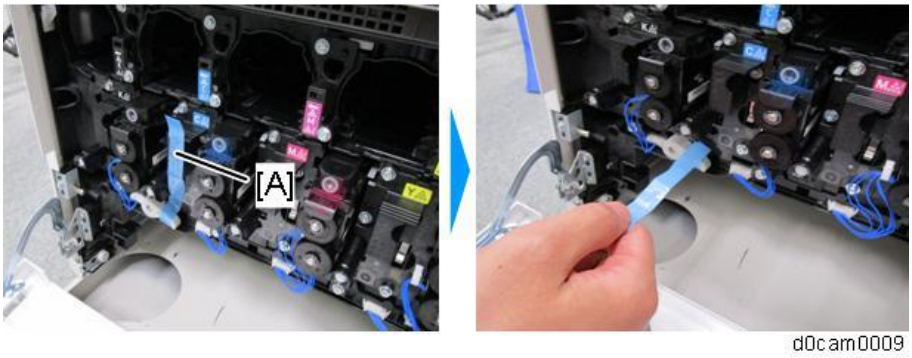
1. Close the front cover, and then remove the paper feed tray.

2. Open the front cover again, and then remove the waste toner bottle [A].

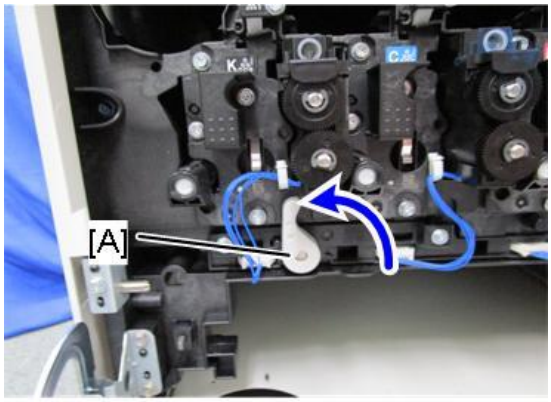
IM C400 series

1. Remove the waste toner bottle [A].

8. Remove the packaging tape [A] attached to the lever.



9. Set the lever [A] to the upright position.

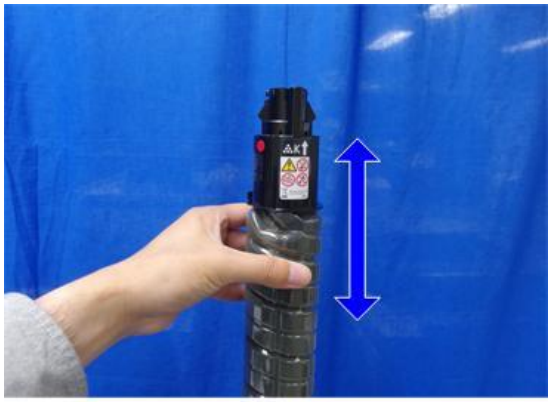


d0cam0010

10. Attach the waste toner bottle.

11. Attach the paper feed tray removed in Step 7 (IM C300 series only).

12. Shake each toner bottle five or six times.



d0cam0011

13. Install each toner bottle [A] in the machine.

Install the black toner bottle first.

Note

K (Black) bottle is larger than the other colors, C, M, and Y. To prevent bottles getting stuck in different holders, begin installing with K (Black) bottle and then C, M, and Y.

d0cam0012

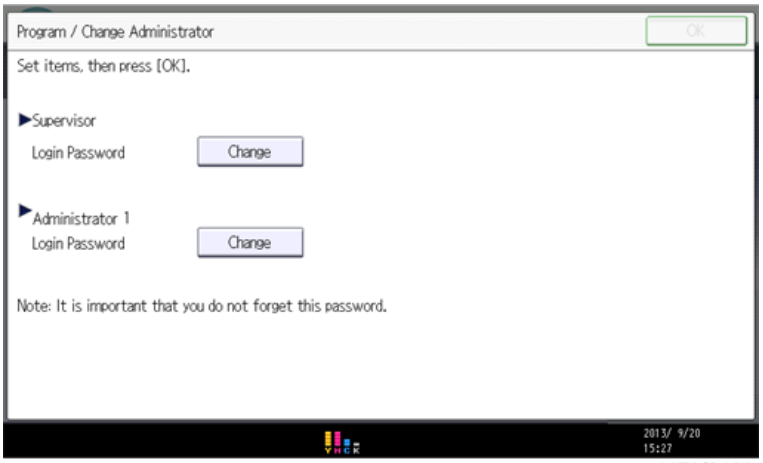
14. Close the front cover.

15. Connect the power cord to the machine.

16. Connect the network cable, if the client IP addresses are automatically provided through a system such as DHCP in the network settings. If a static IP address is provided to the client machines, contact the customer (network administrator) to determine the appropriate timing for connecting the network cable.

17. Turn ON the main power.

- Toner Initialization starts. It takes about 5 minutes to fill the toner up. Wait until it finishes.
- The Program/Change Administrator screen is displayed at the first power-up. Follow the procedure in Main Machine Installation: Important Notice on Security Issues.



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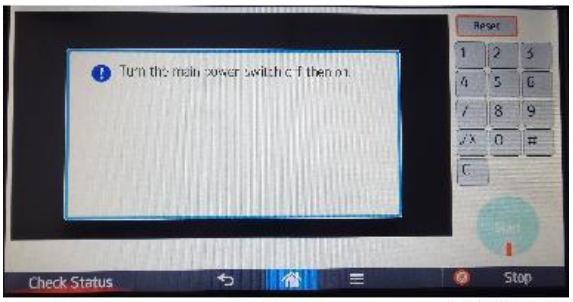
18. After the toner initialization is completed, the machine beeps, and the following message is displayed. Turn the main power OFF and back ON again.



d238m0647

Note

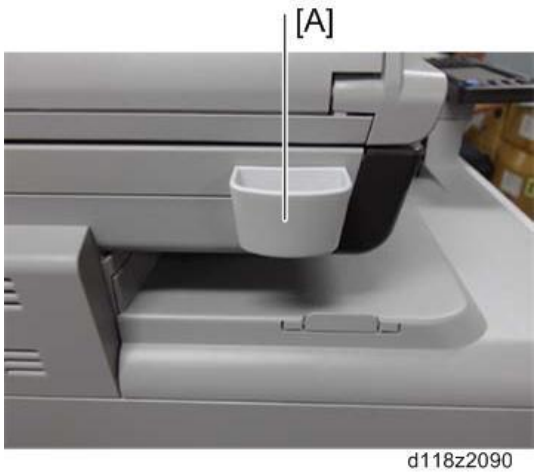
- **DO NOT** switch OFF the main power until the machine finishes the initial settings and emits a beep sound.

Cleaning Cloth Holder

1. Clean the surface before placing the cleaning cloth holder.

2. Attach the cleaning cloth holder [A] to the left side of the scanner and put the cleaning cloth into the

holder.



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Installing the Finisher Extension Tray (IM C400SRF Only)

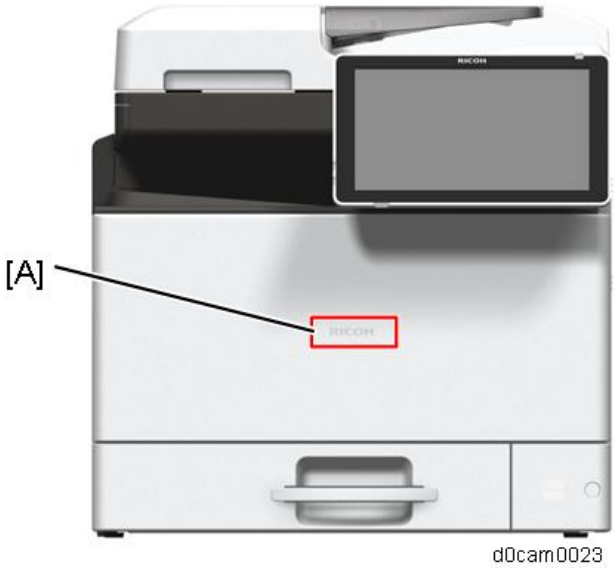
1. Install the extension tray [A] in the finisher.

d0cam0026

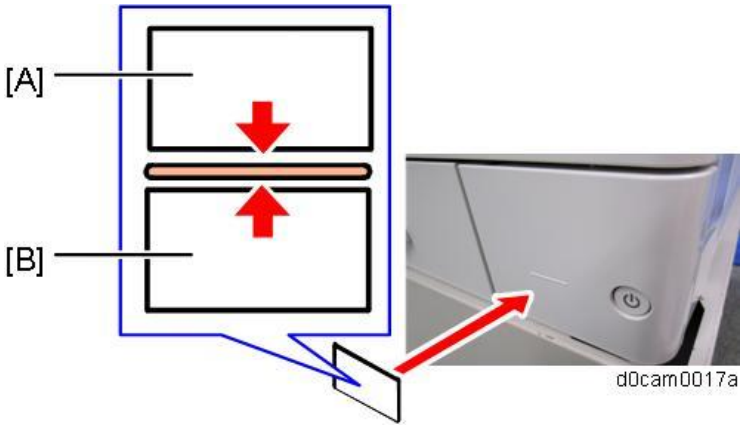
Brand Plate, Decals

2.Installation

1. Attach the brand plate [A] to the front cover, if it is not attached.



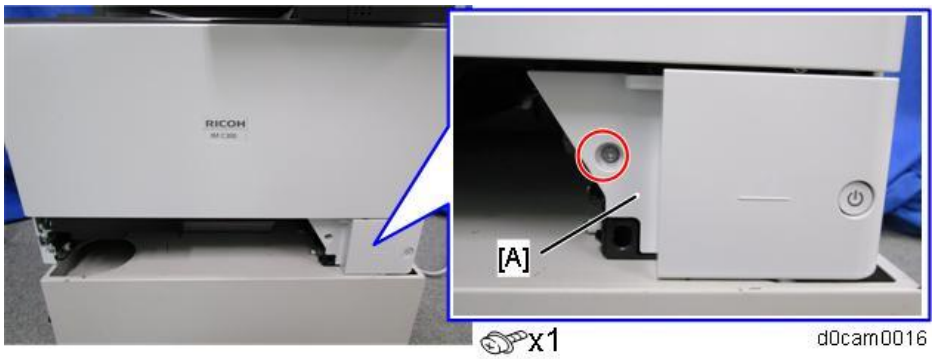
2. Attach the tray number [A] and paper size [B] decals to the paper feed tray.



Storing Unnecessary Decals

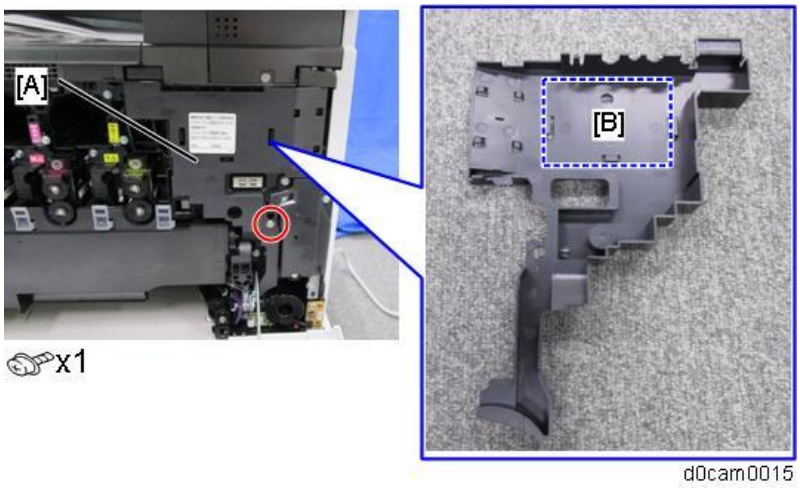
Store unused decals in the designated location as follows (Step 1 and 2, apply to ONLY IMC300 series):

1. Pull out the paper feed tray.
2. Remove the front lower cover [A].



3. Open the front cover.
4. Remove the inner cover [A].

5. Store the decals in the area [B].



Telephone Cord (Fax Standard Model)

Notes for Connecting the Telephone Line

Check the following before connecting the telephone line:

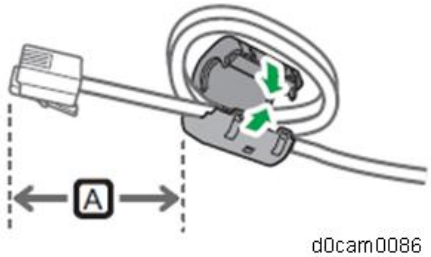
If a phone line dedicated to business phones is connected to the MFP, the fax board may be damaged. Make sure that the connecting phone line is for fax.

Business phones have various functions that require access to a high current phone line. Connecting the MFP to a high current phone line might damage components of the fax board.

Connecting the Telephone Cord (Fax Standard Model)

This section describes how to connect the modular cord.

1. As shown, form a double loop 3 cm (A) from the cable end to be connected to the machine's connection socket, and then attach the supplied ferrite core.



2. Plug the connector into the "LINE" socket.

3. Insert the power plug into the power outlet and turn the machine ON.

Loading Paper, Image Quality Test

The following procedures are required after installing all the peripherals.

2.Installation

- Loading Paper
- Paper Registration
- Automatic Color Calibration (ACC)
- Color Registration (Skew Adjustment)
- Checking the Copy Image with Test Chart

Important

- Confirm that there are no accessories (such as screws and clamps) left inside the main machine and peripherals.

Loading Paper

The paper size is detected automatically.

1. Check that all packaging tape has been removed and connect the power plug to the wall socket.
2. Turn ON the main power.
3. Confirm that a message to load the paper is displayed on the operation panel.
4. Pull out the paper feed tray until it stops.
5. Release the side fences.
6. Load paper into the paper feed tray.
7. Set the side fences according to the paper size while pressing the unlock lever.
8. Set the end fence according to the paper size while pressing the unlock lever.

Paper Registration

Adjust the registration setting for paper trays.

- SP1-002-001 (Side-to-Side Registration By-pass Table)
- SP1-002-002 (Side-to-Side Registration Paper Tray 1)
- SP1-002-005 (Side-to-Side Registration Duplex)

If one or more optional paper trays is installed, do the following SPs as well:

- SP1-002-003 (Side-to-Side Registration Paper Tray 2)
- SP1-002-004 (Side-to-Side Registration Paper Tray 3)
- SP1-002-005 (Side-to-Side Registration Paper Tray 4)

Note

- Refer to the “Registration” section in Chapter 4 for how to adjust the SP setting.

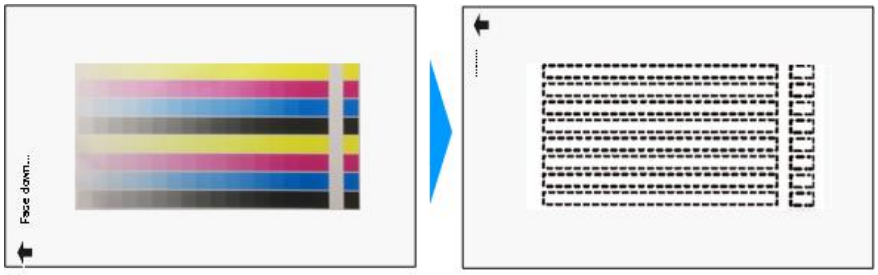
Automatic Color Calibration (ACC)

Be sure to execute color registration when installing the machine.

- Copier mode -

1. Press [Settings] on the Home screen.
2. Press [Maintenance] > [Auto Color Calibration]

3. Press [Start Auto Calibration] for "Copier Function".
4. Press [Start Printing] to print the test pattern.
   The test pattern is printed in A4 size.
5. Clean the exposure glass.
6. Put the test pattern on the exposure glass, and then put 10 sheets of white paper on the test pattern.
   This ensures the precise ACC adjustment. Close the ADF.



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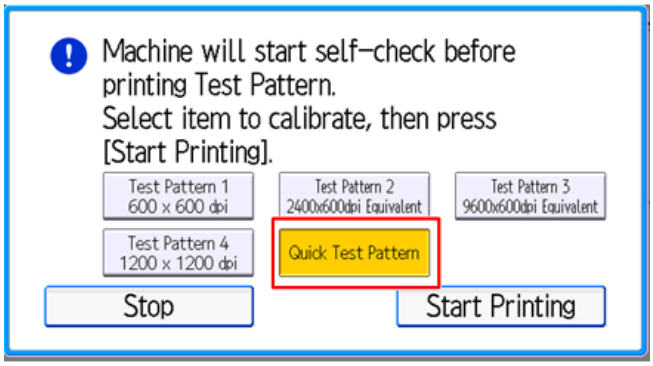
7. Press [Start Scanning].
   The machine starts the ACC.

- Printer mode -

1. Then, Press [Start Auto Calibration] for "Printer Function".
2. Press [Quick Test Pattern], then press [Start Printing] to print the test pattern.
   The test pattern is printed after self-checking.



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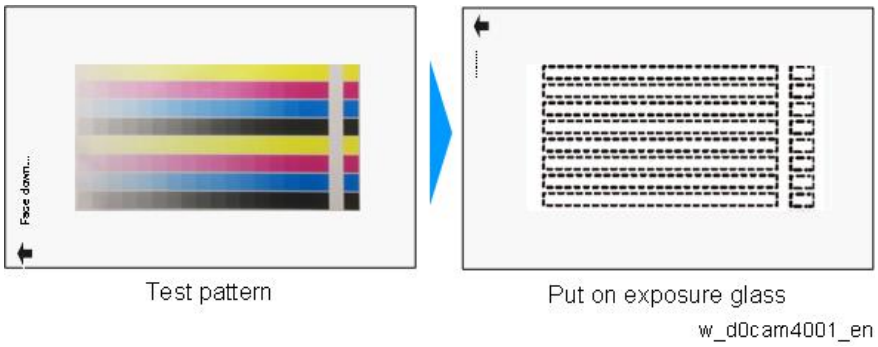
3. Place the test pattern on the exposure glass, then close the ADF.
   Put 10 sheets of white paper on the test chart. This ensures the precise ACC adjustment.

2.Installation



4. Press [Start Scanning].
   The machine starts the ACC.
5. Confirm that the execution result is displayed.
   For the Quick Test Pattern, the execution result is recorded with all resolutions (patterns 1 to 4).

Note

- If the printed image is not adjusted properly after executing Quick Mode, perform ACC in normal mode (test pattern in applicable resolution) again.

Color Registration (Color Skew Adjustment)

Execute SP2 -111 -004 (Forced Line Position Adj.: Mode d) and check whether the value for each color is within the range of ± 5 on the SP below.

- SP2-117-004 (K)
- SP2-117-002 (C)
- SP2-117-001 (M)
- SP2-117-003 (Y)

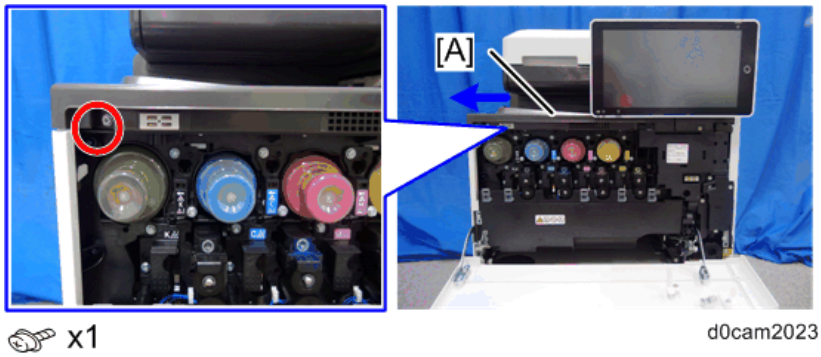
The Color Registration (Color Skew Adjustment) should be executed if one or more of the above SP values is not within ±5.

No Color Skew Adjustment is required if all SP values are within ±5.

The adjustment procedure is as follows:

Models other than the IM C400SRF

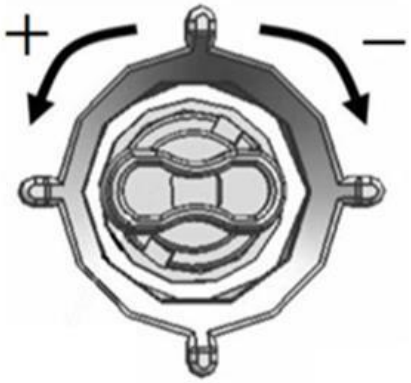
1. Remove the paper exit tray [A].



2. Close the front cover.
3. Adjust the skew of the laser unit as follows:

Turn the knob for any color with a value other than "0", until it reads "0".

- Turning the knob **clockwise** by 90 degrees changes the SP value by -1.
- Turning the knob **counter-clockwise** by 90 degrees changes the SP value by +1.
- A click is felt every 90 degree rotation.



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[A]: Black, [B]: Cyan, [C]: Magenta, [D]: Yellow

4. Check that the front cover is closed and execute SP2-111-004 (Forced Line Position Adj.: Mode d).
5. Check the SP values for SP2-117–001 to 004 and repeat steps 2 to 4 until the SP values for all colors fall within ± 5 (Target value: 0).
6. Exit the SP mode.
7. Reattach all parts that you removed in the above steps.
8. Print the test chart and check the image quality.

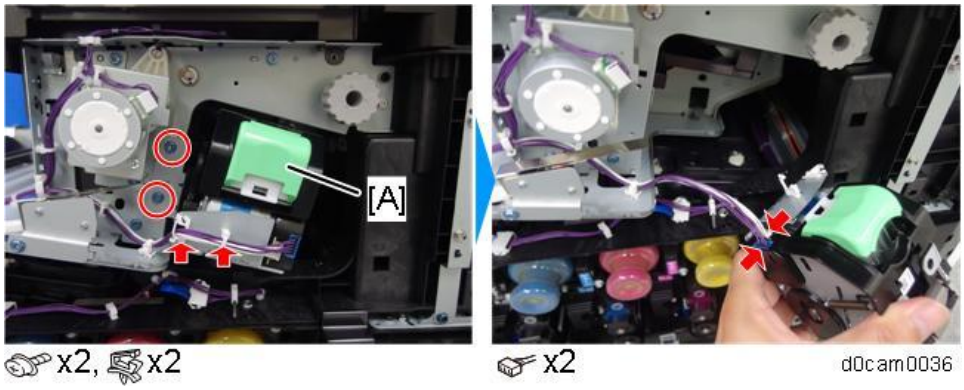
Note

- Do not touch the laser units while installing the paper exit tray. If the laser units move, the color skew might have to be adjusted again.

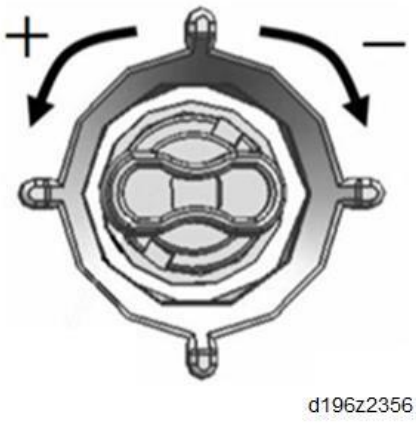
IM C400SRF

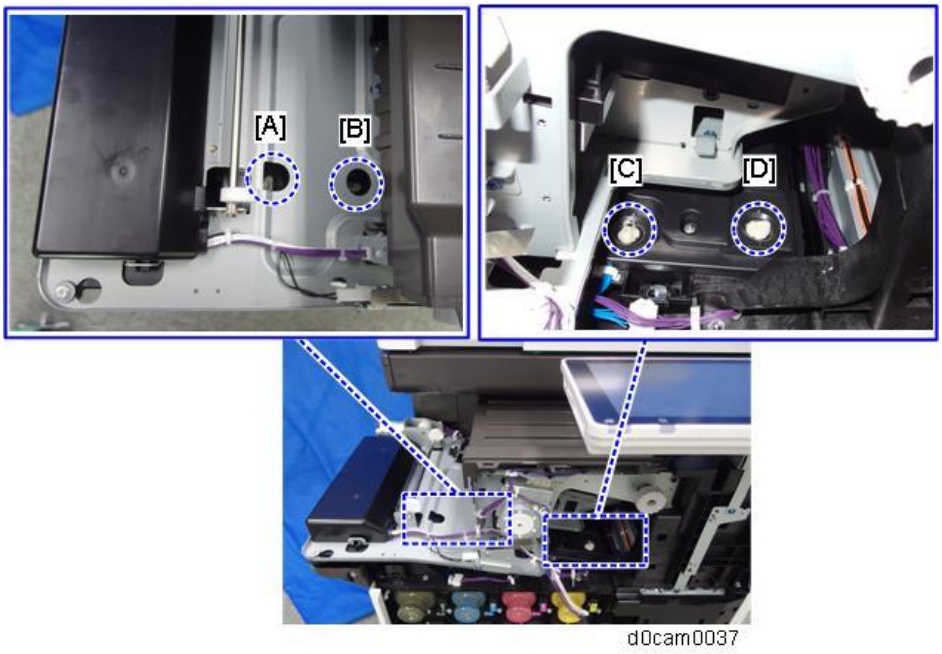
1. Open the front cover.

2. Remove the paper exit front cover, paper exit upper cover and paper exit tray. (Paper Exit Front Cover/Paper Exit Upper Cover/Paper Exit Tray for IM C400SRF)
3. Remove the staple unit [A].



4. Close the front cover.
5. Insert a screwdriver through the adjustment hole and adjust the skew of the laser unit as follows.
   Turn the knob for any color with a value other than "0", until it reads "0".
   - Turning the knob **clockwise** by 90 degrees changes the SP value by -1.
   - Turning the knob **counter-clockwise** by 90 degrees changes the SP value by +1.
   - A click is felt every 90 degree rotation.





[A]: Black, [B]: Cyan, [C]: Magenta, [D]: Yellow

6. Check that the front cover is closed and execute SP2-111-004 (Forced Line Position Adj.: Mode d).
7. Check the SP values for SP2-117–001 to 004 and repeat steps 4 to 6 until the SP values for all colors fall within ± 5 (Target value: 0).
8. Exit the SP mode.
9. Reattach all parts that you removed in the above steps.
10. Print the test chart and check the image quality.

Note

- Do not touch the laser units while installing the paper exit tray. If the laser units move, the color skew might have to be adjusted again.

Checking the Copy Image with Test Chart

Check the copy image quality with a test chart.

Non-fax standard model:

Check that the printer can print out in the customer's environment.

Fax standard models:

Check that the fax can output a received image as well.

Auto Remote Firmware Update (ARFU) Settings

Specify ARFU settings as required.

Important

Operating Conditions:

- ARFU requires an internet connection. Be sure to get permission from the customer before setting up ARFU.

Note

- The connection is one-way, so the user's data cannot be accessed from the firmware server.

Procedure:

1. ARFU enable setting
2. Server connection check
3. Prohibited date and time setting

(1) Enable ARFU

1. Set SP5-886-111 (Auto Update Setting) to "1 (ON)".
1: ON / 0: OFF (Default)

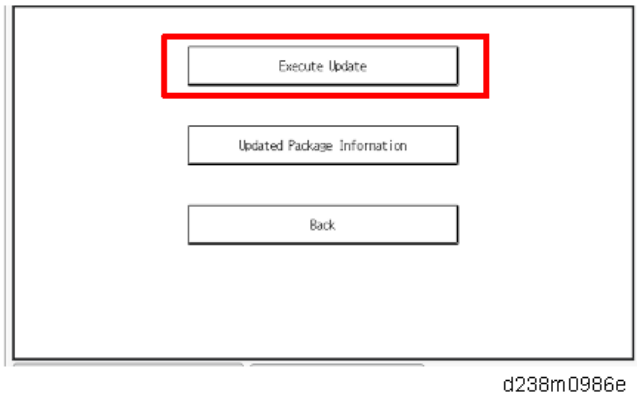
Note

To download the firmware only using SFU (Smart Firmware Update), and not by ARFU, specify the settings as follows:
- SP5-886-111(Auto Update Setting) to "0 (OFF)"
- SP5-886-115 (SFU Auto Download Setting) to "1 (ON)"

(2) Server connection check

1. Enter the SP mode.

2. Press [Firmware update] > [Update] > [Execute update].



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3. Check if one of the following messages appears: "Will you download the latest package Ver *** and update?" or "The installed package is the latest version.".
If any of these messages appear, ARFU can be executed. Press "No" and close SP mode to complete the configuration.

Important

The update will run immediately if you press "Yes" at the message "Will you download the latest package Ver *** and update?" The update cannot be canceled if it is run by SFU. (The update can be canceled if ARFU is used.)

Note

SP5-886-116 (Auto Update Prohibit Term Setting) displays the scheduled date and time of the next ARFU.

If error code 71: [Network connection error] appears when you click “Execute update”, see troubleshooting below.

(3) Prohibited date and time setting

Ask the customer for the prohibited times and days of the week for ARFU execution and set the following as needed. The default prohibited time is from 9 a.m. to 5 p.m. and there is no prohibited day.

- SP5-886-112 (Auto Update Prohibit Term Setting) Default: 1 (ON)
- SP5-886-113 (Auto Update Prohibit Start hour) Default: 9
- SP5-886-114 (Auto Update Prohibit End hour) Default: 17
- SP5-886-120 (Auto Update Prohibit Day Of Week Setting) Default: 00000000 [00H]
  Set the bits for the days of the week to prohibit updating.
  Prohibited (Monday - Sunday): bit 7, Monday: bit 6, Tuesday: bit 5
  Wednesday: bit 4, Thursday: bit 3, Friday: bit 2, Saturday: bit 1, Sunday: bit 0
  e.g.) Prohibited on Mon., Fri., Sat., and Sun.: 01000111 [47H]

Note

They can be specified also via Web Image Monitor if logged in as the machine administrator from the device if SP5-886-111(Auto Update Setting) is set to "1 (ON)". For details, seeSpecifying the Time and Day of the Week to Prohibit Updating via Web Image Monitor.

Troubleshooting: If error code 71: [Network connection error] appears

If error code 71: [Network connection error] appears when you click [Firmware update] > [Update] > [Execute update] in SP mode, check the following.

- 4-1. IPv4 address, Subnet mask of the machine and Gateway IPv4 address
- 4-2. IPv4 address of the DNS server
- 4-3. Proxy server settings

4-1. IPv4 address, Subnet mask of the machine and Gateway IPv4 address

Check the machine’s IPv4 address, subnet mask, and gateway IPv4 address.
(In "Settings" icon > System Settings > Network/Interface)

4-2. IPv4 address of the DNS server

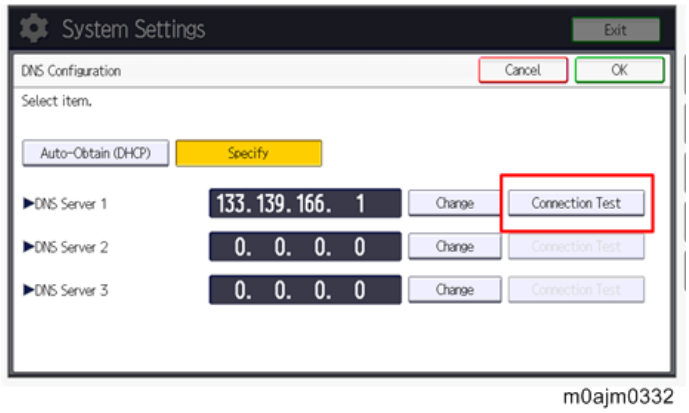
Check the DNS IPv4 address and check the connection.
(In "Settings" icon > System Settings > Network/Interface > DNS Configuration)

Note

How to find the IP address:
Ask the customer for the IP address of the DNS server. If the customer does not know it, ask the customer to check the IP address by one of the following ways:
1. Run "ipconfig / all" at the command prompt on the computer, then check the IP address of the DNS server.
2. Open the IPv4 properties dialog box on the computer, then check whether the IP address setting of

the DNS server is manual or automatic.

- If the setting of the DNS IP address is automatic, select [Auto-Obtain (DHCP)] at the MFP machine's DNS settings.
- If the setting of the DNS IP address is manual, select [Specify] and specify the DNS server 1 to 3.
- Press [Connection Test] to check the connection with the input address. Make sure that it is connected successfully.



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4-3. Proxy server settings

Check the user's network environment and, as required, specify the proxy server settings in the following SPs:

- SP5-816-062 (Use Proxy)
  1: Used / 0: Not used
- SP5-816-063 (Proxy Host)
- SP5-816-064 (Proxy PortNumber)
- SP5-816-065 (Proxy User Name)
- SP5-816-066 (Proxy Password)

Important

If access to the external server is restricted, request the network administrator (customer) to permit the following FQDN name for communication.- FQDN: p-rfu-ds2.support.ricoh.com

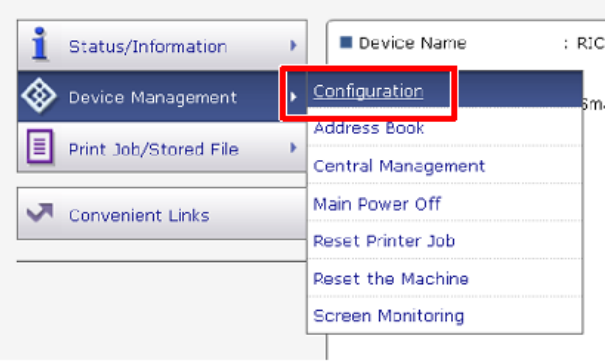
Note

These settings can be specified also via Web Image Monitor if logged in as the machine administrator from the device if SP5-886-111(Auto Update Setting) is set to "1(ON)". For details, see Specifying the Time and Day of the Week to Prohibit Updating via Web Image Monitor.

Specifying the Time and Day of the Week to Prohibit Updating via Web Image Monitor

1. Start Web Image Monitor.
2. Log in as the machine administrator.

3. Go to [Device Management], and then click [Configuration].



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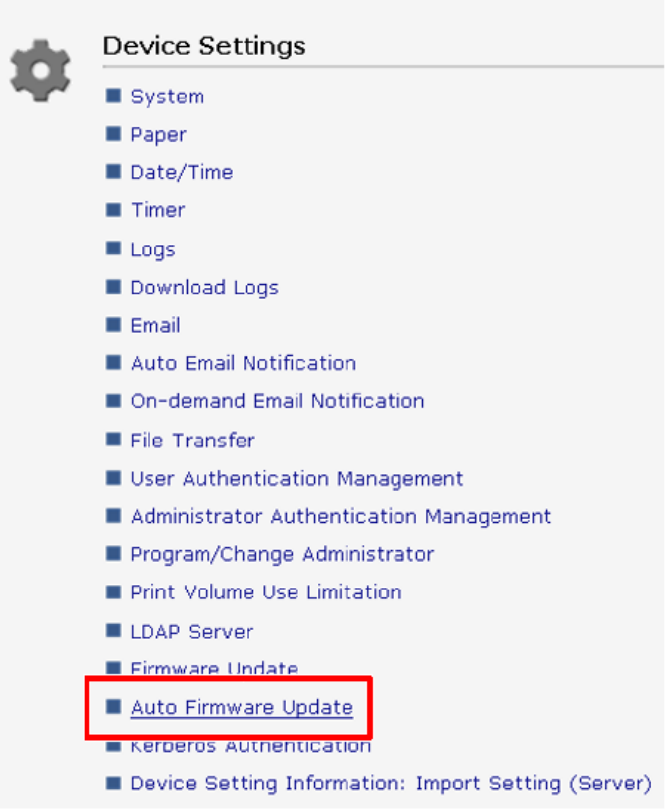
4. Click "Auto Firmware Update".



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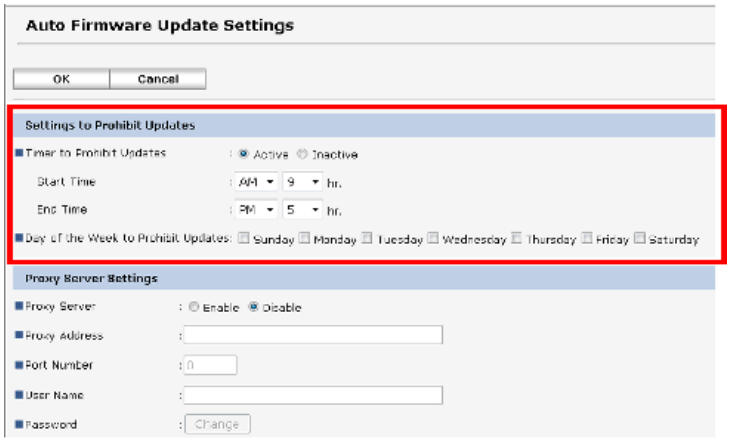
Note

Turn the main power OFF and back ON again after setting SP5-886-111 (AutoUpdateSetting) to "1 (ON)". "Auto Firmware Update" will appear in the menu list of Web Image Monitor.

5. Specify the times and days of the week to prohibit updating.

Select the check boxes of the applicable days to prohibit updating.



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Settings Relevant to the Service Contract

Change the necessary settings for the following SP modes if the customer has made a service contract.

SP No.	Function	Default
SP5-045-001 Counter method	Specifies if the counting method used in meter charge mode is based on developments, prints, or coverage.	"1": Prints
SP5-104-001 **(SSP)** A3/DLT double count	Specifies whether the counter is doubled for A3/DLT size paper.	"0":Single counting
SP5-812-001 and -002 Service Tel: Telephone / Facsimile	-001: shows or sets the telephone number of the service representative. -002: shows or sets the fax number of the service station. The number is printed on the counter list when the "Meter Click Charge" is enabled. The user can send a fax message with the counter list.	

Counter Display Method

There are 3 types (Developments, Prints, and Coverage). The display mode can be set by SP5-045-001 (Accounting counter: Counter Method).

Value	Mode	Descriptions
0	Development Count	YMC Development Counter Bk Development Counter
1	Print Count (Default)	Color Copy Counter B&W Copy Counter Color Print Counter B&W Print Counter Color Total Counter

Value	Mode	Descriptions
		B&W Total Counter
2	Coverage Count	Color Total Counter B&W Total Counter Color Coverage Counter 1 Color Coverage Counter 2 Color Coverage Counter 3
7	Coverage Count (YMC)	Color Total Counter B&W Total Counter Color Coverage Counter 1 (YMC) Color Coverage Counter 2 (YMC) Color Coverage Counter 3 (YMC)

Settings for @Remote Service

Note

- Prepare and check the following points before visiting the customer. For details, ask the @Remote key person.

Check points before making @Remote settings

1. The setting of SP5-816-201 in the mainframe must be "0".
2. Print the SMC with SP5-990-002 and check the device ID2 from SP5-811-003, make sure it is programmed correctly.
   - 6 spaces must be put between the 3-digit prefix and the following 8-digit number (e.g. xxx_____xxxxxxxx).
   - ID2 (SP5-811-003) and the serial number (SP5-811-001) must be the same (e.g. ID2: A01_____23456789 = serial No. A0123456789)
   - Make sure to shut down and reboot the machine once before printing the SMC. Otherwise, the latest settings may not be collected when the SMC is printed.
3. The following settings must be correctly programmed.
   - Proxy server IP address (SP5-816-063)
   - Proxy server Port number (SP5-816-064)
   - Proxy User ID (SP5-816-065)
   - Proxy Password (SP5-816-066)
4. Get a Request Number

Execute the @Remote Settings

1. Enter the SP mode.
2. Input the Request number obtained from @Remote Center GUI, and then enter [OK] with SP5-816-202.

3. Confirm the Request number, and then click [EXECUTE] with SP5-816-203.

4. Check the confirmation result with SP5-816-204.

Value	Meaning	Solution/ Workaround
0	Succeeded	-
3	Communication error (proxy enabled)	Check the network condition.
4	Communication error (proxy disabled)	Check the network condition.
5	Proxy error (authentication error)	Check Proxy user name and password.
6	Communication error	Check the network condition.
8	Other error	See "SP5816-208 Error Codes" below this.
9	Request number confirmation executing	Processing… Please wait.
11	Already registered	-
12	Parameter error	-
20	Dial-up authentication error	* These errors occur only in the modems that support @Remote.
21	Answer tone detection error	
22	Carrier detection error	
23	Invalid setting value (modem)	
24	Low power supply current	
25	Modem unplugged	
26	Busy line	

5. Make sure that the screen displays the Location Information with SP5-816-205 only when it has been input at the Center GUI.

6. Click [EXECUTE] to execute the registration with SP5-816-206.

7. Check the registration result with SP5-816-207.

Value	Meaning	Solution/ Workaround
0	Succeeded	-
1	Request number error	Check the request number again.
2	Already registered	Check the registration status.
3	Communication error (proxy enabled)	Check the network condition.
4	Communication error (proxy disabled)	Check the network condition.
5	Proxy error (Authentication error)	Check Proxy user name and password.
8	Other error	See "SP5-816-208 Error Codes" below this.
9	Request number confirmation executing	Processing… Please wait.

Value	Meaning	Solution/ Workaround
11	Already registered	-
12	Parameter error	-
20	Dial-up authentication error	* These errors occur only in the modems that support @Remote.
21	Answer tone detection error	
22	Carrier detection error	
23	Invalid setting value (modem)	
24	Low power supply current	
25	Modem unplugged	
26	Busy line	

8. Exit the SP mode.

SP5-816-208 Error Codes

Caused by Operation Error, Incorrect Setting

Code	Meaning	Solution/ Workaround
-12002	Inquiry, registration attempted without acquiring Request No.	Obtain a Request Number before attempting the Inquiry or Registration.
-12003	Attempted registration without execution of a confirmation and no previous registration.	Perform Confirmation before attempting the Registration.
-12004	Attempted setting with illegal entries for certification and ID2.	Check ID2 of the mainframe.
-12005	@Remote communication is prohibited. The device has an Embedded RC gate-related problem.	Make sure that "Remote Service" in User Tools is set to "Do not prohibit".
-12006	A confirmation request was made after the confirmation had been already completed.	Execute registration.
-12007	The request number used at registration was different from the one used at confirmation.	Check Request No.
-12008	Update certification failed because mainframe was in use.	Check the mainframe condition. If the mainframe is in use, try again later.
-12009	The ID2 in the NVRAM does not match the ID2 in the individual certification.	Check ID2 of the mainframe.
-12010	The certification area is not initialized.	Initialize the certification area.

Error Caused by Response from GW URL

Code	Meaning	Solution/ Workaround
-2385	Other error	
-2387	Not supported at the Service Center	
-2389	Database out of service	

Code	Meaning	Solution/ Workaround
-2390	Program out of service	
-2391	Two registrations for the same mainframe	Check the registration condition of the mainframe
-2392	Parameter error	
-2393	External RCG not managed	
-2394	Mainframe not managed	
-2395	Box ID for external RCG is illegal.	
-2396	Mainframe ID for external RCG is illegal.	
-2397	Incorrect ID2 format	Check the ID2 of the mainframe.
-2398	Incorrect request number format	Check the Request No.

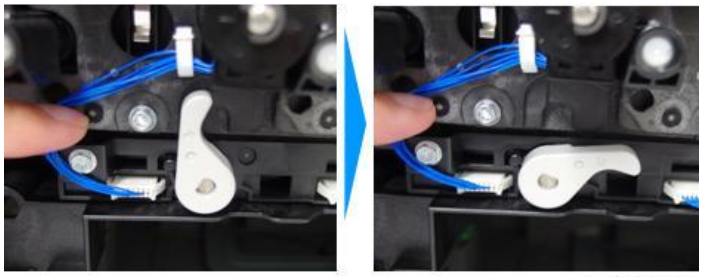
Main Machine Installation: When Moving the Machine

⚠CAUTION

- **Do not lift the machine with any optional paper feed units attached.**
  If the machine already has one or more optional paper feed unit(s) attached, be sure to disconnect the machine and paper feed unit(s), and lift them up separately when moving/transporting. Otherwise, the handle of the paper feed unit will break due to the machine's weight, and it can cause an injury.

The following should be done before transporting the machine.

1. Remove the paper tray and waste toner bottle, and then move the ITB contact lever down to the shipping position.
   IM C400 series does not need to remove the tray.



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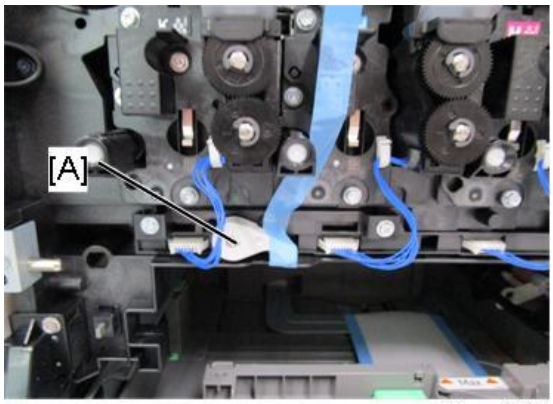
Note

- This moves the ITB away from the PCDU (K).

2. Hold the lever [A] in this position with securing tape.



d0cam0014

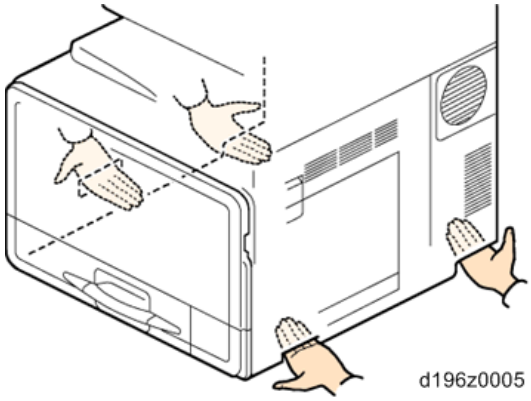
3. Do SP4-806-001 (Carriage Retract Operation) to move the scanner carriage from the home position.
   This prevents dust from falling into the machine during transportation.
4. Remove the toner bottles.
   This prevents toner flowing into the toner supply tube due to vibration during transport. This can also cause the tube to be clogged with toner.
5. Make sure that there is no paper left in the paper trays, and then fix down the bottom plates with a sheet of paper and securing tape.
6. Attach securing tape to stop the waste toner bottle from coming out.

7. Do one of the following:

- Attach shipping tape to the covers and doors.
- Shrink-wrap the machine tightly.

⚠CAUTION

- Grab the machine in the specified locations when lifting.



Network Settings

Specifying Network Settings According to Customer's Environment

Specifying Network Settings

Check the customer’s network environment and specify network settings according to the functions to be used (such as a scanner, printer, and Document Server setting).

1. Press the "Settings" icon.
2. Press [System Settings] > [Network/Interface].
3. Configure the required settings in [Network/Interface].
   For the settings to be specified, see the user manual.

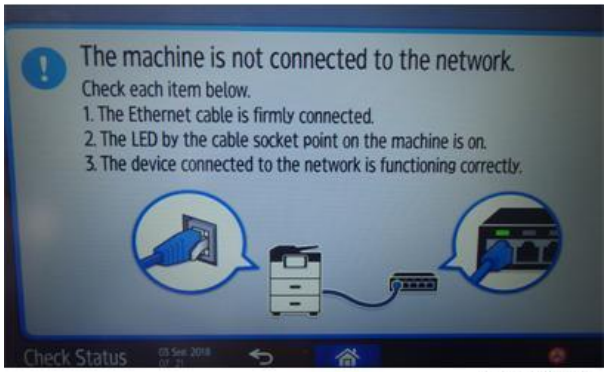
Checking Communication by the Ping Command

Check whether a network connection between the machine and the client computer has been established.

1. Press the "Settings" icon.
2. Press [System Settings] > [Network/Interface] > [Ping Command].
3. Enter the client PC's IP address and press [Ping Command].
   After confirming the communication, the result is displayed.

Settings on Displaying an Alert When the Ethernet Cable is Broken or Disconnected

Display an alert if the Ethernet cable is disconnected while operating the machine.



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By default, this setting is set to [OFF] and the interval to display the alert is set to 10 minutes.
Specify the setting according to the customer’s request. If the customer does not want to connect the machine to the network, set this to [OFF].

1. Press the "Settings" icon.
2. Press [System Settings] > [Network/Interface] > [Unconnected Network Instruction Screen].
3. Set this value to [Display].

Security Settings

Security Function Installation

If the “Enhanced Security HDD Option Type M10” is installed at the same time as the main machine’s installation, do not execute these settings described below.

Important

- When the “Enhanced Security HDD Option Type M10” and security functions (Data Overwrite Security and HDD Encryption functions) are activated in the same machine, the function of the “Enhanced Security HDD Option” is not guaranteed.

The machine contains the security functions (Data Overwrite Security and HDD Encryption functions) in the controller board (PCB24).

If you are installing a new machine, it is recommended to activate Data Overwrite Security and HDD Encryption by selecting "Format All Data" in "Machine Data Encryption Settings". ("Settings" icon> [System Settings] > [Settings for Administrator] > [File Management] > [Machine Data Encryption Settings])

Note

- This method is recommended because there is no user data saved on the hard drive yet such as Address Book, image data, etc.

If the customer wishes to activate the Data Overwrite Security and HDD Encryption functions on a machine that is already running, it is recommended to activate these functions by selecting "All Data" in "Machine Data Encryption Settings". ("Settings" icon> [System Settings] > [Settings for Administrator] > [File Management] > [Machine Data Encryption Settings])

Important

- If "All Data" is selected, all the data saved on the HDD will be preserved. If "Format All Data" is selected, all the user data saved on the HDD will be erased.

After enabling encryption, the setting process takes several minutes to complete before the machine can be used.

Note

- If encryption is enabled after data has been stored on the HDD, or if the encryption key is changed, this process can take up to three and a half hours or more.

The machine cannot be operated while data is being encrypted.

Once the encryption process begins, it cannot be stopped.

DO NOT turn off the power while the encryption process is in progress.

If the machine's main power is turned OFF while the encryption process is in progress, the HDD will be damaged and all data on it will be unusable.

Print the encryption key or save to SD card and keep the encryption key (which is printed as a paper sheet).

Keep the encryption key in a safe place. If the encryption key is lost and is needed, the controller board (PCB24), HDD and NVRAM must all be replaced at the same time.

Note

- "NVRAM" mentioned in here means the NVRAM on the Controller Board (PCB24).
- "NVRAM" or EEPROM on the BiCU (PCB1) has nothing to do with this.

If you need to reactivate the Data Overwrite Security and HDD Encryption functions, perform the steps in the following sections:

Data Overwrite Security

Before You Begin the Procedure

1. Make sure that the following settings (1) to (3) are not at their factory default values.
   (1) Supervisor login password
   (2) Administrator login name
   (3) Administrator login password
   If any of these settings is at a factory default value, tell the customer these settings must be changed before the installation procedure.
2. Make sure that “Administrator Authentication” is On.
   "Settings" icon > [System Settings] > [Administrator Authentication/User Authentication/App Auth.] > [Administrator Authentication Management] > [Administrator Authentication]
   If this setting is off, tell the customer this setting must be on before the installation procedure.
3. Make sure that “Administrator Tools” is enabled (selected).
   "Settings" icon > [System Settings] > [Administrator Authentication/User Authentication/App Auth.] > [Administrator Authentication Management] > [Administrator Tools]
   If this setting is disabled (not selected), tell the customer this setting must be enabled (selected) before the installation procedure.

Using "Auto Erase Memory"

The Auto Erase Memory function can be enabled by the following procedure.

1. Log in as the machine administrator from the operation panel.
2. Press "Settings" icon.
3. Press [System Settings].

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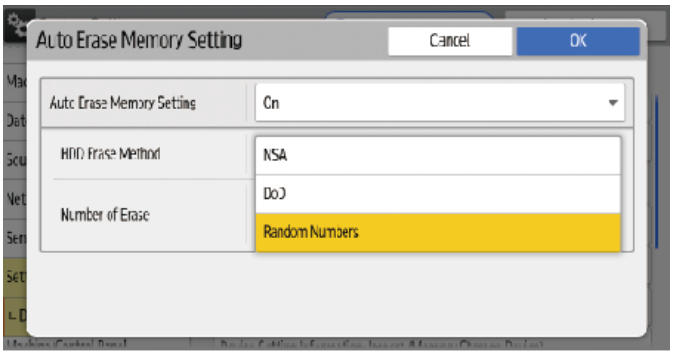
4. Press [Settings for Administrator] > [Data Management] > [Auto Erase Memory Setting].
5. From the list next to Auto Erase Memory Setting, select [On], and then select an erase method.

   The default erase method is [Random Numbers], and the default number of overwrites is [3].



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- NSA*1: Overwrites data twice with random numbers and once with zeros.
- DoD*2: Overwrites data with a random number, then with its complement, then with another random number, and the data is verified.
- Random Numbers: Overwrites data multiple times with random numbers. Select the number of overwrites from one to nine.

  *1 National Security Agency (U.S.A)

  *2 Department of Defense (U.S.A)

6. Press [OK].
7. Press [ ], and then log out of the machine.

   If you enable both overwriting and data encryption, the overwriting data will also be encrypted.

To check the overwriting process on the operation panel

When Auto Erase Memory is enabled, the Data Overwrite icon is displayed at the bottom right of the operation panel screen to indicate the status of data that is not overwritten.

1. Check the overwrite erase icon.

   The icon [1] is lit when there is temporary data to be overwritten, and blinks during overwriting.

   The icon [2] is lit when there is no temporary data to be overwritten.

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	Icon [1]	This icon lights up when there is data to be overwritten, and flashes during overwriting. Overwriting starts automatically once the job is completed. The Copier, Fax, and Printer functions take priority over the Auto Erase Memory function. Overwriting will start after the job is completed.
	Icon [2]	The trash box of the icon is empty when there is no data to be overwritten. This icon is also displayed when there is Hold Print/Stored Print/Locked Print/Sample Print data in the hard disk.

HDD Encryption

Before You Begin the Procedure

1. Make sure that the following settings (1) to (3) are not at their factory default values.
   (1) Supervisor login password
   (2) Administrator login name
   (3) Administrator login password
   If any of these settings is at a factory default value, tell the customer these settings must be changed before the installation procedure.
2. Make sure that “Administrator Authentication” is On.
   "Settings" icon > [System Settings] > [Administrator Authentication/User Authentication/App Auth.] > [Administrator Authentication Management] > [Administrator Authentication]
   If this setting is off, tell the customer this setting must be on before the installation procedure.
3. Make sure that “Administrator Tools” is enabled (selected).
   "Settings" icon > [System Settings] > [Administrator Authentication/User Authentication/App Auth.] > [Administrator Authentication Management] > [Administrator Tools]
   If this setting is disabled (not selected), tell the customer this setting must be enabled (selected) before the installation procedure.

Enable Encryption Setting

The data saved on the HDD, such as Address Book, authentication information, saved documents, can be encrypted to prevent data leakage in case the HDD is removed from the machine.
Once encryption is enabled, all data subsequently stored on the machine will be encrypted.
The encryption algorithm used in the machine is AES-256.

Setting Up Encryption

Important

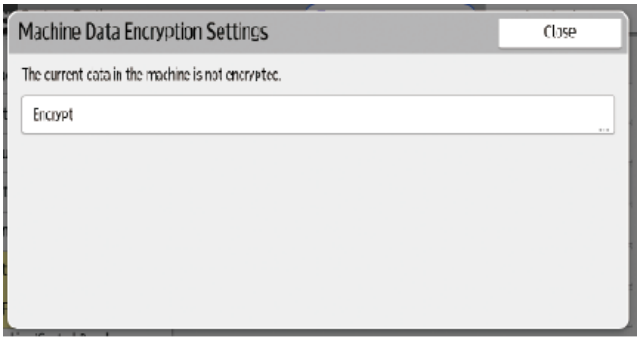
- This function is only available for the standard hard disk. If your machine is equipped with the Enhanced Security HDD Option, data on the hard disk is always encrypted. Therefore, this function can only encrypt the machine's NVRAM data.
- The machine cannot be operated while encrypting data, updating the encryption key, or

canceling encryption.

- The encryption process takes several hours. Once the encryption process starts, it cannot be stopped.

When setting up encryption, specify whether to start encryption after deleting data (initialize) or encrypt and retain existing data. If data is retained, it may take some time to encrypt it.

1. Turn ON the main power.
2. Log in as the machine administrator from the operation panel.
3. Press "Settings" icon > [System Settings].
4. Press [Settings for Administrator] > [File Management] > [Machine Data Encryption Settings].
5. Press [Encrypt].



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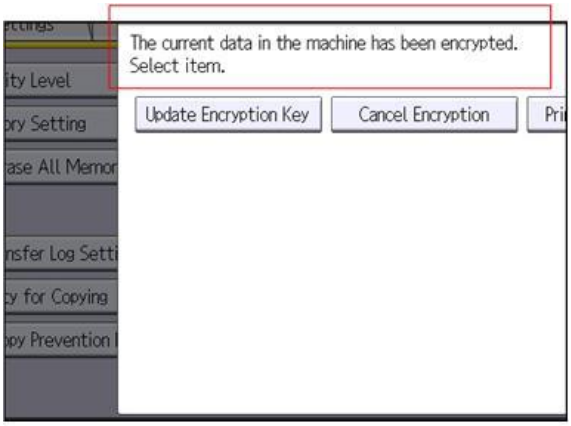
- If the data has been encrypted, you can decrypt the data, update the encryption Key, or back up the data.
  - Update Encryption Key: Encrypts data again and creates a new encryption Key.
  - Cancel Encryption: Cancels encryption.
  - Back Up Encryption Key: Makes a backup of the encryption key. The encryption setting is not changed. Proceed to Step 7.

6. Select one of the options from among [All Data], [File System Data Only], and [Format All Data] to encrypt the data.
   - **All Data:** Encrypts all data.
   - **File System Data Only**: The following data are encrypted or initialized:
     - **Data that are encrypted**
       Program/log of the Embedded Software Architecture application, Address Book, registered fonts, job logs, access logs, thumbnail images of stored documents, sent/ received e-mail, documents transferred to the document management server, files received by Mail to Print, spooled jobs
     - **Data that are initialized**
       Stored documents (documents in the Document Server, documents related to Locked Print/Sample Print/Stored Print/Hold Print, documents of fax stored reception), registered data (stamps/forms)
   - **Format All Data**: Initializes all data without encryption. The NVRAM data (memory that remains even after the machine is turned off) will not be deleted (initialized).

7. Select the backup method.
   If you have selected [Save to SD Card], load an SD card into the media slot on the side of the operation panel and press [OK] to back up the machine's data encryption key.
   If you have selected [Print on Paper], press the [Print] key. Print out the machine's data encryption key.
8. Press [OK].
9. When the confirmation dialog is displayed, press [OK].
10. Press [], and then log out of the machine.
11. Turn OFF the main power, and then turn the main power back ON.
    The machine will start to convert the data on the memory after you turn ON the machine. Wait until the message "Memory conversion complete. Turn the main power switch OFF." appears, and then turn the main power OFF again.

Check the Encryption Settings

1. Log in as the machine administrator from the operation panel.
2. Press "Settings" icon > [System Settings].
3. Press [Settings for Administrator] > [File Management] > [Machine Data Encryption Settings].
4. Confirm whether the encryption has been completed or not on this display.



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Backing Up the Encryption Key

The encryption key can be backed up. Select whether to save it to an SD card or to print it.

Important

- The encryption key is required for data recovery if the machine malfunctions. Be sure to store the encryption key safely for retrieving backup data.

1. Turn ON the main power.
2. Log in as the machine administrator from the operation panel.
3. Press "Settings" icon > [System Settings].
4. Press [Settings for Administrator] > [File Management] > [Machine Data Encryption Settings].
5. Press [Print Encryption Key].
6. Select the backup method.

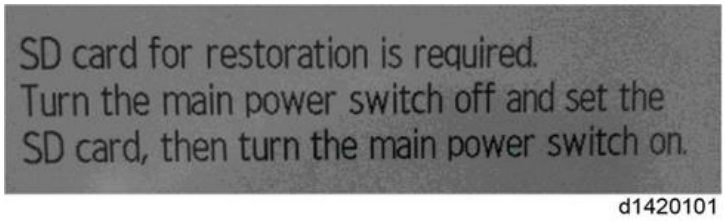
If you have selected [Save to SD Card], load an SD card into the media slot on the side of the control panel and press [OK]. After the machine's data encryption key is backed up, press [Exit].
If you have selected [Print on Paper], press the [Print] key. Print out the machine's data encryption key.

7. Press [Exit].
8. Log out.

Encryption Key Restoration

How to restore the old encryption key to the machine

The following message appears after the controller board (PCB24) is replaced. In such a case, it is necessary to restore the encryption key to the new controller board (PCB24).



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To do this, follow the procedure below.

1. Prepare an SD card that has been initialized in FAT16 format.
2. Using a PC, create a folder in the SD card and name it "restore_key".
3. Create a folder in the “restore_key” folder and name it the same as machine’s serial number, “xxxxxxxxxx” (11 digits).
4. Create a text file called "key_xxxxxxxxxx.txt" and save it in the "xxxxxxxxxx“ folder. Write the encryption key in the text file.
   /restore_key/xxxxxxxxxx/key_xxxxxxxxxx.txt

   Note

   - Ask an Administrator to enter the encryption key. The key has already been printed out by the user and may have been saved in the "key_xxxxxxxxxx.txt" file.
5. Turn ON the main power.
6. Confirm that a message is displayed on the LCD telling to insert the SD card that contains the encryption key.
7. Turn OFF the main power.
8. Insert the SD card that contains the encryption key into SD card slot 2 (the lower slot).
9. Turn ON the main power.

   Note

   - The machine will automatically restore the encryption key to the flash memory on the controller board (PCB24).
10. Turn OFF the main power when the machine has returned to normal status.
11. Remove the SD card from SD card slot 2.

How to do a forced start up with no encryption key

If the encryption key backup has been lost, follow the procedure below to do a forced start-up.

Important

- The HDD will be formatted after the forced start-up.
- Encrypted data will be deleted.
- User settings will be cleared.

1. Prepare an SD card.
2. Create a directory named “restore_key” inside the root directory of the SD card. Then, save the “nvram_key.txt” file using the following name:
   /restore_key/nvram_key.txt
3. Create a text file and write "nvclear".

   Important

   - Write this string at the head of the file.
   - Use all lower-case letters.
   - Do not use quotation marks or blank spaces.
   - It is judged that a forced start has been selected when the content of "nvclear" is executed and the machine shifts to the alternate system (forced start).
4. Confirm that a message is displayed on the LCD telling to insert the SD card that contains the encryption key.
5. Turn OFF the main power.
6. Insert the SD card that contains the encryption key into SD card slot 2 (the lower slot).
7. Turn ON the main power and the machine automatically clears the HDD encryption.
8. Turn OFF the main power when the machine has returned to normal status.
9. Remove the SD card from SD card Slot 2.
10. Turn ON the main power.
11. Memory clear SP5-801-xx (Exclude SP5-801-001: All Clear and SP5-801-002: Engine), and clear SP5-846-046: address book.
12. Set necessary user settings with the User Tools key.

"Web Help Support" Settings

Overview

The Web Help Support function is a feature that assists users on the operation panel. When a user encounters a problem when operating the machine, the solution is displayed on the operation panel, and users can attempt to resolve the problem by themselves. By offering this solution, we aim to reduce the number of calls, thereby improving the rate of self-resolution. This function is available when the machine is connected to the Internet.

[A]: Tap "?" to display help contents

The Web Help Support function is preinstalled and enabled by default. Specify whether or not to enable or disable the function in SP or UP mode.

How to Enable/Disable Web Help Support

This function is enabled by default. If the customer does not want to use this function, it can be disabled via UP or SP modes as follows:

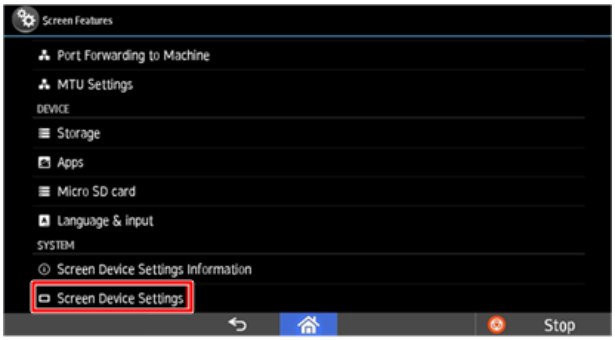
UP setting

1. Enable machine administrator authentication and login as administrator.
2. Press "Settings" icon.
3. Press [System Settings].
4. Press [Machine] > [Others] > [Support Settings].
5. Select [On] or [Off] for "Help Functions".

SP setting

1. Log in to Screen SP mode.

2. Select "Screen Device Settings".



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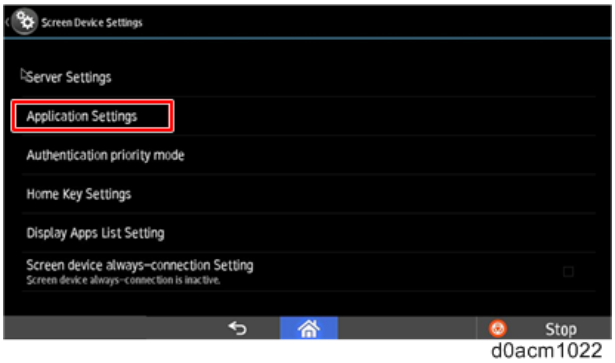
3. Select "Application Settings".



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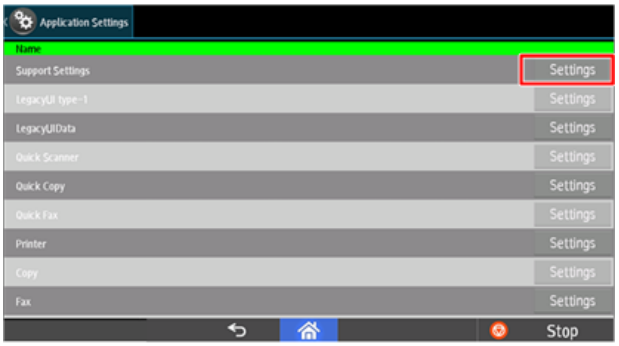
4. Select "Settings" for “Support Settings”.



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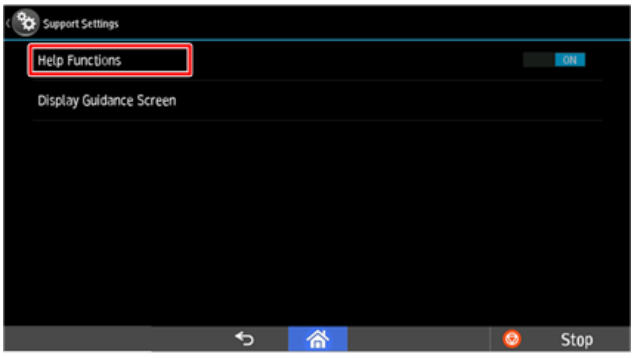
5. Enable or disable Help Functions.



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If this function is disabled in SP mode(5-828-091(Network Setting Web)), the function in the UP setting menu will not be displayed.

"RemoteConnect Support" Settings

Overview

The RemoteConnect Support function allows monitoring and remote control of the customer's machine's operation panel.

- Allows the customer support operator to remotely connect with client's machine equipped with the Smart Operation panel, or PC over the internet.
- Enable the support center to diagnose and resolve the issue through real-time screen sharing, remote guidance, and operation.

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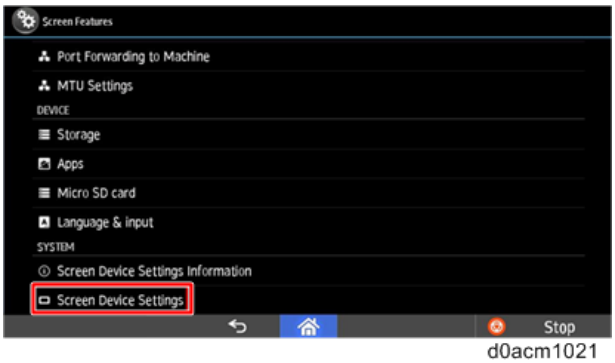
Previously, to avoid security concerns, the function was disabled by default. However, this has changed and the application is now enabled by default on machines produced since September 2018. (This setting is enabled by default on the current model.)

So, it's necessary to confirm with customers whether enabling the remote function is acceptable. After explaining the function and benefits, if it is unacceptable for the customer, disable it via SP mode.

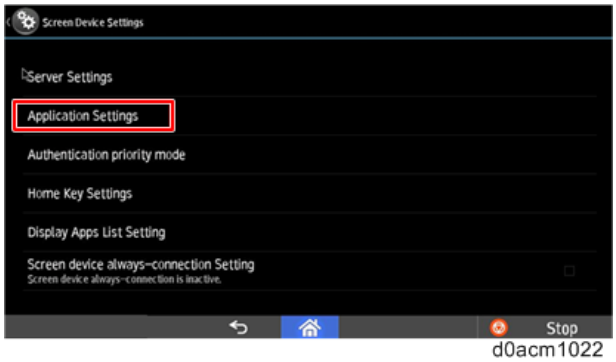
How to Enable/Disable RemoteConnect Support

1. Log in to Screen SP mode.
2. Select "Screen Device Settings".



d0acm1021

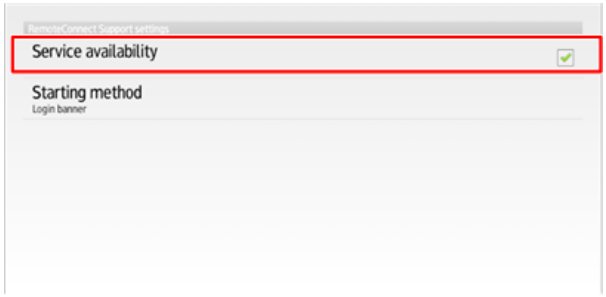
3. Select "Application Settings".



d0acm1022

4. Select "Settings" in "RemoteSupportService" and check "Service availability".

d0acm1025



d0acm1026

Note

- The application is enabled by default on machines produced from September 2018.
- The setting is located in RemoteSupport Service. However, the name of the settings menu is "RemoteConnect Support".
  "RemoteConnectSupport" can be found in the application list, but this does not have any settings. Be sure to open the settings of "RemoteSupportService".

d0acm1027

5. Confirm if a connection can be established.

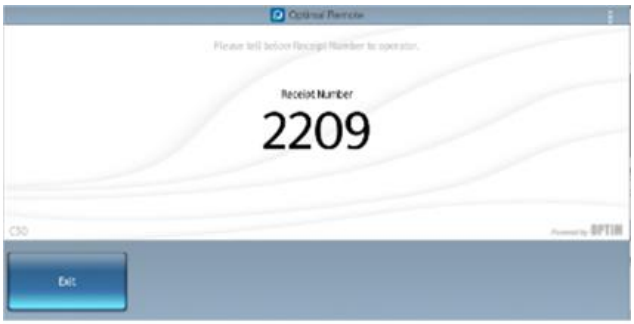
To confirm if RemoteConnect Support is working properly, open the application from the "Check Status" menu or by pressing down on the status bar on the Smart Operation Panel for over five

seconds.

After pressing down for over five seconds, stop pressing on the panel and RemoteConnect Support will open.

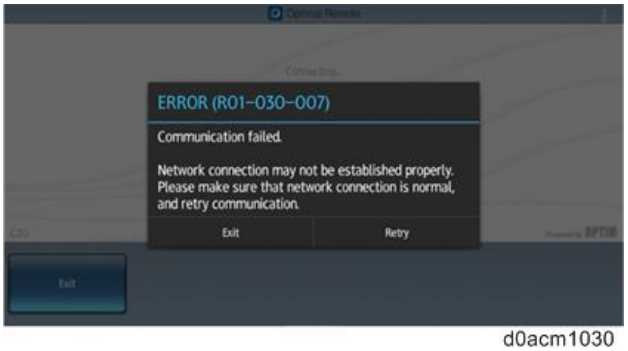
d0acm1028

If setup was done correctly, four digits will be displayed on the panel. If the setup was not done correctly, the four digits will not be displayed.



d0acm1029

RemoteConnect Service requires an Internet connection, so the following error message might appear after long-pressing the status bar if an Internet connection is not detected. To check the connection, open the web browser in Smart Operation Panel and navigate to a webpage to confirm that the machine is connected to the Internet.



d0acm1030

Note

- If the webpage cannot be connected, check the general network configuration settings, such as the IP address and proxy settings.

Uninstalling RemoteConnect Support

Some customers might ask for this feature to be disabled because of security precautions. In many cases, disabling RemoteConnect Support should be sufficient.

However, if a customer asks for RemoteConnect Support to be completely uninstalled, remove it by conducting the following procedure:

1. Log in to Screen SP mode.
2. Select Apps > Install.
3. Select Uninstall for the following two applications:

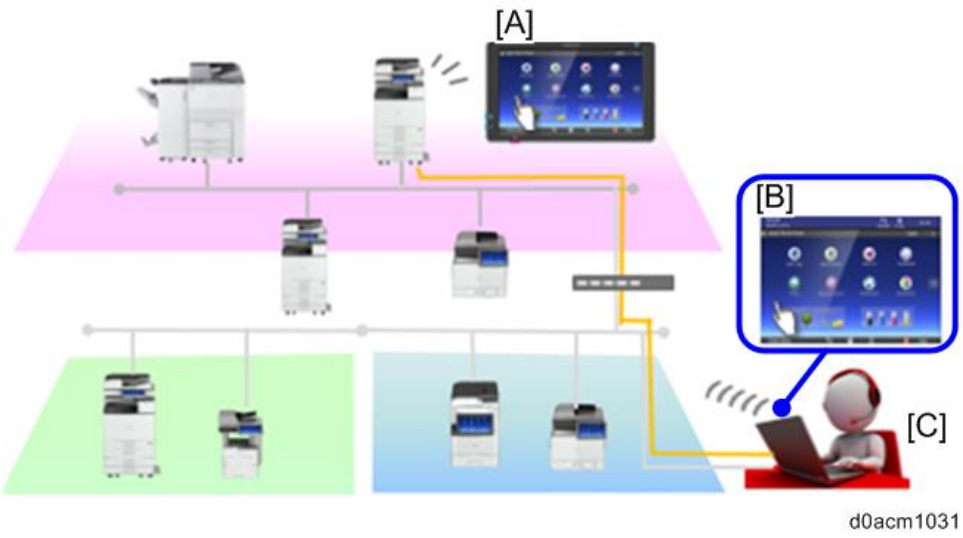
Firmware Type	Part Number	Version
RemoteConnectSupport	D2411470A	1.0.5
RemoteSupportService	D1961459A	1.0.1

"Remote Panel Operation" Settings

Overview

Remote Panel Operation will be pre-installed in models that have Smart Operation Panel G2.5. This is a built-in function.

Using Web Image Monitor, you can view on the computer screen the operation panels of devices on the same network as well as remotely control such devices. For example, in a large company, the machine administrator can use the remote control to check for errors, operate machines, and change settings to provide support and manage machines easily.



[A]: Smart Operation Panel G2.5

[B]: Web browser

[C]: IT manager/ administrator

- Eliminating a trip to the device
- Reducing end user's wait time

Usage

- Remote Panel Operation enables the IT manager or in-house help desk staff to remotely view and operate the Smart Operation Panel G2.5 screen through a Web UI.
- It can be used to provide real-time interactive user support and also facilitate customer training.

Startup

1. Log in to Web Image Monitor as the administrator.

2. Click [Device Management] > [Remote Panel Operation]

Notes

- When connected by the Remote Panel Operation function, the machine does not automatically switch to Sleep mode, and the Auto Logout and System Auto Reset functions do not operate.
- You cannot connect to a single unit from multiple computers and operate it by the Remote Panel Operation function.
- The Remote Panel Operation function is supported by Internet Explorer 11 and later versions, Google Chrome 62 and later versions, Firefox 56 and later versions, and Microsoft Edge 40 and later versions.

About the Settings

- This function has been preinstalled. (Its icon does not appear on the operation panel.)
- For security reasons, the settings have not been specified by default. Enable or disable each setting according to the customer's request.

How to Enable/Disable Remote Panel Operation/Monitoring

1. Enable machine administrator authentication and login as administrator.
2. Press the "Settings" icon on the Home screen.
3. Press [System Settings].
4. Press [Settings for Administrator] > [Remote Panel Operation].
5. Select [Active] or [Inactive] for "Remote Operation/Monitoring".

Note

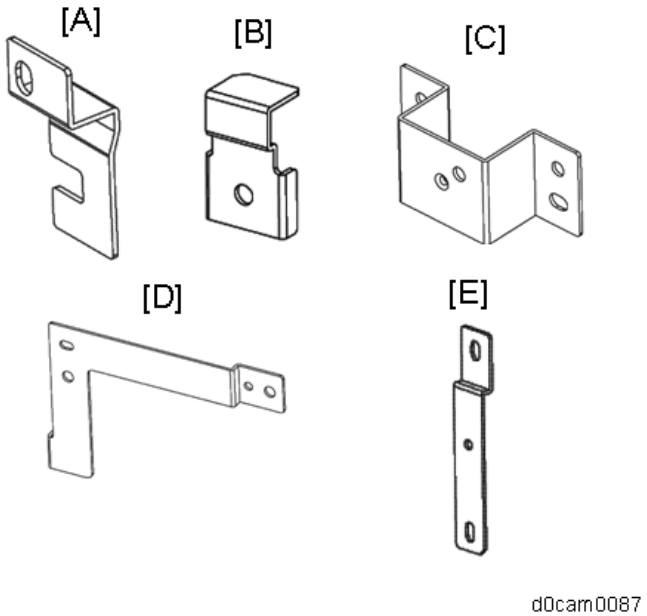
- "Remote Operation/Monitoring" Functions is disabled by default. When it is disabled, Remote Panel Operation is not displayed in the Web Image Monitor.

Paper Feed Unit PB1170(D3GQ-17)

Accessory Check

Confirm that you have the accessories listed below.

No.	Description	Q'ty
-	EMC Address	1
-	Name Plate	1
-	Decal Paper Size/ Tray Number	1
-	Decal CHN 10mm	1
-	Decal CHN Date 40mm	1
A	Joint bracket (Front left)	1
B	Joint bracket (Front right)	1
C	Joint bracket (Front center)	1
D	Joint bracket (Frame)	1
E	Joint bracket (Rear)	1
-	Screw M3x6	7
-	Screw M3x8	3
-	Screw M3x12	1



Note

- The supplied brackets [A] to [E] and screws are used when installing the dehumidification heater. Refer to "Dehumidification Heater (PFU)" for how to install the dehumidification heater.

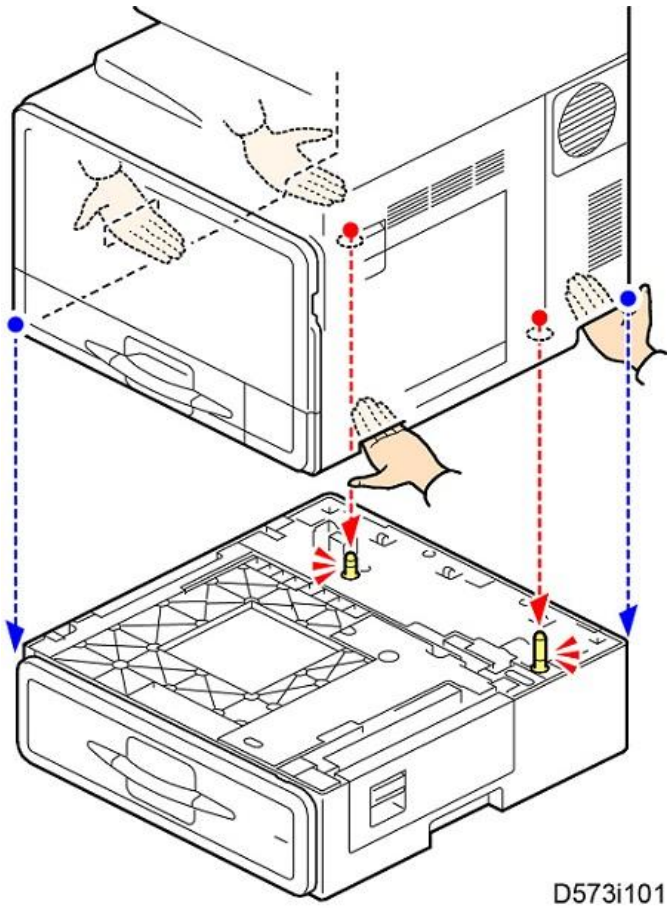
Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is

not turned OFF before installing, an electric shock or malfunction might occur.

- Lifting the mainframe requires two or more people. The mainframe is highly unstable when lifted by one person and could cause injury or property damage.
- Do not lift the machine with any optional paper feed units attached.
  If the machine already has one or more optional paper feed unit(s) attached, be sure to disconnect the machine and paper feed unit(s), and lift them up separately when moving/transporting. Otherwise, the handle of the paper feed unit will break due to the mainframe's weight, and it can cause an injury.
- Be sure to hold the following positions when lifting the mainframe.



1. Remove the packaging tapes and the sheet (EMC address) on the paper feed unit.

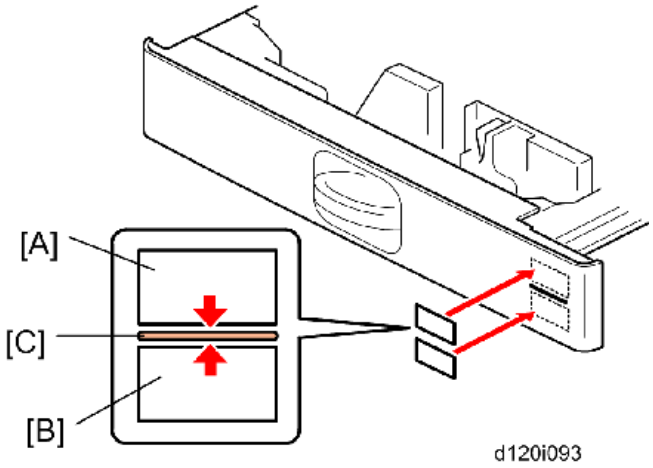
2. Slowly place the main machine on the paper feed unit.

Note

- When installing the second paper feed unit, place it on the first paper feed unit. Then place the main machine on the pair of paper feed units.

3. Attach the appropriate paper tray number decal [A] and paper size decal [B] above and below the

line [C] on each tray of the paper feed unit.

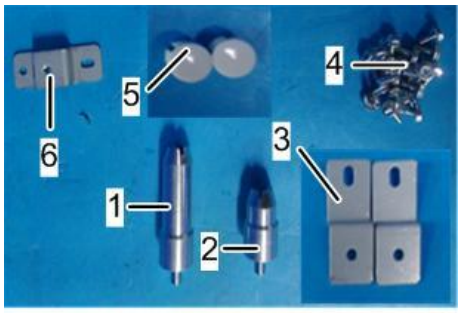


4. Load paper into the paper tray(s) and set the side fences and end fence(s).
5. Adjust the registration for each tray (Image Adjustment).
   - For tray 2, use SP1-002-003
   - For tray 3, use SP1-002-004
   - For tray 4, use SP1-002-006
6. Check the paper feed unit operation and copy/print quality.

Caster Table Type M41 (D3GW03)

Accessory Check

No.	Description	Q'ty	Remarks
1	Positioning Pin Right	1	
2	Positioning Pin Left	1	
3	Joint Bracket A	2	
4	Fixing Screw	7	
5	Cap for a Handle	2	
6	Joint Bracket B	1	



d0cam2414

Installation Conditions

Possible configurations are as follows:

Optional paper feed units	0	1	2	3
	d0cam2357	d0cam2358	d0cam2359	d0cam2360
Securing with Joint Bracket B	Not Required	Required	Required	Required

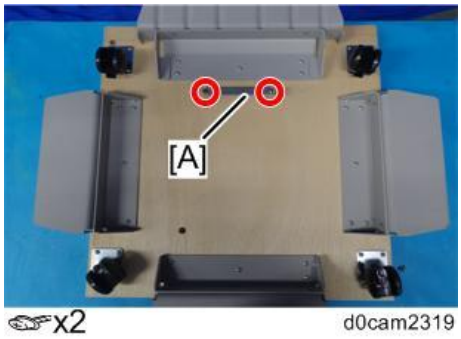
Note

Do not use a joint bracket if the optional paper feed unit is not installed. If used, the paper feed tray cannot be pulled out.

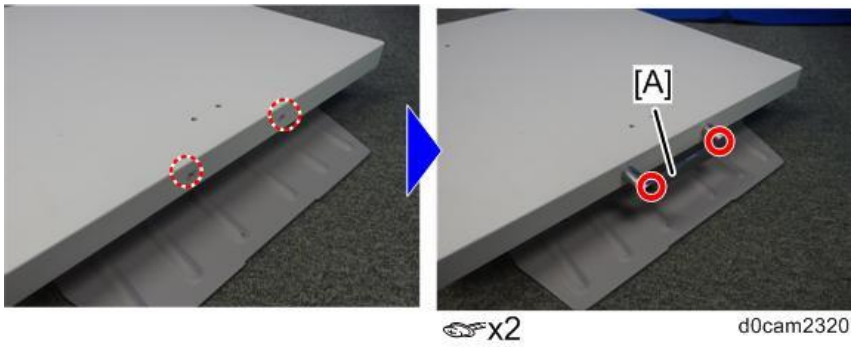
Installation Procedure

Installing the caster table and main machine

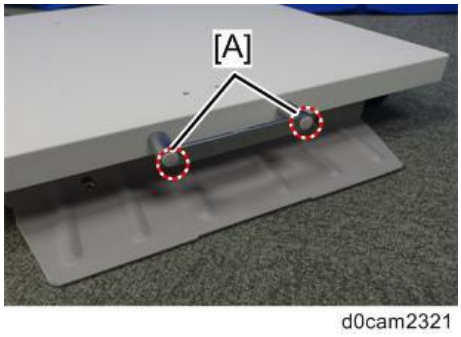
1. Remove the handle [A] attached to the back of the caster table.



2. Attach the handle [A] removed in step 1 to the screw holes on the front of the caster table.



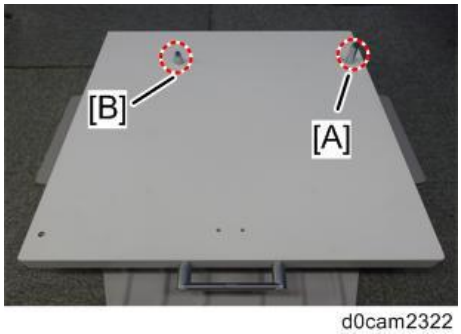
3. Fit the caps [A] in the screw hole of the handle.



4. Attach two pins to the caster table.

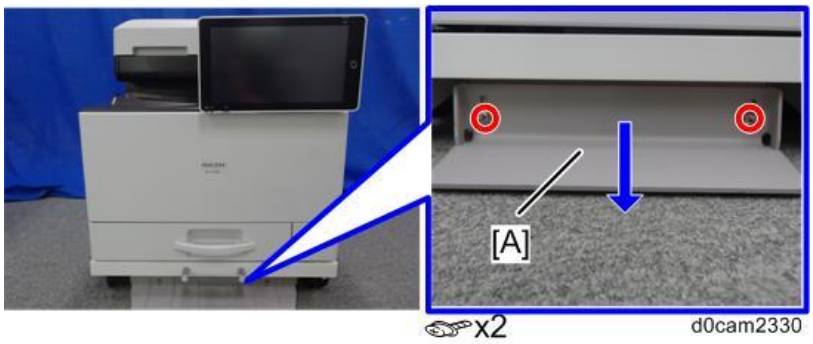
Note

Attach the long pin [A] to the right hole and the short pin [B] to the left hole.



5. Place the main machine [B] on the caster table [A].

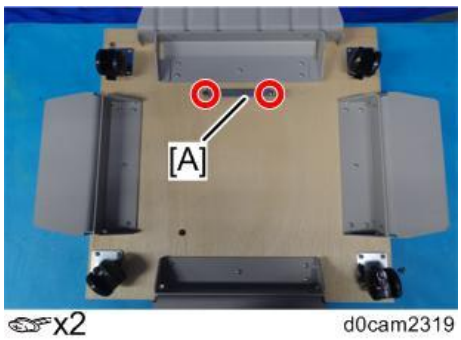
6. Loosen the screws of the stabilizer [A] on the front side, lower the stabilizer until the machine is stable, and tighten the screws.



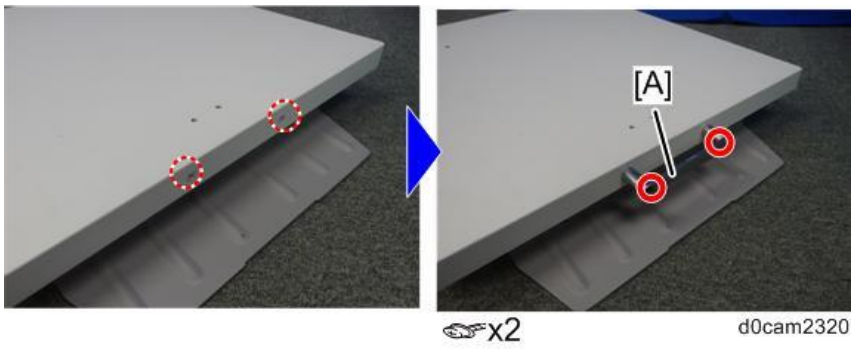
7. Loosen the screws of the stabilizers on the left, right, and rear sides, lower the stabilizers, and tighten the screws.

Installing the caster table, optional paper feed unit (1st level), and main machine

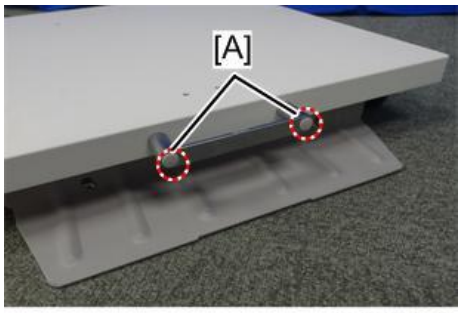
1. Remove the handle [A] attached to the back of the caster table.



2. Attach the handle [A] removed in step 1 to the screw holes on the front of the caster table.



3. Fit the caps [A] in the screw hole of the handle.

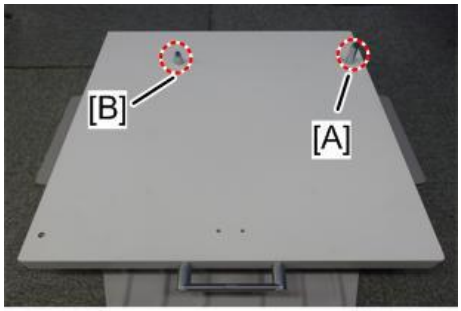


d0cam2321

4. Attach two pins to the caster table.

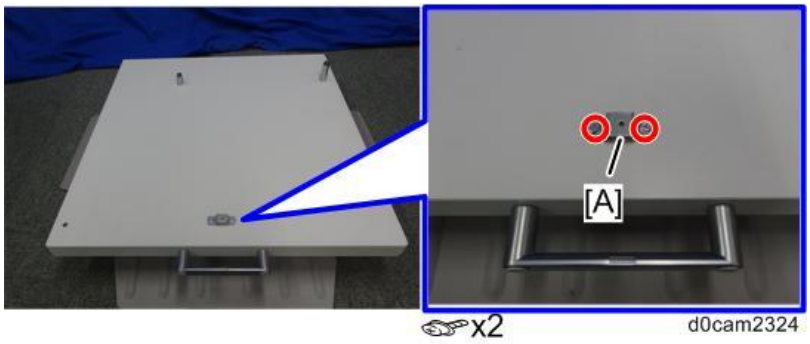
Note

Attach the long pin [A] to the right hole and the short pin [B] to the left hole.



d0cam2322

5. Attach the bracket [A] to the caster table.



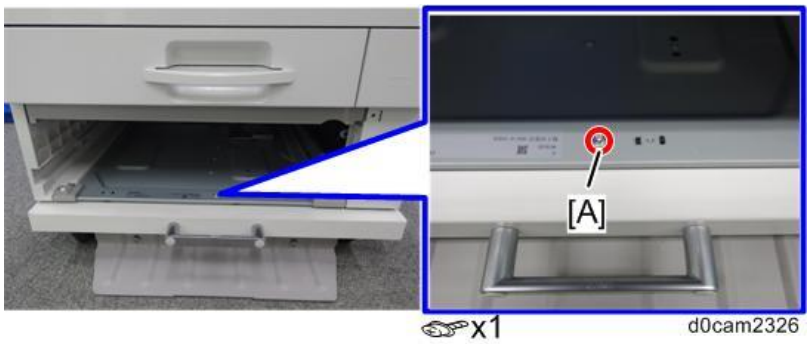
d0cam2324

6. Place the optional paper feed unit [B] on the caster table [A].
7. Place the main machine [C] on the optional paper feed unit [B].

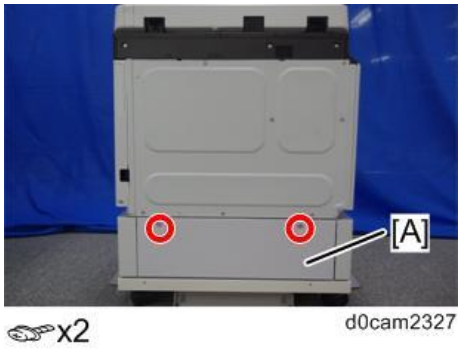
d0cam2325

8. Pull out the paper feed tray.

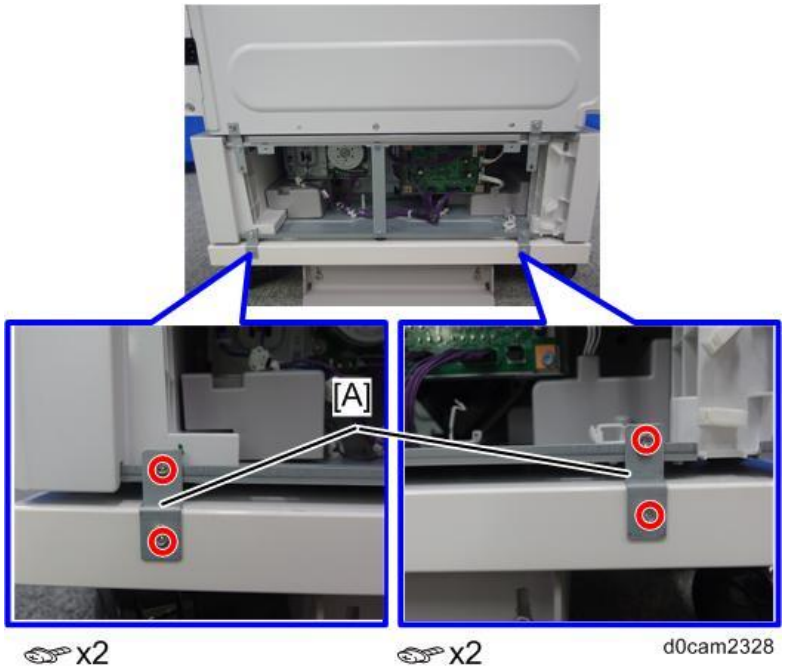
9. Secure the caster table and optional paper feed unit with the screw [A].



10. Remove the rear cover [A] of the optional paper feed unit.

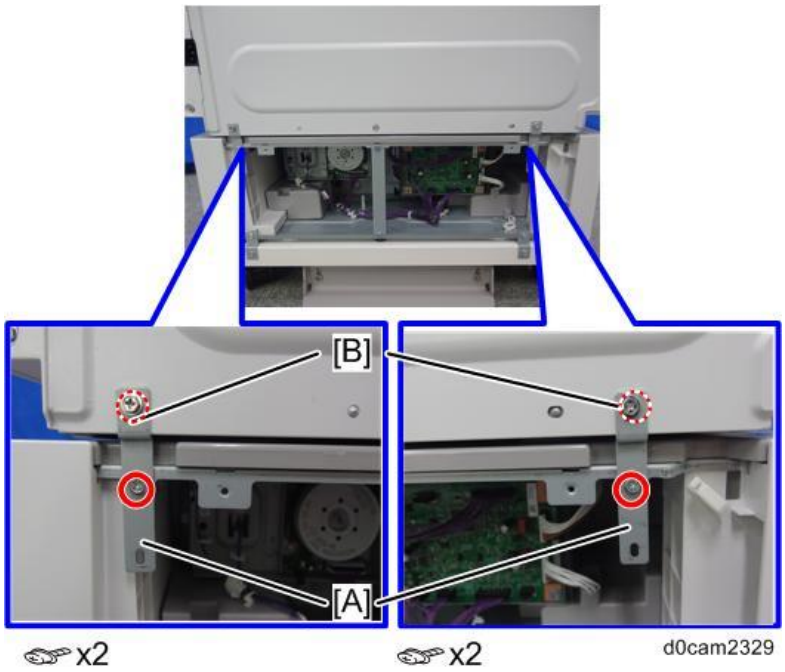


11. Secure the caster table and the 1st level of the optional paper feed unit with the two joint brackets [A].



12. Secure the 1st level of the optional paper feed unit and the main machine with the two joint

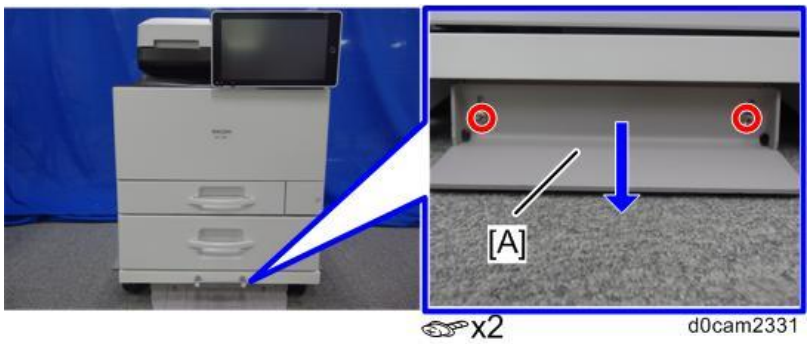
brackets [A].



Note

Use the screws [B] on the main machine

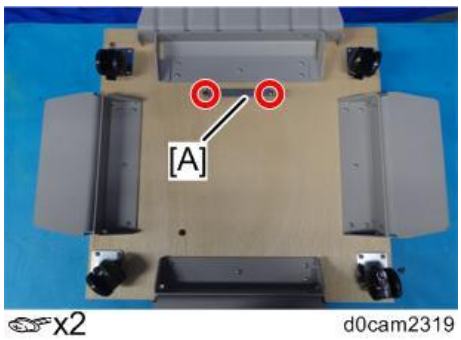
13. Reattach the rear cover of the optional paper feed unit.
14. Loosen the screws of the stabilizer [A] on the front side, lower the stabilizer until the machine is stable, and tighten the screws.



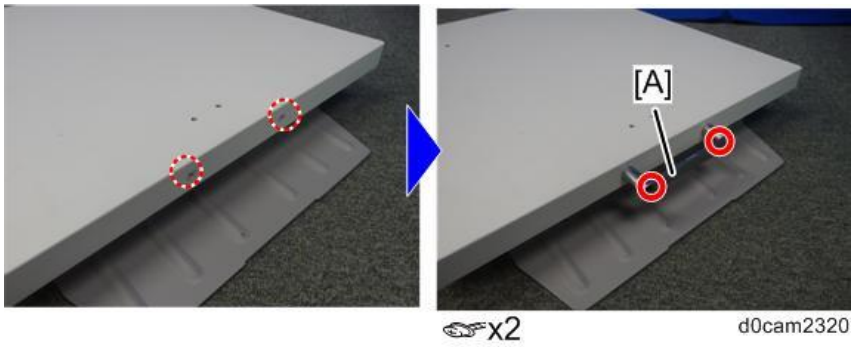
15. Loosen the screws of the stabilizers on the left, right, and rear sides, lower the stabilizers, and tighten the screws.

Installing the caster table, optional paper feed unit (2nd level), and main machine

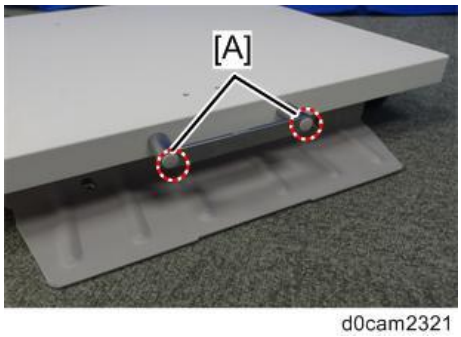
1. Remove the handle [A] attached to the back of the caster table.



2. Attach the handle [A] removed in step 1 to the screw holes on the front of the caster table.



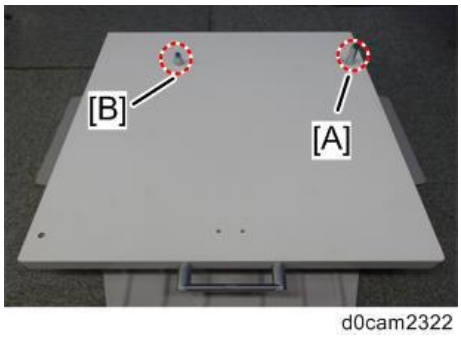
3. Fit the caps [A] in the screw hole of the handle.



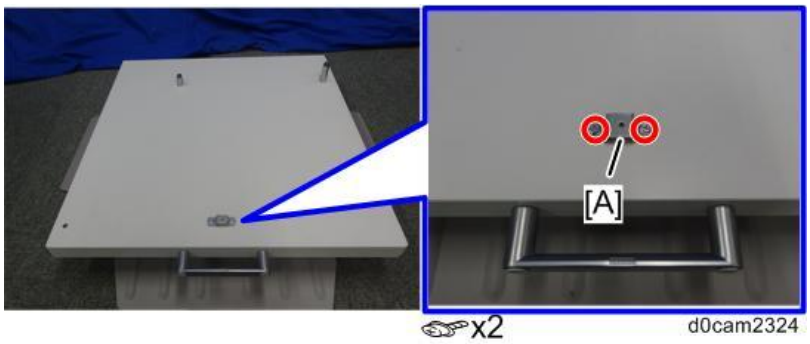
4. Attach two pins to the caster table.

Note

Attach the long pin [A] to the right hole and the short pin [B] to the left hole.



5. Attach the bracket [A] to the caster table.

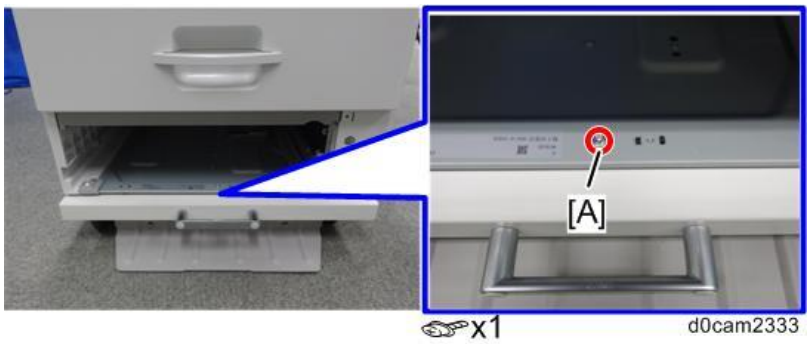


6. Place the optional paper feed units [B],[C] on the caster table [A].

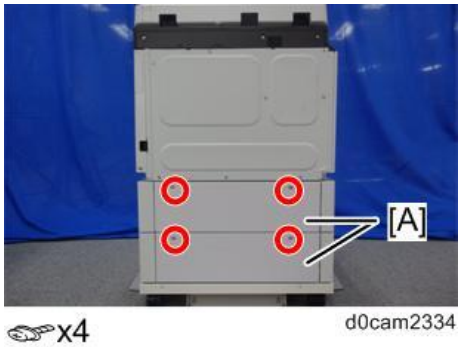
7. Place the main machine [D] on the optional paper feed unit [C].

8. Pull out the paper feed tray.

9. Secure the caster table and optional paper feed unit with the screw [A].

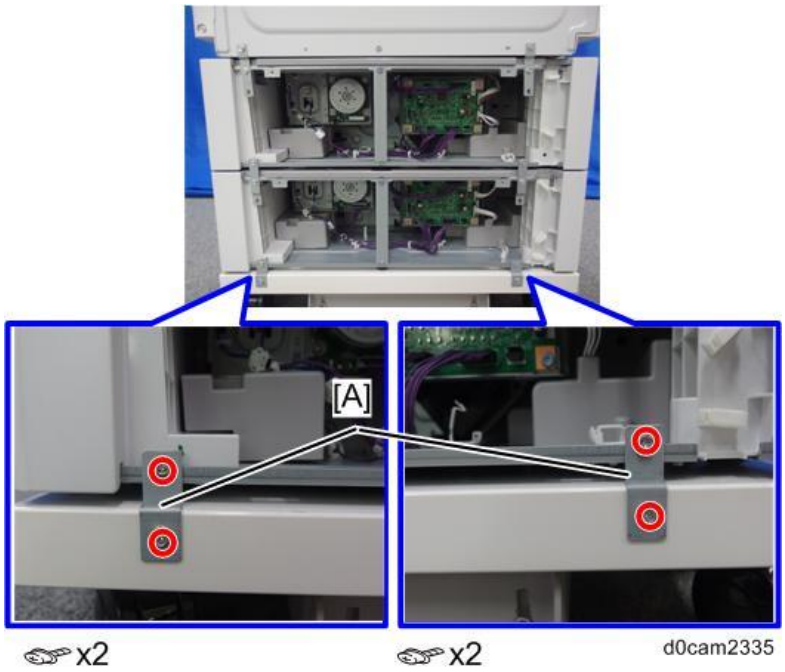


10. Remove the rear covers [A] of the optional paper feed units.

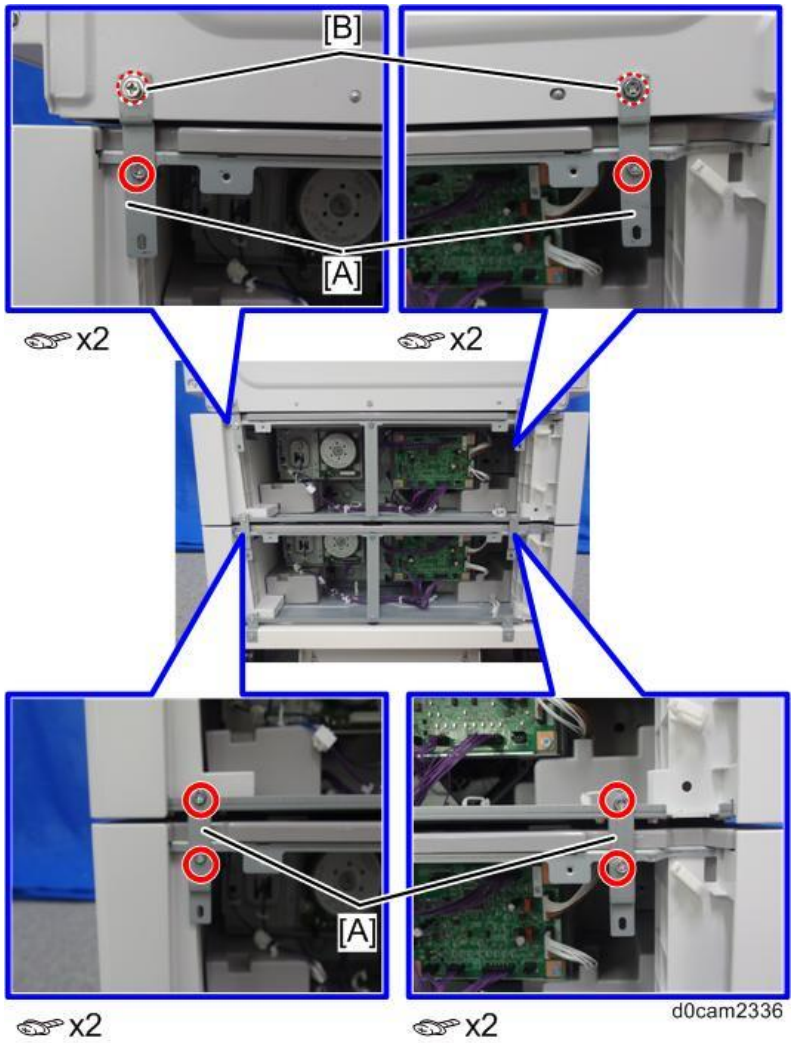


11. Secure the caster table and the 2nd level of the optional paper feed unit with the two joint brackets

[A].



12. Secure the 1st and 2nd levels of the optional paper feed unit and the main machine with the four joint brackets [A].



Note

Use the screws [B] on the main machine.

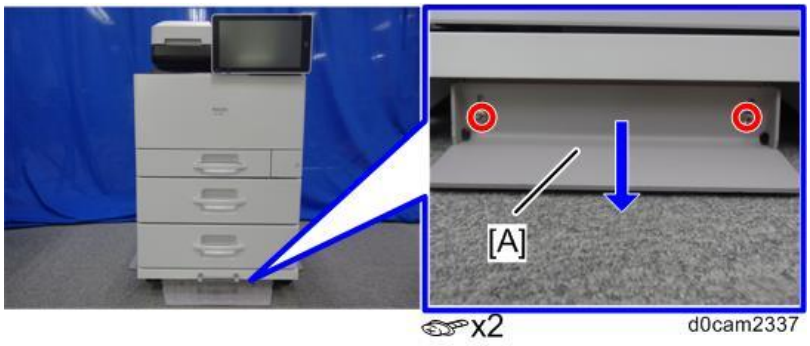
Note

Installing the caster table, optional paper feed unit (3nd level), and main machine

Follow the same procedure when installing the 3rd level of the optional paper feed unit.When you do this, secure the 1st, 2nd, and 3rd levels of the optional paper feed unit and the main machine with six joint brackets [A].

13. Reattach the rear covers of the optional paper feed units.

14. Loosen the screws of the stabilizer [A] on the front side, lower the stabilizer until the machine is stable, and tighten the screws.



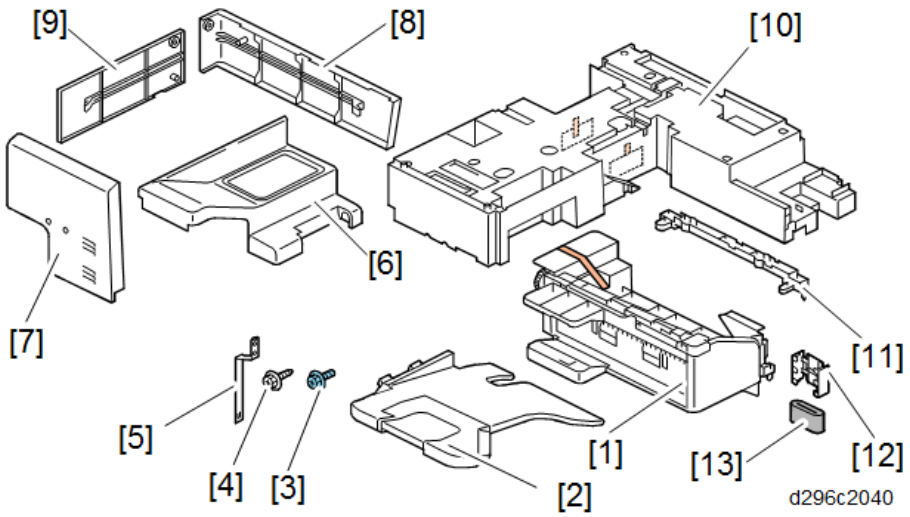
15. Loosen the screws of the stabilizers on the left, right, and rear sides, lower the stabilizers, and tighten the screws.

1-Bin Tray BN1040 (D574-59)

Accessory Check

Check the quantity and condition of the components against the following list.

No.	Description	Q'ty
1	1-Bin Tray Unit	1
2	Tray	1
3	Binding Screw (M3×6)	2
4	Screw (M3×10)	18
5	Grounding Plate	1
6	Front Right Cover	1
7	Left Upper Cover	1
8	Right Upper Cover	1
9	Rear Upper Cover	1
10	Mounting Frame	1
11	Mounting Frame Junction	1
12	Ferrite Core Cover	1
13	Ferrite Core	2
-	Ground Wire	1
-	Name Plate	1
-	Decal	1
-	Label	1



Installation Procedure

⚠CAUTION

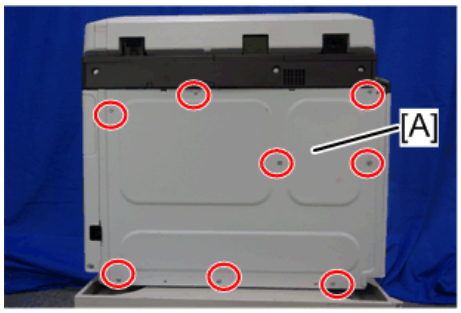
- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

Remove the ADF and scanner unit

1. Remove the left upper cover [A] .

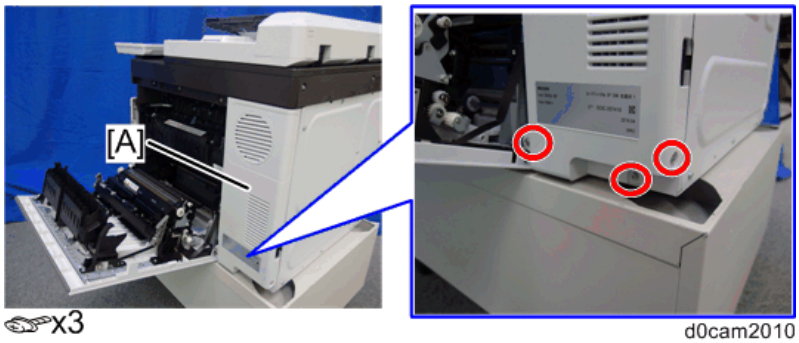
x1 d0cam2008

2. Remove the rear cover [A].



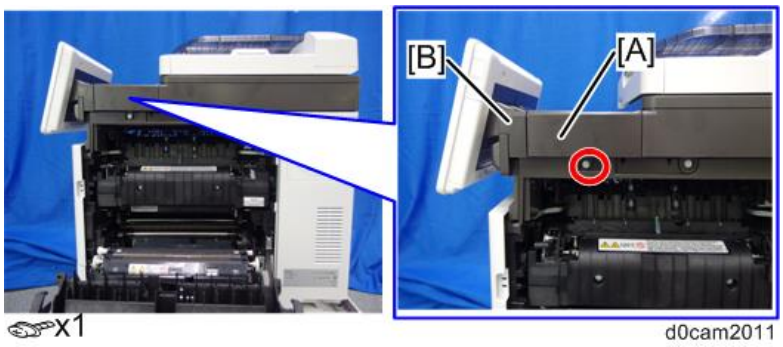
x8 d0cam2009

3. Open the right cover, and then remove the right rear cover [A] .

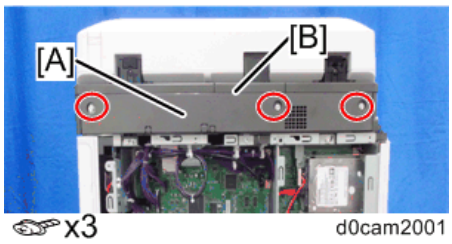


x3 d0cam2010

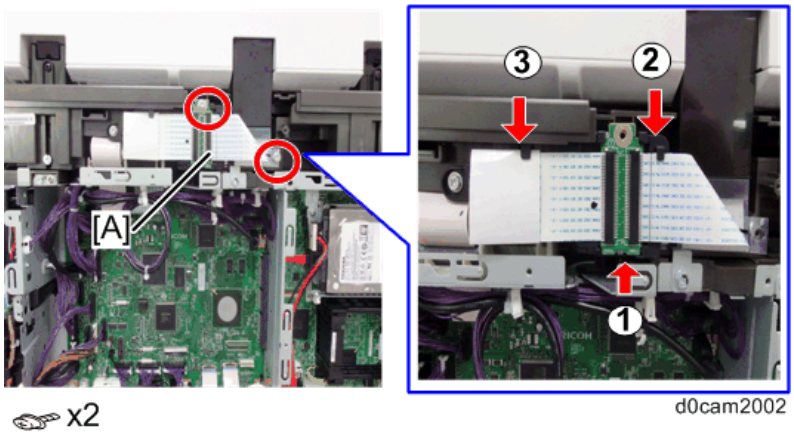
4. Remove the front right cover [A] and the hinge cover [B].



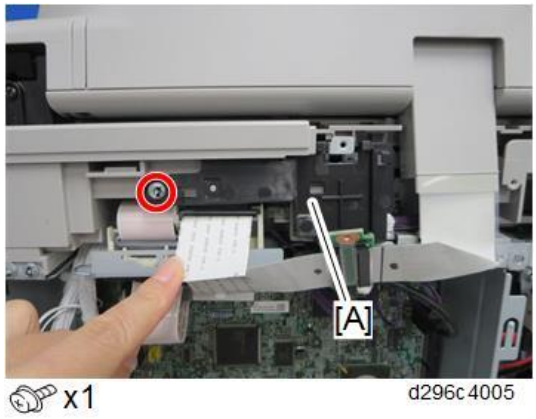
5. Remove the scanner rear cover [A] and scanner rear small cover [B].



6. Release two screws and three tabs for attaching the relay board (PCB12) [A] and FFC, to release the FFC.

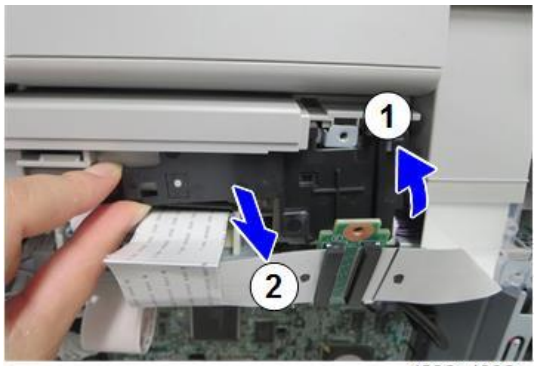


7. Remove the FFC fixing bracket [A] on the back side of the FFC.



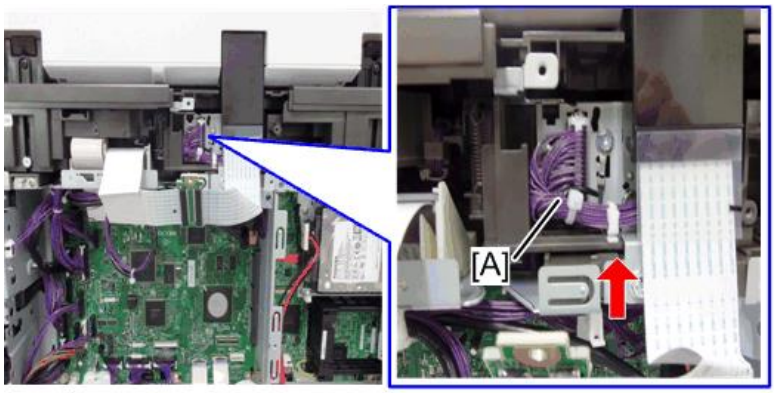
Note

Remove the FFC fixing bracket while turning it counterclockwise and releasing the tab.



d296c4006

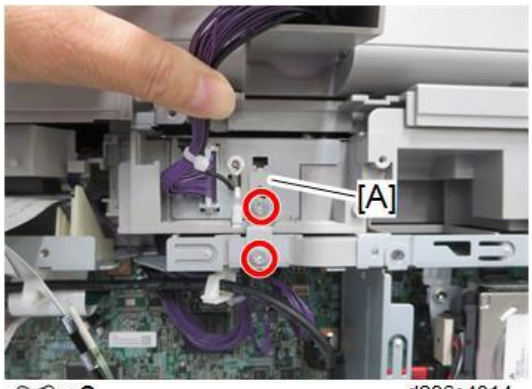
8. Release the clamp for fixing the I/F cable [A].



x1

d0cam2003

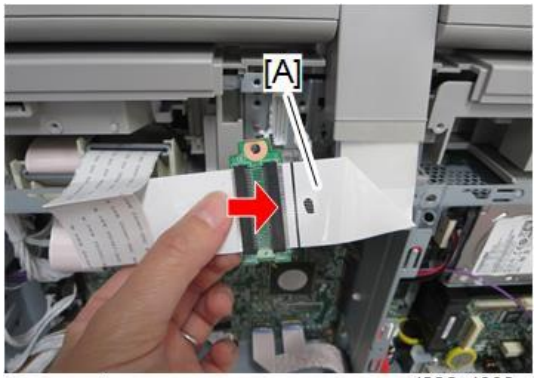
9. Remove the grounding plate [A].(This procedure is for IM C300 series/IM C400F)



x2

d296c4014

10. Disconnect the FFC [A] from the relay board (PCB12).



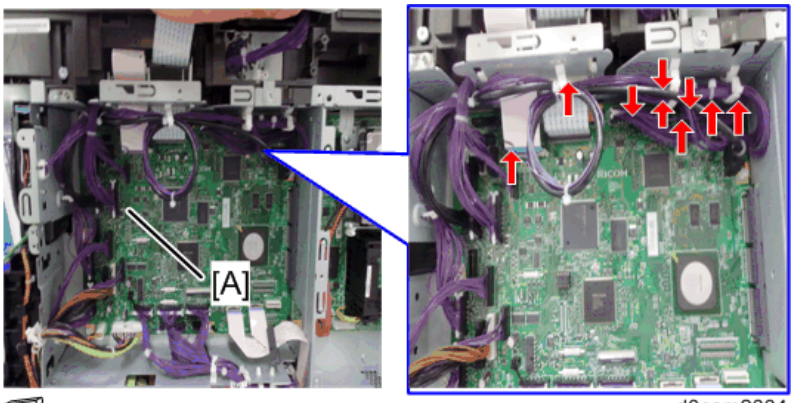
x1 d296c4008

Note

Disconnect the FFC for the relay board (PCB12) while pulling it out straight, because it does not have a lock mechanism.

11. Remove the harnesses and FFC from the scanner unit on the BiCU (PCB1) [A].

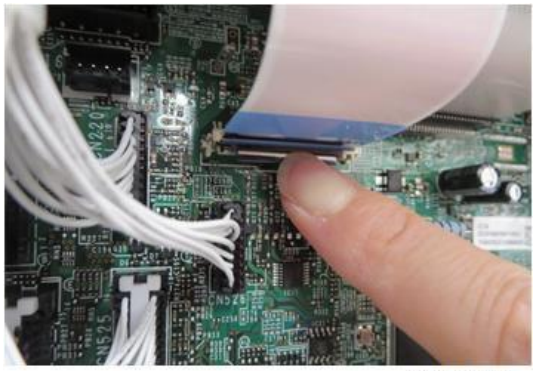
When lifting the scanner unit, move the harnesses out of the frame so that they do not interfere.



x4, x4, x1 d0cam2004

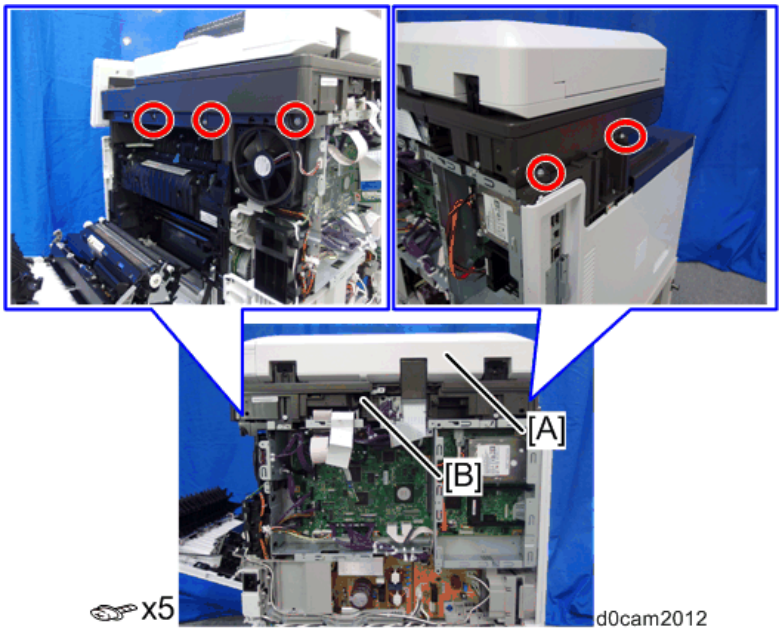
Note

Disconnect the scanner FFC for the BiCU (PCB1) while pressing the lock release button.



d296c4017

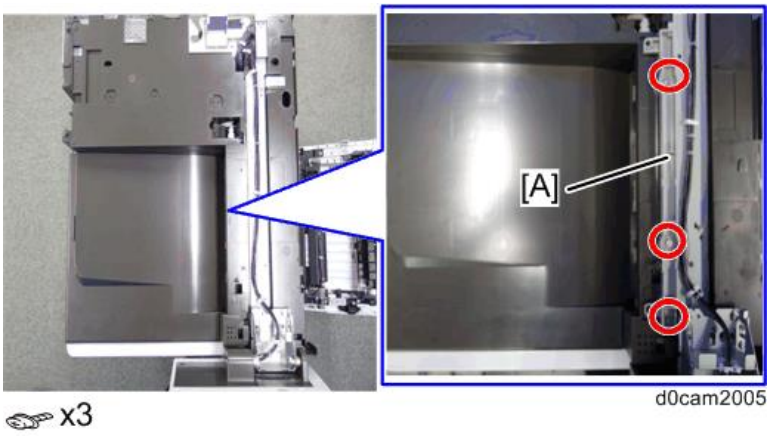
12. Remove the screws, and then remove the scanner unit [B] with the ADF [A].



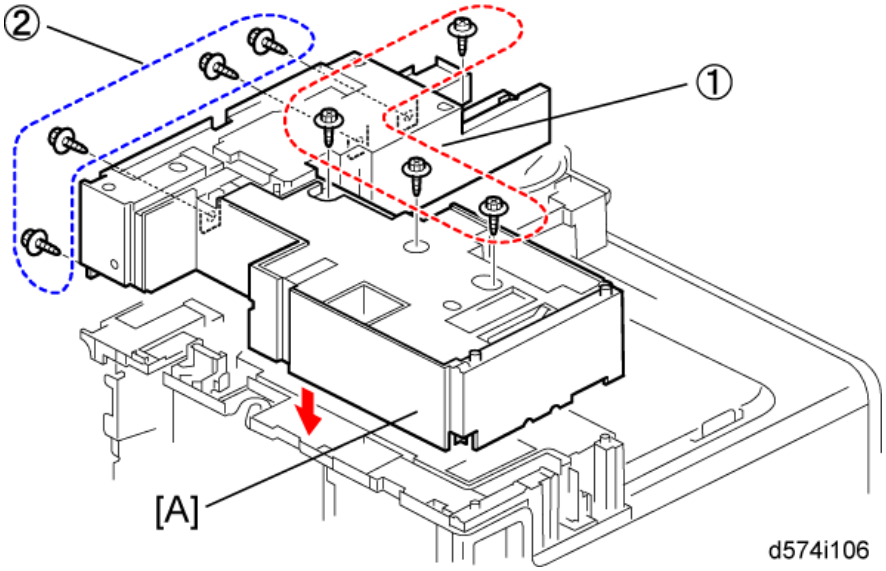
Install the 1-bin Tray Unit

1. Remove the Packaging tapes on the 1-bin tray unit.

2. Attach the small frame [A].



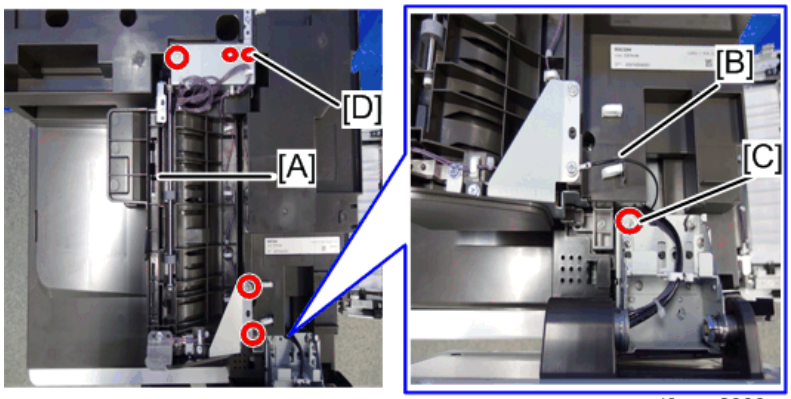
3. Attach the mounting frame [A].



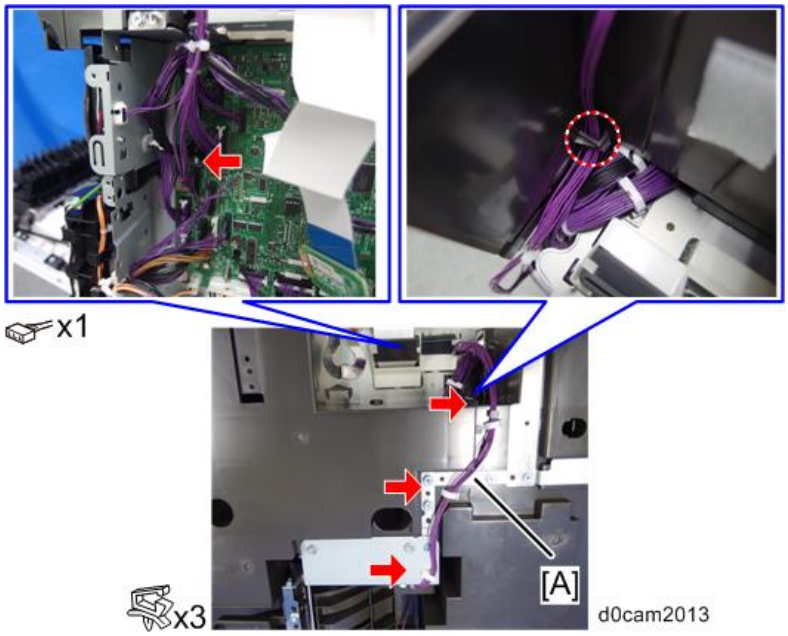
Note

- Install the screws in this order: ①➔②.

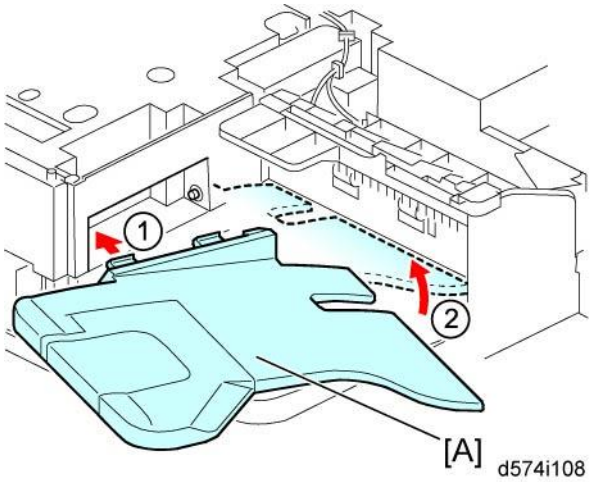
4. Attach the 1-bin tray unit [A]. (M3x10: 4 screws, and M3×6: 1 binding screw [D])
Fasten the grounding wire [B] included in this kit with one screw as shown below. Fasten the other end of the grounding wire with the screw [C].



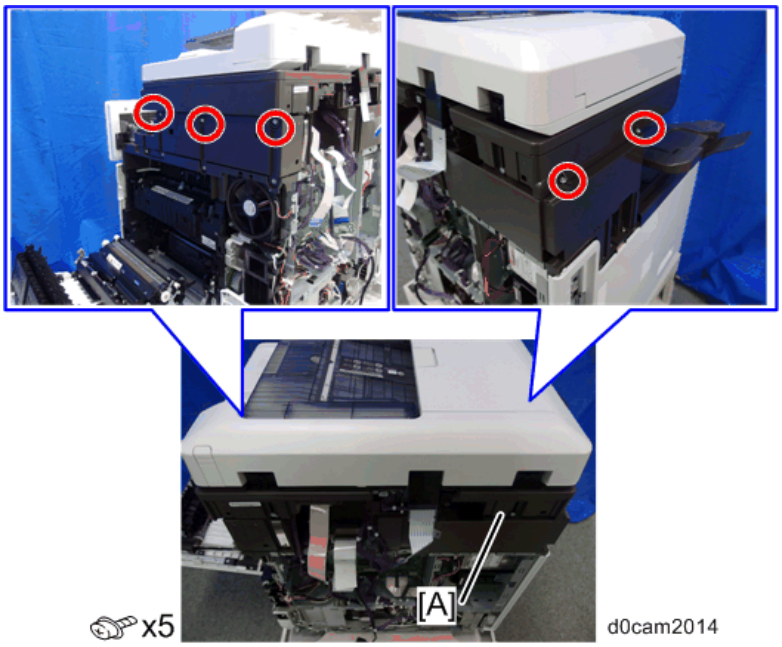
5. Connect the connector of the 1-bin tray unit to CN527 on the BiCU (PCB1), and then fasten the harness [A].
Route the harness with the hook (marked by the dashed circle).



6. Install the 1-bin tray [A].

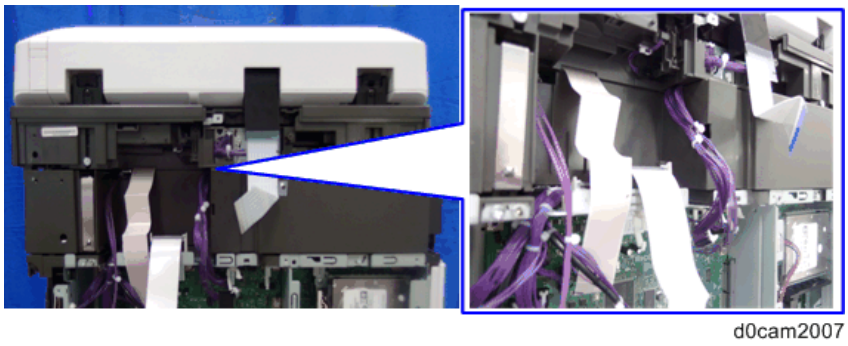


7. Install the scanner unit [A] with the ADF.

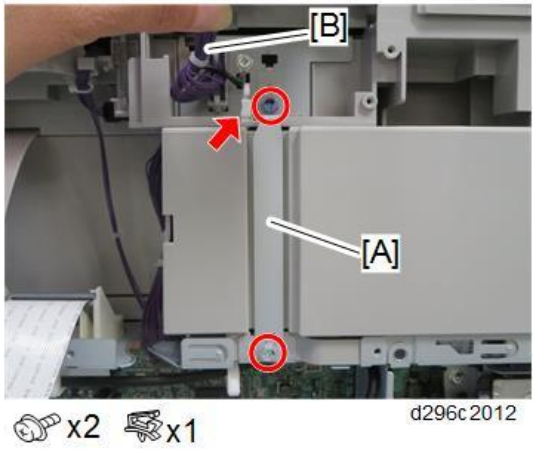


Note

When installing the scanner unit, make sure that the harnesses are not pinched between the scanner unit and the 1-bin tray unit .

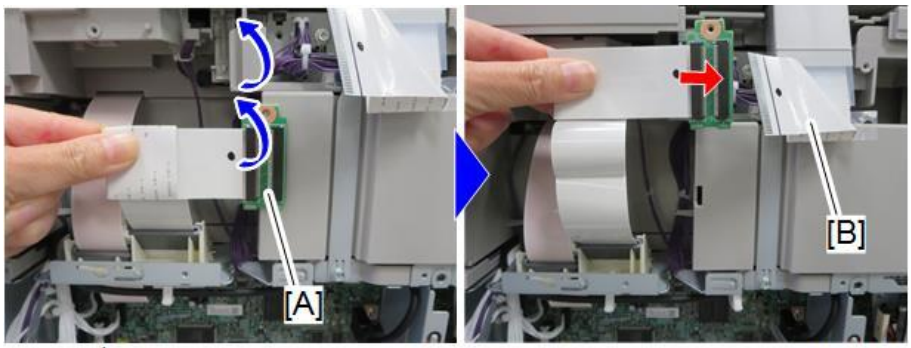


8. Attach the grounding plate [A] and clamp the harness [B] to the ADF. (Upper: blue screw ×1, Lower: M3x10 (existing))



9. Connect the relay board (PCB12) [A] and FFC [B].

Turn over twice to unravel the FFC.

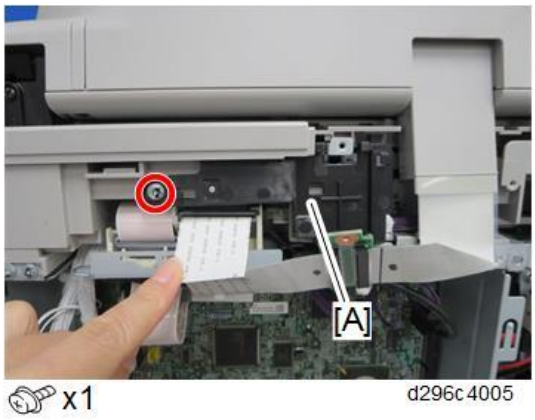


Note

The FFC does not have a lock mechanism, so push it straight in to connect it. .

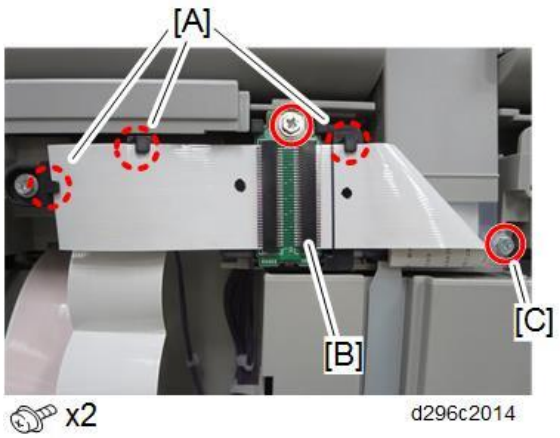
When reassembling, the FFC must be connected straight. If not connected properly, SC154, SC151, SC152 and SC112 may occur.

10. Attach the FFC fixing bracket [A].

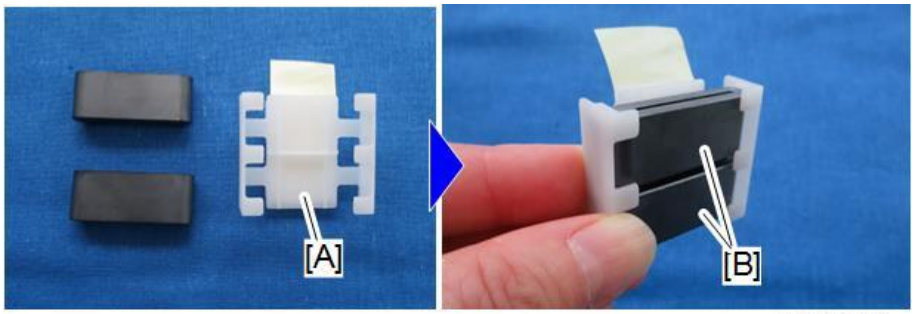


11. Attach the relay board (PCB12) [B] with the three hooks [A] on the FFC fixing bracket.

12. Attach the FFC with the screw [C].



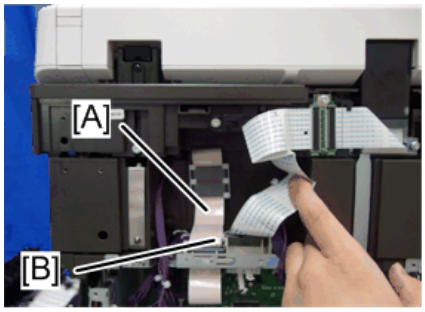
13. Set two ferrite cores [B] in the ferrite core holder [A] included in this kit.



14. Route the FFC of the scanner unit through the two ferrite cores in step 13.
Align the ferrite core holder [A] with the reference ribs on the back of the unit, and attach it with double-sided tape.

x1

15. Route the FFC [A] in step 14 through one ferrite core [B] attached to the control box, and connect it to the BiCU (PCB1).

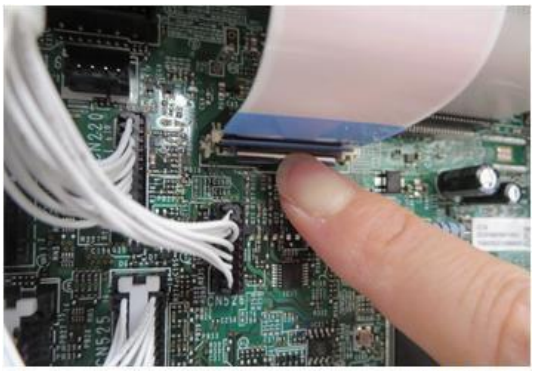


x1

Note

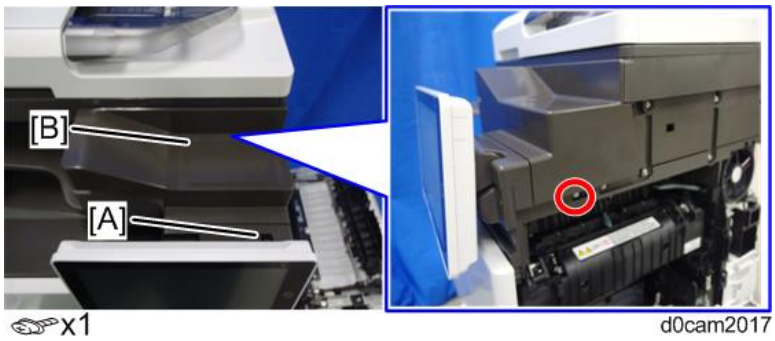
- The FFC should be routed under the USB cable.
- Do not connect the FFC at an angle. Otherwise, the scanner unit may be damaged.

- Connect the scanner FFC for the BiCU (PCB1) while pressing the lock release button.


d296c4017

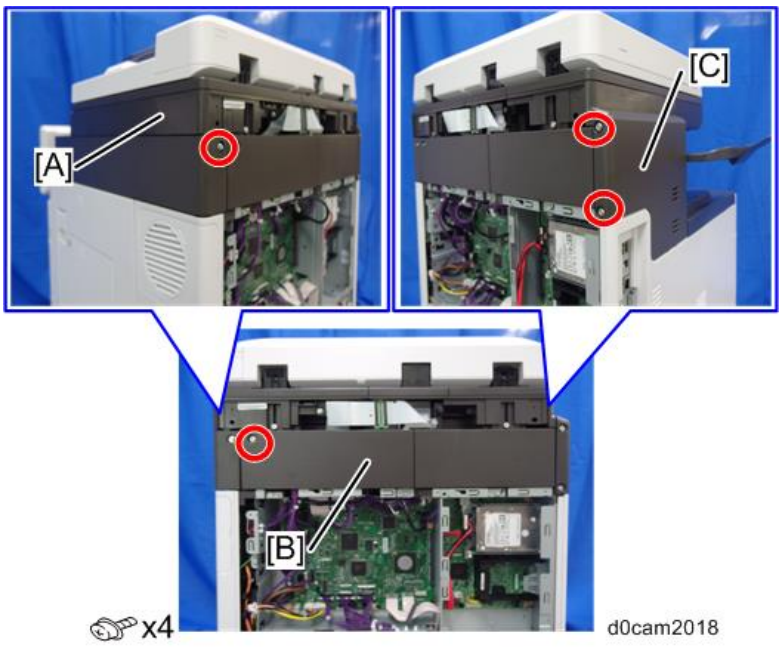
16. Attach the following items:

- Hinge cover [A]
- Front right cover [B] (from the accessories, not the original cover)



17. Attach the following items:

- Right rear cover [A] (from the accessories)
- Rear upper cover [B] (from the accessories)
- Left upper cover [C] (from the accessories, not the original cover)



18. Attach the following items:

- Scanner rear small cover
- Scanner rear cover
- Right rear cover
- Rear cover

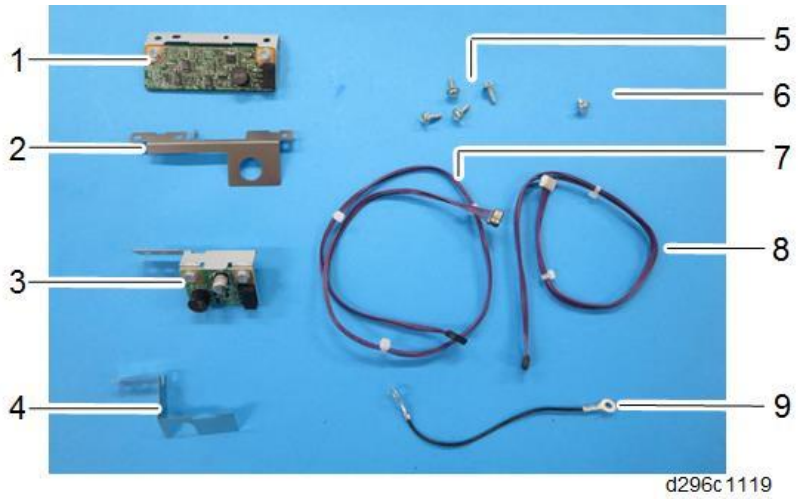
19. Turn ON the main power and check the 1-bin tray unit operation.

Page Keeper Type M28 (D3DQ-17)

This option is only for NA/EU.

Accessory Check

No.	Description	Q'ty	Remark
1	Double-feed sensor: Receiver (PCB15)	1	
2	Ground plate: Receiver	1	
3	Double-feed sensor: Emitter (PCB14)	1	
4	Ground plate: Emitter	1	
5	Tapping Screws: 3x10	4	
6	Screw: M3x6	1	
7	Harness: Receiver	1	Long harness
8	Harness: Emitter	1	Short harness
9	Harness: Ground wire	1	



Installation Procedure

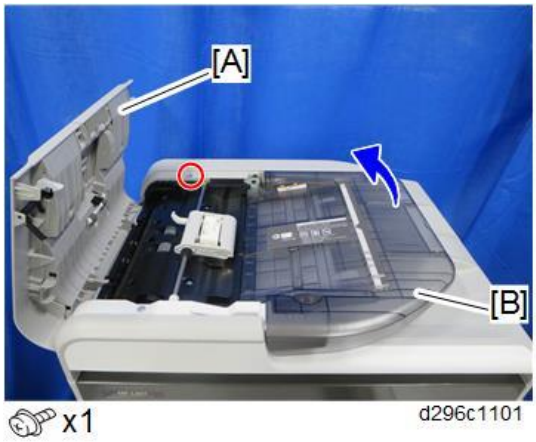
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

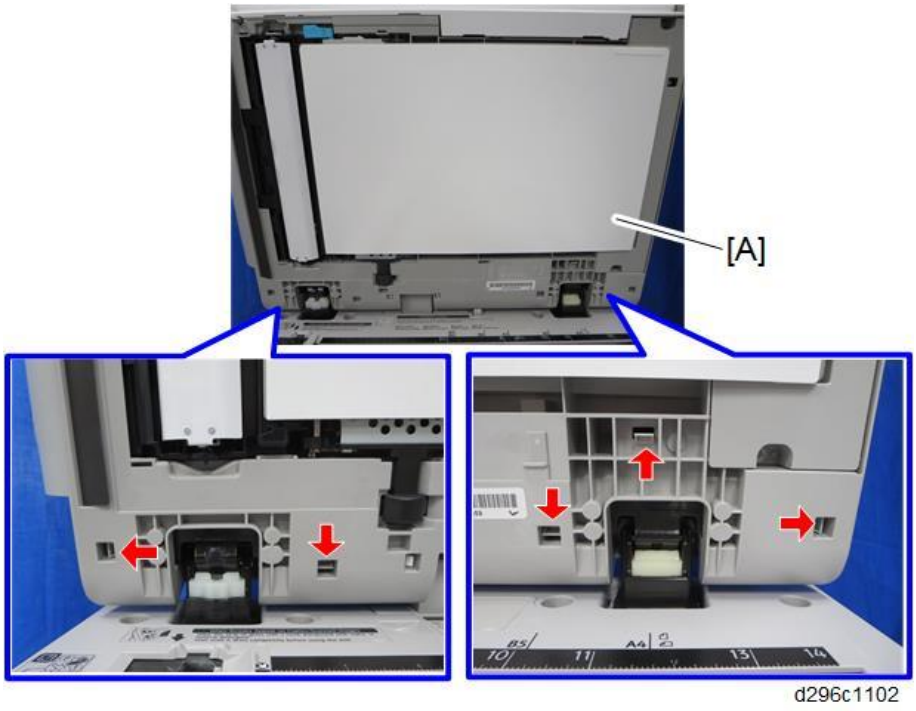
Removing the ADF rear cover

1. Open the ADF top cover [A].

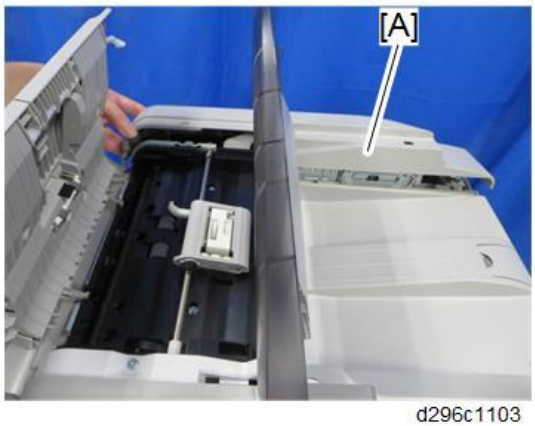
2. Remove the screw, and lift up the original tray [B].



3. Open the ADF [A], and release the five tabs of the ADF rear cover by using a thin screwdriver.



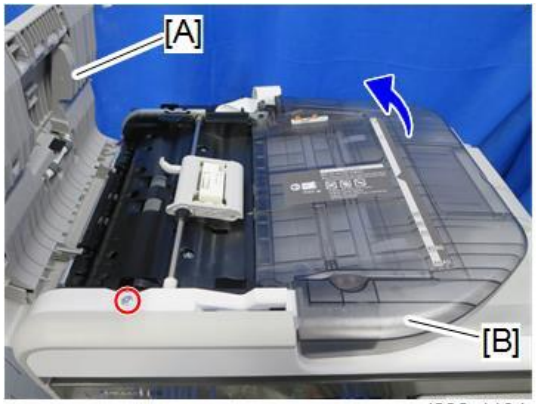
4. Remove the ADF rear cover [A].



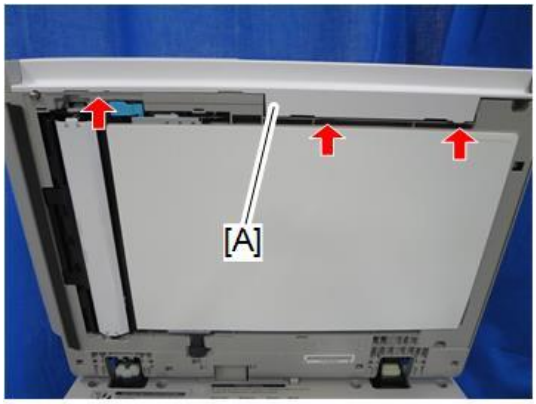
5. Close the ADF.

Removing the ADF front cover

1. Open the ADF top cover [A].
2. Remove the screw, and lift up the original tray [B].



3. Open the ADF, then release the three tabs of the ADF front cover [A].

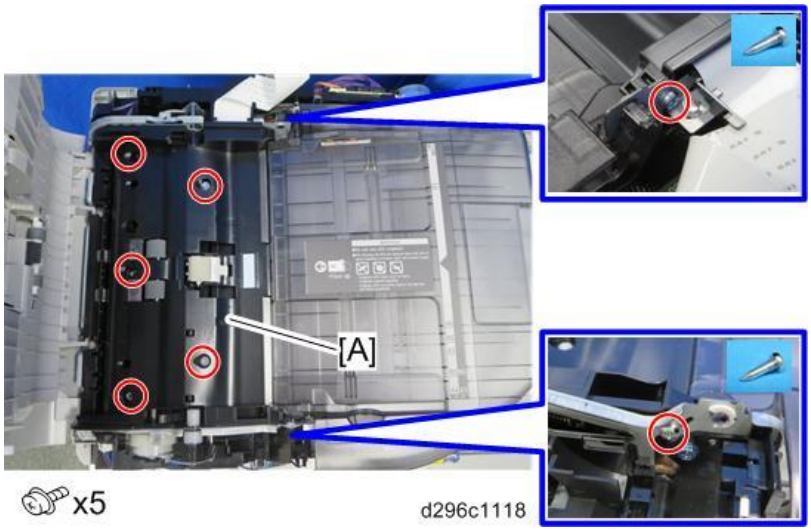


4. Close the ADF slightly, then remove the ADF front cover [A] while releasing the two tabs with a thin screwdriver.

Installing the double-feed sensor (MFTB) (PCB14)

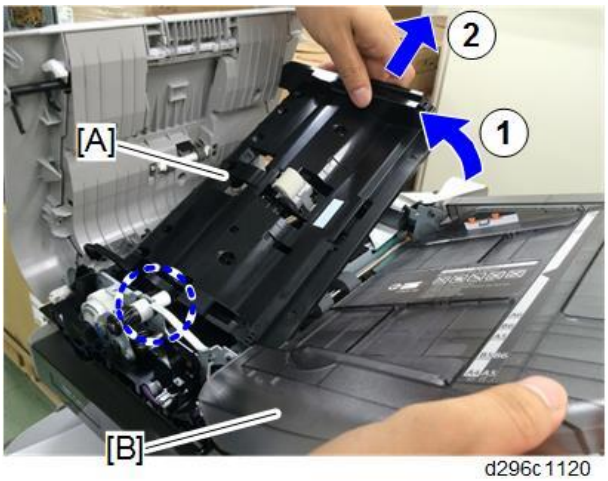
1. Slide the shaft [A] of the original feed unit toward the rear to remove it.

2. Remove the ADF inner cover [A].(Pivot Screws x 2)

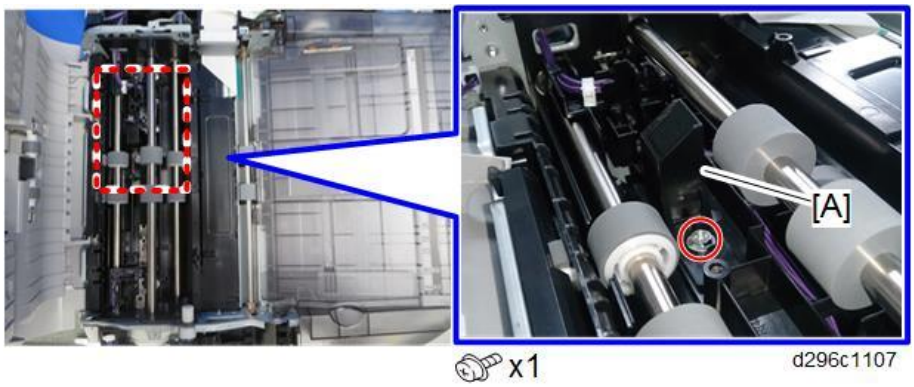


Note

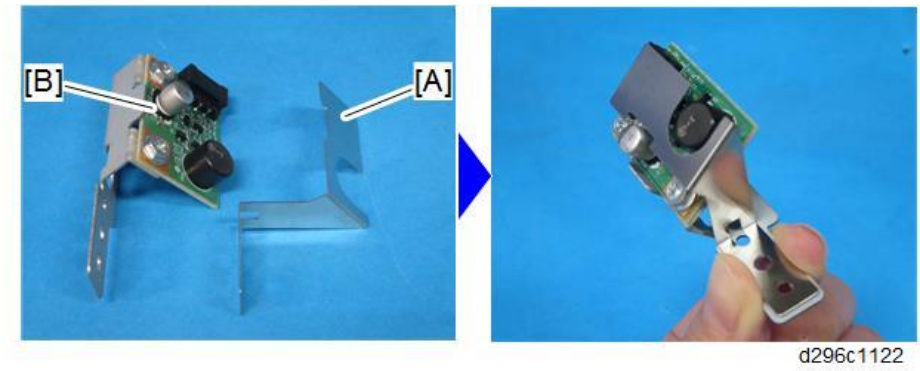
- Lift the back of the ADF inner cover [A] while swinging up the original tray [B], and then slide the ADF inner cover toward the back of the ADF unit.



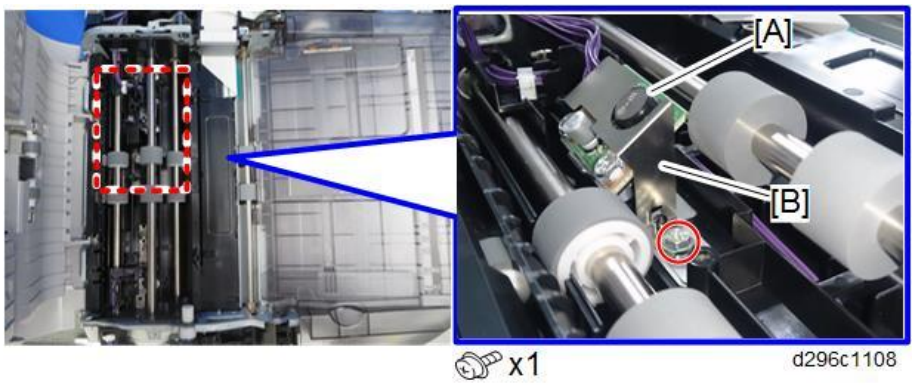
3. Remove the guide [A].



4. Put the grounding plate [A] on the double-feed sensor (MFTB) (PCB14) [B].



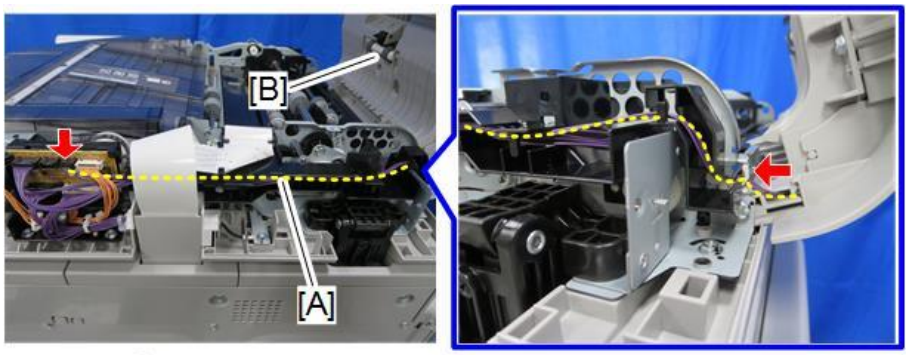
5. Attach the double-feed sensor (MFTB) (PCB14) [A] and grounding plate [B] as a set. (Tapping screw: 3x10)



Installing the double-feed sensor (URRB) (PCB15)

1. Disconnect the harness [A] of the ADF top cover [B] from ADF relay board (PCB13) (CN5), and

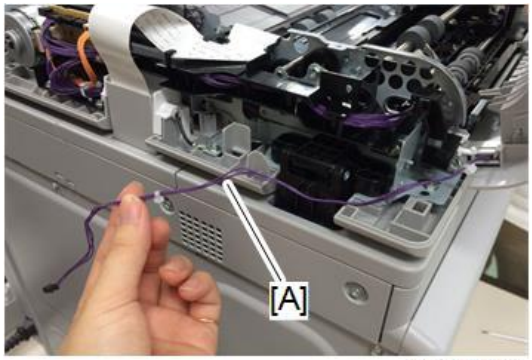
release the clamp.



x1 x1

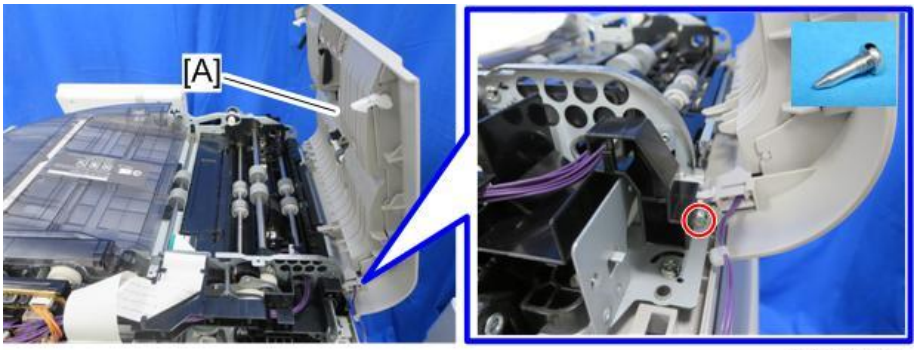
d296c1110

2. Remove the harness [A] from the harness guide.



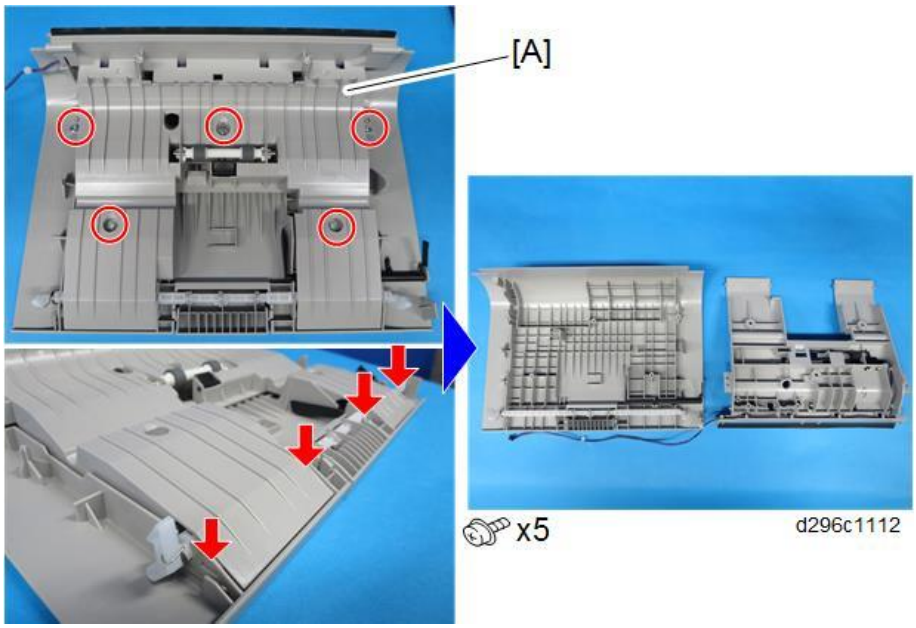
d296c1125

3. Remove the ADF top cover [A].(Pivot Screw x 1)

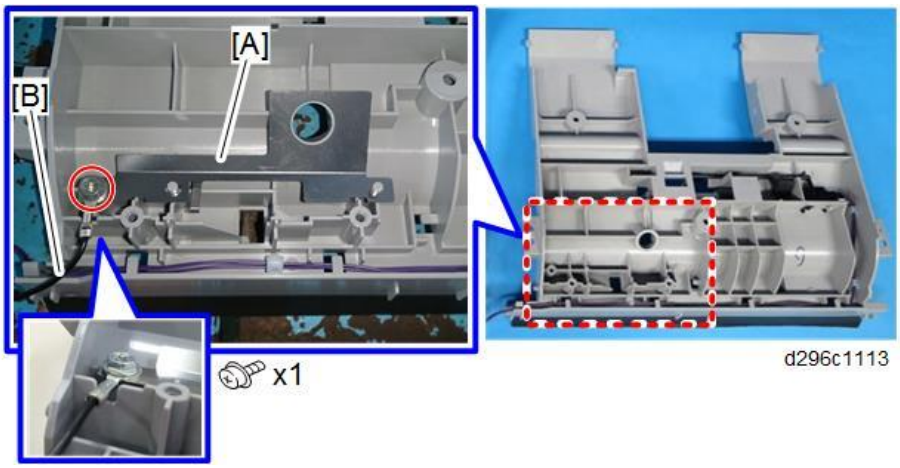


d296c1111

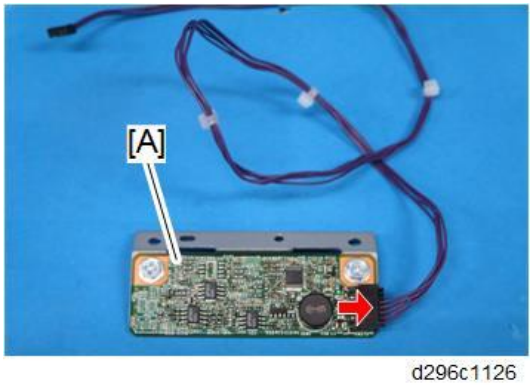
4. Remove the five screws and release the four tabs, and then remove the inner cover [A].



5. Attach the grounding plate [A] and the grounding wire [B], and insert the grounding wire in the notch. (Tapping Screw: 3x10)

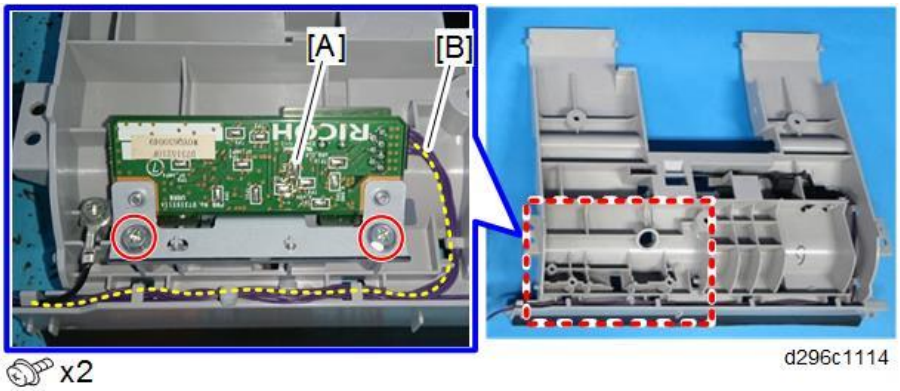


6. Connect the long harness to the double-feed sensor (URRB) (PCB15) [A].



7. Attach the double-feed sensor (URRB) (PCB15) [A]. (Tapping screw: 3x10)

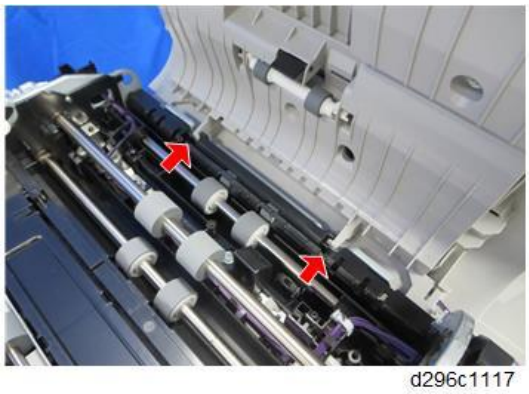
8. Route the harnesses [B].



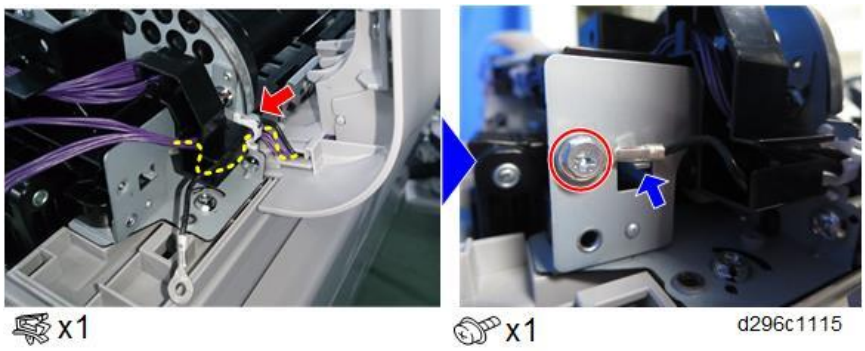
9. Reattach the inner cover (x5), and then reattach the ADF top cover (x1).

Note

- Make sure the ADF top cover is set correctly so that the two tabs fit into the holes.



10. Attach the clamp while the top cover is open, and attach the ground wire while putting it on the guide (marked by the blue arrow). (Screw: M3x6)



Connecting the harnesses

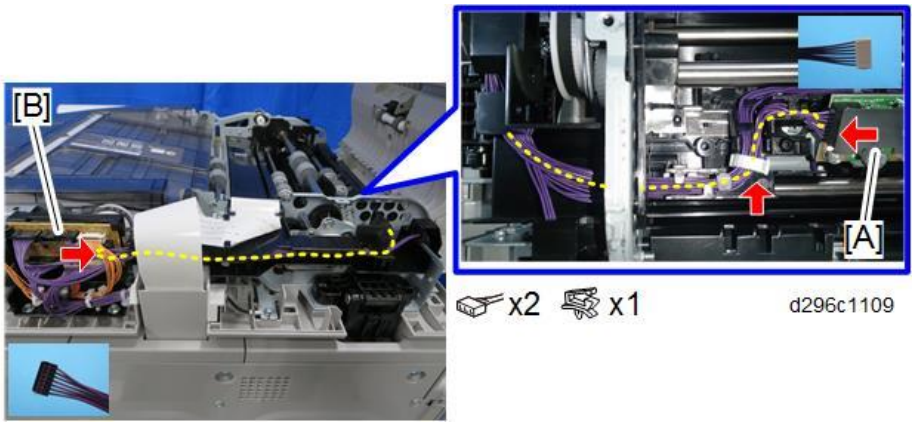
1. Connect the harness to the connector of the double-feed sensor (MFTB) [A] and ADF relay board (PCB13) [B] (CN3), and then route it.

Note

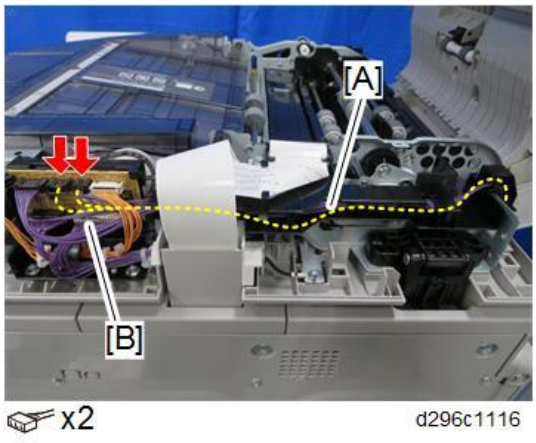
The connectors are different colors, connect as listed below.

- Double-feed sensor (PCB14)(PCB15): White connector

- ADF relay board (PCB13): Black connector



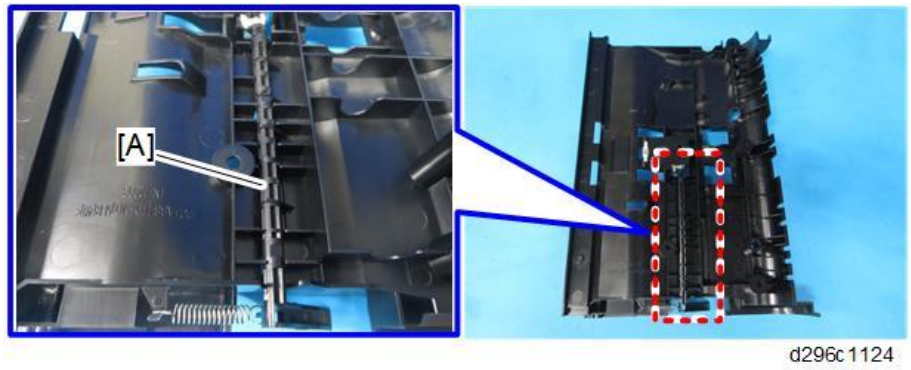
2. Connect the harnesses [A] from the ADF top cover to the connectors of the ADF relay board (PCB13) [B] (CN5, CN6).



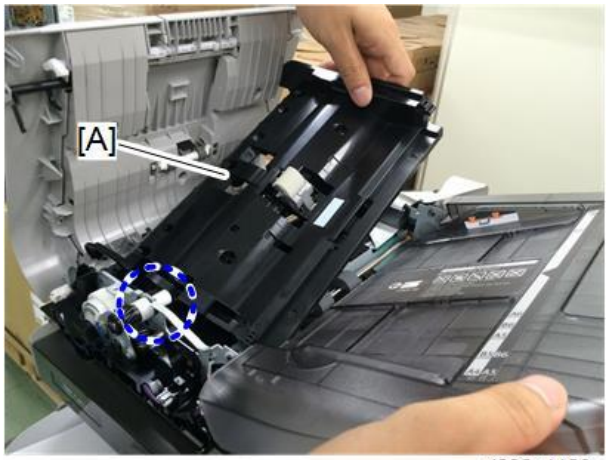
3. Reattach the covers and original feed unit.

Note

When reattaching the ADF inner cover, make sure that the shaft [A] fits into the groove (this is the shaft of the lock lever for the friction pad on the back side of the cover). If the shaft does not fit, the ADF top cover will not be closed.



When reattaching the ADF inner cover [A], move it under the coupling shaft (marked by the dashed circle) of the original feed unit, and then you can install the ADF inner cover correctly.



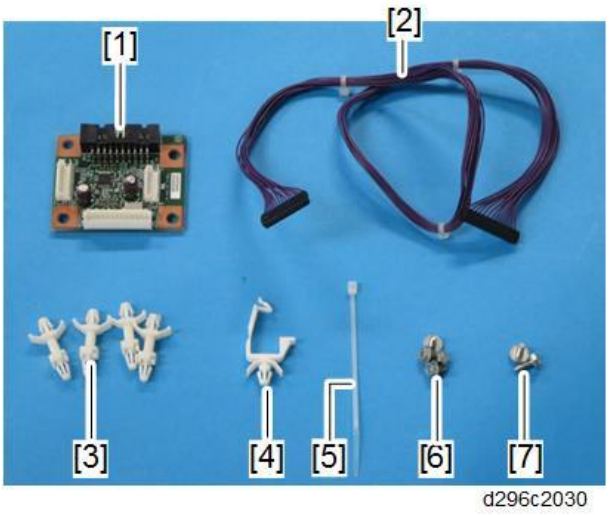
d296c1123

After installing the double-feed sensor

1. Connect the power cord and turn ON the main power.
2. Enter the SP mode.
3. Set the SP6-040-001 (Page Keeper: Mount Select) to “1(ON)”.
4. Press [END] twice.
5. Turn the main power OFF and ON.
6. Login as Administrator.
7. Press the "Settings" icon.
8. Press [System Settings] > [Machine] > [Print Action/Image Quality Adjustment].
9. Check that [ADF Original Double Feed Detection] is displayed.
10. Press [ON].

Optional Counter Interface Unit Type M12 (B870-21)

Accessory Check



No.	Description	Q'ty
1	Counter interface board	1
2	Harness	1
3	Stud	4
4	Clamp	1
5	Harness band	1
6	Screws (Not used)	4
7	Screws (Not used)	2
-	Caution Chart	1

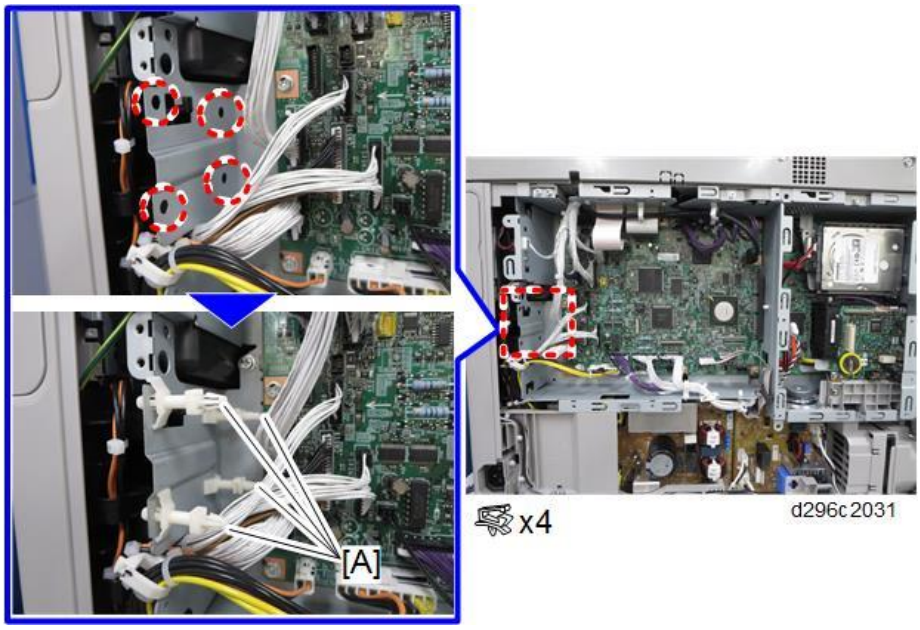
Installation Procedure

⚠CAUTION

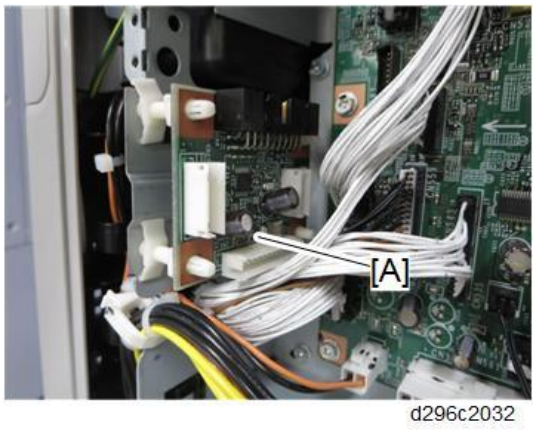
- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

1. Remove the rear cover. (Rear Cover)

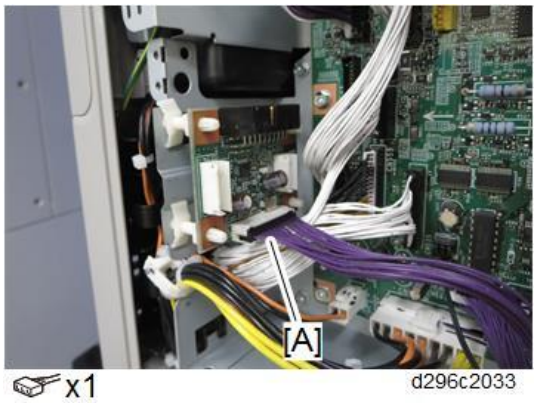
2. Install the four studs [A] in the controller box.



3. Install the key counter interface board [A] shown below on the four studs.



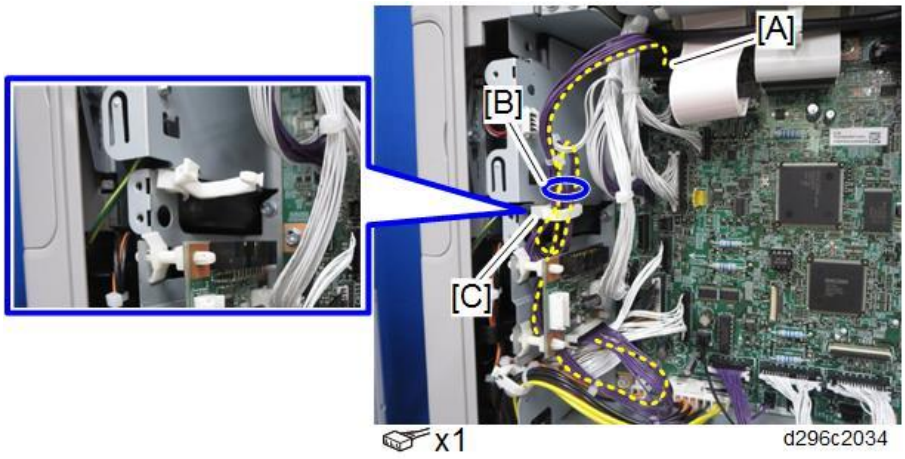
4. Connect the harness included in this kit to the connector [A] on the interface board.



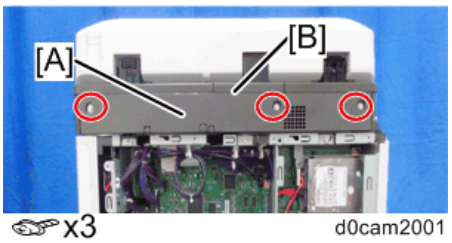
5. Do the following steps:

- Route the harness through the rear of the interface board, and then connect it to CN570 [A].
- Bind the harness at the point [B] with the harness band included in this kit to prevent interference with other harnesses.

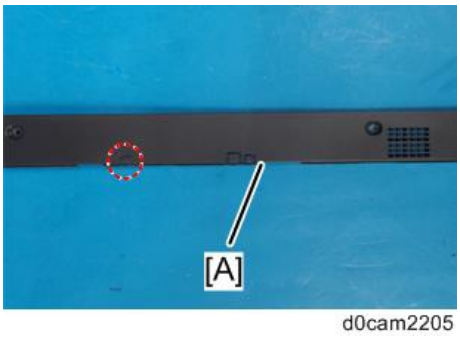
- Insert the clamp included in this kit at [C], and clamp the harness with the clamp to prevent interference with other harnesses.



6. Remove the scanner rear cover [A] and scanner rear small cover [B].



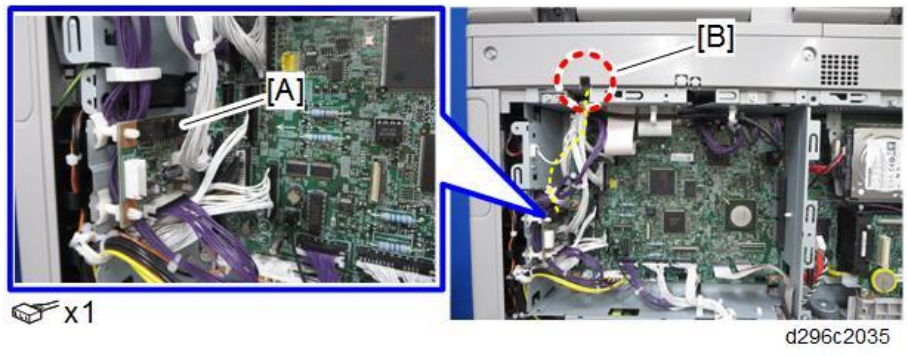
7. Cut out the hole for the counter device cable to pass through the scanner rear cover [A].



8. Reattach the scanner rear cover.

9. Connect the harness from the counter device to CN4 [A] on the key counter interface board and route the harness.

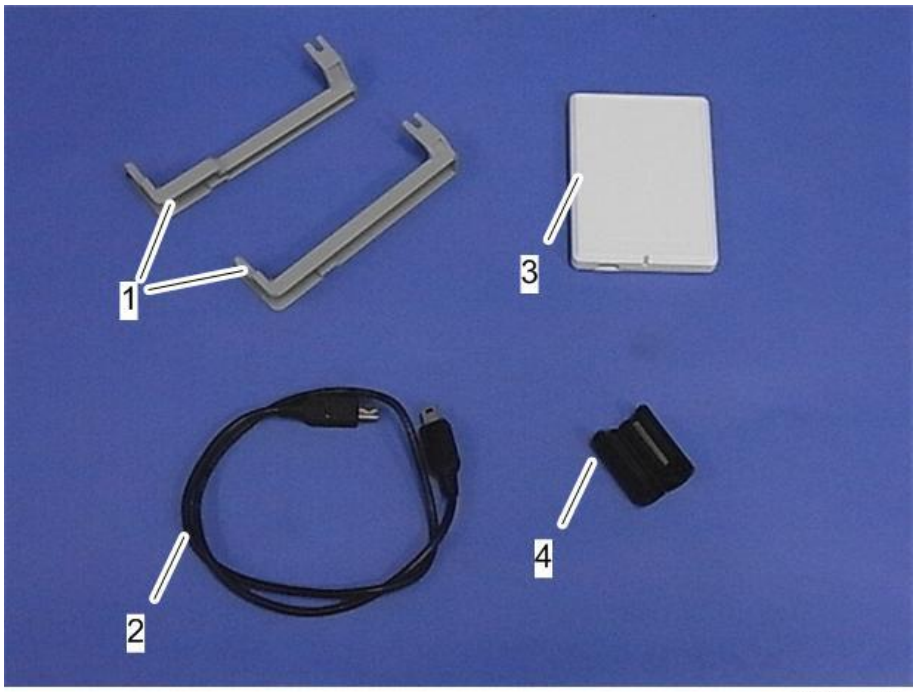
10. Route the harness through the scanner rear cover [B] as shown below.



11. Reassemble the machine.

NFC Card Reader Type M13 (D3AC-21)

Accessory Check

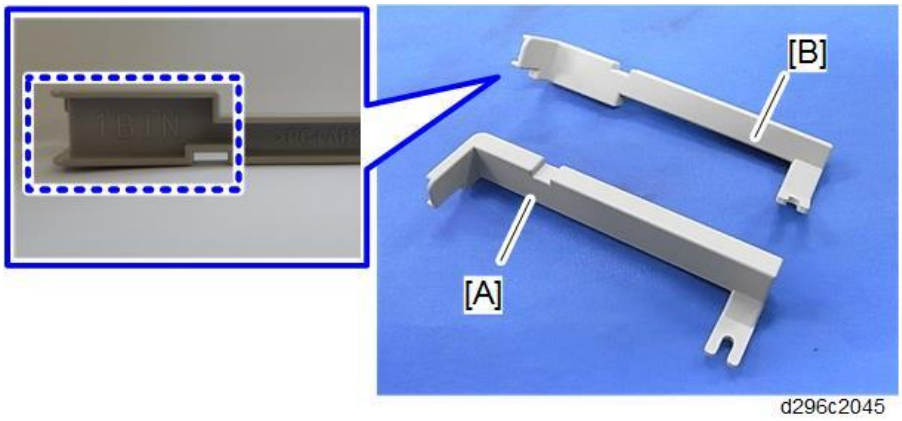


d196z4168

No.	Description	Q'ty
1	Cable Cover	2
2	USB Cable	1
3	NFC Reader	1
4	Ferrite Core	1
-	Caution Chart	1
-	EMC Address	1
-	Fastener	2
-	Decal	2
-	Label	1

Note

- Two types of cable cover are included:
  [A]: For machines without the 1-Bin tray unit.
  [B]: For machines with the 1-Bin tray unit, "1 BIN" is inscribed on the cable cover.



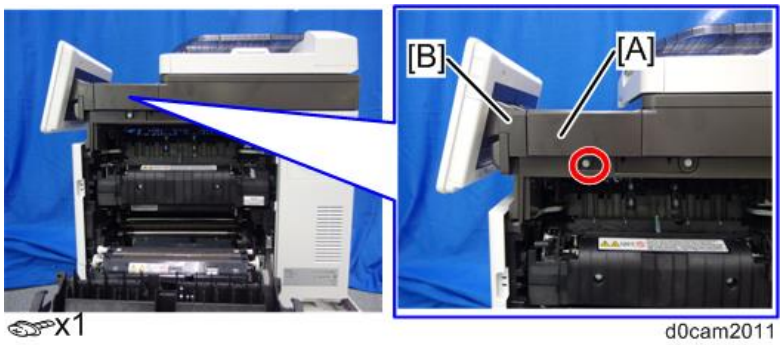
Installation Procedure

This section includes the procedure for a machine that does not have the 1-Bin Tray Unit option. However, this procedure can be used for a machine that has a 1-Bin Tray Unit installed.

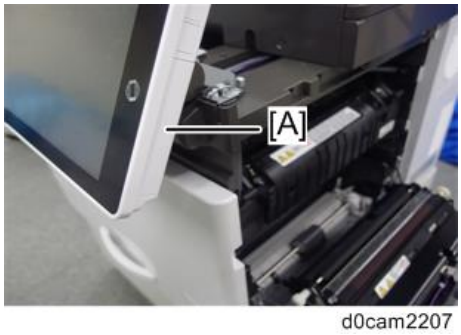
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

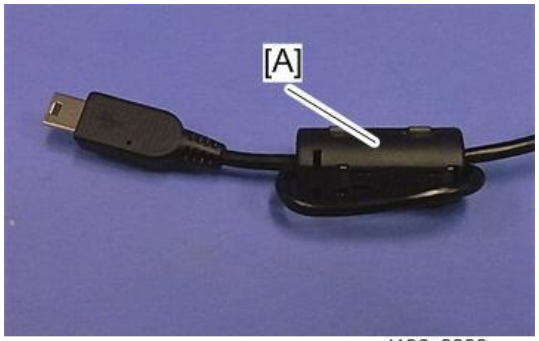
1. Open the right cover.
2. Remove the front right cover [A] and hinge cover [B].



3. Remove the connector cover [A] on the operation panel.

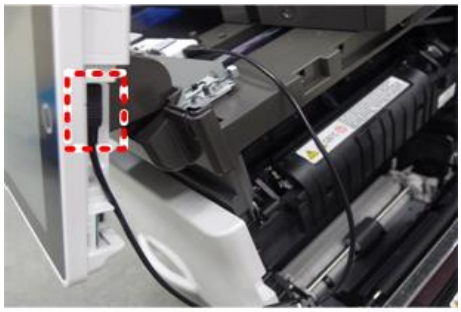


4. Make a loop with the USB cable of the NFC reader, and then attach the ferrite core [A].



d196z2222

5. Connect the USB cable to the operation panel.

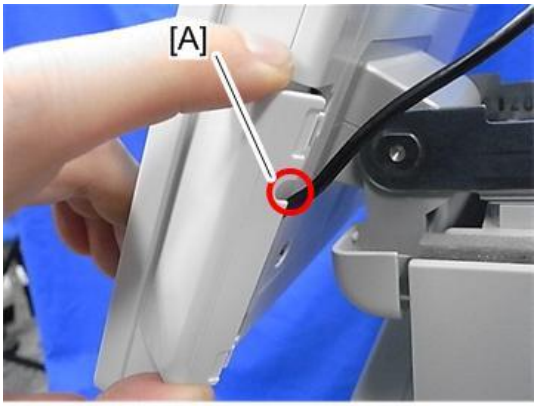


d0cam2208

6. Attach the cover removed in step 3.

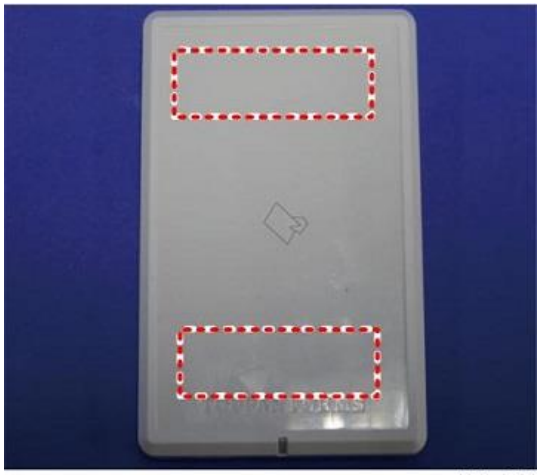
Note

- Fit the cable into the slit [A] in the cover.



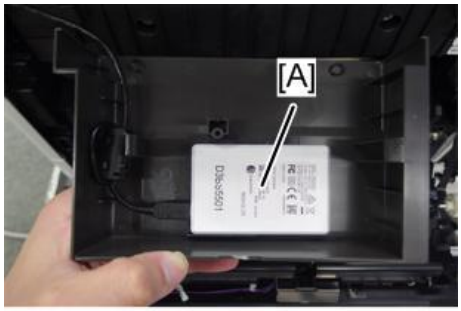
d196z4161

7. Attach the fasteners to the front side of the NFC reader .



d196z2301

8. Attach the NFC reader [A] to the back side of the front right cover with adhesive tape.

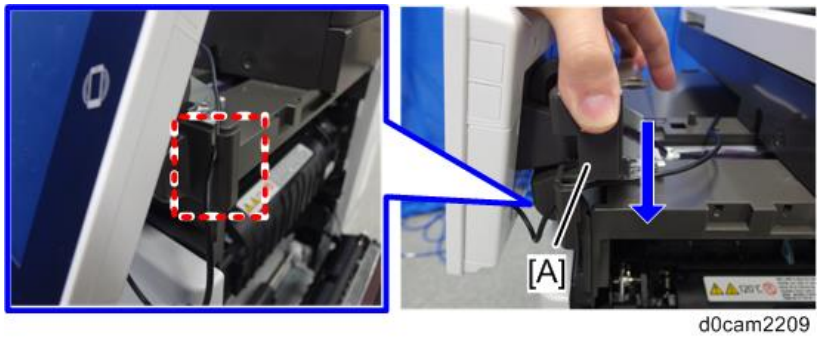


d0cam2210

9. Attach the hinge cover [A].

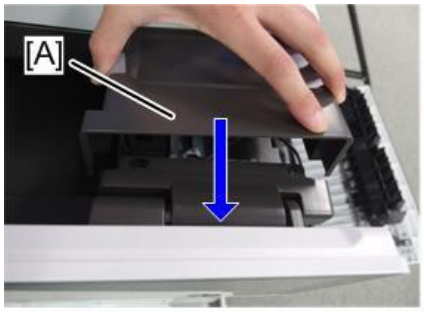
Note

Fit the cable into the slit.



d0cam2209

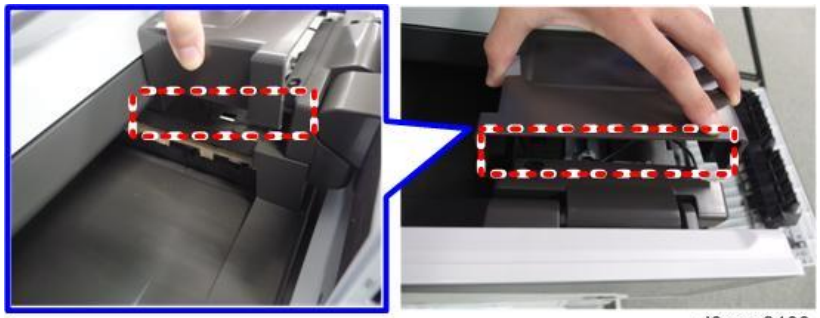
10. Reattach the front right cover with the NFC card reader [A].



d0cam2487

Note

Make sure that the harnesses are not pinched between the red dotted areas in the photos.



d0cam2488

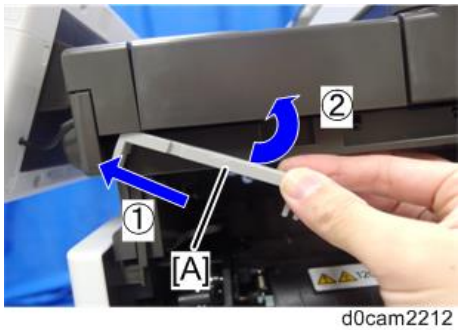
11. Push the USB cable into the covers.

d0cam2211

Note

- Make sure that the cable fits in the slit [B].

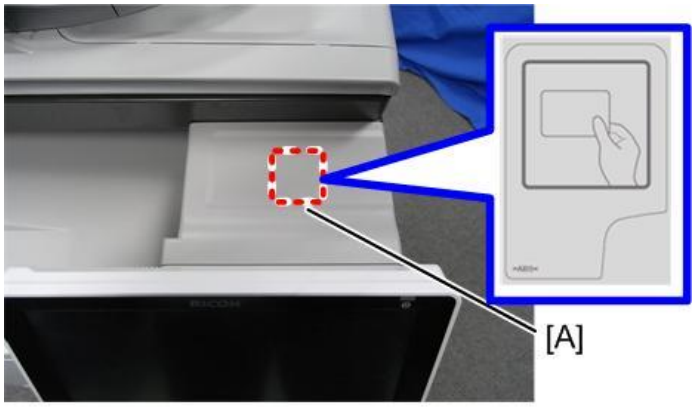
12. Slide the cable cover [A] into the front right small cover as shown below.



d0cam2212

13. Secure the cable cover together with the front right cover. (× 1)

14. Attach the decal to the area [A] as shown below.

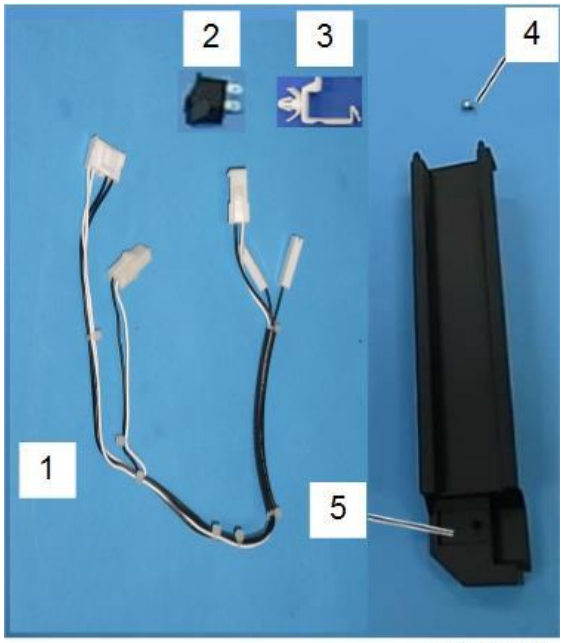


d196z2019

Anti-condensation Heater

Accessory Check

All the accessories required to install the Anti-condensation Heater are available as the following parts. Order each part separately.



No.	Description	Q'ty	Part Number
1	Junction Harness	1	D1965265*1
2	Heater Power Switch	1	12042570
3	Clamp	1	11050511
4	Screw	1	08010231
5	Heater kit	1	D1175097: EU/AA/KOR/CHN D1175091: NA/TWN

Note

- *1 This harness (P/N: D1965265) is also used as a harness for dehumidification heater (PFU), and dehumidification heater (main unit) . If you have already ordered this harness for these heaters, it is not necessary to order this harness again at this time.

Installation Procedure

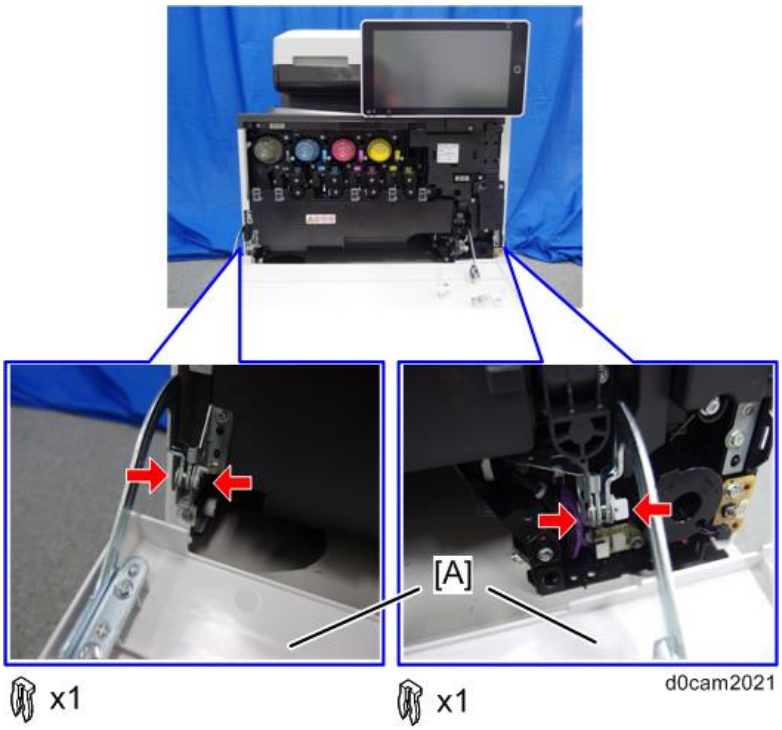
⚠CAUTION

- **Do not lift the machine with any optional paper feed units attached**
  If the machine already has one or more optional paper feed unit(s) attached, be sure to disconnect the machine and paper feed unit(s), and lift them up separately when moving/transporting. Otherwise, the handle of the paper feed unit will break due to the mainframe’s weight, and it can cause an injury.

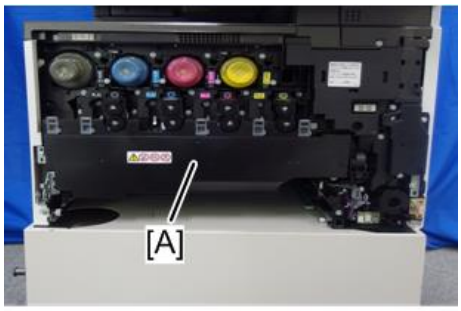
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

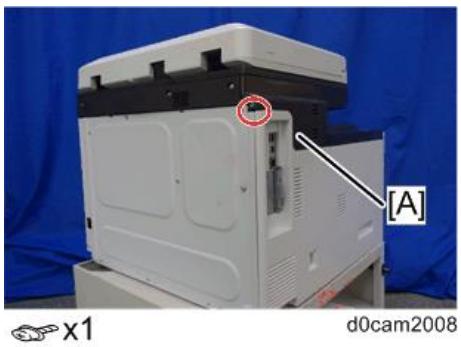
1. Pull out the paper feed tray.
2. Remove the front cover [A].



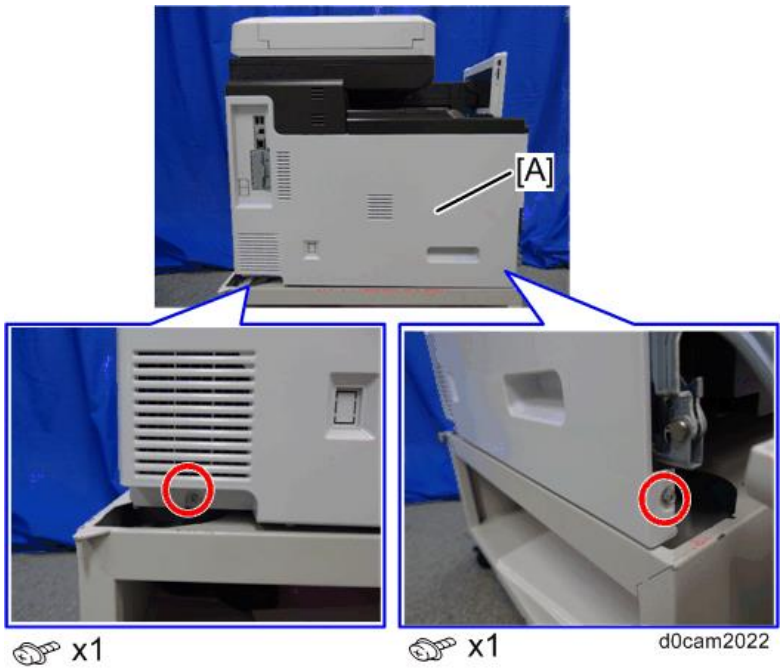
3. Remove the waste toner bottle [A].



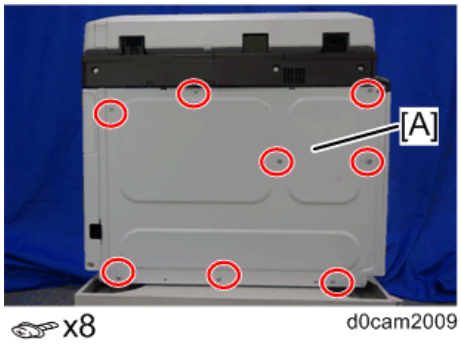
4. Remove the upper left cover [A].



5. Remove the cover [A].

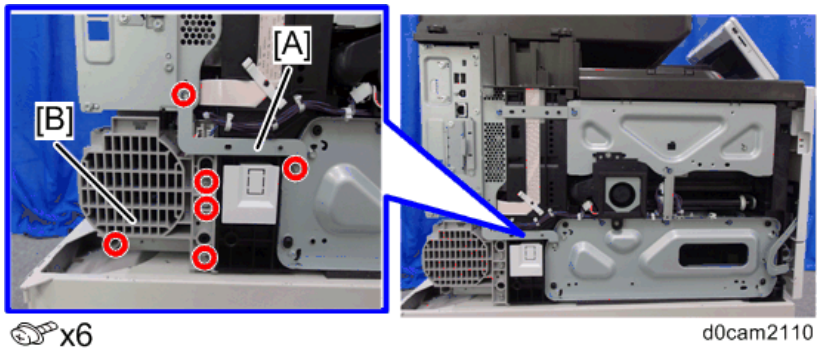


6. Remove the rear cover [A].

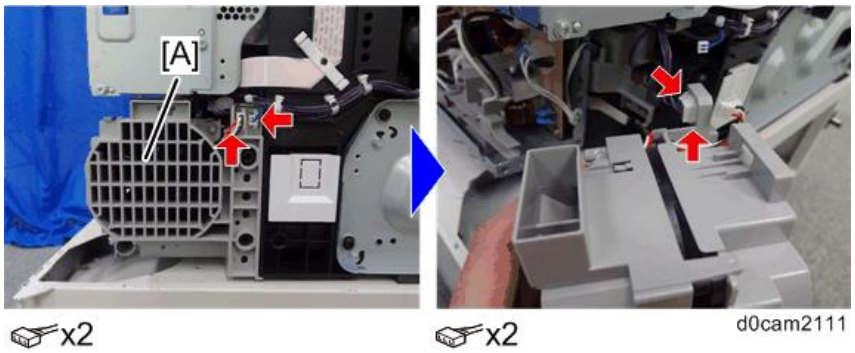


7. Remove the bracket [A].

8. Remove the screws from the fan cover [B].



9. Remove the PSU exhaust fan (FAN4) [A].

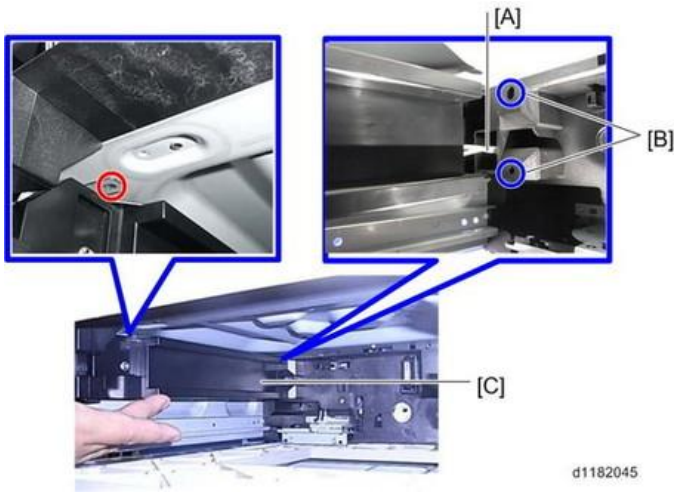


10. Insert the heater harness into the hole [A].

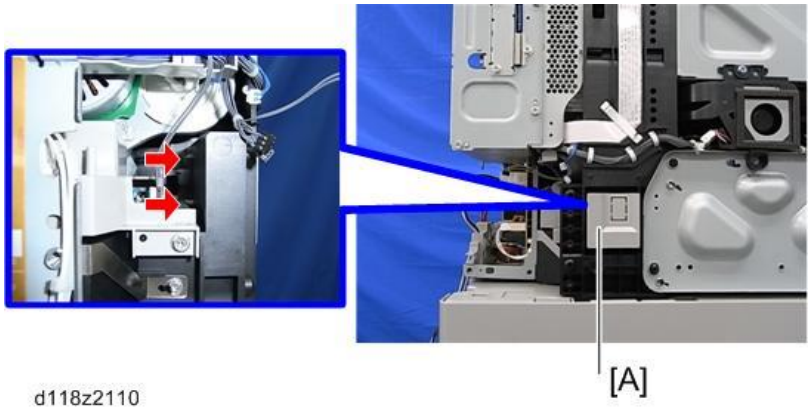
11. Fit the small bumps on the heater into the holes [B] to install the heater [C] (☞(M3×6) × 1)

Note

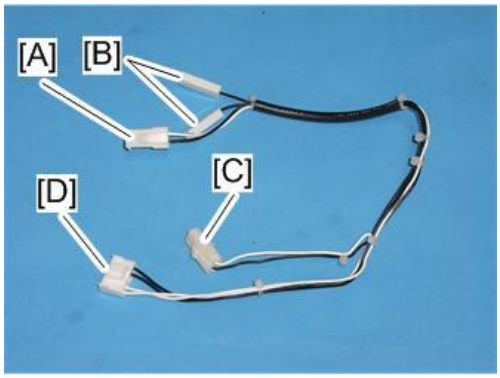
Use a short screwdriver to secure the screw.



12. Remove the cover [A].(Hooks × 2)



13. Connect the connector [A] of junction harness to the connector of heater.(× 1)



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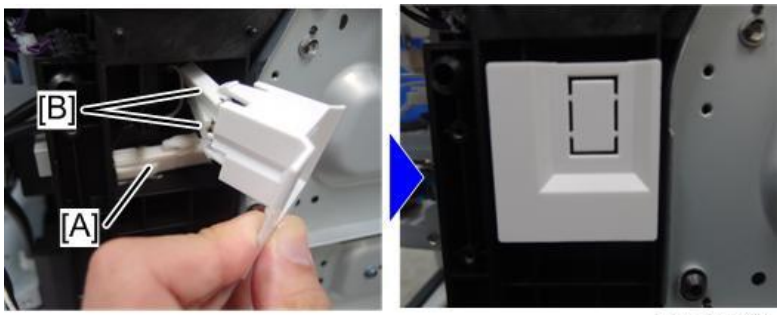
A: To the heater

B: Not used

C: To the optional PFU heater (if installed)

D: To the PSU (PCB17)

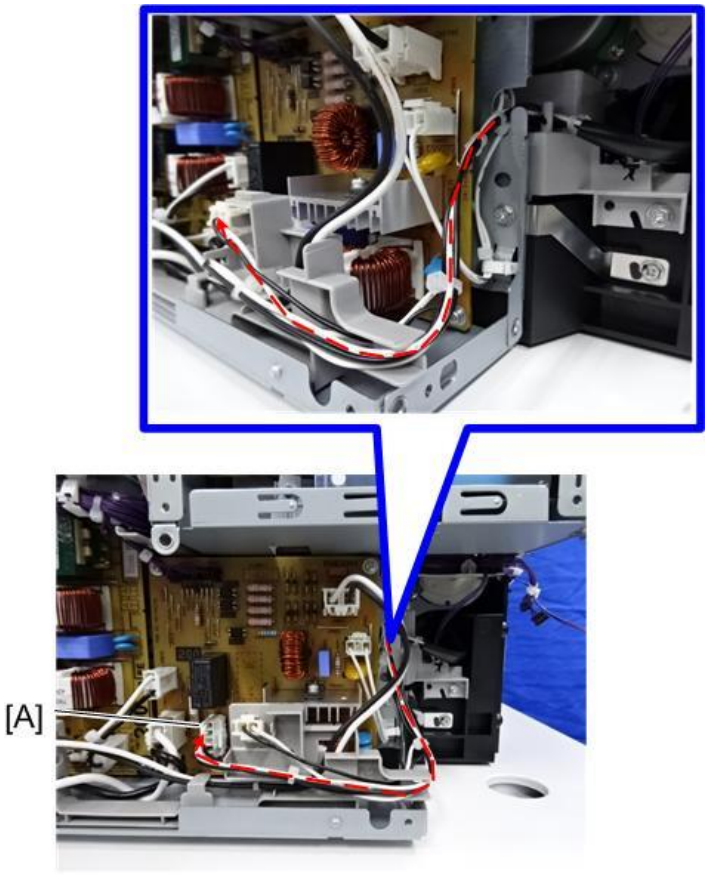
14. Store the connector [A] with the connector of heater in the connector holder, then push the power switch [B] into the switch hole until you feel it click into place.



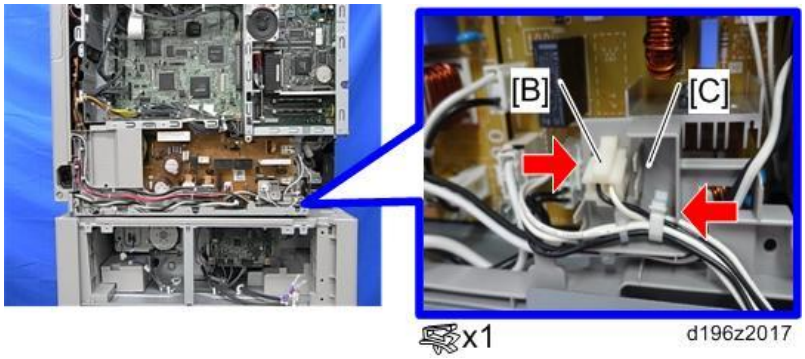
d0cam2412

15. Route the junction harness as shown below.

16. Connect the connector [A] shown in step 13 to CN600.

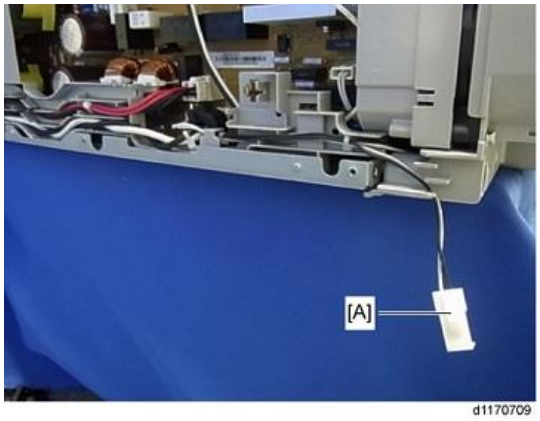


17. Connect the connector [B] in the holder [C].Do not attach the holder [C] to the PSU (PCB17), when the dehumidification heater will be installed



18. When installing the dehumidification heater (PFU): Pull out the connector [A] and its harness to the lower part of the machine. Then uncap the connector isolation cap in the optional paper feed unit

and connect the connector [A] to the uncapped connector. (Dehumidification Heater (PFU))



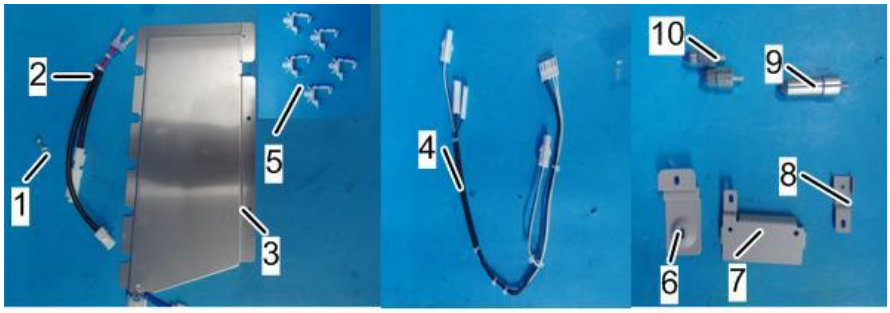
19. Reassemble the machine.

Note

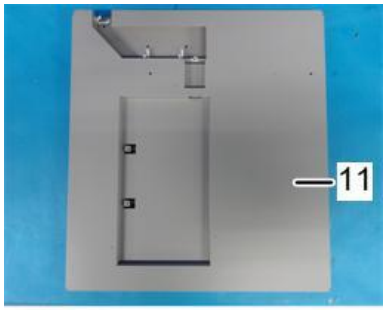
- The mainframe and the optional paper feed unit should be joined to each other if the dehumidification heater (PFU) is installed. See Dehumidification Heater (PFU) for details.

Dehumidification Heater (main unit)

Accessory Check for IM C300 Series



d0cam2366



d0cam2367

No.	Items	Q'ty	Remarks	See Note *2
1	Screw M4 x 6	2		A: Heater Kit
2	Harness	1		
3	Heater	1		
4	Harness	1	*1	B: Harness
5	Clamps	5		A: Heater Kit
6	Bracket	1		C: Bracket Set
7	Bracket	1		
8	Bracket	1		
9	Locating pin (Long)	1		E: Pin Set
10	Locating pin (Short)	1		
11	Base	1		D: Base Set

Note

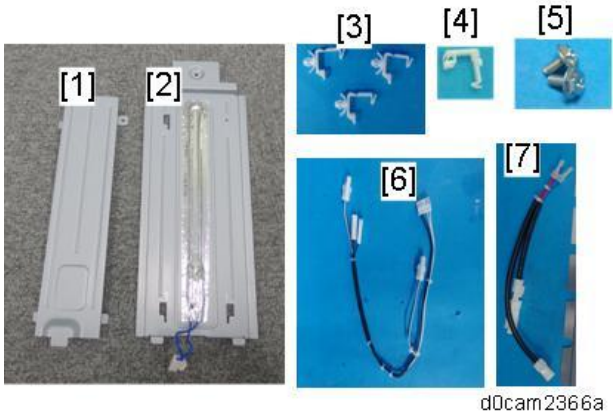
- *1 This harness (P/N: D1965265) is also used as a harness for Dehumidification Heater (PFU), and Anti-condensation Heater. If you have already ordered this harness for these heaters, it is not necessary to order this harness again at this time.
- *2 All the accessories required to install the dehumidification heater (main unit) are available as the following kits or components. Order these separately from the heater:
  A: Heater Kit **(D5730400 for NA/TWN, D5730401 for EU/AA/CHN)**
  B: Harness (D1965265)
  C: Bracket Set (D1965093)

D: Base Set (D1965098)

E: Pin Set (D1965092)

Accessory Check for IM C400 Series

All the accessories required to install the Dehumidification Heater (main unit) are available as the following parts. Order each part separately.



No.	Items	Q'ty	P/N	Remarks
1	Heater cover	1	D0CB2898	
2	Heater	1	D0CB2554 (EU/AA/CHN) D0CB2552 (NA)	
3	Clamps	3	11050760	
4	Clamp	1	11050723	
5	Screws M 3 x 6	2	04543006Q	
6	Junction harness	1	D1965265	*1
7	Harness with the isolation cap	1	D5735340	

Note

- *1 This harness (P/N: D1965265) is also used as a harness for dehumidification heater (PFU), and Anti-condensation Heater. If you have already ordered this harness for these heaters, it is not necessary to order this harness again at this time.

Installation Procedure for IM C300 Series

⚠CAUTION

- **Do not lift the machine with any optional paper feed units attached**
  If the machine already has one or more optional paper feed unit(s) attached, be sure to disconnect the machine and paper feed unit(s), and lift them up separately when moving/transporting. Otherwise, the handle of the paper feed unit will break due to the mainframe's weight, and it can cause an injury.

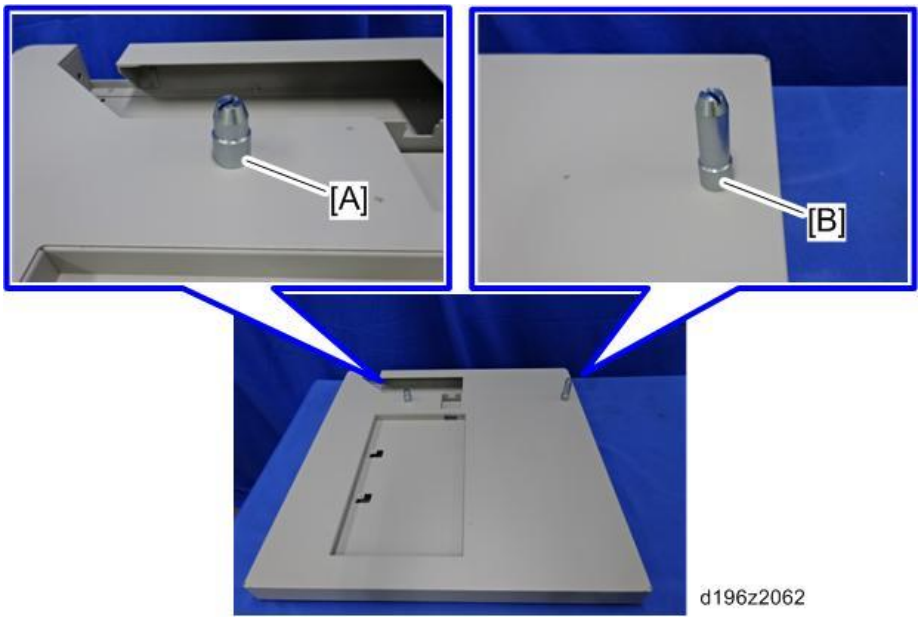
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is

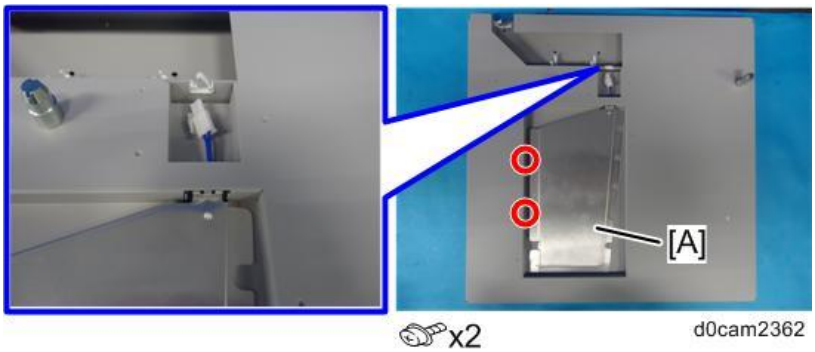
not turned OFF before installing, an electric shock or malfunction might occur.

- Do the following procedure to prevent the harnesses from being damaged.
- Check that harnesses are not damaged or pinched after installation.

1. Attach the two locating pins [A] [B] on the table.



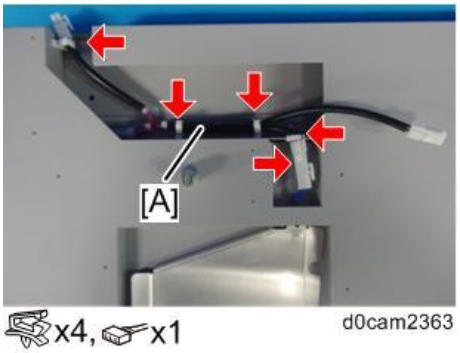
2. Attach the heater bracket [A].



Note

- Pass the connector through the hole in the table.

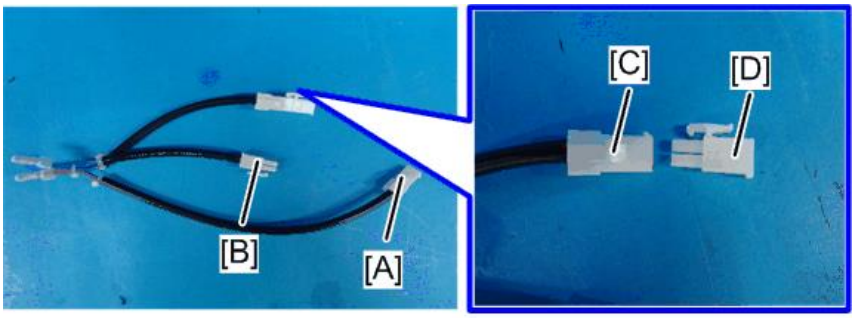
3. Connect the heater harness [A] to the heater and route it as shown below.



Note

- A:For the dehumidification heater (H3)

- B:For the junction harness
- C:Not used (For the isolation cap)
- D:Isolation cap



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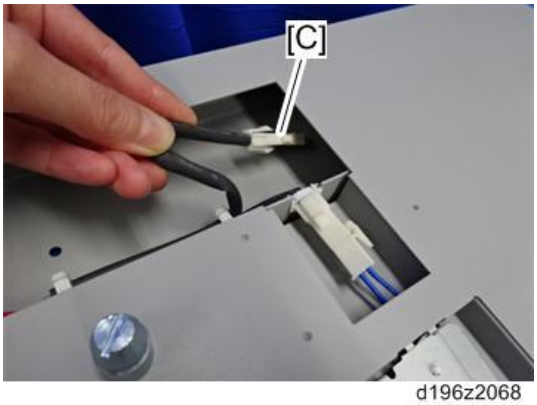
- The connector [C] is not used. Put the connector into the opening.



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4. Put the mainframe on the table.
5. Remove the upper left cover [A].

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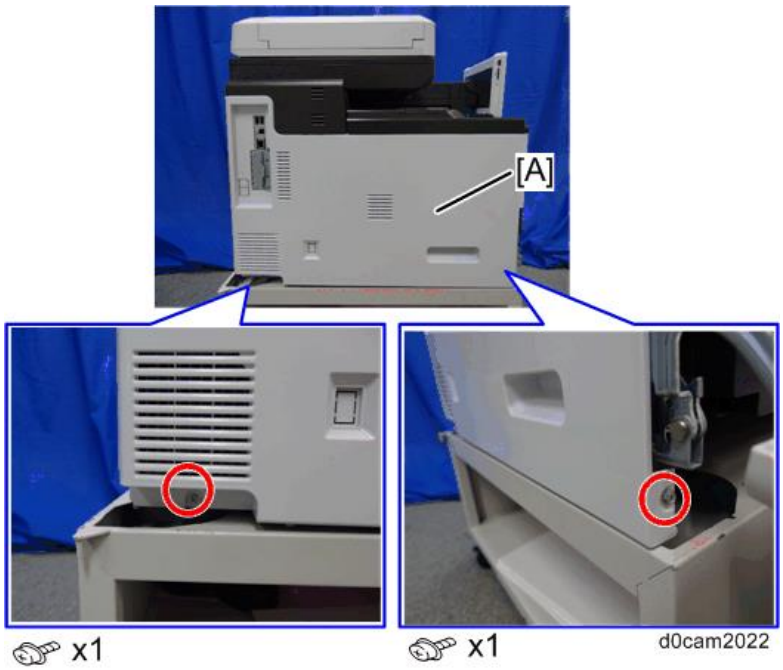
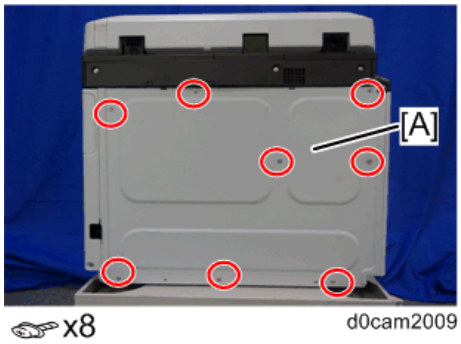
6. Pull out the paper feed tray.

7. Open the front cover and remove the left cover [A].

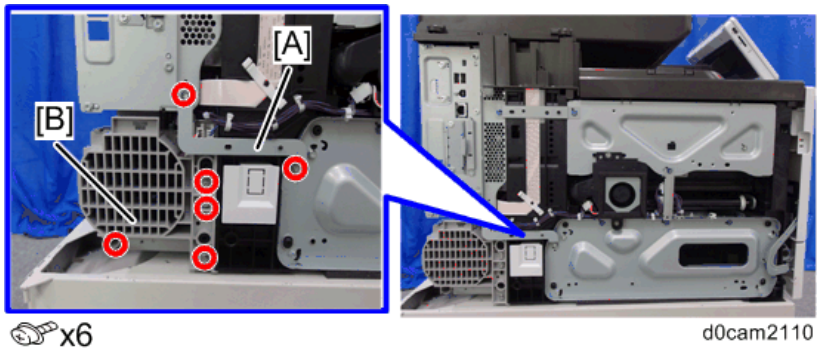


8. Remove the rear cover [A].

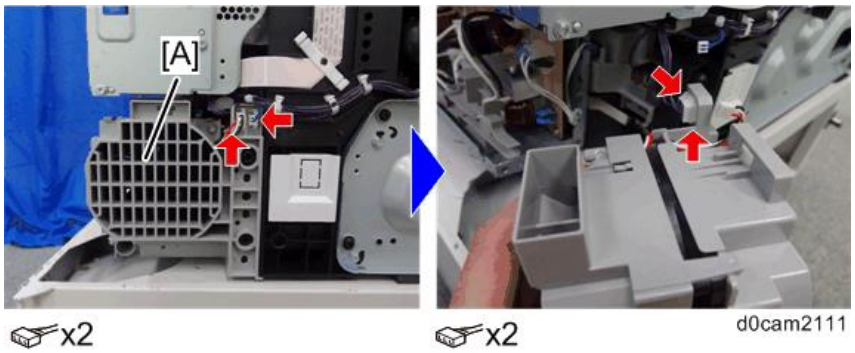


9. Remove the bracket [A].

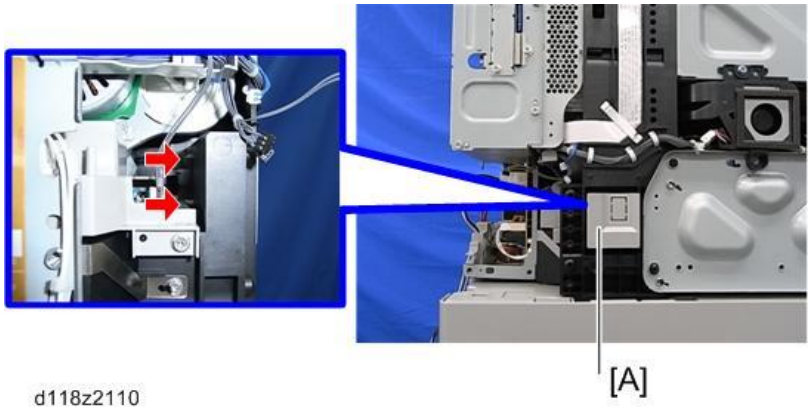
10. Remove the screws from the fan cover [B].



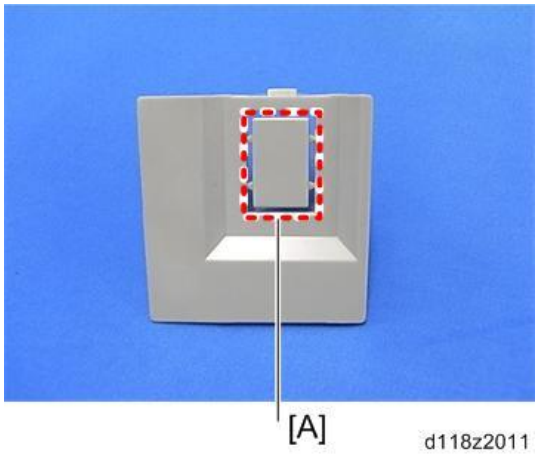
11. Remove the PSU exhaust fan (FAN4) [A].



12. Remove the switch cover [A].(Hooks × 2)



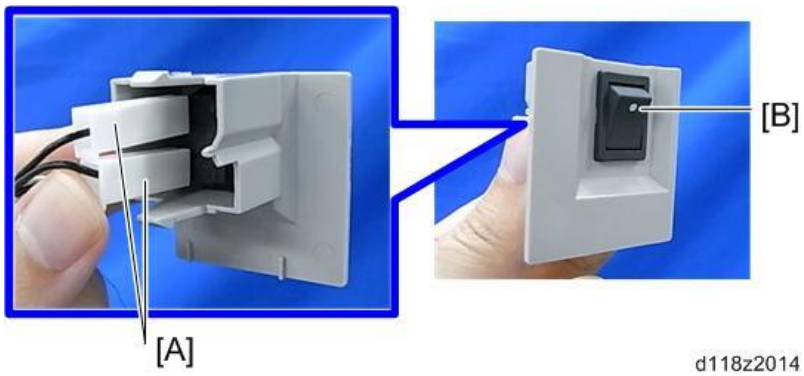
13. Cut out the switch hole [A] in the switch cover.



14. Push the heater power switch to the switch cover.

15. Connect the heater power switch to the connectors of the junction harness [A].(× 2)

2.Installation

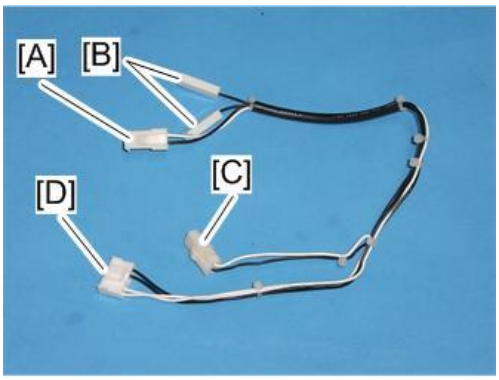


Note

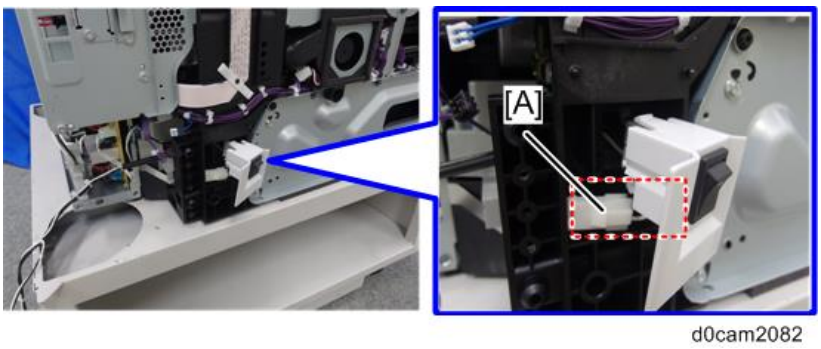
Attach the rocker switch so that the white point [B] is on the upper side of the switch.

Note

- A:Not used (For the drum heater: If installing the anti-condensation heater (H1))
- B:For the locker switch
- C:For the heater harness
- D:For the PSU (PCB17) (CN600)

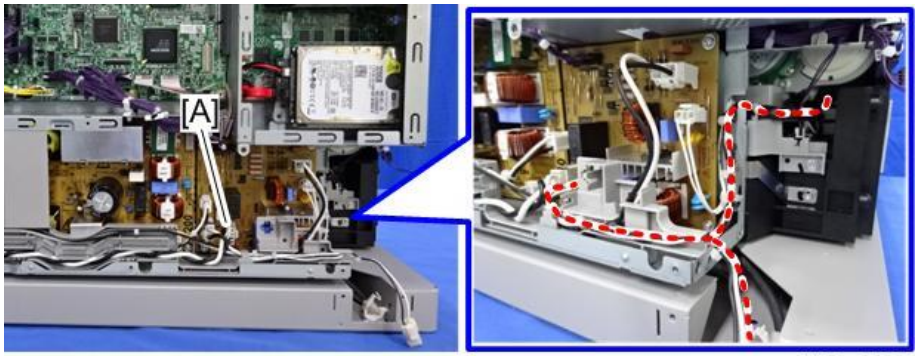


- Store the connector [A] into the area as shown below, then attach the switch cover.



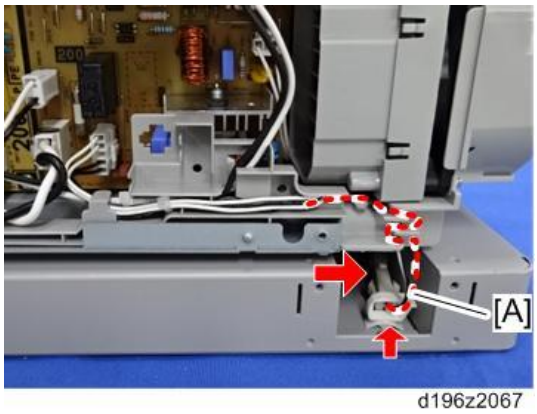
16. Connect the connector to CN600 [A] on the PSU (PCB17) and route the junction harness along the

red dotted line in the photo. (× 1)



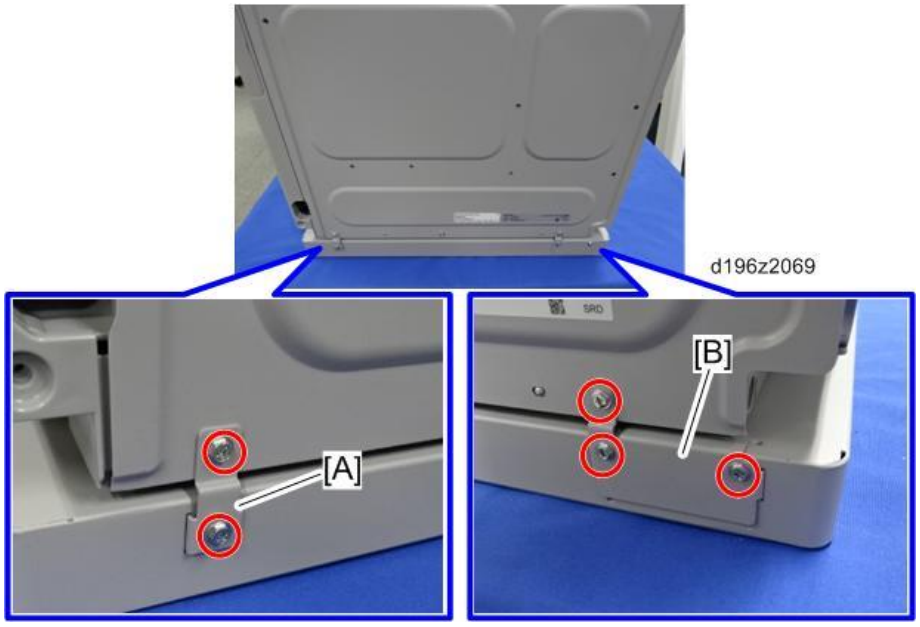
17. Attach the PSU exhaust fan (FAN4).

18. Connect the junction harness [A] to the heater harness and route the junction harness along the red dotted line in the photo.



19. Attach the rear cover.

20. Attach the two securing brackets [A] [B] at the rear of the machine. (× 5)



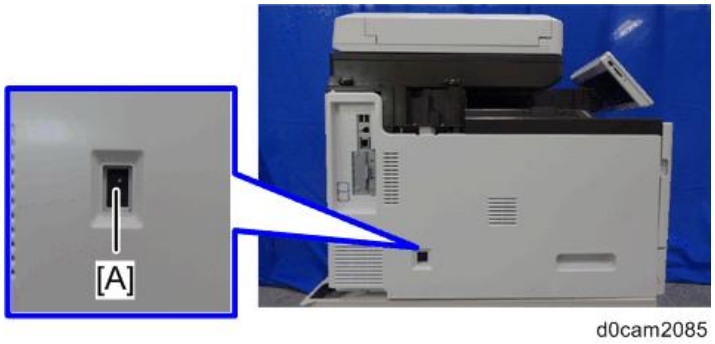
Note

- Use the screws which are holding the rear cover.

21. Attach the securing bracket [A] at the left of the machine. (× 2)

22. Attach the left cover.

23. Turn ON the switch[A].



Installation Procedure for IM C400 Series

- Installation Procedure for b/b-finisher

⚠CAUTION

- **Do not lift the machine with any optional paper feed units attached**
  If the machine already has one or more optional paper feed unit(s) attached, be sure to disconnect the machine and paper feed unit(s), and lift them up separately when moving/transporting. Otherwise, the handle of the paper feed unit will break due to the mainframe's weight, and it can cause an injury.

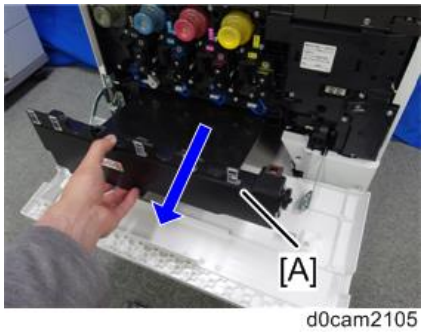
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.
- Do the following procedure to prevent the harnesses from being damaged.
- Check that harnesses are not damaged or pinched after installation.

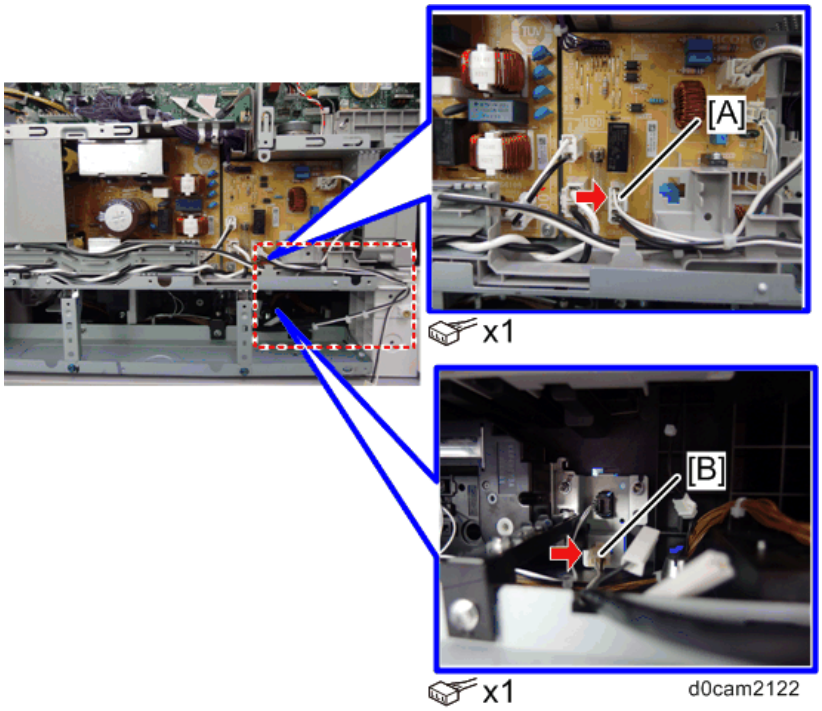
1. Remove the rear cover. (Rear Cover)

2. Remove the rear bottom cover.(Rear Bottom Cover)

3. Pull out the waste toner bottle [A]



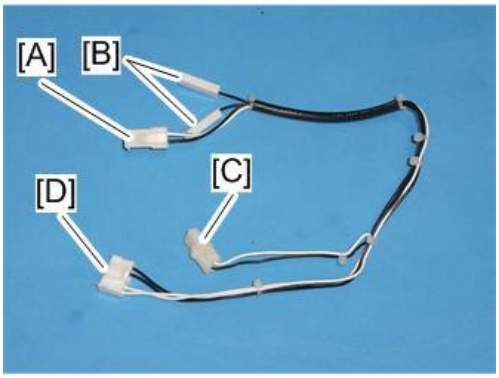
4. Pull out the paper tray.
5. Connect the connector of the junction harness to CN600 [A] on the PSU (PCB17).
6. Connect the connector of the junction harness to the bracket [B].
7. Route the junction harness in the red dotted line in the photo.



Note

- A: For anti-condensation heater (H1)
- B:Not used (For the Locker switch)
- C: For the heater harness
- D:For the PSU (PCB17) (CN600)

2.Installation



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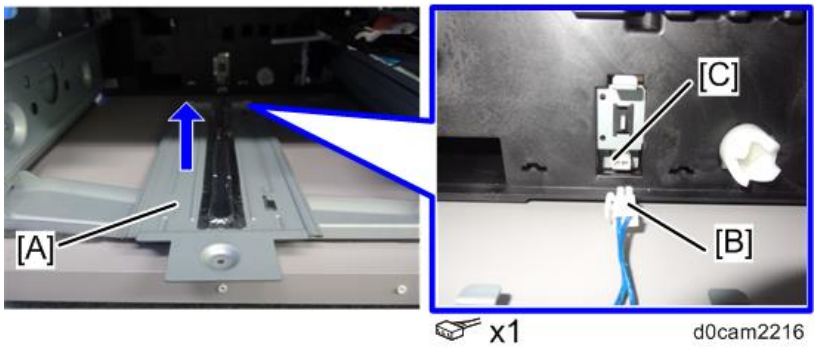
8. Slide the tray heater [A] to the paper feed unit and connect the heater harness [B] to the connector [C].



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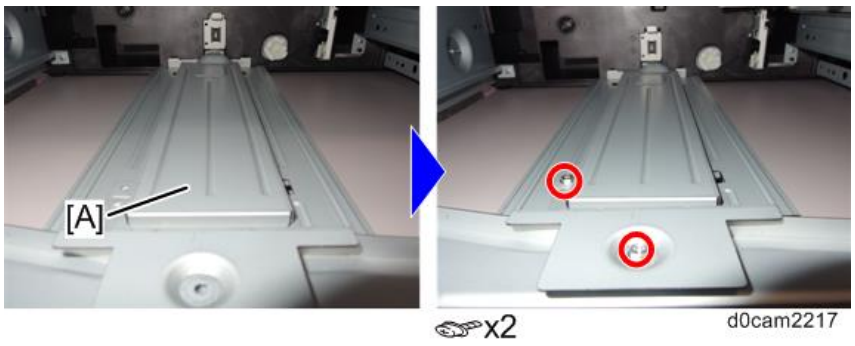
9. Attach the tray heater cover[A].



d0cam2217

10. Reassemble the machine.

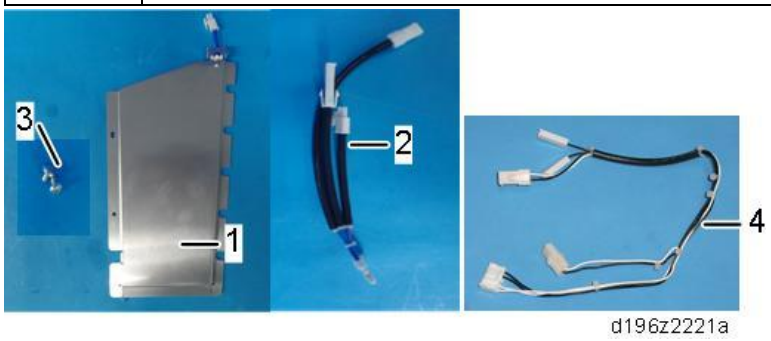
Dehumidification Heater (PFU)

Accessory Check

There is no need to order individual kits. Part Number **"D3GQ0400" for NA/TWN, "D3GQ0401" for EU/AA/KOR/CHN** contains all required accessories to install the heater for the paper feed tray.
After ordering "D3GQ0400", check the quantity and condition of the accessories against the following list.

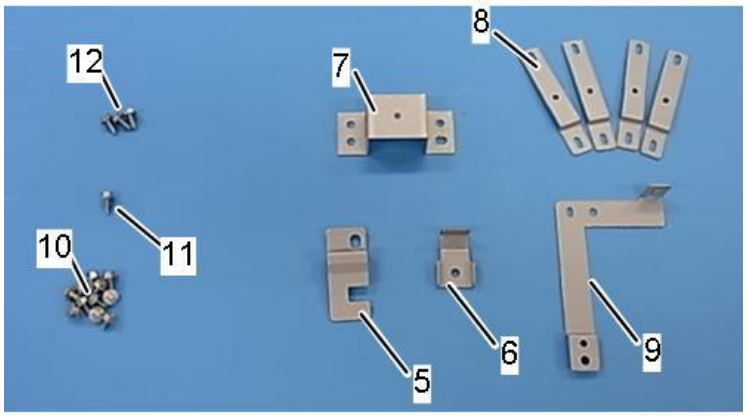
For Installing the Heater:

No.	Description	Q'ty	Remark
1	Dehumidification Heater	1	
2	Harness with the isolation cap	1	
3	M4 × 10: Screw	2	
4	Junction harness	1	
-	Clamp	5	



For Joining the Mainframe and Another Paper Feed Unit:

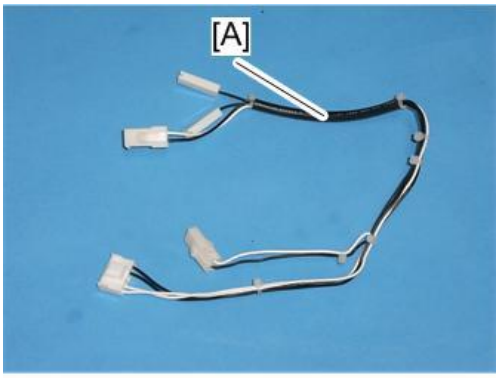
No.	Description	Q'ty
5	Joint bracket (Front left)	1
6	Joint bracket (Front right)	1
7	Joint bracket (Front center) (only for the optional paper feed unit)	1
8	Joint bracket (Rear)	4
9	Joint bracket (Frame) (only for optional paper feed unit)	1
10	M3 x 6: Screw	11
11	M3 x 12: Screw	1
12	Tapping screw 3 x 8	3



d5730037a

Note

- The following junction harness [A] (D1965265 / Accessory #4) is the same harness that is supplied with the anti-condensation heater or dehumidification heater (main unit). So if you already have it, you can use it.



d196z2221

Installation Procedure

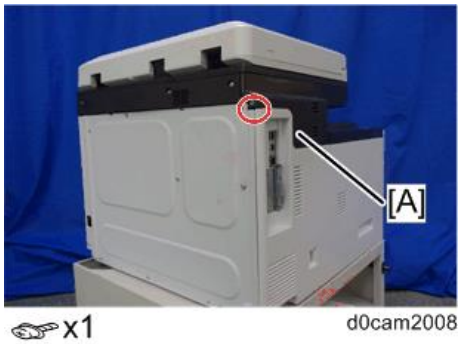
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.
- Do the following procedure not to damage any harnesses.
- Check that harnesses are not damaged or pinched after installation.

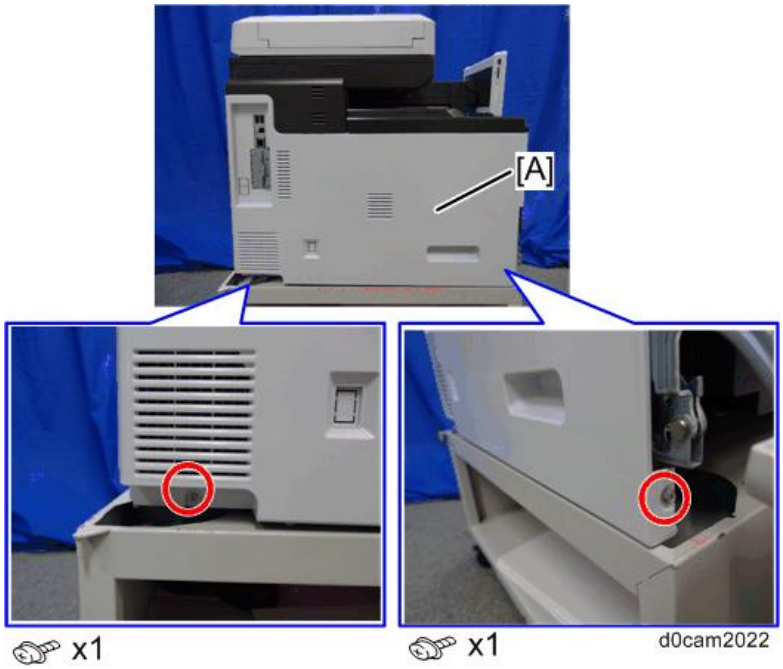
For Installing the Tray Heater on the 1st Paper Feed Unit

1. Pull out the paper feed tray.

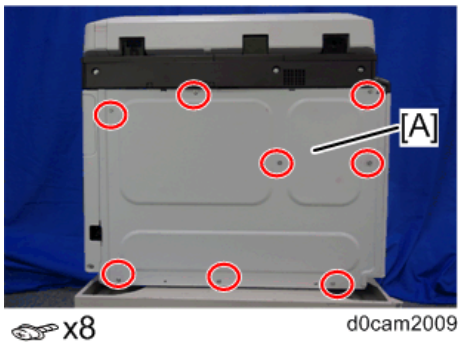
2. Remove the upper left cover [A].



3. Remove the left cover [A].

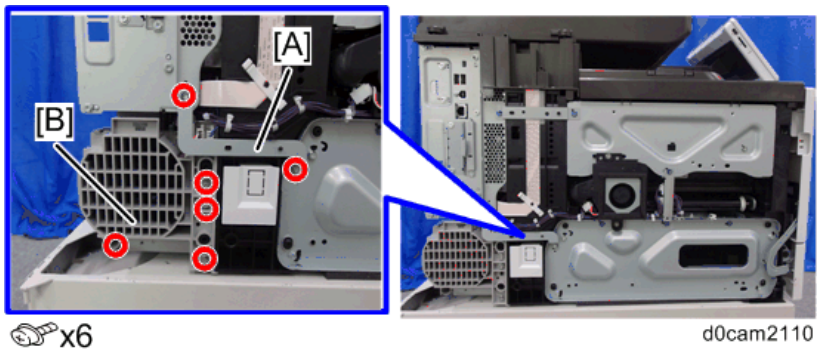


4. Remove the rear cover [A].

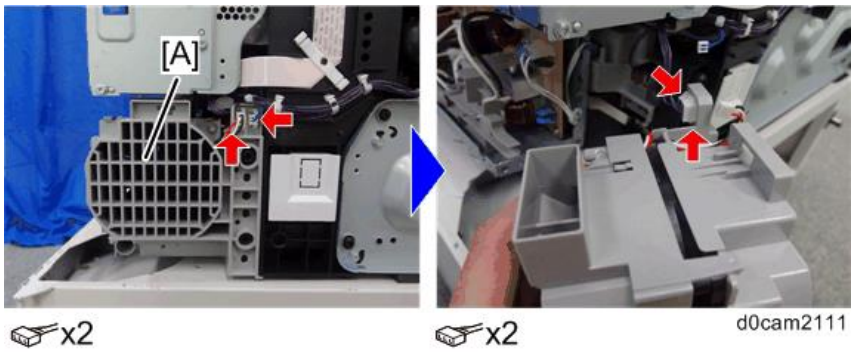


5. Remove the bracket [A].

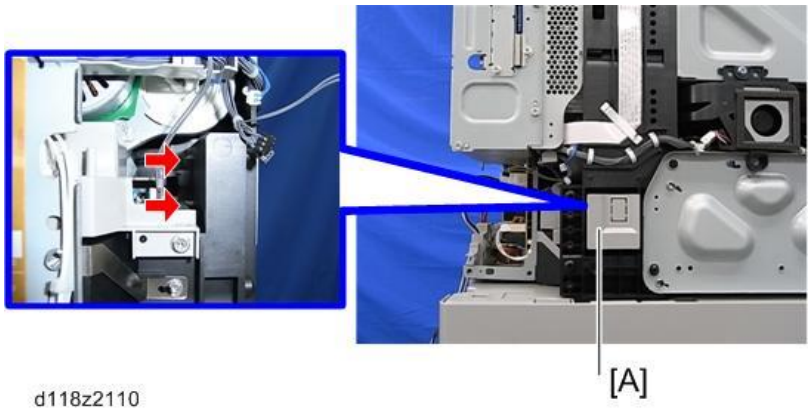
6. Remove the screws form the fan cover [B].



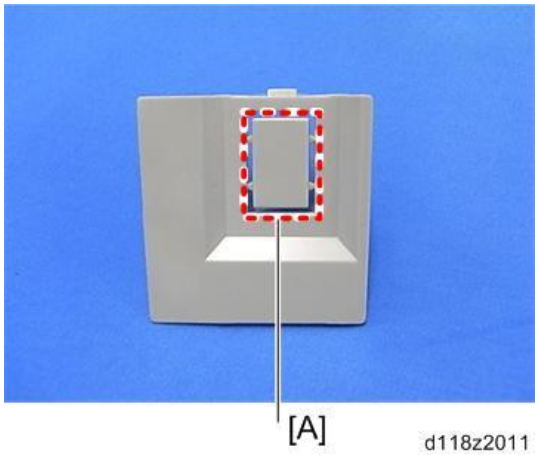
7. Remove the PSU exhaust fan (FAN4) [A].



8. Remove the switch cover [A].(Hooks × 2)

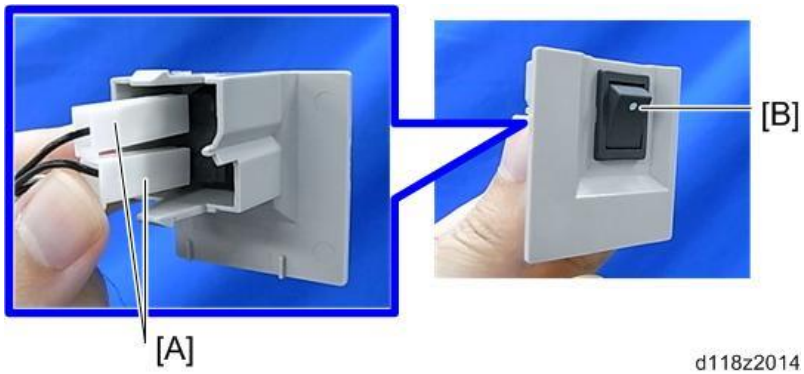


9. Cut out the switch hole [A] in the switch cover.



10. Push the heater power switch to the switch cover.

11. Connect the heater power switch to the connectors of the junction harness [A].

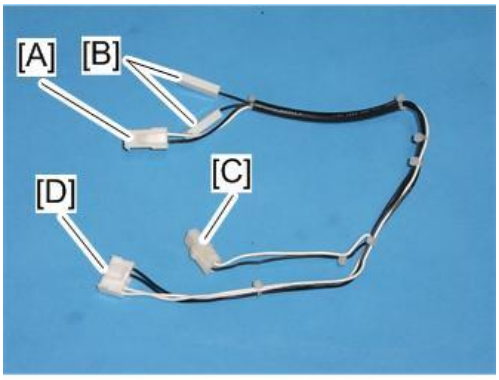


Note

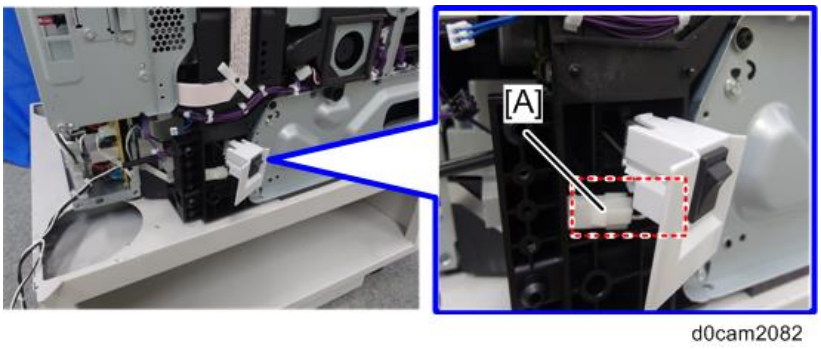
Attach the rocker switch so that the white point [B] is on the upper side of the switch.

Note

- A:Not used (For the drum heater: If installing the anti-condensation heater (H1))
- B:For the locker switch
- C:For the heater harness
- D:For the PSU (PCB17) (CN600)



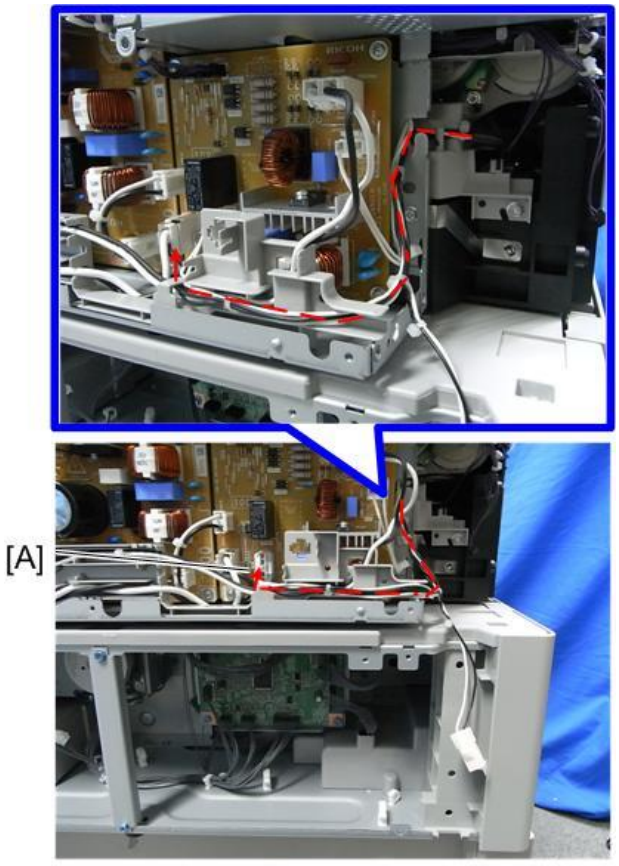
- Store the connector [A] into the area as shown below, then attach the switch cover.



12. Reattach the switch cover.

13. Connect the connector [A] to CN600 on the PSU (PCB17) and route the junction harness along the

red dotted line in the photo. (× 1)



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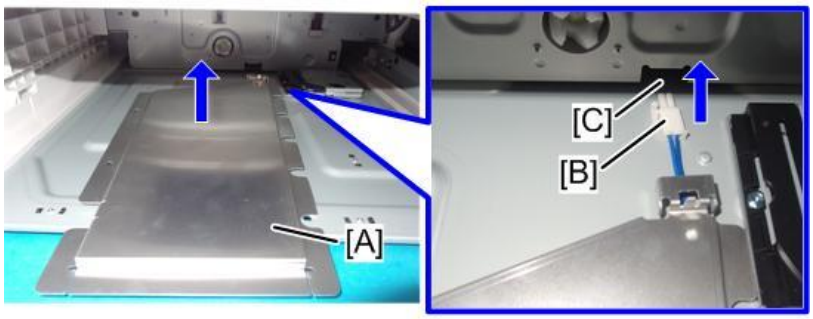
14. Reattach the PSU exhaust fan (FAN4).

15. Slide in the tray heater [A], and pass the heater harness [B] through the square hole [C].



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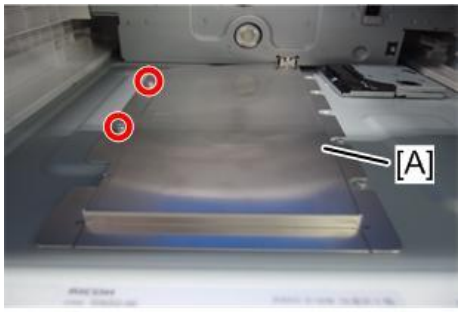
16. Install the tray heater [A] in the paper feed unit.



x2

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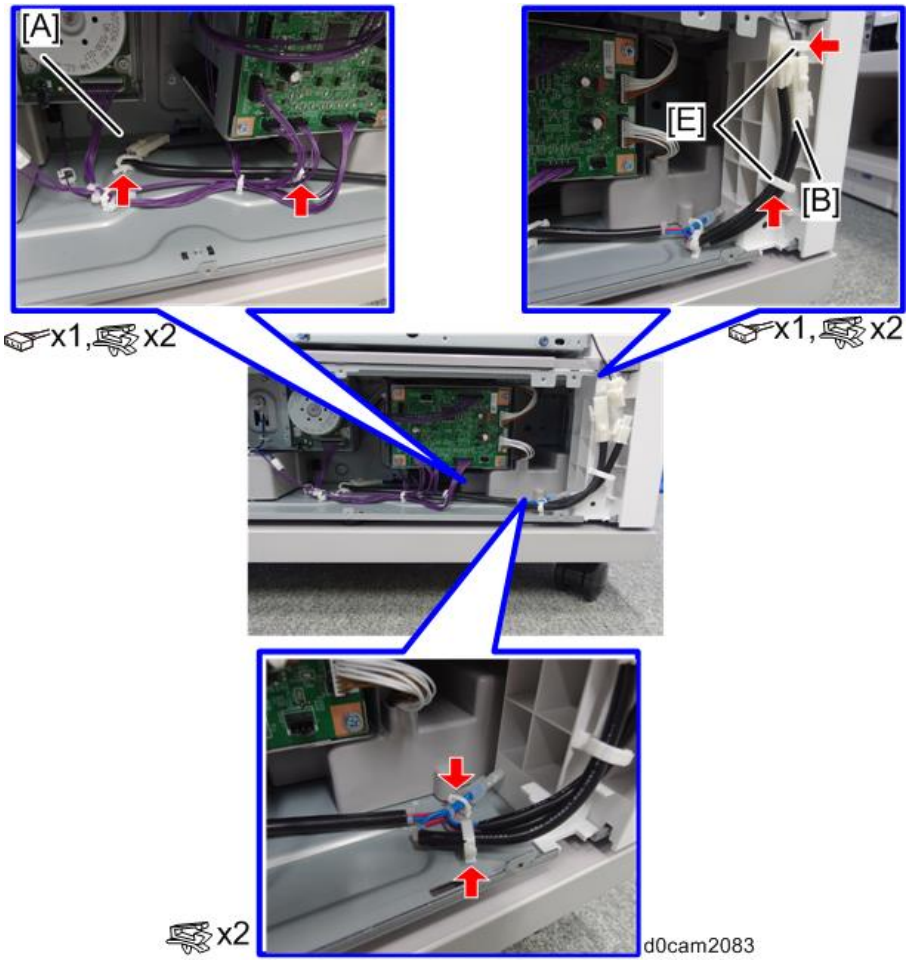
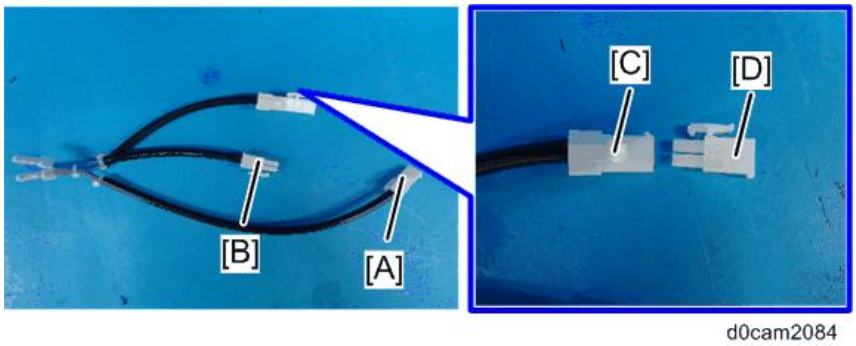
17. Connect the connector [A] to the tray heater connector (attached in step 15).

18. Connect the harness [B] to the junction harness (mainframe).

19. Attach two clamps [E] and route the harness through them.



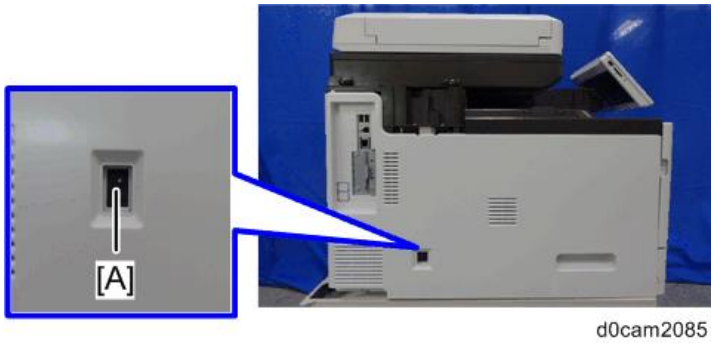
Note



- A: For this tray heater
- B: For the junction harness of the mainframe
- C: For another optional tray heater
- D: Isolation cap (uncap if installing the heater for 2nd paper tray)

20. Reattach all the covers removed.

21. Turn ON the switch [A].



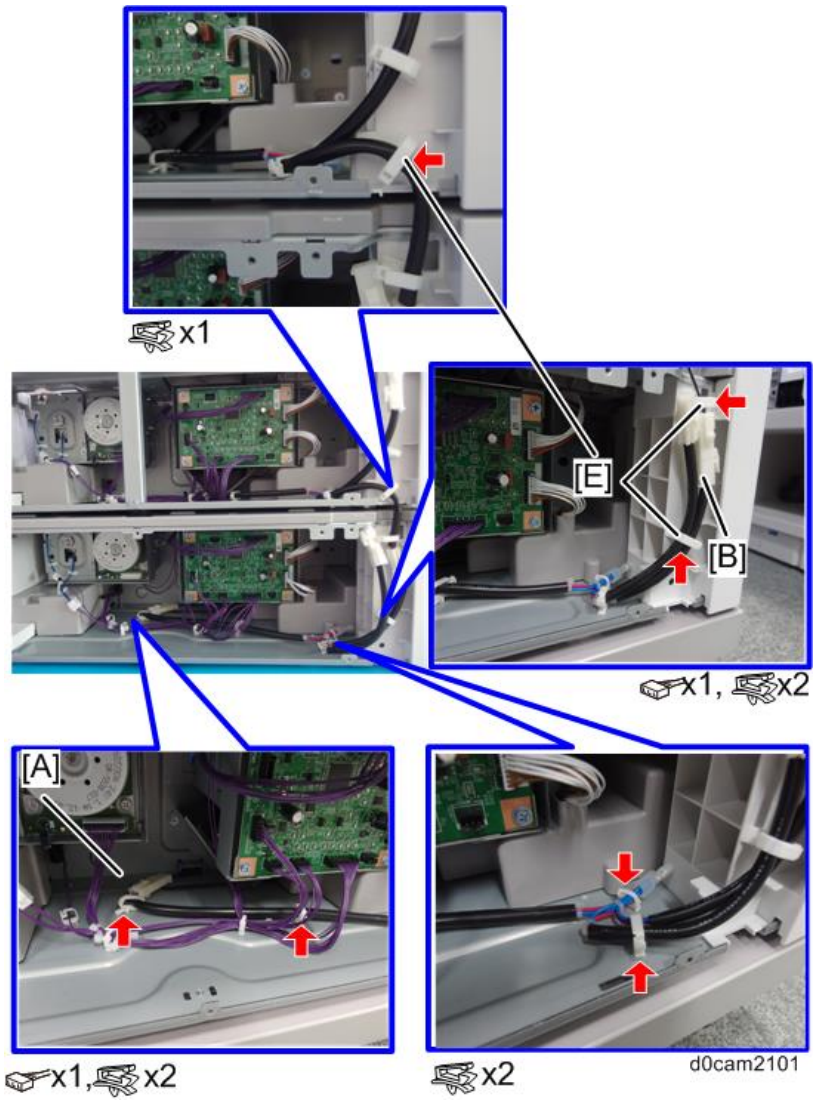
For Installing the Tray Heater on the 2nd Optional Paper Feed Unit

1. Do the same procedure for the 1st optional paper feed unit from step 1 to step 19.

2. Connect the harness [A] and heater connector for the 2nd tray.

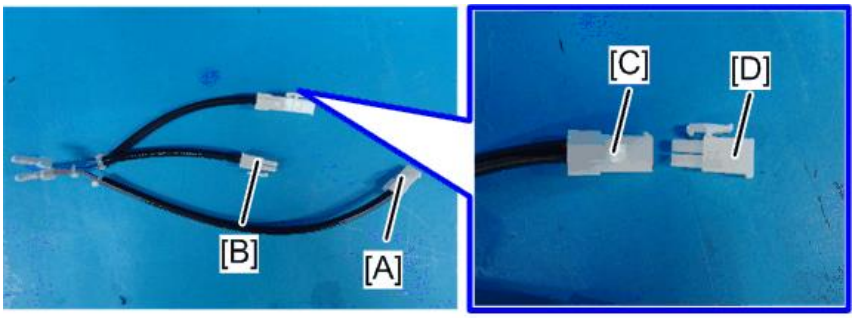
3. Remove the cap on the 1st tray harness and connect the 2nd tray harness [B].

4. Attach three clamps [E] and route the harness through them.



Note

- A: To the 2nd tray heater
- B: To the 1st tray heater harness
- C: Not used
- D: Cap



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5. Reattach all the covers removed.
6. Turn ON the switch[A].

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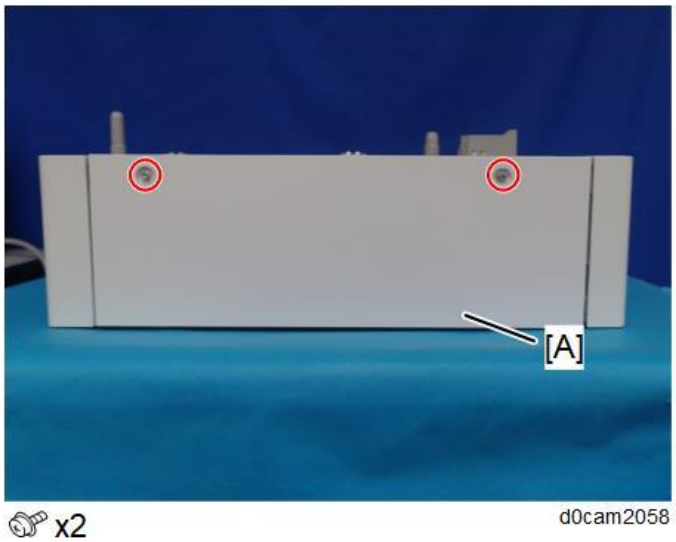
For Joining the Mainframe with the Optional Paper Feed Unit

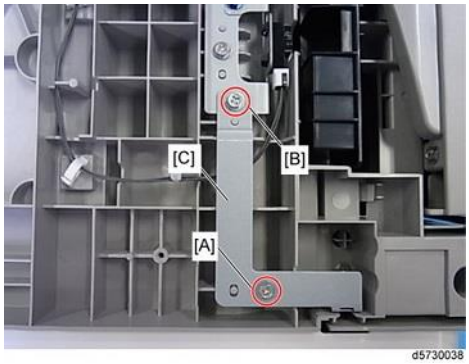
The mainframe and the optional paper feed unit should be joined with joint brackets after the dehumidification heater installation, because the heater harness might be damaged if the mainframe is accidentally removed.

1. Remove the upper cover [A] of the paper feed unit.

2. Remove the rear cover [A] of the paper feed unit.

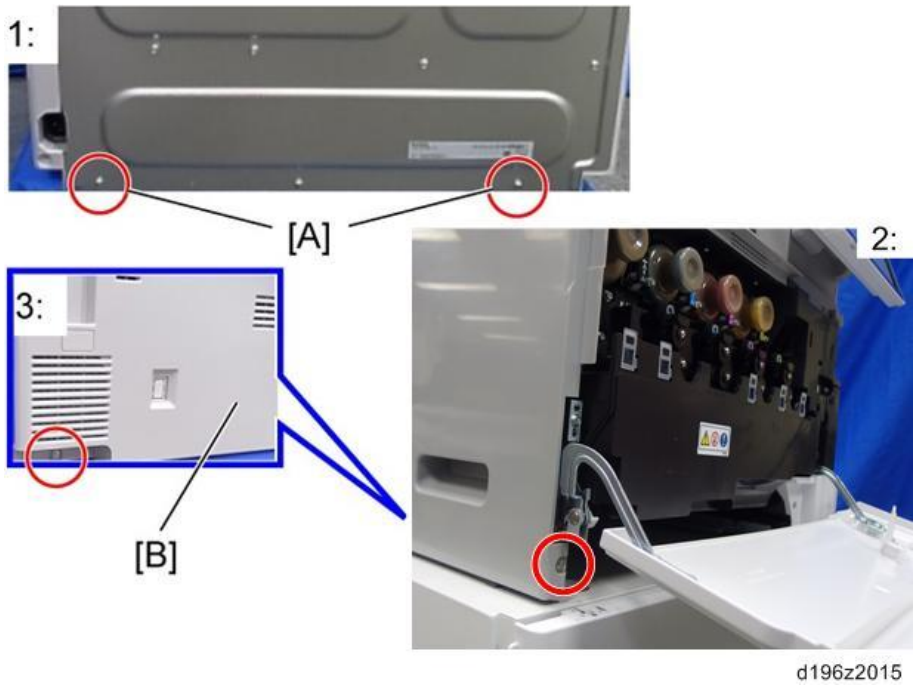


3. Attach the joint bracket (frame) [C]. (:Tapping × 1 [A], M3×6: × 1 [B])



4. Reattach the upper cover removed in step 1.
5. Put the mainframe on the paper feed unit.
6. Remove the paper trays from the mainframe and the optional paper feed unit.
7. Remove two screws [A] on the rear panel of the mainframe. Keep these screws until the joint brackets (rear) are installed.

8. Remove the left cover [B] of the mainframe. (× 2)

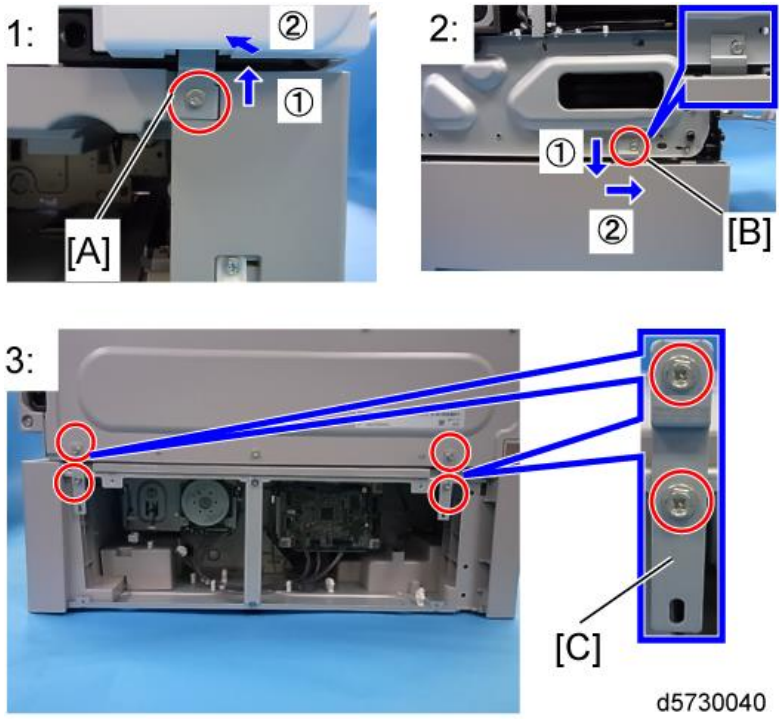


1: Rear

2: Front

3: Left

9. Join the mainframe with the optional paper feed unit with four joint brackets [A] (front right), [B] (front left) and [C] (rear) (×2). These brackets are secured with the following screws.



1: Front right

2: Left

3: Rear

[A]: M3×12 (included in this kit)

[B]: M3×6 (included in this kit)

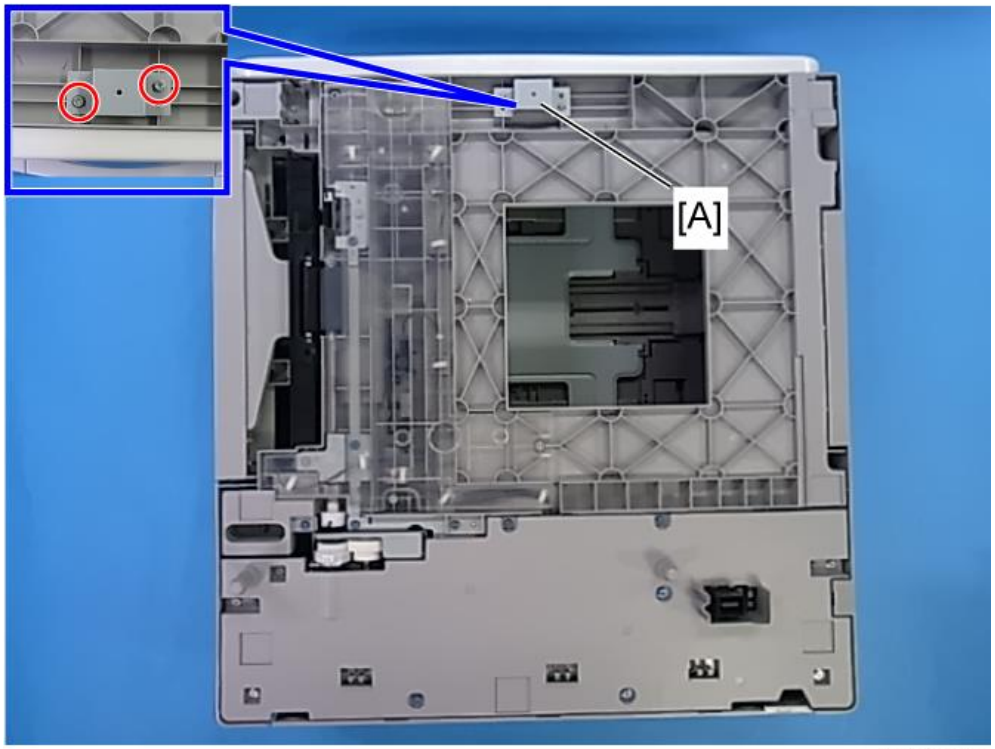
[C] (Upper): Existing screws (×2) (Screws remove in step 7)

[C] (Lower): M3×6 (included in this kit)

10. Reassemble the mainframe and the paper feed unit.

Joining Two Optional Paper Feed Units

1. Attach the joint bracket (front center) [A] to the 2nd paper feed unit that will be installed at the lowest position. (:Tapping × 2 (included in this kit))



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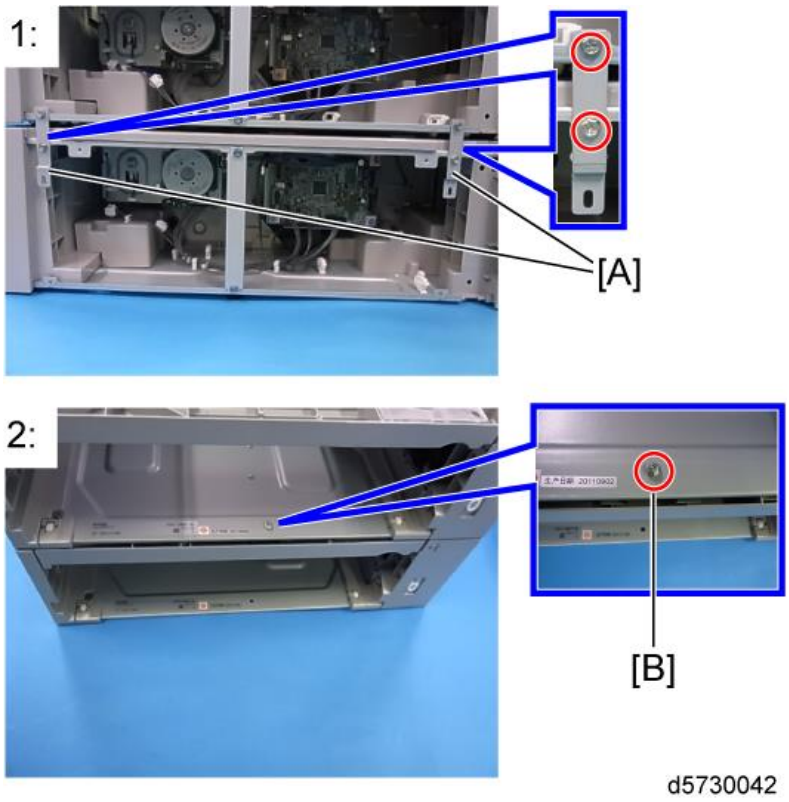
2. Put the 1st optional paper feed unit on the 2nd paper feed unit that is fitted with the bracket [A] in step 1.

3. Remove the paper trays.

4. Join the two paper feed units with two joint brackets (rear) [A] and one screw [B]. (M3×6: × 3

(included in this kit))



1: Rear

2: Front center

5. Bend and cut off the back cover tab [A] of the upper optional paper feed unit before attaching it.

6. Reassemble the mainframe and the paper feed units.

Note

When installing a mainframe with two paper feed units, attach the two paper feed units to each other first, and then attach the paper feed units to the mainframe.

⚠CAUTION

- **Do not lift the machine with any optional paper feed units attached.**
  If the machine already has one or more optional paper feed unit(s) attached, be sure to disconnect the machine and paper feed unit(s), and lift them up separately when moving/transporting. Otherwise, the handle of the paper feed unit will break due to the mainframe's weight, and it can cause an injury.

Controller Options

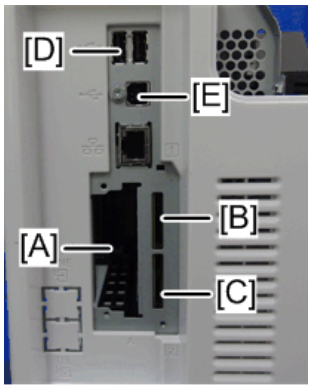
Overview

Important

- Always touch a grounded surface to discharge static electricity from your hands before you handle SD cards, printed circuit boards, or memory boards.

This machine has I/F card slots for optional I/F connections and SD card slots applications.

After you install an option, check that the machine can recognize it (See Check All Connections at the end of this section).



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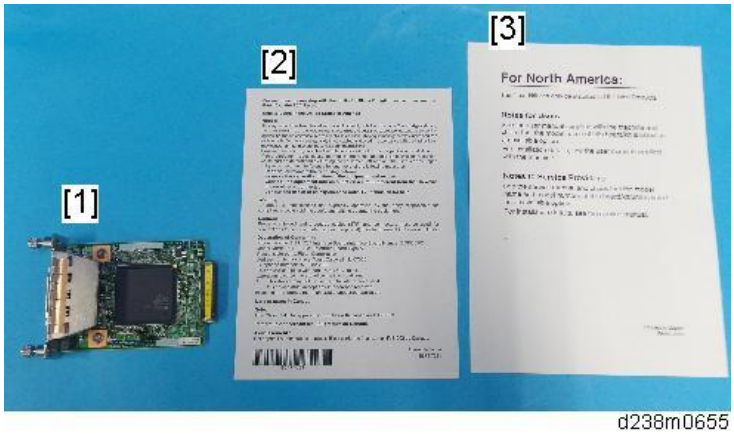
Callout	Slots	Options
[A]	I/F slot	This is used for one of the optional I/F connections (only one can be installed): File Format Converter, IEEE 1284 Interface Board, IEEE 802.11a/g/n Interface Unit, Device Server Option
[B]	SD card slot 1	Slot 1 (upper) is used for optional applications (PostScript3 Unit, Camera Direct Print Card, XPS Direct Print Option, Data Overwrite Security Unit, OCR Unit).
[C]	SD card slot 2	Slot 2 (lower) is used for service only (for example,VM Card updating the firmware).
[D]	USB I/F	These ports (right and left) [B] are used for the IC Card Reader.
[E]	USB Type B I/F	External options can be connected.

IEEE 1284 Interface Board Type M19 (D3C0-17)

Component Check

No.	Description	Qty	Remarks
1	IEEE 1284 Interface Board	1	
2	FCC document	1	
3	Notes for users	1	

2.Installation



Installation Procedure

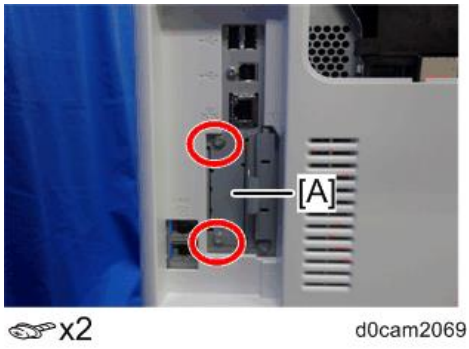
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.
- Do not put your hand into the controller box. It will result in a malfunction or injury.
- Before doing any work, touch a metal object to discharge static electricity from the body.There is a possibility that the IEEE 1284 Interface Board may malfunction due to static electricity.

Only one of the following network interfaces can be installed at one time:

- File Format Converter
- IEEE 1284 Interface Board
- IEEE 802.11a/g/n Interface Unit
- Device Server Option

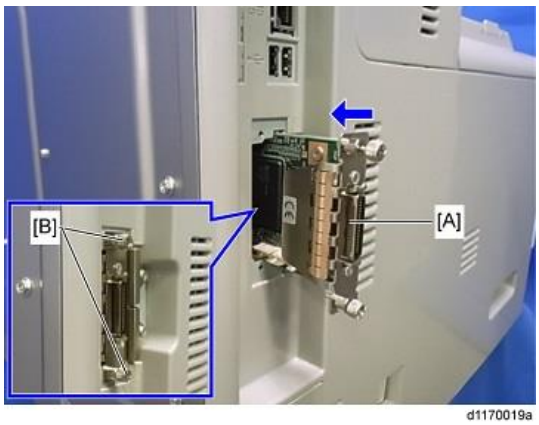
1. Remove the slot cover [A].



2. Install the interface board [A] into the slot. (Knob-screw × 2 [B])

Note

When inserting into the slot, push the interface board until it is inserted properly.



3. Turn ON the power.
4. Make sure that the machine can recognize the option (see Check All Connections at the end of this section).

Note

The customer should keep the removed slot cover.

File Format Converter Type M19 (D3BR-04)

Component Check

No.	Description	Q'ty
1	File Format Converter	1
2	Notes for Users	1

Installation Procedure

⚠CAUTION

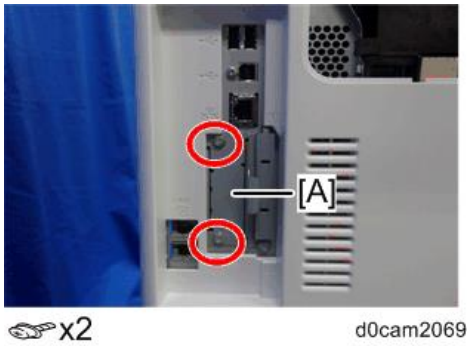
- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.
- Do not put your hand into the controller box. It will result in a malfunction or injury.
- Before doing any work, touch a metal object to discharge static electricity from the body. There is a possibility that the File Format Converter may malfunction due to static electricity.

Only one of the following network interfaces can be installed at one time:

- File Format Converter

- IEEE 1284 Interface Board
- IEEE 802.11a/g/n Interface Unit
- Device Server Option

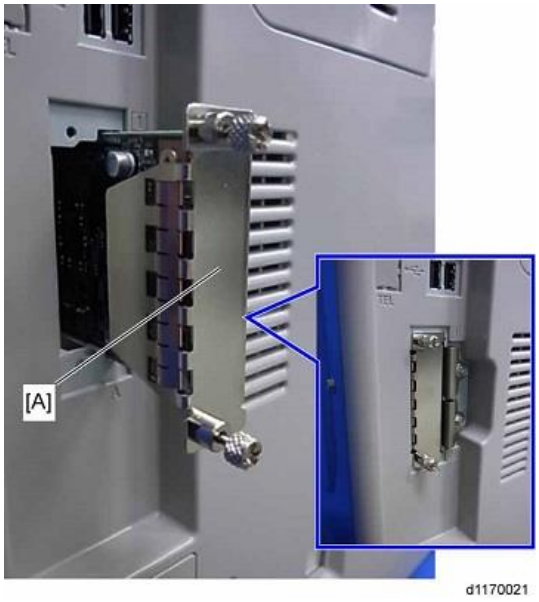
1. Remove the slot cover [A].



2. Install the file format converter [A] into the slot and then fasten it with screws.

Note

When inserting into the slot, push the file format converter until it is inserted properly.



3. Plug in and turn ON the main power switch.
4. Check or set the following SP codes with the values shown below.

SP No.	Title	Setting
SP5-836-001	Capture Function (0:Off 1:On)	"1"
SP5-836-002	Panel Setting	"0"

5. Make sure that the machine can recognize the option (see Check All Connections at the end of this section).

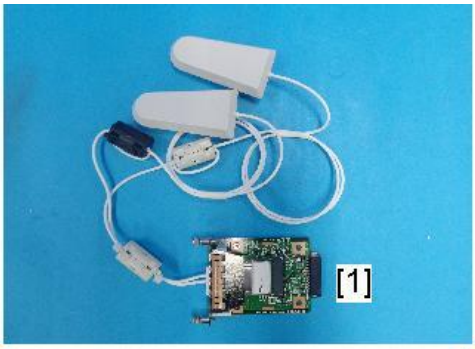
Note

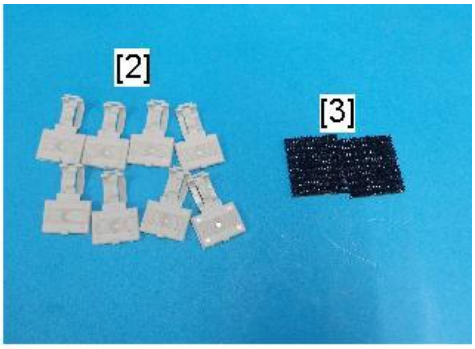
The customer should keep the removed slot cover.

IEEE 802.11a/g/n Interface Unit Type M19 (D3BR-01)

Component Check

No.	Description	Q'ty
1	IEEE802.11a/g/n Unit	1
2	Clamps	2
3	Look and loop fasteners	8
4	Notes for Users	2





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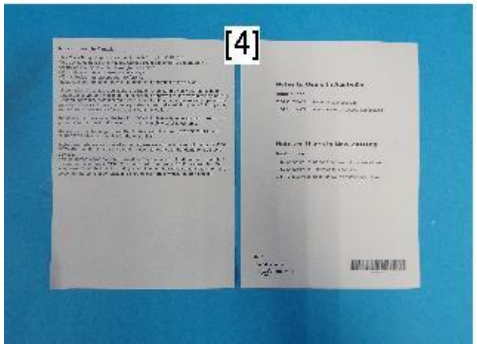


Important

- Since disassembly/alteration of a wireless LAN board is illegal, during service replacements, replace the whole PCB assembly.
- Be sure to give the provided leaflet to the customer.

Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket.If the main power is not turned OFF before installing, an electric shock or malfunction might occur.
- Do not put your hand into the controller box. It will result in a malfunction or injury.
- Before doing any work, touch a metal object to discharge static electricity from the body.There is a possibility that the IEEE 802.11a/g/n Interface Unit may malfunction due to static electricity.

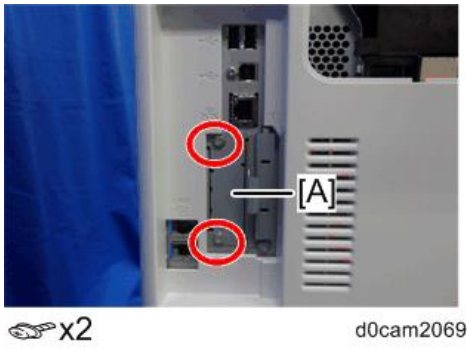
Only one of the following network interfaces can be installed at one time:

- File Format Converter
- IEEE 1284 Interface Board

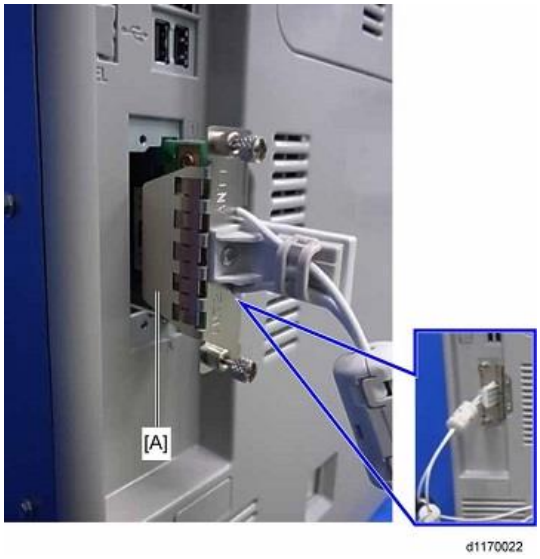
- IEEE 802.11a/g/n Interface Unit
- Device Server Option

Installing the wireless LAN board

1. Remove the slot cover [A] from the board slot.



2. Install the wireless LAN board [A] (Knob × 2) into the board slot.



Note

When inserting into the slot, push the wireless LAN board until it is inserted properly.

The customer should keep the removed slot cover.

Installing the antennae

1. Peel off the double-sided tapes on the hook and loop fasteners [A], and then attach them [A] to the antennae.

Note

Attach the fasteners to the lower half of the antennae (The side of cable).

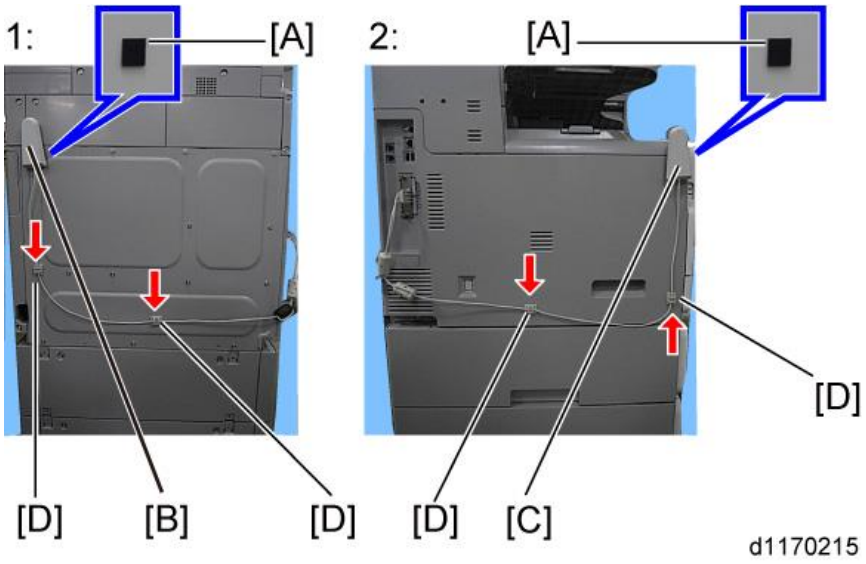
You can attach the fasteners to either side of the antenna.

2. Attach "ANT1" (having a black ferrite core) [B] to the rear of the machine, and then attach "ANT2" (having a white ferrite core) [C] to the front left (forward) of the machine.

3. Attach the clamps [D] as shown below, and then wire the cables and clamp them. (× 4)

Note

- "ANT1" is a transmission/reception antenna and "ANT2" is a reception antenna. Do not attach them at the wrong places.



1: Rear

2: Left

Note

Make sure that the cables are not slack. Keep them wired tightly along the covers.

4. Turn ON the power.
5. Make sure that the machine can recognize the option (see Check All Connections at the end of this section).

You may have to move the machine if the reception is not clear.

- Make sure that the machine is not located near an appliance or any type of equipment that generates strong magnetic fields.
- Put the machine as close as possible to the access point.

User Tool Settings for Wireless LAN

Enter the UP mode. Follow the procedure below to perform the initial interface settings for IEEE 802.11a/g/n. These settings take effect every time the machine is powered on.

Note

- You cannot use the wireless LAN if you use Ethernet.

1. Press the "Settings" icon.
2. Press "System Settings".

Note

- Select "Network/Interface"> "IEEE802.X Authentication" > "IEEE802.X Authentication for Ethernet". Either the Ethernet or the wireless LAN must be set to "Inactive".

3. Select "Network/Interface" > "Control Panel:Wireless LAN". Only the wireless LAN options show.
4. Set the “Communication Mode”.
5. Enter the SSID setting. (The setting is case sensitive.)
6. Set the “Ad-hoc Channel”. You need this setting when Ad Hoc Mode is selected. The allowed range for the channel settings may vary for different countries.
   Region A (mainly Europe and Asia)
   Range: 1-13, 36, 40, 44 and 48 channels (default: 11)
   In some countries, only the following channels are available:
   Range: 1-11 channels (default: 11)
   Region B (mainly North America)
   Range: 1-11, 36, 40, 44 and 48 channels (default: 11)

7. Set the “Security Method” to specify the encryption of the Wireless LAN.
   - The WEP (Wired Equivalent Privacy) setting is designed to protect wireless data transmission. The same WEP key is required on the receiving side to unlock encoded data. There are 64 bit and 128 bit WEP keys.
     Range of Allowed Settings:
     - 64 bit: 10 characters
     - 128 bit: 26 characters
   - Specify “WPA2” when “Communication Mode” is set to “Infrastructure Mode”. Set the “WPA2 Encryption Method” and “WPA2 Authent. Method”.
     WPA2 Encryption Method: CCMP (AES) is fixed.
     WPA2 Authent. Method: Select either “WPA2-PSK” or ”WPA2”.
     If you select “WPA2-PSK”, enter the pre-shared key (PSK) of 8 -63 characters in ASCII code.
     When “WPA2” are selected, authentication settings and certificate installation settings are required.
8. Press "Wireless LAN Signal Status" to check the machine’s radio wave status using the operation panel.

   Note

   Press "Restore Factory Defaults" to initialize the following settings:
   - Transmission mode
   - Channel
   - WEP
   - SSID
   - WEP Key

SP Mode and UP Mode Settings for IEEE 802.11a/g/n

The following SP commands and UP modes can be set for IEEE 802.11a/g/n:

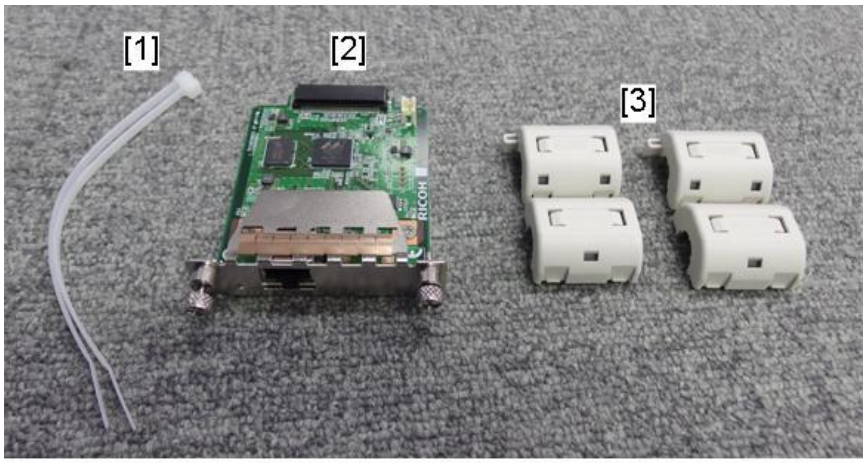
SP No.	Name	Function

SP5-840-011	WEP Key Select	Used to select the WEP key (Default: 00).
UP mode	Name	Function
	SSID	Used to confirm the current SSID setting.
	WEP Key	Used to confirm the current WEP key setting.
	WEP Mode	Used to show the maximum length of the string that can be used for the WEP Key entry.

Device Server Option Type M37 (D3GF-10, -11)

Component Check

No	Items	Q'ty	Remarks
1	Cable Ties	2	
2	Interface Board	1	
3	Ferrite Core	2	



Note

- An Ethernet cable is not included with this option.

Installation Procedure

⚠CAUTION

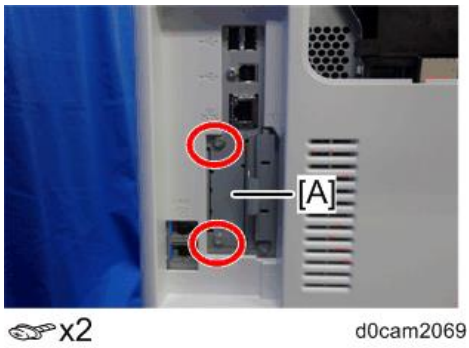
- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.
- Do not put your hand into the controller box. It will result in a malfunction or injury.
- There is a possibility that the Device Server Option may malfunction due to static electricity.

Only one of the following network interfaces can be installed at one time:

- File Format Converter
- IEEE 1284 Interface Board
- IEEE 802.11a/g/n Interface Unit

- Device Server Option

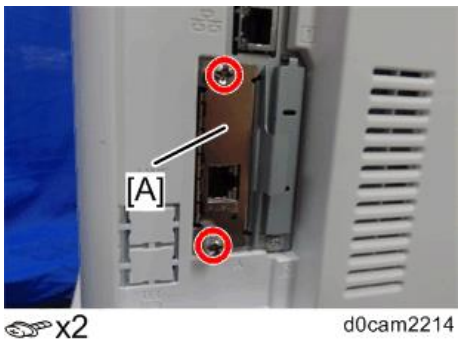
1. Remove the interface slot cover [A].



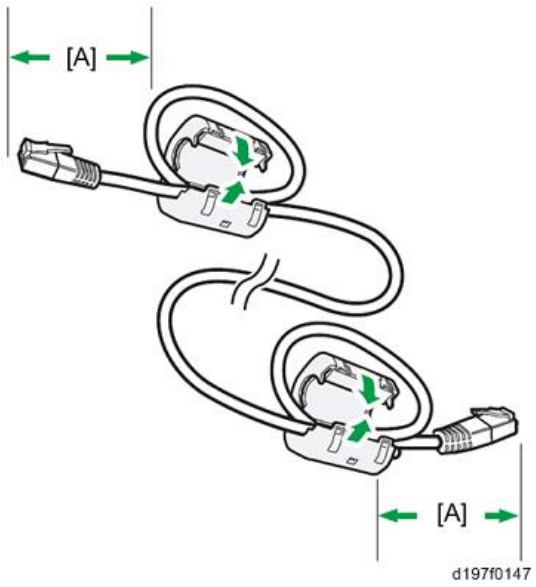
2. Insert the interface board [A] in the interface slot and then fasten it with screws.

Note

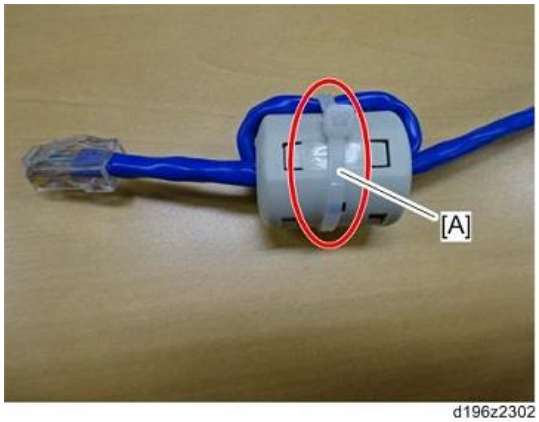
When inserting into the slot, push the interface board until it is inserted properly.



3. Attach the ferrite cores to the Ethernet cable, while looping the cable at 3 cm (approx. 1.2 inch) [A] from the each end of the cable.

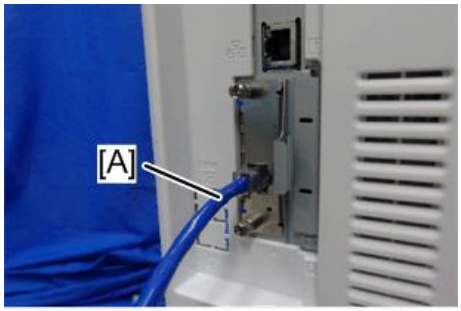


4. Only for installing this option in North America, bind both cores with cable ties [A] as shown below.



d196z2302

5. Insert the Ethernet cable [A] into the Ethernet port on this option.



d0cam2215

6. Insert the other end of the Ethernet cable to a PC for network setting.

Important

When you install this option on the main machine for the first time, the interface board must be connected directly to the PC to set up the IP address and other network settings.

7. Plug the power cord and turn ON the power.
8. Make sure that the machine recognizes this option correctly by doing one of the following:
   1. Access the option's IP address from a web browser.
   2. Ping the option's IP address from a command prompt on a Windows PC in the same network as the mainframe.

      If the IP address cannot be found (DHCP server), use the MAC address. This is the number printed on the seal attached to the printed circuit board for the USB server.

d0bqm0395

   3. Use "RX" + the option's MAC address and access a web browser.

      Example: http://RX0080926A3264

d196z2351

4. Ping the “RX” + “MAC address” from the command prompt, on a windows PC which is on the same network as the mainframe.

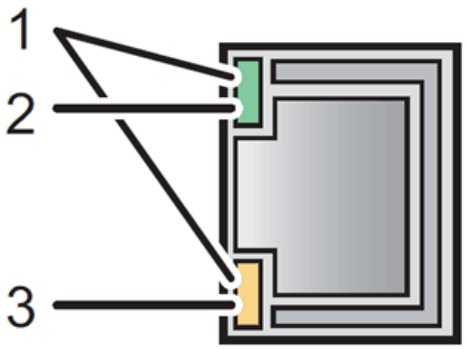
d196z2352

Note

- When installing the Device Server Option Type M37, the installation status is not shown on the Configuration Page.
- The customer should keep the removed slot cover.

What Do the LED Indications Mean?

When this option is properly installed and recognized by the main machine, the LED indicators light up under the following conditions.



d197f0149

No.	Light Color	Lights Up When:
1	Green and Yellow	1000BASE-T operates
2	Green	10BASE-T operates
3	Yellow	100BASE-TX operates

Notes for Energy Save Mode Setting

If a machine with this option enters into the energy saving mode, printing is not possible because of a communication error . Follow the instructions below to disable the machine’s entering into the energy saving mode.

1. Enter SP mode, and then set SP5-191-001 (Power Setting: Power Str) to "0 (Off)".

IP Address Setting

This section describes how to set an IP address on this option manually. Not only can you set an IP address on the same network segment, but it is also possible to set an IP address on a different network segment to share a single printer with devices in multiple networks.

Important

- The network setting of this option is initially assigned as follows:
  IP address: 192.168.100.100 / Subnet mask: 255.255.255.0
- The network setting of the PC must be in the same network segment to change the network setting of this option.

- Changing the IP address from the operation panel of the main machine.

1. Press [System Settings] in [Settings] on the operation panel.
2. Press [Optional Networks] in [Network/Interface].
3. Set the IP address,Subnet mask and Default Gateway which the customer specified.

- Changing the IP address from a web browser.

Note

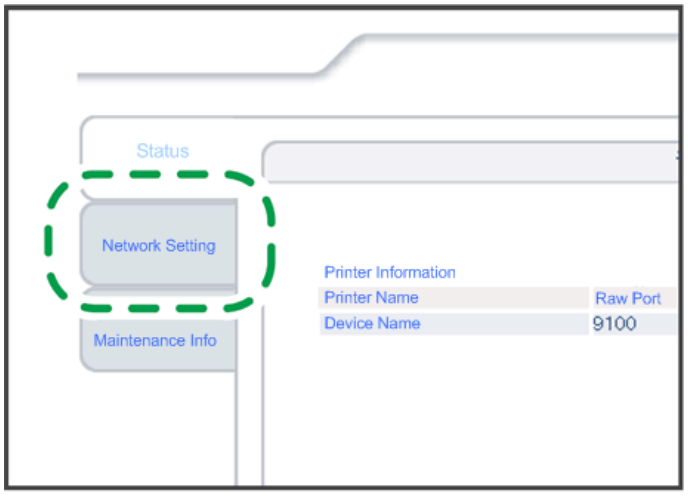
Make a note of the current network settings of the PC before Changing the IP address.

1. Change the IP address on the PC to [192.168.100.xxx (*0 - 255)], and then change the subnet mask on the PC to [255.255.255.0]. .
2. Open a web browser.
3. Type [http://192.168.100.100/] in the address bar, and then press the “Enter” key.

Note

- The setting screen for this option appears.

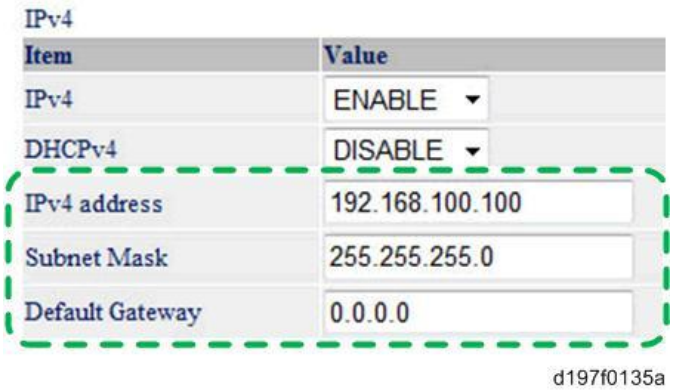
4. Click [Network Setting].



d197f0134

5. Enter “root” in the user name textbox and click [OK].

6. Input [IP Address], [Subnet Mask] and [Default Gateway].



d197f0135a

7. Set other items if necessary and then press [Set].

8. Close the web browser.

9. Disconnect the Ethernet cable from the PC, and then connect the Ethernet cable to a network device (e.g. switching hub)..

10. Set the IP address of this option in the printer driver which you use.

Enhanced Security HDD Option Type M10 (D792-09)

Accessory Check

No.	Description	Q'ty
1	Enhanced Security HDD	1
-	EMC Address	1

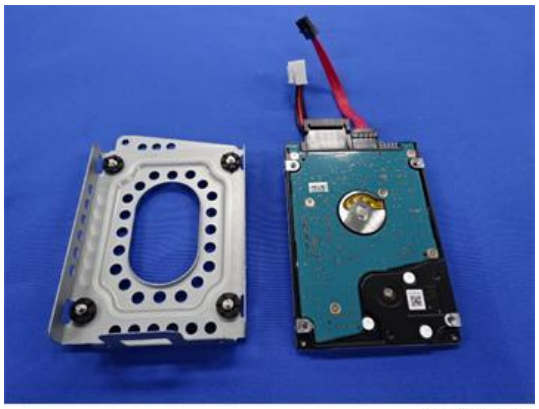
d191b0076

Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

1. Remove the standard HDD installed. (HDD)
2. Separate the standard HDD from the bracket.



d196z2120

3. Disconnect the cables from the standard HDD. (× 2)

d191b0077

4. Remove the enhanced security HDD from its protective pack.

d191b0078

5. Connect the two cables to the enhanced security HDD. (× 2)

d191b0079

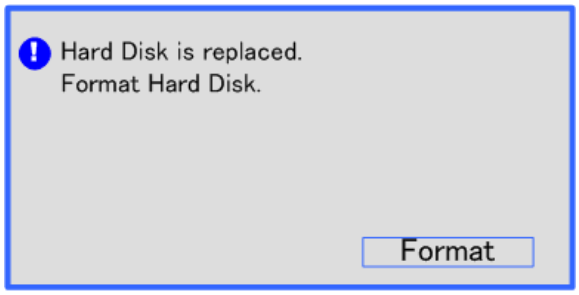
6. Fasten the HDD to the bracket. (× 4)

d196z2121

7. Install the HDD bracket in the mainframe. (× 3, × 2)
8. Reassemble the machine.

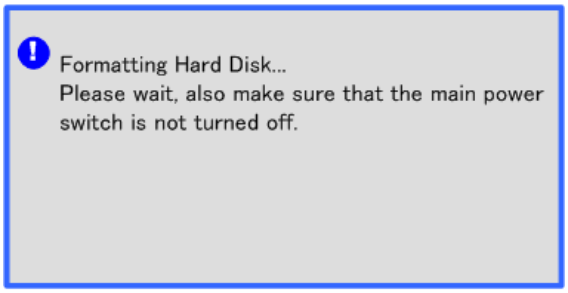
After Installing the HDD

1. Connect the power cord and turn the machine on. A message prompts you to format the hard disk.



d191b0081

2. Touch [Format].

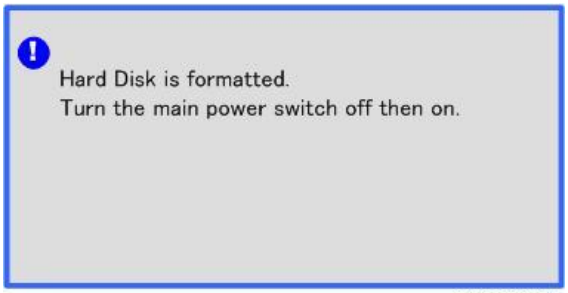


d191b0082

3. Wait for the machine to finish formatting the hard disk.

Important

- Do not touch the power switch while the hard disk format is in progress. Wait for the machine to tell you that the formatting is finished.



d191b0083

4. Turn the machine off/on after the message tells you formatting is finished.
5. Ask an administrator to register an HDD authentication code in the machine.

Important

- If the HDD Authentication Code is not registered, the function of the enhanced security HDD is not activated.

SD Card Options

SD Card Appli Move

Overview

There are only two SD card slots (one is a service slot), so only two SD card applications can be used simultaneously.
However, if multiple SD card applications are merged, three or more SD card options can be used.
This function is referred to as the "SD card merge function".
The "SD card merge function" is a function which enables the use of three or more functions within the capacity of two SD cards by physically transferring the function of one SD card to other SD cards (all SD card options can be stored in two SD cards).
However, SD card applications are under license, and the license is transferred to the target SD card after the merge. Therefore, the original SD card cannot be used after the merge. It cannot be used even if it is moved to the target machine.
There is also a process to prevent illegal copying.

Note

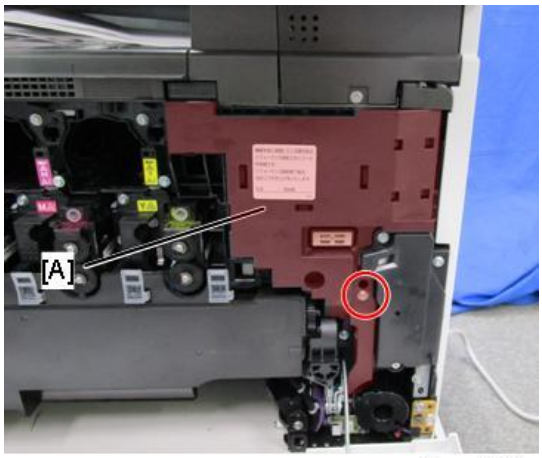
In the previous models, the PostScript 3 unit data was prohibited from being moved by the license. Since the software related to the license has been transferred to the controller board (PCB24) and is provided as standard equipment in the present model, the PostScript 3 unit data can be moved.

SD Card Storage Location

1. Remove the paper tray.
2. Remove the cover [A].

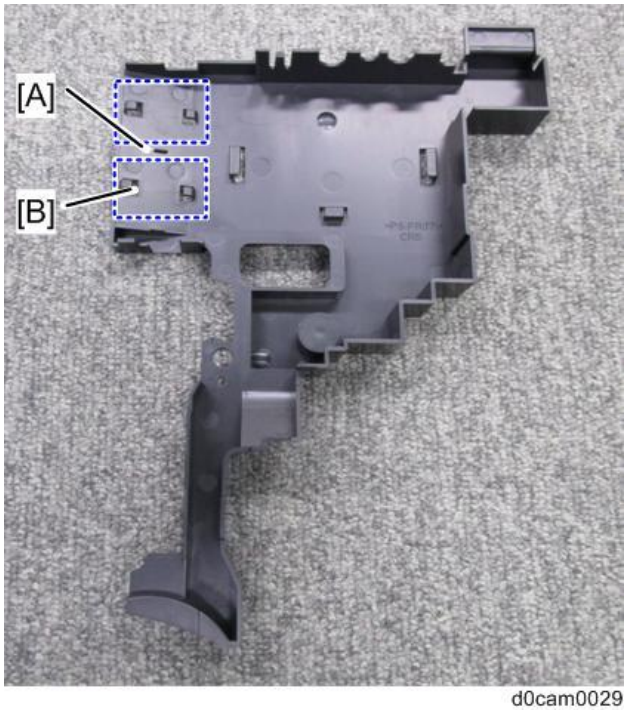
3. Open the front door.

4. Remove the cover [A]. (hook × 1)



x1 d0cam0015a

5. Insert the SD card into either socket [A] or [B].



d0cam0029

SMC Sheet Storage Location

1. Open the ADF.
2. Remove the platen sheet [A].

d0cam2401

3. Store the SMC sheet on the red dotted area [A] as shown below .

4. Reattach the platen sheet.

Note

The original application SD card should be kept in a safe place, for the following reasons:

- The SD card is the only proof that the user is licensed to use the application.
- The data on the SD card might need to be checked in the future to resolve problems.

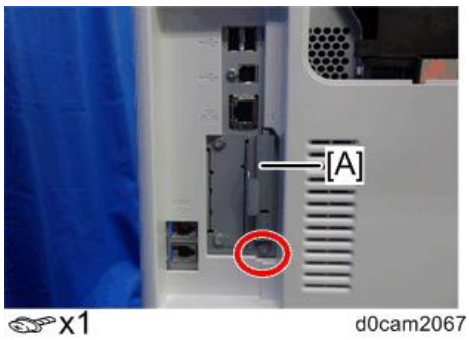
Move Exec

"Move Exec" (SP5-873-001) lets you move application programs from the original SD card to another SD card.

Important

- Do not turn ON the write protect switch of the system SD card or application SD card on the machine. If the write protect switch is ON, a download error (e.g. Error Code 44) occurs during a firmware update or application merge.

1. Turn OFF the power.
2. Remove the SD card slot cover [A].



3. Make sure that a target SD card is in SD card slot 1 (upper). The application program is moved to this SD card.
4. Insert the source SD card with the application program in SD card slot 2 (lower). The application program is copied from this source SD card.
5. Turn ON the power.
6. Enter the SP mode.
7. Select SP5-873-001 "Move Exec".
8. Follow the messages shown on the operation panel.

9. Turn OFF the power.
10. Remove the source SD card from SD card slot 2 (lower).
11. Attach the slot cover.
12. Turn ON the power.
13. Check that the application programs run properly.
14. Make sure that the machine can recognize the option (see Check All Connections at the end of this section).

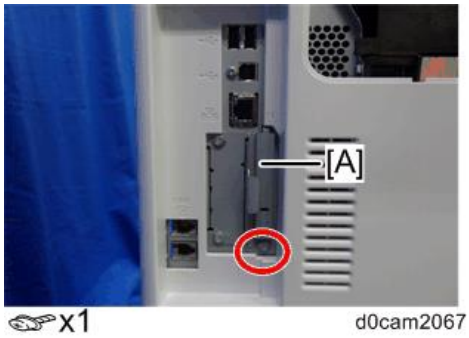
Undo Exec

"Undo Exec" (SP5-873-002) lets you move application programs from an SD card in SD card slot 1 (upper) back to the original SD card in SD card slot 2 (lower). This program could be used if a mistake was made when using Move Exec (SP5-873-001).

Important

- Do not turn ON the write protect switch of the system SD card or application SD card on the machine. If the write protect switch is ON, a download error (e.g. Error Code 44) occurs during a firmware upgrade or application merge.

1. Turn OFF the power.
2. Remove the SD card slot cover [A].

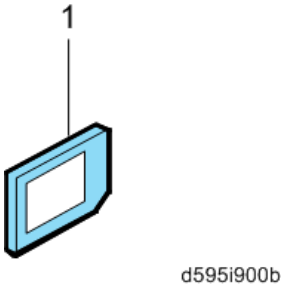


3. Insert the original SD card in SD card slot 2 (lower). The application program is copied back into this card.
4. Insert the SD card with the application program in SD card slot 1 (upper). The application program is copied back from this SD card.
5. Turn ON the power.
6. Start the SP mode.
7. Select SP5-873-002 "Undo Exec."
8. Follow the messages shown on the operation panel.
9. Turn OFF the power.
10. Reattach the SD card slot cover.

OCR Unit Type M13 (D3AC-23, -24, -25)

Component Check

No.	Description	Q'ty
1	SD Card	1



d595i900b

Searchable PDF Function Outline

This option adds a searchable PDF function to the scanning function.

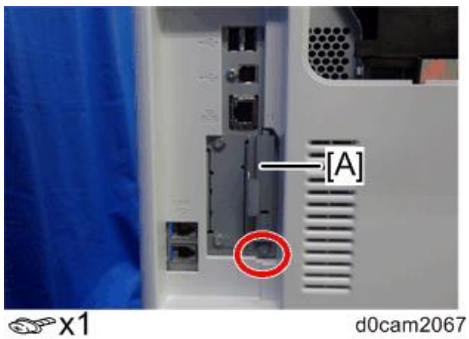
- The searchable PDF function performs OCR by the MFP on a document read with the scanner and embeds text data in the PDF. This permits PDF text browsing, automatic assignment of filenames, and automatic alignment of document orientation.
- This option is provided with an SD card. By installing an SD card in the MFP, a functional icon is added to the control unit. Installing software on a PC is not required.
- If this option is installed, various settings related to the searchable PDF function are available.
- OCR is performed after the document has been read (after being read by the ADF and output). Therefore, after reading is completed, documents can be collected from the document glass or ADF.
- Other functions, such as the copy function and printer function, can be used during OCR.

Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

1. Remove the SD card slot cover [A] from the SD card slots.



d0cam2067

2. Insert the SD card in SD slot 1 (upper) with its label face to the front of the machine.

3. Turn ON the power.
4. Enter the SP mode, and then press “Enter” in SP5-878-004 (Option Setup: OCR Dictionary).
   The SD card ID is saved in the NVRAM, and the ID of the MFP is saved on the SD card. The MFP and SD card are thereby linked.
5. When “operation complete” is displayed, press "Close”.

Note

- If installation fails, "Failed" is displayed.
- If installation fails, perform the following steps:
  1. Check whether it is a used SD card.
  2. Turn the main power OFF, and repeat steps 2-5.

6. Cycle the power OFF and ON.
7. Press “Enter” in SP5-878-004 (Option Setup: OCR Dictionary).
   Dictionary data is copied to the HDD.

Note

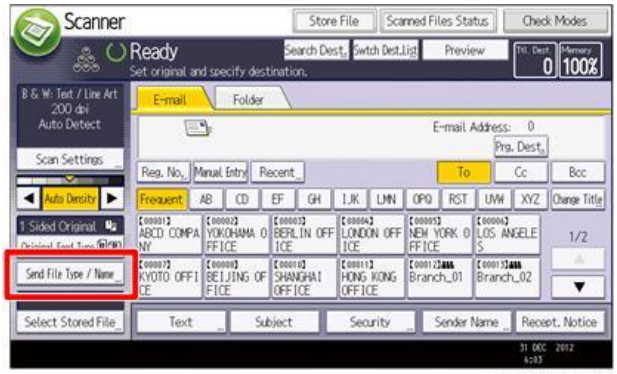
- On the first run, SP5-878-004 links the SD card, and on the second run, copies dictionary data.

8. Turn OFF the power, and remove the SD card from the SD card slot.

Note

- Keep the SD card in the SD card storage location of the MFP. The original SD card is needed in the event of a HDD malfunction.

9. Return the SD card slot cover to the original position.
10. Turn ON the power.
11. Press [Scanner (Classic Mode)] on the Home screen.
12. Press [Send File Type / Name].



w_d1351739

13. Check if [OCR Settings] is displayed on the [Send File Type / Name] screen.

w_d1351740

Note

- After installation, the OCR setting can be changed on the "OCR setting" screen.
- When setting up OCR, set [OCR setting] to [Yes]. (Default setting: [No])

Recovery Procedure

When this option is installed, a function is saved on the HDD, and ID information on the SD card is saved in the NVRAM. Therefore, when replacing the HDD and/or NVRAM, this option must be reinstalled.

How to recover if the original SD card has been kept

- When only the HDD is replaced, reinstall using the original SD card.
- When only the NVRAM is replaced, if uploading or downloading NVRAM data, reinstall using the original SD card.If not uploading or downloading NVRAM data, order and reinstall a new SD card (service part).
- When the HDD and NVRAM are replaced simultaneously, reinstall using the original SD card.

How to recover if the original SD card has been lost

Order and reinstall a new SD card (service part).

Note

- Perform reinstallation in the same way as installation.

Data Overwrite Security Unit Type M19 (D3BS-03)

Overview

The machine’s hard disk stores all document data from the Copier, Printer, and Scanner functions. It also stores the data of users’ Document Server and code counters, and the Address Book. To prevent data on the hard disk being leaked before disposing of the machine, you can overwrite all data stored on the hard disk (Erase All Memory). You can also automatically overwrite temporarily-stored data (Auto Erase Memory).

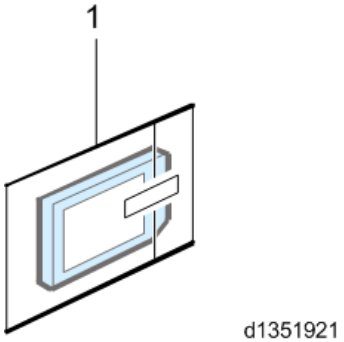
This option has the same function as the Data Overwrite Security in the Security Functions, which is

standard on this machine. This option should be installed only for customers requiring the CC certified Data Overwrite Security function.

Component Check

Check the quantity and condition of the accessories in the box against the following list.

No.	Description	Q'ty
1.	SD Card	1
-	Comments Sheet	1
-	Operating Instructions CD-ROM	1



d1351921

Before You Begin the Procedure

1. Confirm that the Data Overwrite Security unit SD card is the correct type for the machine. The correct type for this machine is "**Type M19"**.

   Important

   - If any version other than "Type M19" is installed, the NVRAM has to be replaced, and this installation procedure has to be done again .

2. Make sure that the following settings are not at their factory default values:
   - Supervisor login name
   - Supervisor login password
   - Administrator login name
   - Administrator login password

   If any of these settings is at a factory default value, tell the customer these settings must be changed before the installation procedure.
3. Make sure that “Admin. Authentication” is ON.
   [Settings] > [System Settings] > [Settings for Administrator] > [Authentication/Charge] > [Administrator Authentication/User Authentication/App Authentication] > [Administrator Authentication Management] > [Admin. Authentication]
   If this setting is OFF, tell the customer this setting must be ON before the installation procedure.
4. Make sure that “Administrator Tools” is enabled (selected).
   [Settings] > [System Settings] > [Settings for Administrator] > [Authentication/Charge] > [Administrator Authentication/User Authentication/App Authentication] > [Administrator

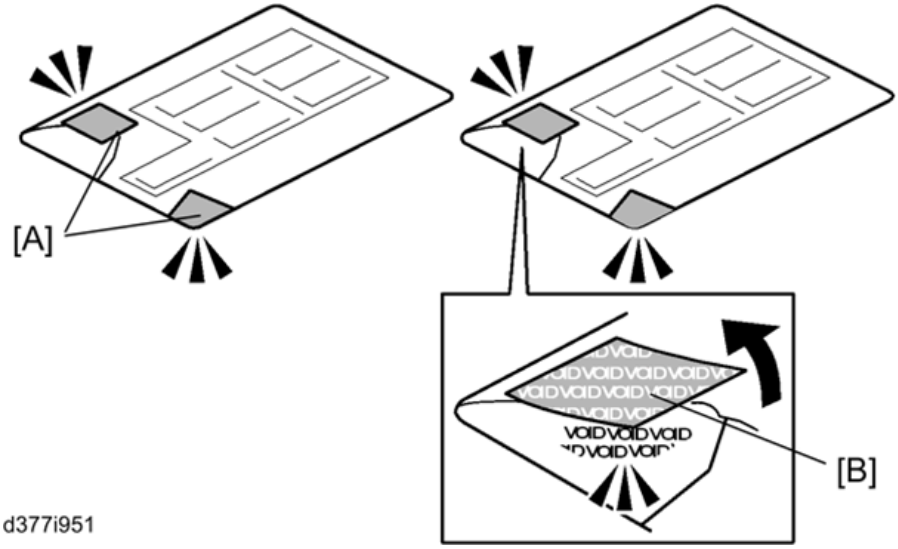
Authentication Management]> [Available Settings]
If this setting is disabled (not selected), tell the customer this setting must be enabled (selected) before the installation procedure.

Seal Check and Removal

Make sure that the box seals are attached to the box properly. If those are not, this option has an initial failure.

Note

“VOID” [B] can be seen when the seal is removed.



d377i951

Before installation, you must make sure the box seals have not been opened since they were initially sealed at the factory.

1. Check the box seals [A] on each corner of the box.
   - Make sure that a tape is attached to each corner.
   - The surface of the tape must be blank. If you see "VOID" on the tape, do not install the components of the box.
2. If the tape surface does not show “VOID”, remove them from the corners of the box.
3. You can see the “VOID” marks [B] when you remove each seal. In this condition, they cannot be attached to the box again.

Installation Procedure

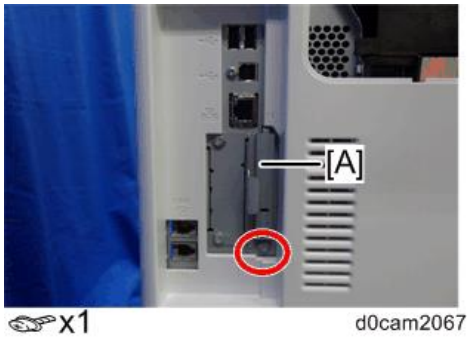
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

Installing the data overwrite security unit

1. Remove the network cable.

2. Remove the SD card slot cover [A].



Note

Merge the SD card contents if necessary. (SD Card Appli Move)

3. Insert the SD card (DataOverwriteSecurity Unit) in SD slot 1 (upper) with its label face to the front of the machine.
4. Turn ON the main power.
5. Enter the SP mode, and then execute SP5-878-001 (Option Setup: Data Overwrite Security). If the installation fails, "Installation failed" is displayed when this SP is executed.

Note

[If using the same HDD after installing the data overwrite security unit]

If using the same HDD after installing this option, execute the SPs listed below ("1" through "3") before specifying SP5 -878 001. However, if replacing the HDD, you need only execute "1".

If the customer continues using the same hard disk, the overwriting of the data stored on the disk before the option is installed cannot be guaranteed. It is highly recommended to replace the hard disk with a new one.

- SP5-801-014 (Clear DCS Setting)
- SP5-832-001 (HDD Formatting (ALL))
- SP5-832-002 (HDD Formatting (IMH))

6. Set SP5-836-001 (Capture Function (0:Off 1:On)) to a value of 0 (disabled).
7. Exit the SP mode.
8. Print out the System Settings List and make sure that the option was installed successfully.(see "Check All Connections" at the end of this section)
9. Turn OFF the main power.
10. Reattach the SD card slot cover.
11. Reattach the network cable.
12. Turn ON the main power.

Confirming the firmware version

When you finish executing SP5-878-001 ([Option Setup: Data Overwrite Security), make sure to confirm the firmware version before executing "Auto Erase Memory"

1. Enter the SP mode, and then execute SP5-990-005 (SP print mode Diagnostic Report).
   Make sure to shut down and reboot the machine once before printing the SMC. Otherwise, the

latest settings may not be collected when the SMC is printed.

2. Make sure that ROM number "D3BC5757A" and firmware version "1.02" or newer appear in both of the following areas on the report (they must match):
   - "ROM Number / Firmware Version" - "HDD Format Option"
   - "Loading Program"

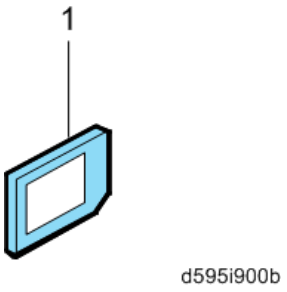
Configuring "Auto Erase Memory" (Performed by the Customer)

Refer to "Using "Auto Erase Memory"".

Camera Direct Print Card Type M37 (D3GF-30)

Component Check

No.	Description	Q'ty
1	SD Card	1

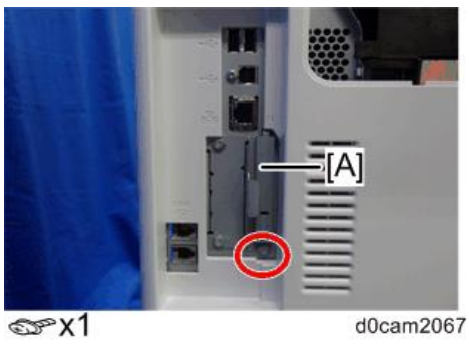


Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

1. Remove the SD card slot cover [A].



2. Insert the SD card (PictBridge) in SD slot 1 (upper) with its label face to the front of the machine.

Note

Merge the SD card contents if necessary. (SD Card Appli Move)

3. Turn ON the power.
4. Attach the SD card slot cover.
5. Make sure that the machine can recognize the option. (see Check All Connections at the end of this section)

PostScript3 Unit Type M41 (D0CJ-26, -27, -28)

Overview

This machine is equipped with a clone program for emulating Adobe PostScript/PDF (hereafter “Clone PS”) as a standard feature. So, by factory default, it can print using PostScript 3 and PDF Direct Print, in addition to RPCS.
However, the variety and number of built-in fonts (device fonts) differ between Adobe PS and Clone PS, sometimes resulting in different printing results.
The PostScript3 Unit Type M41 is an available option to address the possible customer needs listed below.

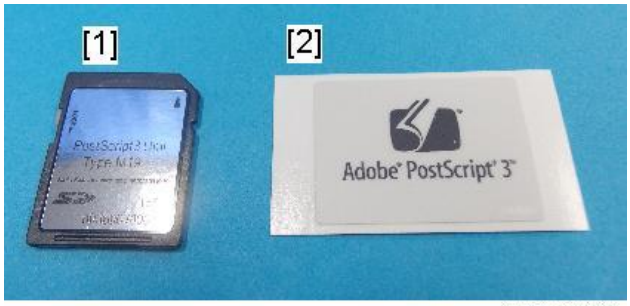
- When the customer wants to use device fonts supplied with Adobe PS.
- Since forms and ledgers have been created based on device fonts supplied with Adobe PS, a changeover to Clone PS requires a redesign of these documents.
- From the viewpoint of a precise printing operation, it is impossible to accept any differences in output results in comparison with Adobe PS.

Note

Refer to "PS3/PDF Direct Emulation (Clone PS)" for detailed functions of Adobe PS3/PDF and PS3/PDF Direct Emulation

Component Check

No.	Description	Q’ty
1	SD Card	1
2	PS3 Decal	1



Installation Procedure (Adobe PS)

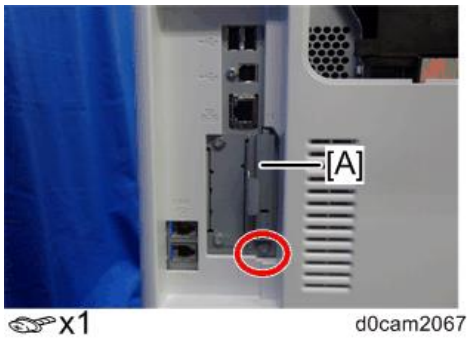
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

Note

- Since PS3/PDF Direct Emulation and Adobe PS/PDF cannot be launched at the same time, PS3/PDF Direct Emulation is disabled when PS3 card type M 41 is installed.

1. Remove the SD card slot cover [A].

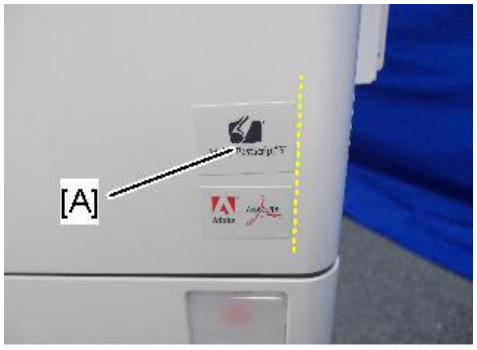


2. Insert the SD card in SD slot 1 (upper) with its label face to the front of the machine.

Note

Merge the SD card contents if necessary. (SD Card Appli Move)

3. Stick the "Adobe PostScript3" decal [A] on the front face of the MFP.



4. Turn ON the power.
5. Attach the SD card slot cover.
6. Make sure that the machine can recognize the option. (see Check All Connections at the end of this section)
   - Note that the description of Firmware Version shown in the printed Configuration Page differs between Clone PS and Adobe PS.

PS type	Description of Firmware Version
When PostScript3 Unit Type M41 (Adobe PS) is installed	RPCS [x.xx.xx] Adobe PostScript 3 [x.xx], Adobe PDF [x.xx]
Clone PS	RPCS [x.xx.xx] PS3 [x.xx], PDF [x.xx]

Initial Settings for the Printer Driver

After installing an SD card, configure the printer driver settings based on the PS type.

Note

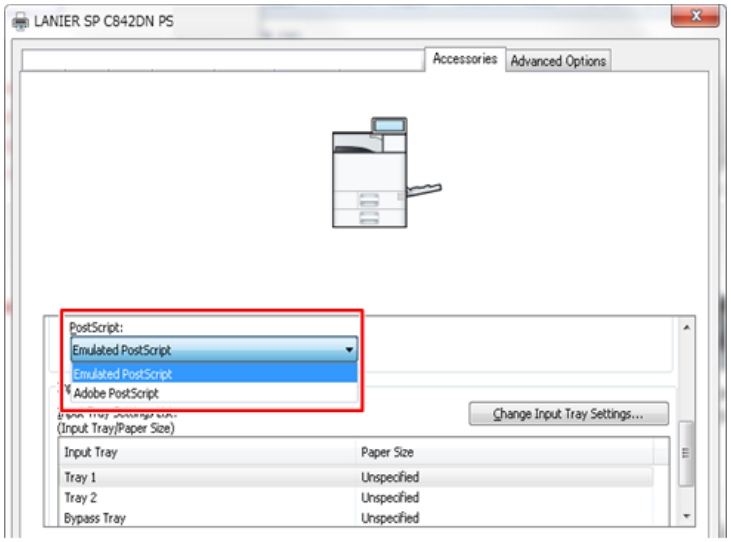
- The same printer driver, the PS3 printer driver, can be used for printing either Adobe PS or Clone PS.

Setting items (Windows):

If interactive communication is enabled, the machine tries to acquire information to configure automatically.

If configuring manually, select “Adobe PostScript” if Adobe PS is used, and choose “Emulated PostScript” if Clone PS is used.

1. On the [Start] menu, click [Devices and Printers].
2. Right-click the icon of the printer you want to use.
3. Click [Printer properties].
4. Click the “Accessories” tab and configure settings for Adobe PS/Clone PS using the PostScript pull-down menu.



m0ajm0301

Setting items (Mac OS X):

If the driver is installed through the Bonjour function or “HP Jetdirect - Socket”, the settings will be automatically configured.

Automatic configuration will not work if any other protocol is used for installation. In this case, manual configuration is required.

If configuring manually, select “Adobe PostScript” if Adobe PS is used, and “Emulated PostScript” if Clone PS is used.

Switching back to Clone PS from Adobe PS

Clone PS can be resumed by removing the Adobe PS card from the SD card slot and applying the firmware for Clone PS/PDF (“.fwu” or “.rfu”).

Note

- This should be done by service technicians.

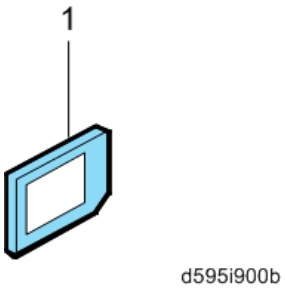
In doing this, be sure to apply both PS3 and PDF firmware modules. If only one of them is applied, the machine will not operate properly. (As a stopgap measure to fix the malfunction, insert the optional Adobe PS card again into the SD card slot to enable the use of Adobe PS. Then, Clone PS can be resumed by applying both the PS3 and PDF firmware modules once again.)

Classification	Firmware name	Software part number
Clone PS component firmware	Clone PS3	D0AF5573
	Clone PDF	D0AF5575
	IRIPS Font	D0AF5577
Adobe PS component firmware	Adobe PS3	D3BD5731
	Adobe PDF	D3BD5733
	PS3 Font	D2415681

XPS Direct Print Option Type M41 (D0CJ-02, -20)

Component Check

No.	Description	Q'ty	Remarks
1	XPS Direct Print SD Card	1	

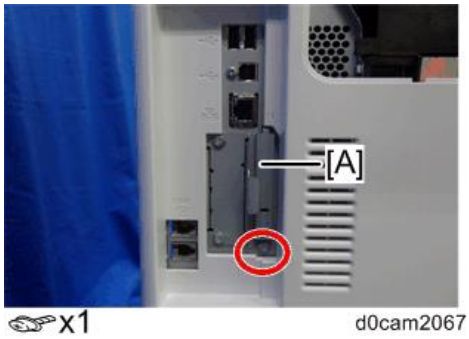


Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

1. Remove the SD card slot cover [A].



2. Insert the SD card (XPS) in SD slot 1 (upper) with its label face to the front of the machine.

Note

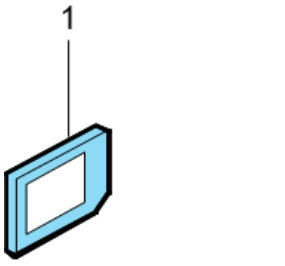
Merge the SD card contents if necessary. (SD Card Appli Move)

3. Turn ON the power.
4. Attach the SD card slot cover.
5. Make sure that the machine can recognize the option. (see Check All Connections at the end of this section)

VM CARD Type M37

Component Check

No.	Description	Q'ty	Remarks
1	SD Card	1	



Installation Procedure

Note

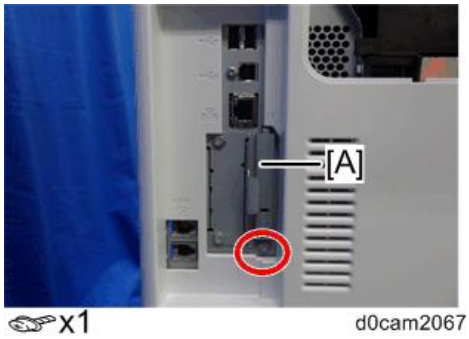
- Turn OFF the main power and unplug the power cord from the wall socket. If the main power is not turned OFF before installing, an electric shock or malfunction might occur.

Note

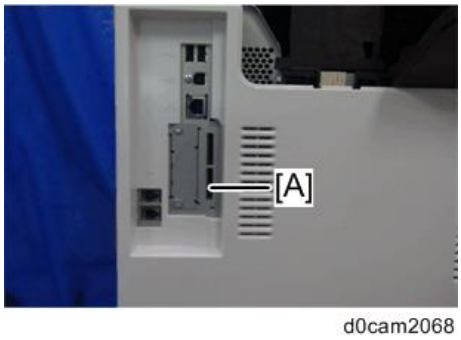
- When installing more than one SD card, perform the merge operation (SD Card Appli Move).
- Before installing Embedded Software Architecture (ESA) apps, install the Java platform with a VM card on the machine. Without the Java platform installed, no ESA app will run on the MFP.

2.Installation

1. Remove the SD card slot cover [A].



2. Insert the VM Card in SD card slot 2 [A: Lower Slot].



3. Reattach the SD card slot cover.
4. Turn ON the main power.
5. Print out the "Configuration Page", and then check if this option is correctly recognized.(see "Check All Connections" at the end of this section)

Installing the Java Platform

1. Turn ON the main power.

Note

Insert the SD card and turn the main power on, then the Java platform is automatically installed.

- Automatic installation takes approximately 1 minute.
- If you turn the power off during installation, the VM card may be damaged.
- Be sure to check the following before turning the power off.

2. Press "Settings" icon.
3. Press [System settings], [Extended Feature Information], and then [Extended Feature Information].
4. If the installation is completed correctly, [JavaTM Platform] appears in the Extended Feature Information menu.
5. Press [Exit] twice to exit from the Extended Feature Information menu.

Note

Operate the machine with the JavaVM SD card installed in SD Card Slot 2 (bottom slot).

6. Turn OFF the main power and then back on

Check All Connections

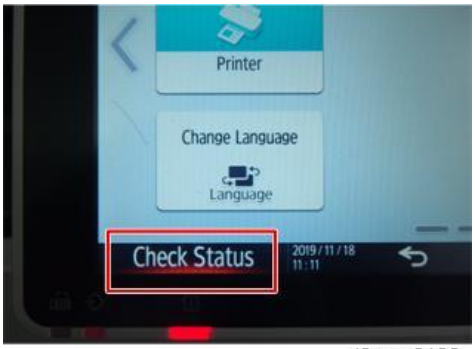
1. Plug in the power cord.
2. Turn ON the main power.
3. Print the configuration page.
   [Settings] > [Printer Settings] > [List/Test Prints] > [Machine Information] > [Configuration Page]
   All installed options are shown in the "System Reference" column.

Instructions for the Customers

Please explain the following points to customers when installing the machine. These items are explained in more detail in the operating instructions.

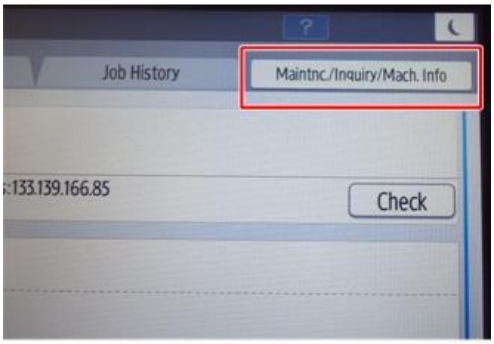
- How to add paper to the paper feed unit and the by-pass feed unit.
- How to install a toner bottle
- How to handle paper jams
- How to appear Supplies Replacement Video list

1. Click “Check Status”.



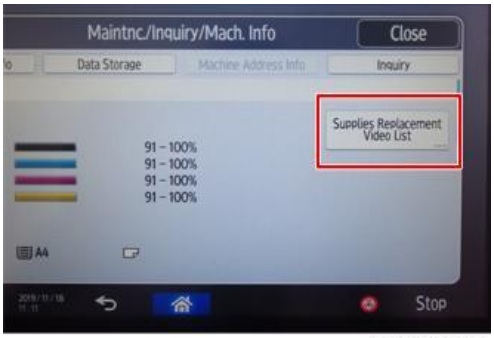
d0cam0128

2. Click “Maintnc/Inquiry/Mach.Info".



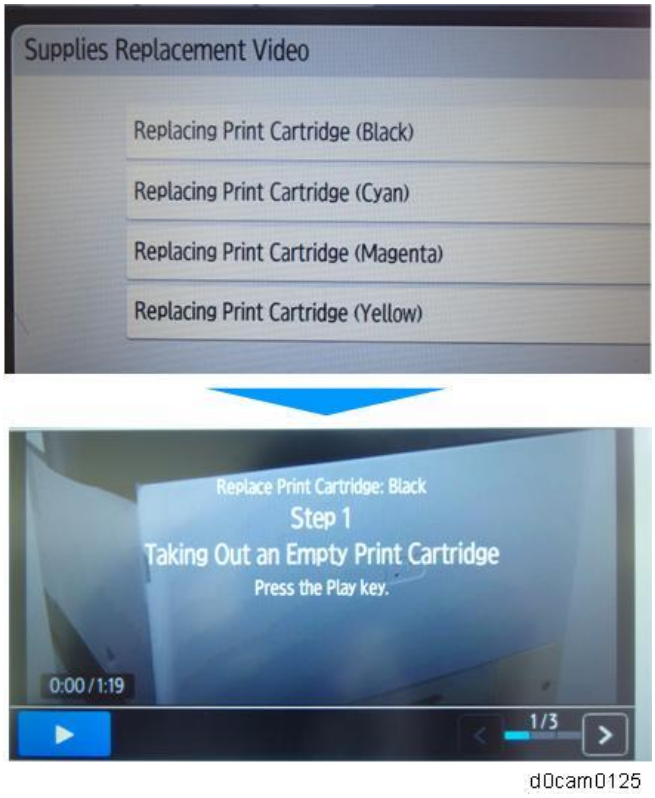
d0cam0127

3. Click “Supplies Replacement Video List”.



d0cam0126

4. Select the color that you want to replace, then click ▶.



3. Preventive Maintenance

Maintenance Tables

See "Appendices" for the following information:

- Maintenance Tables

PM/Yield Parts Settings

Replacement Procedure of the PM/Yield Parts

There are two ways to reset the PM counter for this machine.

- Method 1: Reset by SP3-701 (New Unit Detection). This is the conventional method
- Method 2: Reset by [PM Counter / New Unit Set] Menu

Method 2 is recommended for its ease of operation.

Important

For the following units, there is a new unit detection mechanism. It is not necessary to reset PM counters.

- Fusing unit
- PCDU
- Waste toner bottle (When the bottle is replaced AFTER a waste toner full or near-full message appears on the operation panel)

Method 1: By SP3-701 (New Unit Detection)

1. Enter the SP mode.
2. Output the SMC log data using one of the following ways:

   a) Execute SP5-990-001 to print SMC log data.

   b) Execute SP5-992-001 to save SMC log data to an SD card. (Refer to "SMC List Card Save Function")

   Note

   Print out the PM counter list by following the procedure below.

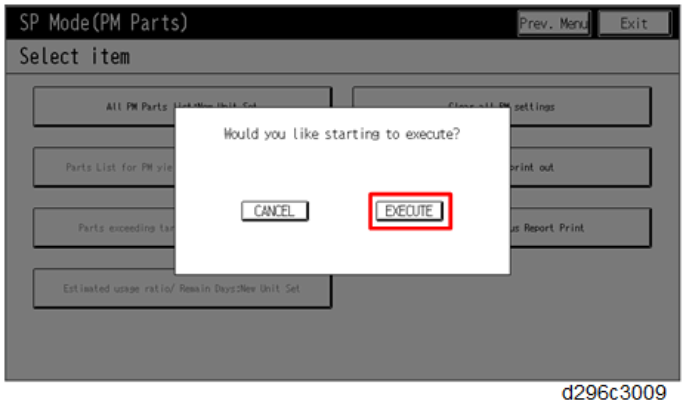
   1. In the SP mode menu, press [PM Counter / New Unit Set].

d296c3006

   2. Press [Counterlist print out].

d296c3007

3.Press [EXECUTE] to output the PM counter list.



d296c3009

4. Press [Exit].

3. In the SMC data, check the values of the counters in SP7-621-002 to 208, to determine what parts should be replaced. (Refer to the SP table in the appendix.)

4. Set the following SPs (New Unit Detection) to "1" to reset the PM counter.

Item	SP
Fusing sleeve belt assembly	SP3-701-116
Pressure roller	SP3-701-118
ITB unit	SP3-701-093
Paper transfer roller unit	SP3-701-109
Waste toner bottle (When the bottle is replaced BEFORE a waste toner full or near-full message appears)	SP3-701-142
ADF	Friction pad: SP3-701-206 Pickup roller: SP3-701-207 Feed roller: SP3-701-208
Paper feed tray (Tray 1) For A	Feed roller: SP3-701-147 Friction pad: SP3-701-148

Item	SP
Paper feed tray (Tray 1) for B/Bf	Pick-up roller: SP3-701-158 Feed roller: SP3-701-159 Separation roller:SP3-701-160
Paper feed tray (Tray 2)	Feed roller: SP3-701-150 Friction pad: SP3-701-151
Paper feed tray (Tray 3)	Feed roller: SP3-701-153 Friction pad: SP3-701-154
Paper feed tray (Tray 4)	Feed roller: SP3-701-156 Friction pad: SP3-701-157
Bypass feed roller	SP3-701-169

The PCDU and fusing unit detect a new unit automatically.

5. Turn OFF the main power, and unplug the power cord.
6. Replace the PM parts and turn ON the power.
   The machine will reset the PM counters automatically. In the case of the development unit, developer initialization will also be done automatically.
7. Exit the SP mode.

Method 2: By [PM Counter / New Unit Set] Menu

1. Enter the SP mode.
2. Output the SMC log data using one of the following ways:
   a) Execute SP5-990-001 to print SMC log data.
   b) Execute SP5-992-001 to save SMC log data to an SD card. (Refer to "SMC List Card Save Function")

Note

Print out the PM counter list by following the procedure below.

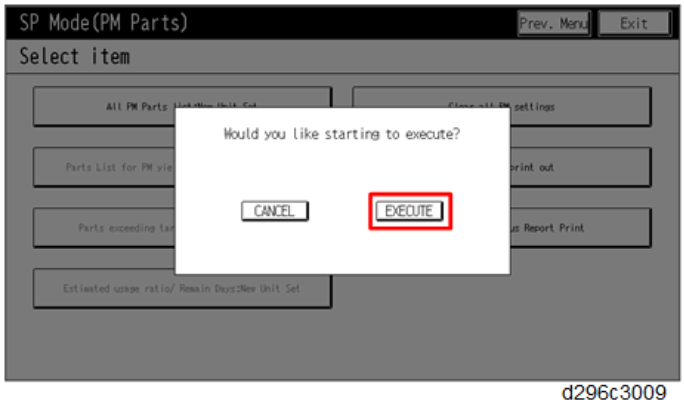
1. In the SP mode menu, press [PM Counter / New Unit Set].

d296c3006

2. Press [Counterlist print out].

d296c3007

3. Press [EXECUTE] to output the PM counter list.



d296c3009

4. Press [Exit].

3. In the SMC data, check the values of the counters in SP 7-621-002 to 208, to determine what parts should be replaced. (Refer to the SP table in the appendix.)

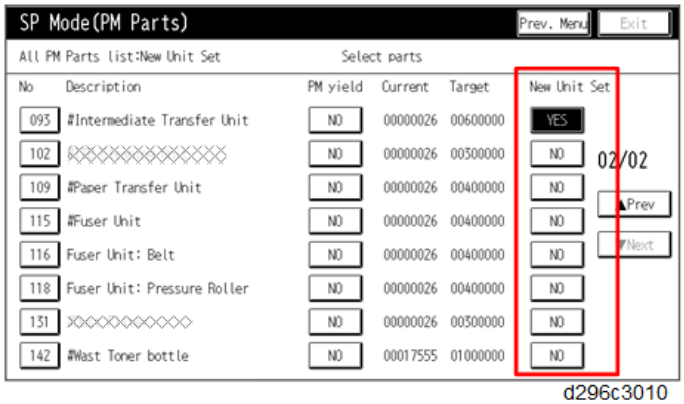
4. In the SP mode menu, press [PM Counter / New Unit Set].

d296c3006

5. Press [All PM Parts List : New Unit Set].

d296c3008

6. Set the PM part that you want to replace to "YES" under "New Unit Set".
After pressing "YES", the [Exit] key will not be available.



d296c3010

7. Turn OFF the power and unplug the power cord.

8. Replace the PM parts and turn ON the power.
The machine will reset the PM counters automatically. In the case of the development unit, developer initialization will also be done automatically.

9. Exit the SP mode.

After Installing the New PM Parts

1. Turn the main power ON, and enter the SP mode.
2. Make sure that the PM counters for the replaced units are "0" with SP7-621-002 to 208.
   If the PM counter for a unit was not reset, then execute the new unit detect setting with SP3-701 again and turn the main power OFF/ON.

Note

Print out the PM counter list by following the procedure below.

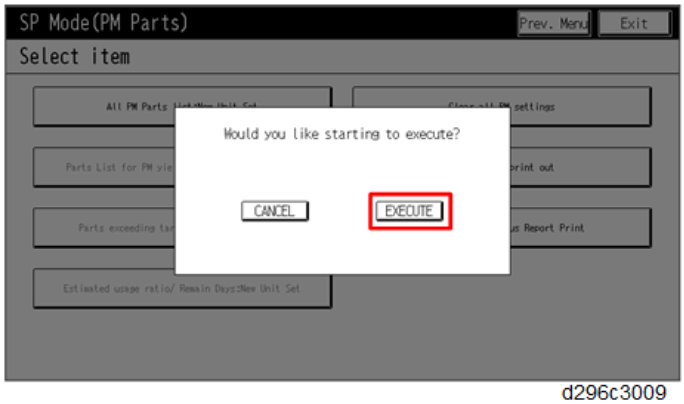
1. Press [PM Counter / New Unit Set].

d296c3006

2. Press [Counterlist print out].

d296c3007

3. Press [EXECUTE] to output the PM counter list.



d296c3009

Preparation before Operation Check

Execute Automatic Color Calibration (ACC) and Forced Line Position Adjustment before operation check.

1. Execute Automatic Color Calibration (ACC) by referring to "Automatic Color Calibration (ACC)" section.
2. Exit the User Tools mode, and then enter the SP mode.
3. Do the "Forced line position adjustment" as follows.
   - First do SP2-111-003 (Mode c).
   - Then do SP2-111-001 (Mode a).
   - To check if SP 2-111-001 was successful, watch the screen during the process. A message is displayed at the end. Also, you can check the result with SP 2-194-010 to -012.
4. Exit the SP mode.

Operation Check

Check if the sample image has been copied correctly.

4. Replacement and Adjustment

Notes on the Main Power Switch (SW1)

Push Switch

The main power button of this machine has been changed to a push-button switch from the conventional rocker switch. The push switch has characteristics and specifications different from the rocker switch. Care must be taken when replacing and adjusting parts.

Characteristics of the Push Switch (Main Power Switch (SW1))

Power is supplied to the machine even when the main power switch (SW1) is turned OFF.

The push switch in this machine uses DC (direct current). Therefore, if the AC power cord is connected to an electrical outlet, power is supplied to the controller board (PCB24), the operation unit and other modules even when the main power is turned OFF. When replacing the controller board (PCB24) and the operation unit in this state, not only these boards, but other electrical components will be damaged. So, when performing maintenance work such as replacing parts, in addition to turning OFF the main power with the push switch, always unplug the AC power cord after the LED on the operation panel is turned OFF and press the push switch to discharge any residual voltage, see information below.

Note

- If you unplug the power cord before turning off the LED, some icons on the operation panel will not appear at the next start-up. Restarting the machine again will solve this issue.

When you disconnect the power cord from the AC wall outlet, inside the machine there is still residual charge.

When you disconnect the power cord from the AC wall outlet, there is still residual charge inside the machine for a while. Therefore, if you remove boards in this state, it can cause a blown fuse or memory failure.

- How to remove the residual charge inside the machine
  After you unplug the power cord from the AC wall outlet, in order to remove the residual charge from inside the machine, press the main power switch (SW1). The charge remaining in the machine is released, and it is possible to remove boards.

When you reconnect the AC power cord into an AC wall outlet, the machine will start automatically.

In order to remove the residual charge, push the main power switch (SW1) after you disconnect the AC power cord. At that time, the power ON flag inside the machine is set. Therefore, after you finish work on the machine and reconnect the power cord to the AC, even if you do not press the main power switch (SW1), the machine will start automatically and the moving parts will begin to move. When

working on moving parts, be careful that fingers or clothes do not get caught.

Note

- Automatic restart deals with cases when you accidentally unplugged the AC power cord or unexpected power outages. By keeping the power flag ON, after the resumption of power, the machine will start up automatically.

In rare cases, when you reconnect the AC power cord to a power outlet, the machine does not start automatically. In this case, the machine has not failed. The cause is due to the timing of releasing the residual charge. If you press the main power switch (SW1) when the residual charge was already released, the power ON flag will not be set. At this time, start the machine manually by pressing the main power switch (SW1).

Shutdown Method

1. Press the main power switch (SW1) [A] on the machine.
2. The shutdown message appears. After the shutdown process, the main power is turned off automatically. The LED on the operation panel is turned off when the machine completes the shutdown.

d0cam2279

⚠CAUTION

Before removing and adjusting electrical boards, do the following procedure. Otherwise, the board can be damaged by the residual charge inside the machine and must be replaced.

3. Unplug the power cord after shutdown.
4. Press the main power switch (SW1) for a second to remove the residual charge inside the machine.

Forced Shutdown

In case normal shutdown does not complete for some reason, the machine has a forced shutdown function.

To make a forced shutdown, press and hold the main power switch (SW1) for 6 seconds.

In general, do not use the forced shutdown.

Important

- Forced shutdown may damage the hard disk and memory, and can cause damage to the machine. Use a forced shutdown only if it is unavoidable.

Beforehand

⚠CAUTION

- **Before installing options, please do the following:**
  If there is a fax unit in the machine, print out all messages stored in the memory, the lists of user-programmed items, and the system parameter list.
  If there are printer jobs in the machine, print out all jobs in the printer buffer.
  Turn OFF the main switch and disconnect the power cord, the telephone line, and the network cable.

Important

- Always touch a grounded surface to discharge static electricity from your hands before you handle SD cards, printed circuit boards, or memory boards.

Note

- Before you start to remove components from the machine, do the following:
- Turn OFF the main power switch (SW1).
- Make sure that the shutdown process has finished and that the LED on the operation panel has turned OFF.
- Unplug the power cord.
- After the main power switch (SW1) of the machine has been turned OFF, the power relay board (PCB12) (SDB) keeps the power supply to the controller until the HDD unit has been shut down safely.
- Press the main power switch (SW1) again to discharge any residual voltage.

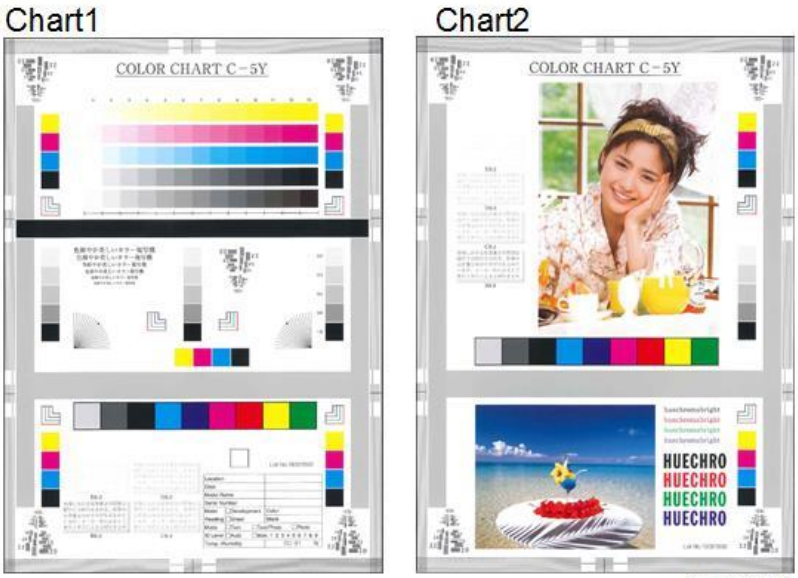
Special Tools

Special Tools and Lubricants

Item	Part Number	Description	Q'ty	Unique or Common	Usage
1	VSST9003	C5Y Color Chart (2SHEETS/3 sets) *	1	C(General)	For checking the image quality
2	C4019503	20× Magnification Scope	1	C(General)	For checking the image quality
3	B6455030	SD Card 2GB	1	C(General)	For software upgrade and log trace
4	B6455040	SD Card 8GB	1	C(General)	For software upgrade and log trace
5	B6455060	SD Card 16GB	1	C(General)	For software upgrade and log trace
6	VSSG9006	MOLYKOTE G-1077 GREASE	1	C(General)	For greasing the drive unit to reduce noise(Where to Apply Noise-Reduction Grease)
7	VSSG9005	MOLYKOTE EM-50L	1	C(General)	For greasing the drive unit to reduce noise(Where to Apply Noise-Reduction Grease)
8	52039502	Silicone Grease G-501	1	C(General)	For greasing resin gears
9	A2579300	Grease Barrierta – S552R	1	C(General)	For greasing fusing gears (Except for fusing rollers)
10	VSSG9008	FLOIL G348	1	C(General)	For greasing the drive unit of scanner(For the guide rod and the slide rail in the scanner carriage)

Note

- C-5Y Color Chart is a set of two A4 size charts and looks like this.



Where to Apply Noise-Reduction Grease

Note

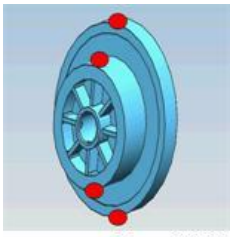
- When applying grease, You can use both MOLYKOTE G-1077 GREASE and MOLYKOTE EM-50L.
- Apply grease on the spots indicated in red in the photos and diagrams.

Drive: Fusing Drive Unit

Lubrication parts and spots

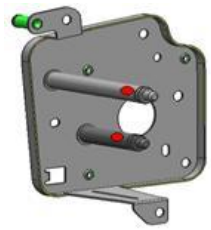
- Drive Unit Fusing Drive Gear

Lubrication parts	Lubrication spots
1 gear	4 spots


d0cam2418

- Drive Unit Fusing Drive Bracket

Lubrication parts	Lubrication spots
2 studs	2 spots



d0cam2419

Note

Do NOT apply grease on the tips of the studs.

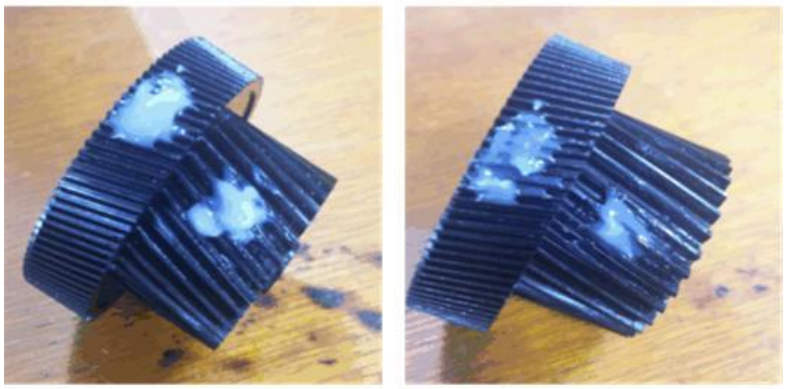
Lubrication amount

Maximum	minimum
0.02g	0.004g

The Images of the maximum amount [A] and minimum amount [B]

- Drive Unit Fusing Drive Gear

[A] [B]



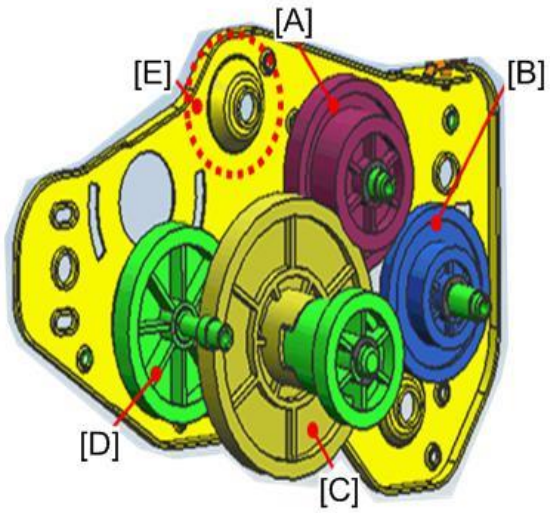
d0cam2420

- Drive Unit Fusing Drive Brackets

[A] [B]

d0cam2421

Locations of the Gears and clutch



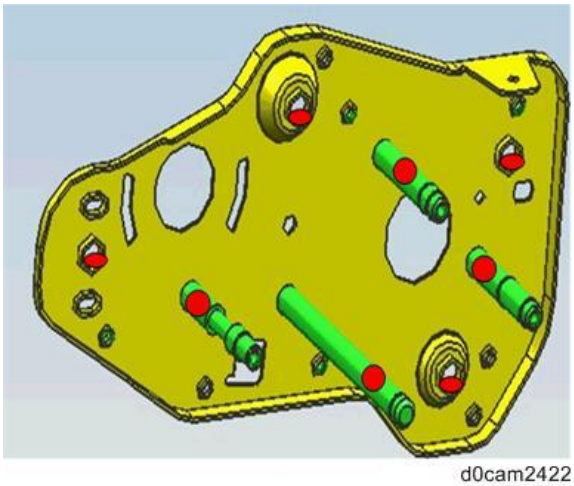
d0cam2481

	Description		Description
[A]	Transport Gear 01	[D]	Transport Gear 04
[B]	Transport Gear 02	[E]	Registration Clutch (CL8)
[C]	Transport Gear 03		

Lubrication parts and spots

- Transport Drive Bracket

Lubrication parts	Lubrication spots
4 studs	4 spots
4 sliding parts	4 spots



d0cam2422

Note

Do NOT apply grease on the tips of the studs.

- Output Gear 01

Lubrication parts	Lubrication spots
1 gear	1 spot

d0cam2424

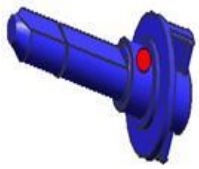
- Output Gear 02

Lubrication parts	Lubrication spots
2 gears	1 spot

d0cam2426

- Paper Feed Roller Axis

Lubrication parts	Lubrication spots
1 axis	1 spot



d0cam2428

- Transport Gear 01 [A]

Lubrication parts	Lubrication spots
1 gear	4 spots

d0cam2430

- Transport Gear 02 [B]

Lubrication parts	Lubrication spots
1 gear	4 spots

d0cam2432

- Transport Gear 03 [C]

Lubrication parts	Lubrication spots
1 gear	4 spots

d0cam2434

- Transport Gear 04 [D]

Lubrication parts	Lubrication spots
1 gear	4 spots

d0cam2436

- Registration Clutch (CL8) [E]

Lubrication parts	Lubrication spots
1 clutch	2 spots

d0cam2438

Lubrication amount

Maximum	minimum
0.04g	0.008g

The Images of the maximum amount [A] and minimum amount [B]

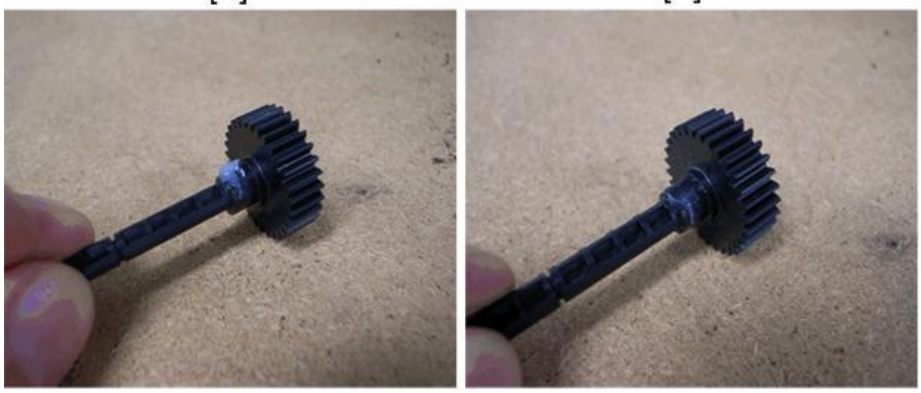
- Transport Drive Bracket

[A] [B]

d0cam2423

- Output Gear 01

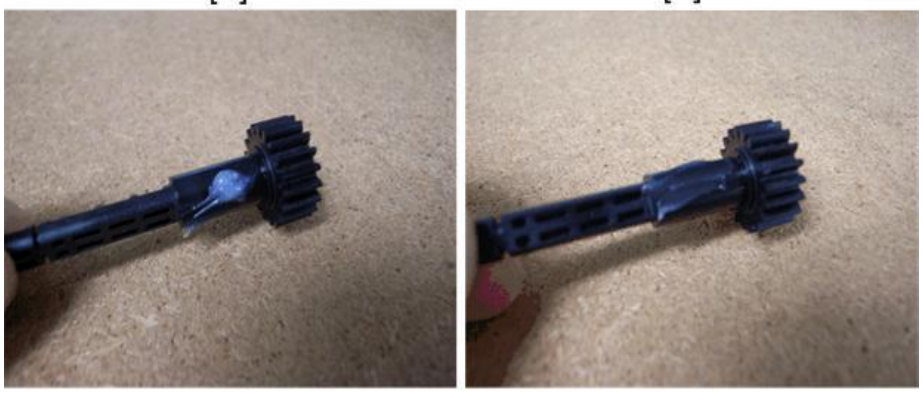
[A] [B]



d0cam2425

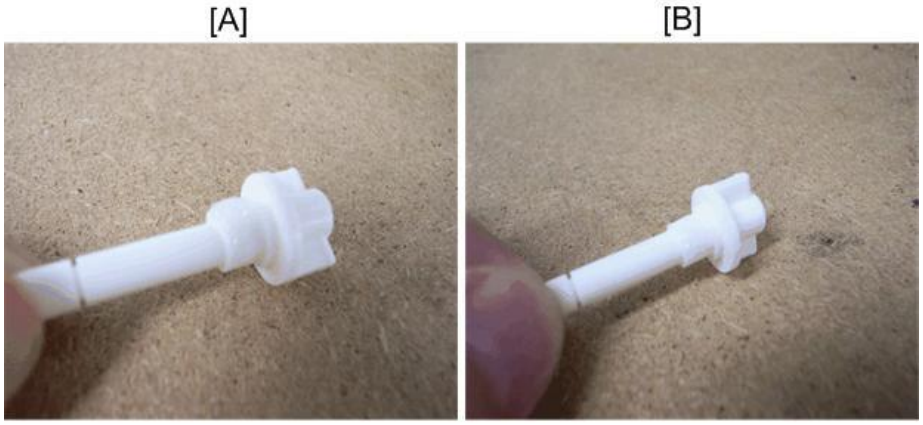
- Output Gear 02

[A] [B]



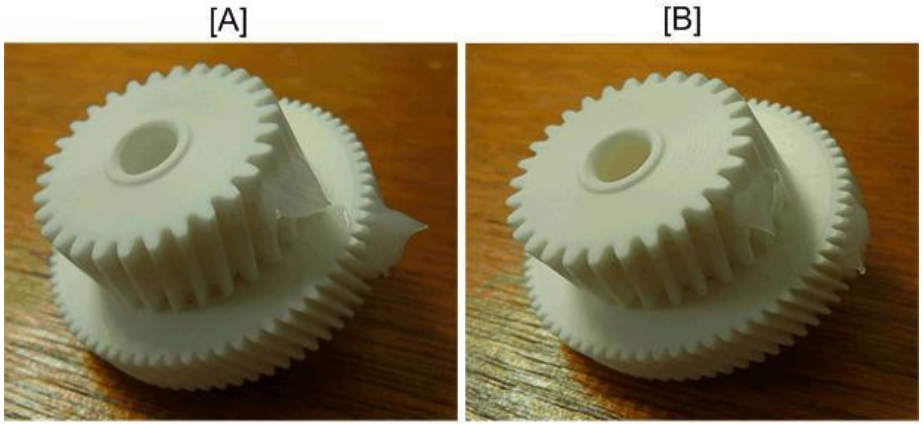
d0cam2427

- Paper Feed Roller Axis



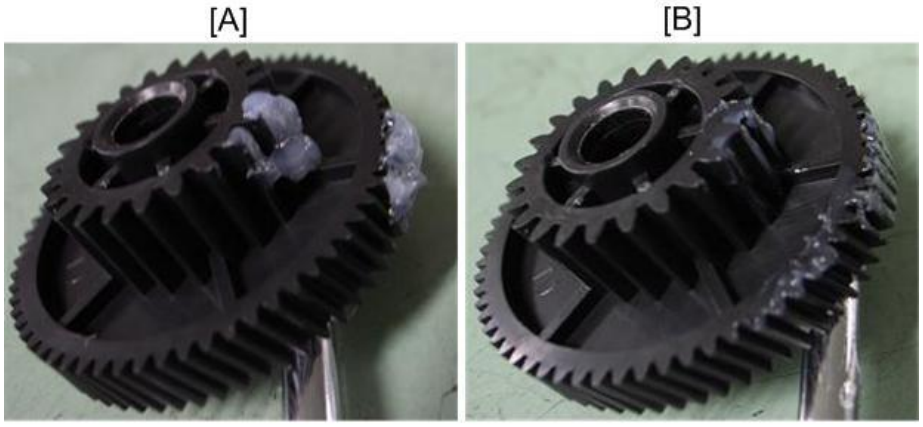
d0cam2429

- Transport Gear 01 [A]



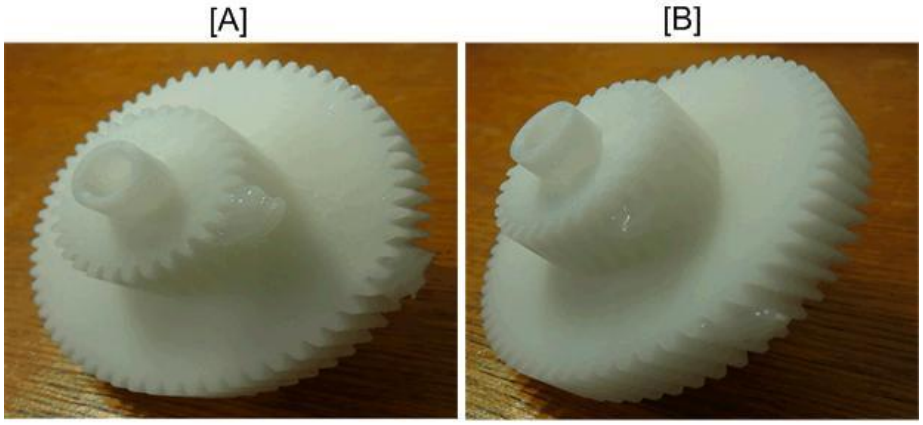
d0cam2431

- Transport Gear 02 [B]



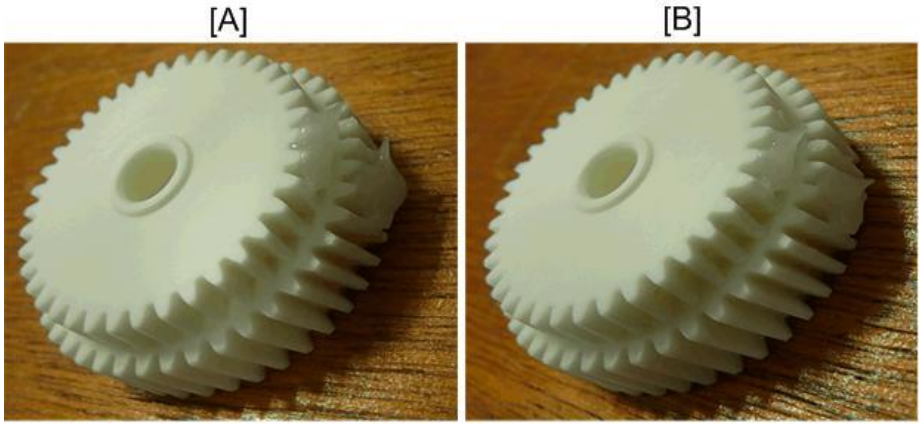
d0cam2433

- Transport Gear 03 [C]



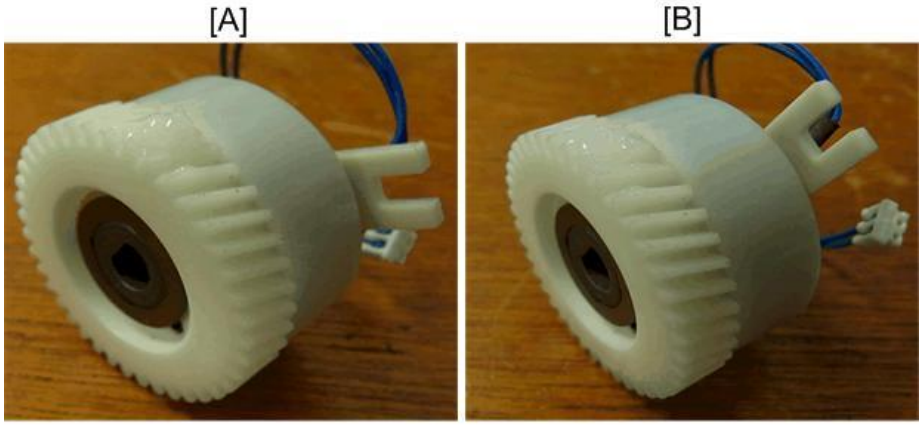
d0cam2435

- Transport Gear 04 [D]



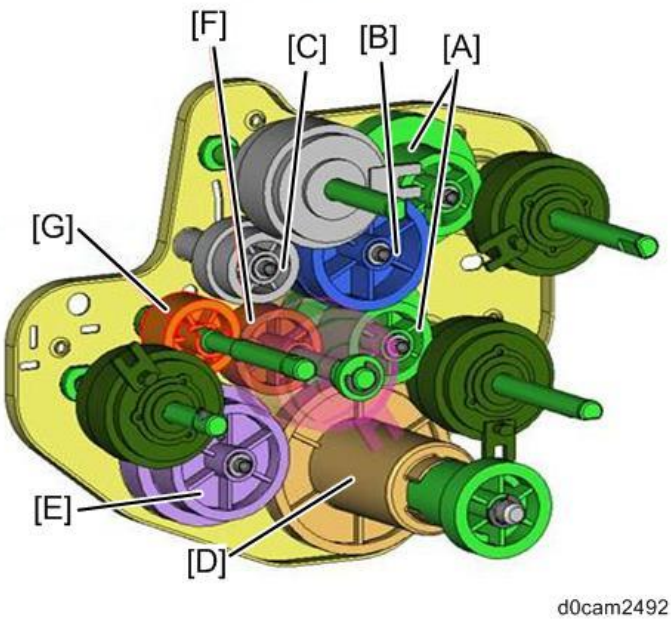
d0cam2437

- Registration Clutch (CL8) [E]



d0cam2439

Location of the Gears

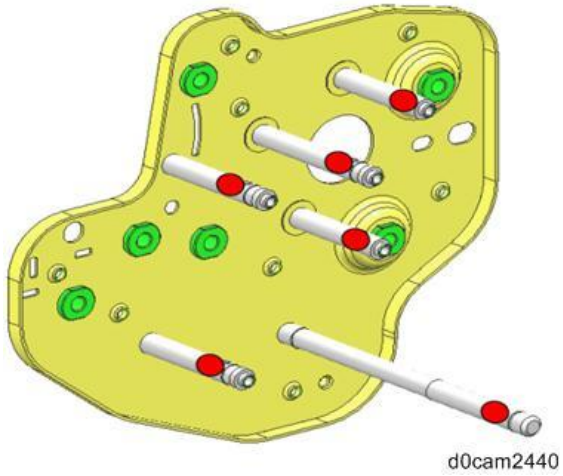


	Description		Description
[A]	Transport Gear 01	[E]	Transport Gear 05
[B]	Transport Gear 02	[F]	Vertical Transport Gear 01
[C]	Transport Gear 03	[G]	Vertical Transport Gear 02
[D]	Transport Gear 04		

Lubrication parts and spots

- Transport Drive Bracket

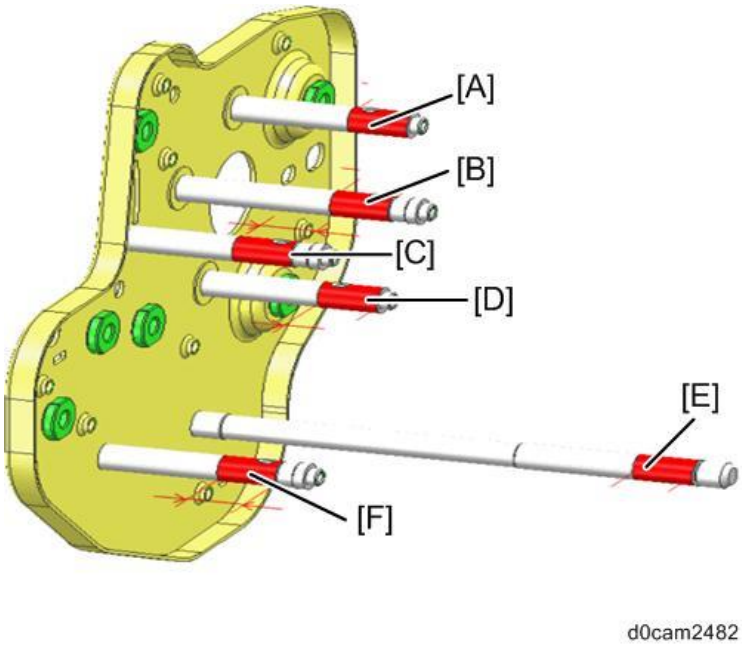
Lubrication parts	Lubrication spots
6 studs	6 spots



Note

Do NOT apply grease on the tips of the studs.

Apply grease in the range indicated in red in the following diagram.



- [A] The area 0-10 mm from the stepped part of the stud
- [B] The area 0-10 mm from the groove of the stud
- [C] The area 0-10 mm from the groove of the stud
- [D] The area 0-10 mm from the stepped part of the stud
- [E] The area 0-10 mm from the E-ring of the stud
- [F] The area 0-10 mm from the groove of the stud

- Transport Gear 01

Lubrication parts	Lubrication spots
1 gear	4 spot

d0cam2442

- Transport Gear 02

Lubrication parts	Lubrication spots
1 gear	4 spot

d0cam2444

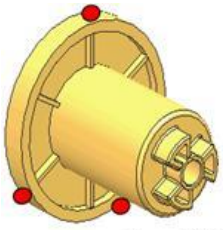
- Transport Gear 03

Lubrication parts	Lubrication spots
1 gear	2 spot

d0cam2446

- Transport Gear 04

Lubrication parts	Lubrication spots
1 gear	3 spots



d0cam2448

- Transport Gear 05

Lubrication parts	Lubrication spots
1 gear	4 spots

d0cam2450

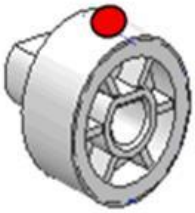
- Vertical Transport Gear 01

Lubrication parts	Lubrication spots
1 gear	1 spots

d0cam2452

- Vertical Transport Gear 02

Lubrication parts	Lubrication spots
1 gear	1 spots


d0cam2454

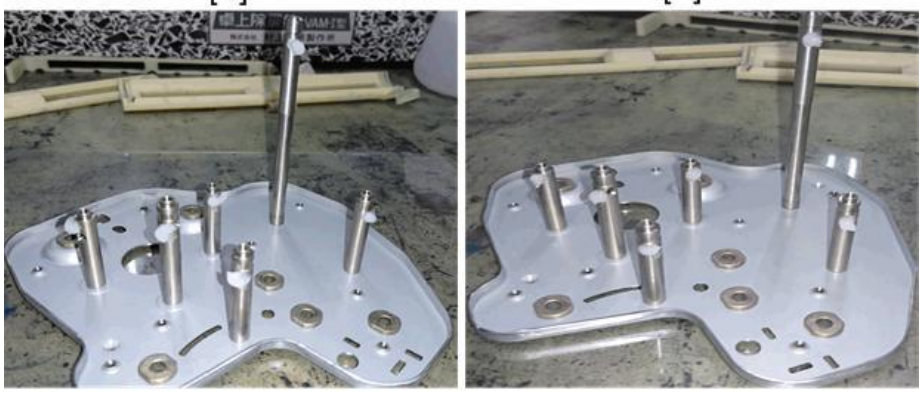
Lubrication amount

Maximum	minimum
0.04g	0.008g

The Images of the maximum amount [A] and minimum amount [B]

- Transport Drive Bracket

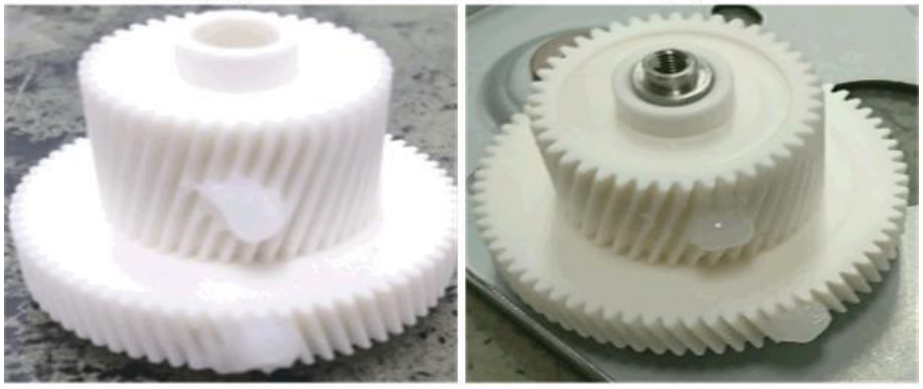
[A] [B]



d0cam2441

- Transport Gear 01

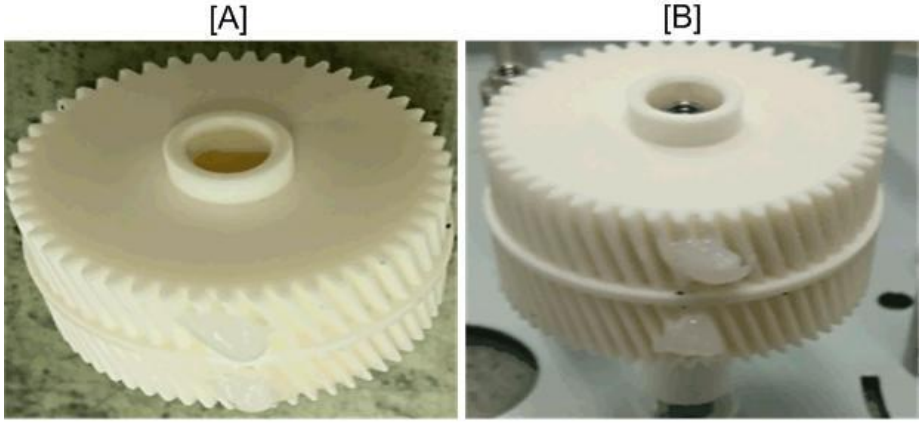
[A] [B]



d0cam2443

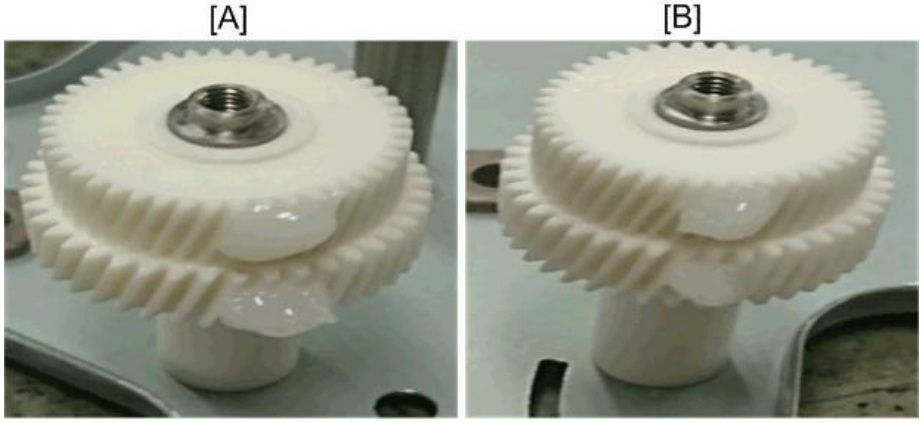
- Transport Gear 02

[A] [B]



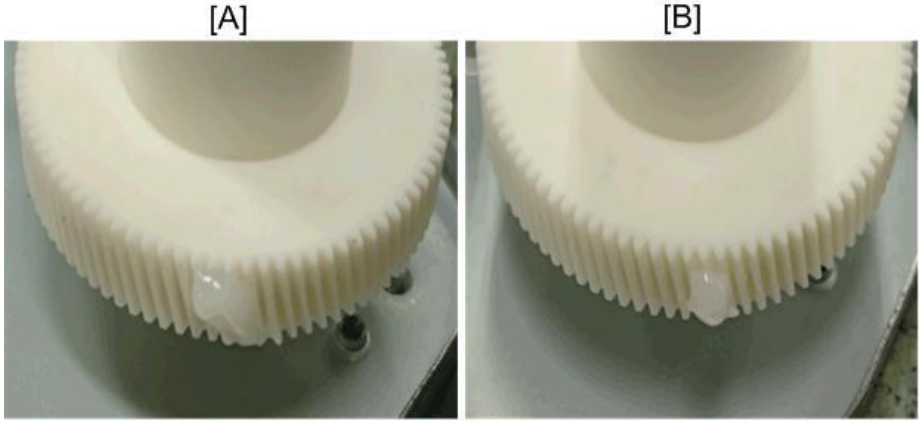
d0cam2445

- Transport Gear 03



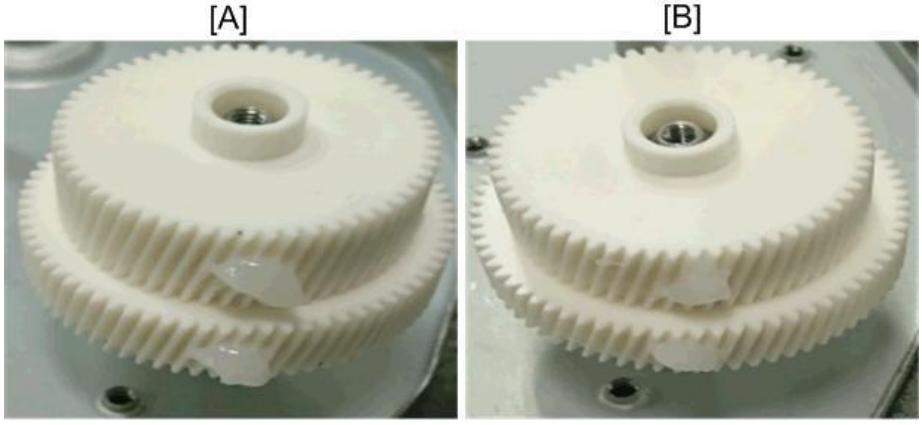
d0cam2447

- Transport Gear 04



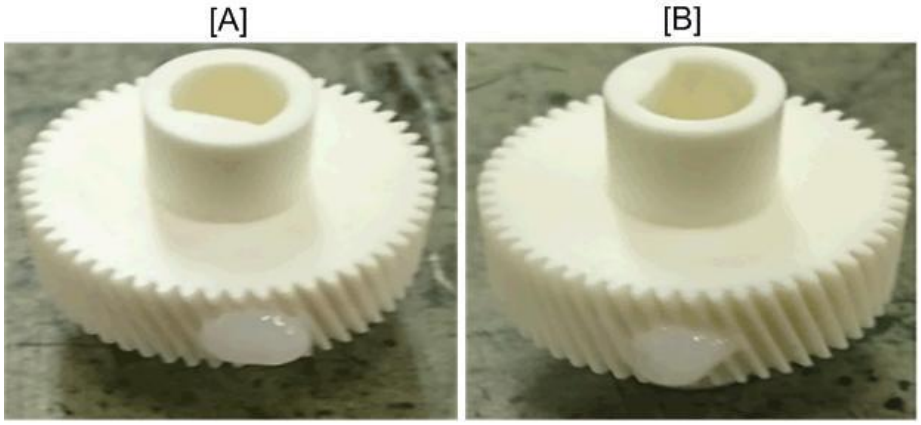
d0cam2449

- Transport Gear 05



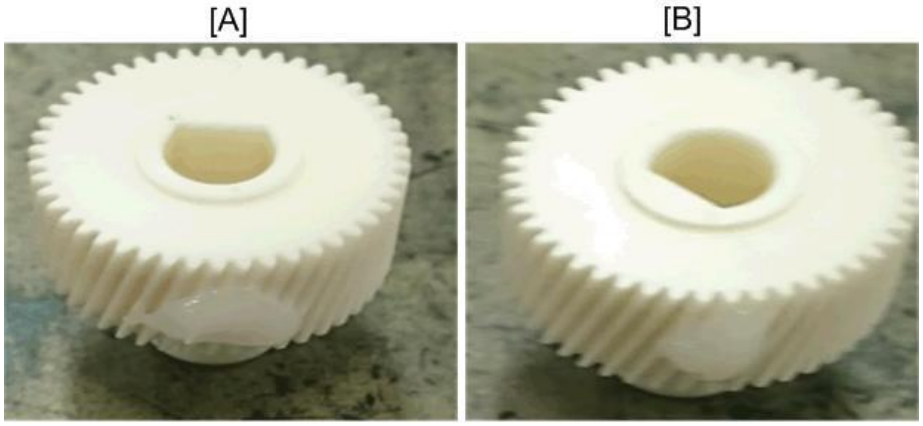
d0cam2451

- Vertical Transport Gear 01



d0cam2453

- Vertical Transport Gear 02



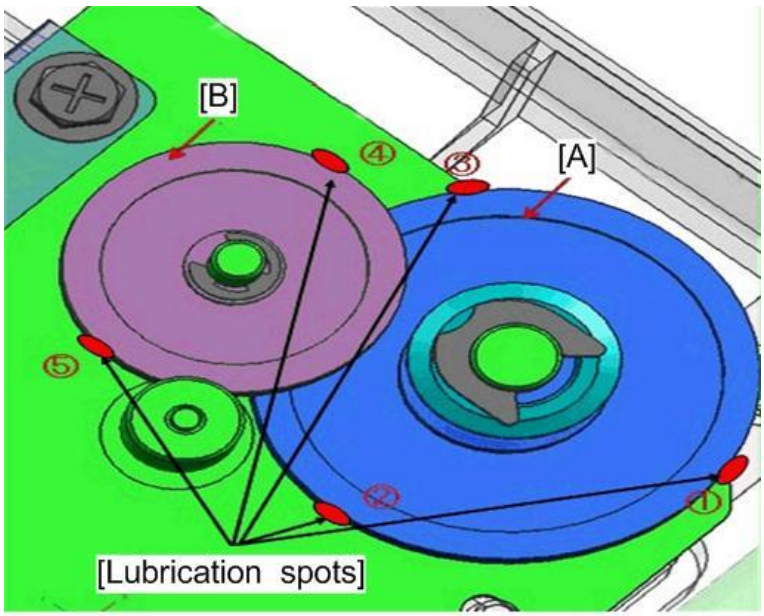
d0cam2455

Scanner: Scanner Motor: Gear

Lubrication parts and spots

- Timing Belt Gear [A]
- Reduction Gear [B]

Lubrication parts	Lubrication spots
2 gears	5 spots



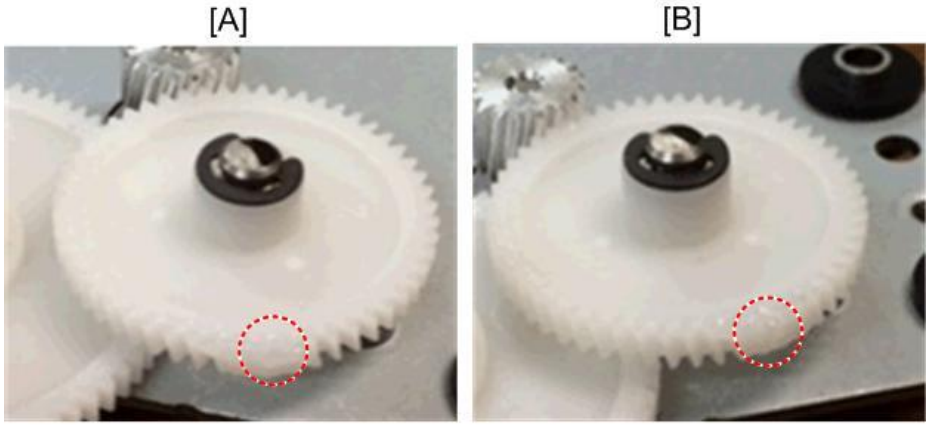
w_d0cam4501_en

Lubrication amount

Maximum	minimum
0.0125g	0.0025g

The Images of the maximum amount [A] and minimum amount [B]

- Timing Belt Gear
- Reduction Gear



d0cam2457

Note

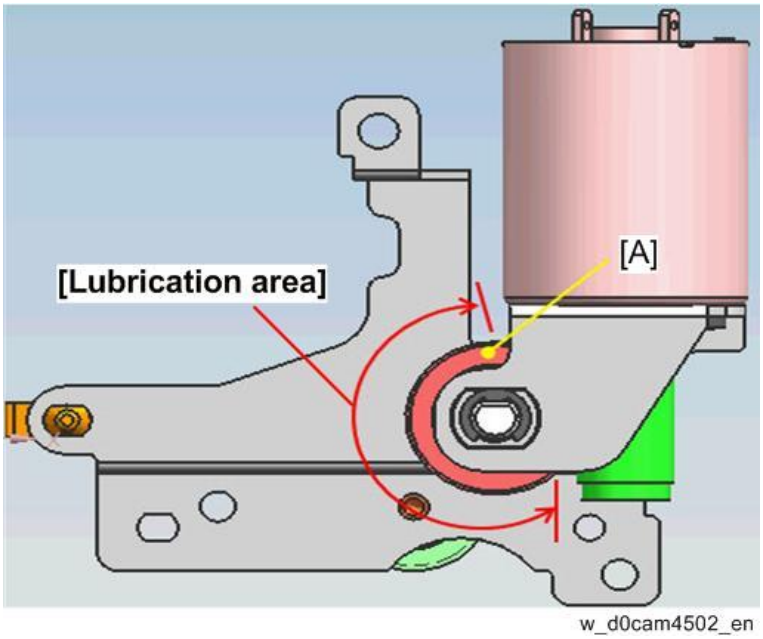
Scan 5 times to check if the scanner unit works properly, after applying grease.

Tonner: Toner Supply Motor: Gear

Lubrication parts and spots

- Idler Gear [A]

Lubrication parts	Lubrication spots
1 gear	3 spots

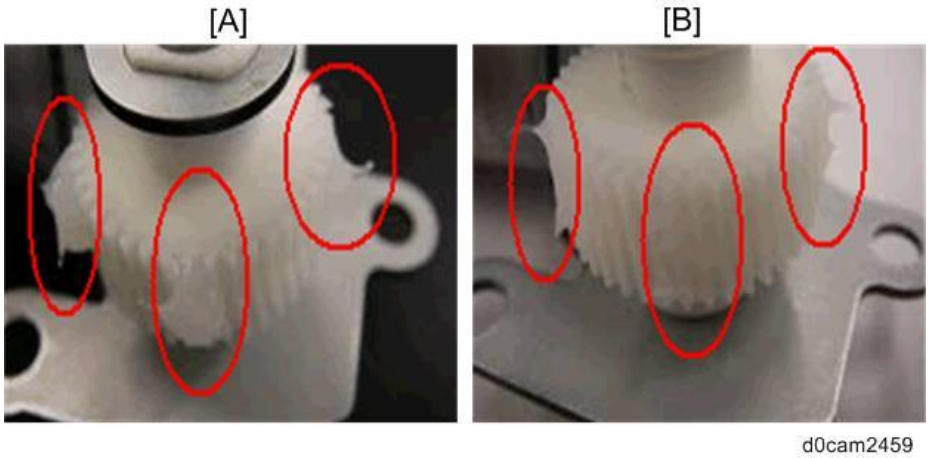


Lubrication amount

Maximum	minimum
0.085g	0.0065g

The Images of the maximum amount [A] and minimum amount [B]

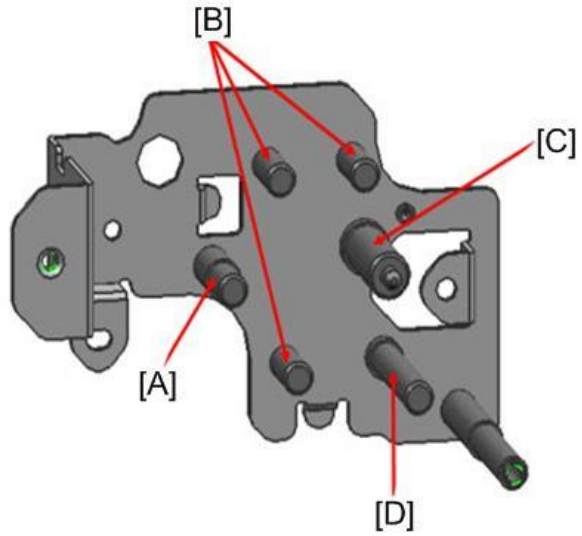
- Idler Gear



Lubrication parts and spots

- Studs

Lubrication parts	Lubrication spots
4 studs	6 spots

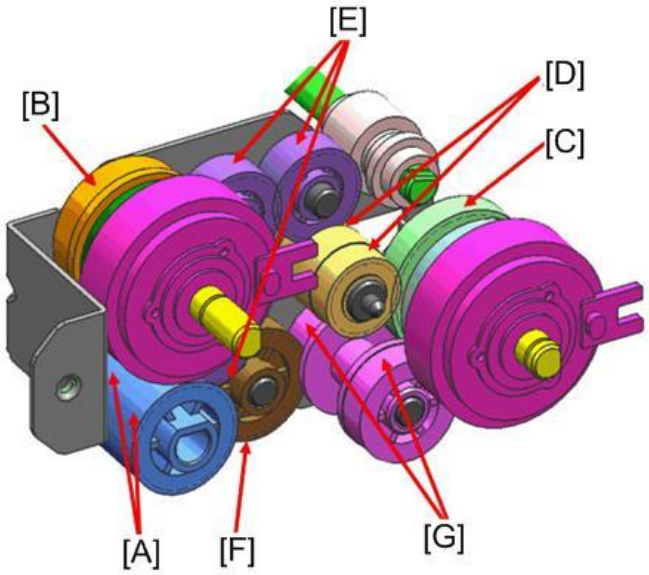


d0cam2460

	Description		Description
[A]	Paper Exit Drive Unit Stud 01	[C]	Paper Exit Drive Unit Stud 03
[B]	Paper Exit Drive Unit Stud 02	[D]	Paper Exit Drive Unit Stud 04

- Gears

Lubrication parts	Lubrication spots
9 gears	12 spots

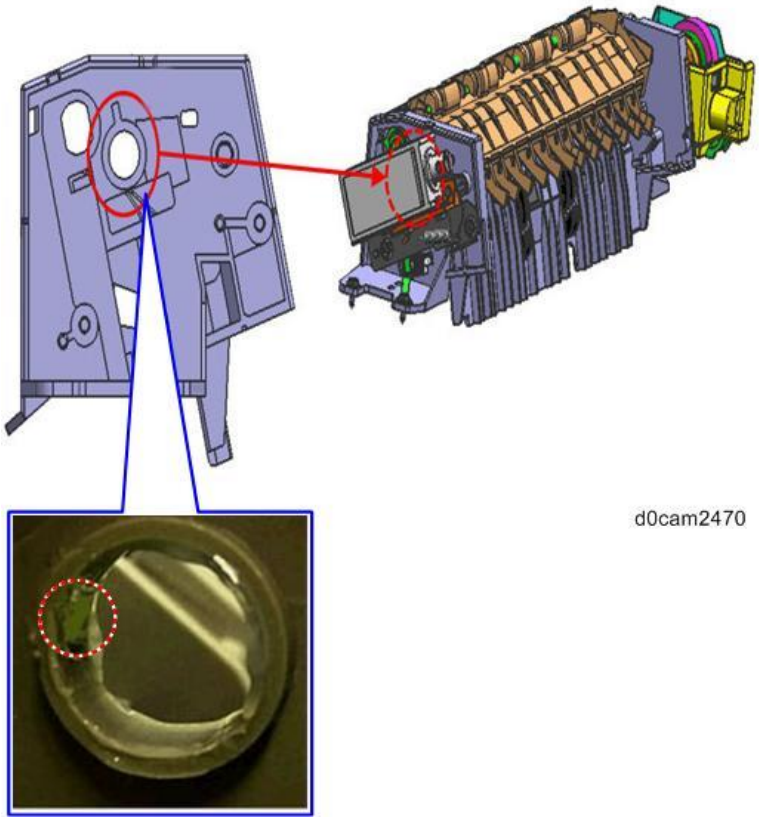


d0cam2483

	Description		Description
[A]	Paper Exit Drive Gear 01	[E]	Paper Exit Idler Gear 02
[B]	Paper Exit Drive Gear 02	[F]	Paper Exit Idler Gear 03
[C]	Paper Exit Drive Gear 03	[G]	Paper Exit Idler Gear 04
[D]	Paper Exit Idler Gear 01		

- Paper Exit Unit Guide

Lubrication parts	Lubrication spots
1 guide	1 spots



d0cam2470

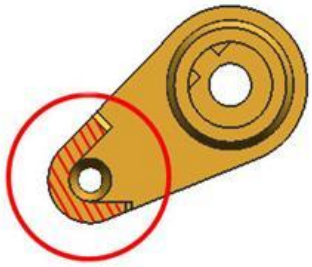
- Junction Gate

Lubrication parts	Lubrication spots
2 tips of the junction gate	2 spots

d0cam2484

- Junction Gate Lever

Lubrication parts	Lubrication spots
1 lever	1 spot



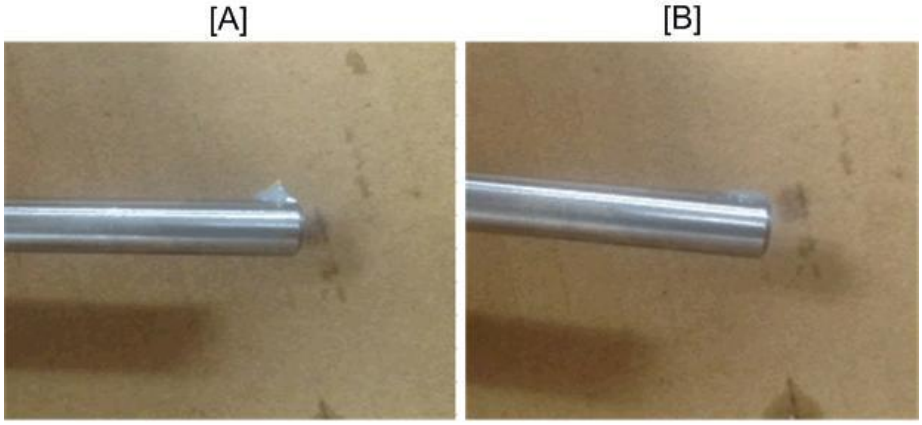
d0cam2474

Lubrication amount

Maximum	minimum
0.6193g	0.0774g

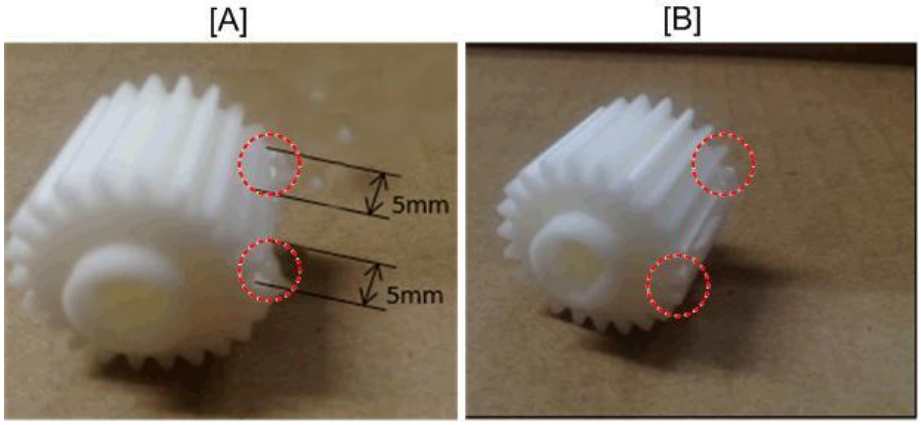
The Images of the maximum amount [A] and minimum amount [B]

- Paper Exit Drive Unit Stud 01
- Paper Exit Drive Unit Stud 02
- Paper Exit Drive Unit Stud 03
- Paper Exit Drive Unit Stud 04



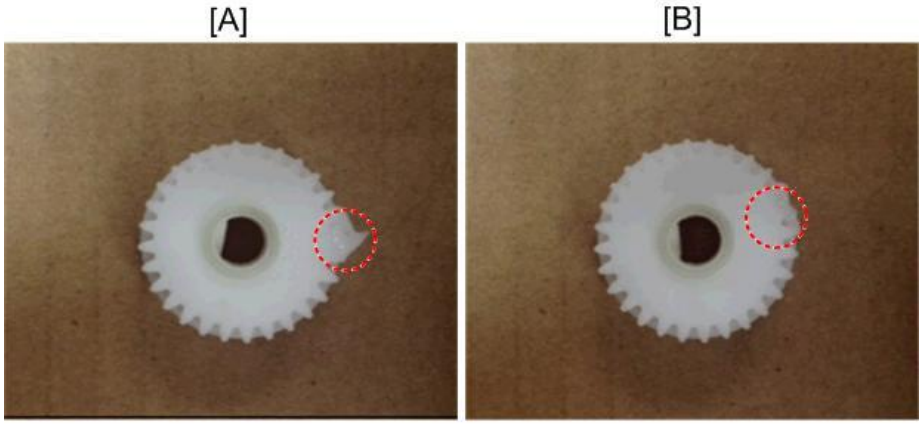
d0cam2461

- Paper Exit Drive Gear 01



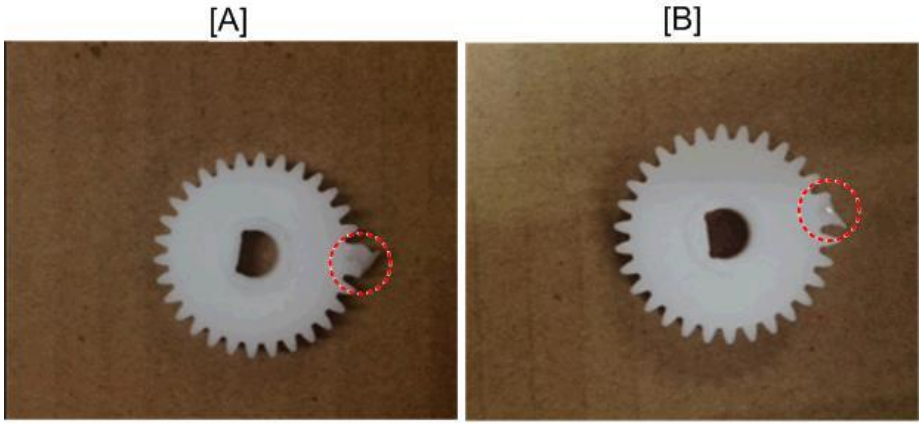
d0cam2463

- Paper Exit Drive Gear 02



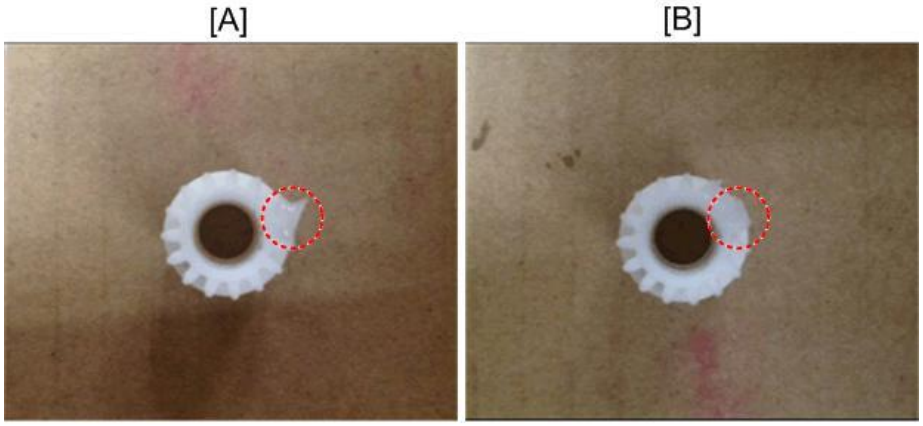
d0cam2464

- Paper Exit Drive Gear 03



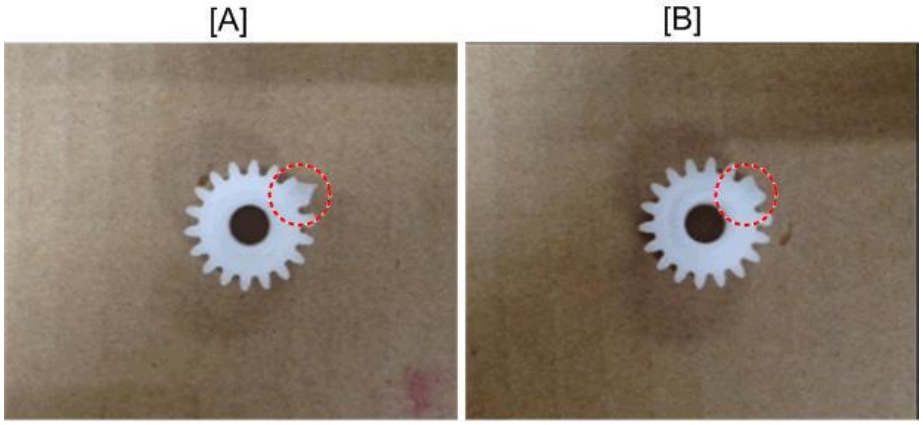
d0cam2465

- Paper Exit Idler Gear 01



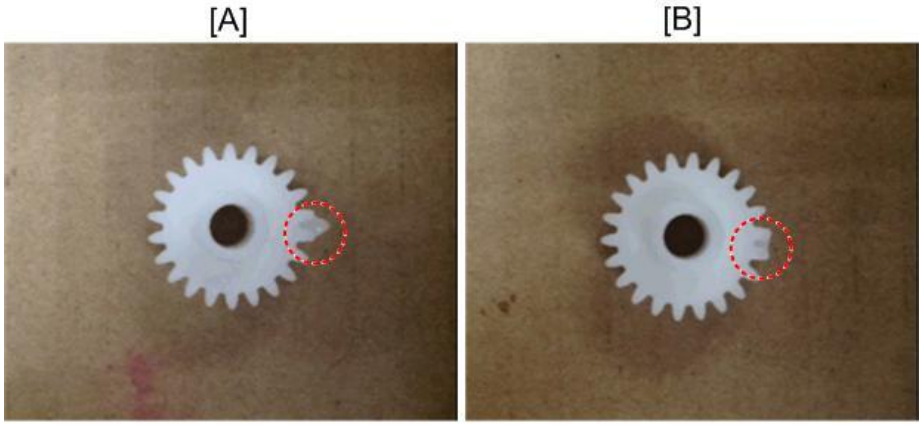
d0cam2466

- Paper Exit Idler Gear 02



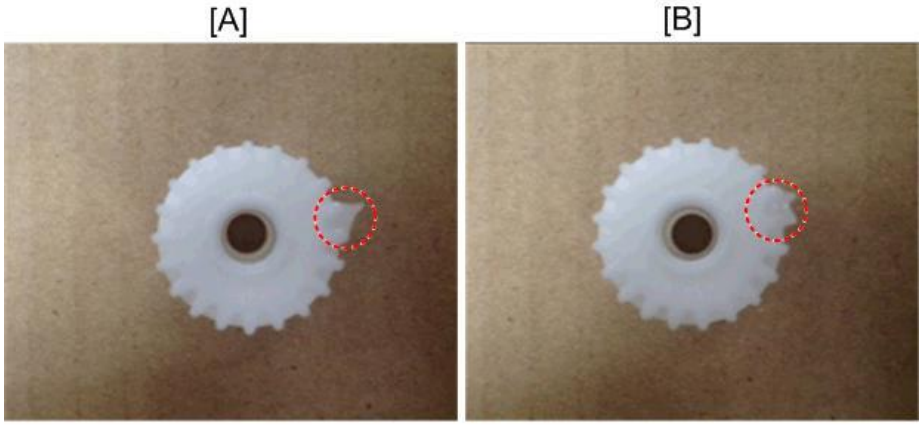
d0cam2467

- Paper Exit Idler Gear 03



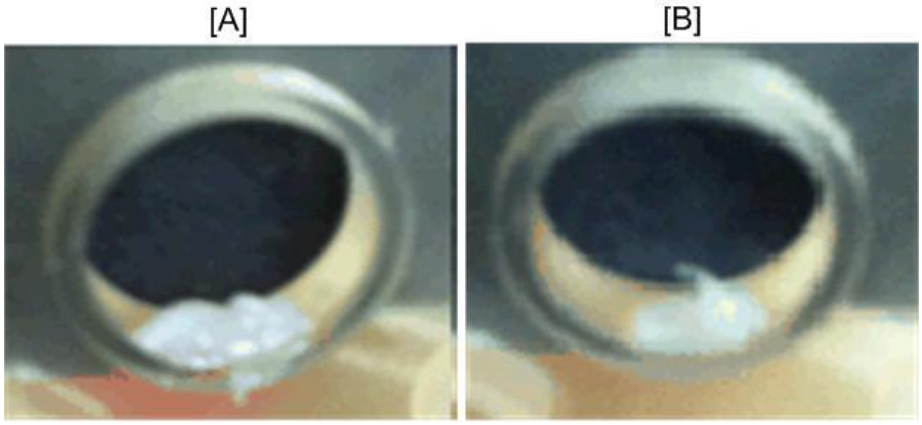
d0cam2468

- Paper Exit Idler Gear 04



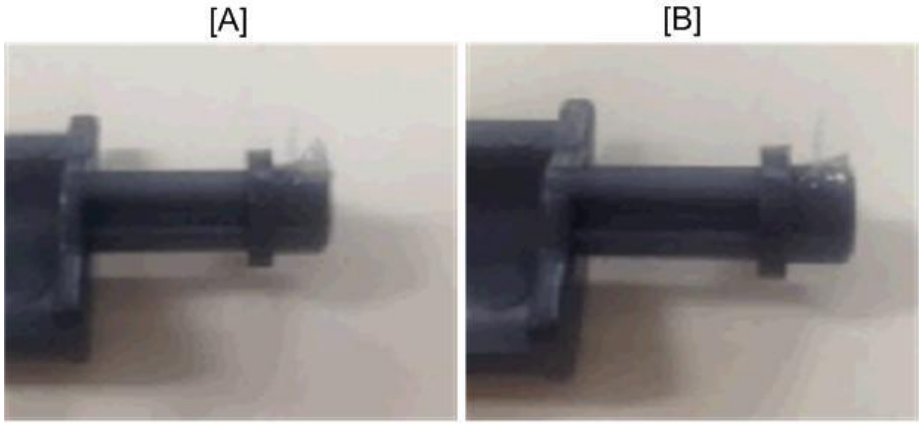
d0cam2469

- Paper Exit Unit Guide



d0cam2471

- Junction Gate



d0cam2473

- Junction Gate Lever

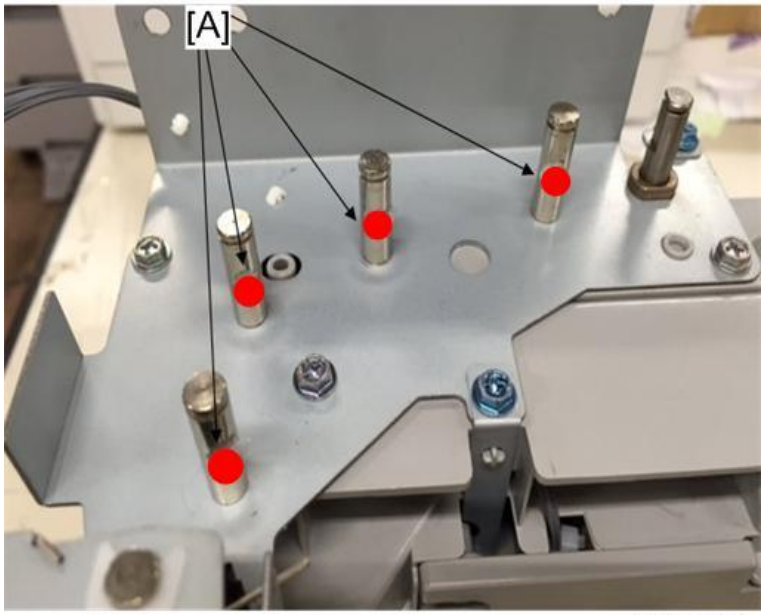
d0cam2475

1Bin: Drive Unit: Gear

Lubrication parts and spots

- 1Bin Drive Unit Bracket [A]

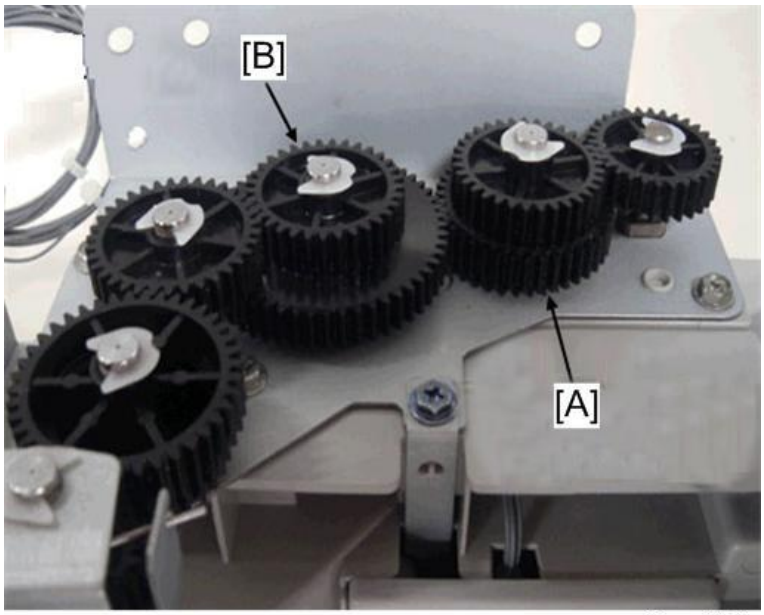
Lubrication parts	Lubrication spots
4 studs	4 spots



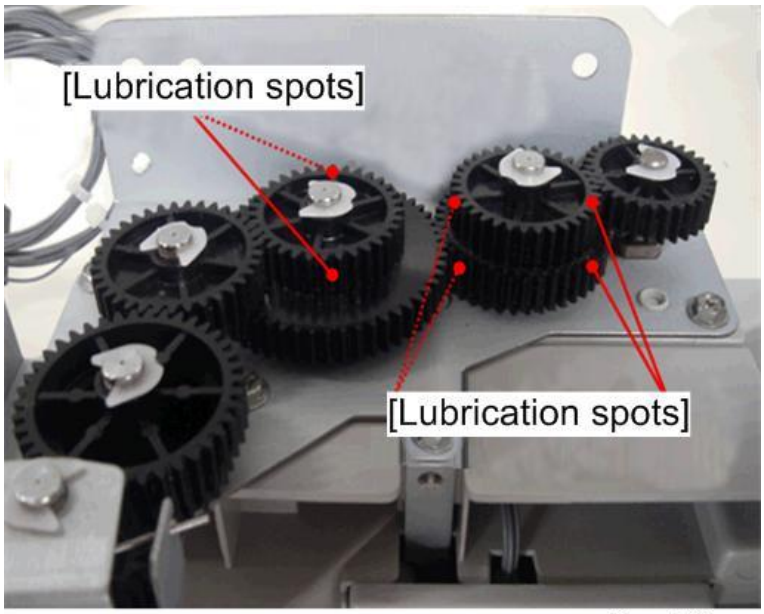
d0cam2476

- 1Bin Drive Unit Gear 01 [A]
- 1Bin Drive Unit Gear 02 [B]

Lubrication parts	Lubrication spots
2 gears	6 spots



d0cam2478



w_d0cam4503_en

Exterior Covers

Front Cover

IM C300 series/IM C400F

1. Pull out the paper tray.

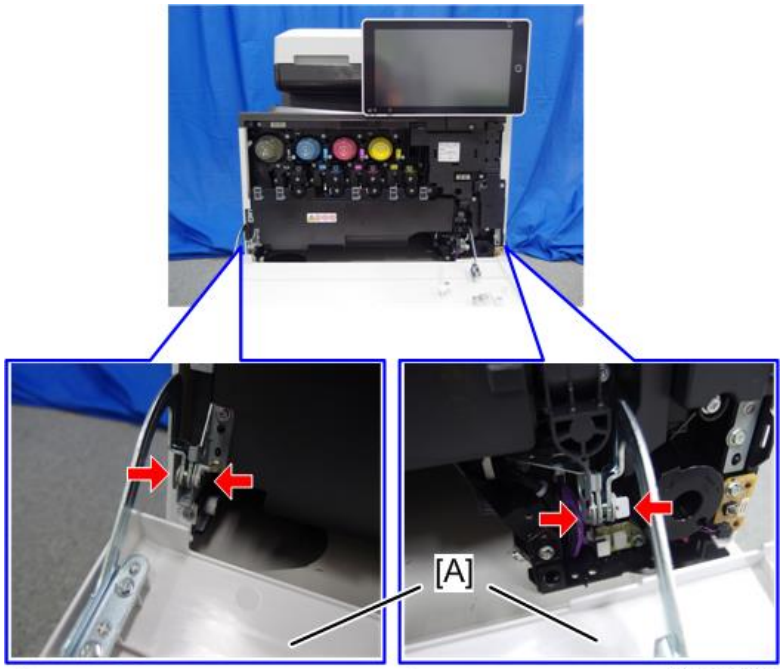
d0cam2019

2. Remove the front lower cover [A]

x1

d0cam2020

3. Open the front cover.
4. Remove the front cover [A] (pins × 2)

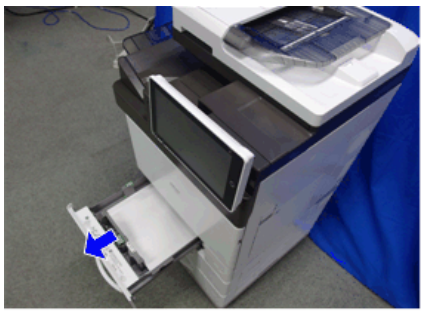


x1

x1

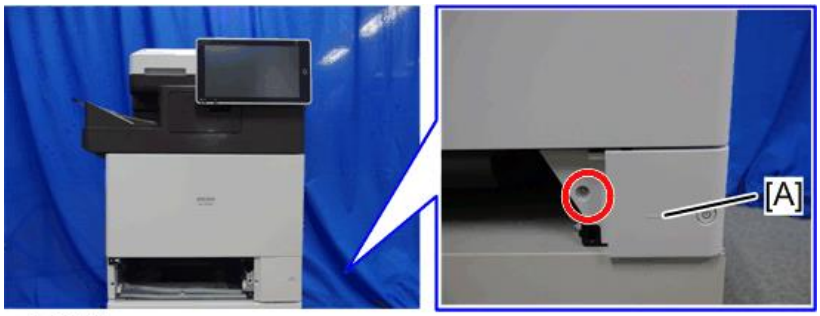
d0cam2021

1. Pull out the paper tray.



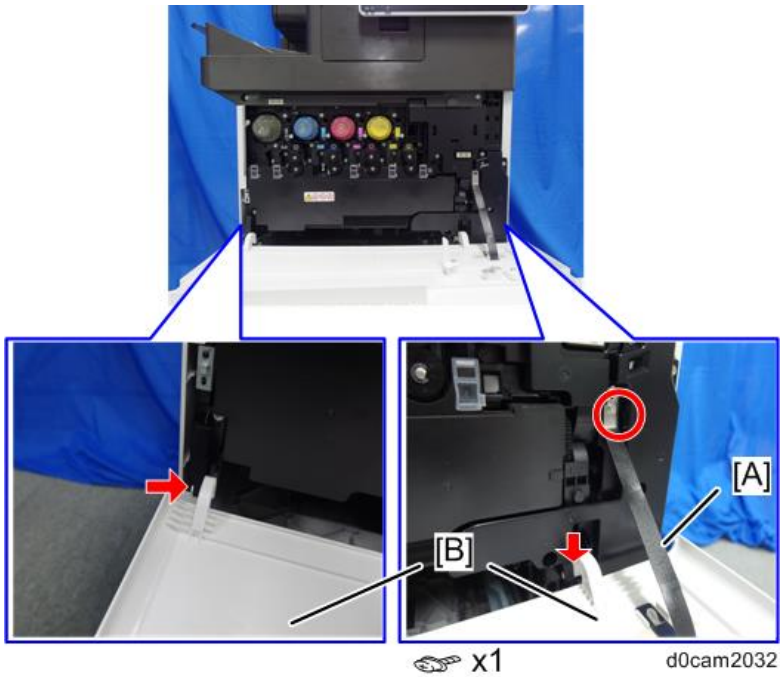
d0cam2030

2. Remove the front lower cover [A]



d0cam2031

3. Open the front cover.
4. Unhook the belt's tip and detach the belt [A].
5. Remove the front cover [B]

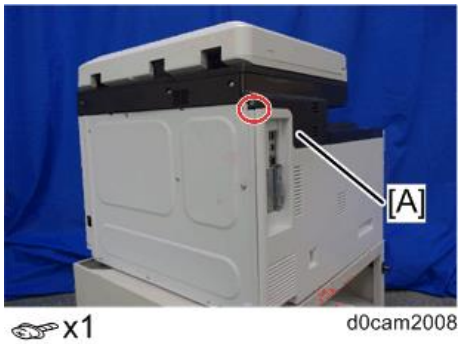


d0cam2032

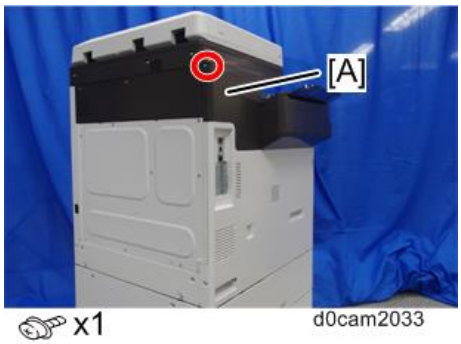
Upper Left Cover

1. Remove the upper left cover [A].

IM C300 series/IM C400F



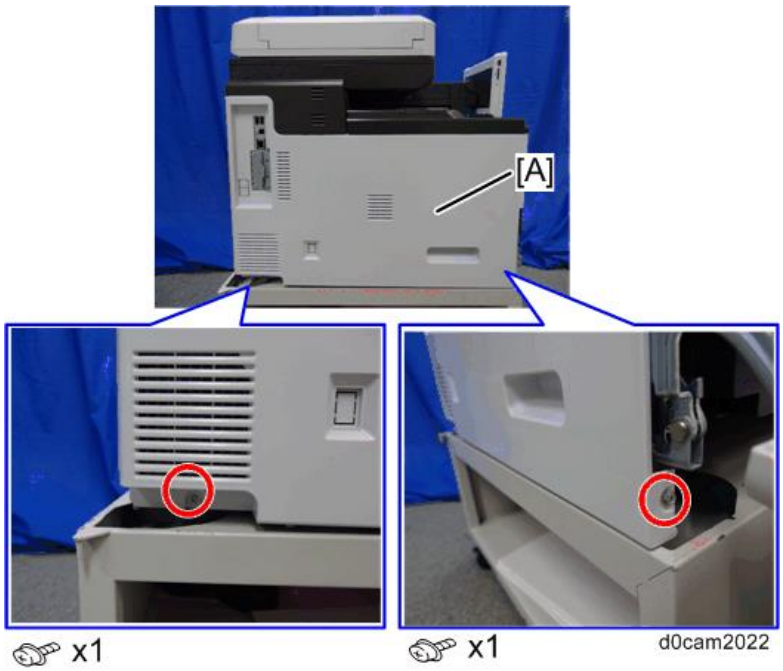
IM C400SRF



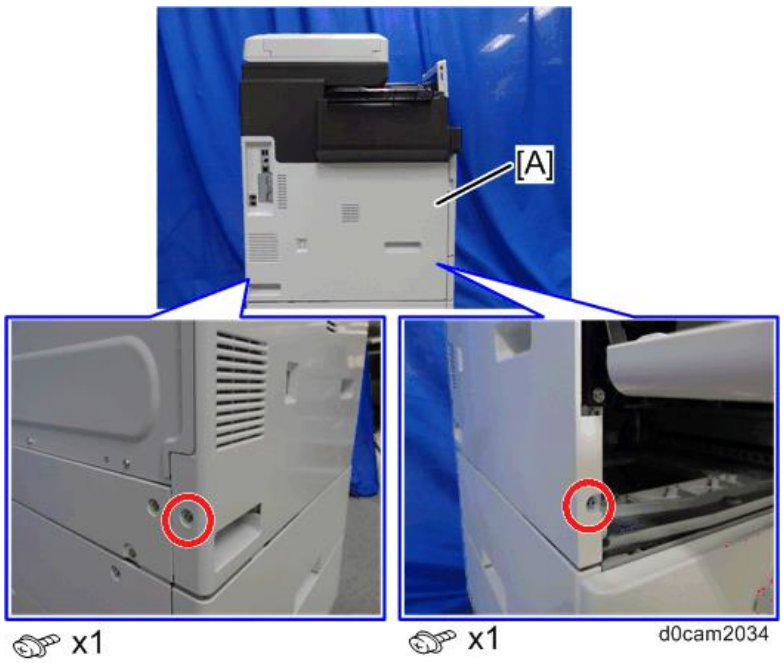
Left Cover

1. Remove the upper left cover (Upper Left Cover)
2. Pull out the paper tray.
3. Open the front cover and remove the left cover [A].

IM C300 series/IM C400F



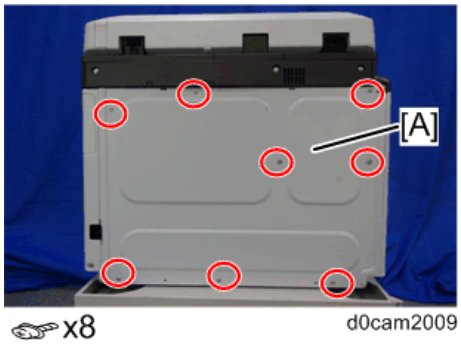
IM C400SRF



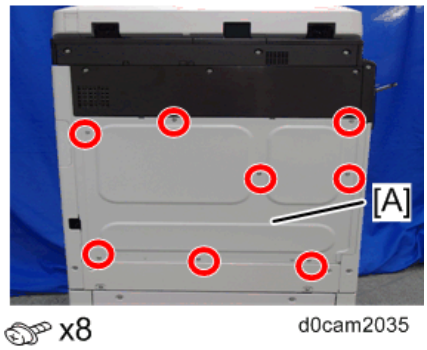
Rear Cover

1. Remove the rear cover [A].

IM C300 series/IM C400F



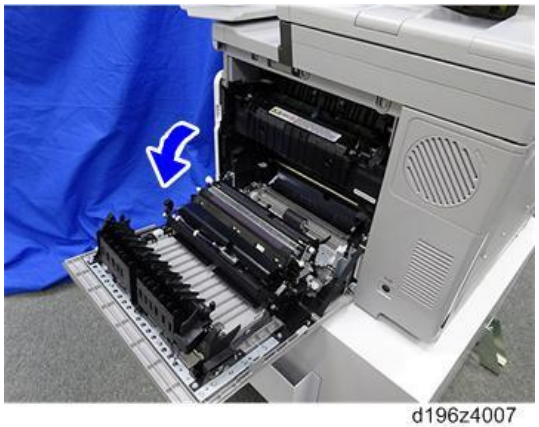
IM C400SRF



Right Rear Cover

1. Open the right cover.

IM C300 series/IM C400F



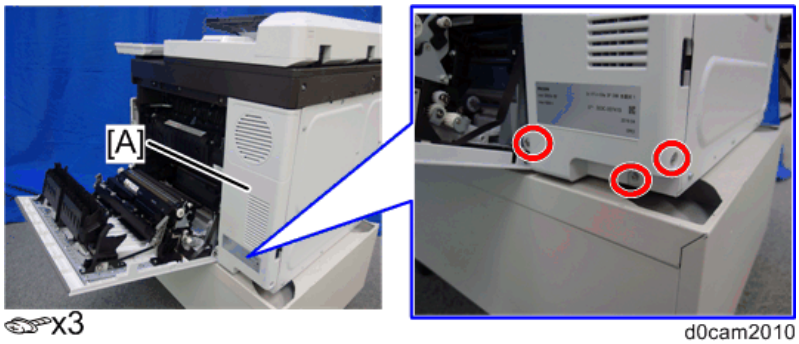
d196z4007

IM C400SRF

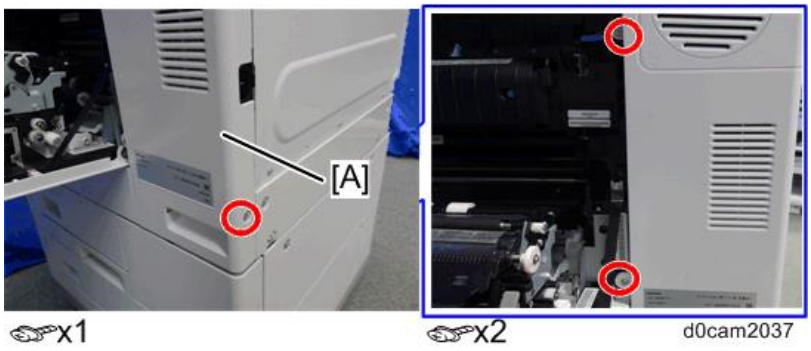
d0cam2036

2. Remove the right rear cover [A]

IM C300 series/IM C400F



IM C400SRF



Note

- Remove the right rear cover while pushing it downward.

Paper Exit Tray

Paper Exit Tray for IM C300 series/IM C400F

1. Open the front cover.
2. Remove the paper exit tray [A].

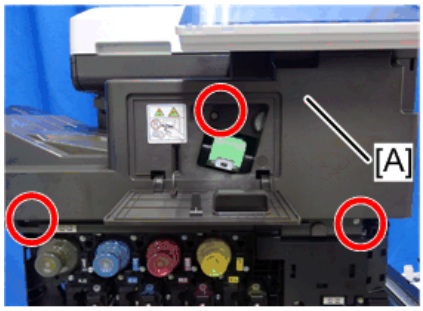
x1 d0cam2023

Paper Exit Front Cover/Paper Exit Upper Cover/Paper Exit Tray for IM C400SRF

Note

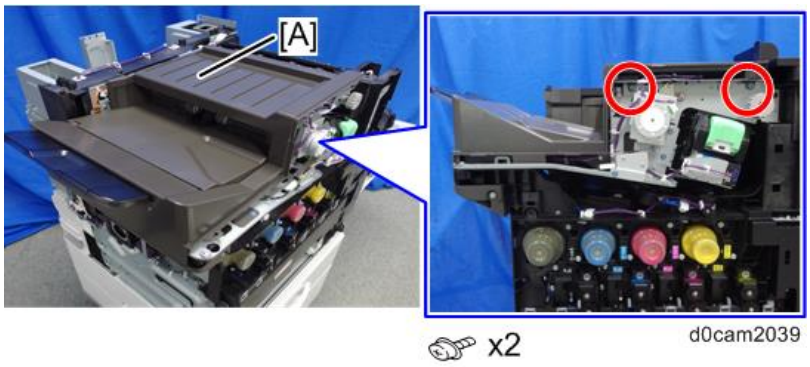
The following procedure for finisher model below includes steps to remove the paper exit front cover and the paper exit upper cover.

1. Open the front cover.
2. Remove the paper exit front cover[A].

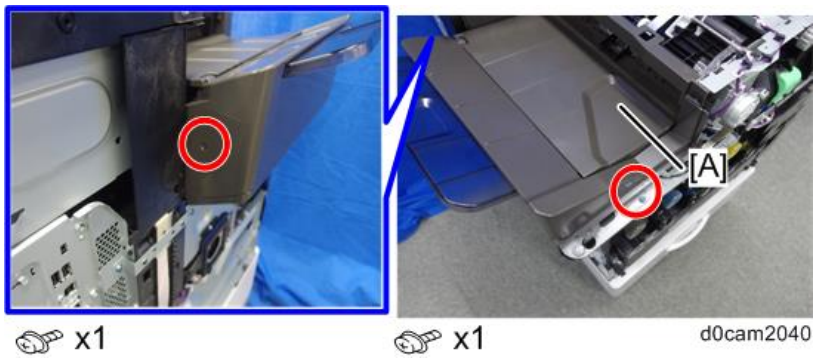


x3 d0cam2038

3. Remove the paper exit upper cover[A].



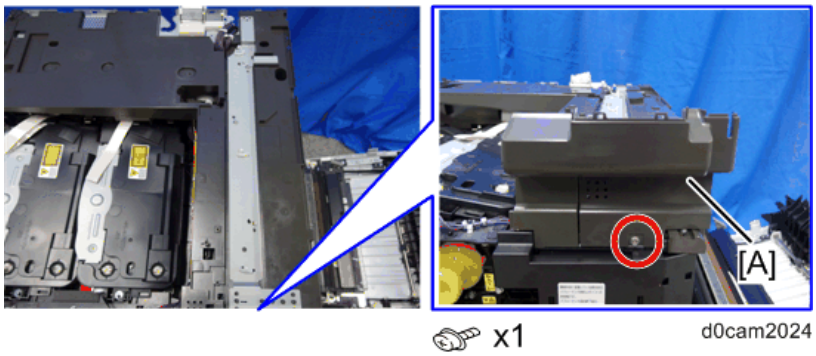
4. Remove the paper exit tray [A].



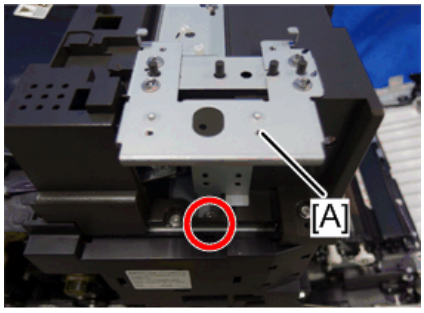
Scanner Inner Cover

IM C300 series/IM C400F

1. Remove the ADF and scanner unit. (Scanner Unit with the ADF)
2. Remove the operation panel. (Operation Panel)
3. Remove the cover [A] under the operation panel.

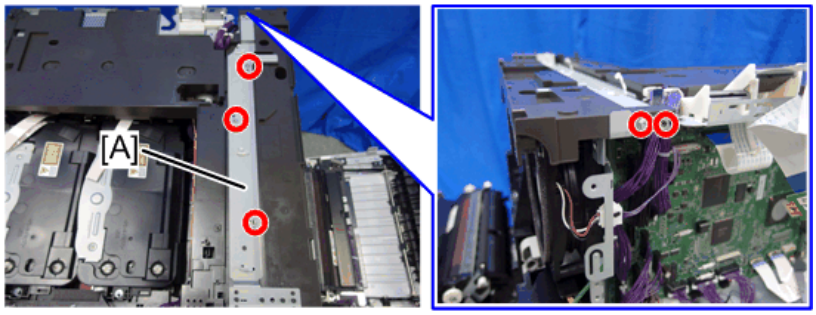


4. Remove the bracket [A].



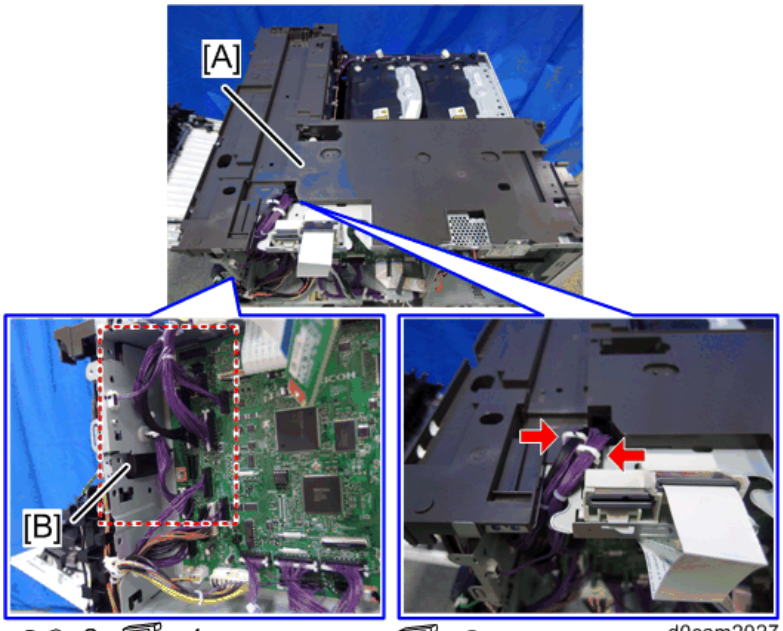
x1 d0cam2025

5. Remove the bracket [A].



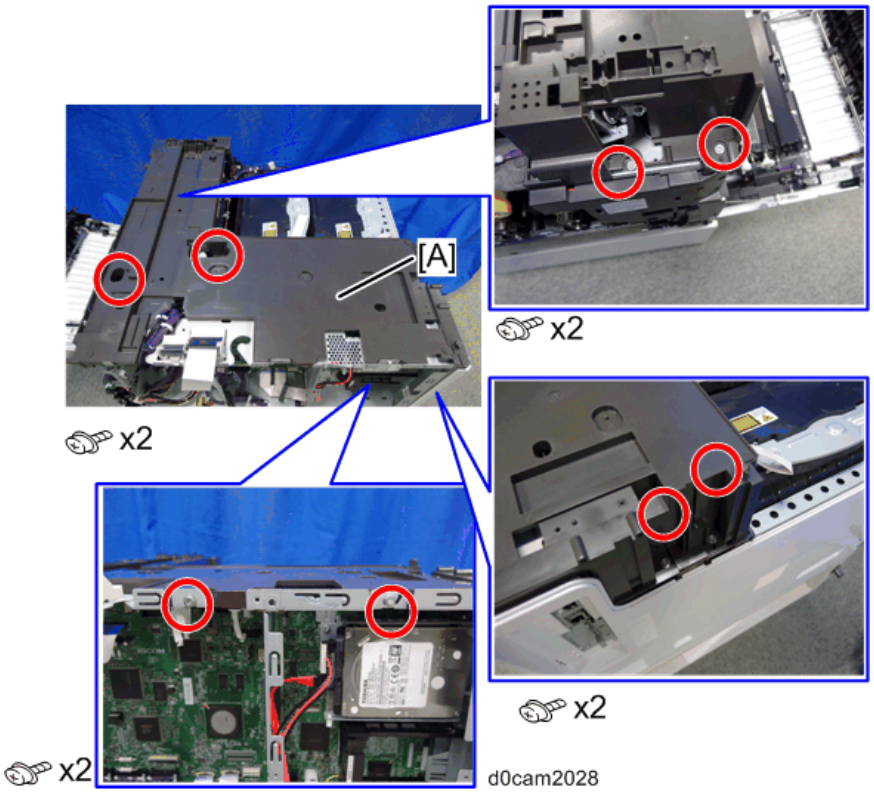
x3 x2 d0cam2026

6. Disconnect the harnesses [B] to remove the inner cover [A].



x8, x1 x2 d0cam2027

7. Remove the scanner inner cover [A].

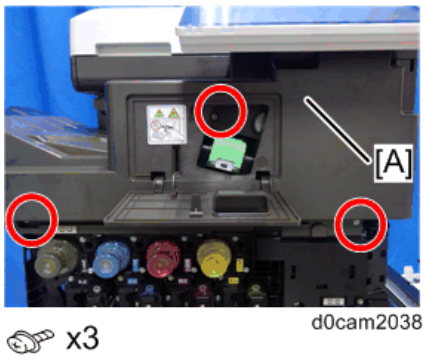


IM C400SRF

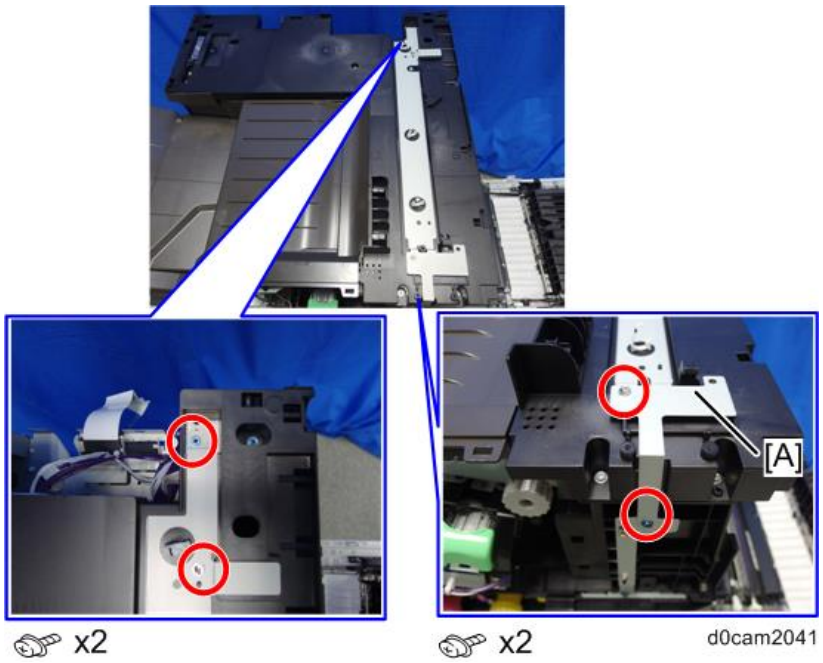
1. Remove the ADF and scanner unit (Scanner Unit with the ADF)

2. Remove the operation panel (Operation Panel)

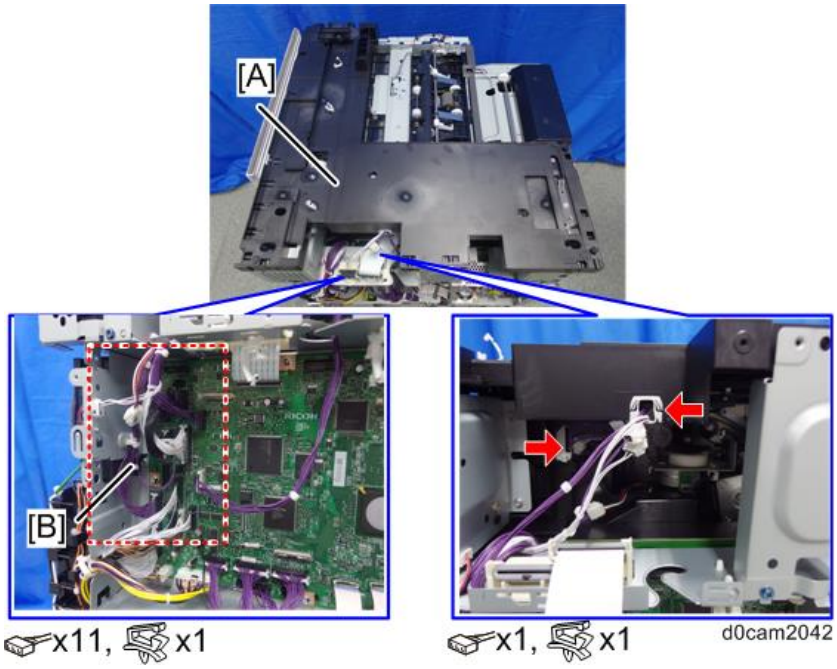
3. Remove the paper exit front cover[A].



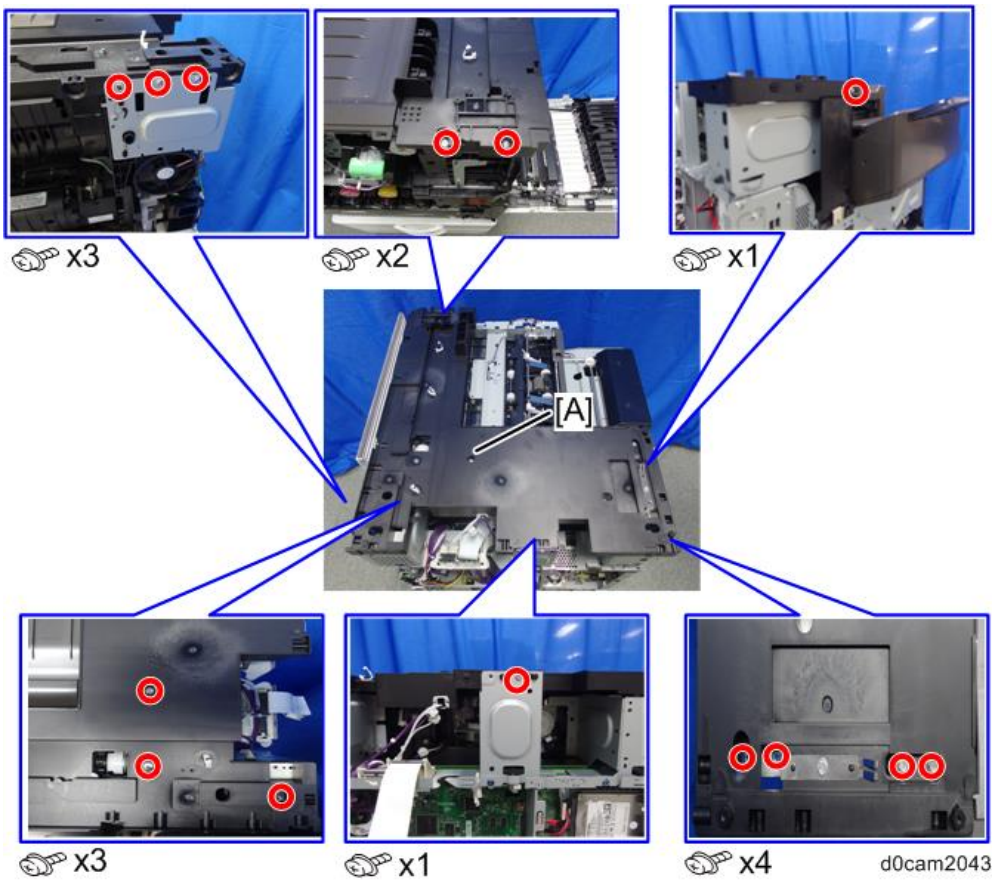
4. Remove the bracket [A].



5. Disconnect the harnesses [B] to remove the inner cover [A].



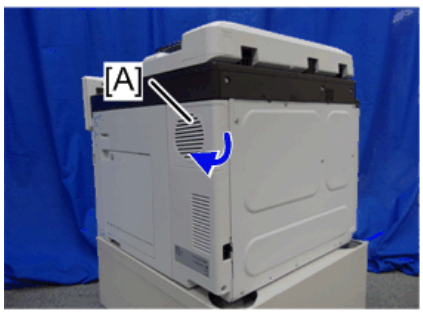
6. Remove the scanner inner cover [A].



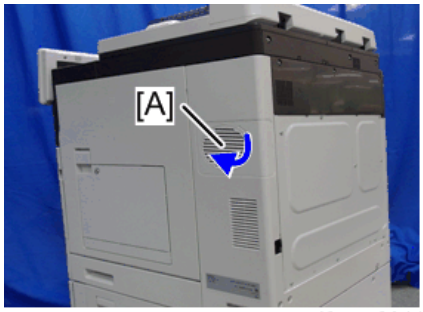
Ozone Filter

1. Remove the filter cover [A].

IM C300 series/IM C400F

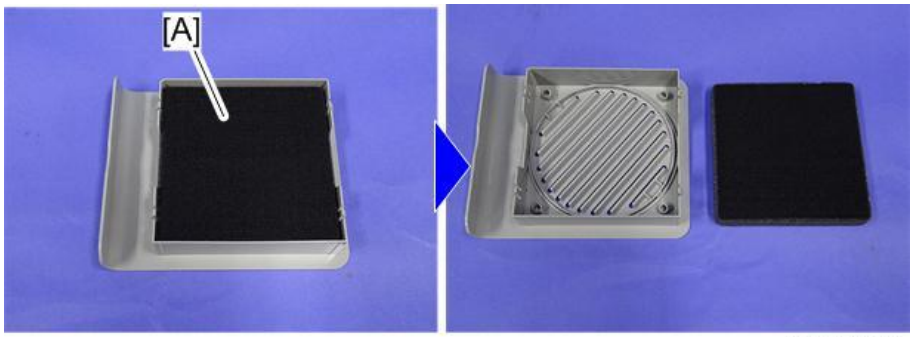


IM C400SRF



d0cam2044

2. Remove the ozone filter [A] from the filter cover.



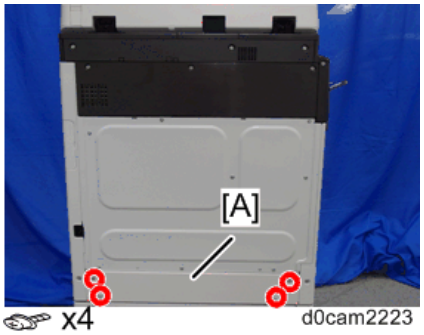
d196z4010

Rear Bottom Cover

Note

This procedure is for IM C400SRF.

1. Remove the rear bottom cover[A].



d0cam2223

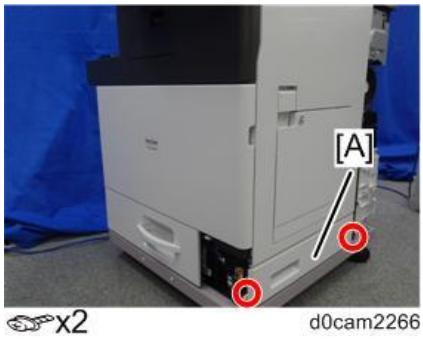
Right Bottom Cover

Note

These procedures are for IM C400SRF.

1. Remove the front lower cover.
2. Remove the right rear cover.(Right Rear Cover)

3. Remove the right bottom cover[A].



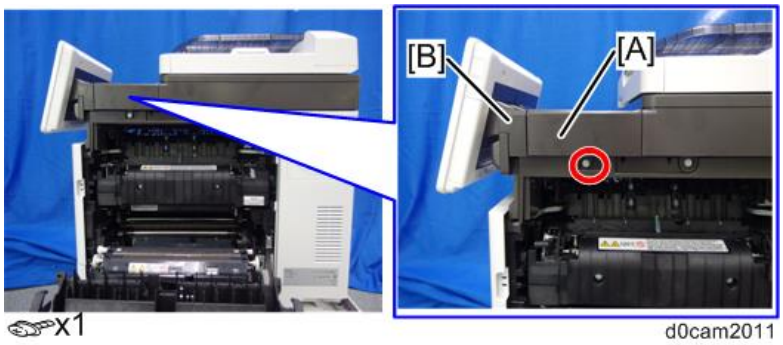
Operation Panel

The replacement procedures for the other parts are included in the FSM for the Smart Operation Panel, because these parts are also used with other models.

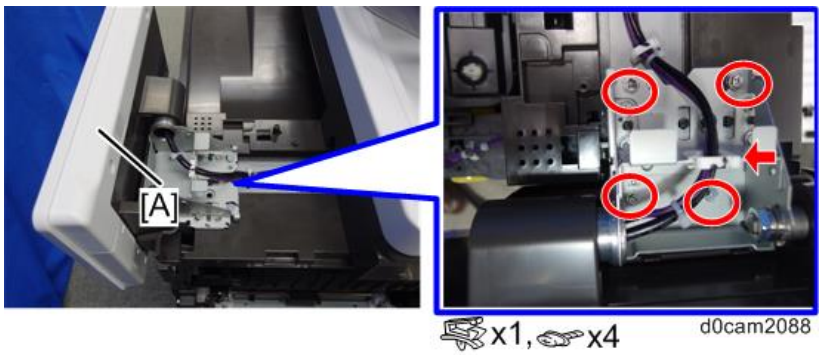
Operation Panel

1. Open the right cover.

2. Remove the front right cover [A] and hinge cover [B].



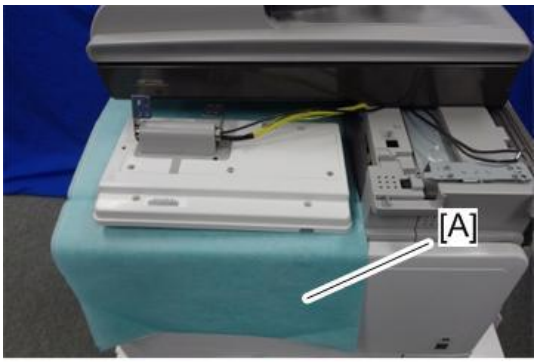
3. Remove the screws fixing the operation panel [A].



Important

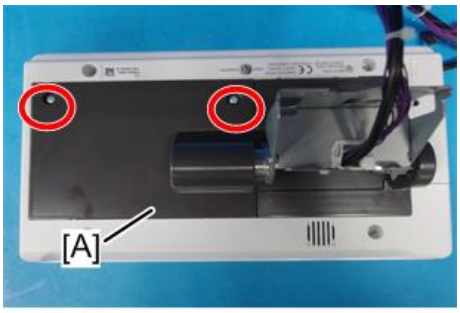
- Spread a cloth or service mat [A] on the paper exit tray to protect the display. Place the

operation panel on the paper exit tray so that the display faces down.



d196z4103

4. Remove the small rear cover [A].

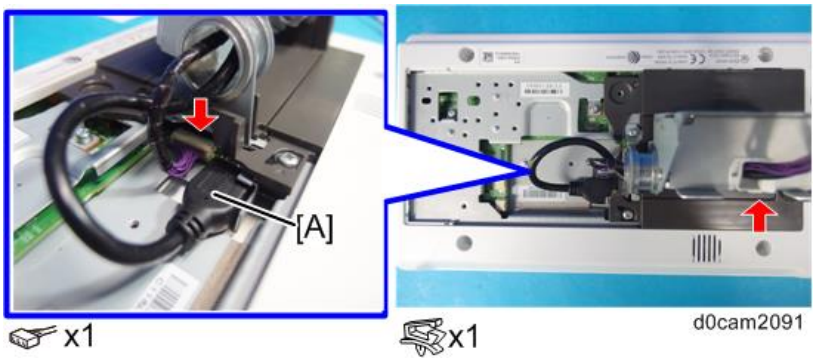


x2 d0cam2089

5. Remove the harness guide[A].

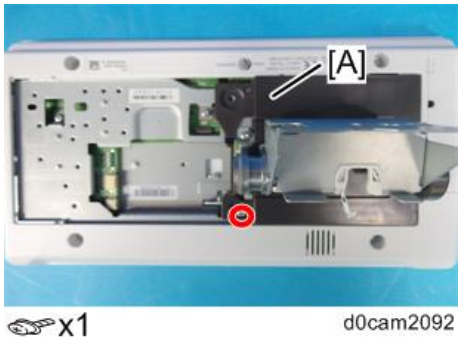
x1 d0cam2090

6. Disconnect the connector [A].

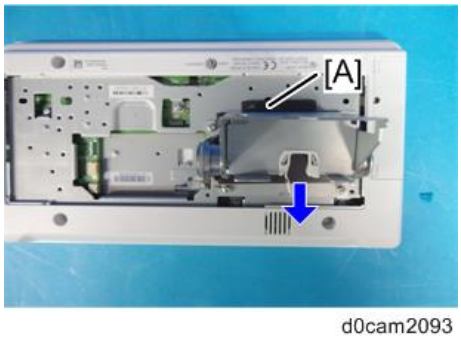


x1 x1 d0cam2091

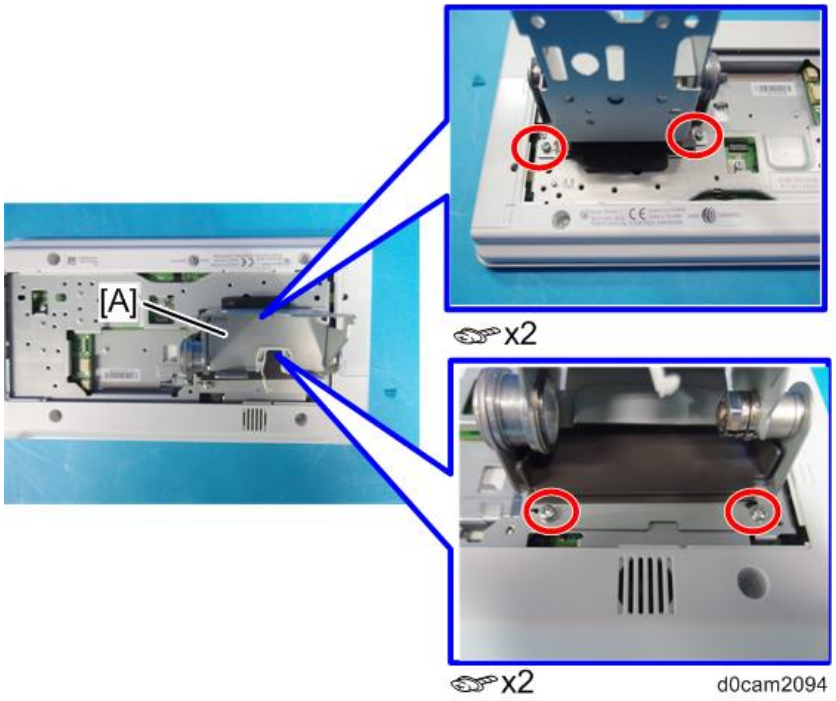
7. Remove the rear cover [A].



8. Remove the hinge base cover [A].

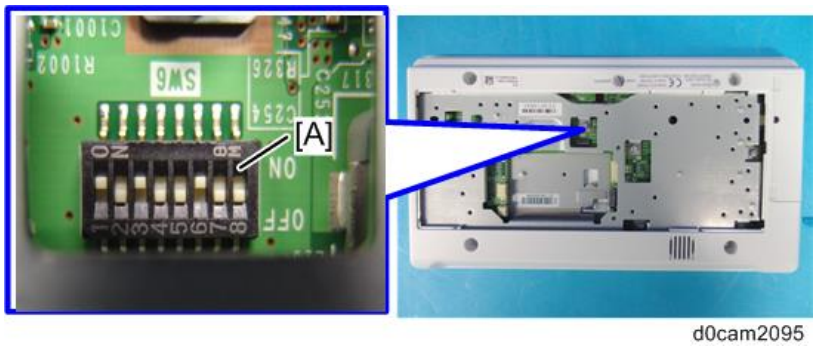


9. Remove the hinge base [A].



Check before Installing the New Operation Panel

There is a DIP switch [A] on the sub board in the operation panel unit.



The switch setting to use depends on the model.

For the IM C300/C400 series, make sure that switches 1,3 and 6 are ON. Otherwise, SC672-11 occurs when starting the machine.

Internal Parts

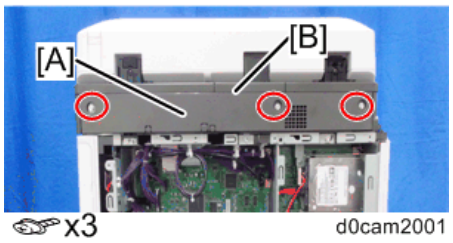
Refer to the FSM for the Smart Operation Panel.

ADF

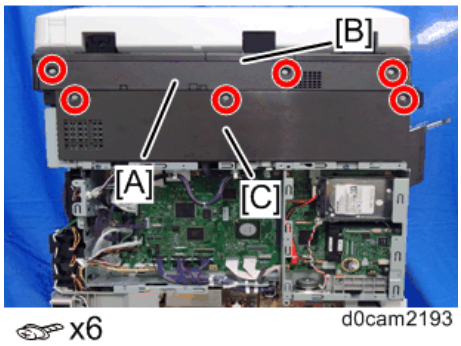
ADF Unit

1. Remove the rear cover. (Rear Cover)
2. Remove the scanner rear cover [A] and scanner rear small cover [B].

IM C300 series/IM C400F



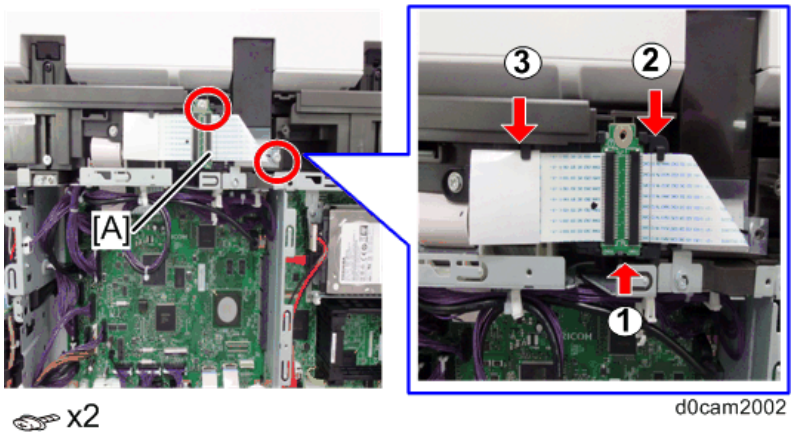
IM C400SRF



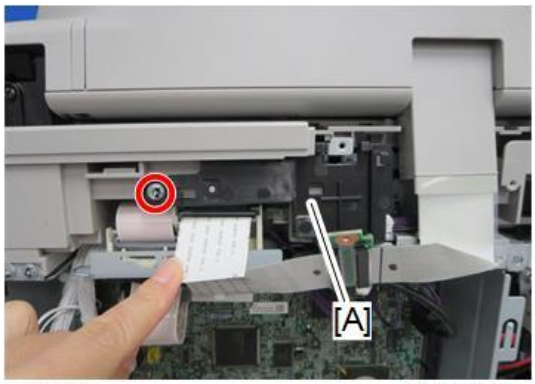
Note

Remove the rear upper cover [C] for IM C400SRF.

3. Release the two screws and three tabs for attaching the relay board (PCB12) [A] and FFC to release the FFC.

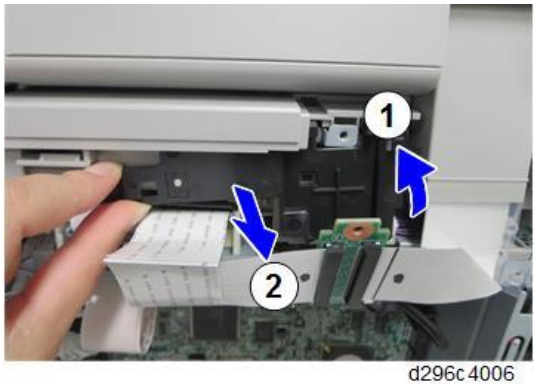


4. Remove the FFC fixing bracket [A] on the back side of the FFC.

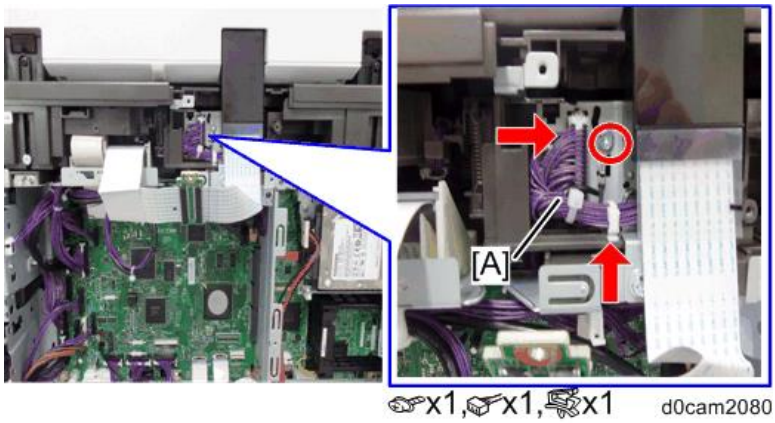


Note

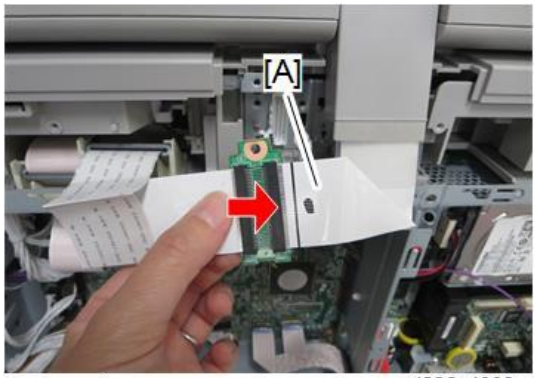
Remove the FFC fixing bracket while turning it counterclockwise and releasing the tab.



5. Disconnect the harness [A] from the ADF.



6. Disconnect the FFC [A] from the relay board (PCB12).

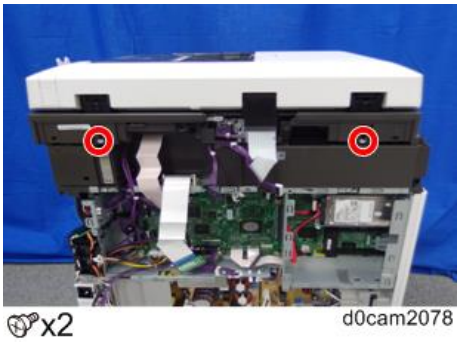


Note

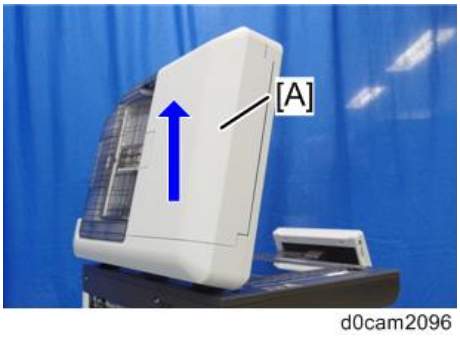
Disconnect the FFC for the relay board (PCB12) by pulling it out straight, because it does not have a lock mechanism.

When reassembling, the FFC must be connected straight.

7. Remove the shoulder screw for fixing the ADF.



8. Remove the ADF unit [A] from the machine.



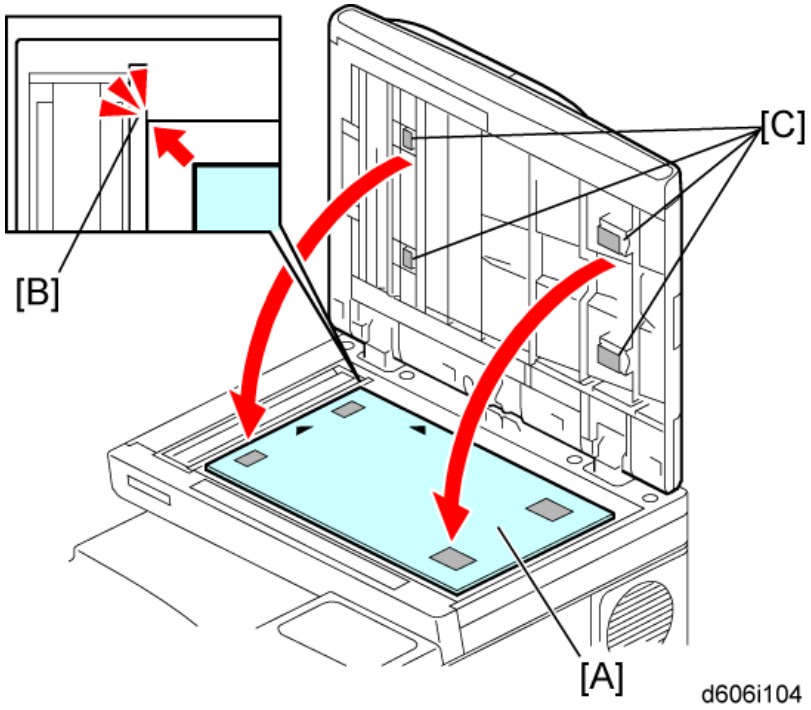
When Installing the ADF

1. Open the ADF.

2. Do the following steps:

- Place the platen sheet [A] on the exposure glass.
- Align the platen sheet with hook and loop fastener [C], with the rear left corner [B] on the

exposure glass as a reference.



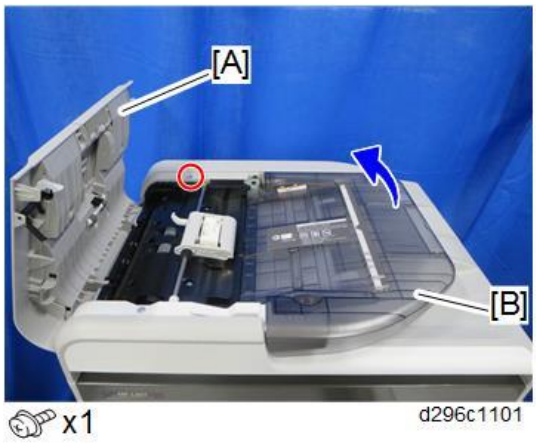
3. Close the ADF.
4. Reopen the ADF.
5. Press the surface of the platen sheet gently to fix it on the ADF firmly.

Adjustment after ADF Unit Replacement

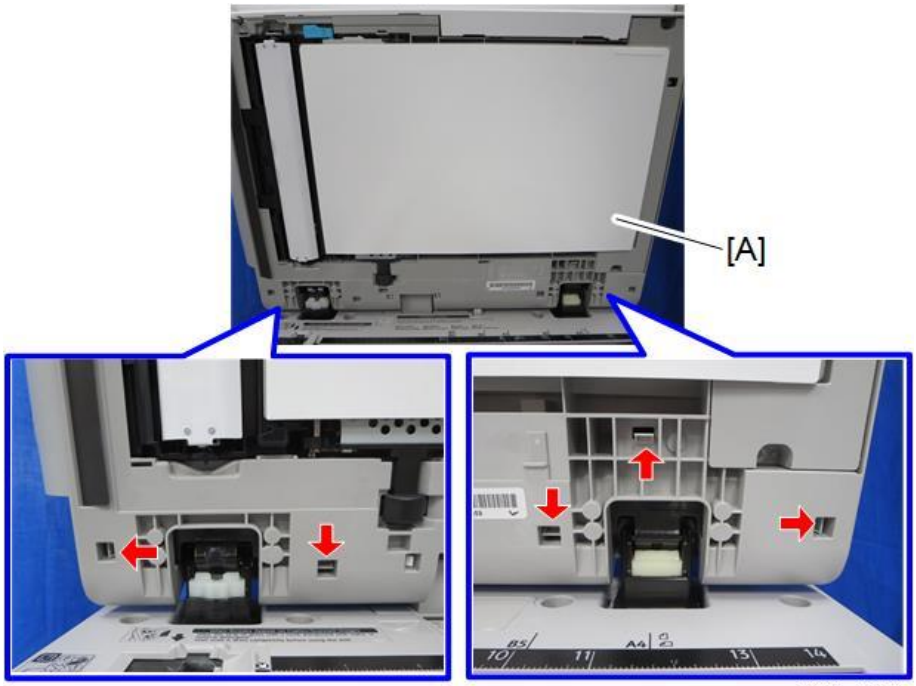
See "Adjustment after CIS Unit Replacement".

ADF Rear Cover

1. Open the ADF top cover [A] and remove the screw.
2. Lift the original tray [B].



3. Open the ADF [A], and release the five tabs of the ADF rear cover by using a thin screwdriver.



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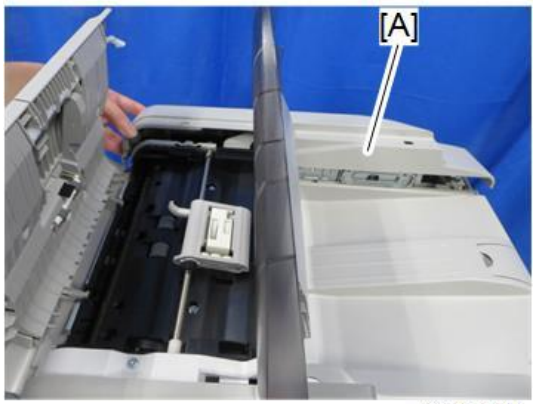
4. Remove the ADF rear cover [A].



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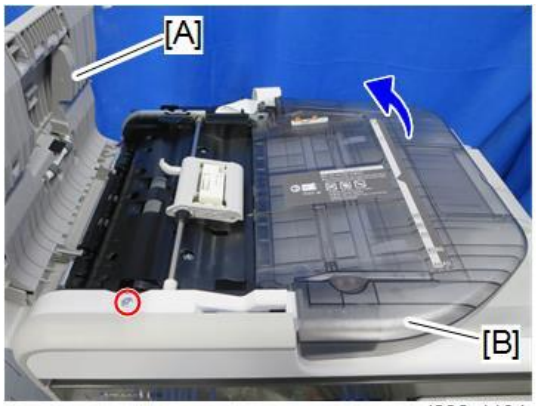
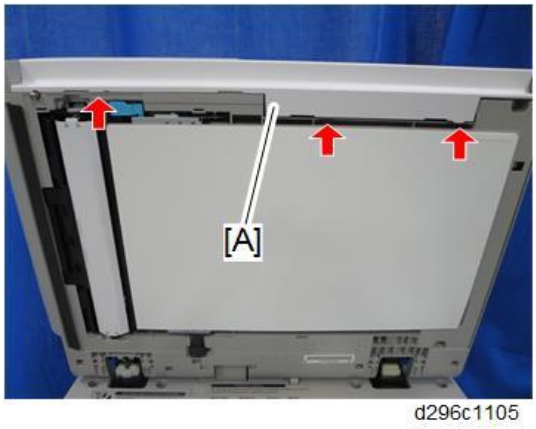
ADF Front Cover

1. Open the ADF top cover [A].

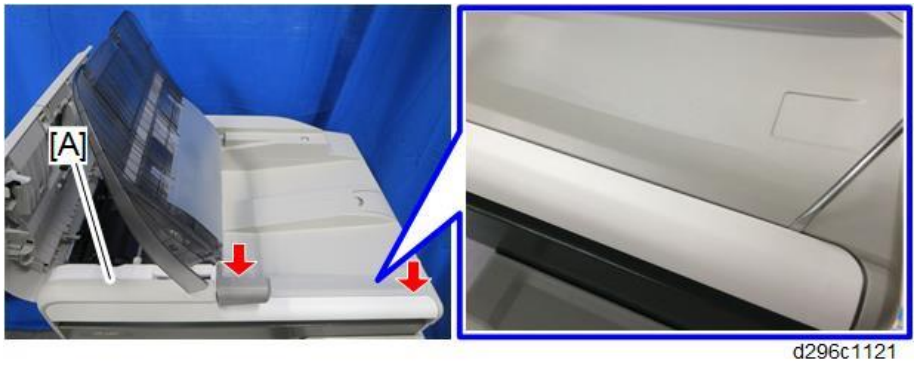
2. Remove the screw, and lift up the original tray [B].



3. Open the ADF, then release the three tabs of the ADF front cover [A].



4. Close the ADF slightly, then remove the ADF front cover [A] while releasing the two tabs with a thin screwdriver.



Original Feed Unit

1. Open the ADF top cover.

2. Slide the shaft [A] of the original feed unit toward the rear to remove it.

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Pickup Roller, Feed Roller

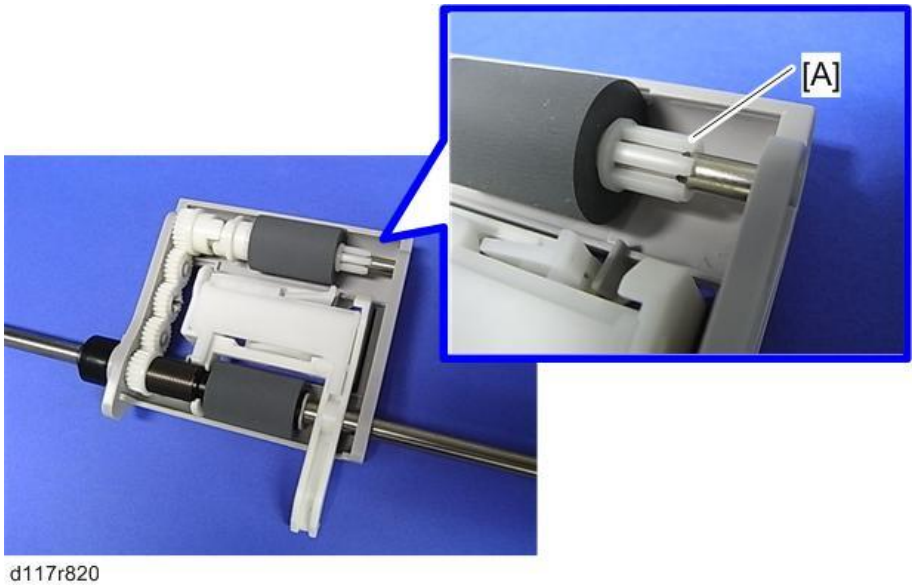
Before Replacing the Pickup Roller and Feed Roller

Before replacing the pickup roller and feed roller, reset the PM counter.

1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

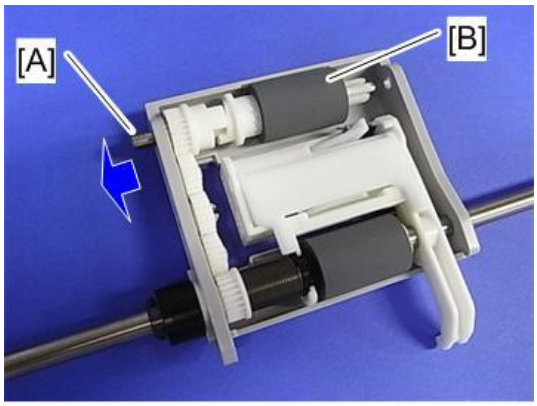
Replacing the Pickup Roller

1. Remove the original feed unit. (Original Feed Unit)
2. Release the hook [A].



d117r820

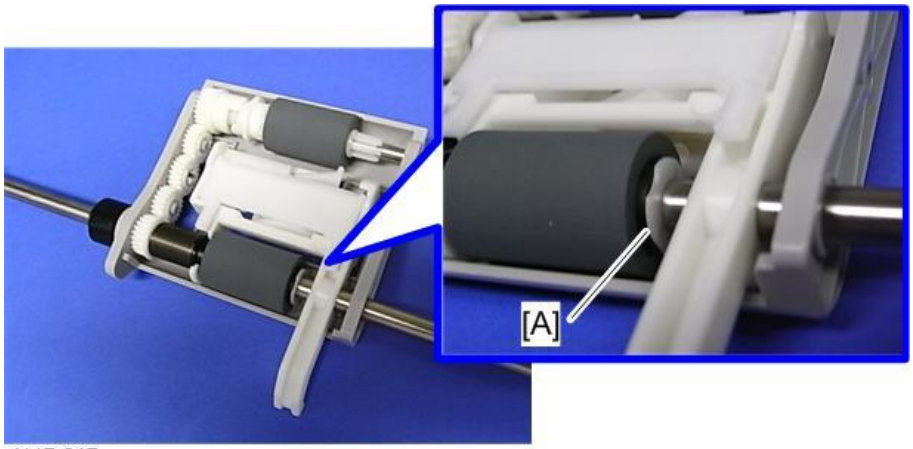
3. Slide the shaft [A], and then remove the pickup roller [B].



d117r821

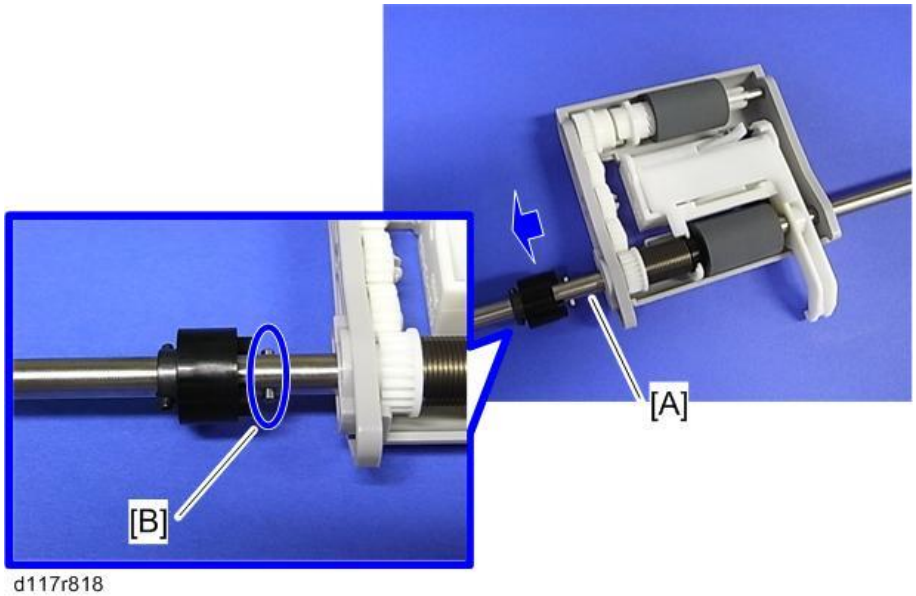
Replacing the Feed Roller

1. Remove the original feed unit. (Original Feed Unit)
2. Remove the clip [A].



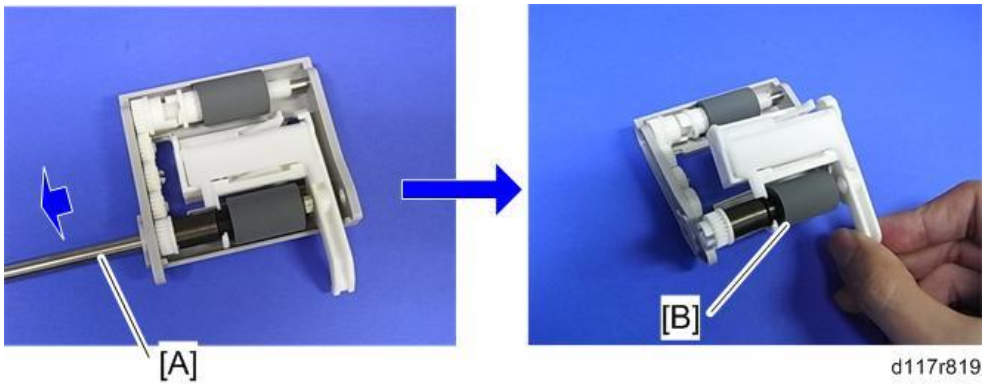
d117r817

3. Slide the shaft [A], and then remove the pin [B].



d117r818

4. Slide the shaft [A], and then remove the feed roller [B].



ADF Friction Pad

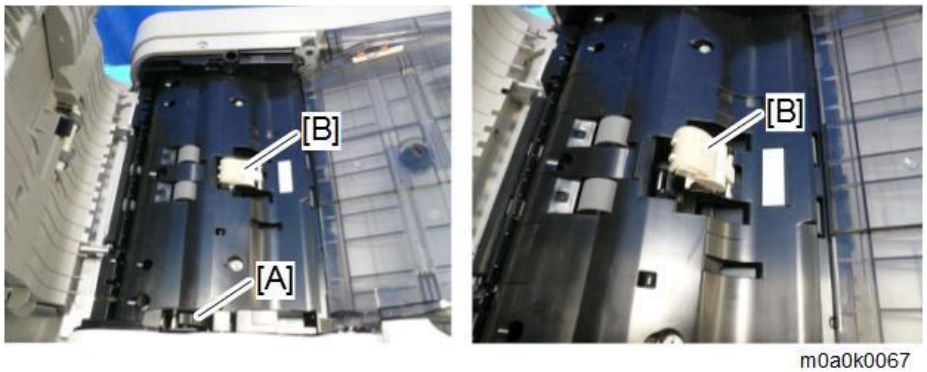
Before Replacing the Friction Pad

Before replacing the friction pad, reset the PM counter.

1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

Replacing the Friction Pad

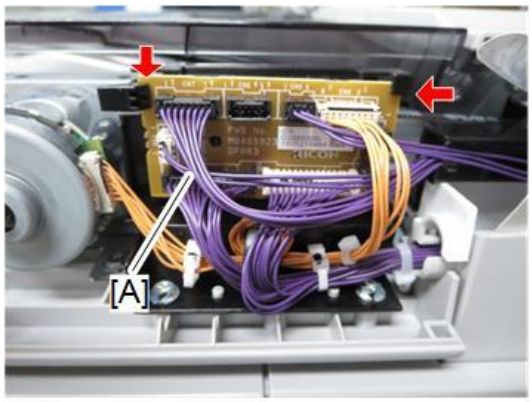
1. Remove the original feed unit. (Original Feed Unit)
2. Push the lever [A] and then remove the friction pad [B].



ADF Relay Board (PCB13)

1. Remove the ADF rear cover. (ADF Rear Cover)

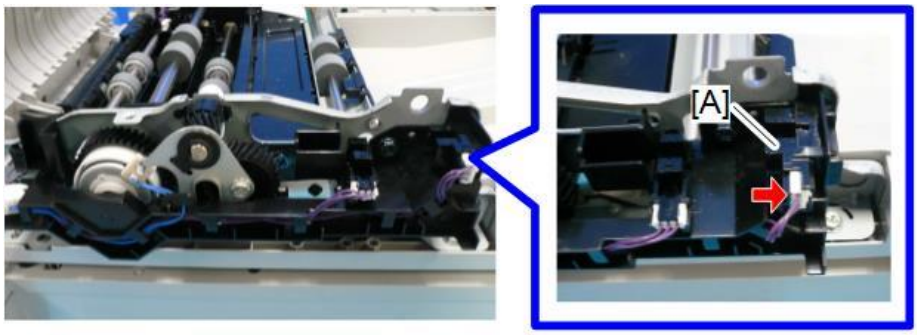
2. Remove the ADF relay board (PCB13) [A] while releasing the hook.



x all d296c4080

ADF Top Cover Set Sensor (S23), Original Set Sensor (S22)

1. Remove the ADF front cover (ADF Front Cover)
2. Remove the top cover set sensor (S23) [A].



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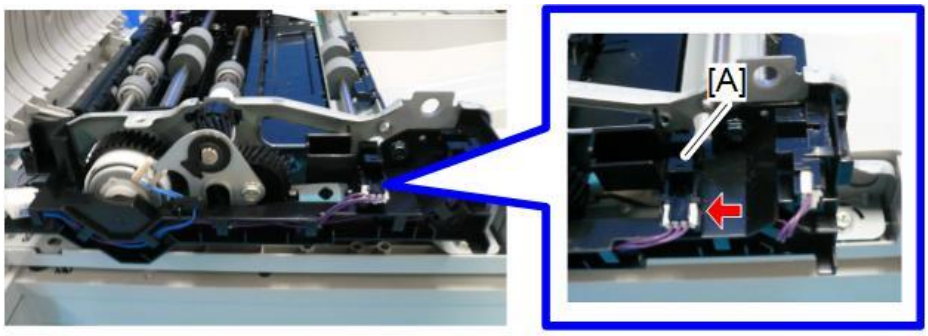
3. Remove the original set sensor (S22) [A].

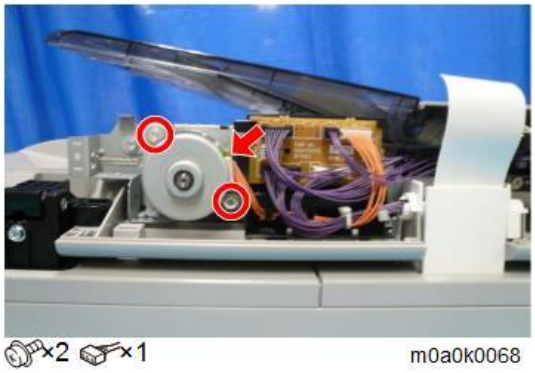


×1 m0a0k0070

ADF Motor (M8)

1. Remove the ADF rear cover. (ADF Rear Cover)

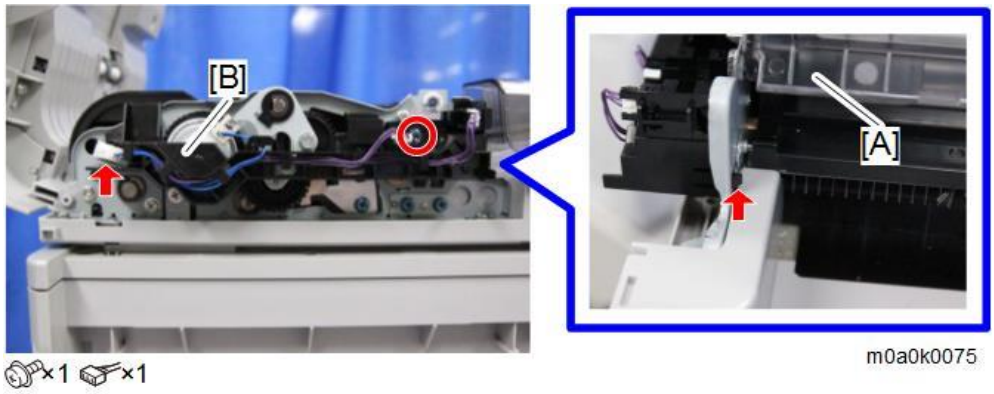
2. Remove the ADF motor (M8).



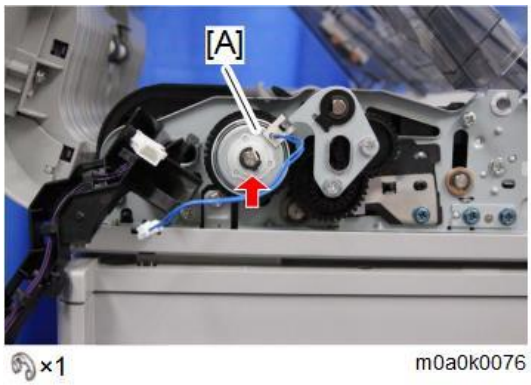
Original Feed Clutch (CL4)

1. Remove the ADF front cover. (ADF Front Cover)

2. Release the hook while swinging up the original tray [A], and then remove the harness guide [B].



3. Remove the original feed clutch (CL4) [A].

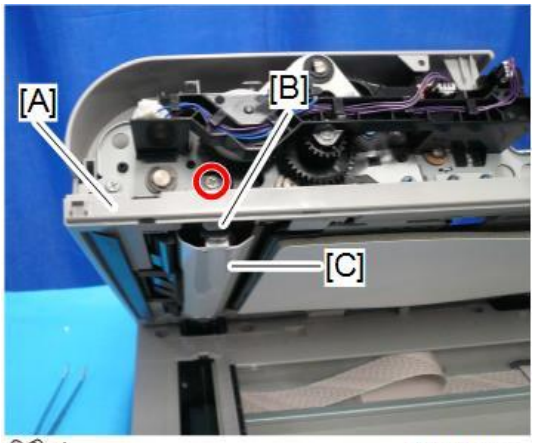


ADF Registration Sensor (S24)

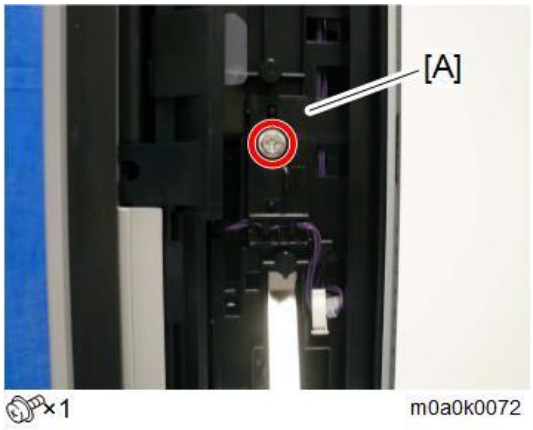
1. Remove the ADF front cover. (ADF Front Cover)

2. Open the ADF [A].

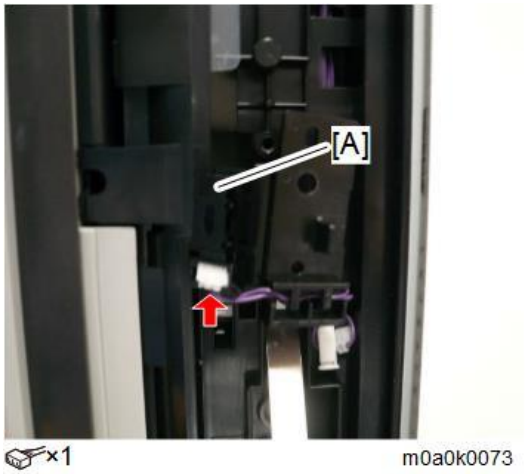
3. Slide the hook [B], and then remove Scanning guide plate (front side) [C].



4. Remove the ADF registration sensor holder [A].



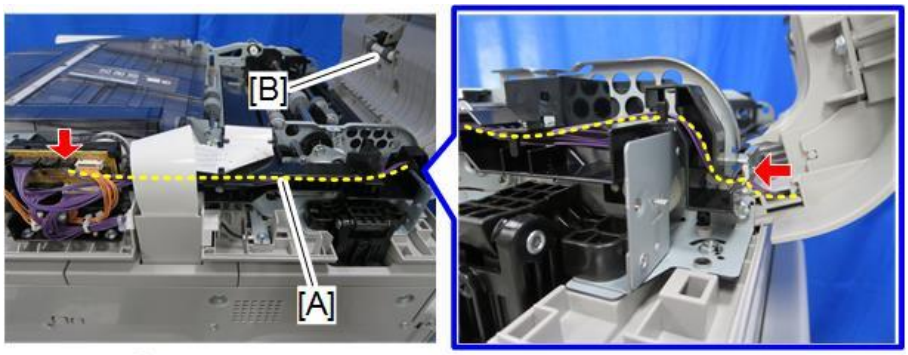
5. Remove the ADF registration sensor (S24) [A] from the holder.



Original Feed Sensor (S25)

1. Remove the ADF rear cover. (ADF Rear Cover)

2. Disconnect the harness [A] from the ADF top cover [B], and release the clamp.



x1 x1

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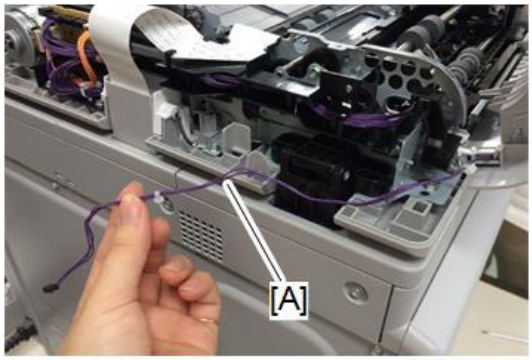
3. Remove the harness [A] from the harness guide.



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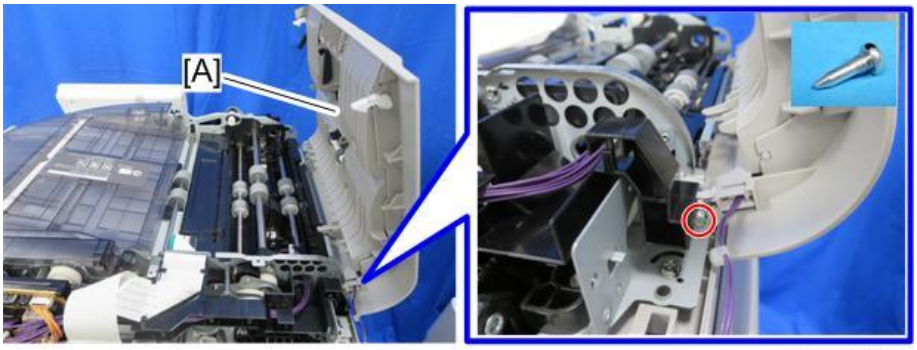
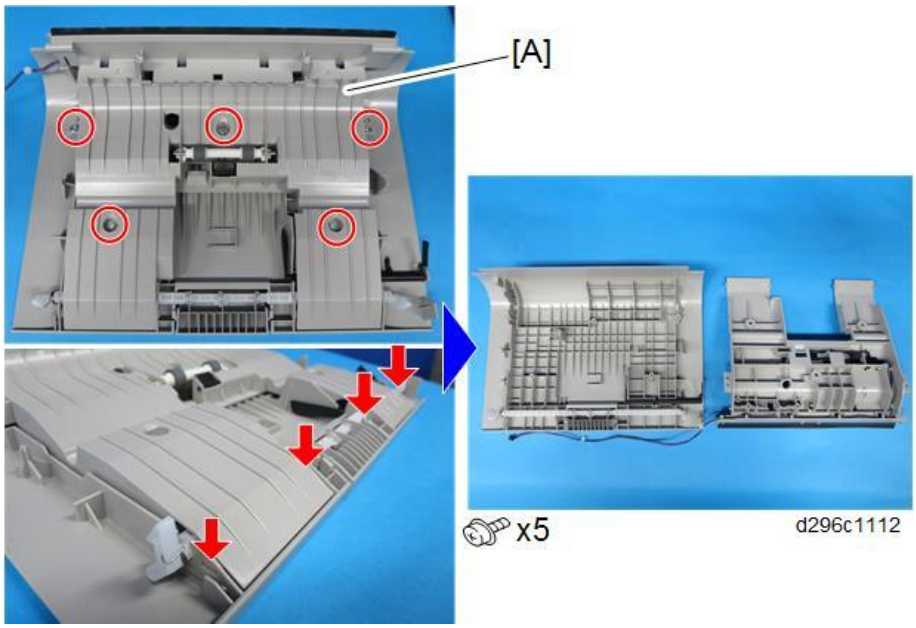
4. Remove the ADF top cover [A].(Pivot screw × 1)

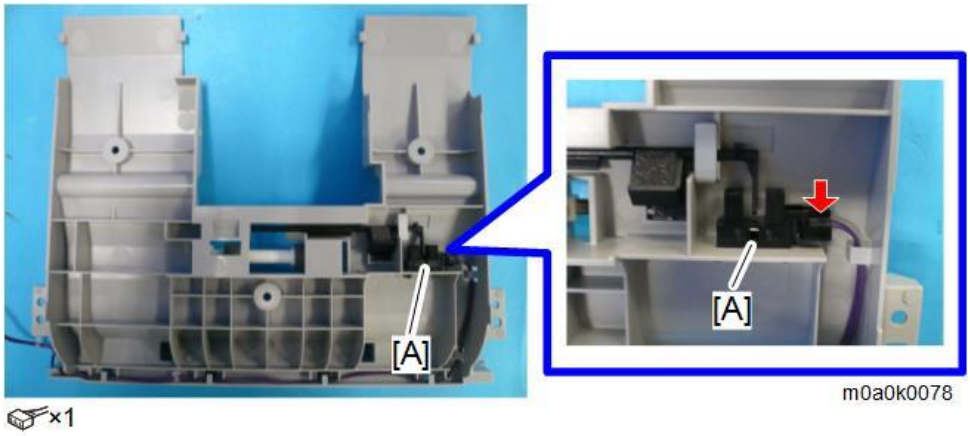


d296c1111

5. Remove the five screws and release the four tabs, and then remove the inner cover [A].

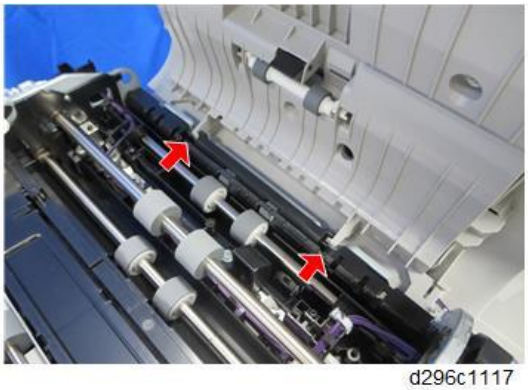


6. Remove the original feed sensor (S25) [A].



Note

- When reattaching the ADF top cover, make sure it is set correctly so that the two tabs fit into the holes.

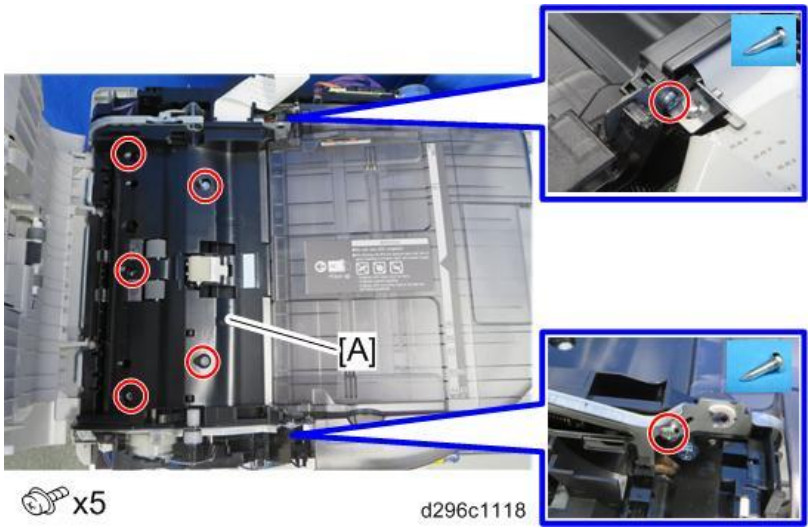


CIS Unit (S21)

1. Remove the following parts

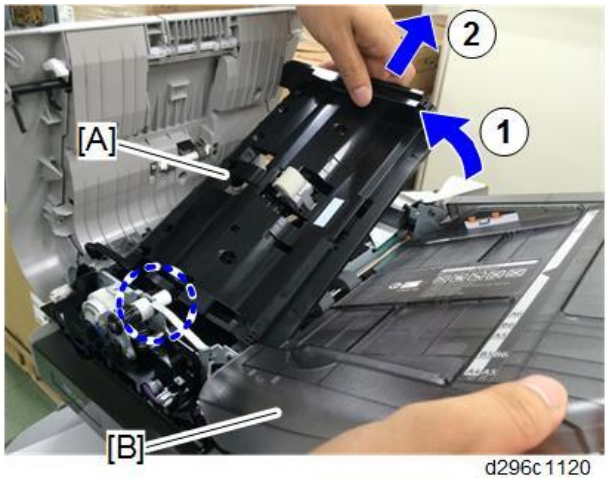
- ADF Rear Cover
- ADF Front Cover
- Original Feed Unit

2. Remove the ADF inner cover [A].(Pivot Screws × 2)

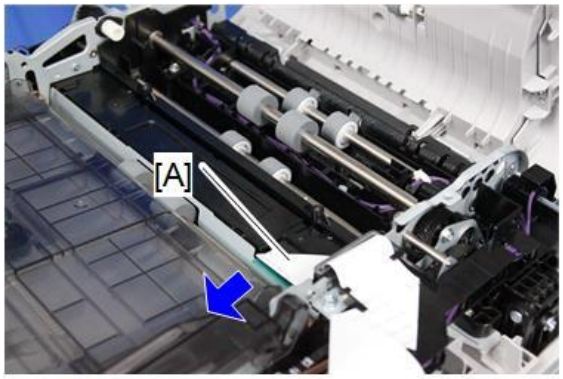


Note

Lift the back of the ADF inner cover [A] while swinging up the original tray [B], and then slide the ADF inner cover toward the back of the ADF unit.

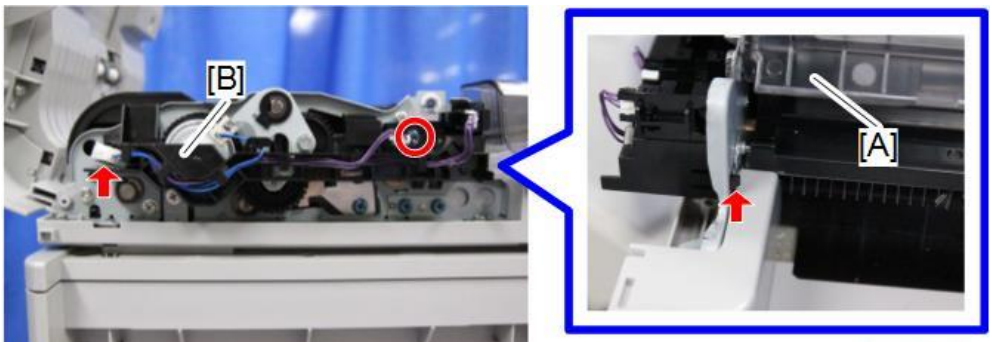


3. Disconnect the FFC [A].



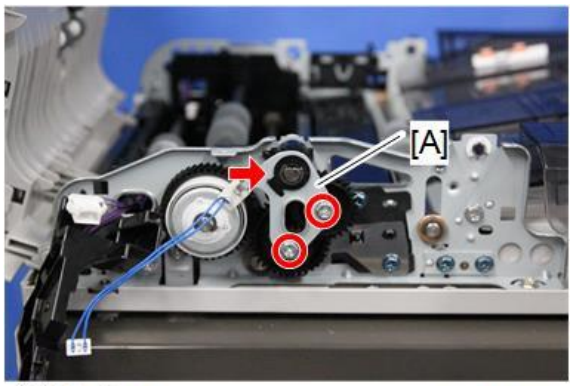
×1 m0a0k3035

4. Release the hook while swinging up the original tray [A], and then remove the harness guide [B].



×1 ×1 m0a0k0075

5. Remove the gear bracket [A].

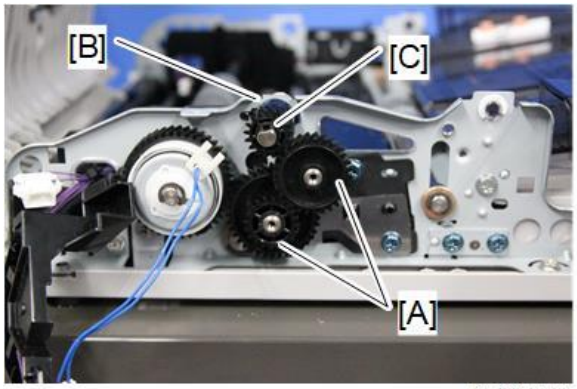


×2 ×1 m0a0k3032

6. Remove the two gears [A].

Important

Do not remove the gear [B], to prevent the inner pin [C] from dropping into the machine.



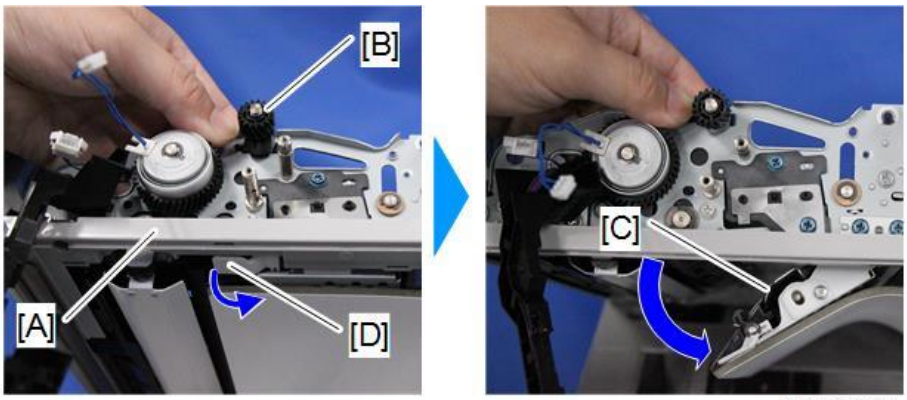
m0a0k3033

7. Open the ADF unit [A] while holding the gear [B] by hand.

8. Open the scanning guide plate (rear side) [C] by pulling the release lever [D].

Important

- Hold the gear [B]. It is not fixed, and may drop into the machine.
- Open the scanning guide plate (rear side) [C] before replacing the CIS unit. Otherwise, the surface could be damaged.

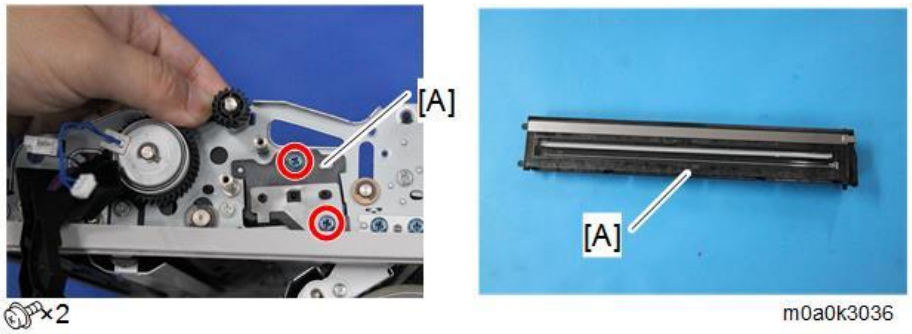


m0a0k3034

9. Pull out the CIS unit (S21) [A] from the ADF unit.

Note

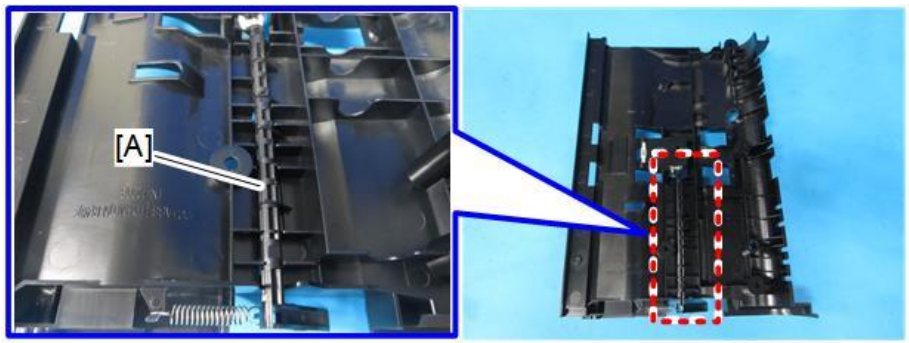
The CIS unit (S21) can be easily removed by pushing it from behind.



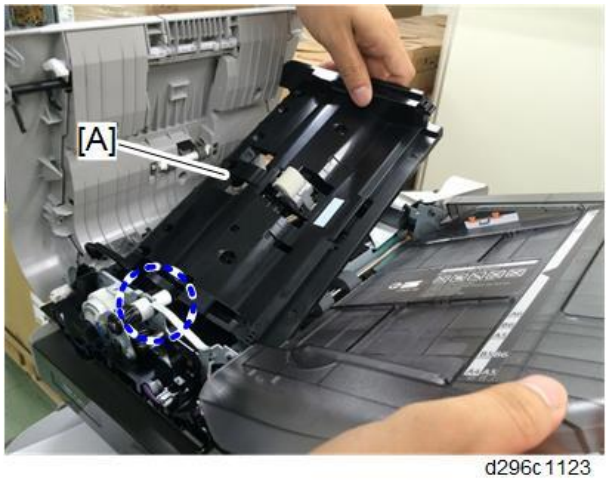
m0a0k3036

Note

When reattaching the ADF inner cover, make sure that the shaft [A] fits into the groove (this is the shaft of the lock lever for the friction pad on the back side of the cover). If the shaft does not fit, the ADF top cover will not be closed.



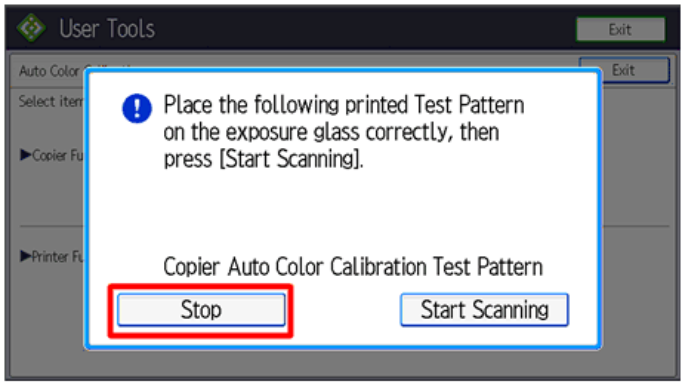
When reattaching the ADF inner cover [A], move it under the coupling shaft (marked by the dashed circle) of the original feed unit, and then you can install the ADF inner cover correctly.



Adjustment after CIS Unit Replacement

Correct the color deviation of the CIS (S21) after replacing the ADF unit or CIS unit.

1. Perform the registration adjustment of the ADF (back side). (ADF Side-to-Side and Leading Edge Registration)
2. Print an ACC test pattern.
   [Settings] icon > [Maintenance] > [Auto Color Calibration] > [Copier Function] > [Start Auto Calibration] > [Start Printing]
3. Press [Stop].
   An error screen will be displayed if [Start Scanning] is pressed.



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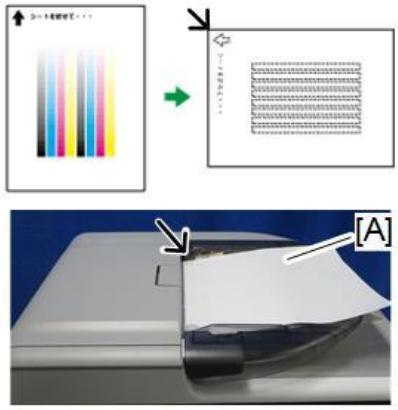
4. Turn over the ACC test pattern [A] and set it on the ADF. (Set the arrow position of the test pattern in accordance with the arrow position of the photograph below.)

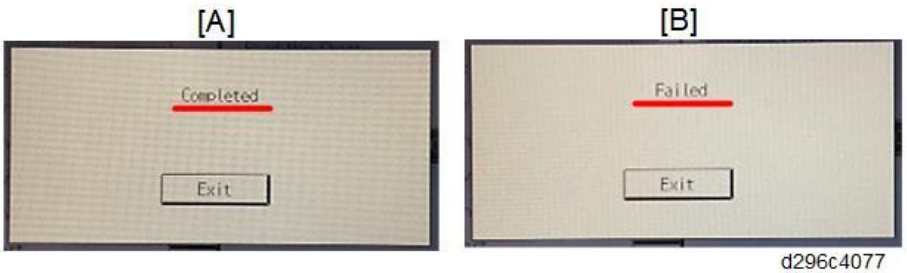


d296c4076

5. Exit the User Tools mode, and then enter the SP mode.

6. Execute SP4-482-001 (Read/Restore Std: Rear: Read New Chart).

7. When the correction is completed successfully, [A] is displayed.
If it failed, [B] will be displayed. Repeat steps 4 to 6.



d296c4077

Note

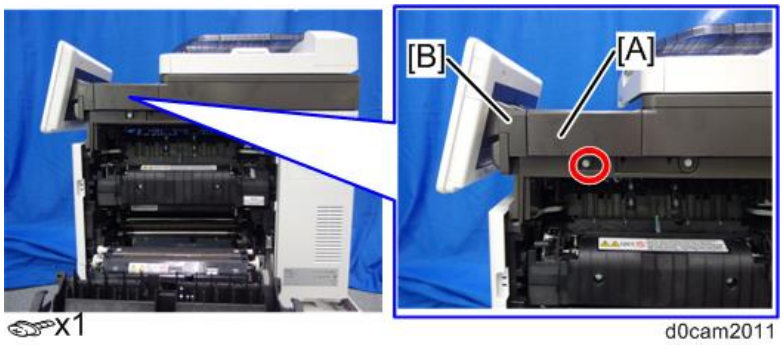
The causes of the failure may be as follows.

- The test pattern was not set correctly.
- A jam occurred at the time of reading.
- The ACC test pattern is abnormal (e.g. a pattern is missing).
- The reading position has deviated (4mm or more) due to skewing for example.

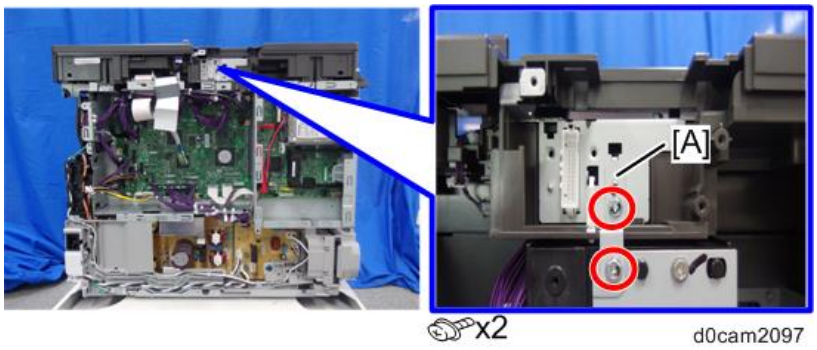
Scanner

Scanner Unit

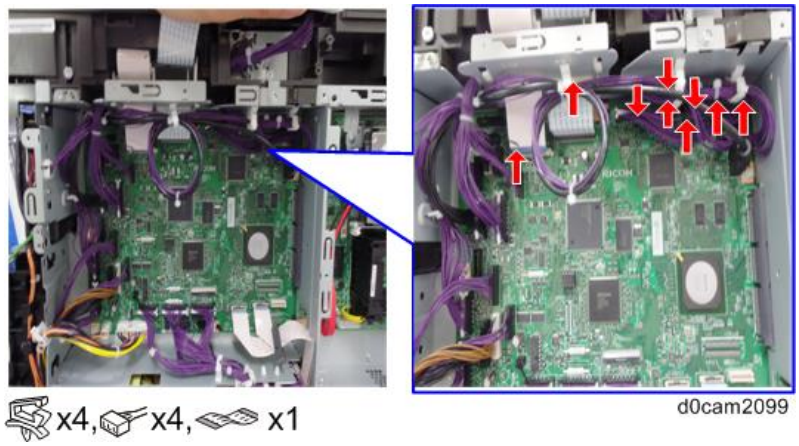
1. Remove the right rear cover. (Right Rear Cover)
2. Remove the upper left cover. (Upper Left Cover)
3. Remove the front right cover [A] and the hinge cover [B].



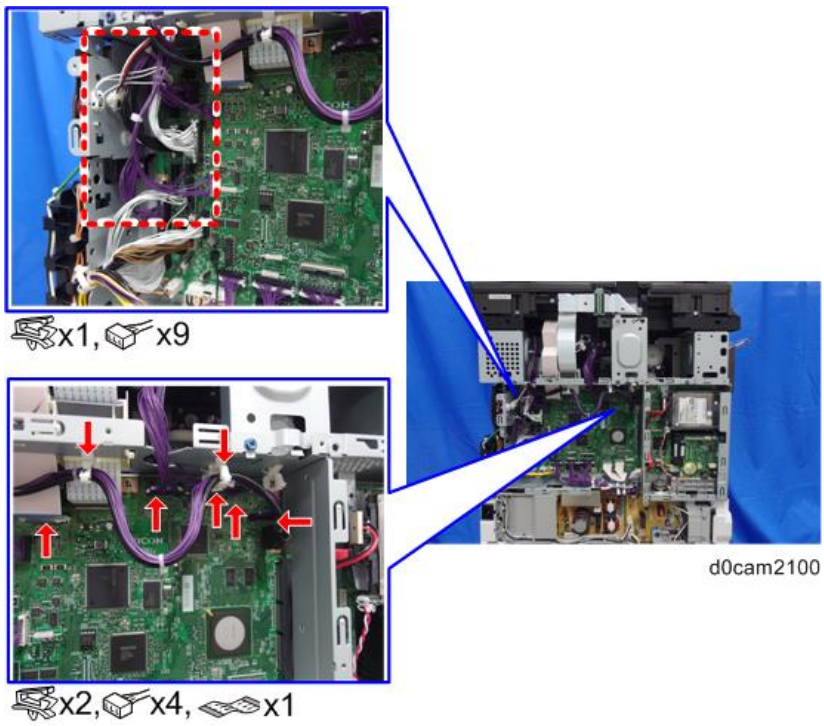
4. Remove the ADF. (ADF Unit)
5. Remove the grounding plate [A].



6. Disconnect the harnesses and FFC from the scanner unit.
   When lifting the scanner unit, move the harnesses out of the frame so that they do not interfere.
   IM C300 series/IM C400F

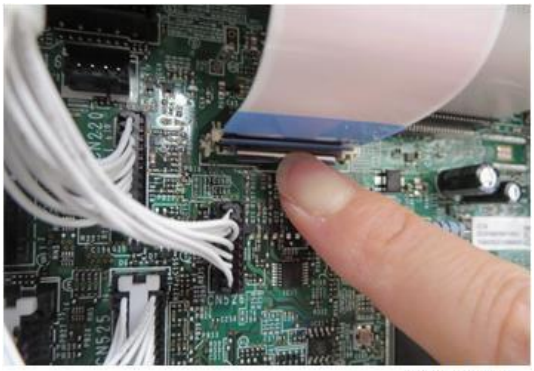


   IM C400SRF



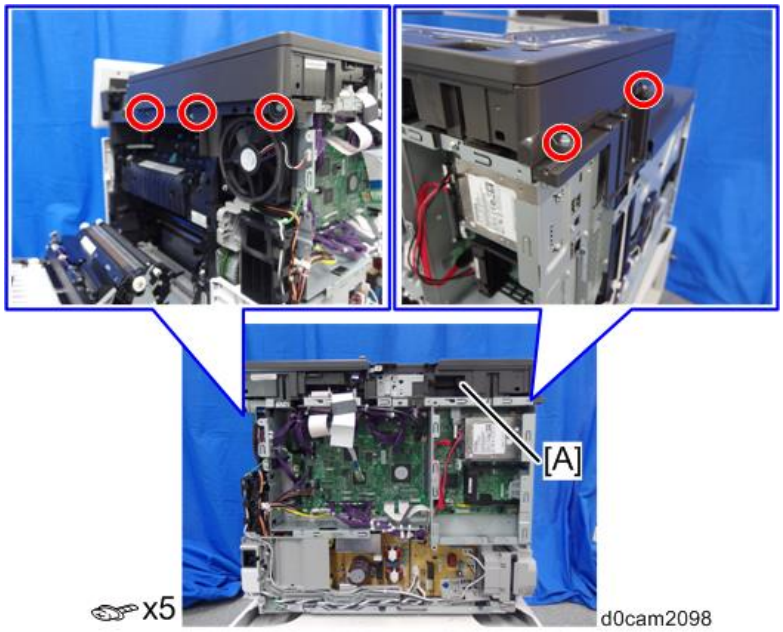
Note

- When disconnecting or connecting the FFC, push the lock button to unlock it as shown below.



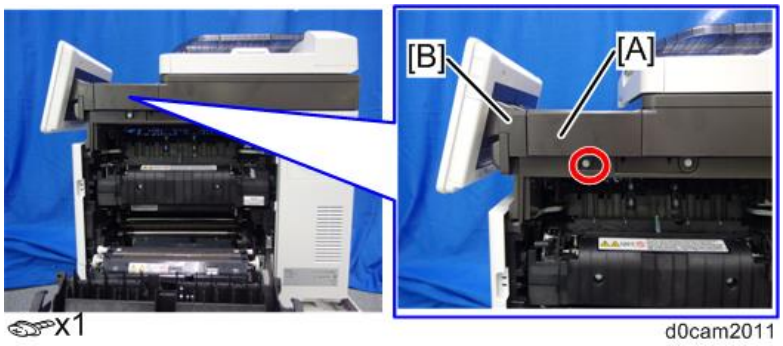
- If the FFC is not connected correctly, SC101 may occur.

7. Remove the scanner unit [A].



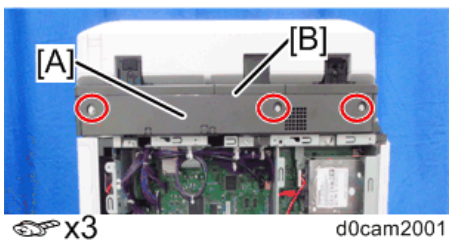
Scanner Unit with the ADF

1. Remove the following parts
   - Rear Cover
   - Right Rear Cover
   - Upper Left Cover
2. Remove the front right cover [A] and the hinge cover [B].

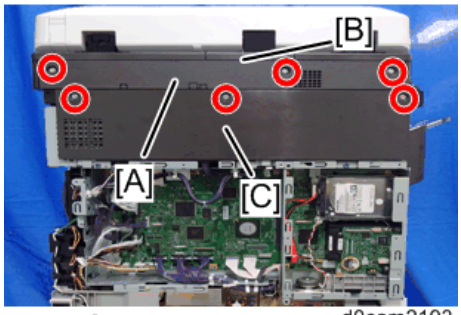


3. Remove the scanner rear cover [A] and scanner rear small cover [B].

IM C300 series/IM C400F



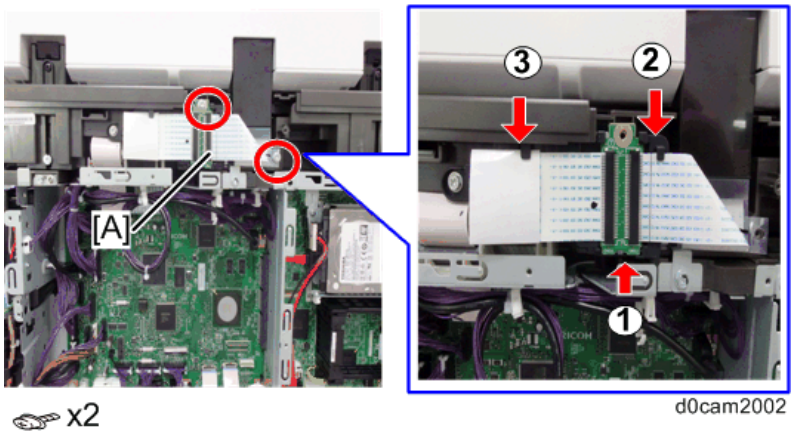
IM C400SRF



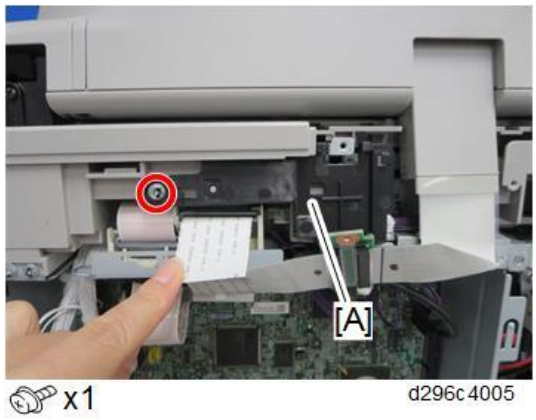
Note

Remove the rear upper cover [C] for IM C400SRF.

4. Release two screws and three tabs for attaching the relay board (PCB12) [A] and FFC, to release the FFC.

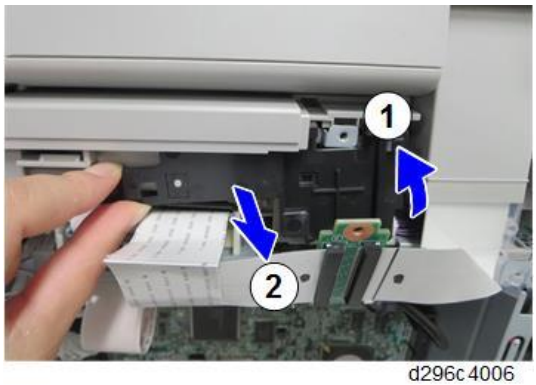


5. Remove the FFC fixing bracket [A] on the back side of the FFC.



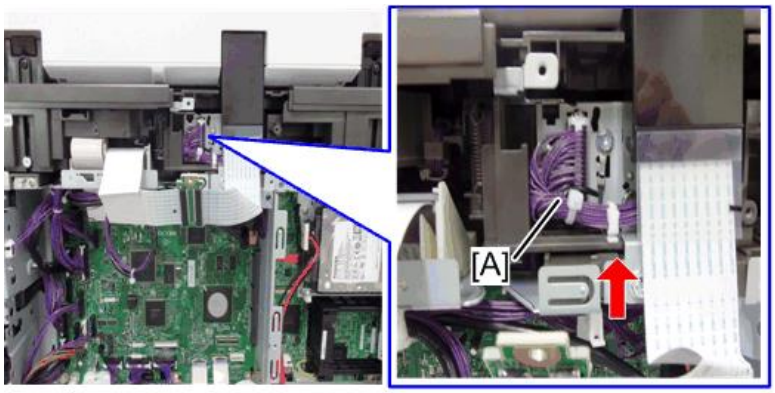
Note

Remove the FFC fixing bracket while turning it counterclockwise and releasing the tab.



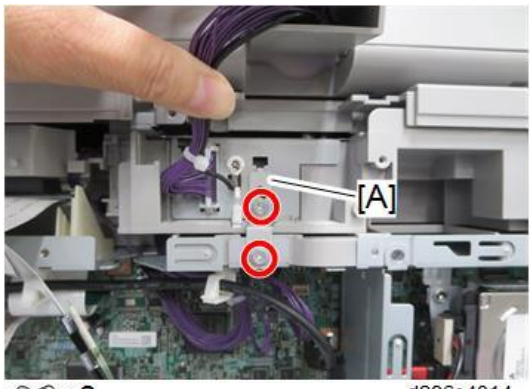
d296c4006

6. Release the clamp for the harness [A] to the ADF.



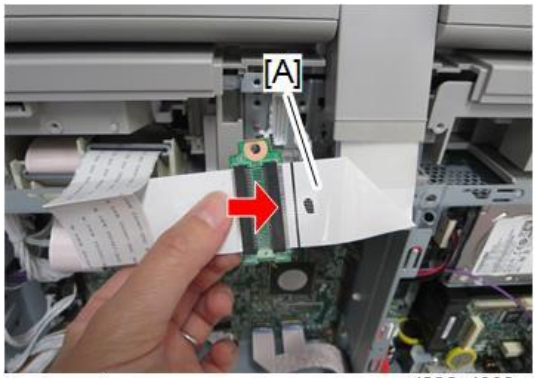
x1
d0cam2003

7. Remove the grounding plate [A].(This procedure is for IM C300 series/IM C400F)



x2
d296c4014

8. Disconnect the FFC [A] from the relay board (PCB12).



x1 d296c4008

Note

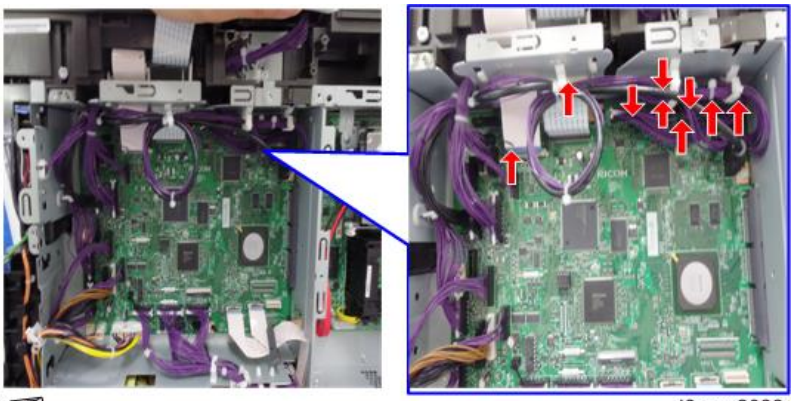
Disconnect the FFC for relay board (PCB12) by pulling it out straight, because it does not have a lock mechanism.

When reassembling, the FFC must be connected straight.

9. Disconnect the harnesses and FFC for the scanner unit.

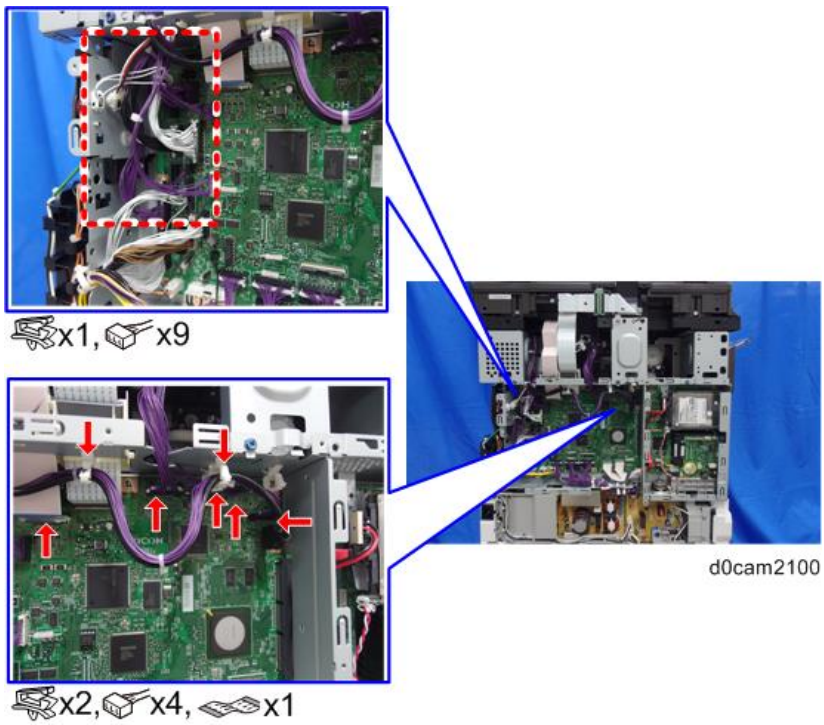
When lifting the scanner unit, move the harnesses out of the frame so that they do not interfere.

IM C300 series/IM C400F



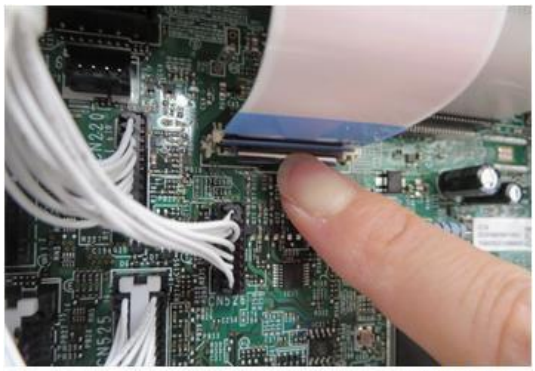
x4, x4, x1 d0cam2099

IM C400SRF



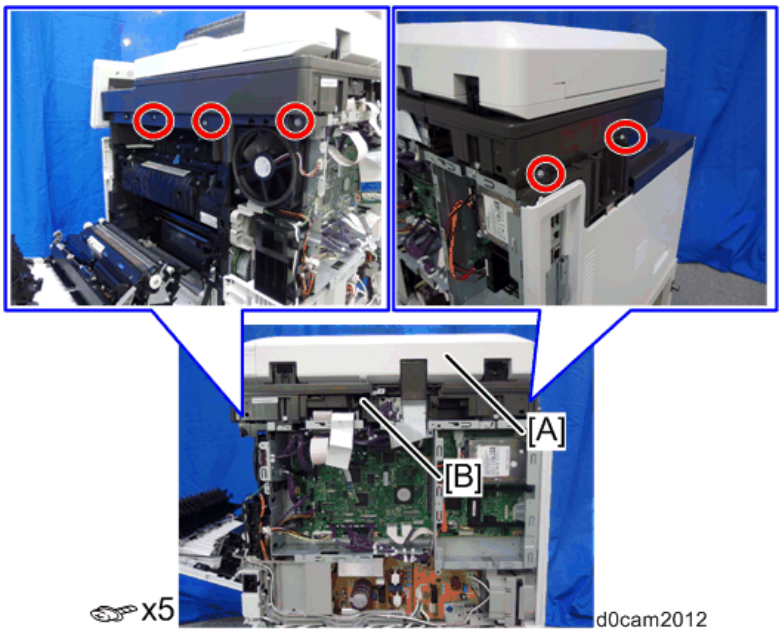
Note

When disconnecting or connecting the FFC, push the lock button to unlock it as shown below.



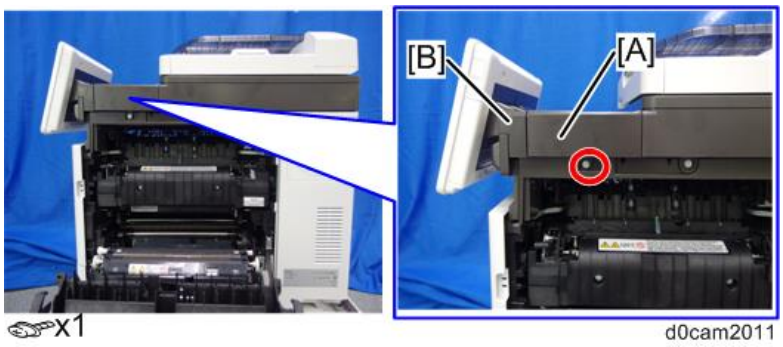
If the FFC is not connected correctly, SC101 may occur.

10. Remove the scanner unit [B] with the ADF [A].

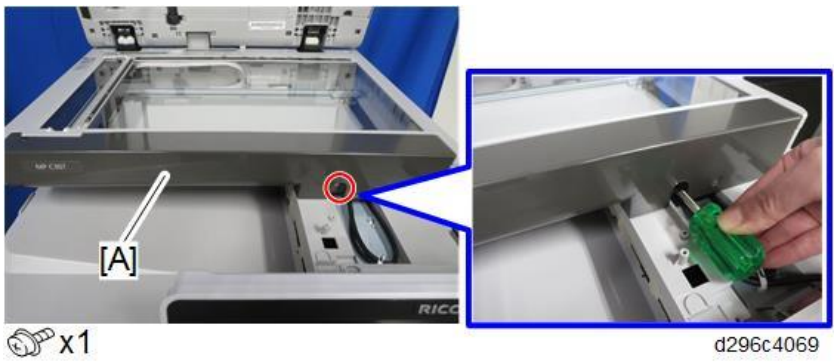


Scanner Front Cover

1. Remove the front right cover [A] and the hinge cover [B] .

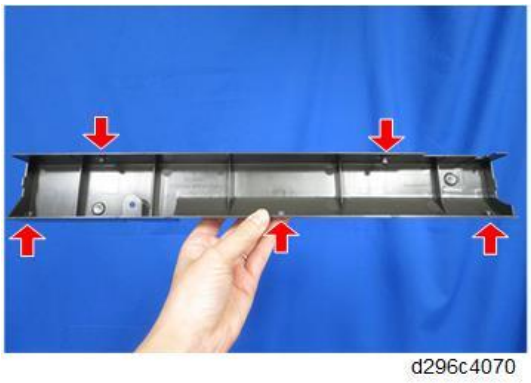


2. Open the ADF.
3. Remove the scanner front cover [A]. Use a short screwdriver.



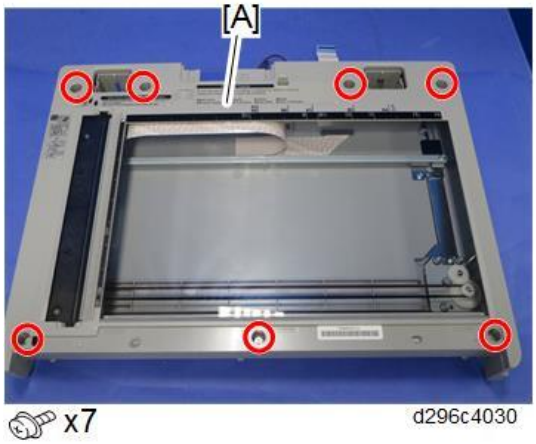
Note

There are five tabs on the back of the scanner front cover.

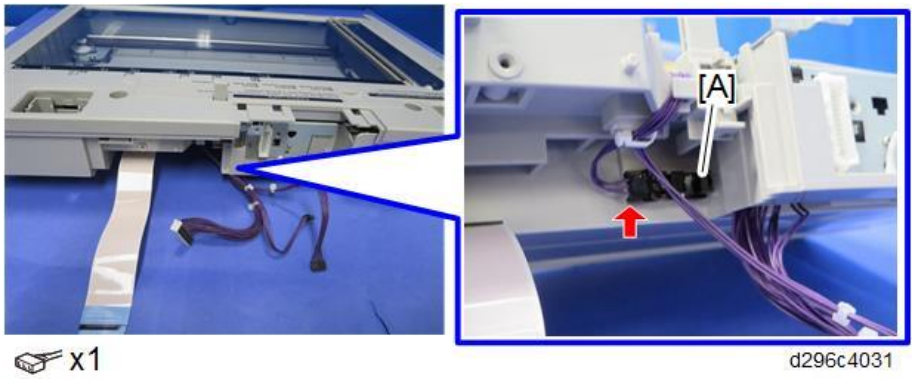


ADF Position Sensor (S19)

1. Remove the scanner unit. (Scanner Unit)
2. Remove the scanner front cover. (Scanner Front Cover)
3. Remove the scanner upper cover [A].



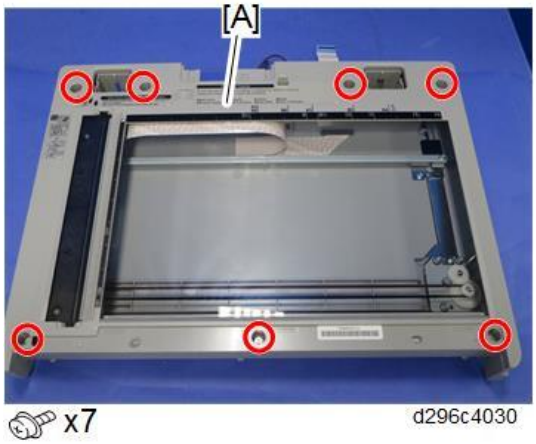
4. Remove the ADF position sensor (S19) [A].



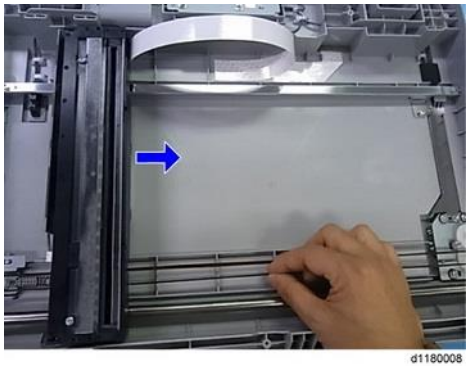
Scanner HP Sensor (S20)

1. Remove the ADF unit. (ADF Unit)
2. Remove the scanner front cover. (Scanner Front Cover)

3. Remove the scanner upper cover [A].



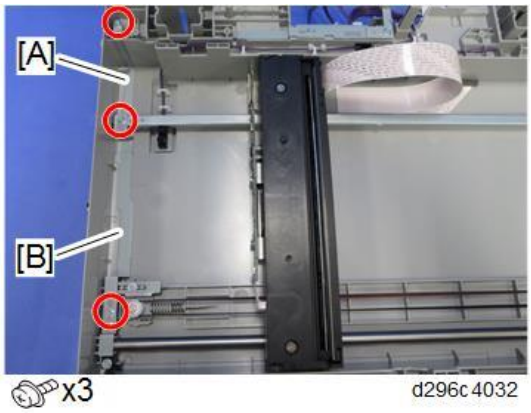
4. Move the scanner carriage to the right.



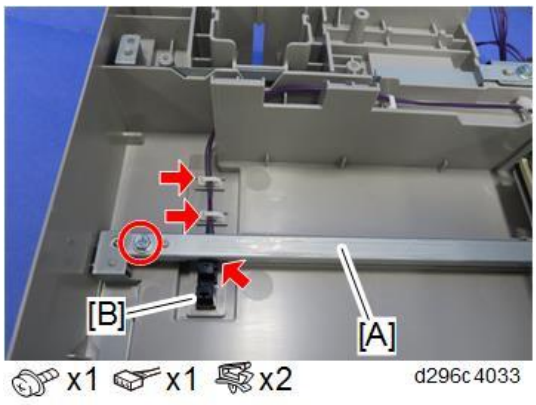
Important

- To move the carriage, hold the carriage belt and move it carefully.
- Never hold the carriage itself.

5. Remove the brackets [A][B].



6. Remove the scanner HP sensor (S20) [B] while lifting up the bracket [A] slightly.

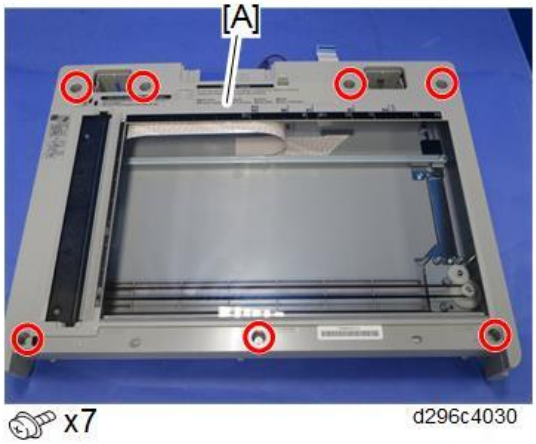


Scanner Motor (M7)

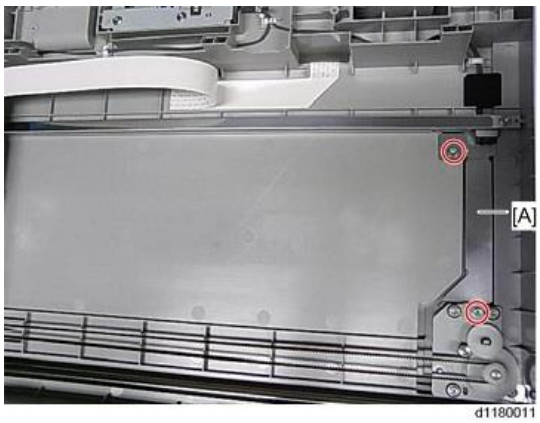
1. Remove the ADF unit. (ADF Unit)

2. Remove the scanner front cover. (Scanner Front Cover)

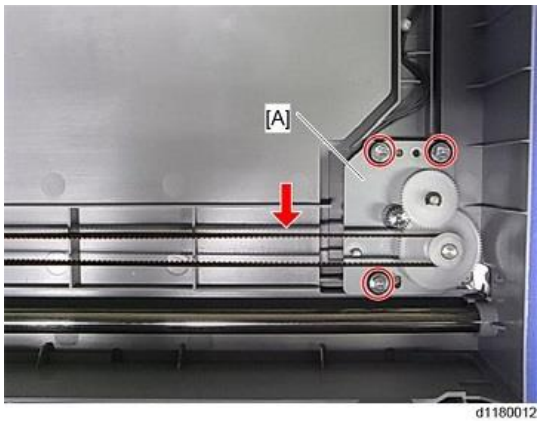
3. Remove the scanner upper cover [A].



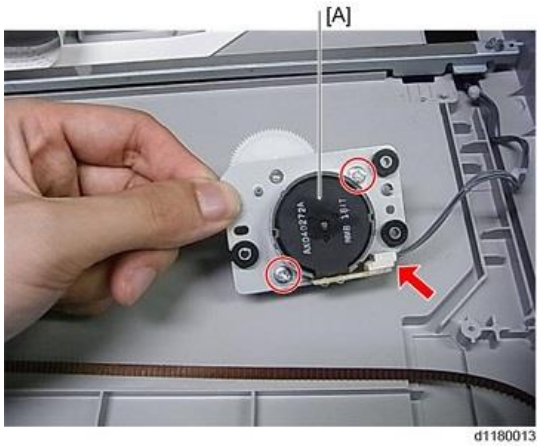
4. Remove the shield plate [A]. (× 2)



5. Remove the scanner motor (M7) with the bracket [A]. (× 3, belt × 1)

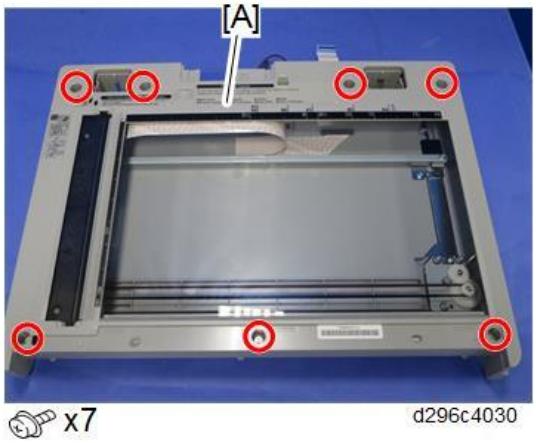


6. Remove the scanner motor (M7) [A]. (× 1, × 2)

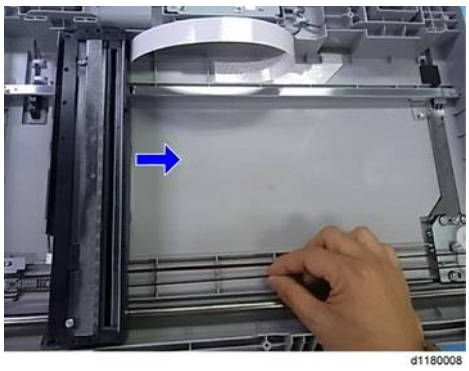


Scanner Carriage

1. Remove the ADF unit. (ADF Unit)
2. Remove the scanner front cover. (Scanner Front Cover)
3. Remove the scanner upper cover [A].



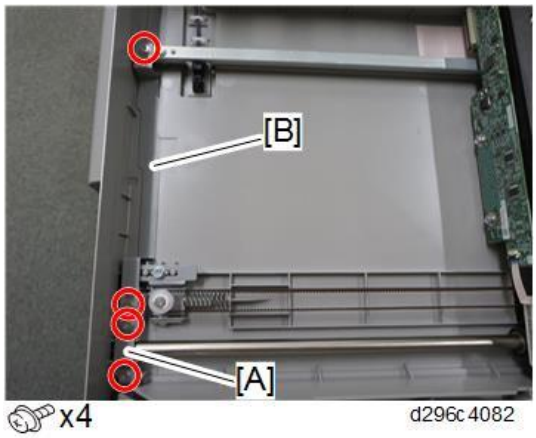
4. Move the carriage to the right.



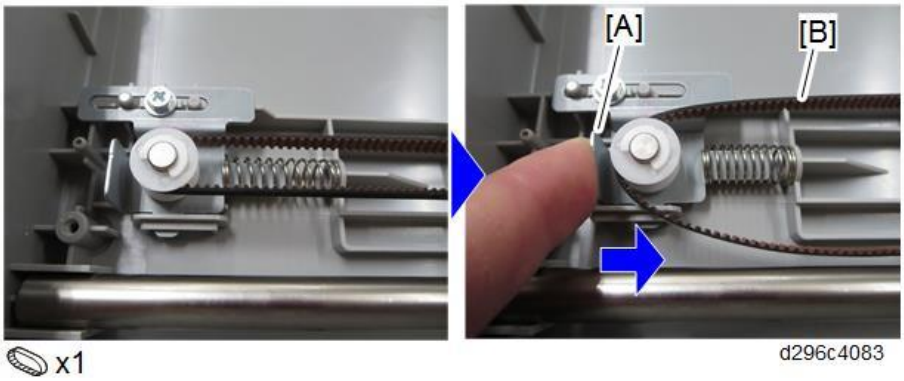
Important

- To move the carriage, hold the carriage belt and move it carefully.
- Never hold the carriage itself.

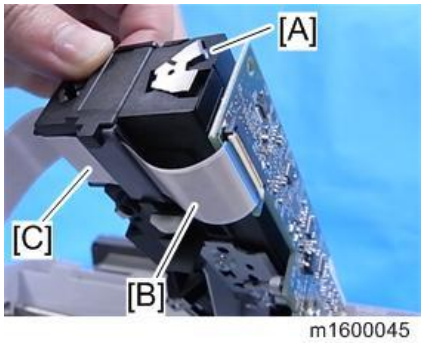
5. Remove the brackets [A][B].



6. Slide the bracket [A] and then detach the carriage belt [B] from the pulley.



7. Disconnect the FFC [B] while lifting up the scanner carriage [A]. (x1)

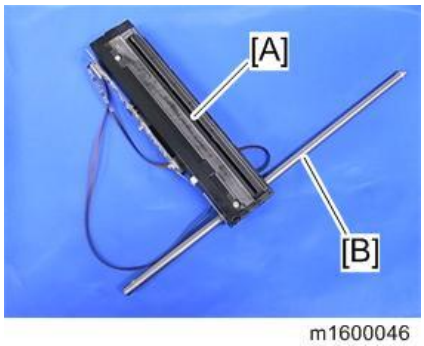


m1600045

Note

- In the area [C], the FFC is attached with double-sided tape. Do not try to strip the FFC [B] off by force.
- When reassembling, be sure to align the tape position where originally attached.

8. Remove the shaft [B] from the carriage [A].



m1600046

Note

- Never wipe off the grease on the shaft of the scanner carriage.

Reinstalling the Scanner Carriage

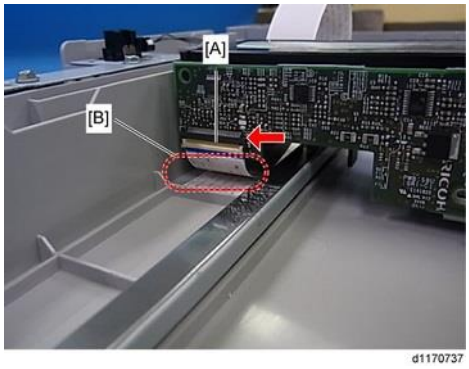
Make sure that the FFC of the carriage is correctly connected and routed referring to the following points.

- The FFC [A] must be connected straight, and not at an angle.

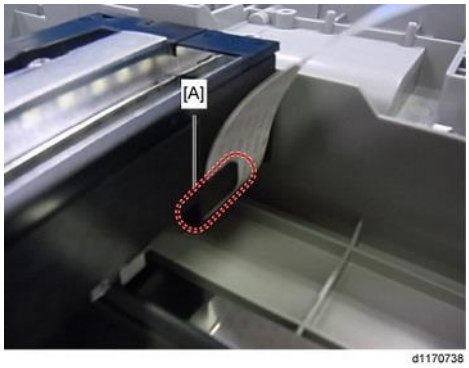
Important

- Never connect the FFC to the carriage connector at an angle. Otherwise, the BiCU (PCB1) or the SBU (PCB11) may be damaged.

- The FFC must not be sagging and must not drag on the bottom of the scanner unit [B].



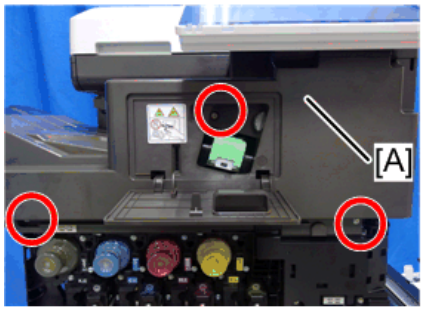
- The FFC must be hooked at part [A] of the carriage.



Internal Finisher (IM C400SRF Only)

Removing the Internal Finisher

1. Open the front cover.
2. Remove the paper exit front cover [A].



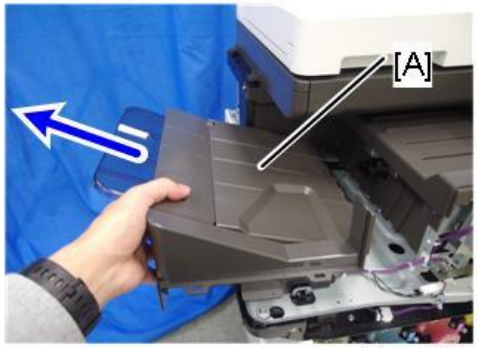
d0cam2038

x3

3. Remove the paper exit tray [A].

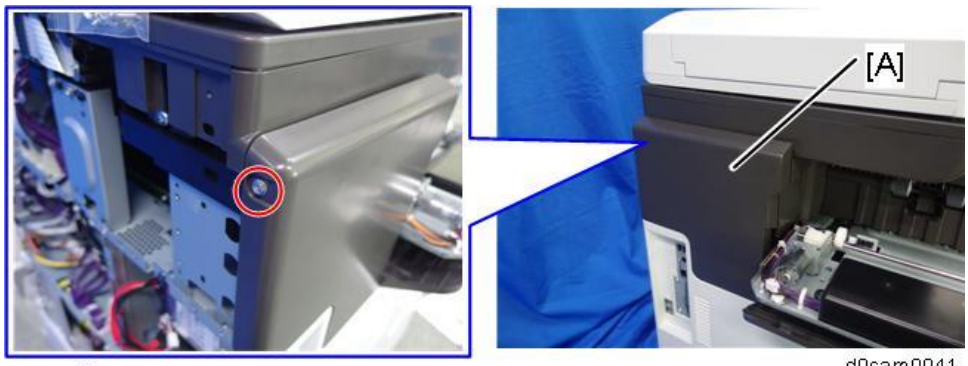
x1

x1



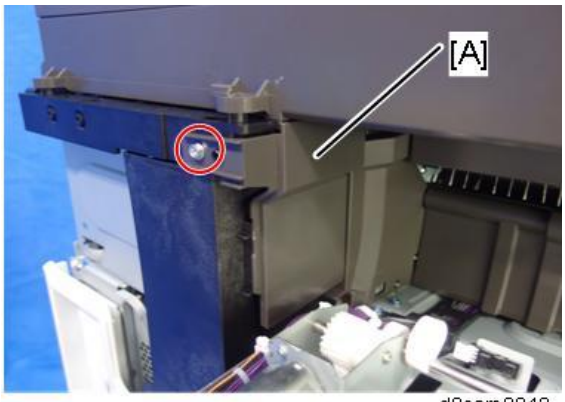
d0cam0040

4. Remove the upper left cover [A].



x1

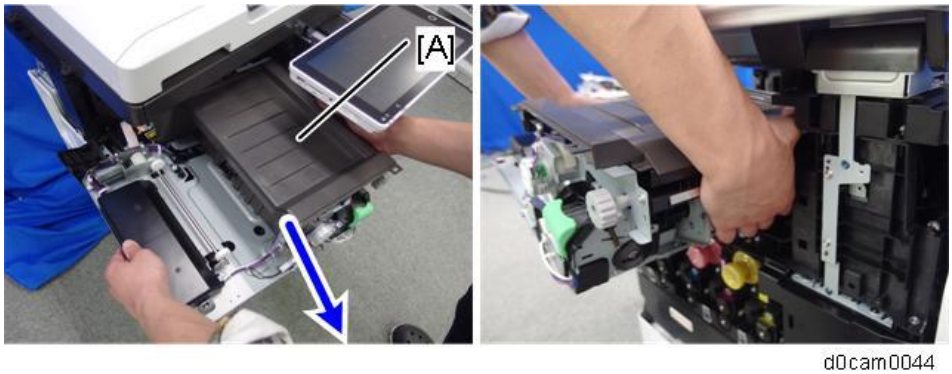
5. Remove the inner cover [A].



x1

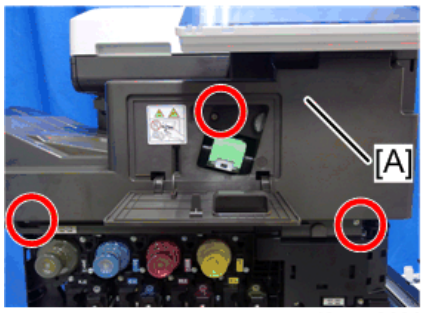
6. Remove the internal finisher [A] from the main machine.

x1, x1, x1



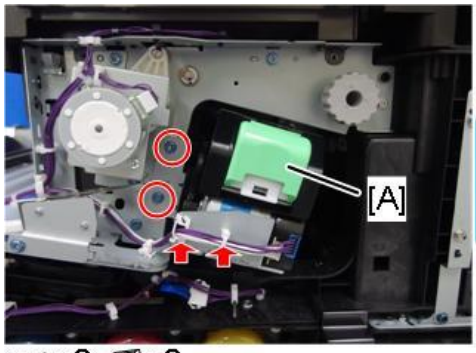
Stapler Unit

1. Open the front cover.
2. Remove the paper exit front cover [A].

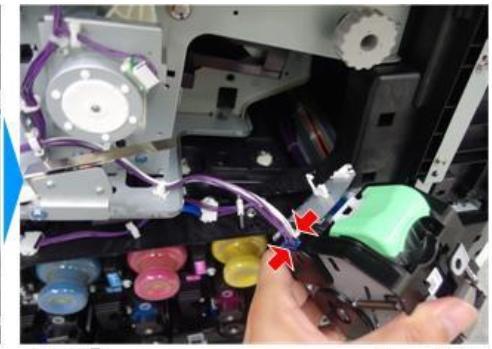


x3

3. Remove the stapler unit with bracket [A].

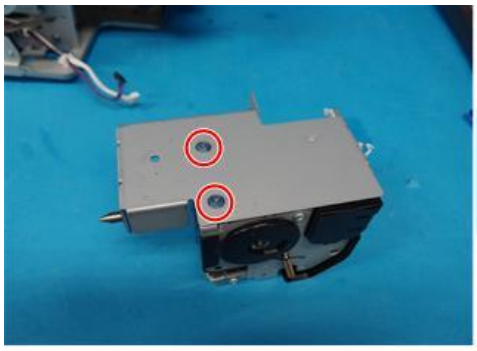


x2, x2



x2

4. Remove the stapler unit [A].

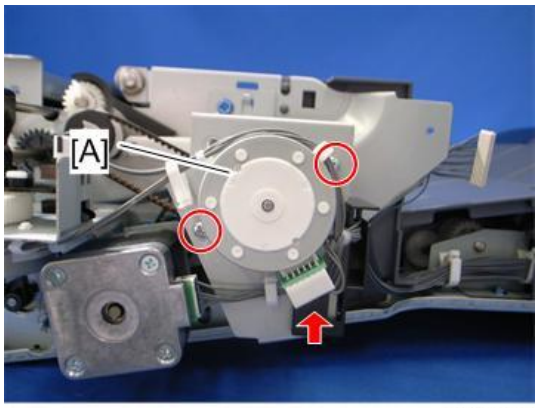


x2

Gathering Roller Motor (M18)

1. Remove the internal finisher. (Removing the Internal Finisher)

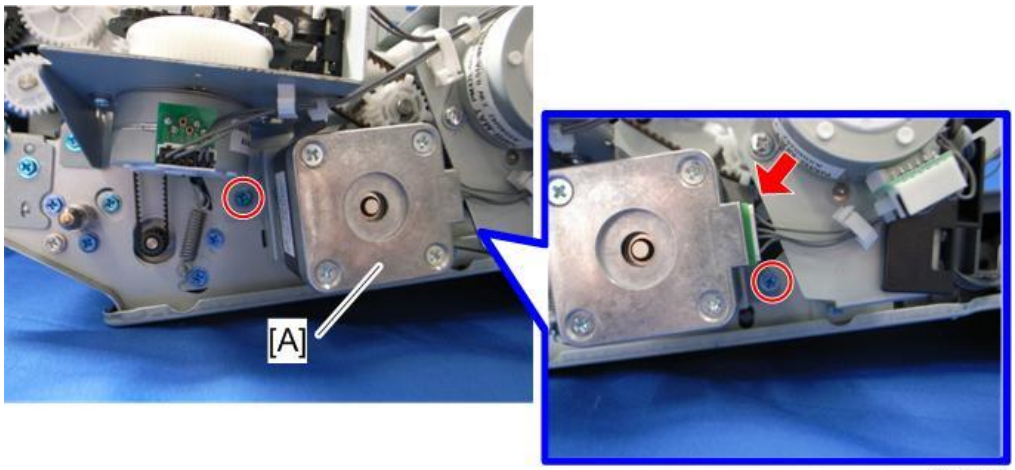
2. Remove the gathering roller motor (M18) [A] (x 2, x 1).



m022r637

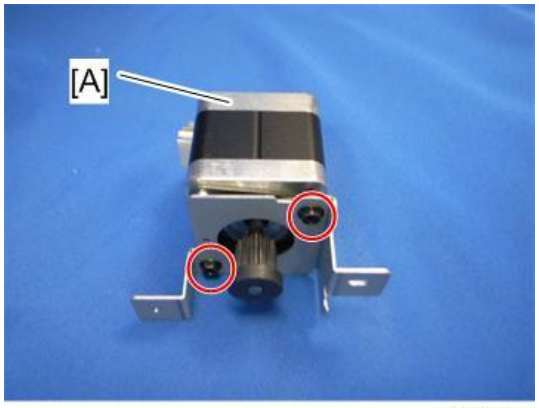
Paper Exit Motor (M17)

1. Remove the internal finisher. (Removing the Internal Finisher)
2. Remove the paper exit motor bracket [A] (x 2, x 1).



m022r638

3. Remove the paper exit motor (M17) [A] (x 2).

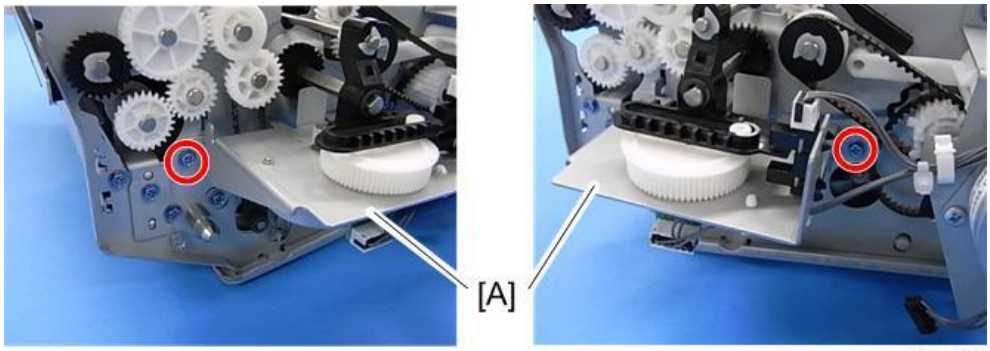


m022r639

Shift Roller Motor (M19)

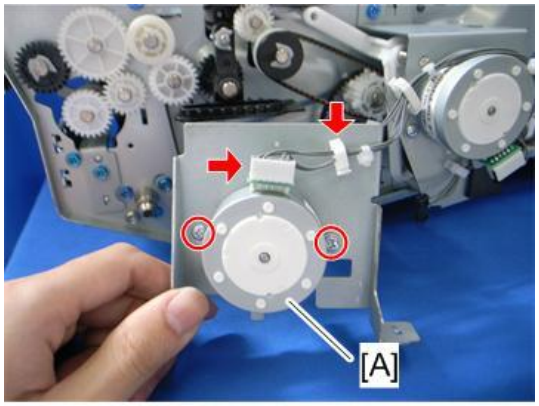
1. Remove the internal finisher. (Removing the Internal Finisher)

2. Remove the paper exit motor. (Paper Exit Motor (M17))
3. Remove the shift roller motor bracket [A] (x 2).



m022r790

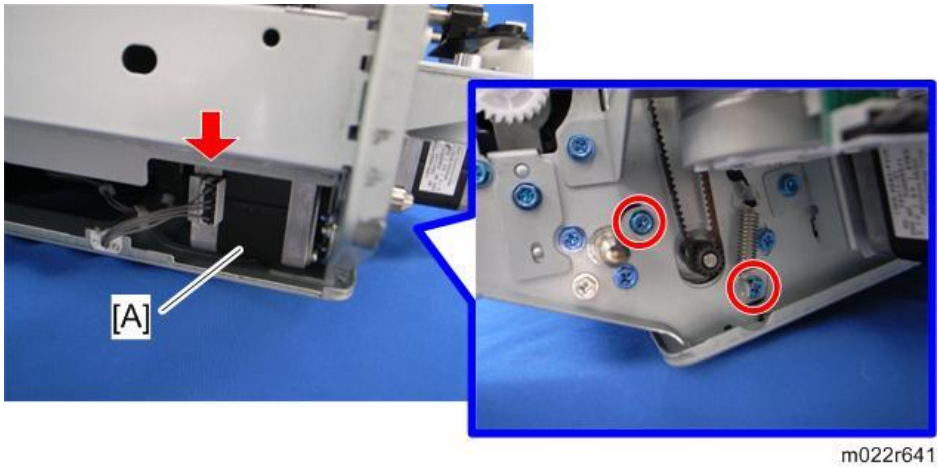
4. Remove the shift roller motor (M19) [A] (x 2, x 1, x 1).



m022r640

Transport Motor (M16)

1. Remove the internal finisher. (Removing the Internal Finisher)
2. Remove the transport motor (M16) [A] (x 2, x 1).

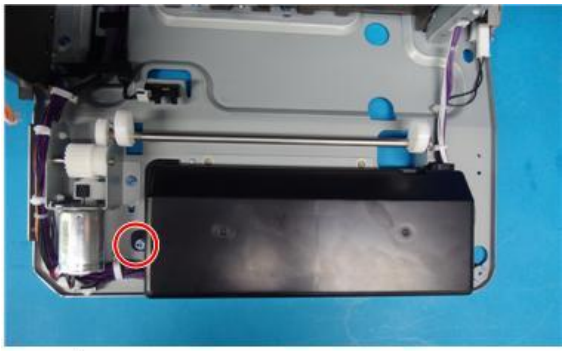


m022r641

Tray Lift Motor (M22)

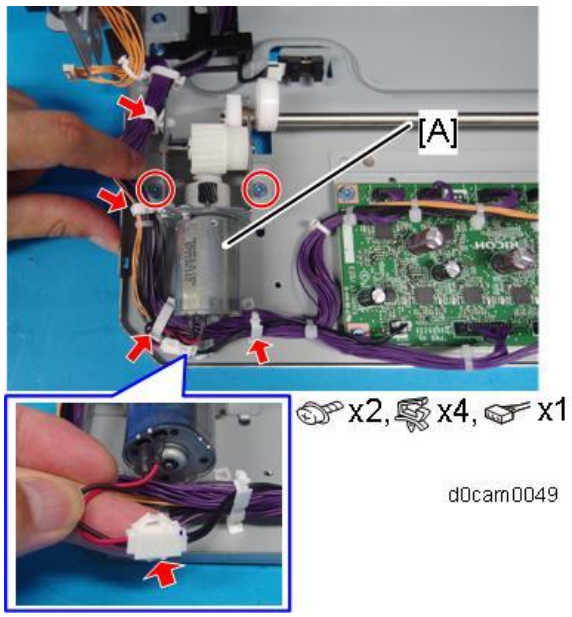
1. Remove the internal finisher. (Removing the Internal Finisher)

2. Remove the main board cover.



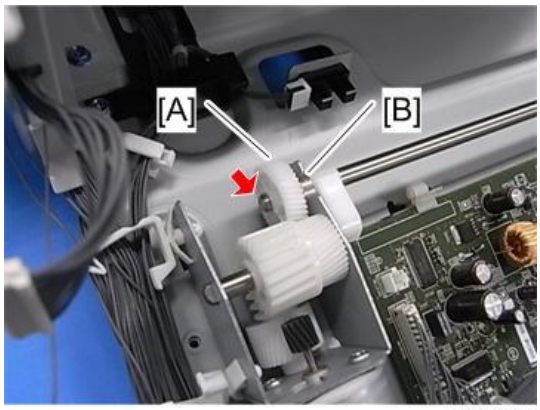
x1 d0cam0045

3. Release the tray lift motor bracket [A].



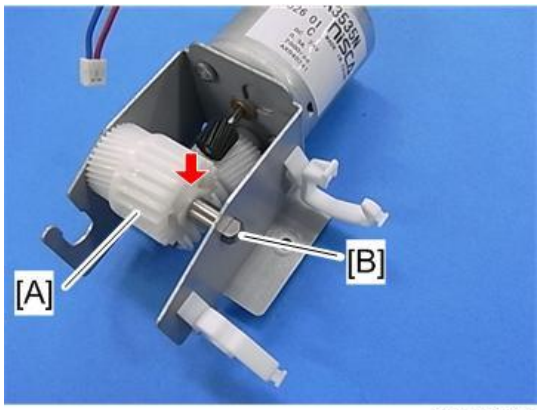
x2, x4, x1 d0cam0049

4. Remove the gear [A] and bushing [B] (x 1).



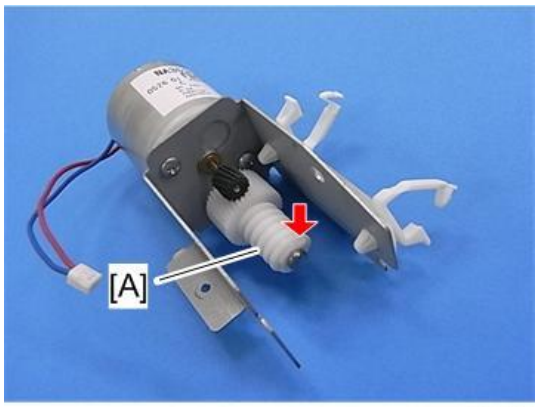
m022r794

5. Remove the gear [A] and shaft [B] (x 1).



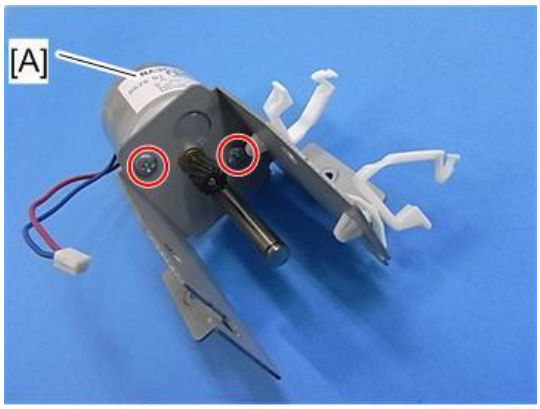
m022r795

6. Remove the gear [A] (x 1).



m022r796

7. Remove the tray lift motor (M22) [A] (x 2).

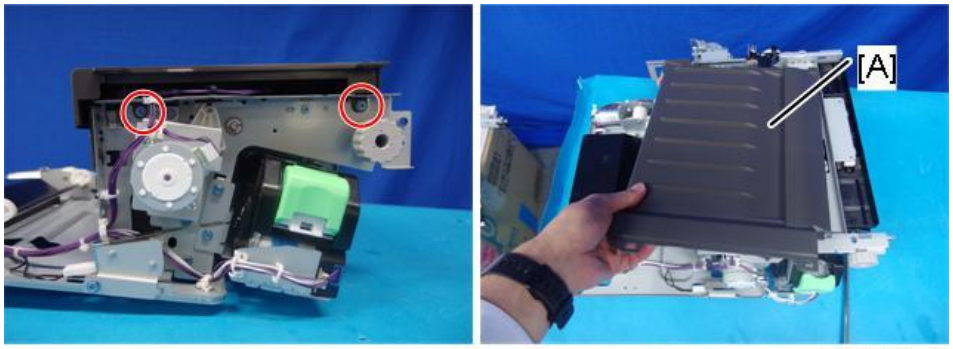


m022r797

Jogger Motor (M20)

1. Remove the internal finisher. (Removing the Internal Finisher)
2. Remove the transport motor. (Transport Motor (M16))

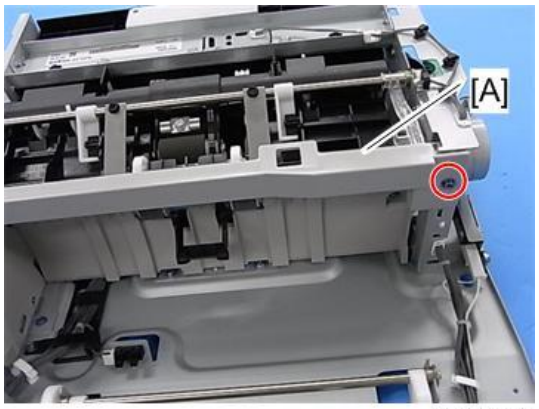
3. Remove the paper exit upper cover [A].



d0cam0058

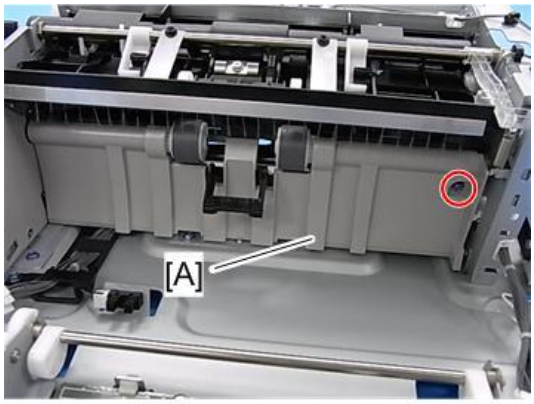
x2

4. Remove the cover [A] (x 1).



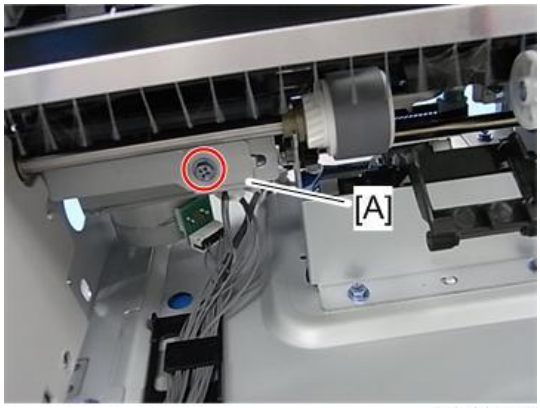
m022r806

5. Remove the guide plate [A] (x 1).



m022r807

6. Remove the jogger fence HP sensor bracket [A] (x 1).

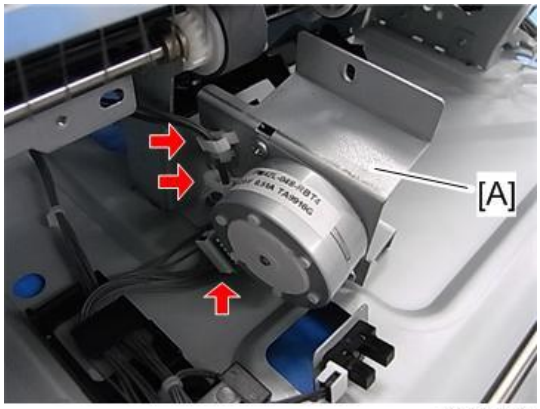


m022r808

7. Remove the two screws.

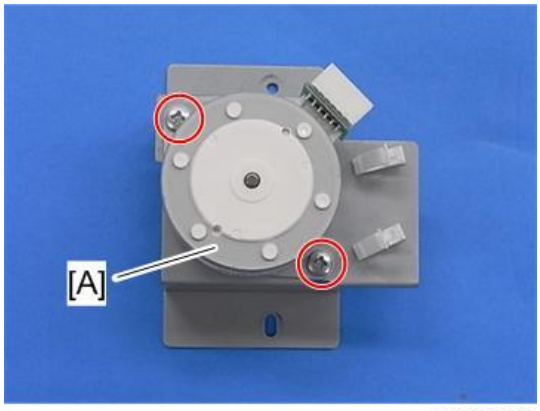
d0cam0050

8. Remove the jogger motor bracket [A] (x 1, x 2).



m022r812

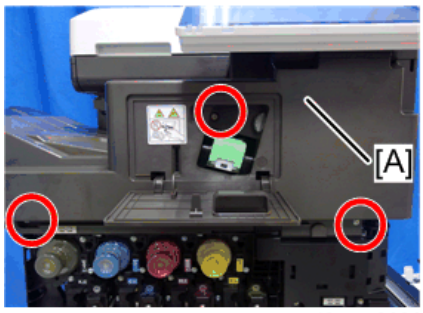
9. Remove the jogger motor (M20) [A] (x 2).



m022r813

Exit Guide Plate Motor (M21)

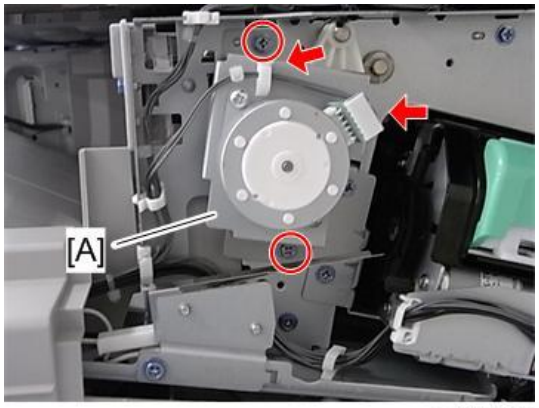
1. Open the front cover.
2. Remove the paper exit front cover [A].



d0cam2038

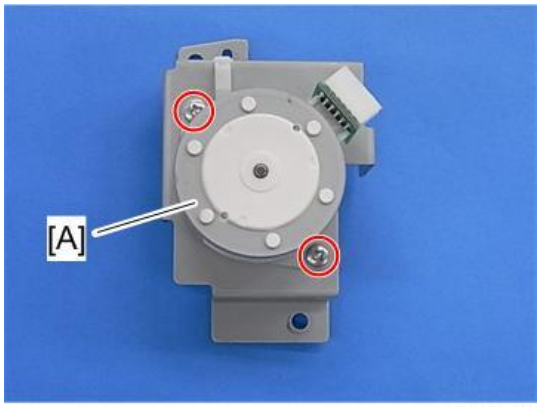
x3

3. Remove the exit guide plate motor bracket [A] (x 2, x 1, x 1).



m022r814

4. Remove the exit guide plate motor (M21) [A] (x 2).

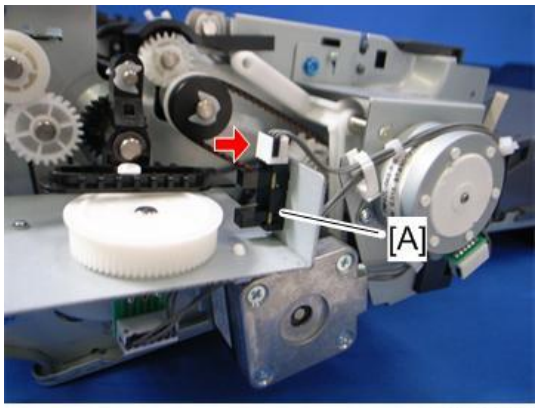


m022r815

Shift Roller HP Sensor (S37)

1. Remove the internal finisher. (Removing the Internal Finisher)

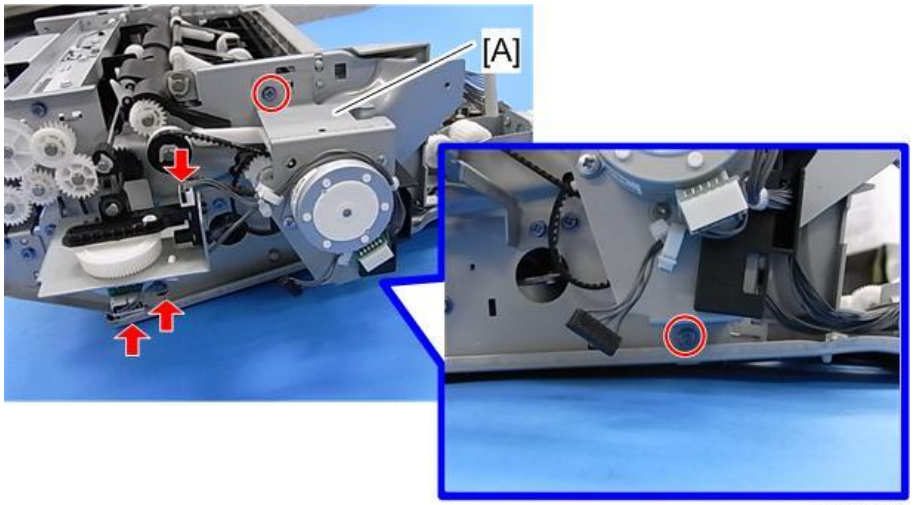
2. Remove the shift roller HP sensor (S37) [A] (x 1).



m022r642

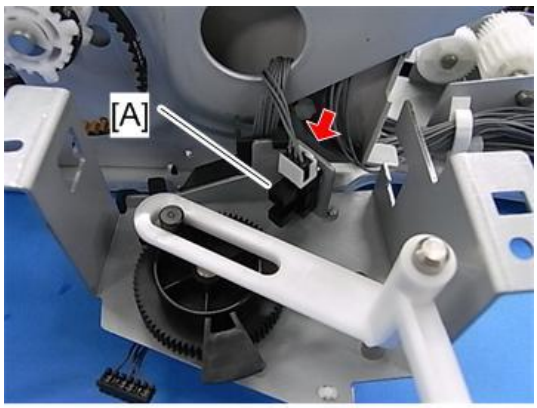
Gathering Roller HP Sensor (S38)

1. Remove the internal finisher. (Removing the Internal Finisher)
2. Remove the gathering roller motor bracket [A] (x 2, x 2, x 1).



m022r804

3. Remove the gathering roller HP sensor (S38) [A] (x 1).

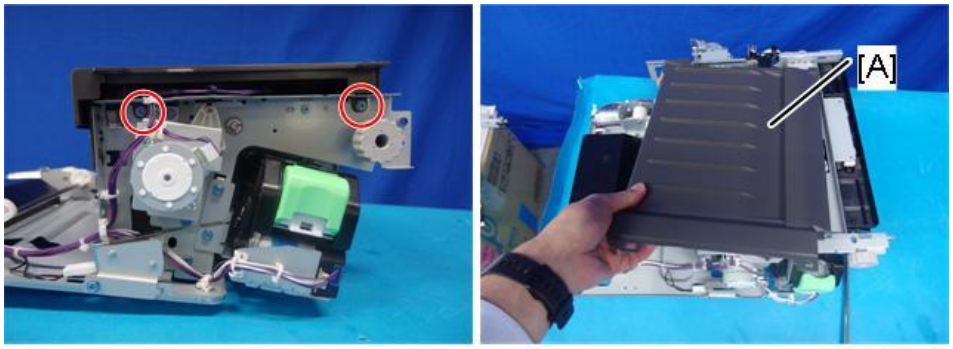


m022r805

Jogger Fence HP Sensor (S41)

1. Remove the internal finisher. (Removing the Internal Finisher)

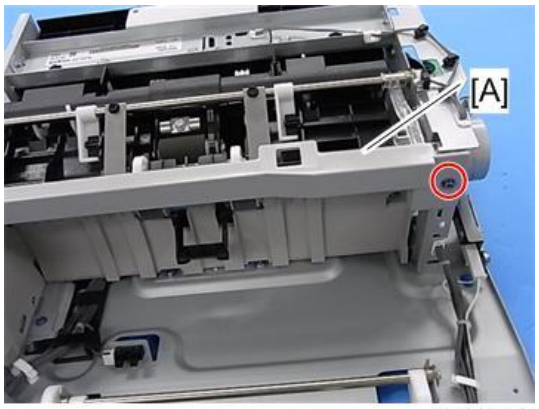
2. Remove the paper exit upper cover [A].



d0cam0058

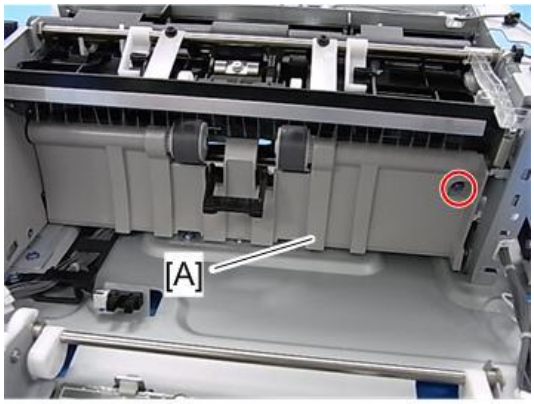
x2

3. Remove the cover [A] (x 1).



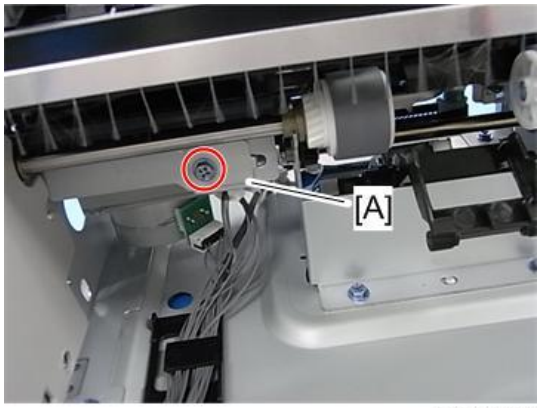
m022r806

4. Remove the guide plate [A] (x 1).



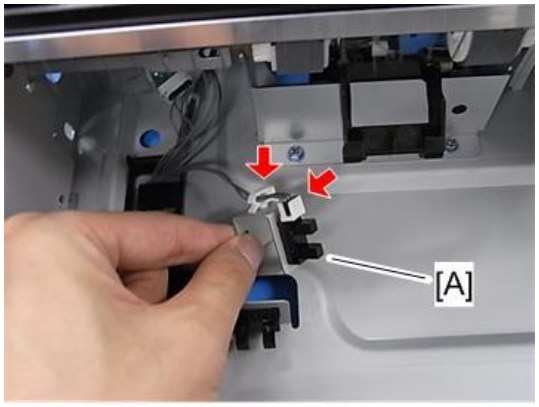
m022r807

5. Remove the jogger fence HP sensor bracket [A] (x 1).



m022r808

6. Remove the jogger fence HP sensor (S41) [A] (x 1, x 1).

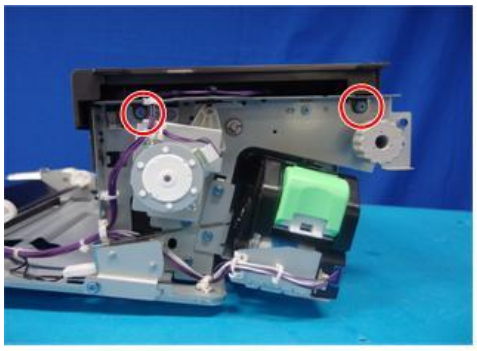


m022r809

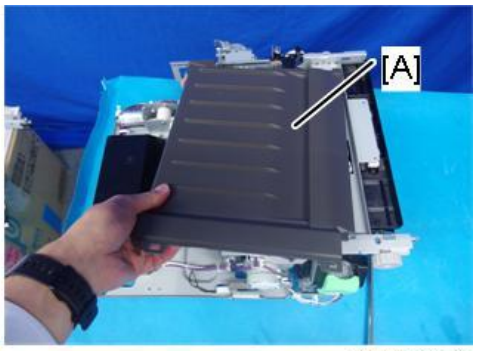
Entrance Sensor (S45)

1. Remove the internal finisher. (Removing the Internal Finisher)

2. Remove the paper exit upper cover [A].

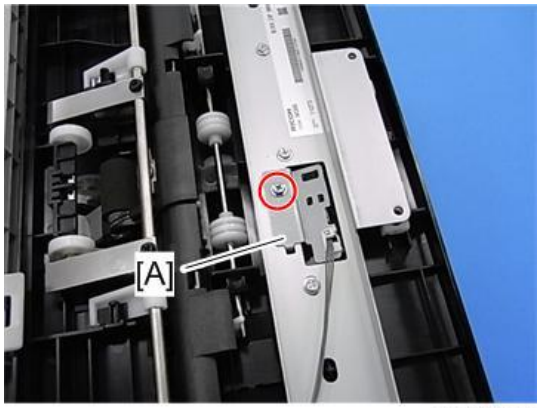


x2



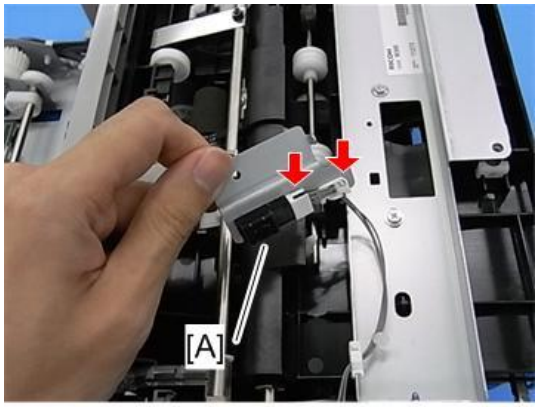
d0cam0058

3. Remove the entrance sensor bracket [A] (x 1).



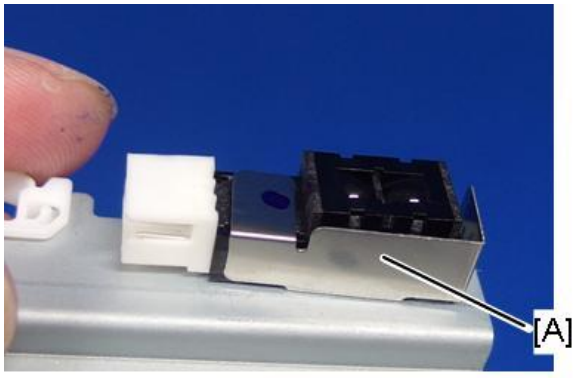
m022r798

4. Remove the entrance sensor (S45) [A] (x 1, x 1).



m022r799

5. Remove the anti-static cover from the Entrance Sensor (S45) [A].

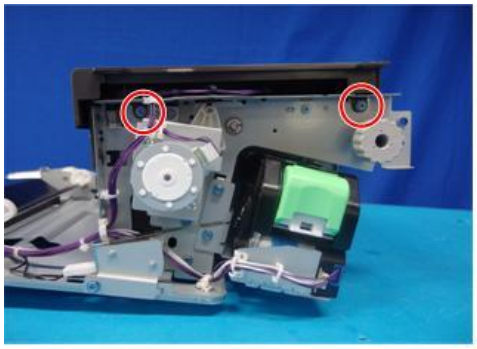


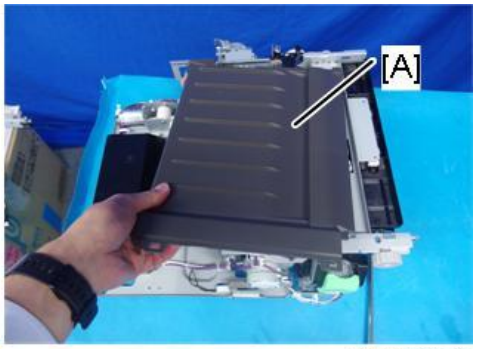
d0cam0051

Paper Exit Sensor (S43)

1. Remove the internal finisher. (Removing the Internal Finisher)

2. Remove the paper exit upper cover [A].

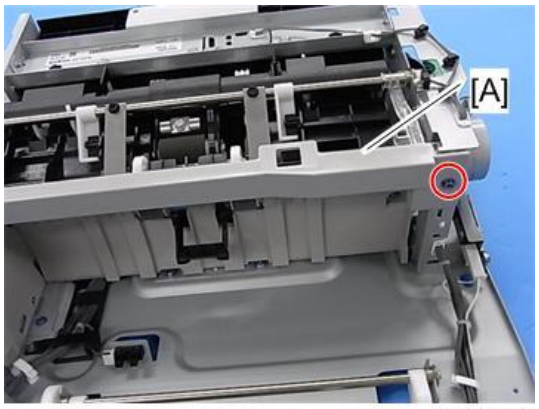




d0cam0058

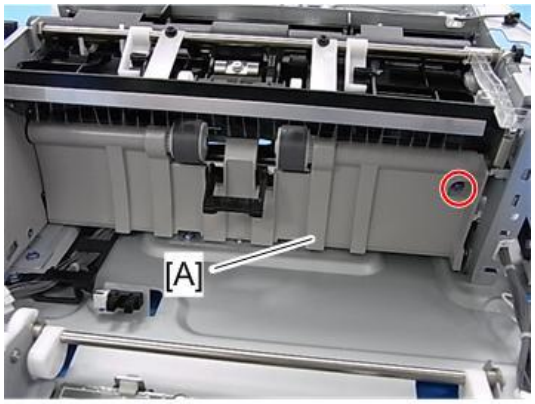
x2

3. Remove the cover [A] (x 1).



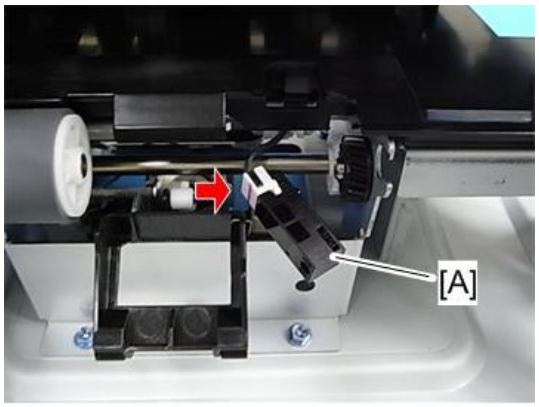
m022r806

4. Remove the guide plate [A] (x 1).



m022r807

5. Remove the paper exit sensor (S43) [A] (x1).

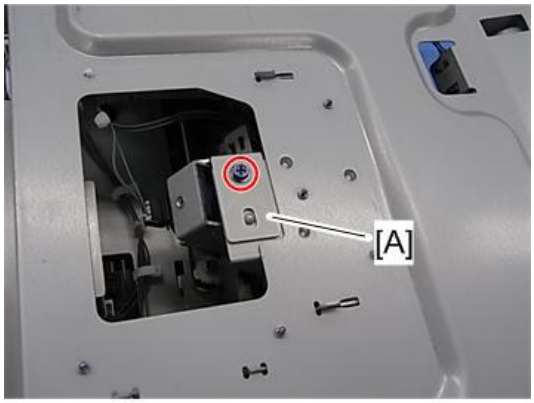


m022r896

Remaining Paper Sensor (S40)

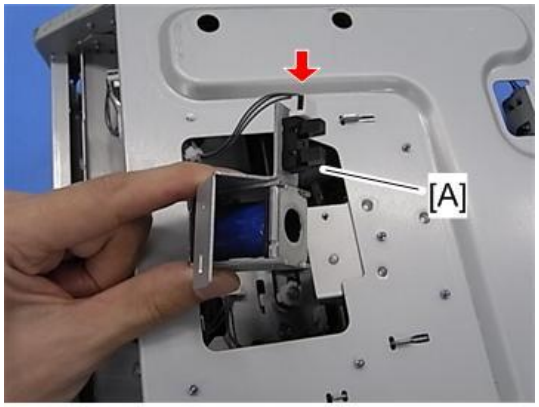
1. Remove the internal finisher. (Removing the Internal Finisher)

2. Remove the Remaining Paper Sensor bracket [A] (x 1).



m022r800

3. Remove the Remaining Paper Sensor (S40) [A] (x 1).

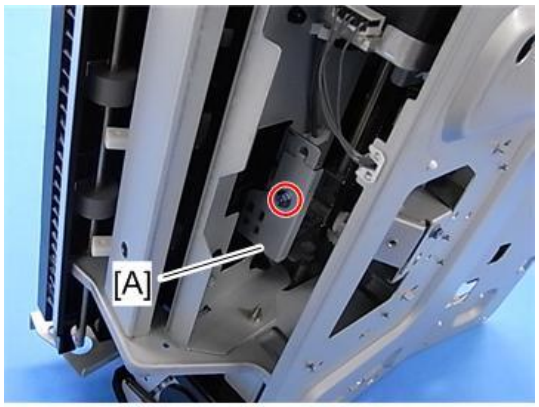


m022r801

Staple Tray Paper Sensor (S42)

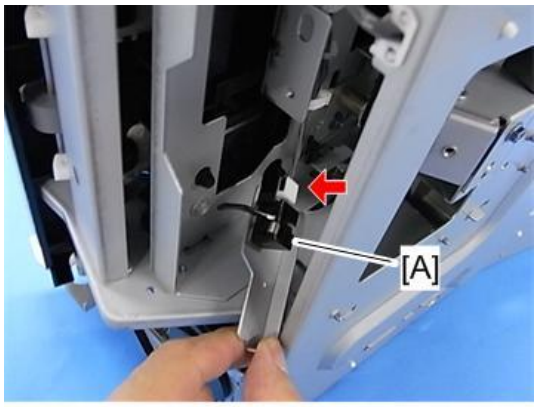
1. Remove the internal finisher. (Removing the Internal Finisher)

2. Remove the staple tray paper sensor bracket [A] (x 1).



m022r802

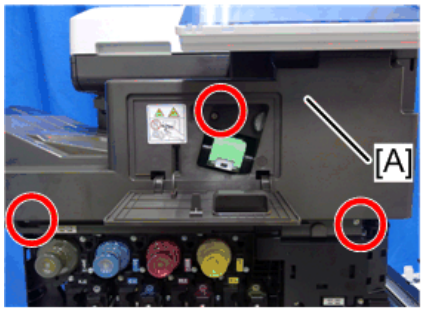
3. Remove the staple tray paper sensor (S42) [A] (x 1).



m022r803

Tray Lower Limit Sensor (S39)

1. Open the front cover.
2. Remove the paper exit front cover [A].

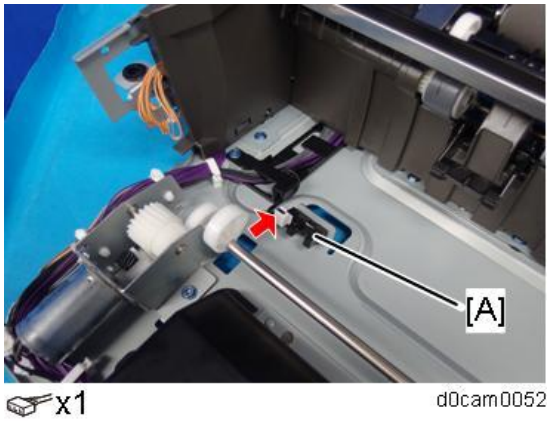


d0cam2038

x3

3. Remove the paper exit tray [A].

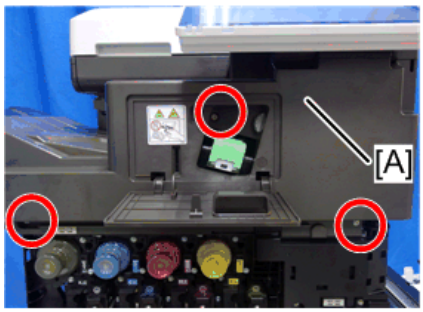
4. Remove the tray lower limit sensor (S39) [A].



Interlock Switch (SW3)

1. Open the front cover.

2. Remove the paper exit front cover [A].



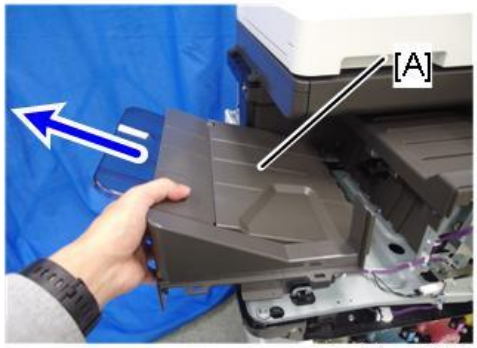
d0cam2038

x3

3. Remove the paper exit tray [A].

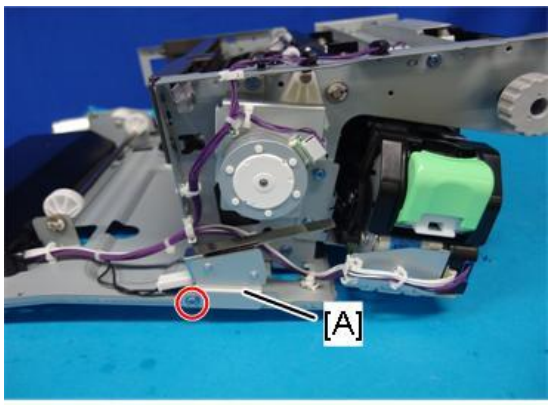
x1

x1



d0cam0040

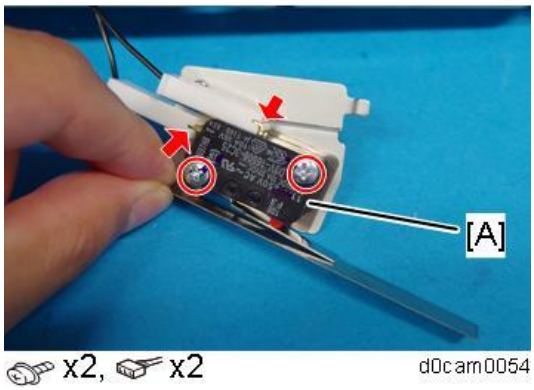
4. Remove the bracket [A].



x1

d0cam0053

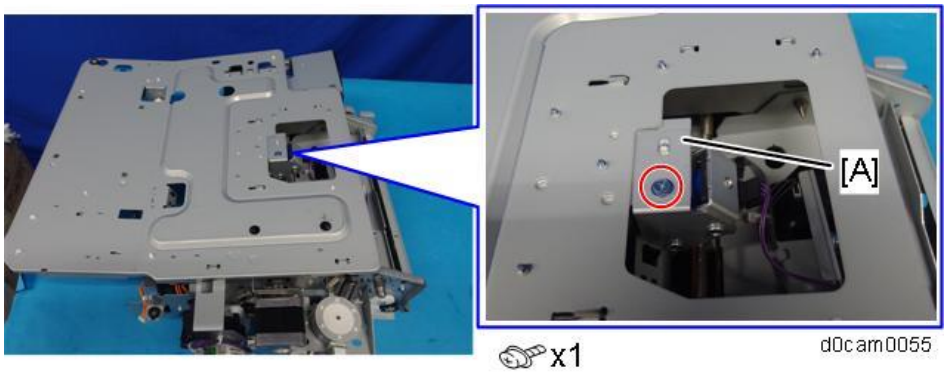
5. Remove the interlock switch (SW3) [A].

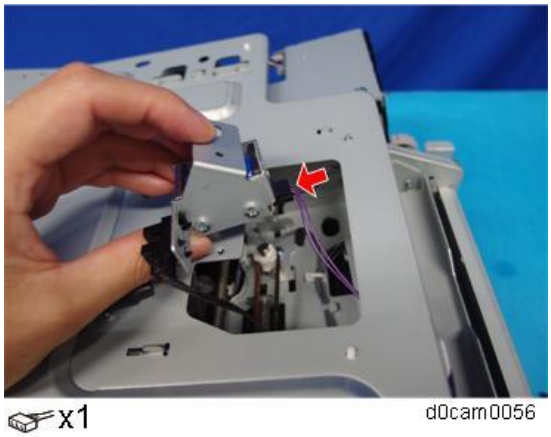


Stopper Solenoid (SOL3)

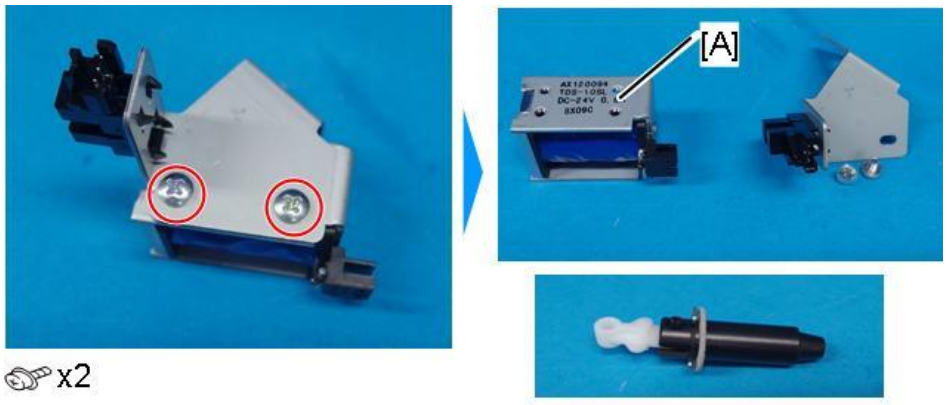
1. Remove the internal finisher. (Removing the Internal Finisher)

2. Remove the bracket [A].



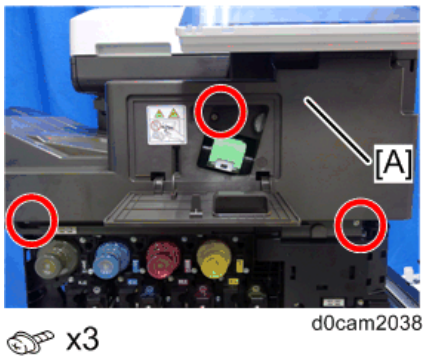


3. Remove the stopper solenoid (SOL3) [A].



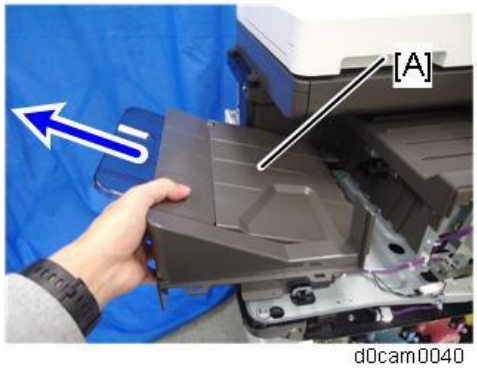
Main Board (PCB25)

1. Open the front cover.
2. Remove the paper exit front cover [A].



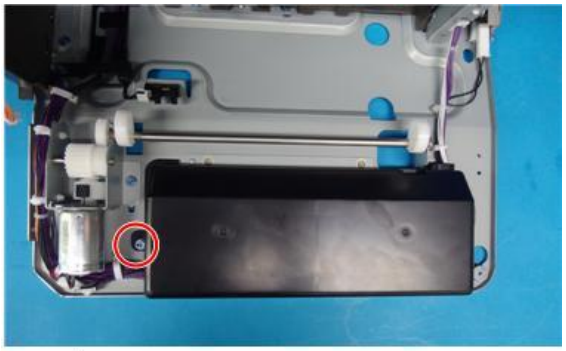
3. Remove the paper exit tray [A].

x1 x1



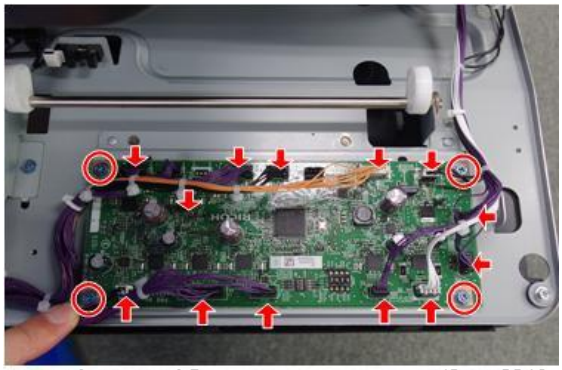
d0cam0040

4. Remove the main board cover.



x1 d0cam0045

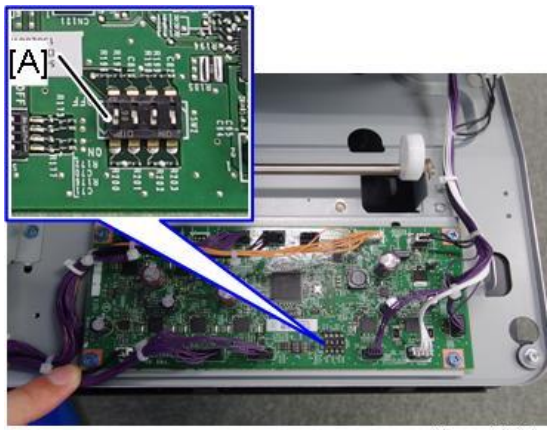
5. Remove the main board (PCB25).



x4, x13 d0cam0046

When Reinstalling the Main Board

Check the DIP switch [A] on the old main board. If the settings on the new main board differ from the old main board, change the settings on the new main board to match the old main board.



d0cam0047

Laser Optics

⚠WARNING

- Turn off the main power switch (SW1) and unplug the machine before beginning any of the procedures in this section. Laser beams can cause serious eye injuries.

Warning Decal Location

The warning decal is attached as shown below.

d0cam1001

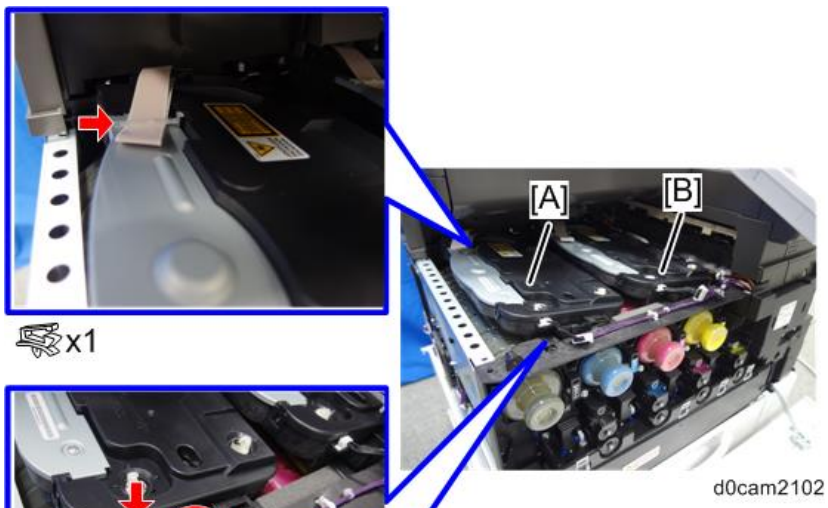
d0cam1002

Laser Units

Note

- The machine has two laser units. This procedure describes replacement of laser unit 1. Replacement of laser unit 2 can be done in the same way.

1. Remove the paper exit tray (Paper Exit Tray)
2. Remove the internal finisher.(Removing the Internal Finisher)
3. Remove the screw and connector. Disconnect the stopper of the FFC of the laser unit 1 [A]. Repeat this procedure with the laser unit 2 [B].



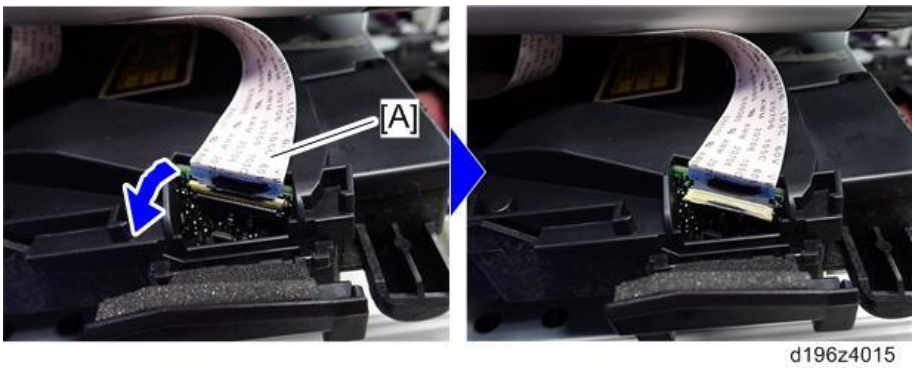
Note

- Be sure to install the washer under the screw when assembling.

4. Pull the laser unit [A] out slightly, open the connector cover, and then disconnect the FFC [B]. (× 1)

Note

- Unlock the FFC [A] by lowering the white tab.



- Never touch the shield glass under the laser units when replacing them.

Adjustment after Laser Unit Replacement

Do the following settings after replacing the laser unit.

Initializing the D-Phase data and shading data

1. Plug in and turn ON the main power switch (SW1) of the machine.
2. Enter the SP mode.
3. Execute SP2-110-006 to upload the data for new laser unit to the MFP.

   Note

   If failed, execute SP2-110-006 again. Otherwise the machine cannot print normally.
4. Exit SP mode.
5. Cycle the main power OFF/ON.
6. Enter the SP mode.
7. Execute SP3-011-001 (Manual ProCon: Exe, Normal ProCon).

Executing Skew Adjustment

Do the skew adjustment manually.

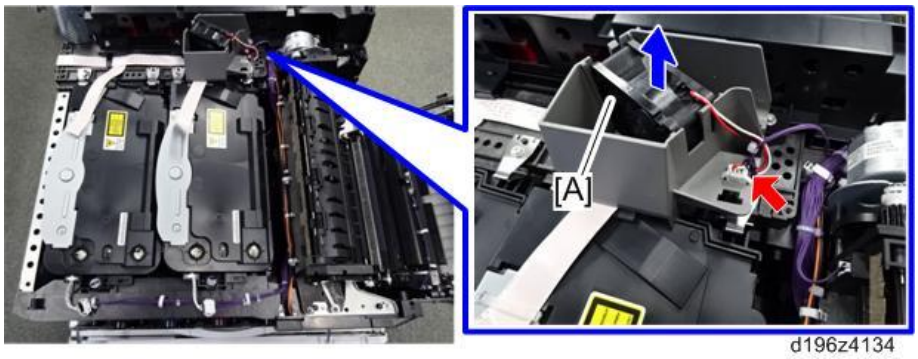
Refer to “Color Skew Adjustment”

LD Unit Cooling Fan (FAN2)

IM C300 series/IM C400F

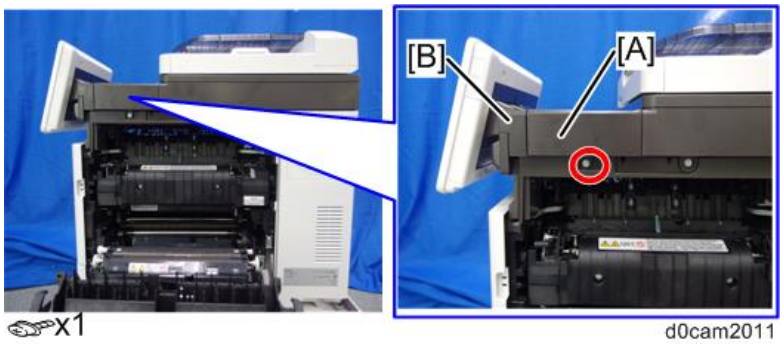
1. Remove the following parts.
   - Scanner Unit with the ADF
   - Operation Panel
   - IM C300 series/IM C400F
   - Paper Exit Tray for IM C300 series/IM C400F

2. Remove the LD unit cooling fan (FAN2) [A]. (× 1)

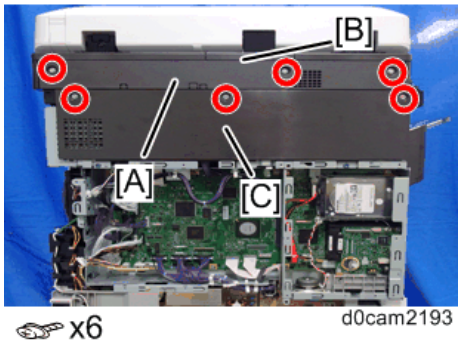


IM C400SRF

1. Remove the following parts.
   - Upper Left Cover
   - Left Cover
   - Rear Cover
2. Remove the front right cover [A] and hinge cover [B].

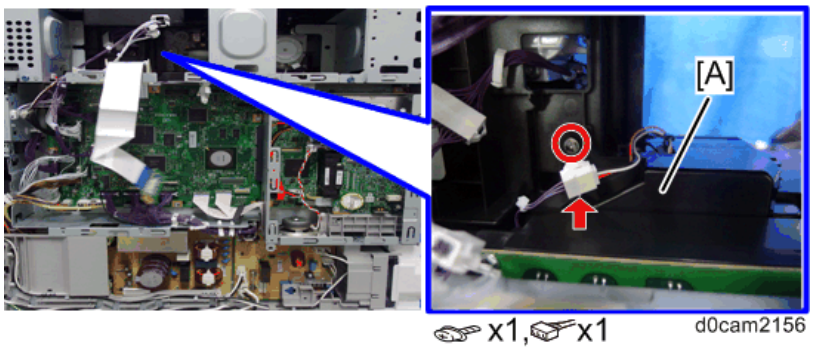


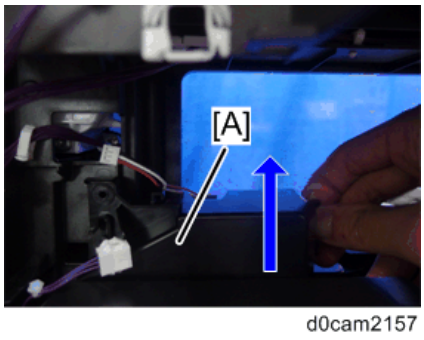
3. Remove the scanner rear cover[A] ,scanner rear small cover [B] and rear upper cover [C].



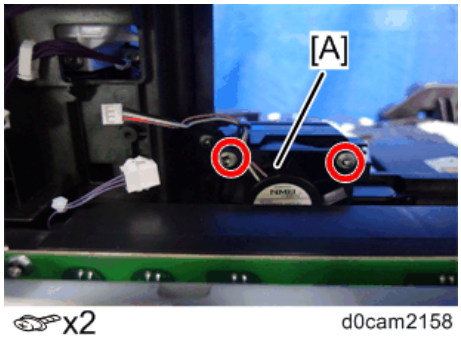
4. Remove the ADF Unit. (IM C300 series/IM C400F)
5. Remove the internal finisher.(Removing the Internal Finisher)

6. Remove the LD unit cooling fan cover [A].





7. Remove the LD unit cooling fan (FAN2) [A].



PCDU, Toner Supply

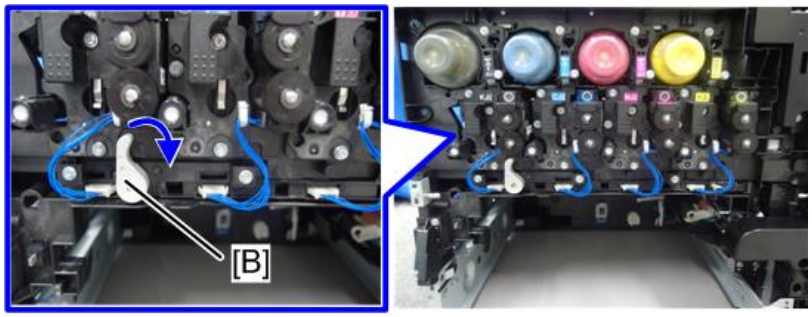
PCDU (Photo Conductor and Development Unit)

Important

- The PCDU (K) for IM C300 is different from the one for IM C400. Make sure that you use the correct part number when ordering a PCDU (K).

1. Remove the waste toner bottle. (Waste Toner Bottle)
2. Remove the Fusing Unit. (Fusing Unit)
3. Place a sheet of paper on the open duplex unit.
4. Only when removing the PCDU (K),make sure that there is the bracket [A] as shown in the photo.
5. Release the ITB contact lever [B].

d0cam2160

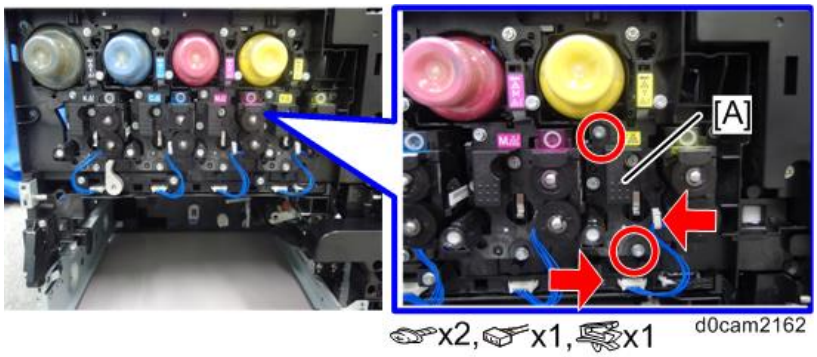


d0cam2161

Note

- This step is not required for removing the PCDU (CMY).

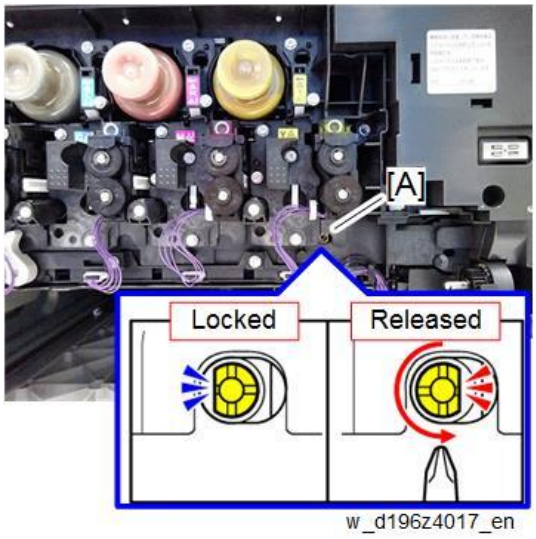
6. Remove the PCDU [A]. (The examples [A] in the photo are for yellow)



d0cam2162

Note

Check that the ITB has no tension before removing the PCDU. Otherwise, the ITB may be damaged. To release the tension of the ITB, turn the ITB contact cam's screw [A] counterclockwise, until the flat part of the half moon on the screw points to the right.



CAUTION

- Before putting the PCDU back in the machine, check that the ITB has no tension. See step 6 for how to do this.

7. Put the removed PCDU on a flat surface with a sheet of paper under it.

Note

- After replacing the PCDU, set the ITB contact lever released in step 5.
- A new unit detection mechanism for the PCDU clears the PM counters automatically.
- After replacing the PCDU, do the skew adjustment manually. See “Color Skew Adjustment”.

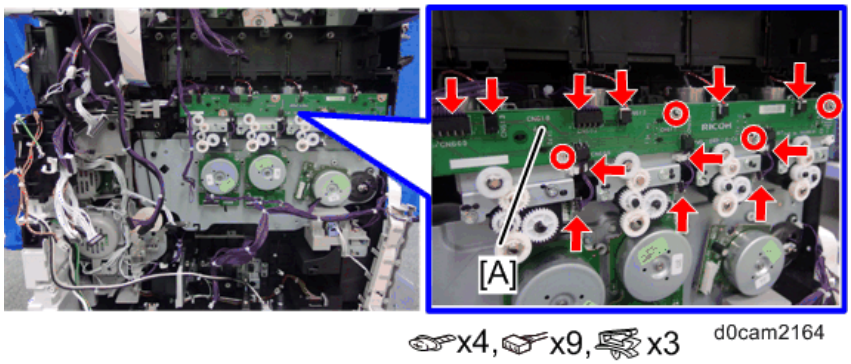
Toner Bottle Sensor Board (PCB7)

1. Remove the following parts.

- Right Rear Cover
- Rear Cover
- Upper Left Cover
- Left Cover

- PSU (AC) (PCB17), PSU (DC) (PCB16)
- High-Voltage Power Supply (Development) (PCB22)

2. Remove the toner bottle sensor board (PCB7) [A].

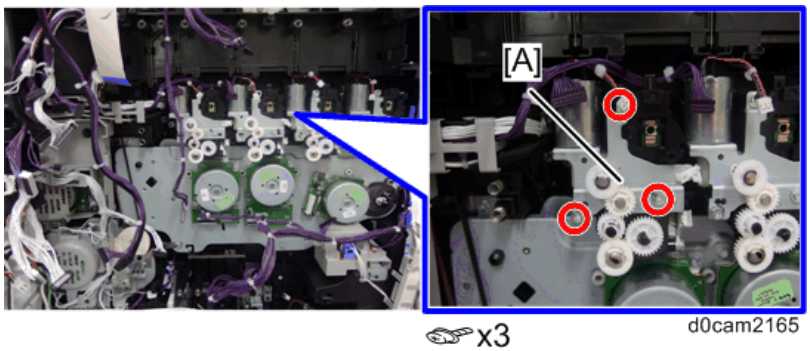


Toner Supply Motors (M1-M4)

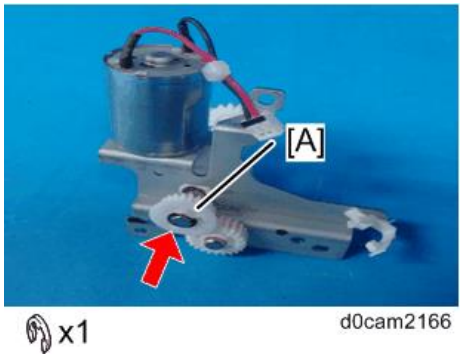
Note

- The following is the replacement procedure for Y. The motors for the other three colors can be replaced with the same procedure as Y.

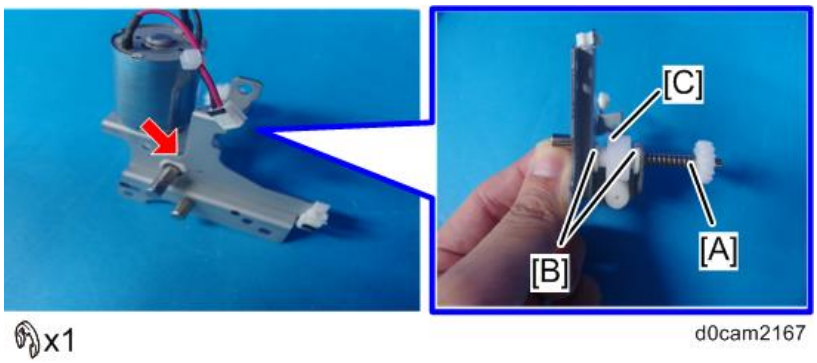
1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - Toner Bottle Sensor Board (PCB7)
2. Remove the toner supply motor unit [A].



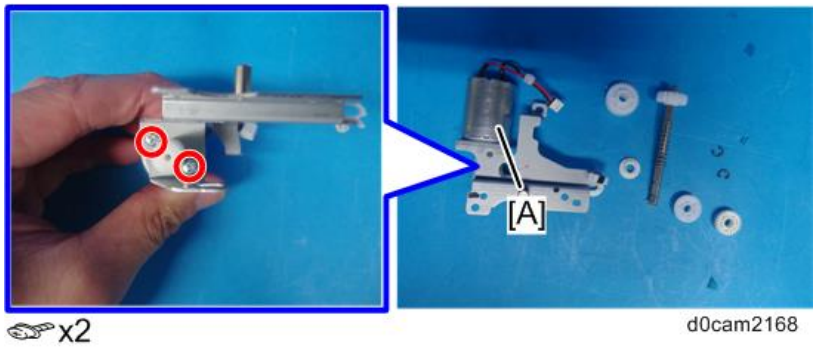
3. Remove the gear [A].



4. Remove the shaft [A], bearing [B], and gear [C].



5. Remove the toner supply motor [A] (M1-M4).



Toner Transport Section

Before Replacing the Toner Transport Section

Before replacing the toner transport section (the toner sub-hopper), reset the PM counter and execute the forced toner supply.

1. Turn the power ON.
2. Enter the SP mode.
3. Set the following SPs (Manual New Unit Set) to “1” depending upon the color of the replaced unit to reset the PM counter.
   - SP3-701-220 (Manual New Unit Set: Toner Sub Hopper:Bk)
   - SP3-701-221 (Manual New Unit Set: Toner Sub Hopper:C)

- SP3-701-222 (Manual New Unit Set: Toner Sub Hopper:M)
- SP3-701-223 (Manual New Unit Set: Toner Sub Hopper:Y)

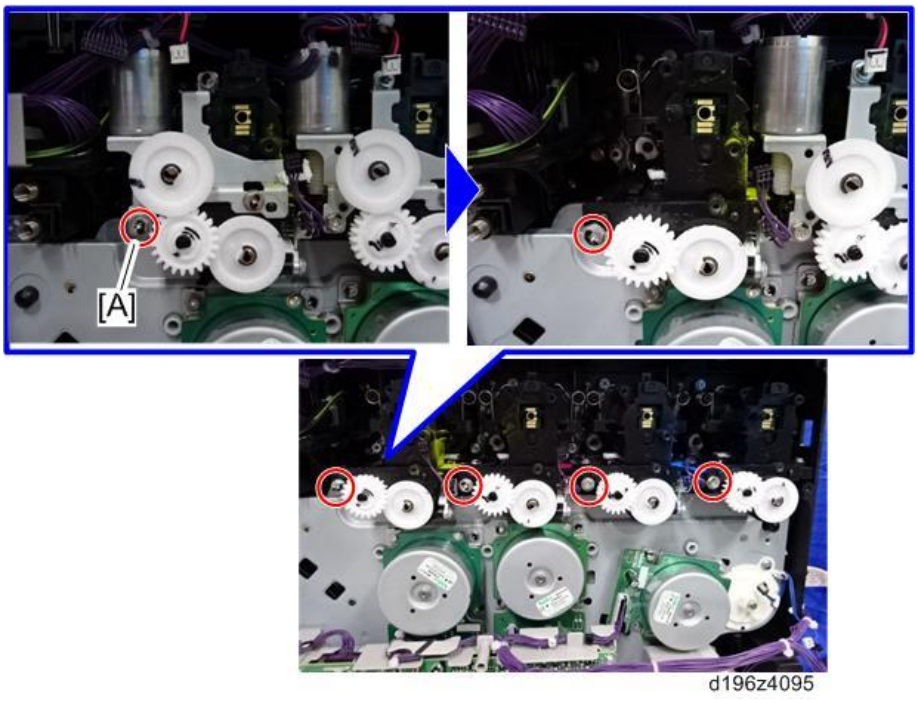
4. Set the following SPs (Toner supply flag) to “1” depending upon the color of the replaced unit.
   - SP3-510-031 (Image Quality Adj.: Exec Flag Init Toner Replenishment: Bk)
   - SP3-510-032 (Image Quality Adj.: Exec Flag Init Toner Replenishment: C)
   - SP3-510-033 (Image Quality Adj.: Exec Flag Init Toner Replenishment: M)
   - SP3-510-034 (Image Quality Adj.: Exec Flag Init Toner Replenishment: Y)
5. Exit from the SP mode.
6. Turn the power OFF.

Replacing the Toner Transport Section

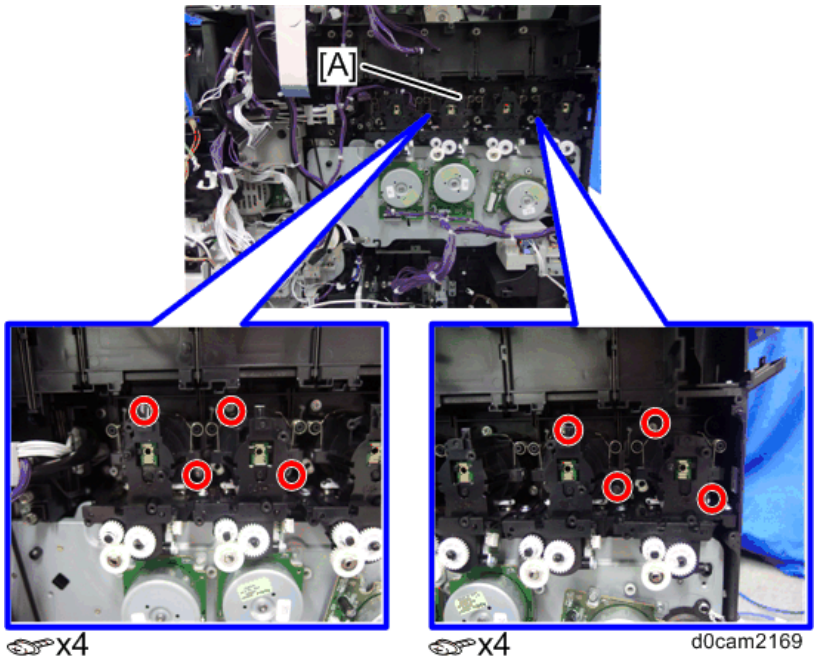
1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - Toner Bottle Sensor Board (PCB7)
   - Toner Supply Motors (M1-M4)

Note

- After removing the toner supply motors (M1-M4), secure four screws [A] on the toner transport section to prevent toner from flying off.



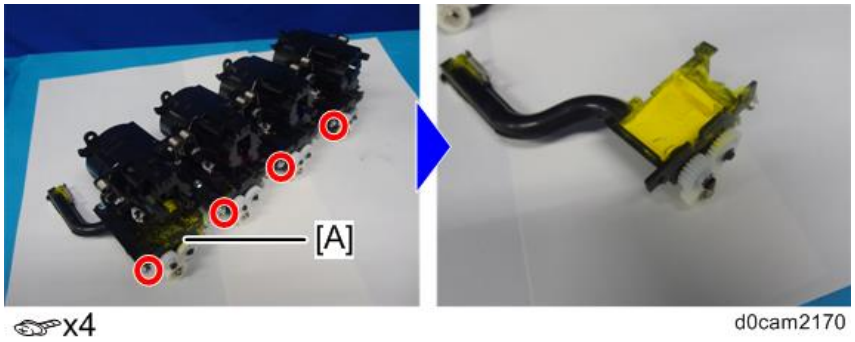
2. Remove the toner bottles (all colors).
3. Remove the PCDU (all colors). (PCDU (Photo Conductor and Development Unit))
4. Remove the toner supply unit [A].



Note

- Pull out the toner supply unit upward at an angle.

5. Remove the toner transport section [A].



Waste Toner

Waste Toner Bottle

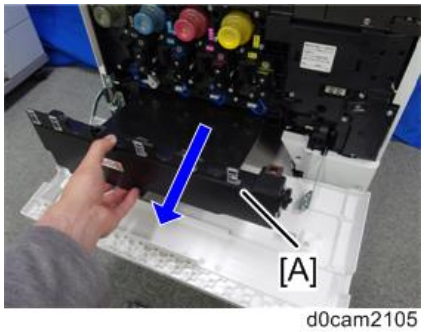
Before Replacing the Waste Toner Bottle

When you replace the waste toner bottle AFTER a waste toner full or near-full message appears on the operation panel, the PM counters are automatically cleared after turning the main power ON.
When you replace the waste toner bottle BEFORE a waste toner full or near-full message appears on the operation panel, do the following procedure to reset the PM counter.

1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

Replacing the Waste Toner Bottle

1. Pull out the paper tray.(This procedure is for IM C300 series/IM C400F)
2. Open the front cover.
3. Pull out the waste toner bottle [A].



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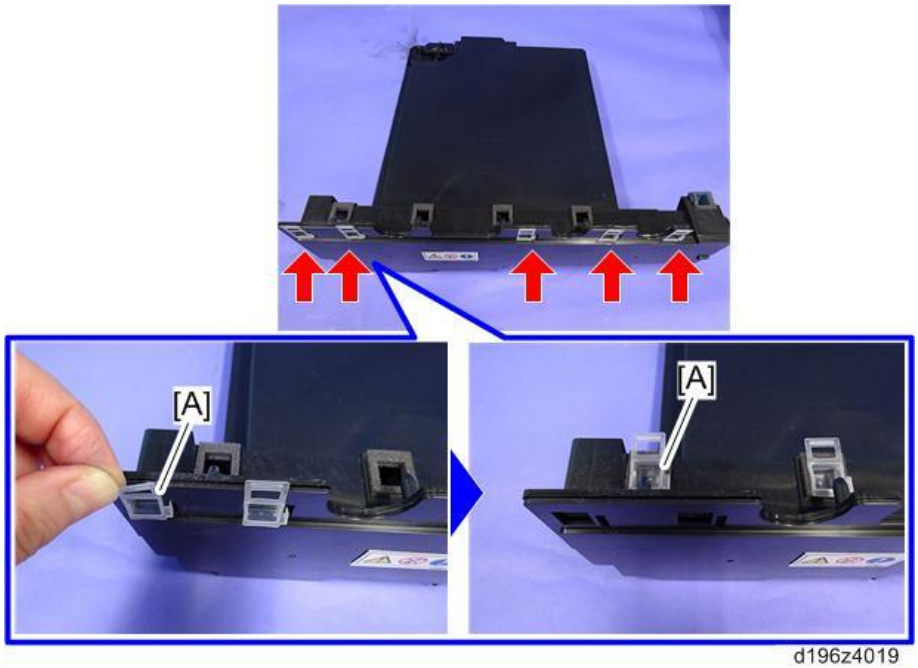
4. Install the five waste toner bottle caps on the waste toner inlets. The examples [A] in the photo are for black.



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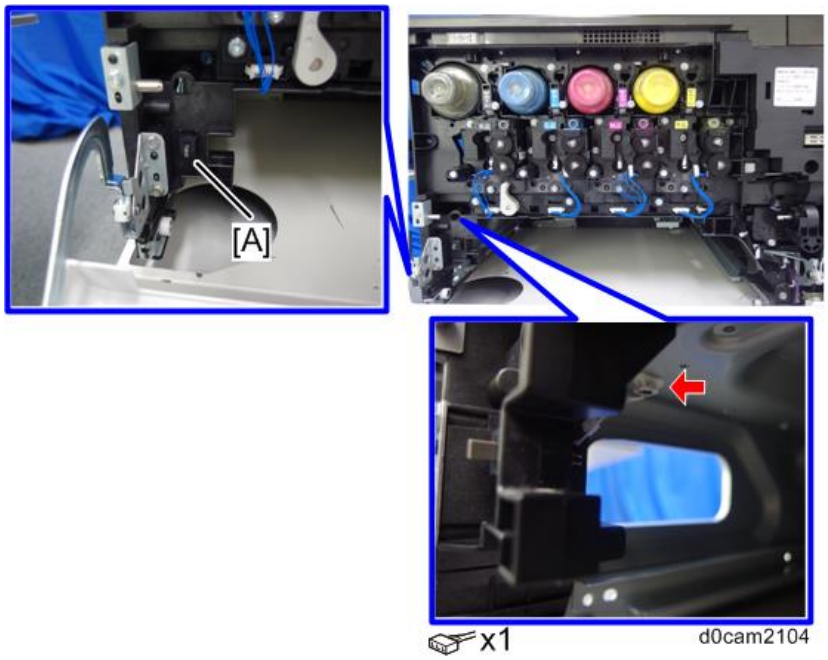
Waste Toner Full Sensor (S36)

1. Remove the waste toner bottle. (Waste Toner Bottle)
2. Remove the waste toner full sensor (S36) [A].

Waste Toner Bottle Set Sensor (S26)

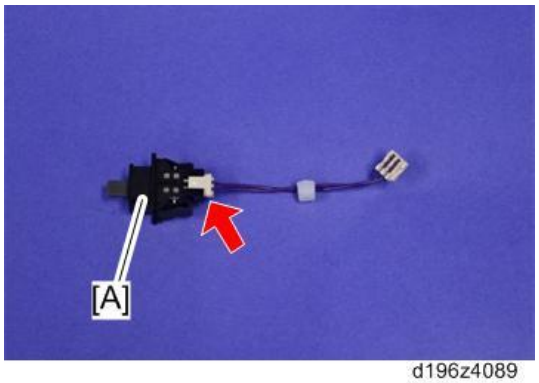
1. Remove the waste toner bottle. (Waste Toner Bottle)
2. Remove the waste toner bottle set sensor (S26) [A].



Note

- Release the tab with a jeweler's screwdriver to remove the sensor.

3. Remove the harness from the waste toner bottle set sensor (S26) [A]. (× 1)



d196z4089

Image/Paper Transfer

ITB (Image Transfer Belt) Unit

Before Replacing the ITB Unit

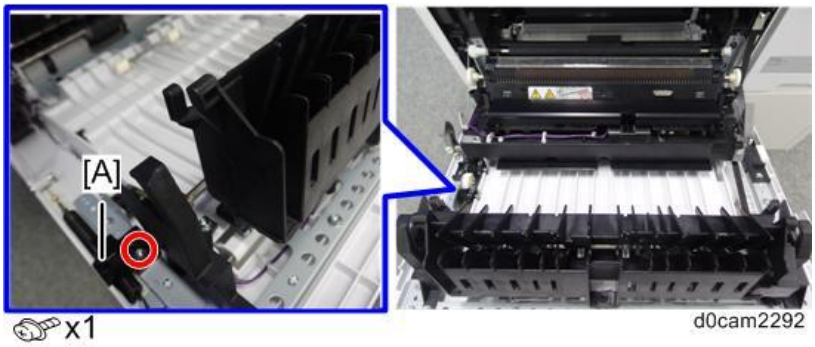
Before replacing the ITB unit, reset the PM counter.

1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

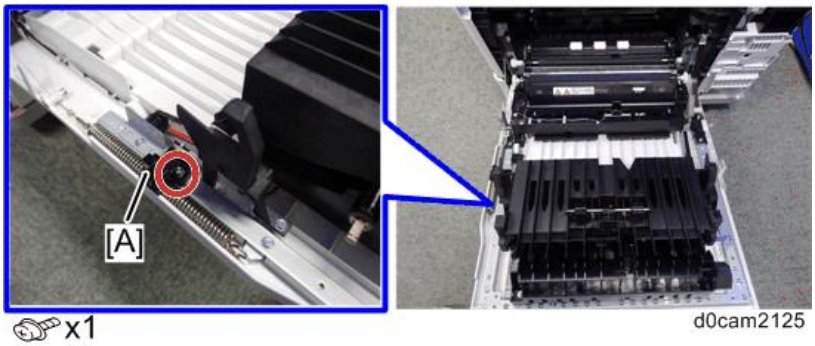
Replacing the ITB Unit

1. Remove the following parts.
   - Waste Toner Bottle
   - PCDU (Photo Conductor and Development Unit)
   - Fusing Unit
2. Remove the tension spring cover [A].

   IM C300 series/IM C400F

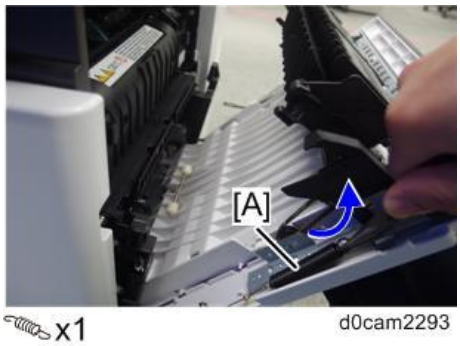


   IM C400SRF

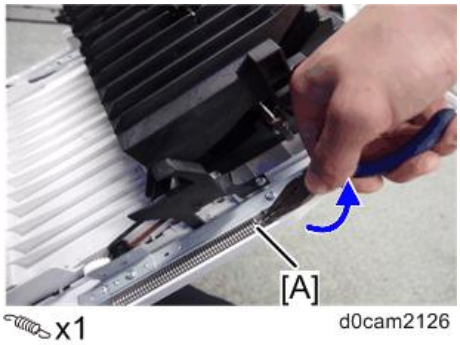


3. Release the tension spring [A].

   IM C300 series/IM C400F

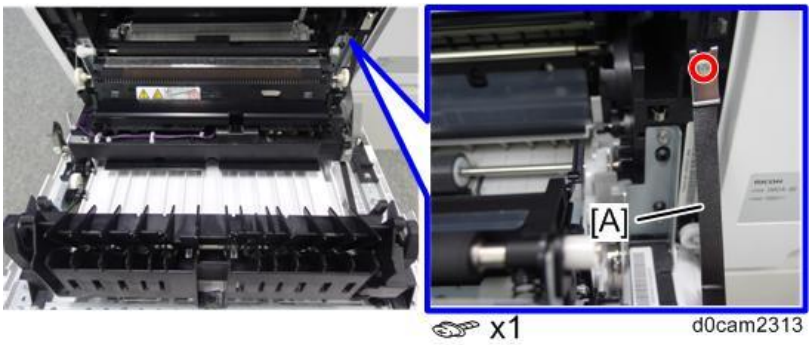


IM C400SRF

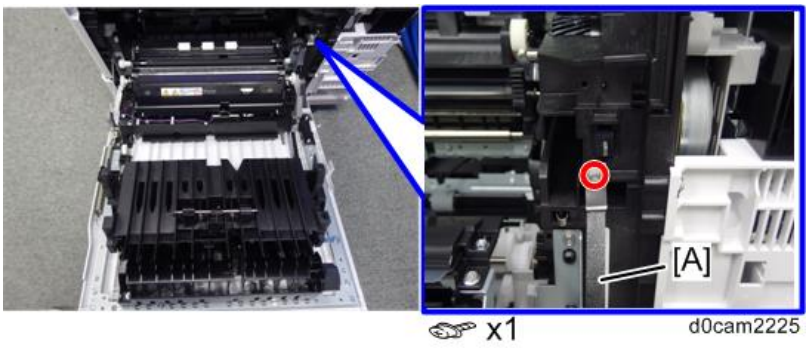


4. Release the tension belt [A].

IM C300 series/IM C400F

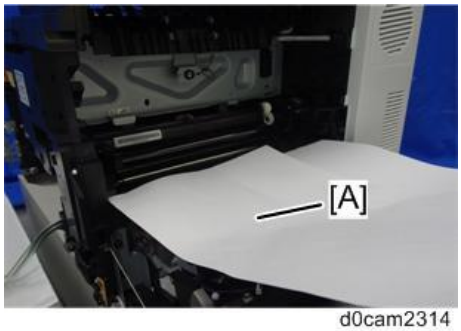


IM C400SRF



5. Put a sheet of paper [A] on the duplex unit with the short edge of the paper pointing towards the

ITB unit.



Note

- This is to protect the paper transfer unit from toner when removing the ITB unit.

6. Remove the ITB unit securing bracket [A].

7. Pull out the ITB unit [A].

After Replacing the Image Transfer Belt Unit

Do the following after replacing the ITB unit.

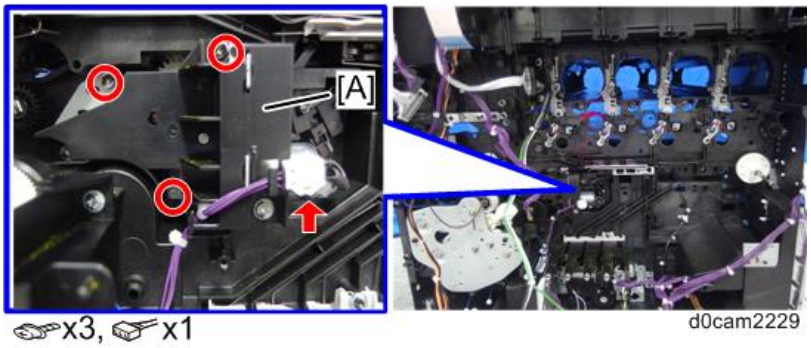
1. Enter the SP mode.
2. Set SP1-001-031 (Leading Edge Registration Std. Measure: On/Off) to “1”.
3. Execute SP2-111-004 (Forced Line Position Adj. Mode d).
4. SP values from SP1-001-033 to 040 (Leading Edge Registration Offset Standard: 1 to 8) are updated by the above steps.
5. Reset SP1-001-031 to “0”.
6. Exit from the SP mode.
7. Turn the main power OFF and ON.

ITB Lift Motor (M14)

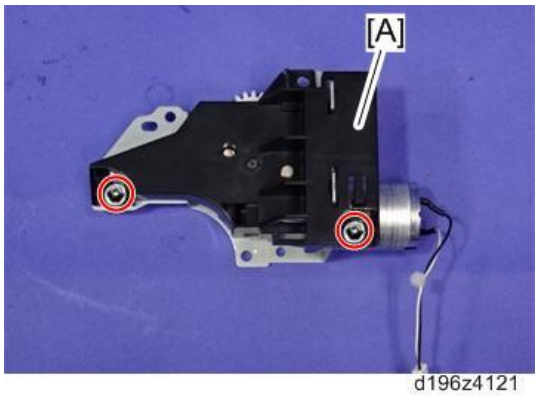
1. Remove the following parts.

- Right Rear Cover
- Rear Cover
- Upper Left Cover
- Left Cover
- Controller Box
- PSU Exhaust Fan (FAN4)
- PSU (AC) (PCB17), PSU (DC) (PCB16)
- High-Voltage Power Supply (Development) (PCB22)
- High-Voltage Power Supply (Transfer) (PCB23)
- Toner Bottle Sensor Board (PCB7)
- Toner Supply Motors (M1-M4)
- Toner Supply Unit (Toner Transport Section)
- Development Motor (CMY) (M9)
- Drum Motor (CMY) (M10)
- Drum Motor (M11)
- Development Clutch (K) (CL5)
- AC Detection Board (PCB18)
- Fusing Motor (M13)
- Paper Transport Motor (M12)
- Drive Unit

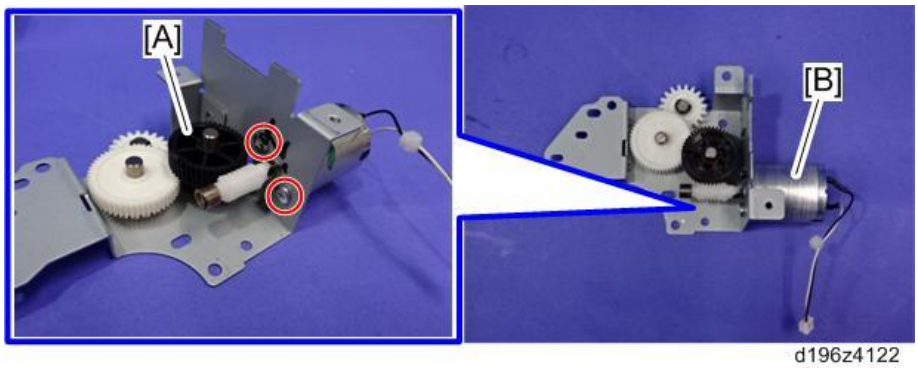
2. Remove the ITB lift unit [A].



3. Remove the cover [A]. (× 2)



4. Remove the gear [A] and ITB lift motor (M14) [B]. (× 2)



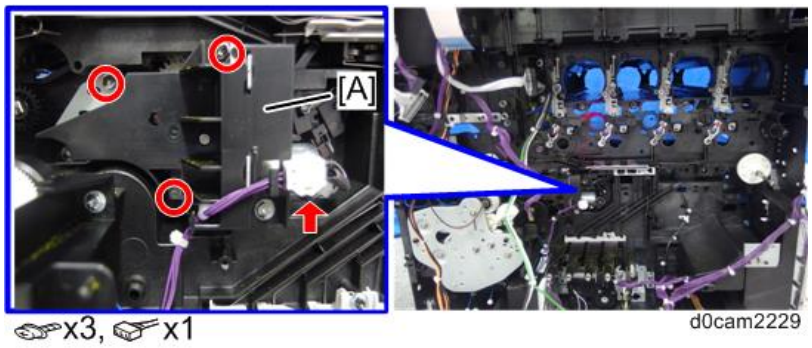
ITB Lift HP Sensor (S33)

1. Remove the following parts.

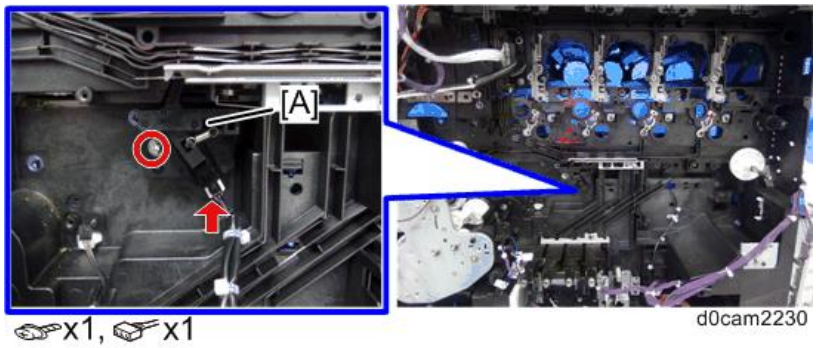
- Right Rear Cover
- Rear Cover
- Upper Left Cover
- Left Cover
- Controller Box
- PSU Exhaust Fan (FAN4)
- PSU (AC) (PCB17), PSU (DC) (PCB16)
- High-Voltage Power Supply (Development) (PCB22)
- High-Voltage Power Supply (Transfer) (PCB23)
- Toner Bottle Sensor Board (PCB7)
- Toner Supply Motors (M1-M4)
- Toner Supply Unit (Toner Transport Section)
- Development Motor (CMY) (M9)
- Drum Motor (CMY) (M10)
- Drum Motor (M11)
- Development Clutch (K) (CL5)
- AC Detection Board (PCB18)

- Fusing Motor (M13)
- Paper Transport Motor (M12)
- Drive Unit

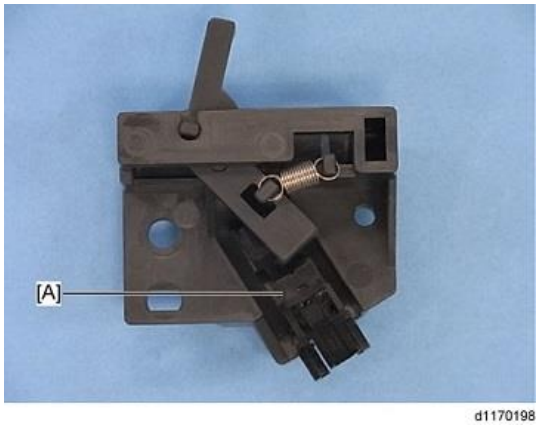
2. Remove the ITB lift unit [A].



3. Remove the ITB lift HP sensor (S33) with the bracket [A].



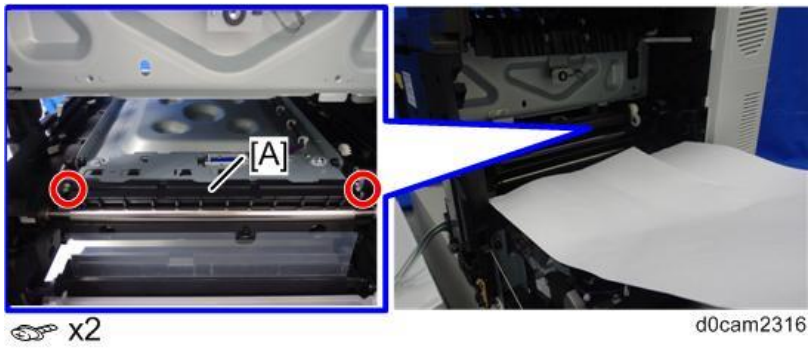
4. Remove the ITB lift HP sensor (S33) [A]. (Hook × 2)



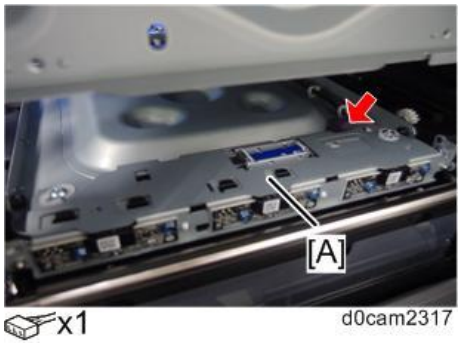
ID Sensor (M27-M29)

1. Remove the ITB unit. (ITB (Image Transfer Belt) Unit)

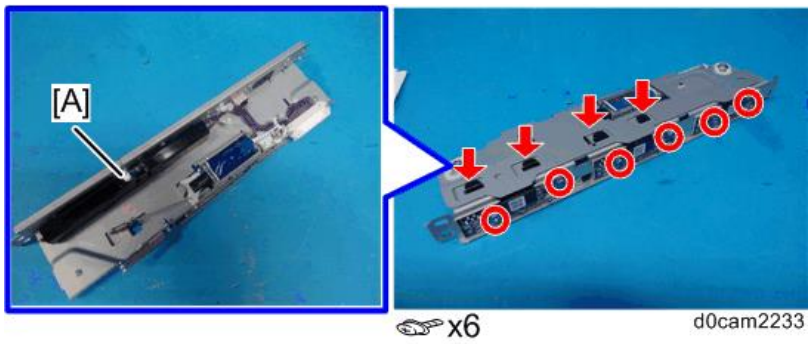
2. Remove the guide plate [A].



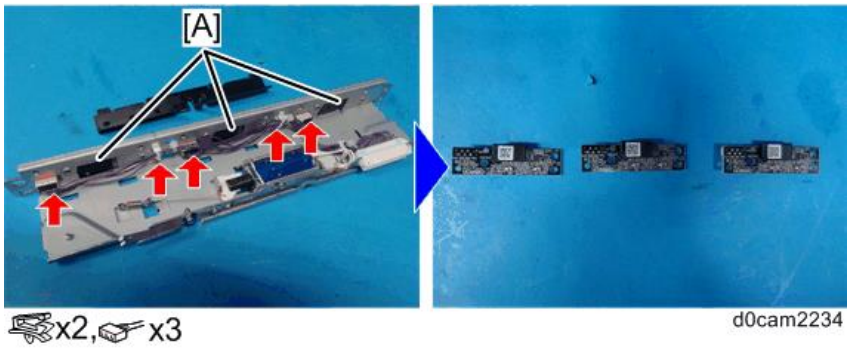
3. Remove the ID sensor [A] with the bracket.



4. Remove the cover [A].



5. Remove the ID sensors (M27-M29) [A].



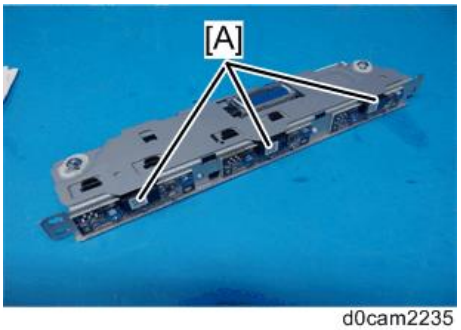
Note

- ID sensor(front) (S27)
- ID sensor(center) (S28)

- ID sensor(rear) (S29)

Note

- When cleaning the ID sensor, wipe the parts [A] with a damp cloth.
- Do not wipe it with a dry cloth, or the ID sensor may attract dirt because of static electricity. Let it dry naturally if necessary.



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Before Installing a New ID Sensor Board

Do the following adjustment before installing a new ID sensor board.

Note

The correction coefficients must be entered before replacement.

Enter correction coefficients into ID sensor(center) (S28) only.

1. Plug in and turn ON the main power.
2. Enter the SP mode.
3. Enter two correction coefficients in the dotted square in the photo for the ID sensor with the SP modes, referring to the barcode sheet provided with the new ID sensor board.

Value	SP No.	Category
1	3-331-021	ID Sen. Sensitivity Coef.: Set K2: Check
2	3-331-031	ID Sen. Sensitivity Coef.: Set Diffuse Ratio Correction Coef.

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Note

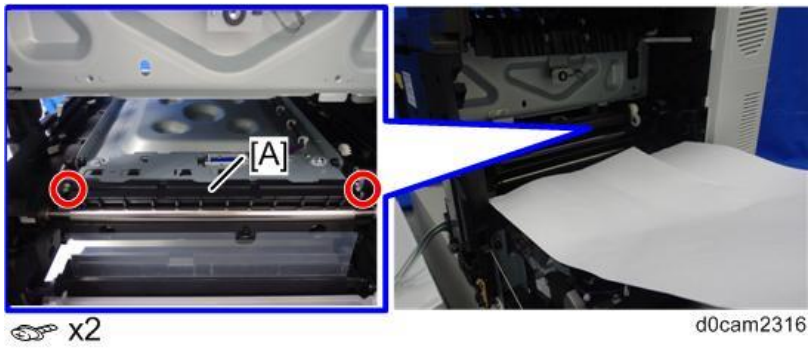
Enter correction coefficients on barcode sheet for value 1 and 2.

- For example, enter “1.02” with value 2.

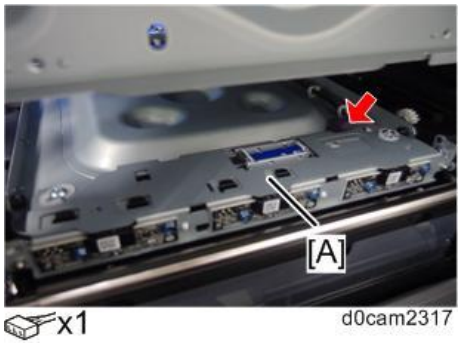
4. Exit the SP mode.

ID Sensor Shutter Solenoid (SOL2)

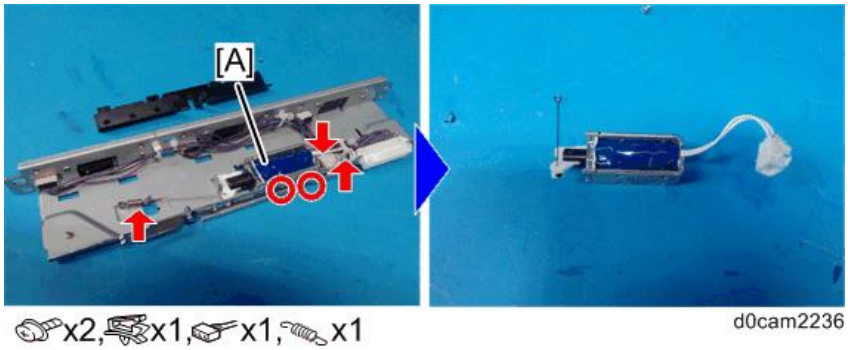
1. Remove the following parts.
   - Waste Toner Bottle
   - PCDU (Photo Conductor and Development Unit)
   - Fusing Unit
   - ITB (Image Transfer Belt) Unit
2. Remove the guide plate [A].



3. Remove the ID sensor (S27-S29) [A] with the bracket.



4. Remove the ID sensor shutter solenoid (SOL2) [A].



Paper Transfer Roller Unit

Before Replacing the Paper Transfer Roller Unit

Before replacing the paper transfer roller unit, reset the PM counter.

1. Turn the power ON.

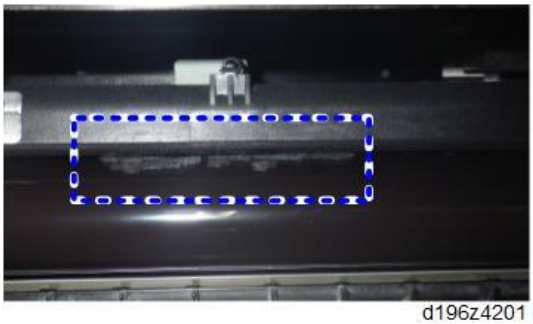
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

Replacing the Paper Transfer Roller Unit

1. Open the right door.

Note

- If you find paper dust on the registration section when you open the duplex unit, remove the dust. Otherwise, the dust causes lines on the image.



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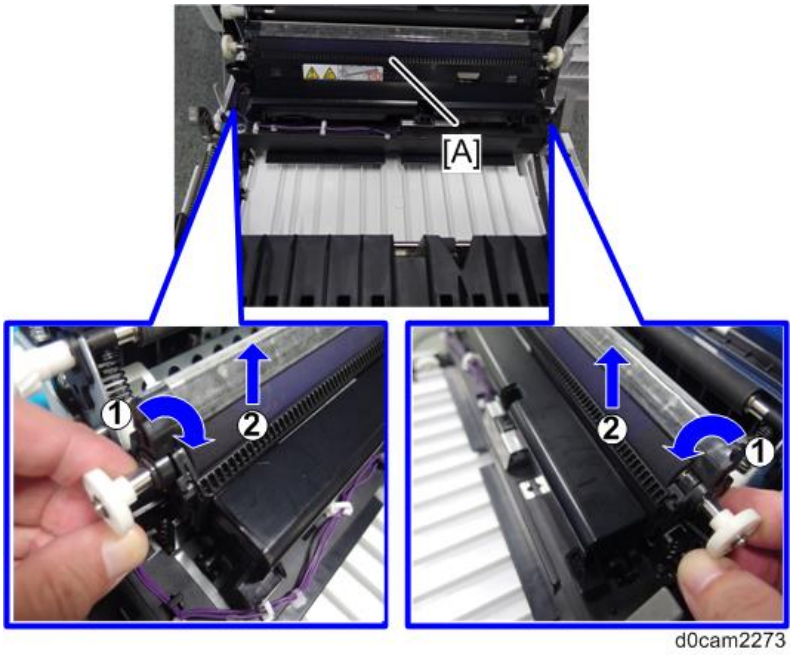
2. Remove the paper transfer roller unit [A] while holding the knobs on both ends of the paper transfer roller with your fingers.



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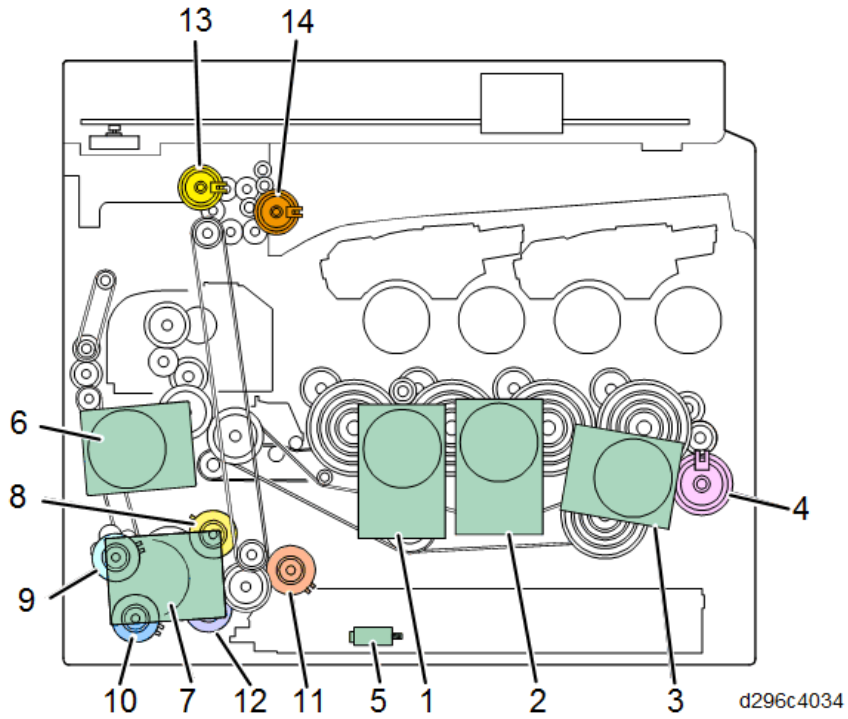
Drive

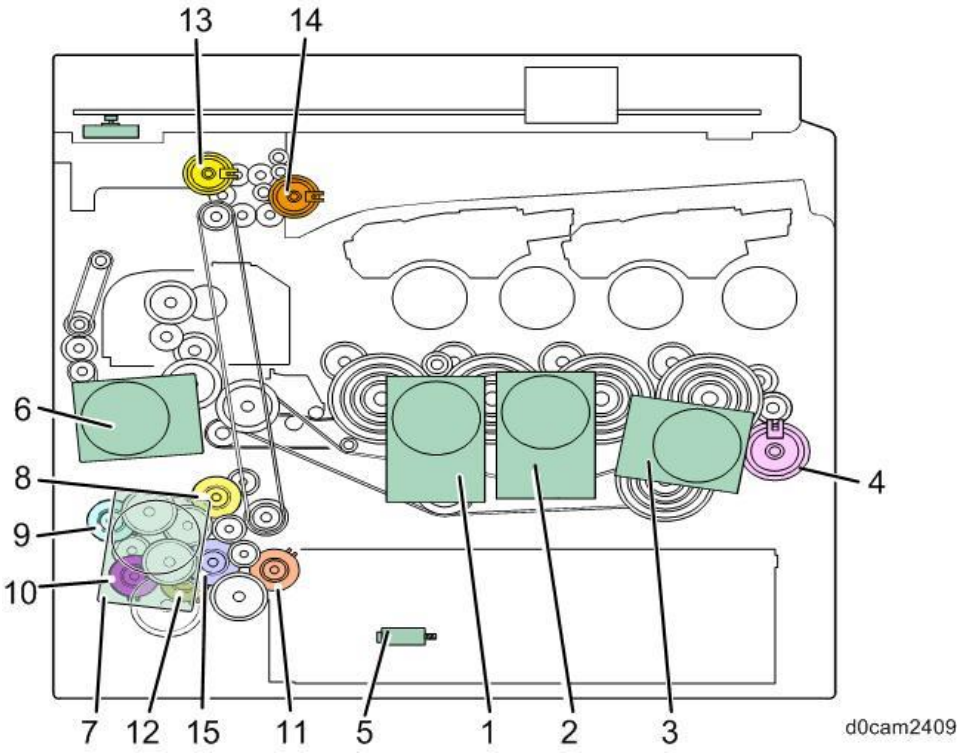
Overview

IM C300 series



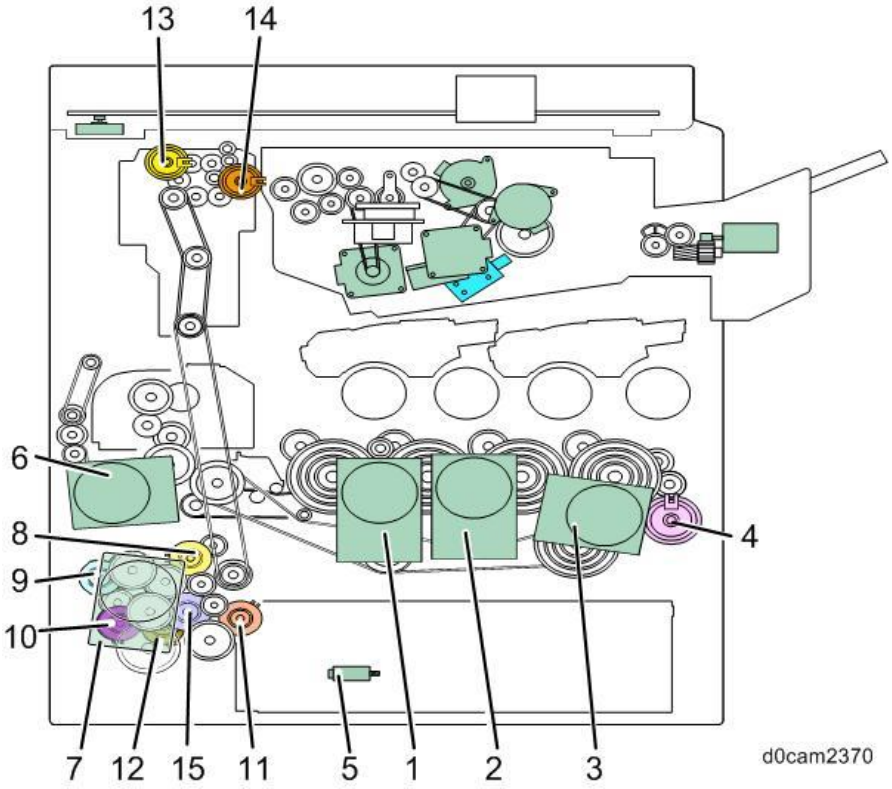
No.	Description	No.	Description
1	Development motor (CMY) (M9)	8	Registration clutch (CL8)
2	Drum motor (CMY) (M10)	9	Duplex clutch (CL6)
3	Drum motor (M11)	10	Bypass feed clutch (CL7)
4	Development clutch (K) (CL5)	11	Paper feed clutch (CL9)
5	Tray lift motor (M15)	12	Bypass tray lift clutch (CL1)
6	Fusing motor(M13)	13	Reverse clutch (CL2)
7	Paper transport motor (M12)	14	Paper exit clutch (CL3)

IM C400F



No.	Description	No.	Description
1	Development motor (CMY) (M9)	9	Duplex clutch (CL6)
2	Drum motor (CMY) (M10)	10	Bypass feed clutch (CL7)
3	Drum motor (M11)	11	Paper feed clutch (CL9)
4	Development clutch (K) (CL5)	12	Bypass tray lift clutch (CL1)
5	Tray lift motor (M15)	13	Reverse clutch (CL2)
6	Fusing motor(M13)	14	Paper exit clutch (CL3)
7	Paper transport motor (M12)	15	Vertical transport clutch (CL10)
8	Registration clutch (CL8)	-	-

IM C400SRF



No.	Description	No.	Description
1	Development motor (CMY) (M9)	9	Duplex clutch (CL6)
2	Drum motor (CMY) (M10)	10	Bypass feed clutch (CL7)
3	Drum motor (M11)	11	Paper feed clutch (CL9)
4	Development clutch (K) (CL5)	12	Bypass tray lift clutch (CL1)
5	Tray lift motor (M15)	13	Reverse clutch (CL2)
6	Fusing motor(M13)	14	Paper exit clutch (CL3)
7	Paper transport motor (M12)	15	Vertical transport clutch (CL10)
8	Registration clutch (CL8)	-	-

Development Motor (CMY) (M9)

1. Remove the following parts.

- Right Rear Cover
- Rear Cover
- Upper Left Cover
- Left Cover
- Controller Box
- PSU Exhaust Fan (FAN4)
- PSU (AC) (PCB17), PSU (DC) (PCB16)
- High-Voltage Power Supply (Development) (PCB22)

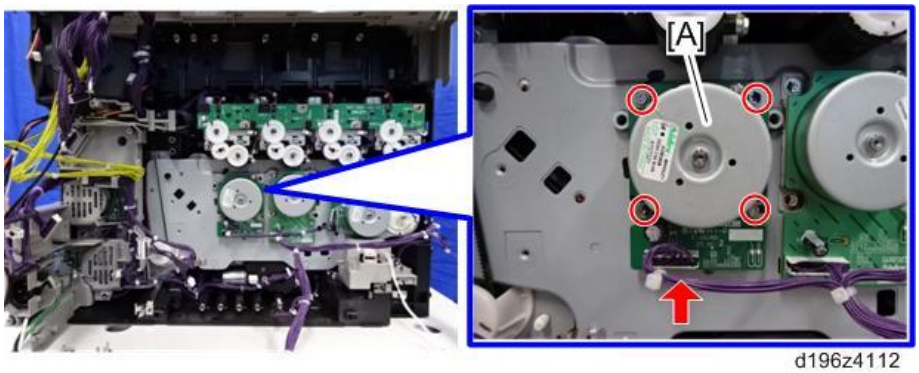
- High-Voltage Power Supply (Transfer) (PCB23)

2. Remove the development motor (CMY) (M9) [A]. (× 4, × 1)

Note

The motor with the white label is for the IM C300 series.

The motor with the green label is for the IM C400 series.



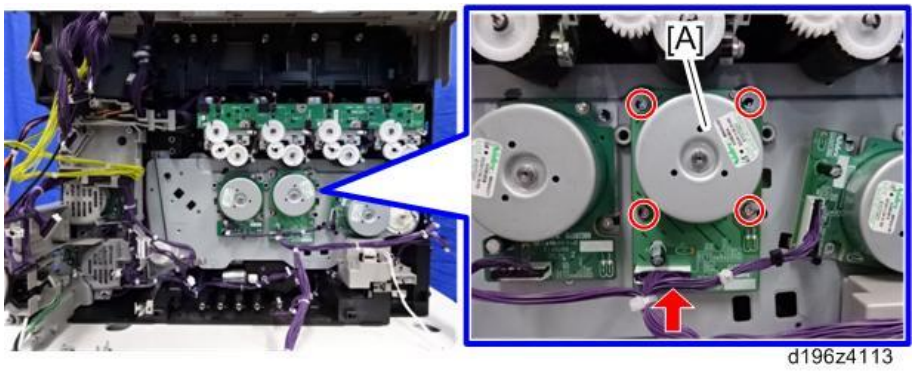
Drum Motor (CMY) (M10)

1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - High-Voltage Power Supply (Transfer) (PCB23)
2. Remove the drum motor (CMY) (M10) [A]. (× 4, × 1)

Note

The motor with the white label is for the IM C300 series.

The motor with the green label is for the IM C400 series.



Drum Motor (M11)

1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - High-Voltage Power Supply (Transfer) (PCB23)
2. Remove the drum motor (M11) [A]. (× 4, × 1)

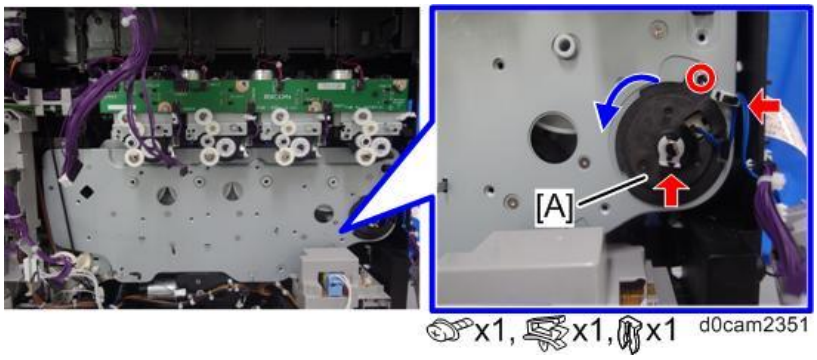
Note

The motor with the white label is for the IM C300 series.

The motor with the green label is for the IM C400 series.

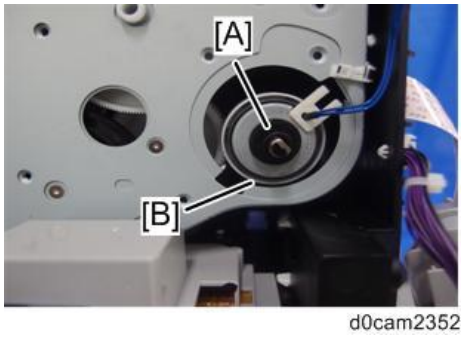
Development Clutch (K) (CL5)

1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - High-Voltage Power Supply (Transfer) (PCB23)
   - Drum Motor (M11)
2. Remove the development clutch cover [A] by rotating it counterclockwise.

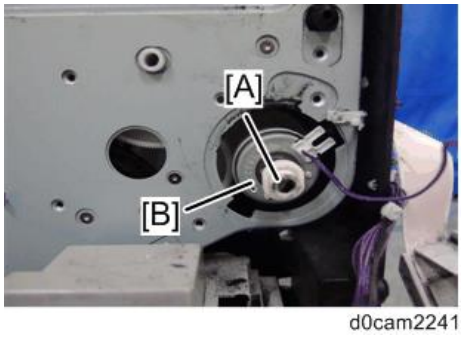


3. Remove the bearing [A].
4. Remove the development clutch (K) (CL5) [B].

IM C300 series



IM C400 series



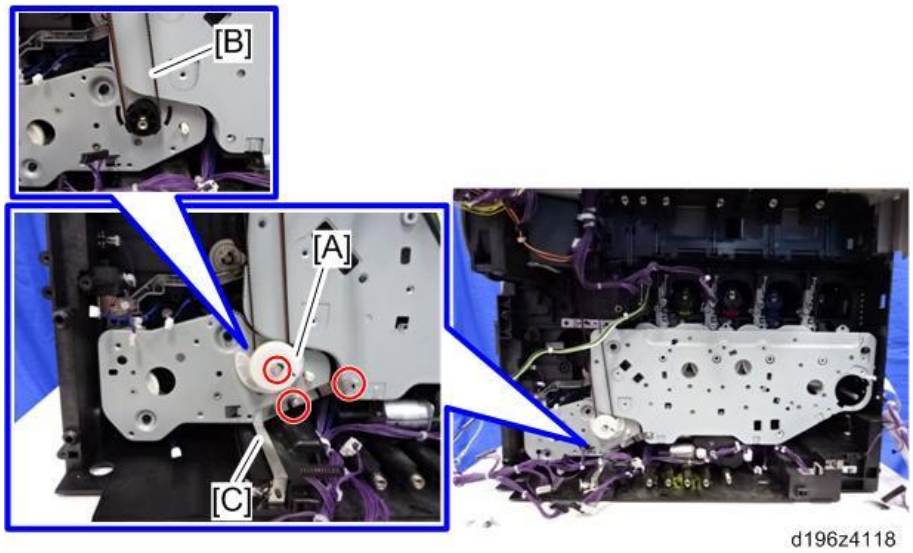
Drive Unit

1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - High-Voltage Power Supply (Transfer) (PCB23)
   - Toner Bottle Sensor Board (PCB7)

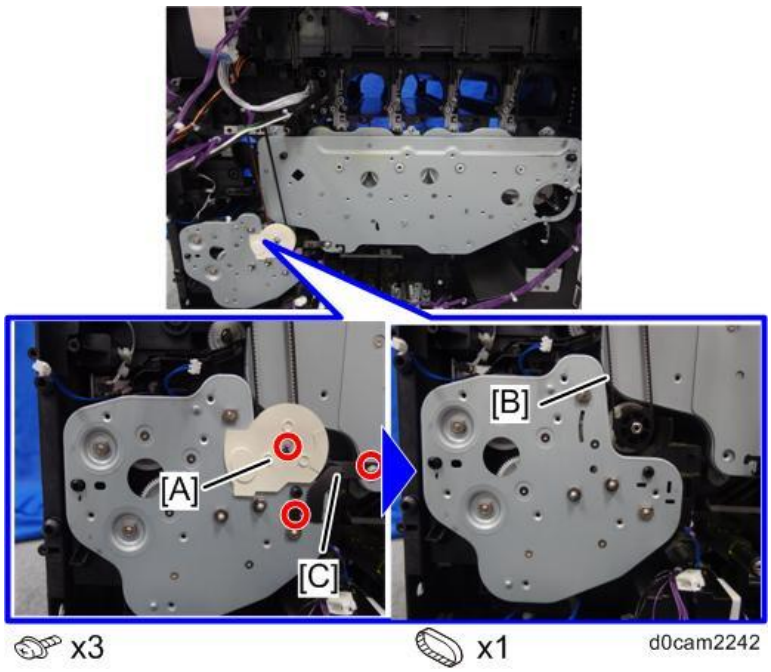
- Toner Supply Motors (M1-M4)
- Toner Supply Unit (Toner Transport Section)
- Development Motor (CMY) (M9)
- Drum Motor (CMY) (M10)
- Drum Motor (M11)
- Development Clutch (K) (CL5)
- AC Detection Board (PCB18)
- Fusing Motor (M13)
- Paper Transport Motor (M12)

2. Remove the gear cover [A], belt [B], and grounding plate [C]. (× 3, × 1)

IM C300 series

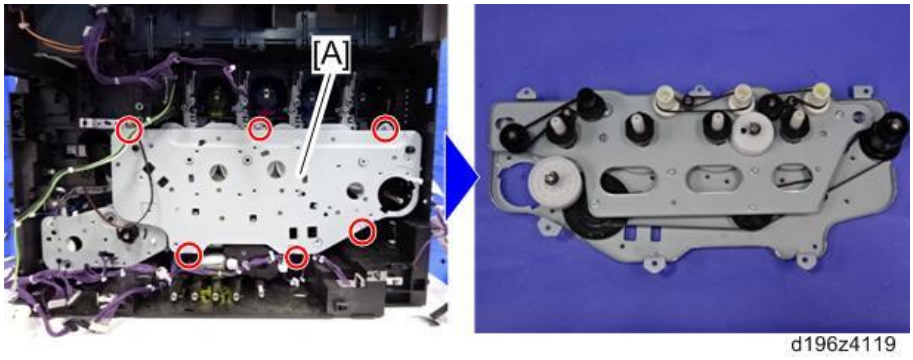


IM C400 series

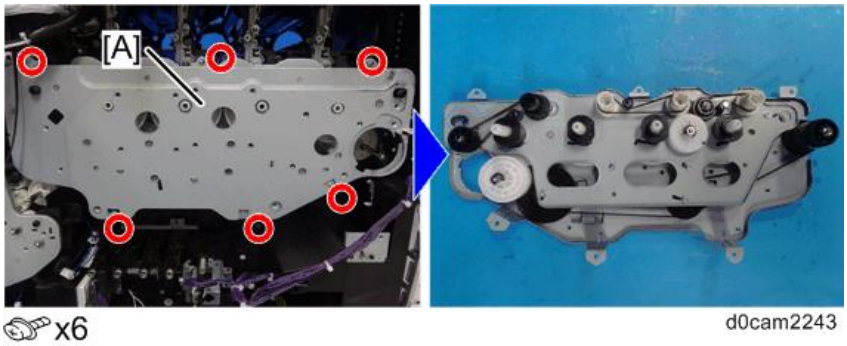


3. Remove the drive unit [A]. (× 6)

IM C300 series



IM C400 series



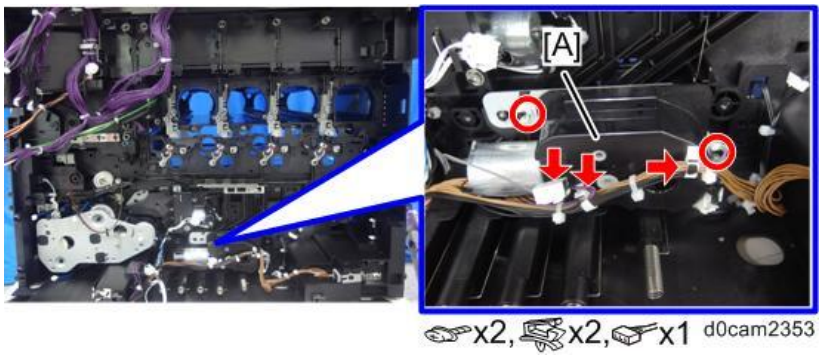
Tray Lift Motor (M15)

IM C300 series

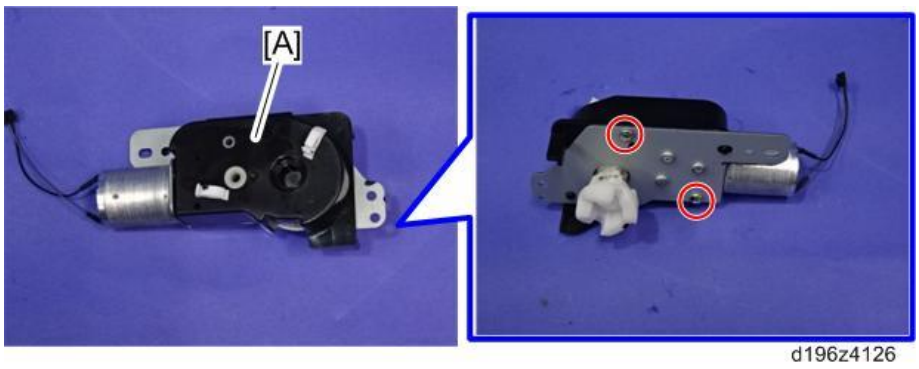
1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - High-Voltage Power Supply (Transfer) (PCB23)
   - Toner Bottle Sensor Board (PCB7)
   - Toner Supply Motors (M1-M4)
   - Toner Supply Unit (Toner Transport Section)
   - Development Motor (CMY) (M9)
   - Drum Motor (CMY) (M10)
   - Drum Motor (M11)
   - Development Clutch (K) (CL5)

- AC Detection Board (PCB18)
- Fusing Motor (M13)
- Paper Transport Motor (M12)
- Drive Unit

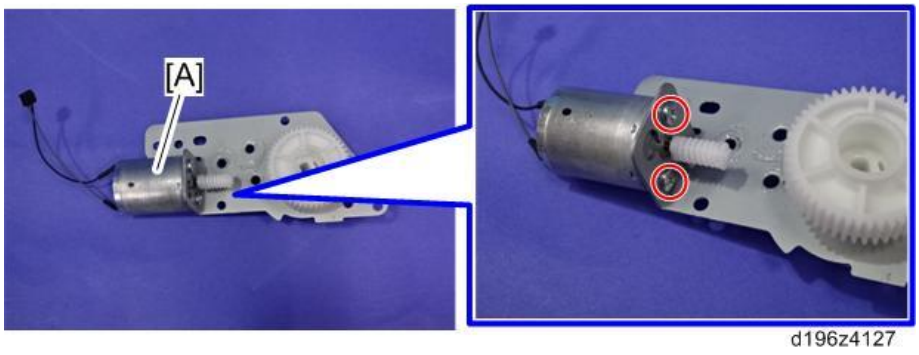
2. Remove the tray lift motor unit [A].



3. Remove the motor cover [A]. (× 2)



4. Remove the tray lift motor (M15) [A]. (× 2)

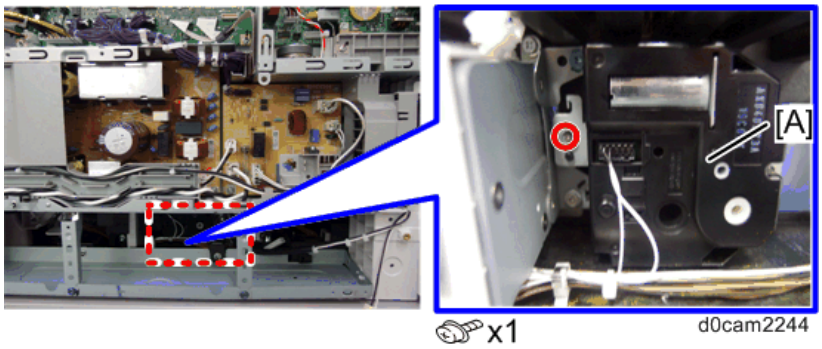


IM C400 series

1. Remove the following parts.

- Right Rear Cover
- Rear Cover
- Rear Bottom Cover
- Tray Set Sensor (S34)

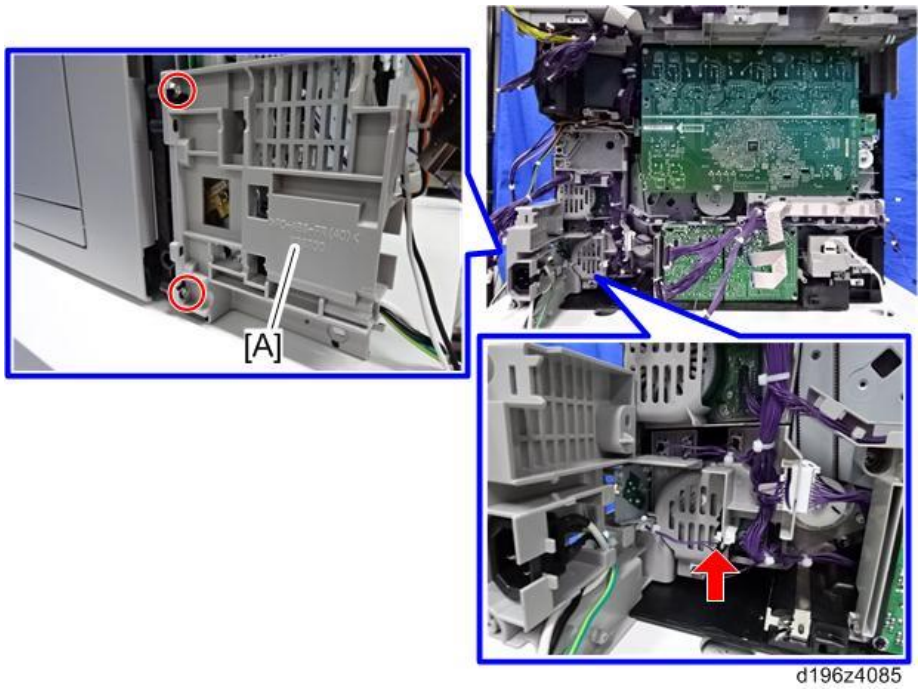
2. Remove the tray lift motor (M15) [A]



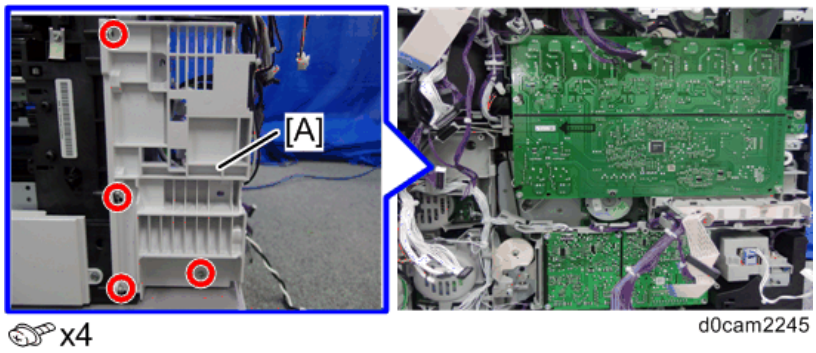
Fusing Motor (M13)

1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
2. Remove the cover [A]. (× 2, × 1)

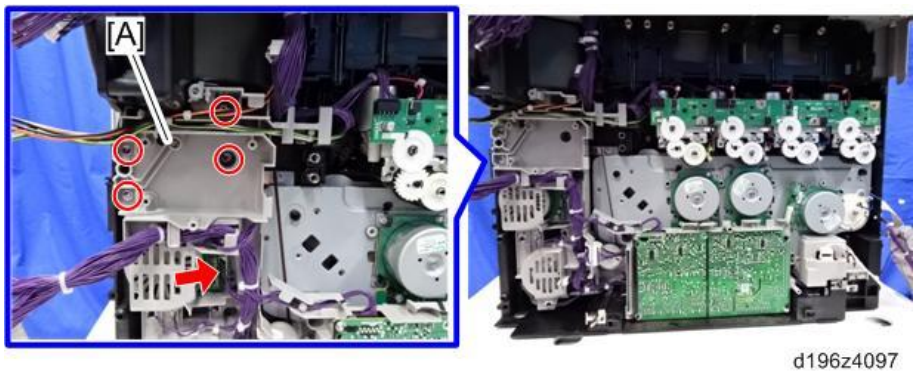
IM C300 series



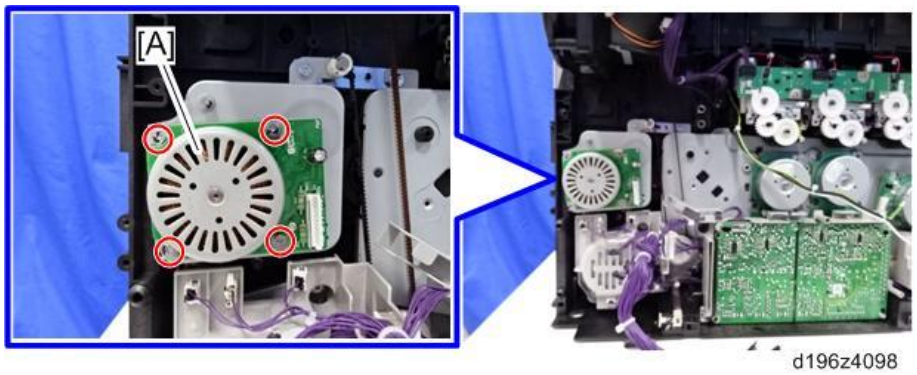
IM C400 series



3. Remove the high-voltage power supply (Development). (High-Voltage Power Supply (Development) (PCB22))
4. Release the harness and remove the harness guide [A]. (× 4, × 1)



5. Remove the fusing motor (M13) [A]. (× 4)

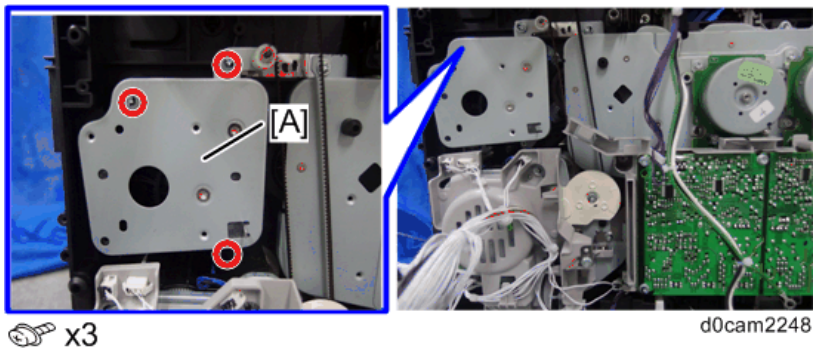


Paper Transport Motor (M12)

1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)

- Fusing Motor (M13)

2. Remove the fusing motor bracket [A].

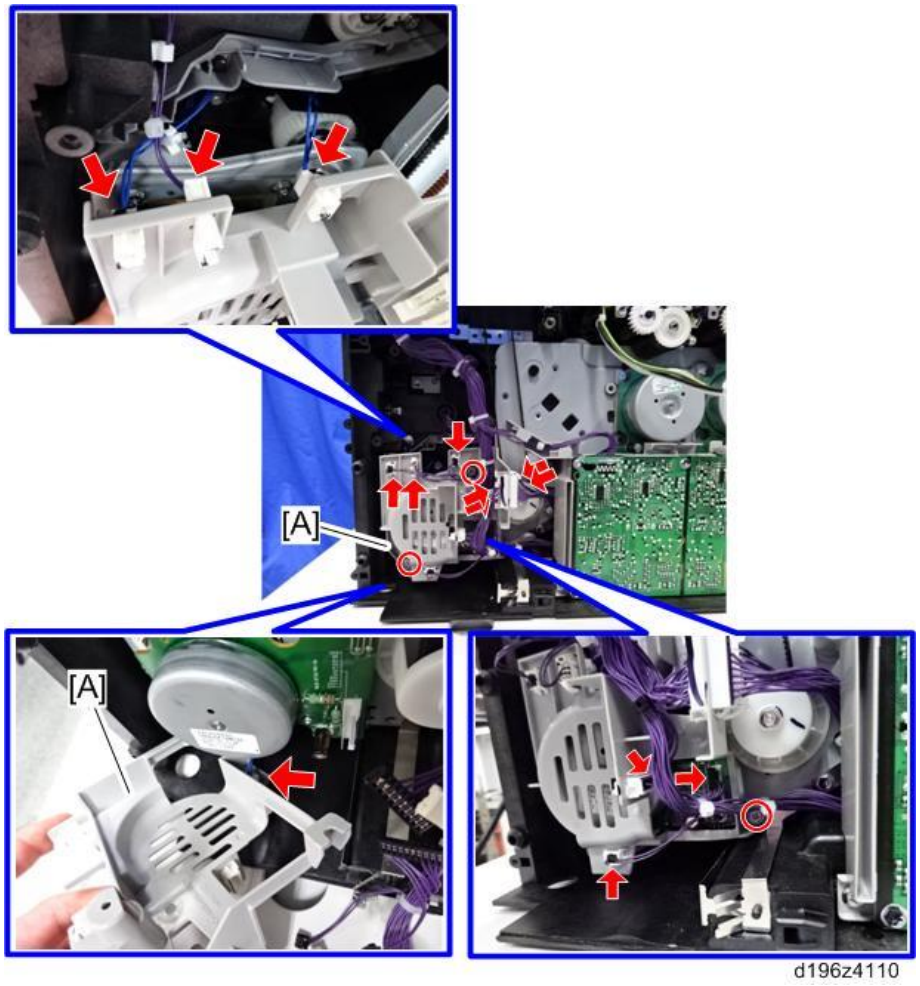


3. Remove the harness guide [A]. (× 3, × 14)

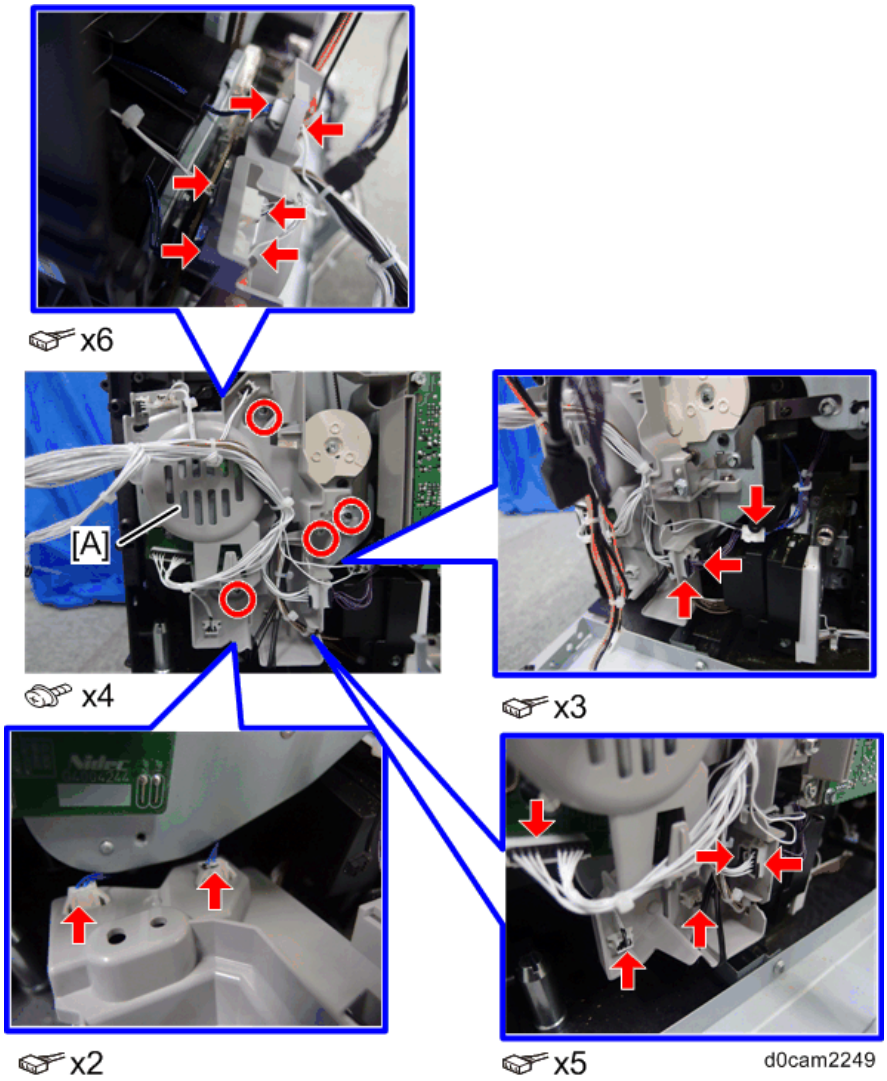
Note

- There are connectors behind the harness guide. Remove the guide carefully.

IM C300 series



IM C400 series



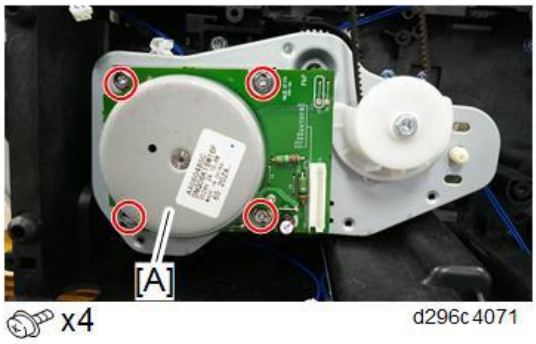
4. Remove the paper transport motor (M12) [A].

Note

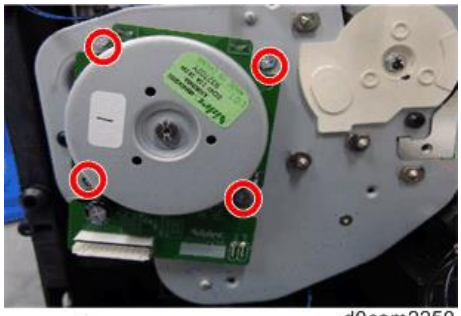
The motor with the white label is for the IM C300 series.

The motor with the green label is for the IM C400 series.

IM C300 series



IM C400 series

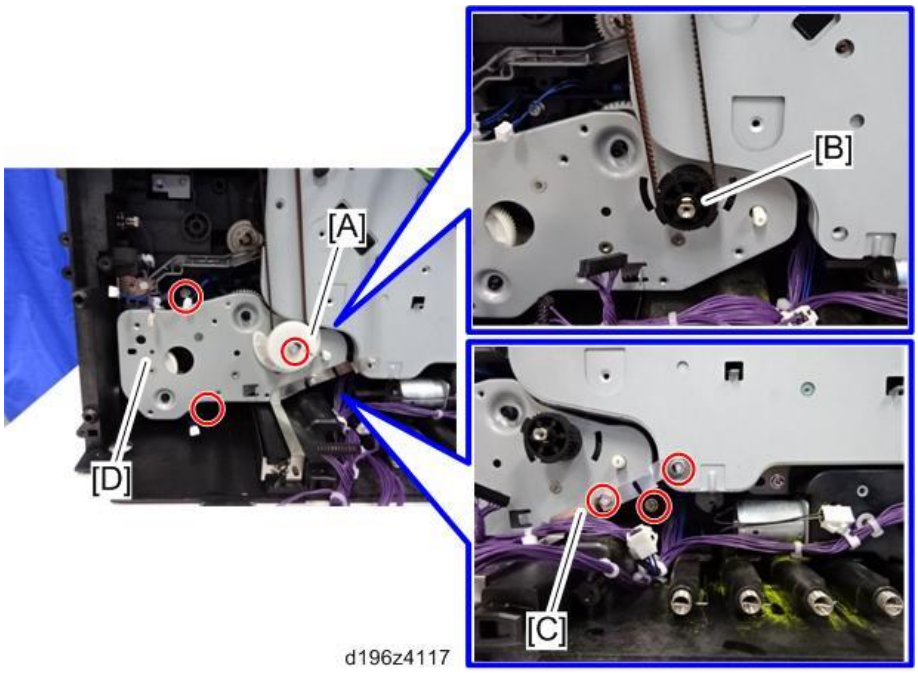


Duplex Clutch (CL6), Bypass Feed Clutch (CL7), Registration Clutch (CL8), Paper Feed Clutch (CL9), Vertical Transport Clutch (CL10)

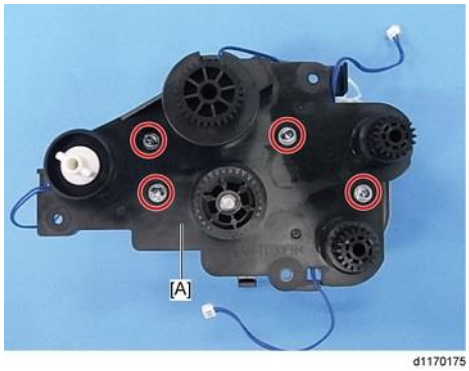
IM C300 series

1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - High-Voltage Power Supply (Transfer) (PCB23)
   - Fusing Motor (M13)
   - Paper Transport Motor (M12)
2. Remove the gear cover [A] and gear [B]. (× 1, × 1)
3. Remove the grounding plate [C]. (× 2)

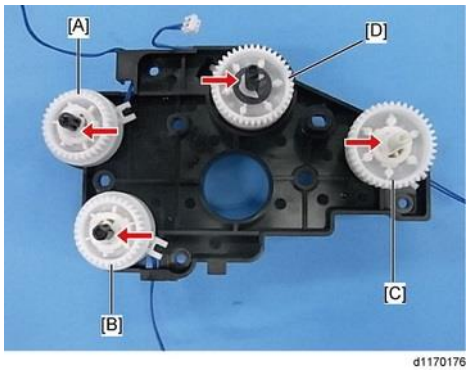
4. Remove the paper transport unit [D]. (× 3)



5. Remove the paper transport unit cover [A]. (× 4)



6. Remove each clutch. (× 1 each)



[A]: Duplex clutch (CL6)

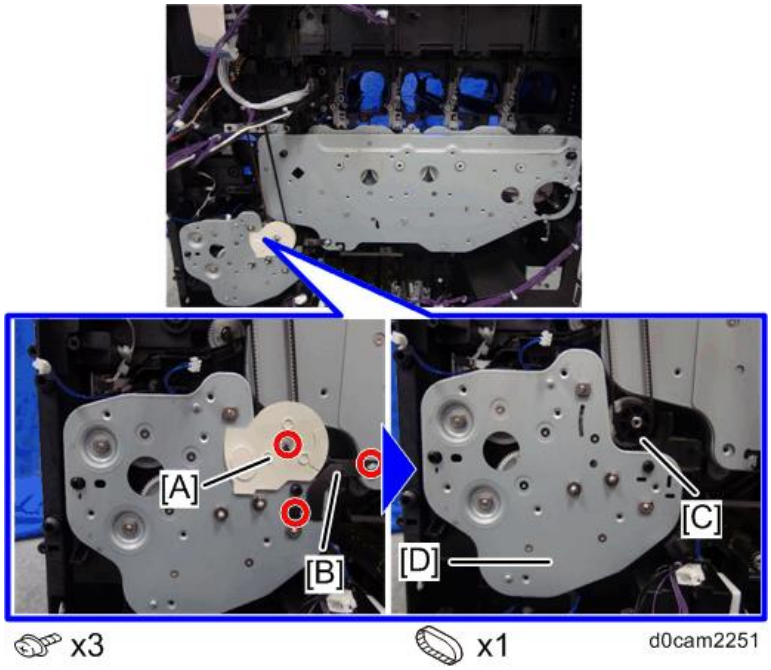
[B]: Bypass feed clutch (CL7)

[C]: Paper feed clutch (CL9)

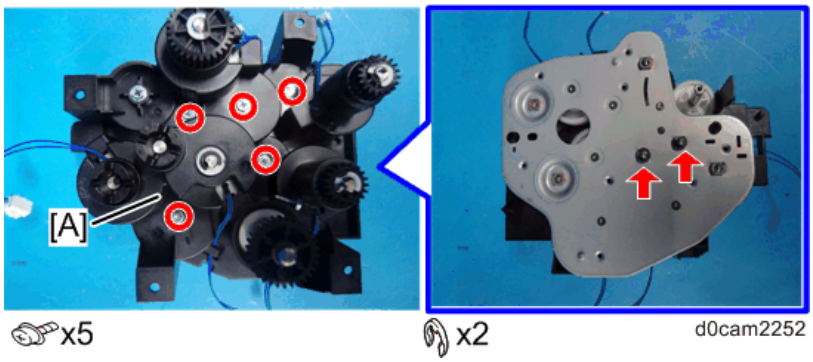
[D]: Registration clutch (CL8)

IM C400 series

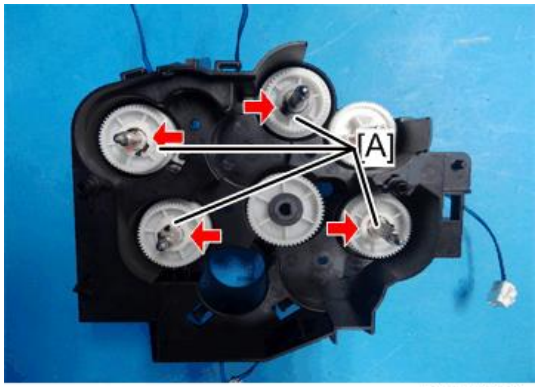
1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - High-Voltage Power Supply (Transfer) (PCB23)
   - Fusing Motor (M13)
   - Paper Transport Motor (M12)
2. Remove the gear cover [A] and grounding plate [B].
3. Remove the gear [C].
4. Remove the paper transport Unit [D].



5. Remove the paper transport unit cover [A].



6. Remove the four speed nuts [A].



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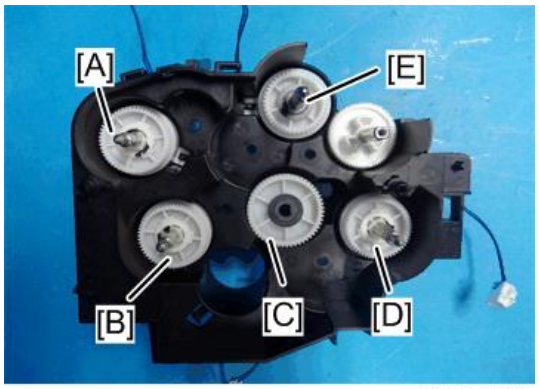
7. Remove each clutch.



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[A]: Duplex clutch (CL6)

[B]: Bypass feed clutch (CL7)

[C]: Vertical transport clutch (CL10)

[D]: Paper feed clutch (CL9)

[E]: Registration clutch (CL8)

Fusing

Fusing Unit

⚠CAUTION

- Turn OFF the main power switch (SW1) and wait until the fusing unit cools down before beginning any of the procedures in this section. The fusing unit can cause serious burns.
- Do not touch the surface of the sleeve belt, when replacing the fusing unit.

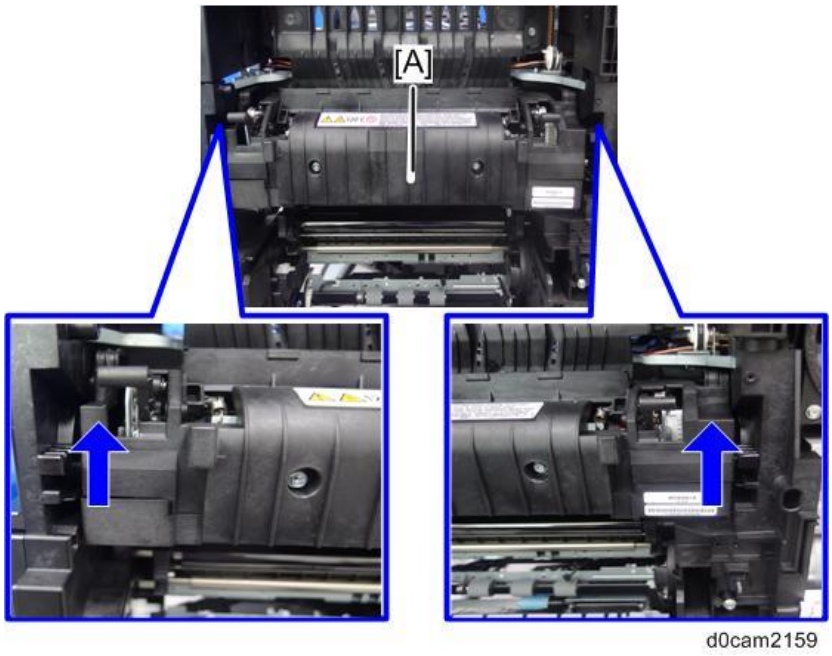
Note

- Basically, the entire fusing unit must be replaced when SC544-00 or SC554-00 occurs.
- In some cases, the fusing unit need not be replaced if SC544-00 or SC554-00 occurs. See "Actions When SC554-00 Occurs" for these cases.

Note

The fusing unit features the new unit detection function, so it is not necessary to reset the PM counter manually when replacing the fusing unit and dust filter together.

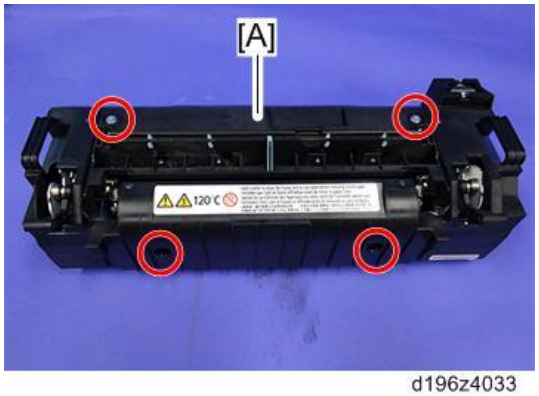
1. Release the left and right lock levers, then pull out the fusing unit [A].



Fusing Upper Cover

1. Remove the fusing unit. (Fusing Unit)

2. Remove the fusing upper cover [A]. (× 4)



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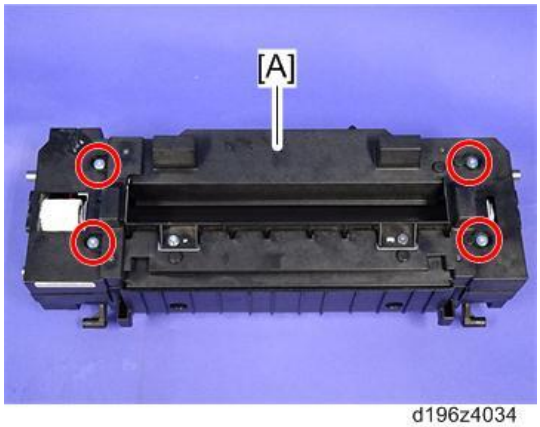
Fusing Lower Cover

1. Remove the fusing unit. (Fusing Unit)
2. Remove the fusing lower cover [A]. (× 4)



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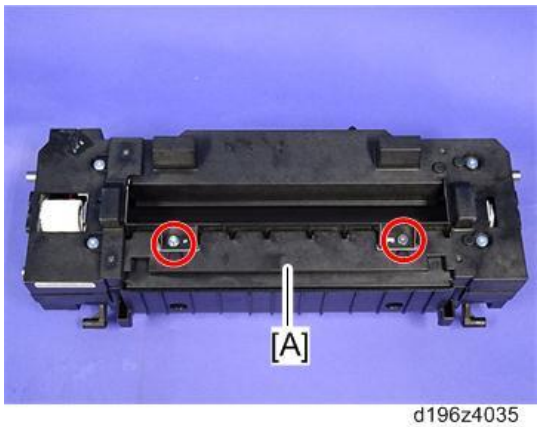
Fusing Entrance Guide Plate

1. Remove the fusing unit. (Fusing Unit)
2. Remove the fusing entrance guide plate [A]. (× 2)



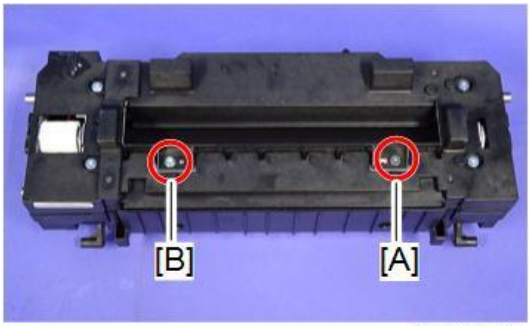
d196z4035

Note

- There are two screw holes for each screw on the entrance guide plate. Use the outer

holes when tightening the entrance guide plate.

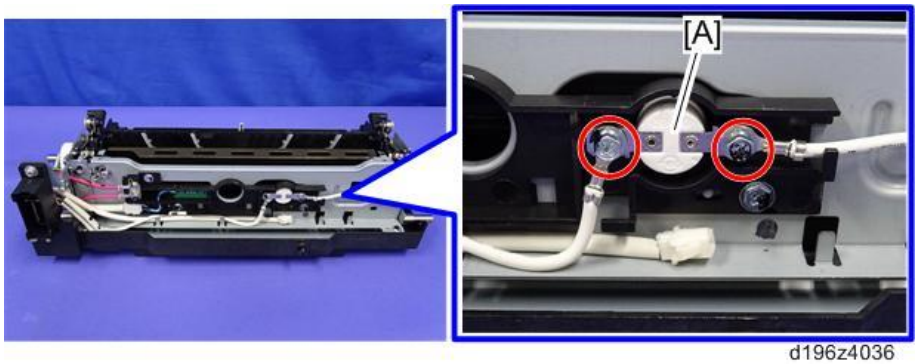
- Different types of screws are used for [A] and [B]:
  [A]: Shoulder screw
  [B]: Double sems screw (a screw with a washer)



d196z4189

Fusing Thermostat (TH6)

1. Remove the fusing upper cover. (Fusing Upper Cover)
2. Remove the fusing thermostat (TH6) [A]. (× 2)



d196z4036

Note

- Never reuse an activated thermostat. Use a new thermostat for replacement.

Fusing thermistor (non-contact sensor) (S10)

Important

- If the hook of the fusing thermistor (non-contact sensor) (S10) is broken, the fusing thermistor (non-contact sensor) (S10) cannot be attached. Replace the entire fusing unit in that case.

1. Remove the fusing upper cover. (Fusing Upper Cover)

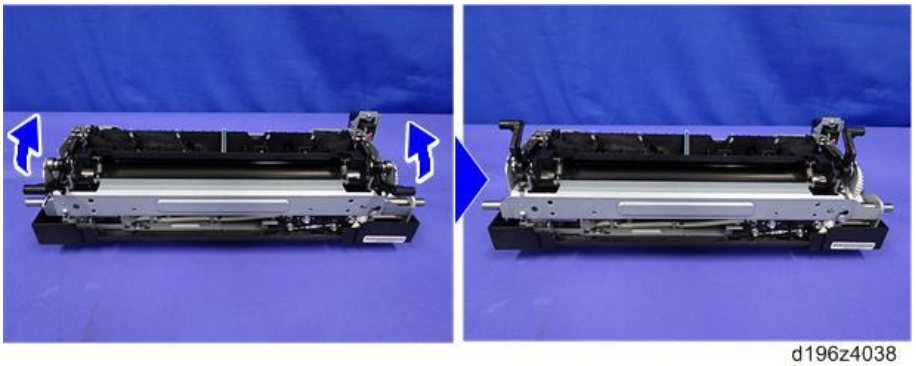
2. Push the hooks and remove the fusing thermistor (non-contact sensor) (S10) [A]. (× 1).

d196z4037

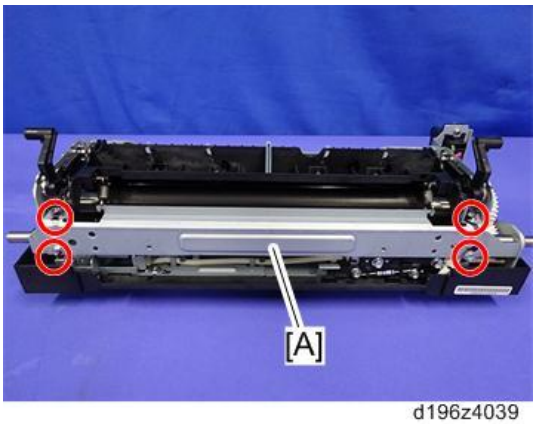
Pressure Roller Thermistors (TH2-TH4)

1. Remove the fusing upper cover (Fusing Upper Cover)

2. Raise the fusing lever.


d196z4038

3. Remove the bracket [A]. (× 4)



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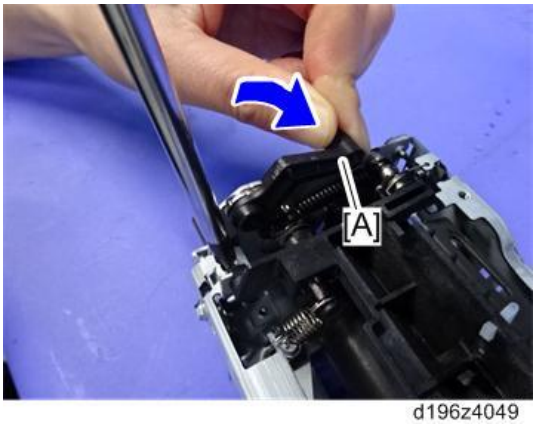
Note

- Lift the fusing lever [A] while removing the upper screws.

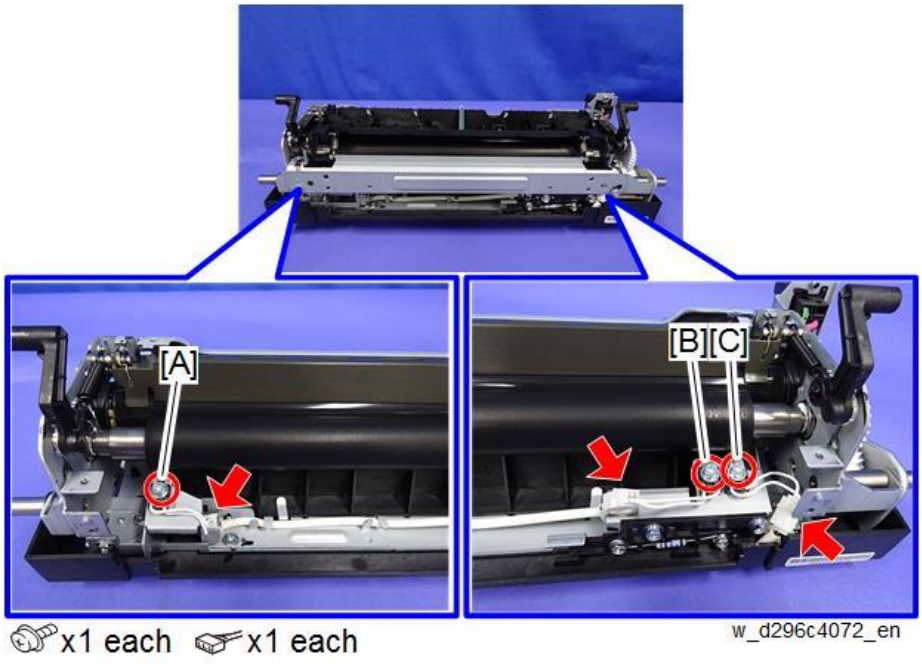


4. Remove the pressure roller thermistors [A], [B] or [C].

A: Pressure roller thermistor(edge: front) (TH2)

B: Pressure roller thermistor(edge: center) (TH4)

C: Pressure roller thermistor(edge: rear) (TH3)



Pressure Roller

Before Replacing the Pressure Roller

Before replacing the pressure roller, reset the PM counter.

1. Turn the power ON.

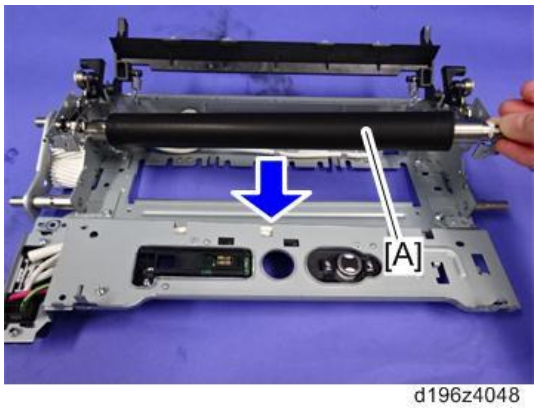
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)

3. Turn the power OFF.

Replacing the Pressure Roller

1. Remove the fusing sleeve belt assembly. (Fusing Sleeve Belt Assembly)

2. Remove the pressure roller [A].



Fusing Sleeve Belt Assembly

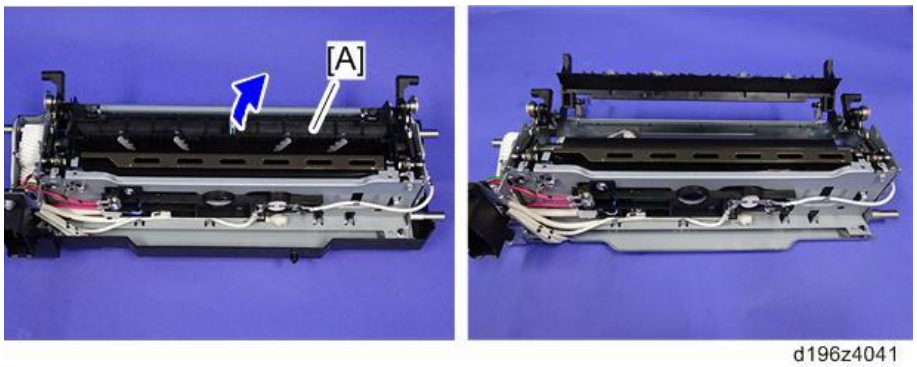
Before Replacing the Fusing Sleeve Belt Assembly

Before replacing the fusing sleeve belt assembly, reset the PM counter.

1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

Replacing the Fusing Sleeve Belt Assembly

1. Remove the following parts.
   - Fusing Lower Cover
   - Fusing Entrance Guide Plate
   - Fusing Upper Cover
2. Raise the fusing exit guide plate [A].

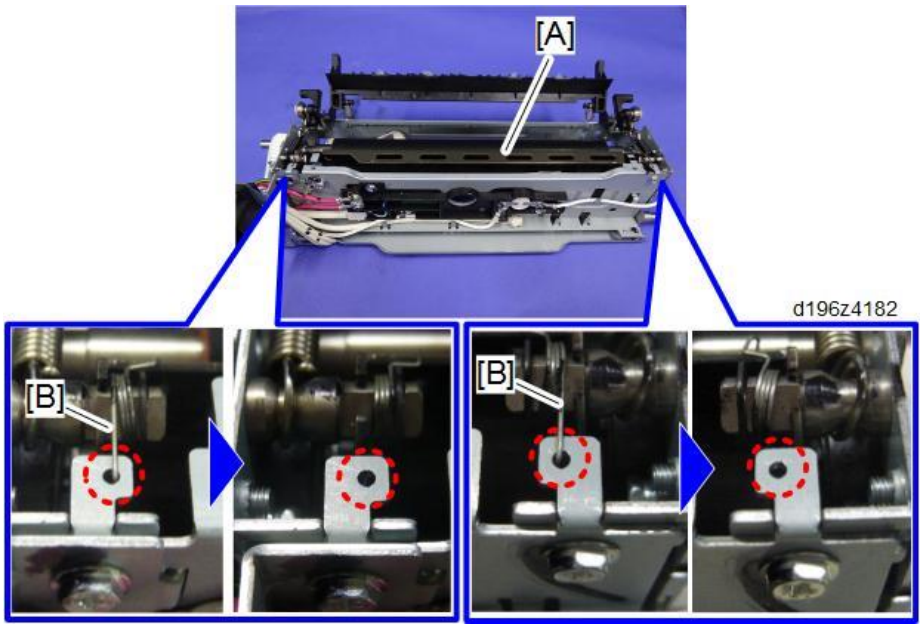


⚠CAUTION

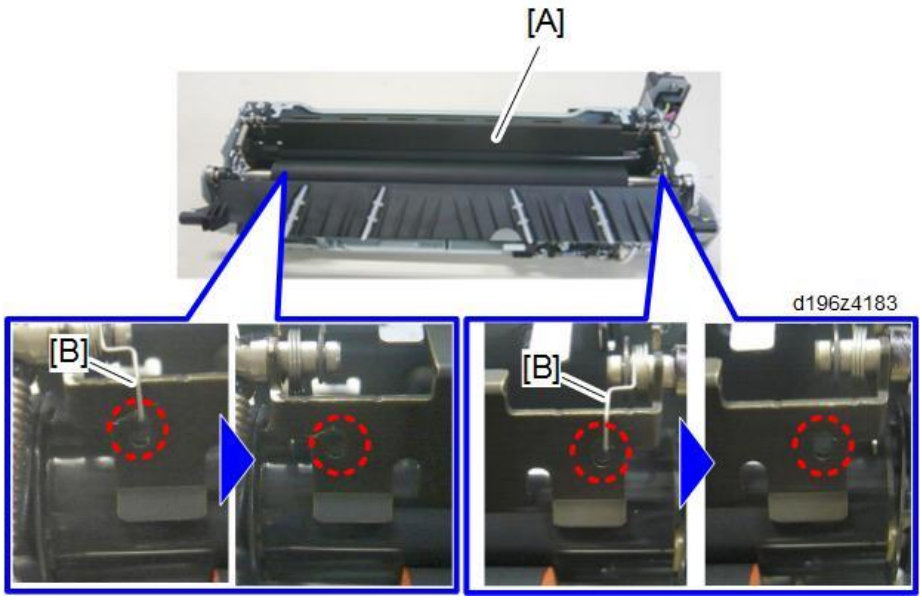
Place a cloth or sheet of paper under the fusing unit when removing the fusing lower cover. Otherwise, the screw(s) and gear(s) exposed after removing the cover will scratch or transfer grease to the work surface.

3. Remove the springs [B], which are on both ends of the separation plate [A], from the holes in the

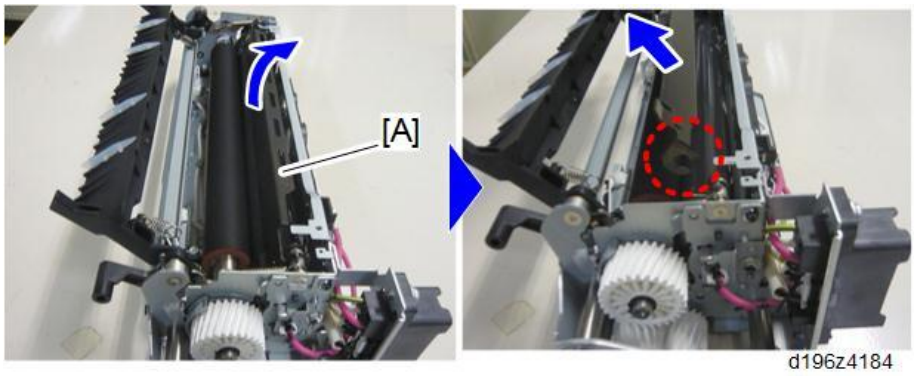
frame. (× 2)



4. Remove the springs [B], which are on both ends of the separation plate [A], from the holes in the separation plate. (× 2)



5. Rotate the separation plate [A], and remove it from the frame.



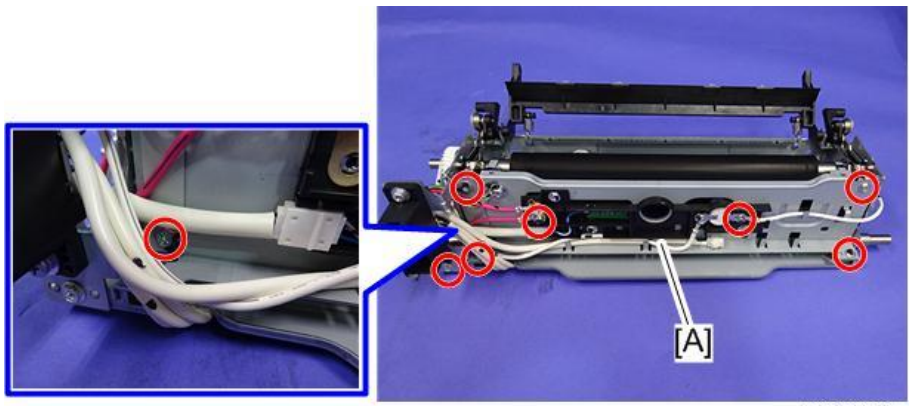
⚠CAUTION

Do not apply excess force to the separation plate when removing it, to prevent the separation plate from deforming.

When reattaching the separation plate, make sure that the plate is firmly attached to the frame hole.

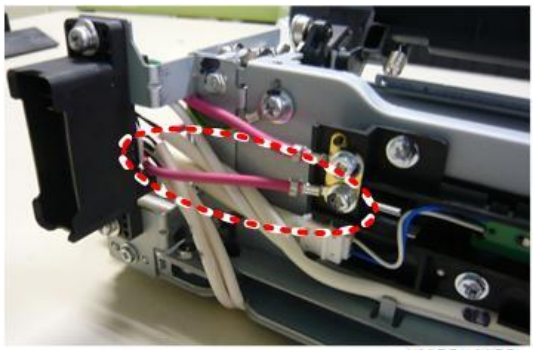
6. Remove the fusing lamp harnesses. (× 2)

7. Remove the screws on the rear frame [A]. (× 6)

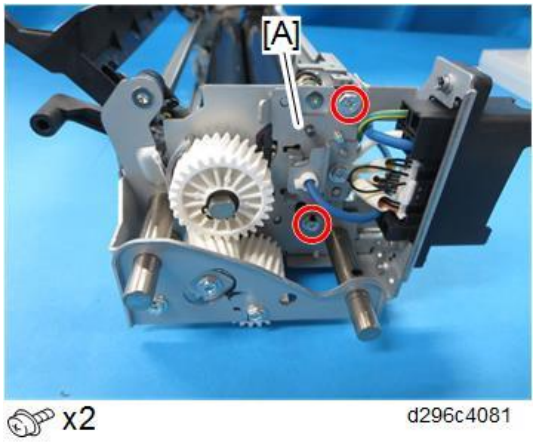


Note

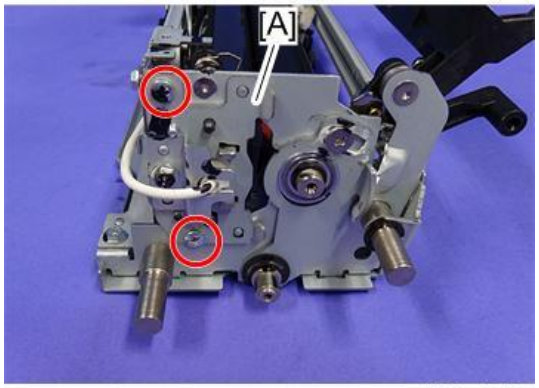
When reattaching the harness, route the harness exactly the same way as before removal.



8. Remove the screws of the frame [A] at the right.



9. Remove the screws of the frame [A] at the left. (× 2)



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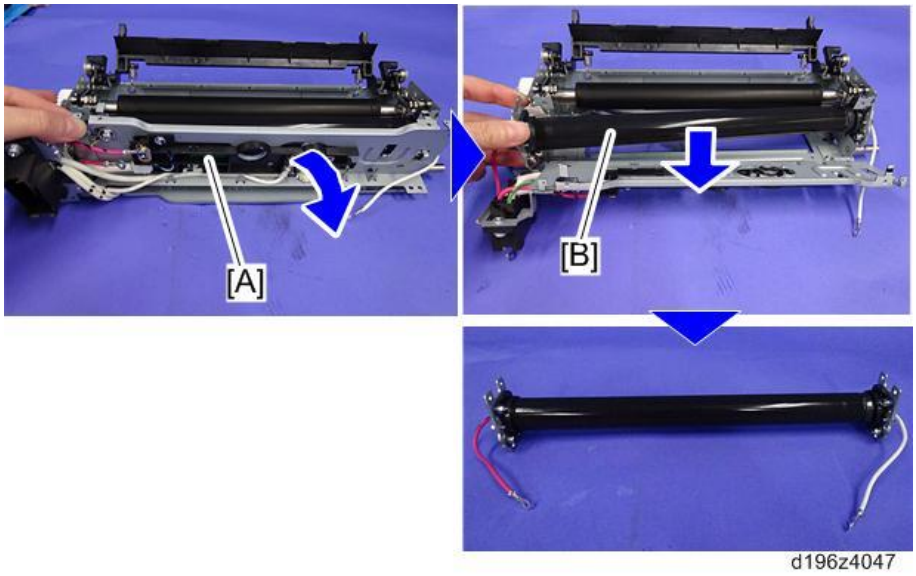
10. Pull out the rear frame [A], and take out the fusing sleeve belt assembly [B].

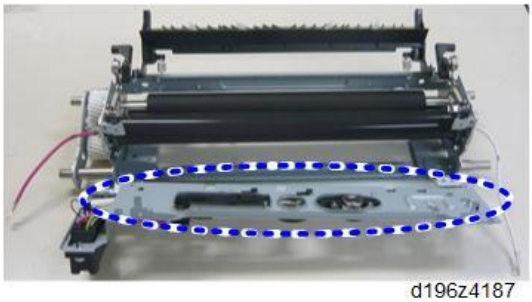


d196z4047

⚠CAUTION

Do not touch the surface of the fusing sleeve belt assembly.

When reattaching the rear frame, do not let the fusing sleeve belt hit the projection of the thermostat and the frame.

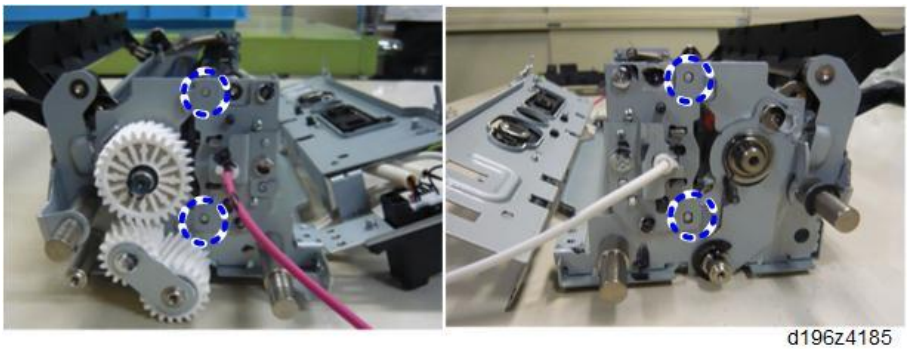

d196z4187

When reattaching the fusing sleeve belt assembly, do not let the fusing sleeve belt assembly hit the projection of the sensor or the screws on the stay.

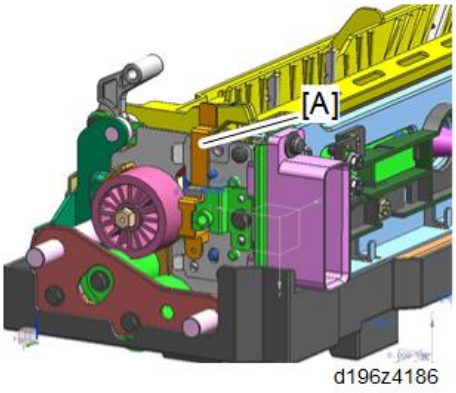
Note

Make sure that both side plates fit right into the positioning bumps on the frame before securing the

screws.



The new fusing sleeve belt assembly has a jig [A] that must be removed. Set the fusing sleeve belt assembly first, tighten the screws, and then remove the jig.

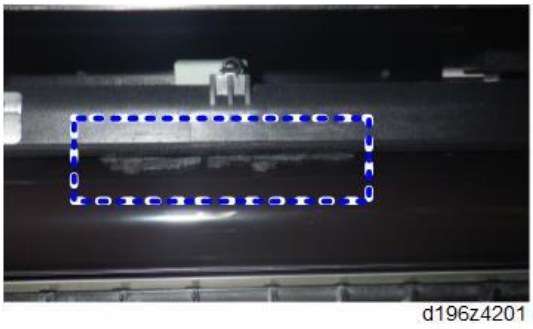


Fusing Entrance Sensor (S3)

1. Open the right door.

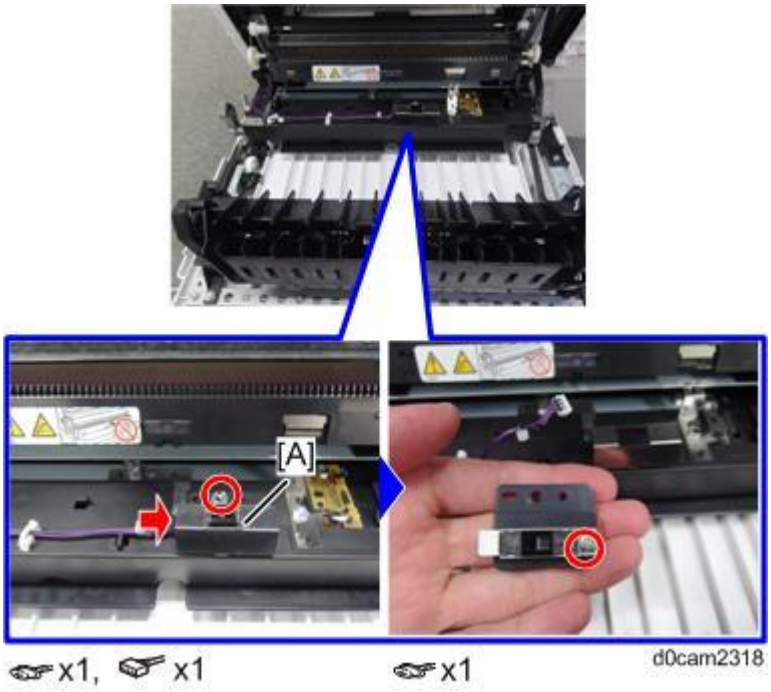
Note

- If you find paper dust in the registration section when you open the right door, remove the dust. Otherwise, the dust can cause lines on the image.

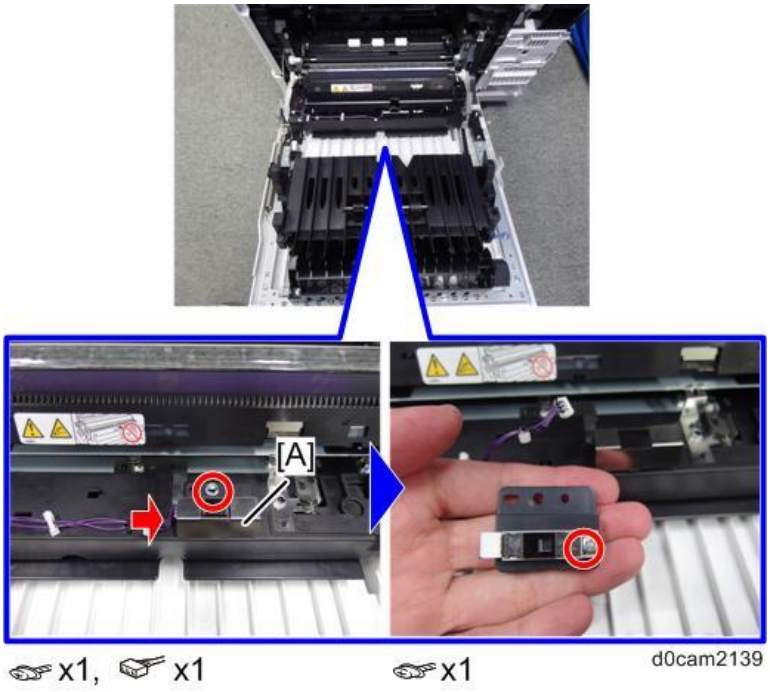


2. Remove the fusing entrance sensor (S3) [A].

IM C300 series/IM C400F



IM C400SRF



Fusing Exit Sensor (S8)

1. Remove the following parts.

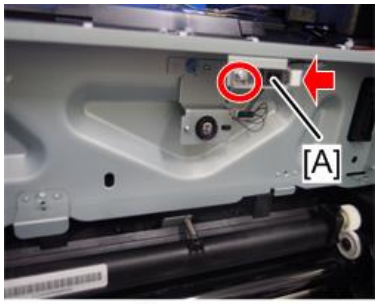
- Fusing Unit
- Scanner Unit with the ADF
- Operation Panel
- Scanner Inner Cover
- Paper Exit Tray

- Paper Exit Unit

Note

Remove the fusing unit and paper exit unit for IM C400SRF

2. Remove the fusing exit sensor (S8) [A].



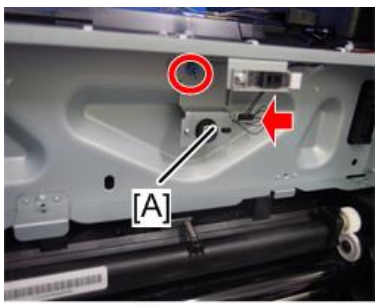
Fusing Thermopile (TH1)

1. Remove the following parts.
   - Fusing Unit
   - Scanner Unit with the ADF
   - Operation Panel
   - Scanner Inner Cover
   - Paper Exit Tray
   - Paper Exit Unit

Note

Remove just the fusing unit and paper exit unit for IM C400SRF

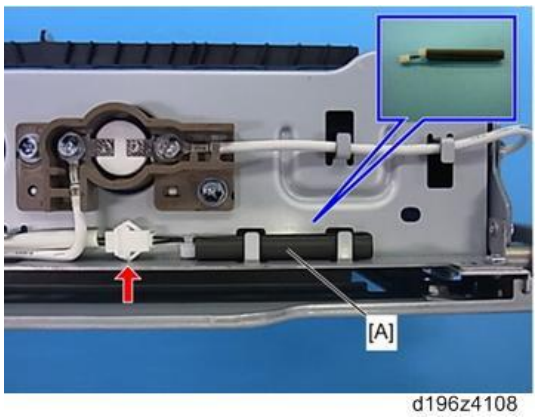
2. Remove the fusing thermopile (TH1) with the bracket [A].



3. Remove the fusing thermopile (TH1) [A]. (× 1)

New Fusing Unit Detection Fuse (S9)

1. Remove the fusing unit.(Fusing Unit)
2. Remove the fusing upper cover. (Fusing Upper Cover)
3. Remove the new fusing unit detection fuse (S9) [A] if the old blown fuse is attached. (x 1)



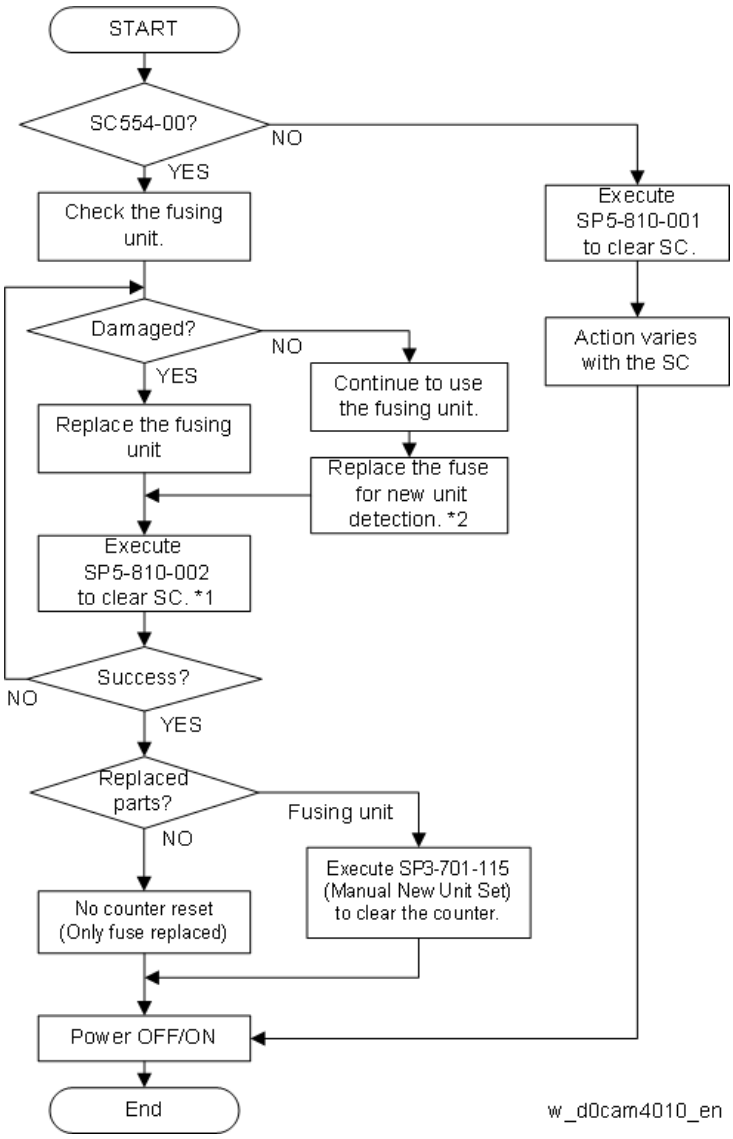
4. Connect the fuse connector, and insert the fuse into place from the upper side.

Note

- Refer to the flow chart below when SC544-00 or SC554-00 occurs. (Actions When SC554-00 Occurs)

Actions When SC554-00 Occurs

Basically, the entire fusing unit must be replaced when SC554-00 occurs. However, the old fusing unit can continue to be used if no damage is found during inspection, following the flowchart below.



*1:Make sure to keep the door closed when executing SP5-810-002 (Fusing SC Reset Hard High Temp Detection). If executed with the door open, the SC will not be cleared. If the SC reset procedure is executed when the door is open, "SC reset failed" will be shown without blowing the fuse for new fusing unit detection.

If the door is opened during the SC reset procedure, the fuse is blown, but the SC reset procedure is not completed and "SC reset failed" will be shown.

“SC reset failure” will be shown when this SP (SP5-810-002 (Fusing SC Reset Hard High Temp Detection)) is executed if an SC other than SC554-00 occurred.

*2: If there is no fuse for new unit detection (such as in the fusing unit that comes with the machine from the factory), install a fuse.

Important

- Never use a damaged fusing unit.

- Inspect the entire fusing unit carefully if you will continue to use this unit.

Paper Feed

IM C300 series

Paper Feed Roller, Friction Pad

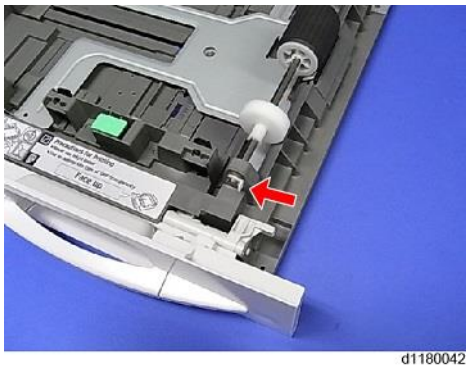
Before Replacing the Paper Feed Roller and Friction Pad

Before replacing the paper feed roller and friction pad, reset the PM counter.

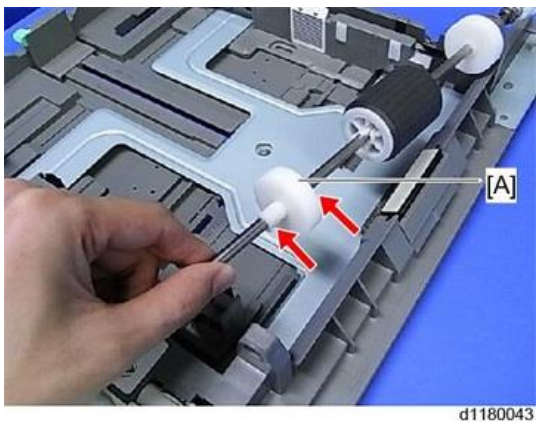
1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

Replacing the Paper Feed Roller and Friction Pad

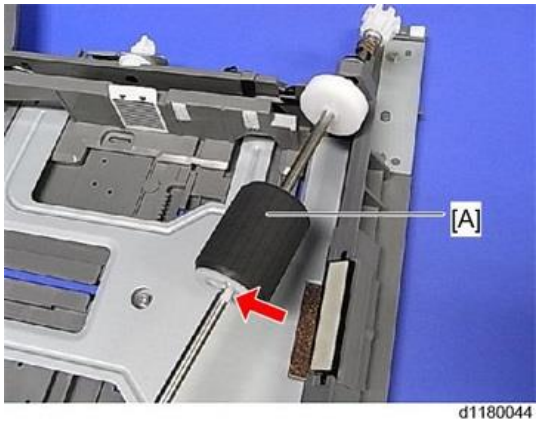
1. Pull out the paper tray.
2. Pull out the bearing. (☞ × 1)



3. Lift up the shaft, then remove the sub paper feed roller [A]. (Hooks × 2)



4. Remove the paper feed roller [A]. (Hook × 1)



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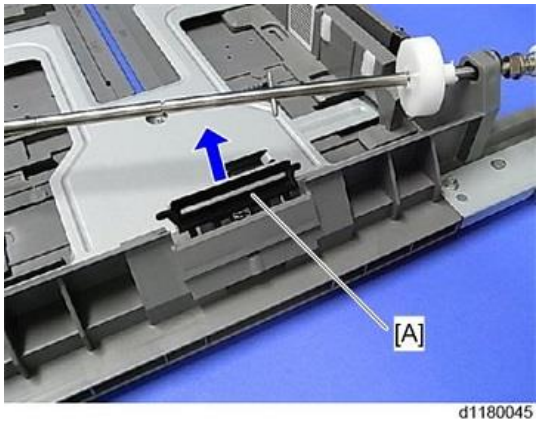
5. Remove the friction pad [A]. (Hooks × 2)



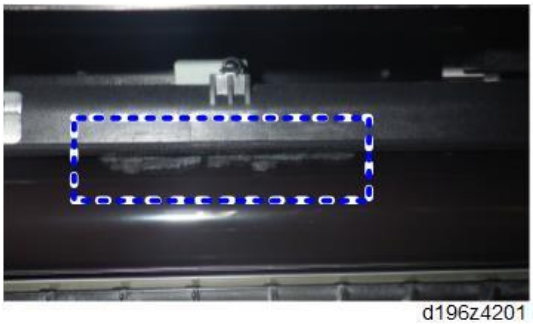
d1180045

Registration Sensor (S32), Paper Feed Sensor (S31)

1. Open the right door.

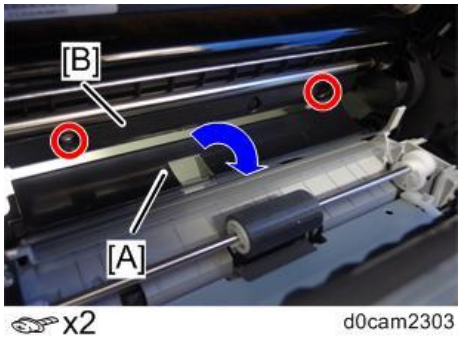
Note

- If you find paper dust in the registration section when you open the duplex unit, remove the dust. Otherwise, the dust can cause lines on the image.

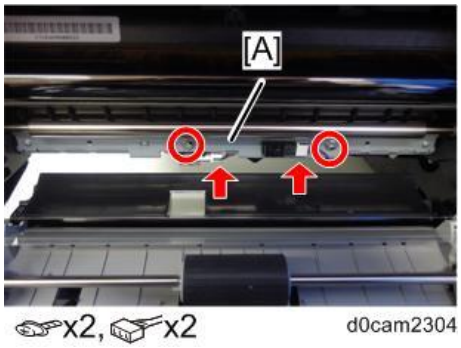

d196z4201

2. Pull down the guide plate [A].

3. Remove the sensor cover [B].

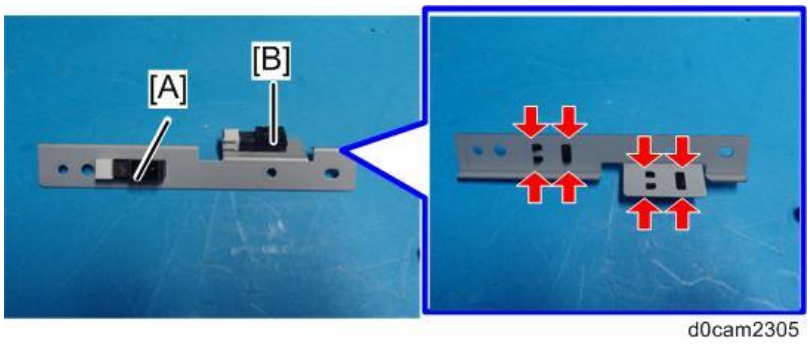


4. Remove the sensor bracket [A].



5. Remove the registration sensor (S32) [A]. (Hook × 4)

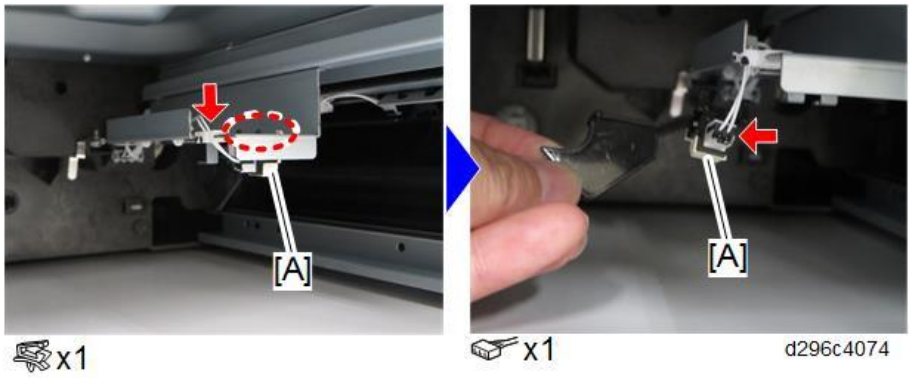
6. Remove the paper feed sensor (S31) [B]. (Hook × 4)



Tray Paper End Sensor (main unit) (S30)

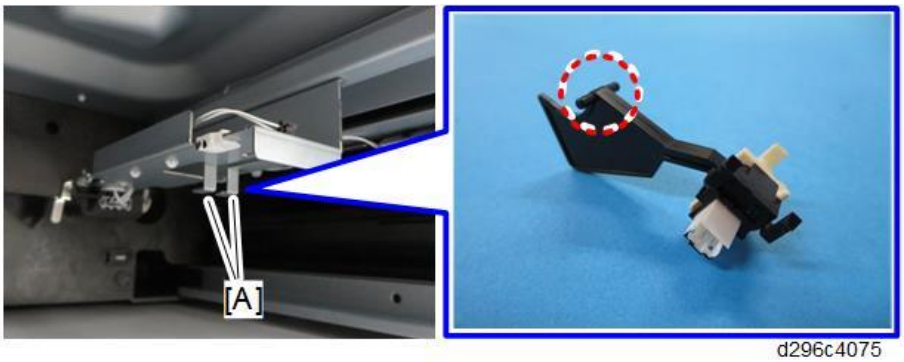
1. Remove the waste toner bottle. (Waste Toner Bottle)

2. Remove the tray paper end sensor (main unit) (S30) [A]. (hook × 2)



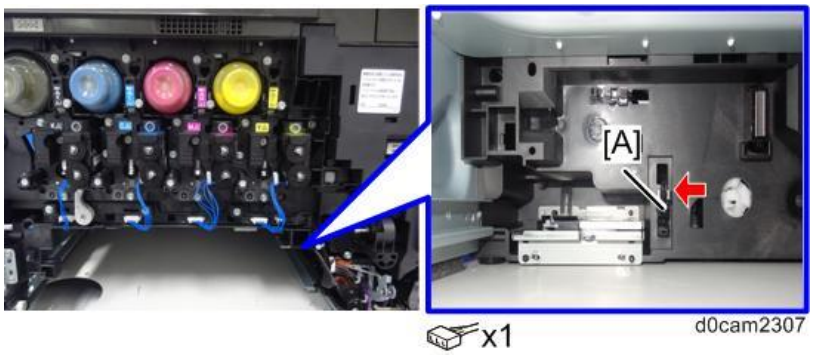
Note

When reattaching the tray paper end sensor (main unit) (S30), make sure that the shaft of the feeler is hooked onto the bracket [A].



Tray Lift Sensor (S35)

1. Remove the waste toner bottle. (Waste Toner Bottle)
2. Remove the tray lift sensor (S35) [A]. (hook × 2)



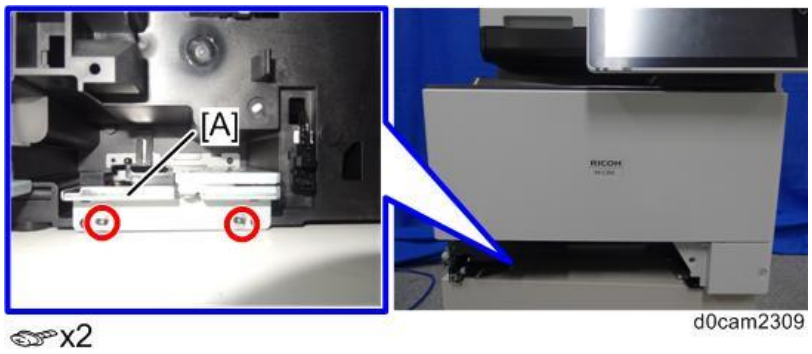
Draw-in Unit

1. Remove the following parts.
   - Rear Cover
   - Upper Left Cover
   - Left Cover

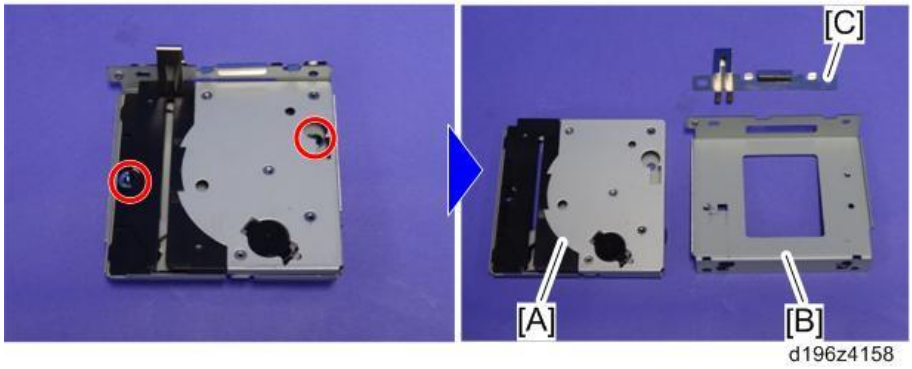
- PSU Exhaust Fan (FAN4)

2. Remove the screw.

3. Remove the draw-in unit [A] with bracket.



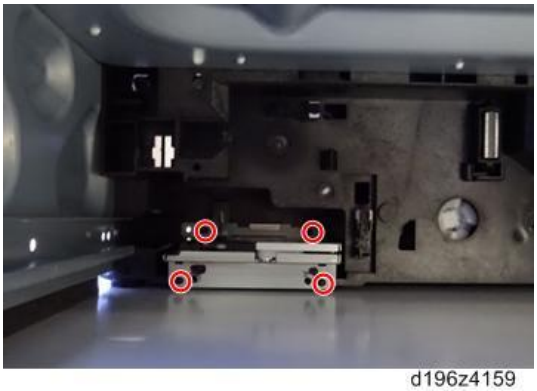
4. Remove the bracket [B] and grounding plate [C] from the draw-in unit [A].



Note

- When installing the draw-in unit, fit the bracket's holes onto the bosses on the mainframe.

(× 4)



IM C400 series

Pick-up roller/Paper feed roller/Friction roller

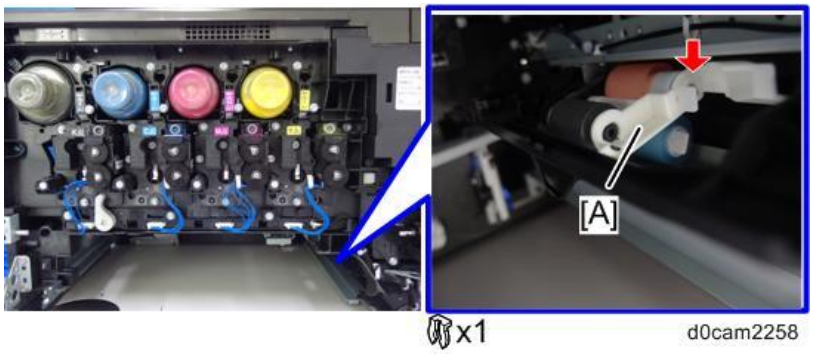
Before Replacing the Pick-up roller,Paper feed roller and Friction roller

Before replacing the Pick-up roller,Paper feed roller and Friction roller, reset the PM counter.

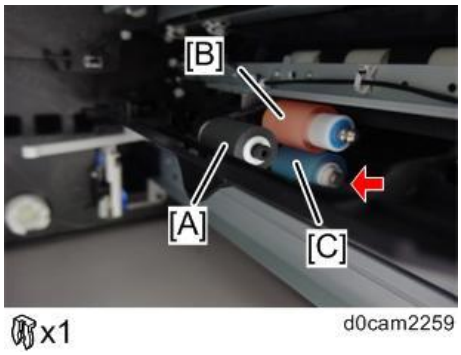
1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

Pick-up roller/Paper feed roller/Friction roller

1. Pull out the paper feed tray.
2. Remove the waste toner bottle.(Waste Toner Bottle)
3. Remove the roller holder [A].



4. Remove the Pick-up roller [A],Paper feed roller [B] and Friction roller [C].

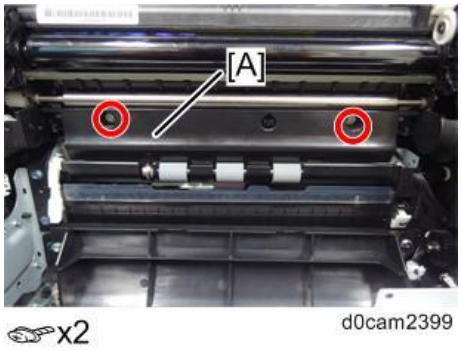


Paper Feed Unit

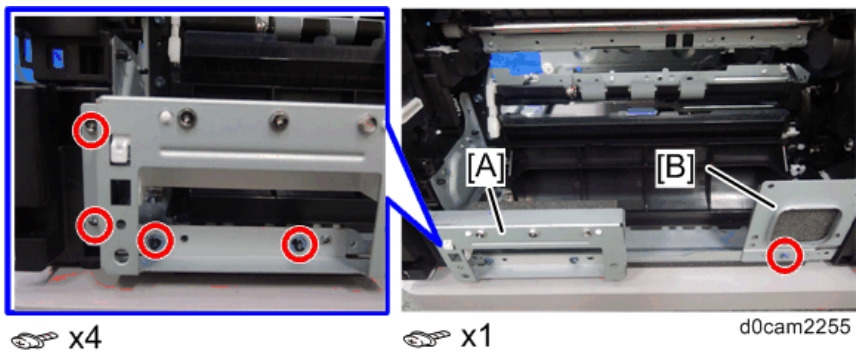
1. Remove the following parts.

- Rear Cover
- Front Cover
- Right Rear Cover
- Right Bottom Cover
- Duplex Unit
- Bypass Feed Unit

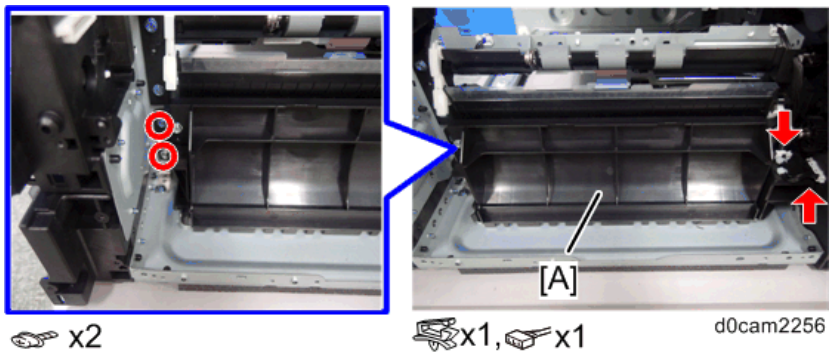
2. Remove the guide [A]



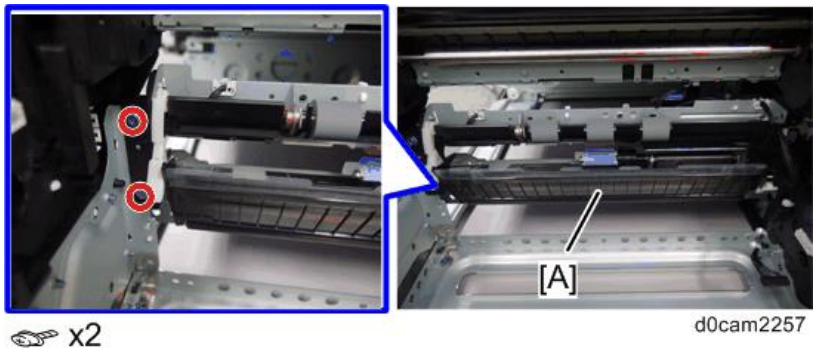
3. Remove the brackets [A] [B] .



4. Remove the guide [A].

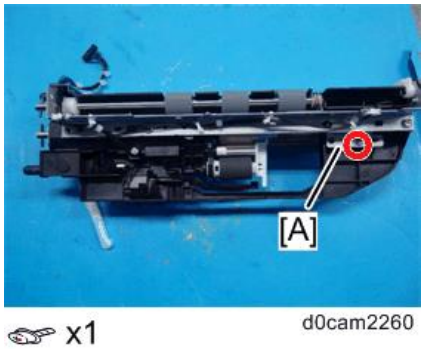


5. Remove the paper feed unit [A].

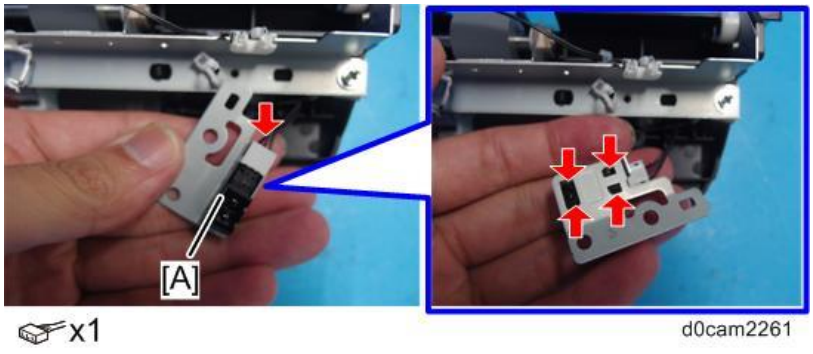


Paper Feed Sensor (S31)

1. Remove the paper feed unit.(Paper Feed Unit)
2. Remove the paper feed sensor bracket [A].

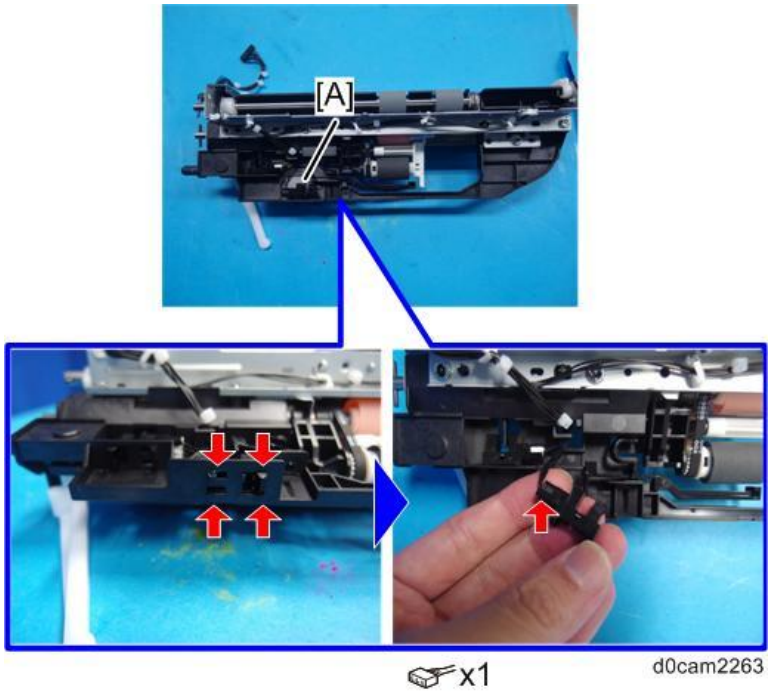


3. Remove the paper feed sensor (S31) [A].(Hook x 4)



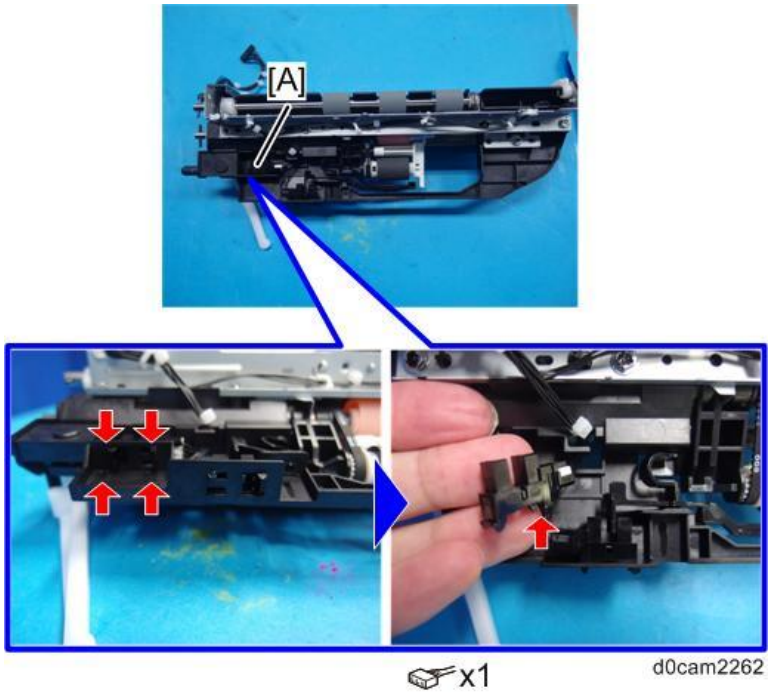
Tray Paper End Sensor (main unit) (S30)

1. Remove the paper feed unit.(Paper Feed Unit)
2. Remove the tray paper end sensor (main unit) (S30) [A].(Hook x 4)



Tray Lift Sensor (S35)

1. Remove the paper feed unit.(Paper Feed Unit)
2. Remove the tray lift sensor (S35) [A].(Hook x 4)

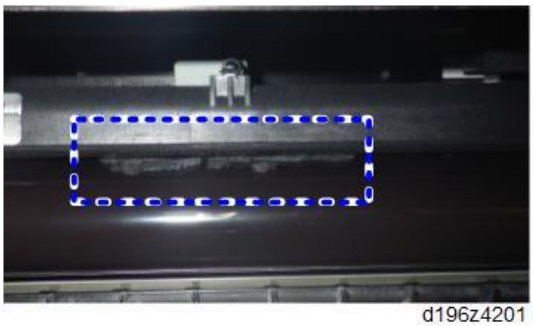


Registration Sensor (S32)

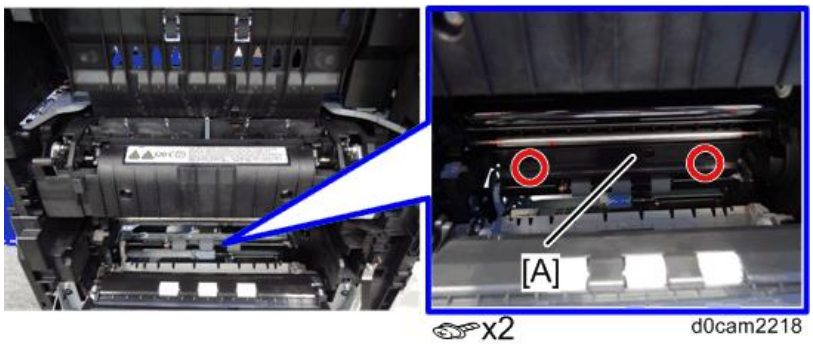
1. Open the right door.

Note

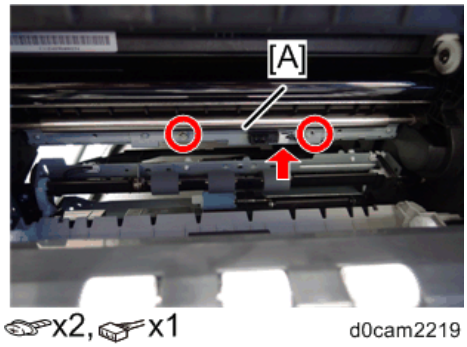
- If you find paper dust in the registration section when you open the duplex unit, remove the dust. Otherwise, the dust can cause lines on the image.


d196z4201

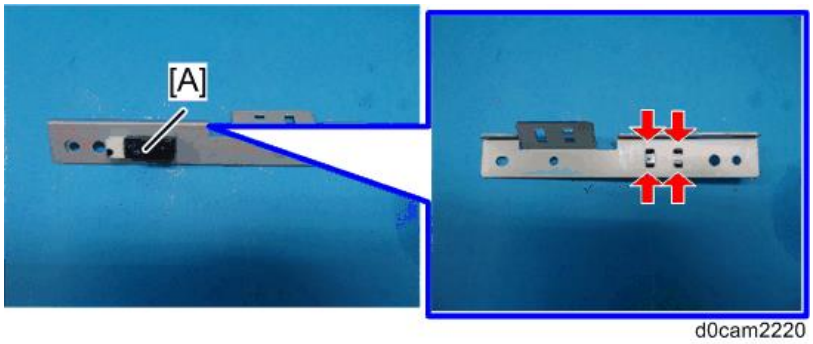
2. Remove the sensor cover [A].



3. Remove the sensor bracket [A].

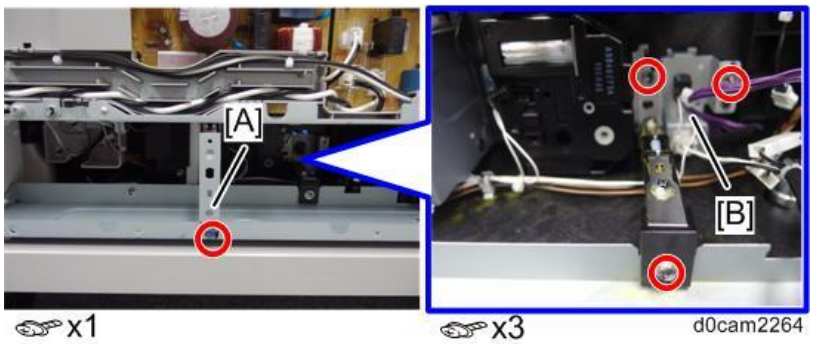


4. Remove the registration sensor (S32) [A]. (Hook × 4)

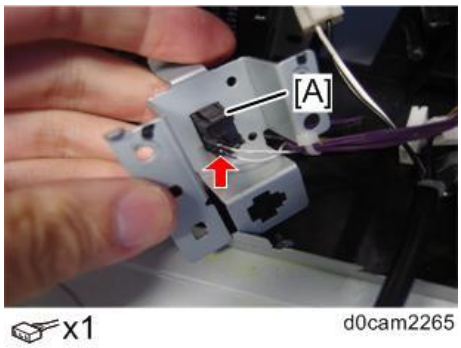


Tray Set Sensor (S34)

1. Remove the rear cover.(Rear Cover)
2. Remove the rear bottom cover.(Rear Bottom Cover)
3. Remove the stay [A].
4. Remove the sensor bracket [B].

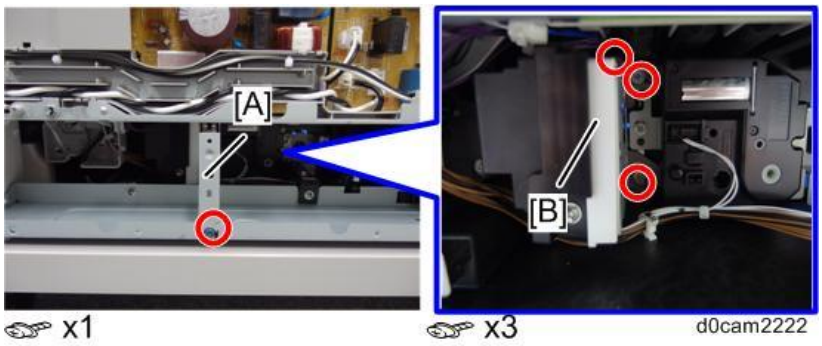


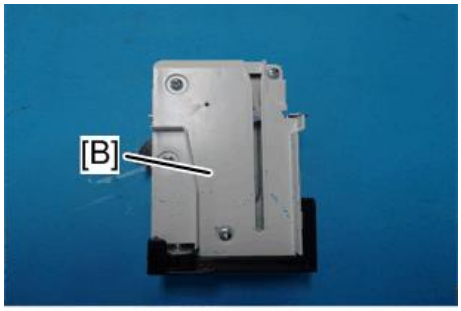
5. Remove the tray set sensor (S34) [A].



Draw-in Unit

1. Remove the rear cover.(Rear Cover)
2. Remove the rear bottom cover.(Rear Bottom Cover)
3. Remove the stay [A].
4. Remove the draw-in unit [B].





d0cam2224

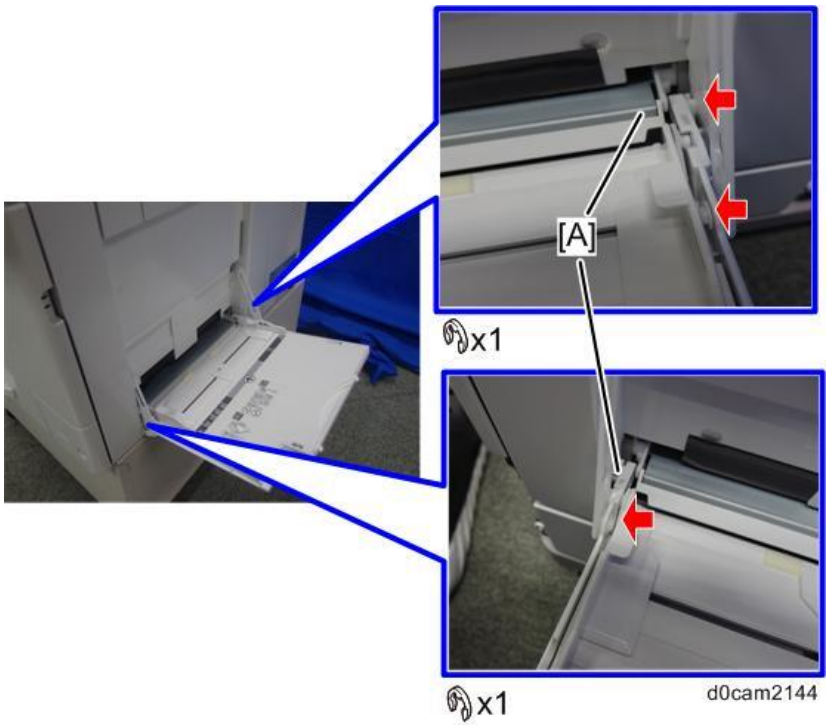
Bypass

Bypass Tray

1. Open the bypass tray [A].

d0cam2143

2. Remove the E-rings [A], and stopper. (Stopper x 1)



d0cam2144

3. Close the bypass tray [A] slightly and pull it out upwards.

Note

Since the bearing on the left side of the main machine is C-cut, align the shaft in the direction of the cut and pull it out.

d0cam2286

Bypass Feed Unit

Note

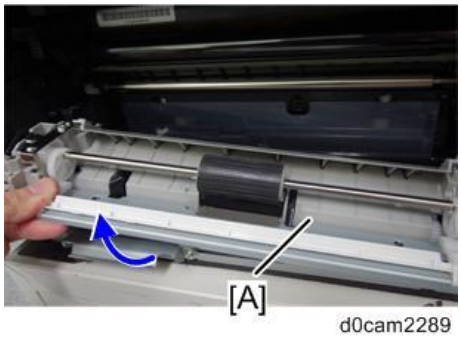
The bypass feed roller is attached to the bypass feed unit.Therefore, when replacing the bypass feed unit, it is necessary to reset the PM counter.

Refer to "Replacement Procedure of the PM/Yield Parts".

1. Remove the duplex unit. (Duplex Unit)
2. Disconnect the connector.

3. Remove the two screws.

4. Remove the bypass feed unit [A].



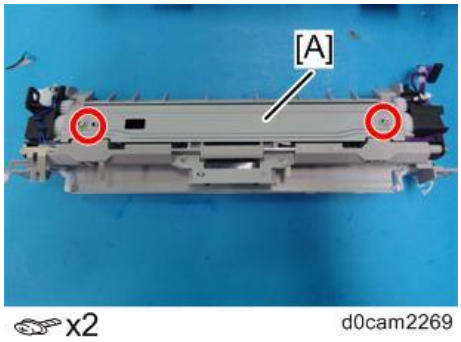
Note

- Lift up the left side of the unit and remove it while pulling it out forward.

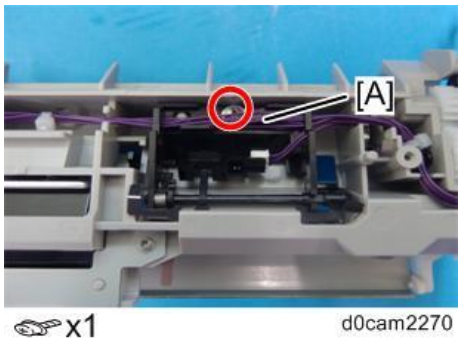
Paper End Sensor (Bypass) (S6)

1. Remove the duplex unit.(Duplex Unit)

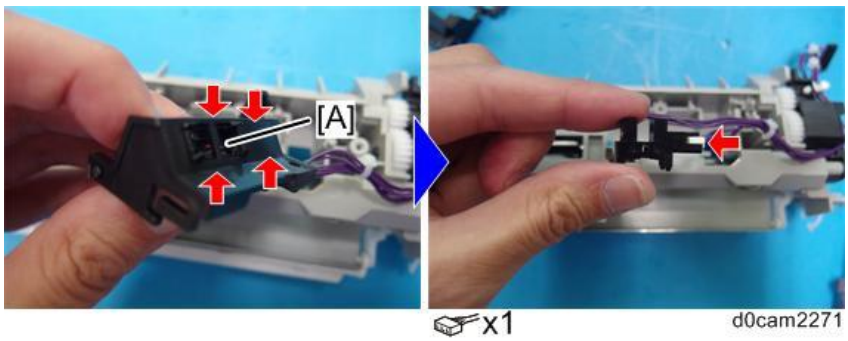
2. Remove the bypass feed unit. (Bypass Feed Unit)
3. Remove the bracket [A].



4. Remove the paper end sensor (bypass) (S6) with the holder [A].



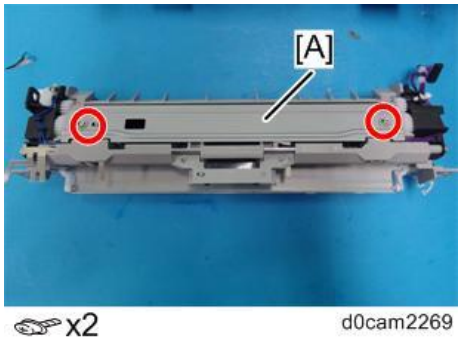
5. Remove the paper end sensor (bypass) (S6) [A]. (Hooks × 4)



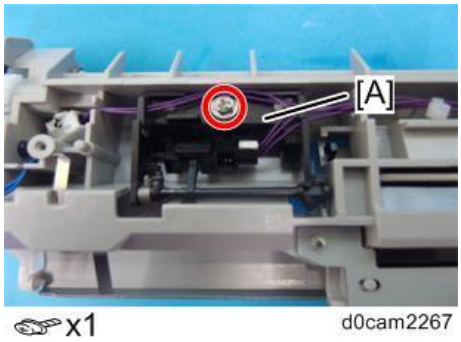
Bypass Paper Width Sensor (S5)

1. Remove the duplex unit.(Duplex Unit)
2. Remove the bypass feed unit. (Bypass Feed Unit)

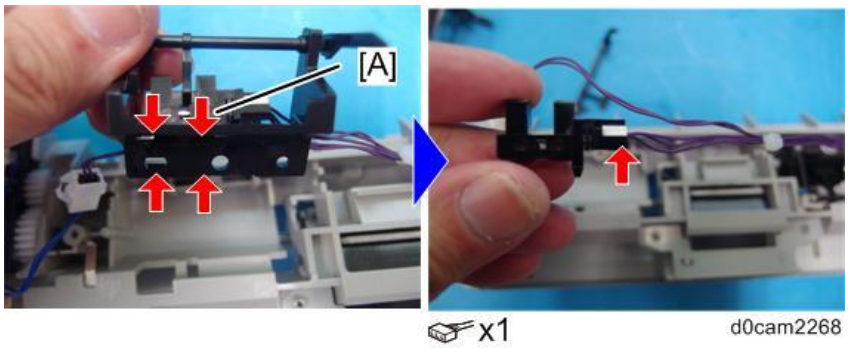
3. Remove the bracket [A].



4. Remove the bypass paper width sensor (S5) with the holder [A].



5. Remove the bypass paper width sensor (S5) [A]. (Hooks × 4)



Bypass Feed Roller

Before Replacing the Bypass Feed Roller

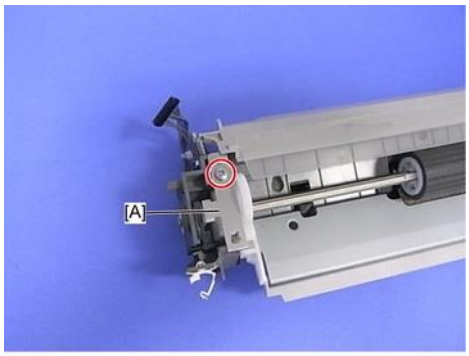
Before replacing the bypass feed roller, reset the PM counter.

1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

Replacing the Bypass Feed Roller

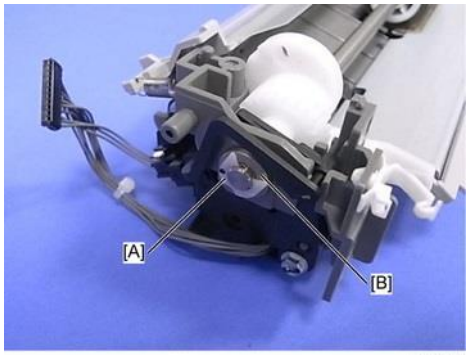
1. Remove the duplex unit.(Duplex Unit)
2. Remove the bypass feed unit. (Bypass Feed Unit)

3. Remove the bracket [A]. (× 1)



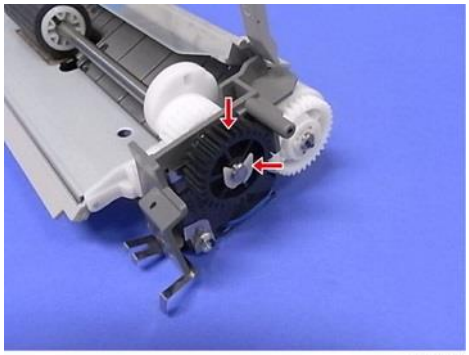
d1170067

4. Remove the E-ring [A] and bearing [B] at the front of the bypass feed unit. (× 1, bearing × 1)

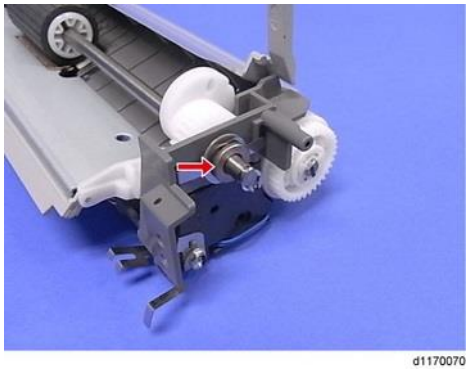


d1170068

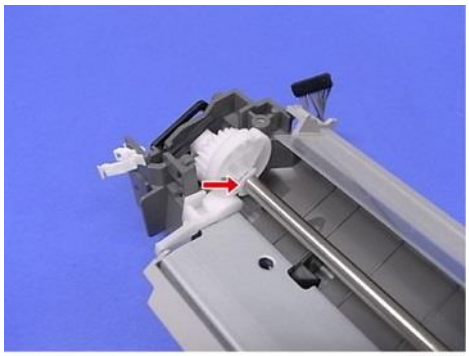
5. Remove the E-ring and the gear at the rear of the bypass feed unit. (× 1, gear × 1)


d1170069

6. Remove the bearing (bearing × 1)


d1170070

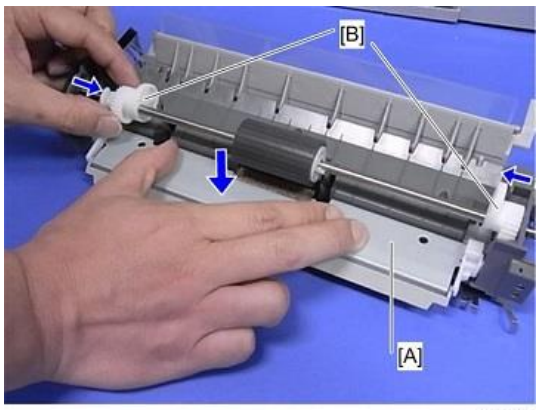
7. Remove the E-ring at the front of the bypass feed unit (ℂ × 1)


d1170071

8. Remove the E-ring at the rear of the bypass feed unit (ℂ × 1)

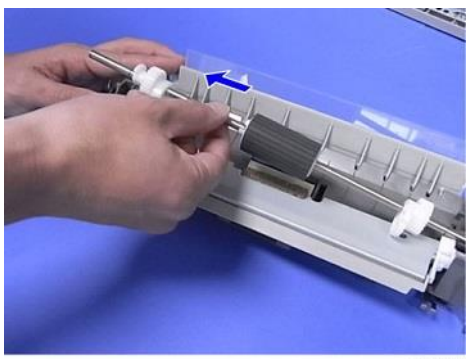
d1170072

9. Move the front cam and rear cam [B] inward while pushing down the bottom plate [A].

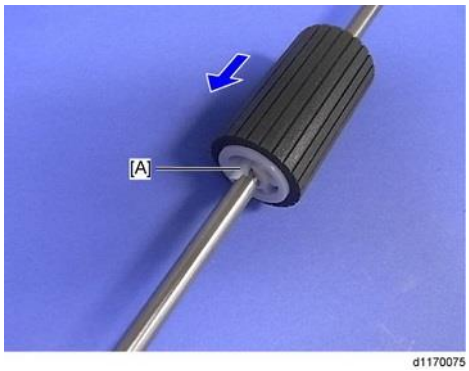


d1170073

10. Remove the bypass feed roller with the shaft from the front side.


d1170074

11. Remove the bypass feed roller [A] (Hook × 1)

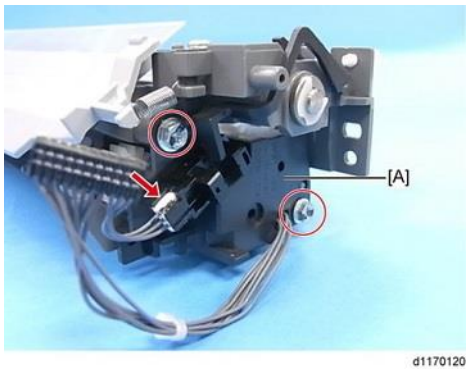


Bypass Tray Lift Sensor (S4)

1. Remove the duplex unit.(Duplex Unit)

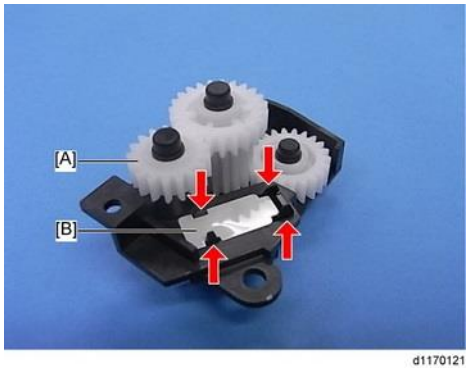
2. Remove the bypass feed unit. (Bypass Feed Unit)

3. Remove the sensor holder [A]. (× 2, × 1)



4. Remove the gear [A].

5. Remove the bypass tray lift sensor (S4) [B]. (Hooks × 4)

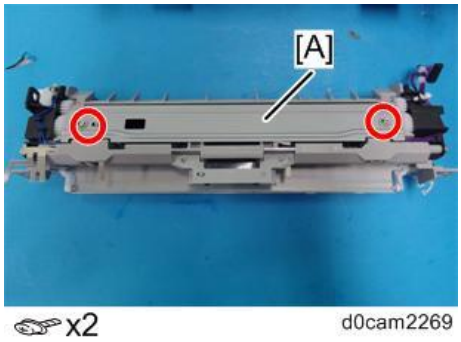


Bypass Tray Lift Clutch (CL1)

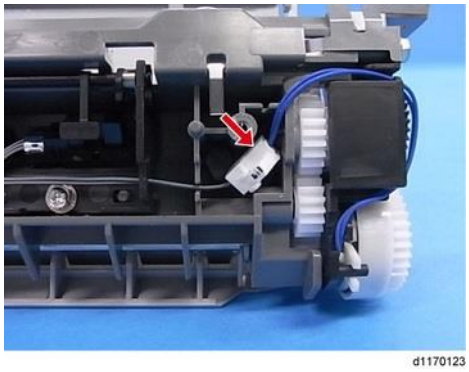
1. Remove the duplex unit.(Duplex Unit)

2. Remove the bypass feed unit. (Bypass Feed Unit)

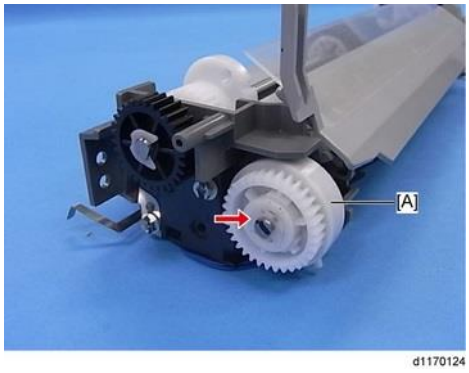
3. Remove the bracket [A].



4. Disconnect the connector of the clutch. (× 1)



5. Remove the bypass tray lift clutch (CL1) [A]. (× 1)

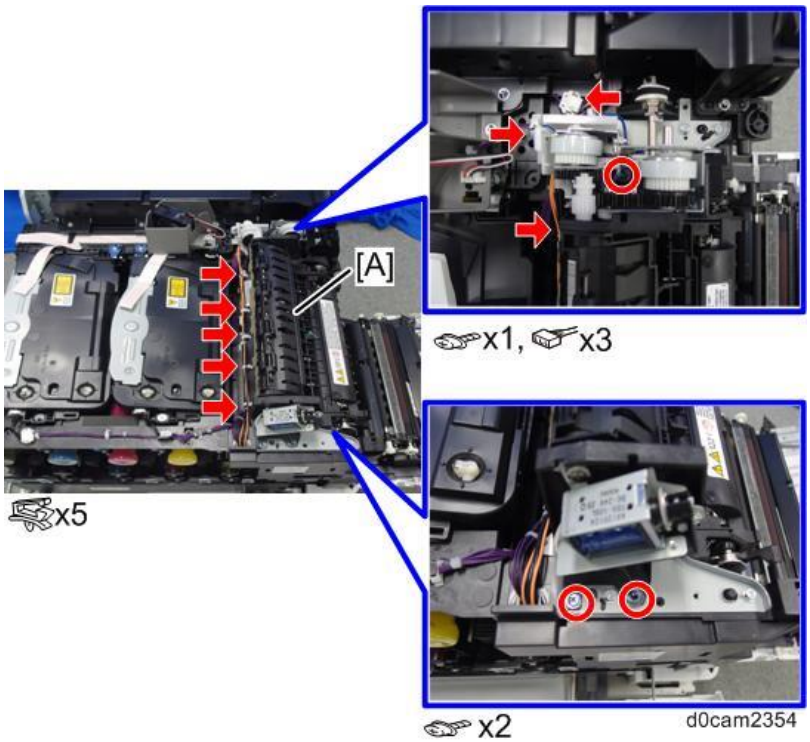


Paper Exit

IM C300 series/IM C400F

Paper Exit Unit

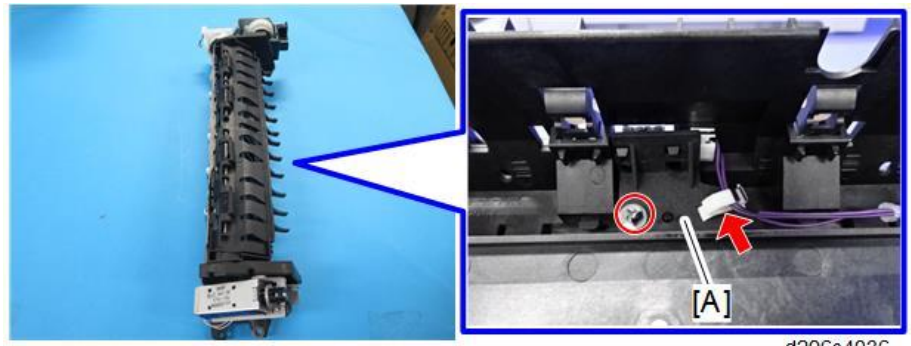
1. Remove the following parts.
   - Scanner Unit with the ADF
   - Operation Panel
   - Scanner Inner Cover
   - Paper Exit Tray
2. Remove the paper exit unit [A].



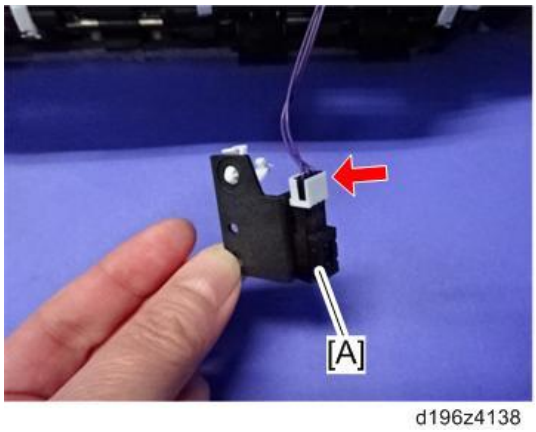
Paper Exit Sensor (S7)

1. Remove the paper exit unit. (Paper Exit Unit)

2. Remove the sensor holder [A].

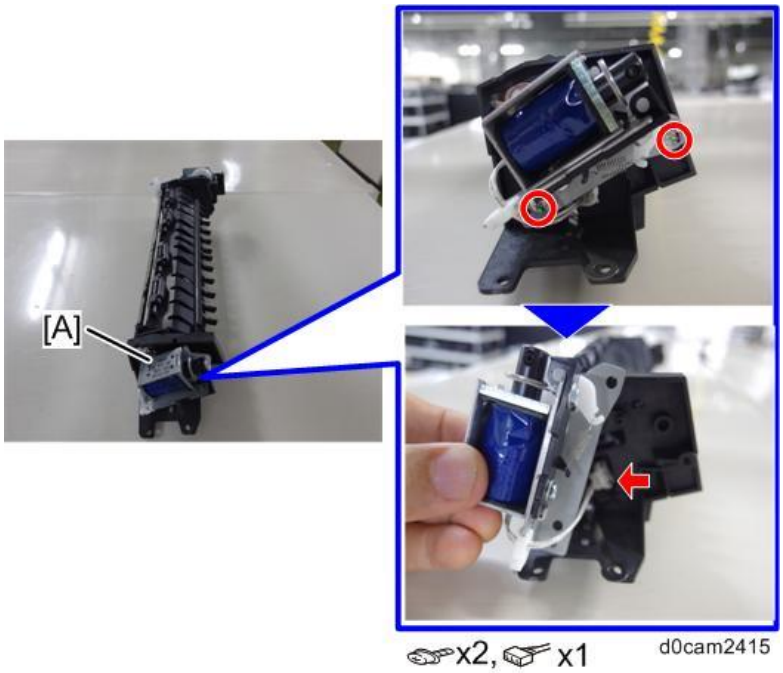


3. Remove the paper exit sensor (S7) [A]. (× 1)

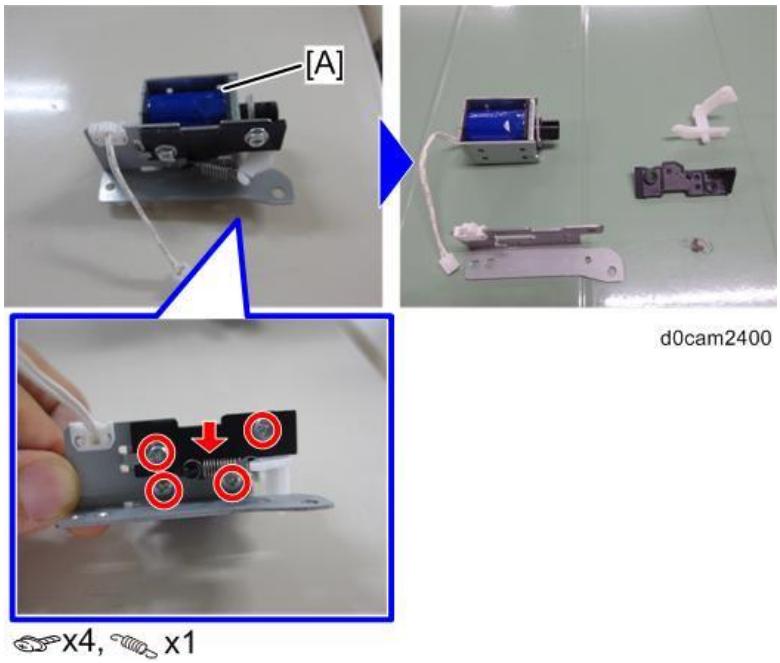


Junction Gate Solenoid (SOL1)

1. Remove the paper exit unit. (Paper Exit Unit)
2. Remove the junction gate solenoid (SOL1) [A] with the bracket.



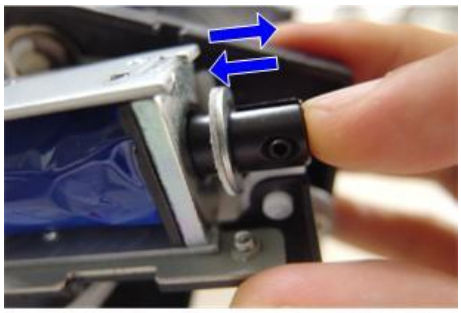
3. Remove the bracket from the junction gate solenoid (SOL1) [A].



d0cam2400

Note

When reattaching the junction gate solenoid (SOL1), make sure that the solenoid works in conjunction with the exit junction gate.

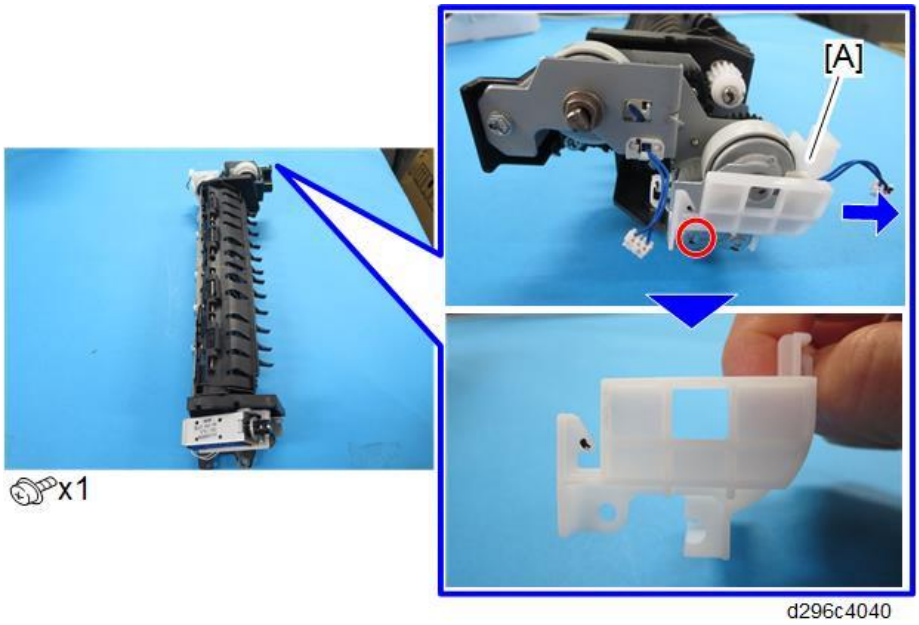


d0cam2416

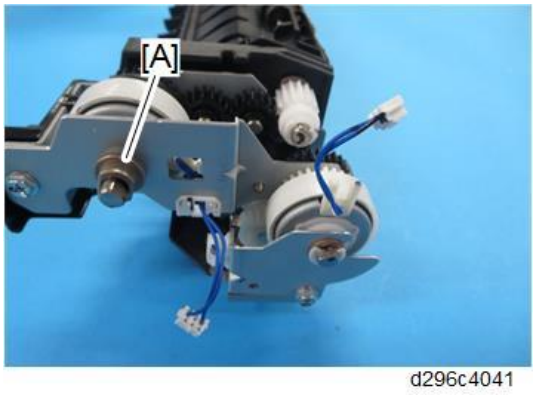
Paper Exit Clutch (CL3), Reverse Clutch (CL2)

1. Remove the paper exit unit. (Paper Exit Unit)

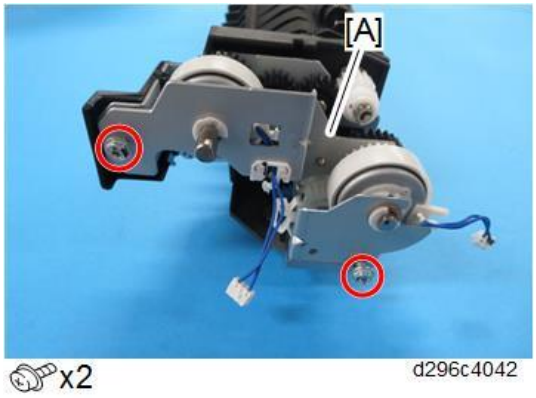
2. Remove the cover [A].



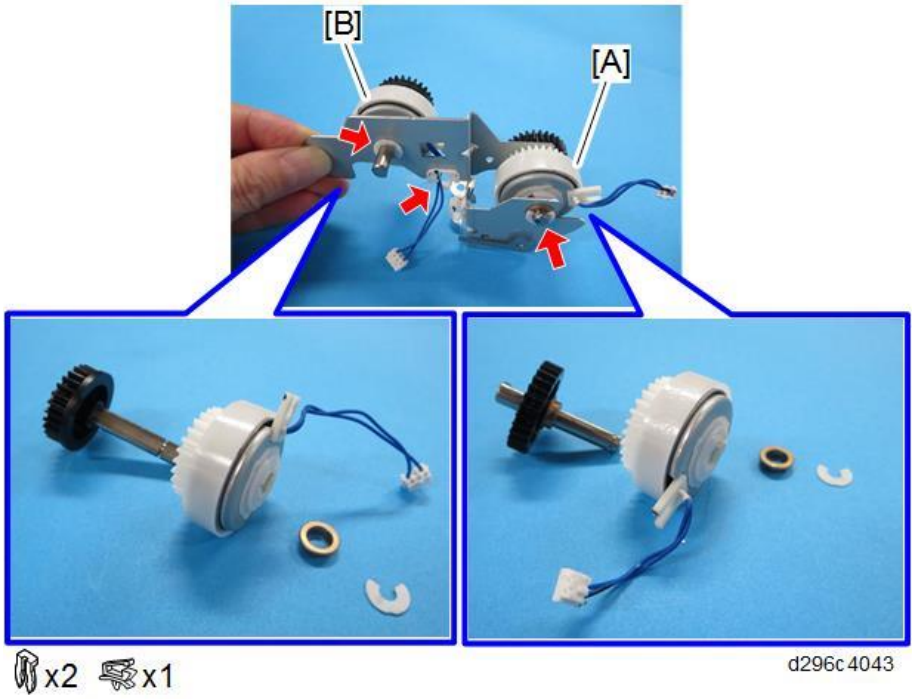
3. Pull out the bushing [A].



4. Remove the paper exit clutch (CL3) and reverse clutch (CL2) with the bracket [A].



5. Remove the paper exit clutch (CL3) [A] and reverse clutch (CL2) [B].

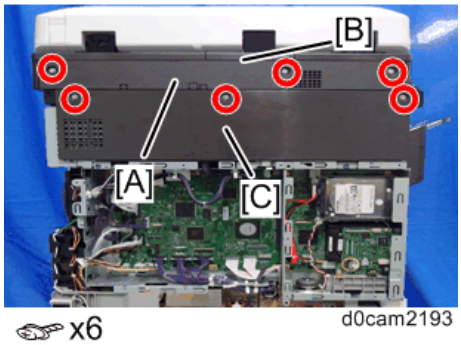


IM C400SRF

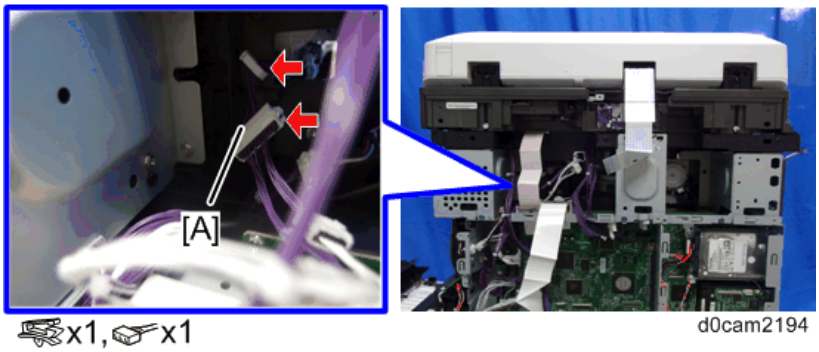
Paper Exit Unit

1. Open the right cover.

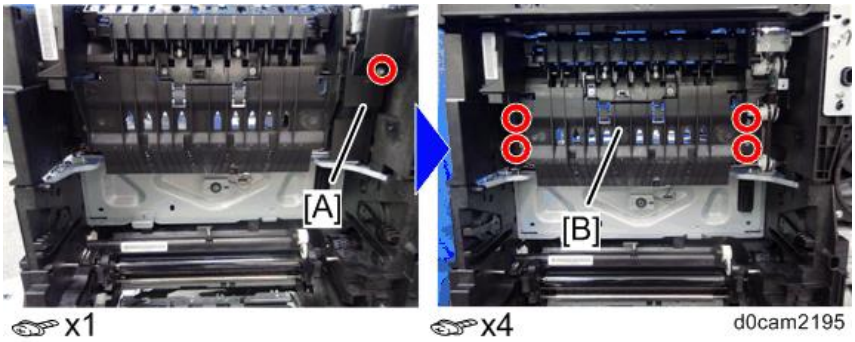
2. Remove the scanner rear cover [A],scanner rear small cover [B] and the rear upper cover [C].



3. Remove the connector [A]

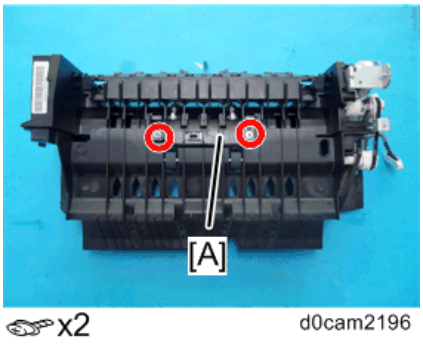


4. Remove the fusing unit.(Fusing Unit)
5. Remove the cover [A].
6. Remove the paper exit unit [B].

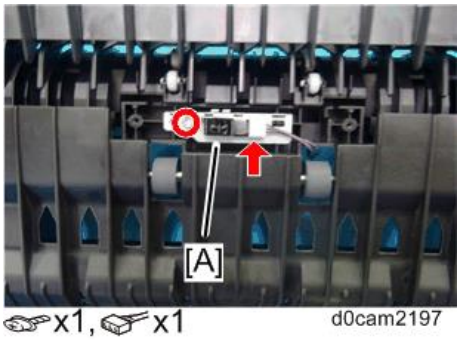


Paper Exit Sensor (S7)

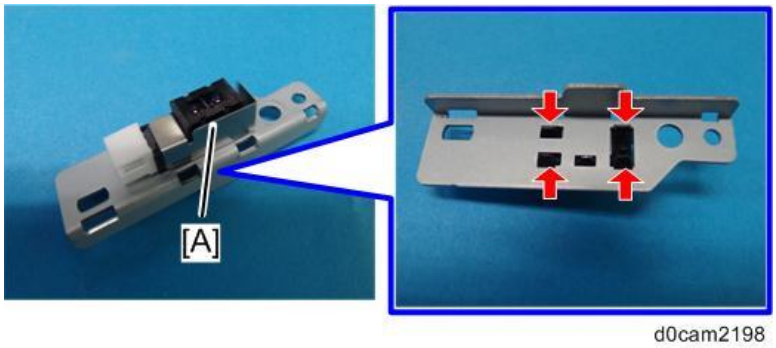
1. Remove the cover [A] from the paper exit unit.



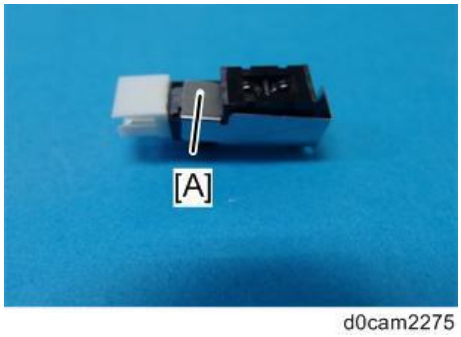
2. Remove the paper exit sensor (S7) [A] with the bracket.



3. Remove the paper exit sensor (S7) [A] from the bracket. (Hooks × 1)



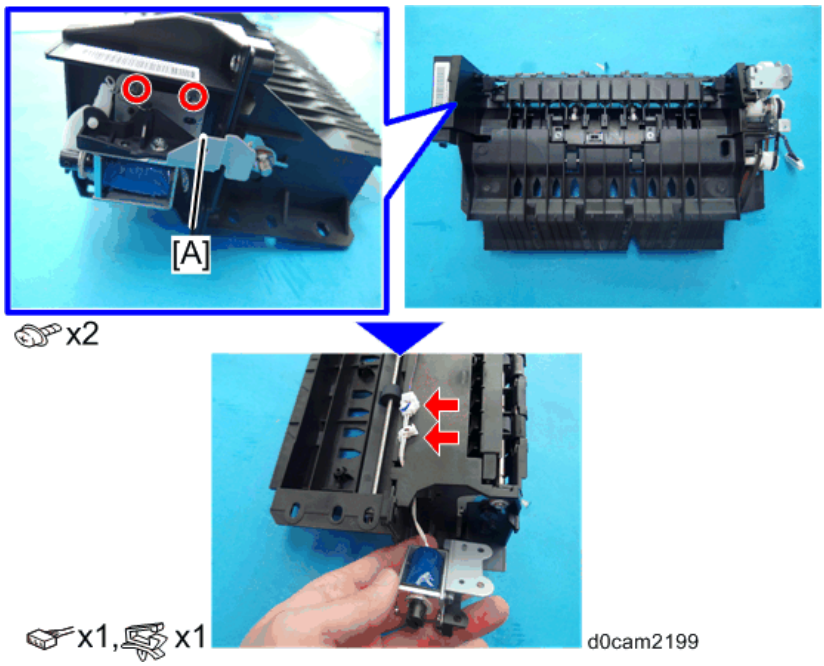
4. Remove the anti-static cover [A] from the paper exit sensor (S7).



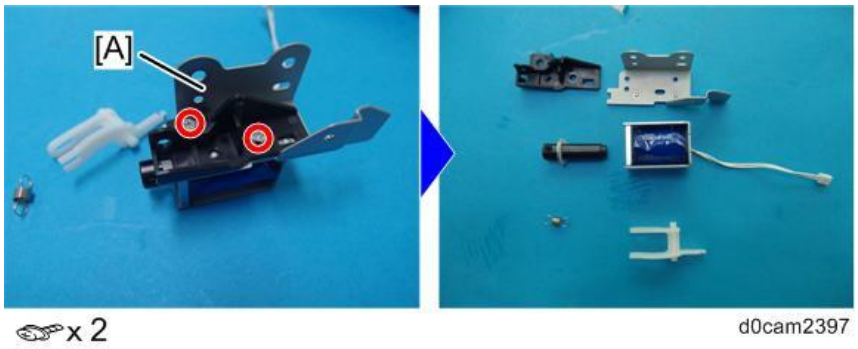
Junction Gate Solenoid (SOL1)

1. Remove the paper exit unit. (Paper Exit Unit)

2. Remove the junction gate solenoid (SOL1) [A] with the bracket.

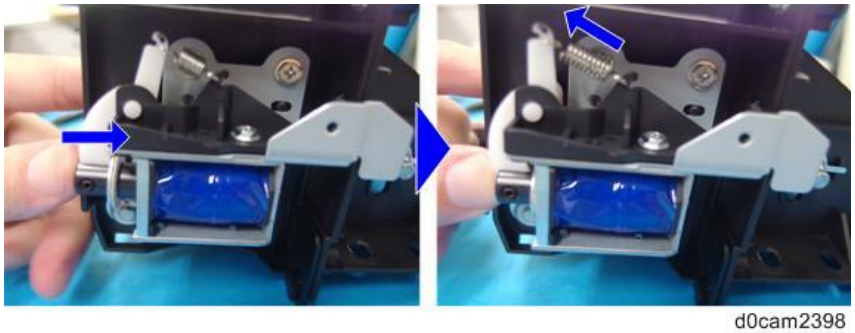


3. Remove the bracket from the junction gate solenoid (SOL1) [A].



Note

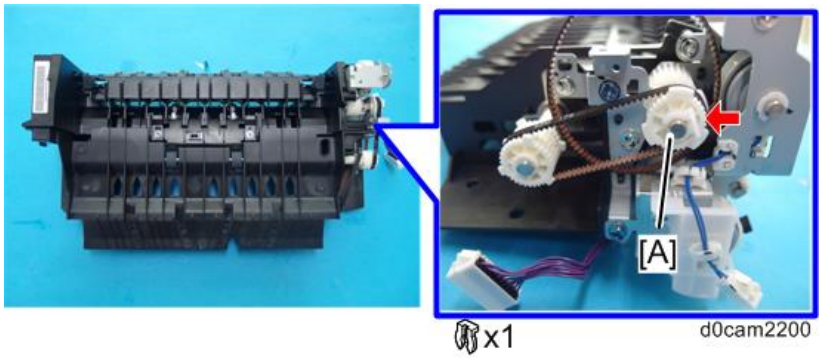
When reattaching the junction gate solenoid (SOL1), make sure that the solenoid works in conjunction with the exit junction gate.



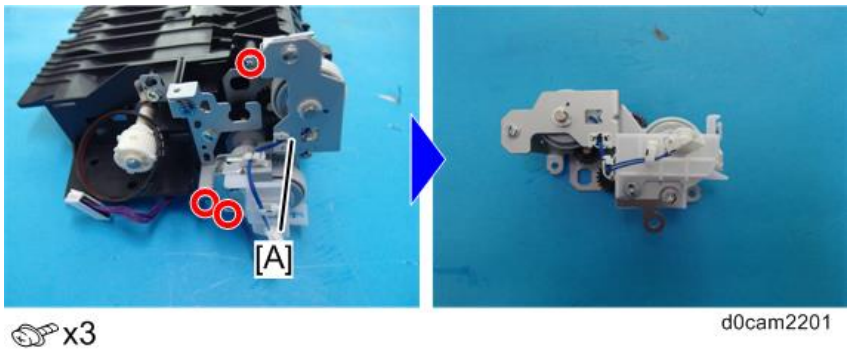
Paper Exit Clutch (CL3), Reverse Clutch (CL2)

1. Remove the paper exit unit. (Paper Exit Unit)

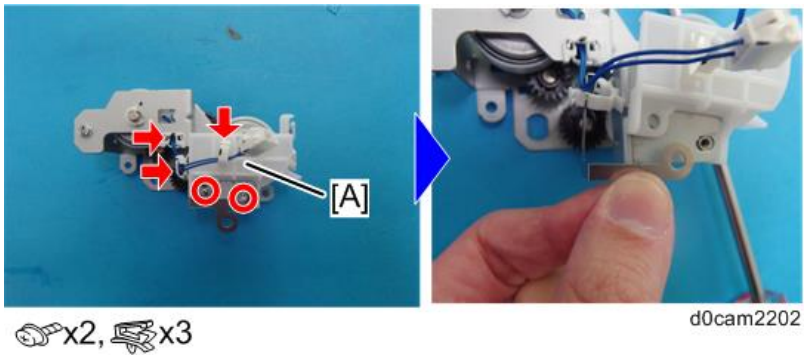
2. Remove the gear [A].



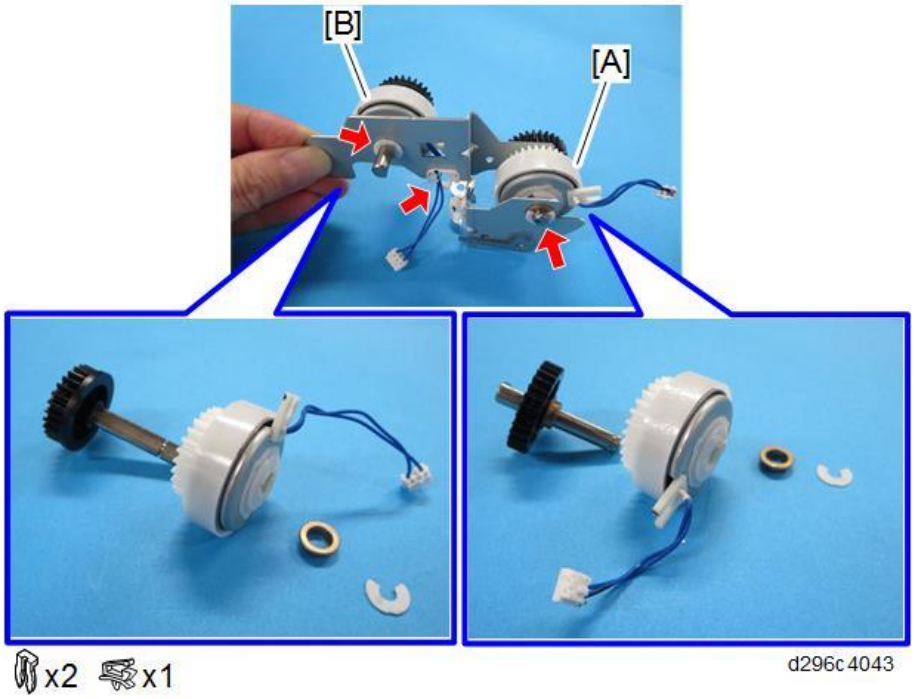
3. Remove the bracket [A] with the paper exit clutch (CL3) and reverse clutch (CL2).



4. Remove the cover [A] from the bracket.



5. Remove the paper exit clutch (CL3) [A] and reverse clutch (CL2) [B].



Duplex

Duplex Unit

1. Open the right door.

   IM C300 series/IM C400F

   IM C400SRF

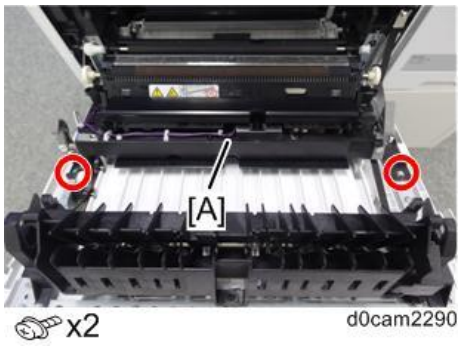
2. Push the lever and reduce the tension of the belt [A], then remove the belt.

⚠CAUTION

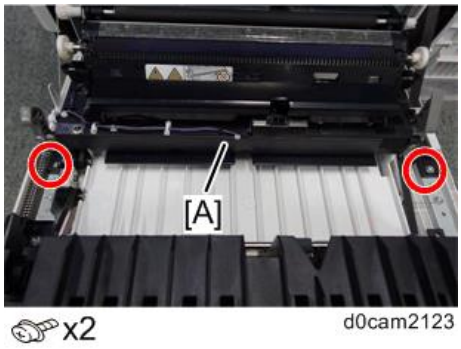
When reattaching the duplex unit, make sure that the belt [A] is attached firmly. If the belt is not attached, the right door will not be opened even if the opening/closing lever is operated. For details, please refer to When You Cannot Open the Right Door

3. Remove the two screws on the paper transport unit [A].

   IM C300 series/IM C400F

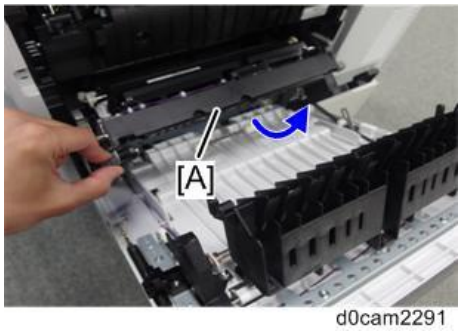


IM C400SRF

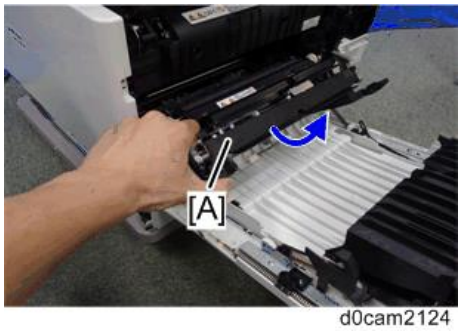


4. Lift the paper transport unit [A].

IM C300 series/IM C400F

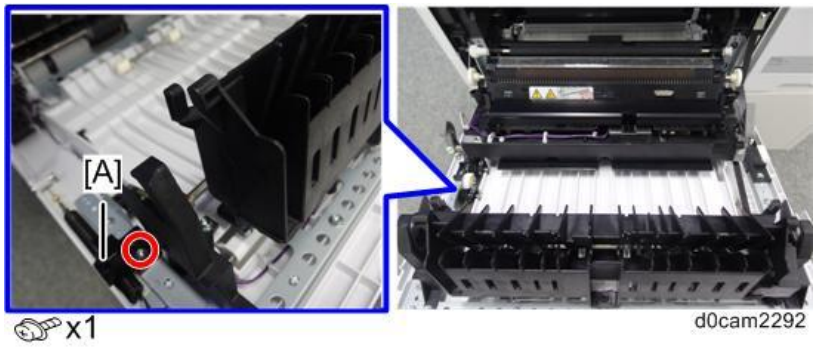


IM C400SRF

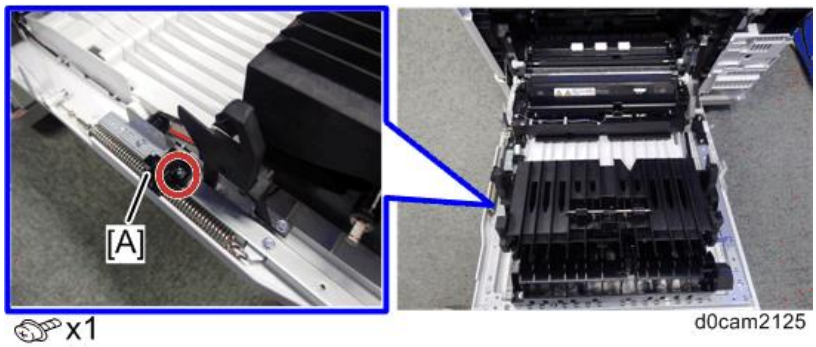


5. Remove the tension spring cover [A].

IM C300 series/IM C400F

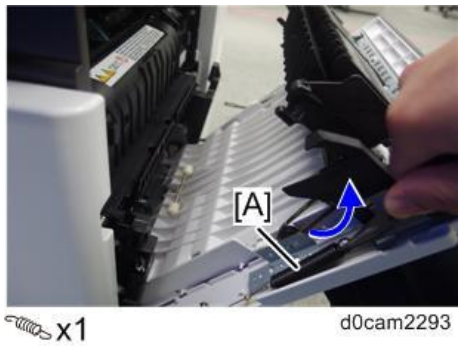


IM C400SRF

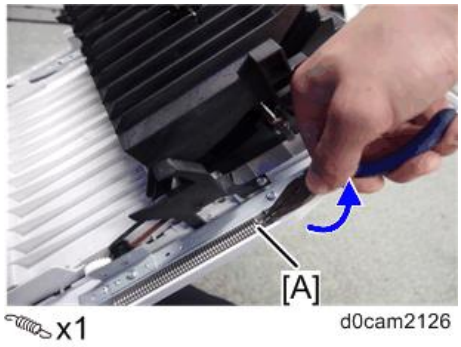


6. Lift the duplex unit, then remove the tension spring [A].

IM C300 series/IM C400F

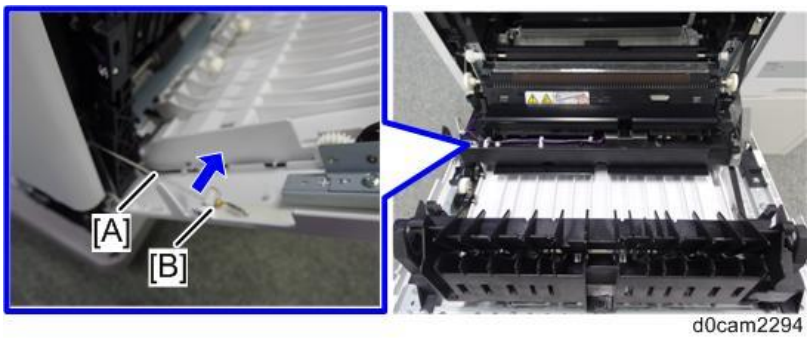


IM C400SRF

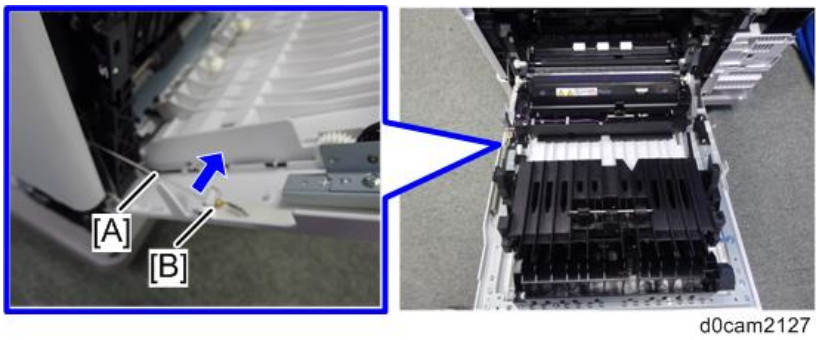


7. Release the tension wire [A] from the roller [B].

IM C300 series/IM C400F

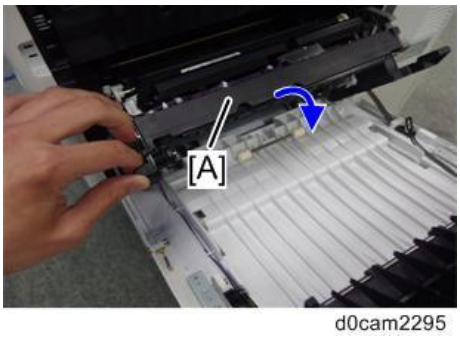


IM C400SRF

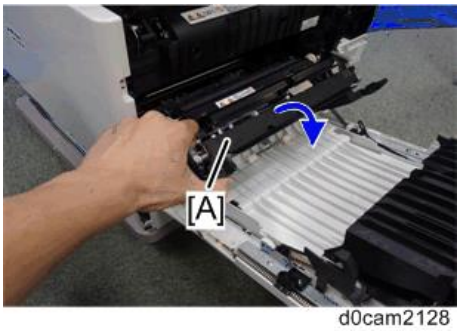


8. Restore the paper transport unit [A].

IM C300 series/IM C400F

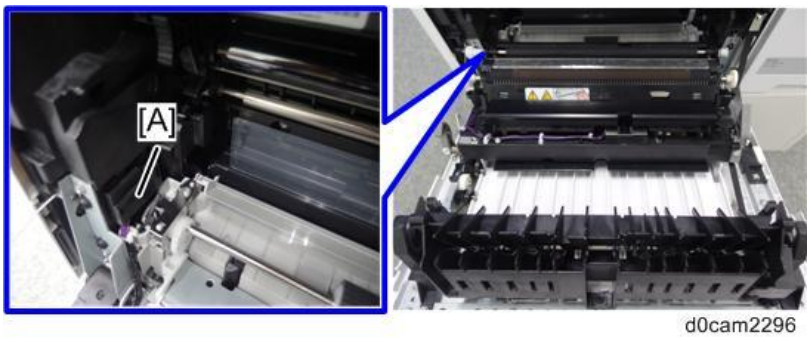


IM C400SRF

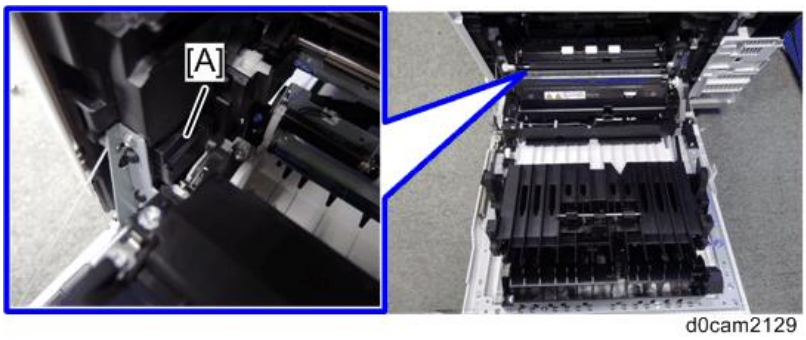


9. Remove the connector cover [A].

IM C300 series/IM C400F



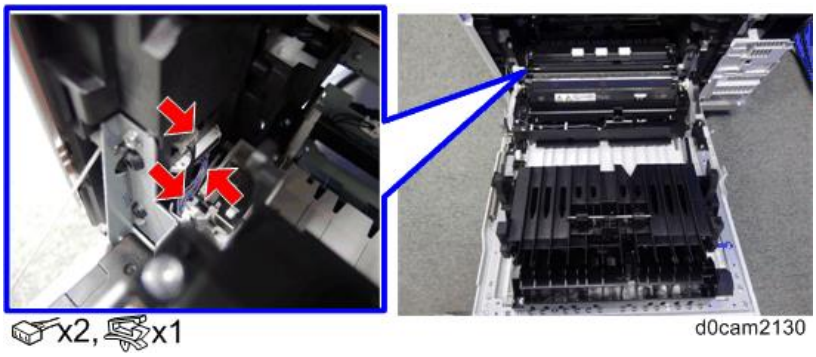
IM C400SRF



10. Disconnect the connectors.

IM C300 series/IM C400F

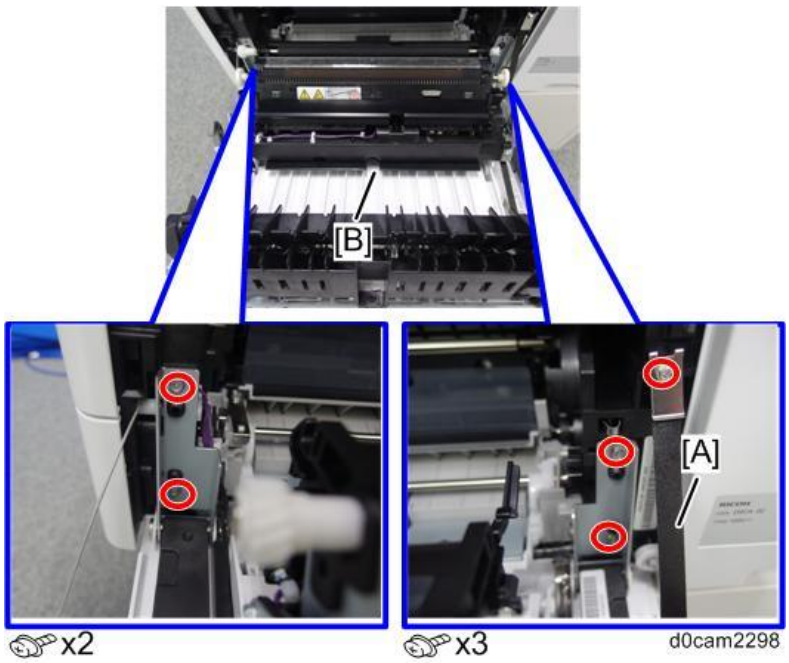
IM C400SRF



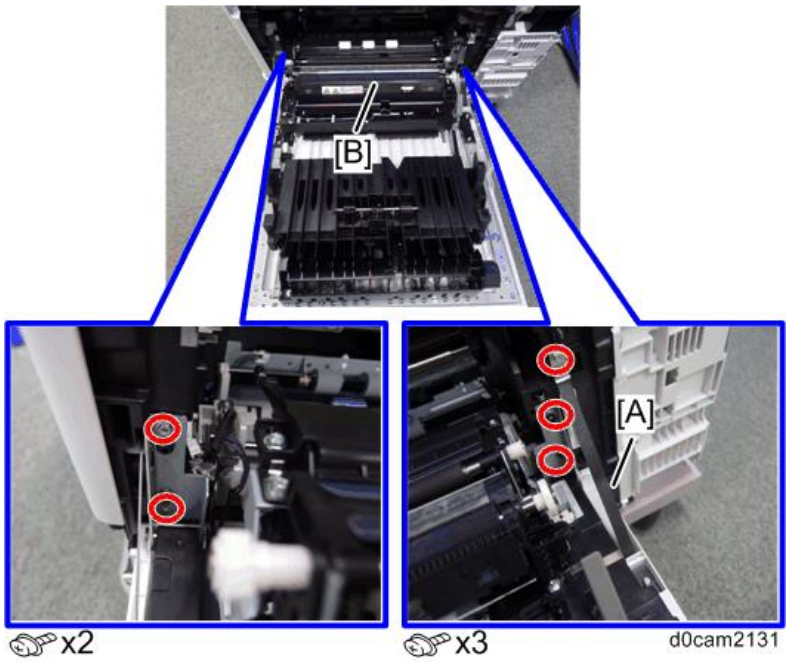
11. Release the belt [A].

12. Remove the duplex unit [B].

IM C300 series/IM C400F



IM C400SRF

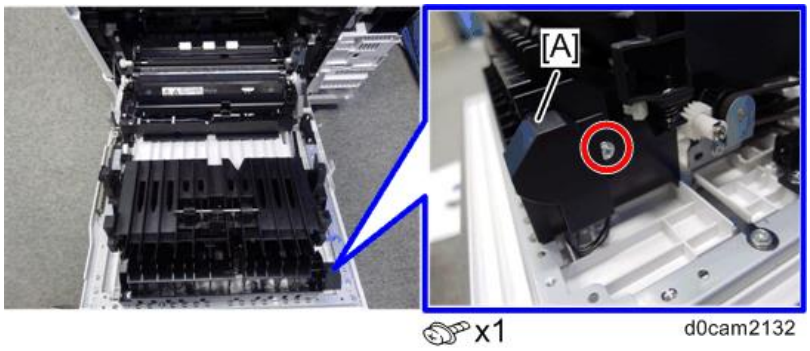


Duplex Entrance Sensor (S1)

1. Open the right door.
2. Remove the sensor cover [A].

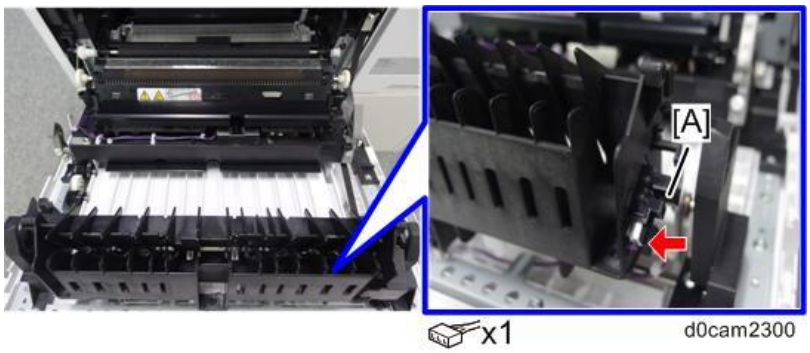
IM C300 series/IM C400F

IM C400SRF

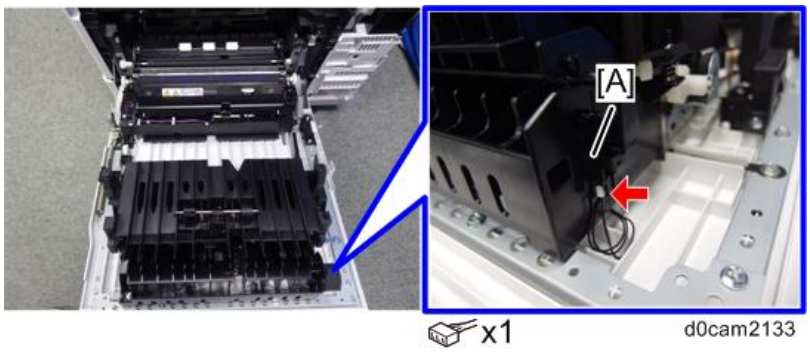


3. Remove the duplex entrance sensor (S1) [A].

IM C300 series/IM C400F



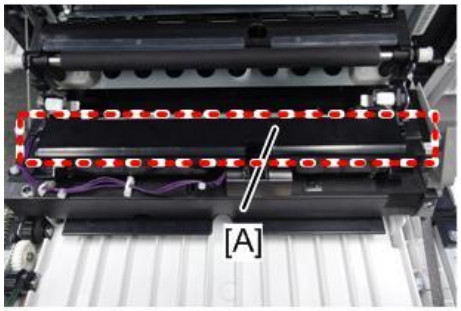
IM C400SRF



Duplex Exit Sensor (S2)

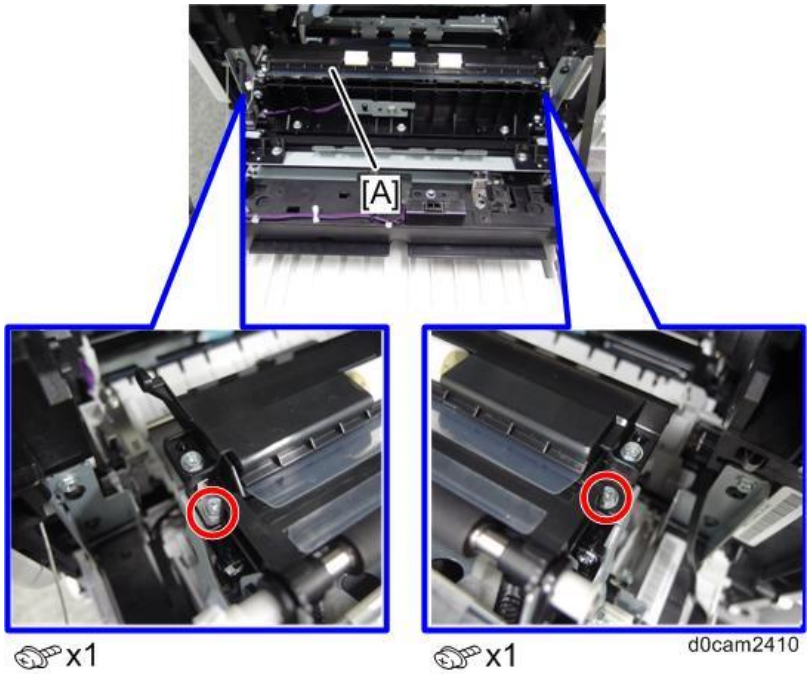
1. Remove the paper transfer roller unit. (Paper Transfer Roller Unit)

2. Remove the cover [A]. (Hook × 1)



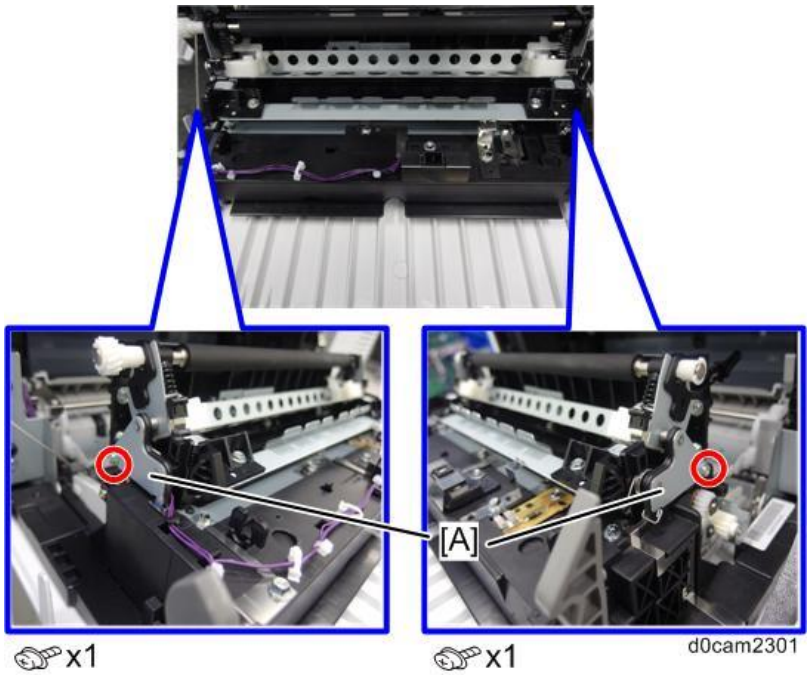
d0cam2134

3. Remove the roller unit [A].(This procedure is for IM C400 series)



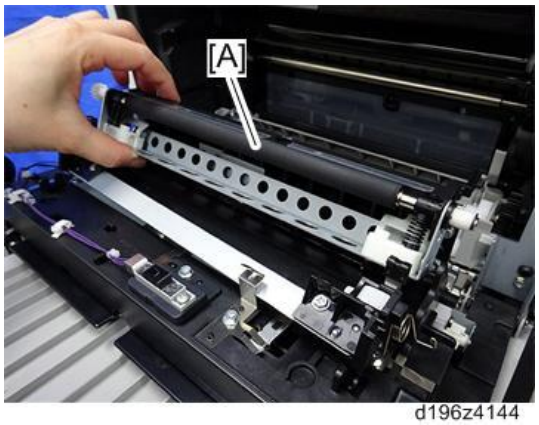
d0cam2410

4. Remove the bracket [A].

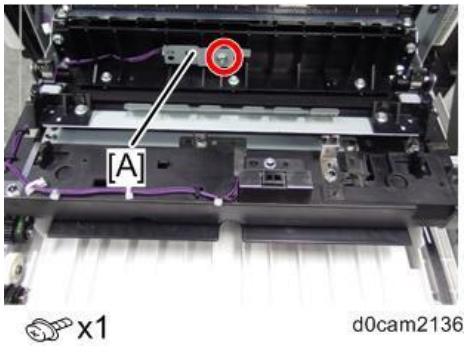


d0cam2301

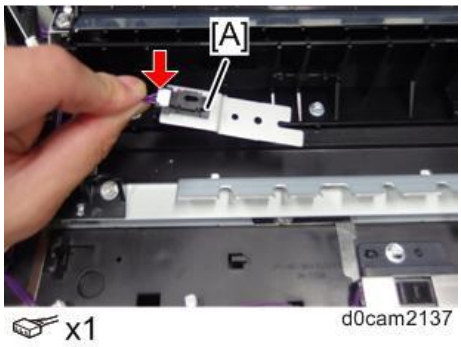
5. Remove the registration roller unit [A].



6. Remove the sensor bracket [A].



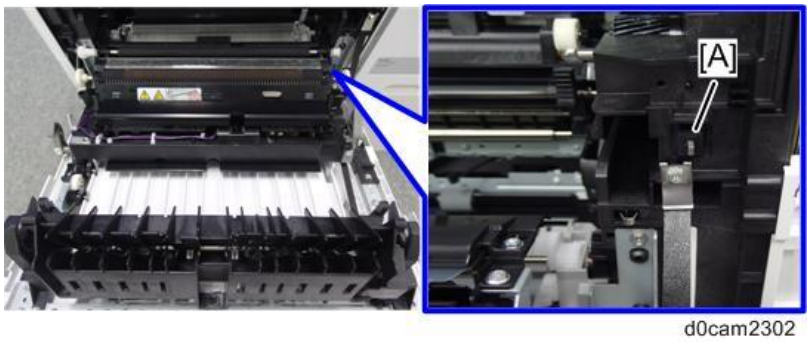
7. Remove the duplex exit sensor (S2) [A].



Right Cover Sensor (SW2)

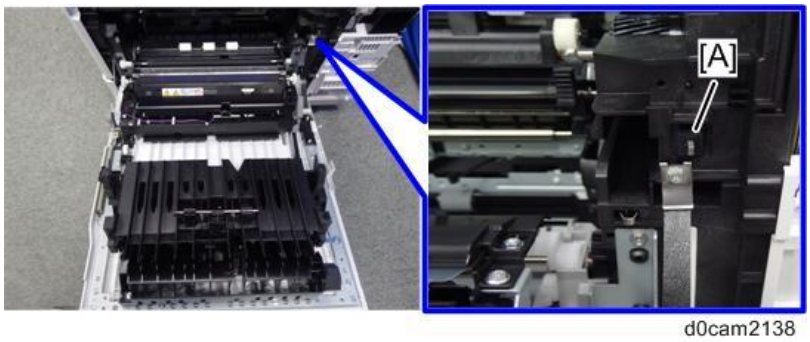
1. Open the right door.
2. Release the tab of the right cover sensor (SW2) [A] with a jeweler's screwdriver.

IM C300 series/IM C400F



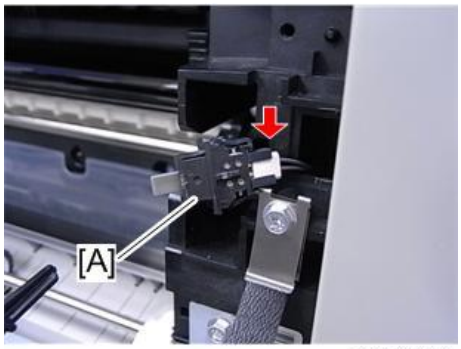
d0cam2302

IM C400SRF



d0cam2138

3. Remove the right cover sensor (SW2) [A]. (× 1)



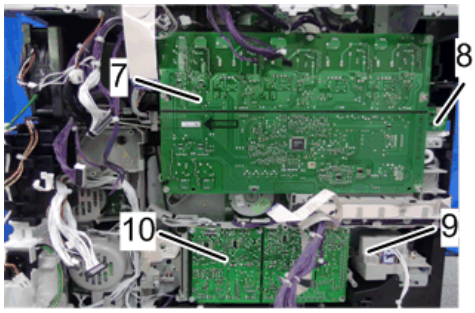
d1182511

Electrical Components

Electrical Components Overview

d0cam2106

No.	Description	No.	Description
1	BiCU (PCB1)	4	FCU (PCB2) (if the machine has the fax unit)
2	Controller Board (PCB24)	5	PSU (AC) (PCB17)
3	HDD	6	PSU (DC) (PCB16)



d0cam2172

No.	Description	No.	Description
7	High-Voltage Power Supply (Development) (PCB22)	9	AC Detection Board (PCB18)
8	Toner Bottle Sensor Board (PCB7)	10	High-Voltage Power Supply (Transfer) (PCB23)

HDD

Note

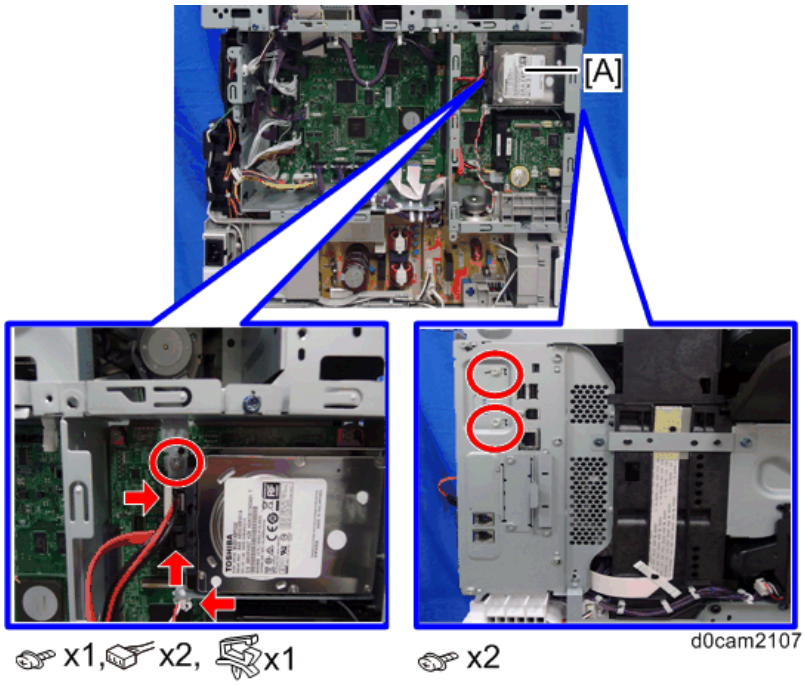
- Before replacing the HDD, copy the address book data to an SD card with SP5-846-051 if there is no problem.
- If the customer uses the Data Overwrite Security, IC card reader, or OCR unit, these applications must be installed again after replacing the HDD.

1. Remove the following parts.

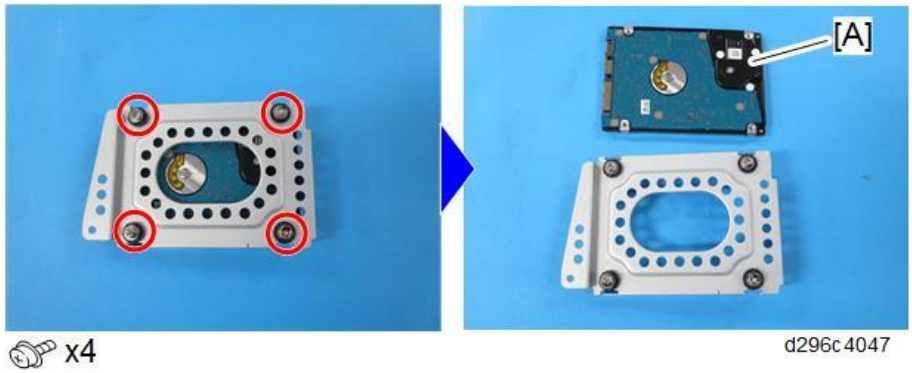
- Rear Cover

- Upper Left Cover
- Left Cover

2. Remove the HDD with the bracket [A].



3. Remove the bracket from the HDD [A].



Adjustment after Replacement

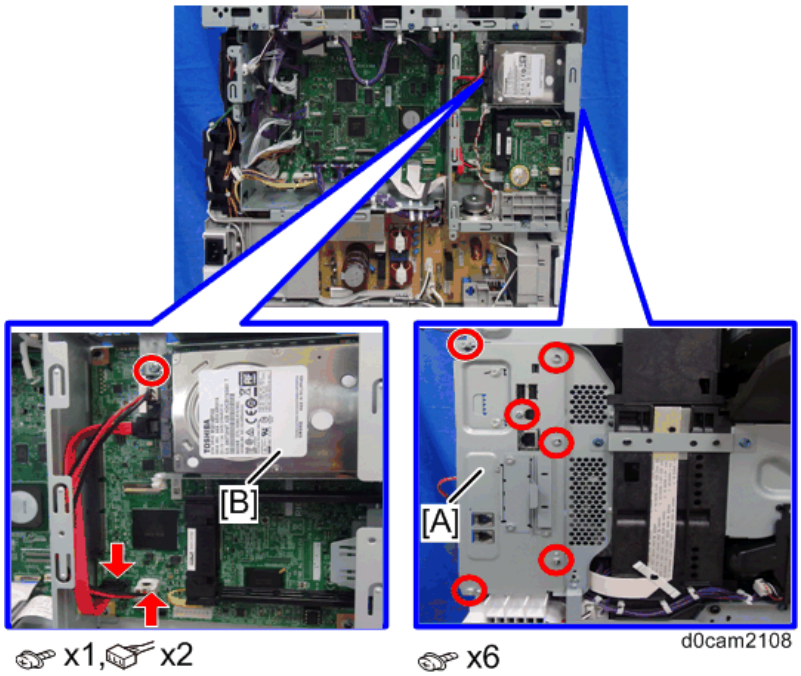
1. Do SP5-832-001 to initialize the HDD.
   Initialization should be performed for the HDD which was already formatted before.
2. Do SP5-853-001 to download stamp data.
3. If applicable, do SP5-846-052 to restore the address data from SD card to the HDD.
4. Cycle the power OFF/ON.

Controller Board (PCB24)

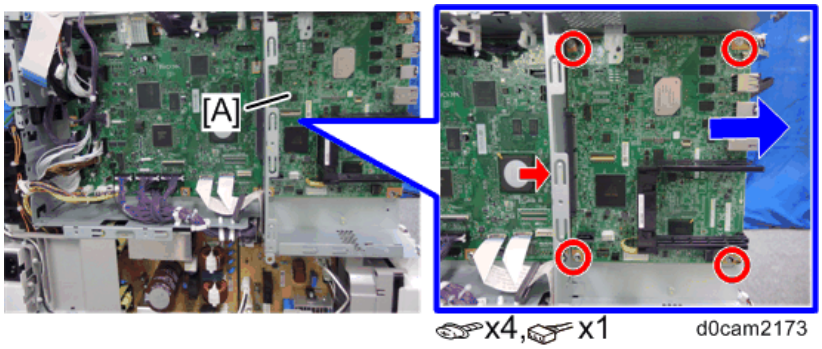
Note

- Keep NVRAMs away from any objects that can cause static electricity. Static electricity can damage NVRAM data.

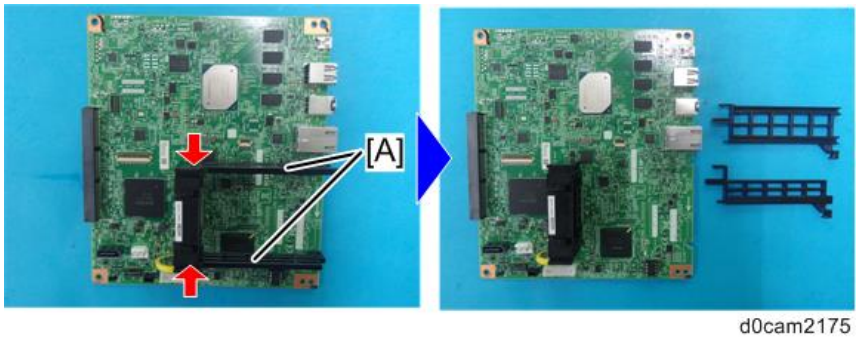
1. Remove the following parts.
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Fax Option Type M41
2. Remove the controller box cover [A] with the HDD [B].



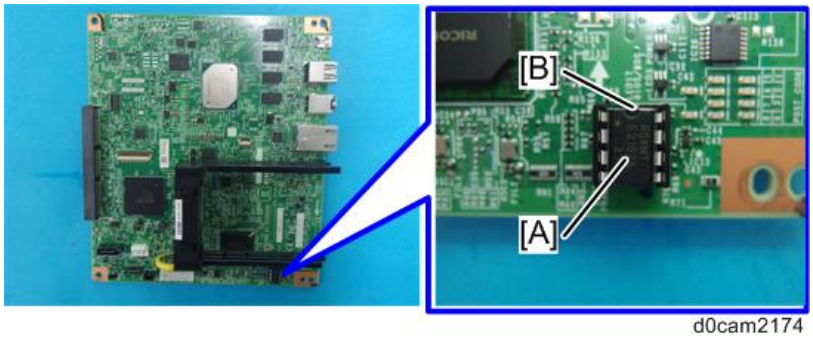
3. Pull out the controller board (PCB24) [A].



4. Remove the guide rails [A] from the old controller board, and install them on the new controller board.



5. Remove the used NVRAM from the old controller board, and install it on the new controller board.



Note

- Make sure the NVRAM [A] is installed at the correct mounting location and orientation. Install the NVRAM so that the indentation on the NVRAM corresponds with the mark [B] on the controller board (PCB24).
- Incorrect installation of the NVRAM will damage both the controller board (PCB24) and NVRAM.

NVRAM on the controller board

⚠CAUTION

- SC195 (Machine serial number error) will be displayed if you forget to attach the NVRAM.
- Passwords for the Supervisor and Administrator 1 will be discarded later in this procedure.
- If you mounted the NVRAM in the wrong direction, each component needs to be replaced because a short circuit was caused in the controller board (PCB24) and the NVRAM.
- Installing a new NVRAM initializes SPs and issues an SC. Reset the SC with the procedure below.

1. Make sure that you have the SMC report (factory settings). This report comes with the machine.
2. Output the SMC log using one of the following methods:
   To print SMC log data, execute SP5-990-001.
   To save SMC log data to an SD card, execute SP5-992-001 (SMC List Card Save Function).
3. Turn OFF the main power switch (SW1).
4. Insert a blank SD card in the SD slot 2, and then turn ON the main power switch (SW1).
5. Use SP5-824-001 to upload the NVRAM data from the controller board (PCB24).

Note

- Make sure to note the following SP settings as they will not be automatically uploaded to the SD card. These settings will be input manually in Step 24.
  - SP5-193-001 (External Controller Info. Setting)
    0: No external controller, 1: EFI controller
  - SP5-895-001 (Application invalidation / Printer)
    0: Valid, 1: Invalid
  - SP5-895-002 (Application invalidation / Scanner)
    0: Valid, 1: Invalid

- SP5-985-001 (Device Setting / On Board NIC)
  0: Invalid, 1: Valid
- SP5-985-002 (Device Setting / On Board USB)
  0: Invalid, 1: Valid

6. Make sure the customer has a backup of their address book data. If not, obtain the backup by referring to SP5-846-051.

Important

- The address data stored in the machine will be discarded later during this procedure. So be sure to obtain a backup of the customer's address book data.
- Note that the counters for the user will be reset when doing the backup/restore of the address book data.
- If they have a backup of the address book data, use their own backup data for restoring. This is because there is a risk that the data cannot be backed up properly depending on the NVRAM condition.

7. Do the following steps if the machine has the fax unit. If not, skip this step:

1. Print the Box List with the User Tools/Counter.
   - [Fax Setting] - [Reception Settings] - [Box Settings] - [Box Setting: Print List]
2. Print the Special Sender List by pressing these buttons in the following order.
   - [Fax Setting] - [Reception Settings] - [Register Special Sender] - [Register Special Sender: Print List]
3. Write down the following fax settings.
   - [Receiver] in [Fax Setting] - [Reception Settings] - [Reception File Settings] - [Action on Receiving File] - [Forwarding].
   - [Notify Destination] in [Fax Setting] - [Reception Settings] - [Reception File Settings] - [Action on Receiving File] - [Store].
   - [Specify User] in [Fax Setting] - [Reception Settings] - [Stored Reception File User Setting].
   - [Notify Destination] in [Fax Setting] - [Reception Settings] - [Folder transfer Settings] - [Folder Transfer Result Report].
   - Specified folder in [Fax Setting] - [Send Settings] - [Backup File Transmission Setting].
   - [Receiver] in [Fax Setting] - [Reception Settings] - [Reception File Settings] - [Output Mode Switch Timer].
   - [Store: Notify Destination] in [Fax Setting] - [Reception Settings] - [Reception File Settings] - [Output Mode Switch Timer].
   - All the destination information shown on the display.

Note

- In the fax settings, address book data is stored with entry IDs, which the system internally assigns to each data. The entry IDs may be changed due to re-assigning in backup/restore operations.

4. Make sure that there is no transmission standby file. If any standby file exists, ask the customer to delete it or complete the transmission.

8. Turn the main power OFF and unplug the power supply cord.

9. Push the main power switch (SW1) ON again to discharge the residual charge.

10. Remove the SD card containing the NVRAM data from slot 2.

11. Replace the NVRAM with a new one.

12. Turn the power ON.

Important

- After turning ON the main power, SC870 will occur and the address book data will be cleared.
- SC673 appears at start-up, but this is normal behavior. This is because the controller and the smart operation panel cannot communicate with each other due to changing the SP settings for the operation panel.

13. Change the SP settings for the operation panel.

If you switch the screen to enter the SP mode, SC995-02 is displayed. However, continue the following steps.

- SP5-748-101: (OpePanel Setting: Op Type Action Setting): Change bit 0 from 0 to 1.
- SP5-748-201: (OpePanel Setting: Cheetah Panel Connect Setting): Change the value from 0 to 1.

14. Change the Flair API SP values.

- SP5-752-001 (Copy FlairAPIFunction Setting): Change bit 0 from 0 to 1.
- SP3-301-001 (FAX:FlairAPI Setting) Change bit 0 from 0 to 1.(You can NOT change this Values if the FCU is not equipped with main machine)

15. Cycle the main power OFF/ON with the SD card where the NVRAM data has been uploaded in SD slot 2.

Important

- The model information is written on the NVRAM (Novita), so SC995-02 does not occur.
- Program/Change Administrator will be displayed in Japanese, but this is normal.

16. Enter the SP mode and specify the following settings manually.

- **a. SP5-985-001 (Device Setting:** On Board NIC) Change the value from 0 to 1.
- **b. SP5-985-002 (**Device Setting**:** On Board USB) Change the value from 0 to 1.

17. Turn OFF the main power and then insert the SD card to which the NV-RAM data has been uploaded in Slot 2.

18. Turn the main power ON.

19. Download the NV-RAM data stored in the SD card to the brand-new NV-RAM using SP5-825-001 (NV-RAM Data Download).

Note

The download will take a couple of minutes.

20. Change the Flair API SP values.

- SP1-041-001 (Scan:FlairAPI Setting): Change bit 0 from 0 to 1.

21. Turn the power OFF and remove the SD card from slot 2.

22. Turn the power ON.

23. Execute SP5-755-002 (Hide Administrator Password Change Scrn).

Note

After you execute this SP and exit SP mode, the Home screen is displayed and user functions can be used.

24. Make sure that icons for scanner and fax are displayed and enter the values that you note in Step 5.

Note

- SP5-193-001 (External Controller Info. Setting)
- SP5-895-001 (Application invalidation / Printer)
- SP5-895-002 (Application invalidation / Scanner)
- SP5-985-001 (Device Setting / On Board NIC)
- SP5-985-002 (Device Setting / On Board USB)

25. If the security functions (HDD Encryption and HDD Data Overwrite Security) were applied, set the functions again.

26. Restore the original settings of the following SPs, referring to the SMC data obtained in step 2.
SP5-825-001 does not download the following SP data to the new NVRAM. So you must set them manually.

a. SP5-985-001(Device Setting: On Board NIC)

b. SP5-985-002(Device Setting: On Board USB)

27. Ask the customer to restore their address book. Or restore the address book data using SP5-846-052 (UCS Setting: Restore All Addr Book), and ask the customer to ensure the address book data has been restored properly.

Important

- If you have obtained the backup of the customer's address book data, delete the backup immediately after the NVRAM replacement to avoid accidentally taking out the customer's data.

28. Output all the SMC data with SP5-990-001 and make sure all the SP/UP settings except for counter information are properly restored, by checking the SMC data obtained in step 2.

Note

- Check that the counters are reset.

29. Make sure that the list output in step 7-1 through step 7-3 matches the destination information in step 7-4. If not, set it to the setting before replacement.

30. Execute the process control (SP3-011-001).

Important

- If you cannot execute SP5-824-001 or SP5-825-001 for some reason, try all the following things.

- Check the changed SP value on the SMC which was output in step 2 and set it manually. Especially, ensure that the values of the following SPs are same as the setting before the replacement.
- a. SP5-045-001 (Accounting counter: Counter Method)
- b. SP5-302-002 (Set Time: Time Difference)

- Because the PM counters have been reset during NV-RAM replacement, it is necessary to replace all the PM parts for proper PM management.

Note

- If a message tells you need an SD card to restore displays after the NVRAM replacement, create a “SD card for restoration” and restore with the SD card. Refer to “Encryption Key Restoration”

31. Execute the ACC (Copy).

32. Execute the ACC (Printer).

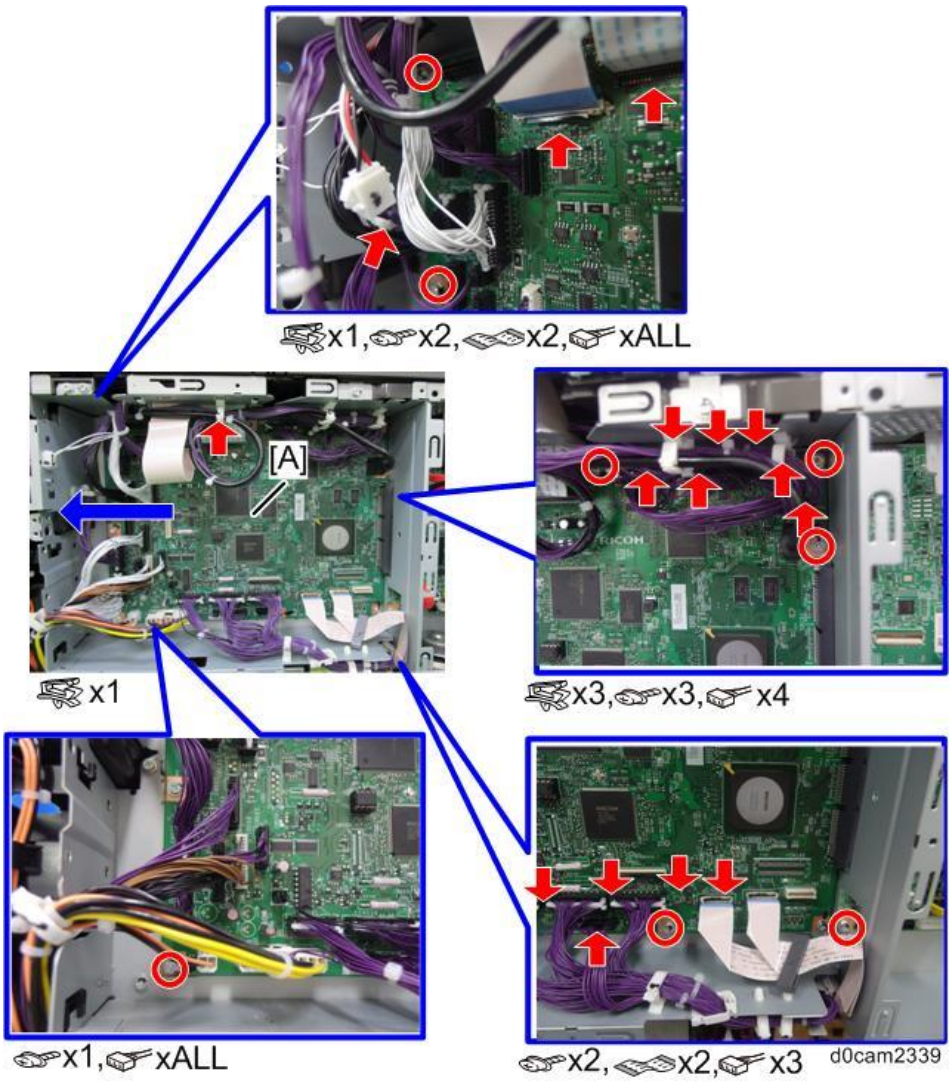
33. Cycle the power OFF/ON.

BiCU (PCB1)

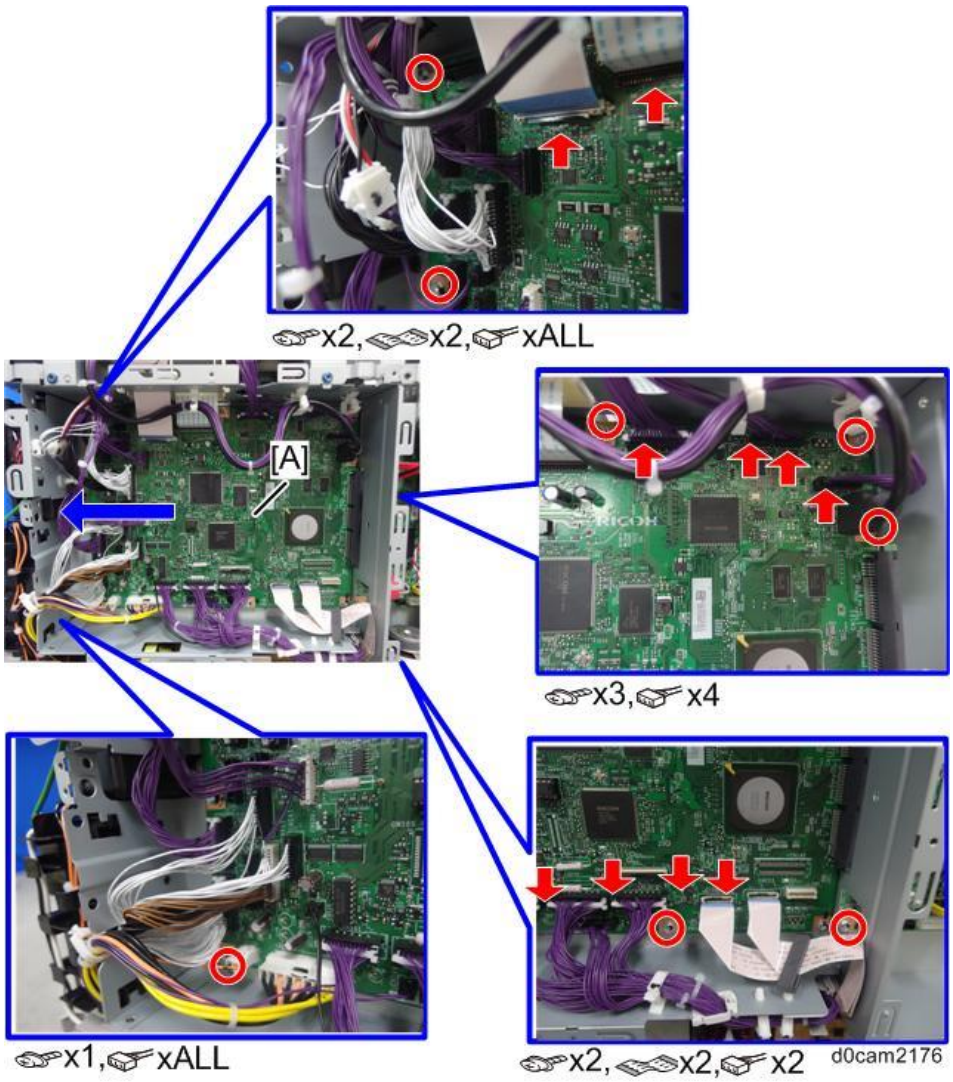
1. Remove the rear cover. (Rear Cover)

2. Slide the BiCU (PCB1) [A] in the direction of the blue arrow below and remove it.

IM C300 series/IM C400F



IM C400SRF



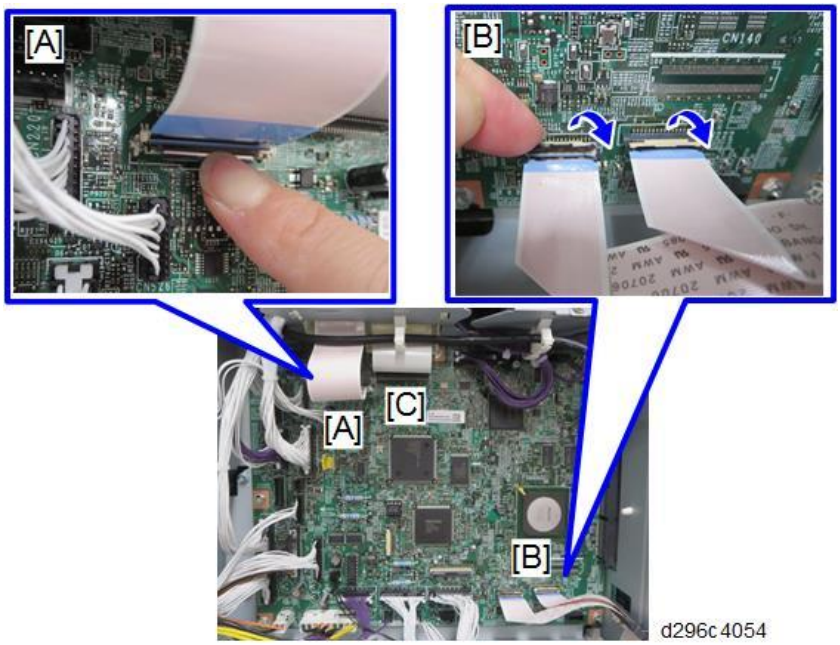
Note

There are three kinds of FFC connectors.

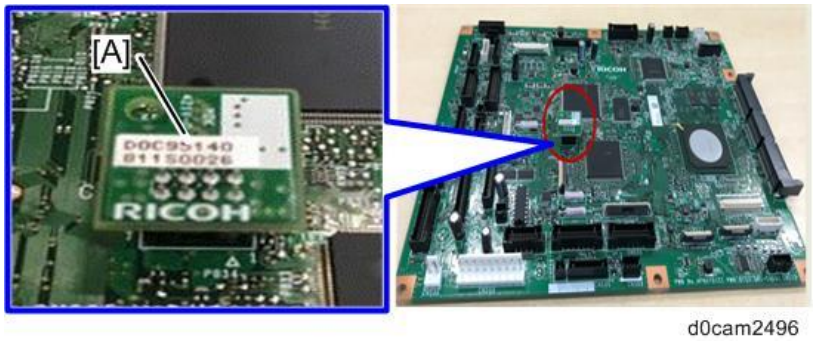
A: Disconnect the FFC while pushing the lock lever.

B: Disconnect the FFC while lifting up the lock lever.

C: Disconnect the FFC while pulling it out straight. It does not have a lock mechanism.



3. Remove the SMB [A] from the old BiCU and attach it to the new BiCU.



Note

- Attaching the used SMB to the new BiCU allows users to use old data such as SP settings.

Replacing the SMB on the BiCU

Note

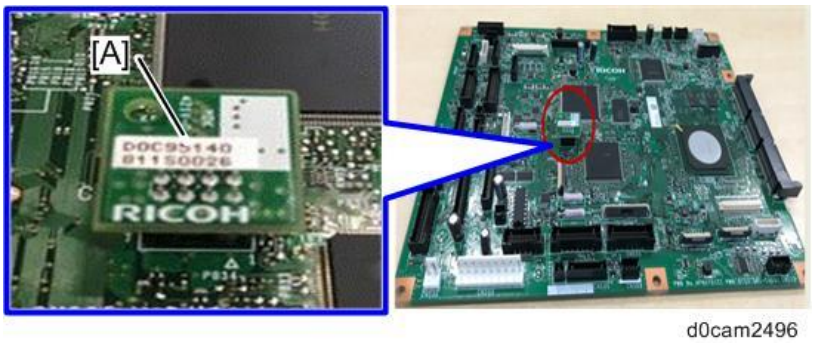
- The following shows the procedure for replacing the SMB on the BiCU (PCB1) with a new SMB.

1. Make sure that you have the SMC report (factory settings). This report comes with the machine.
2. Output the SMC data (“ALL”) using SP5-990-001 printed, or saved to SD card with SP5-992-001.
3. Turn OFF the main power switch (SW1).
4. Insert a blank SD card in the SD slot #2, and then turn ON the main power switch (SW1).
5. Use SP5-824-001 to upload the SMB data from the BiCU (PCB1)
6. Turn OFF the main power switch (SW1) and unplug the power cord.

7. Replace the SMB on the BCU with a new one.

Note

- Install a new SMB [A] on the BiCU (PCB1) in the right direction. Incorrect installation of the SMB will damage both the BiCU (PCB1) and SMB.



d0cam2496

8. Plug in, and then turn ON the main power switch (SW1).

Note

- When the power is turned ON, SC195-00 appears. Continue with the following steps.

9. Select the destination setting (SP5-131-001 - JPN: 0, NA: 1, EU/AA/TWN/CHN: 2)
10. Set the machine serial number SP5-811-001, Area selection SP5-807-001, CPM set SP5-882-001.

Note

- For information on how to configure the above SPs, contact the supervisor in your branch office.

11. Cycle the power OFF/ON.
12. Use SP5-801-002 “Memory Clear Engine”.

Important

- After changing the SMB, some SPs may not have the correct values.
- Make sure that 12 must be done after Area selection SP5-807-001 and CPM set SP5-882-001.

13. Turn OFF the machine, and then turn it back ON.
14. From the SD card where you saved the SMB data in step 5, download the SMB data with SP5-825-001.
15. Turn OFF the machine, and then remove the SD card from SD slot 2.
16. Turn ON the main power switch (SW1).
17. Check the factory setting sheet and the SMC data printout from step 2, and set the user tool and SP settings so they are the same as before.
18. Execute ACC (Copy and Printer).

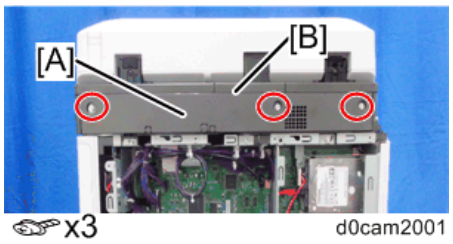
Controller Box

Note

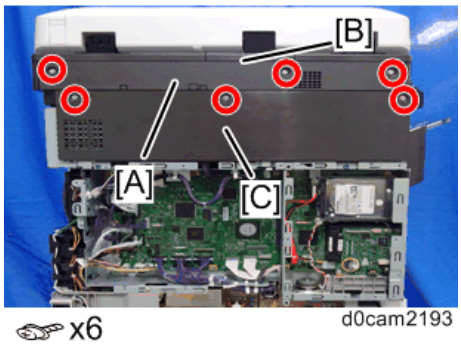
- If the optional counter interface unit is installed, remove the optional counter interface unit before removing the controller box.

1. Remove the following parts.
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Right Rear Cover
2. Remove the scanner rear cover [A] and scanner rear small cover [B].(This procedure is for IM C300 series/IM C400F)
3. Remove the scanner rear cover [A],scanner rear small cover [B] and rear upper cover [C].(This procedure is for IM C400SRF)

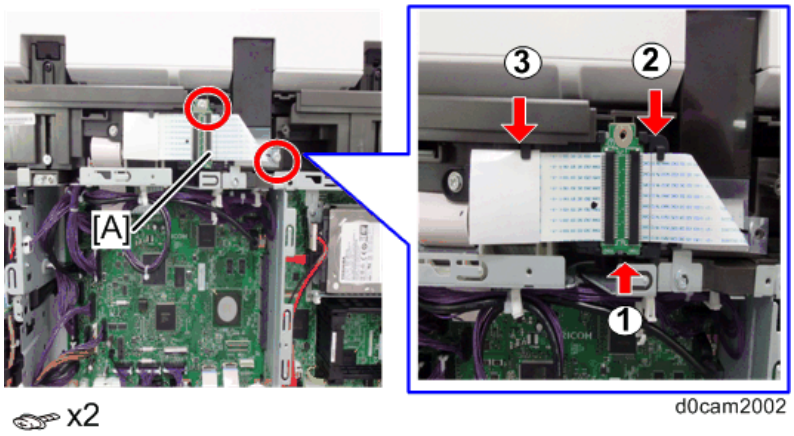
   IM C300 series/IM C400F



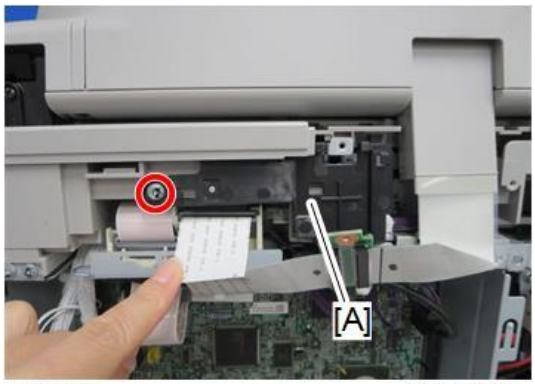
   IM C400SRF



4. Release two screws and three tabs for attaching the relay board (PCB12) [A] and FFC, to release the FFC.

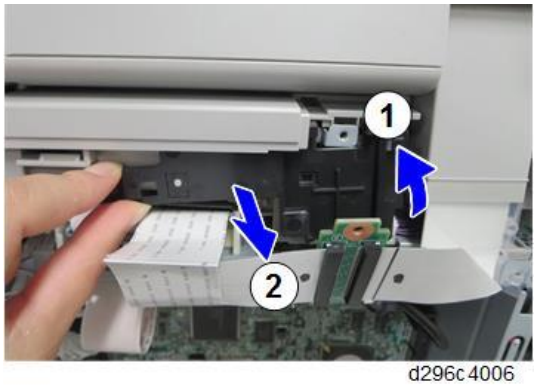


5. Remove the FFC fixing bracket [A] on the back side of the FFC.

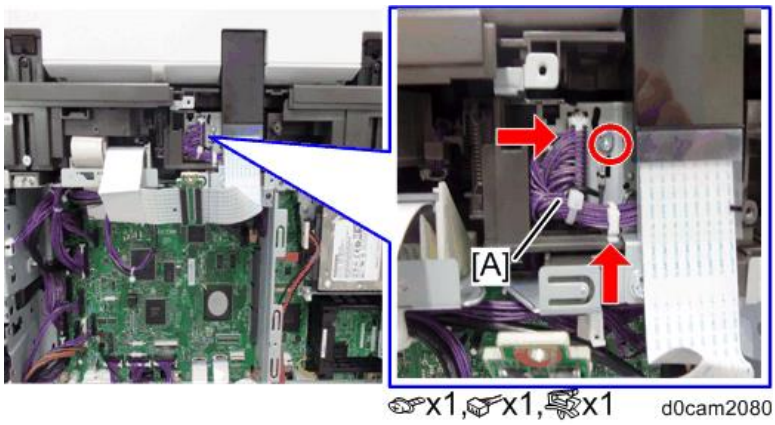


Note

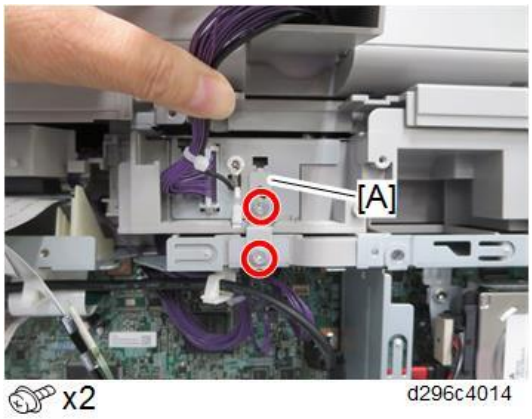
Remove the FFC fixing bracket while turning it counterclockwise and releasing the tab.



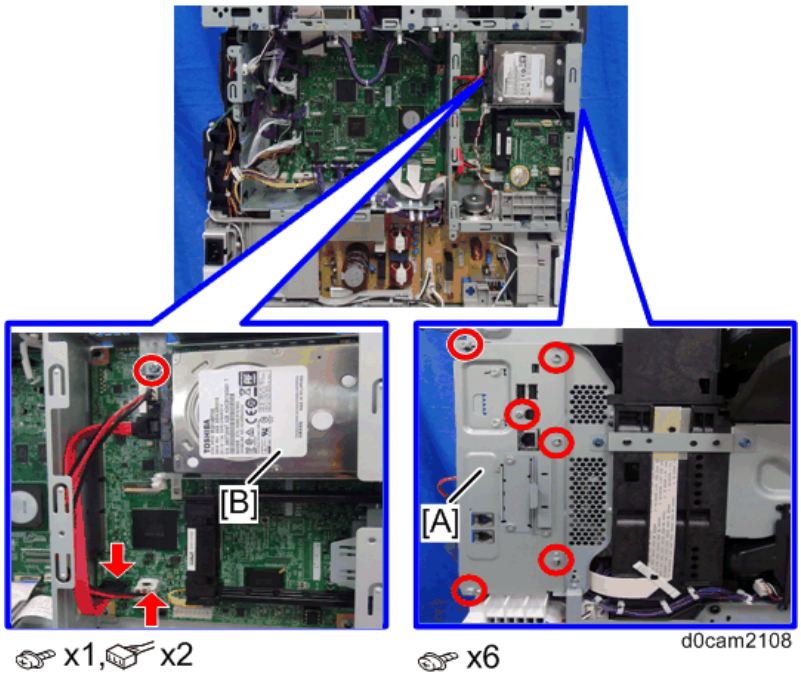
6. Release the clamp of the harness to the ADF [A].



7. Remove the grounding plate [A].(This procedure is for IM C300 series/IM C400F)



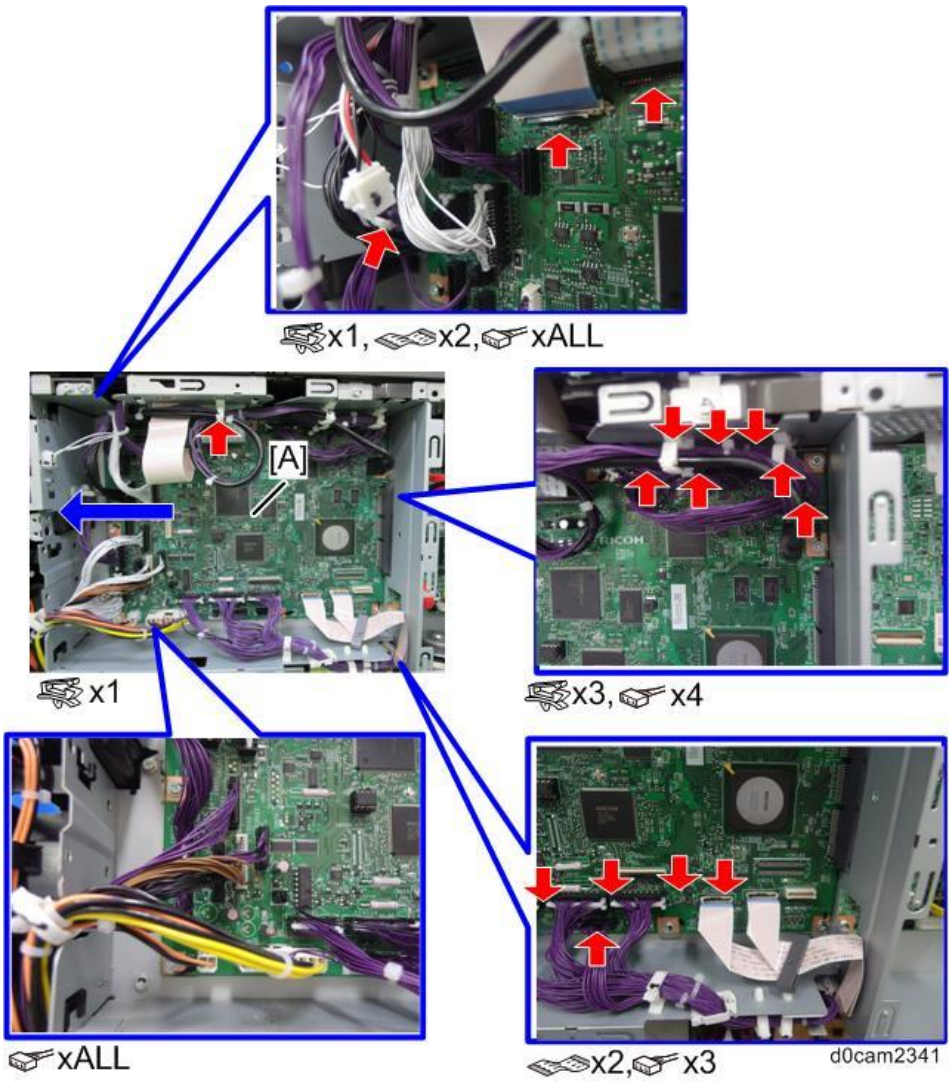
8. Remove the controller box cover [A] with the HDD [B].



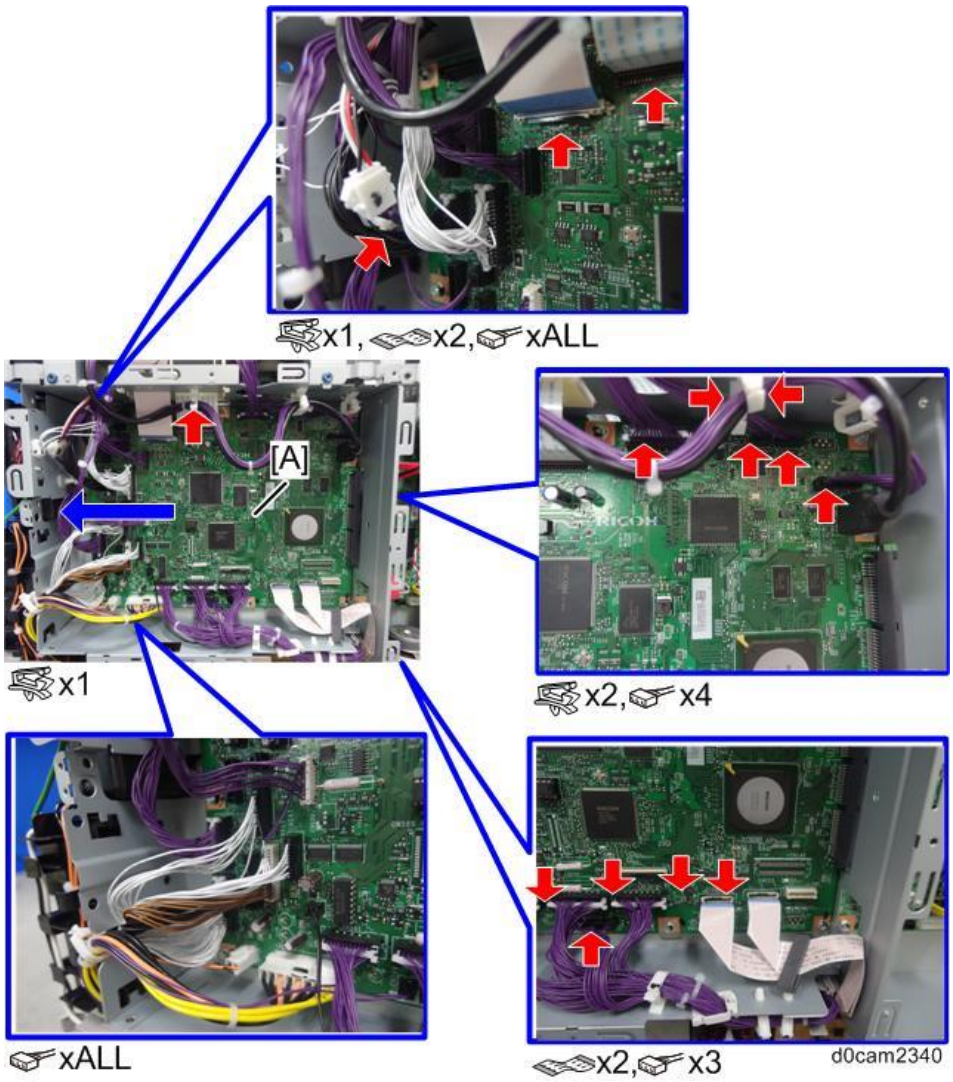
9. Disconnect all the connectors on the BiCU (PCB1) [A].

Remove the clamps to make room for removal of the BiCU (PCB1) [A].

IM C300 series/IM C400F

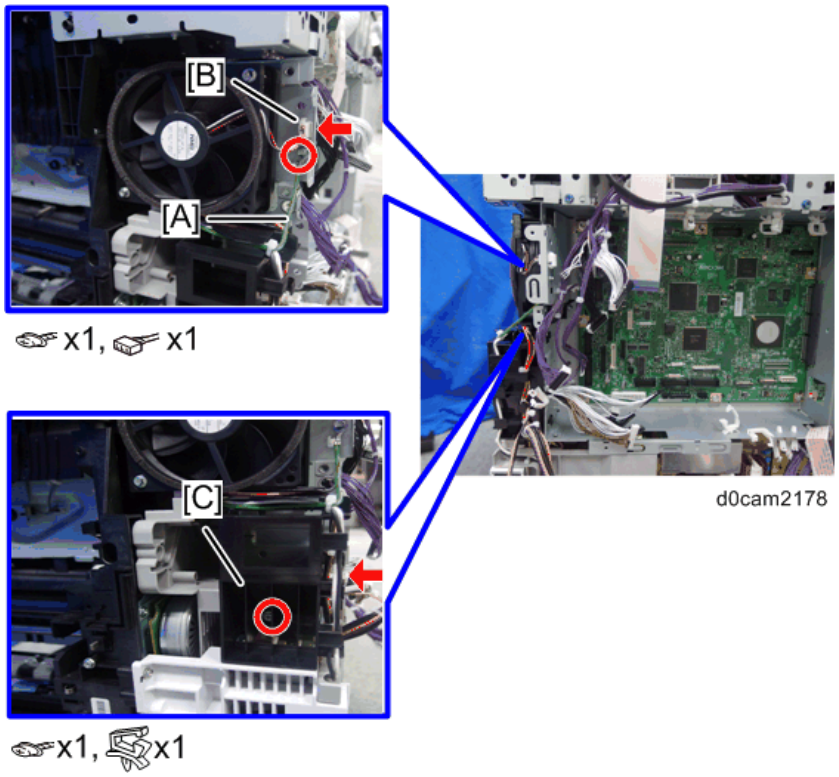


IM C400SRF

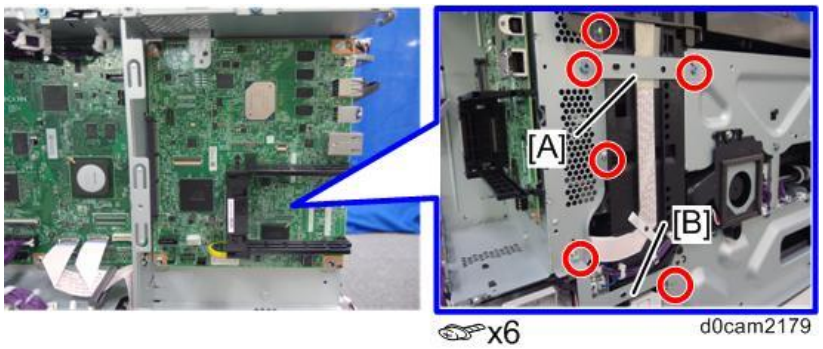


10. Remove the grounding wire [A] and connector [B] from the left side of the controller box.

11. Remove the harness guide [C] while releasing the harnesses on it.

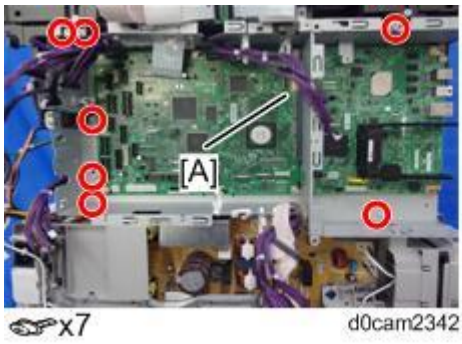


12. Remove the brackets ([A] and [B]), and two screws from the right side of the controller box.

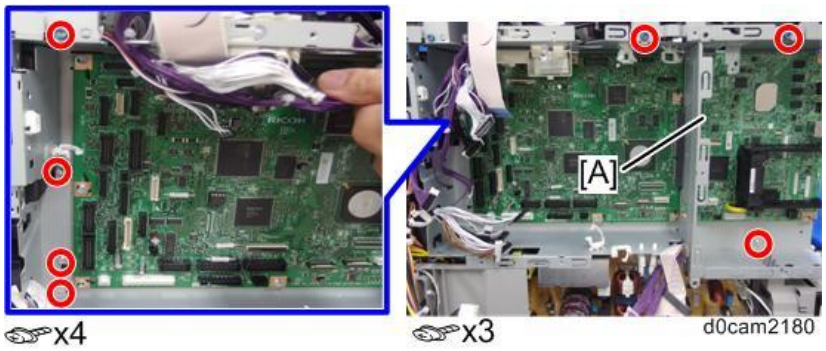


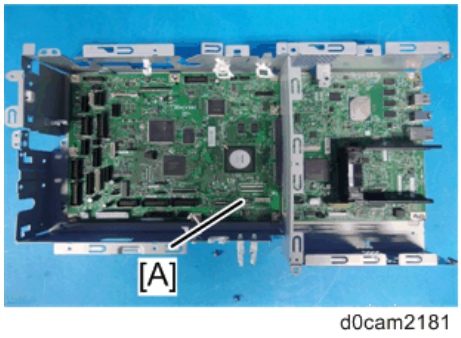
13. Remove the controller box [A].

IM C300 series/IM C400F



IM C400SRF

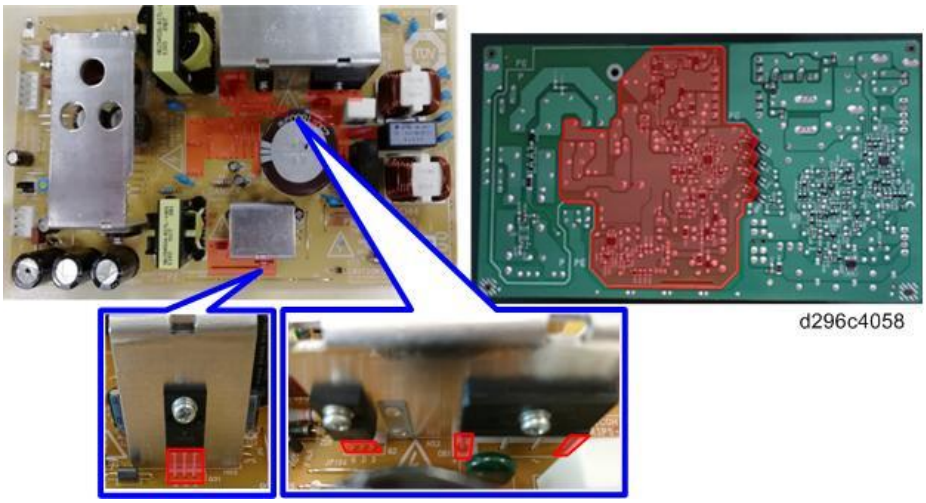




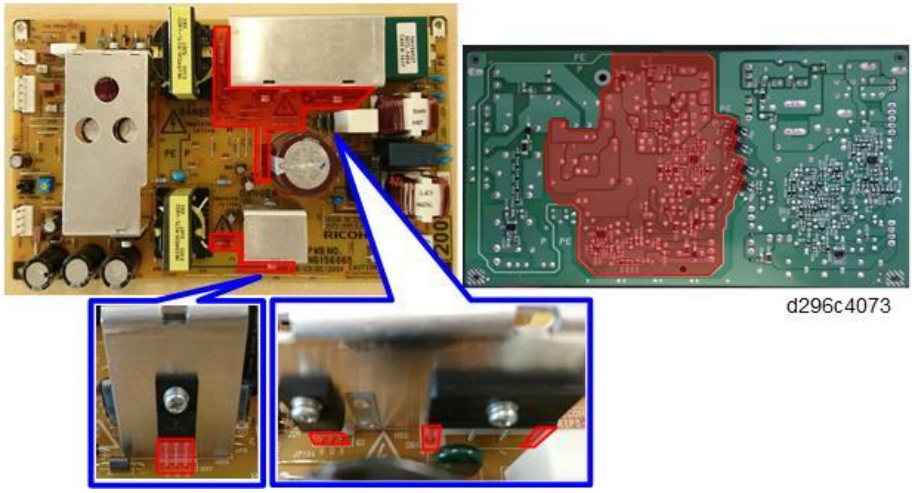
PSU (AC) (PCB17), PSU (DC) (PCB16)

⚠CAUTION

- Do not touch the areas outlined in red in the following diagrams when replacing the PSU. Residual charge on the board may cause electric shock.
- For 100V:

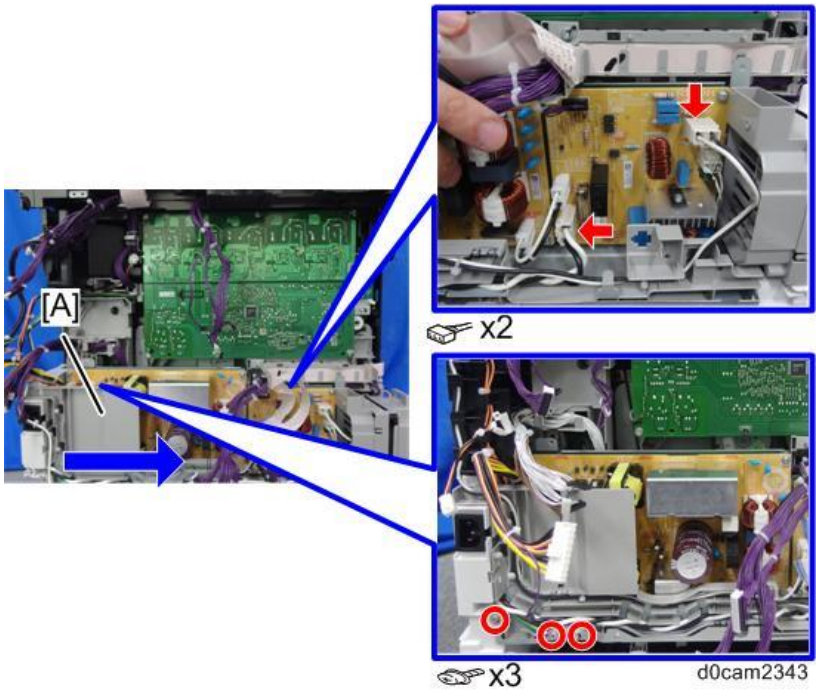


- For 200V:



Common Procedures

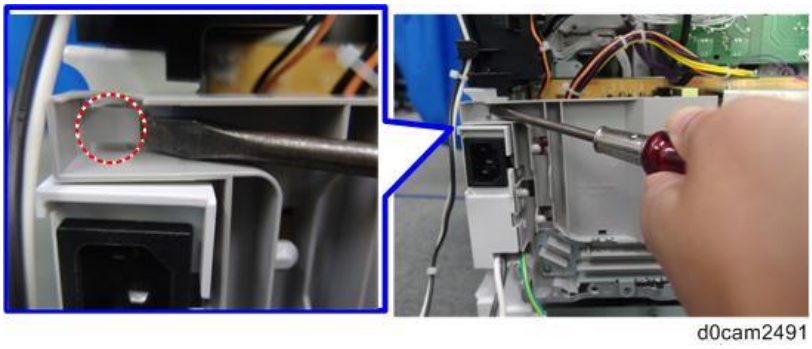
1. Remove the following parts.
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Right Rear Cover
   - Controller Box
   - PSU Exhaust Fan (FAN4)
2. Disconnect the harness and remove the harness guide [A].



Note

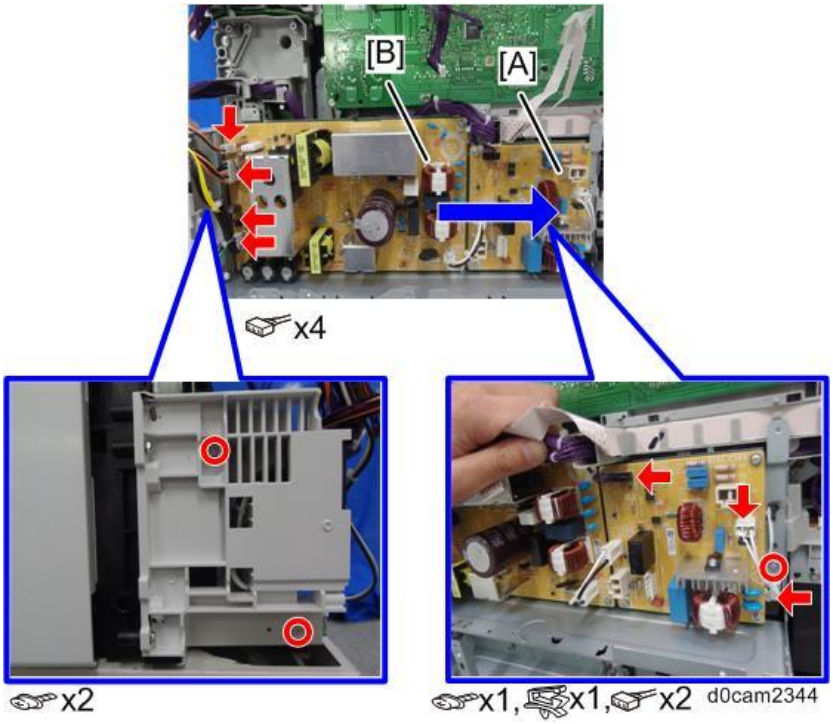
There is a hook in the red dotted area in the photo.Use a straight slot screw driver to remove the

harness guide.



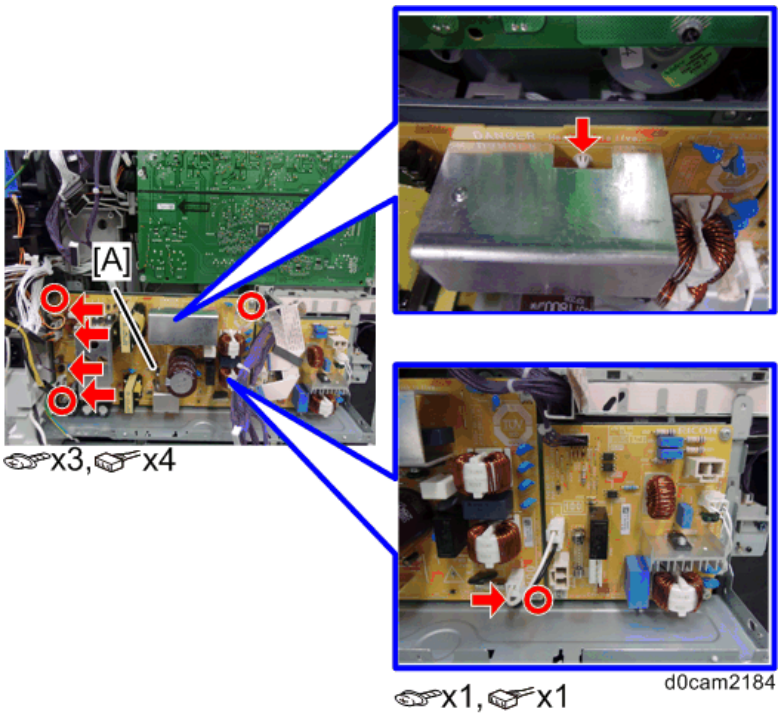
For removing the PSUs (PCB16)(PCB17) with the bracket

1. Follow common procedures above.
2. Disconnect the connectors on the PSU (AC) (PCB17) [A] and PSU (DC) (PCB16) [B].



For removing the PSU (DC) (PCB16) with the bracket

1. Follow common procedures above.
2. Remove the PSU (DC) (PCB16) [A]. (Locking wire saddle ×1)

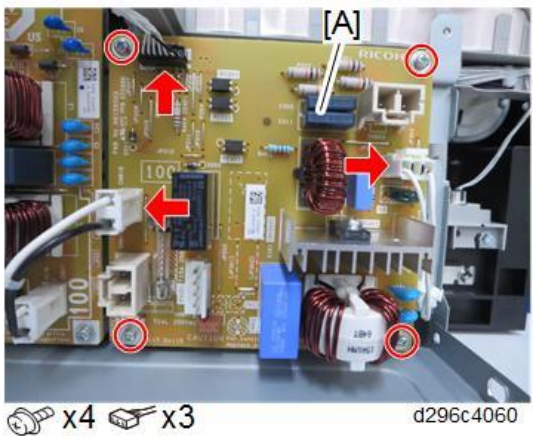


- Note

  The locking wire saddle is released from the notch above the cooling plate.

For removing the PSU (AC) (PCB17) with the bracket

1. Follow common procedures above.
2. Remove the PSU (AC) (PCB17) [A].



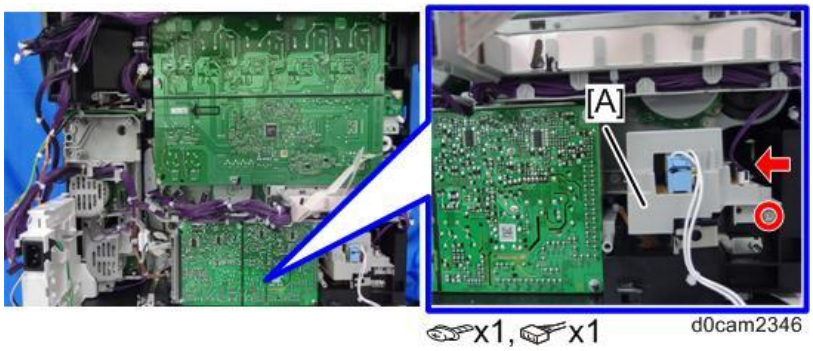
AC Detection Board (PCB18)

1. Remove the following parts.
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Right Rear Cover
   - Controller Box

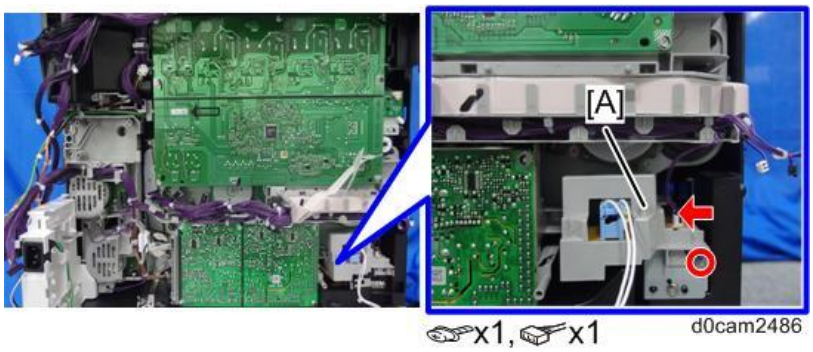
- PSU Exhaust Fan (FAN4)
- PSU (AC) (PCB17), PSU (DC) (PCB16)

2. Remove the AC detection board (PCB18) with the cover [A].

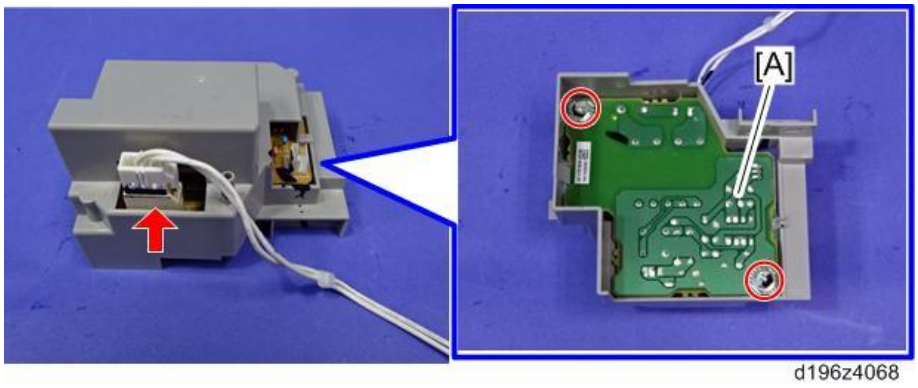
IM C300 series



IM C400 series



3. Remove the AC detection board (PCB18) [A]. (× 2, × 1)



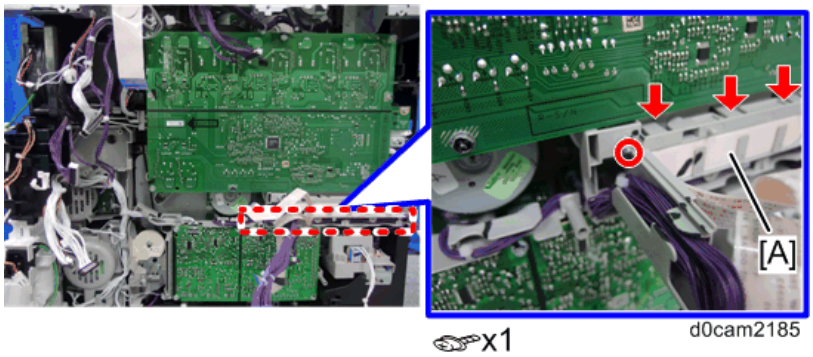
High-Voltage Power Supply (Development) (PCB22)

1. Remove the following parts.

- Rear Cover
- Upper Left Cover
- Left Cover
- Right Rear Cover
- Controller Box
- PSU Exhaust Fan (FAN4)

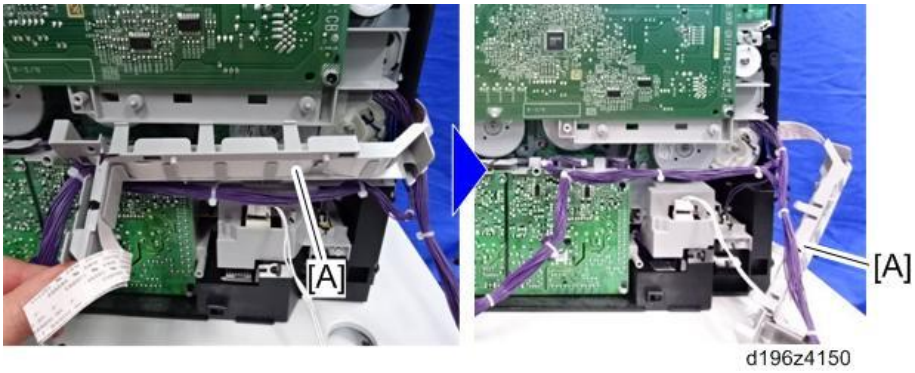
- PSU (AC) (PCB17), PSU (DC) (PCB16)

2. Disconnect the harness and remove the harness guide [A]. (hook × 3)

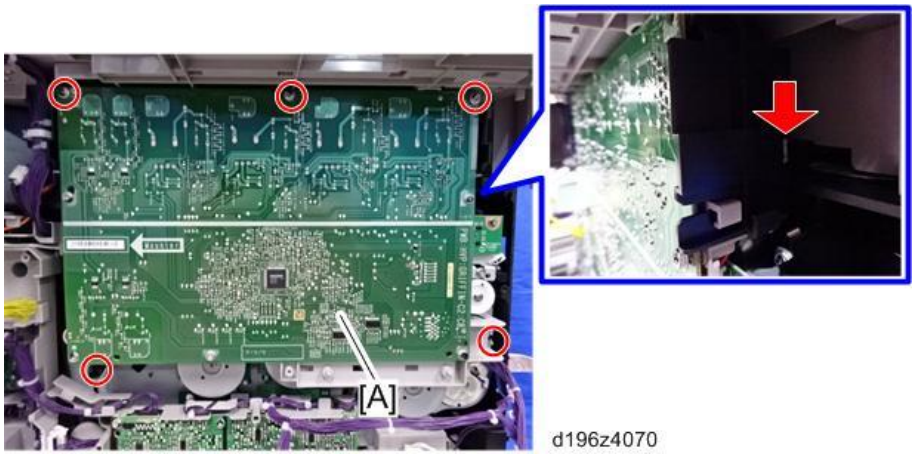


Note

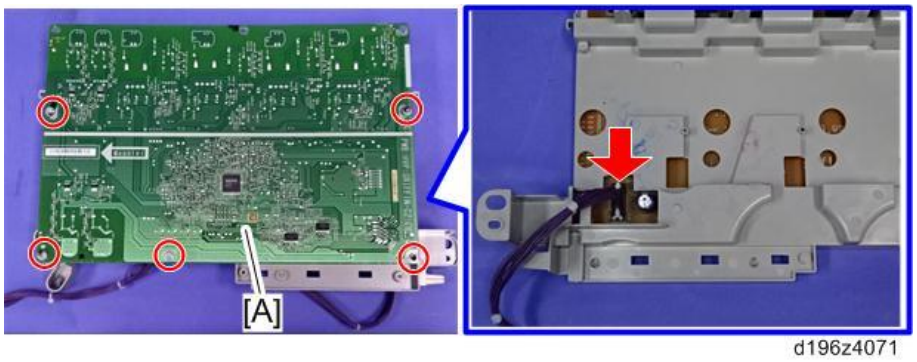
- Release the harness guide [A] as shown below.



3. Remove the high-voltage power supply (Development) (PCB22) [A] with the bracket. (× 5, hook × 1)



4. Remove the high-voltage power supply (Development) (PCB22) [A]. (× 5, × 1)

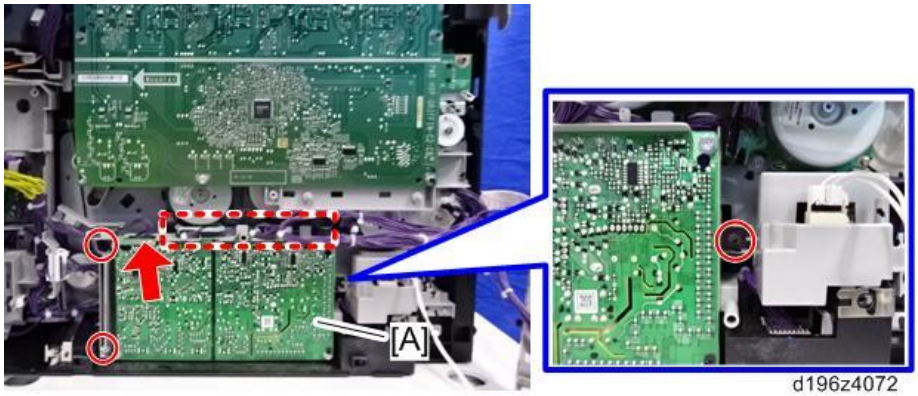


High-Voltage Power Supply (Transfer) (PCB23)

1. Remove the following parts.

- Rear Cover
- Upper Left Cover
- Left Cover
- Right Rear Cover
- Controller Box
- PSU Exhaust Fan (FAN4)
- PSU (AC) (PCB17), PSU (DC) (PCB16)

2. Disconnect the harness attached to the high-voltage power supply's bracket, and then remove the high-voltage power supply (Transfer) (PCB23) [A] with the bracket. (× 3, × 1)



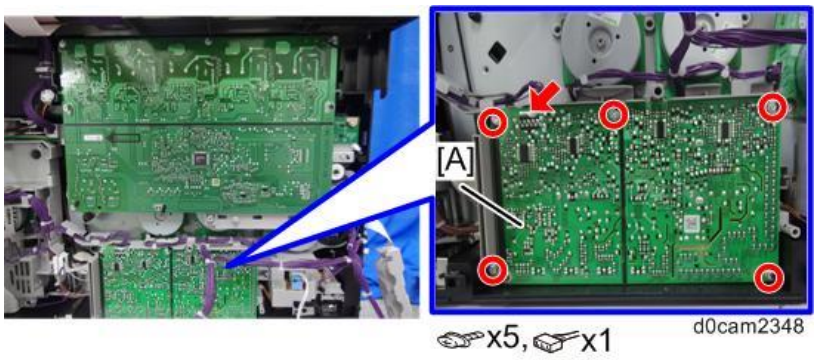
High-Voltage Power Supply (Transfer) (PCB23) Alone

1. Remove the following parts.

- Rear Cover
- Upper Left Cover
- Left Cover
- Right Rear Cover
- Controller Box
- PSU Exhaust Fan (FAN4)

- PSU (AC) (PCB17), PSU (DC) (PCB16)

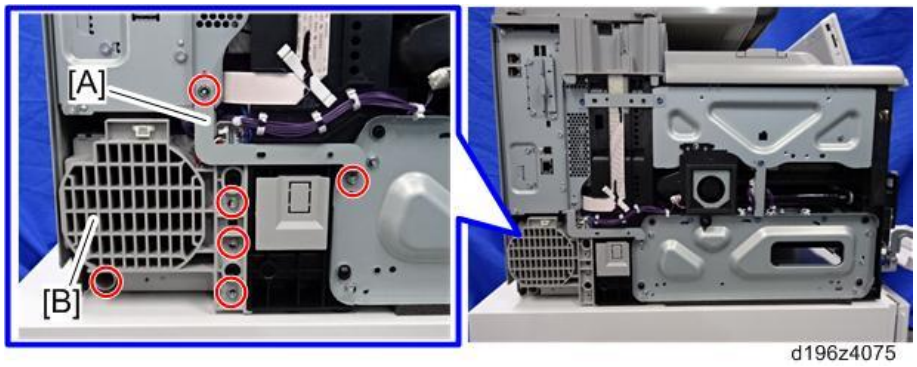
2. Remove the high-voltage power supply (Transfer) (PCB23) [A]. (× 5, × 1)



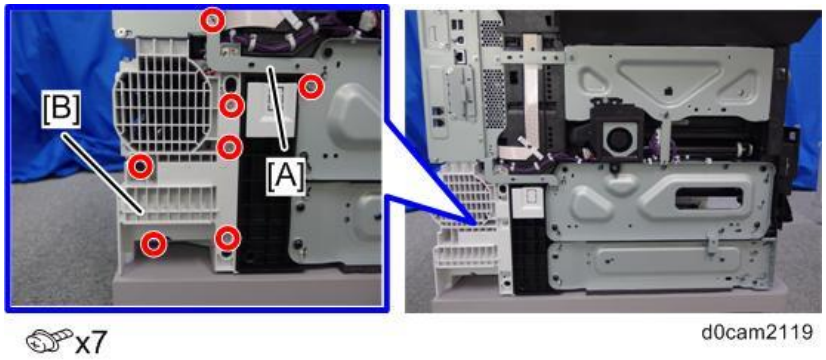
PSU Exhaust Fan (FAN4)

1. Remove the upper left cover. (Upper Left Cover)
2. Remove the left cover. (Left Cover)
3. Remove the bracket [A]. (× 2)
4. Remove the screws of the fan cover [B]. (× 4)

IM C300 series

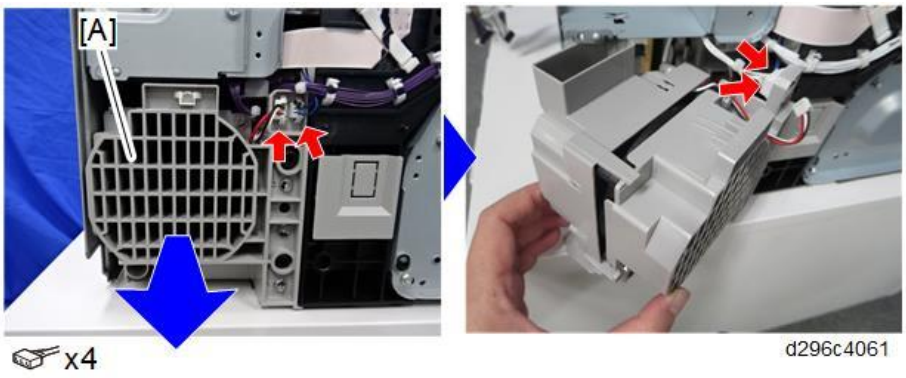


IM C400 series

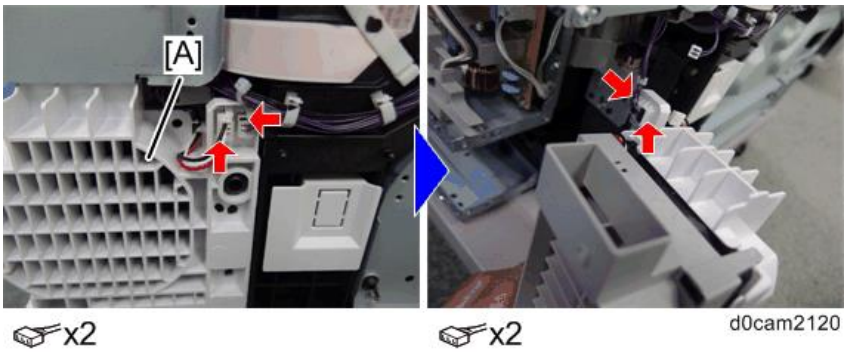


5. Disconnect the connectors and pull out the PSU exhaust fan (FAN4) [A] with the cover.

IM C300 series

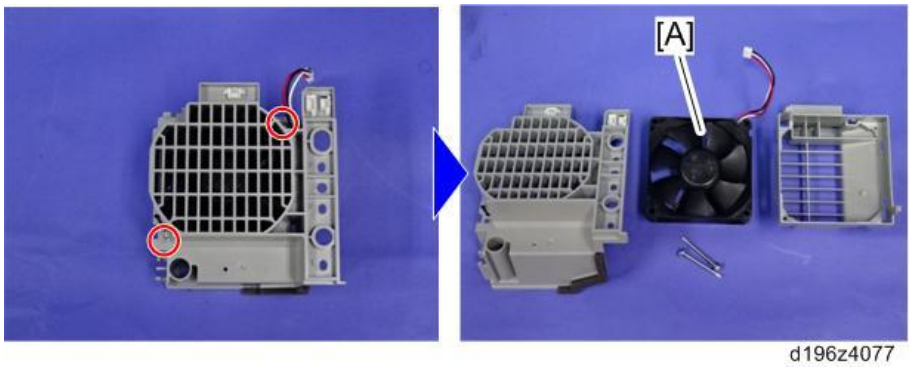


IM C400 series

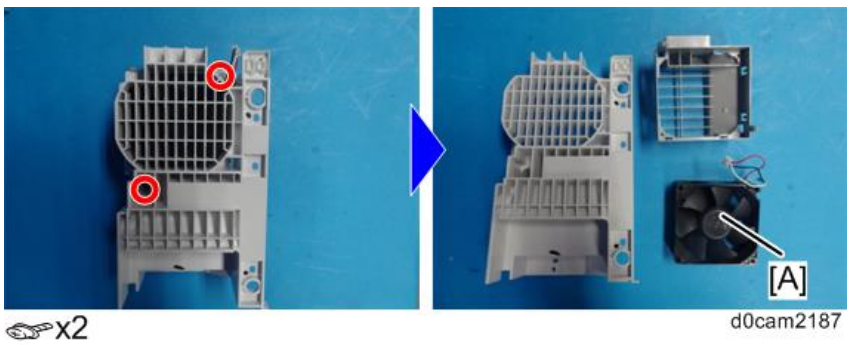


6. Remove the cover from the PSU exhaust fan (FAN4) [A]. (× 2)

IM C300 series



IM C400 series



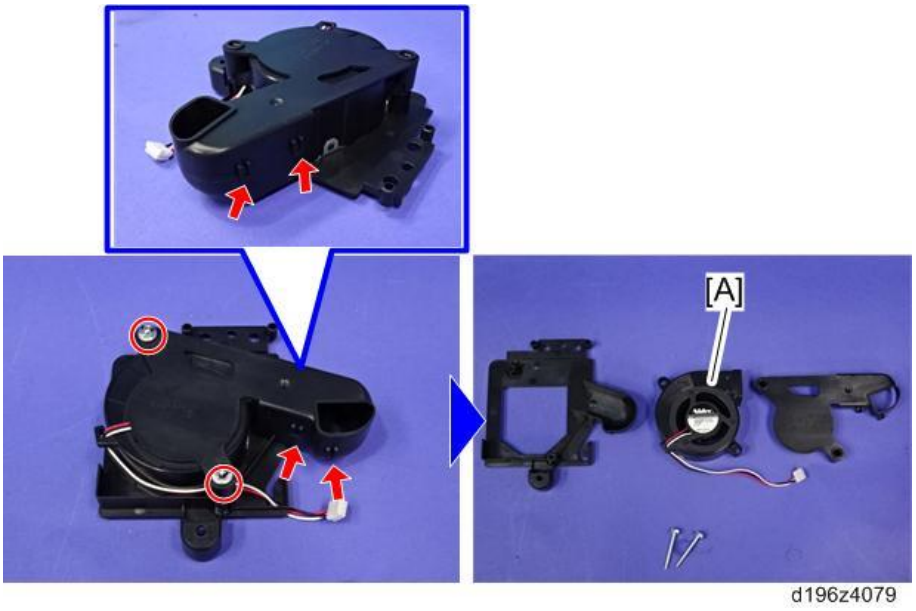
Note

- Install the PSU exhaust fan (FAN4) with its label facing the inside of the machine.

PCDU Cooling Fan (FAN3)

1. Remove the upper left cover. (Upper Left Cover)
2. Remove the left cover. (Left Cover)
3. Remove the PCDU cooling fan (FAN3) [A] with the duct. (× 2, × 1)

4. Remove the PCDU cooling fan (FAN3) [A]. (× 2, hook × 4)



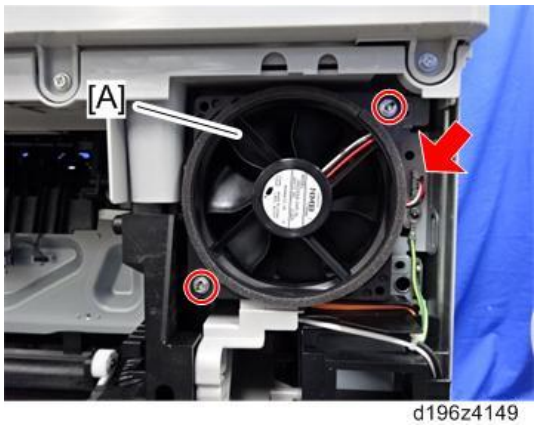
Note

- Install the PCDU cooling fan (FAN3) with its label facing the inside of the machine.

Fusing Unit Cooling Fan (FAN1)

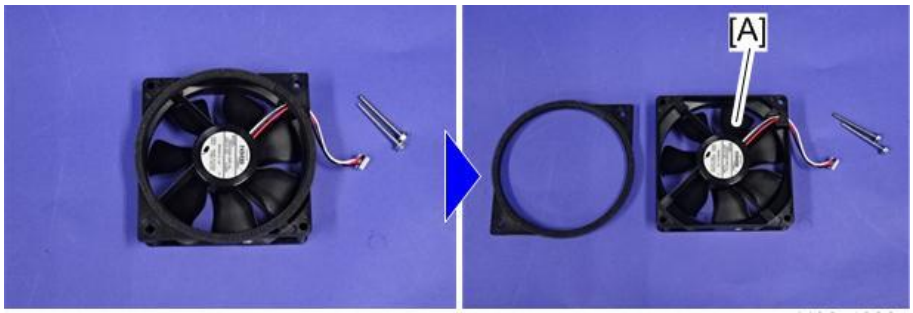
1. Remove the right rear cover. (Right Rear Cover)

2. Remove the fusing unit cooling fan (FAN1) [A] with the cover. (× 2, × 1)



d196z4149

3. Remove the cover from the fusing unit cooling fan (FAN1) [A].



d196z4080

⚠CAUTION

- Install the fusing unit cooling fan (FAN1) with its label facing the outside of the machine.

Temperature/Humidity Sensor (S18)/Main Power Switch (SW1)

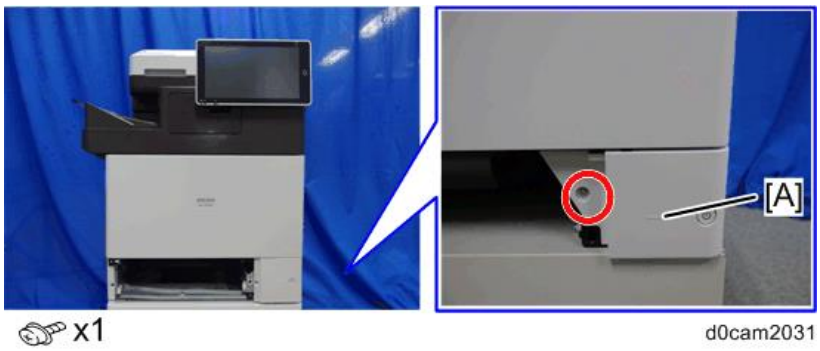
1. Pull out the paper tray.

2. Remove the front lower cover [A].

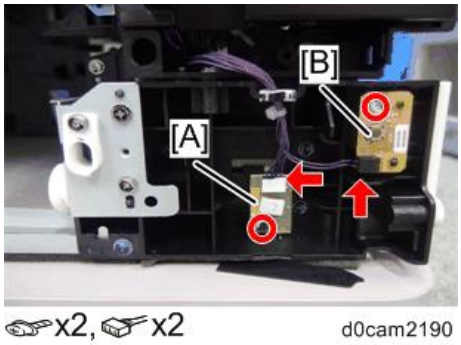
IM C300 series/IM C400F

d0cam2020

IM C400SRF



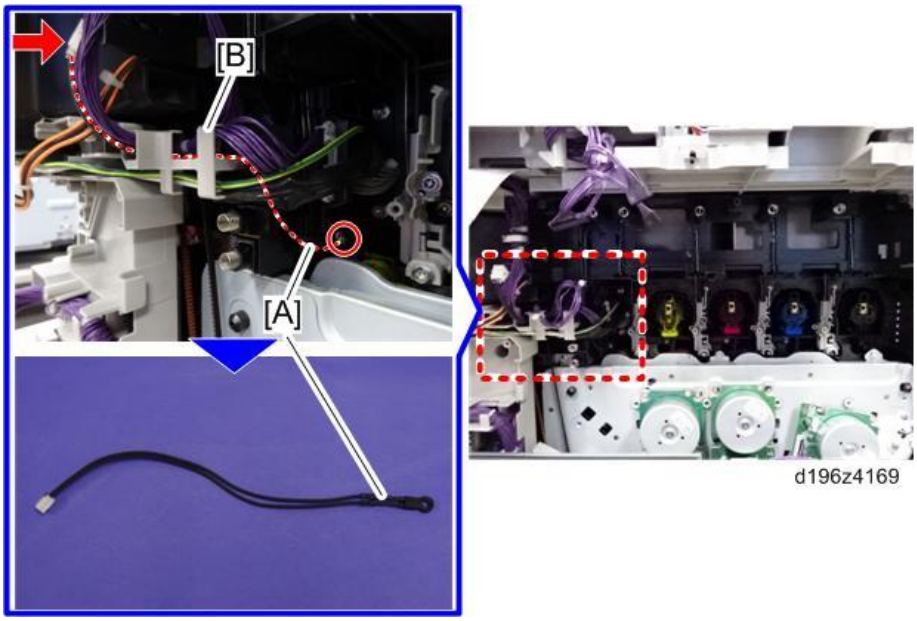
3. Remove the temperature/humidity sensor (S18) [A] and the main power switch (SW1) [B].



Imaging Temperature Sensor (TH5)

1. Remove the following parts.
   - Right Rear Cover
   - Rear Cover
   - Upper Left Cover
   - Left Cover
   - Controller Box
   - PSU (AC) (PCB17), PSU (DC) (PCB16)
   - High-Voltage Power Supply (Development) (PCB22)
   - Toner Bottle Sensor Board (PCB7)
   - Toner Supply Motors (M1-M4)
   - Toner Supply Unit (Toner Transport Section)
2. Remove the imaging temperature sensor (TH5) [A] while releasing the harness of the imaging

temperature sensor (TH5) from the harness guide [B]. (× 1, × 1)

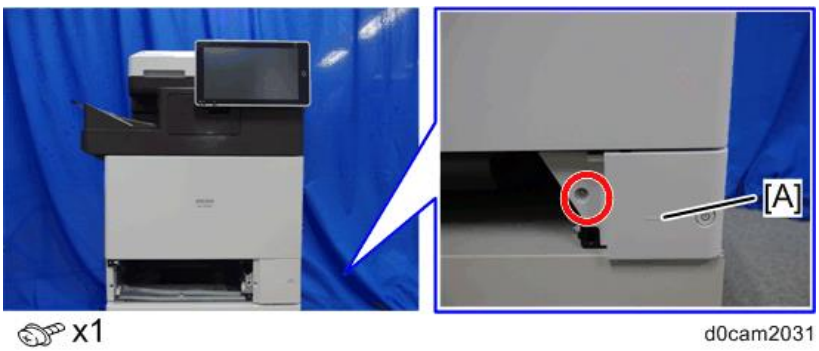


Interlock Switches

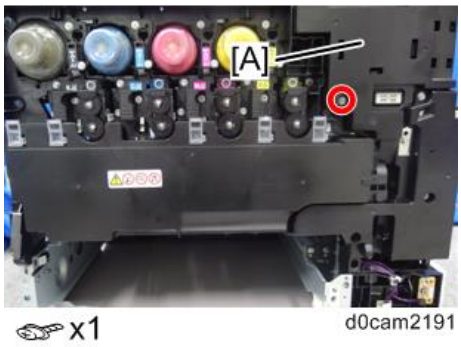
1. Pull out the paper tray.
2. Remove the front lower cover [A].

IM C300 series

IM C400 series

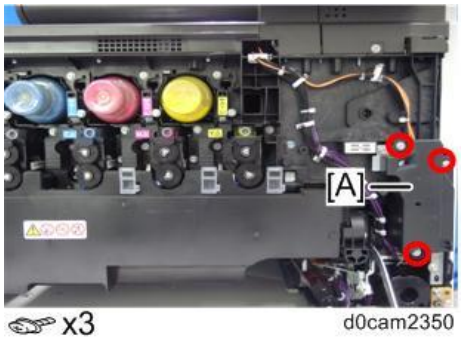


3. Remove the cover [A].

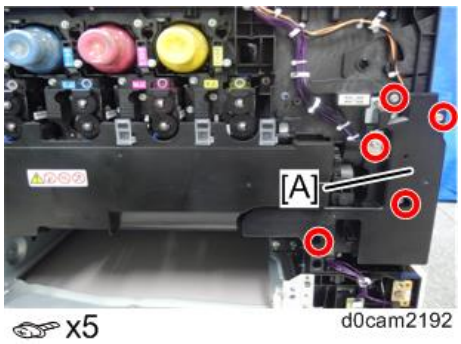


4. Remove the interlock switch cover [A].

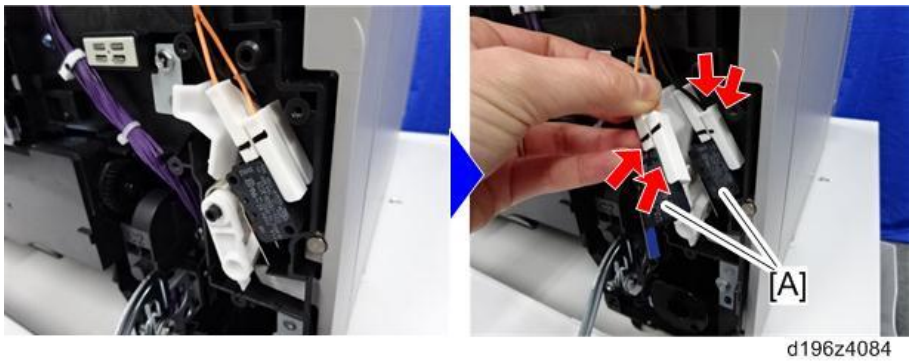
IM C300 series



IM C400 series



5. Remove the Interlock switches [A]. (× each 2)



Paper Exit Exhaust Fan (FAN5)

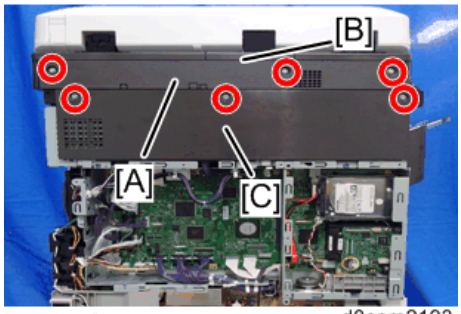
Note

This procedure is for the Finisher Model.

1. Remove the rear cover. (Rear Cover)
2. Remove the right rear cover. (Right Rear Cover)
3. Open the right cover.

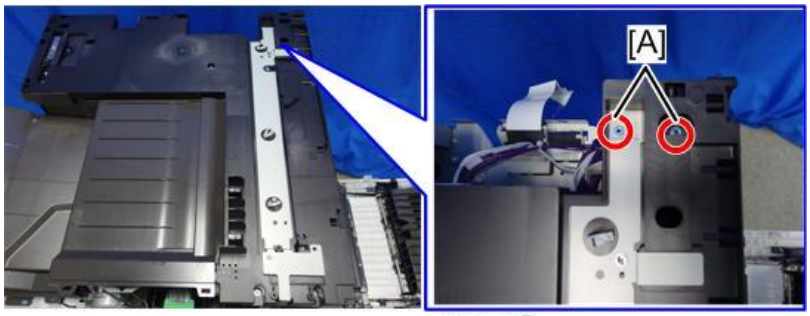
d0cam2036

4. Remove the scanner rear cover [A],scanner rear small cover [B] and rear upper cover [C].



x6 d0cam2193

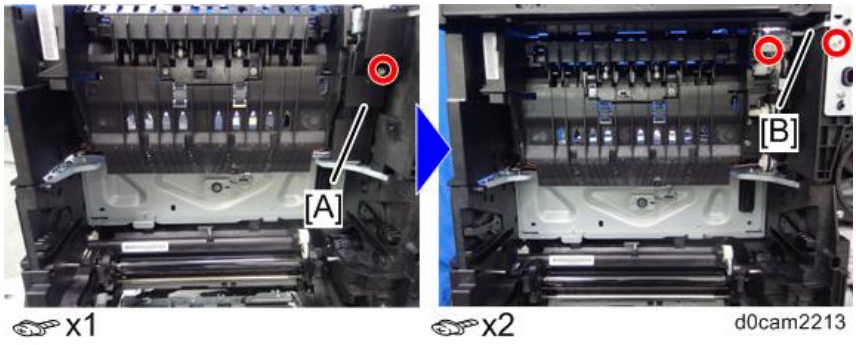
5. Remove the scanner unit.(Scanner Unit with the ADF)
6. Remove the two screws [A].



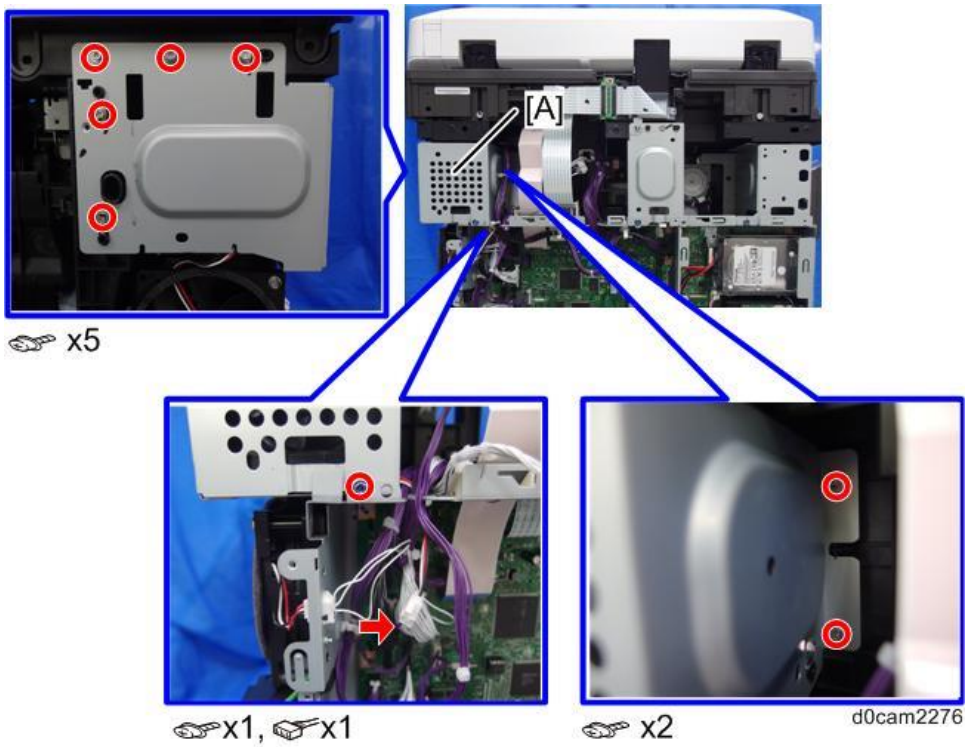
x2 d0cam2485

7. Remove the cover [A] from the paper exit unit.

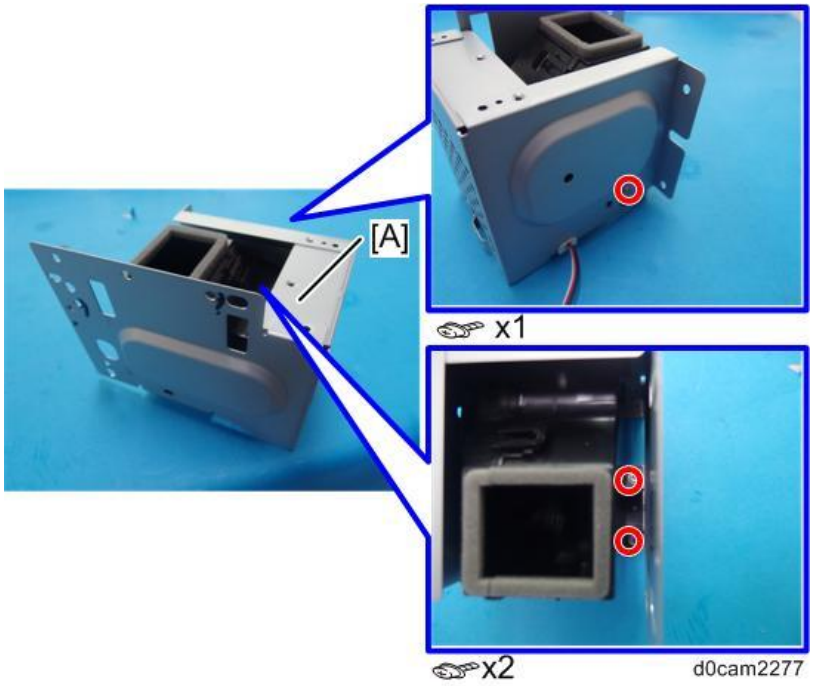
8. Remove the grounding plate [B].



9. Remove the paper exit exhaust fan (FAN5) with the bracket [A].



10. Remove the bracket [A].



11. Remove the paper exit exhaust fan (FAN5) [A] (Hook×3).

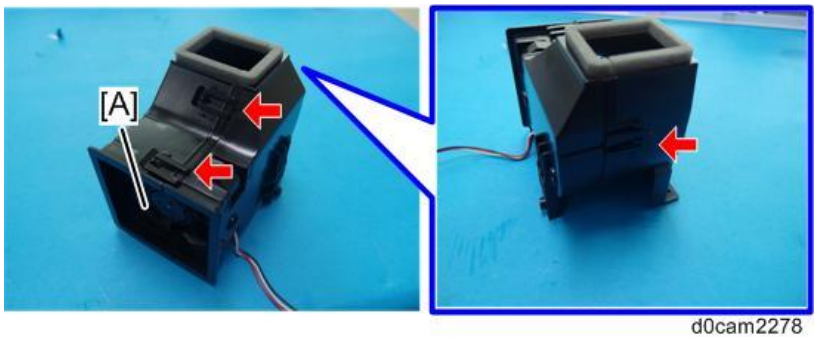
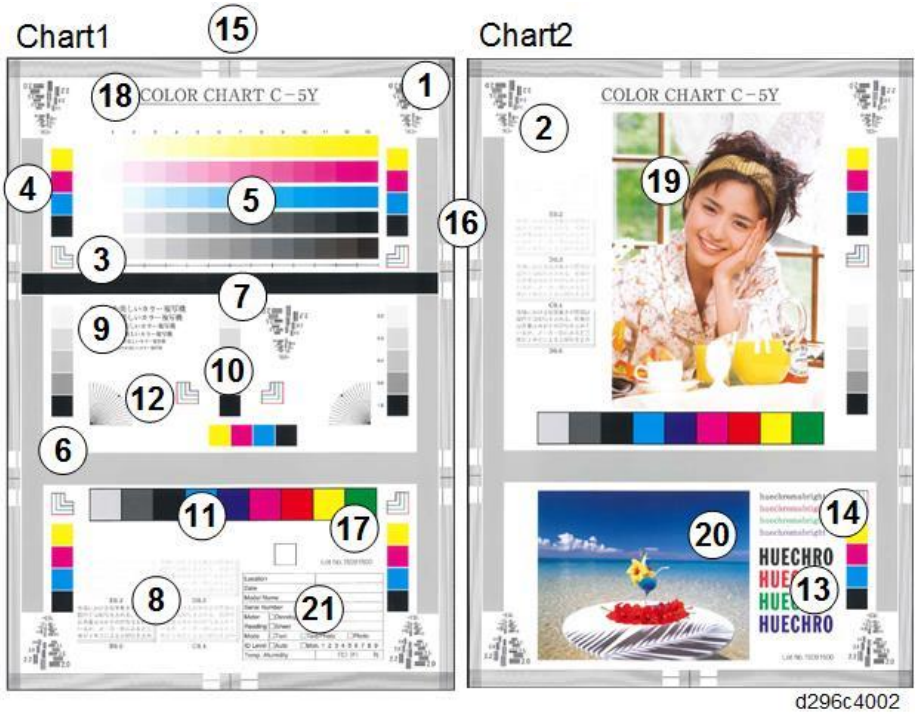
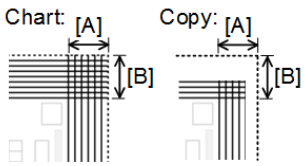
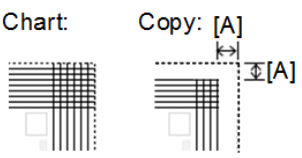


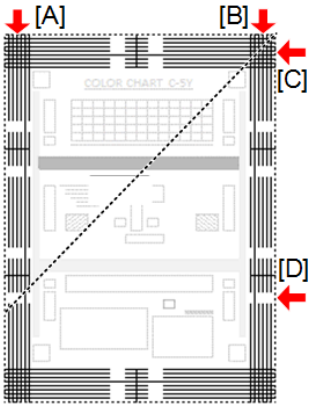
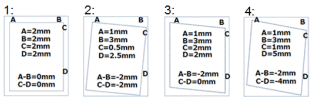
Image Adjustment

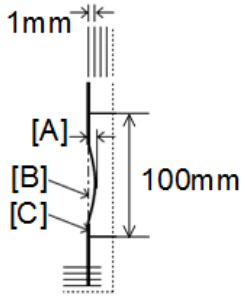
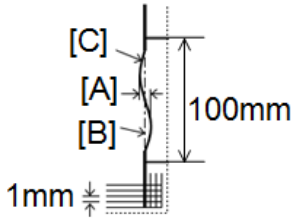
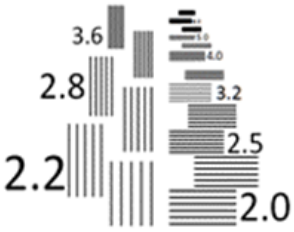
How to Use the Color Charts

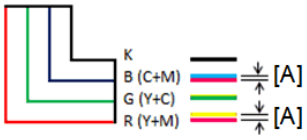
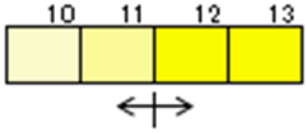
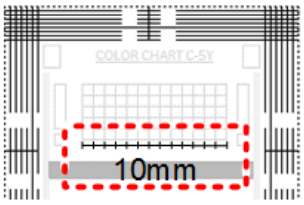
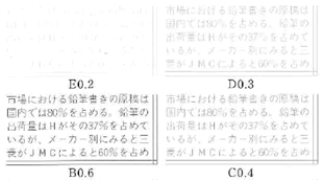
Here is an introduction of how to check the image quality using the color charts.

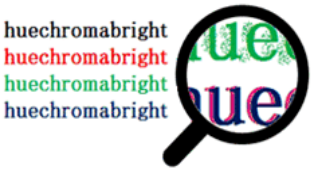
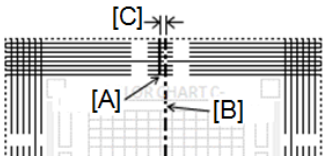


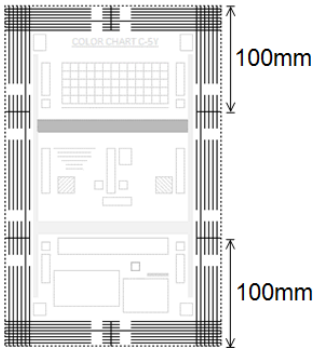
No.	Check Area	Check Item	Description
1	Frame line	Registration amount	Check the registration amount of the leading edge and trailing edge (sub scan direction). Overlay the chart and the copy, then check that the frame lines of the side [A] and leading edge [B] do not deviate. 
		Margin length	Check the margin length of the leading edge and trailing edge (sub scan direction). Overlay the chart and the copy, then check the erased length [A] (margin length). 
		Perpendicularity	Fold the paper, and check the deviation of the superimposed frame lines. If deviations in the main scan

No.	Check Area	Check Item	Description
			direction and sub scan direction are the same, it is a right angle.  1. Check the lengths between the leading edge and front end frame line at measuring positions [A] and [B]. 2. Check the lengths between the side edge and lateral frame line at measuring positions [C] and [D]. At this time, position [D] is equivalent to position [A], when making the fold line as shown in the above figure. 3. Check the difference between 1 and 2. If each deviation is different, it is a parallelogram image (non-right angle). If the deviations are the same, it is a right angle. If there are deviations, check the feed mechanism for errors such as skewing. **Example:**  1: Right angle, correct feeding 2: Right angle, incorrect feeding (Oblique feeding) 3: Non-right angle, correct feeding (Parallelogram) 4: Non-right angle, incorrect feeding (Oblique feeding+Parallelogram)
		Linearity	Check the linearity with a scale. Check in both the main scan direction and sub scan direction. Overlay the scale on any frame line, adjust to a position

No.	Check Area	Check Item	Description
			where the frame line is not hidden, and measure the most distant position. If difficult to check, draw an auxiliary baseline in position with no distortion to the frame line, and measure the deviation length from the baseline with the scale.  A: Measuring length, B: Base line, C:Copy If meandering, measure the maximum amplitude. If difficult to measure, draw an auxiliary baseline, measure the deviation length from the baseline with the scale, and sum it up.  A: Measuring length, B: Base line, C:Copy
2	Cornfield pattern	Resolution	Check the number next to the finest set of lines that can be distinguished from each other clearly, and do not blur into each other. The intervals between lines in the chart are the following, in 15 steps. A higher number means a finer image (higher resolution). 2.0/2.2/2.5/2.8/3.2/3.6/4.0/4.5/5.0/5.6/6.3/7.1/8.0/9.0/10.0 [lines/mm] 
3	Colored L-shaped lines	Color registration errors	Check the distances [A] between the colors making up the RGB lines (Y+M/ Y+C/ C+M), using a loupe.

No.	Check Area	Check Item	Description
			
4	Solid color patches	Solid density	Check the density of each color patch between the chart and the copy .
5	13 gradations scale	Halftone density	Check that the density of each color patch in the 3rd row in the chart and the copy are the same.
		Gray balance	Check that the K density of the 3rd and 5th rows in the chart and the copy are the same.
		Gradation	On the copy, check that the densities of each color patch in the 11th and 12th rows are different. 
		Equal magnification (main scan direction)	Check that the magnification is equal in the chart and the copy using the scale under the gradation patches. The scale is 10mm per row. Check 10 consecutive rows. 
6	Halftone area	Gray color difference	Check that the density in the chart and the copy is the same. There must be no unevenness in density between the front, rear, and middle.
7	Solid area	Solid filling	Check that there is no density unevenness in solid color. There should be no color unevenness in density between the front, rear, and middle.
8	Low contrast characters	Reproducibility of low contrast	Check that "C0.4" is readable in the copy when using the center notch (notch 5). In addition, "E0.2" must be deleted. 
9	Six sizes of characters	Character reproducibility (no broken lines	Check the minimum size of characters that are readable, and that have no broken lines or blurred characters.

No.	Check Area	Check Item	Description
		or blurred characters)	
10	Gray patches	Gray color difference and density	Check that the color and density of the 3rd row in the chart and the copy are the same.
11	Color patch	Color reproducibility	Check that the density of each color (KCMYRGB) in the chart and the copy are the same.
		Color reproducibility of 2nd generation	Check that the density in the chart and a 2nd generation copy are the same.
12	Radial lines	Jagged slanting lines	Check that the lines in the copy are not rough or jagged.
		Broken slanting lines	Check that the lines in the copy are not broken.
13	Color bold text	Solid color filling	Check that there is no missing color and no unevenness in RGB (YM/YC/CM) solid colors.
14	Color text	Color text reproduction	Check that the reproduced image is the same as the chart. The following diagram shows examples of errors. 
15	Horizontal scale	Image position in the main scan direction (Whether the image is at the center of the paper)	In the copy, check the distance between the center line made by folding the paper and the line at the center of the chart. Trim pattern adjustment for each paper feed tray must be completed before checking.  A: Center line, B: Fold line, C: Distance between the center line and the fold line
16	Vertical	Equal	Check the magnification error in the sub scan direction

No.	Check Area	Check Item	Description
	scale	magnification (Sub scan direction)	using the crossed lines 100mm away from the leading and trailing edges of the paper 
17	Lot number	-	Shows the lot number of the test chart.
18	Chart name	Reproduction of black characters	Check that the reproduced image is the same as the chart.
19	Portrait photograph	Reproducibility of the skin, hair, and clothes	Make a copy after setting the document type to photo mode, and check the reproducibility of the photo. Check the reproducibility of the granular state, and tone of color in the skin, hair, and clothes. Also check for overexposure and underexposure.
20	Landscape photograph	Reproducibility of sky blue	Make a copy after setting the document type to photo mode, and check the reproducibility of the photo. Check that the color tone of the chart and the copy are the same.
21	Notes	Check the reproducibility (for example, there should be no breaks in frame lines and characters).	Check the reproducibility, such as the presence of breaks in frame lines and characters. There is a place for writing down the output settings when you print the image samples and/or compare adjustments.

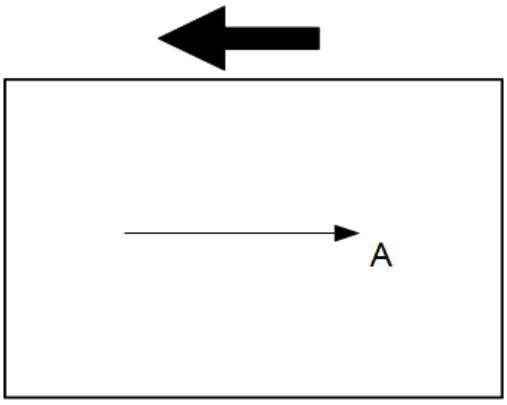
Scanning

Check the printing registration/side-to-side adjustment and the blank margin adjustment before you do the following scanner adjustments.

Note

- Use C-5Y color chart to do the following adjustments.

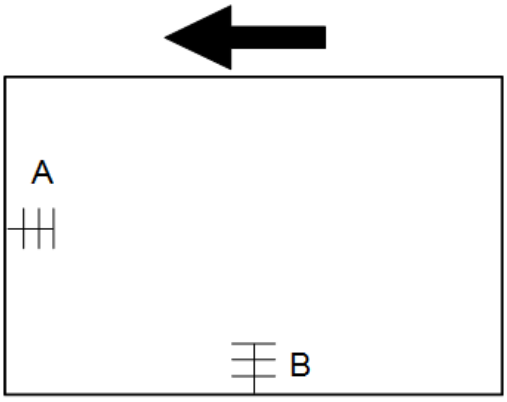
Scanner Sub-Scan Magnification



A: Sub-scan magnification

1. Put the test chart on the exposure glass. Then make a copy from one of the feed stations.
2. Check the magnification ratio. Adjust with SP4-008-001(Sub Scan Magnification Adj.) if necessary.
   Standard: ±1.0%.

Scanner Leading Edge and Side-to-Side Registration



A: Leading Edge Registration

B: Side-to-side Registration

1. Put the test chart on the exposure glass. Then make a copy from one of the feed stations.
2. Check the leading edge and side-to-side registration. Adjust the following SP modes if necessary.
   Standard: 0 ± 2mm for the leading edge registration, 0 ± 2.5mm for the side-to-side registration.

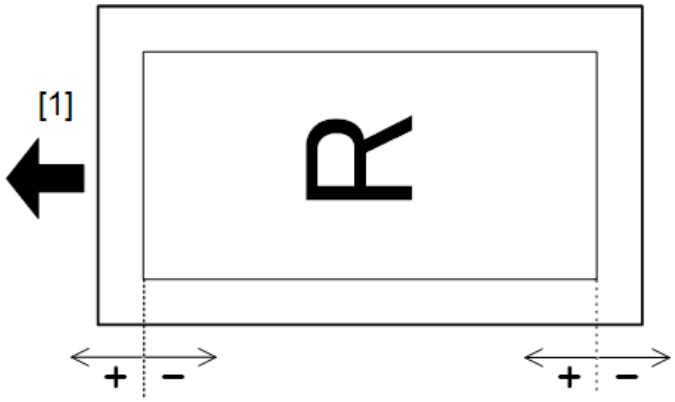
What It Does	SP Code
Leading Edge Registration	SP4-010-001
Side-to-Side Registration	SP4-011-001

ADF Adjustment

ADF Side-to-Side and Leading Edge Registration

1. Use A4/LT paper to make a temporary test chart as shown below.
2. Put the temporary test chart on the ADF. Then make a copy from one of the feed stations.

3. Check the leading edge and side-to-side registration. Adjust the following SP modes if necessary. Standard: 4.2 ± 2.0 mm for the leading edge registration, 2.0 ± 1.0 mm for the side-to-side registration. The following diagram shows how the image is affected when you adjust in the + or -. direction.



1: Feed direction

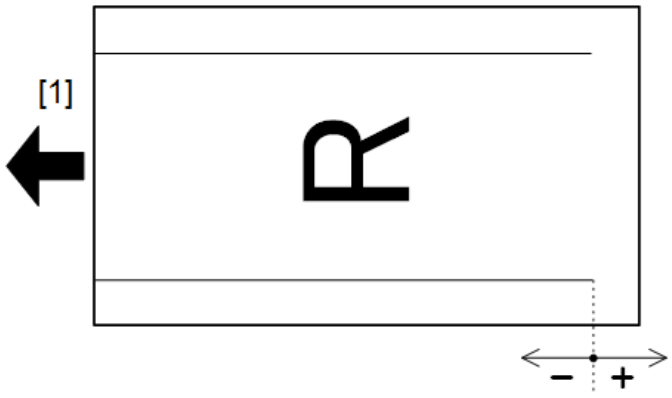
SP Code	What It Does	Adjustment Range
SP6-006-001	Side-to-Side Regist: Face	± 3.0 mm
SP6-006-002	Side-to-Side Regist (1-pass): Back	± 2.0 mm
SP6-006-010	Leading Edge Regist (1-pass): Face	± 5.0 mm
SP6-006-011	Leading Edge Regist (1-pass): Back	± 5.0 mm

ADF Trailing Edge Erase Width

1. Use A4/LT paper to make a temporary test chart as shown below.

2. Put the temporary test chart on the ADF. Then make a copy from one of the feed stations.

3. Check the trailing edge erase width. Adjust the following SP modes if necessary. The following diagram shows how the image is affected when you adjust in the + or -. direction.



1: Feed direction

SP Code	What It Does	Adjustment Range
SP6-006-014	Trailing Edge Erase Width (1-Pass):Face	± 5.0 mm
SP6-006-015	Trailing Edge Erase Width (1-Pass):Back	± 5.0 mm

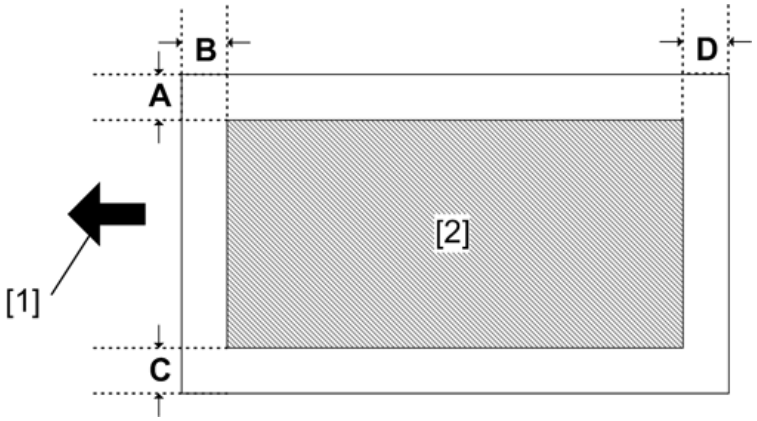
ADF Sub-scan Magnification

1. Put the temporary test chart on the ADF. Then make a copy from one of the feed stations.
2. Check the magnification ratio. Adjust with SP6-017-001(ADF Adjustment L-Edge Mag) if necessary.
   - Standard: ±5.0%
   - Reduction mode: ±1.0%
   - Enlargement mode: ±1.0%

Registration

Adjustment Standard

Image Area



[1]: Feed direction, [2]: Image area

Make sure that the registration is adjusted within the adjustment standard range.

After doing the registration adjustment, do the Erase Margin Adjustment in the next section.

Adjustment standard

- Leading edge (sub-scan direction):
  B = 3.25 ± 2.75 mm
- Trailing edge (sub-scan direction):
  D = 3.25 ± 2.75 mm
- Side to side (main-scan direction):
  A = C = 2.25 ± 1.75 mm

Registration Standard

Side to side

Adjusts the side-to-side registration for each paper feed station. Use SP mode (SP1-002) to adjust the side-to-side registration for the optional paper feed unit and duplex unit.

SP No.	SP Name	Range
SP1-002-001	Side-to-Side Registration: By-pass Table	± 4.0 mm

SP No.	SP Name	Range
SP1-002-002	Side-to-Side Registration: Tray 1	± 4.0 mm
SP1-002-003	Side-to-Side Registration: Tray 2	± 4.0 mm
SP1-002-004	Side-to-Side Registration: Tray 3	± 4.0 mm
SP1-002-005	Side-to-Side Registration: Duplex	± 4.0 mm

Leading edge, Trailing edge

Adjusts the leading edge registration for each paper type and process line speed. Use SP mode (SP1-001) to adjust the leading edge registration.

SP No.	SP Name	Range
SP1-001-001	Leading Edge Registration: Tray: Plain	± 9.0 mm
SP1-001-002	Leading Edge Registration: Tray: Middle Thick	± 9.0 mm
SP1-001-003	Leading Edge Registration: Tray: Thick	± 9.0 mm
SP1-001-005	Leading Edge Registration: Tray: Plain: 1200	± 9.0 mm
SP1-001-006	Leading Edge Registration: Tray: Middle Thick: 1200	± 9.0 mm
SP1-001-007	Leading Edge Registration: By-pass: Plain	± 9.0 mm
SP1-001-008	Leading Edge Registration: By-pass: Middle Thick	± 9.0 mm
SP1-001-009	Leading Edge Registration: By-pass: Thick	± 9.0 mm
SP1-001-012	Leading Edge Registration: By-pass: Plain: 1200	± 9.0 mm
SP1-001-013	Leading Edge Registration: By-pass: Middle Thick: 1200	± 9.0 mm
SP1-001-014	Leading Edge Registration: Duplex: Plain	± 9.0 mm
SP1-001-015	Leading Edge Registration: Duplex: Middle Thick	± 9.0 mm
SP1-001-016	Leading Edge Registration: Duplex: Thick	± 9.0 mm
SP1-001-017	Leading Edge Registration: Tray: Special 1	± 9.0 mm
SP1-001-018	Leading Edge Registration: By-pass: Special 1	± 9.0 mm
SP1-001-019	Leading Edge Registration: Duplex: Plain: 1200	± 9.0 mm
SP1-001-020	Leading Edge Registration: Duplex: Middle Thick: 1200	± 9.0 mm
SP1-001-021	Leading Edge Registration: Duplex: Special 1	± 9.0 mm
SP1-001-022	Leading Edge Registration: Tray: Special 1: 1200	± 9.0 mm
SP1-001-023	Leading Edge Registration: By-pass: Special 1: 1200	± 9.0 mm
SP1-001-024	Leading Edge Registration: Duplex: Special 1: 1200	± 9.0 mm
SP1-001-041	Leading Edge Registration: Tray: Plain: Std Speed 2	± 9.0 mm
SP1-001-043	Leading Edge Registration: By-pass: Plain: Std Speed 2	± 9.0 mm
SP1-001-045	Leading Edge Registration: Duplex: Plain: Std Speed 2	± 9.0 mm
SP1-001-047	Leading Edge Registration: Tray: Special1: Std Speed 2	± 9.0 mm
SP1-001-048	Leading Edge Registration: By-pass: Special1: Std Speed 2	± 9.0 mm
SP1-001-049	Leading Edge Registration: Duplex: Special1: Std Speed 2	± 9.0 mm

Adjustment Procedure

1. Enter SP2-109-003.
2. Print out the test pattern (14: 1-dot trimming pattern) with SP2-109-003.

Note

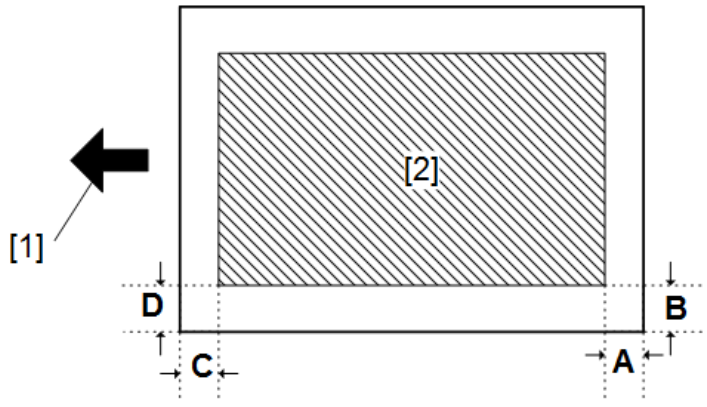
- Registration can change slightly as shown on the previous page. Print some pages of the 1-dot trimming pattern for steps 3 and 4. Then average the leading edge and side-to-side registration values, and adjust each SP mode.

3. Do the leading edge registration adjustment.
   1) Check the leading edge registration and adjust it with SP1-001.
   2) Select the adjustment conditions (paper type and process line speed).
   3) Input the value. Then press [#].
   4) Generate a trim pattern to check the leading edge adjustment.
4. Do the side-to-side registration adjustment.
   1) Check the side-to-side registration and adjust it with SP1-002.
   2) Select the adjustment conditions (paper feed station).
   3) Input the value. Then press [#].
   4) Generate a trim pattern to check the side-to-side registration adjustment.

Erase Margin Adjustment

Note

- After adjusting the Leading Edge Registration and Side Registration settings (see the previous section), do the Erase Margin Adjustment. To do this, check the values of Margins C and D.
- If they are not within the specifications (see below), then adjust C and D with SP2-103-001 to -004 as explained below. Then check Margins A and B again.



[1]: Feed direction, [2]: Image area

1. Enter the SP mode.
2. Print out the test pattern (14: 1-dot trimming pattern) with SP2-109-003.
3. Check the erase margin A and B. Adjust them with SP2-103-001 to -004 if necessary.
   - Leading edge: 0.0 to 9.9 mm (default: 4.2 mm)
   - Side-to-side: 0.0 to 9.9 mm (default: 2.0 mm)

- Trailing edge: 0.0 to 9.9 mm (default: 4.2 mm)

Color Registration

Line Position Adjustment

The automatic line position adjustment usually is done for a specified condition to get the best color prints.

Do the following if color registration shifts:

- Do "Auto Color Registration" as follows to do the forced line position adjustment.

1. First do SP2-111-003.
2. Then do SP2-111-001.
   To check if SP2-111-001 was successful, watch the screen during the process. A message is displayed at the end. Also, you can check the result with SP2-194-010 to -012.

- You should also do the line position adjustment at these times:
  - After you transport or move the machine (you should do the forced line position adjustment if you install the machine at the user location) if the machine is pre-installed at the workshop and moved to the user location,
  - When you remove or replace the motors, clutches, and/or gears related to the drum/development/transfer sections
  - When you remove or replace the image transfer belt, image transfer belt unit or laser optical housing unit

Printer Gamma Correction

Note

- The ACC is usually sufficient to adjust the color balance to get the best print output. You only need the printer gamma correction to fine-tune to meet user requirements.

Use SP modes if you want to modify the printer gamma curve created with ACC. You can adjust the gamma data for the following:

- Highlight
- Middle
- Shadow areas
- IDmax.

The adjustable range is from 0 to 30 (31 steps).

Copy Mode

- KCMY Color Balance Adjustment -

The adjustment uses only "Offset" values.

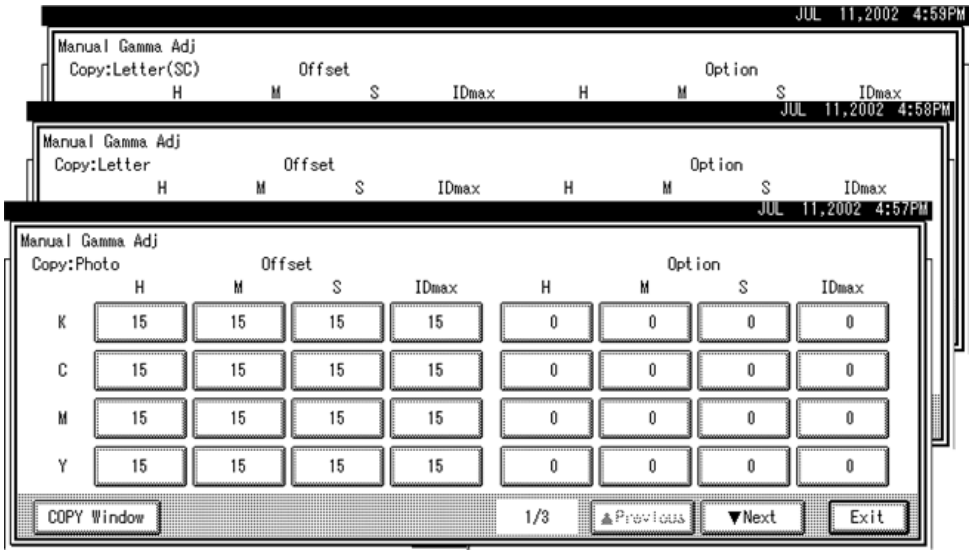
Note

- Never change "Option" values (the default value is 0).

Highlight (Low ID)	Levels 1 through 6 in the C5-Y chart 13-level scale
Middle (Middle ID)	Levels 3 through 10 in the C5-Y chart 13-level scale
Shadow (High ID)	Levels 7 through 12 in the C5-Y chart 13-level scale
ID max	Level 13 in the C5-Y chart 13-level scale (affects the entire image density)
Offset	The higher the number in the range associated with the low ID, middle ID, high ID, and ID max, the greater the density.

There are four adjustable modes (can be adjusted with SP4-918-009):

- Copy Photo mode
- Copy Letter mode
- Copy Letter (Single Color) mode
- Copy Photo (Single Color) mode



- Adjustment Procedure -

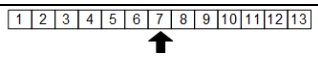
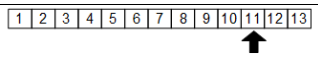
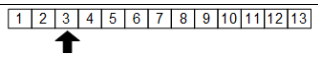
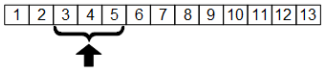
1. Copy the C-5Y chart in the mode that you want to adjust.
2. Enter the SP mode.
3. Select "System SP."
4. Select SP4-918-009.
5. Adjust the offset values until the copy quality conforms to the standard (see the table below).

Note

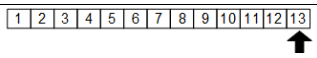
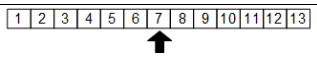
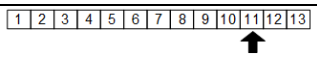
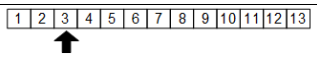
- 1. Never change the "Option" value (the default value is "0").
- 2. Adjust the density in this order: "ID Max", "Middle", "Shadow", "Highlight".

- Photo Mode, Full Color -

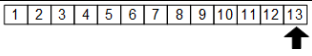
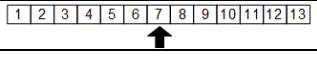
	Item to Adjust	Level on the C-5Y chart	Adjustment Standard
1	ID max:	1 2 3 4 5 6 7 8 9 10 11 12 13 ⬆	Adjust the offset value so that the density of level 13

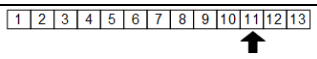
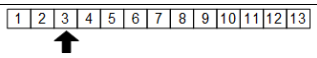
	(K, C, M, and Y)		matches that of level 13 on the C-5Y chart.
2	Middle (Middle ID) (K, C, M, and Y)		Adjust the offset value so that the density of level 7 matches that of level 7 on the C-5Y chart.
3	Shadow (High ID) (K, C, M, and Y)		Adjust the offset value so that the density of level 11 matches that of level 11 on the C-5Y chart.
4	Highlight (Low ID) (K, C, M, and Y)		Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-5Y chart.
5	K Highlight (Low ID) (C,M, and Y) <on the full color copy>		Adjust the offset value so that the color balance of black scale levels 3 through 5 in the copy is seen as gray (no C, M, or Y should be visible). If the black scale contains C, M, or Y, do steps 1 to 4 again.

- Photo Mode, Single Color -

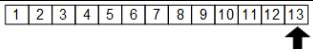
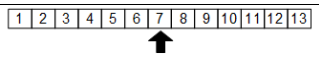
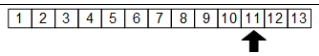
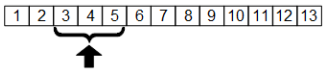
	Item to Adjust	**Level on the C-5Y chart**	**Adjustment Standard**
1	ID max: (K)		Adjust the offset value so that the density of level 13 matches that of level 13 on the C-5Y chart.
2	Middle (Middle ID) (K)		Adjust the offset value so that the density of level 7 matches that of level 7 on the C-5Y chart.
3	Shadow (High ID) (K)		Adjust the offset value so that the density of level 11 matches that of level 11 on the C-5Y chart.
4	Highlight (Low ID) (K)		Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-5Y chart.

- Text (Letter) Mode, Full Color -

	Item to Adjust	**Level on the C-5Y chart (K)**	**Adjustment Standard**
1	ID max: (K, C, M, and Y)		Adjust the offset value so that the density of level 13 matches that of level 13 on the C-5Y chart.
2	Middle		Adjust the offset value so that the density of level 7

	(Middle ID) (K, C, M, and Y)		matches that of level 7 on the C-5Y chart.
3	Shadow (High ID) (K, C, M, and Y)		Adjust the offset value so that the density of level 11 matches that of level 11 on the C-5Y chart.
4	Highlight (Low ID) (K, C, M, and Y)		Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-5Y chart.

- Text (Letter) Mode, Single Color -

	Item to Adjust	**Level on the C-5Y chart (K)**	**Adjustment Standard**
1	ID max: (K)		Adjust the offset value so that the density of level 13 matches that of level 13 on the C-5Y chart.
2	Middle (Middle ID) (K)		Adjust the offset value so that the density of level 7 matches that of level 7 on the C-5Y chart.
3	Shadow (High ID) (K)		Adjust the offset value so that the density of level 11 matches that of level 11 on the C-5Y chart.
4	Highlight (Low ID) (K)		Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-5Y chart.

Note

- Text parts of the test pattern cannot be printed clearly after you adjust "shadow" as shown above. At this time, check if the 5 line/mm pattern at each corner is printed clearly. If it is not, adjust the offset value of "shadow" again until it is.

Printer Mode

There are eight adjustable modes (select these modes with printer SP1-102-001):

SP	Resolution	Mode	Bit	Types of Colors
0	1200 x 1200	photo	1	4
1	600 x 600	photo	4	4
2	600 x 600	photo	2	4
3	600 x 600	photo	1	4
4	1200 x 1200	text	1	4
5	600 x 600	text	4	4

SP	Resolution	Mode	Bit	Types of Colors
6	600 x 600	text	2	4
7	600 x 600	text	1	4

- Adjustment Procedure -

1. Execute ACC for the printer mode.
2. Enter the SP mode.
3. Select "Printer SP".
4. Select SP1-102-001. Then select the necessary print mode to adjust. Then select "2" that is used by default printing as priority.
   0: 1200 x 1200 photo mode (1bit/4col)
   1: 600 x 600 photo mode (4bit/4col)
   2: 600 x 600 photo mode (2bit/4col) (Default)
   3: 600 x 600 photo mode (1bit/4col)
   4: 1200 x 1200 text mode (1bit/4col)
   5: 600 x 600 text mode (4bit/4col)
   6: 600 x 600 text mode (2bit/4col)
   7: 600 x 600 text mode (1bit/4col)
5. Execute SP1-103-001 to print out a color grayscale chart sheet if you want to examine the image quality for these settings.
6. Adjust the color density with SP1-104. Compare the color grayscale chart sheet with the C-5Y chart.

Note

1. Adjust the density in this order: "Shadow", "Middle", "Highlight".
2. Check that the following reference patches on the grayscale chart are within the following range of the C-5Y chart.

Item to adjust	Reference patch on the grayscale chart (related to the half tone area)	Level on the C-5Y chart (13 rows scale)
Shadow (High ID)	12th patch from the lighter density	**C,M,Y:** 6 to 10, Center is the 8th row **K:** 8 to 12, Center is the 10th row
Middle (Middle ID)	8th patch from the lighter density	**C,M,Y:** 3 to 7, Center is the 5th row **K:** 5 to 9, Center is the 7th row
Highlight (Low ID)	4th patch from the lighter density	**C,M,Y:** 1 to 4, Center is the 2nd row **K:** 1 to 5, Center is the 3rd row

	K	C	M	Y
Shadow	SP1-104-002	SP1-104-022	SP1-104-042	SP1-104-062
Middle	SP1-104-003	SP1-104-023	SP1-104-043	SP1-104-063
Highlight	SP1-104-001	SP1-104-021	SP1-104-041	SP1-104-061

7. Use SP1-105-001 to keep the adjusted settings.
8. Turn the main power OFF and ON.

Color Skew Adjustment

The skew adjustment of this machine should be performed manually. The adjustment procedure is as follows:

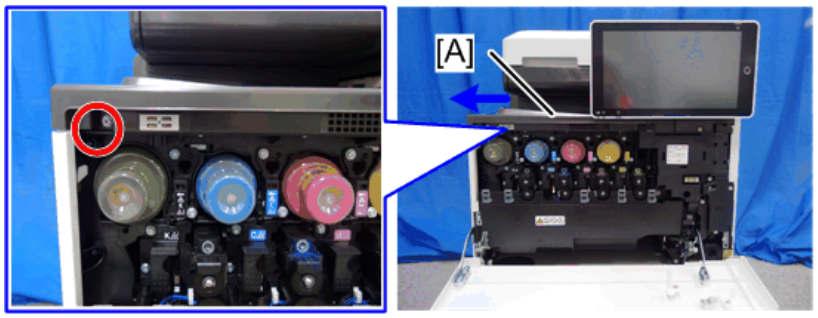
1. Turn ON the power and enter the SP mode.
2. Select "System SP."
3. Execute MUSIC (SP2-111-004).
4. Check the result for each color with the following SPs.
   - SP2-117-004 (K)
   - SP2-117-002 (C)
   - SP2-117-001 (M)
   - SP2-117-003 (Y)

Note

- If all of the SP values are within ±5, go to Step 9.
- If any of the SP values are not within ±5, go to Step 5.

Models other than the IM C400SRF

1. Remove the paper exit tray [A]

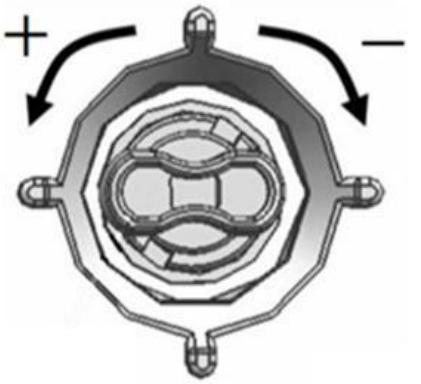


2. Close the front door.
3. Rotate the knob(s) shown in the photo [A] to [D] at 90 degree intervals until the SP value for the affected color(s) is 0.

Note

- There are two knobs on each of the two LD units. A click is felt every 90 degree rotation.

- Turning the knob **clockwise** by 90 degrees changes the SP value by -1.
- Turning the knob **counter-clockwise** by 90 degrees changes the SP value by +1.



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- Example:
  SP value for magenta in Step 4 was “+6” → Turn knob [C] 6 clicks (1 1/2 rotations) clockwise.
- SP value for yellow in Step 4 was “-7” →Turn knob [D] 7 clicks (1 3/4 rotations) counter-clockwise.

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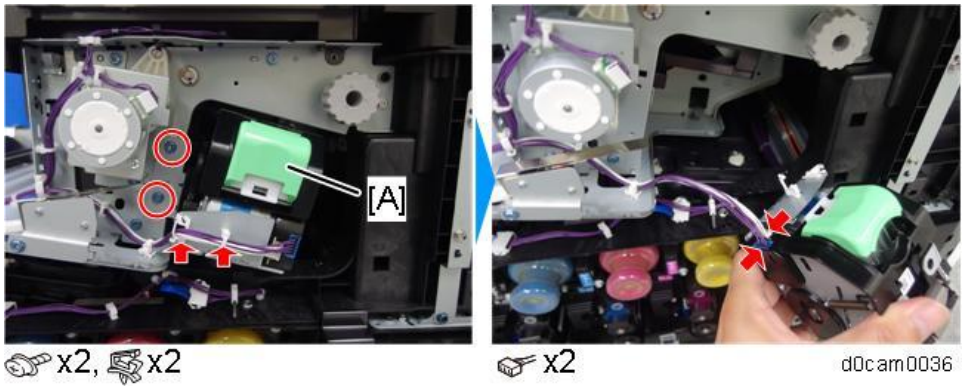
4. Make sure that the front door is closed, and execute execute MUSIC (SP2-111-004).
5. Check the result for each color.
6. Rotate the knob(s) shown in the photo [A] to [D] at 90 degree intervals until the SP value for the affected color(s) is within ±5 (target: 0).
7. Exit the SP mode.
8. Reattach the paper exit tray.

Note

- Do not touch the LD units while installing the Paper Exit Tray. If the laser units move, the color skew might have to be adjusted again.

IM C400SRF

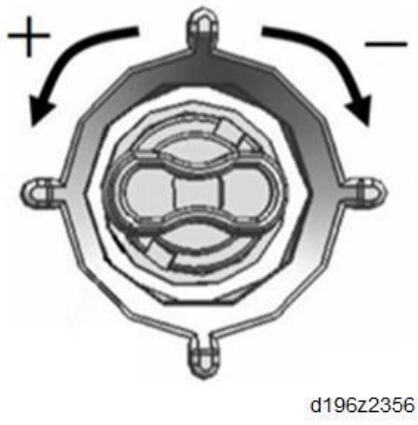
1. Open the front cover.
2. Remove the paper exit front cover, paper exit upper cover and paper exit tray. (Paper Exit Front Cover/Paper Exit Upper Cover/Paper Exit Tray for IM C400SRF)
3. Remove the staple unit [A].



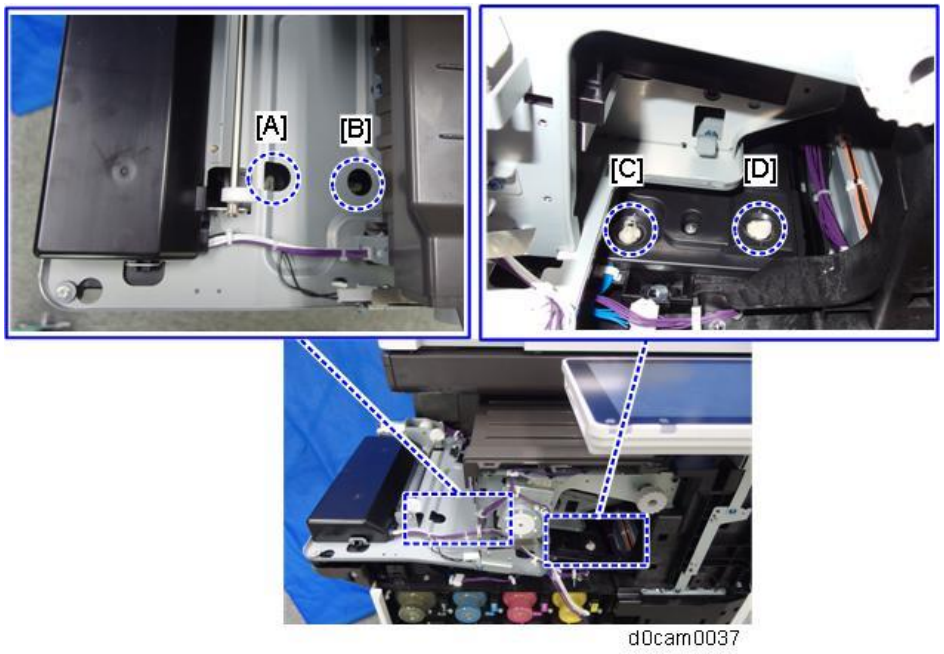
4. Rotate the knob(s) shown in the photo [A] to [D] at 90 degree intervals until the SP value for the affected color(s) is 0.

Note

- There are two knobs on each of the two LD units. A click is felt every 90 degree rotation.
- Turning the knob **clockwise** by 90 degrees changes the SP value by -1.
- Turning the knob **counter-clockwise** by 90 degrees changes the SP value by +1.



- Example:
  SP value for magenta in Step 4 was “+6” → Turn knob [C] 6 clicks (1 1/2 rotations) clockwise.
- SP value for yellow in Step 4 was “-7” →Turn knob [D] 7 clicks (1 3/4 rotations) counter-clockwise.



5. Make sure that the front door is closed, and execute execute MUSIC (SP2-111-004).
6. Check the result for each color.
7. Rotate the knob(s) shown in the photo [A] to [D] at 90 degree intervals until the SP value for the affected color(s) is within ±5 (target: 0).
8. Exit the SP mode.
9. Reattach the paper exit tray.

Note

- Do not touch the LD units while installing the Paper Exit Tray. If the laser units move, the color skew might have to be adjusted again.

5. System Maintenance

Service Program Mode

SP Tables

See "Appendices" for the following information:

- Service Program Mode
- SP Tables - SP1-XXX
- SP Tables - SP2-XXX
- SP Tables - SP3-XXX
- SP Tables - SP4-XXX
- SP Tables - SP5-XXX
- SP Tables - SP6-XXX
- SP Tables - SP7-XXX
- SP Tables - SP8-XXX
- Printer SP Mode
- Scanner SP Mode
- Input and Output Check

Overview of Firmware Update

Difference from Previous Machine

- In addition to an SD card, a USB flash drive can be used for the firmware update. Firmware update from a USB flash drive can only be performed using the slot on the operation panel.
- When using the slot on the operation panel for the firmware update from removable media (SD card or USB flash drive), it is no longer necessary to turn the machine's main power OFF and then back ON.
- Firmware update from removable media can be executed at the programmed date and time via the package file read from the removable media in advance.
- Firmware update by the module alone is no longer available. However, an individual firmware module may be provided on special occasions, such as for correcting a problem.

Overview

Note

- The firmware is basically supplied as a package. However, an individual firmware module may be provided on special occasions, such as for correcting a problem.

Each firmware module (such as System/Copy, Engine, etc.) used to be updated individually. However, an all-inclusive firmware package (package_ALL) is now available.

There are four ways to update using the firmware package.

- Removable media
  By downloading the firmware package to an SD card or USB flash drive in advance, you can update the firmware when there is no network connection.
- RFU (Remote Firmware Update)
  You can have the firmware package sent from the call center to the machine over the network for automatic firmware update.
- SFU (Smart Firmware Update)
  Operate the machine to download the firmware package from the server, either immediately or at the programmed date and time.
- ARFU (Automatic Remote Firmware Update)
  The machine automatically checks the server for firmware packages every 76 hours. If there is a newer package than that on the machine, that package is downloaded for firmware update.

Types of firmware update files, supported update methods:

	SFU	Removable media	RFU	ARFU
Individual firmware*1	N/A	Available	Available	N/A
Firmware package	Available	Available	Available	Available

*1 Not abailable for this machine.

Firmware Types

Firmware Included in the Firmware Package

Firmware type	Firmware location
System/Copy	Controller Board (PCB24)
Engine	BiCU (PCB1)
Operation Panel	Smart Operation Panel
ADF	ADF
Bank	Bank
FCU	FCU (PCB2)
Network Support	Smart Operation Panel – CPU board (PCB20)
Bank2	Bank
BIOS	BiCU (PCB1)
HDD format option	Controller Board (PCB24)
RPCS	Controller Board (PCB24)
PS	Controller Board (PCB24)
RPDL	Controller Board (PCB24)
R98	Controller Board (PCB24)
R16	Controller Board (PCB24)
RPGL	Controller Board (PCB24)
R55	Controller Board (PCB24)
RTIFF	Controller Board (PCB24)
PCL	Controller Board (PCB24)
PCLXL	Controller Board (PCB24)
MSIS	Controller Board (PCB24)
PDF	Controller Board (PCB24)
PictBridge	Controller Board (PCB24)
PJL	Controller Board (PCB24)
MediaPrint: JPEG	Controller Board (PCB24)
MediaPrint: TIFF	Controller Board (PCB24)
XPS	Controller Board (PCB24)
FONT	Controller Board (PCB24)

Firmware type	Firmware location
FONT1	Controller Board (PCB24)
FONT2	Controller Board (PCB24)
Copy apl	Smart Operation Panel – CPU board (PCB20)
NetworkDocBox	Smart Operation Panel – CPU board (PCB20)
Fax apl	Smart Operation Panel – CPU board (PCB20)
Printer apl	Smart Operation Panel – CPU board (PCB20)
Scanner apl	Smart Operation Panel – CPU board (PCB20)
Remote Fax apl	Smart Operation Panel – CPU board (PCB20)
MIB	Smart Operation Panel – CPU board (PCB20)
Websupport	Smart Operation Panel – CPU board (PCB20)
WebUapl	Smart Operation Panel – CPU board (PCB20)
CSPF	Smart Operation Panel – CPU board (PCB20)

Firmware not included in the package

Firmware Type	Firmware Location
Animation	Smart Operation Panel

Note

- Like the previous model, animation is updated by inserting the SD card into the SD card slot (bottom) at the back of the main unit.

Firmware Update (Removable Media)

Overview

Important

- Removable media (SD card or USB flash drive) are a precision device, so when you handle them, respect the following.
- When the power is switched ON, do not insert or remove the removable media.
- During installation, do not switch the power OFF.
- Since the removable media is manufactured to high precision, do not store it in a hot or humid location, or in direct sunlight.
- Do not bend the removable media, scratch it, or give it a strong shock.
- Before downloading firmware to an SD card, check whether write-protection of the SD card is disabled. If write-protection is enabled, an error code (error code 44, etc.) will be displayed during download, and the download will fail.
- Before updating the firmware, remove the network cable from this machine.
- During software update, disconnect network cables and interface cables, remove wireless boards, etc., (so that they are not accessed during the update).

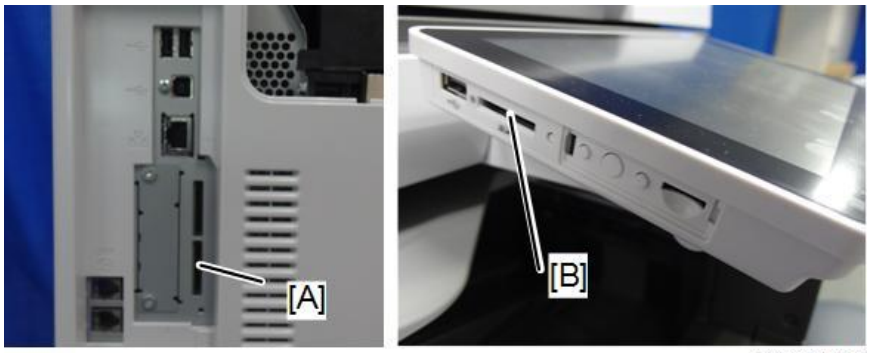
Media slot to use when updating

Using the SD card

Use SD Card Slot 2 [A: Lower Slot] on the back of the machine or the SD card slot [B] on the left side of the operation panel.

Note

- When inserting into the slot, push the SD card until it clicks.
- Check whether the card is properly in the SD card slot. When an SD card is inserted, a click is heard, and it is locked.
- To remove the card, release by pressing once.



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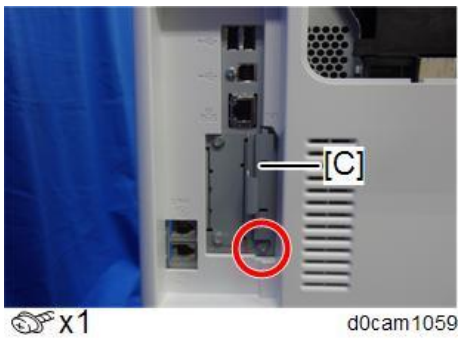
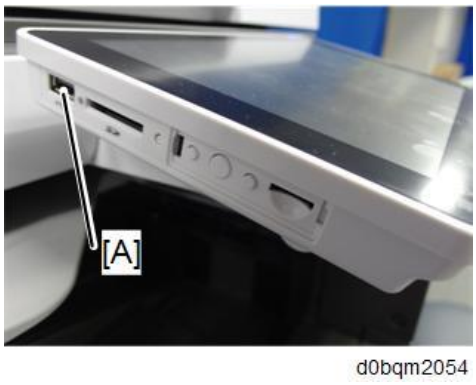
To use the SD card slot [A], remove the SD card slot cover [C] in the figure below.



Using the USB Flash Drive

Use the USB slot [A] on the left side of the operation panel.



Update Procedure

Preparation

Download the latest version firmware to the removable media in advance.

Create a folder called “package” on the removable media, and then download the package firmware (xxxxxxxx.pkg) to it.

Note

- Do not put multiple machine firmware programs on the same SD card. Copy the only model firmware you want.
- If you download the firmware package to the “romdata” folder, which is the one normally used, the firmware package cannot be updated.
- When updating the firmware package of the same model, be sure to download each version separately. If you download multiple versions for the same model, only one of these versions is displayed on the machine’s operation panel, but which version is displayed is unpredictable.

Note for Update

Note

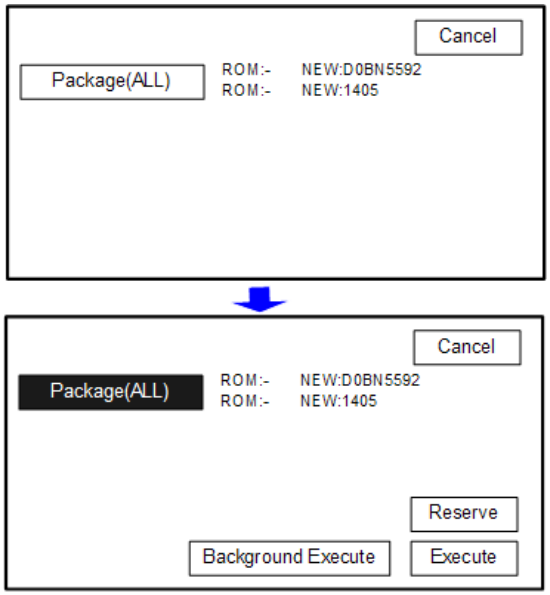
- When the power supply is switched OFF during firmware update, the update is interrupted. When the power is switched ON again, normal operation cannot be guaranteed.
- An update error continues to be displayed until the update is successful. In this case, switch

the power OFF, insert the removable media again, switch the power ON, and continue the download of the firmware from the removable media.

- The PS3 firmware program is included in the preinstalled PDF firmware. In the default state, although the PS3 firmware program is hidden in the disabled state, the function is enabled by installing the PS3 card. (The program installed in the PS3 card is a dongle (key) for enabling the PS3 function).
- Due to the above specification, the self-diagnosis result report shows the ROM module number /software version of the PDF firmware at the PS location.

Using the Slot on the Back of the Machine

1. Turn OFF the main power.
2. Insert the SD card into the SD card slot on the back of the machine.
3. Turn ON the main power.
   Wait until the update screen starts (about 30 seconds).
   When it appears, "Please Wait" is displayed.
4. Select the package, and then press [Execute].



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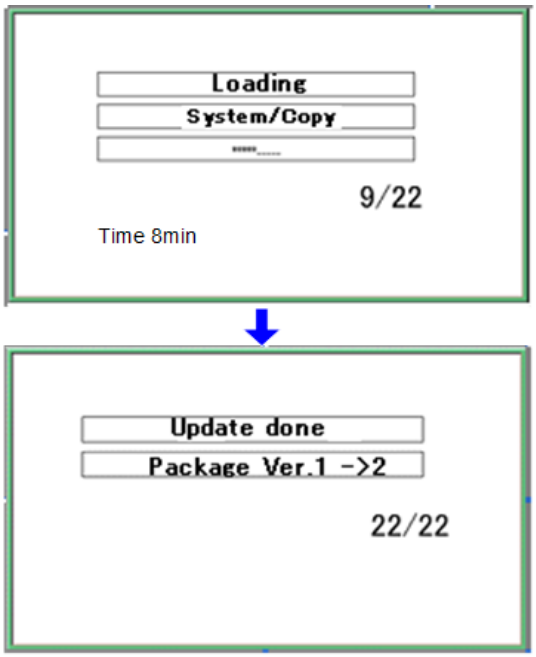
Display	Contents
ROM:	Display installed module number/version information.
NEW:	Display module number/version information in the card.

*The upper row corresponds to the module name, the lower row corresponds to the version number.

5. After the data waiting screen is displayed, the update is automatically started. When the firmware

update is complete, "Update done" is displayed.



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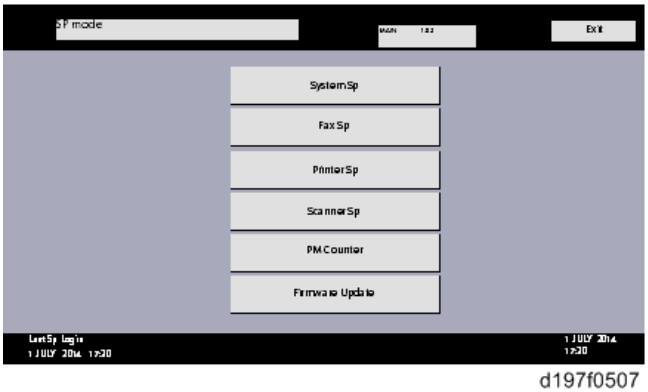
Note

The figures at the lower right of the display indicate "Number of updated items/ All items to be updated".

6. Turning the main power OFF.
7. Remove the SD card.
8. Turn the main power ON again, and check whether the machine is operating normally.
9. Return the SD card slot cover to the original position.

Using the Slot on the Operation Panel (Immediate Update)

1. Enter the SP mode.
2. Touch [Firmware Update].



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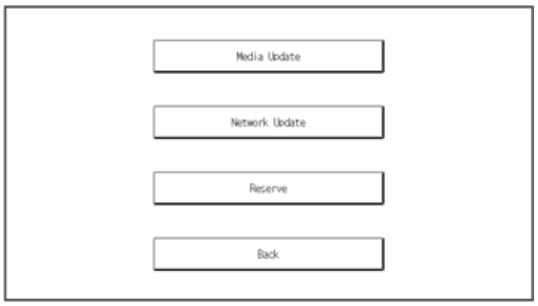
3. Touch [Media Update].



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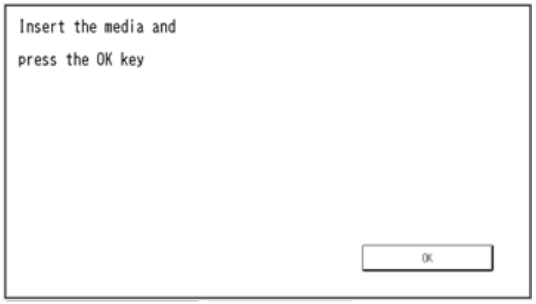
4. When the following screen is displayed, insert the removable media into the slot on the operation panel and touch [OK].



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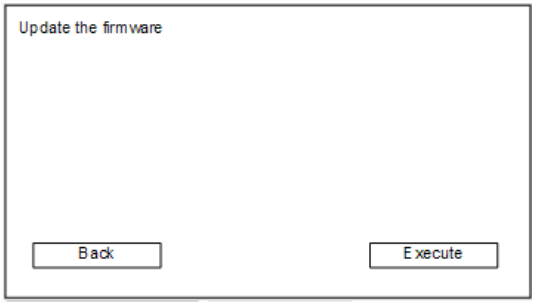
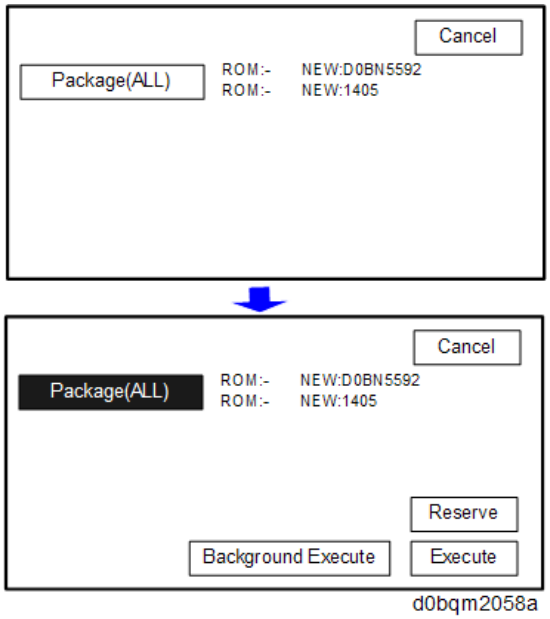
5. Touch [Execute].



d0bqm2223

6. Select the package, and then press [Execute].



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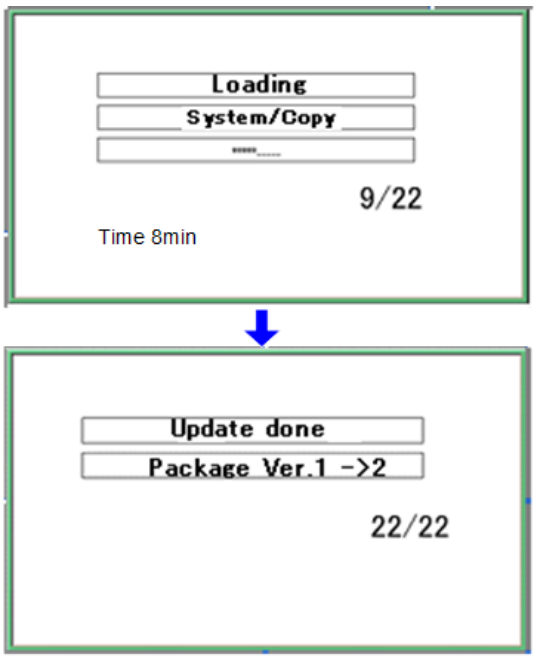
7. After the data waiting screen is displayed, the update is automatically started. When the firmware update is complete, "Update done" is displayed.



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Note

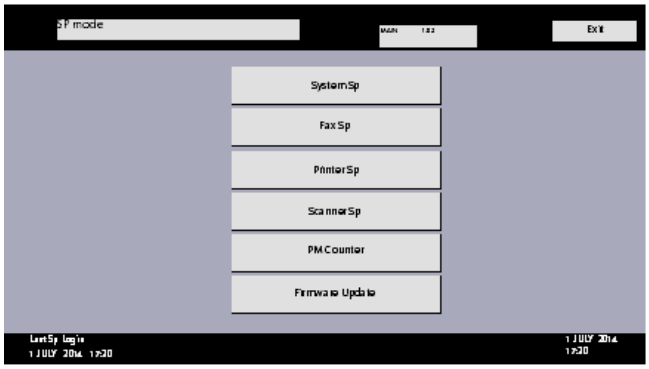
The figures at the lower right of the display indicate "Number of updated items/ All items to be updated".

8. Turning the main power OFF.
9. Remove the removable media from the slot on the operation panel.
10. Turn the main power ON again, and check whether the machine is operating normally.

Using the Slot on the Operation Panel (Reserve)

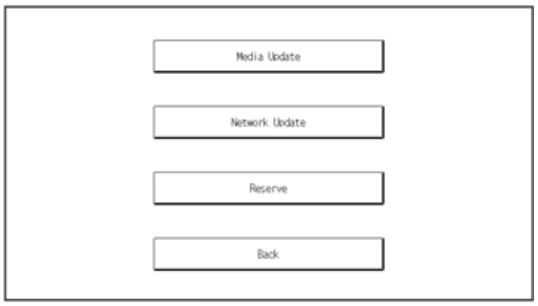
Firmware update can be executed at the programmed date and time.

1. Enter the SP mode.
2. Touch [Firmware Update].



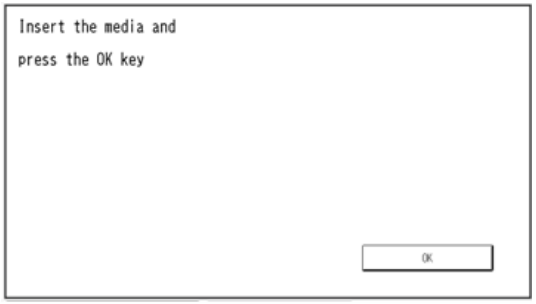
d197f0507

3. Touch [Media Update].



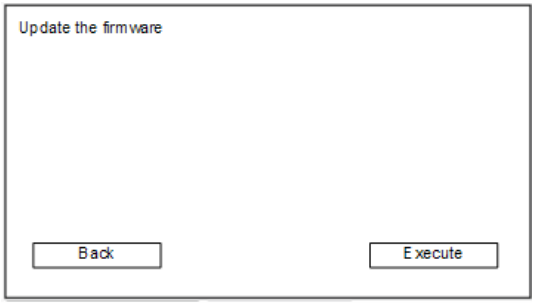
d0bqm2220

4. When the following screen is displayed, insert the removable media into the slot on the operation panel and touch [OK].



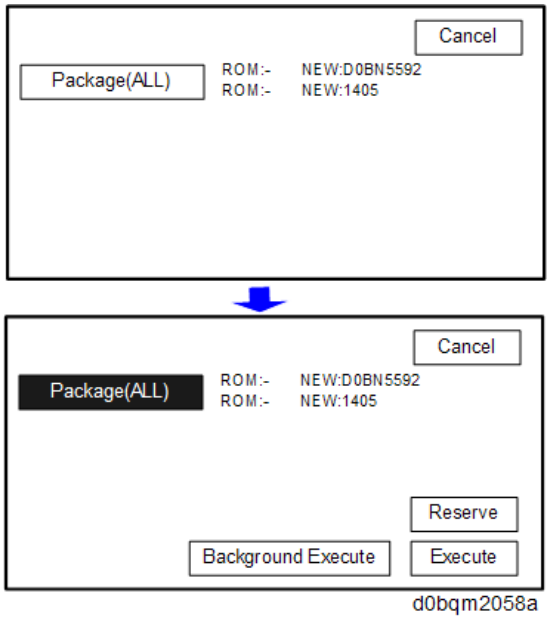
d0bqm2221

5. Touch [Execute].



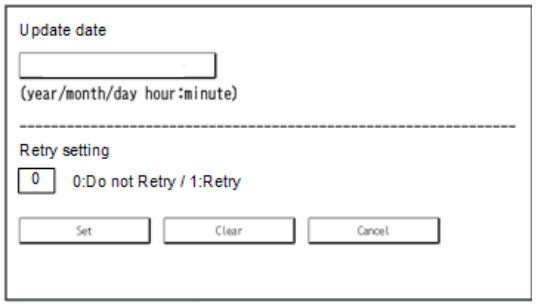
d0bqm2223

6. Select the package, and then press [Execute].



d0bqm2058a

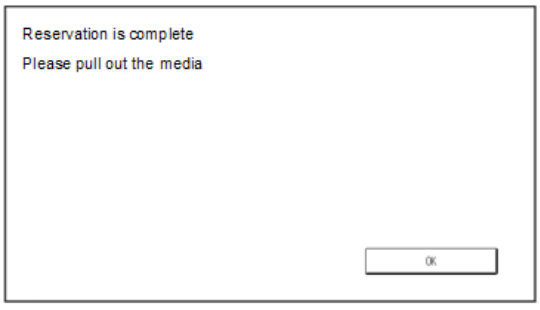
7. Enter update date and time and specify the Retry Setting, then touch [Set].



d0bqm2224

In "Retry setting", it is set whether or not to retry when updating cannot be started depending on the state of the machine.

8. When the following screen is displayed, pull out the removable media from the slot on the operation panel, and then touch [OK].



d0bqm2225

Firmware update is executed at the programmed date and time.

Note

Whether updating is possible or not depends on ARFU setting. However, whether to start updating does not depend on SP5-886-111 (automatic update setting) setting.

Firmware Update (Smart Firmware Update)

⚠CAUTION

- A HDD unit must be installed on the machine to enable the SFU or the package firmware update via media device.

Overview

Smart firmware update (SFU) is a system to download a firmware package. Since downloading the package takes time, SFU lets you schedule the download to take place when the machine is not in use, such as at night or at the weekend.

There are the following methods of updating using SFU.

1. Immediate Update: To update and download the firmware when visiting.
2. Update at the next visit: To set the date and time for firmware downloading. The firmware will be automatically downloaded beforehand and updated at the following visit.
   "Update at the next visit" is recommended since firmware download may take some minutes due to the network condition.

Note

- SFU requires the connection to @Remote via a device which has the embedded @Remote communicating function. When a machine is connected to @Remote via an intermediate device (RC Gate), the SFU function is disabled.

Immediate Update

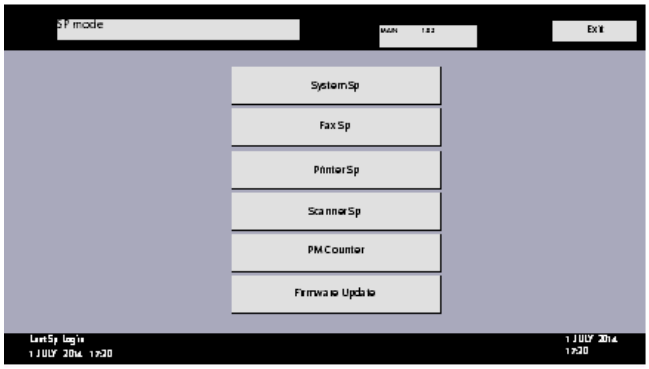
Enter the [Firmware Update] menu in the SP mode and update the package firmware.

Note

- The [Firmware Update] button will appear even when a machine is connected to @Remote with a device which does not have an embedded @Remote communicating function.
- If an error code is displayed, refer to Firmware Update (Error Screens During Updating).

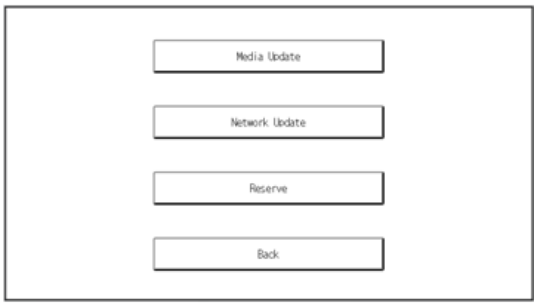
1. Enter the SP mode.

2. Touch [Firmware Update].



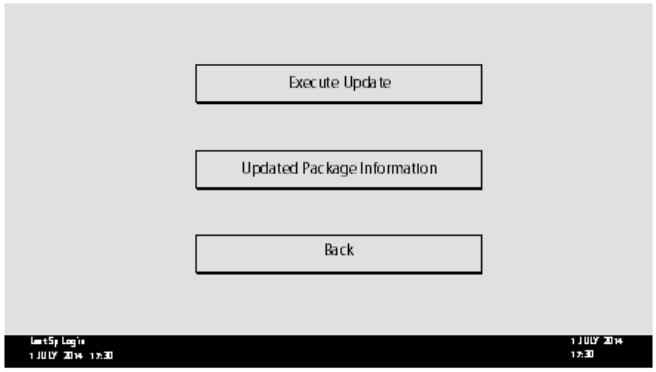
d197f0507

3. Touch [Network Update].



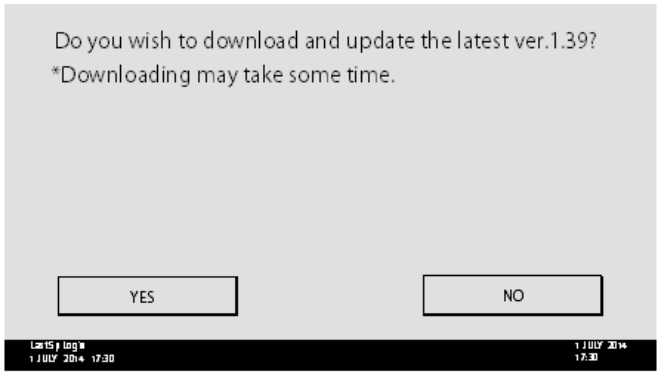
d0bqm2220

4. Touch [Execute Update].



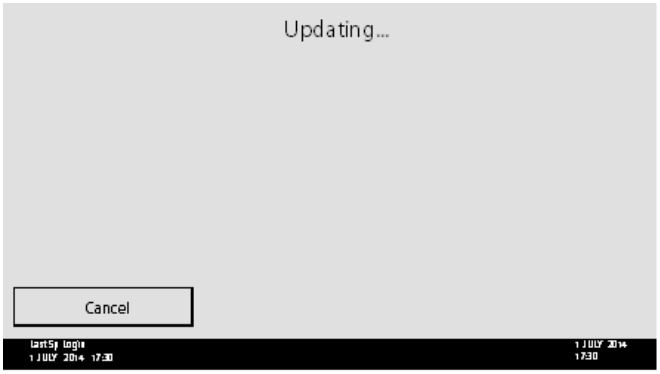
d197f0509

5. Touch [YES].



d197f0514

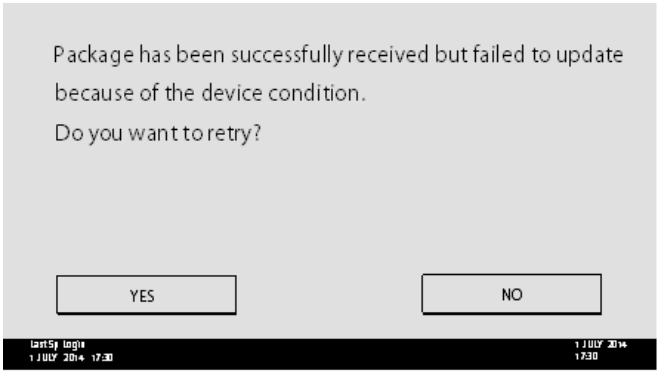
6. The following will be displayed.



d197f0513

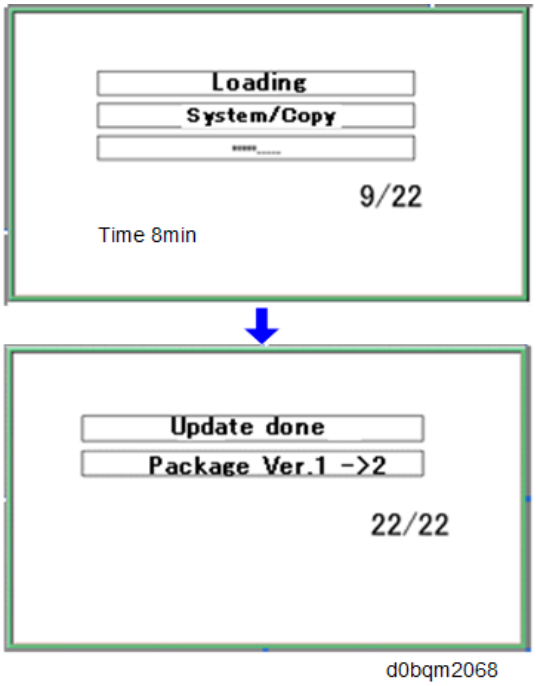
Note

- If the error code E66, which indicates that the download of the firmware has failed, is displayed, go back to step 1.
- The update will be started automatically after the download is finished.
- When the machine is in the update mode, the automatic update is suspended if a print job is started. After the print job is finished, touch the [YES] button on the display, shown below, to restart updating.



d197f0515

7. [Update done] is displayed. The machine will automatically reboot itself.



Note

- The figures at the lower right of the display indicate "Number of updated items/ All items to be updated".

Update at the Next Visit (Reserve)

It is possible to set the machine to download the package firmware which is necessary for SFU in advance, and then perform the actual installation at the next service visit. This saves waiting time for the firmware to download at the service visit.

How to Set the Machine to Download Firmware Later (Reserve)

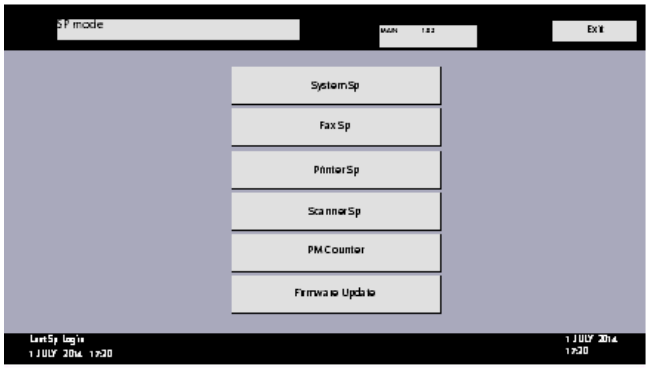
Enter the [Firmware Update] menu in the SP mode and update the package firmware.

Note

- The [Firmware Update] button will appear even when a machine is connected to @Remote with a device which does not have an embedded @Remote communicating function. If an error code is displayed, refer to Firmware Update (Error Screens During Updating).

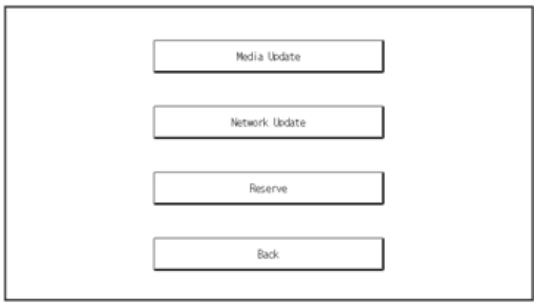
1. Enter the SP mode.

2. Touch [Firmware Update].



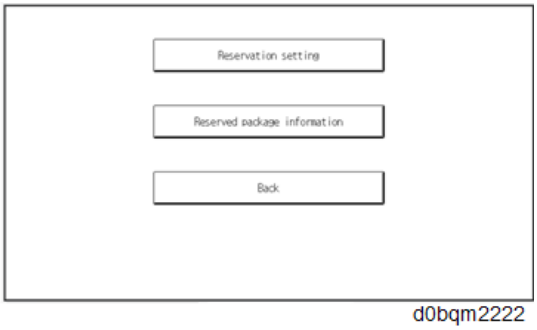
d197f0507

3. Touch [Reserve].



d0bqm2220

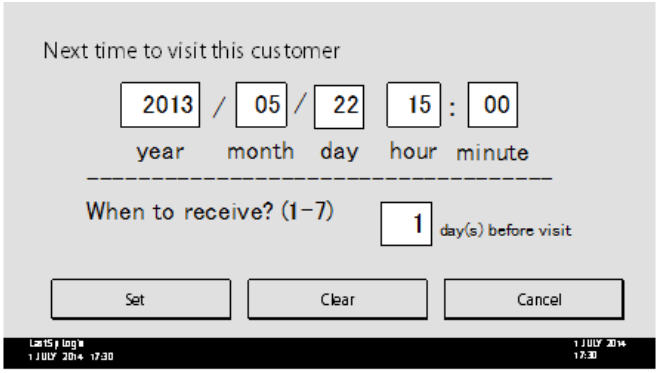
4. Touch [Reservation setting].



d0bqm2222

5. Enter the dates and times of the next visit and the start of receiving data.

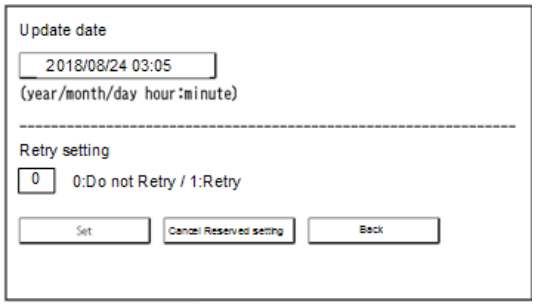
- "Next time to visit this customer": The package firmware will be automatically downloaded by this time/date.
- "When to receive? (1-7)": The download of the package firmware will begin this number of days before the next visit.



d197f0512

Note

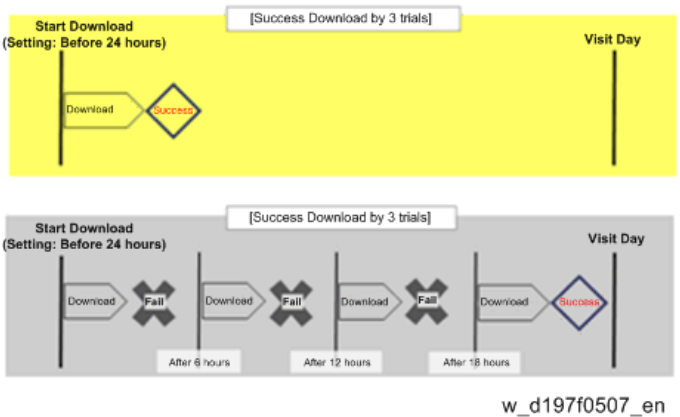
When reservation update by the media device is set, the update date and time is displayed.



d0bqm2226

Successful Download

In the two diagrams below, the firmware is set to be downloaded by the day before the next scheduled visit. In the first diagram, the download is successful on the first try. In the second diagram, the download fails three times and is successful on the fourth try.



w_d197f0507_en

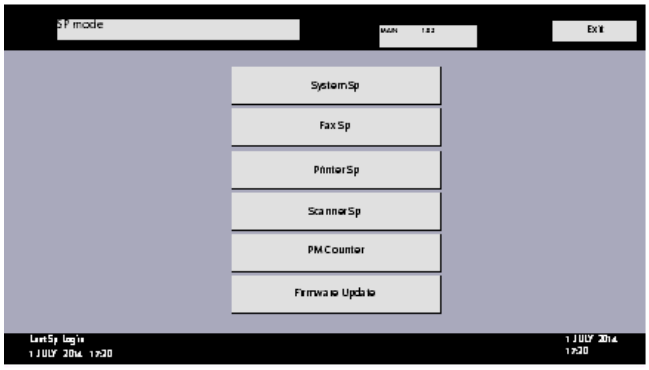
- If the firmware download fails or cannot be completed due to the network settings/condition, no power to the machine, or other reason, the machine will continue retrying every six hours until the scheduled deadline (up to a maximum of four tries). For example, if the download is set for the day before the next visit, the machine will attempt the download at 24 hours before the visit, and then continue trying every six hours (max. four tries total).
- The retry is only performed in cases when the firmware download has failed.
- If the machine is in Energy Saver mode when the download is scheduled to begin, the download

will be performed in the background and the machine/panel will stay in Energy Saver mode.

- The download will continue uninterrupted even if the customer initiates a print job, copy job, fax receiving or other operation while the download is in progress.
- The download will be terminated if the customer turns the power OFF while the download is in progress.
- If the download cannot be completed successfully by the time of the next scheduled visit, the machine will stop trying to download the firmware.

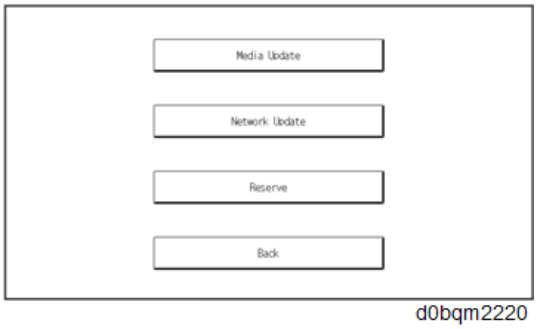
How to Check if the Firmware Downloaded with Reserve

1. Enter the SP mode.
2. Touch [Firmware Update].



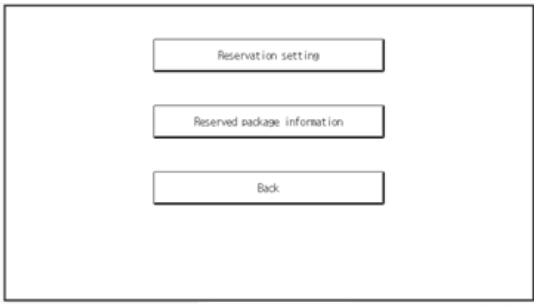
d197f0507

3. Touch [Reserve].



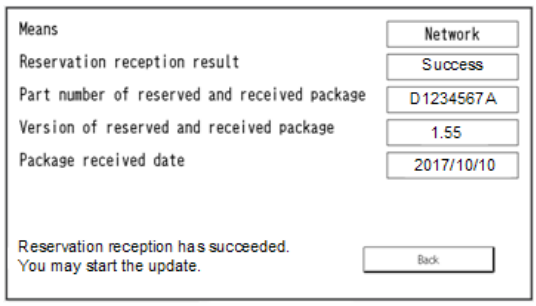
d0bqm2220

4. Touch [Reserved package information].



d0bqm2222

5. Check the information displayed.
   When the package firmware was downloaded successfully, the details of the download result are displayed as the following picture shows.



d0bqm2227

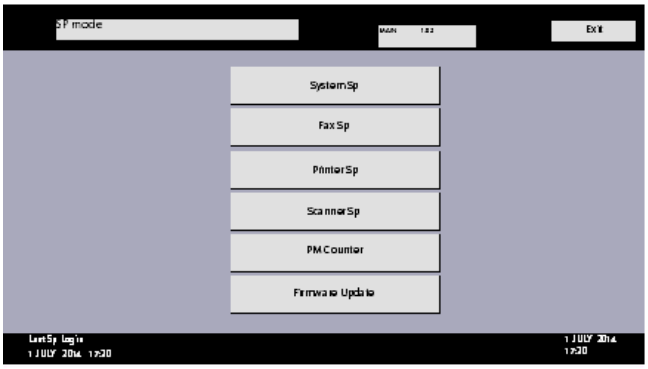
Note

- This information will only be displayed if the reserved firmware has already been downloaded. If not, all the data items are indicated with "-".
- When reservation update by the media device is set, the package firmware information reserved from the media device is displayed.

d0bqm2228

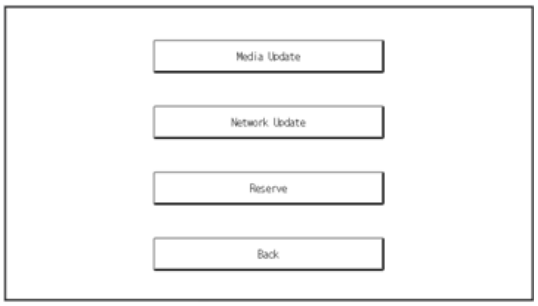
How to Install Firmware Downloaded with Reserve

1. Enter the SP mode.
2. Touch [Firmware Update].



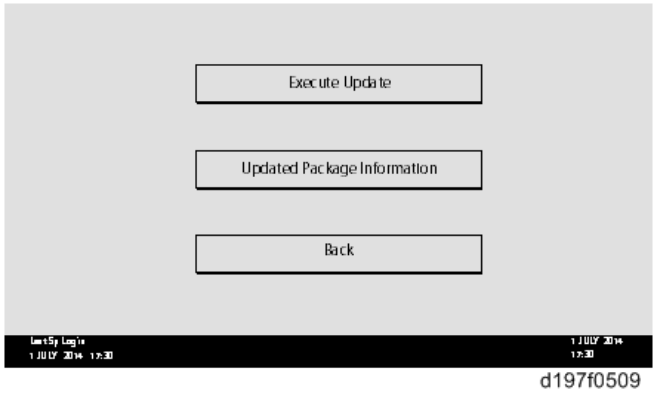
d197f0507

3. Touch [Network Update].



d0bqm2220

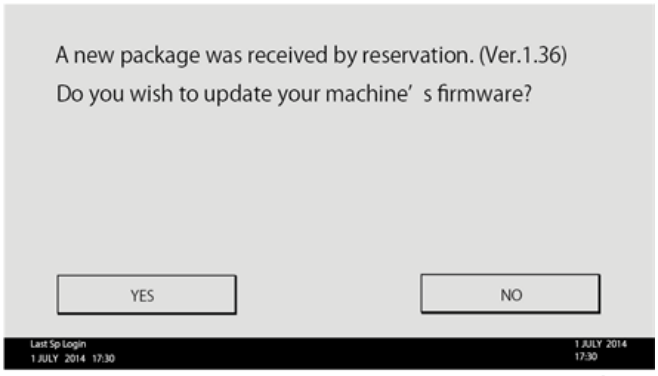
4. Touch [Execute Update].



d197f0509

5. Check the version of the received package firmware, and then touch [YES].

- The update is started.

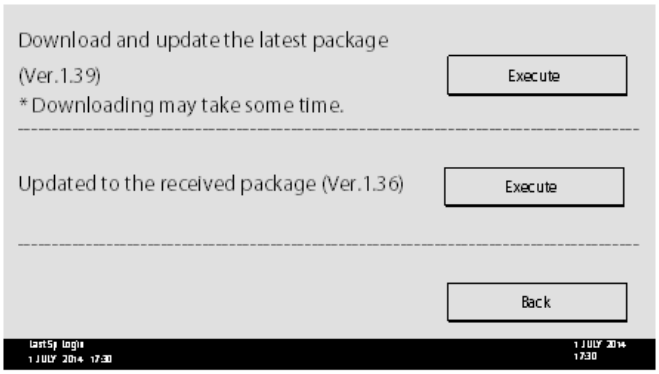


d197f0516

Note

- If the version of the reserved package in the HDD is older than the latest version, the

messages shown in the following picture are displayed.

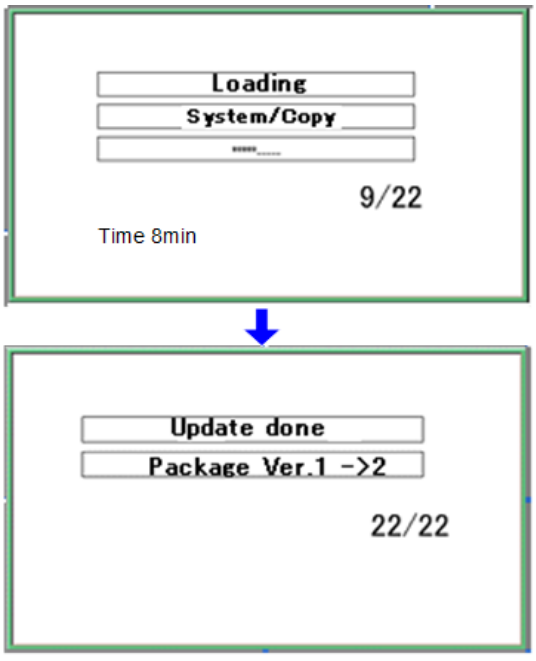


d197f0517

- If you wish to download the latest version, touch [Execute] beside the message "Download and update the latest package." Then the update of the package firmware will be started.
- If you wish to update using the firmware in the HDD (old version), touch [Execute] beside the message "Update to the received package."

6. [Update done] is displayed.

- The machine will automatically reboot itself.



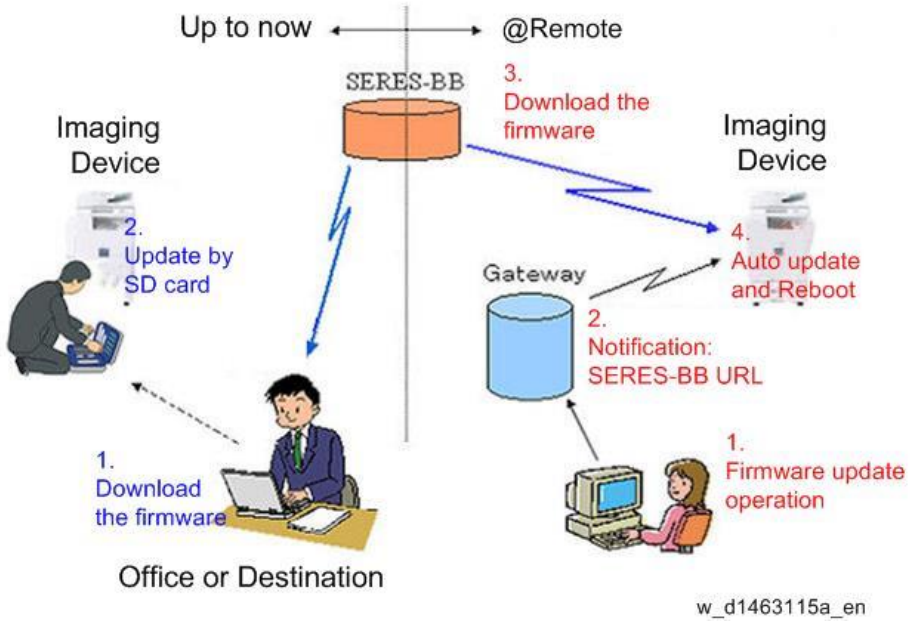
d0bqm2068

Note

- The figures at the lower right of the display indicate "Number of updated items/ All items to be updated".

Firmware Update (Remote Firmware Update)

In this machine, the software can be updated by remote control using @Remote.



RFU Performable Condition

RFU is performable for a device which meets the following conditions.

1. The customer consents to the use of RFU.
2. The device is connected to a network via TCP/IP for @Remote.

Firmware Update (Auto Remote Firmware Update)

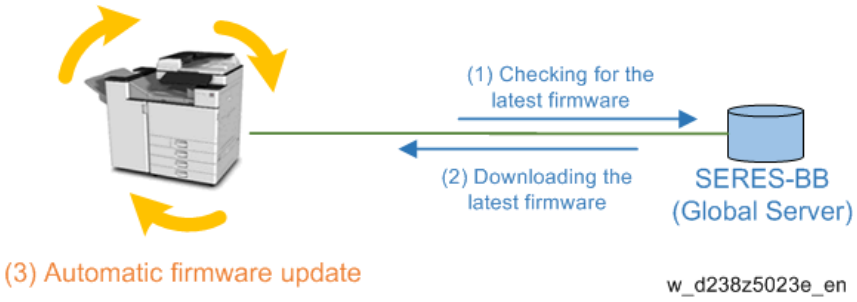
Note

- Auto remote firmware update (ARFU) requires a connection to an external network. Be sure to get permission from the customer before setting.
- Internet connection is needed.

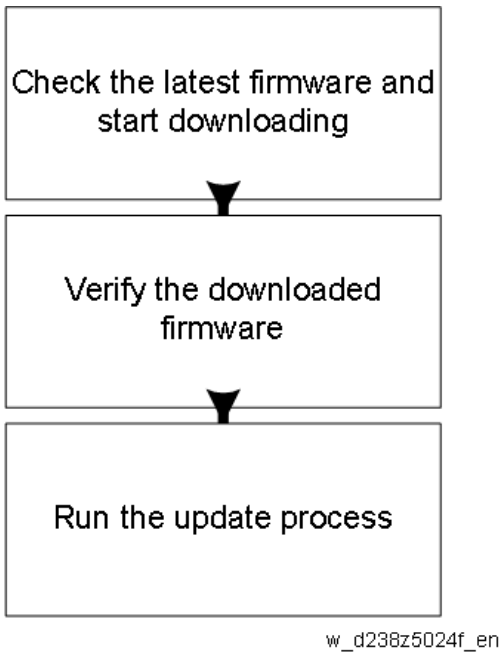
Overview

Using Auto Remote Firmware Update (ARFU), the machine checks package firmware files on the global server every 76 hours. If there is a version available newer than the one on the machine, the machine downloads the file to update the machine's package firmware.

Function Overview



Downloading and Updating Process

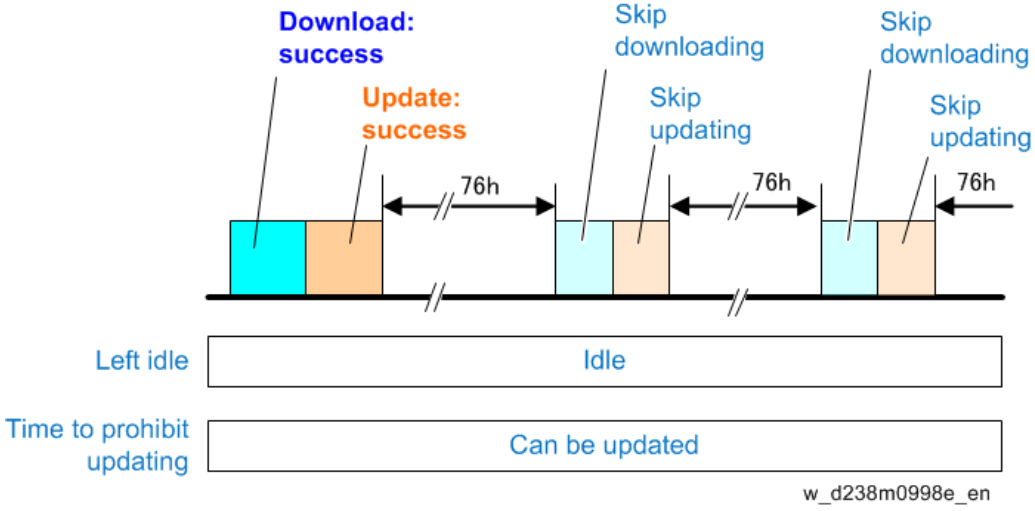


Downloads the Latest Package

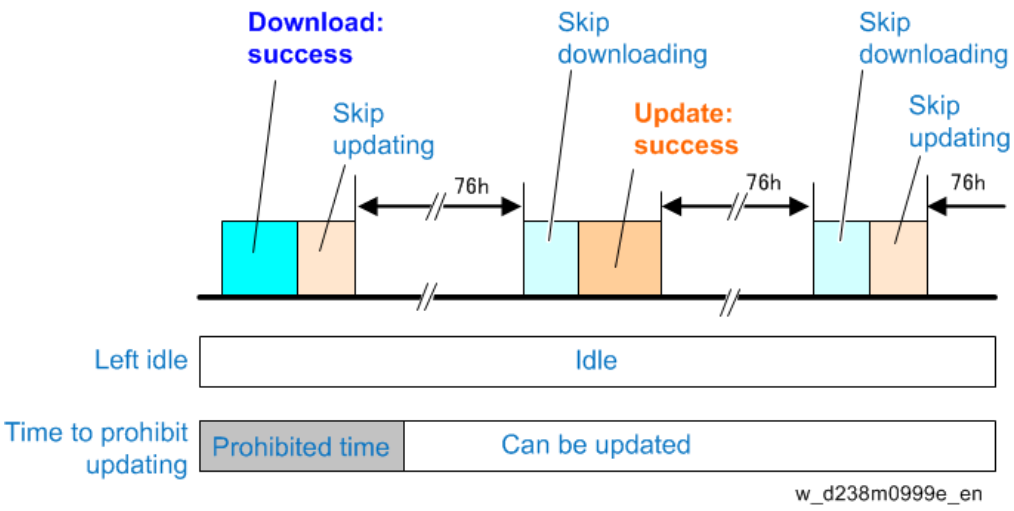
The machine accesses the server to check for latest package version.
If the version of the package on the global server is later than that of the package installed on the machine, or if the machine has not downloaded the firmware package, the machine downloads the latest package in the background even when the customer is using the machine.
If the download fails, the machine will retry downloading 76 hours later.
The downloaded package can also be used with SFU (Smart Firmware Update). A package downloaded with SFU (Smart Firmware Update) can be used with ARFU (Auto Remote Firmware Update) and vice versa.
When replacing the hard disk, information concerning the current firmware package becomes lost from the hard disk. So, even if the latest firmware is on the new hard disk, be sure to download the latest package data.
When the machine connects to the server where the package files are stored, the DNS settings and the name solution by DNS is needed. The machine will still try to download the package even if the name cannot be resolved, but will fail as the name is not resolved.
The time and date to send the next inquiry to the global server can be checked with SP5-886-116 (Farm Update Setting: Auto Update Next Date).
The auto remote firmware update is executed every 76 hours.

ARFU Update Determination

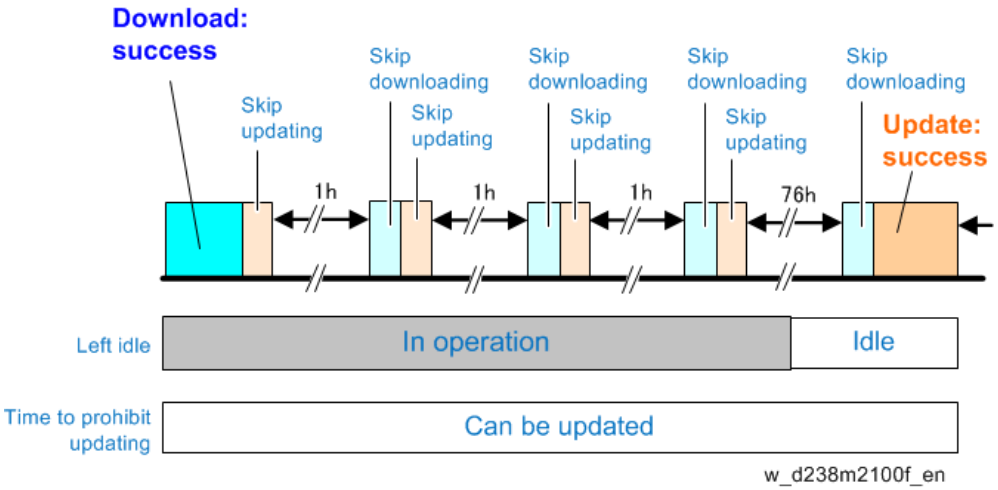
When the machine has successfully downloaded the latest package firmware file, or if the file has already been downloaded, the machine verifies whether a firmware update is necessary.



If the timing of determination is within the update prohibition period or day set in the SP configuration or Web Image Monitor, the machine will retry the firmware update determination 76 hours later.



If the machine is in use at the time of firmware update, the machine will retry the update. The machine retries update up to three times at one-hour intervals (which can be changed in the SP configuration). If the machine is in use on all three retries, the machine will retry the update 76 hours later.



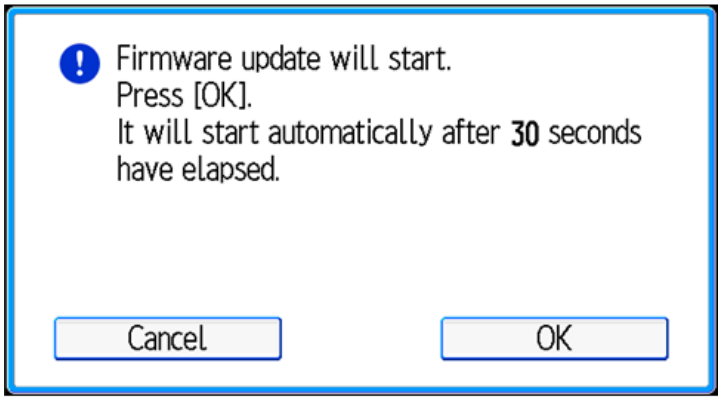
Situations in which the machine is determined to be in use

No.	Situations in which the machine is determined to be in use
1	When the operation panel is used within 30 seconds
2	During firmware update
3	While firmware update is disabled
4	While printing (copy, printer, fax, re-printing via network)
5	While scanning (copy, scanner, fax)
6	Retrieving image data via the network
7	While initial setting ([Settings] icon) or SP is being set
8	While fax is transferring data
9	During on-hook/on the handset
10	During the PC-FAX process (from PC to machine data transfer to the end of the job)
11	While switching to/from the energy saving mode

No.	Situations in which the machine is determined to be in use
12	When not being able to run the firmware update due to the modules that are running e.g.) Waiting for DCS transfer (refer to appendix), accessing devices such as HDD/SD card, etc.
13	While displaying a preview
14	While the document server function is in use
15	Connecting to TWAIN
16	During the interrupt copy process
17	While displaying the printer menu
18	While updating the display for the document server function via WIM or for stored fax documents
19	While writing log information
20	While accessing the address book
21	During SC
22	While shutting down
23	While importing/exporting SP settings
24	The interval between changing settings that require a reboot and actually rebooting (A reboot notification message pops up after changing the settings.)
25	While verifying the operation panel (smart panel)

Update Process

When the machine updates the firmware by Auto Remote Firmware Update (ARFU), a message dialog box opens to indicate the start of update.



d238m2106

"Cancel" and "OK" buttons appear in the dialog box. Update can be manually started by pressing "OK" or starts automatically if the button is not pressed for 30 seconds.

If "Cancel" is pressed, the machine will perform the same retry process as when the machine is in use at the time of update.

If the firmware update and three retries fail, the SC of the defective module during update will be displayed as the update error. If the following SC occurs, replacing the corresponding device restores the machine. The SC will not be reported to the call center.

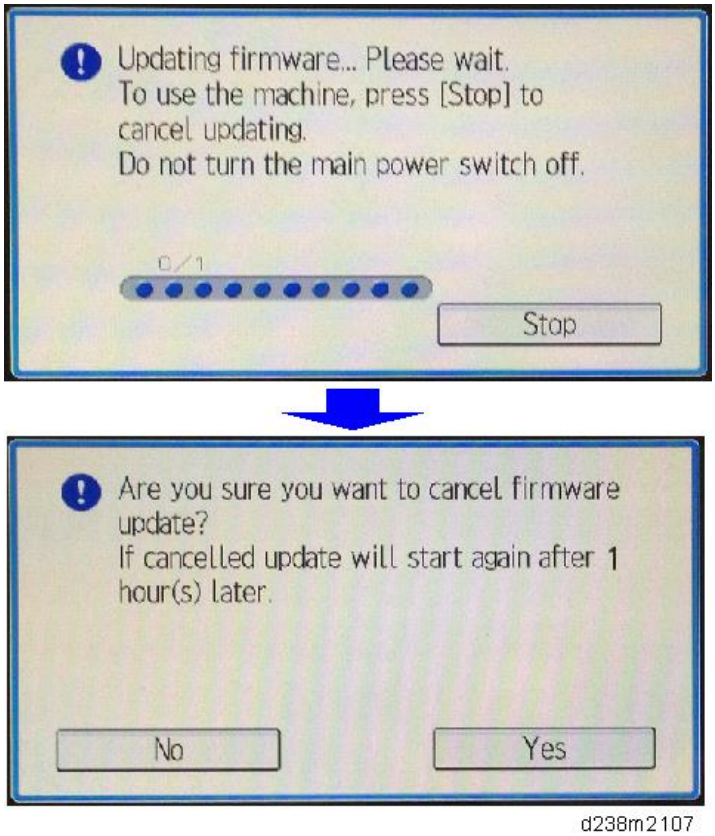
Device and corresponding SC number.

Device name	SC number
Engine board	SC845-01
Controller board (PCB24)	SC845-02
Operation panel (normal panel)*1	SC845-03
Operation panel (smart panel)	SC845-04
FCU (PCB2)	SC845-05

*1 Not available for this machine

Cancellation of update by user

Using the operation panel, the user can cancel the update (including update through the retry process) being performed by Auto Remote Firmware Update (ARFU).



However, while the firmware of the operation panel is being updated, cancellation is not possible because the keys are disabled.
(Since the update of the operation panel firmware is performed at the end, you cannot cancel the update at this point.)
If the update is canceled, the machine will reboot when the firmware update of all modules included in the following parts is complete.

1. Engine Board
2. FCU (PCB2)
3. Controller Board (PCB24)

4. Operation Panel

For example, if the first firmware update for the Controller Board (PCB24) is canceled, the machine will reboot when the firmware update of all modules included in the Controller Board (PCB24) is complete. The firmware configuration contained in the package is listed in the accompanying SERES release note.

If the update is canceled, it will be performed again 76 hours later. If there is a difference in version between the package obtained at that time and the one already stored (in other words, the one canceled), the old package will be discarded and the latest one will be received.

Related SP

SP Number	Selection **Def.**	Overview
SP5-886-111	0: OFF **1: ON**	Sets auto update ON/OFF by ARFU.
SP5-886-112	**0: OFF** 1: ON	Will not run the update when update prohibited time setting is ON and the current time is in the range of the time set. • Start time < End time: Prohibited time is from the start time to the end time on the same day. • Start time > End time: Prohibited time is from the start time to the end time on the next day. • Start time == End time: Prohibited time setting is disabled. (Update will not be prohibited.)
SP5-886-113	0 to 23 **9**	
SP5-886-114	0 to 23 **17**	
SP5-886-115	**0: OFF** 1: ON	Even when the auto update function is disabled, downloading the package is allowed. The downloaded package can be used with SFU.
SP5-886-116	Display only	Displays when the latest package check will run.
SP5-886-117	1 to 24 **1**	Set time for the next version check after retry.
SP5-886-120	**0x00**	The update will not run if the corresponding bit for each day below is set to 1. • prohibited:bit7 • Monday: bit 6 • Tuesday: bit 5 • Wednesday: bit 4 • Thursday: bit 3 • Friday: bit 2 • Saturday: bit 1

SP Number	Selection **Def.**	Overview
		• Sunday: bit 0 This setting is not affected by the prohibited time setting. e.g.) Prohibited on Mon., Fri., Sat., and Sun. : 0x47 (01000111)
SP7-520-011 to 015	Display only	History of date and time when the update has started. The five most recent are recorded, the lowest number being the most recent. If the last update failed, this is not recorded.
SP7-520-021 to 025	Display only	History of date and time when the update has finished. The five most recent are recorded, the lowest number being the most recent. The record is created when the update has successfully finished. When the update is canceled, no record is created.
SP7-520-031 to 035	Display only	History of the package number (including suffix) for which update has completed. The five most recent are recorded, the lowest number being the most recent. The record is created when the update has successfully finished. When the update is canceled, no record is created.
SP7-520-041 to 045	Display only	History of the package version for which update has completed. The five most recent are recorded, the lowest number being the most recent. The record is created when the update has successfully finished. When the update is canceled, no record is created.
SP7-520-051 to 060	Display only	History of the result of the download and the update. Refer below for the numbers set.

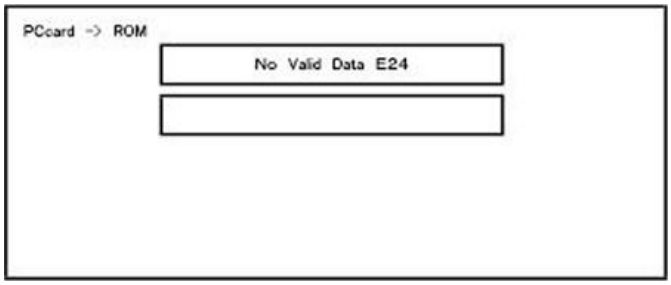
Numbers set for the result history for SP7-520-051 to 060

No.	Result	Description
1	Downloading with SFU	Cannot download or update as the machine is now downloading the package for SFU.
2	HDD uninstalled	Cannot download or update as the machine has no HDD.
3	Updating with SFU	Cannot download or update as the machine is being updated with SFU.
4	HDD error	Cannot download or update as the HDD cannot be used.
5	Version information obtain error	Cannot download or update as the version information cannot be obtained.
6	Update download error	Cannot download or update as the update download

No.	Result	Description
		failed. In the non @Remote method, this shows that the download failed because there was no proxy set.
7	Name resolution error	Cannot download or update as the name cannot be resolved upon downloading the update.
8	Auto update setting disabled	The package has been downloaded but will not run the update as SP5-886-111 (auto update setting) is disabled and SP5-886-115 (auto download setting for SFU) is enabled.
9	Update prohibited time	Cannot start to update as the auto-update prohibited time setting (SP5-886-112) is enabled and the time update initiated was in the range of prohibited time (SP5-886-113 to 114). Or the day which update was initiated was a day for which update was prohibited (SP5-886-120).
10	Update postponed due to the machine in use	Cannot start update due to the following conditions when the update was initiated. • The machine is in use by a user (the panel was used within 30 seconds) • Machine offline for other reasons • Operation prohibited • Displaying SP/UP menu • The firmware update is running with another method • Configuration change prohibited • Verifying the operation panel (smart panel)
11	Update canceled by the user	The update was canceled because a user selected "Cancel" in the popup shown before starting the update.
12	Offline failed	Cannot start to update as the machine is offline for other reasons.
13	Update successful	The update was started and successfully completed.
14	Update failed	The update was started but failed.
15	Update canceled by the user after update initiated	The update was canceled after the process initiated because a user selected "Cancel" during the update.
16	Update deemed completed	The update was canceled after the process was initiated because a user selected “Cancel”. There is no need to resume the update due to one of the following reasons: • A newer update has been released and received. • When retrying ARFU, the update has already been

No.	Result	Description
		completed by another method.
17	Version information obtain error (proxy verification failure)	Cannot download or update as the proxy verification failed with proxy settings when obtaining version information.
18	Version information obtain error (other than proxy verification failure when the proxy is set)	Cannot download or update as an error other than proxy verification with proxy settings occurred when obtaining version information.
19	Update download error (proxy verification failure)	Cannot download or update as the proxy verification failed with proxy settings when downloading the package.
20	Update download error (other than proxy verification failure when the proxy is set)	Cannot download or update as an error other than proxy verification with proxy settings occurred when downloading the package.
22	Update by retry successful	After a power failure, unsuccessful update, or rebooting, update by retry is executed successfully. However, this does not apply to the case where the update was canceled after the process was initiated because a user selected “Cancel”. In this case, the update is “successful” if the retry is not executed between the start and completion of the next update (76 hours after the cancellation).
23	Update data decompression has failed	Receiving the update data successfully completed but failed to update because update data decompression failed. Data in the package file may be corrupted, or data may be garbled due to a defect in the DIMM or the HDD.

Firmware Update (Error Screens During Updating)



EXX shows an error code.

For error codes, refer to the following table:

Error Code List

Code	Contents	Solutions
20	Physical address mapping cannot be performed.	• Switch the main power supply OFF and ON to try again. • Re-insert the removable media to reboot it. • Replace the controller board (PCB24) if the above solutions do not solve the problem.
21	Insufficient memory for the download	• Switch the main power supply OFF and ON to try again. • Replace the controller board (PCB24) if the updating cannot be done by switching the power OFF and ON.
22	Decompression of compressed data failed.	• Switch the main power supply OFF and ON to try again. • Replace the removable media used for the update. • Replace the controller board (PCB24) if the above solutions do not solve the problem.
24	Removable media access error	• Re-insert the removable media. • Switch the main power supply OFF and ON to try again. • Replace the removable media used for the update. • Replace the controller board (PCB24) if the above solutions do not solve the problem.
32	The removable media used after download suspension is incorrect. Removable media is different between the one which was inserted before	• Insert the removable media containing the same program as when the firmware update was suspended, and then switch the main power supply OFF and ON to try again.

Code	Contents	Solutions
	power interruption and the one which was inserted after the power interruption.	• There is a possibility that the removable media is damaged if the update cannot be done after the correct removable media has been inserted. In this case, try again with a different removable media. • Replace the controller board (PCB24) if the above solutions do not solve the problem. Replace all relevant boards if the update is done for the BICU (PCB1) and FCU (PCB2). Replace the operation panel unit if the update is done for the operation panel. • After replacing the unit, update it using the same removable media. If the update is successful, this error code disappears.
33	Removable media version error. The wrong removable media version is downloaded.	• Install the correct ROM update data for each version in the removable media.
34	Destination error. A removable media for the wrong destination is inserted.	• Install the correct ROM update data for each destination (JPN/ EXP/ OEM) in the removable media.
35	Model error. A removable media for the wrong model is inserted.	• Install the correct ROM update data for each model in the removable media.
36	Module error. The program to be downloaded does not exist on the main machine. The download destination specified by the removable media does not match up to the destination for the main machine’s program.	• Install the program to be updated in advance. • There is a possibility that the removable media containing the program to be updated has not been mounted. Check to confirm that the removable media has been correctly mounted. • The removable media is incorrect if the program to be updated has been correctly installed. In this case, insert the correct removable media.
38	The version of the downloaded program has not been authorized for the update.	• Make sure that the program to be overwritten is the specified version.
40	Engine download fails.	• Switch the main power supply OFF and ON to try again.

Code	Contents	Solutions
		• If this error occurs while using the media slot on the left side of the operation panel, perform a retry using the media slot on the back of the machine. • If the download fails again, replace the controller board (PCB24) and the BICU (PCB1). • After replacing the unit, update it using the same removable media. If the update is successful, this error code disappears.
41	Fax download fails.	• Switch the main power supply OFF and ON to try again. • If the download fails again, replace the controller board (PCB24) and the FCU board. • After replacing the unit, update it using the same removable media. If the update is successful, this error code disappears.
42	Control panel/language download fails.	• Switch the main power supply OFF and ON to try again. • If the download fails again, replace the controller board (PCB24) and the operation panel unit. • After replacing the unit, update it using the same removable media. If the update is successful, this error code disappears.
43	Printing download fails.	• Switch the main power supply OFF and ON to try again. • The removable media is damaged if the update fails again. Replace the removable media.
44	The data to be overwritten cannot be accessed when controller-related programs are downloaded.	• Switch the main power supply OFF and ON to try again. • Install the correct ROM update data in the removable media. • Replace the controller board (PCB24) if the data to be overwritten is contained on the controller board (PCB24).
49	Firmware updates are currently prohibited.	• The setting of Update Firmware in the Administrator Tools has been set to [Prohibit]

Code	Contents	Solutions
		by an administrator. Amend the setting to [Do not Prohibit] and try again.
50	The results of the electronic authorization check have rejected the update data.	• Install the correct ROM update data in the removable media.
57	@Remote is not connected at the date/time reserved for receiving the package firmware update from the network.	• Check the @Remote connection.
58	Update cannot be done due to a reception route problem.	• Check the @Remote connection.
59	HDD is not mounted.	• Check the HDD connection.
60	HDD could not be used during the package firmware update.	• Try again. • Replace the HDD if the download fails again.
61	The module ID for the package firmware update is incorrect.	• Prepare the correct package files.
62	The configuration of the package firmware update files is incorrect.	• Prepare the correct package files.
63	Reception fails due to the power off at the reserved date/time of the remote firmware update from the network.	• Update is to be done automatically when the next reception time has elapsed.
64	Reception fails due to the power off at the reserved date/time of the package firmware update from the network.	• Reset the reservation date/time for the remote update.
65	Reception fails due to the status error of the machine at the reserved date/time of the remote firmware update from the network.	• Update is to be done automatically when the next reception time has elapsed.
66	Reception failed due to the status error of the machine at the reserved date/time of the package firmware update from the network.	• Reset the reservation date/time for the remote update.
67	Acquisition of the latest version information from the Gateway fails at the reserved date/time of the remote firmware update from the network.	• Check that the network is connected correctly.
68	Acquisition of the latest version	• Check that the network is connected correctly.

Code	Contents	Solutions
	information from the Gateway fails.	
69	Download fails at the reserved date/time of the remote firmware update from the network.	• Check that the network is connected correctly.
70	Package firmware download from the network fails.	• Check that the network is connected correctly.
71	Network communication error occurs at the reserved date/time of the package firmware update from the network.	• Check that the network is connected correctly.
72	The setting of @Remote is invalid at the reserved date/time of the package firmware update from the network.	• Set the setting of @Remote Service in the Administrator Tools to [Do not Prohibit].
74	Package file decompression has failed.	• If this occurred during the update by the removable media, check that the removable media is not defective, download the package again, and retry the update. • If this occurred during the remote firmware update (WIM and utility) in the local environment, replace the package file in the local environment with the correct one and retry the update. • If this has occurred on other occasions or keeps occurring even on the above mentioned occasions, replace the DIMM of the controller board (PCB24). If it persists, replace the hard disk.
75	The amount of update data has exceeded the limit. There is too much data in the removable media.	• Move “fwu” in the “/romdata” directory out of that directory so that the same modules are not located in the same directory.
83	Package RFU reception has been canceled by the user.	• Package RFU reception has been canceled by the user.
84	Package RFU reception timeout. The reception time has exceeded the limit (100 minutes).	• Check the network connection.

Updating JavaVM

Overview

Updating Java VM is performed with a PC using the update tool.

Prepare the following items in advance.

- SD memory card reader/writer
- PC

The updating procedure is as follows.

1. Deactivate the SDK applications.
2. Remove the VM Card Type M37 from the main machine.
3. Update Java VM with the PC using the update tool.
4. Insert the VM Card Type M37 in the main machine.
5. Activate the SDK applications.

Deactivating SDK Applications and Removing the VM Card

Operation from Operation Panel

1. Enable [Machine Management] of the administrator authentication, and log in as the machine administrator.
Select the [Settings] icon > [System Settings] > [Settings for Administrator] > [Authentication/Charge] > [Administrator Authentication/User Authentication/App Auth.] > [Administrator Authentication Management Register/Change Administrator]. Enable [Machine Management] and login as the machine administrator.

2. Press the [Settings] icon on Home screen.

3. Press [System Settings].

4. Press [Extended Feature Information] twice.

5. Press [Heap/Stack Size Information].

6. Take a note of the current heap size settings in order to check them after version update.

7. Return to the [Extended Feature Settings] screen, and press the [Startup Setting] tab.

8. Disable all SDK applications except Java TM Platform.

9. Press the SDK applications until the status changes from "Starting Up"/"Suspend"/"Ending" to "Stop".

10. Press the [Extended Feature Info] tab.

11. Press the stopped SDK applications to set "Auto Start" to "Off".

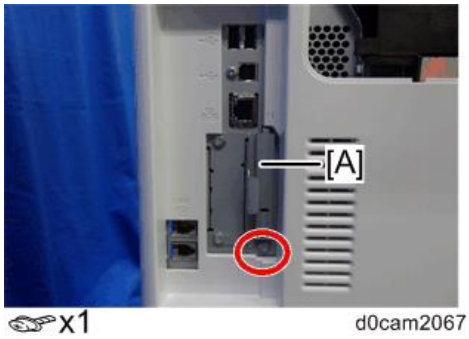
Note

"Auto Start" settings can be enabled on this screen if Type-J SDK applications are enabled.

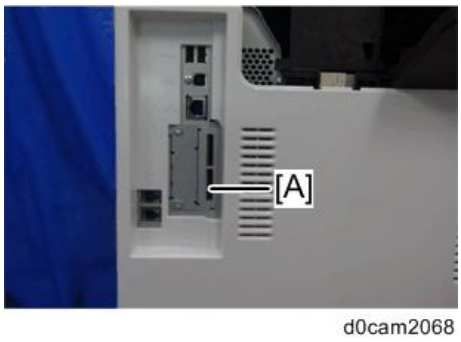
12. Select [OK] > [Exit].

13. Turn the main power OFF.

14. Remove the SD card slot cover [A] (coin screw x 1).



15. Remove VM Card Type M37 from SD Card Slot 2 [A: Lower Slot].



Operation from Web Image Monitor

1. Log in as the administrator from Web Image Monitor.

2. Take a note of the current heap size setting in [Heap / Stack Size Settings].
[Device Management] -> [Configuration] -> [Extended Feature Settings] -> [Administrator Tools] -> [Heap / Stack Size Settings]

3. Stop all SDK applications except for Java TM Platform.

1. Display the [Startup Setting] menu.
   [Device Management] -> [Configuration] -> [Extended Feature Settings] -> [Startup Setting]
2. Check the radio button of the SDK application which status is "Starting Up".
3. Click [Start Up/Stop] to stop the application.
4. "Stop" is displayed in the status column.

Note

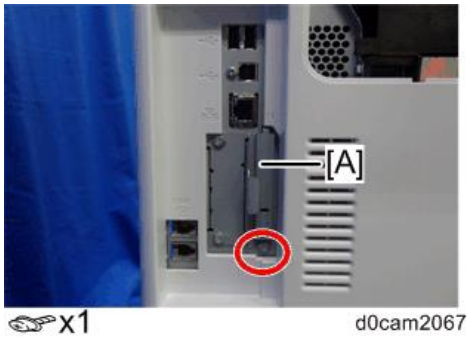
Do not change the status of Java TM Platform to "Stop".

4. Make sure that "Auto Start" is set to "Off" for each SDK application.

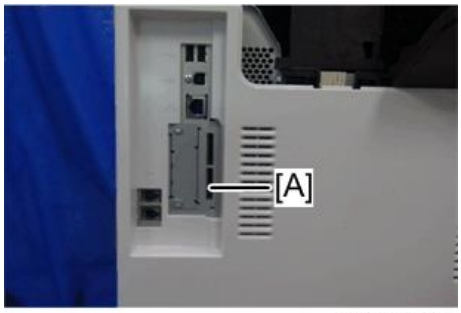
1. Click the [Details] icon ( ) for each SDK application in [Startup Setting].
2. Make sure that "Auto Start" is set to "Off". (Default: On)

5. Turn the main power OFF.

6. Remove the SD card slot cover [A] (Coin screw x 1).



7. Remove VM Card Type M37 from SD Card Slot 2 [A: Lower Slot].



Updating JavaVM and Inserting the VM Card

1. Insert VM Card Type M37 into the SD memory card reader/writer of the PC.
2. Check that the SD memory card reader/writer is detected on the PC, and then write down the drive letter. (If the SD memory card reader/writer is detected as (F:), the drive letter is "f")
3. Download the update modules from the Firmware Download Center.
4. Unzip the downloaded file, and then execute the .exe file.
5. The folder is generated.
6. Execute the .bat file in the folder.
7. Input the drive letter following the message "Please input drive letter of SD card [a - x]: ". (If the SD memory card reader/writer is detected as (F:), input "f")

8. Press the [Enter] key to start updating Java VM.
   It takes 3 minutes to update Java VM.
9. After completing the update, remove VM Card Type M37 from the SD memory card reader/writer of the PC.

10. Insert VM Card Type M37 into SD Card Slot 2 (Lower slot) of the machine.

Activating SDK Applications

1. Make sure that the VM card is fully inserted, and then turn the main power ON.

2. Log in as the machine administrator from Operation panel / Web Image Monitor.

3. Set "Auto Start" whose status is "OFF" to "On".

4. Compare the current heap size settings and the values recorded before update.
If the settings are not the same as the recorded values, correct the settings to the recorded values.

5. Enable the disabled SDK application.

NVRAM Data Upload/Download

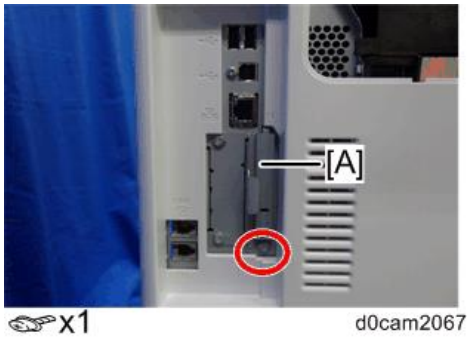
Uploading Content of NVRAM to an SD card

Do the following procedure to upload SP code settings from NVRAM to an SD card.

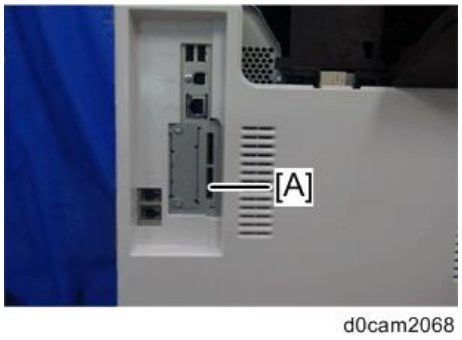
Note

- This data should always be uploaded to an SD card before the NVRAM is replaced.
- Make sure that the write protection of an SD card is unlocked.

1. Do SP5-990-001 (SP Print Mode: All(Data List)) before you turn the machine off. You will need a record of the NVRAM settings if the upload fails.
   Make sure to shut down and reboot the machine once before printing the SMC. Otherwise, the latest settings may not be collected when the SMC is printed.
2. Turn OFF the power.
3. Remove the SD slot cover [A].



4. Insert the SD card into SD card slot 2 (lower) [A].



5. Turn ON the power.
6. Do SP5-824-001 (NVRAM Data Upload) and then press [Execute].
7. The following files are coped to an NVRAM folder on the SD card when the upload procedure is finished. The file is saved to the path and the following filename:
   NVRAM\<serial number>.NV
   Here is an example with Serial Number "K5000017114":
   NVRAM\K5000017114.NV
8. In order to prevent an error during the download, be sure to mark the SD card that holds the

uploaded data with the number of the machine from which the data was uploaded.

Note

- You can upload NVRAM data from more than one machine to the same SD card.

Downloading an SD Card to NVRAM

Do the following procedure to download SP data from an SD card to the NVRAM in the machine.

- The NVRAM data download may fail if the SD card with the NVRAM data is damaged, or if the connection between the controller and BiCU (PCB1) is defective.
- Do the download procedure again if the download fails.
- Do the following procedure if the second attempt fails:
- Enter the NVRAM data manually using the SMC print you created before uploading the NVRAM data.

1. Turn OFF the power.
2. Remove the SD slot cover.
3. Insert the SD card with the NVRAM data into SD card slot 2 (lower).
4. Turn ON the power.
5. Do SP5-825-001 (NVRAM Data Download) and press [Execute].

Note

- The serial number of the file on the SD card must match the serial number of the machine for the NVRAM data to download successfully. The download fails if the serial numbers do not match.

This procedure does not download the following data to the NVRAM:

- Total Count
- C/O, P/O Count

Address Book Upload/Download

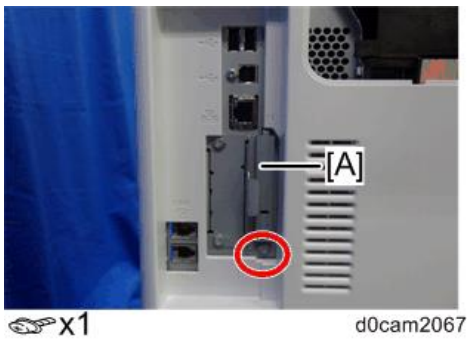
Information List

The following information is possible to be uploaded and downloaded.

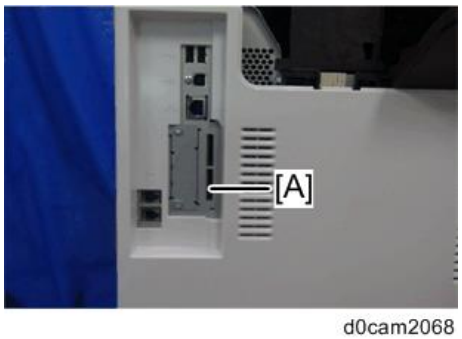
Information	
• Registration No. • User Code • E-mail • Protection Code • Fax Destination • Fax Option • Group Name • Key Display	• Select Title • Folder • Local Authentication • Folder Authentication • Account ACL • New Document Initial ACL • LDAP Authentication

Download

1. Prepare a formatted SD card.
2. Make sure that the write-protection on the SD card is off.
3. Turn OFF the power.
4. Remove the SD slot cover [A] at the left rear side of the machine.



5. Install the SD card into the SD card slot 2 (lower) [A] (for service use).



6. Turn ON the power.
7. Enter the SP mode.
8. Do SP5-846-051 (Backup All Addr Book).

9. Exit the SP mode, and then turn OFF the power.
10. Remove the SD card form the SD card slot 2 (lower).
11. Install the SD slot cover.

Note

- If the capacity of SD card is not enough to store the local user information, an error message is displayed.
- Carefully handle the SD card, which contains user information. Do not take it back to your location.

Upload

1. Turn OFF the power.
2. Remove the SD slot cover at the left rear side of the machine.
3. Install the SD card, which has already been uploaded, into the SD card slot 2 (lower).
4. Turn ON the power.
5. Enter the SP mode.
6. Do SP5-846-052 (Restore All Addr Book).
7. Exit the SP mode, and then turn OFF the power.
8. Remove the SD card form the SD card slot 2 (lower).
9. Install the SD slot cover.

Note

- The counter in the user code information is initialized after uploading.
- The information of an administrator and supervisor cannot be downloaded nor uploaded.
- If there is no data of address book information in the SD card, an error message is displayed.

SMC List Card Save Function

Overview

The SMC List Card Save (SP Text Mode) function is used to save the SMC list as CSV files to the SD card inserted into the operation panel SD card slot.

Important

- Make sure to shut down and reboot the machine once before exporting the SMC sheet data. Otherwise, the latest settings may not be collected when the SMC is exported.

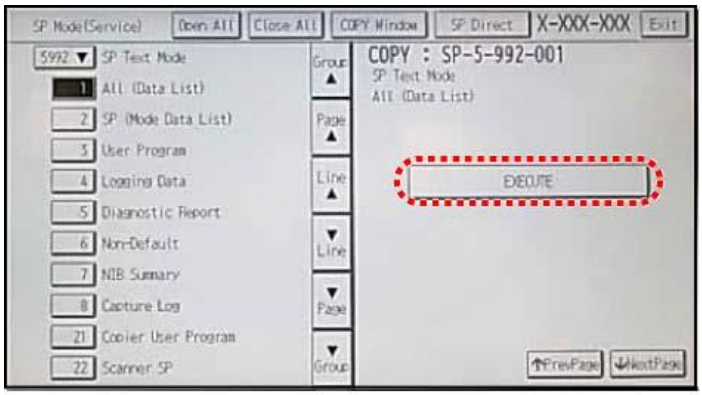
Procedure

1. Turn OFF the power.
2. Insert the SD card into the operation panel SD-card slot or the SD card slot 2 (lower), and then turn ON the power.
3. Enter SP mode.
4. Select [System/Copy SP].
5. Select SP5-992-001 (SP Text Mode) and then, select a detail SP number shown below to save data on the SD card.

   SP5-992-xxx (SP Text Mode)

Detail No.	SMC Categories to Save
001	All (Data List)
002	SP (Mode Data List)
003	User Program
004	Logging Data
005	Diagnostic Report
006	Non-Default
007	NIB Summary
008	Capture Log
021	Copier User Program
022	Scanner SP
023	Scanner User Program
024	SDK/J Summary
025	SDK/J Application Info
026	Printer SP
027	Smart Operation Panel SP
028	Smart Operation Panel UP

6. Press [EXECUTE].



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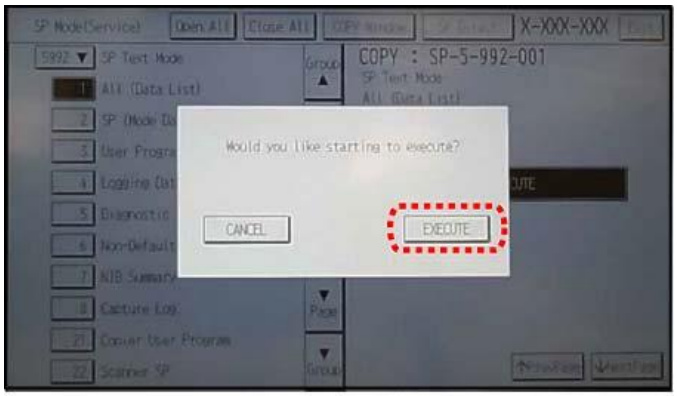
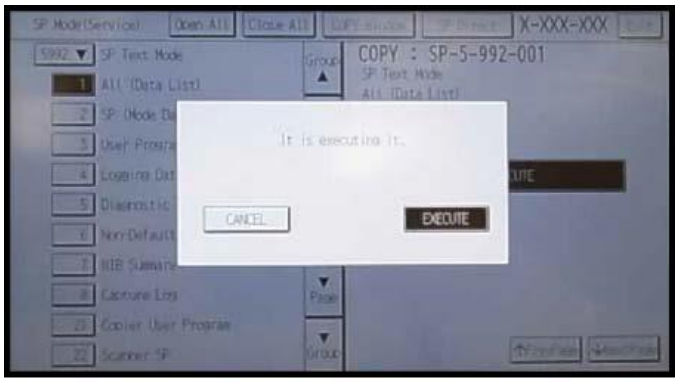
7. Press [EXECUTE] again to start. Press [CANCEL] to cancel the saving.



d1440128

8. “It is executing it” is shown on the screen while executing.



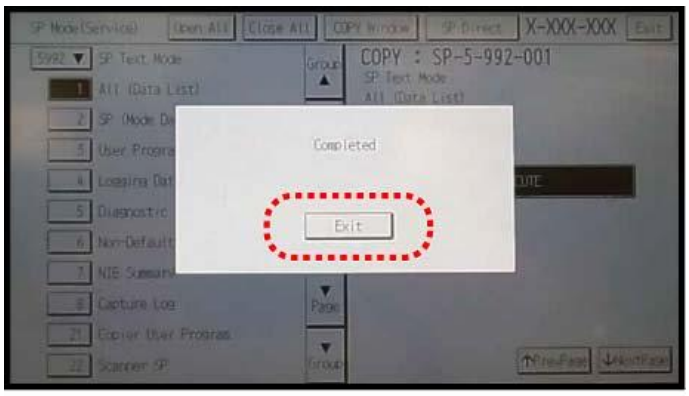
d1440130

9. Wait for 2 to 3 minutes until “Completed” is shown.

Note

- The SMC list saving may take from 2 to 3 minutes to complete.
- Press [CANCEL] to abort executing.

10. Press [Exit].



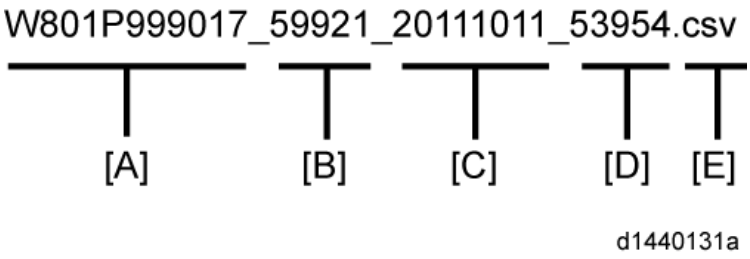
d1440129

11. Press [Exit] to exit from SP mode.

File Names of the Saved SMC Lists

The SMC list data saved on the SD card will be named automatically. The file naming rules are as follows.

Example:



d1440131a

A:

Machine serial number (fixed for each machine)

B:

SP number saved in this file.

First four digits (5992) in this part are fixed. The other one or two digits are the detail SP number(s). In this case, it is one digit. Therefore, this file is of SP5-992-001 (All data list). See the upper SP table for the correspondence between SP detail numbers and the contents.

C:

File creation date

Year/Month/Day (“Zero” will be omitted if each is one digit.)

D:

File creation time

Hour/Minute/Second (“Zero” will be omitted if each is one digit.)

E:

File Extension CSV (Comma Separated Value)

This part is fixed.

Note

- A folder named by the machine serial number will be created on the SD card when this function is executed.
- This function can save the SMC list data only to an SD card inserted into the operation panel SD card slot.

Error Messages

SMC List Card Save error message:

- **Failed:**
  FACTOR: Read-only file system, No space left on device.

If an error occurs, pressing “Exit” will cause the device to discard the job and return to the ready state.

Capturing the Device Logs

Overview

With this feature, you can save device logs that are stored in the machine (HDD or operation panel) on an SD card. It allows the Customer Engineer to save and retrieve error information for analysis.
The Capturing Log feature saves device logs for the following five.

- Controller device log including operation log
- Engine device log
- FCU device log
- Operation panel log
- SC819 log

Important

- In older models, a technician enabled the logging tool after a problem occurred. After that, when the problem had been reproduced, the technician was able to retrieve the device log.
- However, this new feature saves the device logs when problems occur. Then you can copy the logs to an SD card.
- You can retrieve the device logs using a SD card without a network.
- Analysis of the device log is effective for problems caused by the software. Analysis of the device log is not valid for the selection of defective parts or problems caused by hardware.
- Make sure to shut down and reboot the machine once before retrieving the Debug Logs. Otherwise, the latest settings may not be collected when the debug logs are retrieved.

Types of device logs that can be saved

Type	Storage Timing	Destination (maximum storage capacity)
Controller device log including operation log	• Saved at all times	HDD or SD card (2GB/8GB) connected to the service slot. When the data gets over the capacity of the SD card, the older data is deleted.
Engine device log	• When an engine SC occurs • When paper feeding/output stop because of a jam • When the machine doors are opened during normal operation	HDD or SD card connected to the service slot (Up to 300 times)
FCU device log	• When a specified amount of FCU device log is stored in the FCU (PCB2). If fax application is	HDD or SD card connected to the service

Type	Storage Timing	Destination (maximum storage capacity)
	unavailable (e.g. not installed), the machine does not transfer the log.	slot
Operation panel log	• When an error related to the operation panel occurs.	Memory in the operation panel.
SC819 log	• When the main power button is switched On after SC819 occurs.	HDD

Note

- **Device logs are not saved in the following conditions:**
- While erasing all memory
- While data encryption equipment is installed
- While changing the firmware configuration
- Forced power OFF (accidentally disconnecting the outlet)
- Engine device log while the machine is shutting down
- When the power supply to the HDD is off because of energy saving (engine OFF mode/STR mode)
- When one of the following SCs occurs: SC672, SC816, SC819, SC878, SC899, SC859, SC860, SC861, SC863, or SC864

Note

- **The following logs are not saved:**
- Logs related to the energy saver mode (Engine-off, suspend-mode, or other cases)
  Network communication log
  Logs related to NRS
  IP-FAX log
  Access log for unauthorized users (guests)
- HTTP session timeout log
- Auto log-out log
- IC card related log
- Authorization for Fax

Security of the Operation Log

The following operation logs related to security are not saved.

- User ID
- Password
- IP address
- Telephone number
- Encryption key
- Transition to SP mode

Retrieving the Device Logs via Operation Panel

Important

- Retrieve device logs to identify the date of occurrence of the problems and to find details of the problems
- e.g.: At around 8:00 am on March 10, an engine stall occurred. The operation panel does not respond. Turn the main power supply OFF / ON.
- Analysis of the device log is effective for problems caused by the software. Analysis of the device log is not valid for the selection of defective parts or problems caused by hardware.

Procedure for Retrieving the Device Log with SD Card

1. Open the front cover with the main machine turned ON.

   Note

   - If the engine log remains in the SRAM on the BiCU (PCB1), the engine log for the last 5 to 10 minutes can be transferred to the HDD by opening the front cover.
2. Turn OFF the main power.
3. Insert the SD card into the slot on the side of the operation panel or the service slot.

   Important

   - It is recommended to use the SD card (2 GBs* or 8 GBs**) provided as a service part. This is because the log data can be acquired much faster than when using commercially available SD cards.
   - Format the SD card by using SD Formatter from Panasonic before copying the logs: https://www.sdcard.org/downloads/formatter_3/ (free software)
   - Insert the SD card into the machine's service slot instead of the SD slot on the side of the operation panel.

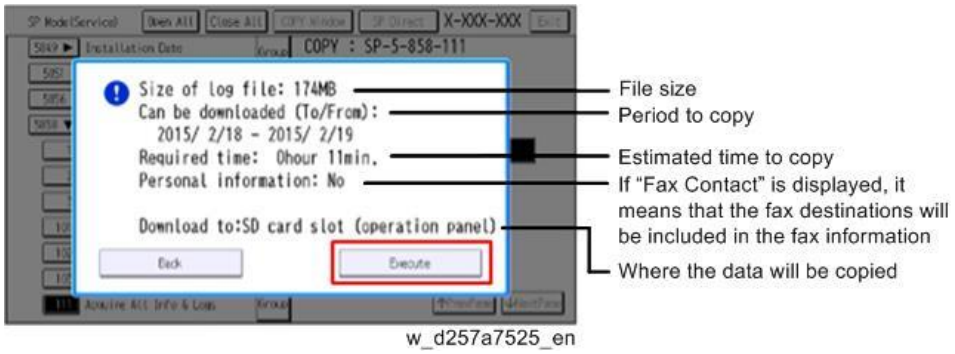
   * The part number of the SD card with 2 GBs that is registered as a service part is "B6455030".

   ** The part number of the SD card with 8 GBs that is registered as a service part is "B6455040".
4. Turn ON the main power.
5. Enter SP mode.
6. Specify the date that the problem occurred in SP5-858-101 (Start Date) by setting it to the year-month-day calendar format.
   - For example, if a problem occurred on February 1, 2015, the date should be set to "20150201", as shown above.
   - Be sure to confirm the date when the problem occurred before obtaining the logs.
7. Specify the number of days to collect the logs in SP5-858-102 (Days of Tracing).
   - "**2**" is set by default, which is the minimum needed for investigating the problem.
   - A value of "1" to "180" can be set.
8. Execute SP5-858-111 (Acquire All Info & Logs) to copy all of the log types to an SD card.

   It is possible to obtain the logs separately by the following SPs.

SP	Collectable Information and/or Logs
SP5-858-111	All of the information and logs that are collected by executing the SPs from SP5-858-121 to SP5-858-145, and SMC.
SP5-858-121	Configuration page
SP5-858-122	Font page
SP5-858-123	Print settings list
SP5-858-124	Error log
SP5-858-131	Fax information (whether the fax destinations are included or not depends on the setting of SP5-858-103.)
SP5-858-141	Controller log, engine log, operation panel log, FCU (PCB2), and SMC.
SP5-858-142	Controller log
SP5-858-143	Engine log
SP5-858-144	Operation panel log
SP5-858-145	FCU log
SP5-992-001	SMC

9. After executing the SP for copying the information and/or logs, a confirmation screen will appear. To proceed with obtaining the information and/or logs, tap "Execute"



w_d257a7525_en

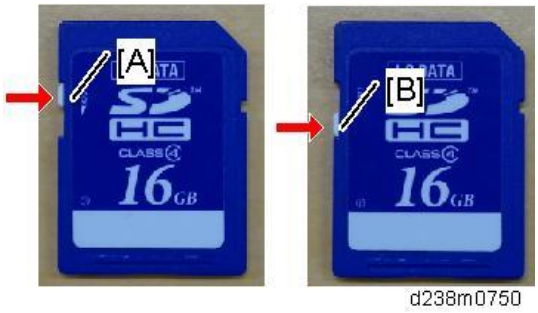
Note

- The approximate time it takes to transfer the debug log is as follows. Transfer time may be affected by the type or format of the SD card.
  Controller device log (GW device log): 2 - 20 minutes

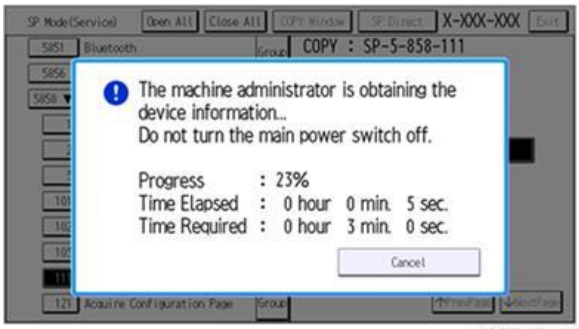
Engine device log: 2 minutes

Operation panel device log: 2 - 20 minutes

If the estimated time is not calculated due to an error, an error code will be displayed.

Error Code	Description
-1	Other.
-2	No SD card is inserted in the service slot or in the SD slot on the side of the operation panel. In this case, insert an SD card into either of the SD slots.
-3	The SD card is locked. In this case, unlock the SD card, as shown below.  d238m0750 [A]: Unlocked, [B]: Locked

10. Wait for the information and/or logs to be copied to the SD card.



d257a7121

11. After a message stating that the process has completed appears on the operation panel, confirm that the LED light next to the SD card slot is not flashing and then remove the SD card.

Note

- The process of obtaining logs fails in the following cases:
  - When the size of the logs to obtain exceeds the amount of space available on the SD card.
  - When the SD card is removed while the logs are being copied to it.
  - When the SD card is not formatted.
- If 'failed' appears on the touch panel display, turn the power off, and then recover from step 1 again.

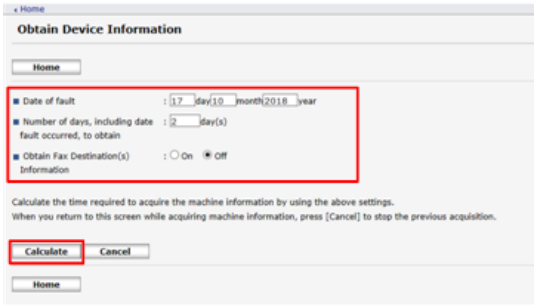
Retrieving the Device Logs via Web Image Monitor

The device logs can be retrieved via the Web Image Monitor.

1. Access the following URL and logon as an administrator:
http://[IP address or host name]/web/entry/df/websys/direct/getSysInfo.cgi

d238m0884

2. Specify the date that the problem occurred and the number of days to download the logs. If the fax destinations need to be included in the fax information, set "On" as "Obtain Fax Destination(s) Information". Then click "Calculate".

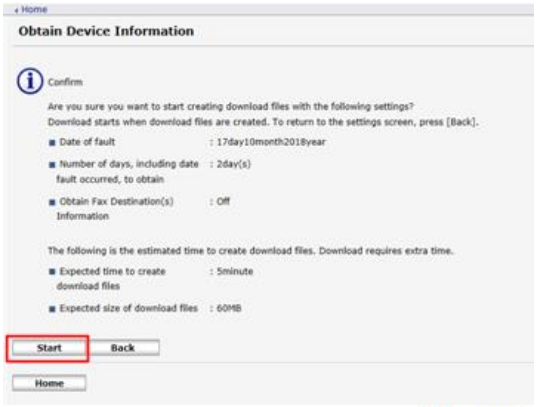


d0bqm2201

Note

- "2" is set by default for "Number of days, including date fault occurred, to obtain". However "2", which is the minimum needed for investigating the problems, is recommended for reducing the downloading time.
- "Obtain Fax Destination(s) Information" is set to "Off" by default.

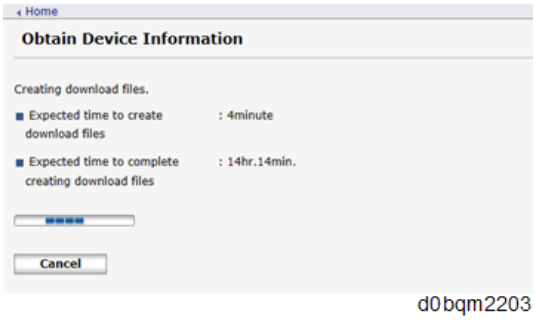
3. Click "Start".



d0bqm2202

4. The confirmation screen will appear and the information and/or logs will start downloading. To proceed to download the information and/or logs, wait for the save or save and open dialog to

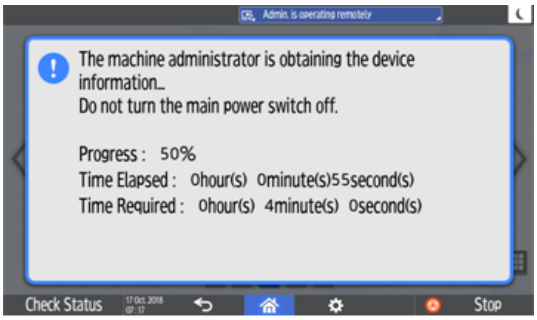
appear.



d0bqm2203

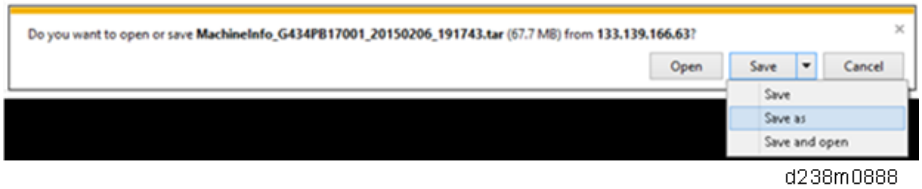
Note

- To cancel downloading, click "Cancel".
- Operation panel when downloading the logs:



d0bqm2204

5. After a while, the save or save and open dialog will appear. Specify where to download and save the file.



d238m0888

Note

- The debug logs are saved with the following file names. These names are the same as the files downloaded with SD card.

Following device logs are saved.

- Engine debug log
- Condition data log
- Operation panel debug log
- FCU debug log
- Communication log (network packet)
- Configuration Page
- Printer Setting List
- Font List
- Error Log
- Fax information

- SMC
- SC 819 log

UP/SP Data Import/Export

UP Data Import/Export

Data that can be Imported and Exported

- Copier / Document Server Settings
- Printer Settings
- Scanner Settings
- Fax Settings
- Browser settings
- Program (Document Server)
- Program (Copy)
- Program (Scanner)
- Web Image Monitor Setting
- Web Service Settings
- System Settings
- Screen Features Settings
- Home screen customization settings*1

*1 Wallpaper cannot be exported if "Live Wallpaper" is selected.

Data that cannot be Imported or Exported

- Some System Settings *1
- Extended Feature Settings
- Address book
- Program (Fax function)
- Program (Printer function)
- Settings that can be specified via telnet
- RICOH@Remote-related data
- Counters
- Settings that can only be specified via Web Image Monitor or Web Service (for example, Bonjour, SSDP setting)

*1 The setting for the date, settings that require device certificate, settings that need to be adjusted for each machine (for example, image adjustment settings), settings only for executing functions, and settings only for viewing cannot be imported or exported.

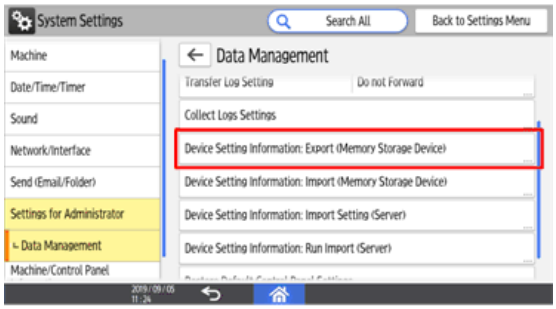
Exporting Device Information

This can be exported / imported by an administrator with all privileges.

When exporting SP device information from the operation panel, the data is saved on an SD card.

1. With the Copy/Printer/Scanner/Fax/Settings screen open, insert an SD card into the media slot on the side of the operation panel.

2. Log in from the operation panel as an administrator with all privileges.
3. Press [Settings] on the Home screen > [System Settings].
4. Press [Settings for Administrator] > [Data Management] > [Device Setting Information: Export (Memory Storage Device)].



d0cam1073

5. Set the export conditions.

d0cam1074

- Specify whether to [Include] or [Exclude] the "Device Unique Information". "Device Unique Information" includes the IP address, host name, fax number, etc.
- Specify an encryption key.

6. Press [Run Export].
7. Press [OK].
8. Press [Exit].
9. Log out.

Note

- If data export fails, the details of the error can be viewed in the log.
- When device Information is periodically imported, it is necessary to create the device setting information file with special software and store it on the web server.

Importing Device Information

This can be exported / imported by an administrator with all privileges.

Import device information saved on an SD card.

1. With the Copy/Printer/Scanner/Fax/Settings screen open, insert an SD card into the media slot on the side of the operation panel.
2. Log in from the operation panel as an administrator with all privileges.
3. Press [Settings] on the Home screen > [System Settings].

4. Press [Settings for Administrator] > [Data Management] > [Device Setting Information: Import (Memory Storage Device)].
5. Configure the import conditions.

d0cam1075

- Press [Select File] of the "Device Setting Information File" to select the file(s) to import.
- Specify whether to [Include] or [Exclude] the "Device Unique Information". "Device Unique Information" includes the IP address, host name, fax number, etc.
- Press [Change], enter the encryption key that was specified when the file was exported, and press [OK].

6. Press [Run Import].
7. Press [OK].
8. Press [Exit].
   The machine restarts.

Note

- If data export/import fails, the details of the error can be viewed in the log.

SP Data Import/Export

Data that can be imported and exported

- System SP
- Printer SP
- Fax SP
- Scanner SP

Exporting Device Information

When exporting SP device information from the operation panel, the data is saved on an SD card.

1. With the Copy/Printer/Scanner/Fax/Settings screen open, insert an SD card into the media slot on the side of the operation panel.
2. Enter SP mode.
3. Press SP5-749-001 (Import/Export: Export)
4. Select "Target" SP settings (System/Printer/Fax/Scanner/Smart Operation Panel) to be exported.
5. Select "Option" settings (Unique/Secret).

Item	Specification	Note
Unique	Unique information of the machine is included in the exported file if you select "Unique" setting.	**Unique information that can be updated** #1. Items that are to be used to identify the machine. Example: Network Information/ Host name / Information related to fax number /Mail address assigned to the machine #2. Items for specifying the options equipped on the machine. Example: Lot number for developer **Unique information that cannot be updated** #1. Items that may cause a problem if imported Example: Serial number / Information related to @Remote #2. Items for managing the history of the machine Example: Time and date / Counter information / Installation date #3. Setting values for the Engine
Secret	Secret information is exported if you select "Secret" setting.	**Secret information** #1. Data that cannot be exported without being encrypted. (Exported data is encrypted.) Example: Password / Encryption key / PIN code #2. Confidential information for the customer Example: User name / User ID / Department code / Mail address / **Phone number** #3. Personal information Example: Document name / Image data #4. Sensitive information for the customer Example: MAC address / Network parameters

* The IP address is exported when both 'Unique' and 'Secret' are selected.

6. Select "Crypt config" setting (Encryption).

Encryption	Select whether to encrypt or not when exporting.	If the encryption function is used, setting of an encryption key is required by direct input.

	If you push the "Encryption" key, you can export secret information.	• Type the arbitrary password using the soft keyboard • Can enter up to 32 characters

7. Press [Execute].
8. Press [OK].

Note

- If data export/import fails, the details of the error can be viewed in the log.

Importing Device Information

Import device information saved on an SD card.

1. Insert an SD card into the media slot on the side of the operation panel.
2. Enter SP mode.
3. Press SP5-749-101(Import/Export: Import)
4. Select a unique setting.
5. Press [Encryption Key], if the encryption key was created when the file was exported.
6. Select an encryption setting.

Unique	If you want to apply the unique information to the target machine, select the "Unique" key.	Refer to the above information.
Encryption	If an encrypted file is selected as the import file, this setting is required.	

7. Press [Execute].
8. Press [OK].

Note

- If data export/import fails, the details of the error can be viewed in the log.

Possible solutions for import/export problems

The access log file is created when export/import is executed. The file is stored in the same location as the exported device setting information file.

If an error occurs, check the log's result code in the access log file first. Values other than 0 indicate that an error occurred.

The result code will appear in the circled area illustrated below.

- Example of a log file

If you cannot solve the problem or do not know how to solve it after checking the code, note down the error log entry, then contact your supervisor.

Result Code	Cause	Solutions
2 (INVALID REQUEST)	A file import was attempted between different models or machines with different device configurations.	Import files exported from the same model with the same device configurations.
4 (INVALID OUTPUT DIR)	Failed to write the device information to the destination device.	Check whether the destination device is operating normally.
7(MODULE ERROR)	An unexpected error occurred during import or export.	Switch the power off and then back on, and then try the operation again. If the error persists, contact your supervisor.
8 (DISK FULL)	The available storage space on the external medium is insufficient.	Execute the operation again after making sure there is enough storage space.
9 (DEVICE ERROR)	Failed to write or read the log file.	Check whether the path to the folder for storing the file or the folder in which the file is stored is missing.
10 (LOG ERROR)	The hard disk is faulty.	Contact your supervisor.
20 (PART FAILED)	Failed to import some settings.	The reason for the failure is logged in "NgCode". Check the code. **Reason for the Error (Ng-Name)** 2. INVALID VALUE The specified value exceeds the allowable range. 3. PERMISSION ERROR The permission to edit the setting is missing.

Result Code	Cause	Solutions
		4. NOT EXIST The setting does not exist in the system. 5. INTERLOCK ERROR The setting cannot be changed because of the system status or interlocking with other specified settings. 6. OTHER ERROR The setting cannot be changed for some other reason.
21 (INVALID FILE)	Failed to import the file because it is in the wrong format in the external medium.	Check whether the file format is correct. The import file should be a CSV file.
22 (INVALID KEY)	The encryption key is not valid.	Use the correct encryption key.

Note

- When exporting device information from the operation panel, the data can be saved only on an SD card.
- The file format for exports is CSV.

Test Pattern Printing

Printing Test pattern: SP2-109

Some of these test patterns are used for copy image adjustments but most are used primarily for design testing.

Note

- Do not operate the machine until the test pattern is printed out completely. Otherwise, an SC occurs.

1. Enter the SP mode.
2. Select **SP2-109-003**.
3. Enter the number for the test pattern that you want to print and press [#].

No.	Pattern	No.	Pattern
0	None	12	Independent Pattern (2-dot)
1	Vertical Line (1dot)	13	Independent Pattern (4-dot)
2	Vertical Line (2dot)	14	Trimming Area
3	Horizontal Line (1dot)	15	Hound's Tooth Check (Vertical)
4	Horizontal Line (2dot)	16	Hound's Tooth Check (Horizontal)
5	Grid Vertical Line	17	Band (Horizontal)
6	Grid Horizontal Line	18	Band (Vertical)
7	Grid Pattern Small	19	Checker Flag Pattern
8	Grid Pattern Large	20	Grayscale (Vertical Margin)
9	Argyle Pattern Small	21	Grayscale (Horizontal Margin)
10	Argyle Pattern Large	22	Two Beam Density Pattern
11	Independent Pattern (1-dot)	23	Full Dot Pattern

4. When you want to select the single color of Magenta, Yellow or Cyan for printing a test pattern, select the color with SP2-109-005 (2: Magenta, 3: Yellow, 4: Cyan).
5. When you want to change the density of printing a test pattern, select the density with SP2-109-006 to -009 for each color.

Note

- If you select "0" with SP2-109-006 to -009, the color to be adjusted to "0" does not come up on a test pattern.

6. Touch "Copy Window" to open the copy window, then select the settings for the test print (paper size etc.).

Note

- If you want to use black and white printing, touch "Black & White" on the LCD. If you want to use color printing, touch "Full Color" on the LCD.

7. Press the "Start" key to start the test print.
8. After checking the test pattern, touch "SP Mode" on the LCD to return to the SP mode display.
9. Reset all settings to the default values.

10. Touch "Exit" twice to exit SP mode.

Card Save Function

Overview

Card Save:

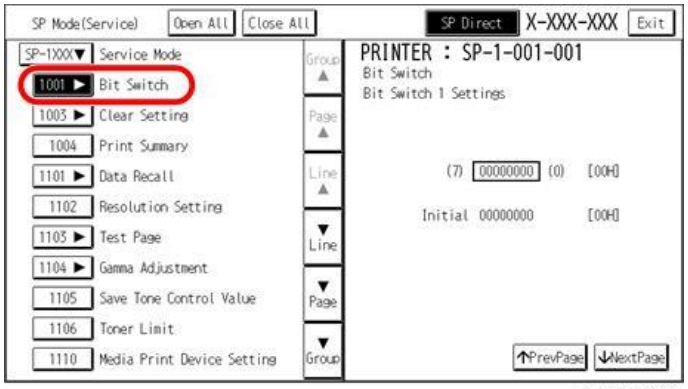
- The Card Save function is used to save print jobs received by the printer on an SD card with no print output. Card Save mode is toggled using printer Bit Switch #1 bit number 4. Card Save will remain enabled until the SD card becomes full, or until all file names have been used.
- Captures are stored on the SD card in the folder /prt/cardsave. File names are assigned sequentially from PRT00000.prn to PRT99999.prn. An additional file PRT.CTL will be created. This file contains a list of all files created on the card by the card save function.
- Previously stored files on the SD card can be overwritten or left intact. Card Save SD has "Add" and "New" menu items.
  - **Card Save (Add):** Appends files to the SD Card. Does not overwrite existing files. If the card becomes full or if all file names are used, an error will be displayed on the operation panel. Subsequent jobs will not be stored.
  - **Card Save (New):** Overwrites files in the card's /prt/cardsave directory.

Limitation:

- Card Save cannot be used with PJL Status Readback commands. PJL Status Readbacks will not work. In addition they will cause the Card Save to fail.

Procedure

1. Turn OFF the power.
2. Insert the SD card into slot 2 (lower), and then turn ON the power.
3. Enter SP mode.
4. Select the [Printer SP].
5. Select SP1-001 (Bit Switch).



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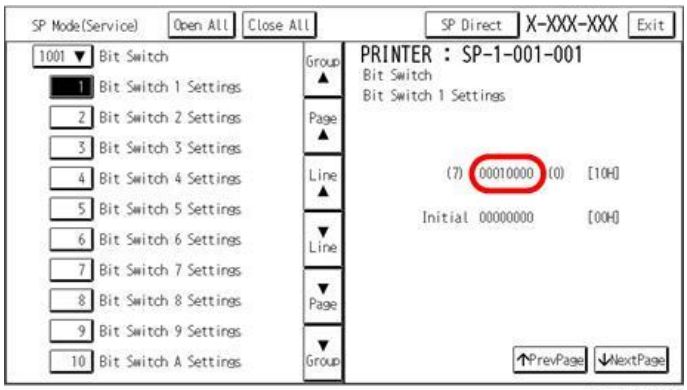
6. Select "Bit Switch 1 Settings" and use the numeric keypad to turn bit 4 ON and then press the "#" button to register the change. The result should look like: 00010000. By doing this, Card Save

option will appear in the "List/Test Print" menu.



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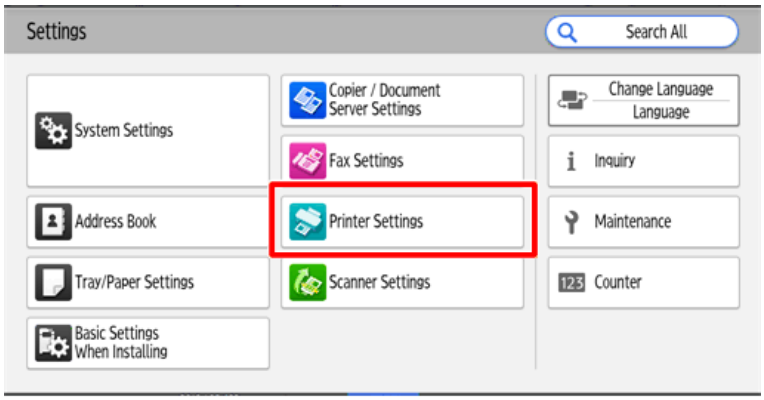
7. Press [Exit] to exit SP Mode.
8. Press [Settings] icon.
9. Press [Printer Setings].



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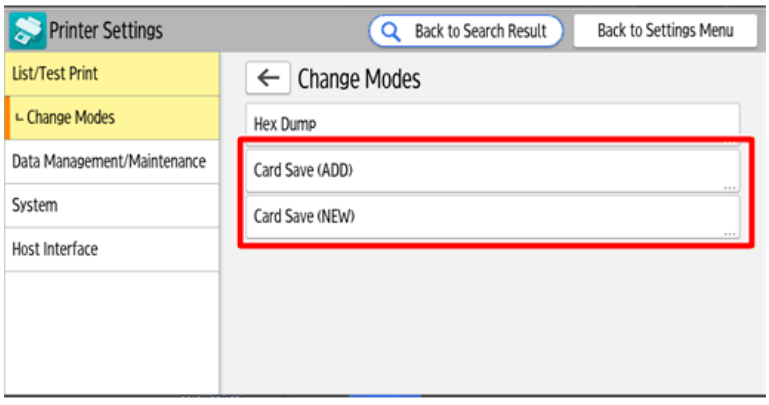
10. Press [List/Test Print] > [Change Modes].
11. [Card Save (Add)] and [Card Save (New)] should be displayed on the screen. Select [Card Save (Add)] or [Card Save (New)].



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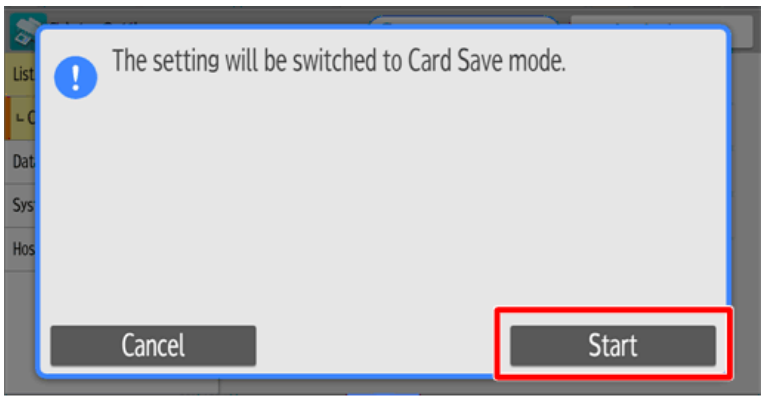
12. Press [Start] and then exit the "Settings" menu.



d0cam1066

13. Press [Printer] icon.

14. "Card Save" is be displayed in the top left of the display panel.

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15. Send a job to the printer. The Communicating light should start blinking.

16. As soon as the printer receives the data, it will be stored on the SD card automatically with no print output. Nothing is displayed on the screen, indicating that a Card Save operation was successful.

17. Press [Cancel the Mode] to exit Card Save mode.

18. Change the Bit Switch Settings back to the default 00000000. Press [#] in the numeric keypad to register the changes.

19. Remove the SD card after the power is turned OFF.

Error Messages

Card Save error messages:

- **Init error:** A card save process (e.g. card detection, change to kernel mode) failed to initialize.
- **Card not found:** Card cannot be detected in the slot.
- **No memory:** Insufficient working memory to process the job.
- **Write error:** Failed to write to the card.
- **Other error:** An unknown error occurred.

If an error occurs, pressing [OK] will cause the device to discard the job and return to the ready state.

6. Troubleshooting

Self-Diagnostic Mode

Service Call Conditions

The ‘SC Table’ section shows the SC codes for controller errors and other errors. The latter are put into four types. The type is determined by their reset procedures. The table shows the classification of the SC codes.

Type	Display	How to reset	SC call or SC alarm in customer support system
A	The SC is immediately displayed on the operation panel when SC occurs. The error involves the fusing unit. The machine operation is disabled. The user cannot reset the error.	Reset the SC (set SP5-810-001) and then cycle the power OFF and ON. ⚠CAUTION • When canceling a fusing unit SC, (SC544-00/SC554-00/SC564-00/SC574-00), perform part replacement in accordance with the above procedure.	Occurrence & alarm count ↓ Immediate alarm
B	When a function is selected, the SC is displayed on the operation panel. The machine cannot be used (down-time mitigation).	Turn the main power switch (SW1) OFF and ON.	Occurrence & alarm count ↓ Power OFF and ON ↓ Alarm count and alarm only if recurrence
C	No display on the operation panel. The machine operates as usual.	The machine operates as usual. Only the SC history is updated.	Occurrence ↓ Logging count & alarm count
D	The SC is displayed on the operation panel. The machine cannot be used (machine-error SC).	Turn the main power switch (SW1) OFF and ON.	Occurrence & alarm count ↓ Power OFF and ON

Type	Display	How to reset	SC call or SC alarm in customer support system
			↓ Alarm count and alarm only if recurrence

Note

- When an ordinary SC (type D) is generated, an automatic reboot is performed. When an event is reported by the customer support system, even in the event of an ordinary SC, reboot is not performed. During automatic reboot, a confirmation screen is displayed after the reboot.
- When automatic reboot occurs twice continuously, an SC is displayed without rebooting, and logging count is performed. Also, when an SMC print is output, an * mark is added alongside the SC number for clarity.
- Automatic reboot can be enabled or disabled with SP5-875-001 (SC automatic reboot setting) (default value: OFF).

SC Logging

When an SC is generated, the "total count value when the SC is generated" and the "SC code" are logged. However, if the total count value during the SC is the same as last time, logging is not performed.
Logged data can be checked by outputting an administrative report (SMC print). The SC history is logged up to the last 10 entries, and if there are more than 10 entries, data are progressively deleted starting from the oldest.

SC Automatic Reboot

When an ordinary SC (pattern D) is generated, automatically reboot is performed. Automatic reboot or reboot by user operation can be set by SP5-875-001 (SC automatic reboot setting out) (default value: 1 "OFF").
When a type D occurs, automatic reboot is done or the machine display asks the customer if it can reboot. However, when the SC occurs twice in a short time, the machine sends a report to the @Remote server without rebooting. This is because just rebooting may not be a good solution if an SC occurs twice.
When an automatic reboot is performed, a confirmation screen is displayed after reboot. The confirmation screen can be cancelled by pressing the [OK] key (display is not cancelled only when the main power switch (SW1) is switched OFF to ON).

Screen display during reboot

- Status display on the current screen
  - Post-processing ..... Post-processing during printing, etc.
  - Automatic reboot .... After operation end

    Post-processing

    ■■□□□□□□□□

    Until automatic reboot

    □□□□□□□□□□
- Reset key (Reboot key)

  Key to perform reboot

  # Cancel key is not displayed.
- Turn on spanner LED (same as when an SC is generated).

Operation during SC reboot

- Timing of SC reboot

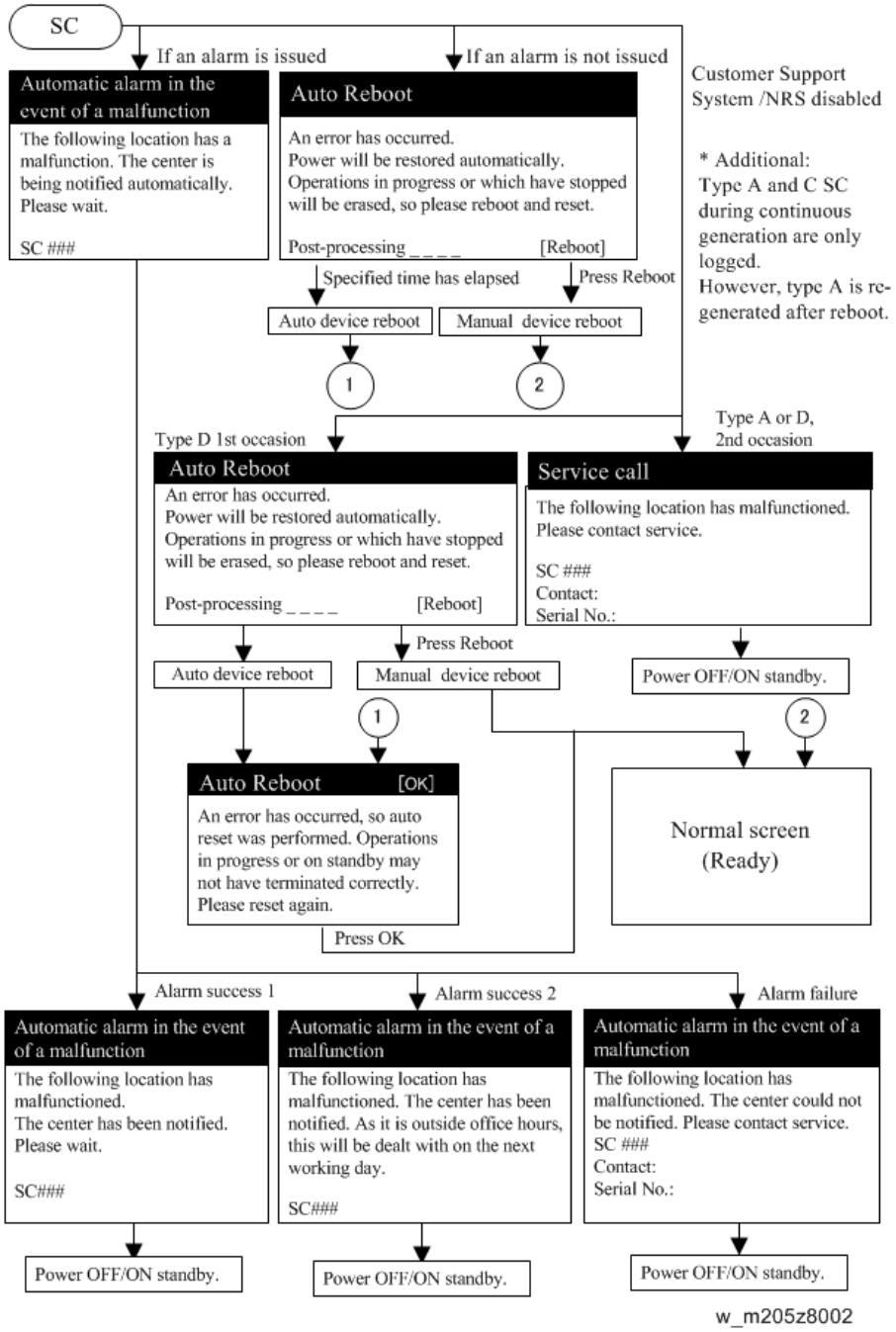
  When @Remote is enabled, and when a NRS alarm*1 is not generated, the corresponding SC is the object of an automatic reboot.

  *1 NRS alarm: Issued when an ordinary SC (type D) is generated twice while the total counter counts 10 times.
- Time to automatic reboot

  Reboot is performed 30 seconds after an engine reboot is possible, after the end of post-processing during printing, etc.

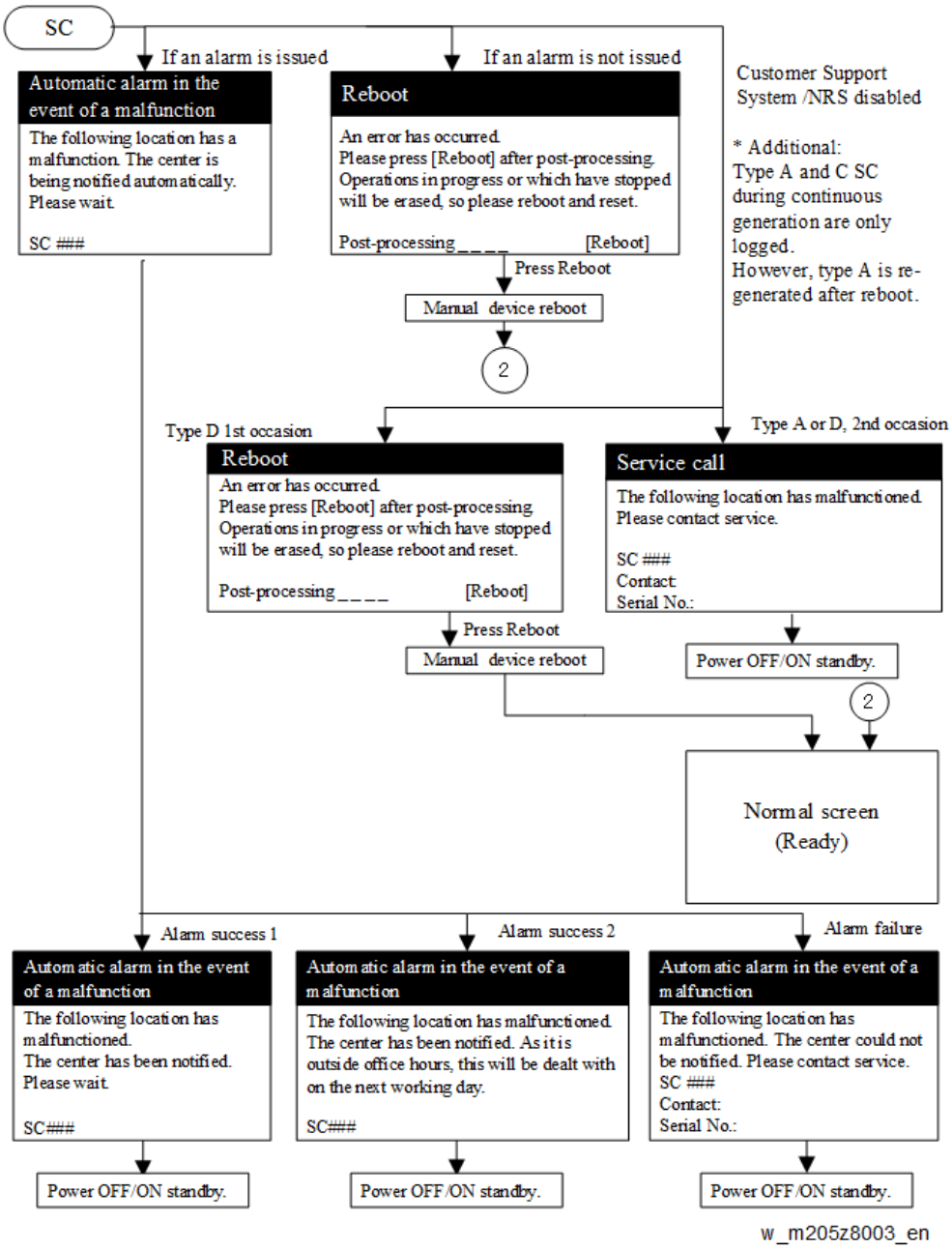
  At that time, a reboot is performed even if the MFP is operating. The engine does not start process control when a reboot is possible.
- Automatic reboot

  See the flowchart below.



SC Manual Reboot

When the automatic reboot is disabled in SP5-875-001 (SC automatic reboot setting), user reboot the machine manually. See the flowchart below.



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SC1xx: Scanning

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC101-01	D	**LED Error**
		The peak white level is less than the prescribed value. This SC is detected when the machine adjusts the LED's light intensity or before just scanning.
		• Loose connector • Defective scanner carriage • Defective BiCU (PCB1) • Damaged harness (FFC) • White plate for shading adjustment is dirty or incorrect. • Scanning guide plate is dirty or incorrect.
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check the scanning guide plate. If the scanning guide plate is dirty, clean it. **2.** Reconnect the following connectors: • Scanner Carriage - BiCU harness (FFC) • SBU (PCB11) - LEDB (scanner lamp board) harness (FFC) connector **3.** Check the whit plate that is used for shading adjustment. This plate is attached to the back side of the sheet-through or platen exposure glass. If the white plate is dirty, clean it or replace the sheet-through exposure glass. **4.** Replace the scanning guide plate. **5.** Replace the scanner carriage. **6.** Replace the BiCU (PCB1). **7.** Replace the following harnesses: • Scanner Carriage - BiCU (PCB1) (FFC)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC101-02	D	**LED Error (LED illumination adjustment)**
		The peak white level is less than the prescribed value. This SC is detected when the machine adjusts the LED's light intensity.
		• Condensation in scanner unit • Connector defective (disconnected, loose) • BiCU defective • Scanner carriage defective • Harness defective

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• White plate for shading adjustment is dirty or installed incorrectly.
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the following connectors: • Scanner Carriage - BiCU harness (FFC) • SBU (PCB11) - LEDB (scanner lamp board) harness (FFC) connector **2.** Check the whit plate that is used for shading adjustment. This plate is attached to the back side of the sheet-through or platen exposure glass. If the white plate is dirty, clean it or replace the sheet-through exposure glass. **3.** Replace the scanner carriage **4.** Replace the BiCU (PCB1). **5.** Replace the following harnesses: • Scanner Carriage - BiCU (PCB1) (FFC)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC102-00	D	**LED Intensity Adjustment Error**
		The peak white level cannot be in the prescribed value even though adjusting several times. This SC is detected when the machine adjusts the LED's light intensity.
		• Loose connector • Scanner carriage defective • BiCU defective • Harness defective
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the following connectors: • Scanner Carriage - BiCU harness (FFC) • SBU (PCB11) - LEDB (scanner lamp board) harness (FFC) connector **2.** Check the whit plate that is used for shading adjustment. This plate is attached to the back side of the sheet-through or platen exposure glass. If the white plate is dirty, clean it or replace the sheet-through exposure glass. **3.** Replace the scanner carriage. **4.** Replace the BiCU (PCB1). **5.** Replace the following harnesses: • Scanner Carriage - BiCU (PCB1) (FFC)

SC No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC111-01	D	**LED Error (Scanning): Rear Side**
		The peak white level is less than the prescribed value.
		• Loose connector • Defective CIS (S21) • Damaged harness • Dirty or incorrect scanning guide plate • Defective BiCU (PCB1)
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check the scanning guide plate (rear side). If the scanning guide plate is dirty or damaged, clean or replace it. **2.** Replace the following harnesses: • CIS (S21) - BiCU (PCB1) (FFC) **3.** Replace the CIS (S21). **4.** Replace the harness (FFC). **5.** Replace the BiCU (PCB1).

SC No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC112-00	D	**LED Illumination Adjustment Error: Rear Side**
		The white level peak reached the prescribed threshold when the white plate was scanned after a specified number of adjustments.
		• Loose connector • Defective CIS (S21). • Damaged harness • Dirty or incorrect scanning guide plate • Defective BiCU (PCB1)
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check the scanning guide plate (rear side). If the scanning guide plate is dirty or damaged, clean or replace it. **2.** Replace the following harnesses: • CIS (S21) - BiCU (PCB1) (FFC) **3.** Replace the CIS (S21). **4.** Replace the harness (FFC). **5.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC120-00	D	**Scanner Home Position Error 1**
		The Scanner HP Sensor (S20) did not go OFF : • During homing operation (power ON, leaving low power mode) • During auto adjustment (power ON, leaving low power mode) • During document, book scanning
		• Motor drive error • Defective motor • Defective sensor • Disconnected connectors or damaged harness • Timing belt, pulley, wires or scanner carriage failure
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check the input of the scanner HP sensor (S20) with SP5-803-200. **2.** Replace the Scanner HP Sensor (S20), if input check fails. **3.** Replace the Scanner Motor (M7). **4.** Replace the harness.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC121-00	D	**Scanner Home Position Error 2**
		The Scanner HP Sensor (S20) did not go ON : • During homing operation • During auto adjustment • During document, book scanning
		• Motor drive error • Defective Scanner Motor (M7) • Defective Scanner HP Sensor (S20) • Disconnected connectors or damaged harness • Timing belt, pulley, wires or carriage failure
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check the input of the scanner HP sensor (S20) with SP5-803-200. **2.** Replace the Scanner HP Sensor (S20), if input check fails **3.** Replace the Scanner Motor (M7). **4.** Replace the harness.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC141-00	D	**Black Level Detection Error**
		Black level is not less than the prescribed value. This SC is detected when: the scanner power is turned on and the machine returns from the energy saver mode.
		• Loose connector • Defective scanner carriage • Defective BiCU (PCB1) • Damaged harness (FFC)
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the following connectors: • SBU (PCB11) - BiCU harness (FFC) **2.** Replace the scanner carriage **3.** Replace the BiCU (PCB1). **4.** Replace the harness (FFC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC142-00	D	**White Level Detection Error**
		The white peak level cannot be in the prescribed value when adjusting the scanner gain. This SC is detected when the scanner power is turned on and the machine returns from the energy saver mode.
		• Condensation in scanner unit • Scanner carriage defective • BiCU defective • Harness defective • Connector defective (disconnected, loose) • White plate for shading adjustment is dirty or installed incorrectly.
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the following connectors: • Scanner Carriage - BiCU harness (FFC) • SBU (PCB11) - LEDB (scanner lamp board) harness (FFC) connector **2.** Check the white plate that is used for shading adjustment. This plate is attached to the back of the sheet-through or platen exposure glass. If the white plate is dirty, clean it or replace the sheet-through exposure glass.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		3. Replace the scanner carriage **4.** Replace the BiCU (PCB1). **5.** Replace the following harnesses: • Scanner Carriage - BiCU (PCB1) (FFC)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC144-00	D	**SBU Communication Error**
		The machine cannot detect that the SBU (PCB11) is connected.
		• Defective scanner carriage • Defective BiCU (PCB1) • Loose connector or damaged harness
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the following connectors: • Scanner Carriage - BiCU harness (FFC) **2.** Replace the scanner carriage. **3.** Replace the BiCU (PCB1). **4.** Replace the following harness: • Scanner Carriage - BiCU (PCB1) (FFC)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC151-00	D	**Black Level Correction Error: Rear Side**
		The automatic adjustment has failed to correct the black level (rear side) to the permissible range.
		• Loose connector • Defective CIS (S21) • Defective BiCU (PCB1) • Damaged harness (FFC)
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the following connectors: • CIS (S21) - BiCU harness (FFC) **2.** Replace the CIS (S21). **3.** Replace the BiCU (PCB1). **4.** Replace the harness (FFC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC152-00	D	**White Level Correction Error: Rear Side**
		The automatic adjustment has failed to correct the white level (rear side) to the permissible range.
		• Defective CIS (S21) • Defective BiCU (PCB1) • Loose connector • Damaged harness (FFC) • Dirty or incorrect scanning guide plate (rear side)
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check the scanning guide plate (rear side). If the scanning guide plate is dirty or damaged, clean or replace it. **2.** Replace the following harnesses: • CIS (S21) - BiCU (PCB1) (FFC) **3.** Replace the CIS (S21). **4.** Replace the BiCU (PCB1). **5.** Replace the harness (FFC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC154-00	D	**CIS Communication Error: Rear Side**
		The machine cannot detect that the CIS (S21) is connected. This SC is detected when: the main power is turned ON and the machine returns from the energy saver mode.
		• Defective CIS (S21) • Defective BiCU (PCB1) • Loose connector • Damaged harness
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the following connectors: • CIS (S21) - BiCU harness (FFC) **2.** Replace the CIS (S21). **3.** Replace the BiCU (PCB1). **4.** Replace the following harness: • CIS (S21) - BiCU harness (FFC)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC161-20	D	**BiCU Error (DRAM initialization failure)**
		The DRAM initialization flow is not completed successfully. This SC is detected when: the main power is turned ON and the machine returns from the energy saver mode.
		• Defective BiCU (PCB1) • Defective DRAM device
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** 1. Reconnect all the connectors on the BiCU board if disconnected, or loose. **2.** 2. Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC180-01	B	**BiCU Error (Double-feed detection failure)**
		Error signal is detected during the failure detection operation.
		• Disconnected connectors or damaged harness • Sensors abnormal output • Defective Double-Feed Sensors (PCB14)(PCB15) • Defective ADF Relay Board (PCB13)
		1. Check the Double-Feed Sensors (PCB14)(PCB15) and harnesses. **2.** Reconnect the harness for Double-Feed Sensors (PCB14)(PCB15). **3.** Replace the harnesses for Double-Feed Sensors (PCB14)(PCB15). **4.** Replace the Double-Feed Sensors (PCB14)(PCB15). **5.** Replace the ADF Relay Board (PCB13).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC195-00	D	**Serial Number Mismatch**
		Serial number stored in the memory does not have the correct code.
		• EEPROM defective • BiCU (PCB1) replaced without original EEPROM
		1. Check the serial number with SP5-811-002. **2.** If the stored serial number is incorrect, contact your supervisor.

SC2xx: Exposure

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC202-01	D	**Polygon Motor Error 0: ON Timeout: K, C**
SC202-03	D	**Polygon Motor Error 1: ON Timeout: M, Y**
		Polygon Mirror Motor (M5,M6) cannot rotate correctly. This SC is detected when the Polygon Mirror Motor (M5,M6) starts rotating, or its rotating speed is changed.
		• Polygon Mirror Motor failure • Motor drive error • Polygon Mirror Motor harness is defective, disconnected, or short-circuited • BiCU failure (Incorrect polygon motor control signal, damaged Laser ASIC) • Defective PSU (PCB16)(PCB17) or power supply part for polygon motor • Incorrect AC voltage
		1. Cycle the power OFF/ON. **2.** Check the harness between Laser unit and BiCU (PCB1). **3.** Check CN300 (a connector with three pins) for the Polygon Mirror Motor (M5,M6) from the PSU (PCB16)(PCB17). There is no problem if the multimeter indicates 24±2V. **4.** Replace the Laser unit (Polygon Mirror Motor (M5,M6)). **5.** Replace the harness between the Laser unit and BiCU (PCB1). **6.** Replace the BiCU (PCB1). **7.** Replace the PSU (PCB16)(PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC203-01	D	**Polygon Motor Error 0: OFF Timeout: K, C**
SC203-03	D	**Polygon Motor Error 1: OFF Timeout: M, Y**
		Polygon Mirror Motor (M5,M6) cannot stop correctly. This SC is detected when the Polygon Mirror Motor (M5,M6) is deactivated.
		• Polygon Mirror Motor failure • Motor drive error • Polygon Mirror Motor harness is defective, disconnected, or short-circuited • BiCU failure (Incorrect polygon motor control signal, damaged Laser ASIC) • Defective PSU (PCB16)(PCB17) or power supply part for Polygon Motor • Incorrect AC voltage

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		1. Cycle the power OFF/ON. **2.** Check the harness between Laser unit and BiCU (PCB1). **3.** Check CN300 (a connector with three pins) for the Polygon Mirror Motor (M5,M6) from the PSU (PCB16)(PCB17). There is no problem if the multimeter indicates 24±2V. **4.** Replace the Laser unit (Polygon Mirror Motor (M5,M6)). **5.** Replace the harness between the Laser unit and BiCU (PCB1). **6.** Replace the BiCU (PCB1).. **7.** Replace the PSU (PCB16)(PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC204-01	D	**Polygon Motor Error 0: XSCRDY Signal Error: K, C**
SC204-03	D	**Polygon Motor Error 1: XSCRDY Signal Error: M, Y**
		Polygon mirror Motor (M5,M6) cannot rotate correctly. This SC is detected when the Polygon Mirror Motor (M5,M6) is deactivated.
		• Polygon Mirror Motor failure • Motor drive error • Polygon Mirror Motor harness is defective, disconnected, or short-circuited • BiCU failure (Incorrect polygon motor control signal, damaged Laser ASIC) • Defective PSU (PCB16)(PCB17) or power supply part for polygon motor
		1. Cycle the power OFF/ON. **2.** Check the harness between Laser unit and BiCU (PCB1). **3.** Check CN300 (a connector with three pins) for the Polygon Mirror Motor (M5,M6) from the PSU (PCB16)(PCB17). There is no problem if the multi meter indicates 24±2V. **4.** Replace the Laser unit (Polygon Mirror Motor (M5,M6)). **5.** Replace the harness between the Laser unit and BiCU (PCB1). **6.** Replace the BiCU (PCB1).. **7.** Replace the PSU (PCB16)(PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC220-01	D	**Laser Synchronizing Detection Error: Start Position LD1: K/C**
SC220-03	D	**Laser Synchronizing Detection Error: Start Position LD1: M/Y**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Synchronizing detection signal cannot be received. This SC is detected when: • The machine starts up. • The machine is copying.
		• Defective Laser unit (Synchronizing mechanism or LDB failure) • BiCU failure (Damaged laser ASIC) • Disconnected LDB harness
		1. Cycle the power off/on. **2.** Check for condensation on the LDB. **3.** Check the harness between LDB (Synchronizing mechanism) and BiCU (PCB1). **4.** Replace the Laser unit. **5.** Replace the BiCU (PCB1). **6.** Replace the harness between LDB and BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC230-01	D	**FGATE ON Error: K**
SC230-02	D	**FGATE ON Error: C**
SC230-03	D	**FGATE ON Error: M**
SC230-04	D	**FGATE ON Error: Y**
		FGATE signal cannot be received even when the laser is ready to emit. This SC is detected when the machine is copying.
		• Connection error between BiCU (PCB1) and Controller • BiCU failure (Damaged laser ASIC)
		1. Cycle the power OFF/ON. **2.** Check the connection between BiCU (PCB1) and Controller Board (PCB24). **3.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC231-01	D	**FGATE OFF Error: K**
SC231-02	D	**FGATE OFF Error: C**
SC231-03	D	**FGATE OFF Error: M**
SC231-04	D	**FGATE OFF Error: Y**
		FGATE signal is not OFF even when the laser is ready to end. This SC is detected when the machine is copying.
		• Connection error between BiCU (PCB1) and Controller • BiCU failure (Damaged laser ASIC)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		1. Cycle the power OFF/ON. **2.** Check the connection between BiCU (PCB1) and Controller Board (PCB24). **3.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC240-01	D	**LD Error: K**
SC240-02	D	**LD Error: C**
SC240-03	D	**LD Error: M**
SC240-04	D	**LD Error: Y**
		• The LD current is more than the prescribed current during emitting light. • LD driver cannot be initialized correctly. • Disconnected LDB harness. This SC is detected when: • The machine starts up. • The machine is copying.
		• LDB harness connection error • Deteriorated LD (LD broken) • LDB (Laser unit) failure • LDB harness failure
		1. Cycle the power OFF/ON. **2.** Check the value in SP2-110-001 to 004 (LD Driver). • If current value is "0", perform step 3. • If current value is "1", perform steps 3 and 5. • If current value is "2" to "FF", perform step 4. **3.** Reconnect the connectors between LDB and BICU (PCB1). **4.** Replace the Laser unit. **5.** Replace the harness between LDB and BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC272-01	D	**LD Driver Communication Error: K**
SC272-02	D	**LD Driver Communication Error: C**
SC272-03	D	**LD Driver Communication Error: M**
SC272-04	D	**LD Driver Communication Error: Y**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Communication between the CPU and LD driver was not performed correctly.
		• BiCU failure (LD 5V Power error) • LDB failure (LD drive error) • LDB harness failure • Model mismatch between BiCU (PCB1) and Laser unit
		1. Cycle the power OFF/ON. **2.** Check the harness between LDB and BiCU (PCB1). **3.** Check the combination of BiCU (PCB1) and Laser unit. Check that the BiCU (PCB1) of an IM C300 is not being used with the laser unit of an IM C400 or vice versa. **4.** Replace the BiCU (PCB1). **5.** Replace the Laser unit. **6.** Replace the harness between LDB and BiCU (PCB1).

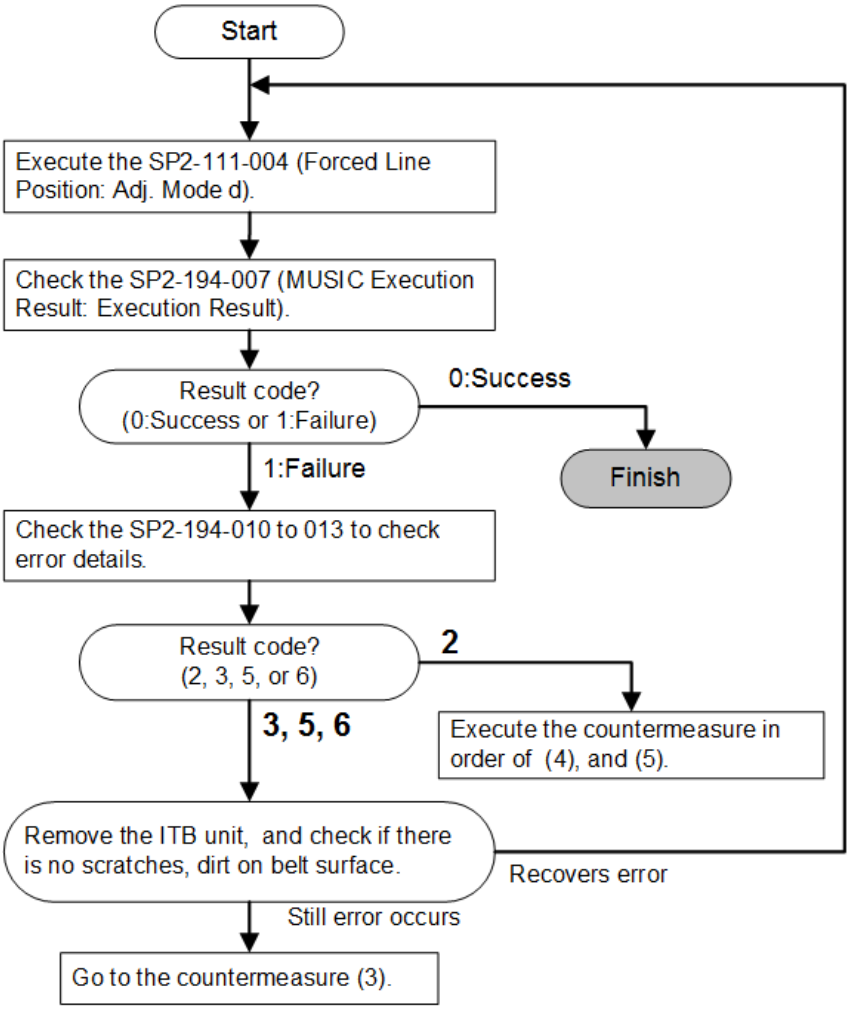
No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC272-10	D	**LD Driver Communication Error: Others**
		Communication between the CPU and LD driver was not performed correctly.
		• BiCU failure (LD 5V Power error) • LDB failure (LD drive error) • LDB harness failure • Interlock Switch failure
		1. Cycle the power OFF/ON. **2.** Check the harness between LDB and BiCU (PCB1). **3.** Replace the BiCU (PCB1). **4.** Replace the Laser unit. **5.** Replace the harness between LDB and BiCU (PCB1). **6.** Replace the Interlock Switch.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC285-00	C	**MUSIC Error**
		The results of MUSIC pattern reading failed 4 times.
		The ID sensors (S27-S29) cannot detect the MUSIC pattern Color registration error is larger than the specified value
		Refer to "When SC285-00 (MUSIC error) Is Displayed"

When SC285-00 (MUSIC error) Is Displayed

As SC285-00 is a logging SC (SC Type C), it is not displayed at once when an error occurs. Though the

equipment can be operated, check the SC history and perform a recovery operation if the SC has occurred.



If a MUSIC fail cannot be cleared, perform countermeasures from (2) to (5) in this order.
If SC370 occurs when operating MUSIC, refer to the recovery procedure for the SC370.

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Countermeasure (1): Large drifting

An abnormal value may be contained in the SP where the MUSIC corrected result is saved.

1. Execute SP2-180-001 (Line Pos. Adj.: Clear Color Regist.).
2. Execute SP2-111-004 (Forced Line Position: Adj. Mode d).
3. Check SP2-194-007 (MUSIC Execution Result: Execution Result).

Countermeasure (2): MUSIC pattern density Error

Execute MUSIC and check the result.

1. Execute SP3-011-001 (Manual ProCon :Exe : Normal ProCon).
2. Execute SP2-111-004 (Forced Line Position: Adj. Mode d).
3. Check SP2-194-007 (MUSIC Execution Result: Execution Result).

Countermeasure (3): Image transfer belt/ Image transfer unit defective

1. Execute SP2-112-001 (TM/ID Sensor Check: Execute).
2. Check SP2-112-010 (TM/ID Sensor Check: Display Result: Front-Center-Rear).
   - Normal if the result is "111"
     -->Execute other countermeasures.
   - Vsg adjustment failed if the result is "2xx", "x2x", or "xx2"
     -->Execute recovery operation for SC370
   - There is a high probability that contaminants, scars, or irregularities may exist on the belt if the result is "3xx", "x3x", or "xx3"
     -->Execute the following procedure;
   1. Remove the ITB unit, and check for abnormalities such as contaminants or scars, and set it after cleaning.
   2. Execute SP2-111-004 (Forced Line Position: Adj. Mode d).
   3. Check SP2-194-007 (MUSIC Execution Result: Execution Result).
   4. If it fails, replace the ITB unit.
   - There is a high probability that contaminants or curl may exist on the belt if the result is "5xx", "6xx", "7xx", "8xx", "x5x", "x6x", "x7x", "x8x", "xx5", "xx6", "xx7", or "xx8".
     --> Execute the following procedure
   1. Remove the ITB unit, and check for abnormalities such as contaminants or scars, and set it after cleaning.
   2. Execute SP2-111-004 (Forced Line Position: Adj. Mode d).
   3. Check SP2-194-007 (MUSIC Execution Result: Execution Result).
   4. If it fails, replace the ITB unit.

Countermeasure (4): ID sensor defective

Follow the next step if executing SP2-111-004 (Forced Line Position: Adj. Mode d) and SP2-194-007 (MUSIC Execution Result: Execution Result) fails.

1. Clean the ID Sensors (S27-S29).
2. Check the harness and connector for ID Sensors (S27-S29).
3. Replace the ID Sensors (S27-S29).
4. Replace the BiCU (PCB1).

Countermeasure (5): ID Sensor Shutter Defective

Check if there is no problem concerning the mechanism (interference or deformation).

1. Execute SP5-804-021 (OUTPUT Check: TM sensor Shutter Solenoid) to operate the ID Sensor Shutter Solenoid (SOL2) to check opening/closing of the shutter.
2. Check for a broken harness or connector disconnection.
3. If the problem cannot be solved, replace the BiCU (PCB1).

SC3xx: Image Processing

Image Processing 1: Charge and Development

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC312-01	D	**Charge Roller Feed back Voltage Error: K**
SC312-02	D	**Charge Roller Feed back Voltage Error: C**
SC312-03	D	**Charge Roller Feed back Voltage Error: M**
SC312-04	D	**Charge Roller Feed back Voltage Error: Y**
		The feedback voltage of the charge AC for each color is 0.15V or less for consecutive 200ms after the charge AC is activated in the standard or half line speed.
		• Disconnected/incorrect harness for the High-Voltage Power Supply (Development) (PCB22) • Damaged/incorrect PCDU • High-Voltage Power Supply (Development) failure • Disconnected harness/connector
		Troubleshooting procedure: Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1. Check the drum condition:** Check the terminal [A] (see the picture below for the terminal location) to see if there is dust, damage, or deformation. If there are any defects, replace the PCDU. **2. Check all the related connectors are firmly connected:** If not good, reconnect the connector. **3. Check the mainframe condition:** Check if there is dust on the terminal for charging, or any damage/deformation. Check the continuity between the High-Voltage Power Supply (Development) (PCB22) and charging terminal. **4. Check the High-Voltage Power Supply (Development) (PCB22):** Try installing a new High-Voltage Power Supply (Development) (PCB22) to determine whether the High-Voltage Power Supply (Development) (PCB22) is the cause. If the SC does not occur with the new one, the old High-Voltage Power Supply (Development) (PCB22) was defective.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		5. Replace the BiCU (PCB1).

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No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC325-00	D	**Development Motor (CMY) Error**
		Each lock signal is observed at 100ms intervals during motor ON, and the high level is detected 20 times consecutively.
		• Defective Development Motor (CMY) (M9) • Disconnected harness for the motor • Defective BiCU (PCB1) • Development unit torque increased
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Replace the Development Motor (CMY) (M9). **2.** Reconnect the connector. **3.** Replace the harness. **4.** Replace the BiCU (PCB1). **5.** Replace the PCDU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC325-01	D	**Development Motor (CMY) Error: When Motor is Deactivated**
		Each lock signal is observed at 100ms intervals during motor OFF (including the period between turning the main power ON and the motor ON), and the low level is detected 20 times consecutively.
		• Defective Development Motor (CMY) (M9) • Disconnected harness for the motor • Defective BiCU (PCB1)
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Replace the Development Motor (CMY) (M9).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		2. Replace the harness for the Development Motor (CMY) (M9). **3.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC396-00	D	**Drum Motor (K) Error**
SC397-00	D	**Drum Motor (CMY) Error**
		Each lock signal is observed at 100ms intervals during motor ON, and the high level is detected 20 times consecutively.
		• PCDU overload • Connector disconnected • Drum Motor (K) failure (SC396) • Drum Motor (CMY) failure (SC397) • Harness broken • Defective BiCU (PCB1) • PCDU torque increased
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Replace the Drum Motor (K) (M11) (SC396) **2.** Replace the Drum Motor (CMY) (M10) (SC397) **3.** Reconnect the connector. **4.** Replace the harness for the Drum Motor (M10,M11). **5.** Replace the BiCU (PCB1). **6.** Replace the PCDU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC396-01	D	**Drum Motor (K) Error: When Motor is Deactivated**
SC397-01	D	**Drum Motor (CMY) Error: When Motor is Deactivated**
		Each lock signal is observed at 100ms intervals during motor OFF (including the period between turning the main power ON and the motor ON), and the low level is detected 20 times consecutively.
		• Drum Motor (K) failure (SC396) • Drum Motor (CMY) failure (SC397)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Disconnected harness for the Drum Motor (M10,M11) • Defective BiCU (PCB1)
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Replace the Drum Motor (K) (M11) (SC396) **2.** Replace the Drum Motor (CMY) (M10) (SC397) **3.** Replace the harness for the Drum Motor (M10,M11). **4.** Replace the BiCU (PCB1).

Image Processing 2: Drum

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC360-01	D	**TD Sensor (Vt high) Error 1: K**
SC360-02	D	**TD Sensor (Vt high) Error 1: C**
SC360-03	D	**TD Sensor (Vt high) Error 1: M**
SC360-04	D	**TD Sensor (Vt high) Error 1: Y**
		• μ count is higher than the threshold which detects no developer • μ count is lower than the upper/lower target thresholds three consecutive times.
		• TD Sensor (mu sensor, μ sensor) failure • Harness loose or disconnected • An old PCDU may be installed
		Troubleshooting procedure: Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** **Check all the related connectors are connected.** If not good, reconnect the connectors. **2.** **Check the PCDU (e.g. Gear/harness disconnected? Heat protection seal removed? Using an old PCDU?).** If not good, replace the PCDU. **3.** **Check whether the TD Sensor (S14) is deformed, scratched, damaged or has dust sticking to it.** **4.** **Check the TD Sensor (S14) harnesses, and the harness between the**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		mainframe and PCDU. If not good, replace the harness. **5. Replace the BiCU (PCB1).**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC361-01	D	**TD Sensor (Vt) Upper Limit Error: K**
SC361-02	D	**TD Sensor (Vt) Upper Limit Error 1: C**
SC361-03	D	**TD Sensor (Vt) Upper Limit Error 1: M**
SC361-04	D	**TD Sensor (Vt) Upper Limit Error 1: Y**
		The machine detects that Vt (TD sensor output, SP3-210-001 to 004) is higher than the upper limit threshold for the specified consecutive times.
		• TD Sensor (S14) connector is disconnected
		To check if the issue is resolved: **1.** Cycle the power OFF/ON. **2.** Feed one sheet of paper. **3.** Check Vt with SP3-210-001 through -004. **4.** Check if Vt is higher than the upper threshold (specified in SP3-211-002). Incorrect: Vt is higher than the upper threshold Correct: Vt is equal to or lower than the upper threshold
		Troubleshooting procedure: Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1. Check all the connectors are firmly connected.** **2. Check the PCDU for the following points and recover or replace it if there are any defects.** • Gear comes off • PCDU is not installed correctly **3. Check the TD Sensor (S14) and recover or replace it if there are any defects.** **4. Check the parameters (e.g. SP3-030-061 through -064 should be changed from its initial value, but could not be changed due to possible NVRAM clearing).** If there is an error to any SP parameter, replace the PCDU and then execute

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		SP3-320-001. **5. Check the Toner Supply Unit for the following points and recover or replace it if there are any defects.** • The toner bottle is empty. • Toner bottle operation error • The toner supply path is clogged. **6. Check the harness for TD Sensor (S14).** Replace the harness if it is disconnected, or damaged. **7. Replace the BiCU (PCB1) if the SC cannot be recovered even after executing steps 1 to 6.**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC362-01	D	**TD Sensor (Vt) Lower Limit Error 1: K**
SC362-02	D	**TD Sensor (Vt) Lower Limit Error 1: C**
SC362-03	D	**TD Sensor (Vt) Lower Limit Error 1: M**
SC362-04	D	**TD Sensor (Vt) Lower Limit Error 1: Y**
		The machine detects that Vt (TD sensor output, SP3-210-001 to 004) is lower than the lower limit threshold for the specified consecutive times. .
		• TD Sensor (S14) connector is disconnected.
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1. Check all the connectors are firmly connected.** **2. Check the PCDU for the following points and recover or replace it if there are any defects.** • Gear comes off • PCDU is not installed correctly **3. Check the TD Sensor (S14) and recover or replace it if there are any defects.** **4. Check the parameters (e.g. SP3-030-061 through -064 should be changed from its initial value, but could be not changed due to possible NVRAM clearing).** If there is an error to any SP parameter, replace the PCDU and then execute

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		SP3-320-001. **5. Check the Toner Supply Unit for the following points and recover or replace it if there are any defects.** • The toner bottle is empty. • Toner bottle operation error • The toner supply path is clogged. **6. Check the harness for TD Sensor (S14).** Replace the harness if it is disconnected, or damaged. **7. Replace the BiCU (PCB1) if the SC cannot be recovered even after executing steps 1 to 6.**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC370-00	D	**ID Sensor Calibration Error**
		The reflection light output voltage of the ID Sensor (Vsg_reg) is not adjusted within the target range. Upper limit: Default: 4.5 V Lower limit: Default: 3.5 V
		• Disconnected ID Sensor connectors • Dirty or defective ID Sensors (S27-S29) • Defective image transfer belt
		To check if the issue is resolved: **1.** Open the front door and check the result code in SP3-323-001. Correct: The result is “111” Incorrect: The result is not “111” **2.** In the case of an error, make entries in the following SPs. The result code "111" indicates the front, center and rear ID Sensors (S27-S29). For example "211" indicates an error at the front. • If an error is detected at the front ID Sensor (S27): enter the maximum value (50) in SP3-322-021. • If an error is detected at the center ID Sensor (S28): enter the maximum value (50) in SP3-322-022. • If an error is detected at the rear ID Sensor(S29): enter the maximum value (50) in SP3-322-023. **3.** Close the front door. **4.** Execute SP3-320-001. **5.** Check the result code in SP3-323-001 again.
		Troubleshooting procedure:

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1. Check all the connectors are firmly connected.** If not, reconnect the connectors. **2. Clean the detecting parts of the ID Sensors (S27-S29)** Note • Do not wipe with a dry cloth. Wipe with a damp cloth. **3. Check the ID Sensor shutter.** If the shutter does not move correctly, replace the shutter solenoid. **4. Replace the drum and/or ITB if the following is found:** Scratches, toner filming, wavy belt, or insufficient cleaning **5. Replace the ID Sensors (S27-S29).** **6. Check and connect the related harness if it is disconnected.** **7. Replace the BiCU (PCB1) if the SC cannot be recovered even after executing steps 1 to 6.**

SC4xx: Image Processing

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC442-00	D	**ITB Lift Motor Error**
		ITB Lift HP Sensor (S33) cannot detect the sensor feeler condition within a specified time even when the ITB Lift Motor (M14) rotates. • Contact/Release: 5 sec. • Homing: 10 sec. • Sampling interval: 0.01 sec.
		• Broken harness or defective connectors • Disconnected connector of ITB Lift HP Sensor (S33) or motor • Defective ITB Lift Motor (M14) • ITB unit not installed
		1. Set the ITB unit firmly. **2.** Replace the ITB unit. **3.** Clean the ITB Lift HP Sensor (S33). **4.** Check the harnesses. **5.** Replace the ITB Lift HP Sensor (S33). **6.** Replace the ITB Lift Motor (M14)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC491-00	C	**High Voltage Power: Charge/Development Bias Output Error**
		Incorrect PWM signal is detected 10 times for consecutive 0.02 sec.
		Hardware related causes: • Contact failure • Loose connector (Controller side) • Grounding, open-circuit in the high voltage route • Arc discharge due to lack of space • Shorted harness (Controller side) • BiCU malfunction (Signal error) • High-Voltage Power Supply (Development) failure **Load related causes:** • Short-circuit • Arc discharge due to lack of space • Deteriorated drum (overcurrent) • Condensated drum (overcurrent) • Incorrect gap between drum and charge roller (incorrect PCDU) • PCDU not installed firmly
		First, cycle the main power OFF/ON to check if this SC occurs again.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		If this SC reoccurs, do the following: **1.** Remove and install the PCDU again to make sure that the PCDU is firmly set. Cycle the main power OFF/ON to check if this SC occurs again. If the SC occurs again, go to the next step. **2.** Check if there are scratches on the drum surface. If you can see the internal element of the drum (plain pipe) on the surface, go to the next step, because too much electricity can flow at this point, which caused the SC. **3.** Replace the PCDU and cycle the main power OFF/ON to check if this SC occurs again. **4.** Reconnect the connector (CN561) on the BiCU (PCB1) and cycle the main power OFF/ON. Be careful not to bend the connector pins when reconnecting. If the SC occurs again, go to the next step. **5.** Reconnect the connector (CN801) on the High-Voltage Power Supply (Development) (PCB22) and cycle the main power OFF/ON. If the SC occurs again, go to the next step. **6.** Remove and install the High-Voltage Power Supply (Development) (PCB22) again and cycle the main power OFF/ON. Check if the spring near the High-Voltage Power Supply (Development) terminal bends and comes in contact with other contacts. Cycle the main power OFF/ON to check if this SC occurs again. **7.** Replace the High-Voltage Power Supply (Development) (PCB22) and cycle the main power OFF/ON to check if the SC occurs again. **8.** Replace the BiCU (PCB1) and cycle the main power OFF/ON to check if the SC occurs again. **9.** Make sure that the harnesses on the High-Voltage Power Supply (Development) (PCB22) are not shorted. If not good, replace the harness and cycle the main power OFF/ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC492-00	C	**High Voltage Power: Transfer Bias Output Error**
		Incorrect PWM signal is detected for 0.2 sec.
		Hardware related causes: • Contact failure • Loose connector (Controller side) • Grounding, open-circuit in the high voltage route • Shorted harness (Controller side) • BiCU malfunction (Signal error) • High-Voltage Power Supply (Transfer) failure

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Load related causes: • Increased impedance in the paper transfer roller • Increased impedance in the ITB • Open-circuit • Transfer unit not installed firmly
		• This is a logging SC (No action required).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC497-00	C	**Imaging Temperature Sensor Error**
		The thermistor output of the temperature sensor is not within the prescribed range (more than 0.5 V to less than 3.0 V).
		• Damaged or loose connector • Defective Imaging Temperature Sensor (TH5)
		Cycle the main power OFF/ON to check if this SC occurs again. If this SC reoccurs, do the following: **1.** Reconnect all the related connectors, and cycle the main power OFF/ON to check if the SC reoccurs. **2.** Replace the Imaging Temperature Sensor (TH5), and cycle the main power OFF/ON to check if the SC reoccurs.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC498-00	C	**Temperature/Humidity Sensor Error**
		• The thermistor output of the temperature sensor is not within the prescribed range (more than 3.0V to less than 0.5V. • The thermistor output of the humidity sensor is not within the prescribed range (2.4V or more).
		• Damaged or loose connector • Defective Temperature/Humidity Sensor (S18)
		Cycle the main power OFF/ON to check if this SC occurs again. If this SC reoccurs, do the following: **1.** Reconnect all the related connectors, and cycle the main power OFF/ON to check if the SC reoccurs. **2.** Replace the Temperature/Humidity Sensor (S18), and cycle the main power OFF/ON to check if the SC reoccurs.

SC5xx: Paper Feed and Fusing

Paper feed

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC501-00	B	**1st Paper Tray Error (IM C300 series only)**
		This SC occurs if no paper is detected within the prescribed time when the tray is set correctly, and the tray lift motor starts rotating CW or CCW.
		• Incorrect/disconnected Tray Lift Motor (M15) connector • Loose, disconnected or damaged Tray Lift Sensor (S35) connector • An obstruction such as jammed paper scraps blocks the motor operation
		Remove the jammed paper or slip of paper from the tray, and check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Replace the Tray Lift Motor (M15) . **2.** Reconnect the connector. **3.** Replace the harness. **4.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC501-01	B	**1st Paper Tray Lift Error (IM C400 series only)**
		1st Tray Lift Motor (M15) lift error was detected for 3 times consecutively.
		• Loose, disconnected or damaged Tray Lift Sensor (S35) connector • Incorrect/disconnected or damaged Tray Lift Motor (M15) connector • An obstruction such as jammed paper scraps blocks the motor operation • Paper set incorrectly
		Remove the jammed paper or slip of paper from the tray, and check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Remove the obstruction and load paper again. **2.** Check the harness of the Tray Lift Sensor (S35) or Tray Lift Motor (M15), and reconnect/clean it. **3.** Replace the harness of the Tray Lift Sensor (S35) or Tray Lift Motor (M15). **4.** Replace the paper feed unit, or paper tray. **5.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC501-02	B	**1st Paper Tray Descent Error**
		1st Tray Lift Motor (M15) descent error was detected for 5 times consecutively.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
(IM C400 only)		• Loose, disconnected or damaged Tray Lift Sensor (S35) connector • Incorrect/disconnected or damaged Tray Lift Motor (M15) connector • An obstruction such as jammed paper scraps blocks the motor operation • Paper set incorrectly • Paper overload
		Remove the jammed paper or slip of paper from the tray, and check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Remove the obstruction and load paper again. **2.** Check the harness of the Tray Lift Sensor (S35) or Tray Lift Motor (M15), and reconnect/clean it. **3.** Replace the harness of the Tray Lift Sensor (S35) or Tray Lift Motor (M15). **4.** Replace the paper feed unit, or paper tray. **5.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC502-00	B	**Optional PFU 1 Paper Tray Lift Motor (M2) Error (2nd Tray)**
SC503-00	B	**Optional PFU 2 Paper Tray Lift Motor (M2) Error (3rd Tray)**
SC504-00	B	**Optional PFU 3 Paper Tray Lift Motor (M2) Error (4th Tray)**
		When the tray is lifted up, the Tray Lift Motor (M2) error, or Sensor error is detected.
		• PFU Tray Lift Motor (M2) disconnection or loose harness • PFU Tray Bottom Plate lift Sensor (S4) disconnection or loose harness • PFU Tray Bottom Plate HP Sensor (S5) disconnection or loose harness • Other defective mechanical parts
		Do the following steps. Cycle the power OFF/ON after doing each step to check if the SC occurs. **1.** Reconnect the connector of the PFU Tray Bottom Plate HP Sensor (S4). **2.** Reconnect the connector of the PFU Tray Bottom Plate lift Sensor (S5). **3.** Replace the lift lever encoder, gear encoder for tray lift unit, and the tension spring for paper feed. **4.** Replace the PFU Tray Lift Motor (M2). **5.** Replace the harness. **6.** Replace the Controller Board (PCB1) in the tray.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC508-00	B	**Bypass Bottom Plate Error**
		The signal from the Bypass Tray Lift Sensor (S4) does not change for two seconds after the bypass lift clutch was activated. If this condition occurs three consecutive times, this SC is generated.
		• Disconnected or defective connectors of the Bypass Tray Lift Clutch (CL1) • Disconnected or defective Bypass Tray Lift Sensor (S4) • Defective bypass bottom plate detection filler
		1. Check or replace the connectors of the Bypass Tray Lift Clutch (CL1) **2.** Check or replace the Bypass Tray Lift Sensor (S4).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC524-00	D	**Paper Transport Motor (M12) Error**
		When the motor is ON, the each lock signal is checked every 100msec. This SC occurs if the High status is detected for 20 times consecutively.
		• Defective Paper Transport Motor (M12) • Disconnected or defective connectors of the Paper Transport Motor (M12) • Defective BiCU (PCB1) • Unit torque increased
		1. Replace the Paper Transport Motor (M12). **2.** Reconnect the connector of the Paper Transport Motor (M12). **3.** Replace the harness.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC524-01	D	**Paper Transport Motor (M12) Error (While the motor is OFF)**
		When the motor is OFF, the each lock signal is checked every 100msec. This SC occurs if the LOW status is detected for 20 times consecutively.
		• Defective Paper Transport Motor (M12) • Disconnected or defective connectors of the Paper Transport Motor (M12) • Defective BiCU (PCB1)
		1. Replace the Paper Transport Motor (M12). **2.** Replace the harness for the Paper Transport Motor (M12). **3.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC525-00	B	**Optional PFU 1 Paper Transport Motor (M1) Error (2nd Tray)**
SC526-	B	**Optional PFU 2 Paper Transport Motor (M1) Error (3rd Tray)**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
00		
SC527-00	B	**Optional PFU 3 Paper Transport Motor (M1) Error (4th Tray)**
		The motor LOCK signal from the optional PFU is detected while the motor is ON.
		• Motor overload • Defective motor • Disconnected connectors • Damaged harness
		Do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector. **2.** Replace the harness. **3.** Replace the Paper Transport Motor (M1).

Fusing

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC530-00	D	**Fusing Unit Cooling Fan (FAN1) Error**
SC530-02	D	**Paper Exit Exhaust Fan (FAN5) Error *IM C400SRF only**
SC531-00	D	**PCDU Cooling Fan (FAN3) Error**
SC532-00	D	**LD Unit Cooling Fan (FAN2) Error**
SC533-00	D	**PSU Exhaust Fan (FAN4) Error**
		This SC occurs if the error count reaches 3 in the following conditions: • When each motor is ON, its lock signal is checked every 100 ms. • If a defective lock signal is detected 50 times consecutively, the error count increases by 1. If a normal lock signal is detected 50 times consecutively, the error count is reset
		• Defective each fan • Disconnected harness • Loose connection • Defective BiCU (PCB1)
		1. Replace the fan. **2.** Reconnect the fan connector. **3.** Replace the harness.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		4. Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC540-00	D	**Fusing Motor (M13) Error**
		When the Fusing Motor (M13) is ON, each lock signal is checked every 100 ms. This SC occurs if HIGH status is detected 20 times consecutively.
		• Defective Fusing Motor (M13) • Loose connection • Disconnected or defective harness • Defective BiCU (PCB1) • Fusing unit torque increased
		1. Replace the Fusing Motor (M13). **2.** Reconnect the connector of the Fusing Motor (M13). **3.** Replace the harness of the Fusing Motor (M13). **4.** Replace the BiCU (PCB1). **5.** Replace the fusing unit.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC540-01	D	**Fusing Motor (M13) Error (While the Motor is OFF)**
		When the Fusing Motor (M13) is OFF, the each lock signal is checked every 100msec. This SC occurs if the LOW status is detected for 20 times consecutively.
		• Defective Fusing Motor • Defective harness • Defective BiCU (PCB1)
		1. Replace the Fusing Motor (M13). **2.** Replace the harness of the Fusing Motor (M13). **3.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC541-01	A	**Fusing Thermopile (TH1) Error**
SC541-11	D	**Fusing Thermopile (TH1) Error (Low Power)**
		• Broken Thermopile • Connector contact failure
		1. Reconnect the connector between the fusing unit and BiCU (PCB1). **2.** Replace the Fusing Thermopile (TH1) **3.** Replace the harness between the fusing unit and BiCU (PCB1). **4.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		5. Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC542-02	A	**Fusing Thermopile (TH1) Reload Error**
SC542-12	D	**Fusing Thermopile (TH1) Reload Error (Low Power)**
		Fusing temperature failed to reach a temperature of 80 degrees C after passing six seconds when: • The machine starts warming up. • The machine returns from energy saver mode. • The fusing lamp is activated.
		• Dirty or deformed Fusing Thermopile (TH1) lenses • Disconnected or defective Fusing Thermopile (TH1) • Input voltage out of specification (out of warranty) • Fusing Thermostat open
		1. Check the input voltage and replace the power plug (SC542-12 only). **2.** Replace the Fusing Thermostat. **3.** Replace the Fusing Sleeve Belt Assembly (fusing lamp). **4.** Check and clean the Thermopile lenses or replace the Fusing Thermopile (TH1). **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC542-03	A	**Fusing Thermopile (TH1) Reload Error**
SC542-13	D	**Fusing Thermopile (TH1) Reload Error (Low Power)**
		Fusing Thermopile (TH1) has failed to reach the "permissible temperature for reloading" in 13 seconds after it detects 80 degrees C when: • The machine starts warming up. • The machine returns from energy saver mode.
		• Dirty or deformed Fusing Thermopile (TH1) lenses • Disconnected or defective Fusing Thermopile (TH1) • Input voltage out of specification (out of warranty) • Fusing Thermostat open

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		1. Check the input voltage and replace the power plug (SC542-13 only). **2.** Replace the Fusing Thermostat. **3.** Replace the Fusing Sleeve Belt Assembly (fusing lamp). **4.** Check and clean the Thermopile lenses or replace the Fusing Thermopile (TH1). **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC543-00	A	**Fusing Thermopile (TH1) Overheat (Software Error)**
		Fusing Thermopile detects a temperature of 240 degrees C or more for 10 seconds after the relay is activated.
		• Triac short • Defective BiCU (PCB1)
		1. Reconnect the connector between the fusing unit and BiCU (PCB1). **2.** Replace the Fusing Thermopile (TH1). **3.** Replace the harness between the fusing unit and BiCU (PCB1). **4.** Replace the BiCU (PCB1). **5.** Replace the PSU (AC) (PCB17). **6.** Replace the fusing unit (if the problem cannot be resolved).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC544-00	A	**Fusing Thermopile (TH1) Overheat (Hardware Error)**
		Fusing Thermopile (TH1) detects a temperature of 250 degrees C.
		• Triac short • Defective BiCU (PCB1) • Defective fusing control system
		1. Inspect the Fusing Sleeve Belt Assembly. If the fusing sleeve belt assembly is torn or exhibits any other damage, replace it. Otherwise, proceed to next step. **2.** Reconnect the connector between the fusing unit and BiCU (PCB1). **3.** Replace the Fusing Thermopile (TH1). **4.** Replace the harness between the fusing unit and BiCU (PCB1). **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC545-01	A	**Fusing Lamp Consecutive Full Power**
SC545-11	D	**Fusing Lamp Consecutive Full Power (Low Power)**
		This SC occurs if the fusing lamp keeps operating consecutively at full power for longer than the specified length of time.
		• Disconnected or defective Fusing Thermopile (TH1) • Broken fusing lamp
		1. Check to see if there is paper remaining in the fusing unit. **2.** Check the input voltage and replace the power plug (SC545-11 only). **3.** Replace the Fusing Thermostat. **4.** Replace the Fusing Sleeve Belt Assembly (fusing lamp). **5.** Replace the Fusing Thermopile (TH1). **6.** Replace the BiCU (PCB1). **7.** Replace the PSU (AC) (PCB17)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC547-01	D	**Zero Cross Error (Fusing lamp relay contact welding)**
		Zero cross signal is detected when the fusing relay is deactivated.
		• Damaged fusing relay • Fusing relay drive circuit failure
		1. Make sure that the harness between the PSU (AC) (PCB17) and BiCU (PCB1) is firmly connected. **2.** Replace the PSU (AC) (PCB17). **3.** Replace the BiCU (PCB1).
SC547-02	D	**Zero Cross Error (Fusing lamp relay contact defective)**
		Zero cross signal cannot be detected if the fusing relay is activated.
		• Broken fusing relay (open circuit) • Fusing relay circuit failure • PSU fuse (24VS) worn out
		1. Make sure that the harness between the PSU (AC) (PCB17) and BiCU (PCB1) is firmly connected. **2.** Replace the PSU (AC) (PCB17). **3.** Replace the BiCU (PCB1). **4.** Replace the harness between the PSU (AC) (PCB17) and BiCU (PCB1).
SC547-03	D	**Zero Cross Error (Low frequencies error)**
		The frequency of the power source is lower than 44Hz.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Unstable frequency
		1. Check the frequency is 45Hz or more. If not, the power supply from the wall socket may be the cause. Ask for your supervisor or the electrician in charge at the site. **2.** Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC549-00	D	**Fusing Center Low Temperature**
		After passing 60 seconds when FGATE is ON, the Fusing Thermopile (TH1) detects a temperature of -100 degrees C from the compensated target temperature for consecutive 60 seconds.
		• Fusing lamp disconnection during paper passing • Loose connector
		1. Check the power supply voltage and reconnect the cable to the outlet. **2.** Replace the Fusing Thermostat. **3.** Replace the Fusing Sleeve Belt Assembly (fusing lamp). **4.** Replace the Fusing Thermopile (TH1) **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC554-00	A	**Fusing Thermistor (non-contact sensor) (S10) High Temperature Error (Hardware Error)**
		Fusing Thermistor (non-contact sensor) (S10) detects a temperature of 250 degrees C..
		• Shorted triac • Defective BiCU (PCB1) • Defective fusing control system
		Basically, the entire fusing unit must be replaced when SC554-00 occurs. For details, refer to "Actions When SC554-00 Occurs." **Do the following steps:** **1.** Inspect the Fusing Sleeve Belt Assembly. If the fusing sleeve belt assembly is torn or exhibits any other damage, replace it. Otherwise, proceed to next step. **2.** Reconnect the connector between the fusing unit and BiCU (PCB1). **3.** Replace the Fusing Thermistor (non-contact sensor) (S10). **4.** Replace the harness between the fusing unit and BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		5. Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC557-00	C	**Zero Cross Frequency Error**
		The frequency of the power source is 66Hz or more. This SC is detected just after the main power is turned ON.
		• Noise (High frequency) • The frequency of the utility power line is unstable.
		1. Check the power supply source.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC559-00	A	**Consecutive Fusing Jam**
		The paper jam counter for the fusing unit reaches three consecutive times after 1st count(the Fusing Exit Sensor (S8) does not detect the paper). After the first fusing jam, further fusing jams (the fusing exit sensor failing to detect the paper) have occurred 3 times consecutively.
		Paper jam in the fusing unit.
		1. Replace the separation plate. **2.** Replace the gear (fusing unit). **3.** Replace the fusing unit. **4.** Replace the Fusing Motor (M13). **5.** Replace the gear (mainframe), if damaged.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC561-01	A	**Pressure Roller Thermistor (edge: center) (TH4) Disconnection**
SC561-11	D	**Pressure Roller Thermistor (edge: center) (TH4) Disconnection (Low Power)**
		Pressure Roller Thermistor (edge: center) (TH4) detects a temperature of -20 degrees or below for 29 consecutive seconds after the fusing lamp is activated when the machine starts, or during feeding paper or in low power.
		• Disconnected or defective Fusing Thermopile (TH1) • Disconnected or defective Pressure Roller Thermistor (edge: center) (TH4) • Connector contact failure
		1. Check the input voltage and replace the power plug (SC561-11 only). **2.** Reconnect the connectors between the fusing drawer connector, BiCU

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		(PCB1), and Pressure Roller Thermistor (edge: center) (TH4) . **3.** Replace the Pressure Roller Thermistor (edge: center) (TH4). **4.** Replace the harnesses between the BiCU (PCB1) and the fusing unit. **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17). **7.** Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC562-02	A	**Pressure Roller Thermistor (edge: center) (TH4) Cannot be Reloaded**
SC562-12	D	**Pressure Roller Thermistor (edge: center) (TH4) Cannot be Reloaded (Low Power)**
		Pressure Roller Thermistor (edge: center) (TH4) detects that the temperature does not reach a temperature of 40 degrees C for 27 consecutive seconds when the main power is turned on.
		• Dirty or deformed Fusing Thermopile (TH1) • Pressure Roller Thermistor (edge: center) (TH4) deformed or floating • Input voltage out of specification (out of warranty) • Fusing Thermostat open
		1. Check the input voltage and replace the power plug (SC562-12 only). **2.** Replace the Fusing Thermostat. **3.** Replace the Fusing Sleeve Belt Assembly (fusing lamp). **4.** Replace the Pressure Roller Thermistor (edge: center) (TH4). **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC563-00	A	**Pressure Roller Thermistor (edge: center) (TH4) Overheat (Software Error)**
		Pressure Roller Thermistor (edge: center) (TH4) detects a temperature of 248 degrees C 10 times after the fusing relay is ON.
		• Shorted triac • Defective BiCU (PCB1)
		1. Reconnect the connectors between the fusing drawer connector, BiCU (PCB1), and Pressure Roller Thermistor (edge: center) (TH4). **2.** Replace the harnesses between the BiCU (PCB1) and Pressure Roller Thermistor (edge: center) (TH4). **3.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		4. Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC564-00	A	**Pressure Roller Thermistor (edge: center) (TH4) Overheat (Hardtware Error)**
		Pressure Roller Thermistor (edge: center) (TH4) detects a temperature of 248 degrees C.
		• Shorted triac • Defective BiCU (PCB1) • Defective fusing control system
		1. Reconnect the connectors between the fusing drawer connector, BiCU (PCB1), and Pressure Roller Thermistor (edge: center) (TH4). **2.** Replace the Pressure Roller Thermistor (edge: center) (TH4) . **3.** Replace the harnesses between the BiCU (PCB1) and Pressure Roller Thermistor (edge: center) (TH4) . **4.** Replace the BiCU (PCB1). **5.** Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC571-01	A	**Pressure Roller Thermistor (edge: rear) (TH3) Disconnection**
SC571-11	D	**Pressure Roller Thermistor (edge: rear) (TH3) Disconnection (Low Power)**
		Pressure Roller Thermistor (edge: rear) (TH3) detects a temperature of -20 degrees C or below for 29 consecutive seconds after the fusing lamp is activated in a specified condition.
		• Disconnected or defective Fusing Thermopile (TH1) • Disconnected or defective Pressure Roller Thermistor (edge: rear) (TH3) • Connector contact failure
		1. Check the input voltage and replace the power plug (SC571-11 only). **2.** Reconnect the connectors between the fusing drawer connector, BiCU (PCB1), and Pressure Roller Thermistor (edge: rear) (TH3). **3.** Replace the Pressure Roller Thermistor (edge: rear) (TH3). **4.** Replace the harnesses between the BiCU (PCB1) and fusing unit. **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17). **7.** Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC572-02	A	**Pressure Roller Thermistor (edge: rear) (TH3) Cannot be Reloaded**
SC572-12	D	**Pressure Roller Thermistor (edge: rear) (TH3) Cannot be Reloaded (Low Power)**
		Fusing temperature failed to reach a temperature of 45 degrees C when 100 seconds passes after starting a job where the paper width is wider than 206 mm AND is equal or smaller than 216 mm.
		• Dirty or deformed Fusing Thermopile (TH1) • Pressure Roller Thermistor (edge: rear) (TH3) deformed or floating • Outside input voltage guarantee • Fusing Thermostat open
		1. Check the input voltage and replace the power plug (SC572-12 only). **2.** Replace the Fusing Thermostat. **3.** Replace the Fusing Sleeve Belt Assembly (fusing lamp). **4.** Replace the Pressure Roller Thermistor (edge: rear) (TH3). **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC573-00	A	**Pressure Roller Thermistor (edge: rear) (TH3) Overheat (Software Error)**
		Pressure Roller Thermistor (edge: rear) (TH3) detects a temperature of 248 degrees C for 10 consecutive times in a specific machine condition.
		• Shorted triac • Defective BiCU (PCB1)
		1. Reconnect the connectors between the fusing drawer connector, BiCU (PCB1), and Pressure Roller Thermistor (edge: rear) (TH3). **2.** Replace the Pressure Roller Thermistor (edge: rear) (TH3). **3.** Replace the harnesses between the BiCU (PCB1) and the Pressure Roller Thermistor (edge: rear) (TH3). **4.** Replace the BiCU (PCB1). **5.** Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC574-00	A	**Pressure Roller Thermistor (edge: rear) (TH3) Overheat (Hardware Error)**
		Pressure Roller Thermistor (edge: rear) (TH3) detects a temperature of 248 degrees C.
		• Shorted triac

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Defective BiCU (PCB1) • Defective fusing control system
		1. Reconnect the connectors between the fusing drawer connector, BiCU (PCB1), and Pressure Roller Thermistor (edge: rear) (TH3) **2.** Replace the Pressure Roller Thermistor (edge: rear) (TH3). **3.** Replace the harnesses between the BiCU (PCB1) and the Pressure Roller Thermistor (edge: rear) (TH3). **4.** Replace the BiCU (PCB1). **5.** Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC581-01	A	**Open Fusing Thermistor (non-contact sensor) (S10)**
SC581-02	A	**Shorted Fusing Thermistor (non-contact sensor) (S10)**
SC581-11	D	**Open Fusing Thermistor (non-contact sensor) (S10) (Low Power)**
SC581-12	D	**Shorted Fusing Thermistor (non-contact sensor) (S10) (Low Power)**
		• Thermopile disconnection (SC581-01) • Shorted fusing thermistor (SC581-02) • Connector contact failure
		1. Check the input voltage and replace the power plug (SC581-11/-12). **2.** Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU (PCB1). **3.** Replace the Fusing Thermistor (non-contact sensor) (S10). **4.** Replace the harnesses between the BiCU (PCB1) and the fusing drawer connector. **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17). **7.** Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC591-01	A	**Pressure Roller Thermistor (edge: front) (TH2) Disconnection**
SC591-11	D	**Pressure Roller Thermistor (edge: front) (TH2) Disconnection (Low Power)**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Pressure Roller Thermistor (edge: front) (TH2) detects a temperature of -20 degrees C or below for 29 consecutive seconds when the fusing lamp is activated.
		• Disconnected or defective Pressure Roller Thermistor (edge: front) (TH2) • Connector contact failure
		1. Check the input voltage and replace the power plug (SC591-11 only). **2.** Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU (PCB1). **3.** Replace the Pressure Roller Thermistor (edge: front) (TH2). **4.** Replace the harnesses between the BiCU (PCB1) and Pressure Roller Thermistor (edge: front) (TH2). **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17). **7.** Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC592-02	A	**Pressure Roller Thermistor (edge: front) (TH2) Cannot be Reloaded**
SC592-12	D	**Pressure Roller Thermistor (edge: front) (TH2) Cannot be Reloaded (Low Power)**
		The machine temperature does not reach a temperature of 45 degrees C when 100 seconds passes after starting a job where the paper width is wider than 206 mm AND is equal or smaller than 216 mm.
		• Dirty or deformed Pressure Roller Thermistor (edge: front) (TH2) • Input voltage out of specification (out of warranty) • Fusing Thermostat open
		1. Check the input voltage and replace the power plug (SC592-12 only). **2.** Replace the Fusing Thermostat. **3.** Replace the Fusing Sleeve Belt Assembly (fusing lamp). **4.** Replace the Fusing Thermopile (TH1) **5.** Replace the BiCU (PCB1). **6.** Replace the PSU (AC) (PCB17).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC593-00	A	**Pressure Roller Thermistor (edge: front) (TH2) High Temperature (Software Error)**
		Pressure Roller Thermistor (edge: front) (TH2) detects a temperature of 248 degrees C for consecutive 10 times when the fusing lamp is activated.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Shorted triac • Defective BiCU (PCB1)
		1. Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU (PCB1). **2.** Replace the Pressure Roller Thermistor (edge: front) (TH2). **3.** Replace the harnesses between the BiCU (PCB1) and Pressure Roller Thermistor (edge: front) (TH2) **4.** Replace the BiCU (PCB1). **5.** Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC594-00	A	**Pressure Roller Thermistor (edge: front) (TH2) High Temperature (Hardware Error)**
		Pressure Roller Thermistor (edge: front) (TH2) detects a temperature of 248 degrees C.
		• Shorted triac • Defective BiCU (PCB1) • Defective fusing control system
		1. Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU (PCB1). **2.** Replace the Pressure Roller Thermistor (edge: front) (TH2). **3.** Replace the harnesses between the BiCU (PCB1) and Pressure Roller Thermistor (edge: front) (TH2). **4.** Replace the BiCU (PCB1). **5.** Replace the fusing unit if all the above steps cannot resolve the issue.

SC6xx: Communication

SC No.	Type	Error Name/Error Condition/Major Cause/Solution
SC621-00	D	**Finisher Communication Error**
		An error signal is detected during communication between the finisher and the main machine.
		• Connection error between finisher and main machine. • The finisher firmware is not properly updated. • The BiCU firmware is not properly updated. • BiCU (PCB1) is defective. • Finisher Main Board (PCB1) is defective. • Noise contamination
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the finisher interface cable. **2.** Check the machine and finisher firmware version. Run the firmware update when there is a new firmware released. **3.** Replace the harness. **4.** Replace the BiCU (PCB1). **5.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC622-00	D	**Optional Paper Feed Unit 1 (Paper Tray 2) Communication Error**
		An error signal is detected during communication between the optional paper feed unit and the main machine.
		• Optional Paper Feed Unit 1 Main Board (PCB1) is defective. • BiCU (PCB1) is defective. • Connection error between Paper Feed Unit 1 and main machine.
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Replace the Paper Feed Unit 1 Main Board (PCB1). **2.** Replace the BiCU (PCB1). **3.** Reattach the Paper Feed Unit 1 to the machine.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC623-00	D	**Optional Paper Feed Unit 2 (Paper Tray 3) Communication Error**
		An error signal is detected during communication between the optional paper feed

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		unit and the main machine.
		• Optional Paper Feed Unit 2 Main Board (PCB1) is defective. • Optional Paper Feed Unit 1 Main Board (PCB1) is defective. • Connection error between Paper Feed Unit 1 and Paper Feed Unit 2.
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Replace the Paper Feed Unit 2 Main Board (PCB1). **2.** Replace the Paper Feed Unit 1 Main Board (PCB1). **3.** Reattach the Paper Feed Unit 2 to the Paper Feed Unit 1.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC624-00	D	**Optional Paper Feed Unit 3 (Paper Tray 4) Communication Error**
		An error signal is detected during communication between the optional paper feed unit and the main machine.
		• Optional Paper Feed Unit 3 Main Board (PCB1) is defective. • Optional Paper Feed Unit 2 Main Board (PCB1) is defective. • Connection error between Paper Feed Unit 2 and Paper Feed Unit 3.
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Replace the Paper Feed Unit 3 Main Board (PCB1). **2.** Replace the Paper Feed Unit 2 Main Board (PCB1). **3.** Reattach the Paper Feed Unit 3 to the Paper Feed Unit 2.

SC No.	Type	Error Name/Error Condition/Major Cause/Solution
SC632-00	D	**Counter Device Error 1**
		After 3 attempts to send a data frame to the optional counter device via the serial communication line, no ACK signal was received within 100 ms.
		Serial line between the optional counter device, the relay board and copier control board is disconnected or damaged.
		1. Turn the main switch OFF and ON. **2.** Check the serial communication line.

SC No.	Type	Error Name/Error Condition/Major Cause/Solution
SC633-00	D	**Counter Device Error 2**

SC No.	Type	Error Name/Error Condition/Major Cause/Solution
		After communication was established, the controller received the brake signal from the accounting device.
		Serial line between the optional counter device, the relay board and copier control board is disconnected or damaged.
		1. Turn the main switch OFF and ON. **2.** Check the serial communication line.

SC No.	Type	Error Name/Error Condition/Major Cause/Solution
SC634-00	D	**Counter Device Error 3**
		A backup RAM error was returned by the counter device.
		Counter device control board or the backup battery of counter device defective
		1. Replace the counter device control board. **2.** Replace the backup battery.

SC No.	Type	Error Name/Error Condition/Major Cause/Solution
SC635-00	D	**Counter Device Error 4**
		A backup battery error was returned by the counter device.
		Counter device control board or the backup battery of counter device defective
		• Replace the counter device control board. • Replace the backup battery.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC636-02	D	**IC Card Error (Version Error)**
		The version of the expanded authentication module is not correct.
		Incorrect module version
		Install the correct file of the expanded authentication module.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC637-01	D	**Tracking Information Notification Error (Tracking Application Error)**
		Tracking information was lost.
		• Tracking SDK application error • Internal notification error
		Turn the main switch OFF and ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC637-02	D	**Tracking Information Notification Error (Management Server Error)**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Tracking information was lost.
		Communication with tracking management server failed. • Network error • tracking management server error • Tracking SDK application error
		Turn the main switch OFF and ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC641-00	D	**Communication Error between Engine and Controller**
		Although frame is sent from controller, engine does not reply to it.
		• Controller Board software error • BiCU software error • BiCU and Controller Board connection error
		1. Turn the main switch OFF and ON. **2.** Check the connection between the BiCU (PCB1) and the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC645-01	C	**Toner Supply: ID Chip Communication Error (K)**
SC645-02	C	**Toner Supply: ID Chip Communication Error (M)**
SC645-03	C	**Toner Supply: ID Chip Communication Error (C)**
SC645-04	C	**Toner Supply: ID Chip Communication Error (Y)**
		A communication error is received during EEPROM communication and the machine fails to recover even if the power is switched OFF and back ON for tagging.
		Connection error between the toner ID Chip (PCB3-PCB6) and the Toner Bottle Sensor Board (PCB7).
		1. Clean the contact part of the toner bottle ID chip (PCB3-PCB6) and check that the pins of the Toner Bottle Sensor Board (PCB7) connector are not bent. If any of the pins are bent, replace the Toner Bottle Sensor Board (PCB7). **2.** Reconnect the connectors between the BiCU (PCB1) and Toner Bottle Sensor Board (PCB7). **3.** Replace the harness between the BiCU (PCB1) and Toner Bottle Sensor

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Board (PCB7). **4.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC650-01	C	**Remote Service Modem Communication Error (Dialup Authentication Failure)**
		• An error related to communication (dialup connection, modem board etc.) using the RC Gate Type M was detected or an error that prevents RC Gate operation was detected at power on. • Displayed only when an error is detected while RC Gate is operating. • SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).
		• SP settings invalid • Modem connector disconnected • Modem board disconnected • Wireless LAN card disconnected
		Check the following SPs. • SP5-816-156 (Remote Service: Dial Up User Name) • SP5-816-157 (Remote Service: Dial Up Password)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC650-04	C	**Remote Service Modem Communication Error (dialup failing because of incorrect modem configuration)**
		• An error related to communication (dialup connection, modem board etc.) using the RC Gate Type M was detected or an error that prevents RC Gate operation was detected at power on. • Displayed only when an error is detected while RC Gate is operating. • SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).
		• SP settings invalid • Modem connector disconnected • Modem board disconnected • Wireless LAN card disconnected
		Software bug.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC650-05	C	**Remote Service Modem Communication Error (Insufficient Current or Connection Fault)**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• An error related to communication (dialup connection, modem board etc.) using the RC Gate Type M was detected or an error that prevents RC Gate operation was detected at power on. • Displayed only when an error is detected while RC Gate is operating. • SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).
		• SP settings invalid • Modem connector disconnected • Modem board disconnected • Wireless LAN card disconnected
		The line is not supported and nothing can be done.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC650-13	C	**Remote Service Modem Communication Error (RC Gate Type M was installed but modem is not present (detected during operation))**
		• An error related to communication (dialup connection, modem board etc.) using the RC Gate Type M was detected or an error that prevents RC Gate operation was detected at power on. • Displayed only when an error is detected while RC Gate is operating. • SC is not issued if an error occurs during RC Gate installation (because this error can be referred by using SP).
		• SP settings invalid • Modem connector disconnected • Modem board disconnected • Wireless LAN card disconnected
		• If a modem board is not installed, install it. • Check again if the modem driver configurations (SP5-816-160, SP5-816-165 to 171, and SP5-816-165 to 171) are correct. • If the problem is not solved, replace the modem.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC650-14	C	**Remote Service Modem Communication Error (RC Gate Type N was installed but modem is present or wired/wireless LAN is not working correctly)**
		• An error related to communication (dialup connection, modem board etc.) using the RC Gate was detected or an error that prevents RC Gate operation was detected at power on. • Displayed only when an error is detected while RC Gate is operating.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• SC is not issued if an error occurs during RC Gate installation (because this error can be referred by using SP).
		• SP settings invalid • Modem connector disconnected • Modem board disconnected • Wireless LAN card disconnected
		• If a modem board is attached, remove it. • Check if wired/wireless LAN works.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC651-01	C	**Illegal Remote Service Dial-up (Chat Program Parameter Error)**
		An unexpected error occurred when RC Gate Type M dialed up the NRS Center.
		Software bug
		Logging only.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC651-02	C	**Illegal Remote Service Dial-up (Chat Program Execution Error)**
		An unexpected error occurred when RC Gate dialed up the NRS Center.
		Software bug
		Logging only.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC652-00	A	**Remote Service ID2 Mismatching**
		There was an authentication mismatch between ID2 for @Remote, the Controller Board (PCB24), and NVRAM.
		• Used Controller Board installed • Used NVRAM installed (This action is not allowed.)
		• If this occurs during RC Gate installation: Check the validity of the certificate and the NVRAM, check the machine serial number, write the common certificate, and then begin installation again. • If this occurs after RC Gate installation: Clear the RC Gate install status, check the validity of the certificate and the NVRAM, check the machine serial number, write the common certificate, and then begin installation again.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC653-	A	**Incorrect Remote Service ID2**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
00		ID2 stored in the NVRAM has either of the following problems. • Number of characters is not 17. • Includes a character that cannot be printed. • All spaces • NULL
		Replace the NVRAM.
		Clear the RC Gate install status, write the common certificate, and then begin installation again.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC664-01	D	**VODKA1 – SRAM Communication Error**
		• When the machine starts or returns from the energy saver mode, a connection error signal between VODKA1 and SRAM device is detected.
		• Defective BiCU (PCB1)
		1. Turn the main switch OFF and ON. **2.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC665-05	D	**BiCU Control Signal Connection Error (Master)**
SC665-07	D	**BiCU Control Signal Connection Error (IPU)**
SC665-08	D	**BiCU Control Signal Connection Error (IOB)**
		When the machine starts or returns from the energy saver mode, a connection error signal between CPU and slave device is detected, or the machine cannot access all I/O IPU-ASICs correctly.
		• Incorrect FFC connection • Damaged FFC (disconnection or dust) • BiCU failure (Deteriorated board, sticking dust, or damaged parts)
		1. Turn the main switch OFF and ON. **2.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC665-11	D	**Vodka1 Connection Error**
		A communication error between the CPU and Vodka1 is detected when the

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		engine starts up.
		BiCU (PCB1) error (failure to mount the part, solder scrap, mounted part malfunction, etc.)
		1. Turn the main switch OFF and ON. **2.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC665-61	D	**Vodka1 Connection Error (Continuous Detection)**
		A communication error between the CPU and Vodka1 is detected during continuous detection.
		BiCU (PCB1) error (failure to mount the part, solder scrap, mounted part malfunction, etc.)
		1. Turn the main switch OFF and ON. **2.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC665-71	D	**Macaron1 Connection Error (Continuous Detection)**
		A communication error between the CPU and Macaron1 is detected during continuous detection.
		BiCU (PCB1) error (failure to mount the part, solder scrap, mounted part malfunction, etc.)
		1. Turn the main switch OFF and ON. **2.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC667-01	D	**Master Device Operation Mode Setting Error**
		When the machine starts or returns from the energy saver mode, a CPU mode setting error is detected.
		BiCU (PCB1) error (failure to mount the part, solder scrap, mounted part malfunction, etc.)
		1. Turn the main switch OFF and ON. **2.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC667-10	D	**Slave Device 1 Operation Mode Setting Error**
		When the machine starts or returns from the energy saver mode, an error in the slave device 1 is detected.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		BiCU (PCB1) error (failure to mount the part, solder scrap, mounted part malfunction, etc.)
		1. Turn the main switch OFF and ON. **2.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC667-40	D	**Macaron 1 Operation Mode Setting Error**
		When the machine starts or returns from the energy saver mode, a CPU mode setting error is detected.
		BiCU error (failure to mount the part, solder scrap, mounted part malfunction, etc.)
		1. Turn the main switch OFF and ON. **2.** Replace the BiCU (PCB1).

SC No.	Type	Error Name/Error Condition/Major Cause/Solution
SC669		**EEPROM Communication Error**
SC669-01	**D**	**EEPROM OPEN: ID error**
SC669-02	D	**EEPROM OPEN: Channel error**
SC669-03	D	**EEPROM OPEN: Device error**
SC669-04	D	**EEPROM OPEN: Communication abort error**
SC669-05	D	**EEPROM OPEN: Communication timeout error**
SC669-06	D	**EEPROM OPEN: Operation stopped error**
SC669-07	D	**EEPROM OPEN: Buffer full**
SC669-08	D	**EEPROM OPEN: No error code**
SC669-09	D	**EEPROM CLOSE: ID error**
SC669-10	D	**EEPROM CLOSE: No error code**
SC669-11	D	**EEPROM Data write: ID error**

SC No.	Type	Error Name/Error Condition/Major Cause/Solution
SC669-12	D	**EEPROM Data write: Channel error**
SC669-13	D	**EEPROM Data write: Device error**
SC669-14	D	**EEPROM Data write: Communication abort error**
SC669-15	D	**EEPROM Data write: Communication timeout error**
SC669-16	D	**EEPROM Data write: Operation stopped error**
SC669-17	D	**EEPROM Data write: Buffer full**
SC669-18	D	**EEPROM Data write: No error code**
SC669-19	D	**EEPROM Data read: ID error**
SC669-20	D	**EEPROM Data read: Channel error**
SC669-21	D	**EEPROM Data read: Device error**
SC669-22	D	**EEPROM Data read: Communication abort error**
SC669-23	D	**EEPROM Data read: Communication timeout error**
SC669-24	D	**EEPROM Data read: Operation stopped error**
SC669-25	D	**EEPROM Data read: Buffer full**
SC669-26	D	**EEPROM Data read: No error code**
SC669-36	D	**Verification error**
SC669-37	D	**Error Detection**
		The TD Sensors (S14-S17) cannot be recovered after retrying three times for EEPROM communication error.
		• Electrical noise

SC No.	Type	Error Name/Error Condition/Major Cause/Solution
		• EEPROM not connected fully • EEPROM not installed • EEPROM damaged • BiCU damaged
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the EEPROM on the BiCU (PCB1). **2.** Replace the EEPROM. **3.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC670-01	D	**Engine Start Up Error when Main Power Switch ON** (* Refer to "When SC670 Is Displayed" below)
		• ENGRDY signal was not asserted when the machine was turned on or returned from energy saver mode. • EC response was not received within specified time from power ON. • PC response was not received within specified time from power ON. • SC response was not received within specified time from power ON. • Writing to Rapi driver failed (the other party not found through PCI).
		• BiCU (PCB1) does not start up.
		Check if the SC occurs by turning the main power OFF then ON at least 10 times. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the BiCU (PCB1) and Controller board (PCB24). **2.** Replace the board in the following priority: 1. BiCU (PCB1) 2. PSU (PCB16) 3. Controller board (PCB24)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC670-02	D	**Engine is Down When Machine Starts Up (SC reboot can be performed)** (* See "When SC670 Is Displayed" below)
		Machine-down was detected after the ENGRDY signal was not asserted. • CPU reset by watchdog timer • CPU reset by software • CPU reset by CPU exception handling • Slave VODKA reset

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• CPU reset due to hardware malfunction/noise • Slave VODKA reset due to hardware malfunction/noise
		The engine board was reset at an unexpected time.
		Check if the SC occurs by turning the main power OFF then ON at least 10 times. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the BiCU (PCB1) and Controller board (PCB24). **2.** Replace the board in the following priority: 1. BiCU (PCB1) 2. PSU (PCB16) 3. Controller board (PCB24)

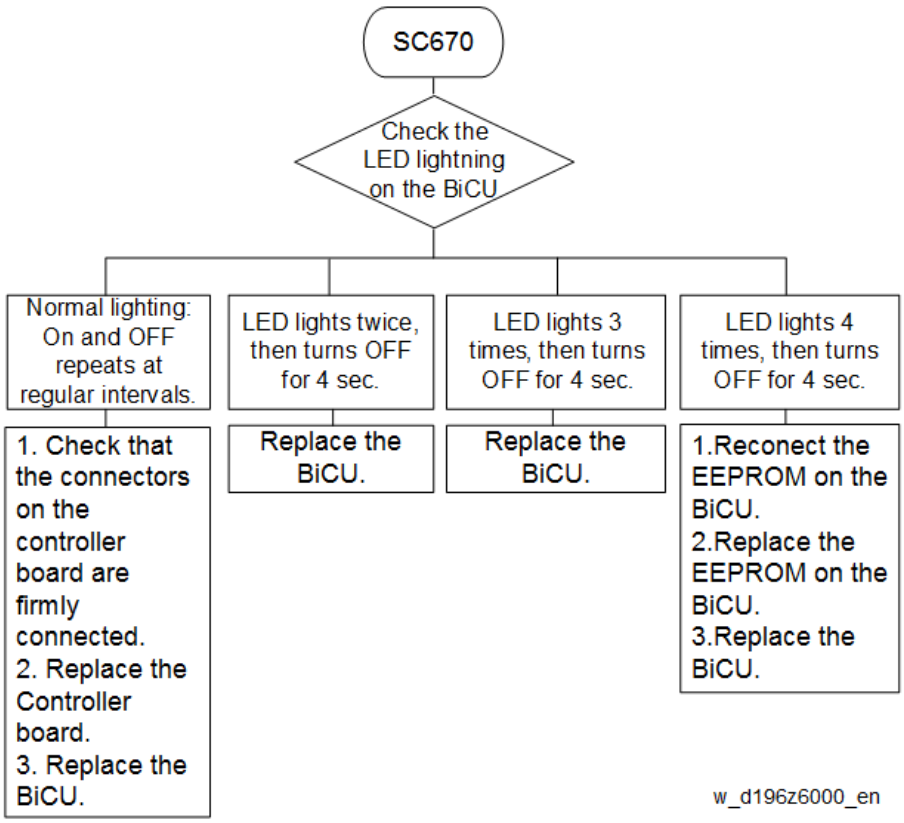
No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC670-03	D	**IPU Fails to Operate When Power is Turned On** (* See “When SC670 Is Displayed” below)
		The VDET_EPCI signal failed to assert.
		PSU, or Controller Board defective
		Check if the SC occurs by turning the main power OFF then ON at least 10 times. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the BiCU (PCB1) and Controller board (PCB24). **2.** Replace the board in the following priority: 1. BiCU (PCB1) 2. PSU (PCB16) 3. Controller board (PCB24)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC670-04	D	**Failed to Link Up** (* See “When SC670 Is Displayed” below)
		Linkup error
		Controller Board defective
		Check if the SC occurs by turning the main power OFF then ON at least 10 times. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the BiCU (PCB1) and Controller board (PCB24). **2.** Replace the board in the following priority: 1. BiCU (PCB1) 2. PSU (PCB16)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		3. Controller board (PCB24)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC670-05	C	**Linkup Error**
		If failing to link up by the 4th lane, the specified communication channel (and instead linking up by the 1st or 2nd lane) at the PCIe I/F connection between the controller and BiCU (PCB01) when the machine starts or returns from the energy saver mode.
		-
		This is a logging SC.

When SC670 is Displayed



No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC672-00	C	**Controller Start Up Error**
		After the machine was powered ON, communication between the controller and the operation panel was not established, or communication with controller was interrupted after a normal startup.
		• Controller stalled • Board installed incorrectly

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Controller Board (PCB24) defective • Operation panel connector loose, broken or defective
		1. Turn the main switch OFF and ON. **2.** Check the connection of USB cable between the operation panel and the BiCU (PCB1). **3.** Check the connection of the Controller Board (PCB24). **4.** Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC672-10	D	**Controller Start Up Error**
		After the machine was powered ON, communication between the controller and the operation panel was not established.
		• Controller stalled • Board installed incorrectly • Controller Board defective • Operation panel connector loose, broken or defective • Controller late
		1. Turn the main switch OFF and ON. **2.** Check the connection of USB cable between the operation panel and the BiCU (PCB1). **3.** Check the connection of the Controller Board (PCB24). **4.** Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC672-11	D	**Controller Start Up Error**
		After the machine was powered ON, communication between the controller and the operation panel was not established, or communication with controller was interrupted after a normal startup.
		• Controller stalled • Board installed incorrectly • Controller Board defective • Operation panel connector loose, broken or defective • Controller late • Incorrect Dip Switch Setting on Smart Operation Panel
		1. Turn the main switch OFF and ON. **2.** Check the connection of the Controller Board (PCB24). **3.** Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		4. Check the control panel harness. **5.** Make sure that the DIP switch numbers 1,3 and 6 are ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC672-12	D	**Controller Start Up Error**
		Communication with controller was interrupted after a normal startup.
		• Controller stalled • Board installed incorrectly • Controller Board defective • Operation panel connector loose, broken or defective • Controller late
		1. Turn the main switch OFF and ON. **2.** Check the control panel harness. **3.** Check the connection of the Controller Board (PCB24). **4.** Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC672-13	D	**Controller Start Up Error**
		The operation panel detects that the controller is down due to other reason shown in SC672-00, SC672-10, SC672-11, and SC672-12.
		• Controller stalled • Board installed incorrectly • Controller Board defective • Operation panel connector loose, broken or defective • Controller late
		1. Turn the main switch OFF and ON. **2.** Check the control panel harness. **3.** Check the connection of the Controller Board (PCB24). **4.** Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC672-20	D	**Controller Start Up Error**
		After the machine was powered ON, communication between the controller and the operation panel was not established, or communication with controller was interrupted after a normal startup.
		Operation panel harness connection error
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the USB cable and harness. (Reconnect both the operation panel end and the controller end.) **2.** Replace the USB cable and harness. **3.** Replace the controller board. **4.** Replace the operation panel.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC672-21	D	**Controller Start Up Error**
		After the machine was powered ON, communication between the controller and the operation panel was not established, or communication with controller was interrupted after a normal startup.
		Controller Board is defective.
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Turn the main power OFF, and then press switch "SW5" on the controller board. **2.** Replace the controller board. **3.** Replace the USB cable and harness. **4.** Replace the operation panel.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC672-99	D	**Controller Start Up Error**
		The operation panel software ended abnormally.
		• Controller stalled • Board installed incorrectly • Controller Board defective • Operation panel connector loose, broken or defective • Controller late
		1. Turn the main switch OFF and ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC673-10	D	**Operation Panel Flair Communication Error (Smart Operation Panel)**
		This SC is issued only for the machine that has the Smart Operation Panel installed.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Communication between Smart Operation Panel and main machine (this is called “Flair communication”) is not sent to Smart Operation Panel. • SP setting (SP5-748-201) for Smart Operation Panel is not activated.
		The CATS module (controller) did not see the response to notification of monitoring service module (operation panel)
		• Turn the main switch OFF and ON. • Set SP5-748-201 to “1: Connect” if the value is “0: Not connect”

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC681-**	D	**Toner Bottle: ID Chip Communication Error**
		• Corrupted ID data • Disconnected ID Chip (PCB3-PCB6) • No ID Chip (PCB3-PCB6) • Noise Check the SC’s branch number (-** part) and do the above steps for the corresponding color. Note **If the last digit of the SC’s branch number (-**) is:** 1 or 6, then do the above steps for K 2 or 7, then do the above steps for M 3 or 8, then do the above steps for C 4 or 9, then do the above steps for Y
		1. Clean the contact part of the toner bottle ID chip (PCB3-PCB6) and check that the pins of the Toner Bottle Sensor Board (PCB7) connector are not bent. If any of the pins are bent, replace the Toner Bottle Sensor Board (PCB7). **2.** Replace the toner bottle. **3.** Check the Toner Bottle Sensor Board (PCB7), and replace if damaged. **4.** Reattach the Toner Bottle Sensor Board (PCB7). **5.** Replace the harness between the BiCU (PCB1) and toner bottle detection board. **6.** Replace the BiCU (PCB1). **What to do if a connection error has occurred for all colors** **1.** Reconnect the harness between the BiCU (PCB1) and Toner Bottle Sensor Board (PCB7). **2.** Replace the harness between the BiCU (PCB1) and Toner Bottle Sensor Board (PCB7). **3.** Replace the BiCU (PCB1) and toner bottle at the same time.

SC681 Details

No.		Detail	Causes
681	01 - 04	Invalid device ID	Noise, Incorrect connection, Malfunction
	06 - 09	Channel error	Noise, Incorrect connection, Malfunction
	11 - 14	Device Error	Noise, Incorrect connection
	16 - 19	Communication error (interrupted)	Noise, Incorrect connection
	21 - 24	Communication timeout	Noise, Incorrect connection, Malfunction
	26 - 29	Device stops (logically)	Noise, Incorrect connection, Malfunction
	31 - 34	Full of buffer (request)	Noise, Incorrect connection, Malfunction
	36 - 39	Verification error	Noise, Incorrect connection

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC682-**	D	**TD Sensor Communication Error**
		TD Sensors (S14-S17) cannot be recovered after retrying three times for an ID Chip communication error.
		• Corrupted ID data • Disconnected ID Chip (PCB3-PCB6) • No ID Chip (PCB3-PCB6) • Noise
		1. Remove the PCDU and check the connector condition. **2.** Re-insert the harness (BiCU side) between the BiCU (PCB1) and the TD Sensors (S14-S17). **3.** Replace the PCDU (if the TD Sensors (S14-S17) work incorrectly) **4.** Replace the harness between the BiCU (PCB1) and the TD Sensors (S14-S17). **5.** Replace the BiCU (PCB1). Check the SC's branch number (-** part) and do the above steps for the corresponding color. Note • **If the last digit of the SC's branch number (-**) is:** 1 or 6, then do the above steps for K 2 or 7, then do the above steps for M 3 or 8, then do the above steps for C 4 or 9, then do the above steps for Y **What to do if a connection error has occurred for all colors** **1.** Reconnect the harness between the BiCU (PCB1) and TD sensor (S14-S17). **2.** Replace the harness between the BiCU (PCB1) and TD sensor (S14-S17) **3.** Replace the BiCU (PCB1) and TD sensor (S14-S17) at the same time.

SC682 Details

No.		Description	Cause
682	01 - 04	Invalid device ID	Noise, Incorrect connection, Malfunction
	06 - 09	Channel error	Noise, Incorrect connection, Malfunction
	11 - 14	Device Error	Noise, Incorrect connection
	16 - 19	Communication error (interrupted)	Noise, Incorrect connection
	21 - 24	Communication timeout	Noise, Incorrect connection, Malfunction
	26 - 29	Device stops (logically)	Noise, Incorrect connection, Malfunction
	31 - 34	Full of buffer (request)	Noise, Incorrect connection, Malfunction
	36 - 39	Verification error	Noise, Incorrect connection
	51	Verification error (during storing to EEPROM)	Noise
	52	Verification error (SRAM)	Noise

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC687-00	D	**PER Not Received Error**
		• Unable to receive the PER command of the I/F commands from the controller. • Unable to prepare the image data with the controller.
		• Communication error • The software of controller is defective.
		1. Turn the main switch OFF and ON.

SC7xx: Peripherals

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC724-03	D	**Protection Device Intercept Error 1**
		Failure to supply power to fuse and later circuits (parts) of finisher Main Board detected continuously for 2 seconds.
		• Fuse open • Stopper Solenoid (SOL3) defective • Motor defective • Connector disconnected/damaged
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check if the harness between the finisher Main Board (PCB25) and the solenoid / sensor is not stripped or entrapped. Replace the harness if there are any defects. **2.** Check if there is any unusual odor from the solenoid or any problem with its appearance. Replace the solenoid if there are any defects. **3.** Check if there is any unusual odor from the motor or any problem with its appearance. Replace the solenoid if there are any defects. **4.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC724-04	D	**Protection Device Intercept Error 2**
		Fault signal of sensor power protection device (high-side switch) detected continuously for 2 seconds.
		• Fuse open • Stopper Solenoid (SOL3) defective • Motor defective • Connector disconnected/damaged
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check if the harness between the finisher Main Board (PCB25) and the sensor is not stripped or entrapped. Replace the harness if there are any defects.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		2. Check if there is any unusual odor from each sensor or any problem with its appearance. Replace the sensor if there are any defects. **3.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC724-30	D	**Jogger Motor (M20) Error**
		The Jogger Fence HP Sensor (SN41) does not turn OFF even though the Jogger Motor (M20) rotates clockwise or counter-clockwise to move away from the home position with the specified number of pulses. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.)
		• Motor defective • Connector disconnected • Motor overload • Jogger fence HP sensor (S41) defective
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check if the harness between the finisher Main Board (PCB25) and the Jogger Fence HP Sensor (S41) / Jogger Motor (M20) is not stripped or entrapped. Replace the harness if there are any defects. **2.** Check if there is any unusual odor from the Jogger Fence HP Sensor (S41) or any problem with its appearance. Replace it if there are any defects. **3.** Check if there is any unusual odor from the Jogger Motor (M20) or any problem with its appearance. Replace it if there are any defects. **4.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC724-44	D	**Stapler Motor (M23) Error**
		• The Staple Tray Paper Sensor (S42) does not turn OFF even though the Stapler Motor (M23) rotates with the specified number of pulses to move away from the home position. • The Staple Tray Paper Sensor (S42) does not turn ON (Home Position) even though the Stapler Motor (M23) rotates with the specified number of pulses to move to the home position.
		• Staple jam

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Motor overload • Motor defective • Connector disconnected • Staple Tray Paper Sensor (S42) defective
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check if the harness between the finisher Main Board (PCB25) and the Staple Tray Paper Sensor (S42) / Stapler Motor (M23) is not stripped or entrapped. Replace the harness if there are any defects. **2.** Check if there is any unusual odor from the Staple Tray Paper Sensor (SN42) or any problem with its appearance. Replace it if there are any defects. **3.** Check if there is any unusual odor from the Stapler Motor (M23) or any problem with its appearance. Replace it if there are any defects. **4.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC724-80	D	**Gathering Roller Motor (M18) Error**
		• During the initial operation or the gathering roller descends onto the paper, the Gathering Roller HP Sensor (S38) does not turn OFF even though the Gathering Roller Motor (M18) rotates with the specified number of pulses to move away from the home position. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.) • During the initial operation, the Gathering Roller HP Sensor (S38) does not turn ON (Home Position) even though the Gathering Roller Motor (M18) rotates with the specified number of pulses to move to the home position. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.)
		• Motor defective • Connector disconnected • Motor overload • Gathering Roller HP Sensor (S38) defective
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check if the harness between the finisher Main Board (PCB25) and the Gathering Roller HP Sensor (S38) / Gathering Roller Motor (M18) is not

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		stripped or entrapped. Replace the harness if there are any defects. **2.** Check if there is any unusual odor from the Gathering Roller HP Sensor (S38) or any problem with its appearance. Replace it if there are any defects. **3.** Check if there is any unusual odor from the Gathering Roller Motor (M18) or any problem with its appearance. Replace it if there are any defects. **4.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC724-81	D	**Exit Guide Plate Motor (M21) Error**
		• During the initial operation or the gathering roller descends onto the paper, the Exit Guide Plate HP Sensor (S44) does not turn OFF even though the Exit Guide Plate Motor (M21) rotates with the specified number of pulses to move away from the home position. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.) • During the initial operation, the Exit Guide Plate HP Sensor (S44) does not turn ON (Home Position) even though the Exit Guide Plate Motor (M21) rotates with the specified number of pulses to move to the home position. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.)
		• Motor defectivee • Connector disconnected • Motor overload • Exit Guide Plate Motor (M21) defective
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check if the harness between the finisher Main Board (PCB25) and the Exit Guide Plate HP Sensor (S44) / Exit Guide Plate Motor (M21) is not stripped or entrapped. Replace the harness if there are any defects. **2.** Check if there is any unusual odor from the Exit Guide Plate HP Sensor (S44) or any problem with its appearance. Replace it if there are any defects. **3.** Check if there is any unusual odor from the Exit Guide Plate Motor (M21) or any problem with its appearance. Replace it if there are any defects. **4.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC724-82	D	**Shift Roller Motor (M19) Error**
		• During the initial operation or the gathering roller descends onto the paper, the Shift Roller HP Sensor (S37) does not turn OFF even though the Shift Roller Motor (M19) rotates with the specified number of pulses to move away from the home position. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.) • During the initial operation, the Shift Roller HP Sensor (S37) does not turn ON (Home Position) even though the Shift Roller Motor (M19) rotates with the specified number of pulses to move to the home position. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.)
		• Motor defective • Connector disconnected • Motor overload • Shift Roller HP Sensor (S37) defective
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check if the harness between the finisher Main Board (PCB25) and the Shift Roller HP Sensor (S37) / Shift Roller Motor (M19) is not stripped or entrapped. Replace the harness if there are any defects. **2.** Check if there is any unusual odor from the Shift Roller HP Sensor (S37) or any problem with its appearance. Replace it if there are any defects. **3.** Check if there is any unusual odor from the Shift Roller Motor (M19) or any problem with its appearance. Replace it if there are any defects. **4.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC724-83	D	**Tray Lift Motor (M22) Error**
		• When the tray is lifted, the Remaining Paper Sensor (S40) does not turn OFF even after the specified lapse of time. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.) • When the tray is lowered, the Remaining Paper Sensor (SN40) does not turn ON even after the specified lapse of time. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.)
		• Motor defective • Connector disconnected

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Motor overload • Remaining Paper Sensor (S40) defective
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check if the harness between the finisher Main Board (PCB25) and the Remaining Paper Sensor (S40) / Tray Lift Motor (M22) is not stripped or entrapped. Replace the harness if there are any defects. **2.** Check if there is any unusual odor from the Remaining Paper Sensor (S40) or any problem with its appearance. Replace it if there are any defects. **3.** Check if there is any unusual odor from the Tray Lift Motor (M22) or any problem with its appearance. Replace it if there are any defects. **4.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC724-85	D	**Stopper Solenoid (SOL3) Error**
		• When the Stopper Solenoid (SOL3) lowers the actuator down to the topmost paper of the paper stack, the Remaining Paper Sensor (S40) turns OFF. (The first four times are displayed as jams. An SC is displayed when it is repeated five times.)
		• Stopper Solenoid (SOL3) defective • Connector disconnected • Motor overload • Remaining Paper Sensor (S40) defective
		Check if the SC occurs by turning the main power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Check if the harness between the finisher Main Board (PCB25) and the Remaining Paper Sensor (S40) / Stopper Solenoid (SOL3) is not stripped or entrapped. Replace the harness if there are any defects. **2.** Check if there is any unusual odor from the Remaining Paper Sensor (S40) or any problem with its appearance. Replace it if there are any defects. **3.** Check if there is any unusual odor from the Stopper Solenoid (SOL3) or any problem with its appearance.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Replace it if there are any defects. **4.** Replace the finisher Main Board (PCB25).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC790-00	D	**Stacking the Paper Feed Units Over the Limit**
		Received a connection identification code other than "01H", "02H" and "03H".
		Four or more paper feed units are stacked.
		1. Reduce the stack of paper feed units to 3 or less. (Including the standard main unit paper tray, there can be a total of 4 paper feed units.)

SC8xx: Overall System

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC816-**	[0x0000]	**Energy Save I/O Subsystem Error**
SC816-01	D	**Subsystem error**
SC816-02	D	**Sysarch (LPUX_GET_PORT_INFO) error**
SC816-03	D	**Transition to STR was denied.**
SC816-04	D	**Interrupt in kernel communication driver**
SC816-05	D	**Preparation for transition to STR failed.**
SC816-07	D	**Sysarch (LPUX_GET_PORT_INFO) error**
SC816-08	D	**Sysarch (LPUX_ENGINE_TIMERCTRL) error**
SC816-09	D	**Sysarch (LPUX_RETURN_FACTOR_STR) error**
SC816-10 to 12	D	**Sysarch (LPUX_GET_PORT_INFO) error**
SC816-13	D	**open() error**
SC816-14	D	**Memory address error**
SC816-15 to 18	D	**open() error**
SC816-19	D	**Double open() error**
SC816-20	D	**open() error**
SC816-22	D	**Parameter error**
SC816-23, 24	D	**read() error**
SC816-25	D	**write () error**
SC816-26 to 28	D	**write() communication retry error**
SC816-29, 30	D	**read() communication retry error**
SC816-35	D	**read() error**
SC816-36 to 96, 98	D	**Subsystem error**
		Energy save I/O subsystem detected some abnormality.
		• Energy save I/O subsystem defective • Energy save I/O subsystem detected a Controller Board error (non-response). • Error was detected during preparation for transition to STR. • C816-99 occurs as a subsystem error except any error from -06 to 96.
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		after each step. **1.** Update the "System/Copy" firmware and the other system firmware to the latest version. **2.** Disable the STR shift function with SP5-191-001 (Power Str Set). **3.** Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC818-00	D	**Watchdog Timer Error**
		The system program fell into a bus-hold state or an endless loop of the program interruption occurred, causing other process to stop.
		• System program defective • Controller Board defective • Optional board defective
		1. Cycle the main power OFF and ON. **2.** Replace the Controller Board (PCB24). **3.** Update the system firmware. **4.** Replace the peripheral.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC819-00	D	**Kernel Halt Error** [xxxx]: Detailed error code
		Due to a control error, a RAM overflow occurred during system processing. One of the following messages was displayed on the operation panel.
	[0x5032]	**HAIC-P2 Error**
		HAIC-P2 decompression error (An error occurred in the ASIC compression/decompression module.)
		• The code data saved in the HDD was broken for an unexpected reason. (HDD device defective) • The code data saved to memory was broken for an unexpected reason. (Memory device defective) • ASIC defective • Data other than code data was unzipped due to a software malfunction.
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Replace the HDD. **2.** Replace the memory device.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		3. Replace the Controller Board (PCB24). **4.** Fix the software.
	[0x5245]	**Link Up Error**
		Link up transaction between Engine ASIC and Veena was not completed within 100 ms.
		Either one of following message appears on console if Link up error occurs. RESUME:PCI-Express bus ROOT_DL status error RESUME:PCI-Express bus DETUP status error "0x53554D45" -> Link up error Also, error code "0x5245" and detail code ""0x53554D45" -> Link up error" appears on operation panel.
		1. Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, proceed to the next step. **2.** Replace the Controller Board (PCB24) or the engine board (BiCU (PCB1)).
	[0x5355]	**L2 Status Timeout**
		L2 status register between Engine ASIC and Veena was not reached the target value within 1 sec.
		Engine ASIC during operation was rebooted or shifted to energy saving mode. Machine reboots when SC23x, SC30x occurs. If Engine ASIC is working when rebooting (or shifting to the energy saving mode), L2 status value is not on target. The following message appears on console. SUSPEND:PCI-Express L2 Status Check Error SUSPEND:PCI-Express L2 Status Check Error Also, error code "0x5355" and detail code ""0x5350454E44" -> L2 status time out" appears on operation panel.
		1. Check if the SC occurs by turning the power OFF then ON. If the SC occurs again, proceed to the next step. **2.** Replace the Controller Board (PCB24) or the engine board (BiCU (PCB1)).
	[0x6261]	**HDD Defective**
		Received file system data was broken even if the initialization succeeds and there was no error reply from the HDD.
		Power supply disconnection during data writing to the HDD.
		1. This SC may occur when turning ON the machine for the first time with a

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		new HDD. In this case, Automatic Reboot is performed by Kernel.
	[0x696e]	**gwinit Processing End**
		If the SCS process is ended for some reason
		If an unexpected error occurs at SCS processing end, gwinit processing also halts (this result is judged a kernel stop error, by gwinit specification) “0x69742064” -> “init died”
		1. When this error occurs, Automatic Reboot is performed by Kernel.
	[0x766d]	**VM Full Error**
		Occurs when too much RAM is used during system processing
		"vm_pageout: VM is full"
		1. When this error occurs, Automatic Reboot is performed by Kernel.
	Console string	**Other Error (characters on operation panel)**
		System detected internal mismatch error
		• Software defective • Insufficient memory • Hardware driver defective (RAM, flash memory)
		1. When this error occurs, Automatic Reboot is performed by Kernel.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	C	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0001]	**TLB change (store) exception error**
	[0002]	**TLB miss (load) exception error**
	[0003]	**TLB miss (store) exception error**
	[0004]	**Read address exception error**
	[0005]	**Write address exception error**
	[0006]	**Instruction bus exception error**
	[0007]	**Data bus exception error**
	[0008]	**System call exception error**
	[0009]	**Break exception error**
	[000A]	**Invalid instruction exception error**
	[000B]	**Co-processor exception error**
	[000C]	**Overflow exception error**
	[000D]	**UTLB miss exception error**
	[0010]	**Interrupt line 0 error**
	[0011]	**Interrupt line 1 error**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	[0012]	**Interrupt line 2 error**
	[0013]	**Interrupt line 3 error**
	[0014]	**Interrupt line 4 error**
	[0015]	**Interrupt line 5 error**
		Unexpected exception or interrupt occurred
		• CPU device error • The boot monitor program or self-diagnostic program is broken.
		• Replace the Controller Board (PCB24). • Reinstall the controller system software.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	C	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[00FF]	**Uninitialized Interrupt Error**
		Cache error (such as a parity error) occurred.
		• CPU device error • Local bus defective
		1. Cycle the main power OFF and ON. **2.** Reinstall the controller system software. **3.** Replace the Controller Board (PCB24). **4.** Replace the connected controller option with a new one.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	C	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0601]	**Read address exception error**
	[0602]	**Write address exception error**
	[0605]	**System call exception error**
	[0606]	**Break exception error**
	[0607]	**Invalid instruction exception error**
	[0609]	**Overflow exception error**
		Exception does not occur though executing exception by intention.
		CPU device error
		1. Replace the Controller Board (PCB24)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	C	**Self-diagnostics Error: CPU**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		[XXXX]: Detailed error code
	[060A]	**Interrupt line 0 mask exception error**
	[060B]	**Interrupt line 1 mask exception error**
	[060C]	**Interrupt line 2 mask exception error**
	[060D]	**Interrupt line 3 mask exception error**
	[060E]	**Interrupt line 4 mask exception error**
		Interrupt does not occur though setting interrupt by timer.
		• CPU device error • ASIC device error
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	C	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0610]	**CPU Interrupt Timer 2 Set Error**
		Interrupt does not occur though setting interrupt by CPU interrupt timer.
		CPU device error
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	C	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0612]	ASIC interrupt error
		Interrupt Occurs in an ASIC.
		• ASIC device error • Peripherals device error
		1. Replace the Controller Board (PCB24). **2.** Replace the connected controller option with a new one.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	C	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[06FF]	**CPU Master Clock Error**
		Pipeline clock frequency ratio of CPU is different from specified value.
		• CPU device error • Module bit that initializes the CPU is defective
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	D	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0701]	**Instruction Cache Capacity Error**
		The CPU cannot read the instruction cache stored in the primary cache.
		CPU device error
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	D	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0702]	**Instruction Cache Error**
		The program executed in the instruction cache result was different from expected.
		• CPU cache defective • Memory too slow
		• Replace the Controller Board (PCB24). • Replace the memory device.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	D	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0703]	**Instruction Uncache Error**
	[0704]	**Instruction Cache Hit Error**
	[0705]	**Instruction Cache Clear Error**
		Data in the instruction cache which is set in the primary instruction cache of the CPU is different from the contents of the pre-set
		CPU device error
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	D	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0706]	**Data Cache Capacity Error**
	[0707]	**Data Cache Error**
	[0708]	**Data Uncache Error**
		Data in the data cache which is set in the primary data cache of the CPU is

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		different from the contents of the pre-set
		-
		-

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	D	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0709]	**Data Cache Hit Error**
	[070A]	**Data Cache Clear Error**
		In spite of writing data only in the cache area, data is updated in the non-cache area
		CPU device error
		• Replace the Controller Board (PCB24). • Replace the memory device.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	D	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[0801]	**TLB virtual address error**
	[0804]	**TLB global error**
	[0807]	**UTLB miss error**
	[0808]	**TLB read miss error**
	[0809]	**TLB write miss error**
	[080A]	**TLB modify error**
		Error occurred during TLB checking.
		CPU device error
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	D	**Self-diagnostics Error: CPU** [XXXX]: Detailed error code
	[4002]	**Single precision arithmetic error**
	[4003]	**Double precision arithmetic error**
	[4004]	**Exception error**
	[4005]	**Exception mask error**
		Error occurred during a calculation with the co-processor in the CPU.
		CPU device error

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC821-00	D	**Self-diagnostics Error: ASIC** [xxxx]: Detailed error code
	[0B00]	**ASIC Register Check Error**
		The write-&-verify check has occurred in the ASIC.
		Defective ASIC device
		1. Replace the Controller Board (PCB24).
	[0B06]	**ASIC Detection Error**
		Error in the I/O ASIC for system control detection
		• Defective ASIC • Defective North Bridge and PCII/F
		1. Replace the Controller Board (PCB24).
	[0D05]	**Comparison Error of CPU and ASIC Timer**
		The CPU checks if the ASIC timer works correctly compared with the CPU timer. If the ASIC timer does not function in the specified range, this SC code is displayed.
		• Defective ASIC timer device • Defective CPU device
		1. Replace the Controller Board (PCB24).
	[50A1]	**Video Bridge Device Detection Error**
		Video bridge device is not detected.
		• Video bridge device ASIC (HARP or KLAVIER) defective. • Connection error between PCI I / F of the controller ASIC and video bridge device ASIC.
		1. Replace the Controller Board (PCB24).
	[50A2]	**Video Bridge Device (ASIC) Register Error**
		The CPU detects the video bridge device, but detects error data from the video bridge device.
		Defective I/F between the video bridge device and the controller
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC822-00	D	**Self-diagnostic Error: HDD** [xxxx]: Detailed error code
	[3003]	**HDD Timeout**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Check performed only when HDD is installed: • HDD device busy for over 31sec. • After a diagnostic command is set for the HDD, but the device remains busy for over 6 sec.
		• HDD defective • HDD harness disconnected, defective • Controller Board defective
		1. Replace the HDD. **2.** Replace the HDD connector. **3.** Replace the Controller Board (PCB24).
	[3004]	**Diagnostic Command Error**
		No response to the self-diagnostic command from the ASIC to the HDD.
		HDD defective
		1. Replace the HDD.
	[3013]	**HDD Timeout (first machine)**
		HDD device busy for over 31 seconds. A diagnostic command is set for the HDD, but the device remains busy for over 6 seconds.
		• Defective HDD device • Defective HDD connector • Defective ASIC device
		1. Replace or remove the HDD device. **2.** Replace the HDD connector **3.** Replace the Controller Board (PCB24)
	[3014]	**Diagnostics Command Error (First machine)**
		Result of the issuance of diagnostic command is error.
		Defective HDD device
		1. Replace the HDD device.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC823-00	B	**Self-diagnostics Error: NIC** [XXXX]: Detailed error code
	[6101]	**MAC Address Check Sum Error**
		The result of the MAC address check sum does not match the check sum stored in ROM.
		• Defective SEEP ROM • Defective I2C bus (connection)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		1. Replace the Controller Board (PCB24).
	[6104]	**PHY IC Error**
		The PHY IC on the controller cannot be correctly recognized.
		• Defective PHY chip • Defective ASIC MII I/F
		1. Replace the Controller Board (PCB24).
	[6105]	**PHY IC Loop-back Error**
		An error occurred during the loop-back test for the PHY IC on the controller.
		• PHY chip • Defective MAC of ASIC (SIMAC/COMIC/CELLO) • Defective I/F with the PHY board • Defective solder on the PHY board
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC824-00	C	**Self-diagnostics Error: NVRAM (resident)** [XXXX]: Detailed error code
	[1401]	**NVRAM Verify Error**
		NVRAM device is missing or NVRAM device is damaged.
		• The NVRAM device is missing. • The NVRAM device is damaged. • NVRAM backup battery exhausted • NVRAM socket damaged
		1. Replace the NVRAM device.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC827-00	D	**Self-diagnostic Error: RAM** [XXXX]: Detailed error code
	[0201]	**Resident Memory Verification Error**
		Error detected during a write/verify check for the standard RAM*1 on Controller Board (PCB24). *1 Standard RAM on controller (2GB) in this machine is divided into the resident RAM (1GB) and the optional RAM (1GB).
		• Defective memory device (on the Controller Board (PCB24)).
		1. Replace the Controller Board (PCB24).
	[0202]	**Resident Memory Structure Error**
		The SPD values in all RAM DIMM are incorrect or unreadable.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Defective RAM DIMM • Defective SPD ROM on RAM DIMM • Defective 12C bus
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC828-00	D	**Self-diagnostic Error: ROM** [xxxx]: Detailed error code
	[0101]	**Check Sum Error 1**
		The boot monitor and OS program stored in the ROM DIMM is checked. If the check sum of the program is incorrect, this SC code is displayed.
		• Defective flash ROM device • Defective CPU device
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC829-00	D	**Self-diagnostic Error: Optional RAM** [XXXX]: Detailed error code
	[0301]	**Optional Memory 0 Verify Error**
		• For machines with resident RAM, Optional Memory 0 refers the RAM DIMM installed in the RAM Slot. • For machines without resident RAM, Optional Memory 0 refers to the RAM DIMM installed in Slot 0. • This error does not occur with machines that do not have resident RAM.
		• The memory is defective.
		1. Replace the controller board (for machines with no resident RAM, replace the RAM-DIMM).
	[0302]	**Optional Memory 0 Structural Error**
		Every time the main power is turned ON, the structure of the optional RAM is checked. If an error is detected at this point, the self-diagnostic module will not check the optional RAM.
		-
		-
	[0401]	**Optional RAM1: Verify Error**
		In this machine, the standard RAM on the controller (2GB) is divided into the resident RAM (1GB) and the optional RAM (1GB).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Defective memory device (on the Controller Board (PCB24)).
		1. Replace the Controller Board (PCB24).
	[0402]	**Optional RAM1: Structure Error**
		Every time the main power turns on, structures of the optional RAM are checked. If an error is detected at this time, the self-diagnostic module will not check the optional RAM.
		-
		-

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC833-00	D	**Self-diagnostic Error: Engine I/F ASIC** [XXXX]: Detailed error code
	[0F30]	**Engine I/F ASIC Detection Error**
		ASIC (Mandolin) for engine control could not be detected.
		ASIC (Mandolin) error
		1. Replace the Engine I/F board (mother board).
	[50B1]	**Video Device: Clock Generator Detection Error**
		Could not initialize or read the bus connection.
		• Defective connection bus • Defective SSCG
		1. Replace the Engine I/F board (mother board).
	[50B2]	**Video Device: Clock Generator Verify Error**
		Value of the SSCG register is incorrect.
		• Defective connection bus • Defective SSCG
		1. Replace the Engine I/F board (mother board).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC834-00	D	Self-diagnostic error: Optional memory
	[5101]	Engine I/F optional memory verify error
		An error occurs after write/verify check for optional RAM on the engine I/F board (mother board).
		Defective memory device
		Replace the Engine I/F board (mother board).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC835-00	B	**Self-diagnostic Error: Centronic Device**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		[xxxx]: Detailed error code
	[1102]	**Verify Error**
		The loopback connector is connected but check results is an error.
		• IEEE1284 connector error • Centronic loopback connector defective
		1. Replace the Controller Board (PCB24).
	[110C]	**DMA Verify Error**
		The loopback connector is connected but check results is an error.
		• ASIC device error • IEEE1284 connector error • Centronic loopback connector is defective
		1. Replace the Controller Board (PCB24).
	[1120]	**Loopback Connector Not Detected**
		Centronic loopback connector is not connected for detailed self-diagnostic test.
		• Centronic loopback connector not connected correctly • Centronic loopback connector is defective • ASIC device is defective
		1. Connect the centronic loopback connector **2.** Replace the centronic loopback connector **3.** Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC838-00	C	**Self-diagnostic Error: Clock Generator** [xxxx]: Detailed error code
	[2701]	**Verify Error**
		A verify error occurred when setting data was read from the clock generator via the I2C bus.
		• Defective clock generator • Defective I2C bus • Defective I2C port on the CPU
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC839-00	D	**Self-diagnostic Error: Serial Flash** [xxxx]: Detailed error code
	[9001]	**Serial Flash Access Error**
		USB NAND Flash ROM cannot be read.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Defective Controller Board (PCB24)
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC840-00	D	**EEPROM Access Error**
		• During the I/O processing, a reading error occurred. The 3rd reading failure causes this SC code. • During the I/O processing, a writing error occurred.
		• Defective EEPROM
		-

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC841-00	D	**EEPROM Read Data Error**
		Mirrored data of the EEPROM is different from the original data in EEPROM.
		Data in the EEPROM is overwritten for some reason.
		-

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC842-00	C	**Nand-Flash Updating Verification Error**
		SCS write error (verify error) occurred at the Nand-Flash module when remote ROM or main ROM was updated.
		Nand-Flash defective
		1. Turn the main power OFF/ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC842-01	C	**Insufficient Nand-Flash Blocks (Threshold exceeded)**
		At startup, or when machine returned from low power mode, the Nand-Flash status was read and judged that the number of unusable blocks had exceeded threshold, and then SCS generated the SC code.
		Number of unusable blocks exceeded threshold for Nand-Flash
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC842-02	C	**Number of Nand-Flash Block Deletions Exceeded**
		At startup, or when the machined returned from low power mode, the Nand-Flash was read and judged that the number of deleted blocks had exceeded threshold, and then SCS generated this SC code.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Number of blocks deleted exceeded threshold for Nand-Flash
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC845-**		**Hardware Error Detected when the Automatic Firmware Update**
SC845-01	D	**Engine Board**
SC845-02	D	**Controller Board (PCB24)**
SC845-03	D	**Operation Panel (Normal) (This machine does not support a (Normal) Operation Panel.)**
SC845-04	D	**Operation Panel (Smart Panel)**
SC845-05	D	**FCU**
		When updating the firmware automatically (ARFU), the firmware cannot be read or written normally, and the firmware update cannot be completed even by 3 retries.
		Hardware abnormality of the target board
		1. Replace the target board. **2.** For SC845-02, HDD and memory may cause the problem. Replace the HDD or memory if the SC cannot be recovered by replacing the Controller Board (PCB24).

No.	Type	Error Name/Error Condition/Major Cause/Solution
SC845-50	D	**DIMM or Hard Disk Failure**
		This SC occurs if auto firmware decompression fails after downloading the package firmware during auto firmware update or receiving reservation setting in SFU. The machine operates normally if you turn the main power OFF and then back ON, but the SC occurs again when firmware decompression fails again during the next auto firmware update.
		Hardware failure (DIMM or hard disk failure) or the package file released via the global server (SERES) is corrupt.
		1. Replace the DIMM on the Controller Board (PCB24). If the problem persists after replacing the DIMM, replace the hard disk.

No.	Type	Error Name/Error Condition/Major Cause/Solution
SC845-51	C	**Network, DIMM or Hard Disk Failure**
		This SC occurs if auto firmware decompression fails after downloading the package firmware during auto firmware update, update from the application site, or receiving reservation setting in SFU.
		Failure in the customer's network or hardware (DIMM or hard disk) failure.
		1. This may be recovered by retrying the firmware update. **2.** If the problem persists, replace the DIMM on the Controller Board (PCB24). **3.** If the problem persists after replacing the DIMM, replace the hard disk.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC855-01	B	**Wireless LAN Board Error (Driver attachment failure)**
		Wireless LAN board error (wireless LAN card: 802.11 is covered)
		• Defective wireless LAN board • Loose connection
		1. Cycle the main power OFF and ON. **2.** Replace wireless LAN board

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC855-02	B	**Wireless LAN Board Error (Driver initialization failure)**
		Wireless LAN board error (wireless LAN card: 802.11 is covered)
		• Defective wireless LAN board • Loose connection
		1. Cycle the main power OFF and ON. **2.** Replace wireless LAN board

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC857-00	B	**USB I/F Error**
		The USB interface is unusable because of a driver error.
		USB driver error (There are three causes of USB error: RX error/CRC error/STALL. SC is issued only in the case of STALL.)
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC859-01	B	**Data Encryption Conversion HDD Conversion Error (HDD check error)**
		When the data encryption key was updated, HDD data was converted, but not correctly. Image displayed at conversion only (this SC is not displayed), but SC is displayed after machine is cycled off/on.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• HDD conversion was set with the data encryption key update function, but the HDD was removed. • Machine lost power during data encryption key update • Electrostatic noise, or an HDD error occurred, during data encryption key update, and data was not encrypted.
		1. Check the HDD connection. **2.** Format the HDD (SP5-832: HDD formatting). **3.** If there is a problem with the HDD, it has to be replaced.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC859-02	B	**Data Encryption Conversion HDD Conversion Error (Power failure during conversion)**
		When the data encryption key was updated, HDD data was converted, but not correctly. Image displayed at conversion only (this SC is not displayed), but SC is displayed after machine is cycled off/on. Details: NVRAM/HDD conversion is incomplete.
		Power failure occurred during encryption key update.
		None The display after restart instructs the user to format the HDD.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC859-10	B	**Data Encryption Conversion HDD Conversion Error (Data read/write command error)**
		When the data encryption key was updated, HDD data was converted, but not correctly. Image displayed at conversion only (this SC is not displayed), but SC is displayed after machine is cycled OFF/ON. Details: Abnormal DMAC return value has been received two or more times (DMAC timeout, serial communication error etc.)
		HDD was not successfully converted during encryption key update due to HDD errors or cable noises.
		1. Check the HDD connection. **2.** Format the HDD (SP5-832: HDD formatting). **3.** If there is a problem with the HDD, it has to be replaced.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC860-00	B	**HDD Startup Error at Main Power On (HDD error)**
		• The HDD is connected but the driver detected the following errors. • SS_NO.T_READY:/* (-2)HDD does not become READY*/ • SS_BAD_LABEL:/* (-4)Wrong partition type*/ • SS_READ_ERROR:/* (-5)Error occurred while reading or checking the label*/ • SS_WRITE_ERROR:/* (-6)Error occurred while writing or checking the label*/ • SS_FS_ERROR:/* (-7)Failed to repair the filesystem*/ • SS_MOUNT_ERROR:/* (-8)Failed to mount the filesystem*/ • SS_COMMAND_ERROR:/* (-9)Drive not responding to command*/ • SS_KERNEL_ERROR:/* (-10)Internal kernel error*/ • SS_SIZE_ERROR:/* (-11)Drive size too small*/ • SS_NO._PARTITION:/* (-12)The specified partition does not exist*/ • SS_NO._FILE:/* (-13)Device file does not exist*/ • Attempted to acquire HDD status through the driver but there has been no response for 30 seconds or more.
		• Unformatted HDD • Label data corrupted • HDD defective
		1. Format the HDD (SP5-832: HDD formatting).

No.	Type	Error Name/Error Condition/Major Cause/Solution
SC860-01	D	**HDD File System Error at Main Power On (HDD error)**
		Failed to mount any of the hard disk partitions.
		Power failed while writing files to the hard disk. The machine shut down while writing files to the hard disk.
		Be sure to back up the address book and retrieve the log before formatting the hard disk. **1.** Turn the main power OFF/ON. It may take a while to shut down because of the hard disk failure. **2.** Format the HDD (SP5-832: HDD formatting) through SP mode. **3.** If there is a problem with the HDD, it has to be replaced.

No.	Type	Error Name/Error Condition/Major Cause/Solution
SC860-02	D	**HDD Label Error at Main Power On (HDD error)**
		Hard disk partition data abnormal.
		Power failed while writing files to the hard disk. The machine shut down while writing files to the hard disk.

No.	Type	Error Name/Error Condition/Major Cause/Solution
		Be sure to back up the address book and retrieve the log before formatting the hard disk. **1.** Turn the main power OFF/ON. It may take a while to shut down because of the hard disk failure. **2.** Format the HDD (SP5-832: HDD formatting) through SP mode. **3.** If there is a problem with the HDD, it has to be replaced.

No.	Type	Error Name/Error Condition/Major Cause/Solution
SC860-03	D	**HDD Encryption Key Error at Main Power On (HDD error)**
		The encryption key for reading the encrypted hard disk data has failed.
		The controller's ROM (NAND) and NVRAM are both damaged. (Rare)
		Be sure to back up the address book and retrieve the log before formatting the hard disk. **1.** Turn the main power OFF/ON. It may take a while to shut down because of the hard disk failure. **2.** Format the HDD (SP5-832: HDD formatting) through SP mode. **3.** If there is a problem with the HDD, it has to be replaced.

No.	Type	Error Name/Error Condition/Major Cause/Solution
SC861-50	D	**Storage Boot Failure**
		Access to the storage device fails when recovery from energy saving.
		No response from the storage device.
		1. Turn the main power OFF/ON. **2.** If the problem persists, replace the storage device.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC863-01	D	**HDD Data Read Failure**
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in an area that does not belong to a partition, such as the disk label area.)
		Guide for when to replace the HDD **1.** When SC863 has occurred ten times or more • The interval is short. • Repeatedly occurs in the same situation (At power-on, etc.). • Startup takes a long time when the main power is turned ON. **2.** It takes a long time after main power ON for the operation panel to become

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		ready. HDD access may be consuming time. Normal HDD access time after main power ON is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC863- 02 to 23	D	**HDD Data Read Failure**
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "**a**" (SC863-02) to partition "**v**" (SC863-23)).
		Guide for when to replace the HDD **1.** When SC863 has occurred ten times or more • The interval is short. • Repeatedly occurs in the same situation (At power-on, etc.). • Startup takes a long time when the main power is turned ON. **2.** It takes a long time after main power ON for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power ON is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC864- 00	D	**HD Data CRC Error**
		During HD operation, the HD cannot respond to a CRC error query. Data transfer did not execute normally while data was being written to the HD.
		HD defective
		-

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC864- 01	D	**HDD Data CRC Error**
		During HDD operation, the HDD cannot respond to a CRC error query. Data transfer did not execute normally while data was being written to the HDD.
		Bad sectors were generated during operation.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		(An error occurred in an area that does not belong to a partition, such as the disk label area.)
		1. Format the HDD. **2.** Replace the HDD.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC864-02 to 23	D	**HDD Data CRC Error**
		During HDD operation, the HDD cannot respond to a CRC error query. Data transfer did not execute normally while data was being written to the HDD.
		Bad sectors were generated during operation. (An error occurred in partition "**a**" (SC864-02) to partition "**v**" (SC864-23)).
		1. Format the HDD (SP5-832: HDD formatting). **2.** Replace the HDD.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC865-00	D	**HDD Access Error**
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error).
		1. Replace the HDD.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC865-01	D	**HDD Access Error**
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in an area that does not belong to a partition, such as the disk label area.)
		1. Replace the HDD.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC865-02 to 23	D	**HDD Access Error**
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "a" (SC865-02) to partition "v" (SC865-23)).
		1. Replace the HDD.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC865-50 to 73	D	**HDD Time-out Error**
		The machine does not detect a reply from the HDD during the HDD operation. SC865-50:The location where the error occurred cannot be identified. SC865-51: An error occurred outside of partition data area. SC865-52 to 73: An error occurred in partition "a" to "v".
		The HDD does not respond to the read/ write command from the machine.
		1. Check the harness connections between the Controller Board (PCB24) and HDD. **2.** Replace the HDD.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC866-00	B	**SD Card Authentication Error**
		A license error of an application that is started from the SD card was detected.
		Invalid program data is stored on the SD card.
		1. Store a valid program data on the SD card.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC867-00	B	**SD Card Removed**
		The SD card was removed while the machine is on.
		An application SD card has been removed from the slot (mount point of /mnt/sd0).
		1. Cycle the main power OFF and ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC867-01	B	**SD Card Removed**
		The SD card was removed while the machine is on.
		An application SD card has been removed from the slot (mount point of /mnt/sd1).
		1. Cycle the main power OFF and ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC867-02	B	**SD Card Removed**
		The SD card was removed while the machine is on.
		An application SD card has been removed from the slot (mount point of /mnt/sd2).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		1. Cycle the main power OFF and ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC868-**		**SD Card Access Error**
SC868-00	D	**The SD controller returned an error during operation. (An error occurred at the mount point of /mnt/sd0)**
SC868-01	D	**The SD controller returned an error during operation. (An error occurred at the mount point of /mnt/sd1)**
SC868-02	D	**The SD controller returned an error during operation. (An error occurred at the mount point of /mnt/sd2)**
		• SD card defective • SD controller defective
		Slot number is displayed on the sub code. Detail code is described in SMC print can confirm the details of the error. • -13 to -3: File system check error • Otherwise (no code, -2) : Device access error
		SD card that starts an application **1.** Turn the main power OFF and check the SD card insertion status. **2.** If no problem is found, insert the SD card and turn the main power ON. **3.** If an error occurs, replace the SD card. **4.** If the error persists even after replacing the SD card, replace the Controller Board (PCB24). **SD card for users** **1.** In the case of a file system error, reformat the SD card (using the "SD Formatter" made by Panasonic).* **In the case of a device access error** **1.** Turn the main power OFF and check the SD card insertion status. **2.** If no problem is found, insert the SD card and turn the main power ON. **3.** If an error occurs, use another SD card. **4.** If the error persists even after replacing the SD card, replace the Controller Board (PCB24).

* Do not format an SD card supplied with the main machine or sold as an option. You may only format SD cards used for Firmware Update by a Customer Engineer.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC870-00	B	**Address Book data error (Anytime: Address Book Error.)**
SC870-01	B	**Address Book data error (On startup: Media required for storing the Address Book is missing.)**
SC870-02	B	**Address Book data error (On startup: encryption is configured but the module required for encryption (DESS) is missing.)**
SC870-03	B	**Address Book data error (Initialization: Failed to generate a file to store internal Address Book.)**
SC870-04	B	**Address Book data error (Initialization: Failed to generate a file to store delivery sender.)**
SC870-05	B	**Address Book data error (Initialization: Failed to generate a file to store delivery destination.)**
SC870-06	B	**Address Book data error (Initialization: Failed to generate a file to store information required for LDAP search.)**
SC870-07	B	**Address Book data error (Initialization: Failed to initialize entries required for machine operation.)**
SC870-08	B	**Address Book data error (Machine configuration: HDD is present but the space for storing the Address Book is unusable.)**
SC870-09	B	**Address Book data error (Machine configuration: Inconsistency in the NVRAM area used for storing settings required for Address Book configuration.)**
SC870-10	B	**Address Book data error (Machine configuration: Cannot make a directory for storing the Address Book in the SD/USB FlashROM.)**
SC870-11	B	**Address Book data error (On startup: Inconsistency in Address Book entry number.)**
SC870-20	B	**Address Book data error (File I/O: Failed to initialize file.)**
SC870-21	B	**Address Book data error (File I/O: Failed to generate file.)**
SC870-22	B	**Address Book data error (File I/O: Failed to open file.)**
SC870-23	B	**Address Book data error (File I/O: Failed to write to file.)**
SC870-24	B	**Address Book data error (File I/O: Failed to read file.)**
SC870-25	B	**Address Book data error (File I/O: Failed to check file size.)**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC870-26	B	**Address Book data error (File I/O: Failed to delete data.)**
SC870-27	B	**Address Book data error (File I/O: Failed to add data.)**
SC870-30	B	**Address Book data error (Search: Failed to obtain data from cache when searching in the machine Address Book. delivery destination/sender.)**
SC870-31	B	**Address Book data error (Search: Failed to obtain data from cache during LDAP search.)**
SC870-32	B	**Address Book data error (Search: Failed to obtain data from cache while searching the WS-Scanner Address Book.)**
SC870-41	B	**Address Book data error (Cache: failed to obtain data from cache.)**
SC870-50	B	**Address Book data error (On startup: Detected abnormality of the Address Book encryption status.)**
SC870-51	B	**Address Book data error (Encryption settings: Failed to create directory required for conversion between plaintext and encrypted text.)**
SC870-52	B	**Address Book data error (Encryption settings: Failed to convert from plaintext to encrypted text.)**
SC870-53	B	**Address Book data error (Encryption settings: Failed to convert from encrypted text to plaintext.)**
SC870-54	B	**Address Book data error (Encryption settings: Detected data inconsistency when reading the encrypted Address Book.)**
SC870-55	B	**Address Book data error (Encryption settings: Failed to delete file when changing encryption setting.)**
SC870-56	B	**Address Book data error (Encryption settings: Failed to erase the file that records the encryption key during an attempt to change the encryption setting.)**
SC870-57	B	**Address Book data error (Encryption settings: Failed to move a file during an attempt to change the encryption setting.)**
SC870-58	B	**Address Book data error (Encryption settings: Failed to delete a directory during an attempt to change the encryption setting.)**
SC870-59	B	**Address Book data error (Encryption settings: Detected a resource shortage during an attempt to change the encryption setting.)**
SC870-60	B	**Address Book data error (Unable to obtain the on/off setting for administrator authentication (06A and later).)**
		When an error related to the Address Book is detected during startup or operation.
		• Software bug

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Inconsistency of Address Book source location (machine/delivery server/LDAP server) • Inconsistency of Address Book encryption setting or encryption key (NVRAM or HDD was replaced individually without formatting the Address Book) • Address Book storage device (SD/HDD) was temporarily removed or hardware configuration does not match the application configuration. • Address Book data corruption was detected.
		Install the device that contains address book information properly, and turn the main power off/on. If SC occurs again, do the following steps. **1.** After installing the HDD, or SD/USB ROM, execute SP5-846-046. **2.** Wait more than 3 seconds, then execute SP5-832. **3.** Cycle the main power OFF and ON. **Procedure after SC870 is cleared** **1.** If there is backup data in SD card or Web Image Monitor, restore the address book data. (To restore from SD card, enter the encryption password which is the same as when you enter to backup.)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC871-00	D	**FCU Error**
		An error occurred when FCU defective.
		• Time-out error • Abnormal Parameter
		1. Cycle the main power OFF and ON. **2.** Update the firmware if more recent firmware was released.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC872-00	B	**HDD Mail Reception Error**
		An error was detected on the HDD immediately after the machine was turned ON.
		• HDD defective • Power was turned OFF while the machine used the HDD.
		1. Format the HDD (SP5-832-007). **2.** Replace the HDD. When you do the above, the following information will be initialized. • Partly received partial mail messages. • Already-read statuses of POP3-received messages (All messages on the mail server are handled as new messages).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC873-00	B	**HDD Mail Reception Error**
		An error was detected on the HDD immediately after the machine was turned ON.
		• HDD defective • Power was turned OFF while the machine used the HDD.
		1. Format the HDD (SP5-832-007). **2.** Replace the HDD. When you do the above, the following information will be initialized. • Sender's mail text • Default sender name/password (SMB/FTP/NCP) • Administrator mail address • Scanner delivery history

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC874-05	D	**Delete All Error (Delete Data Area) : Read error**
SC874-06	D	**Delete All Error (Delete Data Area) : Write error**
SC874-09	D	**Delete All Error (Delete Data Area) : No response from HDD**
SC874-10	D	**Delete All Error (Delete Data Area) : Error in Kernel**
SC874-12	D	**Delete All Error (Delete Data Area) : No designated partition**
SC874-13	D	**Delete All Error (Delete Data Area) : No device file**
SC874-14	D	**Delete All Error (Delete Data Area) : Start option error**
SC874-15	D	**Delete All Error (Delete Data Area) : No designated sector number**
SC874-16	D	**Delete All Error (Delete Data Area) : failure in performing hdderase**
SC874-41	D	**Delete All Error (Delete Data Area) : Other fatal errors**
SC874-42	D	**Delete All Error (Delete Data Area) : End by cancellation**
SC874-	D	**Delete All Error (Delete Data Area) : library error**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
61 to 65		
SC874-66	D	**Delete All Error (Delete Data Area) : Unavailable**
SC874-67	D	**Delete All Error (Delete Data Area) : Erasing not finished**
SC874-68	D	**Delete All Error (Delete Data Area) : HDD format failure (Normal)**
SC874-69	D	**Delete All Error (Delete Data Area) : HDD format failure (Abnormal)**
SC874-70	D	**Delete All Error (Delete Data Area) : Unauthorized library**
SC874-99	D	**Delete All Error (Delete Data Area) : other errors**
		An error occurred while data was being erased on HDD or NVRAM.
		• Error detected in HDD data delete program • Error detected in NVRAM data delete program • The “Delete All” option was not set
		• Turn the Main Power Switch (SW1) OFF and back ON, and then execute "Erase All Memory" in UP mode again. (However, if there is a defective sector or other problem with the hard disk, the error will persist even after trying the above.) • If the "Delete All" option is not installed when this error occurs, install the option.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC875-01	D	**Bulk Data Erase Error (HDD erasure) (hddchack –i error)**
SC875-02	D	**Bulk Data Erase Error (HDD erasure) (Data deletion failure)**
		An error was detected before HDD/data erasure starts. (Failed to erase data/failed to logically format HDD)
		• HDD logical formatting failed. • The modules failed to erase data.
		1. Cycle the main power OFF and ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC876-	D	**Log Data Error**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
00		An error was detected in the handling of the log data at power on or during machine operation.
		• Damaged log data file. • Log encryption is enabled but encryption module is not installed. • Inconsistency of encryption key between NVRAM and HDD. • Software bug.
		Try the SC876-01 to -99 solutions listed below. If it is not solved, do the following steps (for when only an HDD is replaced): **1.** Disconnect the HDD and turn ON the main power. **2.** Execute SP5-801-019. **3.** Turn OFF the main power. **4.** Connect the HDD and turn ON the main power. **5.** Execute SP5-832-004. **6.** Turn OFF the main power. The following step is to configure the logging/encryption setting again. **7.** Turn ON the main power. **8.** Set SP9-730-002 through -004 to 1. **9.** Cycle the main power OFF and ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC876-01	D	**Log Data Error 1**
		An error was detected in the handling of the log data at power on or during machine operation.
		Damaged log data file
		1. Initialize the HDD (SP5-832-004).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC876-02	D	**Log Data Error 2**
		An error was detected in the handling of the log data at power on or during machine operation.
		Log encryption is enabled but encryption module is not installed.
		• Replace or set again the encryption module. • Disable the log encryption setting.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC876-03	D	**Log Data Error 3**
		An error was detected in the handling of the log data at power on or during

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		machine operation.
		Inconsistency of encryption key between NVRAM and HDD.
		• Disable the log encryption setting. • Initialize LCS memory (SP5-801-019). • Initialize the HDD (SP5-832-004).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC876-04	D	**Log Data Error 4**
		An error was detected in the handling of the log data at power on or during machine operation.
		• Log encryption key is disabled but the log data file is encrypted. (NVRAM data corruption) • Log encryption key is enabled but the log data file is not encrypted. (NVRAM data corruption)
		1. Initialize the HDD (SP5-832-004).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC876-05	D	**Log Data Error 5**
		An error was detected in the handling of the log data at power on or during machine operation.
		• Only the NVRAM has been replaced with one previously used in another machine. • Only the HDD has been replaced with one previously used in another machine.
		• Attach the original NVRAM. • Attach the original HDD. • With the configuration that caused the SC, initialize the HDD (SP5-832-004).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC876-99	D	**Log Data Error 99**
		An error was detected in the handling of the log data at power on or during machine operation.
		Other causes
		-

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC877-	B	**Data Overwrite Security Card Error**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
00		The "Auto Erase Memory" function of the Data Overwrite Security is set to on but it cannot be done.
		• Data Overwrite Security option SD card is broken. • Data Overwrite Security option SD card has been removed.
		1. If the SD card is broken, prepare a new Data Overwrite Security option SD card and replace the NVRAM. **2.** If the SD card has been removed, turn the main power OFF and reinstall a working Data Overwrite Security option SD card.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC878-00	D	**TPM Authentication Error**
		TPM electronic recognition failure
		• Update of system module attempted without correct update path • USB flash memory not operating correctly
		1. Replace the Controller Board (PCB24).

Trusted Platform Module

- In computing, Trusted Platform Module (TPM) is both the name of a published specification detailing a secure crypto processor that can store cryptographic keys that protect information, as well as the general name of implementations of that specification often called the "TPM chip" or "TPM Security Device" (as designated in certain Dell BIOS settings).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC878-01	D	**USB Flash Error**
		There is a problem in the file system of the USB flash memory.
		USB Flash system files corrupted
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC878-02	D	**TPM Error**
		An error occurred in either TPM or the TPM driver
		TPM not operating correctly
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC878-03	D	**TCSD Error**
		An error occurred in the TPM software stack.
		• TPM, TPM software cannot start • A file required by TPM is missing

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		1. Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC878-20	D	**Random Number Test Error**
		An error was detected when a random number table was generated during a self-test.
		TPM is defective
		1. Turn the main power OFF/ON. **2.** Replace the Controller Board (PCB24) if the SC occurs again.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC878-21	D	**DESS Self-test Error**
		The power-on self-test for TPM failed at startup when the controller encryption software was tested.
		TPM firmware or CPU is defective
		1. Turn the main power OFF/ON. **2.** Replace the Controller Board (PCB24).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC880-00	D	**File Format Converter Error**
		Reply to File Format Converter access was not returned within a specified time.
		File Format Converter defective
		1. Replace the File Format Converter. **2.** Remove the File Format Converter.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC881-01	D	**Management Area Error**
		• A problem was detected in the software • This error may even occur is an IC card option is not installed.
		• This is caused by accumulation of abnormal authentication information in the software. (User operation will not directly cause it.) • At login Example: When a job is sent to the printer/when logged on from the operation panel/when logged on from a Web browser
		1. Cycle the main power OFF and ON.

No.	Type	Error Name/Error Condition/Major Cause/Solution
SC890-01	A	**PaaS* Function: Tampering Detection**
		PaaS data in NVRAM and on USB flash drive do not match at startup.
		-
		Activate PaaS => Install => After successful installation, reboot. Notes on application: Before attempting recovery, check whether the device is registered to PaaS-PF. If it is, cancel the registration. The SC is resolved by rebooting after successful installation.

* PaaS stands for “Printer as a Service”. It is a remote service like the @remote service.

No.	Type	Error Name/Error Condition/Major Cause/Solution
SC890-02	D	**PaaS Function: Suspended**
		This SC occurs when the PaaS function is suspended because of an internal or external factor (receiving a request from PaaS-PF to suspend).
		-
		The warning dialog box displayed when this SC occurs contains instructions. Follow the instructions to solve the problem.

No.	Type	Error Name/Error Condition/Major Cause/Solution
SC899-00	D	**Software Performance Error (signal reception end)**
		Unknown software error occurred.
		Occurs when an internal program behaves abnormally.
		In the case of a hardware defect **1.** Replace the hardware. In the case of a software error **1.** Turn the main power OFF/ON. **2.** Try updating the firmware.

peripheral

SC9xx: Others

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC900-00	A	**Electrical Total Counter Error**
		The total counter contains data that is not a number.
		• NVRAM incorrect type • NVRAM defective or corrupted • Unexpected error from external source • When PRT received signals at SRM, the requested count did not complete.
		1. Replace the NVRAM.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC920-00	B	**Printer Application Error (no response within determined time in Printing)**
SC920-01	B	**Printer Application Error (Timeout during Printing)**
SC920-02	B	**Printer Error (WORK memory not acquired)**
SC920-03	B	**Printer Application Error (Filter process not started)**
SC920-04	B	**Printer Error (Filter processing ended abnormally)**
		When an error is detected in the application, which makes continued operation impossible.
		• Software bug • Unexpected hardware configuration (such as insufficient memory)
		1. Cycle the main power OFF and ON. **2.** Increase the memory storage capacity (Only for SC920-02).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC921-00	B	**Printer Application Error (Resident font not found)**
		Resident font was not found at printer startup.
		Preinstalled font files not found.
		1. Cycle the main power OFF and ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC925-00	B	**NetFile Function Error**
SC925-	B	**NetFile Function Error**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
01		
		The NetFile file management on the HDD cannot be used, or a NetFile management file is corrupted and operation cannot continue. The HDDs are defective and they cannot be debugged or partitioned, so the Scan Router functions (delivery of received faxes, document capture, etc.), Web services, and other network functions cannot be used. HDD status codes are displayed below the SC code:
		• HDD defective • Power loss while data was writing to HDD • Software bug
		See the table and the procedure below.

Here is a list of HDD status codes:

Display	**Meaning**
(-1)	HDD not connected
(-2)	HDD not ready
(-3)	No label
(-4)	Partition type incorrect
(-5)	Error returned during label read or check
(-6)	Error returned during label read or check
(-7)	“filesystem” repair failed
(-8)	“filesystem” mount failed
(-9)	Drive does not answer command
(-10)	Internal kernel error
(-11)	Size of drive is too small
(-12)	Specified partition does not exist
(-13)	Device file does not exist

Recovery from SC 925

Procedure 1

1. If the machine shows SC codes for HDD errors (SC860 to SC865) with SC 925, do the recovery procedures for SC860 to SC865.

Procedure 2

1. If the machine does not show one of the five HDD errors (SC860 to SC865), cycle the main power OFF/ON.
2. If this is not the solution for the problem, then initialize the NetFile partition on the HDD with SP5-832-11 (HDD Formatting - Ridoc I/F).
   NetFiles: These are jobs printed from the document server using a PC and DeskTopBinder. Before you initialize the NetFile partition on the HDD, tell the customer:

- Received faxes on the delivery server will be erased
- All captured documents will be erased
- Desk Top Binder/Print Job Manager/Desk Top Editor job history will be erased
- Documents on the document server, and scanned documents, will not be erased.
- The first time that the network gets access to the machine, the management information must be configured again (this will use a lot of time).

3. Before you initialize the Netfile partition with SP5-832-11, do these steps:
4. In the User Tools mode, do Document Management> Batch Delete Transfer Documents.
   Do SP5-832-11, and cycle the main power OFF/ON.

Procedure 3

1. If “Procedure 2” is not the solution for the problem, do SP5-832-001 (HDD Formatting - All)
2. Cycle the machine OFF/ON.

Note

- SP5-832-001 erases all document and address book data on the hard disks. Consult with the customer before you do this SP code.

Procedure 4

1. If “Procedure 3” does not solve the problem, replace the HDD.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC926-01	D	**Log Transfer Function Error**
		The capture operation timeout occurred when the capture setting and log encryption setting are ON.
		• Continuously capture data transmission failure • Continuously capture data conversion failure • Software bug
		1. Automatic reboot is performed.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-02	C	**Paper Feed Clutch (CL9) Malfunction (when not operating)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the Paper Feed Clutch (CL9) is not operating.
		• Connector disconnected • The harness is broken. • The harness is trapped. • The Paper Feed Clutch (CL9) is malfunctioning. • The Paper Feed Clutch (CL9) driver is malfunctioning. • The interlock switch is OFF.
		Check if the SC occurs by executing two-sided printing after switching the main power OFF and then back ON. If the SC occurs again, do the following steps.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and Paper Feed Clutch (CL9) connector. Take care not to bend the connector pins when reconnecting the connector. **3.** Replace the Paper Feed Clutch (CL9). **4.** Replace the harness between the BiCU (PCB1) and Paper Feed Clutch (CL9).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-03	C	**Bypass Feed Clutch (CL7) Malfunction (when not operating)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the Bypass Feed Clutch (CL7) is not operating.
		• Connector disconnected • The harness is broken. • The harness is trapped. • Bypass Feed Clutch (CL7) is malfunctioning. • Bypass Feed Clutch (CL7) driver is malfunctioning. • The interlock switch is OFF.
		Check if the SC occurs by executing two-sided printing after turning the main power OFF and then back ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and Bypass Feed Clutch (CL7) connector. Take care not to bend the connector pins when reconnecting the connector. **3.** Replace the Bypass Feed Clutch (CL7). **4.** Replace the harness between the BiCU (PCB1) and Bypass Feed Clutch (CL7).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-04	C	**Bypass Tray Lift Clutch (CL1) Malfunction (when not operating)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the Bypass Tray Lift Clutch (CL1) is not operating.
		• Connector disconnected • The harness is broken. • The harness is trapped. • Bypass Tray Lift Clutch (CL1) is malfunctioning. • Bypass Tray Lift Clutch (CL1) driver is malfunctioning.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• The interlock switch is OFF.
		Check if the SC occurs by executing two-sided printing after turning the main power OFF and then back ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and Bypass Tray Lift Clutch (CL1) connector. Take care not to bend the connector pins when reconnecting the connector. **3.** Replace the Bypass Tray Lift Clutch (CL1). **4.** Replace the harness between the BiCU (PCB1) and Bypass Tray Lift Clutch (CL1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-06	C	**Duplex Clutch (CL6) Malfunction (when not operating)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the Duplex Clutch (CL6) is not operating.
		• Connector disconnected • The harness is broken. • The harness is trapped. • Duplex Clutch (CL6) is malfunctioning. • Duplex Clutch (CL6) driver is malfunctioning. • The interlock switch is OFF.
		1. Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and Duplex Clutch (CL6) connector. Take care not to bend the connector pins when reconnecting the connector. **3.** Replace the Duplex Clutch (CL6). **4.** Replace the harness between the BiCU (PCB1) and Duplex Clutch (CL6).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-08	C	**ITB Lift Motor (M14) Malfunction (when not operating)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the ITB lift motor (M14) is not operating.
		• Connector disconnected • The harness is broken. • The harness is trapped. • ITB Lift Motor (M14) is malfunctioning.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• ITB Lift Motor (M14) driver is malfunctioning. • The interlock switch is OFF.
		Check if the SC occurs by executing two-sided printing after turning the main power OFF and then back ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and ITB Lift Motor (M14) connector. Take care not to bend the connector pins when reconnecting the connector. **3.** Replace the ITB Lift Motor (M14). **4.** Replace the harness between the BiCU (PCB1) and ITB Lift Motor (M14).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-11	C	**Toner Supply Motor (Y) (M4) Malfunction (when not operating)**
SC940-12	C	**Toner Supply Motor (M) (M3) Malfunction (when not operating)**
SC940-13	C	**Toner Supply Motor (C) (M2) Malfunction (when not operating)**
SC940-14	C	**Toner Supply Motor (K) (M1) Malfunction (when not operating)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the Toner Supply Motor is not operating.
		• Connector disconnected • The harness is broken. • The harness is trapped. • Toner Supply Motor (M1-M4) is malfunctioning. • Toner Supply Motor driver is malfunctioning. • The interlock switch is OFF.
		Check if the SC occurs by executing two-sided printing after turning the main power OFF and then back ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and Toner Supply Motor connector. Take care not to bend the connector pins when reconnecting the connector. **3.** Replace the Toner Supply Motor (M1-M4). **4.** Replace the harness between the BiCU (PCB1) and Toner Supply Motor (M1-

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		M4).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-50	C	**Optional Counter Interface Unit Error**
		Setting of the optional counter interface is ON, and register values, of the set detection signal of the optional counter interface unit, is "1" 3 times in a row.
		Driver's error of the optional counter interface
		1. Cycle the main power OFF/ON. **2.** If the problem cannot be solved, replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-52	C	**Paper Feed Clutch (CL9) Malfunction (during operation)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the Paper Feed Clutch (CL9) is operating.
		• The Paper Feed Clutch (CL9) driver is malfunctioning.
		Check if the SC occurs by executing two-sided printing after switching the main power OFF and then back ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and Paper Feed Clutch (CL9) connector. Take care not to bend the connector pins when reconnecting the connector. **3.** Replace the Paper Feed Clutch (CL9). **4.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-53	C	**Bypass Feed Clutch (CL7) Malfunction (during operation)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the Bypass Feed Clutch (CL7) is operating.
		• The Bypass Feed Clutch (CL7) driver is malfunctioning.
		Check if the SC occurs by executing two-sided printing after turning the main power OFF and then back ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and Bypass Feed Clutch (CL7) connector. Take care not to bend the connector pins when reconnecting the connector.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		3. Replace the Bypass Feed Clutch (CL7) . **4.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-54	C	**Bypass Tray Lift Clutch (CL1) Malfunction (during operation)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the Bypass Tray Lift Clutch (CL1) is operating.
		The Bypass Tray Lift Clutch (CL1) driver is malfunctioning.
		Check if the SC occurs by executing two-sided printing after turning the main power OFF and then back ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and Bypass Tray Lift Clutch (CL1) connector. Take care not to bend the connector pins when reconnecting the connector. **3.** Replace the Bypass Tray Lift Clutch (CL1). **4.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-56	C	**Duplex Clutch (CL6) Malfunction (during operation)**
		This SC occurs if the value of the register of the error detection signal is zero three times in a row when the Duplex Clutch (CL6) is operating.
		The Duplex Clutch (CL6) driver is malfunctioning.
		Check if the SC occurs by executing two-sided printing after turning the main power OFF and then back ON. If the SC occurs again, do the following steps. Check if the SC reoccurs by cycling the power after each step. **1.** Reconnect the connector to the BiCU (PCB1). Take care not to bend the connector pins when reconnecting the connector. **2.** Reconnect the relay connector and Duplex Clutch (CL6) connector. Take care not to bend the connector pins when reconnecting the connector. **3.** Replace the Duplex Clutch (CL6). **4.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-81	D	**Load SW (3.3V_L): Overcurrent Detection**
		The load SW has detected and limited overcurrent.
		• Short circuit on the BiCU (PCB1)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Short circuit in the ID Sensor (S27 to S29), or its harness
		Check whether the SC occurs by removing the CN555 connector from the BiCU (PCB1) and turning the main power OFF and then back ON. **SC does not occur:** **1.** Replace the ID Sensor (S27 to S29) or its harness. **SC occurs:** **1.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-84	D	**Load SW (3.3V_MYU): Overcurrent Detection**
		The load SW has detected and limited overcurrent.
		• Short circuit on the BiCU (PCB1) • Short circuit in the TD Sensor (S14 to S17), or its harness
		Check whether the SC occurs by removing the CN540 connector from the BiCU (PCB1) and turning the main power OFF and then back ON. **SC does not occur:** **1.** Replace the TD Sensor (S14 to S17) or its harness. **SC occurs:** **1.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-85	D	**Load SW (5V_IO): Overcurrent Detection**
		The load SW has detected and limited overcurrent.
		One of the following units or the harness connected to it has shorted: • BiCU (PCB1) • ID Chip (PCB3) • Paper End Sensor(bypass) (S6) • ITB lift HP sensor (S33) • Registration Sensor (S24) • Duplex Entrance Sensor (S1) • 1-Bin Tray Exit Sensor • Paper Feed Sensor (S31) • Tray Lift Sensor (S35) • Duplex Exit Sensor (S2) • Paper Exit Sensor (S7) • Fusing Entrance Sensor (S3) • Fusing Exit Sensor (S8)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Bypass Tray Lift Sensor (S4) • Bypass Paper Width Sensor (S5) • Fusing Thermopile (TH1) • Waste Toner Full Sensor (S36) • Tray Paper End Sensor (main unit) (S30) • Paper Transport Sensor (S1) • Key Card Option
		Check whether the SC occurs by removing each of the CN523, CN525, CN527, CN543, CN559, and CN570 connectors from the BiCU (PCB1) and turning the main power OFF and then back ON. **SC does not occur:** **1.** Check whether the SC occurs by pressing each of the above mentioned connectors and turning the main power OFF and then back ON in order to identify the malfunctioning part. Then replace the malfunctioning harness or electrical component. **SC occurs:** **1.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-86	D	Load SW (5V_SCN1): Overcurrent Detection
		The load SW has detected and limited overcurrent.
		One of the following units or the harness connected to it has shorted: • BiCU (PCB1) • SBU (PCB11) • Scanner HP Sensor (S20) • ADF Motor (M8) • Registration Sensor (ADF) (S24) • ADF top cover sensor (S23) • Original Feed Sensor (S25) • Double-feed Sensor (MFTB/ URRB) (PCB14, PCB15)
		Check whether the SC occurs by removing each of the CN400, CN403, and CN404 connectors from the BiCU (PCB1) and turning the main power OFF and then back ON. **SC does not occur:** **1.** Check whether the SC occurs by pressing each of the above mentioned connectors and turning the main power OFF and then back ON in order to identify the malfunctioning part. Then replace the malfunctioning harness or electrical component.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		SC occurs: **1.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC940-87	D	**Load SW5 (Optional PFU): Overcurrent Detection**
		The load SW has detected and limited overcurrent
		• Short circuit on the BICU. • Short circuit on the Controller Board in the optional PFU. • Shorted harness in the optional PFU.
		Check whether the SC occurs by removing the CN559 connector from the BiCU (PCB1) and turning the main power OFF and then back ON. **SC does not occur:** **1.** Replace the Controller Board (PCB24) or the harness in the optional PFU. **SC occurs:** **1.** Replace the BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC990-00	D	**Software Operation Error**
		Software attempted an unexpected operation.
		• Parameter error • Internal parameter error • Insufficient work memory • Operation error caused by abnormalities that are normally undetectable.
		1. Cycle the main power OFF/ON. **2.** Reinstall the software of the controller and BiCU (PCB1).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC991-00	C	**Recoverable Software Operation Error**
		Software attempted an unexpected operation. SC991 covers recoverable errors as opposed to SC990.
		• Parameter error • Internal parameter error • Insufficient work memory • Operation error caused by abnormalities that are normally undetectable.
		Logging only.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC992-00	D	**Undefined SC Issued**
		An SC, that is not controlled by the system, occurred.
		• An SC for the previous model was used mistakenly, etc. • Basically a software bug.
		1. Cycle the main power OFF/ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC994-00	C	**Application Item Error**
		The numbers of executed application items on the operation panel reach the maximum limit for the operation panel structure.
		Too many executed application items
		Logging only

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC997-00	D	**Application Function Selection Error**
		• The application has not responded to the set command created by SCS within a certain period of time. • The application selected ended abnormally.
		Software bug
		1. Check whether an option required by the application (RAM, DIMM, board) is installed properly. **2.** Check whether downloaded applications are correctly configured. (Take necessary countermeasures specific to the application in which the error occurs. In some applications, the logs can be taken from the monitor. If this option is available, analyze the logs.)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC998-00	D	**Application Start Error**
		• After power on, no application program is registered to the system within a predetermined period of time. (no application starts or ends normally.) • Even if they are started, all applications have become unable to be rendered due to an unknown defect.
		• Software bug • An option required by the application (RAM, DIMM, board) is not installed properly
		1. Turn the main power switch (SW1) OFF and ON. **2.** Check whether an option required by the application (RAM, DIMM, board) is

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		installed properly. **3.** Check whether downloaded applications are correctly configured. **4.** Replace the Controller Board (PCB24).

Process Control Error Conditions

Process Control Self-Check Result

Displayed number shows results of each color sensor check.

00000000 = YYCCMMKK

SP3-012-001 to -010 (Process Control Execute Result)

No.	Result	Description	Possible Causes/Action
11	Successfully completed	Process control self-check successfully completed.	Check the Vsg adjustment. See the "Vsg Adjustment Result" following this table.
41 to 42	Vt error	Vt maximum or minimum error is detected.	• Defective development unit Vt maximum error and an image is faint: 1. Replace the toner supply pump unit. Vt maximum error and an image is O.K: 1. Replace the development unit. 2. Replace the BiCU (PCB1). Vt minimum error: 1. Replace the development unit. 2. Replace the BiCU board.
45	P_Pattern detect error	Not read TonerPatch	Same as 53
53	ID sensor coefficient (K5) detection error	Not enough data can be sampled.	• Solid image is not sufficient density: 1. Retry the process control. 2. Replace the ID sensors (S27-S29). 3. Replace the BiCU (PCB1). • Solid image is O.K. 1. Replace the ID sensors (S27-S29). 2. Replace the BiCU (PCB1). • ID sensors (S27-S29) are dirty:

No.	Result	Description	Possible Causes/Action
			1. Clean the ID sensors (S27-S29). 2. Retry the process control.
54	ID sensor coefficient (K5) maximum/ minimum error	When the K5 is more than the value of SP3-362-003 or less than the value of SP3-362-004, the error 54 is displayed.	• ID sensor pattern density is too high or low. • ID sensors (S27-S29) or shutter are defective. Same as 53
55	Gamma error: Maximum	Gamma is out of range. 5.0 < Gamma	• ID sensor pattern density is too high. • Hardware defective. Same as 53
56	Gamma error: Minimum	Gamma is out of range. Gamma < 0.15	• ID sensor pattern density is too low. • Hardware defective. 1. Same as 53 2. Replace the toner supply pump unit.
57	Vk error: Maximum	Vk is out of range. 150 < Vk	• ID sensor pattern density is too low. • Hardware defective. Same as 53
58	Vk error: Minimum	Vk is out of range. Vk < –150	• ID sensor pattern density is too high. • Background dirty • Hardware defective Same as 53
59	Sampling data error during gamma correction	Not enough data can be sampled during the gamma correction.	• ID sensor pattern density is too high or low. • Hardware defective Same as 53
99	Unexpected error	Process control fails.	• Power Failure Check the power source.

Vsg Adjustment Result

SP3-323-001 to -010 (Vsg Adjustment Result)

No.	Result	Description	Possible Causes/Action
1	O.K	Vsg adjustment is correctly done.	-
2	ID sensor adjustment error	Vsg cannot be adjusted within 4.0 ±0.5V.	• Dirty ID sensors (S27-S29) (toner, dust, or foreign material) • Dirty transfer belt • Scratched image transfer belt • Defective ID sensors (S27-S29) • Poor connection • Defective BiCU (PCB1) 1. Clean the ID sensors (S27-S29). 2. Check the belt cleaning. Clean or replace the transfer belt. 3. Replace the image transfer belt. 4. Replace the ID sensors (S27-S29). 5. Check the connection. 6. Replace the BiCU (PCB1).
3	ID sensor output error	ID sensor output is more than "Voffset Threshold" (SP3-324-004)	• Defective ID sensors (S27-S29) • Poor connection • Defective BiCU (PCB1) 1. Replace the ID sensors (S27-S29). 2. Check the connection. 3. Replace the (PCB1).
9	Vsg Adjustment error	Vsg adjustment has not been completed.	• Other cases Retry SP3-321-010.

Line Position Adjustment Result

SP2-194-010 to -012 (Line Position Adjustment Result: M, C, Y)

This SP shows the number as a line position adjustment result on the LCD. It shows which color has an error (M, Y or C).

No.	Result	Description	Note
0	Not done	Line position adjustment has not been done.	-
1	Completed successfully	Line position adjustment has correctly been done,	-
2	Cannot detect patterns	ID sensors (S27-S29) have not detected the patterns for line	See

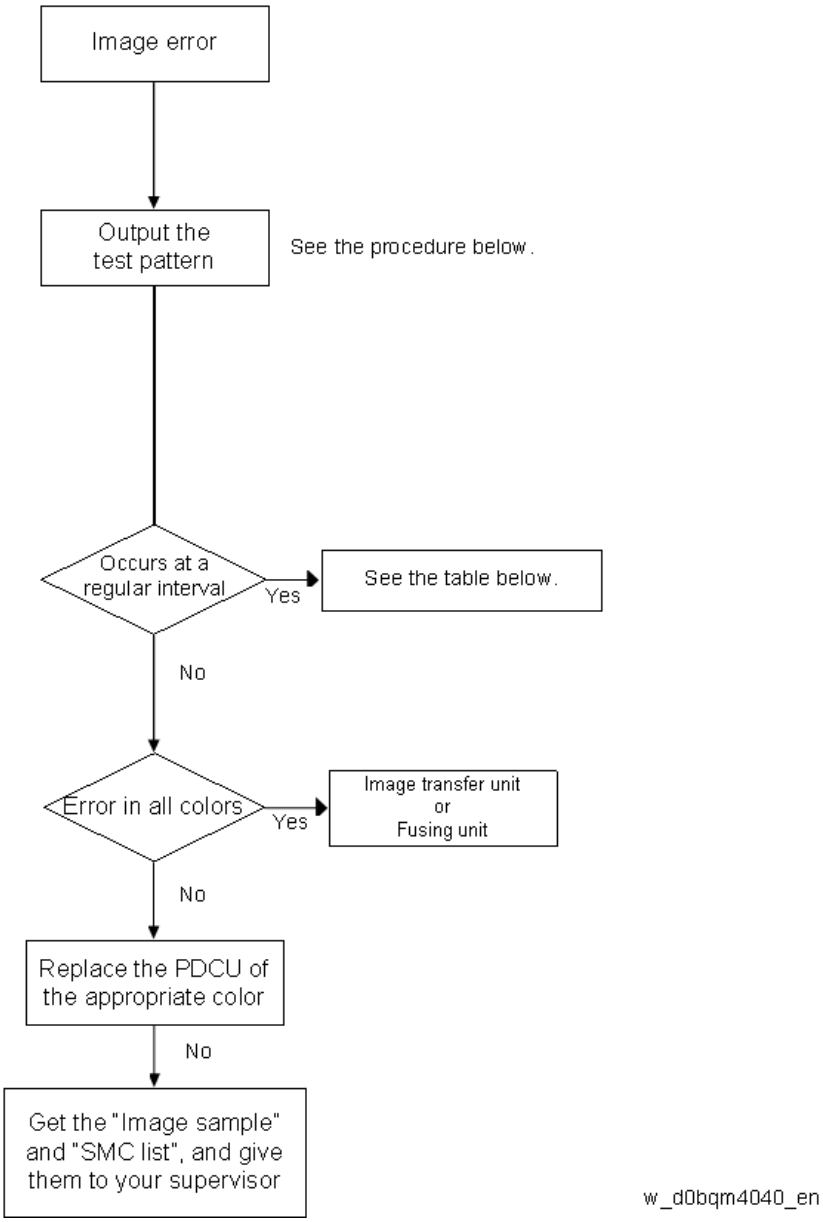
No.	Result	Description	Note
		position adjustment.	Note
3	Fewer lines on the pattern than the target	The patterns, which ID sensors (S27-S29) have detected, are not enough for line position adjustment.	See Note
4	More lines on the pattern than the target	Not used in this machine.	-
5	Out of the adjustment range	ID sensors (S27-S29) have correctly detected the patterns for line position adjustment, but a shift of patterns is out of adjustable range.	See Note
6-9	Not used	-	-

Note

- For details, see the "Line Position Adjustment" section.

Troubleshooting for Image Quality Problems

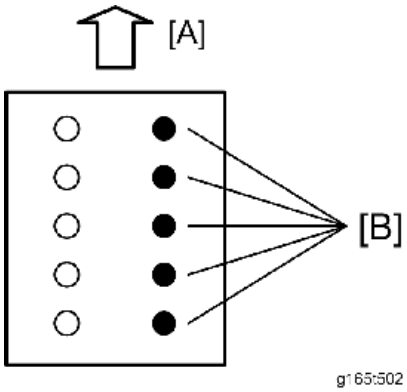
Flowchart for Identifying Unit Causing Image Quality Degradation (Problem at Regular Intervals)



Overview

Image problems may appear at regular intervals that depend on the circumference of certain components.

The following diagram shows the possible symptoms (black or white dots at regular intervals).



[A]: Paper feed direction

[B]: Problems at regular intervals

How to Print Test Pattern

1. Enter the SP mode, and then select **SP2-109-003**.
2. Select the test pattern to print from the list, and then press [OK].
   - "13 (Independent Pattern (4dot))" pattern is recommended to identify the problem color.
3. Select **SP2-109-005** (1: Full Color, 2: Cyan, 3: Magenta, 4: Yellow, 5: Black) to select the printing color.
4. To change the density of test pattern, select density with **SP2-109-006** to **009** for each color.
   If select "0" with **SP2-109-006** through 009, the color adjusted so will not show up in the test pattern.
5. Press "Copy Window", then specify the settings on the copier application for test print (paper size etc…).
6. Press "Start" to start the test print.

Interval (pitch)	Target part	Replacement part	Roller R (phi)
26.7mm	Charge roller cleaner	PCDU (Photo Conductor and Development Unit)	8.5mm
50.4mm	lubricant roller (Brush		10mm
33.7mm	roller)	PCDU (Photo Conductor and Development Unit)	10.73mm
55mm	Charge roller		17.5mm
68.5mm	Paper transfer roller	PCDU (Photo Conductor and Development Unit)	21.664mm
22.5mm	ITB drive roller		12mm
22.5mm	Development roller (K)	Paper Transfer Roller Unit	12mm
75.3mm	Development roller	ITB (Image Transfer Belt) Unit	24mm
78.5mm	(CMY)	PCDU (Photo Conductor and Development Unit) (K)	25mm
78.5mm	Drum		25mm
749.9mm	Fusing sleeve belt	PCDU (Photo Conductor and Development Unit) (CMY)	
	Pressure roller		
	Image transfer belt	PCDU (Photo Conductor and Development Unit)	

Interval (pitch)	Target part	Replacement part	Roller R (phi)
		Fusing Sleeve Belt Assembly, or Fusing Unit Pressure Roller, or Fusing Unit ITB (Image Transfer Belt) Unit	

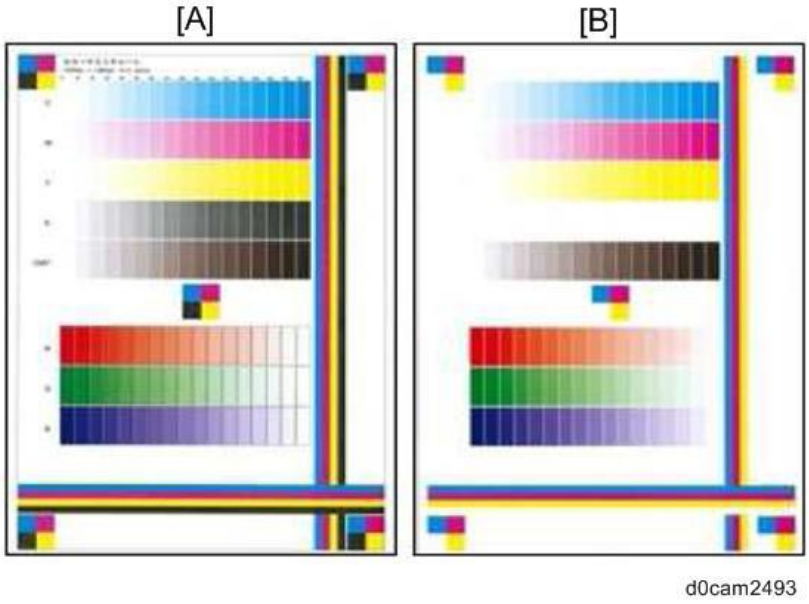
Only Black Is Not Printed

Symptom

Black cannot be printed.

[A]: Normal

[B]: Problem evident



Possible cause

The ITB contact/release lever is not set to the proper position.

Note

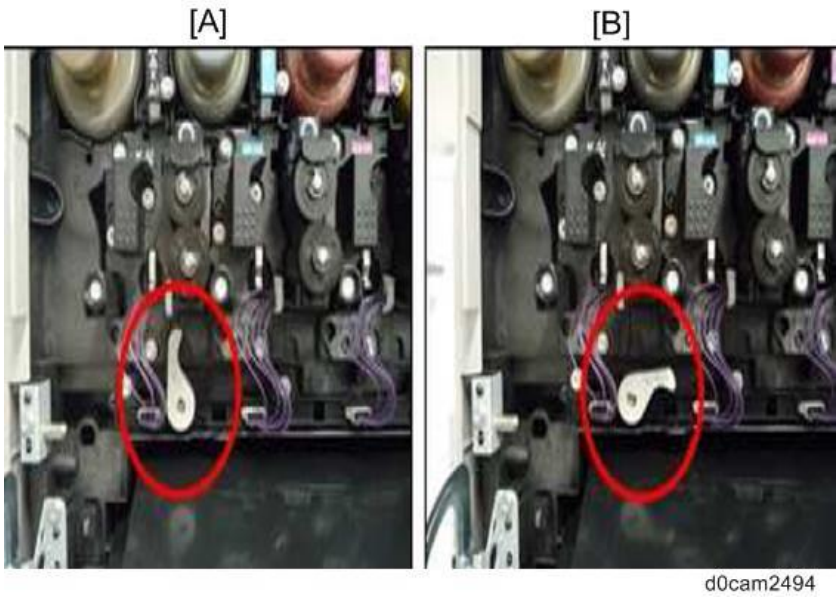
- If the ITB contact/release lever is not set to the proper position, by setting the waste toner bottle all the way, the lever is automatically set to the proper position. However, it may be possible to close the front cover without inserting the waste toner bottle all the way through. If it is, black cannot be printed because the image transfer belt and drum are separated.

Necessary actions

Set the ITB contact/release lever to the proper position.

[A]: The lever is set to the proper position.

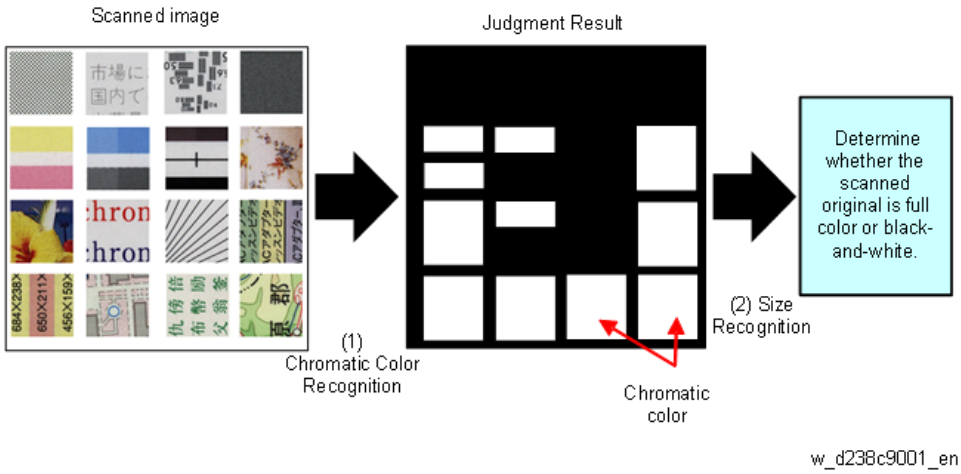
[B]: The lever is not set to the proper position.



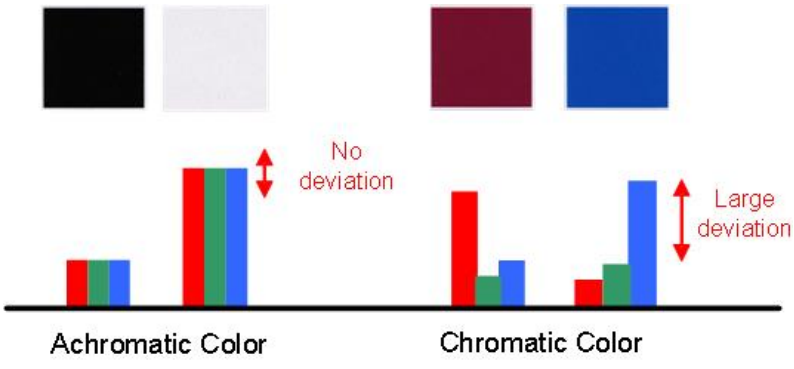
Misrecognition of Auto Color Selection When Scanning Originals

Overview of Auto Color Selection

In Auto Color Selection (ACS) mode, 2 processes are carried out, namely (1) Chromatic Color Recognition and (2) Size Recognition, to determine whether the scanned original is full color or black-and-white.



In (1) Chromatic Color Recognition, each pixel is assessed for whether it has a chromatic color or not according to its RGB deviation.



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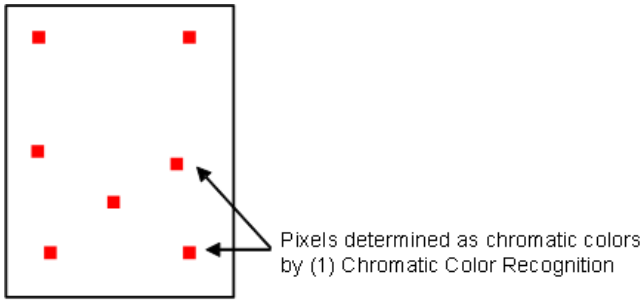
By (2) Size Recognition, whether the original is recognized as full color or black-and-white depends on the continuity of the chromatic color in (1) Chromatic Color Recognition.
The original is recognized to be full color only if chromatic color pixels are detected continually. If interspersed minute chromatic color pixels are detected (as shown below), the original is not recognized as a full color original.



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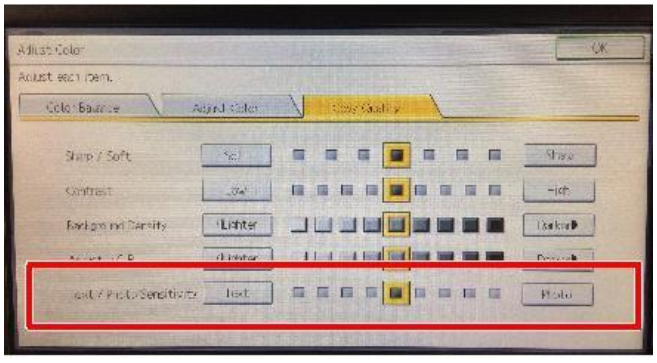
UP settings: Processed according to the color recognition

In “A.C.S. Sensitivity”, you can adjust the level of (2)Size Recognition for recognizing whether the original is full color or black-and-white.
From both Copier or Scanner application, you can specify this setting in the 5-level scale, from 0 (Black & White) to 4 (Full Color).

Note

- Adjust the A.C.S. Sensitivity in Classic (Legacy UI) copier or scanner. There is no 5-level scale in New (Simple UI) Copier or Scanner application.



d0bqm0506

SP mode: Color Recognition: adjusting the color range

Using SP4-939-001 (ACS:Color Range), you can adjust the level of (1) Chromatic Color Recognition for recognizing whether the original is full color or black-and-white.
This is the SP for both copier and scanner settings, and you can adjust this setting with the 5-level scale from -2 to 2 (Default: 0).
If an original with a colored background fails to be recognized as a black-and-white original by ACS, set the value of this SP to “-1” or “-2”.
If an original with a gray or faintly colored background fails to be recognized as a full color original by ACS, set the value of this SP to “1” or “2”.

Misrecognition of Auto Color Selection (Copy/Scanner)

In the Auto Color Selection (hereafter called ACS) mode, if copying or scanning an original on which color is printed only on the edge, the original will be misrecognized as monochrome. If so, color is not printed on the output.

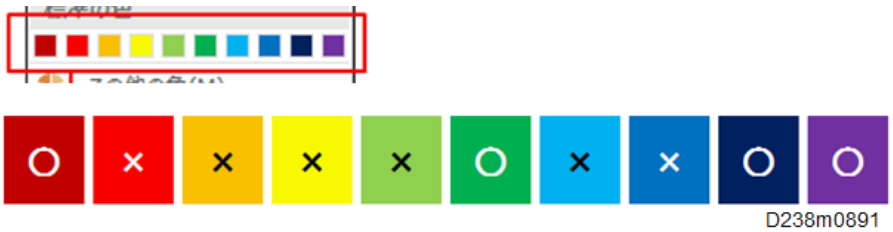
Error Condition

Copy Application

The misrecognition occurs when copying an original which has color at the edge, and that color is printed on the output 10 mm from the edge in the ACS mode.
When using the copy application, if the original is recognized as monochrome, color on the document may not be printed on the output. When printing the standard 10 colors used in Microsoft Office Word 2013 (an example is shown below), the following colors with the "x" mark will disappear if the document is recognized as monochrome in the ACS mode.

Note

- Colors with the "x" mark will not be printed if the document is recognized as monochrome. The result may differ depending on the equipment status or environment.



Scanner Application

The misrecognition occurs when scanning an original which has color only 15 mm from the edge (using the original as a standard) in the ACS mode.

Cause

In the ACS mode, the edge of the original is not recognized. Only the center part of the original document is the target area to recognize color or monochrome (in order to prevent misrecognition due to noise).

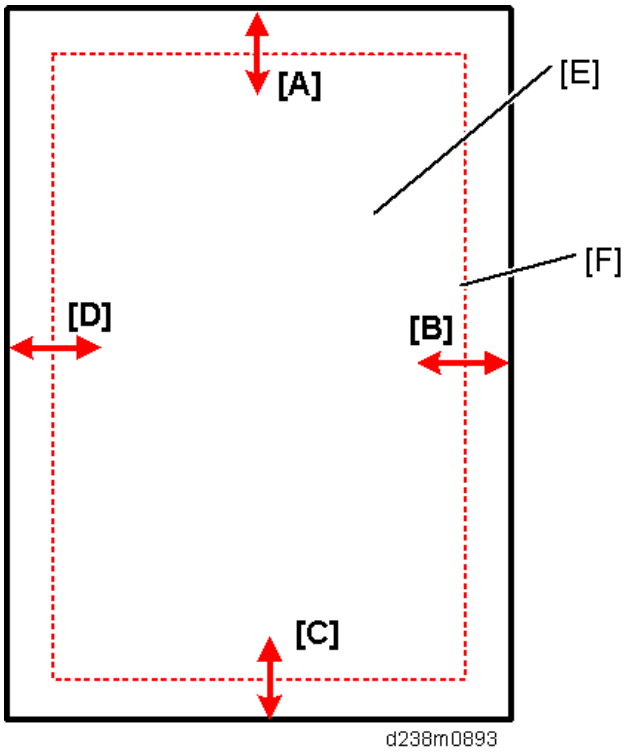
When copying in the ACS mode, ACS recognition and the image processing equivalent to full color is performed simultaneously. If recognized as monochrome in the ACS recognition, color without a K component will not be printed.

Countermeasure

Change the ACS area excluded from recognition with the following SP settings.

The smaller the value, the smaller the ACS area excluded from recognition becomes, which enables the document to be recognized as color.

SP No.	SP Name	Def.	Max.	Min.
4-938-001	ACS:Edge Mask Copy:Sub LEdge	15	0	31
4-938-002	ACS:Edge Mask Copy:Sub TEdge	10	0	31
4-938-003	ACS:Edge Mask Copy:Main LEdge	10	0	31
4-938-004	ACS:Edge Mask Copy:Main TEdge	10	0	31
4-938-005	ACS:Edge Mask Scan:Sub LEdge	15	0	31
4-938-006	ACS:Edge Mask Scan:Sub TEdge	15	0	31
4-938-007	ACS:Edge Mask Scan:Main LEdge	15	0	31
4-938-008	ACS:Edge Mask Scan:Main TEdge	15	0	31



[A]: Sub scan direction: leading edge (left)

[B]: Main scan direction (front)
[C]: Sub scan direction: leading edge (right)
[D]: Main scan direction (rear)
[E]: Paper
[F]: ACS area excluded from recognition

Note

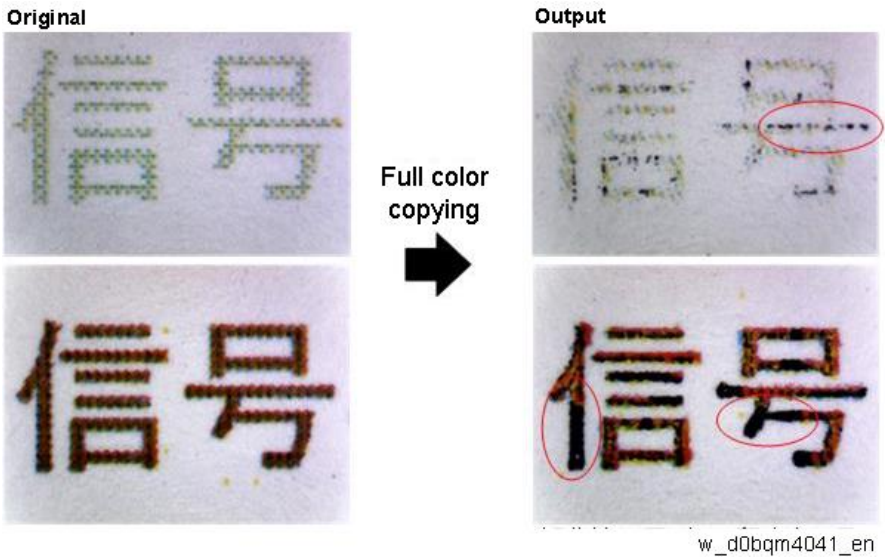
- Because the edge of the original is subject to noise, color misrecognition may occur after setting these SPs smaller than the defaults. In this case, in order to avoid complaints concerning extra cost, be sure to ask the customer for permission before changing these SP settings.

Failure to Reproduce Colored Text During Color Copying

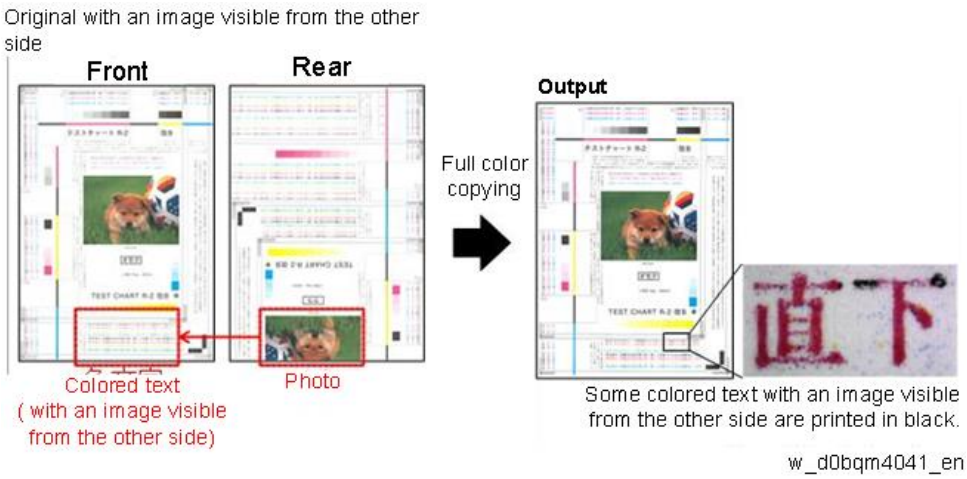
Some colored text is printed in black.

Condition

This occurs when copying an original including faintly colored text or dark colored text in Full Color / Auto Color Selection / Two-Color mode. (The following figure shows an example of colored text being printed in black.)



This occurs when copying an original with an image visible from the other side (colored text printed on the paper with relatively thick-colored photos or graphs) in Full Color / Auto Color Selection / Two-Color mode. (The following figure shows an example of an original with an image visible from the other side.)



Cause

In the copier image processing, text areas and color areas are extracted from the scanned image of the original.

This extraction is called “image area separation”. The area recognized as black text (text area and black and white area) is printed in black only.

Cause 1

To prioritize the image of the black text and prevent erroneously extracting the black text as the colored text area, slight colored areas on scanned black text are recognized as black text.

Therefore, faint colors and low chroma colors (or achromatic color) may be partly erroneously recognized as black text and printed with black only.

Cause 2

Colored text with an image visible from the other side, which is scanned darkly compared to colored text without an image visible from the other side, may be partly erroneously recognized as black text and printed with black only.

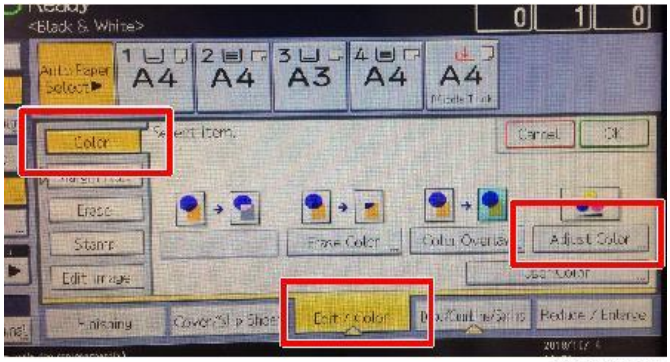
Solution

By setting the value closest to [photo], the entire image is equally processed as an image instead of processing areas separately, thus preventing colored text from being printed in black.

Note

- Adjust the Text/Photo Sensitivity in Classic mode (Legacy UI) copier or scanner. There is no 5-level scale in New (Simple UI) Copier or Scanner application.

1. Press [Edit / Color].
2. Select the [Color] tab.
3. Select [Adjust Color].



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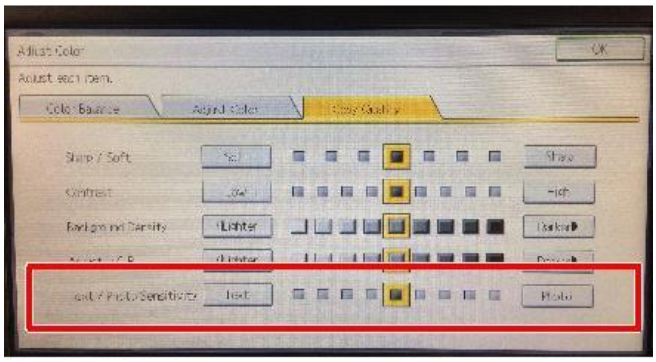
4. Select the [Color Quality] tab, and then set the value in [Text/Photo Sensitivity] closest to [Photo].



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Line Position Adjustment

When there are color registration errors on the output, do the line position adjustment as follows.

Test

1. Do SP2-111-003 (Mode c: rough adjustment).
2. Use SP2-194-007 to check if the result of the line position adjustment is correct (0: Completed successfully, 1: Not completed). If the result is "1", refer to ‘Countermeasure list for color registration errors’.
3. Do SP2-111-001 (Mode a: fine adjustment twice).
4. Use SP2-194-007 to check if the result of the line position adjustment is correct (0: Completed successfully, 1: Not completed). If the result is "1", refer to ‘Countermeasure list for color registration errors’.
5. Put some A4/LT paper on the bypass tray.

Note

- When you print a test pattern, use the bypass tray to feed the paper.

6. Print out test pattern "7" with SP2-109-003.
7. Check the printed output with a loupe.
8. If there are no color registration errors on the output, the line position adjustment is correctly done. If not, refer to the countermeasure list for color registration errors.

Countermeasure List for Color Registration Errors

After Executing SP2-111-003

- Result: "1" in SP2-194-007
- Result: "2" or "3" (Line pattern detection failure) in SP2-194-010, -011, -012

Test pattern check	Possible cause/Countermeasure
White image, Abnormal image, Low density	• Defective image processing unit • Low density of test pattern • Defective BiCU (PCB1)
	1. Replace the high-voltage power supply unit (PCB22)(PCB23). **2.** Do the forced process control (SP3-011-001) or supply some toner (SP3-030-xxx). **3.** Replace the BiCU (PCB1).
Normal image, but with color registration errors	• Defective ID sensor shutter • Defective ID sensors (S27-S29) • Defective BiCU (PCB1)
	1. Replace the ID sensor shutter solenoid (SOL2). **2.** Replace the ID sensors (S27-S29). **3.** Replace the BiCU (PCB1).

After Executing SP2-111-003

- Result: "1" in SP2-194-007
- One of results: "5" (Out of adjustable range) in SP2-194-010, -011, -012, -013

Test pattern check	Possible cause/Countermeasure
The main scan registrations of M, C, Y, K are shifted by more than ±15.	• Defective laser unit • Defective BiCU (PCB1)
	1. Perform the color skew adjustment (Image Adjustment). **2.** Replace the laser unit. **3.** Replace the BiCU (PCB1).
The sub scan registrations of M, C, Y, K are shifted by more than ±20.	• Defective image transfer belt • Defective drive units • Defective BiCU (PCB1)
	1. Replace the image transfer belt. **2.** Replace the drum motor (M10,M11). **3.** Replace the BiCU (PCB1).
The main scan registration is shifted by more than ±0.66 mm, but only at the central area of the image on the	• Defective ID sensor (S28) at center • Deformed center area on the

Test pattern check	Possible cause/Countermeasure
output.	image transfer belt • Defective BiCU (PCB1)
	1. Replace the ID sensors (S27-S29). **2.** Replace the image transfer belt. **3.** Replace the BiCU (PCB1).
The skew for M, C, Y, K is more than ±0.75 mm.	• Defective PCDU • Defective laser optics housing unit • Defective BiCU (PCB1)
	1. Perform the color skew adjustment (Image Adjustment). **2.** Reinstall or replace the PCDU. **3.** Replace the laser optics housing unit. **4.** Replace the BiCU (PCB1).
Others	• Skew correction upper limit error • Defective BiCU (PCB1) • Defective laser optics housing unit
	1. Perform the color skew adjustment (Image Adjustment). **2.** Replace the BiCU (PCB1). **3.** Replace the laser optics housing unit.

After Executing SP2-111-003

- Result: "1" in SP2-194-007
- Result: "0" in SP2-194-010, -011, -012, -013

Test pattern check	Possible cause/Countermeasure
	Do SP2-111-001 or -002.

After Executing SP2-111-001

- Result: "1" in SP2-194-007
- Result: "2" or "3" (Line pattern detection failure) in SP2-194-010, -011, -012, -013

Test pattern check	Possible cause/Countermeasure
White image, Abnormal image, Low density	• Defective laser optics housing unit shutter • Defective image processing unit • Low density of test pattern • Defective BiCU (PCB1)
	1. Replace the ID sensor shutter solenoid (SOL2). **2.** Replace the high-voltage power supply unit

Test pattern check	Possible cause/Countermeasure
	(PCB22)(PCB23). **3.** Do the forced process control (SP3-011-001) or supply some toner (SP3-030-xxx). **4.** Replace the BiCU (PCB1).
Normal image, but with color registration errors	**1.** Defective ID sensor shutter **2.** Defective ID sensors (S27-S29) **3.** Defective BiCU (PCB1)
	1. Replace the ID sensor shutter solenoid (SOL2). **2.** Replace the ID sensors (S27-S29). **3.** Replace the BiCU (PCB1).

After Executing SP2-111-001

- Result: "1" in SP2-194-007
- Result: "5" (Out of adjustable range) in SP2-194-010, -011, -012

Test pattern check	Possible cause/Countermeasure
Low image density on the output	• Low pattern density
	Do the forced process control (SP3-011-001) or supply some toner (SP3-030-xxx).
The main scan registrations of M, C, Y, K are shifted by more than ±1.4.	• Defective laser optics housing unit • Defective BiCU (PCB1)
	1. Do SP2-111-003 again. **2.** Replace the laser optics housing unit. **3.** Replace the BiCU (PCB1).
The sub scan registrations of M, C, Y are shifted by more than ±1.4mm from the sub scan registration of K.	• Defective image transfer belt • Defective drive units • Defective BiCU (PCB1)
	1. Do SP2-111-003 again. **2.** Replace the image transfer belt. **3.** Replace the drum motor (M10,M11). **4.** Replace the BiCU (PCB1).
The main scan registration is shifted by more than ±0.66 mm, but only at the central area of the image on the output.	• Defective ID sensor (S28) at center • Deformed center area on the image transfer belt • Defective BiCU (PCB1)
	1. Replace the ID sensors (S27-S29). **2.** Replace the image transfer belt. **3.** Replace the BiCU (PCB1).
The skew for M, C, Y, K is more than ± 0.75 mm at	• Defective PCDU

Test pattern check	Possible cause/Countermeasure
the end of the scan line?	• Defective laser optics housing unit • Defective BiCU (PCB1)
	1. Perform the color skew adjustment (Image Adjustment). **2.** Reinstall or replace the PCDU. **3.** Replace the laser optics housing unit. **4.** Replace the BiCU (PCB1).
Others	• Skew correction upper limit error • Defective BiCU (PCB1) • Defective laser optics housing unit
	1. Replace the BiCU (PCB1). **2.** Perform the color skew adjustment (Image Adjustment). **3.** Replace the laser optics housing unit.

After Executing SP2-111-001

- Result: "0" in SP2-194-007
- Result: Color registration errors in SP2-194-010, -011, -012, -013

Test pattern check	Possible cause/Countermeasure
Low image density on the output	• Low pattern density
	Do the forced process control (SP3-011-001) or supply some toner (SP3-030-xxx).
The main scan registration is shifted, but only at the central area of the image on the output.	• Defective ID sensor (S28) at center • Deformed center area on the image transfer belt • Defective BiCU (PCB1)
	1. Replace the ID sensors (S27-S29). **2.** Replace the image transfer belt. **3.** Replace the BiCU (PCB1).
The main scan registrations of M, C, Y, K are shifted.	• Defective laser optics housing unit • Defective ID sensors (S27-S29) • Defective BiCU (PCB1) • Incorrect SP value
	1. Perform the color skew adjustment (Image Adjustment). **2.** Replace the laser optics housing unit. **3.** Replace the ID sensors (S27-S29). **4.** Replace the BiCU (PCB1). **5.** Adjust the value with SP2-182-004 to -021.

Test pattern check	Possible cause/Countermeasure
The sub scan registrations of M, C, Y, K are shifted.	• Defective image transfer belt • Defective drive units • Defective ID sensors (S27-S29) • Defective BiCU (PCB1) • Incorrect SP value
	1. Replace the image transfer belt. **2.** Replace the ID sensors (S27-S29). **3.** Replace the drum motor (M10,M11). **4.** Replace the BiCU (PCB1). **5.** Adjust the value with SP2-182-022 to -039.
The skew of M, C, Y, K is different.	• Defective PCDU • Defective laser optics housing unit • Defective BiCU (PCB1)
	1. Reinstall or replace the PCDU. **2.** Perform the color skew adjustment (Image Adjustment). **3.** Replace the laser optics housing unit. **4.** Replace the BiCU (PCB1).
The sub scan lines are shifted. Shifted lines appear cyclically.	• Defective PCDU • Defective drive unit • Drum phase adjustment error
	1. Reinstall or replace the PCDU. **2.** Check or replace the drive unit.

Blank Print

Symptom	Possible cause	Necessary actions
No image is printed.	Defective laser unit	Replace the laser unit.
	Defective PCDU	Replace the PCDU.
	Defective image transfer belt unit	Replace the image transfer belt unit.
	Incorrect action of paper transfer roller	Check the guide and the paper transfer roller.
	Defective HVPS	Replace HVPS.
	Defective BiCU (PCB1)	Replace the BiCU (PCB1).

All-Black Print

Symptom	Possible cause	Necessary actions
All the paper is black.	Incorrectly installed PCDU	Install the PCDU correctly.

Symptom	Possible cause	Necessary actions
	Defective PCDU	Replace the PCDU.
	Defective HVPS	Replace the HVPS.
	Defective laser unit	Replace the laser unit.
	Defective BiCU (PCB1)	Replace the BiCU (PCB1).
	Defective main board	Replace the main board.

Missing CMY Color

Symptom	Possible cause	Necessary actions
C, M, or Y is missing.	Defective PCDU	Replace the PCDU.
	Loss of Primary Transfer HV output	Replace High-Voltage Power Supply (Transfer) (PCB23).
	Image transfer belt not contacting PCDU	Check the belt tension unit.
	Defective the drum motor (CMY) (M10)	Replace the drum motor (CMY) (M10).
	Defective BiCU (PCB1)	Replace the BiCU (PCB1).

Light Print

Symptom	Possible cause	Necessary actions
Printed images are too weak.	Loose connection between paper transfer roller and HVPS	Check the connection between the paper transfer roller and the HVPS.
	Dust in the laser beam path	Clean the laser beam path.
	Image transfer belt not contacting PCDU	Check the image transfer belt unit.
	Defective PCDU	Replace the PCDU.
	Defective paper transfer roller	Replace the paper transfer roller.
	Defective fusing unit	Replace the fusing unit.
	Defective BiCU (PCB1)	Replace the BiCU (PCB1).

Repeated Spots or Lines on Prints

The same spots or lines appear at regular intervals.

Interval	Possible cause	Necessary actions
At intervals of 33.6 mm (1.32 inches)	Defective charge roller	Replace the PCDU.
At intervals of 20.9 mm (0.82 inches)	Defective development roller	Replace the PCDU.
At intervals from 55.0 (end) to 55.4 (center)	Defective paper	Replace the paper transfer

Interval	Possible cause	Necessary actions
mm (from 2.16 to 2.18 inches)	transfer roller	roller unit.
At intervals of 75.4 mm (2.96 inches)	Defective OPC drum	Replace the PCDU.
At intervals of 78.5 mm (3.09 inches)	Defective pressure roller	Replace the pressure roller or fusing unit.
At intervals of 78.5 mm (3.09 inches)	Defective fusing belt	Replace the fusing unit.
At intervals of 40.82 mm (1.60 inches)	Defective image transfer roller	Replace the image transfer roller.

Dark Vertical Line on Prints

Symptom	Possible cause	Necessary actions
A dark line in one CMY color appears. The line is parallel to the paper feed direction.	Defective PCDU	Replace the PCDU.
A dark line in any color (not C, M, or Y) appears. The line is parallel to the paper feed direction.	Dust in the laser beam path	Clean the laser beam path.
	Defective image transfer belt unit	Replace the image transfer belt unit.
	Defective fusing unit	Replace the fusing unit.

White Horizontal Lines or Bands

Symptom	Possible cause	Necessary actions
White lines or bands appear in images.	Defective PCDU	Replace the PCDU.
	Defective image transfer belt unit	Replace the image transfer belt unit.
	Defective paper transfer roller	Replace the paper transfer roller.

Missing Parts of Images

Symptom	Possible cause	Necessary actions
Some parts of images are missing.	Defective PCDU	Replace the PCDU.
	Defective image transfer belt unit	Replace the image transfer belt unit.
	Defective paper transfer roller	Replace the paper transfer roller.
	Defective fusing unit	Replace the fusing unit.

Dirty Background

Symptom	Possible cause	Necessary actions
Backgrounds of one CMYK color are too dense.	Defective PCDU	Replace the PCDU.
Backgrounds of more than one CMYK color are too dense.	Defective HVPS	Replace the HVPS.

Partial CMY Color Dots

Symptom	Possible cause	Necessary actions
Unexpected dots of the same color appear at irregular intervals.	Defective PCDU	Replace the PCDU.
	Defective image transfer belt unit	Replace the image transfer belt unit.
	Defective fusing unit	Replace the fusing unit.

Dark Irregular Streaks on Prints

Symptom	Possible cause	Necessary actions
Unexpected streaks appear at irregular intervals.	Defective image transfer belt	Replace the image transfer belt unit.

CMY Color Irregular Streaks

Symptom	Possible cause	Necessary actions
Unexpected streaks of the same color appear at irregular intervals.	Defective PCDU	Replace the PCDU.
	Defective image transfer belt unit	Replace the image transfer belt unit.

Ghosting

Symptom	Possible cause	Necessary actions
The same or similar image appears two or more times. They get weaker and weaker.	Defective PCDU	Replace the PCDU.
	Defective transfer unit	Replace the transfer unit.

Unfused or Partially Fused Prints

Symptom	Possible cause	Necessary actions
Some parts of images are not fused very well.	Non-standard paper in use	Use recommended paper.
	Incorrect media type mode	Select an appropriate mode for the media.
	Defective fusing unit	Replace the fusing unit.

Image Skew

Symptom	Possible cause	Necessary actions
Images are skewed	Incorrect installation of paper	Install the paper correctly.
	Incorrect paper guide position	Adjust the paper guide correctly. Note • When adjusting the paper width, use the right side guide only, with the green clip. Do not hold the left side guide at this time, or skew will occur.
	Defective registration roller	Repair the paper feed unit.
	Incorrect action of paper transfer roller	Check the paper transfer roller.
	Defective BiCU (PCB1)	Replace the BiCU (PCB1).
	Incorrect installation of paper tray	Uninstall the paper tray units and re-install them.

Background Stain

Symptom	Possible cause	Necessary actions
The reverse side of the paper is not clean.	Dirty paper transfer roller	Clean the paper transfer roller.
	Dirty paper path	Clean the paper path.
	Dirty registration roller	Clean the registration roller.
	Defective fusing unit	Replace the fusing unit.

No Printing on Paper Edge

Symptom	Possible cause	Necessary actions
Images are not printed in the areas around the paper edges.	Defective PCDU	Replace the PCDU.
	Defective toner cartridge	Replace the toner cartridge.
	Defective image transfer belt unit	Replace the image transfer belt unit.
	Image transfer belt not contacting PCDU	Check the image transfer belt unit.

Image Not Centered When It Should Be

Symptom	Possible cause	Necessary actions
Images do not come to the center.	Incorrect installation of paper	Install the paper correctly.
	Incorrect paper guide position	Adjust the paper guide correctly.
	Incorrect margin setting	Adjust the margin setting.
	Defective BiCU (PCB1)	Replace the BiCU (PCB1).
	Incorrect installation of paper tray	Uninstall the paper tray units and re-install them.

Troubleshooting for Other Problems

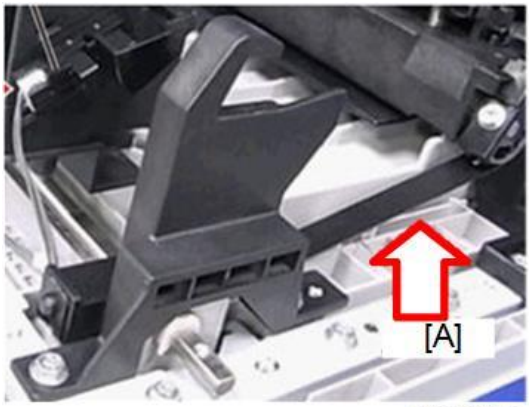
When You Cannot Open the Right Door

Problem:

The right cover (duplex unit) does not open, even if the opening/closing lever is operated.

Causes:

When replacing parts, for example, the duplex unit, hooking the hook band [A] has been forgotten, so the opening/closing lever and the duplex hook parts do not work together. (Tension is not applied.)



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Solutions:

Release the hook, and then attach the belt.

1. Pull out the paper tray.
2. Remove the front lower cover [A].

IM C300series

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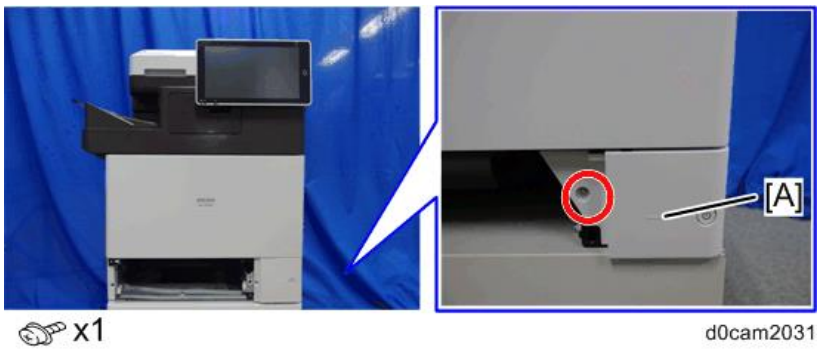
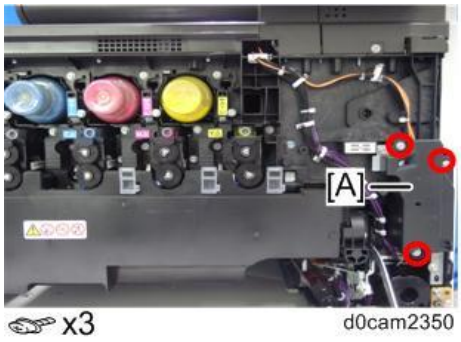
IM C400series



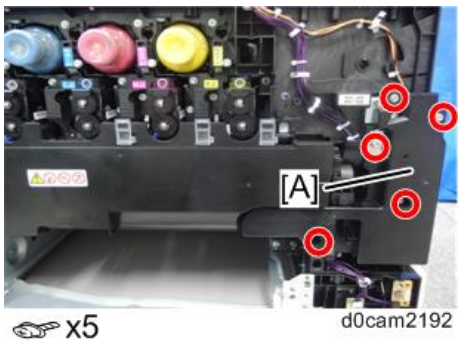
3. Remove the cover [A].

4. Remove the interlock switch cover [A].

IM C300series



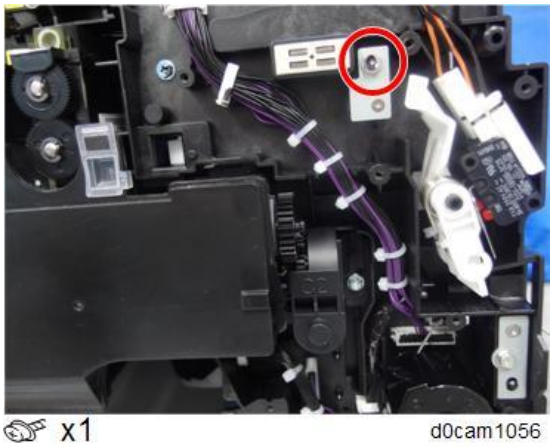
IM C400series



5. Remove the bracket. (×1)

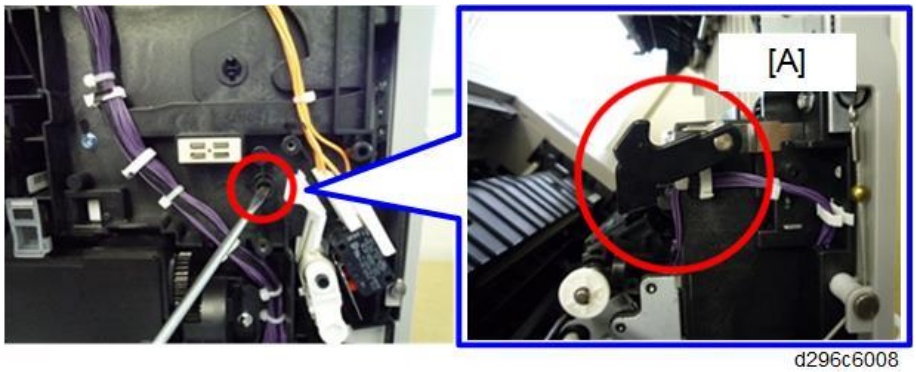
IM C300series

IM C400series

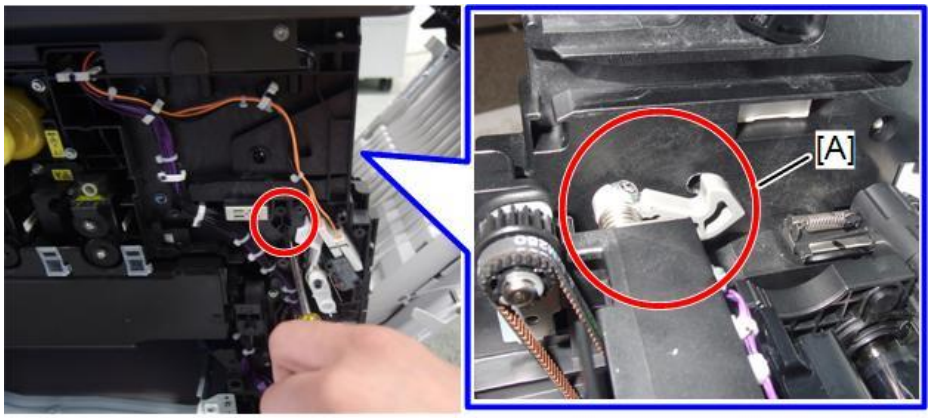


6. Release the hook [A] from the hole where the bracket was removed.

IM C300series



IM C400series



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When Fluorescent or LED Lamps Flicker

Problem:

Under the usage environment of this machine, at the placement location, fluorescent and/or LED lamps flicker.

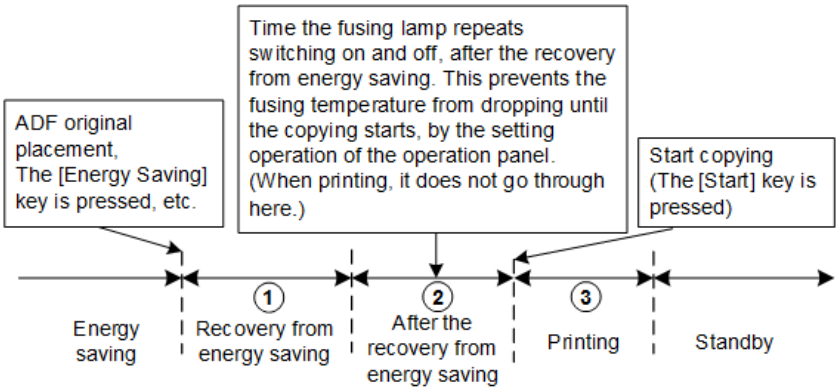
Causes:

This is a result of the voltage drop that occurs when power is applied to the fusing lamp. It depends on the electrical power environment at the customer's location.

Solutions:

The procedure varies by the flicker occurrence timing. So check the occurrence timing, and do the procedure that matches the timing.

Occurrence Timing:



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Timing	Solutions	Side Effect
① Recovery from energy saving	Set SP1-135-001 (Inrush Control) to "1 (ON)."	Recovery time from energy saving becomes slower approx. 0.9 sec.
②After the	Set SP1-135-001 (Inrush Control)	• Recovery time from energy saving becomes

Timing	Solutions	Side Effect
recovery from energy saving	to "1 (ON)." Set SP1-190-001 (Flicker Control) to "1 (ON)."	slower approx. 0.9 sec.. • If the adhesion amount of an image is large, an offset may occur. • If a fusing offset occurs, in the related SP to fusing offsets, setting values must be changed
	If the problem persists, perform the following additional steps: • Make the fusing heater turned OFF with SP1-121-001 (Switch:Rotation Start/Stop: Time:After Reload). Change this SP from "30 sec. (initial value)" to "0". Then the fusing heater does not turn ON after the warm-up mode.	The fusing temperature is lowered during the standby mode, and after the job is started, the machine takes time to rise the fusing temperature to the printable temperature. So the printing takes approx. 1 or 2 seconds longer to complete.
③Printing	Set SP1-190-001 (Flicker Control) to "1 (ON)".	• If the adhesion amount of an image is large, an offset may occur. • If a fusing offset occurs, in the related SP to fusing offsets, setting values must be changed.

Related SP to Fusing Offsets

SP Name	SP No.	Value
Print Target Temp.:Plain1:FC:Center	SP1-105-001	As initial values + 10 °C are the upper limits, change values to improve offsets.
Print Target Temp.:Plain1:BW:Center	SP1-105-003	
Print Target Temp.:Plain2:FC:Center	SP1-105-005	
Print Target Temp.:Plain2:BW:Center	SP1-105-007	
Print Target Temp.:Thin:FC:Center	SP1-105-009	
Print Target Temp.:Thin:BW:Center	SP1-105-011	
Print Target Temp.:M-thick:FC:Center	SP1-105-013	
Print Target Temp.:M-	SP1-105-	

SP Name	SP No.	Value
thick:BW:Center	015	

When Abnormal Noise Occurs

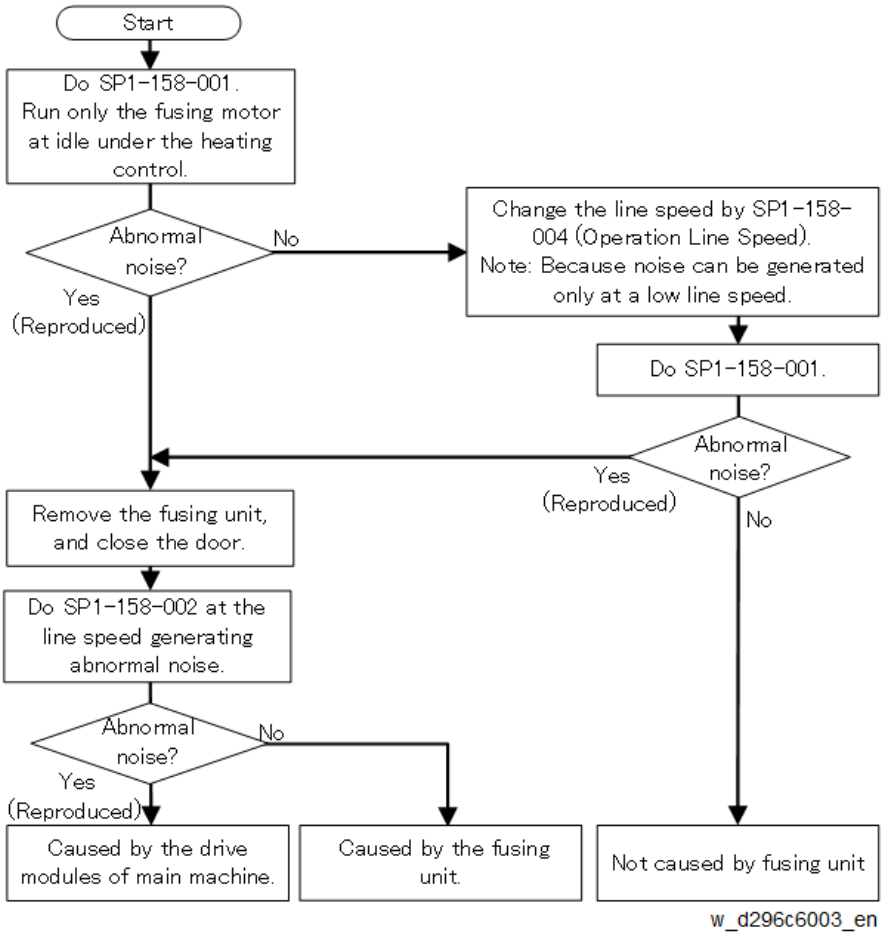
When abnormal noise occurs while the machine is operating, identify where the noise comes from by using various output checks. However, for the fusing unit drive, work through the check procedures given below.

⚠CAUTION

Because damaged or dirty parts can lead to secondary failure, always follow the procedure.
Take particular care not to be caught in the rotating parts of the motors and/or gears.

Checking Abnormal Noise from the Fusing Unit

When the abnormal noise is coming from the fusing unit, work through the following flow chart, and check whether the fusing unit is the cause, by using SP1-158 (Abnormal Noise Confirmation).
If the fusing unit is the cause, replace the fusing unit. If the drive module is the cause, in addition perform the operation check of various motors by using output checks, to identify which motor is the cause.



Related SPs

SP No.	SP Name	Function	Description
SP1-158-001	Abnormal Noise Confirmation: Unit: Execute	The fusing motor (M13) rotates with the heating control.	Fails if the fusing unit is not installed or the cover is open
SP1-158-002	Abnormal Noise Confirmation: No Unit: Execute	The fusing motor (M13) rotates without the heating control.	Fails if the fusing unit is installed or the cover is open
SP1-158-003	Abnormal Noise Confirmation: Operation Time	Rotates during this time. Initial value: 20 sec.	-
SP1-158-004	Abnormal Noise Confirmation: Operation Line Speed	Line speed at the time of rotation **IM C300 series** 0: 89 mm/s 1: 178 mm/s 2: 178 mm/s 3: 178 mm/s **IM C400 series**	

SP No.	SP Name	Function	Description
		0: 89 mm/s 1: 178 mm/s 2: 252 mm/s 3: 276 mm/s	
SP1-158-005	Abnormal Noise Confirmation: Heat Center Target Temp	Temperature setting for SP1-153-001 (Unit: Execute)	Do not change
SP1-158-007	Abnormal Noise Confirmation: Press Target Temp	Temperature setting for SP1-153-001 (Unit: Execute)	

Electrical Component Defects

Sensors

No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
S1	Duplex entrance sensor (S1)	L	CN523/15	Open	Jam Z (Jam 26)
				Shorted	Jam Z (Jam 18)
S2	Duplex exit sensor (S2)	L	CN523/25	Open	Jam Z (Jam 25)
				Shorted	Jam Z
S3	Fusing entrance sensor (S3)	L	CN523/22	Open	Jam B (Jam 18)
				Shorted	Jam C
S4	Bypass tray lift sensor (S4)	H	CN523/11	Open	SC508
				Shorted	
S5	Bypass paper width sensor (S5)	L	CN523/2	Open	A4/LT size is not detected.
				Shorted	A4/LT size is detected.
S6	Paper end sensor (bypass) (S6)	L	CN523/5	Open	Paper is detected on the by-pass tray when no paper is set.
				Shorted	Paper is not detected on the by-pass tray when paper is set.
S7	Paper exit sensor (S7)	L	CN525/11	Open	Jam C (Jam 20)
				Shorted	Jam C (Jam 60)
S8	Fusing exit sensor (S8)	L	CN525/8	Open	Jam C (Jam 19)

No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
				Shorted	Jam C
S9	New fusing unit detection fuse (S9)	L	CN525/34	Open	A new fusing unit is erroneously identified as an old one.
				Shorted	A shorted fuse
S10	Fusing thermistor (non-contact sensor) (S10)	A	CN525/27	Open	SC581
				Shorted	
S11	Toner end sensor (C) (S11)	A	CN539/10	Open	SC374
				Shorted	
S12	Toner end sensor (M) (S12)	A	CN539/9	Open	SC373
				Shorted	
S13	Toner end sensor (Y) (S13)	A	CN539/8	Open	SC375
				Shorted	
S14	TD sensor (K) (S14)	A	CN540/2	Open	PCU setting Error occurs.
				Shorted	
S15	TD sensor (C) (S15)	A	CN540/8	Open	PCU setting Error occurs.
				Shorted	
S16	TD sensor (M) (S16)	A	CN540/14	Open	PCU setting Error occurs.
				Shorted	
S17	TD sensor (Y) (S17)	A	CN540/20	Open	PCU setting Error occurs.
				Shorted	
S18	Temperature/humidity sensor (S18)	A	CN526/6,8	Open	• Printed image is wrong, such as rough image, dirty background or weak image.
				Shorted	

No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
					• SC498
S19	ADF position sensor (S19)	L	CN403/2	Open	ADF open cannot be detected.
				Shorted	
S20	Scanner HP sensor (S20)	H	CN403/5	Open	SC120, SC121
				Shorted	
S21	CIS (S21)	H	CN401/1,2,3,5	Open	SC154 (CIS communication error: rear side)
				Shorted	
		H	CN401/7,8,10,11,13,14,16,17,19,20, 22,23	Open	SC151 (Black level correction error: rear side)
				Shorted	
S22	Original set sensor (S22)	L	CN404/26	Open	Original set cannot be detected.
				Shorted	
S23	ADF top cover sensor (S23)	L	CN404/24	Open	Top cover open cannot be detected.
				Shorted	
S24	Registration sensor (S24)	L	CN404/28	Open	Jam P
				Shorted	
S25	Original feed sensor (S25)	L	CN404/3	Open	Jam P
				Shorted	
S26	Waste toner bottle set sensor (S26)	L	CN535/1	Open	Waste toner bottle cannot be detected.
				Shorted	Waste toner bottle is detected when the waste toner bottle is not set.

No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
S27	ID sensor (front) (S27)	A	CN555/3	Open	SC370
				Shorted	
S28	ID sensor (center) (S28)	A	CN555/7	Open	SC370
				Shorted	
S29	ID sensor (rear) (S29)	A	CN555/12	Open	SC370
				Shorted	
S30	Tray paper end sensor (main unit) (S30)	L	CN571/8	Open	Paper end is detected when there is paper in the paper tray.
				Shorted	Paper end is not detected when there is no paper in the paper tray.
S31	Paper feed sensor (S31)	L	CN571/5	Open	Jam A
				Shorted	Normal operation
S32	Registration sensor (S32)	L	CN571/2	Open	Jam A (Jam 17)
				Shorted	Jam B
S33	ITB lift HP sensor (S33)	L	CN543/7	Open	SC442
				Shorted	
S34	Tray set sensor (S34)	L	CN543/10	Open	Paper tray cannot be detected.
				Shorted	Paper tray is detected when the paper tray is not set.
S35	Tray Bottom Plate lift Sensor (S5)	H	CN571/11	Open	SC501
				Shorted	
S36	Waste toner full	H	CN571/14	Open	Waste toner

No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
	sensor (S36)				full is detected when it is not near full.
				Shorted	Waste toner full cannot be detected when the waste toner bottle is nearly full.
TH1	Fusing thermopile (TH1)	A	CN525/6	Open	SC541
				Shorted	
TH2	Pressure roller thermistor (edge: front) (TH2)	A	CN525/25	Open	SC591
				Shorted	
TH3	Pressure roller thermistor (edge: rear) (TH3)	A	CN525/23	Open	SC571
				Shorted	
TH4	Pressure roller thermistor (edge: center) (TH4)	A	CN525/21	Open	SC561
				Shorted	
TH5	Imaging temperature sensor (TH5)	A	CN526/4	Open	SC497
				Shorted	
SW2	Right cover sensor (SW2)	L	CN559/14	Open	“Cover closed” cannot be detected.
				Shorted	“Open Cover” cannot be detected.

Internal Finisher

No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
SN1	Shift roller HP sensor	H	CN109/2	Open	SC724-82

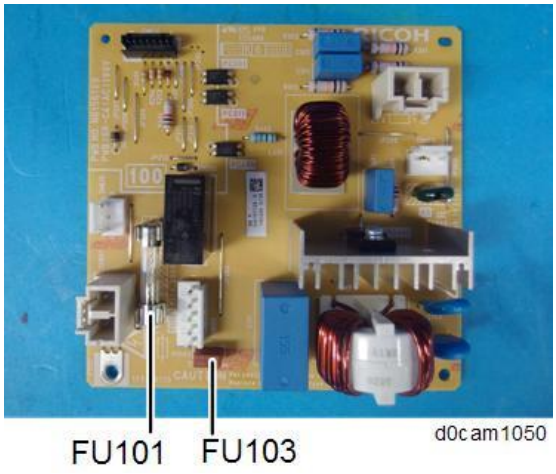
No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
	(S37)			Shorted	
SN2	Gathering roller HP sensor (S38)	H	CN109/5	Open	SC724-80
				Shorted	
SN3	Tray lower limit sensor (S39)	H	CN113/2	Open	The paper exit tray is erroneously detected as full.
				Shorted	The paper exit tray is full but it is not detected.
SN4	Remaining paper sensor (S40)	H	CN113/5	Open	SC724-83
				Shorted	
SN5	Jogger fence HP sensor (S41)	H	CN110/2	Open	SC724-30
				Shorted	
SN6	Staple tray paper sensor (S42)	H	CN110/5	Open	A paper jam is erroneously detected.
				Shorted	Paper is not detected and stapling is not executed.
SN7	Paper exit sensor (S43)	L	CN110/8	Open	Failed to detect paper jam.
				Shorted	Stay Jam (JAM code: 1)
SN8	Exit guide plate HP sensor (S44)	H	CN111/2	Open	SC724-81
				Shorted	
SN9	Entrance sensor (S45)	L	CN111/5	Open	Late Jam (JAM code: 240)
				Shorted	Stay Jam (JAM code: 1)

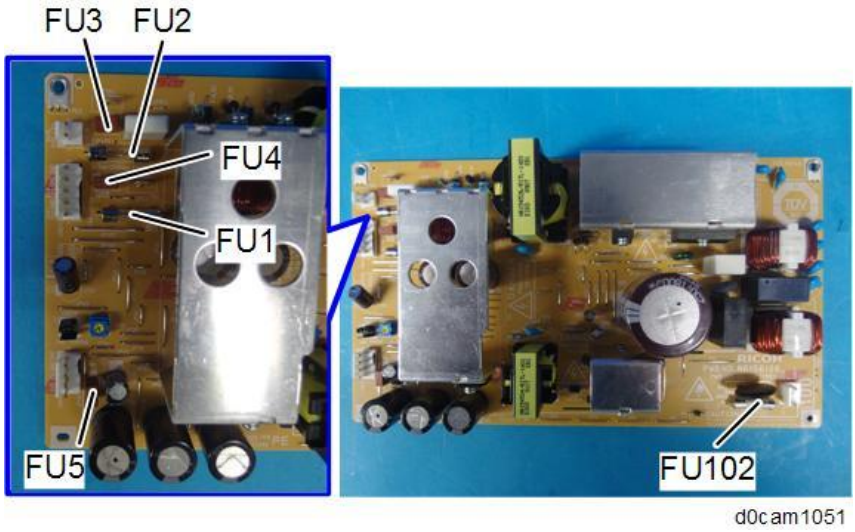
Fuse Location

Fuse Name	Connector (Out)	Capacity	Voltage	Part No.	Part Name	Replaceable
FU1	CN611-1 (24V)	8A	250V	11071393	51MS(P)-080H GF-009	No
FU2	CN610-1 (24VL)	8A	250V	11071393	51MS(P)-080H GF-009	No
FU3	CN610-2 (24VL_LPS)	4A	250V	11071360	SCT4A	No
FU4	CN611-3 (24V_LPS)	4A	250V	11071393	SCT4	No
FU5	CN613-2 (5V)	4A	250V	11071351	SCT4	No
FU102	N/A (Protecting the voltage converter circuit in the PSU (PCB17))	10A	250V	11071388	FIH 250V 10A(EM)8A03	No
FU101	N/A (Protecting the	15A	250V	11071241	TCL-15A-N4	Yes

Fuse Name	Connector (Out)	Capacity	Voltage	Part No.	Part Name	Replaceable
	fusing circuit in the PSU (PCB16))					
FU103	CN600-4,5 (Anti-condensation Heater (H1))	2A	250V	11071362	SCT2A	No

The photograph shows an example using the IM C300 series. The fuse position is the same for the IM C400 series.





Jam Detection

Paper Jam History

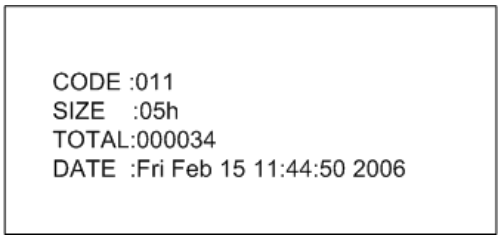
Checking Logs

Plotter (print engine) jam history can be displayed using SP7-507. The jam history of the 10 latest jams is displayed.

- SP7-507-001 "Plotter Jam: History Latest"
- SP7-507-002 "Plotter Jam: History Latest1"
- SP7-507-003 "Plotter Jam: History Latest2"
- SP7-507-004 "Plotter Jam: History Latest3"
- SP7-507-005 "Plotter Jam: History Latest4"
- SP7-507-006 "Plotter Jam: History Latest5"
- SP7-507-007 "Plotter Jam: History Latest6"
- SP7-507-008 "Plotter Jam: History Latest7"
- SP7-507-009 "Plotter Jam: History Latest8"
- SP7-507-010 "Plotter Jam: History Latest9"

Jam Display

SP7-507 shows the paper jam history.



- **CODE**: Indicates the jam code.
- **SIZE**: Indicates the paper size code.
- **TOTAL**: Indicates the total counter (SP7-502-001).
- **DATE**: indicates the date when the jam occurred.

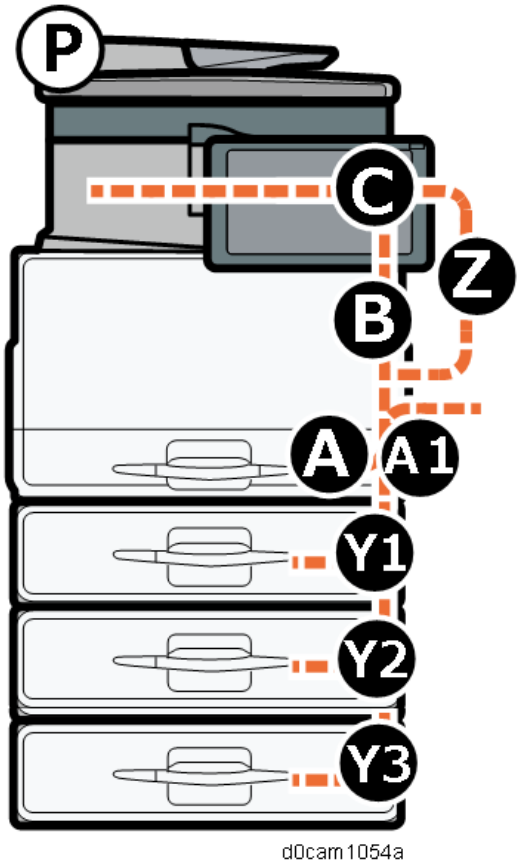
Note

Initial jams at power on are not displayed here.

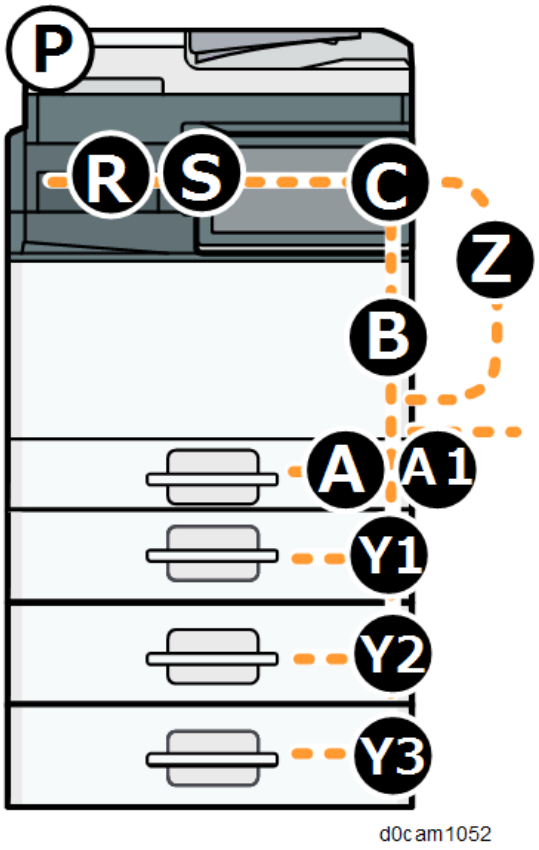
Jam Codes and Display Codes

If a paper jam occurs, the machine displays the location where the jam occurs on the operation panel.

Basic Model



Finisher Model



Main Unit

Cause code	Cause of jam	Late Jam	Lag Jam	Stay Jam	Display code
001	Registration sensor (S24)			✓	B
001	Fusing entrance sensor (S3)			✓	C
001	Fusing exit sensor (S8)			✓	C
001	Paper exit sensor (S7)			✓	C
001	Duplex entrance sensor (S1)			✓	Z
001	Duplex exit sensor (S2)			✓	Z
001	Paper transport sensor 1 (S1)			✓	Y1
001	Paper transport sensor 2 (S1)			✓	Y2
001	Paper transport sensor 3 (S1)			✓	Y3
001	1-Bin Tray Exit Sensor*3			✓	C
001	Initial jam at power on: Entrance sensor (SN9)*4			✓	R
001	Initial jam at power on: Internal Finisher paper exit sensor (SN7)*4			✓	R
001	Stapler*4			✓	S
003	Paper not fed from 1st tray	✓			A*1

Cause code	Cause of jam	Late Jam	Lag Jam	Stay Jam	Display code
					A1[*2]
004	Paper not fed from 2nd tray (optional)	✓			Y1
005	Paper not fed from 3rd tray (optional)	✓			Y2
006	Paper not fed from 4th tray (optional)	✓			Y3
008	Registration sensor (S32) (When paper is fed from bypass tray)	✓			A
009	Registration sensor (S32) (When printing in duplex mode)	✓			Z
010	Cannot make the paper slack for skew adjustment on the registration roller (when printing in duplex mode).	✓			Z
011	Registration sensor (S32) (When paper is fed from 1st tray)	✓			A
012	Paper transport sensor 1 (S1)	✓			Y1
013	Paper transport sensor 2 (S1)	✓			Y2
014	Registration sensor (S32) (When paper is fed from optional paper feed units)	✓			A
015	Cannot make the paper slack for skew adjustment on the registration roller (when paper is fed from bypass tray).	✓			Z
016	Cannot make the paper slack for skew adjustment on the registration roller (when paper is fed from optional paper feed units).	✓			A
017	Cannot make the paper slack for skew adjustment on the registration roller (when paper is fed from 1st tray).	✓			A
018	Fusing entrance sensor (S3)	✓			B
019	Fusing exit sensor (S8)	✓			C
020	Paper exit sensor (S7)	✓			C
021	1-Bin Tray Exit Sensor[*3]	✓			C
025	Duplex exit sensor (S2)	✓			Z
026	Duplex entrance sensor (S1)	✓			Z
050	Registration sensor (S32) (When printing in duplex mode)		✓		B
052	Paper transport sensor 1 (S1)		✓		Y1
053	Paper transport sensor 2 (S1)		✓		Y2
054	Paper transport sensor 3 (S1)		✓		Y3

Cause code	Cause of jam	Late Jam	Lag Jam	Stay Jam	Display code
055	Registration sensor (S32) (When paper is fed from bypass tray)		✓		B
056	Registration sensor (S32) (When paper is fed from optional paper feed units)		✓		B
057	Registration sensor (S32) (When paper is fed from 1st tray)		✓		B
060	Paper exit sensor (S7)		✓		C
061	1-Bin Tray Exit Sensor*3		✓		C
065	Duplex exit sensor (S2)		✓		Z
066	Duplex entrance sensor (S1)		✓		Z
230	The report notifying completion of the paper delivery to the finisher is missing.*4			✓	R
240	Internal finisher entrance sensor (S45)*4	✓			R
241	Internal finisher entrance sensor (S45) *4		✓		R
242	Internal finisher paper exit jam*4		✓		R
243	Internal finisher jogger motor (M20) jam*4			✓	R
244	Internal finisher shift roller motor (M19) jam*4			✓	R
245	Internal finisher gathering roller motor (M18) jam*4			✓	R
246	Internal finisher exit guide plate motor (M21) jam*4			✓	R
247	Internal finisher tray lift motor (M22) jam*4			✓	R
248	Internal finisher stapler motor (M23) jam*4			✓	S
249	Internal finisher stopper solenoid (SOL3) jam*4			✓	R
250	Main Machine Data Corrupt*4			✓	R

*1 IM C300 series only

*2 IM C400 series only

*3 Basic model (IM C300/C300F/C400F) only

*4 Finisher model (IM C400SRF) only

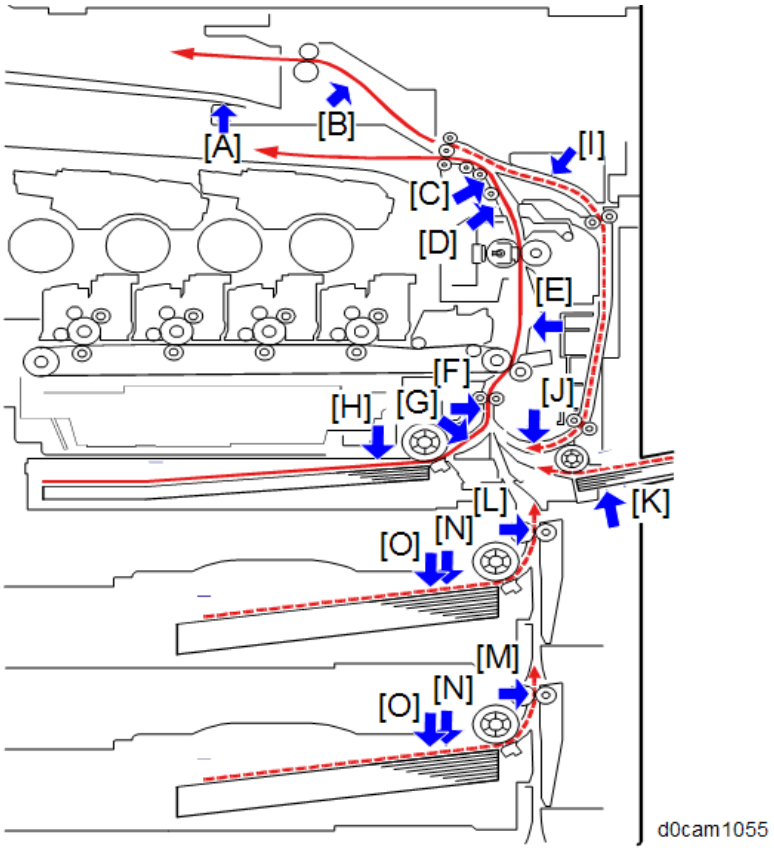
ADF

Cause code	Cause of jam	Late Jam	Lag Jam	Stay Jam	Indication on the operation panel
001	Initial jam at power on			✓	P
004	Registration sensor (S24)	✓			P
013	Original feed sensor (S25)	✓			P
054	Registration sensor (S24)		✓		P

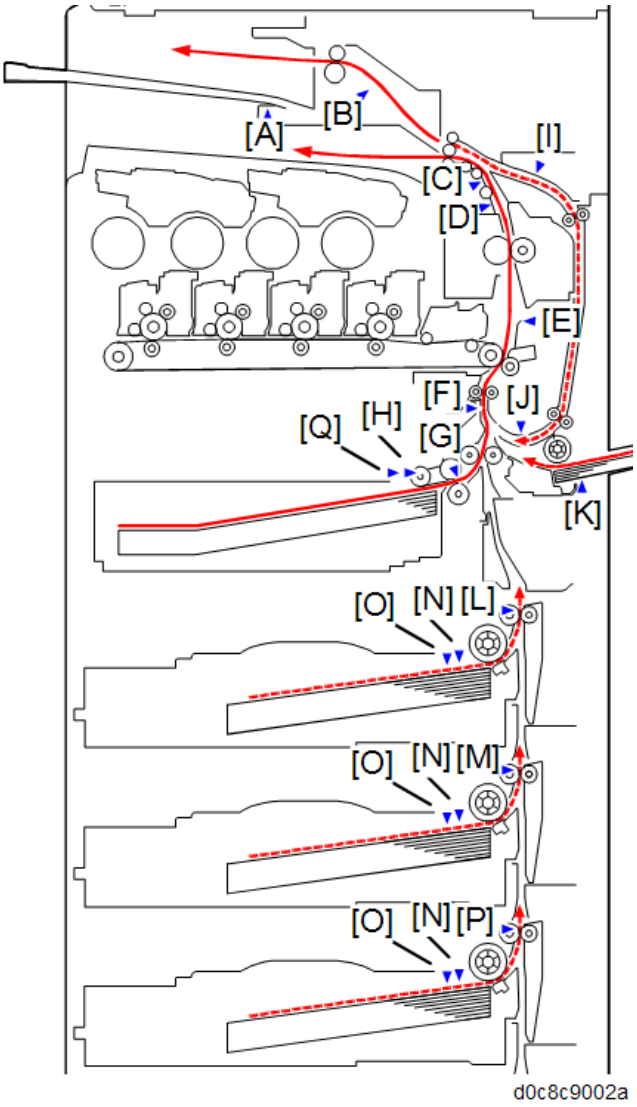
Cause code	Cause of jam	Late Jam	Lag Jam	Stay Jam	Indication on the operation panel
063	Original feed sensor (S25)		✓		P
097	Paper jam: timing error		✓		P
098	Paper jam: insufficient interval		✓		P
099	Double-feed detected.		✓		P
100	ADF motor (M8)	✓	✓		P

Sensor Layout

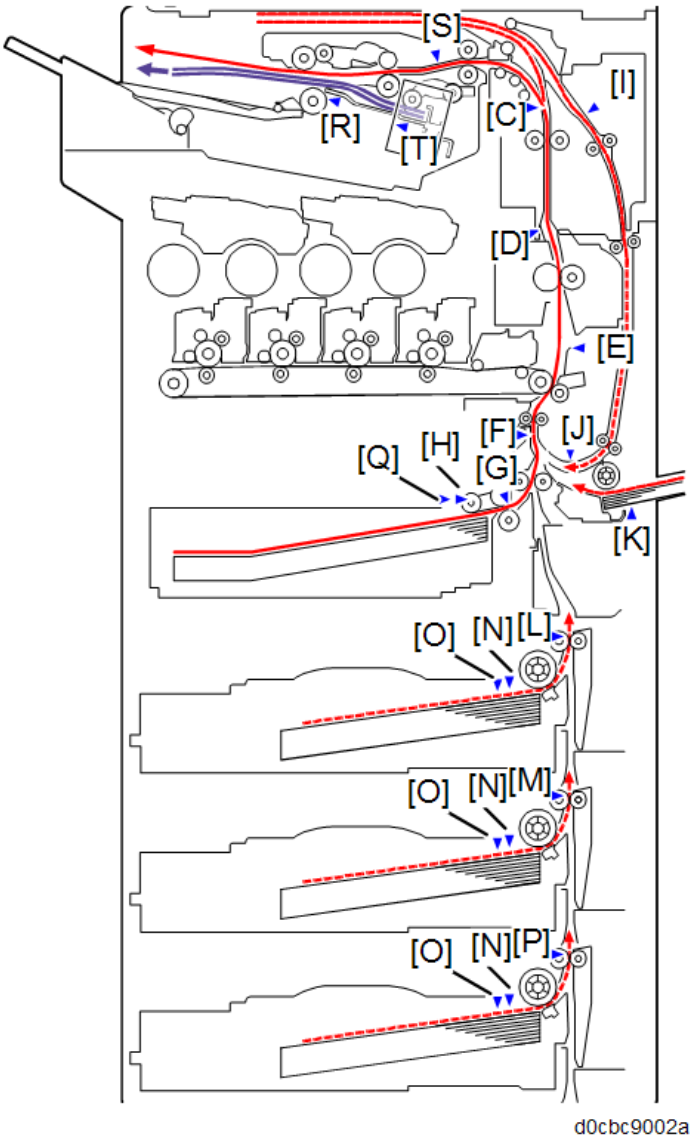
IM C300 series



IM C400F



IM C400SRF



Callout	Sensor	Callout	Sensor
[A]	1-Bin Tray Paper Remaining Sensor	[K]	Paper end sensor (bypass) (S6)
[B]	1-Bin Tray Exit Sensor	[L]	Paper transport sensor 1 (S1)
[C]	Paper exit sensor (S7)	[M]	Paper transport sensor 2 (S1)
[D]	Fusing exit sensor (S8)	[N]	Paper end sensor (S2)
[E]	Fusing entrance sensor (S3)	[O]	Remaining paper sensor (S3)
[F]	Registration sensor (S32)	[P]	Paper transport sensor 3 (S1)
[G]	Paper feed sensor (S31)	[Q]	Tray paper end sensor (main unit) (S30)
[H]	Tray lift sensor (S35)	[R]	Tray lower limit sensor
[I]	Duplex entrance sensor (S1)	[S]	Entrance sensor (S45)
[J]	Duplex exit sensor (S2)	[T]	Remaining paper sensor (S40)

Paper Size Code

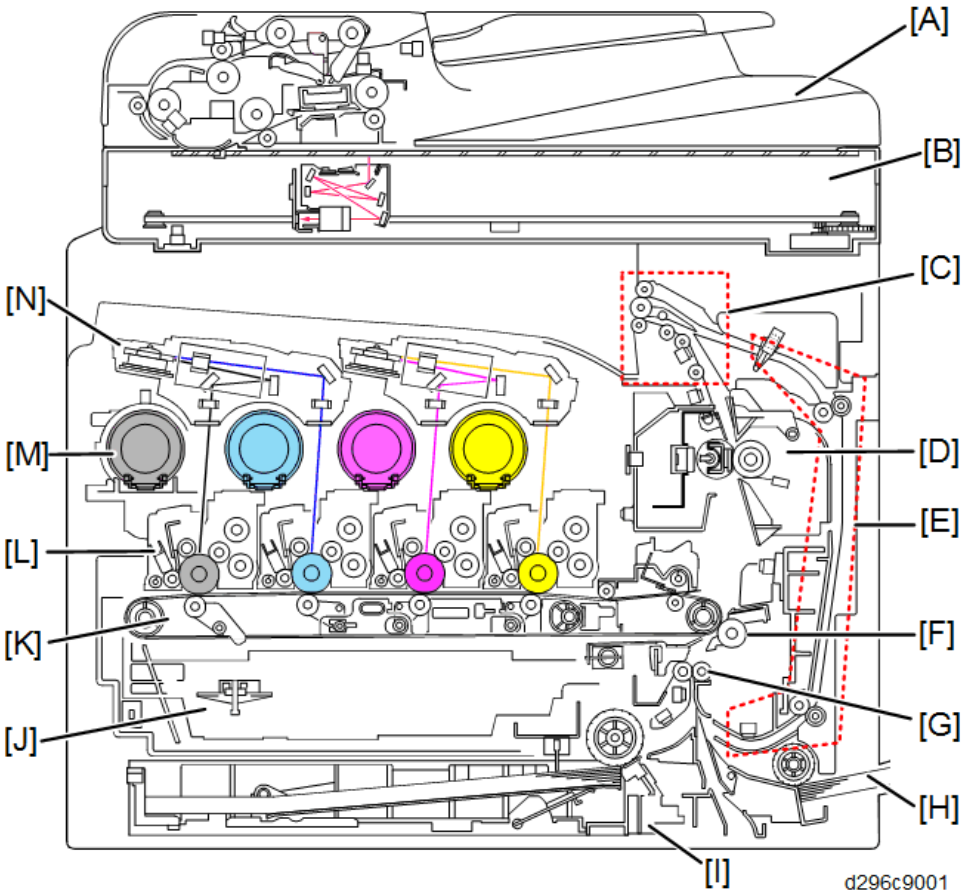
Size Code	Paper Size	Size Code	Paper Size
05	A4 LEF	141	B4 SEF
06	A5 LEF	142	B5 SEF
14	B5 LEF	160	DLT SEF
38	LT LEF	164	LG SEF
44	HLT LEF	166	LT SEF
133	A4 SEF	172	HLT SEF
134	A5 SEF	255	Others

7. Detailed Descriptions

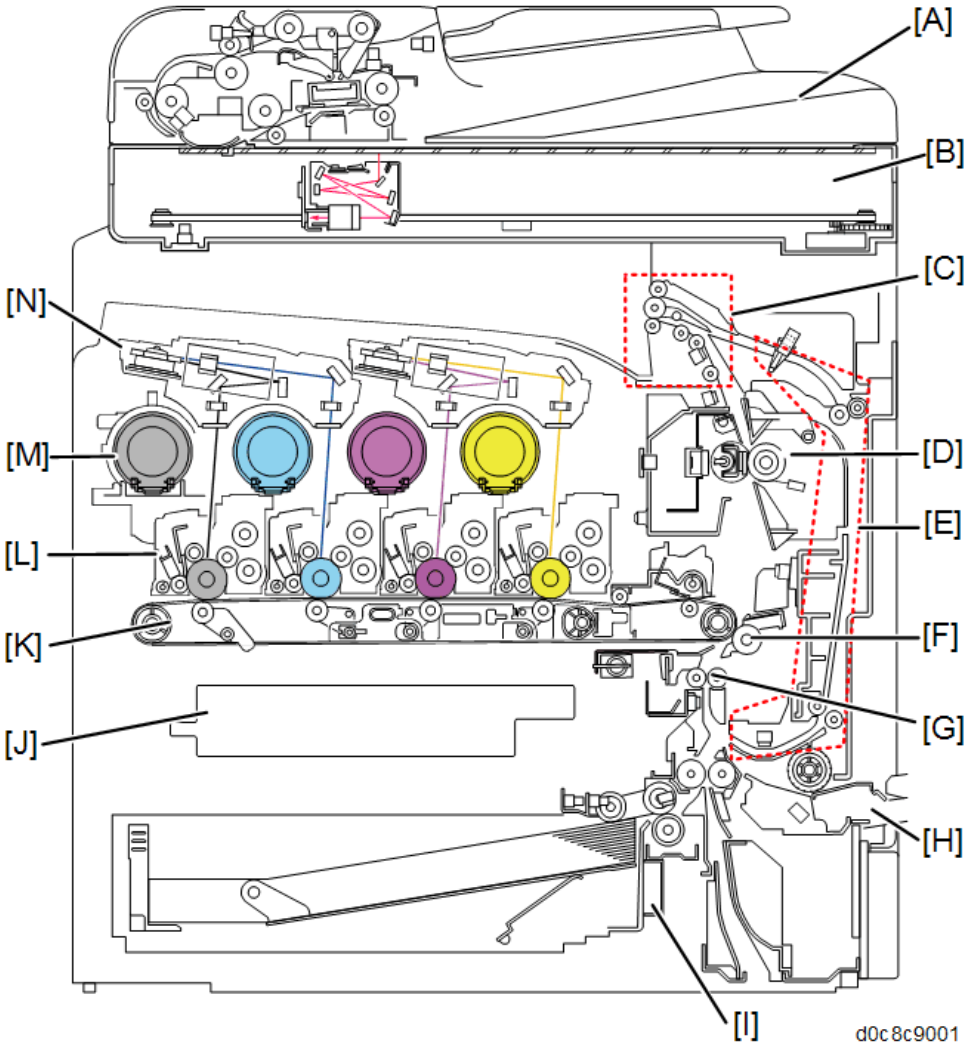
Machine Overview

Overview

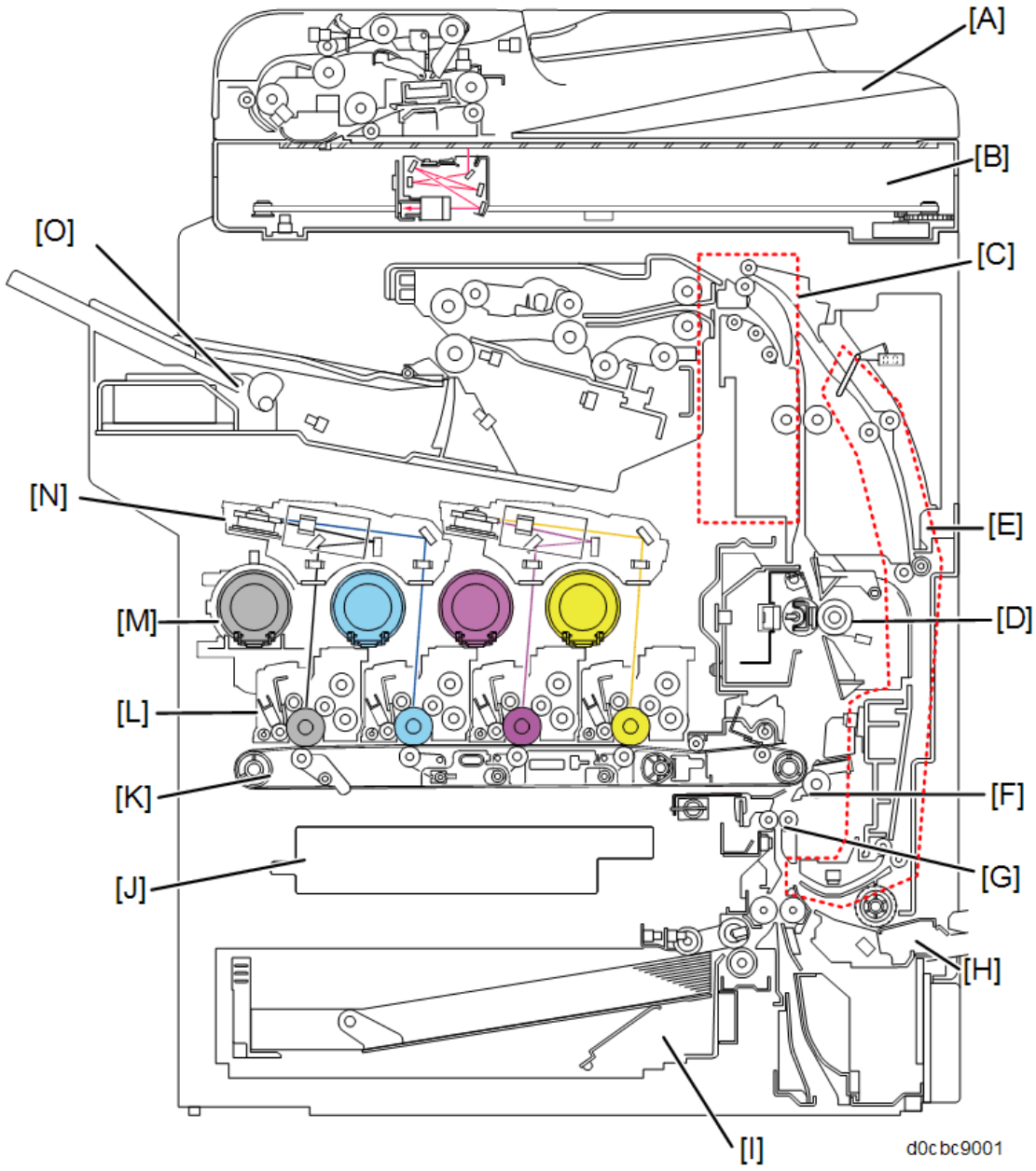
IM C300 series



IM C400F



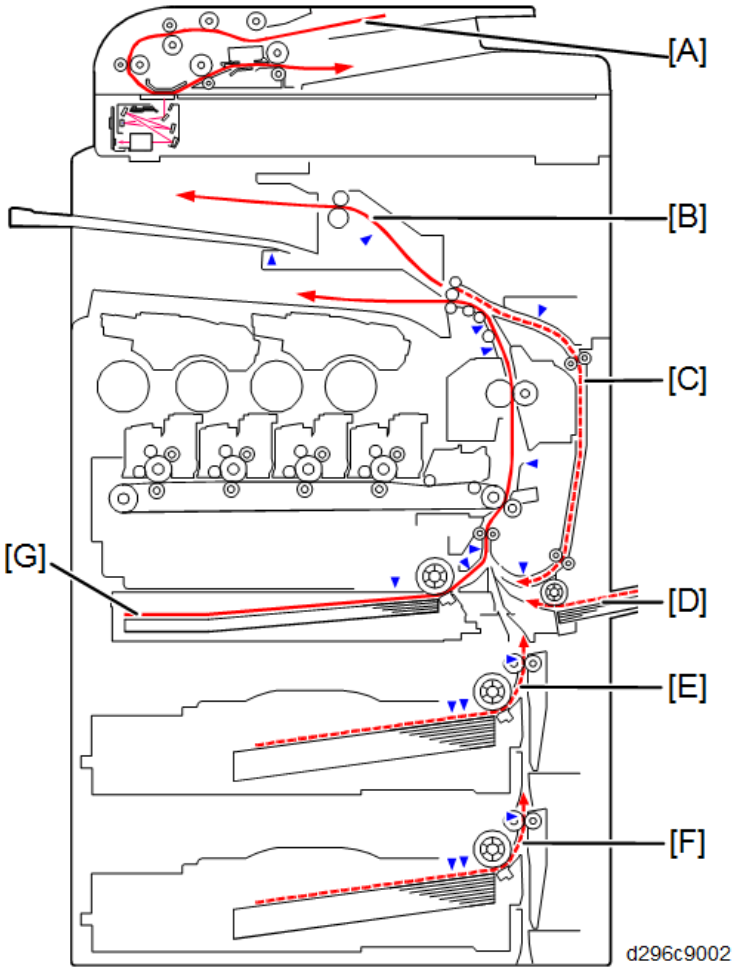
IM C400SRF



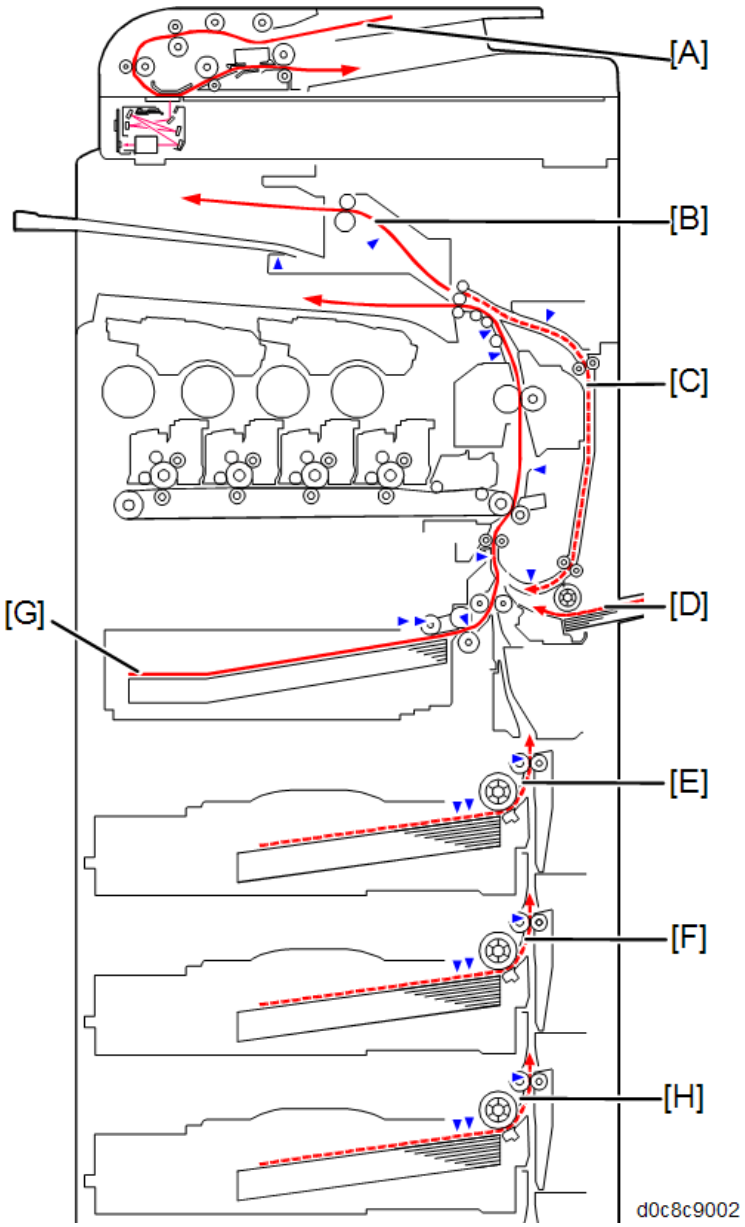
Callout	Item	Callout	Item
[A]	ADF	[I]	Paper feed tray
[B]	Scanner unit	[J]	Waste toner bottle
[C]	Paper exit unit	[K]	ITB unit
[D]	Fusing unit	[L]	PCDU
[E]	Duplex unit	[M]	Toner bottle
[F]	Paper transfer roller	[N]	Laser unit
[G]	Registration roller	[O]	Internal finisher
[H]	Bypass feed tray	-	-

Paper Path

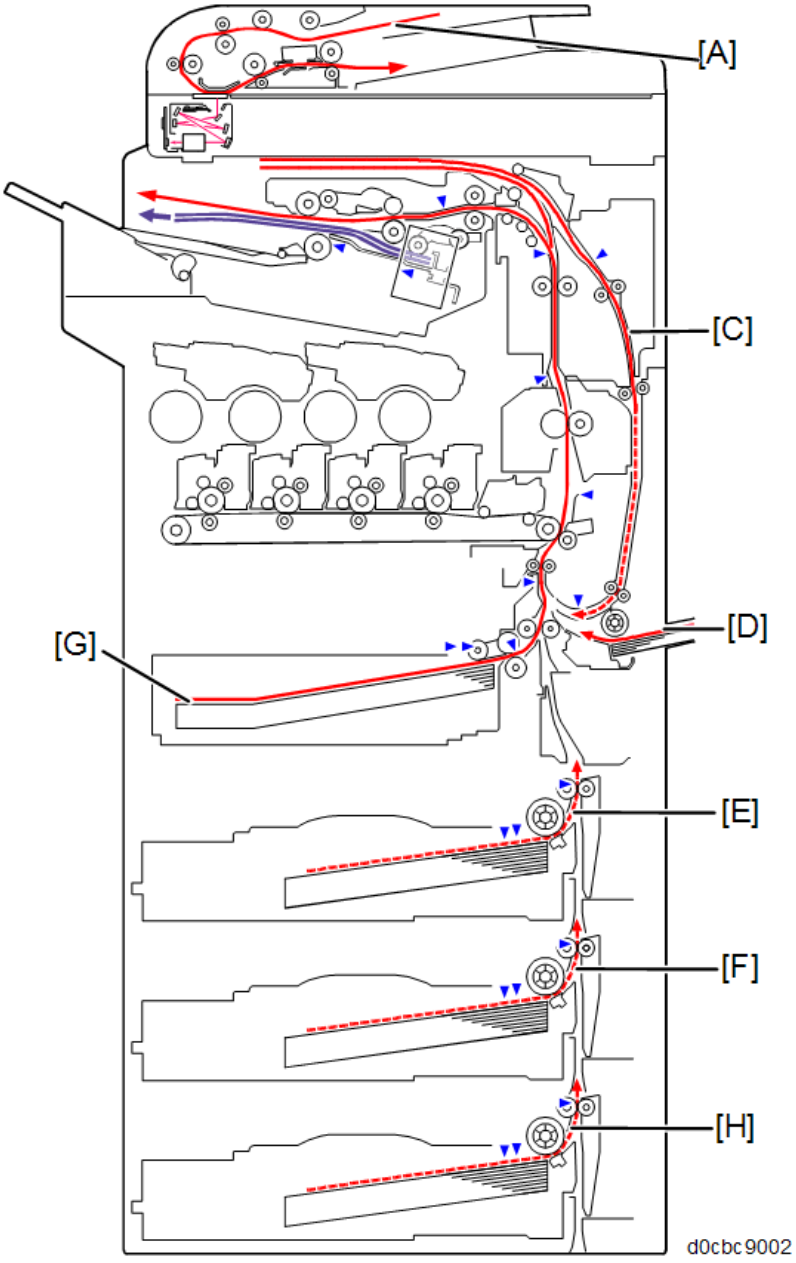
IM C300 series



IM C400F



IM C400SRF

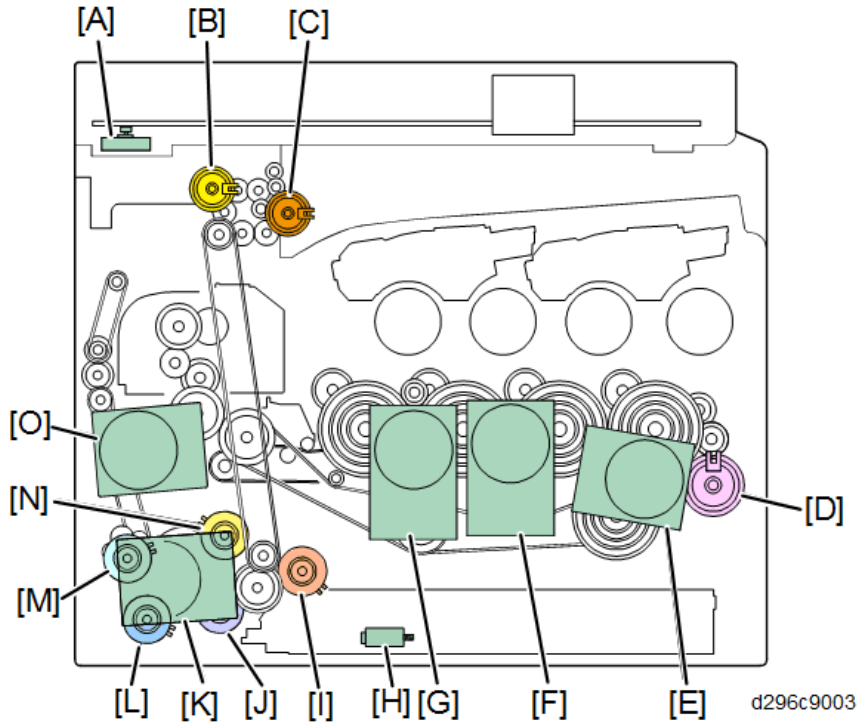


Callout	Item	Callout	Item
[A]	ADF transport path	[E]	Optional paper feed unit path (1st)
[B]	1-Bin tray path*1	[F]	Optional paper feed unit path (2nd)
[C]	Duplex paper transport path	[G]	Standard paper tray path
[D]	Bypass paper feed path	[H]	Optional paper feed unit path (3rd)

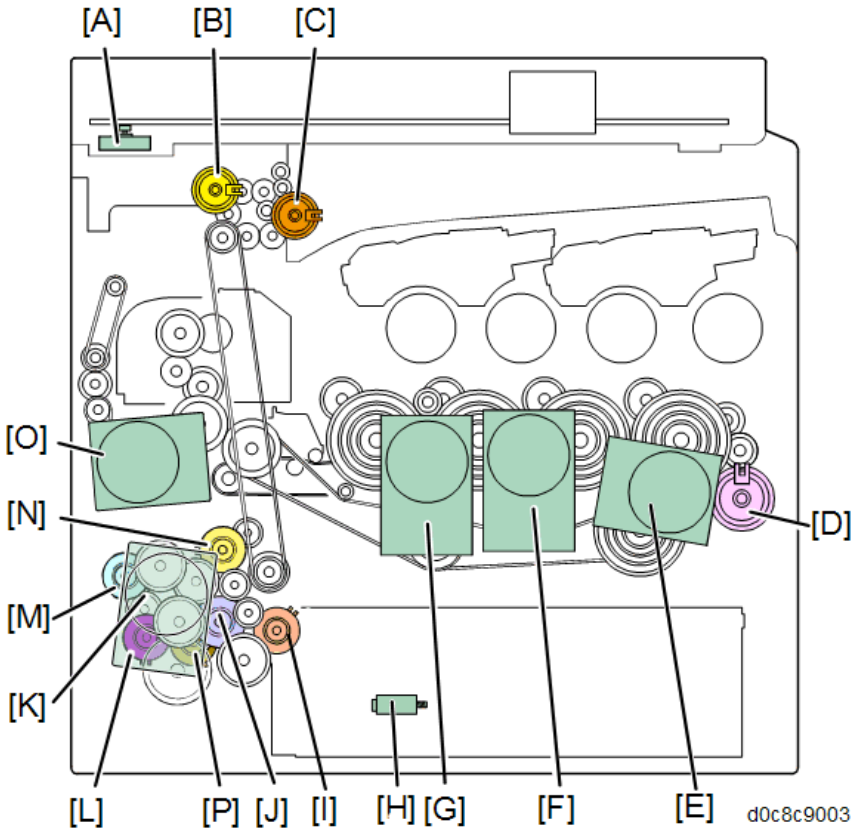
*1 IM C 300 series/C400F are optional. IM C400SRF is not supported.

Drive Layout

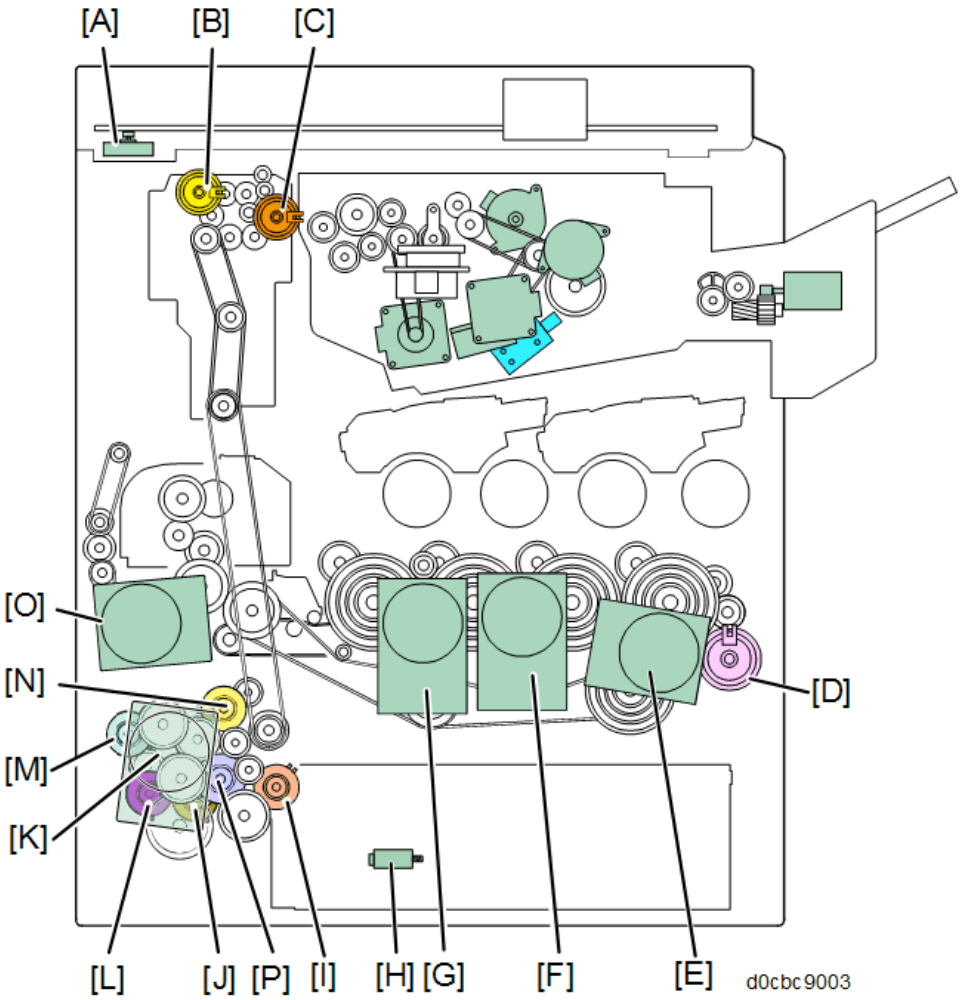
IM C300 series



IM C400F



IM C400SRF



Callout	Item	Callout	Item
[A]	Scanner Motor (M7)	[I]	Paper Feed Clutch (CL9)
[B]	Paper Exit Clutch (CL3)	[J]	Bypass Tray Lift Clutch (CL1)
[C]	Reverse Clutch (CL2)	[K]	Paper Transport Motor (M12)
[D]	Development Clutch(K) (CL5)	[L]	Bypass Feed Clutch (CL7)
[E]	Drum Motor (M11)	[M]	Duplex Clutch (CL6)
[F]	Drum Motor (CMY) (M10)	[N]	Registration Clutch (CL8)
[G]	Development Motor (CMY) (M9)	[O]	Fusing Motor (M13)
[H]	Tray Lift Motor (M15)	[P]	Vertical Transport Clutch (CL10) *1

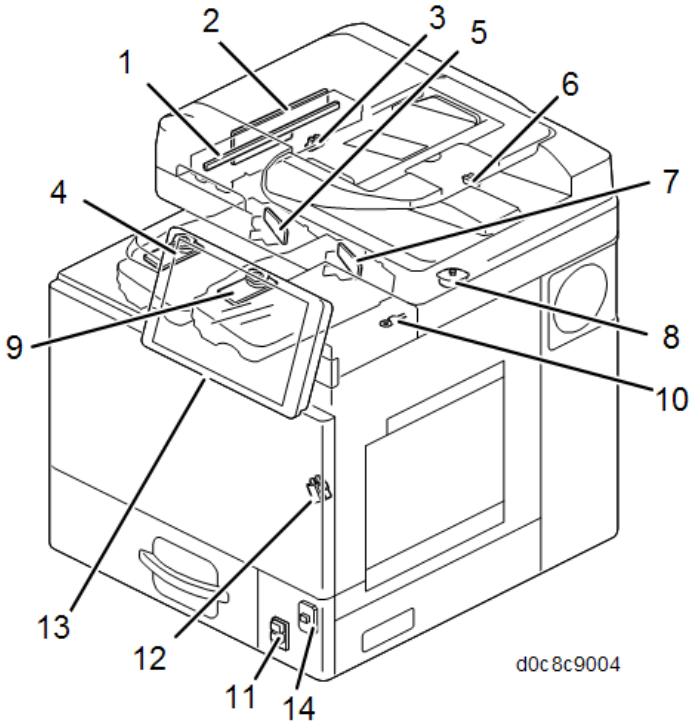
*1 IM C400 series only

Component Layout

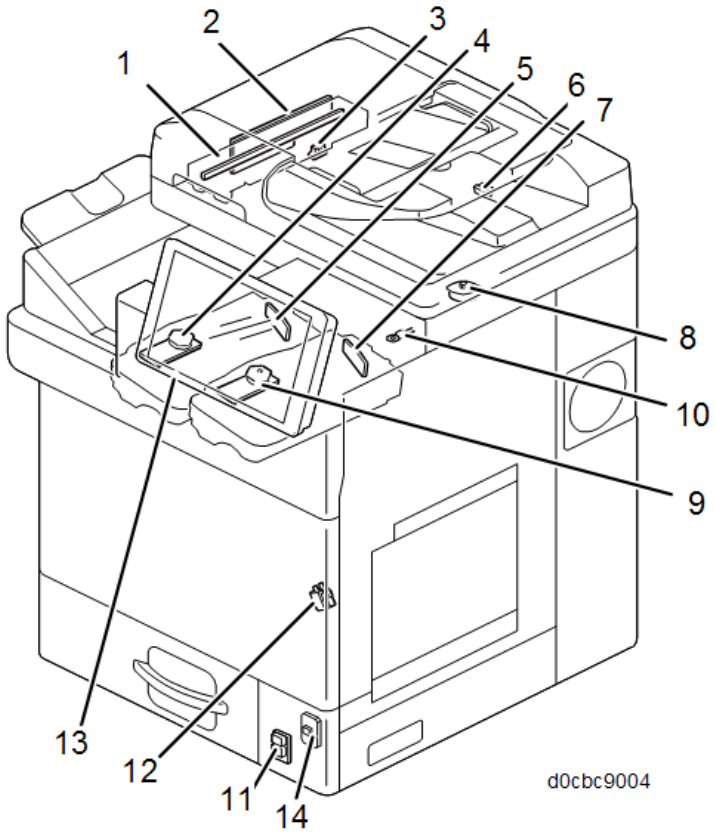
The descriptions of the IM C400 series are accompanied by illustrations of the IM C400SRF.

Scanner Unit / Laser Unit / Others

IM C300 series



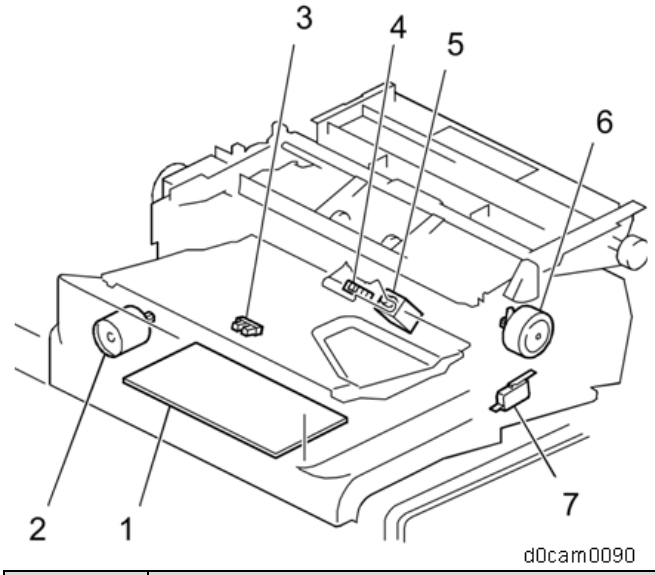
IM C400 series



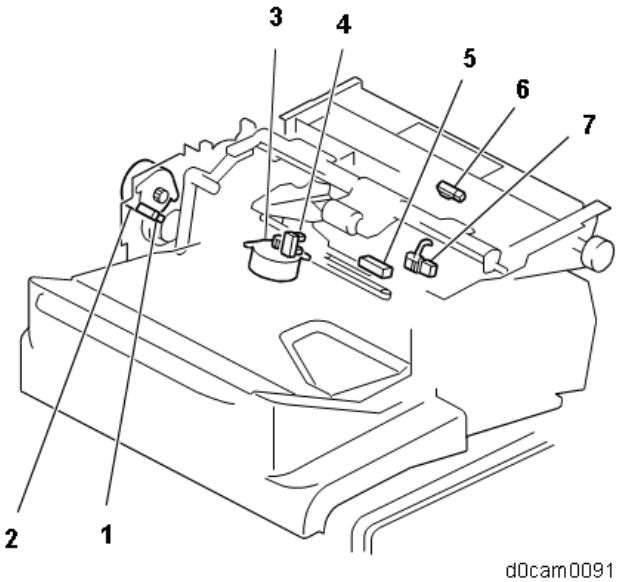
Callout	Item	Callout	Item
1	Scanner Lamp	8	Scanner Motor (M7)
2	SBU (PCB11)	9	Polygon Mirror Motor (M/Y) (M6)
3	Scanner HP Sensor (S20)	10	Imaging Temperature Sensor (TH5)

Callout	Item	Callout	Item
4	Polygon Mirror Motor (K/C) (M5)	11	Temperature/humidity Sensor (S18)
5	LD Drive Board (K/C) (PCB8)	12	Interlock Switch
6	ADF Position Sensor (S19)	13	Operation Panel
7	LD Drive Board (M/Y) (PCB9)	14	Main Power Switch (SW1)

Internal Finisher



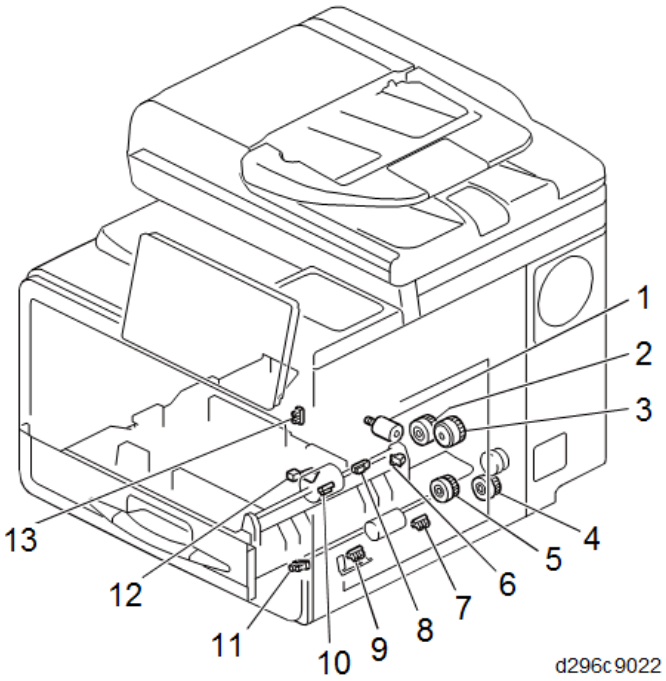
Callout	Item	Callout	Item
1	Main Board (PCB25)	5	Stopper Solenoid (SOL3)
2	Tray Lift Motor (M22)	6	Exit Guide Plate Motor (M21)
3	Tray Lower Limit Sensor (S39)	7	Interlock Switch (SW3)
4	Remaining paper sensor (S40)	-	-



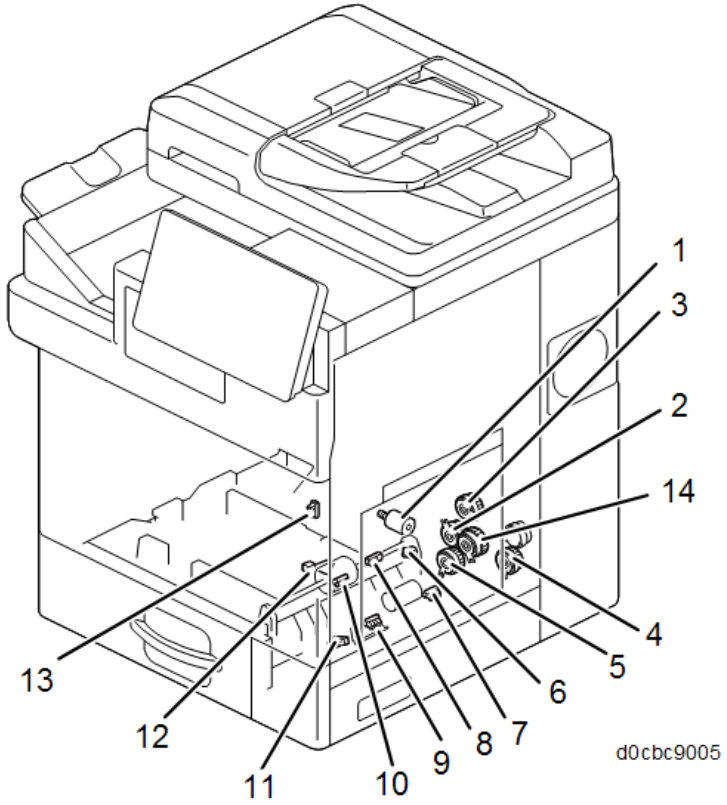
Callout	Item	Callout	Item
1	Gathering Roller HP Sensor (S38)	5	Paper Exit Sensor (S43)
2	Gathering Roller Motor (M18)	6	Entrance Sensor (S45)
3	Jogger Motor (M20)	7	Staple Tray Paper Sensor (S42)
4	Jogger Fence HP Sensor (S41)	-	-

Paper Feed

IM C300 series



IM C400 series

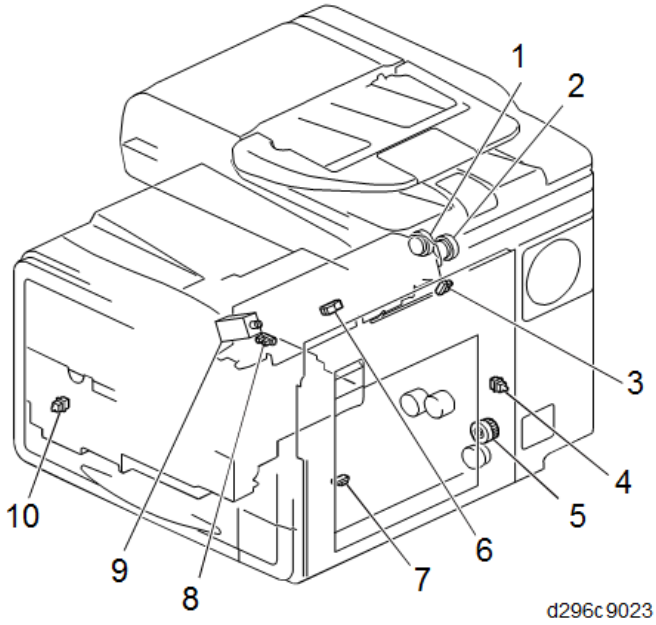


Callout	Item	Callout	Item
1	Tray Lift Motor (M15)	8	Registration Sensor (S32)
2	Paper Feed Clutch (CL9)	9	Bypass Paper Width Sensor (S5)
3	Registration Clutch (CL8)	10	Paper Feed Sensor (S31)
4	Bypass Feed Clutch (CL7)	11	Bypass Tray Lift Sensor (S4)
5	Bypass Tray Lift Clutch (CL1)	12	Tray Paper End Sensor (Main Unit) (S30)
6	Tray Lift Sensor (S35)	13	Tray Set Sensor (S34)
7	Paper End Sensor (Bypass) (S6)	14	Vertical Transport Clutch (CL10)*1

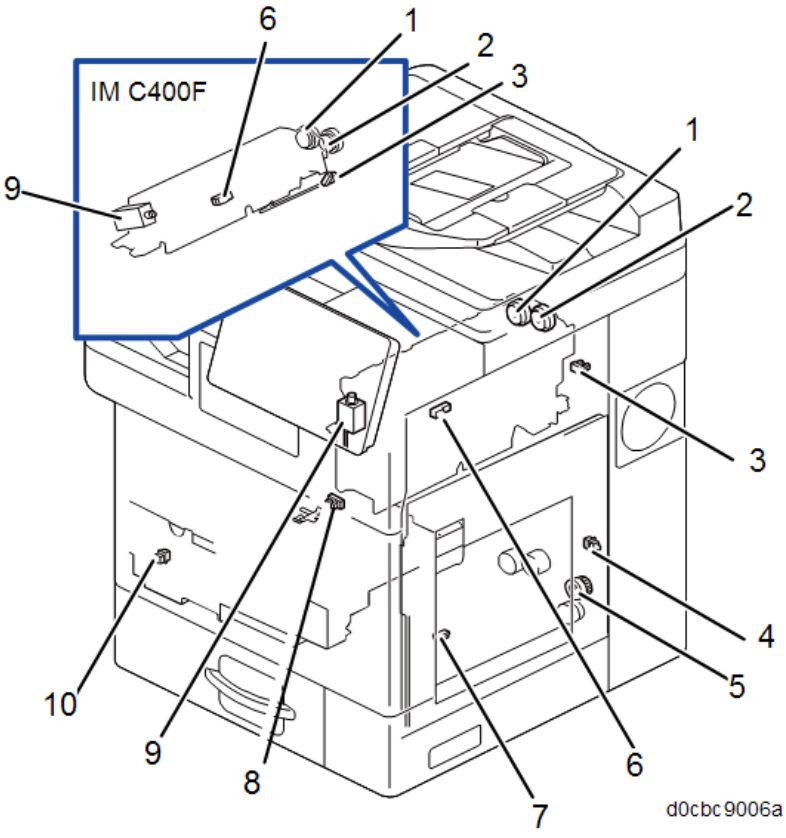
*1 IM C400 series only

Paper Exit / Duplex / Waste Toner

IM C300 series



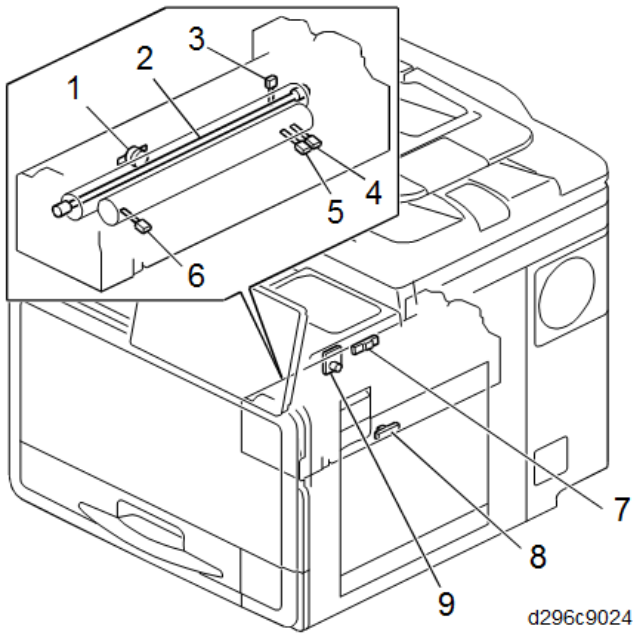
IM C400 series



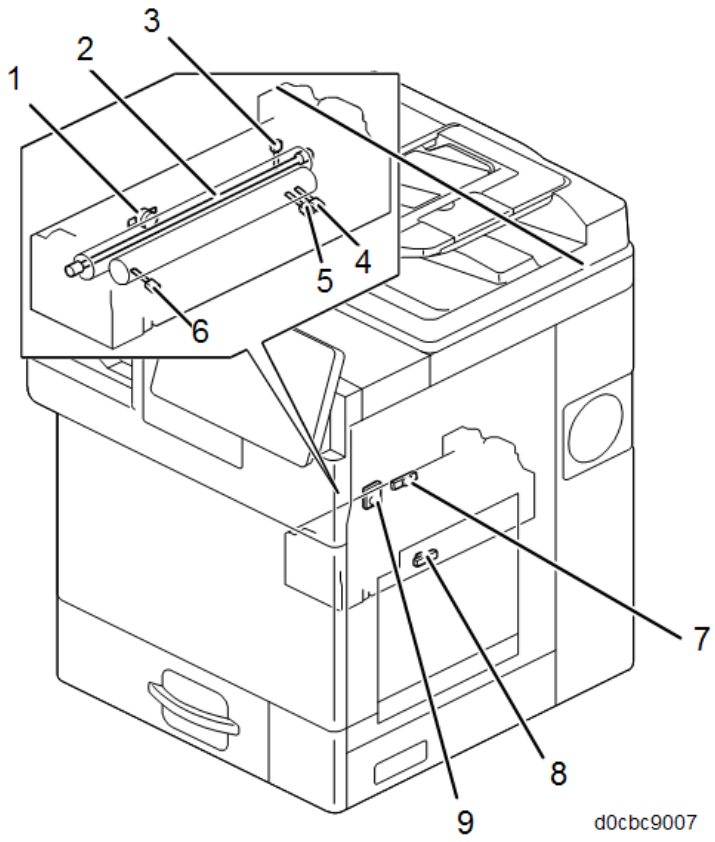
Callout	Item	Callout	Item
1	Reverse Clutch (CL2)	6	Paper Exit Sensor (S7)
2	Paper Exit Clutch (CL3)	7	Duplex Exit Sensor (S2)
3	Duplex Entrance Sensor (S1)	8	Waste Toner Full Sensor (S36)
4	Right Cover Sensor (SW2)	9	Junction Gate Solenoid (SOL1)
5	Duplex Clutch (CL6)	10	Waste Toner Bottle Set Sensor (S26)

Fusing

IM C300 series



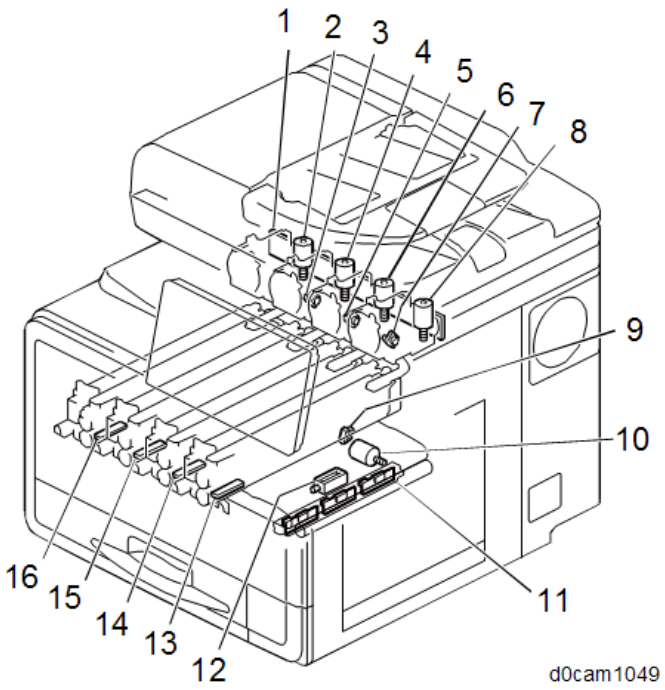
IM C400 series



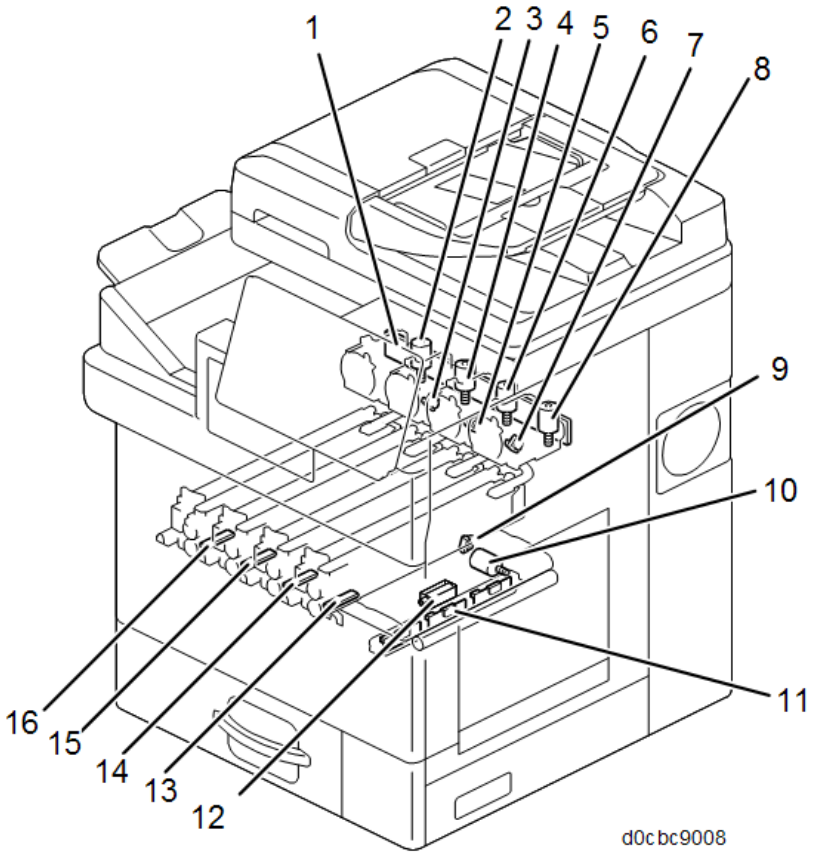
Callout	Item	Callout	Item
1	Fusing Thermostat	6	Pressure Roller Thermistor (Edge: front) (TH2)
2	Fusing Heater	7	Fusing Exit Sensor (S8)
3	Fusing Thermistor (Non-contact Sensor) (S10)	8	Fusing Entrance Sensor (S3)
4	Pressure Roller Thermistor (Edge: rear) (TH3)	9	Fusing Thermopile (TH1)
5	Pressure Roller Thermistor (Edge: center) (TH4)	-	-

Development Unit / ITB/ Paper Transfer

IM C300 series



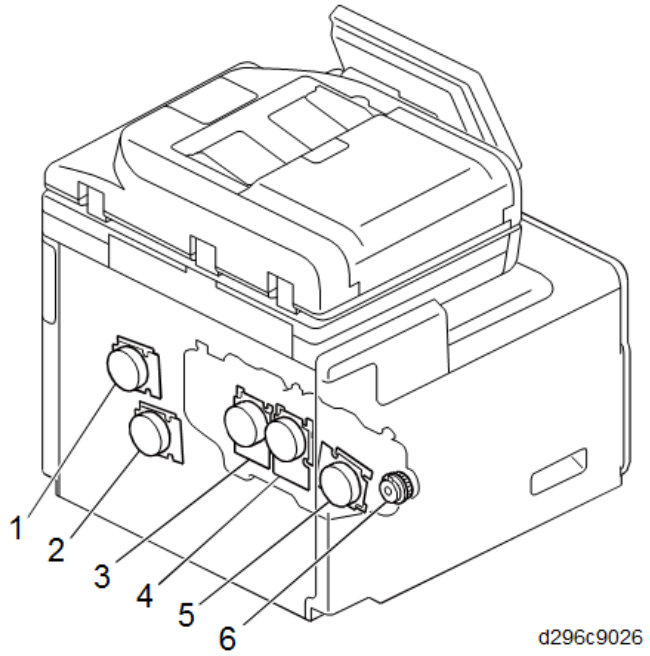
IM C400 series



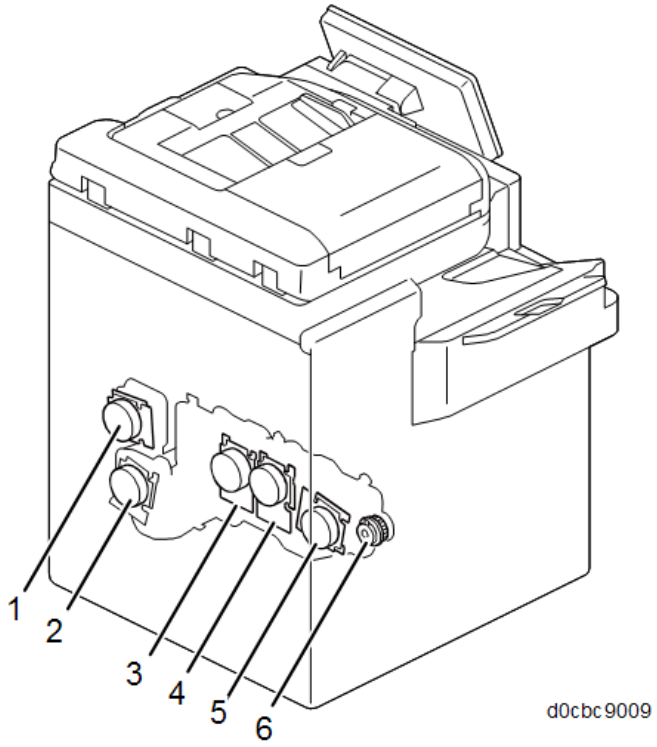
Callout	Item	Callout	Item
1	toner bottle sensor board (PCB7)	9	ITB lift HP sensor (S33)
2	toner supply motor (K) (M1)	10	ITB lift motor (M14)
3	toner end sensor (C) (S11)	11	ID sensor (S27-S29)
4	toner supply motor (C) (M2)	12	ID sensor shutter solenoid (SOL2)
5	toner end sensor (M) (S12)	13	TD sensor (Y) (S17)
6	toner supply motor (M) (M3)	14	TD sensor (M) (S16)
7	toner end sensor (Y) (S13)	15	TD sensor (C) (S15)
8	toner supply motor (Y) (M4)	16	TD sensor (K) (S14)

Drive Unit

IM C300 series



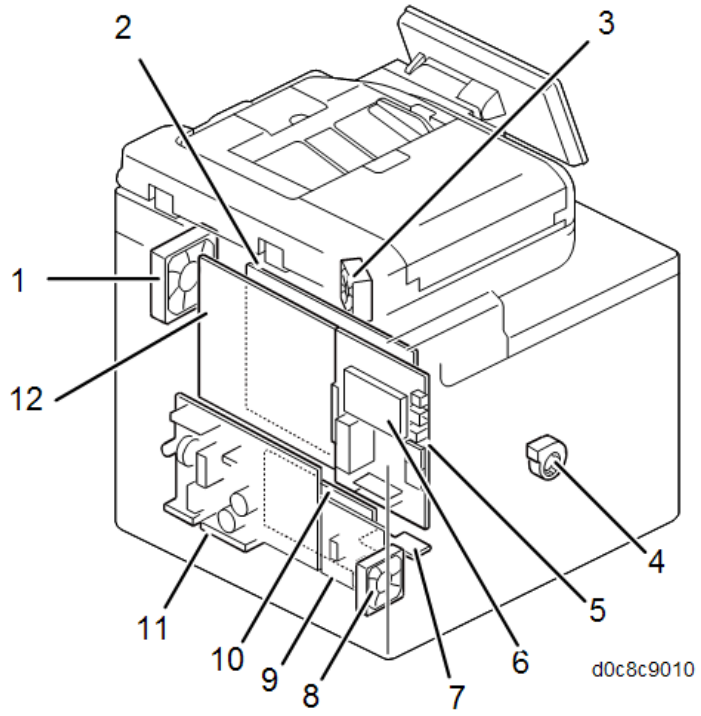
IM C400 series



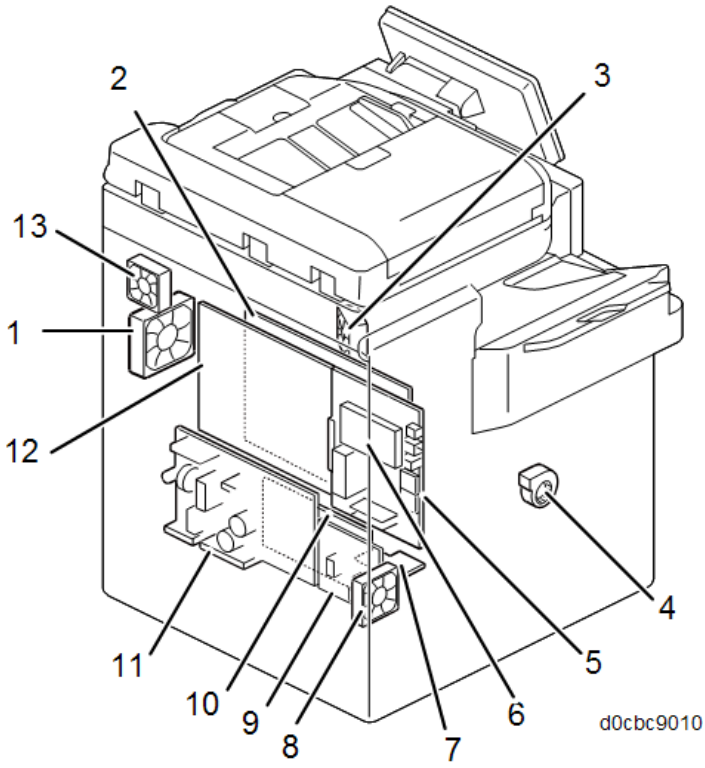
Callout	Item	Callout	Item
1	Fusing Motor (M13)	4	Drum Motor (CMY) (M10)
2	Paper Transport Motor (M12)	5	Drum Motor (M11)
3	Development Motor (CMY) (M9)	6	Development Clutch(K) (CL5)

Electrical Parts

IM C300 series



IM C400 series

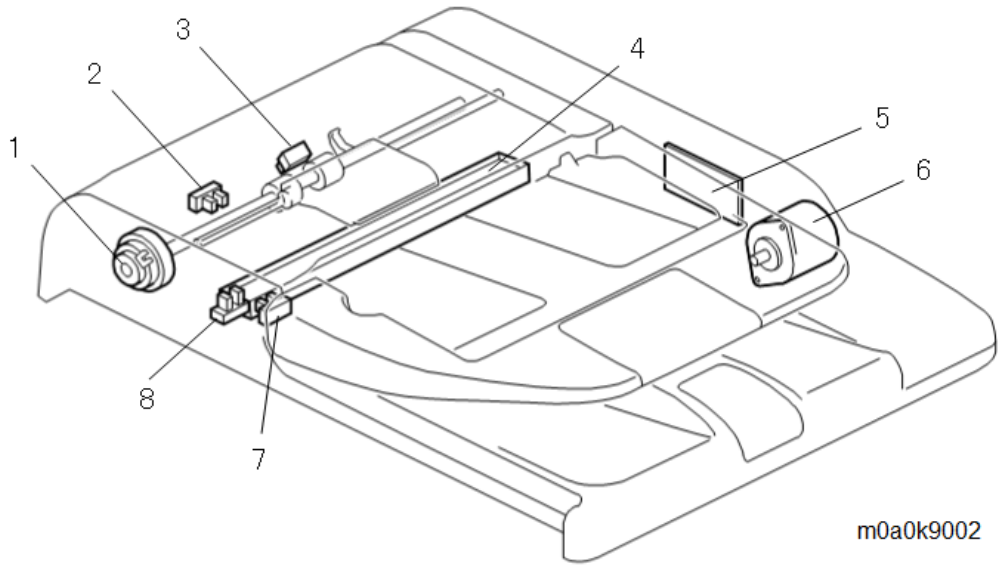


Callout	Item	Callout	Item
1	Fusing Unit Cooling Fan (FAN1)	8	PSU Exhaust Fan (FAN4)
2	High-Voltage Power Supply	9	PSU AC (PCB17)

Callout	Item	Callout	Item
	(Development) (PCB22)		
3	LD Unit Cooling Fan (FAN2)	10	High-Voltage Power Supply (Transfer) (PCB23)
4	PCDU Cooling Fan (FAN3)	11	PSU DC (PCB16)
5	Controller Board (PCB24)	12	BiCU (PCB1)
6	HDD	13	Paper Exit Exhaust Fan (FAN5)*1
7	AC Detection Board (PCB18)	-	-

*1 IM C400SRF only

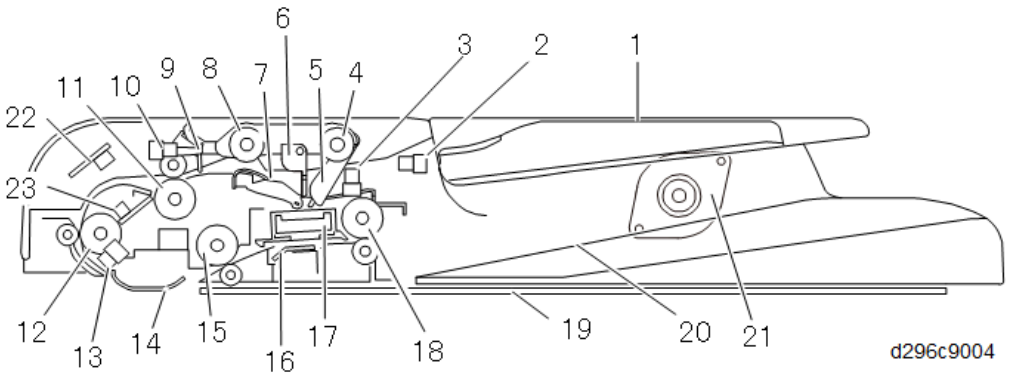
ADF Unit



No.	Name	No.	Name
1	Original Feed Clutch (CL4)	5	ADF Relay Board (PCB13)
2	Original Feed Sensor (S25)	6	ADF Motor (M8)
3	Registration Sensor (S24)	7	ADF Top Cover Sensor (S23)
4	CIS (S21)	8	Original Set Sensor (S22)

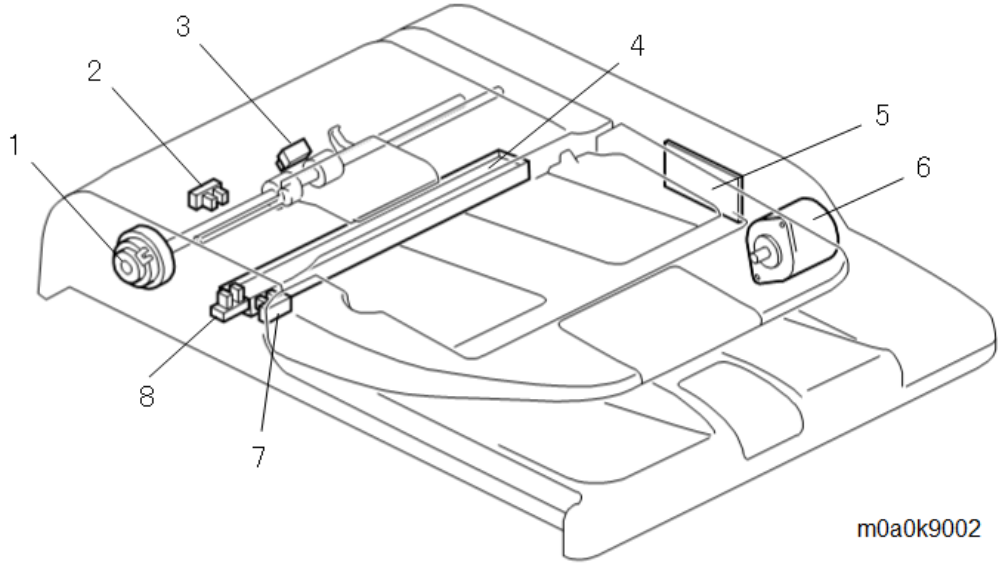
ADF Unit

Overview



No.	Name	No.	Name
1	Original tray	13	Registration sensor (S24)
2	ADF top cover sensor (S23)	14	Scanning guide plate (front side)
3	Original set sensor (S22)	15	Pre-scanning roller (rear side)
4	Pick-up roller	16	Scanning guide plate (rear side)
5	Original set sensor actuator	17	CIS (S21)
6	Stopper	18	ADF exit roller
7	Friction pad	19	Platen
8	Feed roller	20	Original exit tray
9	Original feed sensor actuator	21	ADF motor (M8)
10	Original feed sensor (S25)	22	Double-feed sensor (URRB)*1 (receiver) (PCB15)
11	ADF entrance roller	23	Double-feed sensor (MFTB)*1 (emitter) (PCB14)
12	Pre-scanning roller (front side)	-	-

*1 Option



No.	Name	No.	Name
1	Original feed clutch (CL4)	5	ADF relay board (PCB13)
2	Original feed sensor (S25)	6	ADF motor (M8)
3	Registration sensor (S24)	7	ADF top cover sensor (S23)
4	CIS (S21)	8	Original set sensor (S22)

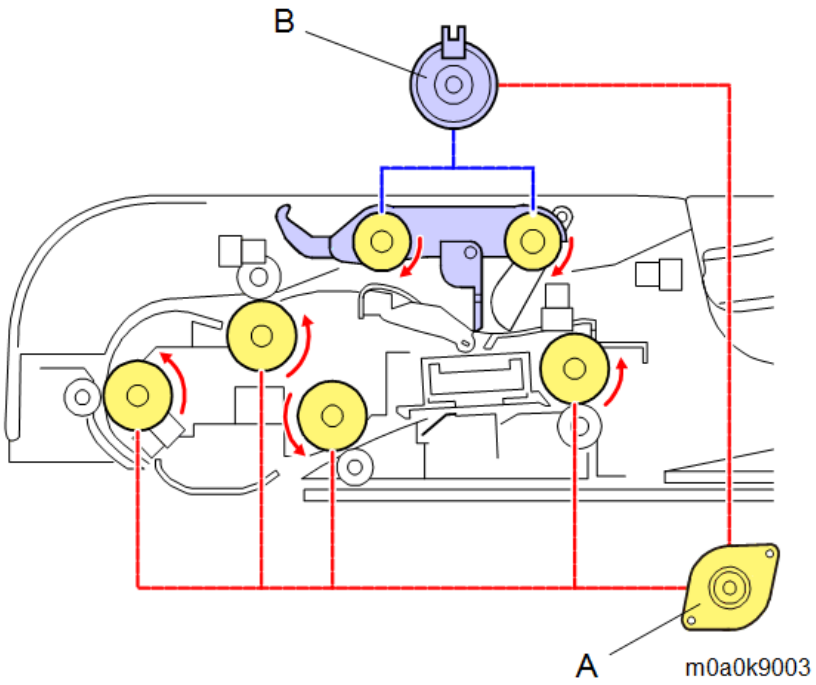
Note

- The ADF of this machine does not have an automatic size detection function because it does not have sensors to detect the length and width of the original.

Original Transport Drive

The ADF motor (M8) [A] drives all ADF rollers via gears.

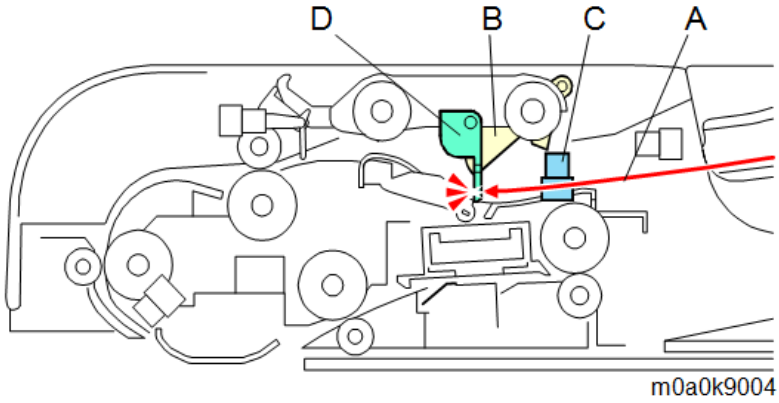
The original feed clutch (CL4) [B] controls the mechanism for picking up the original.



Original Set Detection

When an original [A] is placed on the original tray correctly, the original set sensor actuator [B] is pushed up and the original set sensor (S22) [C] turns off (not interrupted). The machine judges this state as the placement of an original.

The stopper [D] prevents the user from placing originals too far into the feeder.

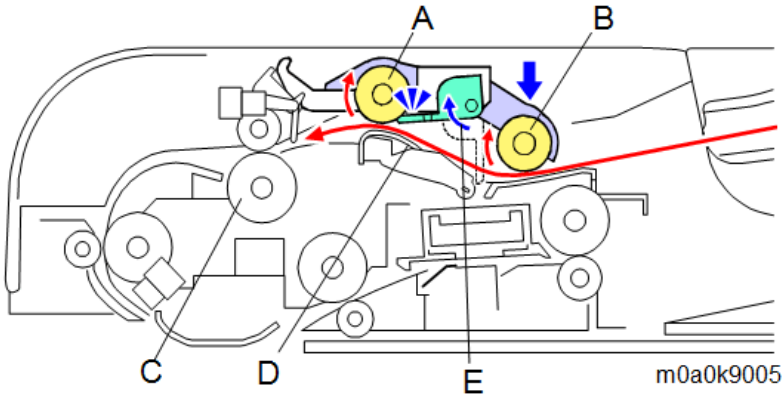


Original Transport Path

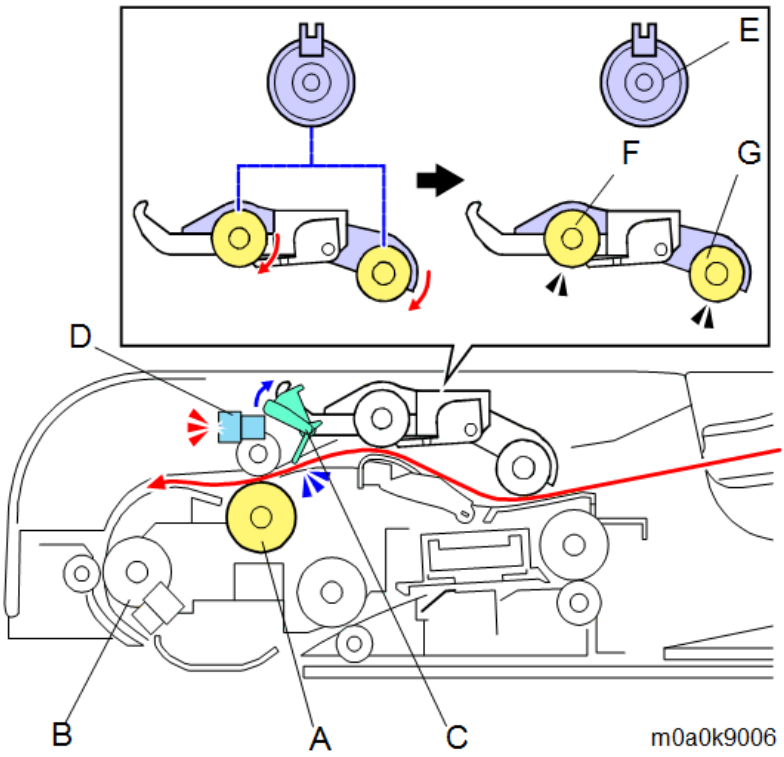
When [Start] is pressed, the original feed clutch (CL4) is turned ON. Then the feed roller [A] rotates to drop the pick-up roller [B] onto the top original of the stack. This moves the stopper [E] out of the way, and the original can be fed from the feed roller [A] to the ADF entrance roller [C].

The friction pad [D] ensures that only one sheet of the original enters the feeder at a time.

When the original is being fed, the stopper [E] becomes unrestricted so as not to impose a load on the feeding.



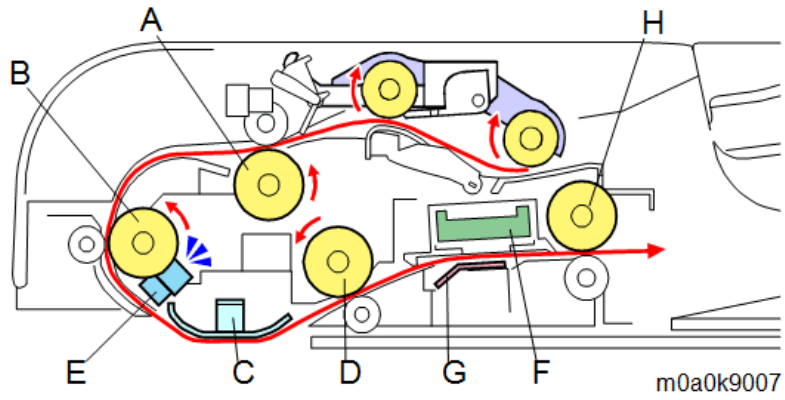
When the original reaches the pre-scanning (front side) roller [B] via the ADF entrance roller [A], the original moves the feed sensor actuator [C] and the original feed sensor (S25) [D] is turned ON. Then the original feed clutch (CL4) [E] is turned OFF to stop the feed roller [F] and the pick-up roller [G], to prevent the next original from being picked up.



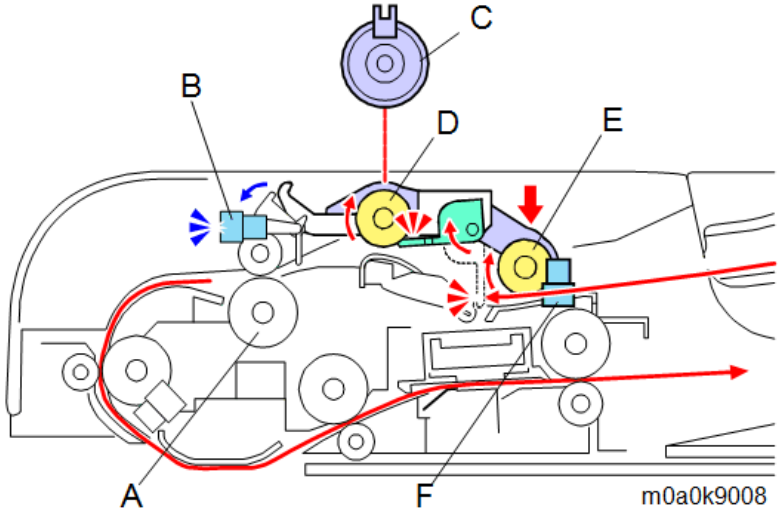
The original is fed by the ADF entrance roller [A] and the pre-scanning (front side) roller [B], scanned on the exposure glass under the scanning guide plate (front side) [C], and then delivered by the pre-scanning (rear side) roller [D].

The feeding of the original is detected by registration sensor (S24) [E]. If an error occurs, it is reported as a paper jam.

The original is fed by the pre-scanning (rear side) roller [D], scanned by the CIS (S21) [F] on the scanning guide plate (rear side) [G], and then fed out by the exit roller [H].

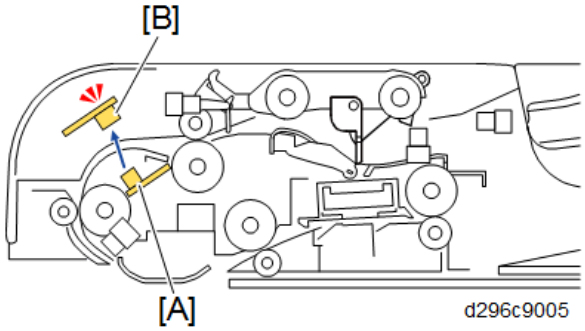


When the original passes through the ADF entrance roller [A], the original feed sensor (S25) [B] is detected OFF. If the next original is set, the original set sensor (S22) [F] detects ON and the original feed clutch (CL4) [C] is turned ON. Then, the feed roller [D] and pick-up roller [E] rotate to pick up the next original.



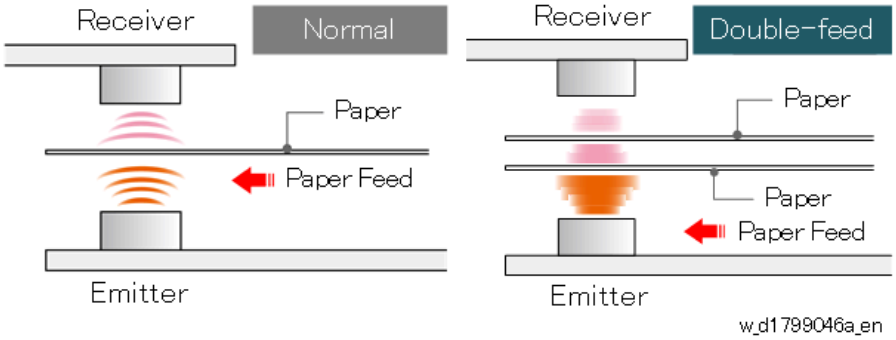
Double-feed Detection (Optional)

A pair of ultrasound sensors are mounted in the ADF, one below the original feed path (emitter [A]) and the other above the path (receiver [B]).



- When the original passes between the sensors, an ultra-sound wave from the emitter sensor below passes through the paper to the receiver above.

- The receiver converts the signal generated by the vibration of the signal against the paper to an electrical pulse and checks its level.
- If a double feed occurs, the space between the sheets will generate a lower signal. When the receiver detects this lower signal (lower than that of a single sheet) it causes the machine to issue Jam Code J099 (double-feed detected) and then original feed stops.



This double feed detection will not function with originals that have:

- Folds, wrinkles, tears
- Holes
- Imperfectly fused images
- Perforations
- Taped connections
- Taped surfaces

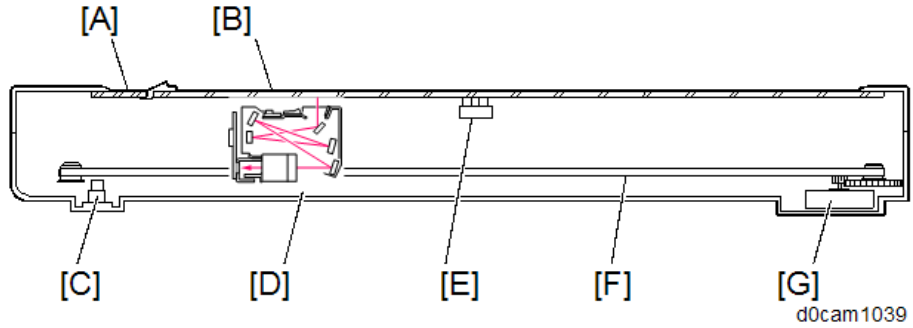
Feeding such originals could cause false detection of double-feeds.

The service technician can also switch double-feed detection OFF/ON with SP6-040-001 (Page Keeper: Mount Select, Default 0: Off).

Do not change the settings of SP6-040-005 (Page Keeper: Clear Select).

Scanner Unit

Overview



Callout	Item	Callout	Item
[A]	Exposure Glass (for ADF)	[E]	ADF Position Sensor (S19)
[B]	Exposure Glass (for platen mode)	[F]	Scanner Carriage Drive Belt
[C]	Scanner HP Sensor (S20)	[G]	Scanner Motor (M7)
[D]	Scanner Carriage	-	-

Note

- Automatic paper size detection is not available because this model has no APS (sensor that detects original's paper size) in the scanner.

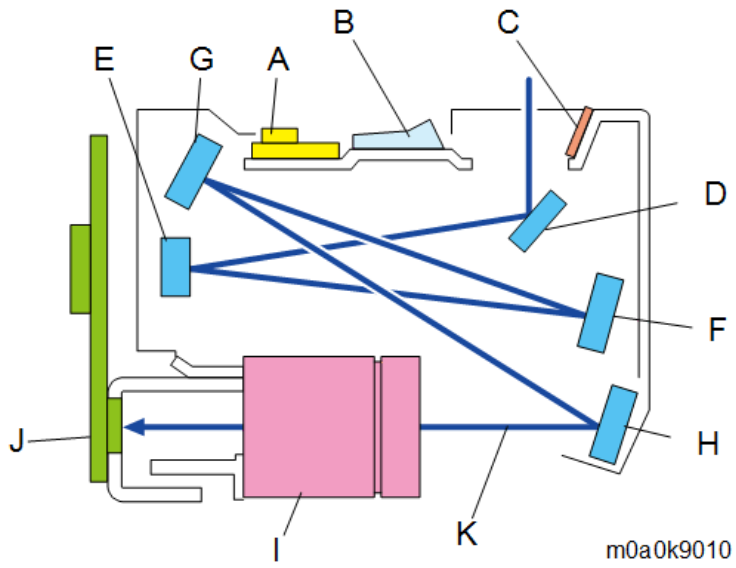
Light Source and Exposure

This model uses an LED for the light source. Light from the LED array board (LEDB) [A] goes to the original via the light guiding panel [B] and the reflector [C]. Then from the original, the light follows the light path to the CCD [J].

The LED lamps are disposed at both ends so that sufficient light reaches the left and right ends of the document.

The light reflected from the original travels as follows:

LED exposure -> 1st mirror [D] -> 2nd mirror [E] -> 3rd mirror [F] -> 4th mirror [G] -> 5th mirror [H] -> Lens [I] -> CCD [J]



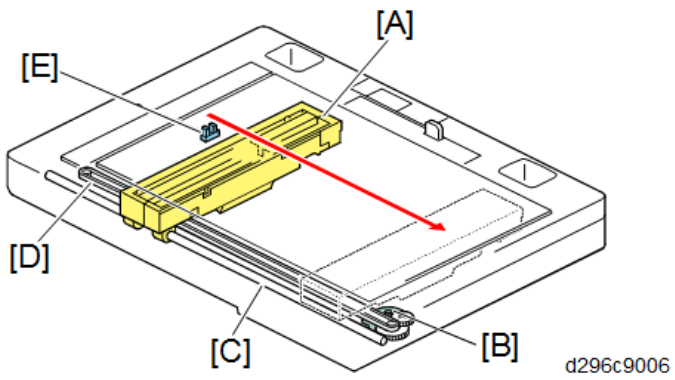
Callout	Item	Callout	Item
[A]	LED array board (LEDB)	[G]	4th mirror
[B]	Light guiding panel	[H]	5th mirror
[C]	Reflectors	[I]	Lens
[D]	1st mirror	[J]	CCD
[E]	2nd mirror	[K]	Light Path
[F]	3rd mirror	-	-

Scanner Carriage Drive

The scanner motor (M7) [B] drives the drive belt [D] in order to move the scanner carriage [A] along the guide rod [C].

Scanning starts with the scanner carriage [A] at the scanner HP sensor (S20) [E]. After scanning, the scanner carriage returns to the scanner HP sensor (S20) . The actuator for the scanner HP sensor (S20) is on the underside of the carriage.

When you wish to move the carriage, use the drive belt. Do not pull the carriage directly.



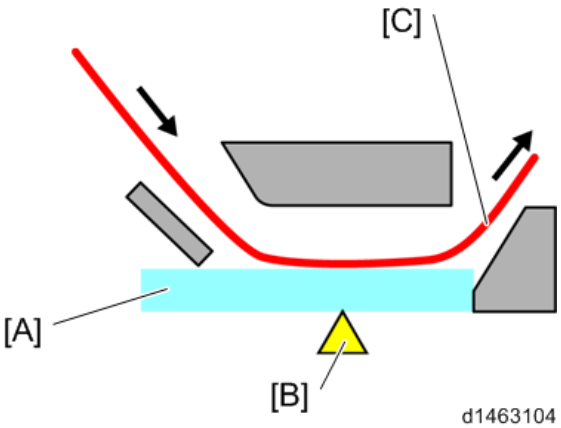
Callout		Callout	Item
[A]	Scanner Carriage	[D]	Scanner Drive Belt
[B]	Scanner Motor (M7)	[E]	Scanner HP Sensor (S20)
[C]	Guide Rod	-	-

Improved Tolerance to Black Lines When Paper Passes through ADF

This model uses a conventional mechanism in which paper comes in contact with the exposure glass during feeding. This is useful for dealing with adhesion of free dirt particles (paper scraps, etc.). (Self-cleaning mechanism using paper)

On the other hand, sticky dirt adhering to the document sticks to the exposure glass, and may cause black lines in scanned images.

ADF cross-section diagram



[A]: Exposure glass

[B]: Reading position

[C]: Original feed path

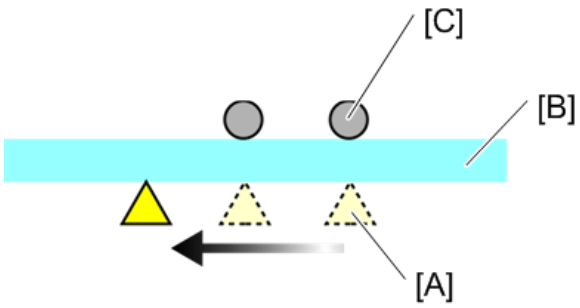
Scanning Position Correction

By changing SP4-020-001 (Dust Check Dust Detect:On/Off), when dirt is detected at the scanning position, the scanning position may be changed to avoid the dirt.

(If it cannot be avoided, an alert is displayed on the operation panel advising the user to perform target glass cleaning).

Likewise, the scanning position correction can be switched on/off for the back of the original by SP4-020-011 (Dust Detect Level: Rear).

Image diagram



d1463105

[A]: Scanning position

[B]: Sheet-through exposure glass

[C]: Dirt

Note

- Dirt is detected when a document passes through, so the alert will not disappear until the scanning of the next document begins, even after the sheet-through exposure glass cleaning is performed.
- If dirt is detected not on the sheet-through exposure glass but on the background guide plate, the alert will not disappear even if the glass is wiped.
- The time required for the first copy is slightly (almost imperceptibly) longer.
- The detection threshold value can be changed using SP4-020-002 (Dust Check Dust Detect:Lvl). Likewise, the detection level on the back of the original can be changed with SP4-020-012 (Correction Level: Rear). (The larger the value is, the smaller the dirt particles that can be detected become.)
- It is prohibited to change the setting of SP4-020-003 (Dust Check Lvl Dust Reject:Lvl).

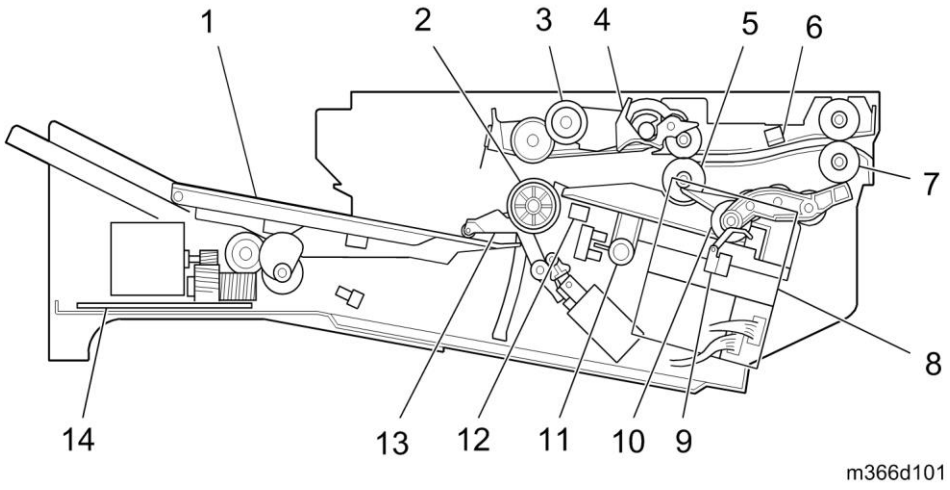
Internal Finisher

Overview

Item	Specifications
Productivity	40cpm
Paper size	LT to A6 (SEF)
Maximum stack on output tray	250 sheets(80 g/m2)
Number of stapling positions	1 position
Punch	N/A
Staple capacity (80 g/m2, 20 lb. Bond)	30 sheets: 8 $^{1}/_{2}$ ×14SEF, 8$^{1}/_{2}$ × 13SEF, 8$^{1}/_{2}$ × 11SEF
Stack capacity after stapling (80 g/m2, 20 lb. Bond)	• 2 sheets: 33 sets • 30 sheets: 7 sets
Power requirements	Power is supplied from the main unit.

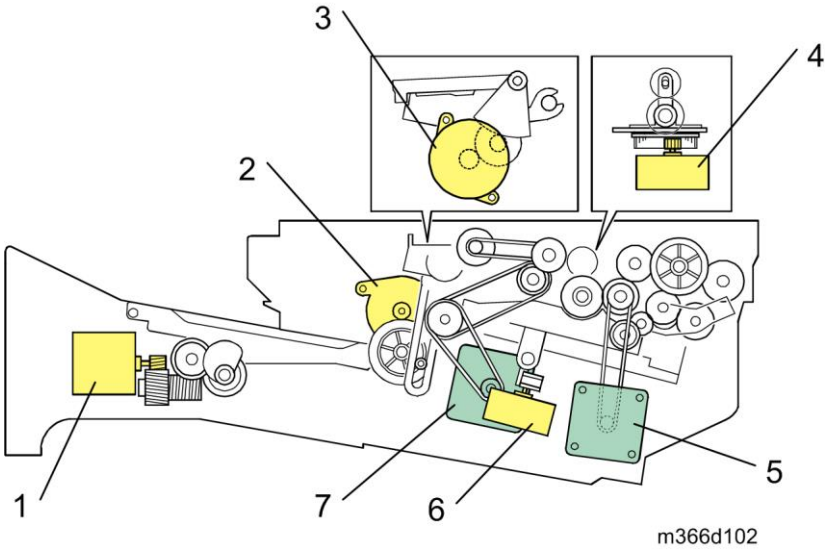
Component Layout

Mechanical Component Layout



No.	Parts Name	No.	Parts Name
1	Output Tray	8	Stapler
2	Paper Exit Roller	9	Staple Tray Paper Sensor (S42)
3	Gathering Roller	10	Reverse Roller
4	Paper Trailing Edge Guide	11	Jogger Fence
5	Shift Roller	12	Paper Exit Sensor (S43)
6	Entrance Sensor (S45)	13	Paper Sensor Arm
7	Entrance Roller	14	Main board (PCB25)

Drive Layout

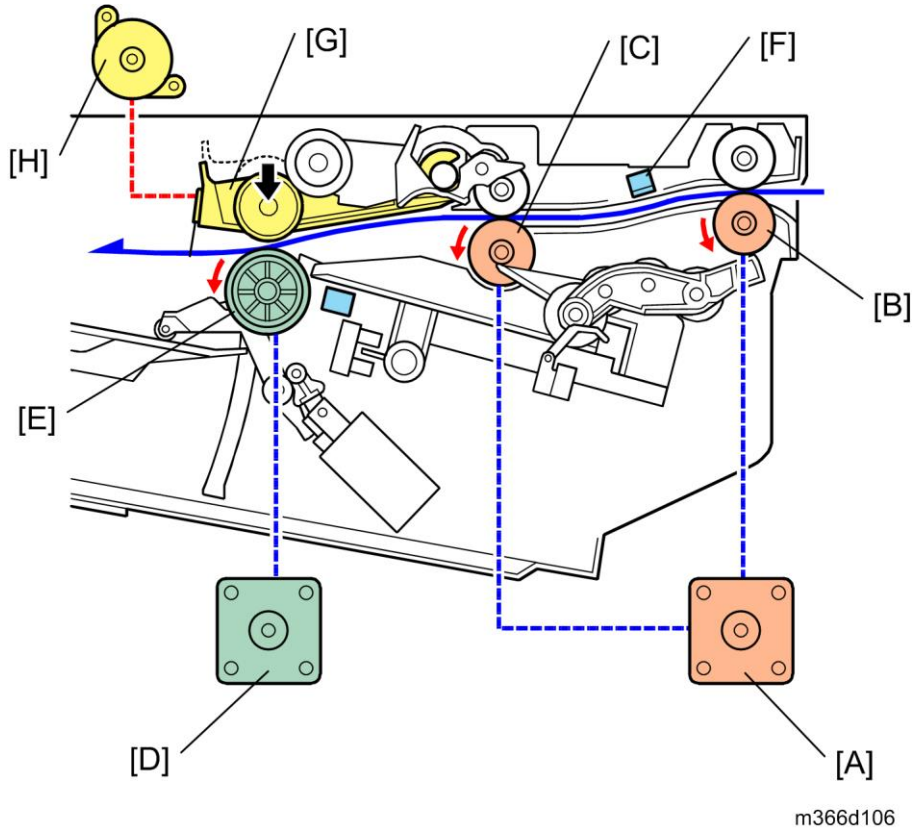


No.	Parts Name
1	Tray Lift Motor (M22)
2	Gathering Roller Motor (M18)
3	Exit Guide Plate Motor (M21)
4	Shift Roller Motor (M19)
5	Paper Transport Motor (M16)
6	Jogger Motor (M20)
7	Paper Exit Motor (M17)

Paper Feed

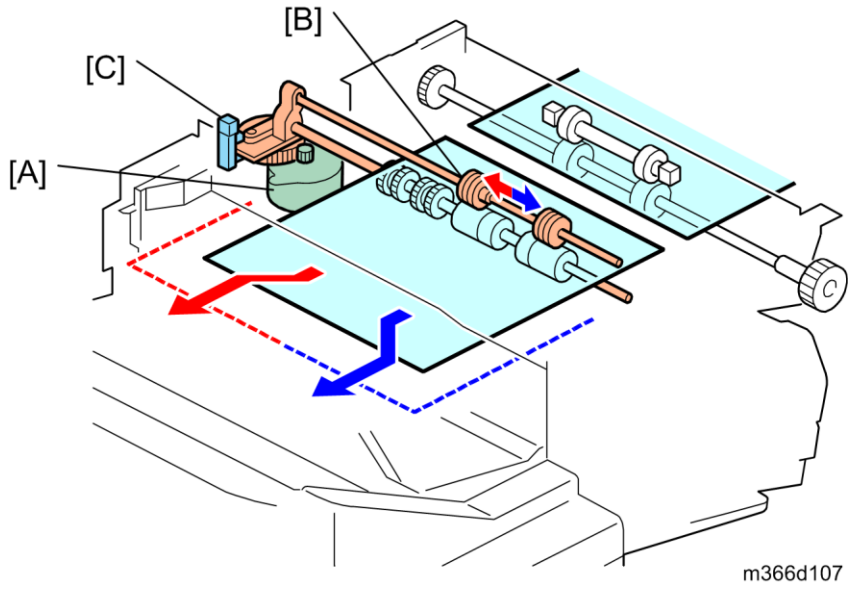
Paper Feed Through the Finisher

- Paper transport motor (M16) [A] drives the entrance roller [B] and shift roller [C].
- Paper exit motor (M17) [D] drives the paper exit roller [E].
- When the entrance sensor (S45) [F] detects the leading edge of the paper, the exit guide plate unit [G] is lowered from its home position by the exit guide plate motor (M21) [H].
- Paper exit roller [E] feeds the paper to the output tray.
  This diagram shows paper feed without stapling.



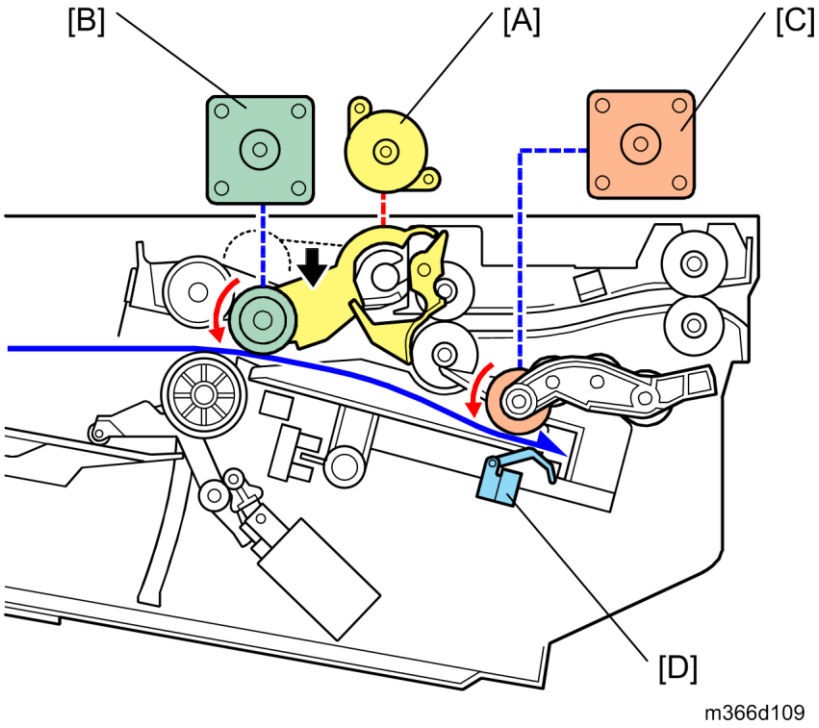
Shift

- The finisher separates each stack by shifting alternately to the left and right.
- Shift roller motor (M19) [A] moves the shift roller [B] from side to side.
- Shift roller HP sensor (S37) [C] detects whether or not the shift roller [B] is at the home position again after jogging.

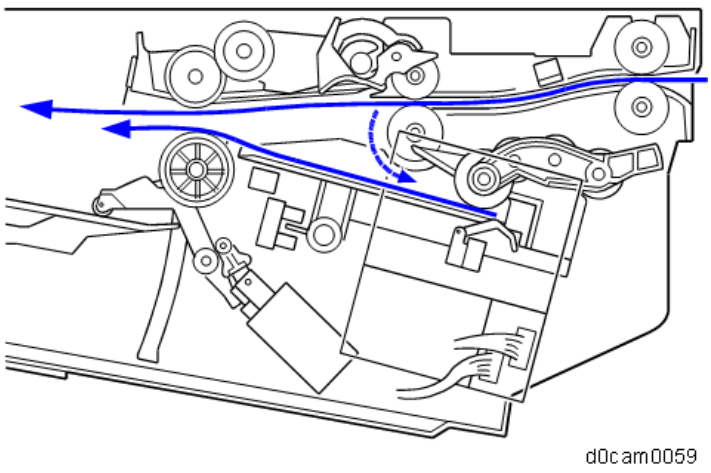


Stapling

- The exit guide plate motor (M21) [A] drops the gathering roller onto the paper.
- The paper exit motor (M17) [B] turns the roller in reverse.
- When the staple tray paper sensor (S42) [D] detects the paper, the motors stop feeding. ([C] is the paper transport motor (M16))
  This diagram shows how the machine reverse-feeds the sheet of paper into the stapler.

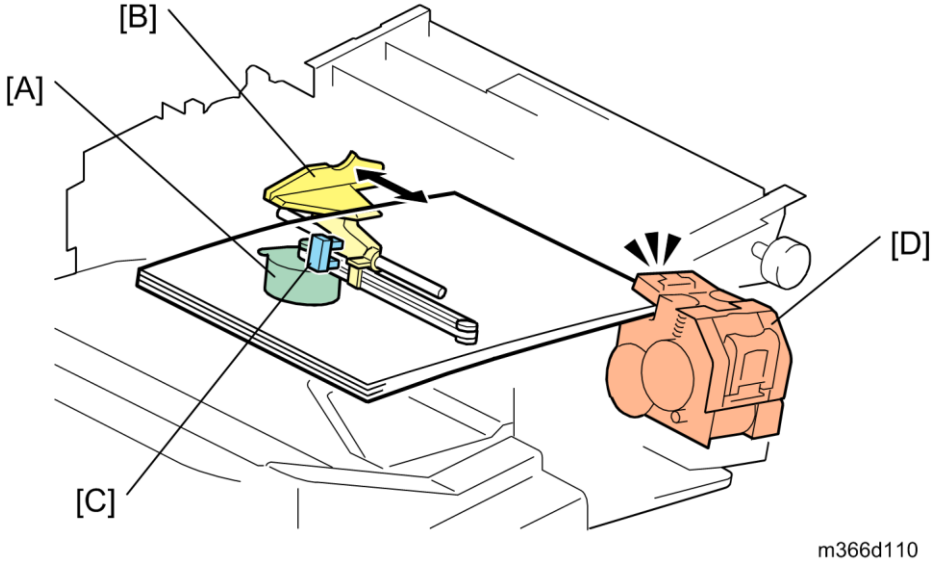


- The next sheet is fed into the finisher, then reversed into the stapler tray.

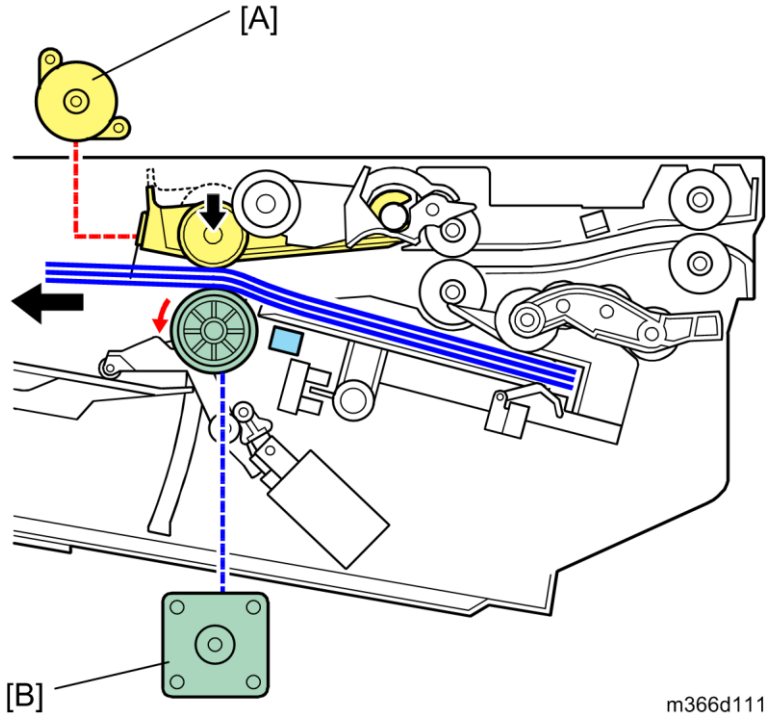


- Jogger motor (M20) [A] moves the jogger fence [B].
- Jogger fence HP sensor (S41) [C] detects whether or not the jogger fence [B] is at the home position again after jogging.

- Stapler [D] is driven by the stapler motor (M23) in stapler.

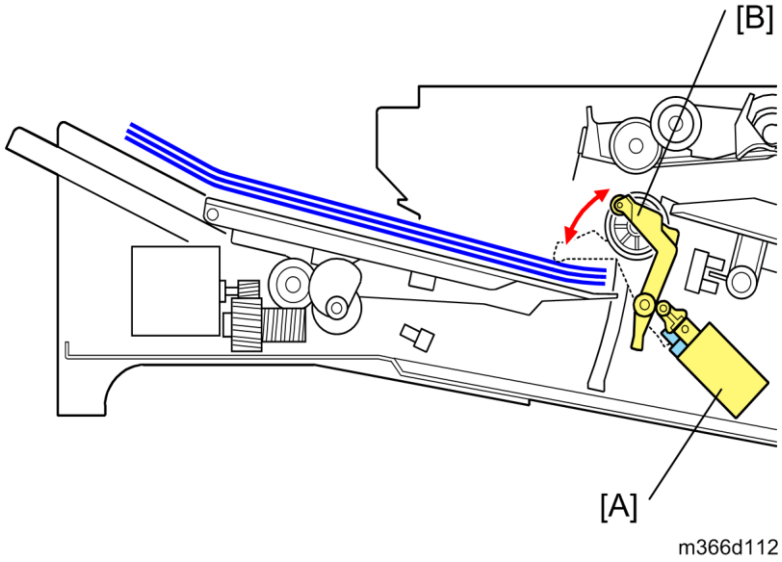


- After stapling, the exit guide plate roller driven by the exit guide plate motor (M21) [A] drops onto the top of the stack.
- The paper exit roller driven by the paper exit motor (M17) [B] feeds out the stack.

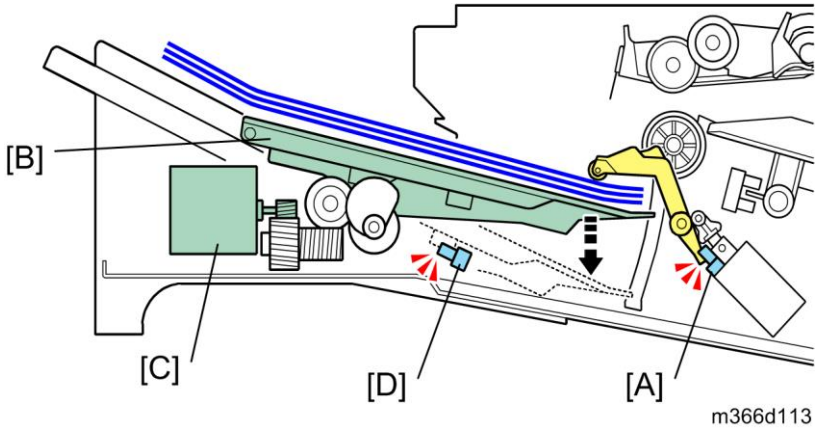


Tray Full Detection

- stopper solenoid (SOL3)[A] moves the actuator [B] until it touches the top of the stack.



- When the remaining paper sensor (SN40) [A] detects the actuator, the tray lift motor (M22) [C] lowers the end of the tray nearest the exit. This makes room for more paper on the tray [B].
- If the tray lower limit sensor (S39) [D] is activated, the tray cannot be lowered any more.



Finisher Free Run

You can make a finisher free run with the following SPs. No paper is required when executing these SPs.

- 6-137-001: Free Run 1 (Shift mode)
- 6-137-002: Free Run 2 (Staple mode)
- 6-137-003: Free Run 3 (Packing mode: Output tray descends to the lowest position.)
- 6-137-004: Free Run 4 (Not assigned)

You can also make a free run with dip switches.

1	2	3	4	Mode
OFF	OFF	OFF	OFF	Normal mode
ON	OFF	OFF	OFF	Shift mode

1	2	3	4	Mode
OFF	ON	OFF	OFF	Staple mode
OFF	OFF	ON	OFF	Packing mode: Output tray descends to the lowest position

Jogger Fence Fine Adjustment

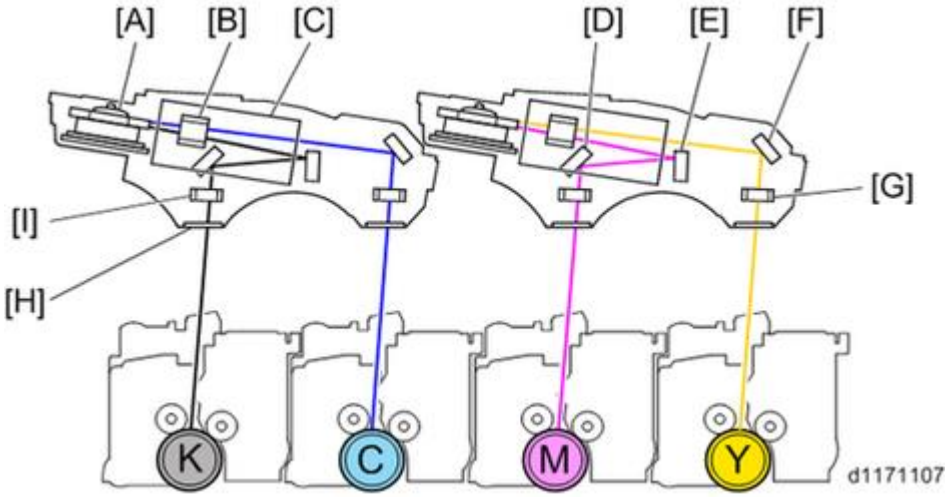
You can adjust the jogging position of the jogger fence with the following SPs (from -1.0 mm to 1.0 mm).

- A4: 6-132-003
- B5: 6-132-005
- Legal: 6-132-008
- Letter: 6-132-009
- Other: 6-132-012

Laser Unit

Overview

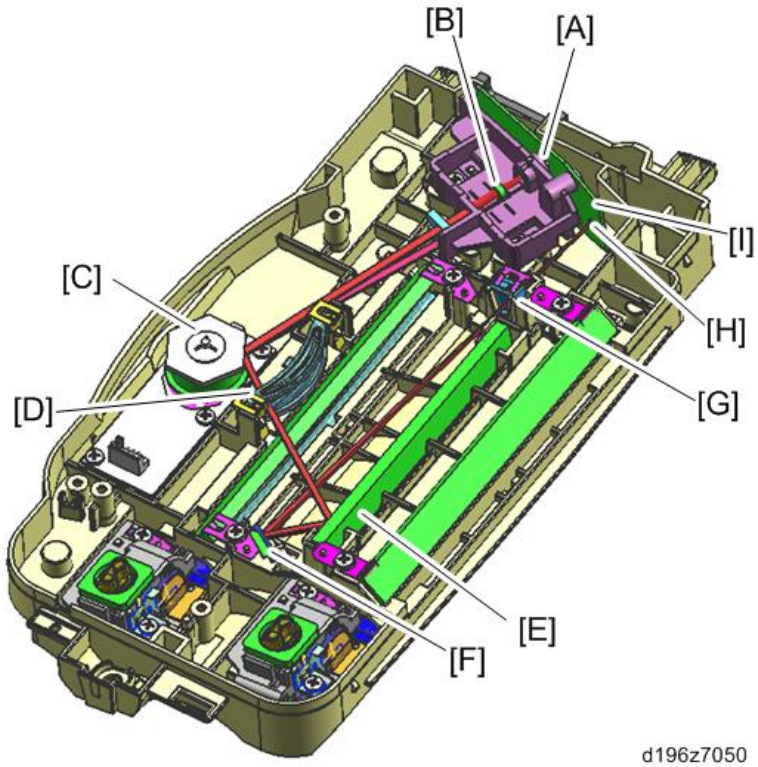
This machine has two LD units. One is for yellow and magenta. Another is for cyan and black. Each LD unit produces laser beams for two colors.



Callout	Item	Callout	Item
[A]	Polygon Motor (M5,M6)	[F]	Mirror 3
[B]	Lens (L1)	[G]	Lens (L2)
[C]	LD Drive Board (PCB8)(PCB9)	[H]	Shield Glass
[D]	Mirror 2	[I]	Lens (L2)
[E]	Mirror 1	-	-

Laser Synchronizing System

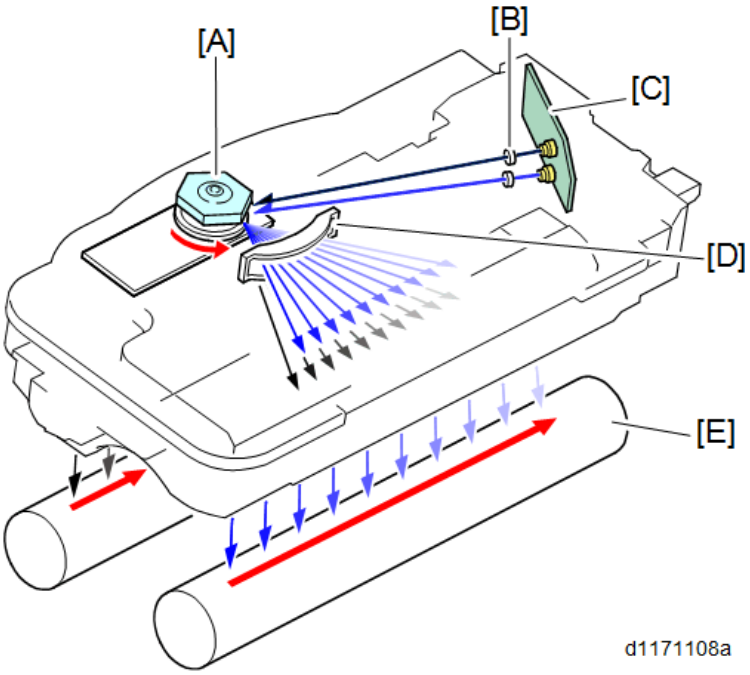
The LD unit has a synchronization detector at the left side of each unit (for the optical paths for the K and M drums only). A laser beam coming from the LD Board [A] travels to the collimating lens [B] → polygon motor (M5,M6) [C] → lens (L1) [D] → Mirror 1 [E] → Mirror 2 → Mirror 3 → Drum.
When the beam is at the beginning of the line, the synchronization mirror [F] reflects it to the synchronization lens. The synchronization detector [H] mounted on LD drive board (PCB8)(PCB9) [I] detects the beam reflected.



Callout	Item	Callout	Item
[A]	LD Board	[F]	Synchronization Mirror
[B]	Collimating Lens	[G]	Synchronization Lens
[C]	Polygon Motor (M5,M6)	[H]	Synchronization Detector
[D]	Lens (L1)	[I]	LD Drive Board (PCB8)(PCB9)
[E]	Mirror 1	-	-

Line Scanning Mechanism

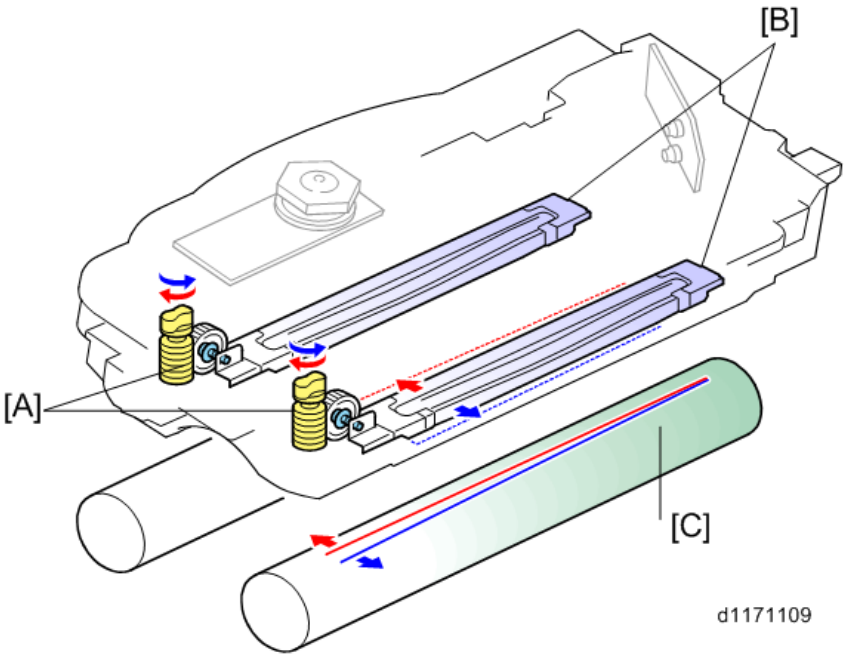
The image read by the scanner is written on the OPC drum [E] with the laser beams. The direction of main scanning is from the front to the rear of the machine. The polygon motor (M5,M6) [A] rotates counterclockwise.



Callout	Item	Callout	Item
[A]	Polygon Motor (M5,M6) (With Polygon Mirror)	[D]	Lens (L1)
[B]	Collimating Lens	[E]	OPC Drum
[C]	LD Drive Board (PCB8)(PCB9)	-	-

Image Skew Adjustment

In this machine, you can adjust the image skew correction manually. When turning the adjuster [A] clockwise or counterclockwise, the front of the lens moves to the left or right, and this adjusts the image skew.



Callout	Item	Callout	Item
[A]	Adjuster	[C]	OPC Drum
[B]	Lens (L2)	-	-

Dust Shield Glass

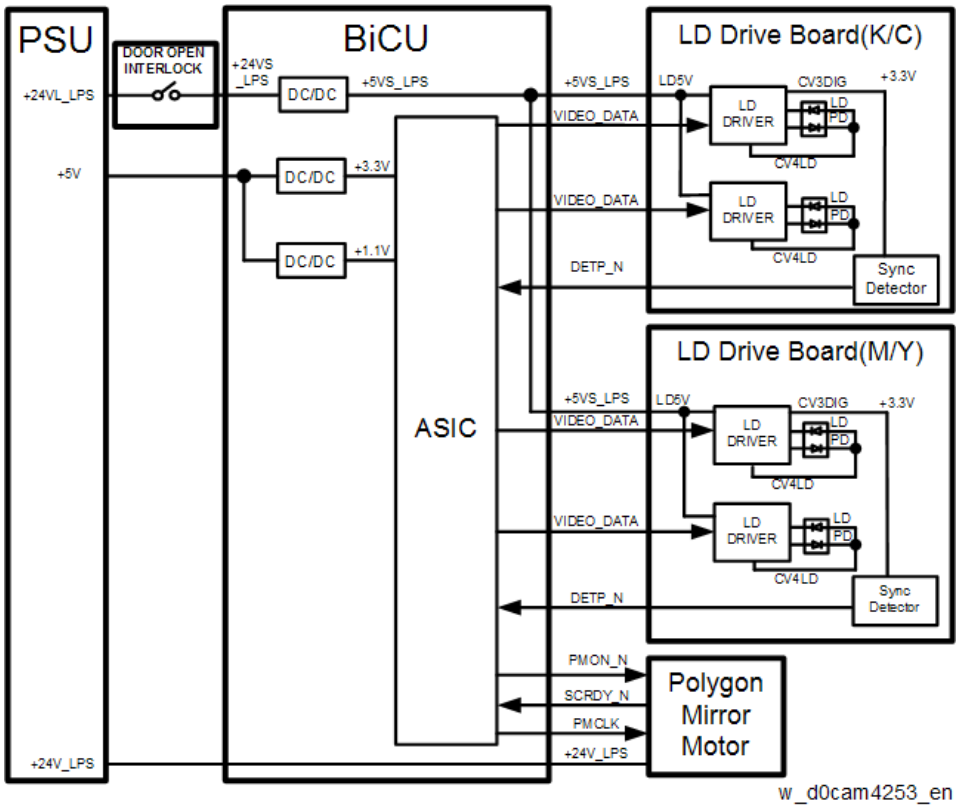
The laser unit is located between the upper side of toner bottle and PCDU. The LD unit emits a laser beam to above the OPC drum. This mechanism keeps the shield glass free from toner dropping and thus requires no cleaning tool.

LD Safety Switch

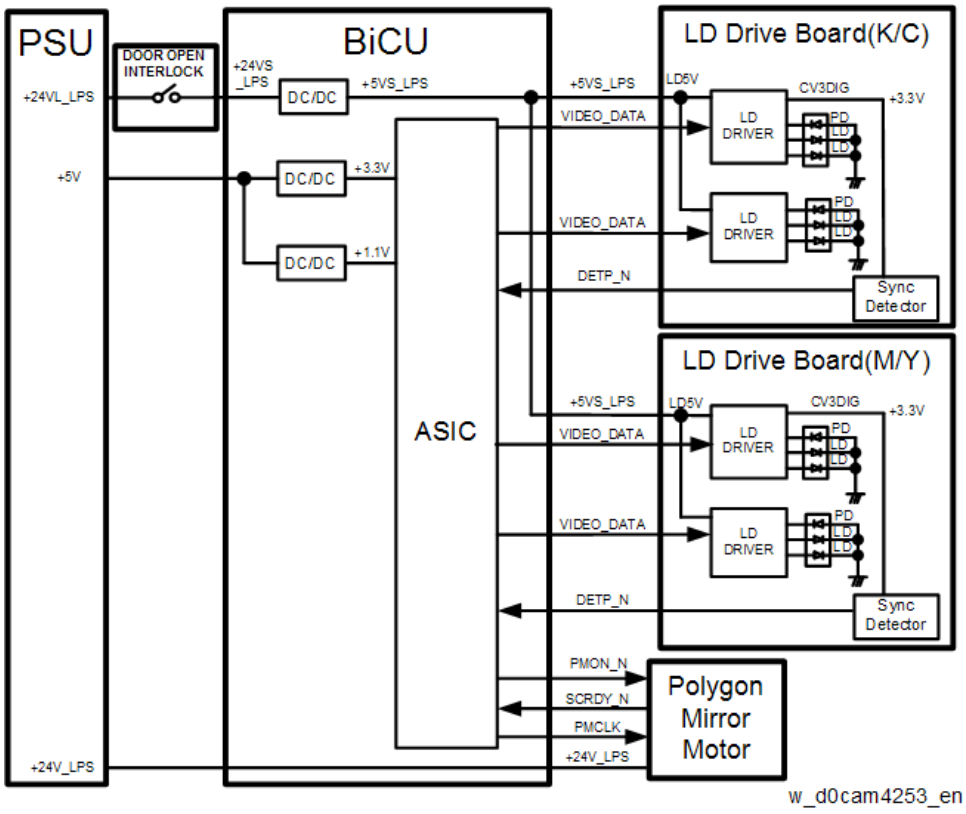
The +24VL_LPS goes through the interlock switch and is converted the +5VS_LPS on the BiCU (PCB1).

The +5VS_LPS are supplied to the two LD boards respectively. A safety switch turns OFF when the front cover or the right door is opened. As a result, the power supply (+24VL_LPS) to the BiCU (PCB1) is cut off. This system prevents unexpected laser emission, ensures user safety and technician safety.

IM C300 series

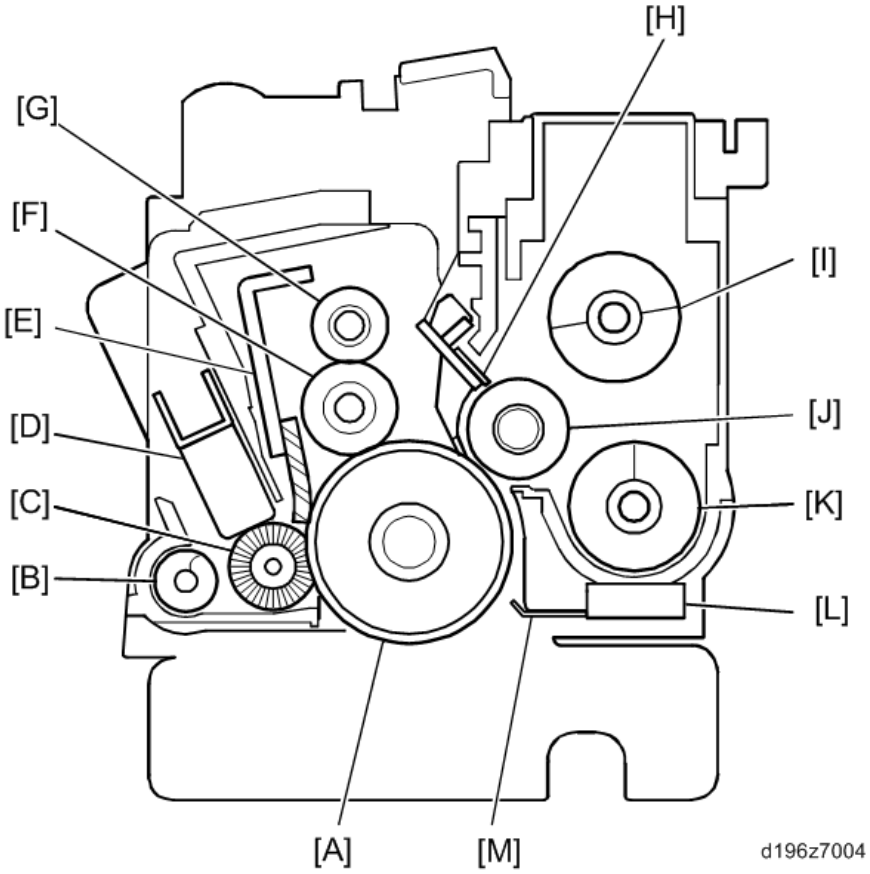


IM C400 series



PCDU

Overview



Drum Section

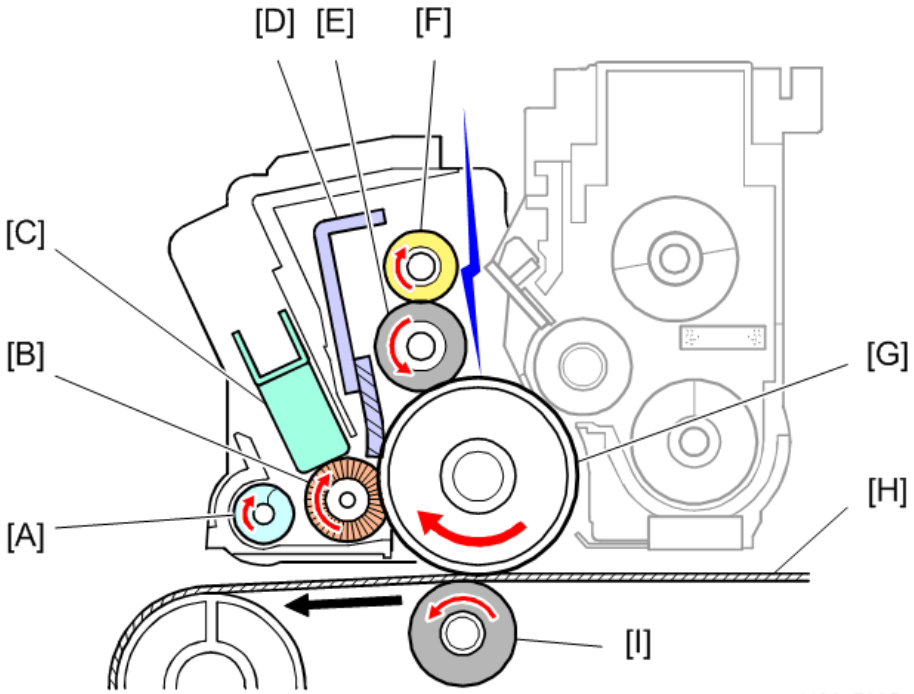
Callout	Item	Callout	Item
[A]	OPC Drum	[E]	Cleaning Blade
[B]	Waste Toner Transport Coil	[F]	Charge Roller
[C]	Lubricant Brush Roller	[G]	Charge Roller Cleaning Roller
[D]	Lubricant	-	-

Development Section

Callout	Item	Callout	Item
[H]	Doctor Blade	[K]	Transport Coil (Lower)
[I]	Transport Coil (Upper)	[L]	TD sensor (S14) (S15) (S16) (S17)
[J]	Development Roller	[M]	Toner Catching Mylar

The OPC drum section and the development section are joined by plates at the front and rear of the unit.

OPC Drum



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Callout	Item	Callout	Item
[A]	Waste Toner Transport Coil	[F]	Charge Roller Cleaning Roller
[B]	Lubricant Brush roller	[G]	OPC Drum
[C]	Lubricant	[H]	Image Transfer Belt (ITB)
[D]	Drum Cleaning Blade (Counter Rotation)	[I]	Image Transfer Roller (1st Transfer Roller)
[E]	Charge Roller	-	-

Charge Mechanism

A charge roller [E] charges the surface of the OPC drum [G] and drives the charge roller cleaning roller [F].

Photo Conductor Drum (OPC Drum)

This machine uses an organic photo conductor drum (OPC drum) [G] for image creation.
The laser from the laser unit forms an electrostatic latent image on the OPC drum (exposure), and the toner supplied from the developing unit adheres to the OPC drum (development). The toner on the OPC drum is transferred to the image transfer belt [H].

Drum Cleaning Mechanism

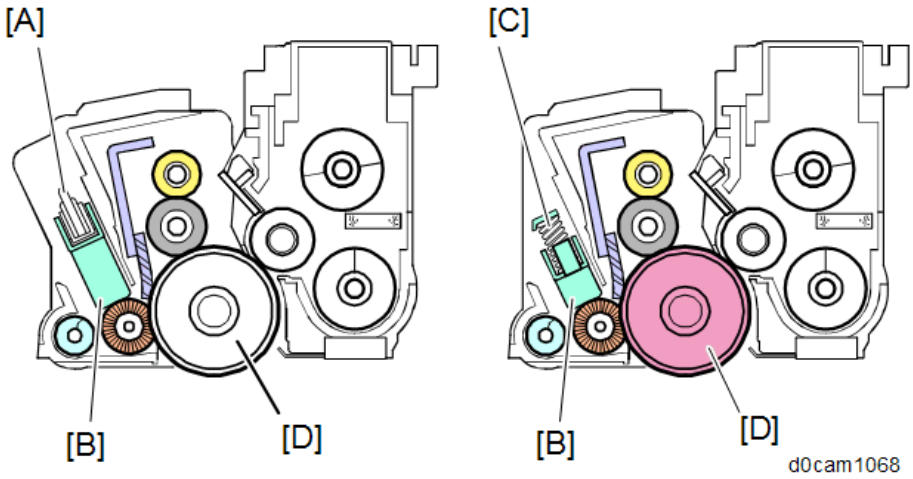
The drum cleaning blade [D] is mounted in contact with the OPC drum [G] in a direction opposite to the drum rotation, and scrapes off the toner.
OPC drum cleaning and lubricant application are done at the same time.
The lubricant is applied with the lubricant brush roller [B].

The lubricant brush roller [B] rotates in the opposite direction to the OPC drum [G].
Toner and foreign objects are removed from the edges of the blade by rotating the drum counterclockwise when a copy job is done.
The waste toner collected by the drum cleaning blade [D] is transported to the front of the machine by the waste toner transport coil [A] and deposited in the waste toner bottle.

Discharge Mechanism

After a job (not between consecutive jobs), the OPC drum is neutralized using the laser of the Laser Unit.

Differences between K and CMY



Left: K
Right: CMY
The following points are the differences between K and CMY.

	K	CMY
Lubricant [B] quantity	K > CMY	
Lubricant application method	Arm [A]	Pressure spring [C]
Silencer [D]	Available	Available

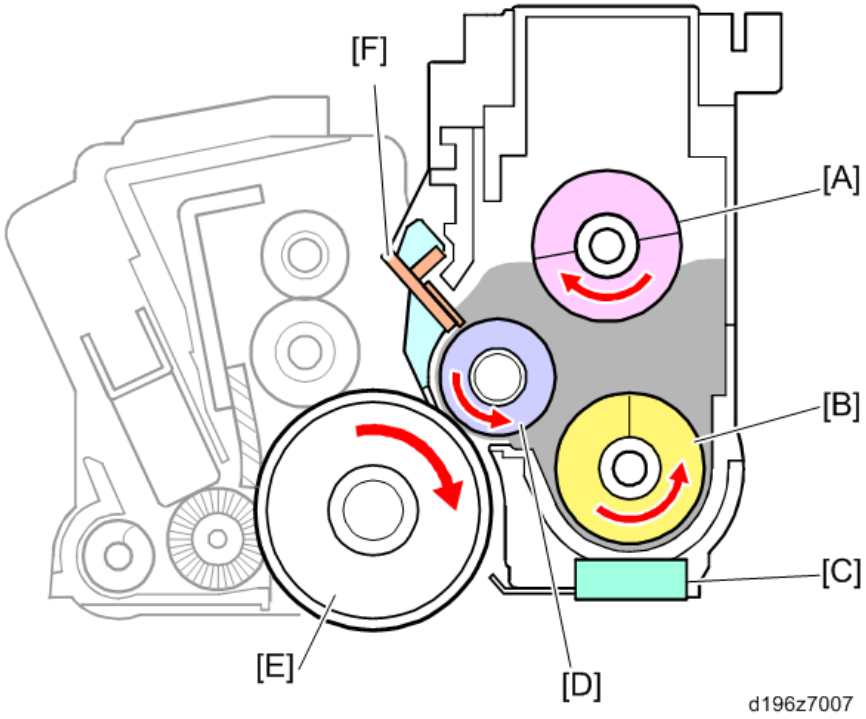
The silencer [D] is an internal layer of the OPC drum, added to reduce sound during rotation.

Development Unit

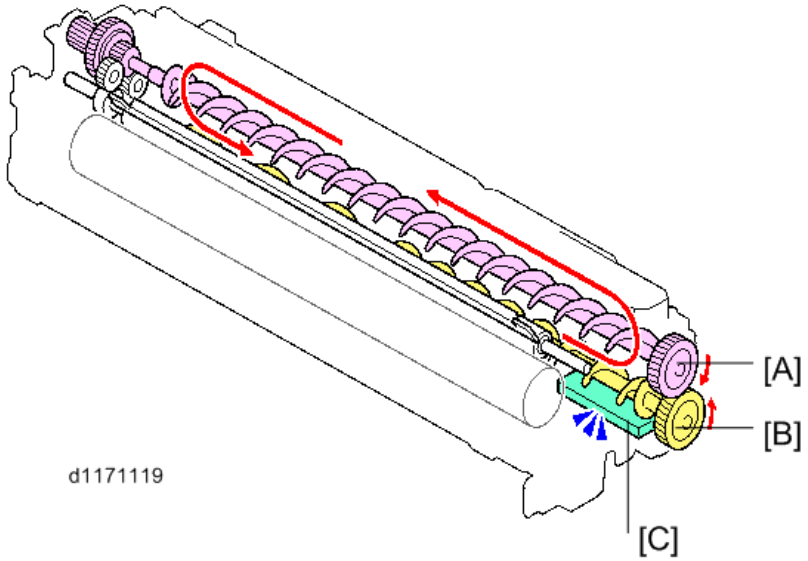
- **Developer Agitation Mechanism**
  The developer is agitated by the upper [A] and lower [B] transport coils.
  Toner and developer are regulated by the doctor blade [F], and applied to the development roller [D].
- **Toner Density Detection Mechanism**
  TD sensors (S14-S17) [C] detect the toner density. Toner is supplied when the toner density is not sufficient.

- **Toner Density Control**

  The ID sensors (S27-S29) at the lower right of the ITB detect the amount of light reflected from the ITB and detects the toner density. Toner is supplied based on the information which the ID sensors (S27-S29) detect.



Callout	Item	Callout	Item
[A]	Transport Coil (Upper)	[D]	Development Roller (Sleeve Architecture)
[B]	Transport Coil (Lower)	[E]	OPC Drum
[C]	TD Sensor (S14-S17)	[F]	Doctor Blade



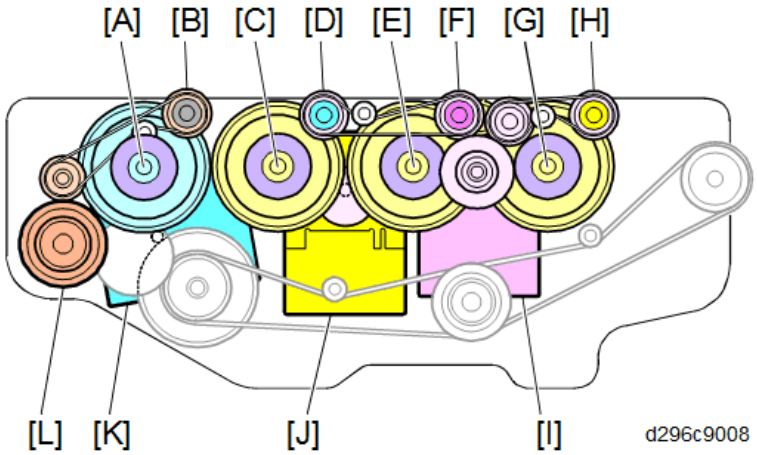
Callout	Item	Callout	Item
[A]	Transport Coil (Upper)	[C]	TD sensor (S14-S17)
[B]	Transport Coil (Lower)	-	-

OPC Drum/Development Drive

The drum motor (M11) [K] drives the drum (K). The development clutch(K) (CL5) [L] drives the Development Unit for K.

The drum motor (CMY) (M10) [J] drives the other three drums and the development motor (CMY) (M9) [I] drives the Development Units for C/M/Y.

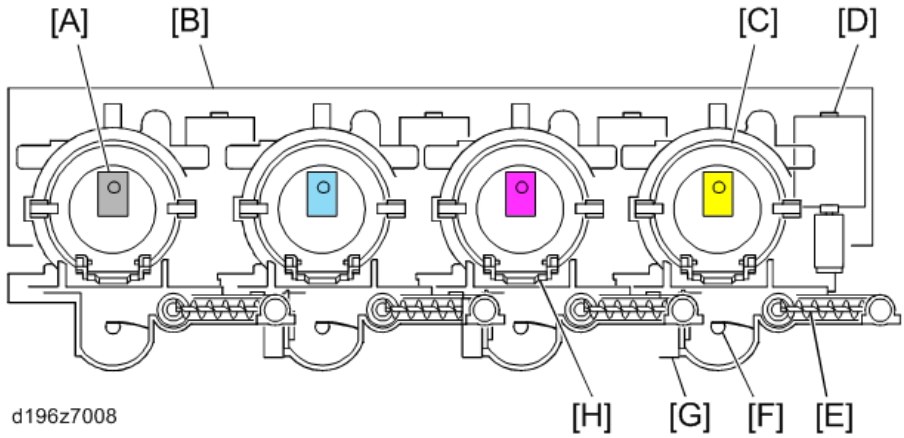
Do not disassemble the three drive gears ([C], [E], and [G]) in the field. These are precisely assembled in the factory.



Callout	Item	Callout	Item
[A]	Drum Drive Gear (K)	[G]	Drum Drive Gear (Y)
[B]	Development Drive Gear (K)	[H]	Development Drive Gear (Y)
[C]	Drum Drive Gear (C)	[I]	Development Motor (CMY) (M9)
[D]	Development Drive Gear (C)	[J]	Drum Motor (CMY) (M10)
[E]	Drum Drive Gear (M)	[K]	Drum Motor (M11)
[F]	Development Drive Gear (M)	[L]	Development Clutch(K) (CL5)

Toner Supply Section

Overview

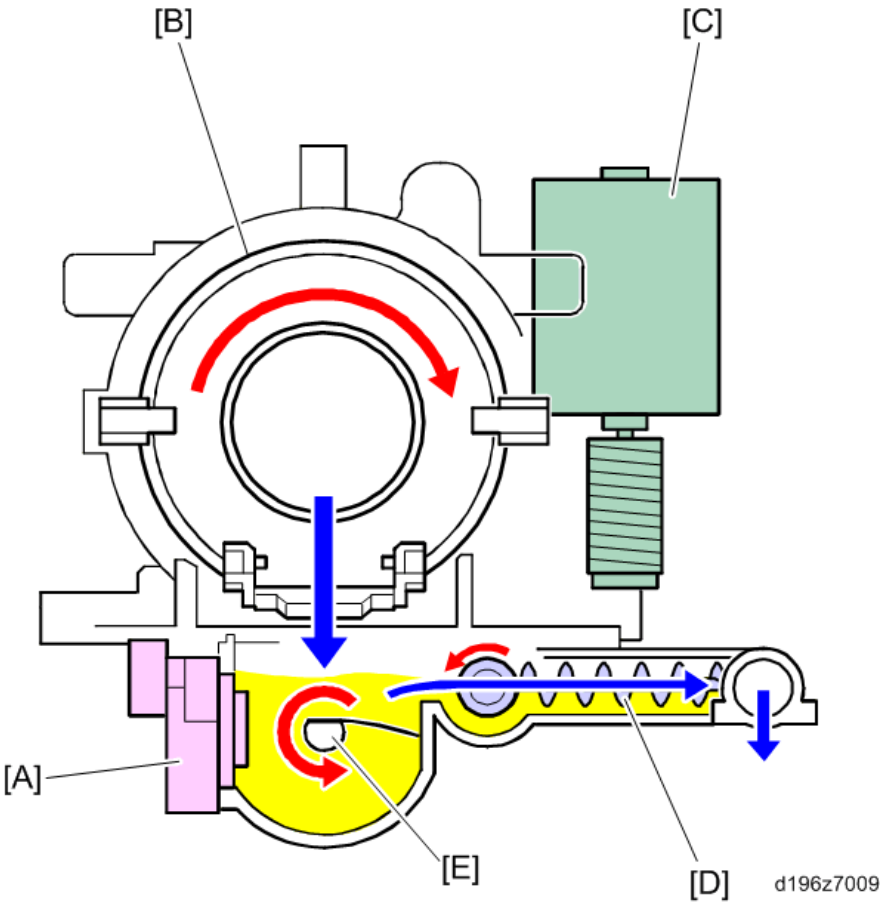


Callout	Item	Callout	Item
[A]	ID Chip (K) (PCB3)	[E]	Transport Coil
[B]	Toner Bottle Sensor Board (PCB7)	[F]	Agitator
[C]	Toner Bottle	[G]	Toner End Sensor (Y) (S13)
[D]	Toner Supply Motor (Y) (M4)	[H]	Shutter

Toner Supply and Transport Mechanism

Rotating the toner bottle [B] transports the toner towards the rear of the machine. Each toner bottle has an ID chip (PCB3-PCB6) that stores information for each toner bottle. The toner from the toner bottles goes into the hopper and is agitated by the agitator [E].

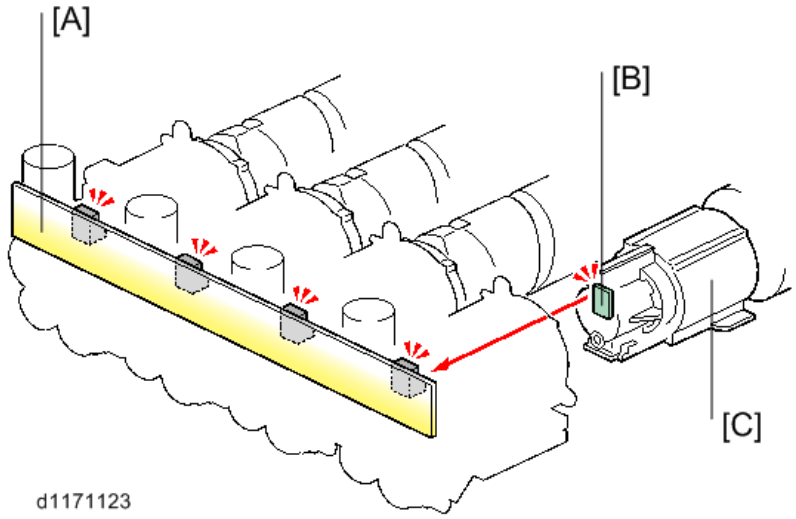
Then, rotating the transport coil [D] transports the toner to the development unit. Only color hoppers have the toner end sensor (S11-S13) [A]. The ID chip (K) (PCB3) manages the remaining amount of black toner.



Callout	Item	Callout	Item
[A]	Toner End Sensor (S11-S13) (Only for CMY)	[D]	Transport Coil
[B]	Toner Bottle	[E]	Agitator
[C]	Toner Supply Motor (M1-M4)		

Toner Bottle Set Sensor Mechanism

Each toner bottle [C] has an ID chip (PCB3-PCB6) [B]. When the toner bottle [C] comes in contact with the toner bottle sensor board (PCB7) [A], the machine detects that the toner bottle is set.



Callout	Item	Callout	Item
[A]	Toner Bottle Sensor Board (PCB7)	[C]	Toner Bottle
[B]	ID Chip (PCB3-PCB6) (One for Each Color)		

Toner Near End/End Detection

The following table shows the conditions to detect when the toner has run out (Toner End) or almost run out (Toner Near End) and the operations following the detection.

Status	Operation panel message	Detection conditions
Toner Near End SP3-101-001 to 004="1"	Operation panel banner display: <Toner Cartridge is empty. Printing will be suspended soon. Replace the cartridge.>	Toner Near End is detected by the following 2 systems: **(1)** Toner Near End detection by Toner End sensor (S11-S13). (Definite Toner Near End) **(2)** Toner Near End detection by referring to pixel count and total counts by toner supply motor (M1-M4) (Estimated Toner Near End) The Toner Near End detection system is determined according to the Toner Near End Detection System (SP3-100-002) setting. If SP3-100-002 is set to "0": Both detection systems are applied. If SP3-100-002 is set to "1": Only **(1)** is applied.
Toner End SP3-101-001 to 004="0"	Operation panel pop-up display (alert screen): <Toner has been depleted. Replace Toner Cartridge.>	Toner End is detected if one of the following conditions is met: **(1)** Toner End detection by Toner End sensor (S11-S13). **(2)** Toner End detection by Vt output.

Toner Near End Control

Estimated Toner Near End (Toner Near End detection by referring to pixel count and total counts by toner supply motor (M1-M4)):

1. The toner residual amount calculated by the toner supply motor (M1-M4) drive period (SP3-102-001 to 004) and the toner residual amount calculated by pixel count (SP3-102-011 to 014) are compared. Then the one with the smaller amount counts as the toner residual amount.
2. If the toner residual amount is less than the Near End Threshold Value (SP3-110-001 to 004), Toner Near End is detected.

However, Toner Near End is not detected if:

- Toner Near End Threshold Value (SP3-110-001 to 004) is "0".
- Process control or other adjustment is ongoing.

Definite Toner Near End (Toner Near End detection by Toner End sensor (S11-S13)):

Toner Near End detection by the Toner End sensor (S11-S13) is done with colors other than black.

1. The toner residual amount calculated by the toner supply motor (M1-M4) drive period (SP3-102-001 to 004) and the toner residual amount calculated by pixel count (SP3-102-011 to 014) are compared. Then the one with the smaller amount counts as the toner residual amount.
2. Whether or not to execute Toner Near End by the Toner End sensor (S11-S13) is determined according to the following criteria:

Toner replenishment amount (SP3-102-021 to 024) is not below the threshold (50%) to start Toner End Sensor (S11-S13)	Toner End Sensor (S11-S13) is not used to detect Toner Near End.
Toner replenishment amount (SP3-102-021 to 024) is below the threshold (50%) to start Toner End Sensor (S11-S13)	Toner End Sensor (S11-S13) is used to detect Toner Near End. (Go to Step 3.)

3. If Toner End Counter (SP3-121-001 to 004) exceeds threshold (2 times) to detect Toner Near End, Toner Near End is detected.

Toner End Control

Toner End is detected if one of the following conditions is met:
(1) Toner End detection by Toner End sensor (S11-S13).
(2) Toner End detection by Vt output.

Toner End detection by Toner End sensor (S11-S13):

Toner Near End detection by the Toner End sensor (S11-S13) is done with colors other than black.

1. Check that the toner residual amount (SP3-101-001 to 004) is "1".
2. In Step 1, if the Toner End Counter (SP3-121-001 to 004) exceeds the threshold to detect Toner End by the Toner Sensor (SP3-130-001 to 004), Toner Near End is detected.

Toner End Detection by Vt Output of Other than That of Black

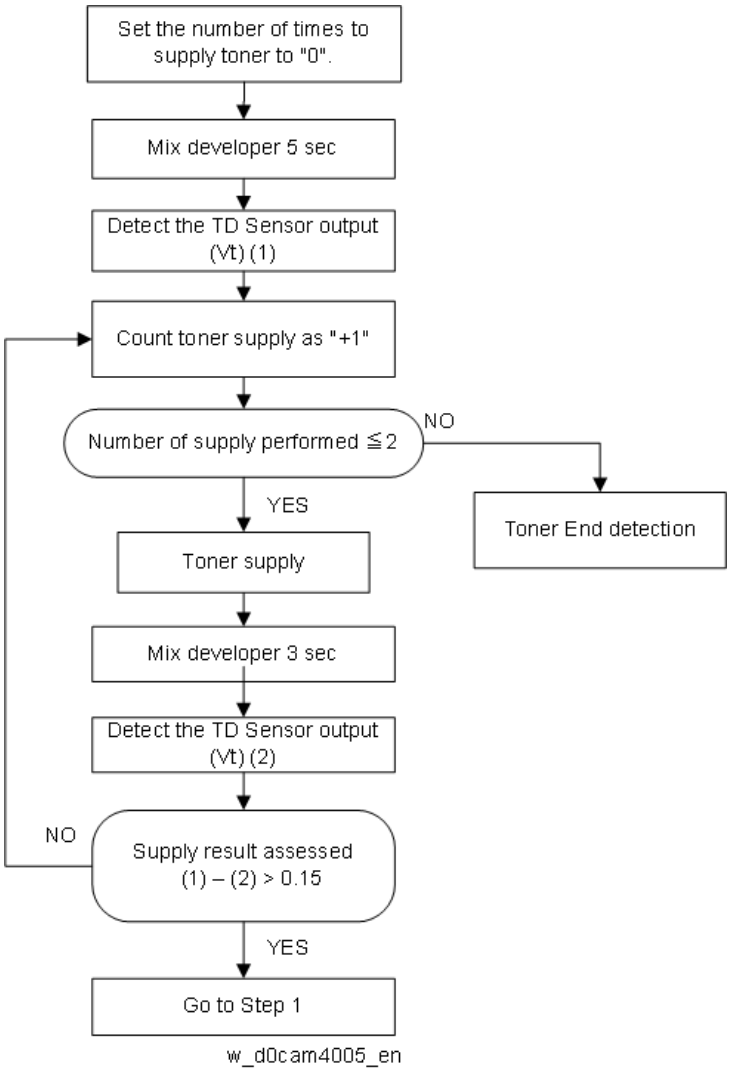
1. Calculate the difference (delta Vt) between the TD sensor current voltage (Vt) (SP3-210-002 to 004) and its target figure (Vtref) (SP3-230-002 to 004).
2. If delta Vt is higher than the delta Vt threshold value (SP3-131-001), the value is added to sigma-delta Vt (SP3-132-002 to 004).
   If the condition is not met even once, the added values (SP3-132-002 to 004) are cleared.
3. If sigma-delta Vt (SP3-132-002 to 004) exceeds the total delta Vt threshold (SP3-131-002), Toner End is detected.

Toner End Detection by Vt Output of Black

1. In the case of high toner density, check that the toner density (SP3-200-001) is not below the toner density threshold (SP-3-131-041).
   In the case of low toner density, check that the toner density (SP3-200-001) is not above the toner density threshold (SP-3-131-041).
2. In the Step 1 status, calculate the difference (delta Vt) between the TD sensor current voltage (Vt)

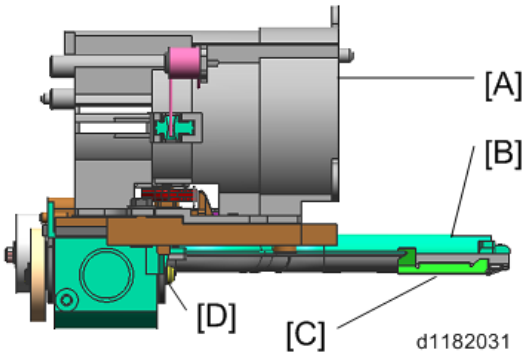
(SP3-210-001) and its target figure (Vtref) (SP3-230-001).

3. If delta Vt is not below the delta Vt threshold for high/low toner density (SP3-131-021 / 031), that value is added as sigma-delta Vt (SP3-132-001).
   If delta Vt goes below the delta Vt threshold for high/low toner density (SP3-131-021 / 031), the added values (SP3-132-001) are cleared.
4. If sigma-delta Vt (SP3-132-001) exceeds the sigma-delta Vt threshold for high/low toner density (SP3-131-022 / 032), Estimated Toner End is notified.
5. After this, Toner End detection is performed according to the following flowchart:



Toner Supply Unit

The agitator [C] (in the lower image) transports the toner supplied into the sub-hopper by raising it to the toner transport path [D] (in the lower image). The transport path is level to make the machine's height lower.

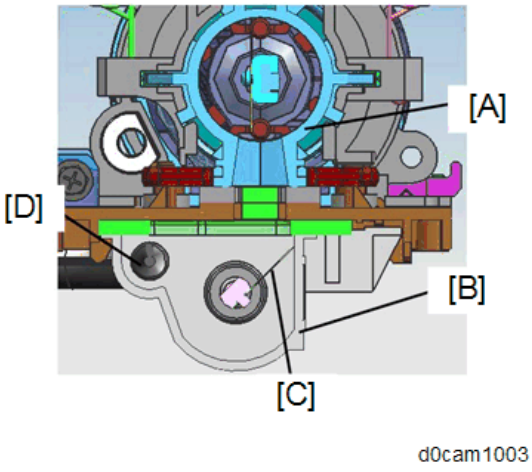


[A] Supply Housing

[B] Toner Transport Path

[C] Shutter

[D] Sub-hopper



[A] Toner Bottle Cap

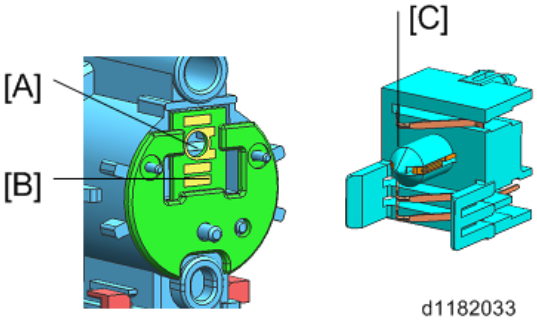
[B] Sub-hopper

[C] Agitator

[D] Toner Transport Path

ID Chip (PCB3-PCB6)

Contact type ID chip (PCB3-PCB6) [B] is correctly mounted by means of the tapered boss for chip positioning [C] and the positioning hole [A]. The information on the toner bottle can be read when the bottle is properly installed.



[A] Positioning Hole

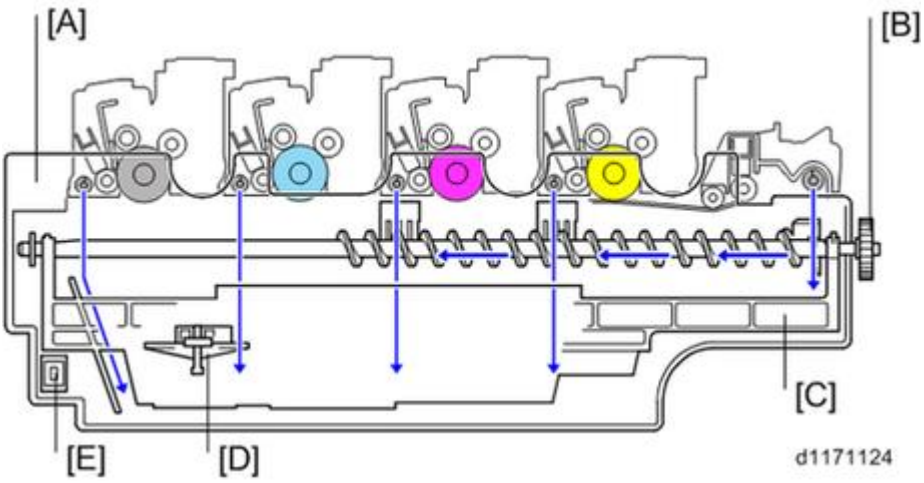
[B] ID Chip (PCB3-PCB6)

[C] Tapered Boss (for Chip Positioning)

Waste Toner Collection

Waste Toner Transport Mechanism

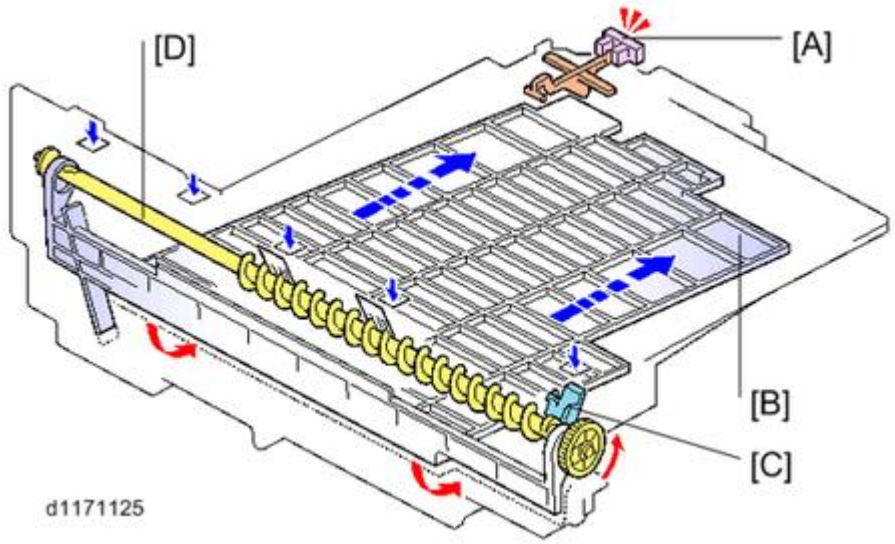
The waste toner collected from the ITB cleaning unit is transported towards the front of the machine and it goes into the waste toner bottle [A].
The waste toner of yellow and magenta coming from the PCDU (Y/M) and the waste toner from the ITB cleaning unit is collected at the center of the waste toner bottle by the waste toner bottle transport coil [B]. The black and cyan waste toner comes from the PCDU (K/C) to the waste toner bottle directly.
The waste toner agitator [C] carries waste toner piled up at the front of the waste toner bottle to the rear.
The waste toner bottle set sensor (S26) [E] detects the presence of the waste toner bottle, and there is also a waste toner full sensor (S36) [D].



Callout	Item	Callout	Item
[A]	Waste Toner Bottle	[D]	Waste Toner Full Sensor (S36)
[B]	Waste Toner Bottle Transport Coil	[E]	Waste Toner Bottle Set Sensor (S26)
[C]	Waste Toner Agitator	-	-

Waste Toner Collection Mechanism

The waste toner agitator [B] carries waste toner piled up at the front of the waste toner bottle to the rear.
The agitator [C] moves together with the waste toner bottle transport coil [D].
When the waste toner full sensor (S36) [A] detects a “waste toner near full”, the machine displays an alert message on the operation panel, which prompts users to replace the waste toner bottle.



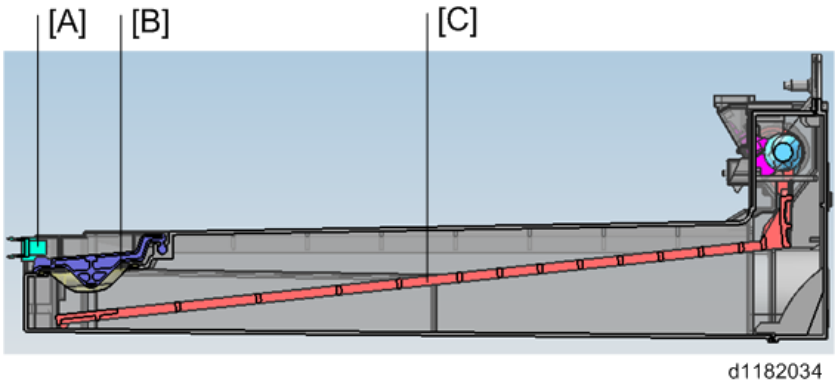
Callout	Item	Callout	Item
[A]	Waste Toner Full Sensor (S36)	[C]	Waste Toner Agitator (for ITB Cleaning Unit)
[B]	Waste Toner Agitator	[D]	Waste Toner Bottle Transport Coil

Waste Toner Full Detection

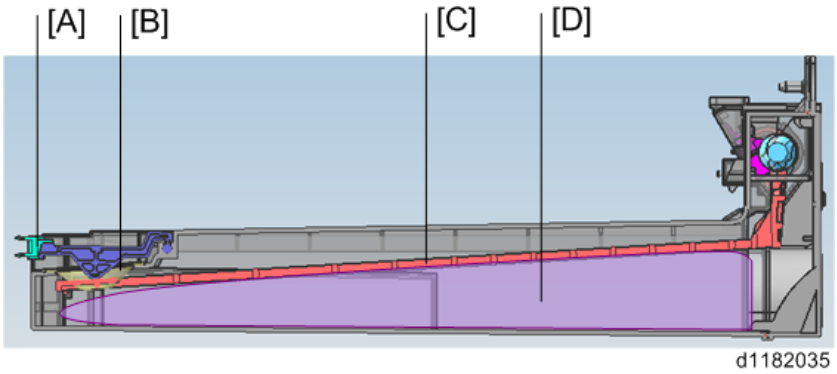
When the waste toner moves the rubber actuator [B] to the highest position, the waste toner full sensor (S36) [A] detects that the waste toner bottle is near-full. The machine does not stop at this time.
When the quantity of waste toner calculated by the machine reaches 25 g or 3,000 sheets in standard mode, whichever comes first after near-full was detected, the machine detects that the waste toner bottle is full, and stops itself automatically.

Note

- **When the waste toner bottle is empty:**



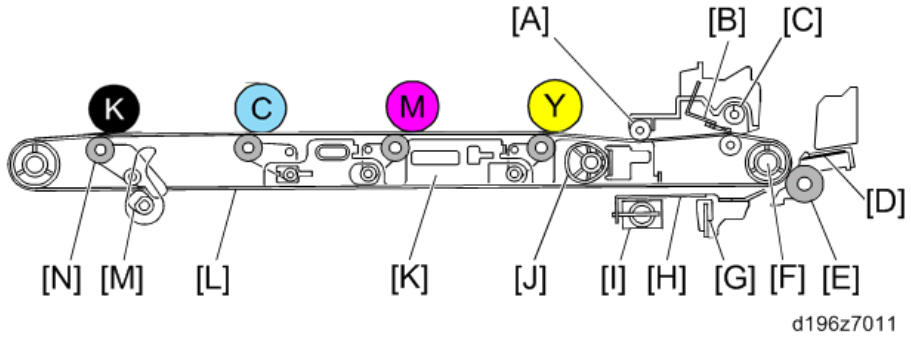
- **When the waste toner bottle is full:**



- [A] Waste Toner Full Sensor (S36)
- [B] Rubber Actuator
- [C] Waste toner agitator
- [D] Waste Toner

ITB/ Paper Transfer

Overview

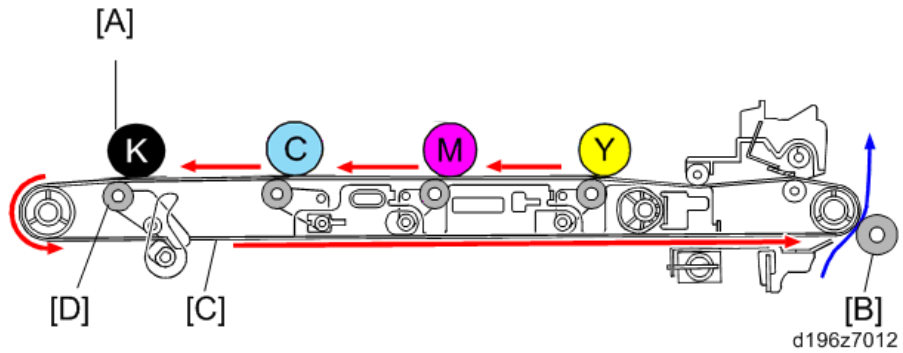


Callout	Item	Callout	Item
[A]	Belt Tension Roller	[H]	ID Sensor Shutter
[B]	ITB Cleaning Blade	[I]	ID Sensor Shutter Solenoid (SOL2)
[C]	Waste Toner Transport Coil	[J]	ITB Contact Cam (CMY)
[D]	Discharge Plate	[K]	ITB Contact Slider
[E]	Paper Transfer Roller	[L]	ITB (Image Transfer Belt)
[F]	ITB Drive Roller	[M]	ITB Contact Cam (K)
[G]	ID Sensor (S27-S29)	[N]	Image Transfer Roller

Transfer Movement and Image Transport

Images of each color are created and transferred to the ITB (image transfer belt) [C].

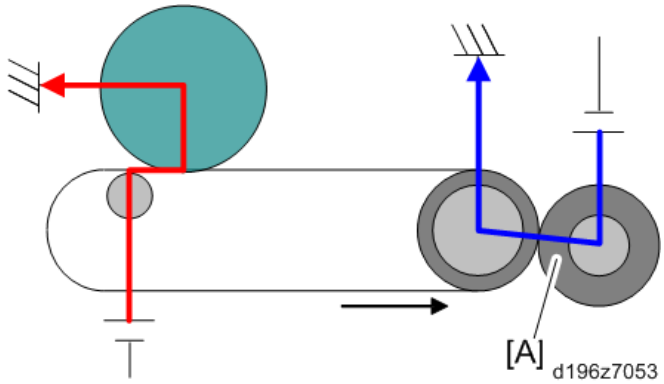
The paper transfer roller [B] transfers the toner image from the ITB to the paper.



Callout	Item	Callout	Item
[A]	OPC Drum	[C]	ITB
[B]	Paper Transfer Roller	[D]	Image Transfer Roller (First Transfer Roller)

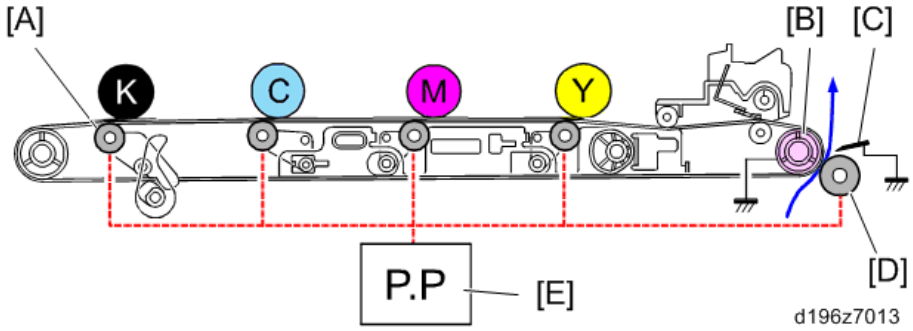
This model uses the indirect transfer method to enhance the quality of transfer.

- **Indirect Image Transfer + Attraction Transfer Method :**
  There is an attraction method where bias is applied to the paper transfer roller [A].



Transfer Bias

The High-Voltage Power Supply (Transfer) (PCB23)[E] applies a transfer bias to the image transfer roller [A].
The ITB drive roller [B] and discharge plate [C] are grounded through a diode.
There is no contact/release mechanism for the paper transfer system, which the previous model uses, to reduce noise.

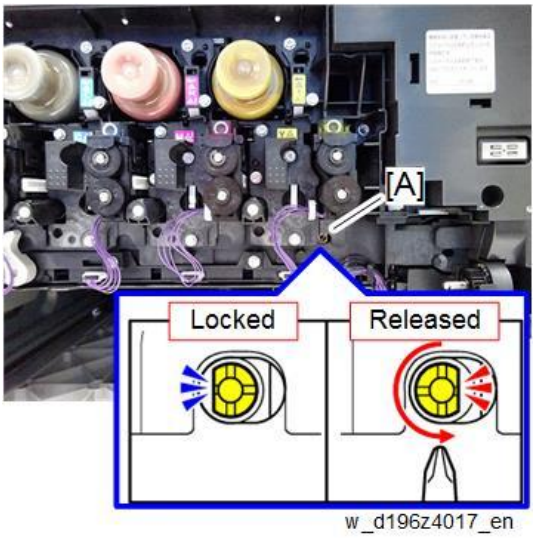


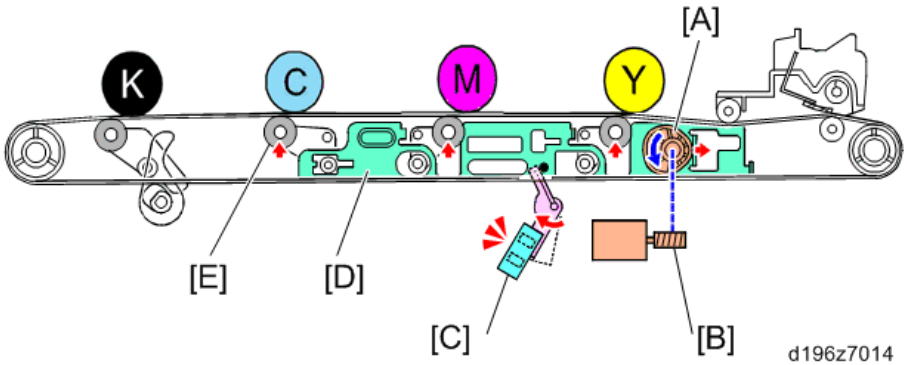
Callout	Item	Callout	Item
[A]	Image Transfer Roller (First Transfer Roller)	[D]	Paper Transfer Roller
[B]	ITB Drive Roller	[E]	High-Voltage Power Supply (Transfer) (PCB23)
[C]	Discharge Plate	-	-

ITB Contact

ITB has a contact mechanism to prevent the CMY drums from early deterioration. The color drums are not needed for B/W printing, so this mechanism releases the ITB from the CMY drums.
The ITB lift motor (M14) [B] rotates the ITB contact cam [A] through a gear. The contact slider then moves and raises the image transfer roller [E] into contact with the CMY drums.
If the mechanism is defective (e.g. Paper jams), and is stuck with the CMY rollers up against the ITB, the cam can be turned manually to lower the rollers. In order to remove the ITB unit without damaging, turn the ITB contact cam's screw to the left until the flat part of the half moon on the screw points to the

right.

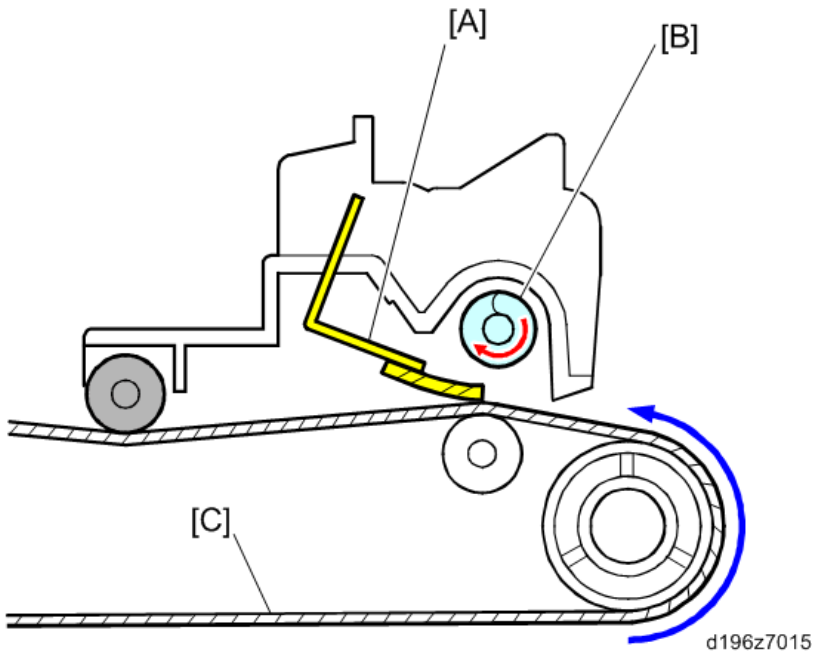




Callout	Item	Callout	Item
[A]	ITB Contact Cam (CMY)	[D]	Contact Slider
[B]	ITB Lift Motor (M14)	[E]	Image Transfer Roller (First Transfer Roller)
[C]	ITB Lift HP Sensor (S33)	-	-

ITB Cleaning

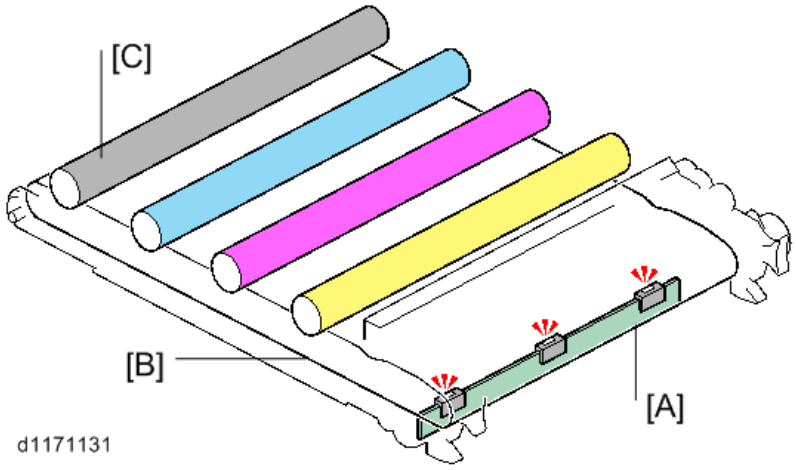
The cleaning blade [A] cleans the ITB [C]. The waste toner collection coil [B] transports the waste toner removed by the ITB cleaning blade towards the front of the machine.



Callout	Item	Callout	Item
[A]	ITB Cleaning Blade	[C]	ITB
[B]	Waste Toner Collection Coil	-	-

Image Position Correction

The image position adjustment is done by the three ID sensors (S27-S29)[A].



Callout	Item	Callout	Item
[A]	ID Sensor (S27-S29)	[C]	OPC Drum
[B]	ITB	-	-

Process Control and MUSIC

Process Control

Outline

Process control adjusts the image creation process to maintain a constant image density. Process control is executed at the following times.

Trigger	Operative Condition	Notes
Power ON	• When a certain time passes after the previous job end, AND: 1. More than six hours pass after the last OPC drum operation (SP3-530-001). 2. More than 100 full color copies or more than 250 B/W copies are made between the second latest power-on and the latest power-on. • When a certain time passes after the previous job end, OR, the change of temperature/humidity after the last OPC drum operation exceeds the following condition: 1. The change of temperature is more than or equal to the threshold [deg] (SP3-530-002). 2. The change of relative humidity is more than or equal to the threshold [%RH] (SP3-530-003). 3. The change of absolute humidity is more than or equal to the threshold [g/m3] (SP3-530-004). Default settings: Time: 360 minutes Temperature: 10 deg Relative humidity: 50%RH Absolute humidity: 6 g/m^3 Other related SPs: SP3-530-005/006	Except when recovering from an SC or jam
Job End	When the job end counter becomes more than the threshold. Related SPs: SP3-534-001/011	-
Job Interruption	When the job interrupt counter becomes more than the threshold. Related SPs: SP3-533-001/011	-
Non-use (Idle)	Non-use time becomes more than the value in SP3-531-001.	-

Trigger	Operative Condition	Notes
Manual Process Control	When SP3-011-001 is executed.	-
Toner End Recovery	When a Toner End is resolved.	-
Initial Setting	When an initial developer setting is completed.	-

Vc is the charge bias, which is applied to the charge rollers.

Vd is the potential of the unexposed (charged) drum.

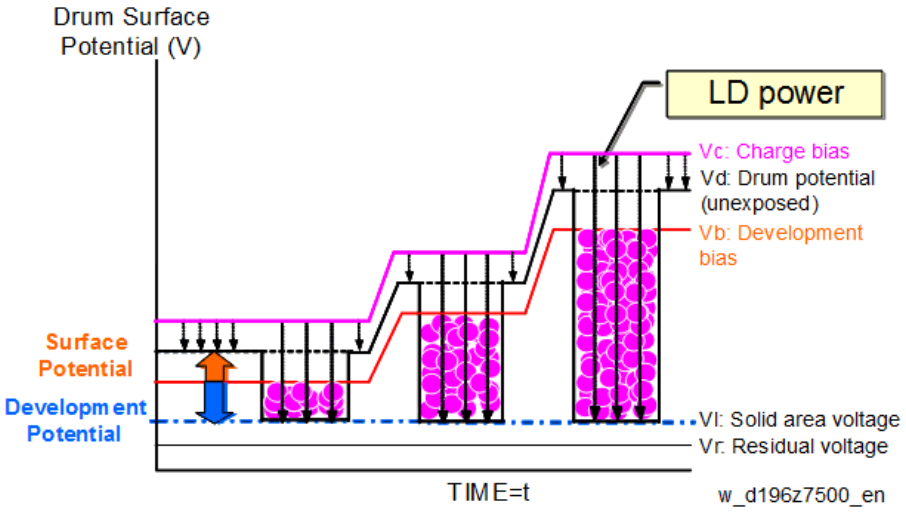
The value of Vc is not equal to Vd.

For example, if applying a Vc of 700 [-V], the actual drum potential (Vd) tends to be about 650 [-V].

Vb is the potential when toner starts to stick to the drum (Development bias).

When the potential gets to Vb or greater, toner starts to stick to the drum in proportion to the potential.

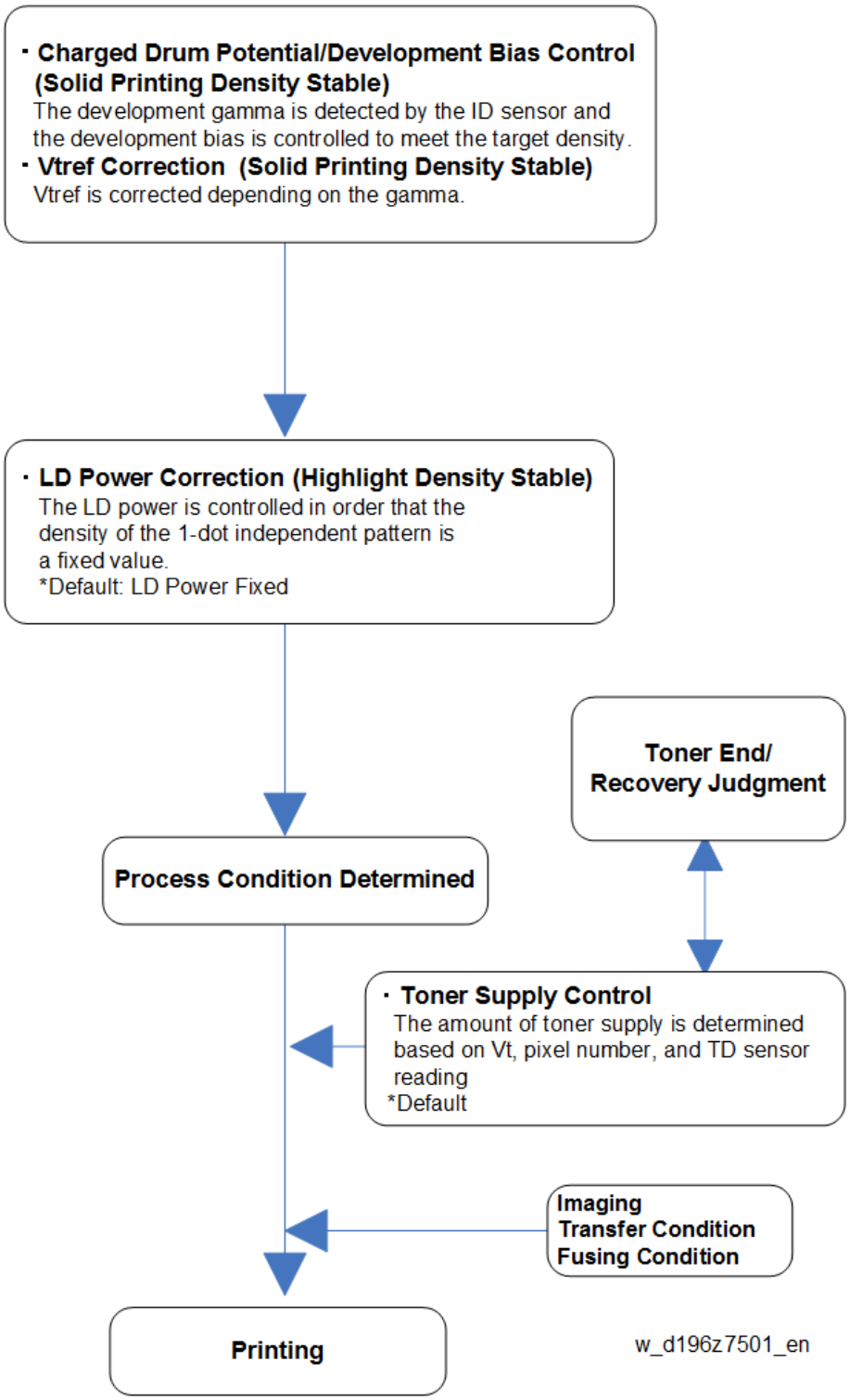
Development gamma is the coefficient showing the relation between the potential and the volume of toner adhesion.



In addition to the development gamma and the potential, the toner density in the developer needs to be controlled. This is done to maintain the proper toner density (the amount of toner adhesion).

The target for the toner density in the developer is when the output from the TD sensor (S14) is Vtref.

Process Control is done as shown in the following chart, which includes development gamma determination, Vtref correction, and LD power control.



Charge/Development Bias Control and Vtref Compensation

Charge/Development bias control and Vtref Compensation is done using the following procedure. Its operating time varies depending on the machine's line speed.

Adjusting the ID (S27-S29) sensor Vsg

This step adjusts ID sensor's LED's light intensity so that Vsg, which is the ID sensor (S27-S29) output when monitoring the bare surface of the ITB, becomes within 4.0±0.5V. When Vsg does not reach the

target value three times, the machine issues SC370 (ID sensor Calibration Error).

- SP3-320-011 (Vsg Error Counter)
- SP3-320-013 (Vsg Upper Threshold)
- SP3-320-014 (Vsg Lower Threshold)
- The above SPs can only be accessed from Special Service mode.

Agitating the Developer

This step agitates the developer, and gets the TD sensor output.

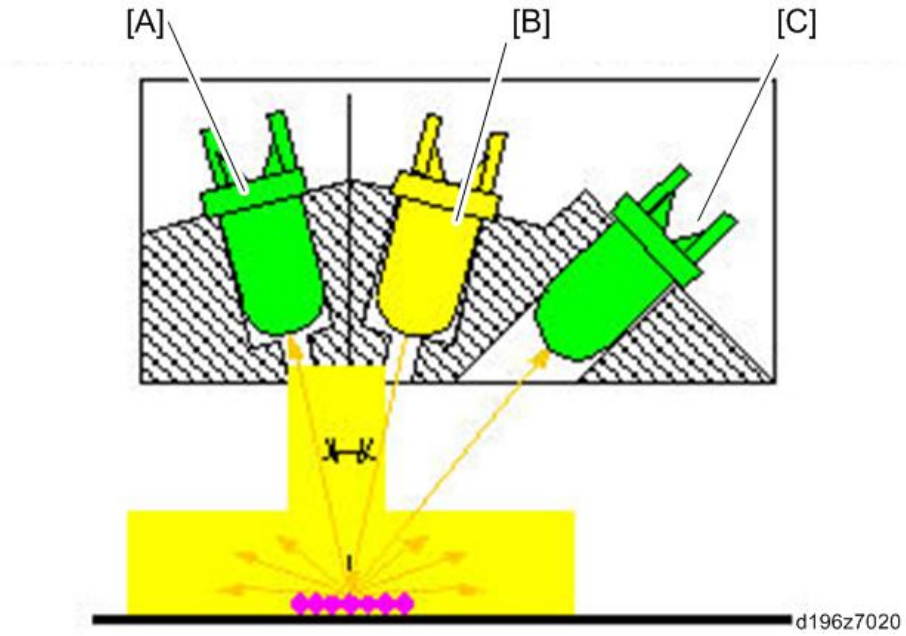
The developer agitation time is determined by the three factors below.

1. The change of absolute humidity
2. Non-use time
3. Coverage

Creating patterns, detecting the density

Five patterns are created by adjusting the charge/development bias on the transfer belt for each color. Then the ID sensor (S27-S29) detects the created patterns.

The ID sensor (S27-S29) consists of an LED and two types of photo detector. The sensor detects the reflection from the LED [B] with the direct reflection detector (REG) [A] and the diffused reflection detector (DIF) [C].



Determining Vtref from the Development Gamma

Detecting the development gamma value with an ID sensor pattern and measuring Vsp/Vsg determines the charge/development bias for the correct image density.

Also, the reading from the TD sensor (S14-S17) and the development gamma determine Vtref, which is the reference value for the TD sensor (S14-S17) .

LD Power Control

LD Control is set with SP3-600-001 (Process Control/ Select ProCon: LD Control).

- If SP 3-600-001 is set to LD Power Control by Process Control (Default): The LD strength is adjusted based on a table which is determined by Development Bias Control and Vtref Correction.
- If SP 3-600-001 is set to use a fixed LD power, the LD power that is used depends on the settings of SP2-221-001/002/003/004.

Toner Supply Control

SP3-400-001, -002, -003, -004

0: Fixed supply method

2: PID method

4: DANC method (Default)

- Fixed Supply method
  Toner supply time is calculated based on the supply rate of SP3-440-001 through -004 (DrvTime: Setting).
- PID method
  PID (Proportion Integral Differential)
  The amount of toner supply is calculated based on the pixel information and TD sensor information.
- DANC method
  DANC (Divided Active Noise Control): Conventional PID method + active noise control. It controls the timing to supply the developer to minimize uneven developer density in the development unit.

Toner Near End, Toner End

Toner Near-End

First, the amount of remaining toner is detected with the pixel count and the driving time of the toner supply motor(M1-M4). Then, when the amount of remaining toner is less than the threshold for toner near-end (K = 23 g, CMY = 10 g), the machine determines a toner near-end.

For CMY, when the amount of remaining toner is less than 50 g, or when the toner end sensor (S11-S13), which is a piezoelectric sensor, detects toner near-end twice, the machine also determines a toner near-end.

Toner End

A toner end is detected when the toner end sensor (S11-S13) detects the end threshold six times in the toner near-end condition.

The machine also detects a toner end when the difference of the Vt and Vtref, and their total difference are as in the following matrix:

	Condition	Vt/Vtref: Diff	Vt/Vtref: Diff: Total
K	Before Near-End	0.7 V or more	Over 10 V
	After Near-End	0.3 V or more	Over 3 V
CMY	-	0.5 V or more	Over 10 V

When you open and close the front door, or turn the main power OFF and ON, the machine checks whether a new toner bottle has been set. The machine then starts the toner supply to recover from the toner end. After supplying toner, the machine checks the toner end sensor (S11-S13) and Vt condition and deactivates the toner end condition.

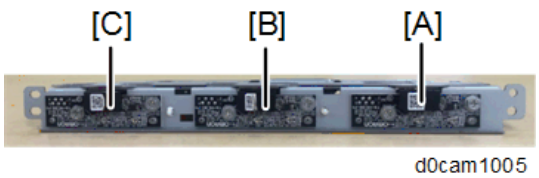
Developer Initial Setting

When a new PCDU is set in the machine, the machine automatically detects it and enters the developer initial setting mode. The machine then detects the μ count which is an output from the TD sensor (S14-S17) . The developer initial setting is done as follows.

1. Starting the developer initial setting mode
   The new unit detection mechanism triggers the developer initial setting mode.
2. Agitating the developer
   The machine rotates the development roller and transport coil to agitate the developer for 30 seconds.
3. Detecting the μ count (Initial value)
   While agitating the developer, the machine detects the output from the TD sensor (S14-S17) , and stores this output as the initial μ count.
4. Calculating Vt
   The machine calculates Vt using the difference of the current μ count while referring to the initial μ count through SP.
5. Forced toner supply (only when newly installing the machine)
   This step is required only when the machine is newly installed because there is no toner in the toner transport route.

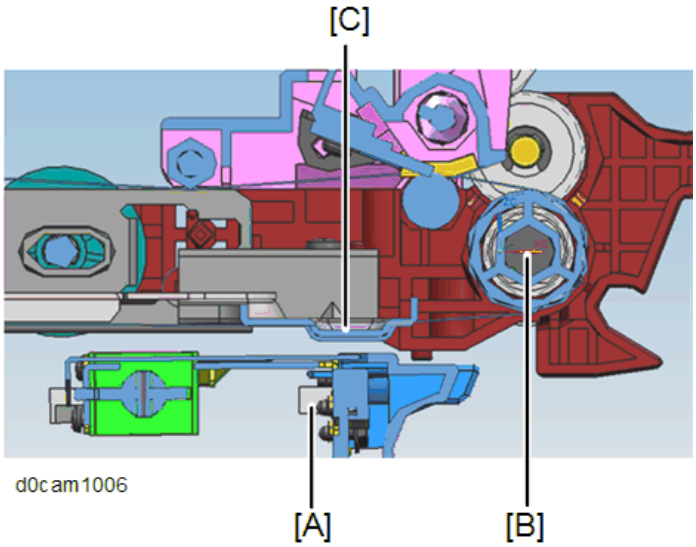
When the developer initial setting is successfully completed, the machine stores the calculated Vt as Vtref. The Vtref is used as a reference the next time the machine performs an initial developer setting.
SC360-01 through -04 appears if the results of step 3 are as follows:
The μ count is equal or exceeds the threshold (6480 [counts]).
The μ count does not match the target threshold (5800 – 6380 [counts]) three times consecutively.
Process Control and MUSIC are forcibly done after developer initial setting when a PCDU is replaced.
(S27)(S28)(S29)

ID sensor (S27-S29)



d0cam1005

The ID sensor (S27-S29) has 3 sensors laid out on 1 bracket. The ID sensor (center) (S28) [B] acts as an ID sensor and a MUSIC sensor. The ID sensor (front) (S27) [A] and ID sensor (rear) (S29) [C] are used only for MUSIC.



The ID sensors (S27-S29) [A] are installed at the upstream side of the paper transfer roller [B] and detect image density at the plate [C]. This layout allows the machine to detect a pattern faster and to help reduce waiting time.

TD Sensor (S14-S17)

In this model, a non-contact toner density (TD) sensor, which we also call a mu (μ) sensor, is used for toner density control.
The TD sensor (S14-S17) is attached on the lower side of the development unit. Unlike a HST sensor, the board of the TD sensor is exposed. So there is a cover around the sensor to protect it and to maintain a good contact between the sensor and development unit.
The TD (S14-S17) sensor measures the permeability of the developer without contacting it, from the outside of the case, and converts the measured value to the toner density.
According to the toner density measured by this sensor, the proper amount of toner is supplied to the developer.
A counter corresponding to the frequency is used as the unit of TD sensor output. Thus, unlike a HST sensor which directly detects Vt, the TD sensor output is converted into Vt for toner supply control.
In the TD sensor (S14-S17), there is an ID chip (PCB3-PCB6) storing the machine identification information, the running distance information of Development unit and PCU, and other information used by image density control.

MUSIC

Color Skew Adjustment Timing

This model has a mechanism that adjusts color skew, which we call MUSIC. The machine creates a pattern for correction, measures the image position by the pattern, and adjusts the image position.

No.	MUSIC performs when:	Notes
1	The power switch is just turned ON, or the machine recovers	Executes [Mode b] (*2) or

No.	MUSIC performs when:	Notes
	from the energy save mode.	[Mode a] (*1)
2	The machine does a print job.	Executes [Mode b] (*2)
3	Printing is completed.	Executes [Mode b] (*2)
4	The front cover is closed.	Executes [Mode b] (*2) or [Mode a] (*1)
5	The machine is waiting.	Executes [Mode b] (*2)
6	The machine detects a new PCDU automatically, ITB manually.	Executes [Mode a] (*1)

*1 [Mode a] fine adjusts twice.

*2 [Mode b] fine adjusts once.

To operate modes a/b/c manually, use the following SPs:

- SP2-111-001 (Forced Line Position Adj.: [Mode a])
- SP2-111-002 (Forced Line Position Adj.: [Mode b])
- SP2-111-003 (Forced Line Position Adj.: [Mode c]): Do this SP when you have replaced a laser unit, or when significant color skew occurs.

  Important

  - Do [Mode a] and [Mode b] after doing [Mode c].

MUSIC Error Determination

MUSIC determines whether an error occurs for each color.

SP2-194-007 shows the results, and SP2-194-010 through -013 show the error details.

SP2-194-007 (MUSIC Execution Result - Execution Result)

SP2-194-010 (MUSIC Execution Result - Error Result: C)

SP2-194-011 (MUSIC Execution Result - Error Result: M)

SP2-194-012 (MUSIC Execution Result - Error Result: Y)

SP2-194-013 (MUSIC Execution Result - Error Result: K)

Error Details	Description
0	Not done
1	Completed successfully
2	Cannot detect patterns
3	Insufficient lines for a pattern
4	Out of the adjustment range
5 or 6	ID sensor (S27-S29) false detection

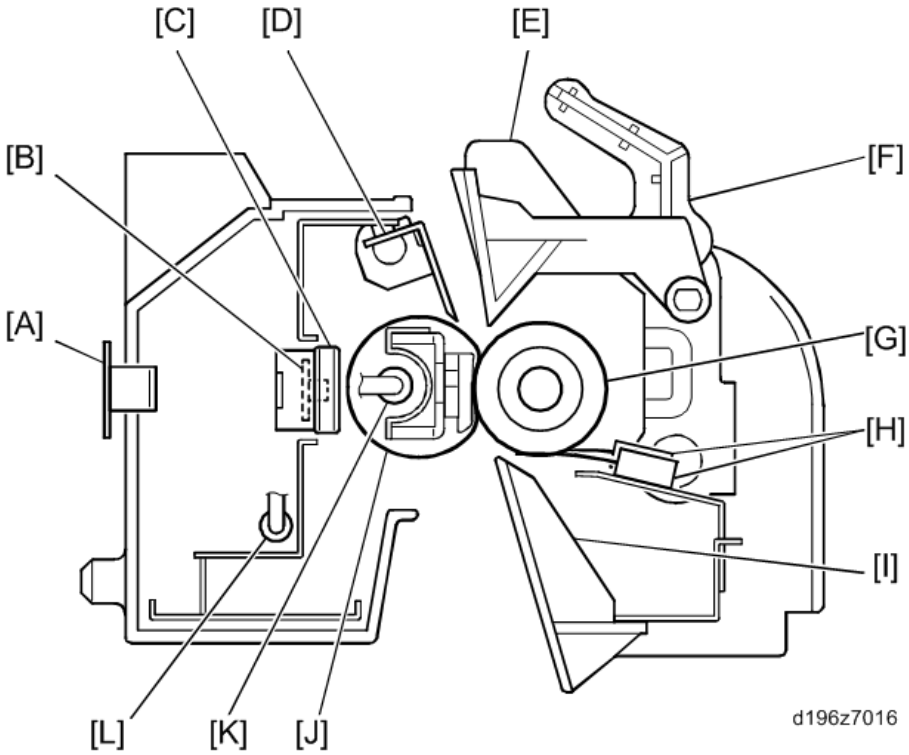
Adjustment Overview

1. Performs Vsg adjustment to correct ID sensor (S27-S29) output.
2. Creates a MUSIC pattern on the transfer belt with each color toner.
3. Reads the MUSIC pattern on the belt, and measures the positions of the lines on the pattern.
4. Calculates the color skew amount from the position data.

5. Calculates the tolerance/deviation for main scan magnification, and the main/scan registration skew amount. Then determines the amount of color skew adjustment.

Fusing

Overview



Callout	Item	Callout	Item
[A]	Fusing Thermopile (TH1)	[G]	Pressure Roller
[B]	Fusing Thermistor (Non-contact Sensor) (S10)	[H]	Pressure Roller Thermistors (TH2-TH4) (Edge: Front, Center, and Edge: Rear)
[C]	Fusing Thermostat	[I]	Entrance Guide Plate
[D]	Separation Plate	[J]	Fusing Sleeve Belt (QSU Method)
[E]	Exit Guide Plate	[K]	Fusing Lamp
[F]	Pressure Arm	[L]	New Fusing Unit Detection Fuse (S9)

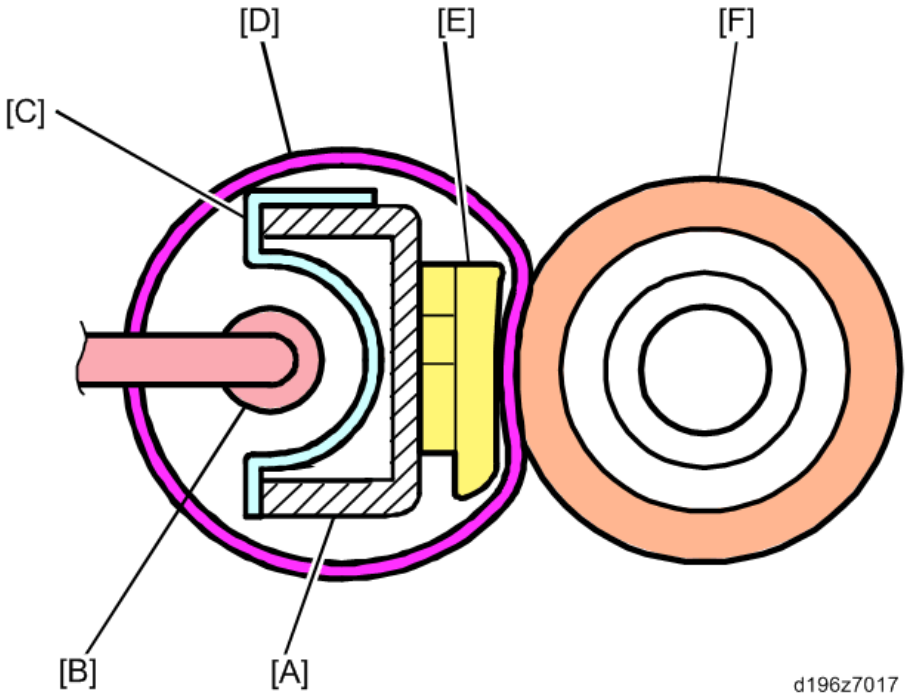
Fusing Mechanism

The fusing unit uses the QSU system. (QSU: Quick Start Up).

The heat from the fusing lamp [B] is reflected by the reflector [C] and heats the fusing sleeve belt [D].

The temperature at both ends of the fusing lamp is lower than the middle.

The fusing sleeve belt itself has no drive mechanism; the pressure roller drives [F] it. The nip pad [E] at the sleeve belt side is pushed against the pressure roller [F] and keeps the nip width on the sleeve belt.

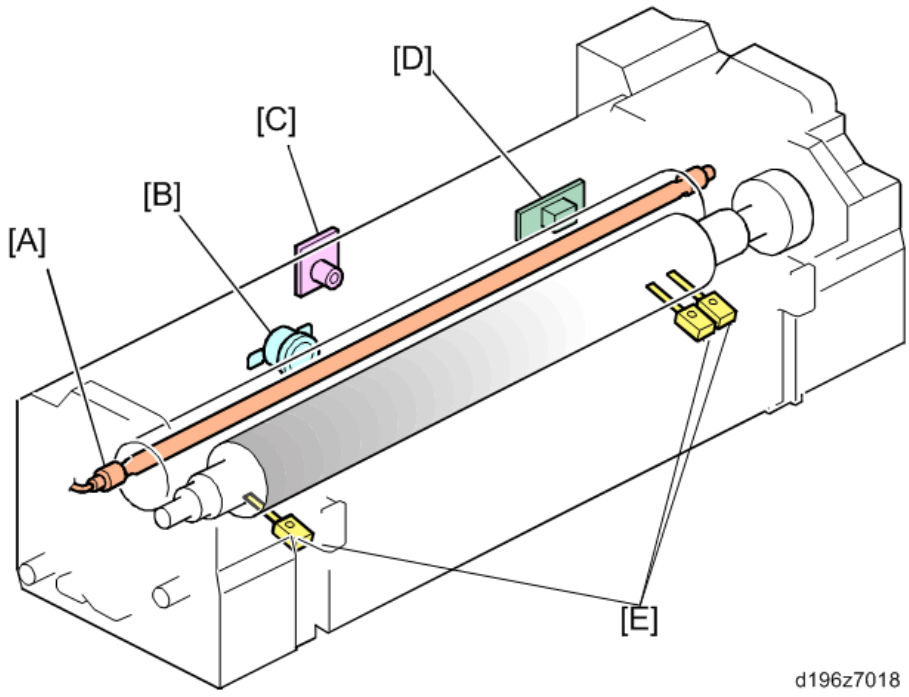


Callout	Item	Callout	Item
[A]	Stay	[D]	Fusing Sleeve Belt (Diameter: 25)
[B]	Fusing Lamp	[E]	Nip Pad
[C]	Reflector	[F]	Pressure Roller (Diameter: 25)

Fusing Temperature Control

The fusing temperature is controlled by the fusing thermopile (TH1)[C].

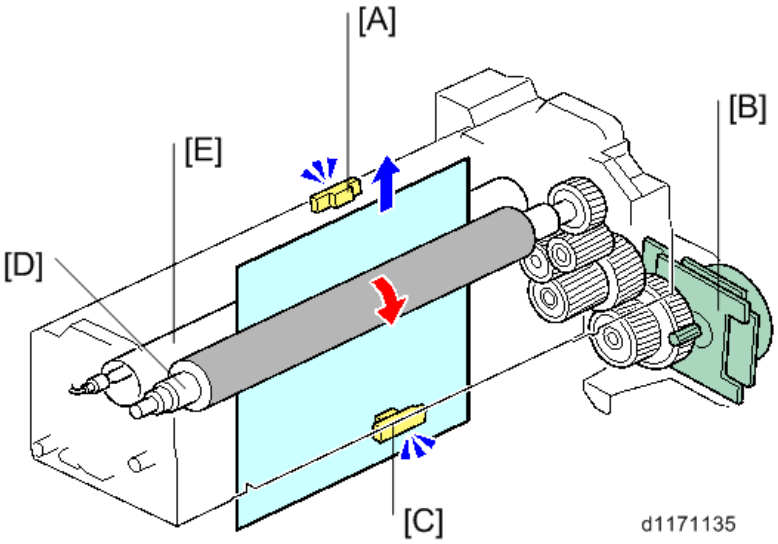
The thermostat [B] is a safety switch. The fusing unit must be replaced if the thermostat opens.



Callout	Item	Callout	Item
[A]	Fusing Lamp	[D]	Fusing Thermistor (Non-contact Sensor) (S10)
[B]	Fusing Thermostat	[E]	Pressure Roller Thermistors (TH2-TH4) (Edge: Front, Center, and Edge: Rear)
[C]	Fusing Thermopile (TH1)	-	-

Fusing Drive

The fusing motor (M13) [B] drives the pressure roller [D] through gears.
The pressure roller [D] drives the fusing sleeve belt [E].
The fusing entrance sensor (S3) [C] and fusing exit sensor (S8) [A] detect paper jams around/in the fusing unit.



Callout	Item	Callout	Item
[A]	Fusing Exit Sensor (S8)	[D]	Pressure Roller
[B]	Fusing Motor (M13)	[E]	Fusing Sleeve Belt
[C]	Fusing Entrance Sensor (S3)	-	-

Fusing Mode Control

Warm-up mode

When the main power switch (SW1) is turned ON, the machine starts the fusing warm-up. The machine drives the fusing motor (M13) to increase the fusing temperature to the reload target temperature.
When the machine completes the fusing warm-up, it keeps the reload target temperature by driving the fusing motor (M13) for a certain period of time.

Standby mode

When a certain period of time passes after fusing reload is completed, the machine stops the fusing lamp and fusing motor (M13). Then the machine keeps the fusing temperature to the standby target temperature by energizing the fusing lamp.
In standby mode, the machine starts the fusing motor (M13) intermittently.

Printing ready mode

After returning to standby mode, the machine lights the fusing lamp to increase the fusing temperature to the printing ready target temperature. If there is no printing job, the machine then moves back to the standby mode.
If there is a printing job, the machine starts the fusing lamp to increase the fusing temperature to the target temperature after reload/feeding, and then starts the print job.

CPM Down Control

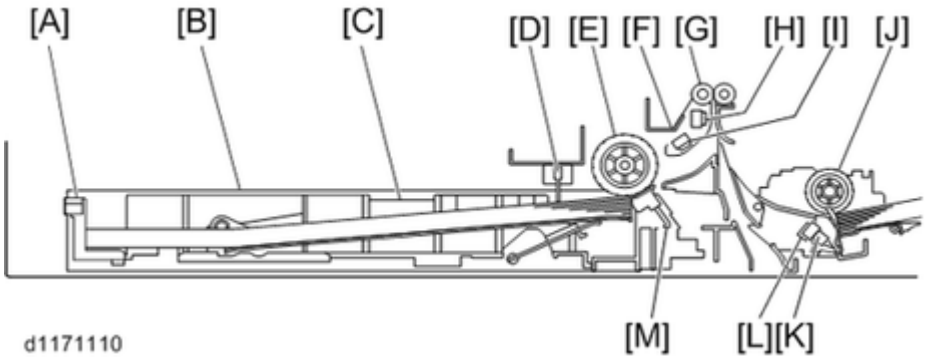
This machine automatically lowers the CPM according to usage and machine status to obtain the best image quality and keep the machine in good condition.
If the fusing lamp is always activated during consecutive printing, and/or the paper size is smaller than the lamp's width, then some heat will not be used for fusing and may stay around the front and rear ends of the fusing unit. This will increase the temperature in the fusing unit abnormally.
CPM down control keeps the machine's CPM low until the fusing unit sufficiently cools down. Normally, it takes 10 minutes to recover the original CPM.

CPM Down Level

	A5	Postcard	Envelope	Recovery Time
CPM (Standard)	15	15	15	10 mins.
CPM Down Starting Sheet Count	No CPM control	13th sheet	4th sheet	
CPM (Controlled)		10	6	
Output sheet count after one minute from recovery		14	6	

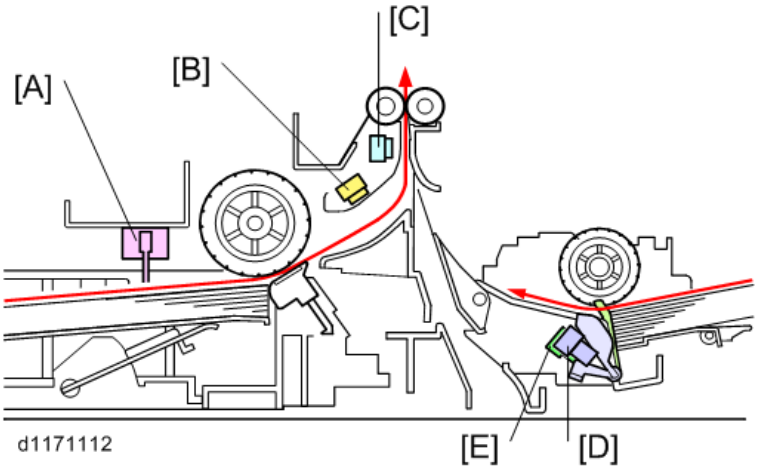
Paper Feed and Registration (IM C300 Series)

Overview



Callout	Item	Callout	Item
[A]	End Fence	[H]	Registration Sensor (S32)
[B]	Paper Feed Tray	[I]	Paper Feed Sensor (S31)
[C]	Side Fence	[J]	Bypass Feed Roller
[D]	Tray Paper End Sensor (Main Unit) (S30)	[K]	Bypass Paper Width Sensor (S5)
[E]	Paper Feed Roller	[L]	Paper End Sensor (Bypass) (S6)
[F]	Dust Collection Tray	[M]	Friction Pad
[G]	Registration Rollers (Right: Driven, Left: Drive)	-	-

Sensor Locations in the Paper Feed Path

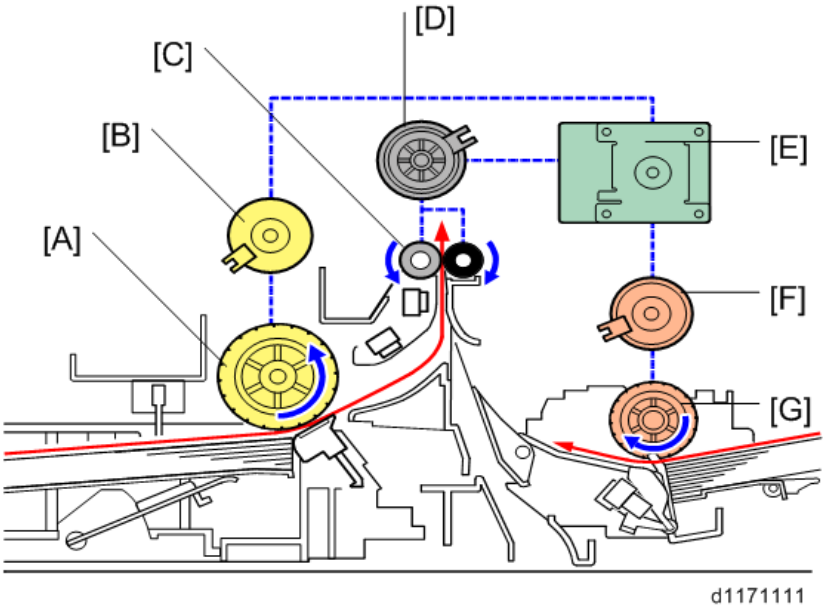


Callout	Item	Callout	Item
[A]	Tray Paper End Sensor (Main Unit) (S30)	[D]	Bypass Paper Width Sensor (S5)
[B]	Paper Feed Sensor (S31)	[E]	Paper End Sensor (Bypass) (S6)
[C]	Registration Sensor (S32)	-	-

Paper Transport Motor (M12)

The drive from the paper transport motor (M12) [E] is transmitted to each clutch through gears. The

paper transport motor (M12) [E] controls paper feed/exit, duplex, registration, waste toner transport coil and bypass tray lift.



Callout	Item	Callout	Item
[A]	Paper Feed Roller	[E]	Paper Transport Motor (M12)
[B]	Paper Feed Clutch (CL9)	[F]	Bypass Feed Clutch (CL7)
[C]	Registration Roller	[G]	Bypass Feed Roller
[D]	Registration Clutch (CL8)	-	-

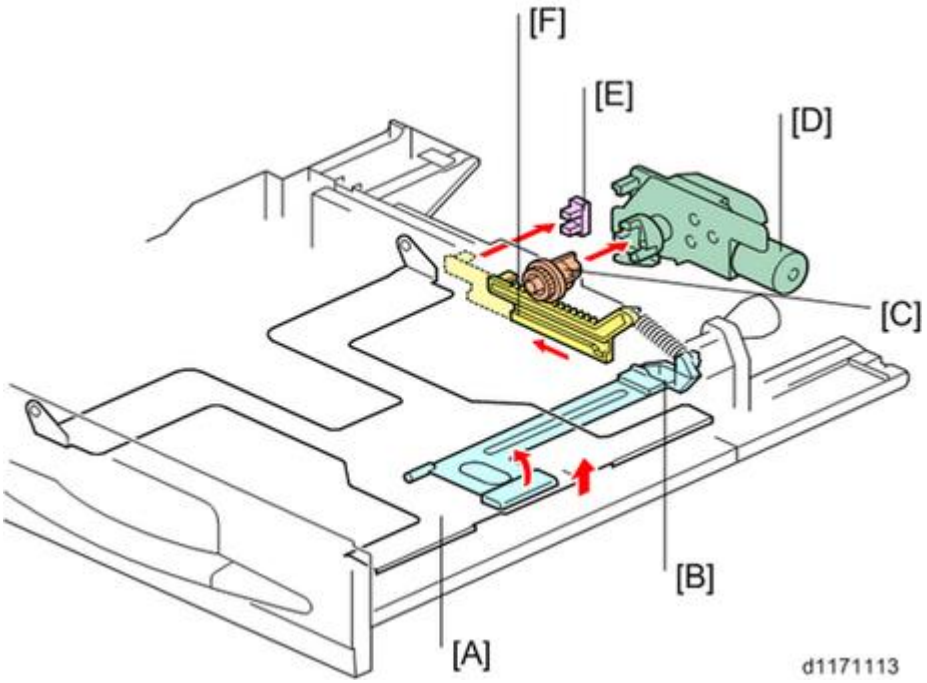
Tray Lift Mechanism

The tray lift motor (M15) [D] rotates the gear [C] and the gear makes the rack [F] move.

The movement of the rack pulls the spring and this moves the bottom plate lift arm [B].

The arm lifts the bottom plate [A].

The position of the bottom plate is detected by the tray lift sensor (S35) [E]. This machine does not use motor control to detect the bottom plate position.

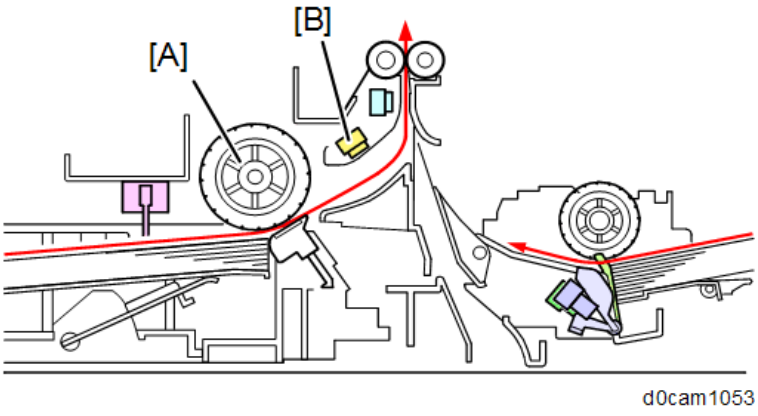


Callout	Item	Callout	Item
[A]	Bottom Plate	[D]	Tray Lift Motor (M15)
[B]	Bottom Plate Lift Arm	[E]	Tray Lift Sensor (S35)
[C]	Bottom Plate Lift Gear	[F]	Rack and Pinion Mechanism

Transport control

The paper feed sensor (S31) [B] monitors whether the paper is fed by the paper feed roller [A] at intervals that are too short.

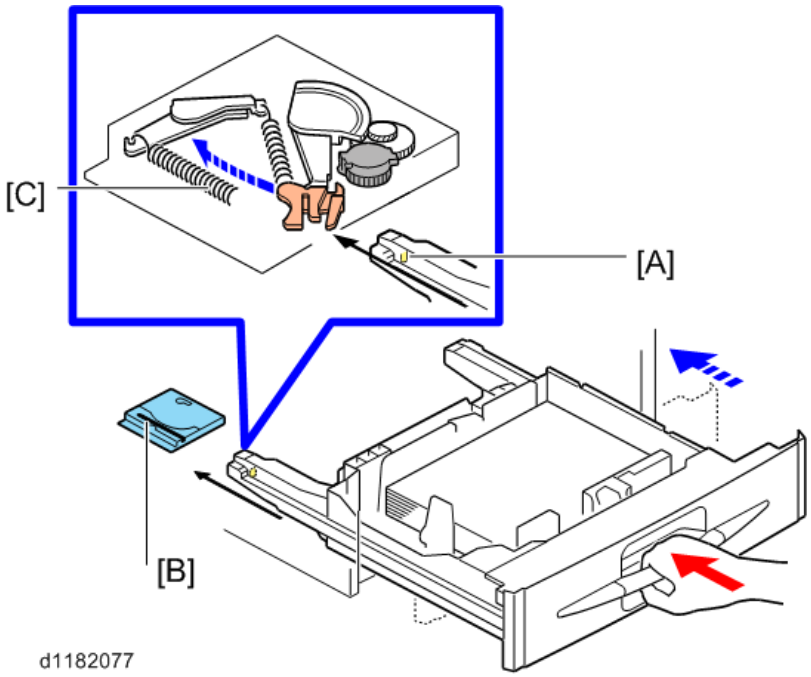
If an overly short interval is detected, the paper feed clutch (CL9) is stopped momentarily to increase the interval and prevent a paper jam due to such a short interval.



Tray Auto-close Mechanism

The tray has a pin [A] on its bottom. When the tray is set, the spring [C] in the draw-in unit [B] slowly

pulls the tray in. When the tray is pulled out, the pin stretches the spring.



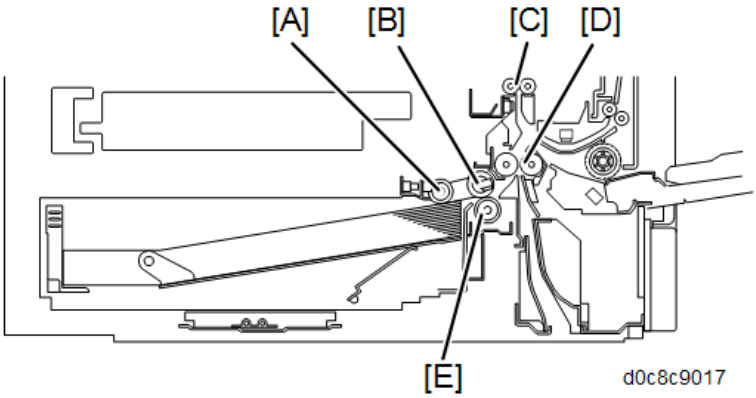
[A]: Pin

[B]: Draw-in Unit

[C]: Spring

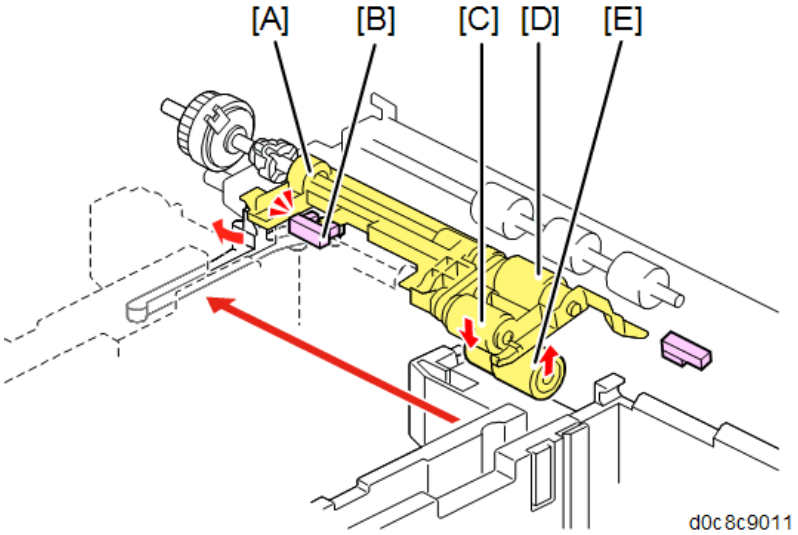
Paper Feed and Registration (IM C400 Series)

Overview



Callout	Item
[A]	Pick-up Roller
[B]	Paper Feed Roller
[C]	Registration Roller
[D]	Vertical Transport Roller
[E]	Friction Roller

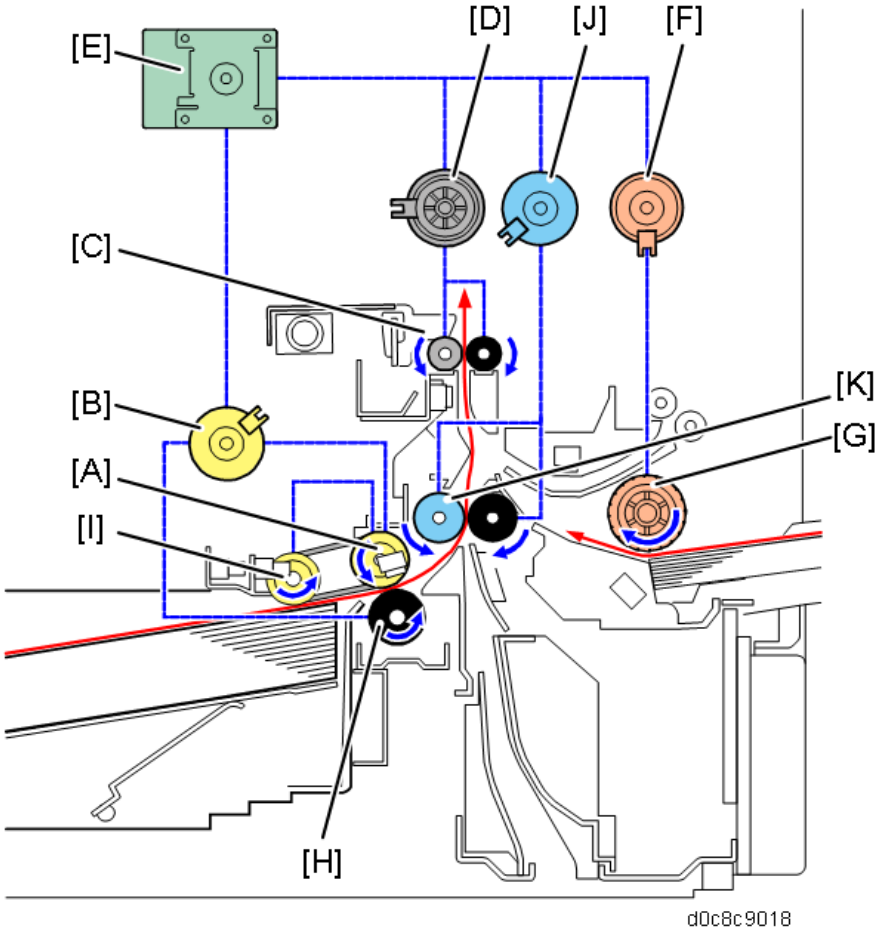
Paper Feed Unit



Callout	Item	Callout	Item
[A]	Pick-up Arm	[D]	Paper Feed Roller
[B]	Tray Lift Sensor (S35)	[E]	Friction Roller
[C]	Pick-up Roller	-	-

Paper Transport

The drive from the paper transport motor (M12) is transmitted to each clutch through gears. The paper transport motor (M12) controls paper feed, duplex, registration, waste toner transport coil and bypass tray lift.

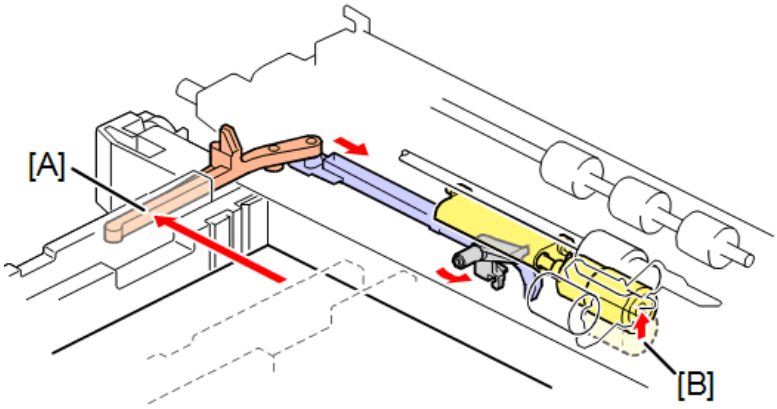


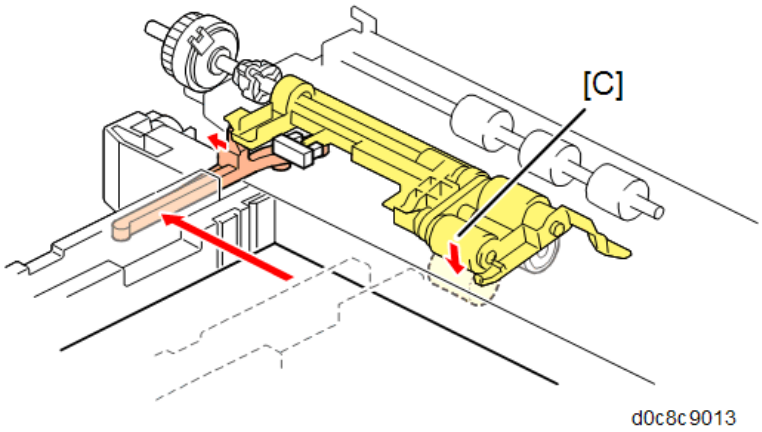
Callout	Item	Callout	Item
[A]	Paper Feed Roller	[G]	Bypass Feed Roller
[B]	Paper Feed Clutch (CL9)	[H]	Friction Roller
[C]	Registration Roller	[I]	Pick-up Roller
[D]	Registration Clutch (CL8)	[J]	Vertical Transport Clutch (CL10)
[E]	Paper Transport Motor (M12)	[K]	Vertical Transport Roller
[F]	Bypass Feed Clutch (CL7)	-	-

Paper Feed Mechanism

When the paper feed tray is set in the machine, a pressure release lever [A] is pressed, the friction roller [B] comes in contact with the paper feed roller, and the pick-up roller [C] contacts the top of the paper (to prevent paper remaining, when the paper feed tray is withdrawn, the pressure release lever

returns and contact with the rollers is released).





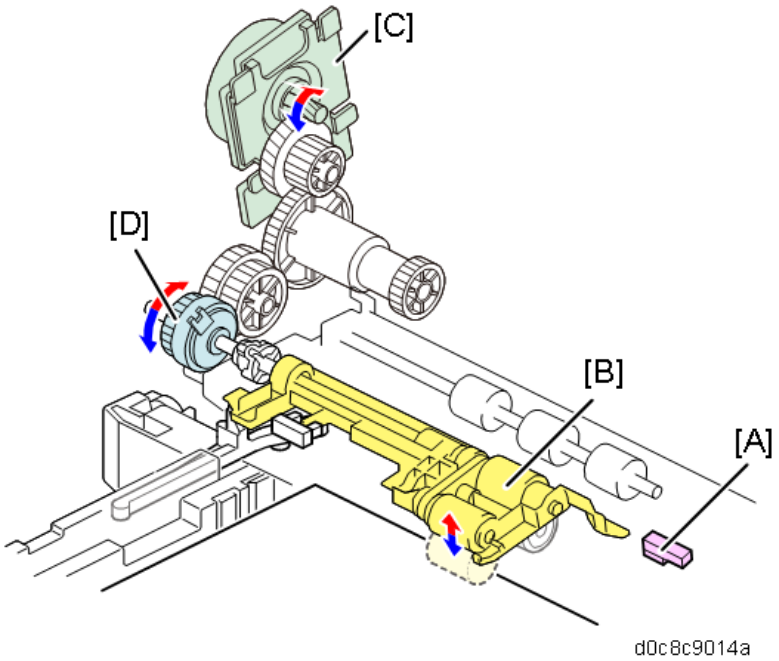
The machine is in standby mode for paper feeding when the tray bottom plate moves up. When the paper feed clutch (CL9) turns ON after the paper transport motor (M12) turns ON, the rollers start to rotate and paper is fed.
The feed guide functions as a paper guide and roller clip ring. The feed guide prevents the paper from winding up.

Paper Feed Transport Mechanism

In this machine, to maintain the paper gap constant, the paper feed sensor (S31) [A] near the paper feed roller adjusts the paper feed timing.

1. The paper transport motor (M12) [C] is switched ON, then the paper feed clutch (CL9) [D] turns ON, the first sheet is supplied.
2. Just before the rear edge of the first sheet leaves the paper feed roller [B], the paper feed clutch (CL9) [D] switches OFF.
   At this time, if the paper feed sensor (S31) [A] detects "Paper Out" (if a second sheet has not been transported to the paper feed sensor position), the paper feed clutch (CL9) [D] does not switch OFF, and pre-feed is performed. Pre-feed is as follows:
   1.The second sheet is transported to the paper feed sensor (S31) [A] position.
   2.When the leading edge of the second sheet reaches the paper feed sensor (S31) [A], the paper

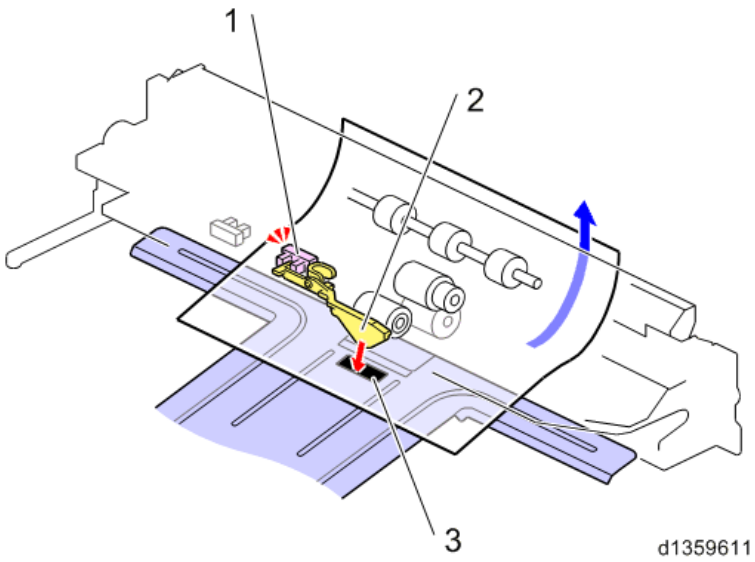
feed clutch (CL9) [D] switches OFF.



3. When the first sheet is transported a predetermined distance by the downstream transport roller, the paper feed clutch (CL9) [D] switches ON to supply the second sheet of paper.
4. The transported sheet is controlled so as not to be jammed by the paper feed sensor (S31) [A].

Paper End Detection

When there is no more paper in the paper feed tray, the leading edge of the paper end feeler [2] falls into a notch [3] in the base plate, and the tray paper end sensor (main unit) (S30) [1] at the rear edge of the paper end feeler switches ON.

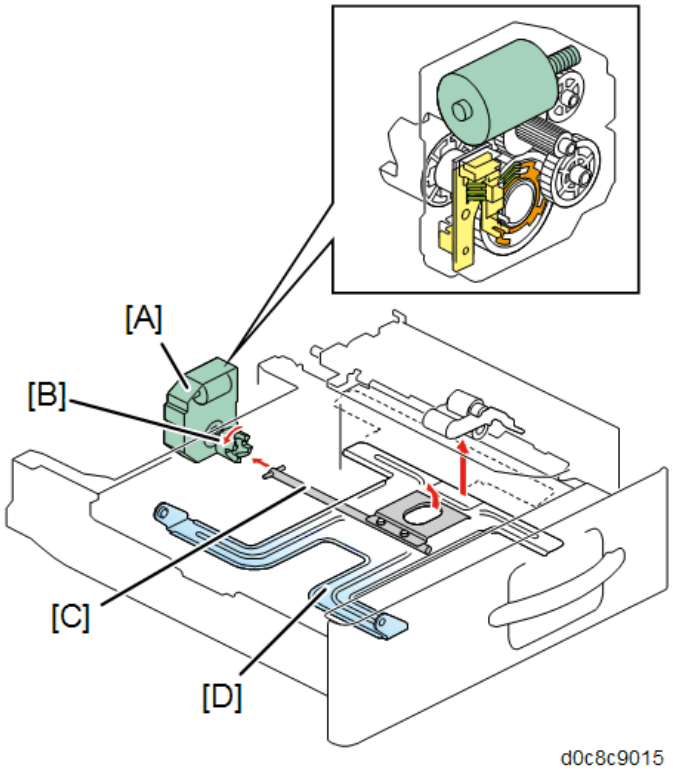


Callout	Item
1	Tray Paper End Sensor (Main Unit) (S30)
2	Paper End Feeler
3	Notch

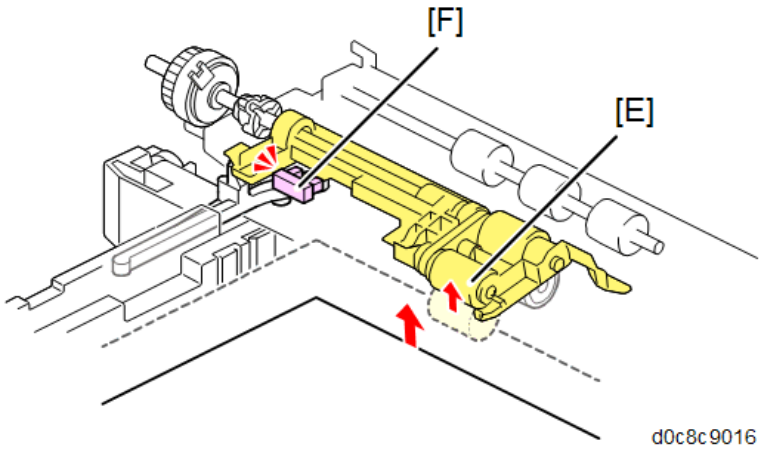
Tray Lift Mechanism

When the paper feed tray is set in the machine, the set sensor (S34) at the rear of the tray switches ON, and it is detected that the tray is set.

The coupling [B] between the shaft [C] at the rear of the tray and the tray lift motor (M15) [A] then engages, the motor rotates, and the tray base plate [D] is lifted.

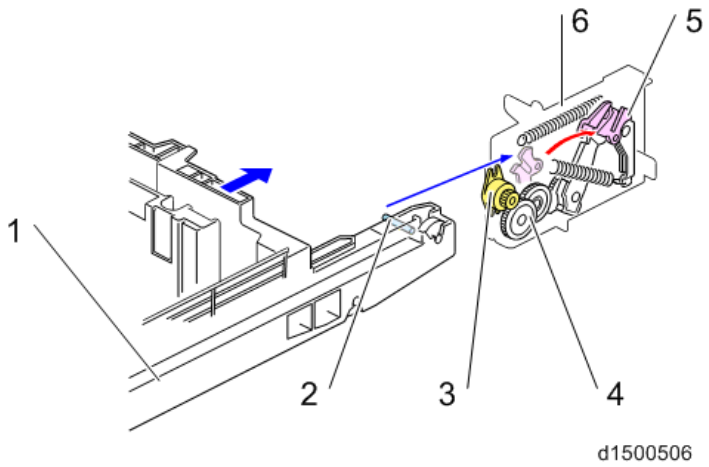


The tray base plate lifts until the paper surface pushes the pick-up roller up [E], the tray lift sensor (S35) [F] switches OFF (interrupt), and the machine enters paper feed standby mode.



When the tray is removed, the coupling is released, and the base plate moves down. The tray lift motor (M15) then rotates until the coupling returns to the home position.

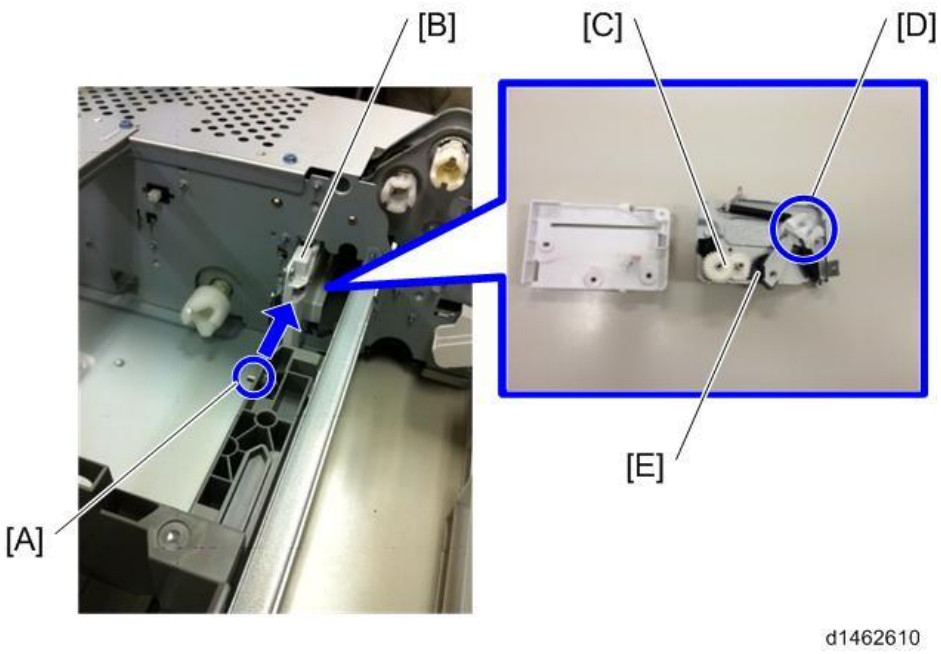
Tray Auto-close Mechanism



No.	Part name	No.	Part name
1	Paper Feed Tray	4	One-way Clutch
2	Draw-in pin	5	Draw-in lever
3	Oil Damper	6	Tray draw-in unit

To enhance operability, a tray draw-in mechanism is used.

The tray is drawn in by a one-way clutch in the draw-in unit. To draw the tray out, an oil damper is released.



The pin [A] of the paper supply tray is drawn in by the tray draw-in unit [B].

[A]: Paper supply tray pin

[B]: Tray draw-in unit

[C]: One-way clutch

[D]: Tray draw-in lever

[E]: Oil damper

Paper Feed and Registration (New Functions)

Displaying Guidance When Paper Setting Is Misconfigured

The actual paper length is measured by the registration sensor (S32) and compared with the paper length configured in the machine's Paper Tray Settings. If there is a difference of 30 mm or more, an internal flag is set to indicate a paper length error.
If paper jams while this flag is set, a message reporting a paper configuration error and explaining the correct way to configure the paper setting appears on the operation panel. This reduces paper jams due to misconfiguration by the user.
You can specify whether or not to display the guidance and check the occurrence count with the following SP.

Function	SP No.
Displaying Guidance	SP1-010-001 (Size Set Miss Detection Mode: Paper Length Detection) 0: OFF 1: ON
Paper Length Error Detection Count: Tray 1	SP1-011-001 (Size Set Miss Detection Count: Papr Lngth Dtct:F1)
Paper Length Error Detection Count: Bypass Tray	SP1-011-002 (Size Set Miss Detection Count: Papr Lngth Dtct:MF)
Paper Length Error Detection Count: Tray 2 (Optional PFU1)	SP1-011-003 (Size Set Miss Detection Count: Papr Lngth Dtct:F2)
Paper Length Error Detection Count: Tray 3 (Optional PFU2)	SP1-011-004 (Size Set Miss Detection Count: Papr Lngth Dtct:F3)
Paper Length Error Detection Count: Tray 4 (Optional PFU3)	SP1-011-005 (Size Set Miss Detection Count: Papr Lngth Dtct:F4)

Reducing Paper Jams (JAM10, 15, 16, 17 / Failing to slacken the paper for skew adjustment on the registration roller)

If the image fails to be transferred to the paper in time after the paper reaches the registration point, it is possible to continue printing by forming the image again (resending the image). This reduces the paper jam (JAM10, 15, 16, 17) (failing to slacken the paper for skew adjustment on the registration roller).
You can specify whether or not to resend the image with the following SPs. (The default setting of each is "ON".)
0: OFF
1: ON

Item	SP No.
Tray 1	SP1-909-002 (ImageRetry: Function:Tray1)
Bypass Tray	SP1-909-003 (ImageRetry: Function:MF)

Item	SP No.
Tray 2	SP1-909-004 (ImageRetry: Function:Tray2)
Tray 3	SP1-909-005 (ImageRetry: Function:Tray3)
Tray 4	SP1-909-006 (ImageRetry: Function:Tray4)

Option

Resending the image increases toner consumption, so if the need to form the image again increases, you can select between 2 actions.

- **1-909-012 to 016**

  0: Delivers the paper securely by resending the image.

  1: Increases the interval between images in order to widen the margins to prevent paper slips when the paper is fed.

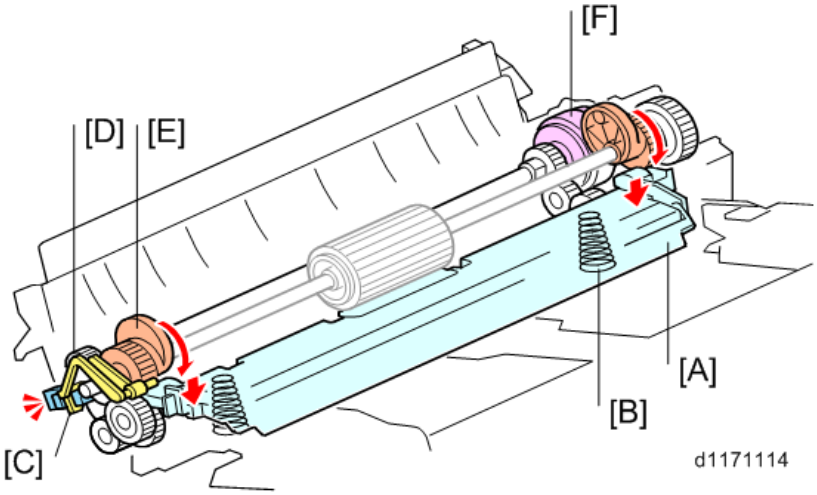
  However, if the image still fails to be transferred in time even with widened margins, the image is resent.

Bypass Tray

Bypass Tray Bottom Plate Lift Mechanism

The paper transport motor (M12) rotates the bypass tray lift clutch (CL1) [F], and this moves the bypass tray bottom plate [A] up and down.

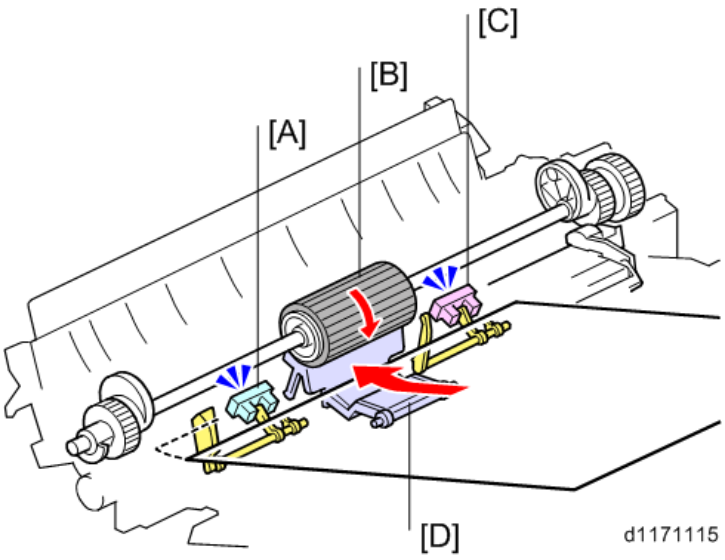
The position of the bypass tray bottom plate lift cams (and because of this, the bypass tray bottom plate) is detected by the bypass tray lift sensor (S4) [C].



Callout	Item	Callout	Item
[A]	Bypass Tray Bottom Plate	[D]	Actuator
[B]	Pressure Spring	[E]	Bypass Tray Bottom Plate Lifting-up Cam (Front and Rear)
[C]	Bypass Tray Lift Sensor (S4)	[F]	Bypass Tray Lift Clutch (CL1)

Paper Size Detection and Paper End Detection

The bypass paper width sensor (S5) [A] is not at the side of the tray but at the side of the bypass paper feed unit.



Callout	Item	Callout	Item
[A]	Bypass Paper Width Sensor (S5)	[C]	Paper End Sensor (Bypass) (S6)
[B]	Bypass Feed Roller	[D]	Bypass Feed Friction Pad

Paper Size Detection (Paper Width)

The paper size is detected by the bypass paper width sensor (S5) [A]. Size mismatch is detected if one of the following conditions is met.

	Paper size (width) specified in Tray Paper Settings on the operation panel	Paper width detected by the bypass paper width sensor (S5)
1	180 mm or more	OFF (148 mm or less)
2	148 mm or less	ON (180 mm or more)

- Size mismatch is not detected for the specified size less than 180 mm and more than 148 mm.
- If size mismatch is detected, it is regarded a paper jam. Printing stops and an alert message appears on the operation panel.
- When printing a single-page job, the job is delivered (and included in the billing), and then an alert message appears on the operation panel.

Paper Size Detection (Paper Length)

The paper length is detected by the registration sensor (S32) in the machine's paper transfer path. (Available only with the bypass tray)

Size mismatch is detected if one of the following conditions is met.

1	Paper size (length) specified in Tray Paper Settings on the operation panel - 35 mm > Size (length) detected by the registration sensor (S32)
2	Paper size (length) specified in Tray Paper Settings on the operation panel + 70 mm < Size (length) detected by the registration sensor (S32)

- If size mismatch is detected, it is regarded as a paper jam. Printing stops and an alert message

appears on the operation panel.

- When printing a single-page job, the job is delivered (and included in the billing), and then an alert message appears on the operation panel.

Paper End Detection

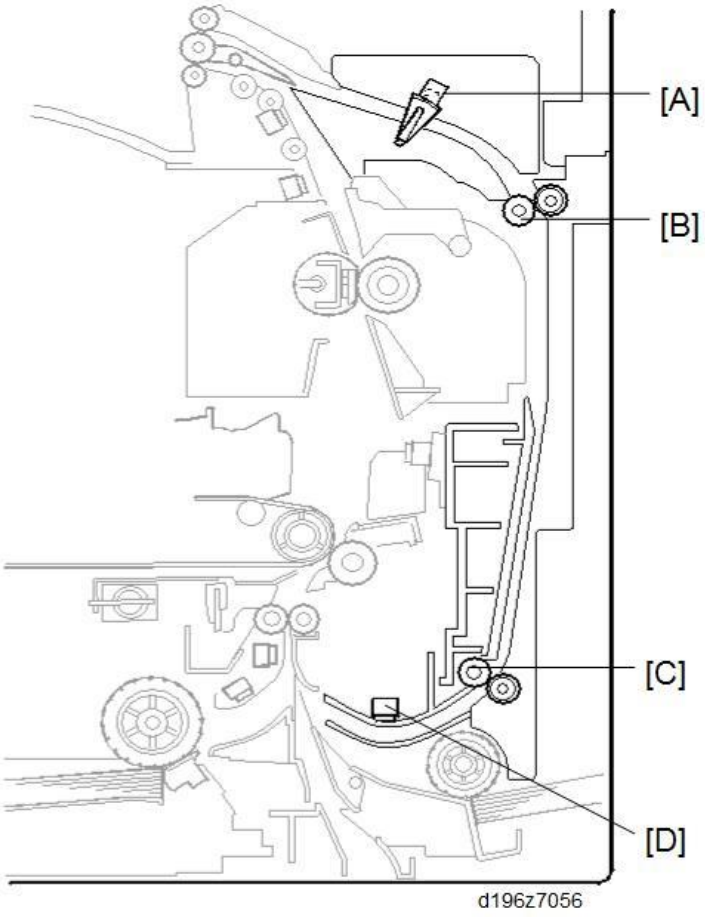
If the paper is loaded, the paper end sensor (bypass) (S6) [C] is turned ON.When the paper runs out, it is turned OFF and detects Paper End.

.

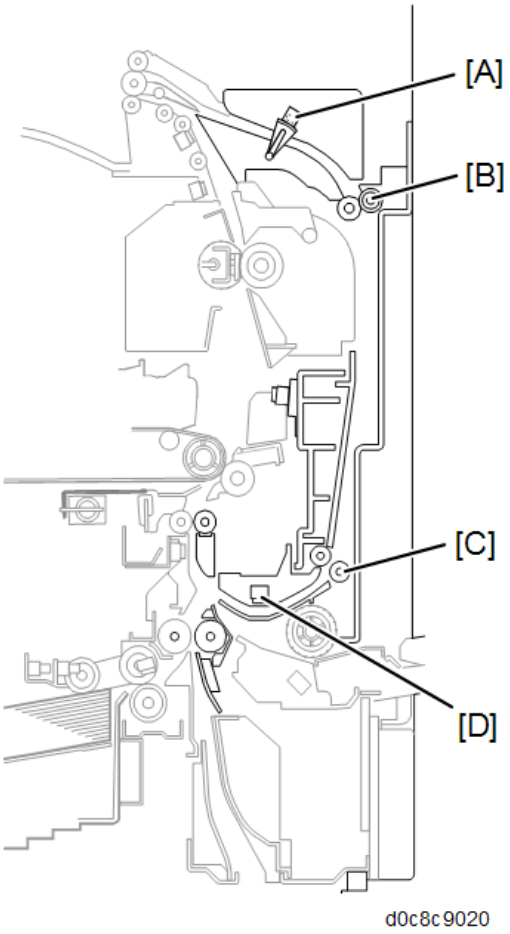
Duplex

Overview

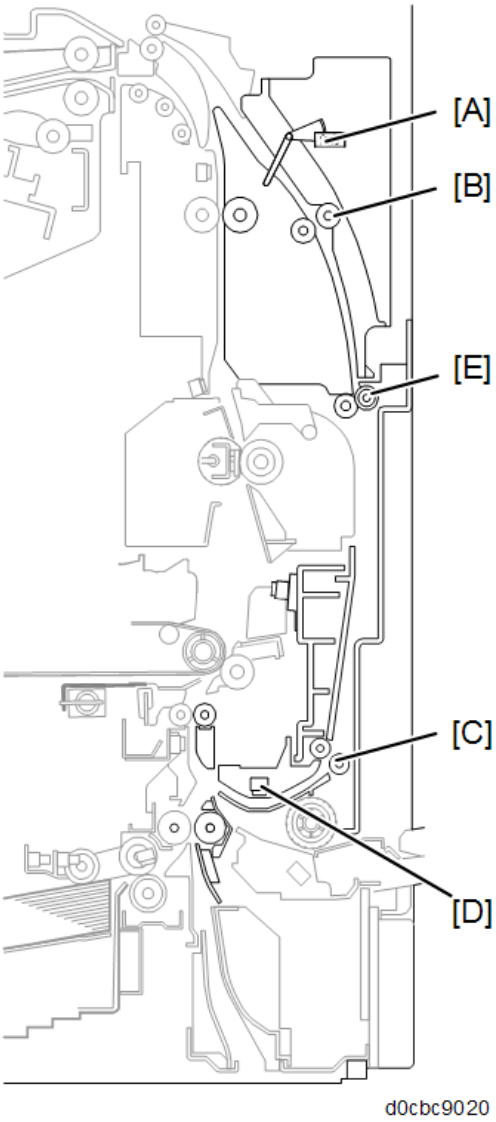
IM C300 series



IM C400F



IM C400SRF



Callout	Item	Callout	Item
[A]	Duplex Entrance Sensor (S1)	[D]	Duplex Exit Sensor (S2)
[B]	Duplex Paper Transport Roller (Upper)	[E]	Duplex Paper Transport Roller (Middle)*1
[C]	Duplex Paper Transport Roller (Lower)	-	-

*1 IM C400SRF only

Note

- The IM C400SRF has a longer paper transfer path for duplex printing than other models, so a Duplex Paper Transport Roller (Middle) is provided.

Duplex Mechanism

Duplex Drive

The drive from the paper transport motor (M12) [D] is transmitted to the duplex clutch (CL6) [C] through a gear, and the duplex clutch (CL6) turns on to drive the duplex paper transport rollers.

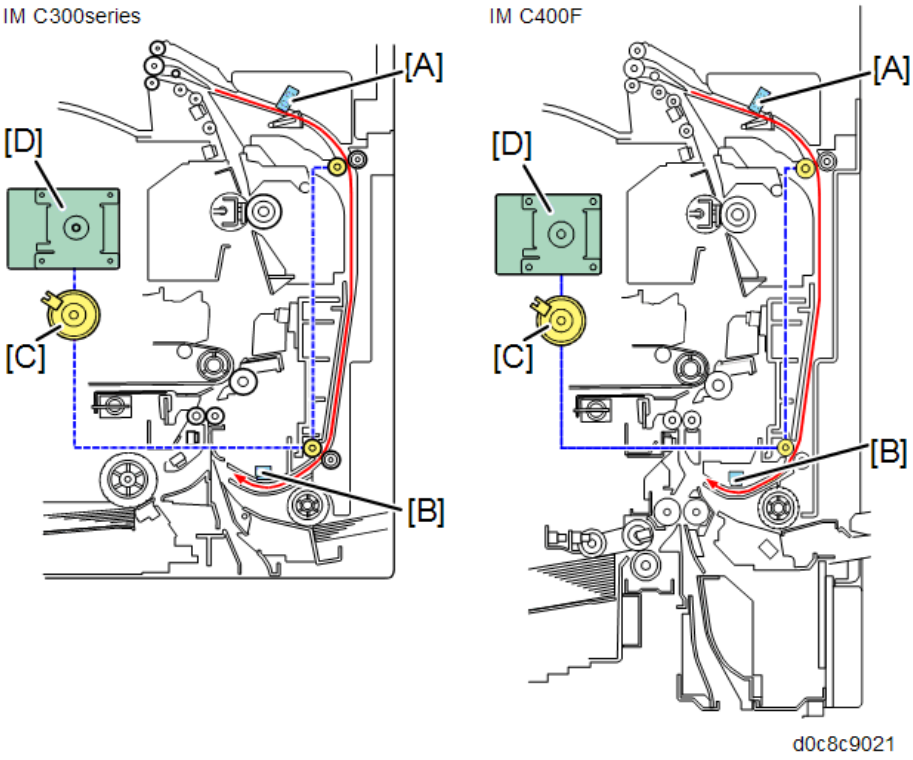
Drive is transmitted to the Duplex Paper Transport Roller in the order of lower, middle*1 and upper rollers through the timing belt.

*1 IM C400SRF only

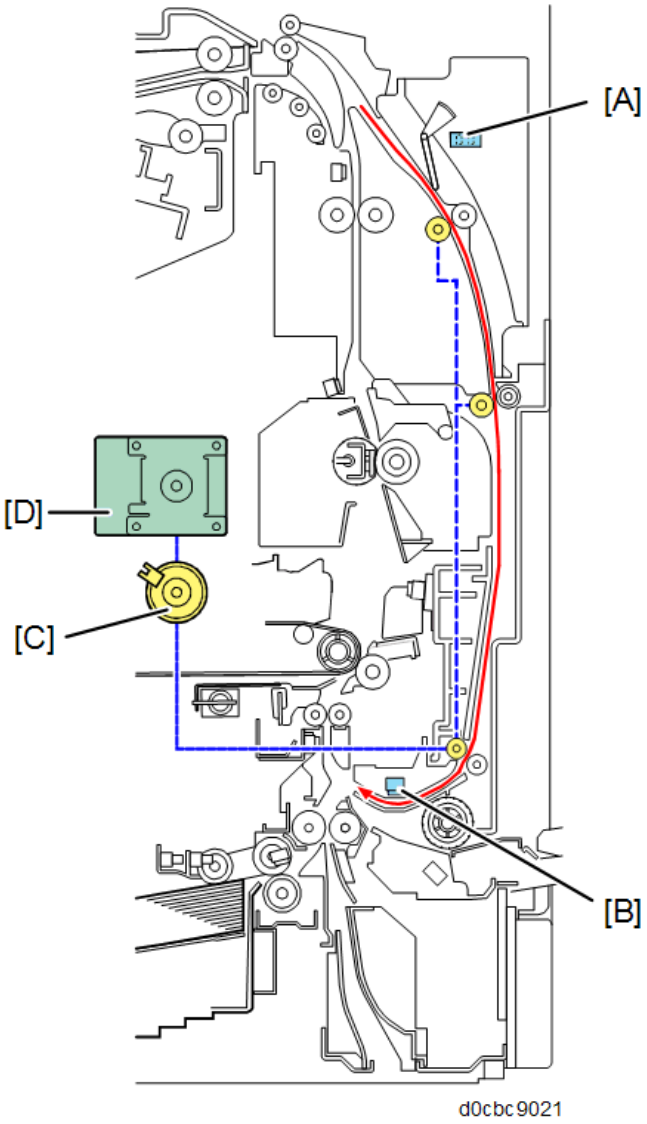
Duplex Transport

There are two paper sensors (upper and lower) in the duplex unit. The upper sensor is the duplex entrance sensor (S1) [A].

The lower sensor is the duplex exit sensor (S2) [B].



IM C400SRF



Callout	Item
[A]	Duplex Entrance Sensor (S1)
[B]	Duplex Exit Sensor (S2)
[C]	Duplex Clutch (CL6)
[D]	Paper Transport Motor (M12)

Interleaving

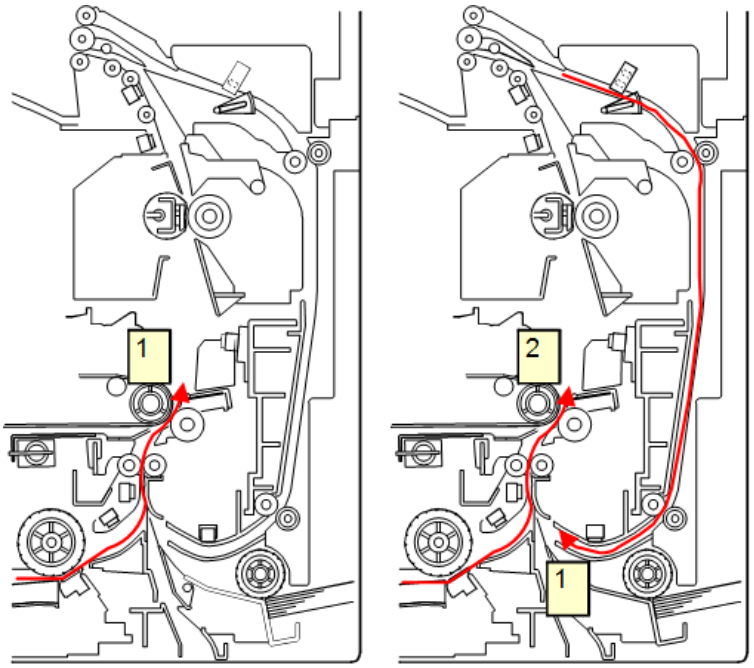
Note

- The following descriptions are accompanied by illustrations of the IM C300 series, but the IM C400 series has the same mechanism.

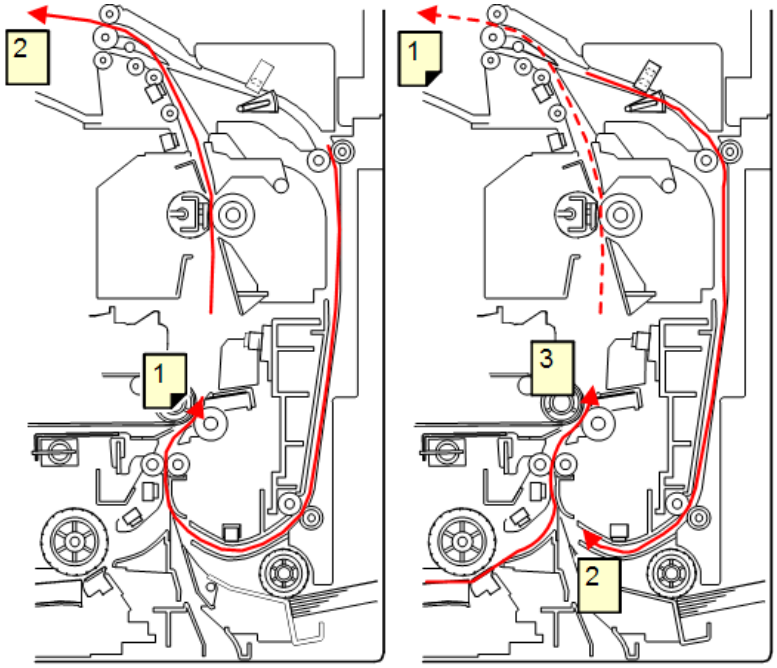
This machine adopts “2 in 1” interleaving.

The interleave operation of this machine is as follows:

1st sheet back -> 2nd sheet back -> first sheet front -> 3rd sheet back -> 2nd sheet front-> 4th sheet back.



d0cam1076



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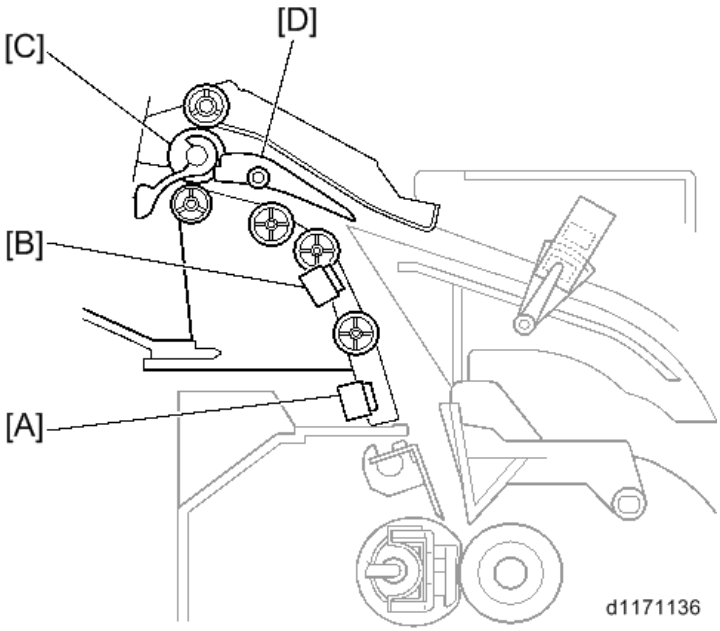
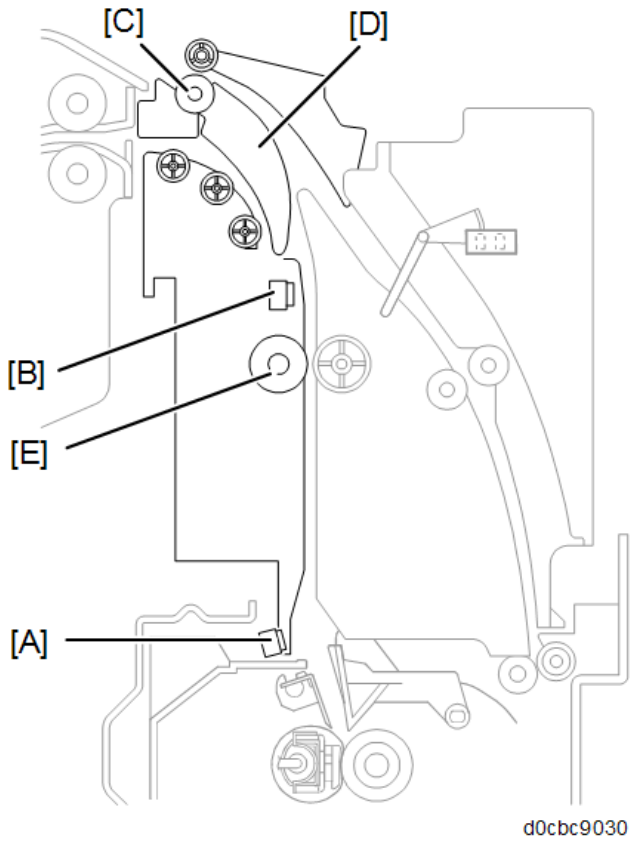
Paper Exit and Inverter

Overview

Basic model



Finisher model

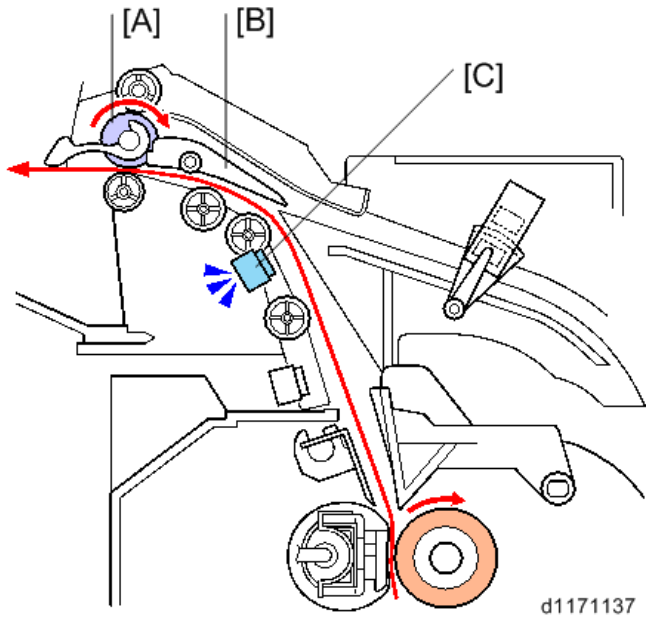


Callout	Item	Callout	Item
[A]	Fusing Exit Sensor (S8)	[D]	Exit Junction Gate
[B]	Paper Exit Sensor (S7)	[E]	Paper Exit Transport Roller
[C]	Paper Exit/reverse Roller	-	-

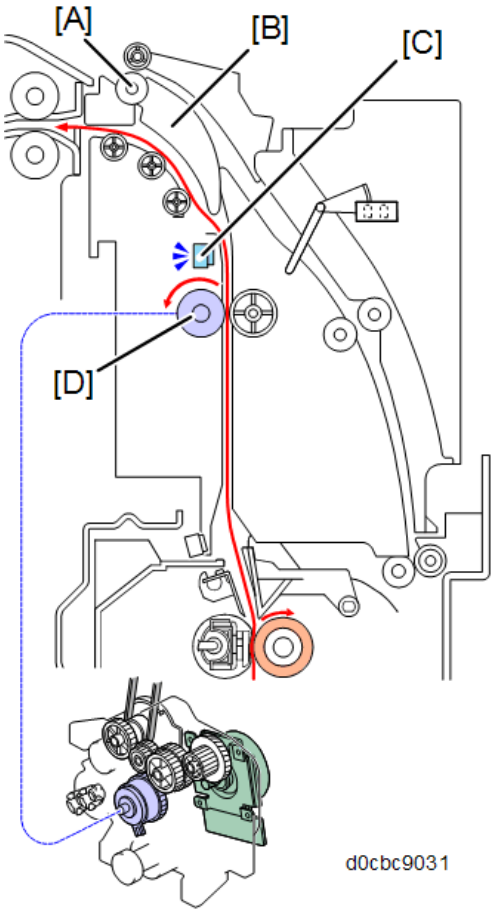
Paper Exit Operation

The paper transport motor (M12) rotates the paper exit/reverse roller [A] through a gear. The paper exit sensor (S7) [C] detects paper exit jams and the paper inversion timing.

Basic model

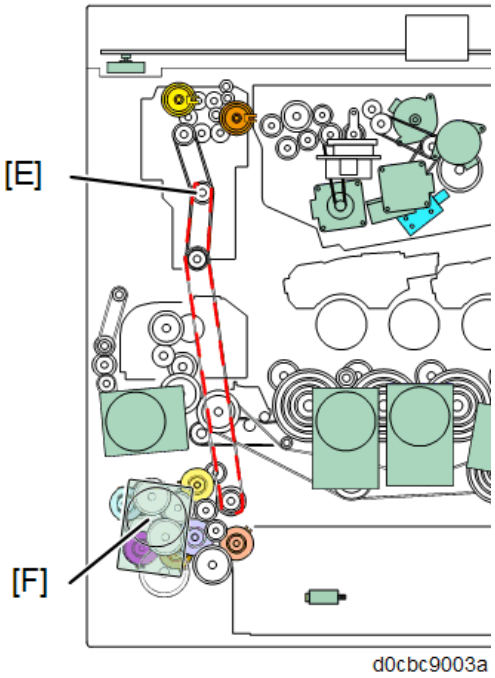


Finisher model



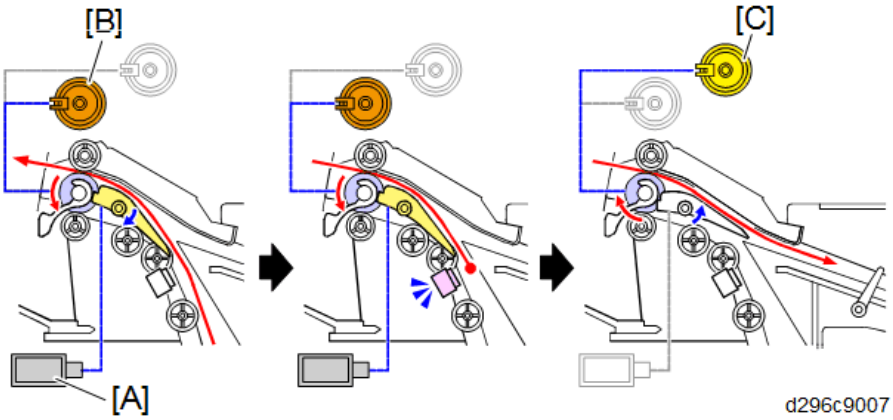
Callout	Item	Callout	Item
[A]	Paper Exit/reverse Roller	[C]	Paper Exit Sensor (S7)
[B]	Exit Junction Gate	[D]	Paper Exit Transport Roller

The paper exit transport roller [E] is provided on the IM C400SRF because the transport path from fusing to paper exit is longer than on other models. The paper exit transport roller conveys the drive from the paper transport motor (M12) [F] via a timing belt.

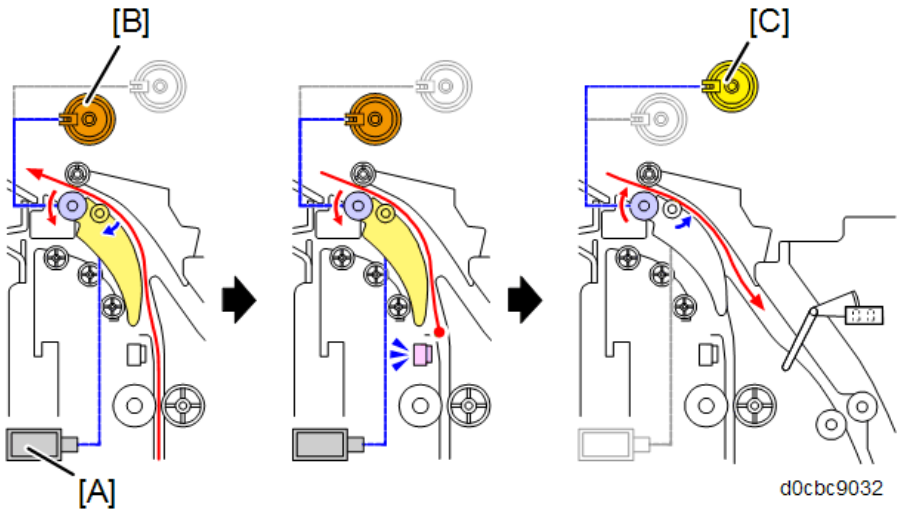


Inverter Operation

Basic model



Finisher model



Callout	Item	Callout	Item
[A]	Junction Gate Solenoid (SOL1)	[C]	Reverse Clutch (CL2)
[B]	Paper Exit Clutch (CL3)	-	-

The junction gate solenoid (SOL1) [A], paper exit clutch (CL3)[B], and reverse clutch (CL2)[C] control the exit junction gate and paper exit/reverse roller simultaneously.

The paper exit clutch (CL3) and reverse clutch (CL2) transmit the driving to the paper exit inverter roller, in opposite directions respectively.

The paper exit/reverse roller rotates in the normal direction when the paper exit clutch (CL3) is turned ON, to feed the paper to the paper exit path.

When the reverse clutch (CL2) turns ON, the paper exit/reverse roller rotates in the reverse direction, to feed the paper to the inverter path or 1-bin exit path (when 1-bin tray unit is installed).

In duplex printing, after the first side of a sheet has been printed, the exit junction gate solenoid (SOL1) turns ON, and the exit junction gate has been switched to direct the paper to the inverter path.

And then, the paper exit clutch (CL3) turns OFF and the paper reverse clutch (CL2) turns ON, to rotate the paper exit roller in reverse to feed the paper towards the inverter exit (see the left illustration above).

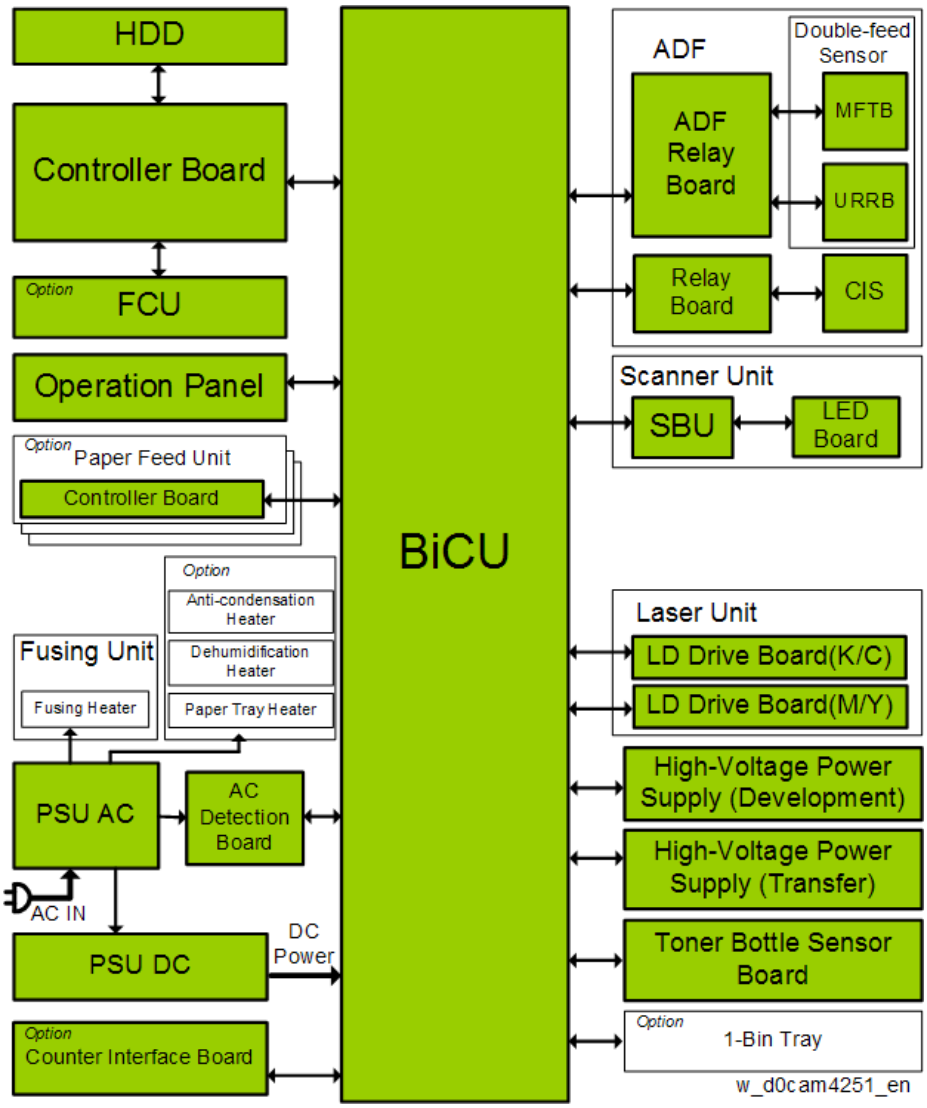
When the trailing edge of the paper passes the paper exit sensor (S7), the machine turns OFF the junction gate solenoid (SOL1), turns ON the paper exit clutch (CL3), and turns OFF the reverse clutch (CL2). It switches the exit junction gate back to the original position before the paper completely goes out of the inverter exit, and rotates the paper exit/reverse roller forward to feed the paper to the duplex transport path.

After that, the machine starts to print the second side and feeds out the paper that is printed on both sides to the paper exit tray.

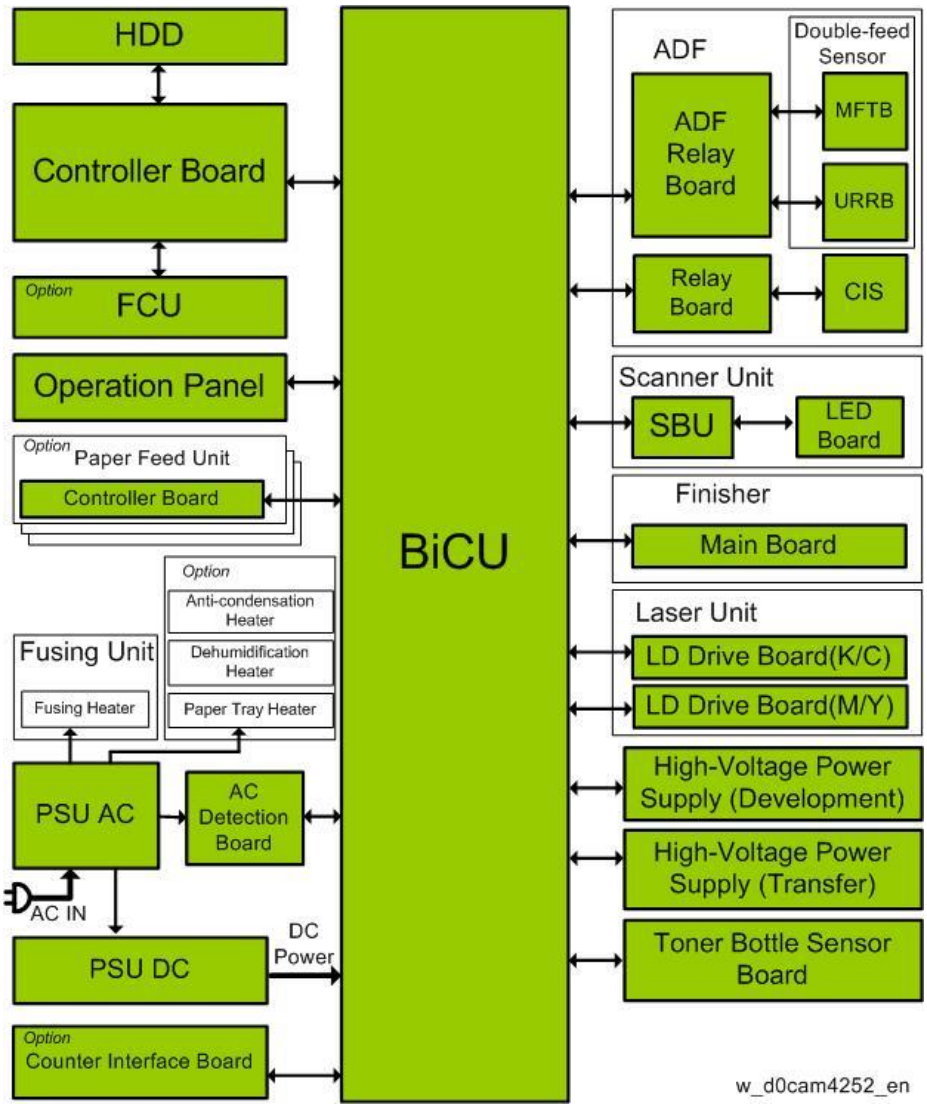
Electrical Parts

Block Diagram

Basic model



Finisher model



Board Outline

Controller Board (PCB24)

Controls all the systems related to the main machine. Contains an x86 CPU, controller ASIC, IO control ASIC, and RAM.

SBU (PCB11)

Scanning control circuit which performs analog signal processing and AD image conversion of the CCD read image.
It also has an interface with the BiCU (PCB1), and controls scanner input and output signals according to CPU commands.

LD drive board (K/C) (PCB8), LD drive board (M/Y) (PCB9)

LD control circuit which drives the laser diode with a universal driver.

BiCU (PCB1)

Controls the engine, as well as the sensors, motors and solenoids of main machine.

FCU (PCB2)

Controls the fax program.

Operation Panel

Controls the control panel.

High-Voltage Power Supply (Development) (PCB22), High-Voltage Power Supply (Transfer) (PCB23)

Generates high-voltage power required for image creation.
The High-Voltage Power Supply unit consists of two units: PCB23 is for transfer and PCB22 is for charging/developing.

PSU DC (PCB16), PSU AC (PCB17)

Generates DC power from the main AC power supply, and supplies it to each control circuit. Contains an A/C drive circuit for controlling the fusing lamp.

AC Detection Board (PCB18)

Detects the voltage of the main AC supply.

ADF Relay Board (PCB13)

Controls motors, sensors, and solenoids in the ADF.

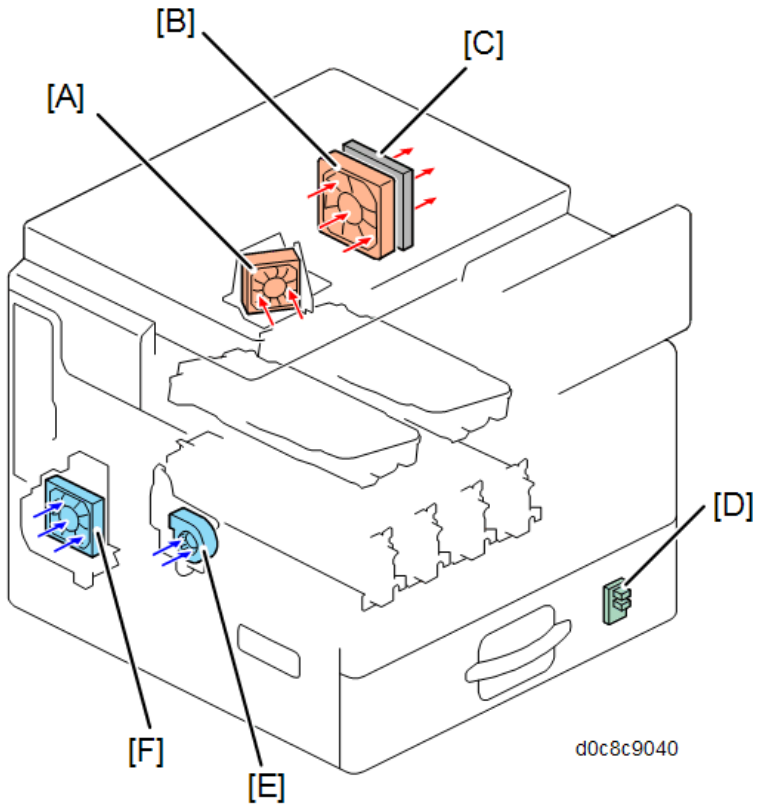
Fuse

Refer to Fuse Location (Fuse Location).

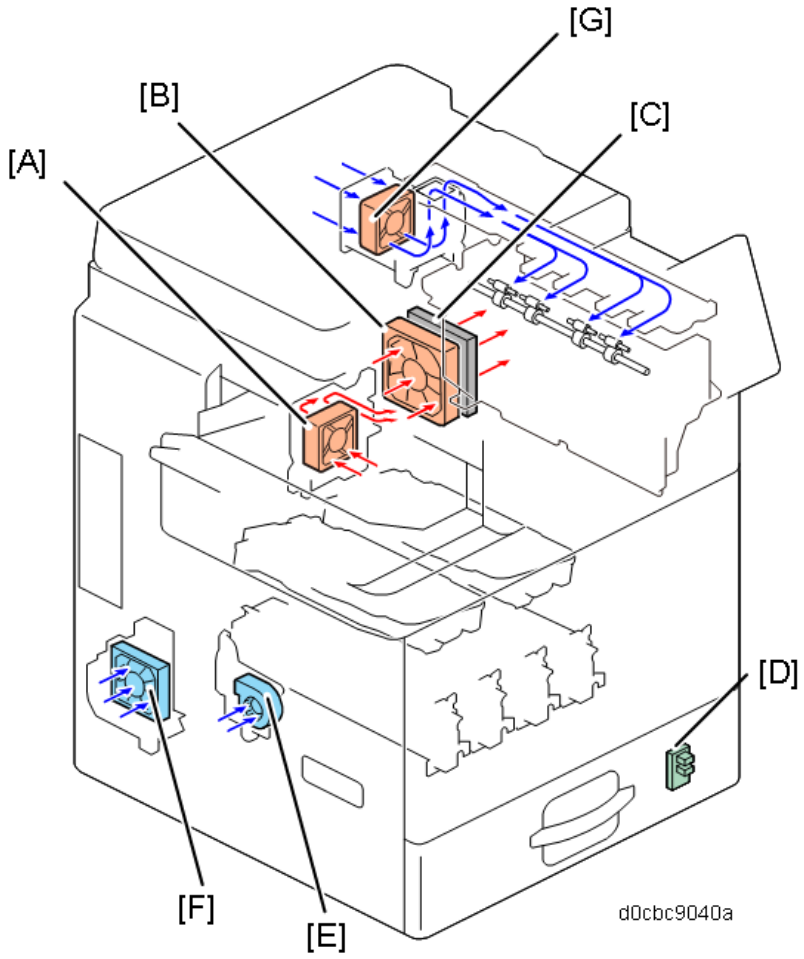
Machine Ventilation

Overview

IM C300 series / IM C400F



IM C400SRF



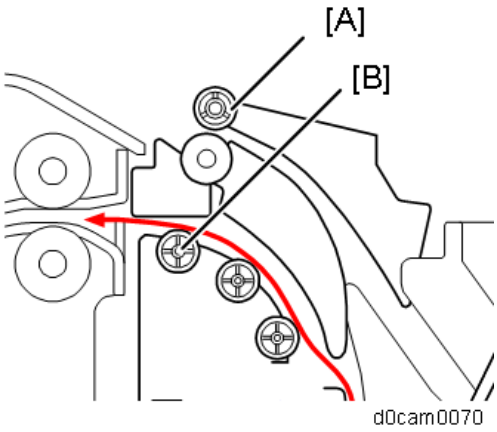
Callout	Item	Callout	Item
[A]	LD Unit Cooling Fan (FAN2)	[E]	PCDU Cooling Fan (FAN3)
[B]	Fusing Unit Cooling Fan (FAN1)	[F]	PSU Exhaust Fan (FAN4)
[C]	Ozone Filter	[G]	Paper Exit Exhaust Fan (FAN5)*1
[D]	Temperature/Humidity Sensor (S18)	-	-

*1 IM C400SRF only

The machine has four fans [A] [B] [E] [F] to ventilate the interior of the machine. There is a temperature/humidity sensor (S18)[D] at the front (lower right) of the machine. The machine takes in air from the left of the machine and exhausts it from the right of the machine after it cools the machine interior.

The ozone filter [C] is installed at the right of the fusing unit cooling fan (FAN1), which helps make it easier to replace the filter.

On the IM C400SRF, the transport path from fusing to paper exit is longer than on other models, resulting in the roller being susceptible to condensation due to the influence of outside air. Therefore, the IM C400SRF is provided with a paper exit exhaust fan (FAN5) to prevent condensation on the paper exit roller [B] and the paper exit reverse roller driven roller [A].



Machine Ventilation

The following tables summarize the fan control.

Fan Control Overview

Status	PCDU Cooling Fan (FAN3)	Fusing Unit Cooling Fan (FAN1)	PSU Exhaust Fan (FAN4)	LD Unit Cooling Fan (FAN2)	Paper Exit Exhaust Fan (FAN5) (IM C400SRF only)
Engine Off	Off				
Power ON – Warm-up	Stops				
Standby	Stops	Rotates at low speed	Stops	Stops	Rotates at low speed
Standby after printing	*1				
Printing	Rotates at full-speed → Stops*2	Rotates at full-speed → Rotates at low-speed*2	Rotates at full-speed*3	Rotates at full-speed → Stops*2	Rotates at full-speed → Rotates at low-speed*2
Lower Power	Stops *4	Rotates at low-speed*4	Stops *4	Stops *4	Rotates at low-speed*4
Silent	Stops *4				
Abnormal status					

Notes:

1. Keeps the printing status for the time specified in SP1-950-001 through -004. Then the fan keeps rotating until it reaches the temperature specified in SP2-241-004.
   001: PCDU cooling fan (FAN3)
   002: Fusing unit cooling fan (FAN1), paper exit/exhaust fan (FAN5)

003: PSU exhaust fan (FAN4)

004: LD unit cooling fan (FAN2)

2. Rotates at full speed when the temperature around the drum exceeds the temperature specified in SP1-955-001 through -004; Stops or rotates at low-speed when the temperature is out of the threshold specified in SP1-955-005.

   001: PCDU cooling fan (FAN3)

   002: Fusing unit cooling fan (FAN1), paper exit exhaust fan (FAN5)

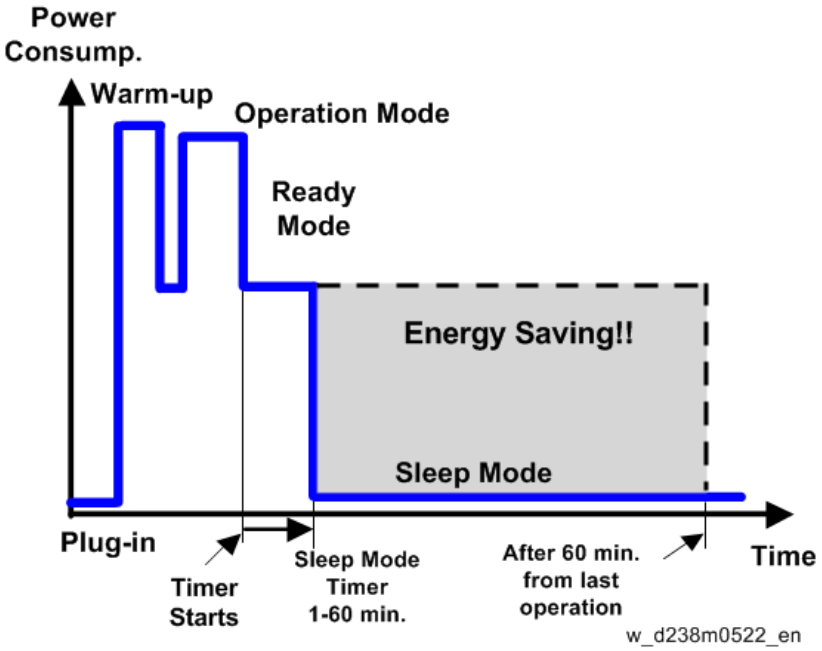
   004: LD unit cooling fan (FAN2)

3. If the time interval between the end timing of the last printing status and the start timing of the next printing status exceeds the value in SP1-955-007, the machine stops the fan until the duration specified in SP1-955-006, and then rotates at full speed.
4. If the fan is rotating, the machine keeps rotating it until the time specified in SP1-950-001 through -004.

Energy Save

Energy Saver Modes

Customers should use energy saver modes properly, to save energy and protect the environment.



The area shaded grey in this diagram represents the amount of energy that is saved when the timers are at the default settings. If the timers are changed, then the energy saved will be different. For example, if the timers are all set to 60 min., the grey area will disappear, and no energy is saved before 60 min. expires.

Setting Items that are Related to Energy Saving

The user can set these timers with [Settings] (System Settings > Date/Time/Timer > Timer)

Sleep Mode Timer

[Settings] (System Settings > Date/Time/Timer > Timer > Sleep Mode Timer)
After a specified period has passed, or [Energy Saver] is pressed, the machine enters Sleep mode in order to conserve energy. Specify the time to elapse before Sleep mode.
Default: [1 minute(s)]
Sleep Mode Timer may not work when error messages appear.
Depending on which Embedded Software Architecture application is installed on it, the machine might take longer than indicated to enter Sleep mode.

Fusing Unit Off Mode (Energy Saving) On/Off

[Settings] (System Settings > Date/Time/Timer > Timer > Fusing Unit Off Mode (Energy Saving) On/Off)
Specifies whether Fusing Unit Off mode is enabled or not.
When Fusing Unit Off mode is enabled, the display is on but the fusing unit is off to save energy.
The machine requires roughly the same time as warm-up time to recover from Fusing Unit Off mode.

Default: [On]
If [Fusing Unit Off Mode (Energy Saving) On/Off] is set to [On], you can specify when to exit Fusing Unit Off mode and the time to elapse before entering Fusing Unit Off mode.
If [Exit Fusing Unit Off Mode] is set to [On Printing], the machine exits Fusing Unit Off mode when printing is performed.
If [Exit Fusing Unit Off Mode] is set to [On Operating Control Panel], the machine exits Fusing Unit Off mode when a key other than the copy function key is pressed on the control panel of the machine.

Energy Saving Recovery for Business Application

[Settings] (System Settings > Machine > Power/Energy Saving > Energy Saving Recovery for Business Application)
Specify whether or not to enable low-energy recovery from Sleep mode to use applications independent of the machine, such as Address Book Management or Browser.
Default: [Off]
If [On (Energy Saving)] is selected, it takes longer than usual to be ready to use the machine.

Recovery Time/Reduced Electrical Consumption

EU

Model Name	Reduced electrical consumption in Sleep mode*1	Recovery time from Sleep mode*1
IM C300	0.65 W	7.7 sec.
IM C300F	0.65 W	7.7 sec.
IM C400F	0.65 W	8.0 sec.
IM C400SRF	0.65 W	8.2 sec.

Asia

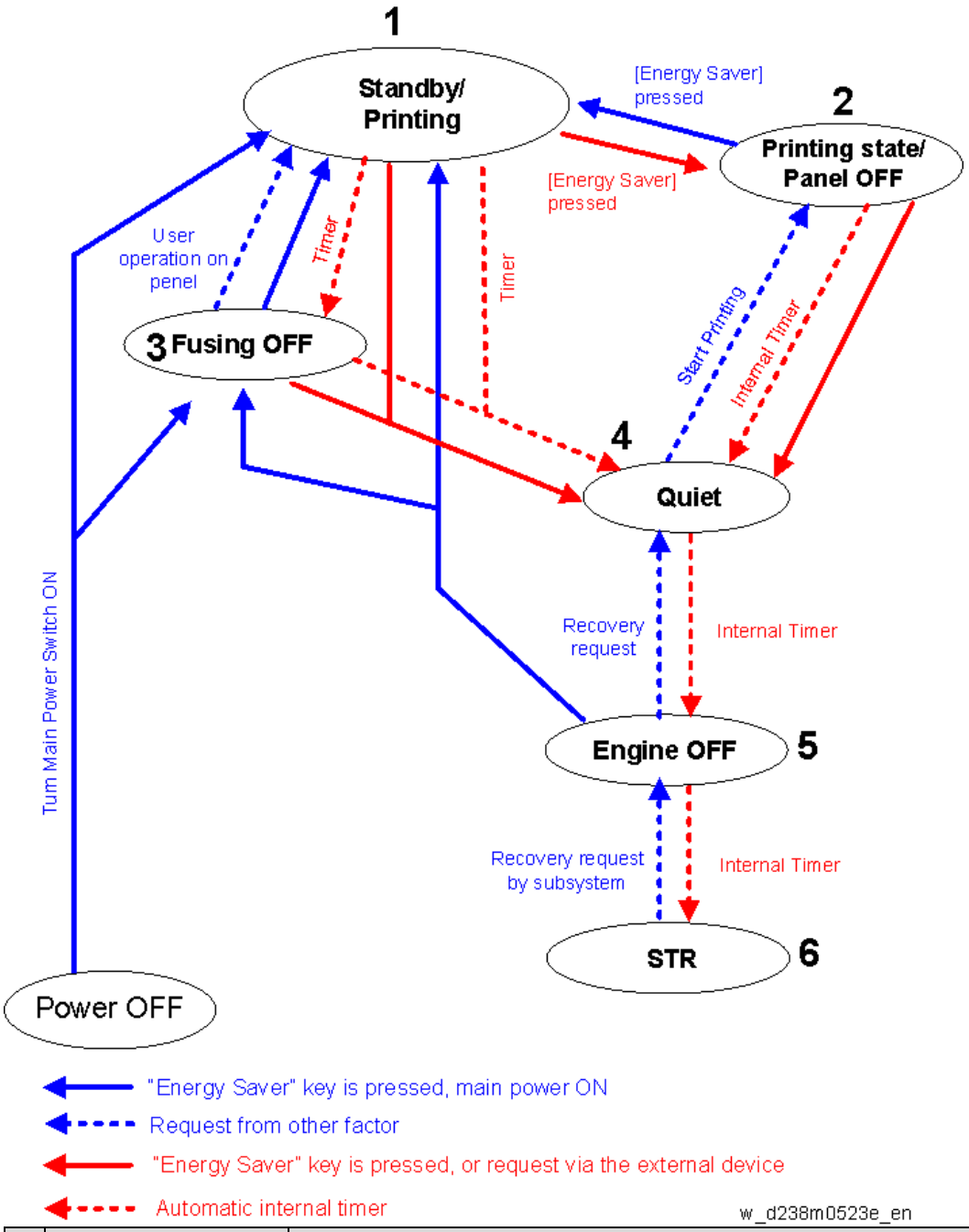
Model Name	Reduced electrical consumption in Sleep mode*1	Recovery time from Sleep mode*1
IM C300	0.65 W	7.7 sec.
IM C300F	0.66 W	7.7 sec.
IM C400F	0.65 W	8.0 sec.

America

Model Name	Reduced electrical consumption in Sleep mode*1	Recovery time from Sleep mode*1
IM C300F	0.65 W	8.1 sec.
IM C400F	0.65 W	8.0 sec.
IM C400SRF	0.65 W	8.3 sec.

*1 The time it takes to switch out from energy saving functions and electrical consumption may differ depending on the conditions and environment of the machine.

Power States of this Machine



	State	Description
1	Standby/Printing	• State where normal operation is possible after warm-up • State during printing
2	Printing state/Panel OFF	State when printing with the backlight of the operation panel turned OFF
3	Fusing OFF	State where the Standby Fusing OFF state is entered when the time set with the **"Fusing Unit Off Mode (Energy Saving) On/Off"** setting of the User Tools has elapsed. • State where the operation panel is flashing and the fusing lamp is OFF.

	State	Description
		• The bottom plate of the paper feed tray is raised.
4	**Quiet** state	**Quiet** state is entered when the Energy Saving key is pressed or the time set with the "**Sleep Mode Timer**" of the User Tools has elapsed. This is a temporary energy saving state before entering sleep mode. • Basically, no homing (initialization) of peripheral devices is performed. • The bottom plate of the paper feed tray is raised. • The fusing lamp is turned OFF.
5	Engine OFF (Sleep mode)	Entered from **Quiet** state with internal timer. • The relevant power systems (24V, 12V, 5V) are turned OFF at the same time as the fusing lamp. • When printing is performed in engine OFF state, warm-up is started and printing is performed while the backlight of the operation panel is turned OFF.
6	STR state (Sleep mode)	Supplying of power and clock to the CPU and peripheral chips on the controller board (PCB24) is stopped.

Device state for each Energy Saving state

State	Energy Saving LED	Operation panel LCD	Engine (Printer)	HDD	CTL
Standby/Printing	ON	ON	ON	ON	ON
Printing state/Panel OFF	ON	OFF	ON	ON	ON
fusing OFF	ON	ON	ON (Printer is in **Quiet** state)	ON	ON
Quiet state	ON	OFF **ON*1**	ON (Printer is in **Quiet** state)	ON	ON
Engine OFF	Blinking gradually **ON*1**	Sleep **OFF or ON*1**	OFF	OFF **ON*1**	ON
STR state	Blinking gradually	Sleep	OFF	OFF	STR

*1 When [Energy Saving Recovery for Business Application] is [On (Energy Saving)], ON/OFF is determined by the internal timer of the Smart Operation Panel.

Transition of operation panel to Energy Saving when [Energy Saving Recovery for Business Application] is [On (Energy Saving)]

Normally, the Energy Saving state of the operation panel LCD changes in step with the energy saving state of the MFP/LP main unit, but to support the scenario where an application that does not use the

engine (printer) is executed from the operation panel, the Energy Saving state of the operation panel is transitioned through the three states ON, OFF, and Sleep with its internal timer when [Energy Saving Recovery for Business Application] is [On (Energy Saving)].

Verification of Up Time for each Energy Saving State

The up time for each power state of the machine can be checked with SP8-961 (Electricity Status). It is also output on the SMC sheet.

SP	Name	Description
SP8-961-001	Ctrl Standby Time	Cumulative time of Engine OFF mode, Quiet mode, and Standby mode
SP8-961-002	STR Time	Cumulative time of STR mode
SP8-961-003	Main Power Off Time	Cumulative time of state in which the power plug is connected to the outlet but the main power is OFF
SP8-961-004	Reading and Printing Time	Cumulative time of state in which the plotter engine is running or warming up
SP8-961-005	Printing Time	Cumulative time of the state in which the plotter engine is running
SP8-961-007	Eng Waiting Time	Cumulative time of state in which the power state of the engine is Standby state
SP8-961-008	Low Power State Time	Not used for this machine
SP8-961-009	Quiet State Time	Cumulative time of the state in which the power state of the engine is Quiet state
SP8-961-010	Fusing Lamp Off State Time	Cumulative time of the state in which the power state of the engine is Fusing OFF state
SP8-961-011	LCD on Time	Cumulative time of the state in which the backlight of the LCD is on.

Checking the Up time by Device State

SP 8941 (Machine Status) keeps a record of the amount of time that the machine spends in each mode.

SP8-941-001	Operation Time	Cumulative time of the state in which the engine state notification is enabled. The state in which the engine is not running (such as when storing to HD only with the controller) is excluded from the running state.
SP8-941-	Standby	Cumulative time of the state in which the engine state is not running.

002	Time	
SP8-941-003	Low Power Time	Not used for this machine
SP8-941-004	Sleep mode time	Cumulative time in Sleep Mode state.
SP8-941-005	Off Mode Time	Cumulative time in which the Energy Saving state of the device is Engine OFF state.
SP8-941-006 to 009	Down time	Cumulative time in which the device is disabled because itself or its component is in the following state. • SP8-941-006: SC (excluding mode SC) • SP8-941-007: Jam (plotter) • SP8-941-009: Supply/PM unit end

With this data, and the power consumption values from the specifications, we can estimate the amount of energy that is used by the machine.

This should only be used as a reference value, because the power consumption specifications are measured in a controlled environment with a constant power supply.

To get an exact measurement at the customer's site, a watt meter must be used to measure the actual energy consumed.

To use SP8941 to calculate the energy consumed:

- At the start of the measurement period, read the values of SP8-941-001 to 005.
- At the end of the measurement period, read the values of SP8-941-001 to 005 again.
- Find the amount of time spent in each mode (subtract the earlier measurement from the later measurement).
- Multiply this by the power consumption spec for each mode.
- Convert the result to kWh (kilowatt hours)

Recommendation

We recommend that the default settings related to energy saving should be kept.

- If the customer requests that these settings should be changed, please explain that their energy costs could increase, and that they should consider the effects on the environment of extra energy use.

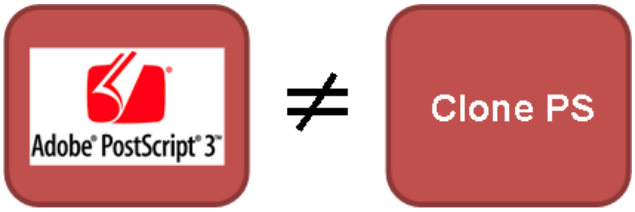
New Functions

PS3/PDF Direct Emulation (Clone PS)

Overview

This machine is equipped with a clone program for emulating Adobe PostScript/PDF (hereafter “Clone PS”) as a standard feature. So, by default, it can perform printing using PostScript 3 and PDF Direct Print, in addition to RPCS.

- What is Clone PS?
  Based on the specifications of PostScript/PDF languages developed by Adobe, clone programs for interpretation of PostScript and PDF documents have been created by various companies other than Adobe. While the original program sold by the developer of the language is named Adobe PS, compatible programs made by other manufacturers are called clones. Strictly speaking, these clones must be fully compatible with the original program; however, they are called clones even if they have some differences because they cannot completely imitate the original.
  Clone PS is basically designed to perform similar functions to Adobe PS, except for several differences such as the inability to use Adobe fonts.



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- Adobe PS, previously offered as an optional product for past models, is available again as an option. (SD card option.)
- Clone PS and Adobe PS cannot be run simultaneously.
- The same printer driver can be used for Clone PS and Adobe PS.
- Clone PS emulates Adobe PostScript 3 version 3017. (The version of Adobe PS used in the SD card option is v. 3018.)
- For the PDF Direct Print function, Clone PS emulates Adobe PDF version 1.7.

How to Distinguish Adobe PS from Clone PS

In the operation panel screen, it is difficult to tell whether Adobe PS or Clone PS is in use.
Both “PS3” and “PDF” are shown on the screen, regardless of whether Adobe PS or Clone PS is used.
Identification can be done as follows:

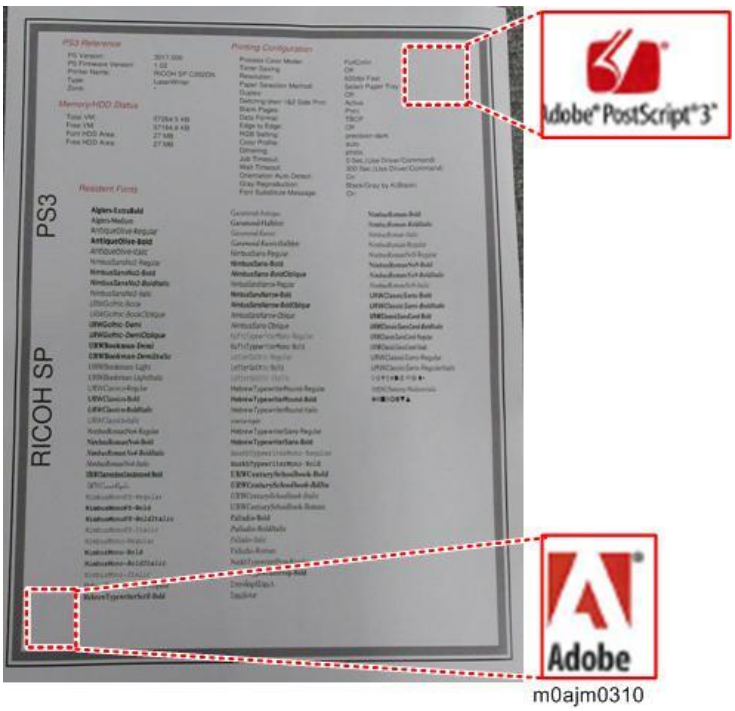
- **Configuration Page**
  The description of the Firmware Version listed on the page varies as shown below:

PS type	Description of Firmware Version
Adobe PS	RPCS [x.xx.xx] Adobe PostScript 3 [x.xx], Adobe PDF [x.xx]
Clone PS	RPCS [x.xx.xx] PS3 [x.xx], PDF [x.xx]

The manufacturer's name “Adobe” is shown in the list if Adobe PS is used.

- **Configuration Page**

  The description of the Firmware Version listed on the page varies as shown below:



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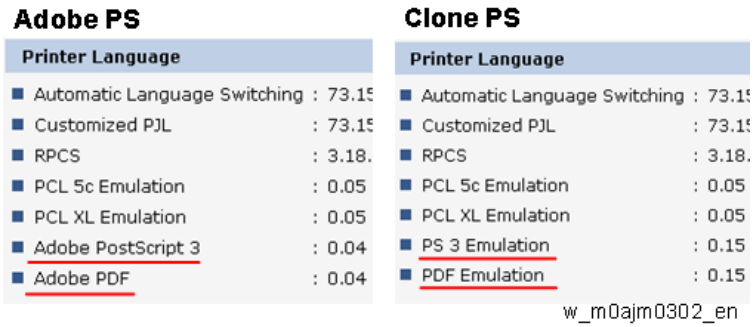
- **Web Image Monitor**

  Go to Status/Information > Device Info, and open the Printer Language menu.

  If Adobe PS is used, the screen shows the program name “Adobe PostScript 3” and "Adobe PDF".



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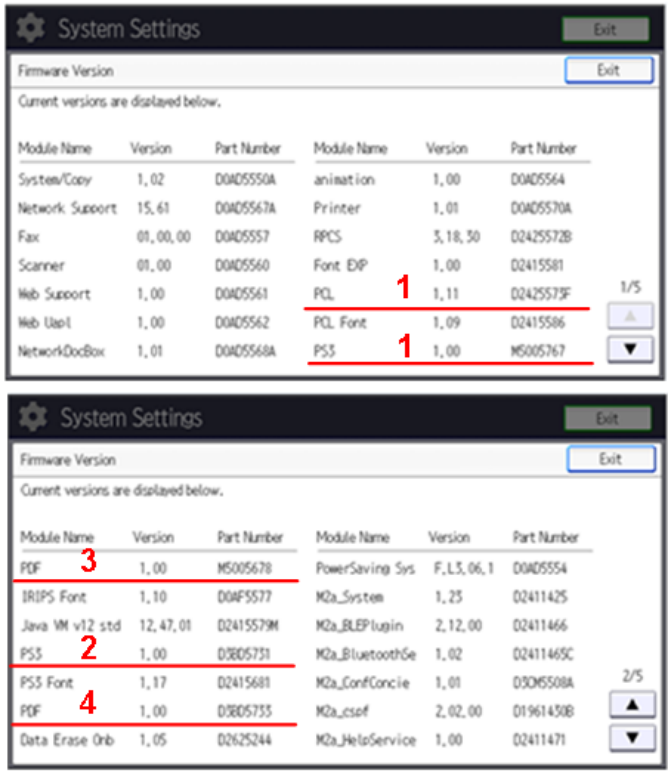
- **Operation Panel: Firmware Version**

  Settings > System Settings > Machine/Control Panel Information > Firmware Version

  When PostScript3 Unit Type M41 (Adobe PS) is installed:



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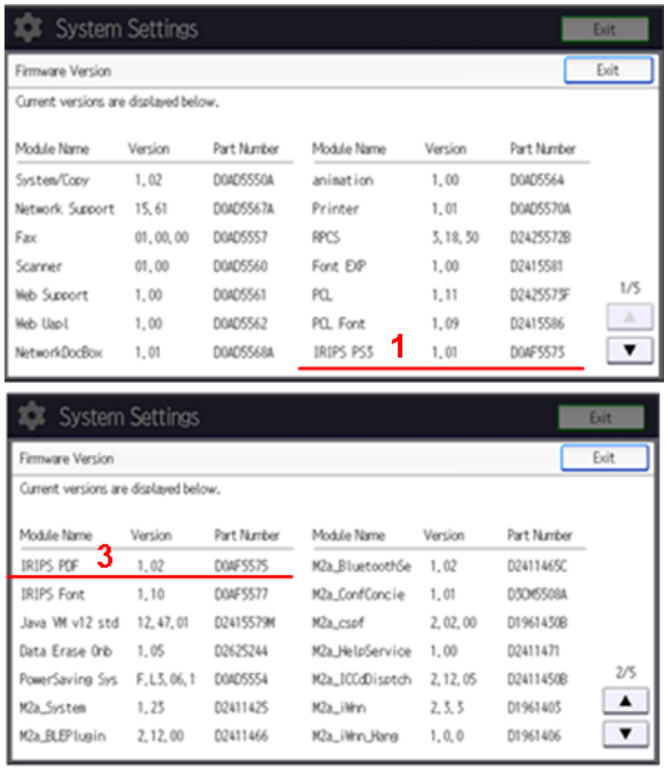
When Clone PS only:



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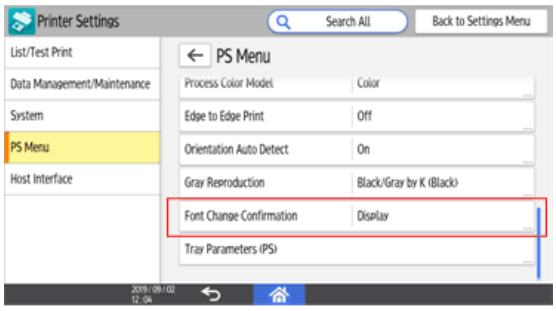
No.	Module Name	Description
1	PS3 / IRIPS PS3	The Clone PS firmware number appears. The Clone PS firmware number starts with “D0C9”.

No.	Module Name	Description
2	PS3	The Adobe PS firmware number starts with "D0CJ" appears. This module name appears in the firmware list only if PostScript3 Unit Type M41 is installed.
3	PDF / IRIPS PDF	The Clone PDF firmware number appears. The Clone PDF firmware number starts with "D0C9".
4	PDF	The Adobe PS firmware number starts with "D0CJ". This module name appears in the firmware list only if PostScript3 Unit Type M41 is installed.

- **Font Change Confirmation screen**

  The “Font Change Confirmation” screen is accessible only when Clone PS is used.

  On the Home screen, select the Settings icon > Printer Settings > PS Menu > Font Change Confirmation.



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Difference in Device Fonts

The variety and number of built-in fonts (device fonts) differ between Adobe PS and Clone PS.

PS type	Number of European fonts
Adobe PS	136 fonts
Clone PS	93 fonts

For license reasons, the device fonts for Adobe PS cannot be handled by Clone PS. Instead, Clone PS is equipped with fonts similar to Adobe device fonts under different names; when an Adobe PS font is specified in the data to be printed, Clone PS will replace it with a similar font.

Use of a substitute font sometimes leads to different printing results, as shown in the table below.

Example 1

PS type	Helvetica
Adobe PS	Helvetica findfont: Change before you have to!
Clone PS	Helvetica findfont: Change before you have to!
	When Helvetica is used in the original document, Clone PS applies a substitute font named

PS type	Helvetica
	NimbusSans-Regular, maintaining almost the same appearance as the original data.

Example 2

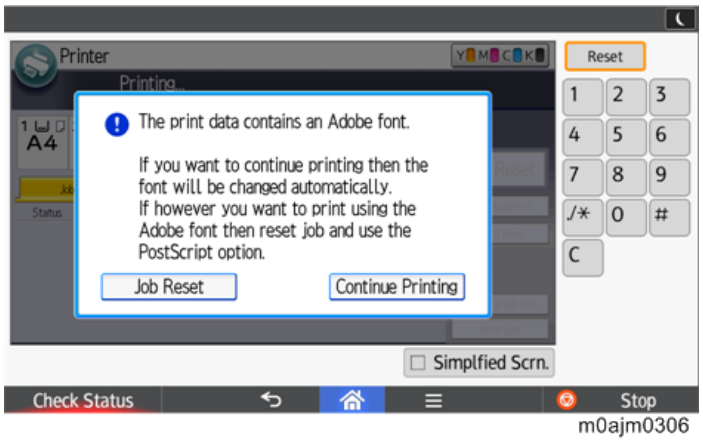
PS type	LetterGothic
Adobe PS	LetterGothic: Change before you have to!
Clone PS	LetterGothic: Change before you have to!
	When LetterGothic is originally used, Clone PS substitutes it with LetterGothic-Regular. In this case, the character spacing differs from that in the original data.

Example 3

PS type	Chicago
Adobe PS	**Chicago: Change before you have to!**
Clone PS	Chicago: Change before you have to!
	Clone PS does not support alternative fonts for Chicago; instead, the Courier font (*) is used. (The font shape differs significantly from Chicago.) * Since Courier itself is named among the Adobe PS device fonts, Clone PS substitutes it with an alternative font, NimbusMonoPS-Regular.

Font Change Confirmation Screen

Clone PS itself incorporates no Adobe fonts in it, and therefore replaces them with similar fonts when Adobe PS fonts are specified in the print data output to the printer.
However, there is a possibility that a substitute font not desired by the customer may be used; to cope with this issue, the operation panel shows a confirmation screen whenever an Adobe font is to be replaced by a similar font.



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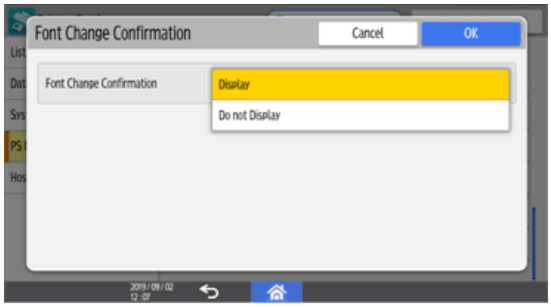
If the customer often prints data containing Adobe fonts that are almost the same in terms of spacing and shape as their substitutes, the confirmation screen appears every time printing is performed, making the printing operation cumbersome. In such a case, the font change confirmation screen can be hidden.

- "Settings" icon on Home screen > Printer Settings > PS Menu > Font Change Confirmation



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List of fonts and their replacements (Adobe PS -> Clone PS)

No.	Adobe PS	Clone PS
1	Courier	NimbusMonoPS-Regular
2	Courier-Bold	NimbusMonoPS-Bold
3	Courier-BoldOblique	NimbusMonoPS-BoldItalic
4	Courier-Oblique	NimbusMonoPS-Italic
5	Helvetica	NimbusSans-Regular
6	Helvetica-Bold	NimbusSans-Bold
7	Helvetica-BoldOblique	NimbusSans-BoldOblique
8	Helvetica-Oblique	NimbusSans-Oblique
9	Symbol	StandardSymL
10	Times-Bold	NimbusRoman-Bold
11	Times-BoldItalic	NimbusRoman-BoldItalic
12	Times-Italic	NimbusRoman-Italic
13	Times-Roman	NimbusRoman-Regular
14	AlbertusMT	NimbusMonoPS-Regular
15	AlbertusMT-Italic	NimbusMonoPS-Regular
16	AlbertusMT-Light	NimbusMonoPS-Regular
17	AntiqueOlive-Roman	NimbusMonoPS-Regular
18	AntiqueOlive-Italic	AntiqueOlive-Italic
19	AntiqueOlive-Bold	AntiqueOlive-Bold
20	AntiqueOlive-Compact	NimbusMonoPS-Regular
22	Apple-Chancery	NimbusMonoPS-Regular
22	ArialMT	NimbusSansNo2-Regular
23	Arial-ItalicMT	NimbusSansNo2-Italic

24	Arial-BoldMT	NimbusSansNo2-Bold
25	Arial-BoldItalicMT	NimbusSansNo2-BoldItalic
26	AvantGarde-Book	URWGothic-Book
27	AvantGarde-BookOblique	URWGothic-BookOblique
28	AvantGarde-Demi	URWGothic-Demi
29	AvantGarde-DemiOblique	URWGothic-DemiOblique
30	Bodoni	NimbusMonoPS-Regular
31	Bodoni-Italic	NimbusMonoPS-Regular
32	Bodoni-Bold	NimbusMonoPS-Regular
33	Bodoni-BoldItalic	NimbusMonoPS-Regular
34	Bodoni-Poster	NimbusMonoPS-Regular
35	Bodoni-PosterCompressed	NimbusMonoPS-Regular
36	Bookman-Light	URWBookman-Light
37	Bookman-LightItalic	URWBookman-LightItalic
38	Bookman-Demi	URWBookman-Demi
39	Bookman-DemiItalic	URWBookman-DemiItalic
40	Carta	NimbusMonoPS-Regular
41	Chicago	NimbusMonoPS-Regular
42	Clarendon	NimbusMonoPS-Regular
43	Clarendon-Light	NimbusMonoPS-Regular
44	Clarendon-Bold	NimbusMonoPS-Regular
45	CooperBlack	NimbusMonoPS-Regular
46	CooperBlack-Italic	NimbusMonoPS-Regular
47	Copperplate-ThirtyTwoBC	NimbusMonoPS-Regular
48	Copperplate-ThirtyThreeBC	NimbusMonoPS-Regular
49	Coronet-Regular	NimbusMonoPS-Regular
50	Eurostile	NimbusMonoPS-Regular
51	Eurostile-Bold	NimbusMonoPS-Regular
52	Eurostile-ExtendedTwo	NimbusMonoPS-Regular
53	Eurostile-BoldExtendedTwo	NimbusMonoPS-Regular
54	Geneva	NimbusMonoPS-Regular
55	GillSans	NimbusMonoPS-Regular
56	GillSans-Italic	NimbusMonoPS-Regular
57	GillSans-Bold	NimbusMonoPS-Regular
58	GillSans-BoldItalic	NimbusMonoPS-Regular
59	GillSans-Condensed	NimbusMonoPS-Regular
60	GillSans-BoldCondensed	NimbusMonoPS-Regular
61	GillSans-Light	NimbusMonoPS-Regular

62	GillSans-LightItalic	NimbusMonoPS-Regular
63	GillSans-ExtraBold	NimbusMonoPS-Regular
64	Goudy	NimbusMonoPS-Regular
65	Goudy-Italic	NimbusMonoPS-Regular
66	Goudy-Bold	NimbusMonoPS-Regular
67	Goudy-BoldItalic	NimbusMonoPS-Regular
68	Goudy-ExtraBold	NimbusMonoPS-Regular
69	Helvetica-Condensed	NimbusMonoPS-Regular
70	Helvetica-Condensed-Oblique	NimbusMonoPS-Regular
71	Helvetica-Condensed-Bold	NimbusMonoPS-Regular
72	Helvetica-Condensed-BoldObl	NimbusMonoPS-Regular
73	Helvetica-Narrow	NimbusSansNarrow-Regular
74	Helvetica-Narrow-Oblique	NimbusSansNarrow-Oblique
75	Helvetica-Narrow-Bold	NimbusSansNarrow-Bold
76	Helvetica-Narrow-BoldOblique	NimbusSansNarrow-BoldOblique
77	HoeflerText-Regular	NimbusMonoPS-Regular
78	HoeflerText-Italic	NimbusMonoPS-Regular
79	HoeflerText-Black	NimbusMonoPS-Regular
80	HoeflerText-BlackItalic	NimbusMonoPS-Regular
81	HoeflerText-Ornaments	NimbusMonoPS-Regular
82	JoannaMT	NimbusMonoPS-Regular
83	JoannaMT-Italic	NimbusMonoPS-Regular
84	JoannaMT-Bold	NimbusMonoPS-Regular
85	JoannaMT-BoldItalic	NimbusMonoPS-Regular
86	LetterGothic	LetterGothic-Regular
87	LetterGothic-Slanted	NimbusMonoPS-Regular
88	LetterGothic-Bold	LetterGothic-Bold
89	LetterGothic-BoldSlanted	NimbusMonoPS-Regular
90	LubalinGraph-Book	NimbusMonoPS-Regular
91	LubalinGraph-BookOblique	NimbusMonoPS-Regular
92	LubalinGraph-Demi	NimbusMonoPS-Regular
93	LubalinGraph-DemiOblique	NimbusMonoPS-Regular
94	Marigold	Mauritius-Regular
95	Monaco	NimbusMonoPS-Regular
96	MonaLisa-Recut	NimbusMonoPS-Regular
97	NewCenturySchlbk-Roman	URWCenturySchoolbook-Roman
98	NewCenturySchlbk-Italic	URWCenturySchoolbook-Italic
99	NewCenturySchlbk-Bold	URWCenturySchoolbook-Bold

100	NewCenturySchlbk-BoldItalic	URWCenturySchoolbook-BdIta
101	NewYork	NimbusMonoPS-Regular
102	Optima	NimbusMonoPS-Regular
103	Optima-Italic	NimbusMonoPS-Regular
104	Optima-Bold	NimbusMonoPS-Regular
105	Optima-BoldItalic	NimbusMonoPS-Regular
106	Oxford	NimbusMonoPS-Regular
107	Palatino-Roman	Palladio-Roman
108	Palatino-Italic	Palladio-Italic
109	Palatino-Bold	Palladio-Bold
110	Palatino-BoldItalic	Palladio-BoldItalic
111	StempelGaramond-Roman	NimbusMonoPS-Regular
112	StempelGaramond-Italic	NimbusMonoPS-Regular
113	StempelGaramond-Bold	NimbusMonoPS-Regular
114	StempelGaramond-BoldItalic	NimbusMonoPS-Regular
115	Tekton	NimbusMonoPS-Regular
116	TimesNewRomanPSMT	NimbusRomanNo9-Regular
117	TimesNewRomanPS-ItalicMT	NimbusRomanNo9-Italic
118	TimesNewRomanPS-BoldMT	NimbusRomanNo9-Bold
119	TimesNewRomanPS-BoldItalicMT	NimbusRomanNo9-BoldItalic
120	Univers	NimbusMonoPS-Regular
121	Univers-Oblique	NimbusMonoPS-Regular
122	Univers-Bold	URWClassicSans-Bold
123	Univers-BoldOblique	NimbusMonoPS-Regular
124	Univers-Light	NimbusMonoPS-Regular
125	Univers-LightOblique	NimbusMonoPS-Regular
126	Univers-Condensed	NimbusMonoPS-Regular
127	Univers-CondensedOblique	NimbusMonoPS-Regular
128	Univers-CondensedBold	NimbusMonoPS-Regular
129	Univers-CondensedBoldOblique	NimbusMonoPS-Regular
130	Univers-Extended	NimbusMonoPS-Regular
131	Univers-ExtendedObl	NimbusMonoPS-Regular
132	Univers-BoldExt	NimbusMonoPS-Regular
133	Univers-BoldExtObl	NimbusMonoPS-Regular
134	Wingdings-Regular	URWDingbats
135	ZapfChancery-MediumItalic	URWChancery-MediumItalic
136	ZapfDingbats	Dingbats

Differences in Driver Functions

As shown below, there are differences in available driver functions between Adobe PS and Clone PS.

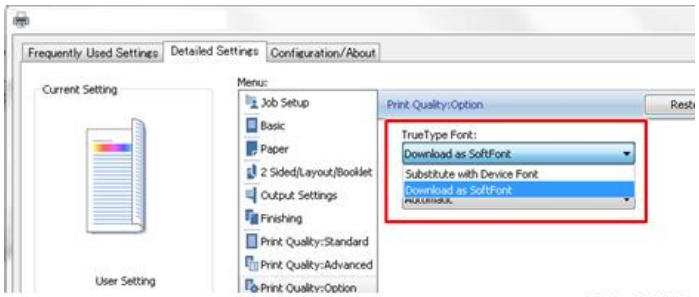
1. **Font Substitution Table (Applicable only to the driver for Windows OS)**

   Start > Device and Printer > Printer Properties > Device Settings

   For Clone PS, the Font Substitution Table under the Device Settings menu will not be displayed.

   Clone PS has font substitution table data similar to that of Adobe PS and performs font replacement as appropriate.

   To disable font replacement, go to Printing Preferences > Detailed Settings > “Print Quality: Option” > “True Type Font:” option, and select “Download as SoftFont”.



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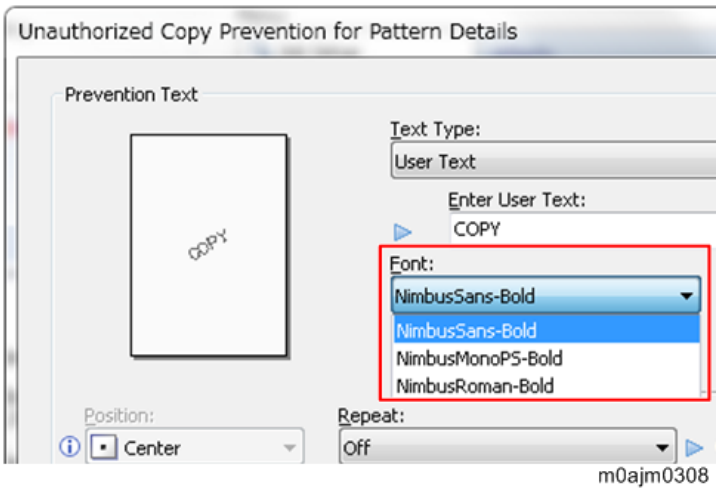
2. **Fonts used for unauthorized copy prevention (Common to drivers for Windows OS and Mac OS X)**

   The watermark text used for unauthorized copy prevention consists of a device font. The range of available fonts varies between Adobe PS and Clone PS because of the difference in available device fonts.

   Adobe PS provides a choice from 136 fonts while 3 fonts are selectable for Clone PS.



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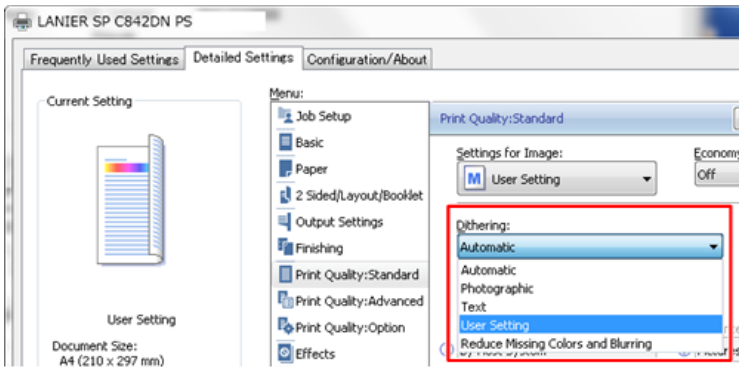
3. **"User Setting” for dithering (Common to drivers for Windows OS and Mac OS X)**

   Clone PS ignores the “User Setting” option for dithering and performs dithering in the same manner as when the “Automatic” setting (*) is selected.



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* “Text Priority” is selected for text, and “Photo” for graphics and images.

In the driver menu for Mac OS X, the “User Setting” option is shown at half brightness and cannot be selected.

Other New Features

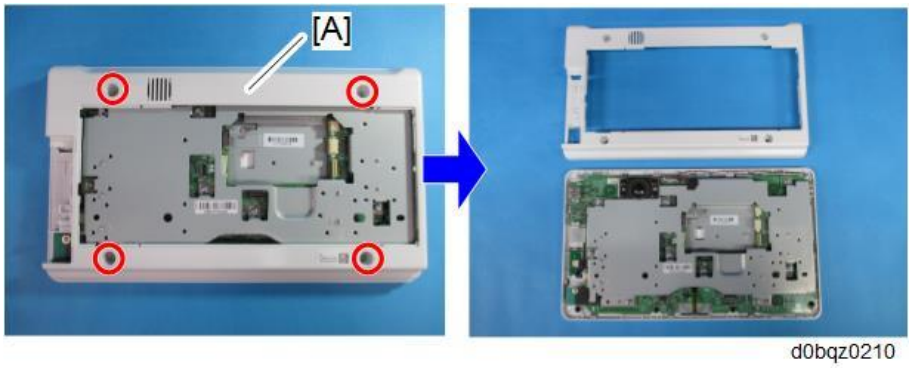
- Settings on Displaying an Alert When the Ethernet Cable is Broken or Disconnected (Settings on Displaying an Alert When the Ethernet Cable is Broken or Disconnected)
- "Web Help Support" Settings ("Web Help Support" Settings)
- "RemoteConnect Support" Settings ("RemoteConnect Support" Settings)
- "Remote Panel Operation" Settings ("Remote Panel Operation" Settings)

8. Smart Operation Panel

Replacement and Adjustment

Main Controller Board

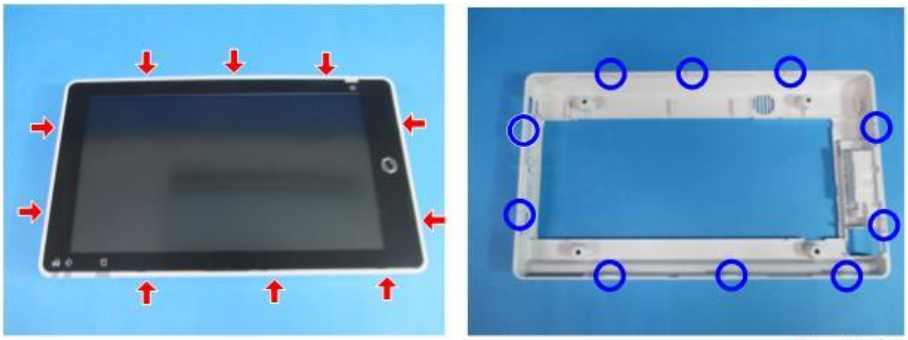
1. Remove the operation panel unit. (Operation Panel)
2. Remove the bottom cover [A] (×4).



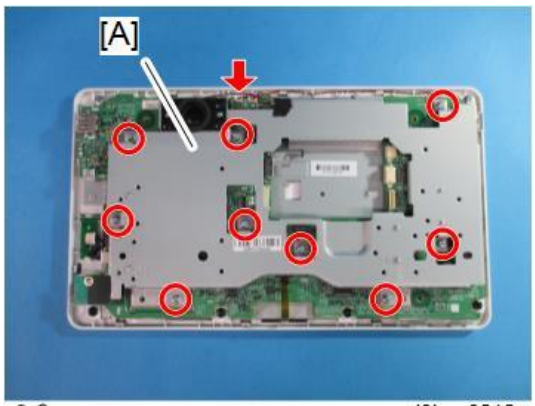
d0bqz0210

Note

- There are ten hooks inside the operation panel unit. Before removing the operation panel bottom cover, check the photos below.

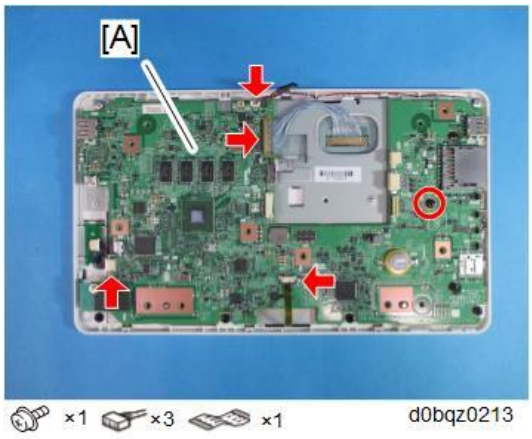

d0bqz0211

3. Remove the base bracket [A].



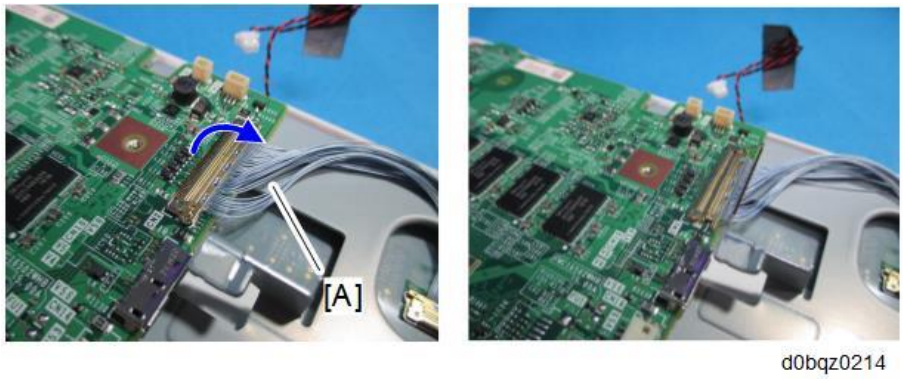
×9 ×1 d0bqz0212

4. Remove the main controller board [A].



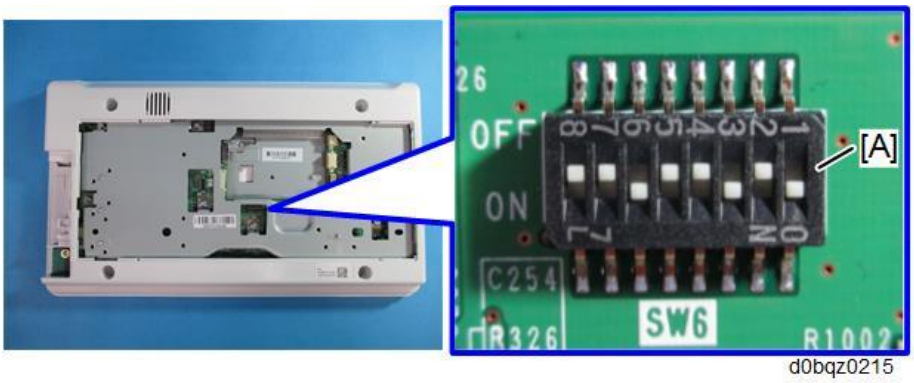
Note

Lift the fastener of the LCD I/F cable [A] on the main controller board side.

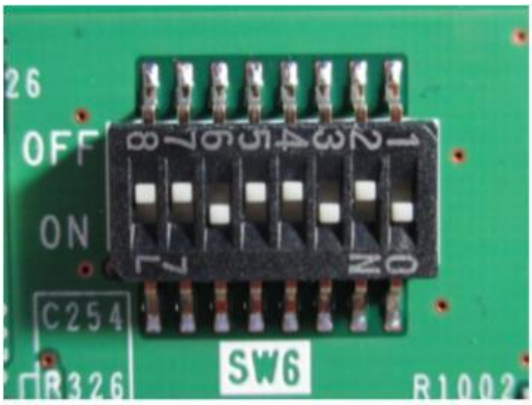


Note

- By factory default, the following switches of the DIP switch [A] on the main controller board are set to ON: No.1, No.3, and No.6. When installing the operation panel unit, make sure that the DIP switch setting is correct for the MFP on which you are installing the panel.



- The correct DIP switch setting depends on the MFP. Note the DIP switch settings of the old operation panel unit before replacing, and apply the same settings to the new Smart Operation Panel.
  The following example is for DIP switch settings when the following switches are set to ON: No.1, No.3, and No.6 (this is the factory default setting of a service part).

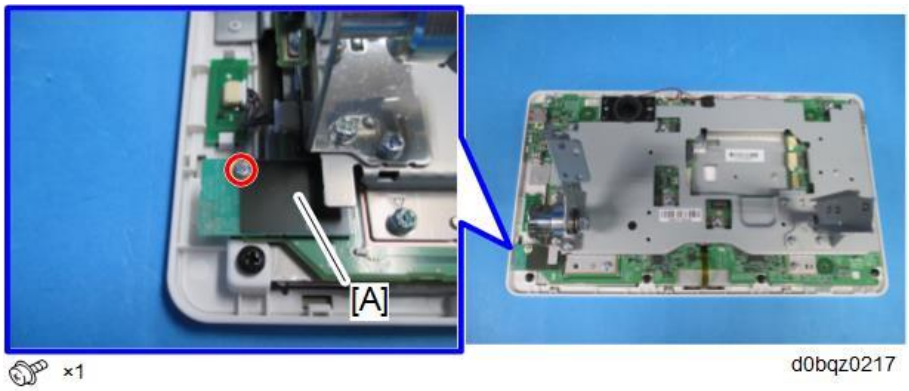


d0bqz0216

- If the DIP switch setting is wrong, SC672 will be displayed.
- DIP switch No.1 turns ON/OFF the SC reduction function. Change the setting when needed.
  - 0 (OFF): The SC is displayed on the operation panel when SC672/SC673 occur.
  - 1 (ON): If the error is caused by a software defect when SC672/SC673 occur, automatically reboot is performed and the SC is reset. If the error is caused by a hardware defect when SC672/SC673 occur, the SC is displayed on the operation panel.
- After replacing the main controller board, perform the following checks:
  - LED Check (LED Check)
  - Key Check (Key Check)

Wi-Fi Module (PCB21)

1. Remove the operation panel unit. (Operation Panel)
2. Remove the base bracket (Main Controller Board).
3. Remove the Wi-Fi module (PCB21) [A].



d0bqz0217

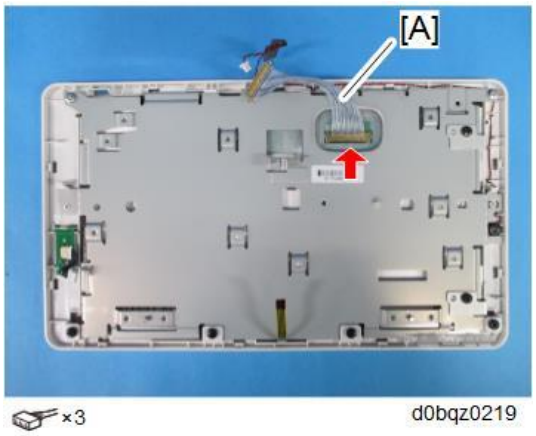
Note

- After replacing the Wi-Fi module (PCB21), perform the following checks:
  - Wireless LAN Check (Wireless LAN Check)

- Bluetooth Check (Bluetooth Check)

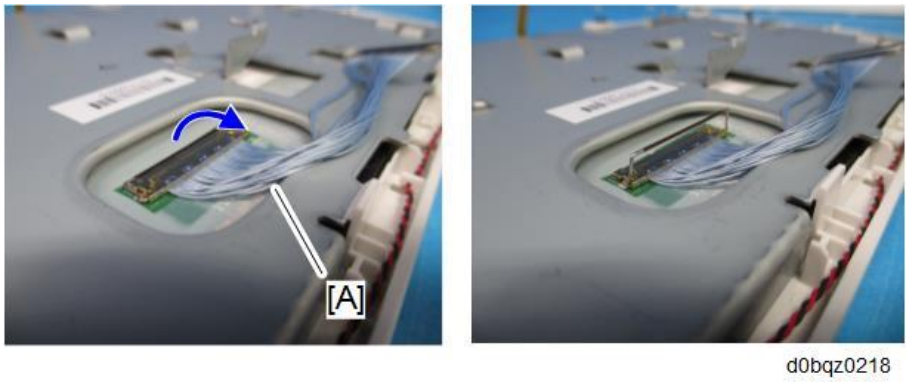
LCD

1. Remove the operation panel unit. (Operation Panel)
2. Remove the main controller board (Main Controller Board).
3. Remove the connector of the LCD I/F cable [A].

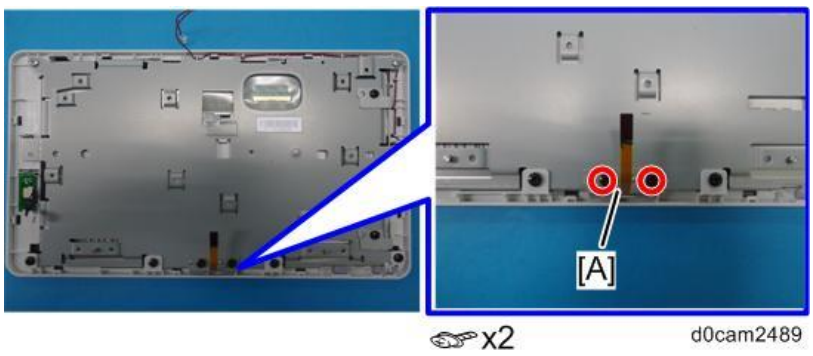


Note

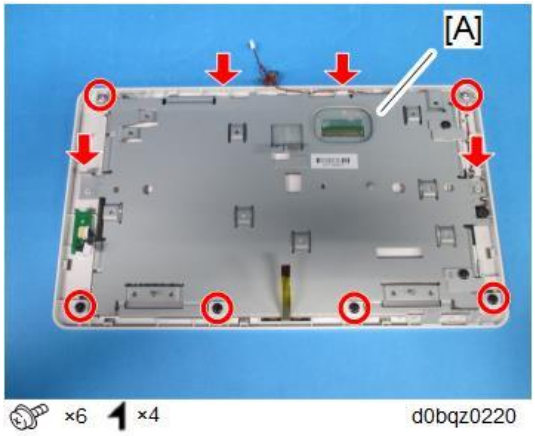
Lift the fastener of the LCD I/F cable [A].



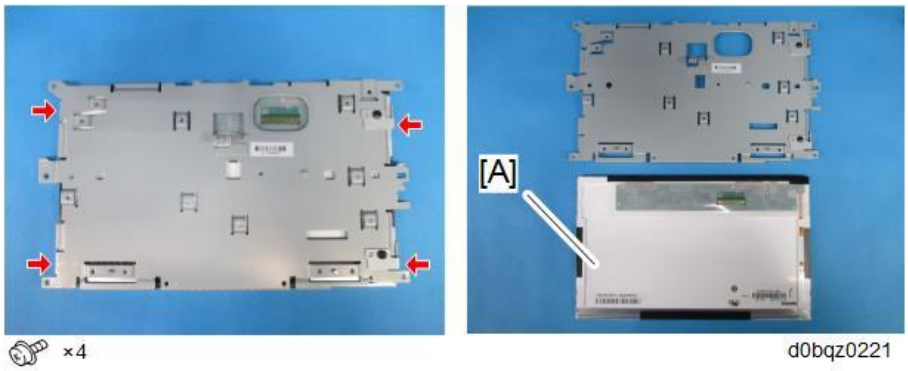
4. Remove the bracket [A].



5. Remove the LCD unit [A].



6. Remove the LCD [A].



Note

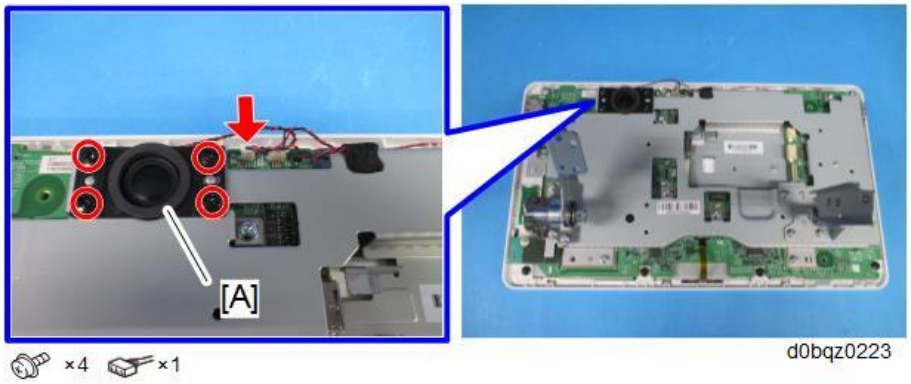
- After replacing the LCD, perform the following checks.
  - LCD Check (LCD Check)
  - TouchPanel Check (TouchPanel Check)
- Perform "TouchPanel Calibration" (TouchPanel Calibration) and "MultiTouch Calibration" (MultiTouch Calibration) of the Self Check function.

Speaker

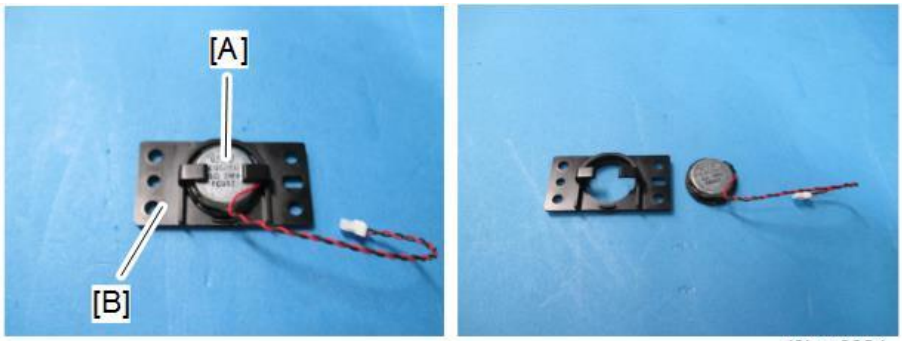
1. Remove the operation panel unit. (Operation Panel)

2. Remove the bottom cover (Main Controller Board).

3. Remove the speaker [A] together with the speaker holder.



4. Remove the speaker [A] from the speaker holder [B].

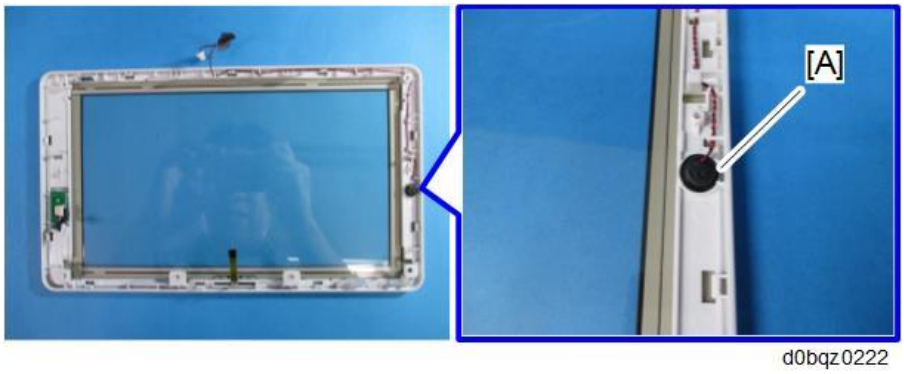


Note

- After replacing the speaker, perform the following check.
  - Speaker Check (Speaker Check)

Microphone

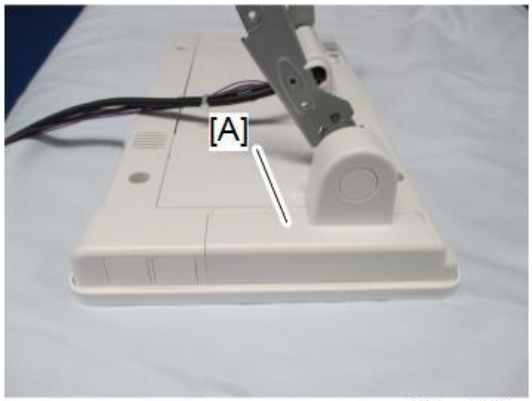
1. Remove the operation panel unit. (Operation Panel)
2. Remove the main controller board (Main Controller Board).
3. Remove the LCD unit (LCD).
4. Remove the microphone [A].



NFC Board

1. Remove the operation panel unit. (Operation Panel)

2. Remove the hinge cover [A].



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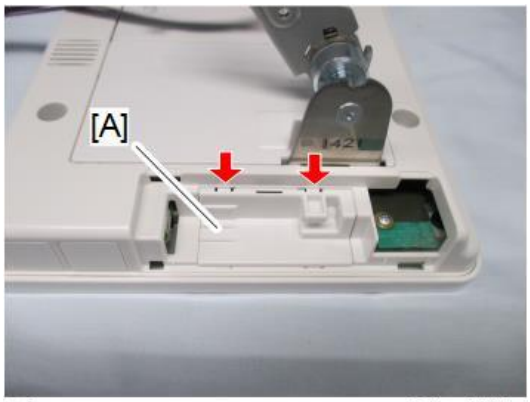
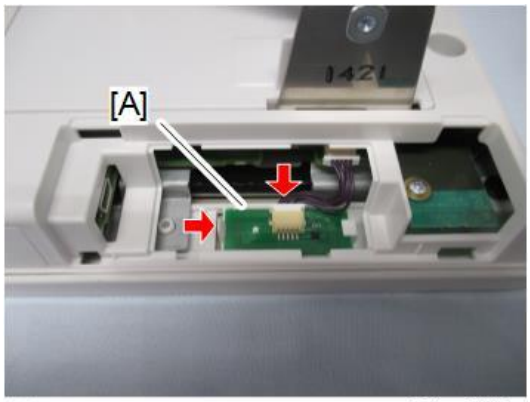
3. Remove the cover of the NFC board [A].



×2 d0bqz0225

4. Remove the NFC board [A].

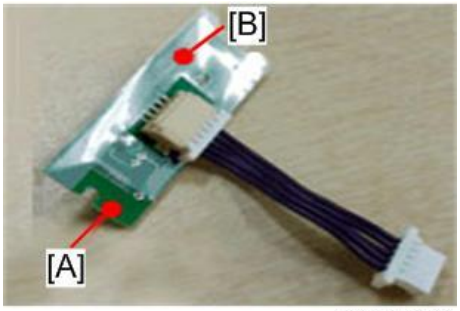


×1 ×1 d0bqz0226

Note

A protective sheet [B] is attach to the surface of the NFC board [A].

8.Smart Operation Panel



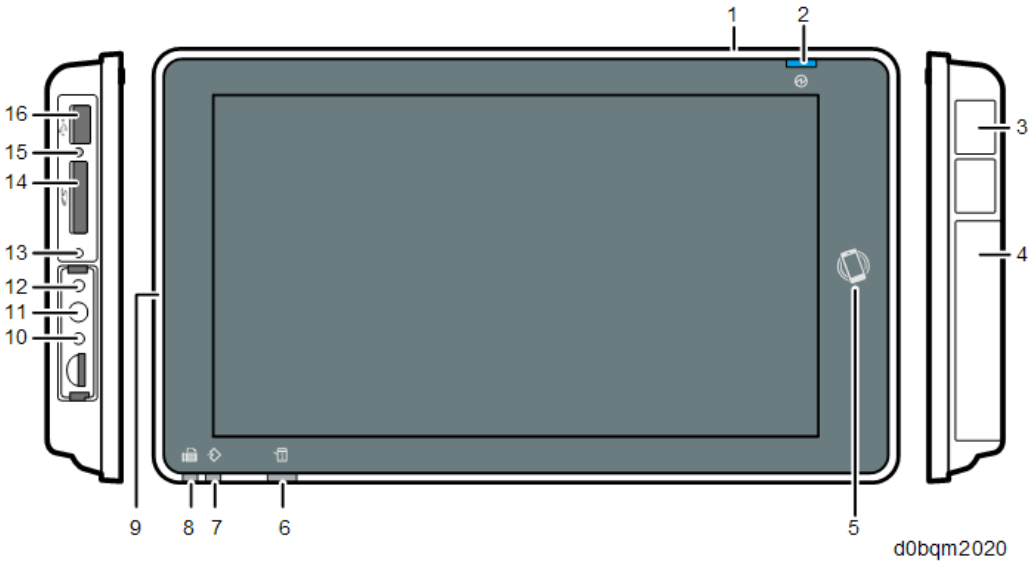
d0cam2490

Mechanism

System Components

Hardware Specifications

Components



No.	Name	No.	Name
1	Speaker	9	Microphone
2	Main power indicator	10	Extended Feature key (EX3)
3	USB slot for digital cameras	11	Extended Feature key (EX2)
4	USB slot for NFC card readers	12	Extended Feature key (EX1)
5	NFC tag	13	Control panel reboot key
6	[Check Status] indicator	14	SD card slot
7	Data In indicator (facsimile and printer modes)	15	Media access lamp
8	Fax indicator	16	USB slot

Basic Specifications

Category	Specification
LCD panel	• Size 10.1 inch panel • Resolution WSVGA (1024x600) • Bit width RGB666 (18 bit color) • Brightness 250cd/m^2 (typ.) • Backlight

Category	Specification
	LED Backlight (life: 15,000 hours)
CPU	ARM Cortex-A9 Quad Core 1GHz (SoC: MCIMX6Q5EYM10AD)
Touch panel	Low load touch panel (recognizes touches to two points)
Memory	• Volatile Memory RAM (DDR3L-1066), 2GB • Non-Volatile Memory eMMC NAND, 8GB Note • Uses a 16GB product in SLC Mode. • Program area and data area for the operating system and applications.
External interfaces	• USB Memory USB2.0 Host Type-A • SD Card SD card slot 1ch (SD*1/SDHC*2) *1 Up to 2GB *2 Up to 32GB • USB expansion USB2.0 Host Type-A (for camera, USB keyboard, USB card reader) • USB expansion USB2.0 Host Type-miniB (for NFC expansion)
Network	• Wireless LAN 802.11ac/a/b/g/n (for Taiwan/China/Asia) 802.11b/g/n (2.4GHz only) (for North America/EU/Korea) • Bluetooth Bluetooth4.2
Audio input/output	Monaural speaker 1ch (output: 1 to 2 W), Microphone
RTC accuracy	±52.56 seconds per month (using external crystal oscillator, 20 ppm)
Hard keys	• Extended Feature keys (EX1, EX2, and EX3) Use for startup in extended mode etc. • Control panel reboot key Use to reboot the control panel when it freezes.
LED types	• Main power indicator (blue) Lights when the power is ON. Flashes slowly in Sleep mode. Flashes gradually in Energy Saver mode • [Check Status] indicator lamp (red/blue)

Category	Specification
	Lights when an error occurs. • Data In indicator (blue) Flashes when the machine receives data from a printer driver or LAN-Fax driver. • Fax indicator (blue) Flashes while sending or receiving a fax. Lights when there is a received fax document in the fax memory. • Media access lamp (blue) Lights when there is an SD card inserted in the SD card slot.
Maximum power consumption	4.5 W or less in standby mode (excluding external interfaces and internal feature expansions) 6 W or less when using wireless LAN (during high-load operation)
NFC	Built-in NFC tag • Made by Vanskee Enterprise RCH-NTI2CP1K-BSA-PCB-CE-1128 • Made by SAG SCTNX1128250R
Power consumption in Sleep mode	0.18 W or less (When in Sleep mode, power is not supplied to USB devices connected to the USB slots except when the IC card R / W (NFC) is connected.)
Tilt function	Equipped with an angle-adjustable hinge. Clicks at the standard position. Depending on the model, there is also a hinge-less fixed type.

Specification comparison with the previous model

Item	This model	Previous model
Appearance	 d0bqm2210	 d196a2016
Control panel size (Width × Height)	274.5 × 160 mm	267 × 160 mm
Brightness of LCD panel	250cd/m^2 (typ.)	200cd/m^2 (typ.)
CPU	ARM Cortex-A9 Quad Core 1GHz (SoC: MCIMX6Q5EYM10AD)	ARM Cortex-A9 Dual Core 1GHz (SoC: MCIMX6D5EYM10AC)
Volatile Memory	RAM (DDR3L-1066), 2GB	RAM (DDR3-1066), 2GB
Wireless LAN	802.11ac/a/b/g/n (for Taiwan/China/Asia)	802.11b/g/n

8.Smart Operation Panel

Item	This model	Previous model
	802.11b/g/n (2.4GHz only) (for North America/EU/Korea)	
Bluetooth	Bluetooth4.2	Bluetooth4.0
NFC tag	Built in	Not equipped
Power consumption in Sleep mode	0.18 W or less	0.35 W or less

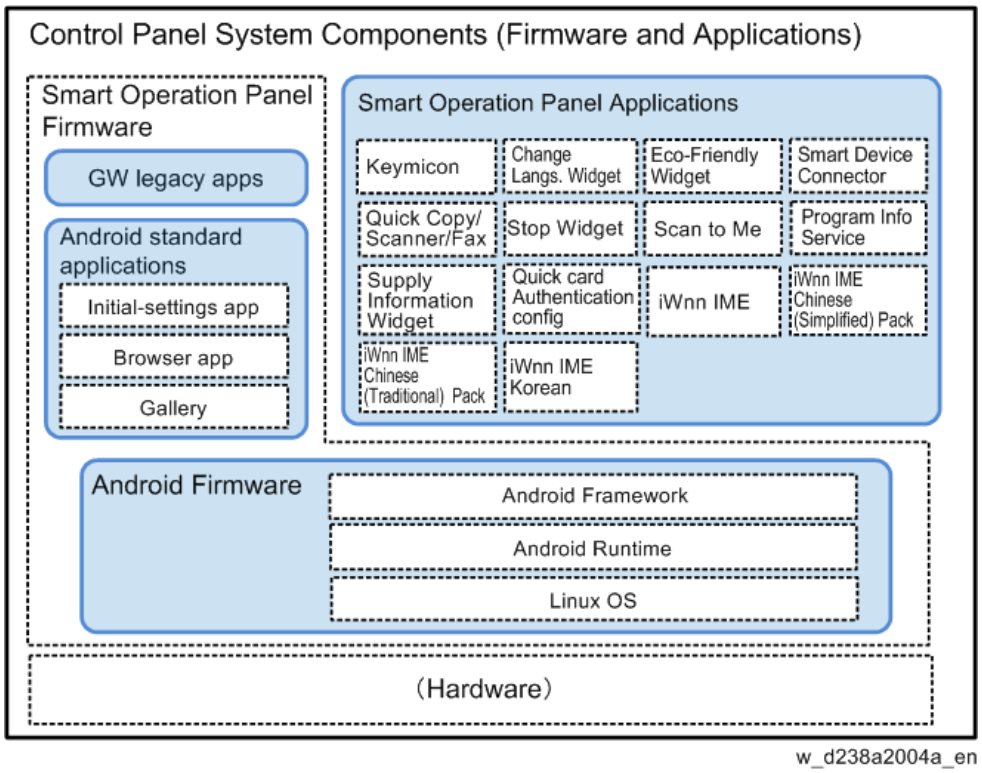
Available languages

Japanese, English, French, German, Italian, Spanish, Dutch, Norwegian, Danish, Swedish, Polish, Portuguese, Hungarian, Czech, Finnish, Simplified Chinese, Traditional Chinese, Thai, Russian, Arabic, Greek, Korean, Catalan, Turkish, Brazilian Portuguese

Note: Available languages may vary depending on the machine's specifications.

Software Specifications

A software package consisting of the Android Firmware and the manufacturer's own pre-installed applications is installed on the Smart Operation Panel.



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The following three types of software are installed on the Smart Operation Panel.

1. Android Firmware (Android OS)
2. Pre-installed applications
3. Applications that can be installed additionally

Android Firmware (Android OS)

The Android Firmware (Android OS) consists of the following modules that are called "stacks".

- Linux kernel
- Android Runtime
- Library
- Application Framework

Pre-installed applications

On the Smart Operation Panel, applications such as the GW applications (Copy/Printer/Document Server/Scanner/Fax), Control Panel Browser, the standard keyboard, Installer, Gallery, Self Check are pre-installed. Unlike those installed on the main controller board of the MFP, GW applications that are installed on the Smart Operation Panel are for controlling operation and display of the Smart Operation Panel.
Pre-installed applications are provided as part of the control panel firmware (Cheetah System) together with the Android firmware. When you update the control panel firmware using the recovery mode or another method, the pre-installed applications will also be updated.

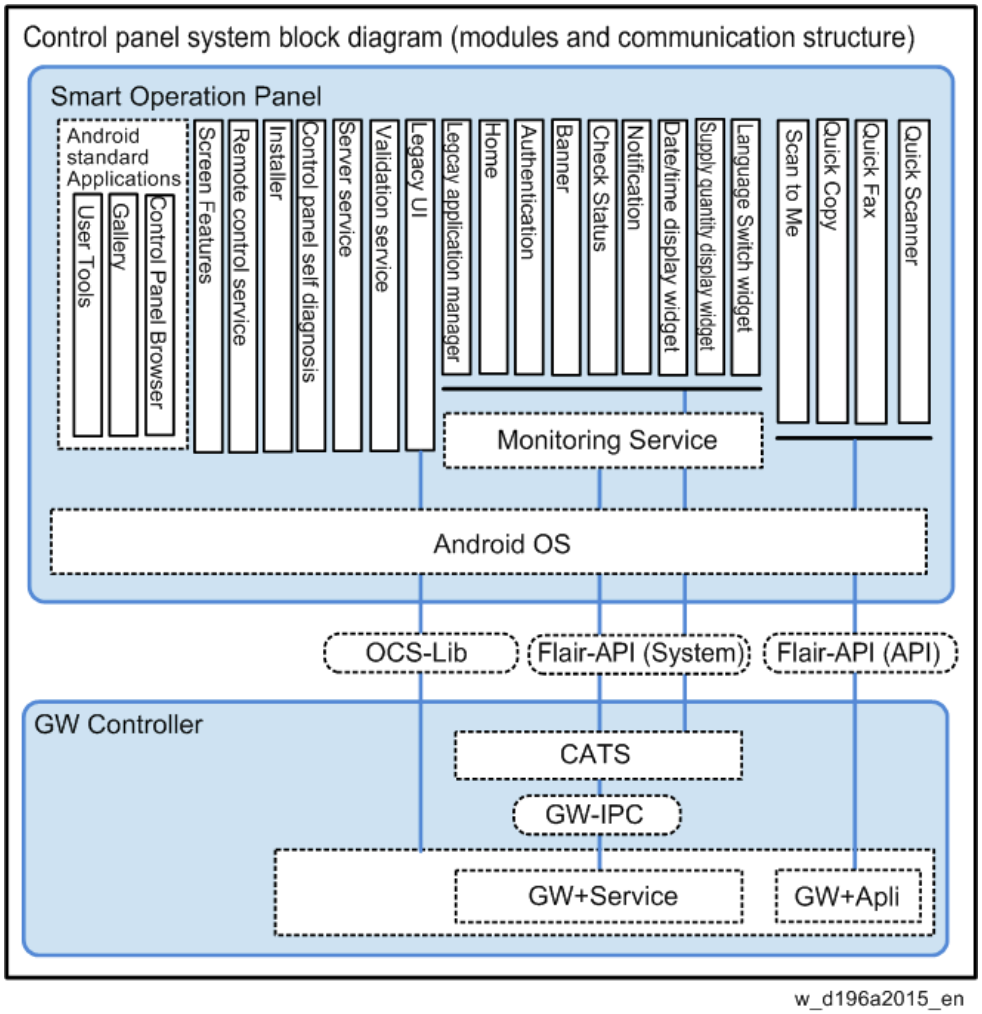
Applications that can be installed

On the Smart Operation Panel, applications can be installed in addition to the pre-installed applications. Applications that can be installed include optional applications that customers can purchase, applications that are installed only on machines sold in specific regions, and custom-made applications. On an MFP, applications such as Simple UI applications (Quick Copy, Quick Fax, and Quick Scanner) and Scan to Me are installed.

Communication Specifications

The Smart Operation Panel and the GW controller are connected by a USB 2.0/3.0 cable. They communicate with each other via the Android OS on the Smart Operation Panel, using protocols called “OCS Library” and “Flair-API (System/Application)”.

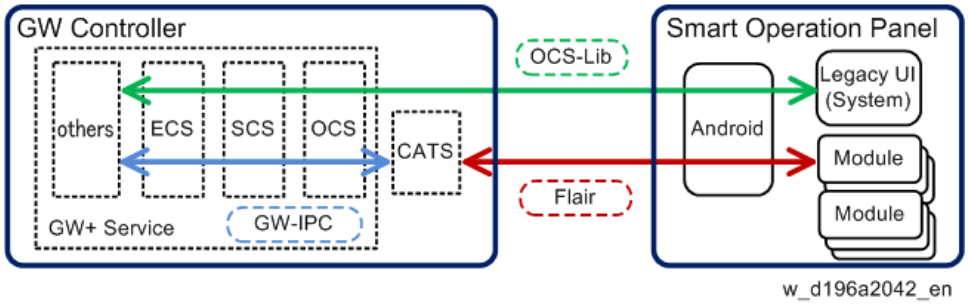
System block diagram



Overview of Components

Communication module/signal name	Details
OCS Library	OSC stands for Operating Control Service. It is a module that controls the control panel. The set of signals used by this module to control the control panel are called the OCS Library. It is used during communication between the Legacy UI (system) module on the Smart Operation Panel and the GW module for the following processes. • Deciding on the display format suitable for a particular model of the control panel, so that the intended image data can be converted to actual image data. • Converting touch panel operations to commands.
Flair-API (System/Application)	Flair is the manufacturer's own communication interface between software modules. The interface uses a generic WebAPI. It is divided into two parts: a part that communicates directly with

Communication module/signal name	Details
	applications such as the application manager, Home, Authentication, Banner, Check Status, and Widgets, and a part that monitors applications. It communicates with the GW controller via the CATS module.
CATS	CATS stands for Cheetah Application Total System. It is a module in the GW controller. Because the Smart Operation Panel uses the Android OS, the contents and protocols of communication are not the same as those of the conventional control panel. CATS serves as an intermediary between the GW controller and the Smart Operation Panel. It also controls the power status of the control panel. CATS communicates with the Smart Operation Panel using the Flair-API, and communicates with the GW module using the GW-API.
GW-IPC	The name of the interface used among modules in the GW controller. The role is the same as that of the Flair-API.

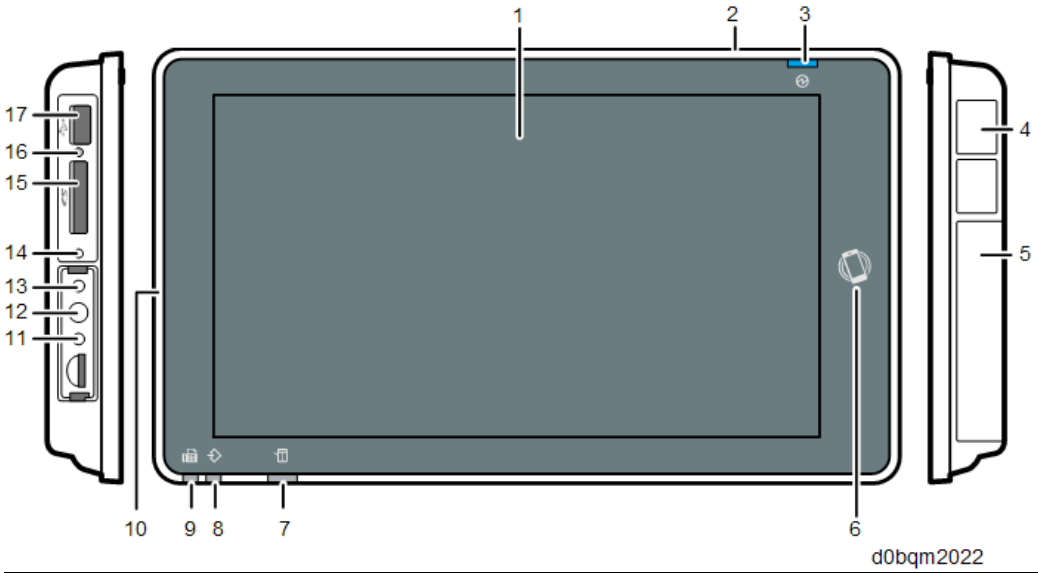


Note

- API stands for Application Programming Interface. An API is an interface that software modules use in order to communicate with each other.

Panel Components/Screen Layout

Components of the Control Panel

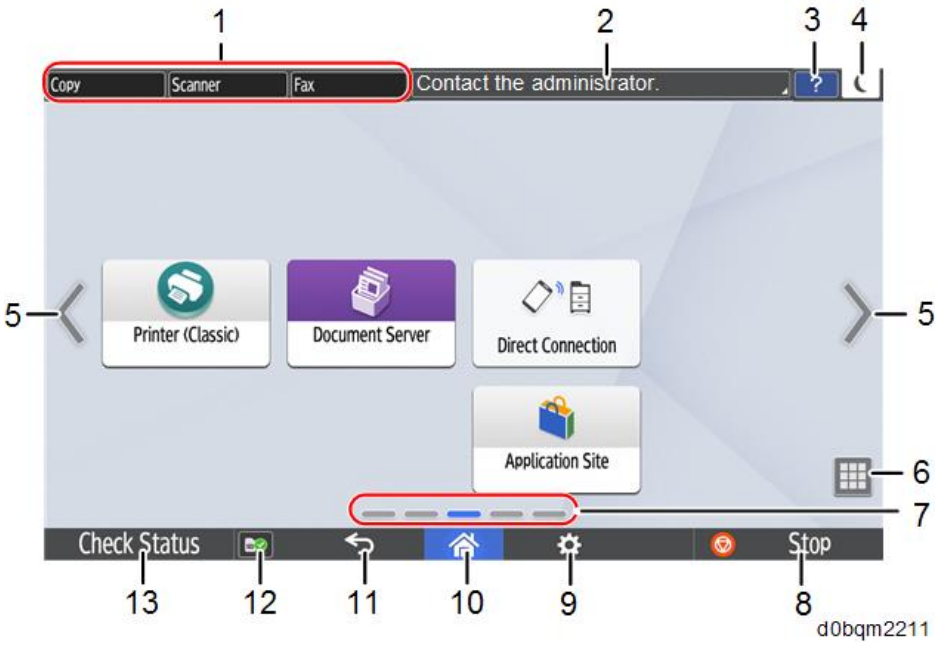


No.	Name	Description
1	Display panel	Displays icons for functions and applications. Displays the operation screens, operation keys and other information.
2	Speaker	Produces the operation and warning sounds.
3	Main power indicator	Indicates power OFF/ON, and energy saving status.
4	USB slot for digital cameras	You can connect the optional numeric keypad and digital cameras.
5	USB slot for NFC card readers	You can connect the authentication card reader/writer and devices supporting near-field communication (NFC).
6	NFC tag	Used to connect the machine and a smart device with the RICOH simple input and output.
7	[Check Status] indicator	Indicates system status.
8	Data In indicator	Flashes when the machine receives data from a printer driver or LAN-Fax driver.
9	Fax indicator	Indicates fax status. • During communication: Flashes • When fax documents have been received using Substitute Reception: Lights • When the machine has received a confidential fax document: Lights
10	Microphone	There is currently no function that uses this.
11	Extended Feature	Used for system maintenance, such as control panel self-check.

No.	Name	Description
	key (EX3)	
12	Extended Feature key (EX2)	Used for system maintenance, such as control panel self-check.
13	Extended Feature key (EX1)	Used for system maintenance, such as control panel self-check.
14	Control panel reboot key	Used when rebooting the control panel.
15	SD card slot	Insert an SD card here.
16	Media access lamp	Lights when an external media is inserted into the SD card slot or the USB slot.
17	USB slot	Insert a USB memory device here.

Panel Display

Soft keys displayed on the screen (when the Authentication Function is Disabled)



No.	Name	Description
1	[Function] keys	Users can assign shortcuts for each application. Up to three applications can be assigned as shortcuts. When an application is assigned as a function key, users can call the application from any screen. Users can assign the application to each function key at [Settings] > [System Settings] > [Display/Input] > [Key/Keyboard/Input Assistance] > [Function Key Settings].
2	[System messages] key	System messages are displayed in this area. If there are multiple messages to be displayed, they are displayed alternately. Tapping the message opens a dialog which shows all the messages.

No.	Name	Description
3	[Help] key	This icon is displayed when Help is available for the displayed screen or errors occurring when the machine is connected to the Internet. Specify [Cookie] in the control panel browser to [ON] to display Help properly.
4	[Energy Saver] key	Enters Sleep mode.
5	[Switch Screens] key	Press to scroll the screens right and left. The Home screen has 5 screens.You can switch between the screens by flicking.
6	[Application List] key	Displays the list of installed applications.
7	[Current display position] key	Shows which of the five screens is currently displayed.
8	[Stop] key	Stops the scanning of a document, fax transmission, or printing to paper.
9	[Menu] key	Displays the menu screen of the application in use. May not be available depending on the application.
10	[Home] key	Displays the Home screen.
11	[Back] key	Use this to go back to the previous screen when the Settings screen or the screen of an application is displayed.
12	[Media] key	Displays icons when a USB flash drive or SD card is inserted. By pressing this key, you can choose the media to remove and use. Depending on the media, one of the following icons appear.
13	[Check Status] key	You can check the status of the MFP, each function, and the current job. You can also check the job history and maintenance information of the MFP.

	USB icon (key)
	SD card icon (key)
	USB/SD icon (key)

Items that Appear when the Authentication Function is Enabled

Login user information and login/logout key also appear.

No.	Name	Description
1	[User icon] key	You can configure the authentication setting. This key appears when someone is logging in. If pressed after logging in, the login user name appears for a while in the login user information display area.
2	[Login/Logout] key	This key is displayed if the authentication function is enabled. By pressing [Login], the login menu appears. If you have already logged in, [Logout] appears. By pressing [Logout], you can log out.
3	Login user information display area	The name of the user logging in appears in this area. By pressing the [User icon] key, the name of the user logging in appears for approximately 5 seconds (and then automatically switches back to displaying the function keys.)

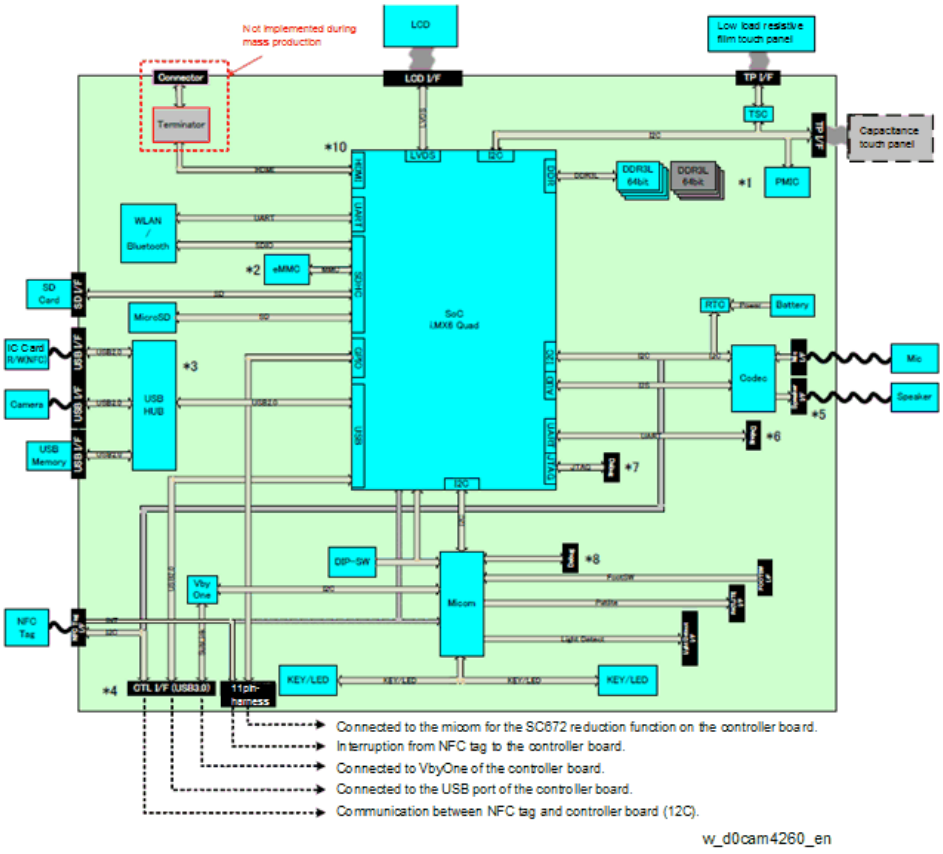
Items that Appear According to the Security Setting

No.	Name	Description
1	Extended Security icon	This icon is displayed if [Settings] > [System Settings] > [Settings for Administrator] > [Security] > [Extended Security Settings] > [Enhance File Protection] is set to [On].
2	Overwrite icon	Displays the hard disk overwrite status when [Settings] > [System Settings] > [Settings for Administrator] > [Data Management] > [Auto Erase Memory Setting] is set to [On].

Electrical Components

Operation Panel Unit

8.Smart Operation Panel



Touch Panel

The touch panel of this machine uses a 4-wire resistive film method (low load resistive film analog 4-wire method). It can detect two points for flick/drag/pinch-in/pinch-out operations. Resistive touch panel has been adopted in order to allow operation with a prosthetic hand.

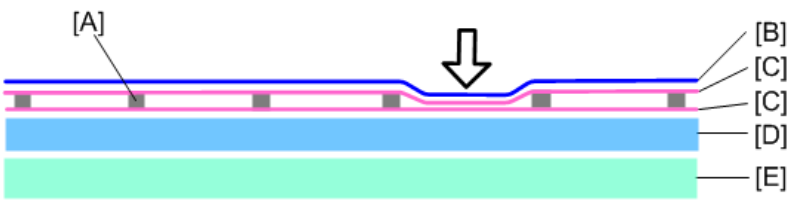
Basic Structure

An analog 4-wire resistive film touch panel has 2 layers. Two materials (mainly film or glass) with transparent conductive film (ITO) are attached such that the transparent conductive film layers face each other.

When the film is pressed with a finger or a pen, the transparent conductive films [C] contact each other and the touch panel operation is recognized.

Insulators (spacing dots [A]) secure space between the two transparent conductive film layers to prevent short-circuiting.

Because the transparent conductive film [C] has a uniform resistance characteristic, the resistance value reflects the distance of contact.



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[A]: Spacing dot

[B]: PET film

[C]: Transparent conductive film

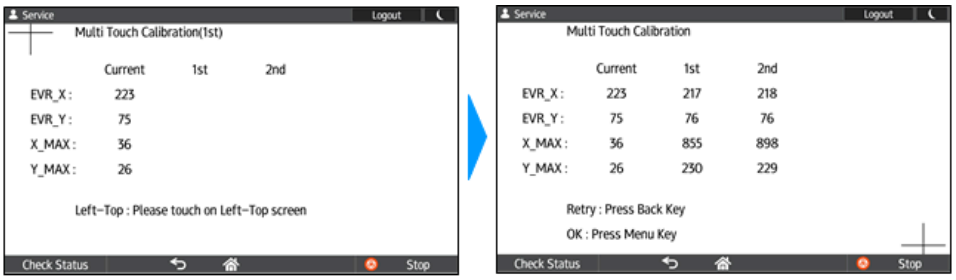
[D]: Base glass

[E]: LCD panel

Self-Check (multi-touch calibration) mechanism

With the Multi-touch calibration in the self-check function, the touch panel is automatically calibrated using the results of touches to the top left and bottom right positions.

The values of “EVR_X”, “EVR_Y”, “X_MAX”, and “Y_MAX” are used for internal processing. They do not indicate the positions or distance of the touched points. There is no problem unless there is a huge difference between the values of the first calibration and the second calibration.



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Controlling the Power Supply

Exiting Energy Saving Modes

Because this model of Smart Operation Panel has no hardware keys, the MFP exits from energy saving mode when the user does one of the following:

- Touches the display panel
- Lifts the ADF
- Sets an original in the ADF

Screen Startup Mode

Startup Modes

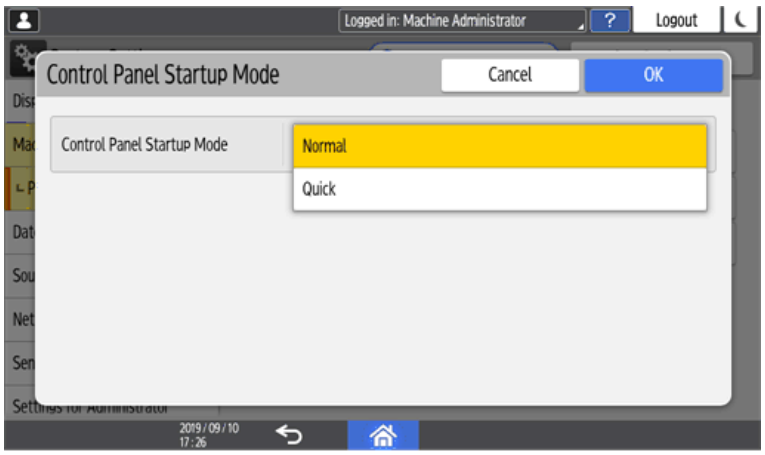
There are two screen startup modes. The factory default setting is Normal.

1. Normal
   This is the standard startup mode. When the main power of the MFP is turned ON, the control panel starts up using less power compared to Quick mode.
2. Quick
   By preparing for the next startup when the machine shuts down, the control panel starts up faster than in Normal mode.

Changing the Screen Startup Mode

Screen Startup Mode can be changed in Screen Features Settings.

Select [Settings] > [System Settings] > [Machine] > [Power/Energy Saving] > [Control Panel Startup Mode], and then select [Normal] or [Quick].



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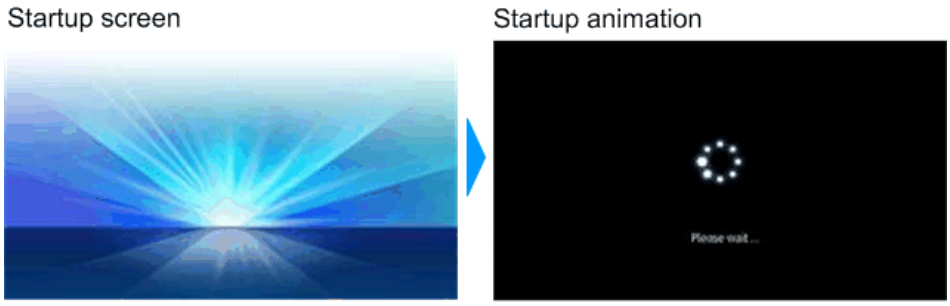
Note

- In the following cases, the control panel starts up in Normal mode even if [Quick] is selected.
  - The power cord has been disconnected from the power outlet after the last shutdown.
  - The MFP is turned ON after being turned OFF due to reasons such as a power failure.
  - The MFP was not properly shut down the last time it was turned OFF.

How the Control Panel Starts Up

In Normal mode

The startup screen is displayed on the display panel, followed by the startup animation.



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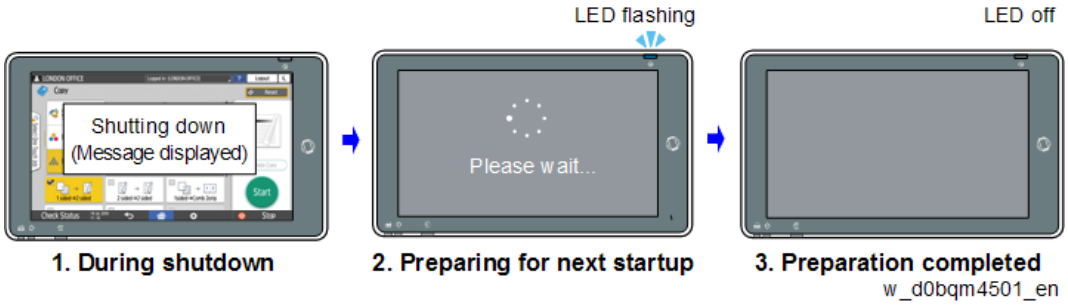
In Quick mode

The [Home] screen is displayed immediately after the main power of the MFP is turned ON. The startup screen displayed when starting in Normal mode is not displayed.

How the Screen Shuts Down When Quick mode Is Selected

When Quick mode is selected, the MFP prepares for the next startup when it shuts down. The main power indicator flashes during preparation for the next startup. The indicator turns OFF when preparation is completed.



If the MFP is turned ON during shutdown, the preparation for the next startup continues. When preparation for the next startup is completed, the control panel starts up in Quick mode.

Note

- When Quick mode is selected, the control panel starts up faster than in Normal mode but shutdown takes longer than in Normal mode.

Shutdown Functions

The shutdown functions and their uses are as follows.

Shutdown mode	Use	Operation
Normal Shutdown	Same as shutdown by users.	Turn the main power switch (SW1) OFF.
Forced shutdown	When normal shutdown does not complete even though you waited a long time.	Hold the main power switch (SW1) 6 seconds or longer.
Shutdown for parts replacement	• When you have to disconnect the power cord from the power outlet, such as when replacing parts. • When you want to start the machine normally and then enter recovery mode, without changing the Startup mode in [Control Panel Startup Mode]. (For updating control panel firmware)	Turn the main power switch (SW1) OFF while holding down [Stop]. Continue to hold down the [Stop] key until the shutdown screen is displayed.
Shutdown for software update	When you are going to turn ON the MFP within 5 minutes for updating the MFP firmware or package. (Use shutdown for parts replacement if you are updating the control panel firmware.)	Turn the main power switch (SW1) OFF while holding down the [EX1] key. Continue to hold down the [Stop] key until the shutdown screen is displayed.

Normal Shutdown

The MFP is equipped with a function to shut down safely in order to:

- Prevent damage to the file systems in the HDD and the NAND flash memory.
- Prevent paper from being left inside the body of the MFP (except when paper is jammed).

The shutdown process begins when the main power switch (SW1) is pressed. To make a forced shutdown, press and hold the main power switch (SW1) for 6 seconds. However, if you force a shutdown during the shutdown process, data being processed may be lost. Forced shutdown is to be used to shut down the MFP without disconnecting the power cord when the shutdown process cannot be completed.

Other Shutdown Functions

This MFP has two additional shutdown functions to facilitate maintenance.

Shutting down the MFP for parts replacement (Starting up in Normal mode when Quick mode is selected)

When Quick mode is selected, the MFP prepares for the next startup when it shuts down. This causes the shutdown process to take longer than when Normal mode is selected.

If you need to disconnect the power cord after shutdown in order to replace parts or for other reasons, you can use the following procedure to shut down the MFP just like you do in Normal mode. This shortens the time it takes to shut down the MFP.

- Procedure

  Turn the main power switch (SW1) OFF while holding down the [Stop] key on the control panel. Continue to hold down the [Stop] key until the shutdown screen is displayed.

Shutting down the MFP for software updates (Shutting down the MFP with the control panel in Sleep mode)

If you are going to turn ON the MFP within 5 minutes, you can use the following procedure to shut down the MFP with the control panel in Sleep mode.

- Procedure

  Turn the main power switch (SW1) OFF while holding down the [EX1] key. Continue to hold down the [EX1] key until the shutdown screen is displayed.

Note

- You must turn ON the MFP within 5 minutes.
- If more than 5 minutes has elapsed after shutting down the MFP using the above procedure, the machine starts up in Normal mode even if Quick mode is selected.

System Maintenance

Maintenance Modes

Service program (SP) modes for the Smart Operation Panel are as follows:

Mode	Use	Notes
SP Mode (MFP)	SP modes for the MFP (controller, engine)	The numeric keys are required to enter this mode. Display the application where soft keys are displayed or the soft keys of the SP mode.
Service mode (operation panel)	SP modes for the Smart Operation Panel. • Changing SP mode settings in the Screen Features Settings menu. • Installing and updating applications that can be installed	Same as above
Recovery mode	Maintenance modes for the Android OS • Updating firmware • Initializing all data	-

Login to/Logout from Control Panel Service Mode

Login

In the same way as you log in to the SP Mode on the MFP, you use the soft keys to enter a combination of numbers in order to login to the service mode of the control panel.

Note

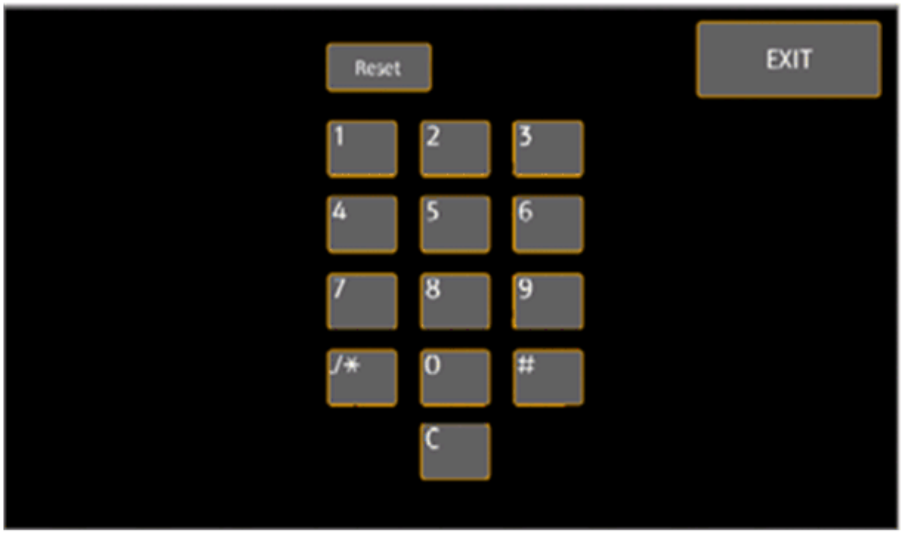
- You cannot log in to the service mode of the control panel when one of the following screens is displayed.
  - Stop All Jobs
  - Settings
  - Address Book Management

Use the numeric keys on one of the following screens.

- Soft keys on the application screen where soft keys appear
- Soft keys for the control panel's service mode (displayed by pressing both the [EX3] key and [Check Status] at the same time)

Note

- To exit the soft keys, press [EXIT] on the screen.



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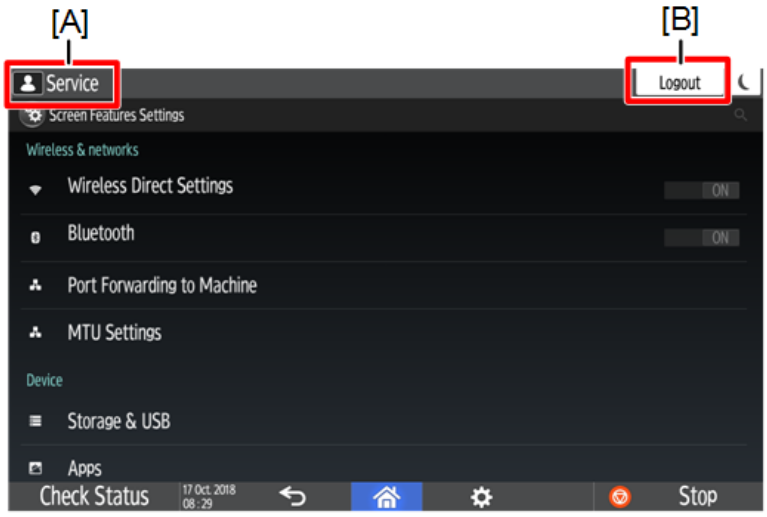
Login Status Indicator

When you log in to the control panel's service mode, the Screen Features Settings screen is displayed.

- "Service" is displayed in the login information area [A].
- [Logout] is displayed in the Login key area [B] to allow logout from the service mode.



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Logout

Press [Logout] to log out from the control panel's service mode.

Note

- You need to logout manually because the Auto Logout function does not work.

Depending on the authentication settings of the MFP, the following screen is displayed after you log out.

Authentication settings		
Administrator authentication: OFF User authentication: OFF	Administrator authentication: ON User authentication: OFF	Administrator authentication: ON User authentication: ON
Screen of the function selected in [Function Priority]	Screen of the function selected in [Function Priority]	[Home] screen

When Entry to Service Mode Is Prohibited by the Administrator

The administrator of the MFP can prohibit entry into the control panel's service mode by enabling [Settings] > [System Settings] > [Settings for Administrator] > [Security] > [Service Mode Lock]. When [Service Mode Lock] is enabled, the machine does not enter the service mode even if you enter the number combination for the control panel's service mode. There will be beeping sounds to indicate login failure.

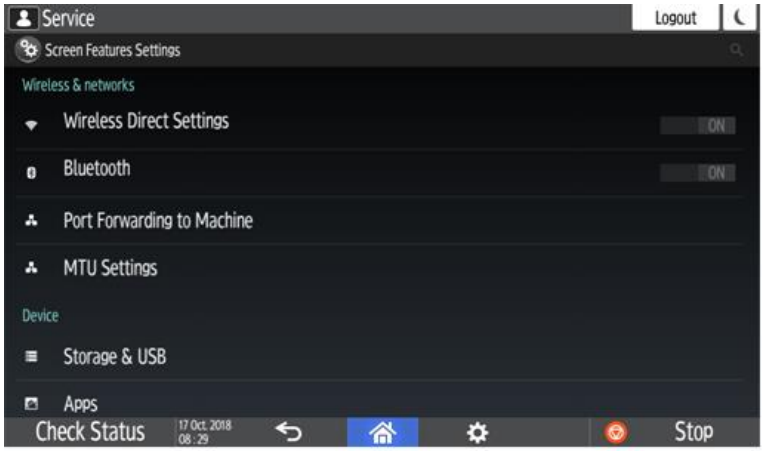
Note

- The machine can enter the recovery mode even if [Service Mode Lock] is enabled.

Service Mode Menu

There are four menus of settings.

- Wireless & networks
- Device
- Personal
- System



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Wireless & Networks

Menu level			Description
1st level	2nd level	3rd level	
Wireless Direct Settings	Group Owner Mode		You can only view the setting.

Menu level			Description
1st level	2nd level	3rd level	
	Connection Password		You can only view the setting.
	DHCP Server IP Address		You can only view the setting.
	DHCP IP Address Range		You can only view the setting.
	Select Channel		You can only view the setting.
	Fix SSID		You can only view the setting.
	PEER DEVICES		View and configure devices that can be connected.
	REMEMBERED GROUPS		Displays groups that have been previously connected.
Bluetooth	ON/OFF		You can only view the setting.
	SEARCH FOR DEVICES		Scans for Bluetooth devices in the vicinity.
	(name of this device)		You can only view the setting.
	PAIRED DEVICES		View and configure paired devices.
	AVAILABLE DEVICES		View and configure available devices.
Port Forwarding to Machine	Port Forwarding Settings	Port Forwarding Config 1-20	Requests sent to the wireless LAN unit of the Smart Operation Panel can be forwarded to the controller of the MFP. You can enable or disable ports to forward these requests.
MTU Settings	PathMTU(Enable/Disable)		Enables/disables the PathMTU size set in [MTU Size]. When you change this setting, the control panel restarts.
	MTU Size		Sets the size of PathMTU. Default: 1500.

Device

Menu level			Description
1st level	2nd level	3rd level	
Storage & USB	Internal storage	Used and Total Storage Capacity	Displays the used size and total size of the internal storage.
	SD CARD*1	Used and Total SD Card Capacity Safely Remove Hardware icon ( )	Displays the used size and total size of the SD card. *To remove the SD card, click the or icon instead of the Safely Remove Hardware icon

Menu level			Description
1st level	2nd level	3rd level	
			( ).
	USB STORAGE*2	Used and Total USB Storage Capacity Safely Remove Hardware icon ( )	Displays the used size and total size of the USB stroage device. *To remove the USB flash drive, click the or icon instead of the Safely Remove Hardware icon ( ).
Apps	Install	Install from SD Card	Install or update applications from an SD card.
		Install from Server	Enter a product key to install or update applications from the server.
		Application Site	Start up Application Site.
		Activate Applications	Activate applications that have been installed from the server.
		Update Applications	Update applications that have been installed.
		Uninstall	Uninstall applications.
		Install From Internal Storage	Install applications from internal storage.
		Check Server Connect	Check if you can connect to the Server.
		Firmware update	Update the firmware from the SD card set in the operation panel slot. If the SD card is not inserted, an error message is displayed.

*1 Displayed only when an SD card is inserted into the SD card slot of the operation panel.

*2 Displayed only when an USB storage device is inserted into the USB slot of the operation panel.

Personal

Menu level			Description
1st level	2nd level	3rd level	
Language & input	Registration Keyboard	-	You can register the external keyboard, display the connected keyboard, or remove the external keyboard.

System

Menu level				Description
1st level	2nd level	3rd level	4th level	
Screen Device Settings	Status			Displays the following: • Wireless LAN MAC address • Interface Settings

Menu level				Description
1st level	2nd level	3rd level	4th level	
Information				• Wi-Fi settings (ON/OFF) • IP address
	Legal information	Open source licenses		Displays the open source license information.
		System WebView Licences		Displays the license of the system used in this machine.
		Wallpapers		Displays the copy light of the picture of the wallpaper.
	Software Version List	Version List Record Save to SD Card*1		Displays the versions of operation panel firmware and installed applications. When saving the software version list on an SD card, insert an SD card into the SD card slot of the operation panel, and then press [Save to SD Card].
	Operation Panel Kind			Displays the hardware information of the operation panel with a 4-digit code.
				1st digit: LCD size • 1: 10.1" • 2: 7" • 3: 17"
				2nd digit: LCD vendor • 0: AUO • 1: INNOLUX • 2: Dongbond • 5: AUO • 6: Giantplus
				3rd digit: eMMC version • 5: Version 4.41 • 7: Version 5.00 • 8: Version 5.10
				4th digit: PCB vendor • N: NEC • R: RICOH
Screen	Use of External	Screen SD Card		Specify the SD card slot

Menu level				Description
1st level	2nd level	3rd level	4th level	
Device Settings	Interface	slot		availability on the Smart Operation Panel. When [Inactive] is selected, no power is available because the hardware is deactivated.
		Screen USB Port 1 to 3		Specify the USB port availability on the Smart Operation Panel for each USB port. When [Inactive] is selected, no power is available because the hardware is deactivated.
		Prohibit Use of External Interface	Wi-Fi (Do not Prohibit / Prohibit)	If you select [Prohibit] for this setting, the Wi-Fi function is automatically set to [OFF] and the Wi-Fi function setting is hidden at [Settings] > [System Settings] > [Network/Interface] > [Control Panel: Wireless LAN]. If you select [Do not prohibit] for this setting, the Wi-Fi function setting in [Control Panel: Wireless LAN] is displayed. The setting remains unchanged.
			Wireless Direct (Do not Prohibit / Prohibit)	If you select [Prohibit] for this setting, the Wireless Direct function is automatically set to [OFF] and the Wireless Direct function setting is hidden at [Settings] > [System Settings] > [Network/Interface] > [Control Panel: Wireless LAN]. If you select [Do not prohibit] for this setting, the Wireless Direct function setting in [Control Panel: Wireless LAN] is displayed. The setting remains unchanged.

Menu level				Description
1st level	2nd level	3rd level	4th level	
			Bluetooth (Do not Prohibit / Prohibit)	If you select [Prohibit] for this setting, the Bluetooth function is automatically set to [OFF] and the Bluetooth function setting is hidden at [Settings] > [System Settings] > [Network/Interface] > [Bluetooth]. If you select [Do not prohibit] for this setting, the Bluetooth function setting in [Bluetooth] is displayed. The setting remains unchanged.
			Screen SD Card Slot (Do not Prohibit / Prohibit)	If you select [Prohibit] for this setting, the Screen SD Card Slot function is automatically set to [OFF] and [Control Panel SD Card Slot] is hidden at [Settings] > [System Settings] > [Machine] > [External Device]. If you select [Do not prohibit] for this setting, [Control Panel SD Card Slot] is displayed. The setting remains unchanged.
			Screen USB Memory Slot (Do not Prohibit / Prohibit)	If you select [Prohibit] for this setting, the Screen USB Memory Slot function is automatically set to [OFF] and [Control Panel USB Memory Slot] is hidden at [Settings] > [System Settings] > [Machine] > [External Device]. If you select [Do not prohibit] for this setting, [Control Panel USB Memory Slot] is displayed. The setting remains unchanged.
	Server Settings	Port number		Input a port number for communication with the

Menu level				Description
1st level	2nd level	3rd level	4th level	
				import/export and RFU server. The input number is used for both HTTP and HTTPS connections. (Normally, input a number within 55101-55111.)
	Home Key Settings	Home Key Settings		You can change the transition destination except for the Home screen when pushing the [Home] icon.
		Home Key Assignment Mode		Normal mode: In addition to pressing the [Home] icon, in all statuses such as logout and restoring from lower power display mode, the screen transitions to the destination which the user set with [Home Key Application]. UI change mode: The screen transitions to the destination which the user set with [Home Key Application] only when you press the [Home] icon.
		Home Key Application		You can set the application of the transition destination when pressing the [Home] icon.
		Show default Home for unauthenticated user		You can specify whether the guest user can access the application selected in [Home Key Application] when user authentication is set to ON.
		System Home Key Icon Settings		You can use this setting only when [Home Key Assignment Mode] is [ON] and [UI Change Mode] is selected in [Home Key Assignment Mode].

Menu level				Description
1st level	2nd level	3rd level	4th level	
				You cannot set other than the above because of high brightness.
	Application Settings			Displays a list of installed applications. If you press [SETTINGS] for an application, the setting screen for the CE is displayed. The screen does not change if the application has no setting items.
	Recovery by Authentication Priority	Recovery by Authentication Priority		This setting gives priority to the recovery time from energy saving modes when an IC card authentication device is connected. When this setting is selected, the MFP does not enter Engine OFF mode, and always recovers from Silent mode.
		Start Time (hh:mm)		You can specify the start time of Authentication priority mode. Note: This can be changed only when [Recovery by Authentication Priority] is deselected.
		Period (Hours)		You can specify the period of validity of Authentication priority mode. Note: This can be changed only when [Recovery by Authentication Priority] is deselected.
	Backup/Restore Settings			Specify whether to enable or disable backups and restore backup data.
	Screen device always-			This setting prevents the operation panel from entering

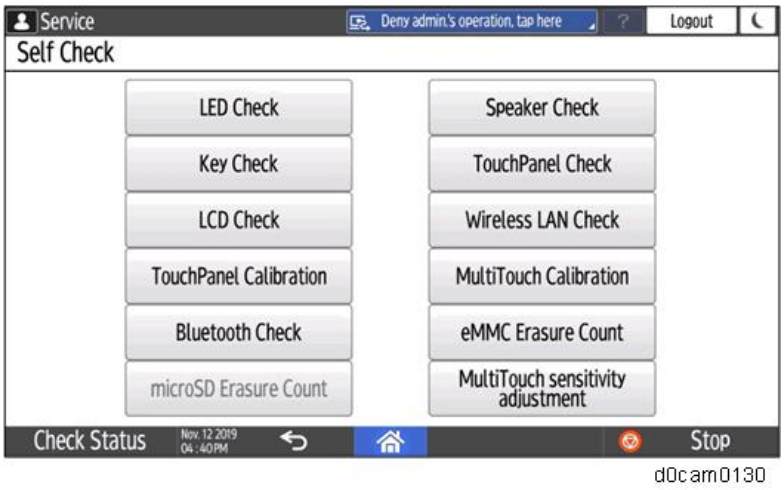
Menu level				Description
1st level	2nd level	3rd level	4th level	
	connection Setting			Sleep mode, so that Bluetooth and other communication devices remain connected. When this setting is selected, the operation panel does not enter Sleep mode. Only the LCD (display panel) turns OFF.
	Intelligent Voice Control			Specify whether or not to display the AI Speaker Link Setting Menu. Inactive: hide Active: view If deactivated, the function itself is turned OFF.
	Panel Self Check			Starts self-diagnosis of the operation panel. (Panel Self Check)

*1 This can be pressed only when an SD card is inserted to the SD card slot of the operation panel.

Panel Self Check

The following are available as self-diagnostics functions of the control panel:

- LED Check
- Key Check
- LCD Check
- TouchPanel Calibration
- Bluetooth Check
- Speaker Check
- TouchPanel Check
- Wireless LAN Check
- MultiTouch Calibration
- eMMC Erasure Count
- MultiTouch sensitivity Adjustment



*The [microSD Erasure Count] menu can not be used with this machine.

Note

- The [Self Check] menu is displayed in either English or Japanese. The language can be changed using [Change Language] in the Home screen.
- If an unavailable language is selected, English will be displayed.
- With some diagnostic items, press [Back] [A] at the bottom of the screen to return to the top menu of [Self Check].

LED Check

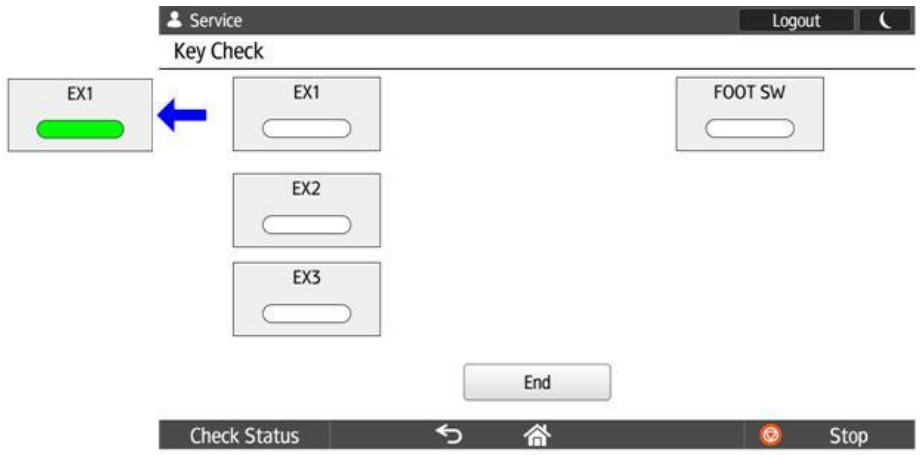
Select the [All Light On] check box, and make sure the following LEDs light:

- Data In indicator (facsimile and printer modes)
- Fax indicator
- [Check Status] indicator (flashes in red and orange alternately)
- Operation call light (if attached) (lights in red/blue)

When the check is completed, press [Back] to return to the top menu of [Self Check].

Key Check

Check if the Extended Feature keys on the left side of the control panel (EX1, EX2, EX3 from top to bottom) are functioning normally. If they are functioning normally, the key will turn green when pressed. [FOOT SW] is not used.



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When the check is completed, press [End] to return to the top menu of [Self Check].

LCD Check

Visually inspect the color of the LCD. The displayed colors are white/black/red/green/blue. The LCD changes to the next color when you press it.

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The check is completed when all colors have been displayed. The screen returns to the top menu of [Self Check].

TouchPanel Calibration

Calibrate the touch panel by touching the center of each of the five “+” signs.
The five “+” signs are displayed in the order of top left, bottom right, bottom left, center, and top right.
After you have touched the five “+” signs, the display switches to the [Retry/OK] screen.

- If you want to calibrate again, press [EX1].
- If you want to confirm that the calibration results are OK, press the [EX3] key to return to the top

menu of [Self Check].

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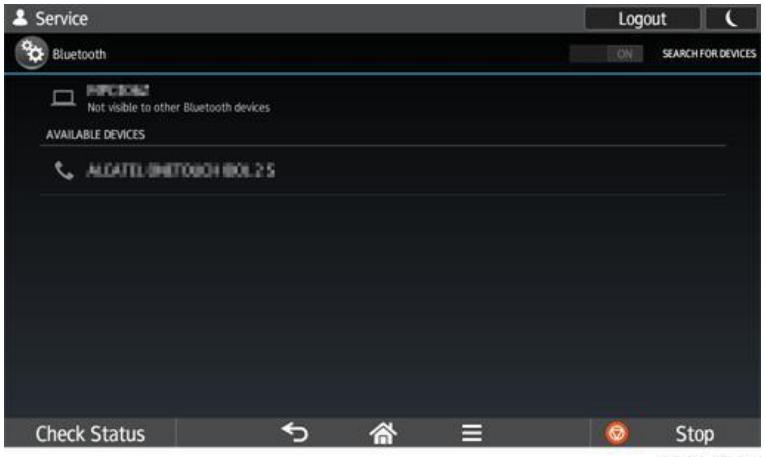
Bluetooth Check

Check and configure the Bluetooth device connection.



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When the check is completed, press [Back] to return to the top menu of [Self Check].

Note

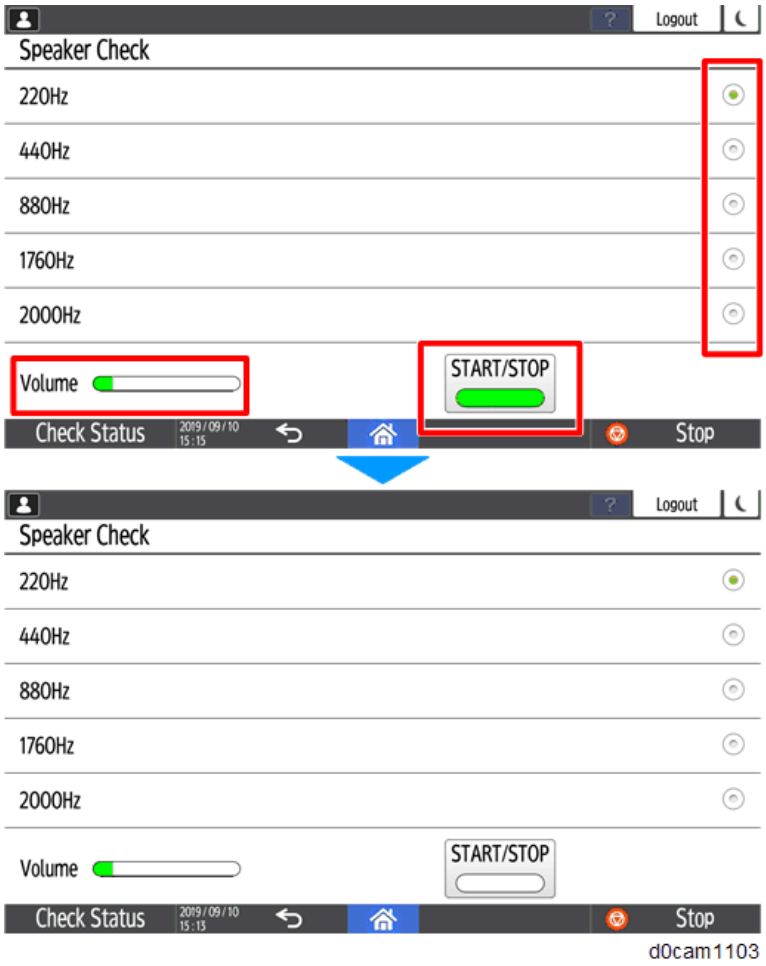
- You cannot switch Bluetooth to [ON] or [OFF] from the [Self Check] menu. Before checking the Bluetooth device connection, specify [ON] for [Bluetooth] in [Settings] > [System Settings] >

[Network/Interface] > [Bluetooth].

Speaker Check

Tests the speaker by playing the reference sound.

1. Select the frequency (220Hz, 440Hz, 880Hz, 1760Hz, or 2000Hz).
2. Press [START/STOP] to play the sound.
3. Touch the volume bar, and play the sound at minimum and maximum volumes.
4. Press [START/STOP] to stop the sound.

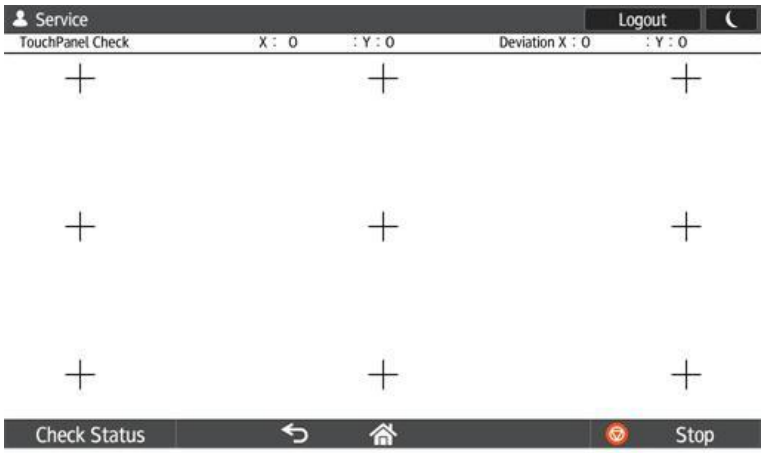


When the check is completed, press [Back] to return to the top menu of [Self Check].

TouchPanel Check

For each of the nine reference points on the screen, the distance between the detected pressed position and the nearest reference point is displayed. The distance is displayed continually near each reference point.

If all the distances between each detected pressed position and the nearest of the five reference points on the screen (at the four corners and the center) are within ±12px, the [OK] button appears. (However, even when the [OK] button is being displayed, if you press the screen again and the distance exceeds ±12px, the [OK] button disappears.)



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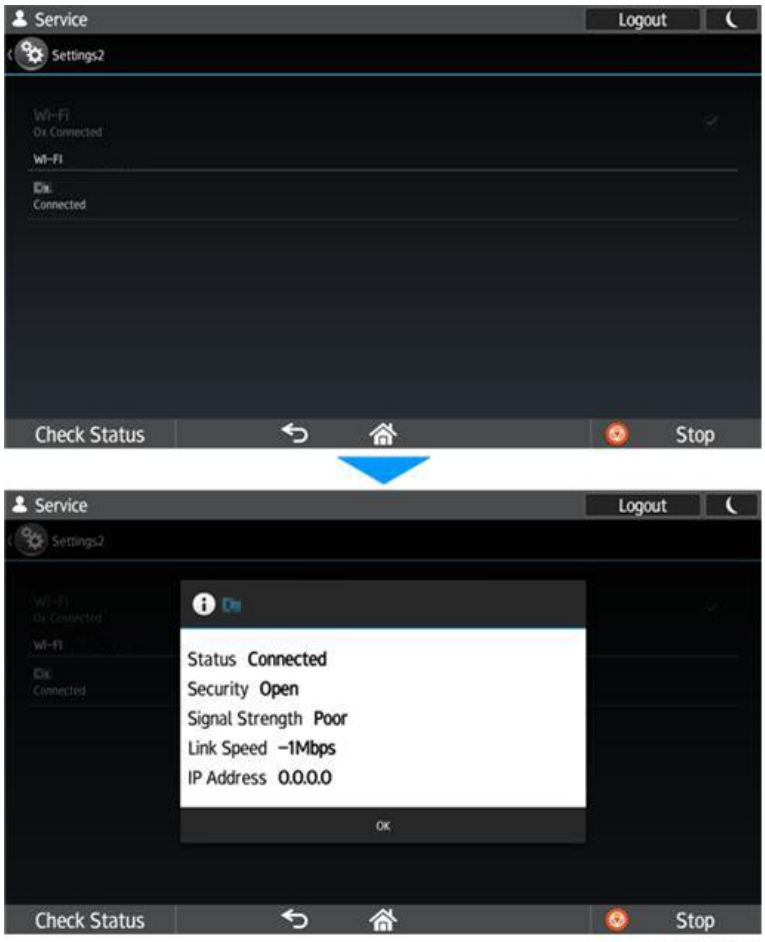
If you press the [OK] button, the inspection implementation status switches to “Adjusted” and the screen returns to the self-inspection menu.

If you press the [Back] key, the inspection implementation status does not switch and the screen returns to the self-inspection menu.

Wireless LAN Check

Checks the condition of the wireless LAN connection.

When you select the connected access point, the signal strength, IP address and other information are displayed.



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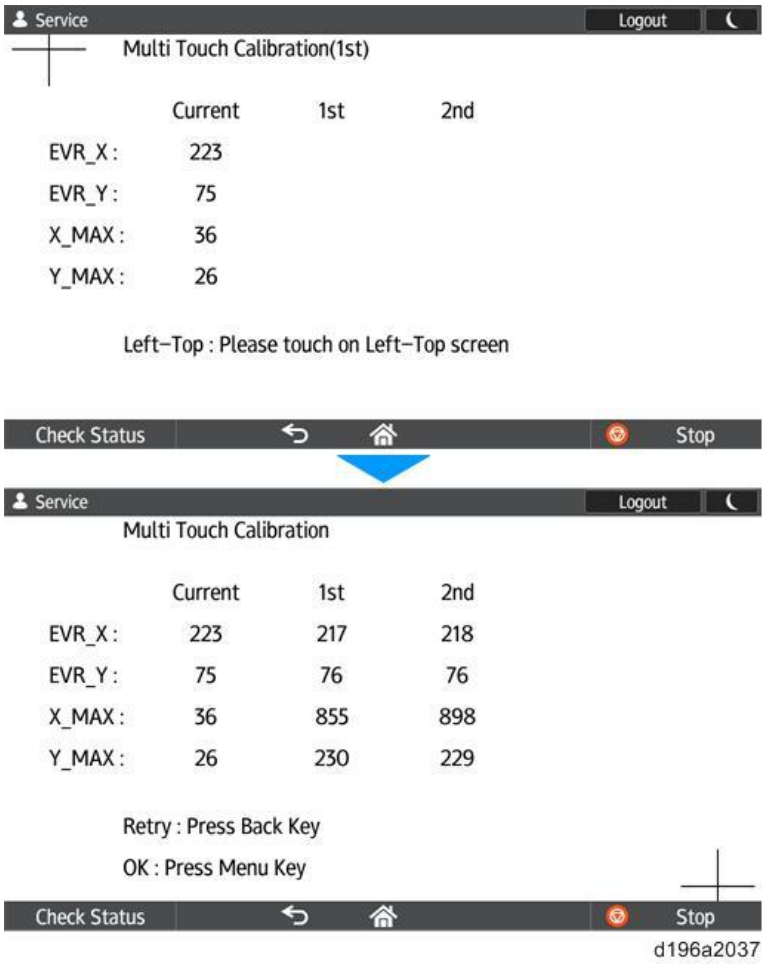
When the check is completed, press [Back] to return to the top menu of [Self Check].

MultiTouch Calibration

Calibrate the touch panel for multi-tap input methods such as pinch-in/pinch-out.
Touch the center of both “+” signs. The two “+” signs are displayed in the order of top left and bottom right. Repeat the procedure. The touch panel will be calibrated.

- If you want to adjust it again, press the [EX1] key.
- If you want to confirm that the calibration results are OK, press the [EX3] key to return to the top menu of [Self Check].



Note

- The values of “EVR_X”, “EVR_Y”, “X_MAX”, and “Y_MAX” are for internal processing and do not indicate the positions or distance of the points touched. There is no problem unless there is a huge difference between the values of the first calibration and the second calibration.

eMMC Erasure Count

Displays the status of the eMMC Erasure Count and the current number of times of rewriting.

MultiTouch Sensitivity Adjustment

Adjusts the MultiTouch sensitivity of the operation panel.

Check the influence of external noise. If the detection level is 3 or higher, adjustment is necessary.

The sensitivity level can be adjusted between "0" and "10". The default setting is "10". If set to "0", the MultiTouch function is turned off.

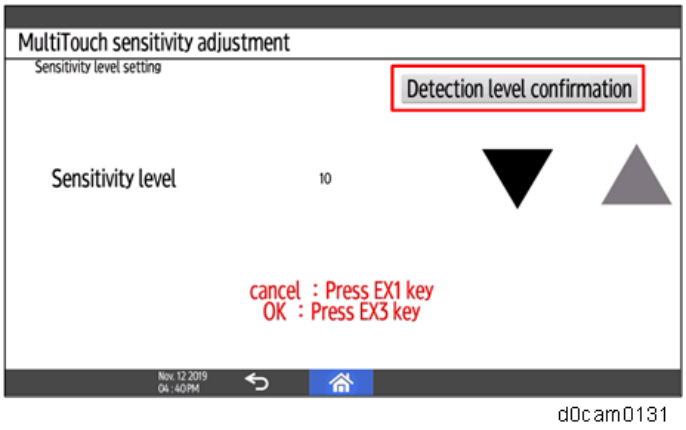
- Sensitivity level: 10 (Default)
- Sensitivity level: 0 (MultiTouch function off.)

Note

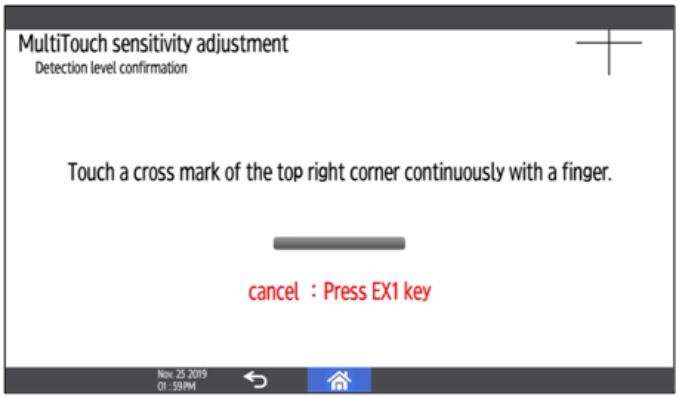
- If the sensitivity level is set to "0", the MultiTouch function is turned off and you cannot pinch in or out.
- If the sensitivity level is set between "1" and "9", the distance between the 2 points for detecting MultiTouch increases as the sensitivity level is decreased. At the default setting (sensitivity level 10), MultiTouch is detected for a distance of approximately 3 cm between the 2 points. At sensitivity level 1, MultiTouch is detected for a distance of approximately 4 cm between the 2 points.

Adjustment Procedure

1. Press [Detect level confirmation].



2. Keep your finger on the cross at the top right.



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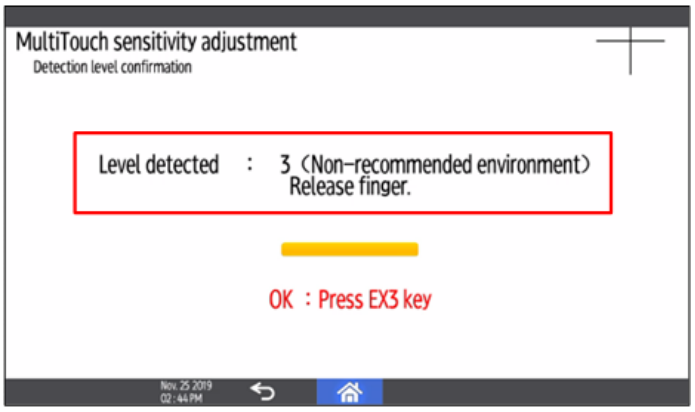
3. Check the result. If the detection level is "3" or "4", adjust the MultiTouch sensitivity.



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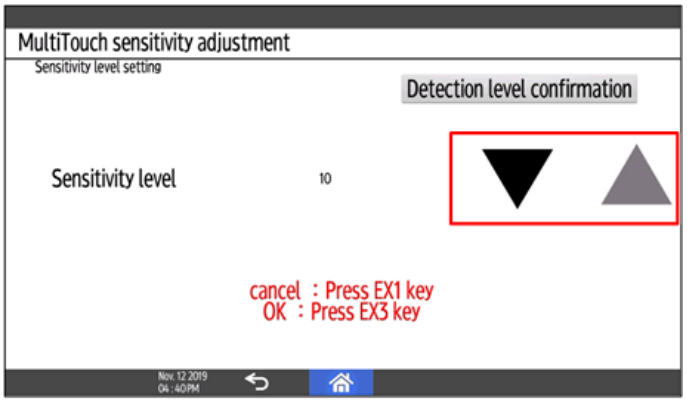
4. Use [V] or [^] to adjust the sensitivity level.



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Recovery Mode

The recovery mode menu is as follows. Ask your manager for details on how to enter Recovery mode.

Menu	Description
reboot system now	Reboots the Android OS.
apply update from	Updates the Cheetah System firmware by specifying the folder path.

Menu	Description
sdcard	
wipe data/factory reset	Deletes all installed applications and all settings on the Cheetah.
wipe cache partition	Deletes all data that is stored on the cache partition. Currently, Cheetah does not use the cache partition, so nothing happens when this menu item is accessed.
wipe free area partition	Deletes all data that is stored on the free partition. Cheetah stores the version history on the free partition. When this menu item is selected, it will then disappear.
wipe LegacyUI area	Deletes Legacy UI.
micon update from sdcard	Updates Keymicon by specifying the folder path.
view recovery logs	Displays the recovery log.

Note

- If [Settings] > [System Settings] > [Settings for Administrator] > [Security] > [Extended Security Settings] > [Update Firmware] is set to [Prohibit], the control panel cannot enter the recovery mode.
- Ask your manager for information on how to enter the recovery Mode.

Special Key Combinations

Function	Operation for Smart Operation Panel
Resetting Settings	In the Settings screen, press a Settings category while holding down the EX3 key. Available for: System Settings, Copier/Document Server Settings, and Scanner Settings.
System Reset	Hold down the EX3 key and [#] simultaneously for 10 seconds. Resets the controller software of the main machine.
Application Reset	Hold down the EX3 key and [9] simultaneously for 10 seconds. Resets a single application.
Resetting User Code Authentication	Hold down [Reset] for 2 seconds. Returns to the User Code entry screen.

Backup/Restore for Smart Operation Panel Application/Settings Function

Overview

Application settings and additional applications installed on the Smart Operation Panel can be backed up automatically and can be restored, e.g. after Smart Operation Panel replacement.
In Cheetah SP mode, select [Screen Device Settings]> [Backup / Restore Settings].

Data that can be backed up and restored

- System application settings*1
- Standard application settings*1
- Pre-install application settings*1
- Add-on applications (including hybrids)*2

*1: The system application, standard installed application, and pre-installed application are installed in MultiLink-Panel, so the application itself is not backed up or restored after replacement.
*2: Add-on applications settings are not backed up or restored.

Backup

Note

- After replacing the smart operation panel, if the version of the cheetah system firmware is older than a certain version, update it to a later version.
- Backup cannot be performed manually by the user or the technician.
- During the backup, the message being backed up is displayed and other operations cannot be performed.

- A backup is performed 24 hours after the last backup. If the machine doesn't have backup data, the first backup is performed at 2:00AM.
- A backup cannot be performed under any of the conditions below. Backup will retry 1 hour later.
  - During ARFU, firmware updating from download site, etc
  - LCD on the operation panel: ON.
  - HDD cannot be accessed for 60 sec.
- If the backup data has not changed, no backup will be performed. (Maximum - 7 days)
- During the backup, the LCD is off.
- Backup data is stored on the HDD.
- The amount of time for the backup is as follows:
  Example:

	Data	Backup time
Additional applications	106MB	1m 6s
Application settings	0.2MB	36s
Total	106.2MB	1m 42s

Disabling the Backup setting

The default setting is “Enabled”. To change it to “Disabled”, uncheck “Enabled”. Restarting the machine is not necessary.

In Cheetah SP mode, select [Screen Device Settings] > [Backup/Restore Settings] In Cheetah SP mode.

Restore

Note

- After replacing the smart operation panel, if the version of the cheetah system firmware is older than a certain version, update it to a later version.
- If the machine doesn’t have any backup data, the restore function cannot be used.

1. Execute [Cheetah SP mode] > [Screen Device Settings] > [Backup/Restore Settings] > [Start Restore].
2. After a message indicating that restoration takes several minutes is displayed, touch "execute".
   A message saying please wait for a while is displayed. Time is about 10 minutes.
3. After a message indicating that the next message is displayed, touch [Close].
   A message that the restoration was successful is displayed.
4. Turn the main switch OFF/ON.

Restore Error Codes

If restore fails, an error code appears on the operation panel.

Code	Cause	Solution
1	Failed to restore additionally installed application data	Retry the Restore procedure.
3	Failed to restore application setting data	Retry the Restore procedure.

Software Update

Updating the Smart Operation Panel

Important

- In the case of models provided with package firmware only, updates for the Smart Operation Panel and applications are also provided via package firmware. For details, see "Firmware Update (Removable Media)".

There are three methods to update the Smart Operation Panel. The method is different depending on what you want to update.

1. Installation/update from a media
2. Installation/update from the eDC Server
3. Installation/update from Application Site

Update method	Features	Control panel firmware	Applications
Installation/update from a media	Installation or update is possible in the following two ways. 1. Applications • Use the installation screen in the control panel's service mode to update applications. • You can install or update multiple applications at once. • You can also uninstall an application. 2. Package firmware (SD card or USB flash drive) Refer to "Firmware Update (Removable Media)".	Yes	Yes
Installation/update from the eDC Server	Install or update applications directly from the eDC Server. This method is mainly for paid applications. A product key is required when an application is installed for the first time. *The update procedure is the same as when updating the Smart Operation Panel application already released.	No	Yes
Installation/update from Application Site	Installation and Updating of applications and firmware update can be done from Application Site. When administrator authentication is enabled, an administrator privilege is required to start Application Site. If you log in to the operation panel service mode, however, you can use it with CE privilege.	Yes*1	Yes

*1 Update can only be done by using a package file.

The following two methods can be used for updating the firmware.

- Update from a media
- Installation/update from Application Site

The following three methods can be used for updating an application.

- Installation/update from a media
- Installation/update from the eDC Server
- Installation/update from Application Site

Installation/Update from a Media

Installing/Updating an Application

Creating a media card for update

1. Download the update modules from the Firmware Download Center.
2. Create a folder named “romdata” in the root directory of the media.
3. Put the application zip file in the "romdata" folder.

   Note

   Do not unzip the zip file.

Update procedure

1. Log in to the control panel in service mode.
2. Insert the SD card into the SD card slot of the control panel.
3. Select [Apps] > [Install] > [Install from SD Card].
4. Select the application you want to install or update, and then press [Install]
5. The installation or update results are displayed.
6. Check that the application is correctly installed or updated, and then press [reboot operation panel].

Package Update

This method uses the package update function to update the control panel firmware and/or applications. The package update function is provided by the controller.

Update is done in the following order:

1. Controller firmware
2. Applications
3. Control panel firmware

If the control panel firmware has to be updated, the control panel starts in the recovery mode and the firmware is automatically updated.

The control panel restarts when updating is completed. The result notification is processed after the control panel restarts.

Refer to ”Firmware Update (Removable Media)” for details.

When Installation/Update Is Prohibited

If [Settings] > [System Settings] > [Settings for Administrator] > [Security] > [Extended Security Settings] > [Update Firmware] is set to [Prohibit], the execution key is grayed out and installation/update cannot be executed.

When trying to update from a PC, updating fails and the result is recorded as “Failed”.

Installation/Update from the eDC Server

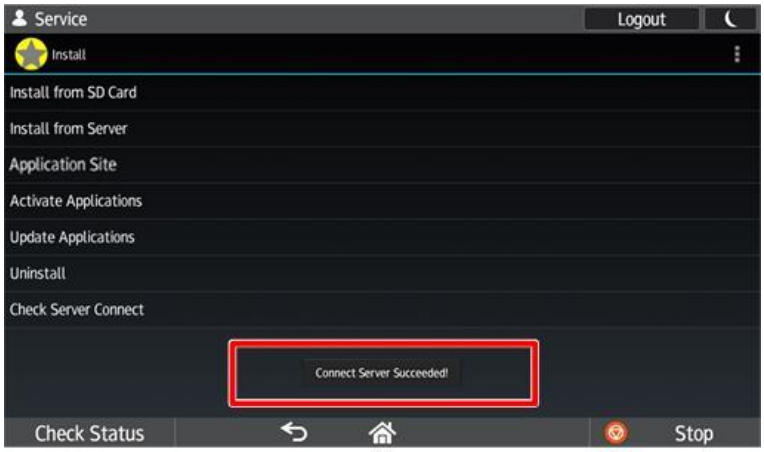
Downloads applications from the eDC Server, and installs or updates them.

Note

- Installation/activation/update of applications from the server can only be done in the service mode.

Check Server Connect

1. Log in to the control panel's service mode.
2. Select [Apps] > [Install].
3. Press [Check Server Connect] and make sure that "Connect Server Succeeded!" is displayed.



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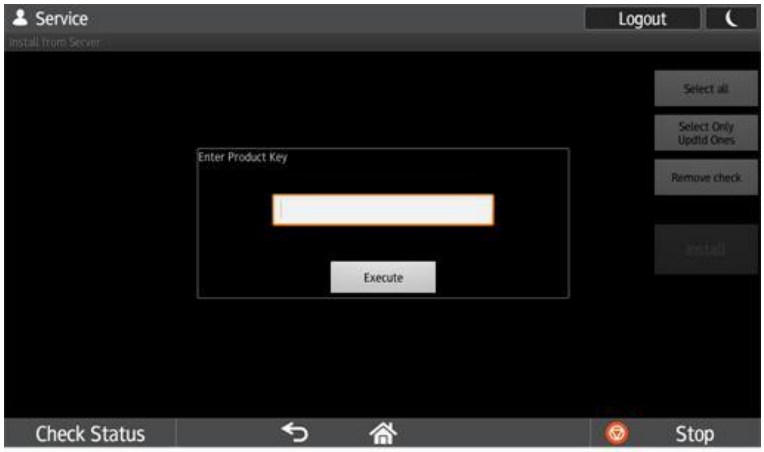
Note

- The server address is stored in the firmware of the Smart Operation Panel.
- To connect to the server, the network settings of the MFP must be configured correctly. For the required configuration, see the Field Service Manual of the MFP.
- If server connection fails, see Troubleshooting for error codes.

Installation

1. Log in to the control panel's service mode.
2. Select [Apps] > [Install].
3. Select [Install from Server].
4. Enter the product key and press [Execute].



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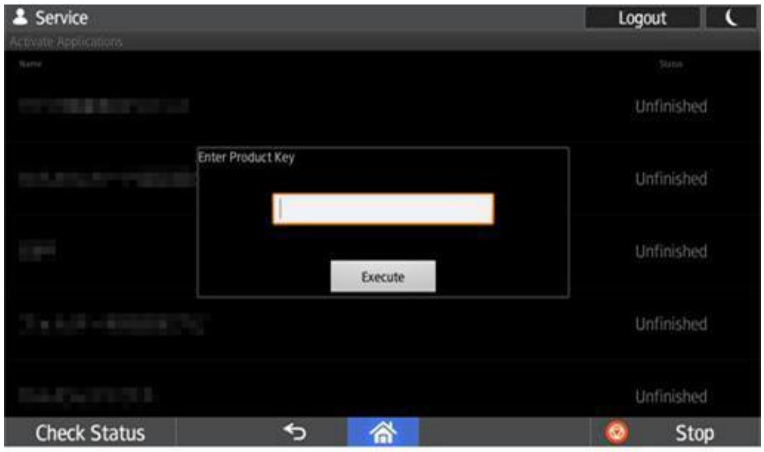
5. Follow the instructions shown on the screen.

Note

- An application cannot be installed unless it is digitally signed by Ricoh.

Activation

1. Log in to the control panel's service mode.
2. Select [Apps] > [Install].
3. Select [Activate Applications].
4. Select the application to be activated, and then enter the activation key and press [Execute].



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5. Follow the instructions shown on the screen.

Note

- Only charged applications have to be activated.

Update

1. Log in to the control panel's service mode.
2. Select [Apps] > [Install].
3. Select [Update Applications].
4. Select the application to be updated, and then press [Check Update Status].
5. Follow the instructions shown on the screen.

Forced Uninstallation

If you try to uninstall an activated application without first deactivating it, the uninstallation will fail. However, the application can be uninstalled without deactivation (forced uninstallation) in the following circumstances:

- Uninstallation using the service login uninstallation menu
- Deactivation failure due to the license information stored in the control panel not matching the license information published by the server

Note

- Forced uninstallation cannot be performed if deactivation fails because of other factors (such as failure to connect to the server because of temporary network disconnection or server maintenance).

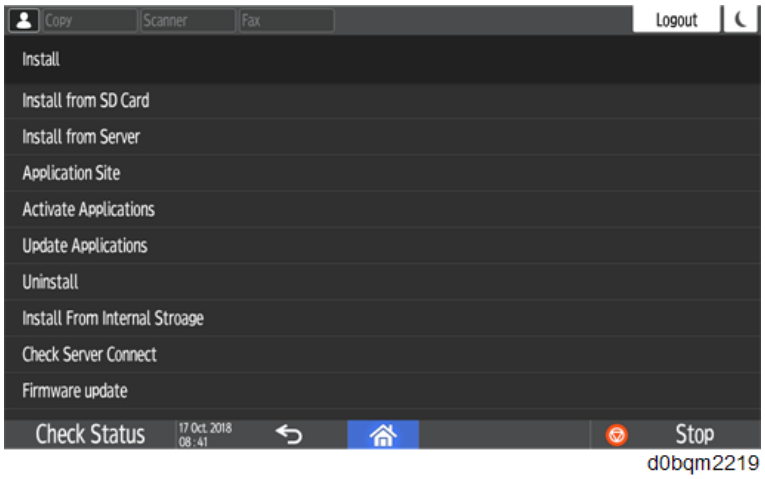
During forced uninstallation, the message indicating that deactivation failed appears.
If [OK] of the message is selected, uninstallation is executed forcibly without deactivation.
If [Cancel] of the message is selected, uninstallation is not executed.

Note

- If executing forced uninstallation, forced deactivation must also be executed on the eDC server. Accordingly, check whether the license has been published for the eDC server.

Application Site

"Application Site" has been added to Screen Service mode. Field engineers can start up Application Site to install or update applications or firmware without needing user administrator credentials.



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This menu item opens Application Site by using the Web Browser NX app.

Troubleshooting

MultiTouch Misdetection by the Operation Panel due to an AM Radio Signal

Problem

MultiTouch is detected even though only a single point on the operation panel is touched.

Cause

If there is an AM radio tower near the machine's location, the person using the operation panel acts as an antenna and radio noise enters the operation panel. As the result, in spite of only a single point being touched, the machine senses MultiTouch.

Solution

Adjust the MultiTouch sensitivity of the operation panel.
Operation panel SP mode > Screen Device Settings > Panel Self Check > MultiTouch Sensitivity Adjustment

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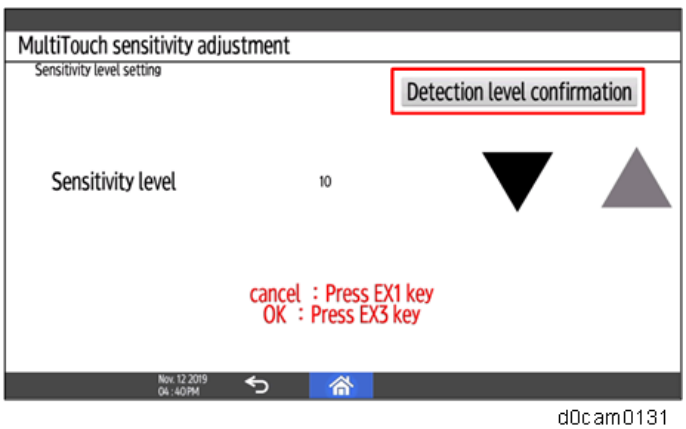
Checking the Influence of External Noise in the Installation Environment

1. Press [Detection level confirmation].



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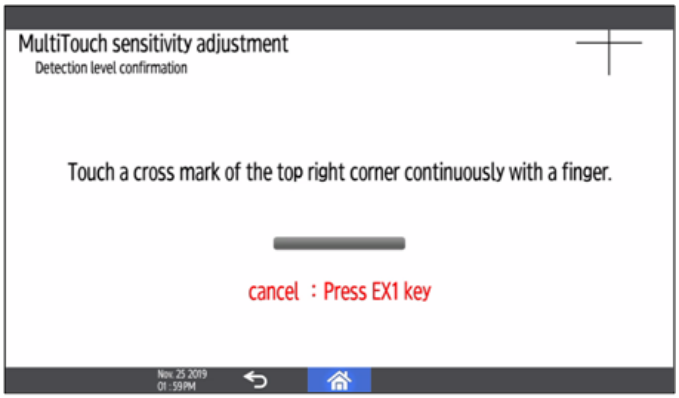
2. Keep your finger on the cross at the top right.



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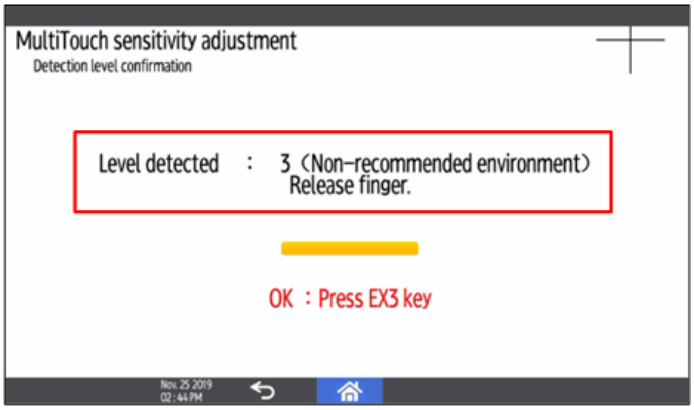
3. Check the result, and if the detection level is "3" or "4", adjust the MultiTouch sensitivity.
<Displayed Result Example>



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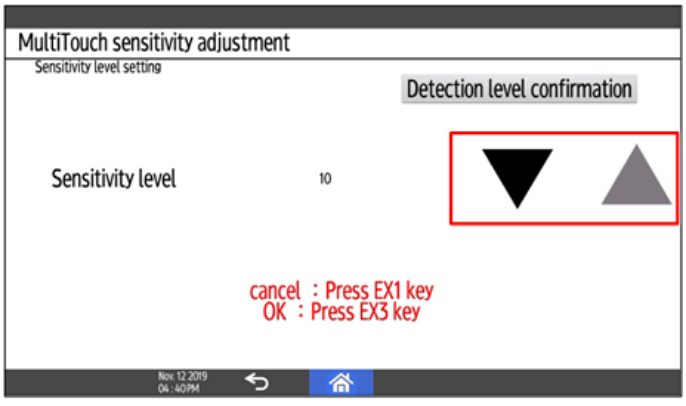
Detection Result

- Detection Level 1 (Best): No Problem. (Not required to adjust the sensitivity level.)
- Detection Level 2 (Fine environment): No Problem. (Not required to adjust the sensitivity level.)
- Detection Level 3 (Non-recommended environment): Receiving the external noise influence. (Required to adjust the sensitivity level)
- Detection Level 4 (Unusable environment): Receiving the external noise influence. (Required to adjust the sensitivity level)



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Sensitivity Level Adjustment

- In "Checking the Influence of External Noise in the Installation Environment", if the detection level is "3" or "4", you are receiving the external noise influence, so adjust the sensitivity level.
- The sensitivity level can be adjusted between "0" and "10". (Default: 10). If set to "0", the MultiTouch function is turned off.
- When decreasing the sensitivity level, perform "Checking the Influence of External Noise in the Installation Environment" again to check the influence of external noise.
  - Sensitivity level: 10 (Default)
  - Sensitivity level: 0 (MultiTouch function off.)

Note

- If the sensitivity level is set to "0", the MultiTouch function is turned off and you cannot pinch in or out.
- If the sensitivity level is set between "1" and "9", the distance between the 2 points for detecting MultiTouch increases as the sensitivity level is decreased.
- At the default setting (sensitivity level 10), MultiTouch is detected for a distance of approximately 3 cm between the 2 points. At sensitivity level 1, MultiTouch is detected for a distance of approximately 4 cm between the 2 points.
- If you cannot enter the adjustment menu due to receiving the radio wave influence, connect a mouse to the operation panel by USB connection or operate with a non-conducting pen.
- Take care not to use a pointed obstacle for the operation. Doing so may damage the operation panel.

Problems and Errors Related to Hardware

Symptom	Solution
The touch panel is damaged (broken, dented, etc.) and cannot be operated.	• Connecting a commercially available USB mouse enables the same operation as the touch panel. • Replace the LCD. • Replace the operation panel unit (you need to transfer user information, and reinstall the applications, etc.). Refer to "Factory Reset and Restoration".
The touch panel does not respond.	• Connecting a commercially available USB mouse enables the same operation as the touch panel. • Execute the Panel Self Check. • Check the operations other than that of the touch panel. • Replace the LCD.

Symptom	Solution
	• Replace the operation panel unit (you need to transfer user information, and reinstall the applications, etc.). Refer to "Factory Reset and Restoration".
The touch panel's coordinates have shifted substantially, resulting in not being able to execute its calibration.	• Connecting a commercially available USB mouse enables the same operation as the touch panel. So you can execute the calibration • Execute the Panel Self Check, or the TouchPanel Calibration • Execute the MultiTouch Calibration. • If the shift occurs even after turning the power and then back ON, check the battery voltage of the operation panel's main controller board. • Replace the main controller board. • Replace the operation panel unit (you need to transfer user information, and reinstall the applications, etc.). Refer to "Factory Reset and Restoration".
Cannot enter the SSP mode.	If using the screen in a Classic Application, it does not support multitouch, so you cannot enter the SSP mode by the normal operation. Instead, use the EX3 key. Press and hold the EX3 key, and then press the "System/Copy" button in the SP mode menu.
SC672-11 appears.	**Cause** Communication between the controller and the operation panel was not established after a normal startup. USB cable between the operation panel and the MFP is disconnected, damaged or defective. **Solution** Reconnect or replace the USB cable. For details about how to replace the USB cable, refer to the service manual for the MFP. **Reference** For details about SC672, refer to the service manual for the MFP.

Symptom	Solution
SC672-12 appears.	**Cause** Communication between the controller and the operation panel was interrupted after a normal startup. USB cable between the operation panel and the MFP is disconnected, damaged or defective. **Solution** Reconnect or replace the USB cable. For details about how to replace the USB cable, refer to the service manual for the MFP. **Reference** For details about SC672, refer to the service manual for the MFP.

Errors Related to Applications

Pre-installed Applications

Applicable applications
Copy (Classic) / Scanner (Classic) / Printer (Classic) / Document Server / Quick Copy / Quick Fax / Quick Scanner / Web Browser
/ Quick ID Card Authentication Config*
*Depends on the model whether it is a pre-installed application

If an error related to the application occurs, the operation panel's operating system automatically restarts the application (with a confirmation dialog box).

Third-Party Application

If using a third-party application, the error message, code and solution may vary depending on the application. Follow the third-party vendor's instructions.

Factory Reset and Restoration

This section explains the Factory Reset and subsequent procedure. Factory Reset may be executed when an abnormal operation due to the system or an application occurs or when replacing the operation panel (at the request of the customer to delete settings, etc.)

Important

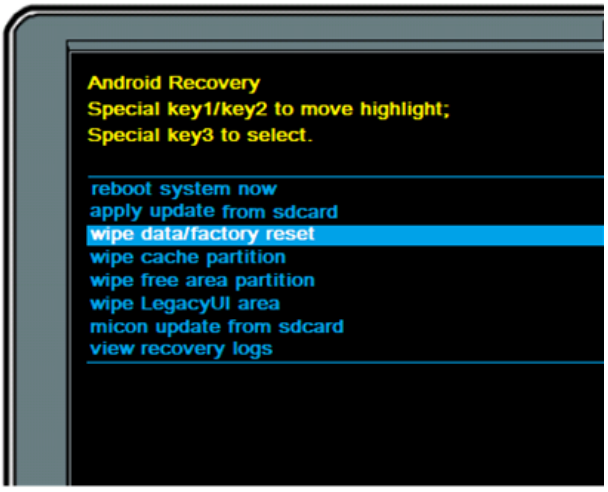
- When you execute the Factory Reset:
  All data that created by users will be initialized.
  All applications (including the applications from eDC server or Application Site) will be deleted.

Items	Objective		
	Only delete data	Reset application configuration to factory settings.	Update system and reset application configuration to factory settings.
Exporting configuration file	-	As required	As required
Storing user information other than those exported	-	As required	As required
Factory reset	**Required**	**Required**	**Required**
System update	-	-	**Required**
Application installation	-	**Required**	**Required**
Importing configuration file	-	As required	As required
Registering user information other than those imported	-	As required	As required

Before executing Factory Reset, be sure to obtain the package firmware and copy it to the SD card.

Factory Reset

1. Enter the recovery mode.
2. Select and execute "wipe data/factory reset".
   Press the EX1 and EX2 keys to move the cursor up and down.
   Press the EX3 key to execute the selected function.



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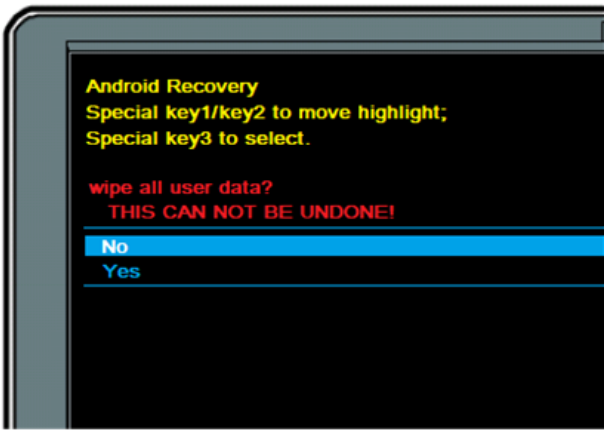
3. A reconfirmation screen is displayed. Select [Yes].



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The message “wiping data…” appears and the data and cache are cleared (within 1 minute).
On completion, the displayed screen returns to the recovery mode menu.
If you reboot the machine as is, the machine cannot display the messages in the local language because of the absence of the LegacyUI data.
The pre-installed applications have also been deleted, so the alert appears.
For restoration, follow the installation procedure of package firmware, and update it.

Errors that occur during application update from an SD card

Error Messages

Error message	Explanation	Solution
Insert a correct SD card.	-	• Remove the SD card and insert it again. • Make sure that the directory of the SD card is correct. You must create the "app" folder in the root directory of the SD card and put the zip file in the "app" folder.
You are trying to install the same application with a different part number. Is it OK to continue?	Displayed when you attempt to update an application that is the same but has a different part number.	Check the file, and select [OK] or [Cancel].
Some applications could not be installed.	Displayed in the following cases. • You attempted to update a module (application) in	Restart the control panel and repeat the update procedure.

Error message	Explanation	Solution
	use. • The application is corrupted.	
- (The application you want to update is not displayed in the list of applications.)	-	• Make sure that the directory of the SD card is correct. You must create the "app" folder in the root directory of the SD card and put the zip file in the "app" folder. • Check the application file in the SD card.

Error Codes

Error codes may appear along with the message reporting the installation failure.

Error Code	Explanation
215-01	Installation of an application that cannot be used according to the system configuration was attempted. (Example: This occurs when installing an application with the copier, scanner and fax functions on a non-MFP printer. However, if any of these functions can be used, the application with such multiple functions can be installed.)
215-02	This occurs if the hard disk cannot be used.
215-03	An application that does not match the type (LP/MFP) or model has been installed. *
215-04	Installation of an application that cannot be installed for Basic model was attempted.
221	The system cannot stop the application for the update or uninstallation.
222	The signature is not authentic.
235	The signature is not authentic.

* If the model information (type or model) does not match, even if SC215-03 does light up at the time of installation, the error message may appear the next time the machine is started. The message shows the model information of the correct firmware and installed firmware. This can be restored by updating the firmware to the version with the correct model information.

Errors that occur during update from the eDC Server

Example of an error code display

8.Smart Operation Panel

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XXX (3 digit error)

Error code	Explanation
101	Server connection error
102	Signature verification error
103	License error (for example, the product key was keyed in wrongly)
215	Dependency check error Displayed when the control panel firmware version does not meet the installation requirement of the application. Example: The firmware version of the control panel is 1.02 and you attempted to install an application that requires firmware version 1.03.
20X	Other errors

Note

- An additional 3-digit code may be displayed to indicate the details.
  Example: 101-805

XXX -XXX (3 digit-3 digit error)

Error code	Explanation	Solution
101-801	Connection Timeout	Check the network settings of the device. • Network selection (MFP / Operation Panel) • IP address • Default gateway • Check DNS etc.
101-802	SSL communication failed	Check the network settings of the device.
101-803	Proxy authentication failed	Check the proxy settings of the device.

Error code	Explanation	Solution
101-804	Proxy Connection Timeout	Check the proxy settings of the device.
101-805	The server is under maintenance. Connection timeout. (An incorrect network was selected on the operation panel.)	Resume the operation after completing the server maintenance. Check the machine's network settings.
103-705	Executed activation for an already-activated machine with a different product key.	Execute the update, not activation.
201-700	Activation is being attempted from a device with an unauthorized serial number.	Check the machine's network settings.
203-706	License update has been executed using a deactivated product key. => User operation is required because the settings remain even after deactivation.	Execute activation, not license update.

Other Troubleshooting

Operation Panel Unit

HW: Hardware issue, SW: Software issue

No.	Symptom		Cause	Solution
1	Both the Smart Operation Panel and the blue LED on the operation panel do not turn ON. 	HW	The Smart Operation Panel cannot be supplied with electrical power.	**1.** Reconnect the USB cable between the BICU (PCB1) and the Smart Operation Panel. **2.** Replace the USB cable. **3.** Replace the main controller board. **4.** Replace the BICU (PCB1).
2	The Smart Operation Panel does not turn ON, but the blue LED on the operation panel turns ON.	HW	The Smart Operation Panel can be supplied with electrical power (blue LED lamp), but nothing can be displayed on the LCD.	**1.** Reconnect the LCD I/F cable. **2.** Replace the LCD. **3.** Replace the main controller board. **4.** Replace the LCD I/F

No.	Symptom		Cause	Solution
				cable.
3	A splash (blue) screen or “Please wait” message stays on the display. 	SW HW	The Smart Operation Panel and LCD can be supplied with electrical power, but software issues occur during the boot-up sequence. Firmware or eMMC data on the Board is defective.	**1.** Update the Cheetah System firmware in recovery mode. **2.** Do a factory reset. **3.** Replace the main controller board.

IM C300/C300F
IM C400F/C400SRF
Machine Code:
D0CA/D0C9
D0C8/D0CB
Appendices
Ver 1.0

Latest Release: Nov., 2019
Initial Release: Nov., 2019
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Table of Contents

1. Specifications 3
Specifications 3
Mainframe 3
Printer 7
Scanner 8
ADF 8
Supported Paper Sizes 10
Paper Feed 10
Paper Exit 11
Software Accessories 14
Printer Drivers 14
Scanner and LAN Fax drivers 15
Optional Equipment 16
Paper Feed Unit (D3GQ) 16
1 Bin Tray Unit (D574) 16
2. Preventive Maintenance Tables 17
Maintenance Tables 17
Preventive Maintenance Items For IM C300 Series 17
Preventive Maintenance Items For IM C400 Series 20
3. SP Mode Tables 25
Service Program Mode 25
Enabling and Disabling Service Program Mode 25
Types of SP Modes 26
Remarks 29
SP1-XXX (Feed) 31
SP2-XXX (Drum) -1 76
SP2-XXX (Drum) -2 113
SP3-XXX (Process) 197
SP4-XXX (Scanner) 282
SP5-XXX (Mode) 304
SP6-XXX (Peripherals) 390
SP7-XXX (Data Log) 394
SP8-XXX (Data Log2) 488
Overview 488
SP8-XXX (Data Log2) -1 490
SP8-XXX (Data Log2) -2 552
Printer Service Mode 579

Scanner Service Mode 593
SP1-XXX (System and Others) 593
SP2-XXX (Scanning-image Quality) 595
SP3-XXX 597
Input and Output Check 600
ADF Unit 600
Scanner Unit/ Laser Unit 601
Internal Finisher (IM C400SRF Only) 603
Paper Feed 605
Paper Exit/ Duplex, Waste Toner Bottle 607
Fusing 609
Toner Supply/ Transfer 611
Drive Unit 614
Fan/ Board 617
Paper Feed Unit (Optional) 621
1 Bin Tray Unit (Basic model) 622
4. Software Configuration 623
Management Features 623
How to Disable the Document Server Function 623
Printing Features 624
Behavior of USB Printer Detection 624
Auto PDL Detection Function 624
Print Images Rotation 628
PJL USTATUS 629
Scanner Features 632
Display settings of recently used scan destination 632
The Setting of SMTP authentication in Scan to Email 632
The Qualification Switching of Scan to Folder 633
Security Features 636
How to Restrict Access to the WIM Job Menu 636
How to Restrict Web Image Monitor Access to the Document Server 636
User Authentication for Specific MFP Applications 637

1. Specifications

Specifications

Mainframe

Items	Specifications
Configuration:	Desktop
Scanning element:	One-dimensional solid-state scanning through CCD A CIS (S21) is also used for scanning the back side of the ADF
Printing process:	Dry Electrostatic transfer system with dual component development; 4-drum method
Development:	Dry two-component magnetic brush development system
Resolution:	**Scan:** • Exposure glass: 600 x 600 dpi • ADF: 600 x 300 dpi (front), 600 x 600 dpi (front),300 x 600 dpi (back), 600 x 600 dpi (back) **Print:** • Copy:600 x 600 dpi • Printer: 1,200 x 1,200 dpi (1 bit), 600 x 600 dpi (4/2/1 bit)
Fusing:	New QSU fusing technology (DH fixing system)
Original type:	Sheets, book, three-dimensional object
Maximum original size:	A4 (8.5" x 14 ")
Copy speed (IM C300 series): (A4 SEF/LT SEF(60-105 g/m^2))	30cpm(A4)/31cpm(LT)
Copy speed(IM C400 series): (A4 SEF/LT SEF(60-81 g/m^2))	**IM C400F:** • 40 cpm (A4), 42 cpm (LT) **IM C400SRF:** • One-sided printing: 40 cpm (A4), 42cpm (LT) • B&W, 2-sided printing: 40 cpm (A4), 42cpm (LT) • Full Color, 2-sided printing: 38 cpm (A4), 38cpm (LT)
First copy time: (A4 SEF /LT SEF, 1st tray 1, exposure glass)	**IM C300 series:** • Full Color: 8.6 seconds • B&W: 7.2 seconds **IM C400F:** • Full Color:7.4 seconds • B&W: 6.2 seconds

Items	Specifications
	IM C400SRF: • Full Color:7.9 seconds • B&W: 6.7 seconds
Warm-up time: (23°C (73.4°F), rated voltage)	**IM C300 series:** • Normal mode: 48 seconds • Quick mode: 19 seconds **IM C400 series:** • Normal mode: 48 seconds • Quick mode: 17 seconds
Print paper capacity: (Standard tray/Optional tray: 60–163 g/m^2, 16 lb. Bond–90 lb. Index) (Bypass tray: 60–220 g/m^2 (16 lb. Bond–80 lb. Cover)) (Plain Paper 1)	**IM C300 series:** Standard tray: 250 sheets Bypass tray: 100 sheets Optional tray: 550 sheets **IM C400 series:** Standard tray: 550 sheets Bypass tray: 100 sheets Optional tray: 550 sheets
Print paper size:	Standard tray: A4 SEF / LT SEF to A5 SEF Bypass tray: A4 / LG to A6 SEF / Envelope Optional tray: A4 SEF / LG SEF to A5 SEF For details, see Supported Paper Sizes
Printing paper weight:	Standard tray: 60-163 g/m^2 (16-90 lb.) Bypass tray: 60-220 g/m^2 (16-80 lb) Optional tray: 60-163 g/m^2 (16-90 lb.) Duplex: 60-163 g/m^2 (16-90 lb.)
Output paper capacity:	Paper exit tray: 100 sheets 1-bin tray: 100 sheets Internal Finisher: 250 sheets
Continuous copy:	Up to 999 sheets
Memory:	2GB
Hard disk:	320GB
CPU:	Intel® Atom Processor ApolloLake 1.3GHz
Zoom:	Arbitrary: From 25 to 400% (1% step)
	Fixed: **North America** 65%, 78%, 93%, 100%, 129%, 155% **Europe/Asia**

Items	Specifications
	50%, 71%, 93%, 100%, 141%, 200%
Power source:	**North America** • **IM C300F** 120–127 V, 10 A, 60 Hz • **IM C400 series** 120–127 V, 12 A, 60 Hz **EU/Asia** • **IM C300 series** 220–240 V, 5 A, 50/60 Hz • **IM C400 series** 220–240 V, 7 A, 50/60 Hz **Taiwan** • **IM C300F** 110 V, 10 A, 60 Hz
Power consumption:	**North America** • **IM C300 series** Maximum: 1,300 W • **IM C400 series** Maximum: 1,400 W **EU** • **IM C300 series** Maximum: 1,200 W • **IM C400 series** Maximum: 1,350 W **Asia** • **IM C300 series** Maximum: 1,200 W • **IM C400 series** Maximum: 1,350 W * The complete system consists of the main unit, three paper tray units, and 1-bin tray unit.
Energy saver:	Reduced electrical consumption: **North America** • **IM C300F** 0.65W • **IM C400F** 0.65W • **IM C400SRF**

Items	Specifications
	0.65W **EU** • **IM C300** 0.65W • **IM C300F** 0.66W • **IM C400F** 0.65W • **IM C400SRF** 0.65W **Asia** • **IM C300** 0.65W • **IM C300F** 0.66W • **IM C400F** 0.65W
Noise emission:	**Sound power level with full system** • **IM C300 series** Stand-by: 31.3 dB (A) Copying: B&W: 68.1 dB (A) / Color: 68.4 dB (A) • **IM C400F** Stand-by: 31.3 dB (A) Copying: B&W: 71.6 dB (A) / Color: 70.2 dB (A) • **IM C400SRF** Stand-by: 31.2 dB (A) Copying: B&W: 71.7 dB (A) / Color: 71.1 dB (A) **Sound pressure level with full system** • **IM C300 series** Stand-by: 21.2 dB (A) Copying: B&W: 55.0 dB (A) / Color: 55.2 dB (A) • **IM C400F** Stand-by: 21.9 dB (A) Copying: B&W: 59.9 dB (A) / Color: 57.1 dB (A) • **IM C400SRF** Stand-by: 19.9 dB (A) Copying: B&W: 58.6 dB (A) / Color: 58.0 dB (A) Sound power level and sound pressure level are actual values

Items	Specifications
	measured in accordance with ISO 7779. Sound pressure level is measured from the position of the bystander. The full system consists of the main unit, 1-bin unit and two paper tray units. *The complete system of the IM C300 series/C400F consists of the main unit, three paper tray units, and 1-bin tray unit . *The complete system of the IM C400SRF consists of the main unit and three paper tray units.
Dimensions (W x D x H up to ADF):	• **IM C300 series** 498 x 561 x 510 mm (19.6" x 22.1" x 20.1") • **IM C400F** 498 x 561 x 590 mm (19.6" x 22.1" x 23.2") • **IM C400SRF** 615 x 561 x 706 mm (24.2" x 22.1" x 27.8")
Weight:	• **IM C300 series** 48 kg (105.8 lb.) • **IM C400F** 50 kg (110.2 lb.) • **IM C400SRF** 60 kg (132.3 lb.)

Printer

Items	Specifications
Printer languages:	Standard: PJL, PCL 5c/6, PostScript 3 Emulation, PDF Emulation, MediaPrint(JPEG, TIFF) Option: Genuine Adobe PostScript 3/PDF, PictBridge, XPS
Resolution:	200 dpi, 300 dpi, 400 dpi, 600 dpi, 1200 dpi
Resident fonts:	PostScript 3/PDF Emulation, PCL 5c/6: 93 fonts Genuine Adobe PostScript 3/PDF: 136 fonts
Host interfaces:	**Standard**: Ethernet (10BASE-T/100BASE-TX/1000BASE-T) USB2.0 (Type B) port USB2.0 (Type A) port (on the control panel) SD card slot (on the control panel) **Option:**

Items	Specifications
	IEEE 1284 parallel interface IEEE 802.11a/b/g/n wireless LAN interface File format converter Device Server option
Network protocols:	TCP/IP (IPv4, IPv6)

Scanner

Items	Specifications
Scanning method:	Full-color scanner/Flatbed scanning
Scanning resolution:	200 dpi **TWAIN Mode:** • Exposure glass: 100 to 1200 dpi • ADF: 100 to 600 dpi **WIA Mode:** • 100 to 1200 dpi
Grayscales:	Black & White: 2 tones Full Color/Gray Scale: 256 tones
Scanning Throughput:	**B&W, Color:** Simplex: 40 pages/minute (200 dpi) Duplex: 80 pages/minute (200 dpi) (A4/ $8^1/_2$ x 11 SEF)
Network interface:	**Standard:** Ethernet (10BASE-T/100BASE-TX/1000BASE-T) USB 2.0 (Type A) port (on the control panel) SD card slot (on the control panel) **Option:** IEEE 802.11a/b/g/n wireless LAN interface
Compression method:	B&W: TIFF (MH, MR, MMR, JBIG2) Gray Scale, Full Color: JPEG

ADF

Items	Specifications
Original size:	A4 SEF to A6 SEF, $8^1/_2$ x 14 SEF to $5^1/_2$ x $8^1/_2$
Original weight:	52 to 128 g/m^2 (14 to 34 lb. Bond)
Table capacity:	50 sheets (80 g/m^2, 20 lb. Bond)
Separation:	Friction pad

Items	Specifications
Original transport:	Roller transport
Original feed order:	From the top original
Power source:	DC 24V, 5V from the main unit.

Supported Paper Sizes

Paper Feed

Paper	Size	Main Tray	Paper Feed Unit	Bypass Tray
A4 SEF	210 x 297 mm	✓	✓	✓
A5 SEF	148 x 210 mm	✓	✓	✓
A5 LEF	210 x 148 mm	-	-	✓
A6 SEF	105 x 148 mm	-	-	✓
B5 SEF	182 x 257 mm	✓	✓	✓
B6 SEF	128 x 182 mm	-	-	✓
Legal SEF	8.5 x 14 inch	-	✓	✓
Foolscap SEF	8.5 x 13 inch	-	✓	✓
Letter SEF	8.5 x 11 inch	✓	✓	✓
GovernmentLG SEF	8.25 x 14 inch	-	✓	✓
Folio SEF	8.25 x 13 inch	-	✓	✓
F/GL SEF	8 x 13 inch	-	✓	✓
Eng Quatro SEF	8 x 10 inch	-		✓
Executive SEF	7.25 x 10.5 inch	-	✓	✓
Half Letter SEF	5.5 x 8.5 inch	✓	✓	✓
Half Letter LEF	8.5 x 5.5 inch	-	-	✓
Com10 Env. SEF	4.125 x 9.5 inch	-	-	✓
Monarch Env. SEF	3.875 x 7.5 inch	-	-	✓
C5 Env. SEF	162 x 229 mm	-	-	✓
C6 Env. SEF	114 x 162 mm	-	-	✓
DL Env. SEF	110 x 220 mm	-	-	✓
16K SEF	195 x 267 mm	-	-	✓
8.5 × 12 SEF	8.5 x 12 inch	-	✓	✓
8 $^{1}/_{2}$ × 13 $^{2}/_{5}$ SEF	8.5 x 13.4 inch	-	✓	✓

Custom:

-	Main Tray	Paper Feed Unit	Bypass Tray
Width	139.5 - 216.0 mm 5.50 - 8.50 inch	139.5 - 216.0 mm 5.50 - 8.50 inch	76.2 - 216.0 mm 3.00 - 8.50 inch
Length	210.0 - 297.0 mm 8.27 - 11.69 inch	210.0 - 356.6 mm 8.27 - 14.03 inch	139.0 - 600.0 mm 5.48 - 23.62 inch

Remarks

✓ : Supported

Paper Exit

Main Tray, 1 Bin Tray

Paper	Size	Main Tray	1 Bin Tray
A4 SEF	210 x 297 mm	✓	✓
A5 SEF	148 x 210 mm	✓	✓
A5 LEF	210 x 148 mm	✓	-
A6 SEF	105 x 148 mm	✓	-
B5 SEF	182 x 257 mm	✓	✓
B6 SEF	128 x 182 mm	✓	-
Legal SEF	8.5 x 14 inch	✓	✓
Foolscap SEF	8.5 x 13 inch	✓	✓
Letter SEF	8.5 x 11 inch	✓	✓
GovernmentLG SEF	8.25 x 14 inch	✓	✓
Folio SEF	8.25 x 13 inch	✓	✓
F/GL SEF	8 x 13 inch	✓	✓
Eng Quatro SEF	8 x 10 inch	✓	✓
Executive SEF	7.25 x 10.5 inch	✓	✓
Half Letter SEF	5.5 x 8.5 inch	✓	✓
Half Letter LEF	8.5 x 5.5 inch	✓	-
Com10 Env. SEF	4.125 x 9.5 inch	✓	-
Monarch Env. SEF	3.875 x 7.5 inch	✓	-
C5 Env. SEF	162 x 229 mm	✓	-
C6 Env. SEF	114 x 162 mm	✓	-
DL Env. SEF	110 x 220 mm	✓	-
16K SEF	195 x 267 mm	✓	✓
8.5 × 12 SEF	8.5 x 12 inch	✓	✓
8 $^{1}/_{2}$ × 13 $^{2}/_{5}$ SEF	8.5 x 13.4 inch	✓	✓

Custom:

-	Main Tray	1 Bin Tray
Width	76.2 - 216.0 mm 3.00 - 8.50 inch	139.7 - 216.0 mm 5.50 - 8.50 inch
Length	139.0 - 600.0 mm 5.48 – 23.62 inch	210.0 - 600.0 mm 8.27 - 23.62 inch

Remarks

✓: Supported

Internal Finisher

Paper	**Size**	**Paper exit**		**Staple**	
		Shift	Shifting	Single stitch	Stapling amount
A4 SEF	210 x 297 mm	A	A	A	50
A5 SEF	148 x 210 mm	B	B	-	-
A5 LEF	210 x 148 mm	B	B	-	-
A6 SEF	105 x 148 mm	B	-	-	-
B5 SEF	182 x 257 mm	A	A	A	50
B6 SEF	128 x 182 mm	B	-	-	-
Legal SEF	8.5 x 14 inch	A	A	A	30
Foolscap SEF	8.5 x 13 inch	A	A	A	30
Letter SEF	8.5 x 11 inch	A	A	A	50
GovernmentLG SEF	8.25 x 14 inch	A	A	A	30
Folio SEF	8.25 x 13 inch	A	A	A	30
F/GL SEF	8 x 13 inch	A	A	A	30
Eng Quatro SEF	8 x 10 inch	A	A	-	-
Executive SEF	7.25 x 10.5 inch	A	A	A	50
Half Letter SEF	5.5 x 8.5 inch	B	-	-	-
Half Letter LEF	8.5 x 5.5 inch	B	B	-	-
Com10 Env. SEF	4.125 x 9.5 inch	B	-	-	-
Monarch Env. SEF	3.875 x 7.5 inch	B	-	-	-
C5 Env. SEF	162 x 229 mm	B	-	-	-
C6 Env. SEF	114 x 162 mm	B	-	-	-
DL Env. SEF	110 x 220 mm	B	-	-	-
16K SEF	195 x 267 mm	A	A	-	-
8.5 × 12 SEF	8.5 x 12 inch	A	A	A	30
8 $^{1}/_{2}$ × 13 $^{2}/_{5}$ SEF	8.5 x 13.4 inch	A	A	A	30

Custom:

-	Paper exit	
	Shift	**Shifting**
Width	76.2 - 216.0 mm 3.00 - 8.50 inch	148.0 - 216.0 mm 5.83 - 8.50 inch
Length	139.0 - 600.0 mm 5.48 – 23.62 inch	139.0 – 356.0 mm 5.48 -14.01 inch

Remarks

A: Paper through, paper exit available.

B: Will not guarantee, but paper can go through or exit.

-: Not available.

Software Accessories

The printer drivers and utility software are provided on one CD-ROM. An auto-run installer allows you to select which components to install.

Printer Drivers

Windows

OS	Type	PCL6	PS3
Windows 7	Starter	-	-
	Home Basic	-	-
	Home Premium	✓	✓
	Professional	✓	✓
	Ultimate	✓	✓
	Enterprise	✓	✓
Windows 8.1	Pro	✓	✓
	Enterprise	✓	✓
	RT	-	-
Windows 10	Home	✓	✓
	Pro	✓	✓
	Enterprise	✓	✓
	Education	✓	✓
Windows Server 2008/R2	Standard Edition	✓	✓
	Enterprise Edition	✓	✓
	Standard without Hyper-V	-	-
	Enterprise without Hyper-V	-	-
	Datacenter Edition	-	-
	Web Edition	-	-
Windows Server 2012/R2	Foundation	✓	✓
	Essentials	✓	✓
	Standard	✓	✓
	Datacenter	-	-
Windows Server 2016	Standard	✓	✓
	Essentials	✓	✓
	Datacenter	✓	✓
	MultiPoint Premium Server	✓	✓
Windows Server 2019	Standard	✓	✓
	Essentials	✓	✓
	Datacenter	✓	✓

✓: Supported

-: Not supported

Mac OS Environment

OS	PS3	Printer Utility for Mac
macOS 10.12 Sierra	✓	-
macOS 10.13 High Sierra	✓	-
macOS 10.14 Mojave	✓	-

✓: Supported

-: Not supported

Scanner and LAN Fax drivers

Operating system for TWAIN driver:

- Windows 7/8.1/10, Windows Server 2008/2008 R2/2012/2012 R2/2016/2019 (TWAIN scanner runs in 32-bit compatible mode on a 64-bit operating system, so TWAIN scanner is not compatible with 64-bit applications. Use it with 32-bit applications.)

Operating system for LAN FAX driver:

- Windows 7/8.1/10, Windows Server 2008/2008 R2/2012/2012 R2/2016/2019

Note

- The LAN Fax driver lets you fax documents directly from your PC. Address Book Editor and Cover Sheet Editor are to be installed as well.
- The Network TWAIN driver operates in 32-bit compatibility mode on 64-bit operating systems.

Optional Equipment

Paper Feed Unit (D3GQ)

Paper Feed System:	Feed Roller and Friction Pad
Paper Height Detection:	Empty only
Tray Capacity:	500 sheets
Paper Weight:	60 to 163 g/m^2 (16 to 43.5 lb.)
Paper Size:	A5 SEF to A4/LG SEF
Power Source:	DC 24V, 5V (from the mainframe)
Power Consumption:	Less than 27 W (Power is supplied from the mainframe.)
Dimensions (W x D x H):	498 mm x 552 mm x 150 mm (19.7" x 21.8" x 6.0")
Weight:	10.4 kg (23.0 lb.) or less

1 Bin Tray Unit (D574)

Paper detection:	Detects paper
Tray Capacity:	100 sheets (80 g/m^2)
Paper Weight:	60 to 163 g/m^2 (16 to 43.5 lb.)
Paper Size:	Width: 140 to 216 mm (5.5” to 8.5”) Length: 210 to 356 mm (8.3” to 14.0”)
Power Source:	DC 5V (from the mainframe)
Power Consumption:	Less than 1 W (Power is supplied from the mainframe.)
Dimensions (W x D x H):	554 mm x 482 mm x 138.5 mm (21.8" x 19.0" x 5.5")
Weight:	3.0 kg (6.6 lb.) or less

2. Preventive Maintenance Tables

Maintenance Tables

Preventive Maintenance Items For IM C300 Series

Chart: A4 (LT)/5%

Mode: 2 prints/job

Color Ratio: 30%

Environment: Normal temperature and humidity

Yield may change depending on circumstances and print conditions.

Symbol keys: C: Clean, R: Replace, L: Lubricant, I: Inspect

Note

Yield Parts:

The parts mentioned in these tables have a target yield. However, the total copy/print volume made by the machine will not reach the target yield within the machine's targeted lifetime if the machine is used under the target usage conditions (ACV, color ratio, and P/J). So, these parts are categorized not as PM parts but as yield parts (EM parts). In this table, the parts with “Y” are yield parts and the parts with “P” are PM parts.

ADF

The PM count for the following items is based on the number of originals fed:

Item	PM/Yield Parts	30k	45k	EM	Remarks
Friction pad	Y*	R		C	Wipe with a dry cloth.
ADF pick-up roller	Y*		R	C	Wipe with a damp cloth.
ADF feed roller	Y*		R	C	Wipe with a damp cloth.
ADF entrance roller				C	Wipe with a damp cloth.
Pre-scanning roller (front side/ rear side)				C	Wipe with a damp cloth.
ADF exit roller				C	Wipe with a damp cloth.

* The actual lifetime of these parts depends on the type of paper used and machine operation. Therefore, these parts are treated as Yield Parts.

Scanner Unit

Item	PM/Yield Parts	EM	Remarks
Exposure glass		C	Clean with a cleaning cloth.
ADF exposure glass		C	Clean with a cleaning cloth.

PCDU

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	36k	60k	EM	Remarks
PCDU (K)	P		R		The PCDU (K) for IM C300 series is different from IM C400 series. Make sure of the correct part number before ordering it.
PCDU (C)	Y	R			At color ratio 30%, the replacement interval is 120k.
PCDU (M)	Y	R			At color ratio 30%, the replacement interval is 120k.
PCDU (Y)	Y	R			At color ratio 30%, the replacement interval is 120k.

Transfer Unit

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	120k	EM	Remarks
ITB (Image transfer belt) unit	Y	R		
Paper transfer roller	Y	R		

Fusing Unit

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	60k	120k	EM	Remarks
Fusing unit	Y		R		
Entrance guide plate		C			Remove the toner, wax, and paper dust with a dry cloth.
Exit guide plate		C			Remove the toner, wax, and paper dust with a dry cloth.
Separation plate		C			Remove the toner, wax, and paper dust with a dry cloth.
Fusing thermopile		C			Remove the toner, wax, and paper dust

Item	PM/Yield Parts	60k	120k	EM	Remarks
(TH1)					with a dry cloth.
Pressure roller		C			Remove the toner, wax, and paper dust with a dry cloth.

Paper Transport

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	60k	120k	EM	Remarks
Registration roller				C	Clean with a blower brush.
Registration sensor (S32)				C	Clean with a blower brush or wipe with a dry cloth.
Paper dust case				C	Clean with a blower brush.
Paper feed roller	Y		R	C	Wipe with a damp cloth.
Friction pad (Tray 1)	Y		R	C	Wipe with a dry cloth.
Bypass feed roller	Y		R	C	Wipe with a damp cloth.
Friction pad (Bypass Tray)	Y		R	C	Wipe with a dry cloth.
Paper feed sensor (S31)				C	Clean with a blower brush or wipe with a dry cloth.
Duplex entrance sensor (S1)				C	Clean with a blower brush or wipe with a dry cloth.
Duplex exit sensor (S2)				C	Clean with a blower brush or wipe with a dry cloth.
Duplex paper transport rollers				C	Wipe with a damp cloth.
Duplex entrance guide plate		C			Wipe with a cloth dampened with ethyl alcohol.
Paper exit/reverse roller		C			Wipe with a damp cloth.
Paper exit sensor(S7)		C			Clean with a blower brush or wipe with a dry cloth.

Others

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	90k	EM	Remarks
Waste toner bottle	P	R		Replace if the waste toner bottle is detected to be full.

Item	PM/Yield Parts	90k	EM	Remarks
Ozone filter			C	

Paper Feed Unit (Optional)

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	120k	EM	Remarks
Paper feed roller	Y	R	C	Wipe with a damp cloth.
Friction pad	Y	R	C	Wipe with a damp cloth.
Transport roller			C	Wipe with a damp cloth.
Tray lift pad			C	Wipe with a damp cloth.
Transport sensor (S1)			C	Wipe with a damp cloth.

1-Bin Tray Unit (Optional)

Item	PM/Yield Parts	EM	Remarks
Paper exit roller		C	Wipe with a damp cloth, and then wipe the dry cloth.
Paper exit tray		C	Wipe with a damp cloth, and then wipe the dry cloth.
1-bin tray exit sensor		C	Clean with a blower brush or wipe with a dry cloth.
1-bin tray paper remaining sensor		C	Clean with a blower brush or wipe with a dry cloth.

Preventive Maintenance Items For IM C400 Series

duplex entrance sensorChart: A4 (LT)/5%

Mode: 2 prints/job

Color Ratio: 30%

Environment: Normal temperature and humidity

Yield may change depending on circumstances and print conditions.

Symbol keys: C: Clean, R: Replace, L: Lubricant, I: Inspect

Note

Yield Parts:

The parts mentioned in these tables have a target yield. However, the total copy/print volume made by the machine will not reach the target yield within the machine's targeted lifetime if the machine is used under the target usage conditions (ACV, color ratio, and P/J). So, these parts are categorized not as PM parts but as yield parts (EM parts). In this table, the parts with “Y” are yield parts and the parts with “P”

are PM parts.

ADF

The PM count for the following items is based on the number of originals fed:

Item	PM/Yield Parts	30k	45k	EM	Remarks
Friction pad	Y*	R		C	Wipe with a dry cloth.
ADF pick-up roller	Y*		R	C	Wipe with a damp cloth.
ADF feed roller	Y*		R	C	Wipe with a damp cloth.
ADF entrance roller				C	Wipe with a damp cloth.
Pre-scanning roller (front side/ rear side)				C	Wipe with a damp cloth.
ADF exit roller				C	Wipe with a damp cloth.

* The actual lifetime of these parts depends on the type of paper used and machine operation. Therefore, these parts are treated as Yield Parts.

Scanner Unit

Item	PM/Yield Parts	EM	Remarks
Exposure glass		C	Clean with a cleaning cloth.
ADF exposure glass		C	Clean with a cleaning cloth.

PCDU

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	36k	60k	EM	Remarks
PCDU (K)	P		R		The PCDU (K) for IM C300 series is different from IM C400 series. Make sure of the correct part number before ordering it.
PCDU (C)	P	R			At color ratio 30%, the replacement interval is 120k.
PCDU (M)	P	R			At color ratio 30%, the replacement interval is 120k.
PCDU	P	R			At color ratio 30%, the replacement interval is 120k.

Item	PM/Yield Parts	36k	60k	EM	Remarks
(Y)					

Transfer Unit

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	120k	EM	Remarks
ITB (Image transfer belt) unit	P	R		
Paper transfer roller	P	R		

Fusing Unit

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	60k	120k	EM	Remarks
Fusing unit	P		R		
Entrance guide plate		C			Wipe with a dry cloth.
Exit guide plate		C			Wipe with a dry cloth.
Separation plate		C			Wipe with a dry cloth.
Fusing thermopile (TH1)		C			Wipe with a dry cloth.
Pressure roller		C			Wipe with a dry cloth.

Paper Transport

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	60k	120k	300K	EM	Remarks
Registration roller					C	Clean with a blower brush.
Registration sensor (S32)					C	Clean with a blower brush or wipe with a dry cloth.
Paper dust case					C	Clean with a blower brush.
Pick-up roller	Y			R	C	Wipe with a damp cloth.
Paper feed roller	Y			R	C	Wipe with a damp cloth.
Friction roller	Y			R	C	Wipe with a damp cloth.
Bypass feed roller	P		R		C	Wipe with a damp cloth.
Friction pad (Bypass Tray)	P		R		C	Wipe with a dry cloth.
Paper feed sensor (S31)					C	Clean with a blower brush or wipe with a dry cloth.
Duplex entrance					C	Clean with a blower brush or wipe

Item	PM/Yield Parts	60k	120k	300K	EM	Remarks
sensor (S1)						with a dry cloth.
Duplex exit sensor (S2)					C	Clean with a blower brush or wipe with a dry cloth.
Duplex paper transport rollers					C	Wipe with a damp cloth.
Duplex entrance guide plate		C				Wipe with a cloth dampened with ethyl alcohol.
Paper exit/reverse roller		C				Wipe with a damp cloth.
Paper exit sensor (S7)		C				Clean with a blower brush or wipe with a dry cloth.

Others

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	90k	EM	Remarks
Waste toner bottle	P	R		Replace if the waste toner bottle is detected to be full.
Ozone filter			C	

Paper Feed Unit (Optional)

The PM count for the following items is based on the sheets of copy paper fed:

Item	PM/Yield Parts	120k	EM	Remarks
Paper feed roller	Y	R	C	Wipe with a damp cloth.
Friction pad	Y	R	C	Wipe with a damp cloth.
Transport roller			C	Wipe with a damp cloth.
Tray Lift Pad			C	Wipe with a damp cloth.
Transport Sensor (S1)			C	Wipe with a damp cloth.

1-Bin Tray Unit (Optional)

Item	PM/Yield Parts	EM	Remarks
Paper exit roller		C	Wipe with a damp cloth, and then wipe the dry cloth.
Paper exit tray		C	Wipe with a damp cloth, and then wipe the dry cloth.

2.Preventive Maintenance Tables

Item	PM/Yield Parts	EM	Remarks
1-bin tray exit sensor		C	Clean with a blower brush or wipe with a dry cloth.
1-bin tray paper remaining sensor		C	Clean with a blower brush or wipe with a dry cloth.

3. SP Mode Tables

Service Program Mode

⚠CAUTION

- Make sure that the data-in LED (⇨) is not on before you go into the SP mode. This LED indicates that some data is coming to the machine. When the LED is on, wait for the copier to process the data.

Enabling and Disabling Service Program Mode

⚠CAUTION

Make sure that the data-in LED (⇨) is not on before you go into the SP mode. This LED indicates that some data is coming to the machine. When the LED is on, wait for the copier to process the data.

Note

- The Service Program Mode is for use by service representatives only. If this mode is used by anyone other than service representatives for any reason, data might be deleted or settings might be changed. In such case, product quality cannot be guaranteed any more.

Entering SP Mode

If there are no Classic Application (copy/printer/scanner/fax) icons on the HOME screen, follow the procedure below to display the number keyboard.

1. Press and hold the button [A] located at the left side of the operation panel and "Check Status [B]" at the same time, until the number keyboard is displayed.

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2. Enter the key code for SP mode.

For details of the key code to enter the SP mode, ask your supervisor.

Exiting SP Mode

- Press "Exit" on the LCD twice to return to the copy window.

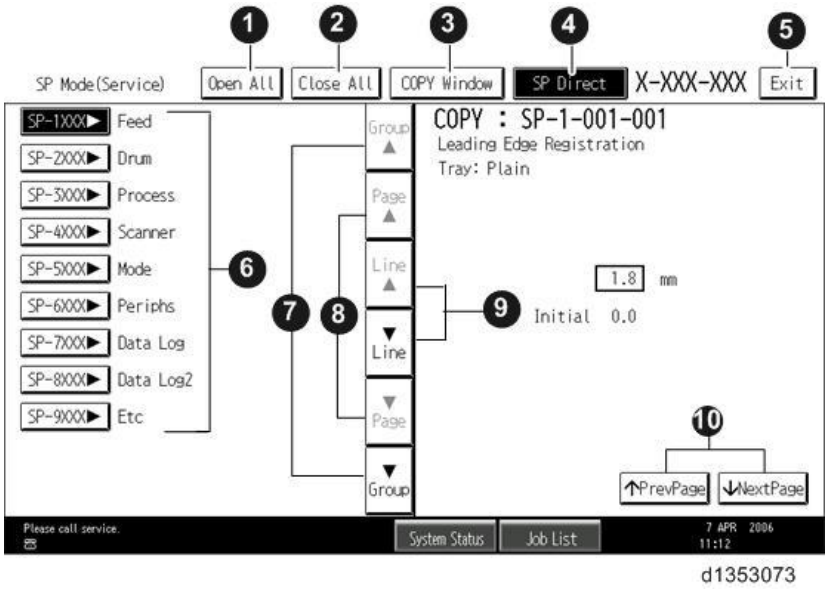
Types of SP Modes

- System SP: SP modes related to the engine functions
- Printer SP: SP modes related to the controller functions
- Scanner SP: SP modes related to the scanner functions
- Fax SP: SP modes related to the fax functions

Select one of the Service Program modes (System, Printer, Scanner, or Fax) from the touch panel as shown in the diagram below after you access the SP mode. This section explains the functions of the System/Printer/Scanner SP modes. Refer to the Fax service manual for the Fax SP modes.

SP Mode Button Summary

Here is a short summary of the touch-panel buttons.



1	Opens all SP groups and sublevels.
2	Closes all open groups and sublevels and restores the initial SP mode display.
3	Opens the copy window (copy mode) so you can make test copies. Press SP Mode (highlighted) in the copy window to return to the SP mode screen,
4	Enter the SP code directly with the number keys if you know the SP number. Then press #. (The required SP Mode number will be highlighted when pressing #. If not, just press the required SP Mode number.)
5	Press two times to leave the SP mode and return to the copy window to resume normal operation.
6	Press any Class 1 number to open a list of Class 2 SP modes.
7	Press to scroll the show to the previous or next group.
8	Press to scroll to the previous or next display in segments the size of the screen display (page).
9	Press to scroll the show the previous or next line (line by line).
10	Press to move the highlight on the left to the previous or next selection in the list.

Switching Between SP Mode and Copy Mode for Test Printing

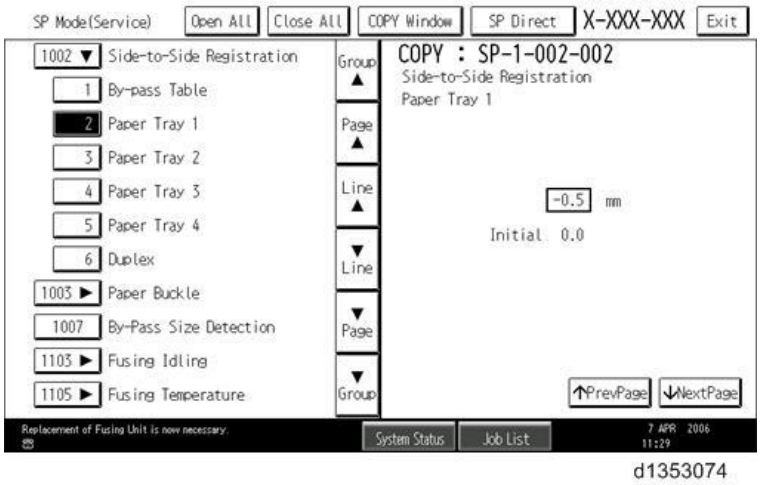
1. In the SP mode, select the test print. Then press "Copy Window".
2. Use the copy window (copier mode), to select the appropriate settings (paper size, etc.) for the test print.
3. Press [Start] key to start the test print.
4. Press SP Mode (highlighted) to return to the SP mode screen and repeat from step 1.

Selecting the Program Number

Program numbers have two or three levels.

1. Refer to the Service Tables to find the SP that you want to adjust before you begin.

2. Press the Group number on the left side SP Mode window that contains the SP that you want to adjust.
3. Use the scrolling buttons in the center of the SP mode window to show the SP number that you want to open. Then press that number to expand the list.
4. Use the center touch-panel buttons to scroll to the number and title of the item that you want to set and press it. The small entry box on the right activates and shows the below default or the current settings.



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Note

- Refer to the Service Tables for the range of allowed settings.

5. Do this procedure to enter a setting:
   - Press ⁺⁄₋ to toggle between plus and minus and use the keypad to enter the appropriate number. The number you enter writes over the previous setting.
   - Press [#] to enter the setting. (The value is not registered if you enter a number that is out of range.)
   - Press "Yes" when you are prompted to complete the selection.
6. If you need to perform a test print, press Copy Window to open the copy window and select the settings for the test print. Press [Start] key and then press SP Mode (highlighted) in the copy window to return to the SP mode display.
7. Press Exit two times to return to the copy window when you are finished.

Service Mode Lock/Unlock

At locations where the machine contains sensitive data, the customer engineer cannot operate the machine until the Administrator turns the service mode lock off. This function makes sure that work on the machine is always done with the permission of the Administrator.

1. If you cannot go into the SP mode, ask the Administrator to log in with the User Tool and then set "Service Mode Lock" to OFF after he or she logs in: User Tools → System Settings → Administrator Tools → Service Mode Lock → OFF

- This unlocks the machine and lets you get access to all the SP codes.
- The CE can service the machine and turn the machine off and on. It is not necessary to ask the Administrator to log in again each time the machine is turned on.

2. Go into the SP mode and set SP5169 to "1" if you must use the printer bit switches.

3. After machine servicing is completed:

- Change SP5169 from "1" to "0".
- Turn the machine off and on. Tell the administrator that you have completed servicing the machine.
- The Administrator will then set the "Service Mode Lock" to ON.

Remarks

Display on the Control Panel Screen

The maximum number of characters which can show on the control panel screen is limited to 30 characters. For this reason, some of the SP modes shown on the screen need to be abbreviated. The following are abbreviations used for the SP modes for which the full description is over 20 characters.

Item	Description
Paper Weight	Plain Paper1: 60-74 g/m^2, 16-20lb Bond. Plain Paper2: 75-81 g/m^2, 20lb Bond. Middle Thick: 82-105 g/m^2, 20-28lb Bond. Thick Paper1: 106-130 g/m^2, 28lb. Bond-35lb index. Thick Paper2: 131-163 g/m^2, 35lb. Bond–90lb Index. Thick Paper3: 164-220 g/m^2, 90lb. Index–80 lb Cover.
Paper Type	N: Normal paper MTH: Middle thick paper TH: Thick paper
Paper Feed Station	P: Paper tray B: Bypass table
Color Mode [Color]	[K]: Black in B&W mode [Y], [M], or [C]: Yellow, Magenta, or Cyan in Full Color mode [YMC]: Only for Yellow, Magenta, and Cyan [FC]: Full Color mode [FC, K], [FC, Y], [FC, M], or [FC, C]: Black, Yellow, Magenta, or Cyan in full color mode
Print Mode	S: Simplex D: Duplex
Process Speed	L: Low speed (89 mm/s) M: Middle speed (178 mm/s)

Others

The following symbols are used in the SP mode tables.

FA: Factory setting

(Data may be adjusted from the default setting at the factory. Refer to the factory setting sheets enclosed. You can find it under the jammed paper removal decal.)

DFU: Design/Factory Use only

Do not touch these SP modes in the field.

A sharp (#) to the right hand side of the mode number column means that the main switch must be turned off and on to effect the setting change.

An asterisk (*) to the right hand side of the mode number column means that this mode is stored in the NVRAM and EEPROM. If you do a RAM clear, this SP mode will be reset to the default value. "ENG" and "CTL" show which NVRAM contains the data.

- ENG: EEPROM on the BiCU board
- CTL: NVRAM on the controller board (PCB24)

The settings of each SP mode are explained in the right-hand column of the SP table in the following way.

[Adjustable range / **Default setting** / Step] Alphanumeric

Note

- If "Alphanumeric" is written to the right of the bracket as shown above, the setting of the SP mode shows on the screen using alphanumeric characters instead of only numbers. However, the settings in the bracket in the SP mode table are explained by using only the numbers.

SSP: This denotes a "Special Service Program" mode setting.

SP1-XXX (Feed)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-001-001	Leading Edge Registration	Tray: Plain	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-002	Leading Edge Registration	Tray: Middle Thick	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-003	Leading Edge Registration	Tray: Thick	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-005	Leading Edge Registration	Tray: Plain: 1200	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-006	Leading Edge Registration	Tray: Middle Thick: 1200	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-007	Leading Edge Registration	By-pass: Plain	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-008	Leading Edge Registration	By-pass: Middle Thick	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-009	Leading Edge Registration	By-pass: Thick	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-012	Leading Edge Registration	By-pass: Plain: 1200	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-013	Leading Edge Registration	By-pass: Middle Thick: 1200	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-014	Leading Edge Registration	Duplex: Plain	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-	Leading Edge Registration	Duplex: Middle Thick	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
015				
1-001-016	Leading Edge Registration	Duplex: Thick	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-017	Leading Edge Registration	Tray: Special 1	ENG	[-9.0 to 9.0 / 1.1 / 0.1mm/step]
1-001-018	Leading Edge Registration	By-pass: Special 1	ENG	[-9.0 to 9.0 / 1.1 / 0.1mm/step]
1-001-019	Leading Edge Registration	Duplex: Plain: 1200	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-020	Leading Edge Registration	Duplex: Middle Thick: 1200	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-021	Leading Edge Registration	Duplex: Special 1	ENG	[-9.0 to 9.0 / 1.1 / 0.1mm/step]
1-001-022	Leading Edge Registration	Tray: Special 1: 1200	ENG	[-9.0 to 9.0 / 1.1 / 0.1mm/step]
1-001-023	Leading Edge Registration	By-pass: Special 1: 1200	ENG	[-9.0 to 9.0 / 1.1 / 0.1mm/step]
1-001-024	Leading Edge Registration	Duplex: Special 1: 1200	ENG	[-9.0 to 9.0 / 1.1 / 0.1mm/step]
1-001-026	Leading Edge Registration	Offset: Transfer Separation	ENG*	[-4.0 to 4.0 / 0.0 / 0.1mm/step]
1-001-030	Leading Edge Registration	Auto correct: On/Off	ENG*	[0 to 1 / 0 / 1/step]
1-001-	Leading Edge Registration	Std. Measure: On/Off	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
031				
1-001-032	Leading Edge Registration	Offset	ENG*	[-5.0 to 5.0 / 0.0 / 0.1mm/step]
1-001-033	Leading Edge Registration	Offset Standard: 1	ENG*	[0.0 to 999.0 / 0.0 / 0.1mm/step]
1-001-034	Leading Edge Registration	Offset Standard: 2	ENG*	[0.0 to 999.0 / 0.0 / 0.1mm/step]
1-001-035	Leading Edge Registration	Offset Standard: 3	ENG*	[0.0 to 999.0 / 0.0 / 0.1mm/step]
1-001-036	Leading Edge Registration	Offset Standard: 4	ENG*	[0.0 to 999.0 / 0.0 / 0.1mm/step]
1-001-037	Leading Edge Registration	Offset Standard: 5	ENG*	[0.0 to 999.0 / 0.0 / 0.1mm/step]
1-001-038	Leading Edge Registration	Offset Standard: 6	ENG*	[0.0 to 999.0 / 0.0 / 0.1mm/step]
1-001-039	Leading Edge Registration	Offset Standard: 7	ENG*	[0.0 to 999.0 / 0.0 / 0.1mm/step]
1-001-040	Leading Edge Registration	Offset Standard: 8	ENG*	[0.0 to 999.0 / 0.0 / 0.1mm/step]
1-001-041	Leading Edge Registration	Tray: Plain: Std Speed 2	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-043	Leading Edge Registration	By-pass: Plain: Std Speed 2	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]
1-001-	Leading Edge Registration	Duplex: Plain: Std Speed 2	ENG	[-9.0 to 9.0 / 0.0 / 0.1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
045				
1-001-047	Leading Edge Registration	Tray: Special1: Std Speed 2	ENG	[-9.0 to 9.0 / 1.1 / 0.1mm/step]
1-001-048	Leading Edge Registration	By-pass: Special1: Std Speed 2	ENG	[-9.0 to 9.0 / 1.1 / 0.1mm/step]
1-001-049	Leading Edge Registration	Duplex: Special1: Std Speed 2	ENG	[-9.0 to 9.0 / 1.1 / 0.1mm/step]
1-002-001	Side-to-Side Registration	By-pass Table	ENG	[-4.0 to 4.0 / 0.0 / 0.1mm/step]
1-002-002	Side-to-Side Registration	Tray 1	ENG	[-4.0 to 4.0 / 0.0 / 0.1mm/step]
1-002-003	Side-to-Side Registration	Tray 2	ENG	[-4.0 to 4.0 / 0.0 / 0.1mm/step]
1-002-004	Side-to-Side Registration	Tray 3	ENG	[-4.0 to 4.0 / 0.0 / 0.1mm/step]
1-002-005	Side-to-Side Registration	Duplex	ENG	[-4.0 to 4.0 / 0.0 / 0.1mm/step]
1-002-006	Side-to-Side Registration	Tray 4	ENG	[-4.0 to 4.0 / 0.0 / 0.1mm/step]
1-003-001	Paper Buckle	Tray1: Plain	ENG	IM C300 series: [-5.0 to 5.0 / 2.0 / 0.1mm/step] IM C400 series: [-5.0 to 5.0 / 0.0 / 0.1mm/step]
1-003-002	Paper Buckle	Tray1: Middle Thick	ENG	[-5.0 to 5.0 / 0.0 / 0.1mm/step]
1-	Paper Buckle	Tray1: Thick	ENG	IM C300 series: [-5.0 to

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003-003				5.0 / 0.0 / 0.1mm/step] IM C400 series: [-5.0 to 5.0 / -2.0 / 0.1mm/step]
1-003-004	Paper Buckle	Tray2/3/4: Plain	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-005	Paper Buckle	Tray2/3/4: Middle Thick	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-006	Paper Buckle	Tray2/3/4: Thick	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-007	Paper Buckle	By-pass: Plain	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-008	Paper Buckle	By-pass: Middle Thick	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-009	Paper Buckle	By-pass: Thick	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-010	Paper Buckle	Duplex: Plain	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-011	Paper Buckle	Duplex: Middle Thick	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-012	Paper Buckle	Duplex: Thick	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-013	Paper Buckle	Tray1: Plain:1200	ENG	IM C300 series: [-5.0 to 5.0 / 2.0 / 0.1mm/step] IM C400 series: [-5.0 to 5.0 / 0.0 / 0.1mm/step]
1-003-014	Paper Buckle	Tray1: Mid. Thick:1200	ENG	[-5.0 to 5.0 / 0.0 / 0.1mm/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-003-015	Paper Buckle	Tray2/3/4: Plain:1200	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-016	Paper Buckle	Tray2/3/4: Mid. Thick:1200	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-017	Paper Buckle	By-pass: Plain:1200	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-018	Paper Buckle	By-pass: Middle Thick:1200	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-019	Paper Buckle	By-pass: Small size	ENG	[-5 to 5 / -2 / 1mm/step]
1-003-020	Paper Buckle	Tray1: Plain: Std. Spd. 2	ENG	IM C300 series: [-5.0 to 5.0 / 2.0 / 0.1mm/step] IM C400 series: [-5.0 to 5.0 / 0.0 / 0.1mm/step]
1-003-022	Paper Buckle	Tray2/3/4: Plain: Std. Spd. 2	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-024	Paper Buckle	By-pass: Plain: Std. Spd. 2	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-025	Paper Buckle	By-pass: Middle Thick: BW	ENG	[-5 to 5 / 0 / 1mm/step]
1-003-026	Paper Buckle	Duplex: Plain: Std. Spd. 2	ENG	[-5 to 5 / 0 / 1mm/step]
1-007-001	Size Miss Peper Ejection Mode	Paper Ejection :MF	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-007-002	Wid_SizeMiss Paper Eject Mode	Paper Ejct :MF:Wid	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-010-001	Size Set Miss Detection Mode	Paper Length Detection	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-010-002	Size Set Miss Detection Mode	Small Size Miss Set Detection	ENG	IM C300 series: [0 to 1 / 0 / 1/step] IM C400 series: [0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-011-001	Size Set Miss Detection Count	Papr Lngth Dtct:F1	ENG	[0 to 65535 / 0 / 1/step]
1-011-002	Size Set Miss Detection Count	Papr Lngth Dtct:MF	ENG	[0 to 65535 / 0 / 1/step]
1-011-003	Size Set Miss Detection Count	Papr Lngth Dtct:F2	ENG	[0 to 65535 / 0 / 1/step]
1-011-004	Size Set Miss Detection Count	Papr Lngth Dtct:F3	ENG	[0 to 65535 / 0 / 1/step]
1-011-005	Size Set Miss Detection Count	Papr Lngth Dtct:F4	ENG	[0 to 65535 / 0 / 1/step]
1-011-006	Size Set Miss Detection Count	Small Size Miss Set Detection	ENG	[0 to 65535 / 0 / 1/step]
1-012-002	Size Miss Paper Ejection Count	Ejection Count	ENG	[0 to 65535 / 0 / 1/step]
1-012-003	Wid_SizeMiss Paper Eject Count	Ejection Count:Wid	ENG	[0 to 65535 / 0 / 1/step]
1-013-001	Tray Down Erro Flag	Tray1	ENG*	[0 to 1 / 0 / 1/step]
1-	Print Target	Plain1:FC:Center	ENG*	IM C300 series: [100 to

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
105-001	Temperature			180 / 134 / 1deg/step] IM C400 series: [100 to 200 / 155 / 1deg/step]
1-105-003	Print Target Temperature	Plain1:BW:Center	ENG*	IM C300 series: [100 to 180 / 129 / 1deg/step] IM C400 series: [100 to 180 / 150 / 1deg/step]
1-105-005	Print Target Temperature	Plain2:FC:Center	ENG*	IM C300 series: [100 to 180 / 139 / 1deg/step] IM C400 series: [100 to 200 / 165 / 1deg/step]
1-105-007	Print Target Temperature	Plain2:BW:Center	ENG*	IM C300 series: [100 to 180 / 134 / 1deg/step] IM C400 series: [100 to 180 / 155 / 1deg/step]
1-105-009	Print Target Temperature	Thin:FC:Center	ENG*	IM C300 series: [100 to 180 / 153 / 1deg/step] IM C400 series: [100 to 180 / 163 / 1deg/step]
1-105-011	Print Target Temperature	Thin:BW:Center	ENG*	IM C300 series: [100 to 180 / 143 / 1deg/step] IM C400 series: [100 to 180 / 147 / 1deg/step]
1-105-013	Print Target Temperature	Middle Thick:FC:Center	ENG*	[100 to 180 / 153 / 1deg/step]
1-105-015	Print Target Temperature	Middle Thick:BW:Center	ENG*	[100 to 180 / 148 / 1deg/step]
1-105-017	Print Target Temperature	Thick1:FC:Center	ENG*	[100 to 180 / 138 / 1deg/step]
1-105-019	Print Target Temperature	Thick1:BW:Center	ENG*	[100 to 180 / 138 / 1deg/step]
1-105-	Print Target Temperature	Thick2:FC:Center	ENG*	[100 to 180 / 140 / 1deg/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
021				
1-105-023	Print Target Temperature	Thick2:BW:Center	ENG*	[100 to 180 / 140 / 1deg/step]
1-105-025	Print Target Temperature	Thick3:FC:Center	ENG*	[100 to 180 / 142 / 1deg/step]
1-105-027	Print Target Temperature	Thick3:BW:Center	ENG*	[100 to 180 / 142 / 1deg/step]
1-105-029	Print Target Temperature	Special1:FC:Center	ENG*	IM C300 series: [100 to 180 / 134 / 1deg/step] IM C400 series: [100 to 200 / 155 / 1deg/step]
1-105-031	Print Target Temperature	Special1:BW:Center	ENG*	IM C300 series: [100 to 180 / 129 / 1deg/step] IM C400 series: [100 to 180 / 150 / 1deg/step]
1-105-033	Print Target Temperature	Special2:FC:Center	ENG*	IM C300 series: [100 to 180 / 139 / 1deg/step] IM C400 series: [100 to 200 / 165 / 1deg/step]
1-105-035	Print Target Temperature	Special2:BW:Center	ENG*	IM C300 series: [100 to 180 / 134 / 1deg/step] IM C400 series: [100 to 180 / 155 / 1deg/step]
1-105-037	Print Target Temperature	Special3:FC:Center	ENG*	[100 to 180 / 153 / 1deg/step]
1-105-039	Print Target Temperature	Special3:BW:Center	ENG*	[100 to 180 / 148 / 1deg/step]
1-105-041	Print Target Temperature	Envelop: Center	ENG*	[100 to 180 / 141 / 1deg/step]
1-105-	Print Target Temperature	OHP: Center	ENG*	[100 to 180 / 160 / 1deg/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
043				
1-105-101	Print Target Temperature	Plain1:FC:Center:Low Speed	ENG*	[100 to 180 / 122 / 1deg/step]
1-105-103	Print Target Temperature	Plain1:BW:Center:Low Speed	ENG*	[100 to 180 / 122 / 1deg/step]
1-105-105	Print Target Temperature	Plain2:FC:Center:Low Speed	ENG*	[100 to 180 / 124 / 1deg/step]
1-105-107	Print Target Temperature	Plain2:BW:Center:Low Speed	ENG*	[100 to 180 / 124 / 1deg/step]
1-105-109	Print Target Temperature	Thin:FC:Center:Low Speed	ENG*	[100 to 180 / 123 / 1deg/step]
1-105-111	Print Target Temperature	Thin:BW:Center:Low Speed	ENG*	[100 to 180 / 123 / 1deg/step]
1-105-113	Print Target Temperature	Middle Thick:FC:Center:Low Speed	ENG*	[100 to 180 / 136 / 1deg/step]
1-105-115	Print Target Temperature	Middle Thick:BW:Center:Low Speed	ENG*	[100 to 180 / 136 / 1deg/step]
1-105-117	Print Target Temperature	Special 1:FC:Center:Low Speed	ENG*	[100 to 180 / 122 / 1deg/step]
1-105-119	Print Target Temperature	Special 1:BW:Center:Low Speed	ENG*	[100 to 180 / 122 / 1deg/step]
1-105-121	Print Target Temperature	Special 2:FC:Center:Low Speed	ENG*	[100 to 180 / 124 / 1deg/step]
1-105-	Print Target Temperature	Special 2:BW:Center:Low Speed	ENG*	[100 to 180 / 124 / 1deg/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
123				
1-105-125	Print Target Temperature	Special 3:FC:Center:Low Speed	ENG*	[100 to 180 / 136 / 1deg/step]
1-105-127	Print Target Temperature	Special 3:BW:Center:Low Speed	ENG*	[100 to 180 / 136 / 1deg/step]
1-105-129	Print Target Temperature	Envelope:Thick1:FC:Center	ENG*	[100 to 180 / 141 / 1deg/step]
1-105-133	Print Target Temperature	Envelope:Thick2:FC:Center	ENG*	[100 to 180 / 141 / 1deg/step]
1-105-137	Print Target Temperature	Envelope:Thick3:FC:Center	ENG*	[100 to 180 / 141 / 1deg/step]
1-105-141	Print Target Temperature	Postcard:Thick1:FC:Center	ENG*	[100 to 180 / 126 / 1deg/step]
1-105-145	Print Target Temperature	Postcard:Thick2:FC:Center	ENG*	[100 to 180 / 126 / 1deg/step]
1-105-149	Print Target Temperature	Postcard:Thick3:FC:Center	ENG*	[100 to 180 / 126 / 1deg/step]
1-105-151	Print Target Temperature	Special 4:FC:Center	ENG*	[100 to 180 / 138 / 1deg/step]
1-105-153	Print Target Temperature	Special 4:BW:Center	ENG*	[100 to 180 / 138 / 1deg/step]
1-105-155	Print Target Temperature	Special 5:FC:Center	ENG*	[100 to 180 / 140 / 1deg/step]
1-105-	Print Target Temperature	Special 5:BW:Center	ENG*	[100 to 180 / 140 / 1deg/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
157				
1-105-159	Print Target Temperature	Special 6:FC:Center	ENG*	[100 to 180 / 142 / 1deg/step]
1-105-161	Print Target Temperature	Special 6:BW:Center	ENG*	[100 to 180 / 142 / 1deg/step]
1-106-001	Fusing Temperature Display	Center	ENG	[-50 to 250 / 0 / 1deg/step]
1-106-002	Fusing Temperature Display	End	ENG	[-20 to 348 / 0 / 1deg/step]
1-106-003	Fusing Temperature Display	Pressure: Center	ENG	[-20 to 250 / 0 / 1deg/step]
1-106-005	Fusing Temperature Display	Pressure: End Rear	ENG	[-20 to 250 / 0 / 1deg/step]
1-106-006	Fusing Temperature Display	Pressure: End Front	ENG	[-20 to 250 / 0 / 1deg/step]
1-109-001	Rotation Speed Setting	Overshoot Prevent Rotation	ENG*	[0 to 3 / 0 / 1/step] 0: 89mm/s (Type a,b) 1: 178mm/s (Type a,b) 2: 212mm/s (Type b) 3: 252mm/s (Type b)
1-109-002	Rotation Speed Setting	After Reload Rotation	ENG*	[0 to 3 / 0 / 1/step] 0: 89mm/s (Type a,b) 1: 178mm/s (Type a,b) 2: 212mm/s (Type b) 3: 252mm/s (Type b)
1-109-003	Rotation Speed Setting	Print Ready Rotation	ENG*	[0 to 3 / 0 / 1/step] 0: 89mm/s (Type a,b) 1: 178mm/s (Type a,b) 2: 212mm/s (Type b) 3: 252mm/s (Type b)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-112-002	Image Processing Temp. Correct	Temp.:Plain:Center:Energy Saving	ENG*	IM C300 series: [-30 to 20 / 13 / 1deg/step] IM C400 series: [-30 to 20 / 16 / 1deg/step]
1-112-004	Image Processing Temp. Correct	Temp.:Plain:Press:Energy Saving	ENG*	[-30 to 20 / 0 / 1deg/step]
1-113-001	Curl Correction	Execute Pattern	ENG*	[0 to 1 / 0 / 1/step] 0: OFF 1: ON
1-120-001	Fuser Logs acquisition	Mode Switch	ENG*	[0 to 1 / 0 / 1/step]
1-120-002	Fuser Logs acquisition	Period Switch	ENG*	[0 to 4 / 0 / 1/step]
1-131-001	Continuous Print Mode Switch	Feed Permit Condition Setting	ENG*	[0 to 2 / 1 / 1/step] 0: Productivity Mode 1: Fusing Quality Mode 1 2: Fusing Quality Mode 2
1-132-012	Voltage Detection	Voltage Detection	ENG*	NA: [0.0 to 650.0 / 117.0 / 0.1V/step] TWN: [0.0 to 650.0 / 107.0 / 0.1V/step] KOR: [0.0 to 650.0 / 227.0 / 0.1V/step] EU: [0.0 to 650.0 / 227.0 / 0.1V/step] CHN: [0.0 to 650.0 / 227.0 / 0.1V/step] AS: [0.0 to 650.0 / 227.0 / 0.1V/step]
1-132-014	Voltage Detection	Max	ENG*	[0.0 to 350.0 / 0.0 / 0.1V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-132-015	Voltage Detection	Min	ENG*	[0.0 to 350.0 / 0.0 / 0.1V/step]
1-132-016	Voltage Detection	Latest	ENG*	[0.0 to 350.0 / 0.0 / 0.1V/step]
1-132-017	Voltage Detection	SC Detection	ENG*	[0.0 to 350.0 / 0.0 / 0.1V/step]
1-132-018	Voltage Detection	Max(standby)	ENG*	[0.0 to 350.0 / 0.0 / 0.1V/step]
1-132-019	Voltage Detection	Min(standby)	ENG*	[0.0 to 350.0 / 0.0 / 0.1V/step]
1-135-001	Inrush Control	Inrush Control	ENG*	[0 to 1 / 0 / 1/step]
1-136-001	Engy Svg Paper Feed Judg.	Control ON/OFF	ENG*	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-141-001	Fusing SC Issue Time Info	SC Number	ENG*	[0 to 99999 / 0 / 1/step]
1-141-101	Fusing SC Issue Time Info	Heating Roller Temperature 1:Center	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-104	Fusing SC Issue Time Info	Heating Roller Temperature 1:End	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-107	Fusing SC Issue Time Info	Press Roller Temperature 1	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-108	Fusing SC Issue Time Info	Press Roller: End R Temperature 1	ENG*	[-100 to 260 / 0 / 1deg/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-141-109	Fusing SC Issue Time Info	Press Roller: End F Temperature 1	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-110	Fusing SC Error Time Info	NC Sensor: Center Atmosphere Temp 1	ENG*	[-100 to 300 / 0 / 1deg/step]
1-141-111	Fusing SC Error Time Info	Fuser State Det 1	ENG*	[0 to 100 / 0 / 1/step]
1-141-112	Fusing SC Error Time Info	Heater1 Duty Det 1	ENG*	[0 to 100 / 0 / 1%/step]
1-141-113	Fusing SC Error Time Info	NC Sensor: Center Det Temp AD 1	ENG*	[0 to 2000 / 0 / 1/step]
1-141-114	Fusing SC Error Time Info	NC Sensor: Center Atmosphere Temp AD 1	ENG*	[0 to 2000 / 0 / 1/step]
1-141-151	Fusing SC Issue Time Info	Heating Roller Temperature 2:Center	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-154	Fusing SC Issue Time Info	Heating Roller Temperature 2:End	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-157	Fusing SC Issue Time Info	Press Roller Temperature 2	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-158	Fusing SC Issue Time Info	Press Roller.End R Temperature 2	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-159	Fusing SC Issue Time Info	Press Roller.End F Temperature 2	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-160	Fusing SC Error Time Info	NC Sensor: Center Atmosphere Temp 2	ENG*	[-100 to 300 / 0 / 1deg/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-141-161	Fusing SC Error Time Info	Fuser State Det 2	ENG*	[0 to 100 / 0 / 1/step]
1-141-162	Fusing SC Error Time Info	Heater1 Duty Det 2	ENG*	[0 to 100 / 0 / 1%/step]
1-141-163	Fusing SC Error Time Info	NC Sensor: Center Det Temp AD 2	ENG*	[0 to 2000 / 0 / 1/step]
1-141-164	Fusing SC Error Time Info	NC Sensor: Center Atmosphere Temp AD 2	ENG*	[0 to 2000 / 0 / 1/step]
1-141-201	Fusing SC Issue Time Info	Heating Roller Temperature 3:Center	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-204	Fusing SC Issue Time Info	Heating Roller Temperature 3:End	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-207	Fusing SC Issue Time Info	Press Roller Temperature 3	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-208	Fusing SC Issue Time Info	Press Roller.End R Temperature 3	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-209	Fusing SC Issue Time Info	Press Roller.End F Temperature 3	ENG*	[-100 to 260 / 0 / 1deg/step]
1-141-210	Fusing SC Error Time Info	NC Sensor: Center Atmosphere Temp 3	ENG*	[-100 to 300 / 0 / 1deg/step]
1-141-211	Fusing SC Error Time Info	Fuser State Det 3	ENG*	[0 to 100 / 0 / 1/step]
1-141-212	Fusing SC Error Time Info	Heater1 Duty Det 3	ENG*	[0 to 100 / 0 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-141-213	Fusing SC Error Time Info	NC Sensor: Center Det Temp AD 3	ENG*	[0 to 2000 / 0 / 1/step]
1-141-214	Fusing SC Error Time Info	NC Sensor: Center Atmosphere Temp AD 3	ENG*	[0 to 2000 / 0 / 1/step]
1-142-001	Fusing Jam Detection	SC Display	ENG*	[0 to 1 / 0 / 1/step] 0: OFF 1: ON
1-152-001	Fusing Nip Band Check	Execute	ENG	[0 to 1 / 0 / 1/step]
1-158-001	Abnormal Noise Confirmation	Unit: Execute	ENG	[0 to 1 / 0 / 1/step]
1-158-002	Abnormal Noise Confirmation	No Unit: Execute	ENG	[0 to 1 / 0 / 1/step]
1-158-003	Abnormal Noise Confirmation	Operation Time	ENG*	[0 to 200 / 20 / 1sec/step]
1-158-004	Abnormal Noise Confirmation	Operation Line Speed	ENG*	[0 to 3 / 0 / 1/step] 0: 89mm/s (Type a,b) 1: 178mm/s (Type a,b) 2: 212mm/s (Type b) 3: 252mm/s (Type b)
1-158-005	Abnormal Noise Confirmation	Heat Center Target Temp	ENG*	IM C300 series: [100 to 180 / 154 / 1deg/step] IM C400 series: [100 to 180 / 180 / 1deg/step]
1-158-007	Abnormal Noise Confirmation	Press Target Temp	ENG*	[0 to 200 / 150 / 1deg/step]
1-190-001	Flicker Control	Flicker Control	ENG*	[0 to 1 / 0 / 1/step]
1-	1Bin Duty Control	Control Operating Time	ENG	[5 to 35 / 35 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
201-001				15min/step]
1-801-001	Motor Speed Adjustment	Transport M: Plain1/2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-002	Motor Speed Adjustment	Transport M: Thin	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-003	Motor Speed Adjustment	Transport M: M-Thick:Std Spd1	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-004	Motor Speed Adjustment	Transport M: Thick1	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-005	Motor Speed Adjustment	Transport M: Thick2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-006	Motor Speed Adjustment	Transport M: Thick3	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-007	Motor Speed Adjustment	Transport M: Special1	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-008	Motor Speed Adjustment	Transport M: Special2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-009	Motor Speed Adjustment	Transport M: Special3	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-010	Motor Speed Adjustment	Transport M: Envelope	ENG*	[-4.00 to 4.00 / 0.00 / 0.01%/step]
1-801-011	Motor Speed Adjustment	Transport M: OHP	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-	Motor Speed	Transport M: Plain1/2:Low	ENG*	[-4.00 to 4.00 / 0.43 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
801-012	Adjustment	Speed		0.01%/step]
1-801-013	Motor Speed Adjustment	Transport M: Thin:Low Speed	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-014	Motor Speed Adjustment	Transport M: M-Thick:Low Speed	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-015	Motor Speed Adjustment	Transport M: Special1:Low Speed	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-016	Motor Speed Adjustment	Transport M: Special2:Low Speed	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-017	Motor Speed Adjustment	Transport M: Special3:Low Speed	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-018	Motor Speed Adjustment	Transport M: Plain1/2: Gloss	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-019	Motor Speed Adjustment	Transport M: M-Thick: Gloss:Std Spd1	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-020	Motor Speed Adjustment	Transport M: Postcard	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-051	Motor Speed Adjustment	Bk Drum/Dev. Mot: Std Speed 1	ENG*	[-4.00 to 4.00 / 0.00 / 0.01%/step]
1-801-052	Motor Speed Adjustment	Bk Drum/Dev. Mot: Low Speed	ENG*	[-4.00 to 4.00 / 0.00 / 0.01%/step]
1-801-053	Motor Speed Adjustment	Col Drum/Dev. Mot: Std Speed 1	ENG*	IM C300 series: [-6 to 6 / 0 / 1STEP/step] IM C400 series: [-5 to 5 / 0 / 1STEP/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-801-054	Motor Speed Adjustment	Col Drum/Dev. Mot: Low Speed	ENG*	[-6 to 6 / 0 / 1STEP/step]
1-801-055	Motor Speed Adjustment	Offset: Std Speed 1: Color	ENG*	IM C300 series: [-6 to 6 / 0 / 1STEP/step] IM C400 series: [-5 to 5 / 0 / 1STEP/step]
1-801-056	Motor Speed Adjustment	Offset: Low Speed: Color	ENG*	[-6 to 6 / 0 / 1STEP/step]
1-801-081	Motor Speed Adjustment	Transport M: Plain1/2: Std Spd 2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-082	Motor Speed Adjustment	Transport M: Thin:Std Spd2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-084	Motor Speed Adjustment	Transport M: Special1: Std Spd2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-085	Motor Speed Adjustment	Transport M: Special2: Std Spd2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-086	Motor Speed Adjustment	Transport M: Special3:Std Spd2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-087	Motor Speed Adjustment	Transport M: OHP:Std Spd2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-088	Motor Speed Adjustment	Transport M: Plain1/2:Gloss:Std Spd 2	ENG*	[-4.00 to 4.00 / 0.43 / 0.01%/step]
1-801-130	Motor Speed Adjustment	Drum Motor Adjustment Control	ENG*	[0 to 1 / 1 / 1STEP/step]
1-801-131	Motor Speed Adjustment	Color Dev. Mot.:Std Speed1	ENG*	[-20.0 to 20.0 / 0.0 / 0.1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-801-132	Motor Speed Adjustment	Color Dev. Mot.:Low Speed	ENG*	[-20.0 to 20.0 / 0.0 / 0.1%/step]
1-801-133	Motor Speed Adjustment	Bk Drum/Dev. Mot:Std Speed2	ENG*	[-4.00 to 4.00 / 0.00 / 0.01%/step]
1-801-134	Motor Speed Adjustment	Bk Drum/Dev. Mot:Middle Speed	ENG*	[-4.00 to 4.00 / 0.00 / 0.01%/step]
1-801-135	Motor Speed Adjustment	Col Drum/Dev. Mot:Middle Speed	ENG*	[-6 to 6 / 0 / 1STEP/step]
1-801-136	Motor Speed Adjustment	Offset: Middle Speed: Color	ENG*	[-6 to 6 / 0 / 1STEP/step]
1-801-137	Motor Speed Adjustment	Color Dev M: Middle Speed	ENG*	[-20.0 to 20.0 / 0.0 / 0.1%/step]
1-801-138	Motor Speed Adjustment	Col Drum Mot: Std Spd 1: Indep.	ENG*	[-4.00 to 4.00 / 0.00 / 0.01%/step]
1-801-139	Motor Speed Adjustment	Col Drum Mot: Mid Spd: Indep.	ENG*	[-4.00 to 4.00 / 0.00 / 0.01%/step]
1-801-140	Motor Speed Adjustment	Col Drum Mot: Low Spd: Indep.	ENG*	[-4.00 to 4.00 / 0.00 / 0.01%/step]
1-902-001	Ladder Pattern Print	Execute	ENG	[0 to 1 / 0 / 1/step]
1-907-001	Paper Feed Timing Adj.	Tray1 Clutch ON: Plain	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-002	Paper Feed Timing Adj.	Tray1 Clutch ON: Middle Thick	ENG	[-10 to 10 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-907-003	Paper Feed Timing Adj.	Tray1 Clutch ON: Thick	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-007	Paper Feed Timing Adj.	Tray1 Clutch OFF: Plain	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-008	Paper Feed Timing Adj.	Tray1 Clutch OFF: Middle Thick	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-009	Paper Feed Timing Adj.	Tray1 Clutch OFF: Thick	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-010	Paper Feed Timing Adj.	Tray1 Paper Exit Sensor: Plain	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-011	Paper Feed Timing Adj.	Tray1 Paper Exit Sensor: Middle Thick	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-012	Paper Feed Timing Adj.	Tray1 Paper Exit Sensor: Thick	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-013	Paper Feed Timing Adj.	By-pass Clutch ON: Plain	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-014	Paper Feed Timing Adj.	By-pass Clutch ON: Middle Thick	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-015	Paper Feed Timing Adj.	By-pass Clutch ON: Thick	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-016	Paper Feed Timing Adj.	By-pass Clutch ON: Envelope	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-017	Paper Feed Timing Adj.	By-pass Clutch OFF: Plain	ENG	[-10 to 10 / -5 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-907-018	Paper Feed Timing Adj.	By-pass Clutch OFF: Middle Thick	ENG	[-10 to 10 / -5 / 1mm/step]
1-907-019	Paper Feed Timing Adj.	By-pass Clutch OFF: Thick	ENG	[-10 to 10 / -5 / 1mm/step]
1-907-020	Paper Feed Timing Adj.	By-pass Clutch OFF: Envelope	ENG	[-10 to 10 / -5 / 1mm/step]
1-907-021	Paper Feed Timing Adj.	Exit Junction Solenoid: OFF	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-022	Paper Feed Timing Adj.	Exit Junction Solenoid: ON	ENG	IM C300 series: [-40 to 20 / -9 / 1mm/step] IM C400 series: [-40 to 20 / -14 / 1mm/step]
1-907-025	Paper Feed Timing Adj.	Exit Junction Solenoid: OFF:Low	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-026	Paper Feed Timing Adj.	Exit Junction Solenoid: ON:Low	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-029	Paper Feed Timing Adj.	Tray Lift Motor Pressure	ENG*	[-2540 to 2540 / 0 / 20msec/step]
1-907-032	Paper Feed Timing Adj.	Tray Lift Motor Up	ENG*	[-2540 to 2540 / 0 / 20msec/step]
1-907-033	Paper Feed Timing Adj.	Tray Lift Motor Down	ENG*	[-2540 to 2540 / 0 / 20msec/step]
1-907-034	Paper Feed Timing Adj.	Tray Lift Motor Paper End	ENG*	[-2540 to 2540 / 0 / 20msec/step]
1-907-035	Paper Feed Timing Adj.	Tray2: Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-907-036	Paper Feed Timing Adj.	Tray2: Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-037	Paper Feed Timing Adj.	Tray2: Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-038	Paper Feed Timing Adj.	Tray3: Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-039	Paper Feed Timing Adj.	Tray3: Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-040	Paper Feed Timing Adj.	Tray3: Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-041	Paper Feed Timing Adj.	Tray2: 1st Leading Edge Pos.: Plain	ENG*	[0 to 10 / 0 / 1mm/step]
1-907-042	Paper Feed Timing Adj.	Tray2: 1st Leading Edge Pos.: Mid. Thick	ENG*	[0 to 10 / 0 / 1mm/step]
1-907-043	Paper Feed Timing Adj.	Tray2: 1st Leading Edge Pos.: Thick	ENG*	[0 to 10 / 0 / 1mm/step]
1-907-044	Paper Feed Timing Adj.	Tray3: 1st Leading Edge Pos.: Plain	ENG*	[0 to 10 / 0 / 1mm/step]
1-907-045	Paper Feed Timing Adj.	Tray3: 1st Leading Edge Pos.: Mid. Thick	ENG*	[0 to 10 / 0 / 1mm/step]
1-907-046	Paper Feed Timing Adj.	Tray3: 1st Leading Edge Pos.: Thick	ENG*	[0 to 10 / 0 / 1mm/step]
1-907-047	Paper Feed Timing Adj.	Tray2: Min. Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-907-048	Paper Feed Timing Adj.	Tray2: Min. Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-049	Paper Feed Timing Adj.	Tray2: Min. Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-050	Paper Feed Timing Adj.	Tray3: Min. Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-051	Paper Feed Timing Adj.	Tray3: Min. Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-052	Paper Feed Timing Adj.	Tray3: Min. Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-053	Paper Feed Timing Adj.	Tray1 Clutch ON: Plain: Std Speed 2	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-055	Paper Feed Timing Adj.	Tray1 Clutch OFF: Plain: Std Speed 2	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-057	Paper Feed Timing Adj.	Tray1 Paper Exit Sen.: Plain: Std Spd 2	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-058	Paper Feed Timing Adj.	Tray1 Paper Exit Sen.: Middle Thick: BW	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-059	Paper Feed Timing Adj.	By-pass Clutch ON: Plain: Std Speed 2	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-061	Paper Feed Timing Adj.	By-pass Clutch OFF: Plain: Std Speed 2	ENG	[-10 to 10 / -5 / 1mm/step]
1-907-063	Paper Feed Timing Adj.	Exit Junction SOL:OFF: Std Speed 2	ENG	[-20 to 20 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-907-064	Paper Feed Timing Adj.	Exit Junction SOL:ON: Std Speed 2	ENG	[-40 to 20 / -16 / 1mm/step]
1-907-065	Paper Feed Timing Adj.	Exit Junction SOL:OFF: Mid Speed	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-066	Paper Feed Timing Adj.	Exit Junction SOL:ON: Mid Speed	ENG	[-40 to 20 / -9 / 1mm/step]
1-907-067	Paper Feed Timing Adj.	Exit Clutch OFF: Exit Finish : Plain	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-068	Paper Feed Timing Adj.	Exit Clutch OFF: Reverse Finish : Plain	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-069	Paper Feed Timing Adj.	Exit Clutch OFF: Invert Finish : Plain	ENG	[-10 to 10 / 0 / 1mm/step]
1-907-070	Paper Feed Timing Adj.	Exit Clutch OFF: Exit Finish : Std Speed 2	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-071	Paper Feed Timing Adj.	Exit Clutch OFF: Invert Finish : Std Speed 2	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-072	Paper Feed Timing Adj.	Exit Clutch ON: Std Speed 2	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-073	Paper Feed Timing Adj.	Exit Clutch OFF: Exit Finish : Low	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-074	Paper Feed Timing Adj.	Exit Clutch OFF: Invert Finish : Low	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-075	Paper Feed Timing Adj.	Exit Clutch ON: Low Speed	ENG	[-20 to 20 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-907-076	Paper Feed Timing Adj.	Exit Clutch OFF: Exit Finish : Mid Speed	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-077	Paper Feed Timing Adj.	Exit Clutch OFF: Invert Finish : Mid Speed	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-078	Paper Feed Timing Adj.	Exit Clutch ON: Mid Speed	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-079	Paper Feed Timing Adj.	Invert Clutch OFF: Invert : Plain	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-080	Paper Feed Timing Adj.	Invert Clutch OFF:1bin Exit: Plain	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-081	Paper Feed Timing Adj.	Invert Clutch ON: Plain	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-082	Paper Feed Timing Adj.	Invert Clutch OFF: Invert:Std Speed 2	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-083	Paper Feed Timing Adj.	Invert Clutch OFF:1BIN: Std Speed 2	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-084	Paper Feed Timing Adj.	Invert Clutch ON: Std Speed 2	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-085	Paper Feed Timing Adj.	Invert Clutch OFF: Invert: Low Speed	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-086	Paper Feed Timing Adj.	Invert Clutch OFF:1BIN: Low Speed	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-087	Paper Feed Timing Adj.	Invert Clutch ON: Low Speed	ENG	[-20 to 20 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-907-088	Paper Feed Timing Adj.	Invert Clutch OFF: Invert :Mid Speed	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-089	Paper Feed Timing Adj.	Invert Clutch OFF:1BIN: Mid Speed	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-090	Paper Feed Timing Adj.	Invert Clutch ON: Mid Speed	ENG	[-20 to 20 / 0 / 1mm/step]
1-907-101	Paper Feed Timing Adj.	Tray4: Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-102	Paper Feed Timing Adj.	Tray4: Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-103	Paper Feed Timing Adj.	Tray4: Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-104	Paper Feed Timing Adj.	Tray4: 1st Leading Edge Pos.: Plain	ENG*	[0 to 10 / 0 / 1mm/step]
1-907-105	Paper Feed Timing Adj.	Tray4: 1st Leading Edge Pos.: Mid. Thick	ENG*	[0 to 10 / 0 / 1mm/step]
1-907-106	Paper Feed Timing Adj.	Tray4: 1st Leading Edge Pos.: Thick	ENG*	[0 to 10 / 0 / 1mm/step]
1-907-107	Paper Feed Timing Adj.	Tray4: Min. Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-108	Paper Feed Timing Adj.	Tray4: Min. Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm/step]
1-907-109	Paper Feed Timing Adj.	Tray4: Min. Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-908-090	Paper Feed Timing Adj.:b	NextFeed:sta1	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-908-091	Paper Feed Timing Adj.:b	NextFeed:sta2	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-908-092	Paper Feed Timing Adj.:b	NextFeed:mid	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-908-093	Paper Feed Timing Adj.:b	NextFeed:low	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-908-094	Paper Feed Timing Adj.:b	NextFeed:small	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-908-095	Paper Feed Timing Adj.:b	Refeed:sta1	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-908-096	Paper Feed Timing Adj.:b	Refeed:sta2	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-908-097	Paper Feed Timing Adj.:b	Refeed:mid	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-908-098	Paper Feed Timing Adj.:b	Refeed:low	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-	Paper Feed Timing	Refeed:small	ENG	IM C300 series: [0 to 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
908-099	Adj.:b			0 / 1mm/step] IM C400 series: [-120 to 120 / 0 / 1mm/step]
1-908-100	Paper Feed Timing Adj.:b	Feed_CL_ON3:plain	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-101	Paper Feed Timing Adj.:b	Feed_CL_ON3:mid_th	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-102	Paper Feed Timing Adj.:b	Feed_CL_ON3:thick	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-103	Paper Feed Timing Adj.:b	Feed_CL_OFF1:plain	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-104	Paper Feed Timing Adj.:b	Feed_CL_OFF1:mid_th	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-105	Paper Feed Timing Adj.:b	Feed_CL_OFF1:thick	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-106	Paper Feed Timing Adj.:b	Feed_CL_OFF2:sta1	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-350 to 350 / 0 / 1mm/step]
1-908-107	Paper Feed Timing Adj.:b	Feed_CL_OFF2:sta2	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-350 to 350 / 0 / 1mm/step]
1-908-	Paper Feed Timing Adj.:b	Feed_CL_OFF2:mid	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
108				IM C400 series: [-350 to 350 / 0 / 1mm/step]
1-908-109	Paper Feed Timing Adj.:b	Feed_CL_OFF2:low	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-350 to 350 / 0 / 1mm/step]
1-908-110	Paper Feed Timing Adj.:b	Feed_CL_OFF2:small	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-350 to 350 / 0 / 1mm/step]
1-908-111	Paper Feed Timing Adj.:b	Grip_CL_ON1:plain	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [0 to 20 / 0 / 1mm/step]
1-908-112	Paper Feed Timing Adj.:b	Grip_CL_ON1:mid_th	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [0 to 20 / 0 / 1mm/step]
1-908-113	Paper Feed Timing Adj.:b	Grip_CL_ON1:thick	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [0 to 20 / 0 / 1mm/step]
1-908-114	Paper Feed Timing Adj.:b	Grip_CL_ON2:plain	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-115	Paper Feed Timing Adj.:b	Grip_CL_ON2:mid_th	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-116	Paper Feed Timing Adj.:b	Grip_CL_ON2:thick	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-117	Paper Feed Timing Adj.:b	Grip_CL_OFF1:plain	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
				20 / 0 / 1mm/step]
1-908-118	Paper Feed Timing Adj.:b	Grip_CL_OFF1:mid_th	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-119	Paper Feed Timing Adj.:b	Grip_CL_OFF1:thick	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-120	Paper Feed Timing Adj.:b	Grip_CL_OFF2:plain	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-121	Paper Feed Timing Adj.:b	Grip_CL_OFF2:mid_th	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-122	Paper Feed Timing Adj.:b	Grip_CL_OFF2:thick	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-123	Paper Feed Timing Adj.:b	Reg_CL_ON1:plain	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-124	Paper Feed Timing Adj.:b	Reg_CL_ON1:mid_th	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-125	Paper Feed Timing Adj.:b	Reg_CL_ON1:thick	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-126	Paper Feed Timing Adj.:b	Reg_CL_OFF1:plain	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-908-127	Paper Feed Timing Adj.:b	Reg_CL_OFF1:mid_th	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-908-128	Paper Feed Timing Adj.:b	Reg_CL_OFF1:thick	ENG	IM C300 series: [0 to 0 / 0 / 1mm/step] IM C400 series: [-20 to 20 / 0 / 1mm/step]
1-909-002	ImageRetry	Function:Tray1	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-909-003	ImageRetry	Function:MF	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-909-004	ImageRetry	Function:Tray2	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-909-005	ImageRetry	Function:Tray3	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-909-006	ImageRetry	Function:Tray4	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-909-012	ImageRetry	ContAct:Tray1	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-909-013	ImageRetry	ContAct:MF	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-909-014	ImageRetry	ContAct:Tray2	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-909-015	ImageRetry	ContAct:Tray3	ENG	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
1-909-	ImageRetry	ContAct:Tray4	ENG	[0 to 1 / 1 / 1/step] 0: OFF

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
016				1: ON
1-909-022	ImageRetry	ContInv:F1	ENG	[0 to 255 / 0 / 1count/step]
1-909-023	ImageRetry	ContInv:MF	ENG	[0 to 255 / 0 / 1count/step]
1-909-024	ImageRetry	ContInv:F2	ENG	[0 to 255 / 0 / 1count/step]
1-909-025	ImageRetry	ContInv:F3	ENG	[0 to 255 / 0 / 1count/step]
1-909-026	ImageRetry	ContInv:F4	ENG	[0 to 255 / 0 / 1count/step]
1-909-032	ImageRetry	ContThresh:F1	ENG	[0 to 255 / 4 / 1count/step]
1-909-033	ImageRetry	ContThresh:MF	ENG	[0 to 255 / 4 / 1count/step]
1-909-034	ImageRetry	ContThresh:F2	ENG	[0 to 255 / 4 / 1count/step]
1-909-035	ImageRetry	ContThresh:F3	ENG	[0 to 255 / 4 / 1count/step]
1-909-036	ImageRetry	ContThresh:F4	ENG	[0 to 255 / 4 / 1count/step]
1-909-102	ImageRetry	ExeCnt:C1:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-	ImageRetry	ExeCnt:C1:MF	ENG	[0 to 999999 / 0 / 1count/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
103				
1-909-104	ImageRetry	ExeCnt:C1:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-105	ImageRetry	ExeCnt:C1:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-909-106	ImageRetry	ExeCnt:C1:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-107	ImageRetry	ExeCnt:C2:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-108	ImageRetry	ExeCnt:C2:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-909-109	ImageRetry	ExeCnt:C2:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-110	ImageRetry	ExeCnt:C2:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-909-111	ImageRetry	ExeCnt:C2:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-112	ImageRetry	ExeCnt:MT:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-113	ImageRetry	ExeCnt:MT:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-909-114	ImageRetry	ExeCnt:MT:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-	ImageRetry	ExeCnt:MT:Tray3	ENG	[0 to 999999 / 0 / 1count/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
115				
1-909-116	ImageRetry	ExeCnt:MT:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-117	ImageRetry	ExeCnt:T1:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-118	ImageRetry	ExeCnt:T1:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-909-119	ImageRetry	ExeCnt:T1:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-120	ImageRetry	ExeCnt:T1:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-909-121	ImageRetry	ExeCnt:T1:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-122	ImageRetry	ExeCnt:T2:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-123	ImageRetry	ExeCnt:T2:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-909-124	ImageRetry	ExeCnt:T2:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-125	ImageRetry	ExeCnt:T2:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-909-126	ImageRetry	ExeCnt:T2:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-	ImageRetry	ExeCnt:T3:MF	ENG	[0 to 999999 / 0 / 1count/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
128				
1-909-202	ImageRetry	PrntCnt:C1:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-203	ImageRetry	PrntCnt:C1:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-909-204	ImageRetry	PrntCnt:C1:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-205	ImageRetry	PrntCnt:C1:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-909-206	ImageRetry	PrntCnt:C1:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-207	ImageRetry	PrntCnt:C2:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-208	ImageRetry	PrntCnt:C2:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-909-209	ImageRetry	PrntCnt:C2:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-210	ImageRetry	PrntCnt:C2:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-909-211	ImageRetry	PrntCnt:C2:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-212	ImageRetry	PrntCnt:MT:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-	ImageRetry	PrntCnt:MT:MF	ENG	[0 to 999999 / 0 / 1count/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
213				
1-909-214	ImageRetry	PrntCnt:MT:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-215	ImageRetry	PrntCnt:MT:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-909-216	ImageRetry	PrntCnt:MT:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-217	ImageRetry	PrntCnt:T1:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-218	ImageRetry	PrntCnt:T1:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-909-219	ImageRetry	PrntCnt:T1:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-220	ImageRetry	PrntCnt:T1:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-909-221	ImageRetry	PrntCnt:T1:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-222	ImageRetry	PrntCnt:T2:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-909-223	ImageRetry	PrntCnt:T2:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-909-224	ImageRetry	PrntCnt:T2:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-909-	ImageRetry	PrntCnt:T2:Tray3	ENG	[0 to 999999 / 0 / 1count/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
225				
1-909-226	ImageRetry	PrntCnt:T2:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-909-228	ImageRetry	PrntCnt:T3:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-910-002	ExpSlip	PPM Lower:Tray1	ENG	[0 to 99 / 60 / 1%/step]
1-910-003	ExpSlip	PPM Lower:MF	ENG	[0 to 99 / 60 / 1%/step]
1-910-004	ExpSlip	PPM Lower:Tray2	ENG	[0 to 99 / 60 / 1%/step]
1-910-005	ExpSlip	PPM Lower:Tray3	ENG	[0 to 99 / 60 / 1%/step]
1-910-006	ExpSlip	PPM Lower:Tray4	ENG	[0 to 99 / 60 / 1%/step]
1-910-022	ExpSlip	ContCnt:Tray1	ENG	[0 to 255 / 0 / 1count/step]
1-910-023	ExpSlip	ContCnt:MF	ENG	[0 to 255 / 0 / 1count/step]
1-910-024	ExpSlip	ContCnt:Tray2	ENG	[0 to 255 / 0 / 1count/step]
1-910-025	ExpSlip	ContCnt:Tray3	ENG	[0 to 255 / 0 / 1count/step]
1-910-	ExpSlip	ContCnt:Tray4	ENG	[0 to 255 / 0 / 1count/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
026				
1-910-032	ExpSlip	ContThresh:Tray1	ENG	[0 to 255 / 7 / 1count/step]
1-910-033	ExpSlip	ContThresh:MF	ENG	[0 to 255 / 7 / 1count/step]
1-910-034	ExpSlip	ContThresh:Tray2	ENG	[0 to 255 / 7 / 1count/step]
1-910-035	ExpSlip	ContThresh:Tray3	ENG	[0 to 255 / 7 / 1count/step]
1-910-036	ExpSlip	ContThresh:Tray4	ENG	[0 to 255 / 7 / 1count/step]
1-910-052	ExpSlip	ContFeed:Tray1	ENG	[0 to 999 / 0 / 1count/step]
1-910-053	ExpSlip	ContFeed:MF	ENG	[0 to 999 / 0 / 1count/step]
1-910-054	ExpSlip	ContFeed:Tray2	ENG	[0 to 999 / 0 / 1count/step]
1-910-055	ExpSlip	ContFeed:Tray3	ENG	[0 to 999 / 0 / 1count/step]
1-910-056	ExpSlip	ContFeed:Tray4	ENG	[0 to 999 / 0 / 1count/step]
1-910-071	ImageRetry	ExeCnt:Sl0:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-910-	ImageRetry	ExeCnt:Sl1:Tray1	ENG	[0 to 999999 / 0 / 1count/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
072				
1-910-073	ImageRetry	ExeCnt:Ret:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-910-074	ImageRetry	ExeCnt:Jam:Tray1	ENG	[0 to 999999 / 0 / 1count/step]
1-910-075	ImageRetry	ExeCnt:Sl0:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-910-076	ImageRetry	ExeCnt:Sl1:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-910-077	ImageRetry	ExeCnt:Ret:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-910-078	ImageRetry	ExeCnt:Jam:MF	ENG	[0 to 999999 / 0 / 1count/step]
1-910-079	ImageRetry	ExeCnt:Sl0:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-910-080	ImageRetry	ExeCnt:Sl1:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-910-081	ImageRetry	ExeCnt:Ret:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-910-082	ImageRetry	ExeCnt:Jam:Tray2	ENG	[0 to 999999 / 0 / 1count/step]
1-910-083	ImageRetry	ExeCnt:Sl0:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-910-	ImageRetry	ExeCnt:Sl1:Tray3	ENG	[0 to 999999 / 0 / 1count/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
084				
1-910-085	ImageRetry	ExeCnt:Ret:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-910-086	ImageRetry	ExeCnt:Jam:Tray3	ENG	[0 to 999999 / 0 / 1count/step]
1-910-087	ImageRetry	ExeCnt:Sl0:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-910-088	ImageRetry	ExeCnt:Sl1:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-910-089	ImageRetry	ExeCnt:Ret:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-910-090	ImageRetry	ExeCnt:Jam:Tray4	ENG	[0 to 999999 / 0 / 1count/step]
1-910-121	ExpSlip	Slip1:Tray1	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-122	ExpSlip	Slip2:Tray1	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-123	ExpSlip	Slip3:Tray1	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-131	ExpSlip	Slip1:MF	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-132	ExpSlip	Slip2:MF	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-	ExpSlip	Slip3:MF	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
133				
1-910-141	ExpSlip	Slip1:Tray2	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-142	ExpSlip	Slip2:Tray2	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-143	ExpSlip	Slip3:Tray2	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-151	ExpSlip	Slip1:Tray3	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-152	ExpSlip	Slip2:Tray3	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-153	ExpSlip	Slip3:Tray3	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-161	ExpSlip	Slip1:Tray4	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-162	ExpSlip	Slip2:Tray4	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-163	ExpSlip	Slip3:Tray4	ENG	[-999.9 to 999.9 / 0.0 / 0.1mm/step]
1-910-232	ExpSlip	SlipTotal:Tray1	ENG	[-999999.9 to 999999.9 / 0.0 / 0.1mm/step]
1-910-233	ExpSlip	SlipTotal:MF	ENG	[-999999.9 to 999999.9 / 0.0 / 0.1mm/step]
1-910-	ExpSlip	SlipTotal:Tray2	ENG	[-999999.9 to 999999.9 / 0.0 / 0.1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
234				
1-910-235	ExpSlip	SlipTotal:Tray3	ENG	[-999999.9 to 999999.9 / 0.0 / 0.1mm/step]
1-910-236	ExpSlip	SlipTotal:Tray4	ENG	[-999999.9 to 999999.9 / 0.0 / 0.1mm/step]
1-950-001	Fan Cooling Time Set	PCDU Cooling Fan	ENG*	[0 to 600 / 0 / 1sec/step]
1-950-002	Fan Cooling Time Set	Fusing Fan	ENG*	[0 to 600 / 10 / 1sec/step]
1-950-003	Fan Cooling Time Set	PSU Fan	ENG*	[0 to 600 / 0 / 1sec/step]
1-950-004	Fan Cooling Time Set	Laser Unit Fan	ENG*	[0 to 600 / 0 / 1sec/step]
1-951-001	Fan Start Time Set	PCDU Cooling Fan	ENG*	[0 to 120 / 0 / 1sec/step]
1-951-002	Fan Start Time Set	Fusing Fan	ENG*	[0 to 120 / 0 / 1sec/step]
1-951-003	Fan Start Time Set	PSU Fan	ENG*	[0 to 120 / 0 / 1sec/step]
1-951-004	Fan Start Time Set	Laser Unit Fan	ENG*	[0 to 120 / 0 / 1sec/step]
1-952-001	Fan Control Off Mode Time Set		ENG*	[10 to 60 / 10 / 1min/step]
1-953-	Extra Fan Control	Operation Status	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				
1-953-006	Extra Fan Control	Extra Fan Start Temp.	ENG*	[0.0 to 50.0 / 5.0 / 0.1deg/step]
1-953-007	Extra Fan Control	Extra Fan Stop Temp. Threshold	ENG*	[0.0 to 50.0 / 2.0 / 0.1deg/step]
1-953-008	Extra Fan Control	Set: Extra Operation ON/OFF	ENG*	[0 to 1 / 1 / 1/step]
1-955-001	Fan Control	PCDU Fan Operation Sw Temp.	ENG*	[0.0 to 100.0 / 38.0 / 0.1deg/step]
1-955-002	Fan Control	Fusing Fan Operation Sw Temp.	ENG*	[0.0 to 100.0 / 0.0 / 0.1deg/step]
1-955-004	Fan Control	Laser Unit Fan Operation Sw Temp.	ENG*	[0.0 to 100.0 / 38.0 / 0.1deg/step]
1-955-005	Fan Control	Fan Operation Sw Temp. Threshold	ENG*	[0.0 to 100.0 / 2.0 / 0.1deg/step]
1-955-006	Fan Control	PSU Fan Operation Start Time2	ENG*	[0 to 900 / 0 / 1sec/step]
1-955-007	Fan Control	PSU Fan Ctrl Off Mode Time2	ENG*	[0.0 to 60.0 / 10.0 / 0.1min./step]

SP2-XXX (Drum) -1

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-005-001	Charge DC Voltage: Fix	Plain: Bk	ENG*	[0 to 2000 / 590 / 10-V/step]
2-005-002	Charge DC Voltage: Fix	Plain: C	ENG*	[0 to 2000 / 590 / 10-V/step]
2-005-003	Charge DC Voltage: Fix	Plain: M	ENG*	[0 to 2000 / 590 / 10-V/step]
2-005-004	Charge DC Voltage: Fix	Plain: Y	ENG*	[0 to 2000 / 590 / 10-V/step]
2-013-001	Environmental Correction: PCU	Environment Div. FC: Display	ENG*	[0 to 5 / 0 / 1/step]
2-013-002	Environmental Correction: PCU	Forced Setting	ENG*	[0 to 5 / 0 / 1/step]
2-016-001	Lubricant Apply Operation	Temperature Threshold: Low	ENG*	[0 to 50 / 15 / 1deg/step]
2-016-002	Lubricant Apply Operation	Temperature Threshold: High	ENG*	[0 to 50 / 30 / 1deg/step]
2-016-003	Lubricant Apply Operation	Page Setting 1: Low Speed	ENG*	[0 to 999 / 10 / 1page/step]
2-016-004	Lubricant Apply Operation	Page Setting 2: Low Temp.	ENG*	[0 to 999 / 20 / 1page/step]
2-016-005	Lubricant Apply Operation	Page Setting 3: Low Temp. 2	ENG*	[0 to 999 / 0 / 1page/step]
2-	Lubricant Apply Operation	Page Setting 4: High	ENG*	[0 to 999 / 20 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
016-006		Temp.		1page/step]
2-016-007	Lubricant Apply Operation	Coverage Threshold 1: Low Speed	ENG*	[0.00 to 100.00 / 10.00 / 0.01%/step]
2-016-008	Lubricant Apply Operation	Coverage Threshold 2: Low Temp.	ENG*	[0.00 to 60.00 / 20.00 / 0.01%/step]
2-016-010	Lubricant Apply Operation	Coverage Threshold 4: High Temp.	ENG*	[0.00 to 100.00 / 20.00 / 0.01%/step]
2-016-011	Lubricant Apply Operation	Application Time:1	ENG*	IM C300 series: [0 to 99 / 10 / 1sec/step] IM C400 series: [0 to 99 / 7 / 1sec/step]
2-016-012	Lubricant Apply Operation	Application Time:2	ENG*	IM C300 series: [0 to 99 / 10 / 1sec/step] IM C400 series: [0 to 99 / 7 / 1sec/step]
2-016-013	Lubricant Apply Operation	Application Time:3	ENG*	IM C300 series: [0 to 99 / 10 / 1sec/step] IM C400 series: [0 to 99 / 7 / 1sec/step]
2-016-014	Lubricant Apply Operation	Application Time:4	ENG*	IM C300 series: [0 to 99 / 5 / 1sec/step] IM C400 series: [0 to 99 / 3 / 1sec/step]
2-	Lubricant Apply Operation	Page Setting 5: Low	ENG*	[0 to 999 / 20 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
016-033		Temp.		1page/step]
2-016-034	Lubricant Apply Operation	Image Area Threshold 5: Low Temp.	ENG*	[60.00 to 100.00 / 60.00 / 0.01%/step]
2-016-035	Lubricant Apply Operation	Application Time:5	ENG*	IM C300 series: [0 to 99 / 3 / 1sec/step] IM C400 series: [0 to 99 / 2 / 1sec/step]
2-016-036	Lubricant Apply Operation	Temperature Threshold: Low 2	ENG*	[0 to 50 / 15 / 1deg/step]
2-101-001	Registration Adjustment	Color Main Dot: Bk	ENG*	[-512 to 511 / 0 / 1dot/step]
2-101-002	Registration Correction	Color Main Dot: Ma	ENG*	[-512 to 511 / 0 / 1dot/step]
2-101-003	Registration Correction	Color Main Dot: Cy	ENG*	[-512 to 511 / 0 / 1dot/step]
2-101-004	Registration Correction	Color Main Dot: Ye	ENG*	[-512 to 511 / 0 / 1dot/step]
2-101-005	Registration Correction	Color Sub Line: Bk	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-101-006	Registration Correction	Color Sub Line: Ma	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-101-007	Registration Correction	Color Sub Line: Cy	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-	Registration Correction	Color Sub Line: Ye	ENG*	[-16384 to 16383 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
101-008				0 / 1line/step]
2-102-001	Magnification Adjustment	Main Mag.: Standard Speed: Bk	ENG*	[-1.000 to 1.000 / 0.091 / 0.001%/step]
2-102-002	Magnification Adjustment	Main Mag.: Standard Speed2: Bk	ENG*	[-1.000 to 1.000 / 0.091 / 0.001%/step]
2-102-003	Magnification Adjustment	Main Mag.: Low Speed: Bk	ENG*	[-1.000 to 1.000 / 0.091 / 0.001%/step]
2-102-004	Magnification Adjustment	Main Mag.: Standard Speed: Ma	ENG*	[-1.000 to 1.000 / 0.091 / 0.001%/step]
2-102-006	Magnification Adjustment	Main Mag.: Low Speed: Ma	ENG*	[-1.000 to 1.000 / 0.091 / 0.001%/step]
2-102-007	Magnification Adjustment	Main Mag.: Standard Speed: Cy	ENG*	[-1.000 to 1.000 / 0.081 / 0.001%/step]
2-102-009	Magnification Adjustment	Main Mag.: Low Speed: Cy	ENG*	[-1.000 to 1.000 / 0.081 / 0.001%/step]
2-102-010	Magnification Adjustment	Main Mag.: Standard Speed: Ye	ENG*	[-1.000 to 1.000 / 0.081 / 0.001%/step]
2-102-012	Magnification Adjustment	Main Mag.: Low Speed: Ye	ENG*	[-1.000 to 1.000 / 0.081 / 0.001%/step]
2-102-013	Main Scan Beam Pitch Adj.	Bk	ENG*	[0.00 to 100.00 / 11.53 / 0.01dot/step]
2-102-015	Main Scan Beam Pitch Adj.	Ma	ENG*	[0.00 to 100.00 / 11.53 / 0.01dot/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-102-017	Main Scan Beam Pitch Adj.	Cy	ENG*	[0.00 to 100.00 / 11.53 / 0.01dot/step]
2-102-019	Main Scan Beam Pitch Adj.	Ye	ENG*	[0.00 to 100.00 / 11.53 / 0.01dot/step]
2-102-028	Magnification Adjustment	Color Main Mag.: Standard Speed: Ma	ENG*	[-1.000 to 1.000 / 0.000 / 0.001%/step]
2-102-031	Magnification Adjustment	Color Main Mag.: Standard Speed: Cy	ENG*	[-1.000 to 1.000 / 0.000 / 0.001%/step]
2-102-034	Magnification Adjustment	Color Main Mag.: Standard Speed: Ye	ENG*	[-1.000 to 1.000 / 0.000 / 0.001%/step]
2-103-001	Erase Margin Adjustment	Leading Edge Width	ENG*	[0.0 to 9.9 / 4.2 / 0.1mm/step]
2-103-002	Erase Margin Adjustment	Trailing Edge Width	ENG*	[0.0 to 9.9 / 4.2 / 0.1mm/step]
2-103-003	Erase Margin Adjustment	Left	ENG*	[0.0 to 9.9 / 2.0 / 0.1mm/step]
2-103-004	Erase Margin Adjustment	Right	ENG*	[0.0 to 9.9 / 2.0 / 0.1mm/step]
2-103-005	Erase Margin Adjustment	Duplex: Trailing Edge	ENG*	[0.0 to 9.9 / 0.0 / 0.1mm/step]
2-103-006	Erase Margin Adjustment	Duplex: Left Edge	ENG*	[0.0 to 9.9 / 0.0 / 0.1mm/step]
2-103-007	Erase Margin Adjustment	Duplex: Right Edge	ENG*	[0.0 to 9.9 / 0.0 / 0.1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-106-001	Polygon Rotation Time	Warming-Up Time Set	ENG*	[0 to 60 / 10 / 1sec/step]
2-106-002	Polygon Rotation Time	Post Rotating Time Set After Printing	ENG*	[0 to 60 / 0 / 1sec/step]
2-107-002	Image Parameter	Shading Correction Flag	ENG*	[0 to 1 / 1 / 1/step]
2-109-003	Test Pattern	Pattern Selection	ENG	[0 to 23 / 0 / 1/step] 1: Vertical Line (1dot) 2: Vertical Line (2dots) 3: Horizontal Line (1dot) 4: Horizontal Line (2dots) 5: Grid Vertical Line 6: Grid Horizontal Line 7: Grid Pattern Small 8: Grid Pattern Large 9: Argyle Pattern Small 10: Argyle Pattern Large
2-109-005	Test Pattern	Color Selection	ENG	[1 to 4 / 1 / 1/step] 1: All Color 2: Ma 3: Ye 4: Cy
2-	Test Pattern	Density: Bk	ENG	[0 to 15 / 15 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
109-006				1/step]
2-109-007	Test Pattern	Density: Ma	ENG	[0 to 15 / 15 / 1/step]
2-109-008	Test Pattern	Density: Cy	ENG	[0 to 15 / 15 / 1/step]
2-109-009	Test Pattern	Density: Ye	ENG	[0 to 15 / 15 / 1/step]
2-110-001	STOUT	STOUT Selection	ENG*	[0 to 1 / 0 / 1/step]
2-110-002	LD Driver	Error Bk	ENG	[0x0000 to 0xFFFF / 0x0000 / 1/step]
2-110-003	LD Driver	Error Ma	ENG	[0x0000 to 0xFFFF / 0x0000 / 1/step]
2-110-004	LD Driver	Error Cy	ENG	[0x0000 to 0xFFFF / 0x0000 / 1/step]
2-110-005	LD Driver	Error Ye	ENG	[0x0000 to 0xFFFF / 0x0000 / 1/step]
2-110-006	LD Driver	Writing Unit Adj. Transfer	ENG	[0 to 1 / 0 / 1/step]
2-111-001	Forced Line Position Adj.	Mode a	ENG	[0 to 1 / 0 / 1/step]
2-111-002	Forced Line Position Adj.	Mode b	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-111-003	Forced Line Position Adj.	Mode c	ENG	[0 to 1 / 0 / 1/step]
2-111-004	Forced Line Position Adj.	Mode d	ENG	[0 to 1 / 0 / 1/step]
2-112-001	TM/ID Sensor Check	Execute	ENG	[0 to 1 / 0 / 1/step]
2-112-010	TM/ID Sensor Check	Display Result: Front-Center-Rear	ENG*	[0 to 999 / 0 / 1/step]
2-112-020	TM/ID Sensor Check	Threshold Setting	ENG*	[0.00 to 5.50 / 1.90 / 0.01V/step]
2-117-001	Skew Adjustment	Ma:Skew Adjustment	ENG*	[-256 to 256 / 0 / 1click/step]
2-117-002	Skew Adjustment	Cy:Skew Adjustment	ENG*	[-256 to 256 / 0 / 1click/step]
2-117-003	Skew Adjustment	Ye:Skew Adjustment	ENG*	[-256 to 256 / 0 / 1click/step]
2-117-004	Skew Adjustment	Bk:Skew Adjustment	ENG*	[-256 to 256 / 0 / 1click/step]
2-140-005	TM/ID Sensor Check	PWM: Front	ENG*	[0 to 1024 / 0 / 1/step]
2-140-006	TM/ID Sensor Check	PWM: Center	ENG*	[0 to 1024 / 0 / 1/step]
2-140-007	TM/ID Sensor Check	PWM: Rear	ENG*	[0 to 1024 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-141-005	TM/ID Sensor Check	Average: Front	ENG*	[0.00 to 5.50 / 0.00 / 0.01V/step]
2-141-006	TM/ID Sensor Check	Average: Center	ENG*	[0.00 to 5.50 / 0.00 / 0.01V/step]
2-141-007	TM/ID Sensor Check	Average: Rear	ENG*	[0.00 to 5.50 / 0.00 / 0.01V/step]
2-142-005	TM/ID Sensor Check	Maximum: Front	ENG*	[0.00 to 5.50 / 0.00 / 0.01V/step]
2-142-006	TM/ID Sensor Check	Maximum: Center	ENG*	[0.00 to 5.50 / 0.00 / 0.01V/step]
2-142-007	TM/ID Sensor Check	Maximum: Rear	ENG*	[0.00 to 5.50 / 0.00 / 0.01V/step]
2-143-005	TM/ID Sensor Check	Minimum: Front	ENG*	[0.00 to 5.50 / 0.00 / 0.01V/step]
2-143-006	TM/ID Sensor Check	Minimum: Center	ENG*	[0.00 to 5.50 / 0.00 / 0.01V/step]
2-143-007	TM/ID Sensor Check	Minimum: Rear	ENG*	[0.00 to 5.50 / 0.00 / 0.01V/step]
2-146-005	TM-Sensor Check Result	Number of Edge Detection:Front	ENG*	[0 to 16 / 0 / 1/step]
2-146-006	TM-Sensor Check Result	Number of Edge Detection:Center	ENG*	[0 to 16 / 0 / 1/step]
2-146-007	TM-Sensor Check Result	Number of Edge Detection:Rear	ENG*	[0 to 16 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-150-027	Area Mag. Correction	Area 0: Bk	ENG*	[-16.00 to 16.00 / 0.00 / 0.01dot/step]
2-150-028	Area Mag. Correction	Area 1: Bk	ENG*	[-16.00 to 16.00 / 0.20 / 0.01dot/step]
2-150-029	Area Mag. Correction	Area 2: Bk	ENG*	[-16.00 to 16.00 / -0.45 / 0.01dot/step]
2-150-030	Area Mag. Correction	Area 3: Bk	ENG*	[-16.00 to 16.00 / -0.62 / 0.01dot/step]
2-150-031	Area Mag. Correction	Area 4: Bk	ENG*	[-16.00 to 16.00 / -0.40 / 0.01dot/step]
2-150-032	Area Mag. Correction	Area 5: Bk	ENG*	[-16.00 to 16.00 / 0.00 / 0.01dot/step]
2-150-033	Area Mag. Correction	Area 6: Bk	ENG*	[-16.00 to 16.00 / 0.39 / 0.01dot/step]
2-150-034	Area Mag. Correction	Area 7: Bk	ENG*	[-16.00 to 16.00 / 0.56 / 0.01dot/step]
2-150-035	Area Mag. Correction	Area 8: Bk	ENG*	[-16.00 to 16.00 / 0.31 / 0.01dot/step]
2-150-079	Area Mag. Correction	Area 0: Ma	ENG*	[-16.00 to 16.00 / 0.00 / 0.01dot/step]
2-150-080	Area Mag. Correction	Area 1: Ma	ENG*	[-16.00 to 16.00 / 0.20 / 0.01dot/step]
2-150-081	Area Mag. Correction	Area 2: Ma	ENG*	[-16.00 to 16.00 / -0.45 / 0.01dot/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-150-082	Area Mag. Correction	Area 3: Ma	ENG*	[-16.00 to 16.00 / -0.62 / 0.01dot/step]
2-150-083	Area Mag. Correction	Area 4: Ma	ENG*	[-16.00 to 16.00 / -0.40 / 0.01dot/step]
2-150-084	Area Mag. Correction	Area 5: Ma	ENG*	[-16.00 to 16.00 / 0.00 / 0.01dot/step]
2-150-085	Area Mag. Correction	Area 6: Ma	ENG*	[-16.00 to 16.00 / 0.39 / 0.01dot/step]
2-150-086	Area Mag. Correction	Area 7: Ma	ENG*	[-16.00 to 16.00 / 0.56 / 0.01dot/step]
2-150-087	Area Mag. Correction	Area 8: Ma	ENG*	[-16.00 to 16.00 / 0.31 / 0.01dot/step]
2-150-131	Area Mag. Correction	Area 0: Cy	ENG*	[-16.00 to 16.00 / 0.00 / 0.01dot/step]
2-150-132	Area Mag. Correction	Area 1: Cy	ENG*	[-16.00 to 16.00 / 0.18 / 0.01dot/step]
2-150-133	Area Mag. Correction	Area 2: Cy	ENG*	[-16.00 to 16.00 / 0.49 / 0.01dot/step]
2-150-134	Area Mag. Correction	Area 3: Cy	ENG*	[-16.00 to 16.00 / 0.42 / 0.01dot/step]
2-150-135	Area Mag. Correction	Area 4: Cy	ENG*	[-16.00 to 16.00 / 0.11 / 0.01dot/step]
2-150-136	Area Mag. Correction	Area 5: Cy	ENG*	[-16.00 to 16.00 / -0.26 / 0.01dot/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-150-137	Area Mag. Correction	Area 6: Cy	ENG*	[-16.00 to 16.00 / -0.50 / 0.01dot/step]
2-150-138	Area Mag. Correction	Area 7: Cy	ENG*	[-16.00 to 16.00 / -0.45 / 0.01dot/step]
2-150-139	Area Mag. Correction	Area 8: Cy	ENG*	[-16.00 to 16.00 / 0.02 / 0.01dot/step]
2-150-183	Area Mag. Correction	Area 0: Ye	ENG*	[-16.00 to 16.00 / 0.00 / 0.01dot/step]
2-150-184	Area Mag. Correction	Area 1: Ye	ENG*	[-16.00 to 16.00 / 0.18 / 0.01dot/step]
2-150-185	Area Mag. Correction	Area 2: Ye	ENG*	[-16.00 to 16.00 / 0.49 / 0.01dot/step]
2-150-186	Area Mag. Correction	Area 3: Ye	ENG*	[-16.00 to 16.00 / 0.42 / 0.01dot/step]
2-150-187	Area Mag. Correction	Area 4: Ye	ENG*	[-16.00 to 16.00 / 0.11 / 0.01dot/step]
2-150-188	Area Mag. Correction	Area 5: Ye	ENG*	[-16.00 to 16.00 / -0.26 / 0.01dot/step]
2-150-189	Area Mag. Correction	Area 6: Ye	ENG*	[-16.00 to 16.00 / -0.50 / 0.01dot/step]
2-150-190	Area Mag. Correction	Area 7: Ye	ENG*	[-16.00 to 16.00 / -0.45 / 0.01dot/step]
2-150-191	Area Mag. Correction	Area 8: Ye	ENG*	[-16.00 to 16.00 / 0.02 / 0.01dot/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-152-001	Shad. Correct Setting	Standard Speed: Bk	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-002	Shad. Correct Setting	Standard Speed: Ma	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-003	Shad. Correct Setting	Standard Speed: Cy	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-004	Shad. Correct Setting	Standard Speed: Ye	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-005	Shad. Correct Setting	Middle Speed: Bk	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-006	Shad. Correct Setting	Middle Speed: Ma	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-007	Shad. Correct Setting	Middle Speed: Cy	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-008	Shad. Correct Setting	Middle Speed: Ye	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-009	Shad. Correct Setting	Low Speed: Bk	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-010	Shad. Correct Setting	Low Speed: Ma	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-011	Shad. Correct Setting	Low Speed: Cy	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-152-012	Shad. Correct Setting	Low Speed: Ye	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-152-013	Shad. Correct Setting	Standard Speed 2: Bk	ENG*	[50.0 to 120.0 / 100.0 / 0.1%/step]
2-154-002	Shad. Correct Setting	Front End Area: Bk: LD1	ENG*	[50.0 to 150.0 / 100.0 / 0.1%/step]
2-154-003	Shad. Correct Setting	Front End Area: Bk: LD2	ENG*	[50.0 to 150.0 / 100.0 / 0.1%/step]
2-154-005	Shad. Correct Setting	Front End Area: Ma: LD1	ENG*	[50.0 to 150.0 / 100.0 / 0.1%/step]
2-154-006	Shad. Correct Setting	Front End Area: Ma: LD2	ENG*	[50.0 to 150.0 / 100.0 / 0.1%/step]
2-154-007	Shad. Correct Setting	Front End Area: Cy: LD1	ENG*	[50.0 to 150.0 / 100.0 / 0.1%/step]
2-154-008	Shad. Correct Setting	Front End Area: Cy: LD2	ENG*	[50.0 to 150.0 / 100.0 / 0.1%/step]
2-154-009	Shad. Correct Setting	Front End Area: Ye: LD1	ENG*	[50.0 to 150.0 / 100.0 / 0.1%/step]
2-154-010	Shad. Correct Setting	Front End Area: Ye: LD2	ENG*	[50.0 to 150.0 / 100.0 / 0.1%/step]
2-160-001	Vertical Line Width	600dpi:Bk	ENG*	[10 to 15 / 14 / 1/step]
2-160-002	Vertical Line Width	600dpi:Ma	ENG*	[10 to 15 / 14 / 1/step]
2-160-003	Vertical Line Width	600dpi:Cy	ENG*	[10 to 15 / 14 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-160-004	Vertical Line Width	600dpi:Ye	ENG*	[10 to 15 / 14 / 1/step]
2-160-005	Vertical Line Width	1200dpi:Bk	ENG*	[10 to 15 / 15 / 1/step]
2-160-006	Vertical Line Width	1200dpi:Ma	ENG*	[10 to 15 / 15 / 1/step]
2-160-007	Vertical Line Width	1200dpi:Cy	ENG*	[10 to 15 / 15 / 1/step]
2-160-008	Vertical Line Width	1200dpi:Ye	ENG*	[10 to 15 / 15 / 1/step]
2-160-009	Vertical Line Width	600dpi:Independent Dot:Bk	ENG*	[10 to 15 / 15 / 1/step]
2-160-010	Vertical Line Width	1200dpi:Independent Dot:Bk	ENG*	[10 to 15 / 15 / 1/step]
2-180-001	Line Pos. Adj. Clear	Color Registration	ENG	[0 to 1 / 0 / 1/step]
2-180-002	Line Pos. Adj. Clear	Main Scan Length Detection	ENG	[0 to 1 / 0 / 1/step]
2-180-003	Line Pos. Adj. Clear	MUSIC Result	ENG	[0 to 1 / 0 / 1/step]
2-181-003	Line Position Adj. Result	Skew: M	ENG*	[-5000.000 to 5000.000 / 0.000 / 0.001um/step]
2-181-011	Line Position Adj. Result	M. Cor.: Dot: M	ENG*	[-512 to 511 / 0 / 1dot/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-181-012	Line Position Adj. Result	M. Cor.: Subdot: M	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-181-015	Line Position Adj. Result	Left Mag.: Subdot: M	ENG*	[-32.00 to 32.00 / 0.00 / 0.01dot/step]
2-181-016	Line Position Adj. Result	Right Mag.: Subdot: M	ENG*	[-32.00 to 32.00 / 0.00 / 0.01dot/step]
2-181-017	Line Position Adj. Result	S. Cor.: 600 Line: M	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-181-018	Line Position Adj. Result	S. Cor.: 600 Sub: M	ENG*	[-1.000 to 1.000 / 0.000 / 0.001line/step]
2-181-019	Line Position Adj. Result	S. Cor.: 1200 Line: M	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-181-020	Line Position Adj. Result	S. Cor.: 1200 Sub: M	ENG*	[-1.000 to 1.000 / 0.000 / 0.001line/step]
2-181-021	Line Position Adj. Result	Skew: C	ENG*	[-5000.000 to 5000.000 / 0.000 / 0.001um/step]
2-181-029	Line Position Adj. Result	M. Cor.: Dot: C	ENG*	[-512 to 511 / 0 / 1dot/step]
2-181-030	Line Position Adj. Result	M. Cor.: Subdot: C	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-181-033	Line Position Adj. Result	Left Mag.: Subdot: C	ENG*	[-32.00 to 32.00 / 0.00 / 0.01dot/step]
2-181-034	Line Position Adj. Result	Right Mag.: Subdot: C	ENG*	[-32.00 to 32.00 / 0.00 / 0.01dot/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-181-035	Line Position Adj. Result	S. Cor.: 600 Line: C	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-181-036	Line Position Adj. Result	S. Cor.: 600 Sub: C	ENG*	[-1.000 to 1.000 / 0.000 / 0.001line/step]
2-181-037	Line Position Adj. Result	S. Cor.: 1200 Line: C	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-181-038	Line Position Adj. Result	S. Cor.: 1200 Sub: C	ENG*	[-1.000 to 1.000 / 0.000 / 0.001line/step]
2-181-039	Line Position Adj. Result	Skew: Y	ENG*	[-5000.000 to 5000.000 / 0.000 / 0.001um/step]
2-181-047	Line Position Adj. Result	M. Cor.: Dot: Y	ENG*	[-512 to 511 / 0 / 1dot/step]
2-181-048	Line Position Adj. Result	M. Cor.: Subdot: Y	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-181-051	Line Position Adj. Result	Left Mag.: Subdot: Y	ENG*	[-32.00 to 32.00 / 0.00 / 0.01dot/step]
2-181-052	Line Position Adj. Result	Right Mag.: Subdot: Y	ENG*	[-32.00 to 32.00 / 0.00 / 0.01dot/step]
2-181-053	Line Position Adj. Result	S. Cor.: 600 Line: Y	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-181-054	Line Position Adj. Result	S. Cor.: 600 Sub: Y	ENG*	[-1.000 to 1.000 / 0.000 / 0.001line/step]
2-181-055	Line Position Adj. Result	S. Cor.: 1200 Line: Y	ENG*	[-16384 to 16383 / 0 / 1line/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-181-056	Line Position Adj. Result	S. Cor.: 1200 Sub: Y	ENG*	[-1.000 to 1.000 / 0.000 / 0.001line/step]
2-181-057	Line Position Adj. Result	S. Cor.: 600 Sub	ENG*	[-1.000 to 1.000 / 0.000 / 0.001line/step]
2-181-059	Line Position Adj. Result	S. Cor.: 1200 Sub	ENG*	[-1.000 to 1.000 / 0.000 / 0.001line/step]
2-181-061	Line Position Adj. Result	Skew: Bk	ENG*	[-5000.000 to 5000.000 / 0.000 / 0.001um/step]
2-181-072	Line Position Adj. Result	Line Shift: M	ENG*	[0 to 1 / 0 / 1line/step]
2-181-074	Line Position Adj. Result	Line Shift: C	ENG*	[0 to 1 / 0 / 1line/step]
2-181-076	Line Position Adj. Result	Line Shift: Y	ENG*	[0 to 1 / 0 / 1line/step]
2-182-004	Line Position Offset	M. Scan: Standard: Dot: M	ENG*	[-512 to 511 / 0 / 1dot/step]
2-182-005	Line Position Offset	M. Scan: Standard: Subdot: M	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-182-006	Line Position Offset	M. Scan: Middle: Dot: M	ENG*	[-512 to 511 / 0 / 1dot/step]
2-182-007	Line Position Offset	M. Scan: Middle: Subdot: M	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-182-008	Line Position Offset	M. Scan: Low: Dot: M	ENG*	[-512 to 511 / 0 / 1dot/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-182-009	Line Position Offset	M. Scan: Low: Subdot: M	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-182-010	Line Position Offset	M. Scan: Standard: Dot: C	ENG*	[-512 to 511 / 0 / 1dot/step]
2-182-011	Line Position Offset	M. Scan: Standard: Subdot: C	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-182-012	Line Position Offset	M. Scan: Middle: Dot: C	ENG*	[-512 to 511 / 0 / 1dot/step]
2-182-013	Line Position Offset	M. Scan: Middle: Subdot: C	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-182-014	Line Position Offset	M. Scan: Low: Dot: C	ENG*	[-512 to 511 / 0 / 1dot/step]
2-182-015	Line Position Offset	M. Scan: Low: Subdot: C	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-182-016	Line Position Offset	M. Scan: Standard: Dot: Y	ENG*	[-512 to 511 / 0 / 1dot/step]
2-182-017	Line Position Offset	M. Scan: Standard: Subdot: Y	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-182-018	Line Position Offset	M. Scan: Middle: Dot: Y	ENG*	[-512 to 511 / 0 / 1dot/step]
2-182-019	Line Position Offset	M. Scan: Middle: Subdot: Y	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-182-020	Line Position Offset	M. Scan: Low: Dot: Y	ENG*	[-512 to 511 / 0 / 1dot/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-182-021	Line Position Offset	M. Scan: Low: Subdot: Y	ENG*	[-1.00 to 1.00 / 0.00 / 0.01dot/step]
2-182-022	Line Position Offset	S. Scan: Standard: Line: M	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-182-023	Line Position Offset	S. Scan: Standard: Subline: M	ENG*	[-1.00 to 1.00 / 0.00 / 0.01line/step]
2-182-024	Line Position Offset	S. Scan: Middle: Line: M	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-182-025	Line Position Offset	S. Scan: Middle: Subline: M	ENG*	[-1.00 to 1.00 / 0.00 / 0.01line/step]
2-182-026	Line Position Offset	S. Scan: Low: Line: M	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-182-027	Line Position Offset	S. Scan: Low: Subline: M	ENG*	[-1.00 to 1.00 / 0.00 / 0.01line/step]
2-182-028	Line Position Offset	S. Scan: Standard: Line: C	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-182-029	Line Position Offset	S. Scan: Standard: Subline: C	ENG*	[-1.00 to 1.00 / 0.00 / 0.01line/step]
2-182-030	Line Position Offset	S. Scan: Middle: Line: C	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-182-031	Line Position Offset	S. Scan: Middle: Subline: C	ENG*	[-1.00 to 1.00 / 0.00 / 0.01line/step]
2-182-032	Line Position Offset	S. Scan: Low: Line: C	ENG*	[-16384 to 16383 / 0 / 1line/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-182-033	Line Position Offset	S. Scan: Low: Subline: C	ENG*	[-1.00 to 1.00 / 0.00 / 0.01line/step]
2-182-034	Line Position Offset	S. Scan: Standard: Line: Y	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-182-035	Line Position Offset	S. Scan: Standard: Subline: Y	ENG*	[-1.00 to 1.00 / 0.00 / 0.01line/step]
2-182-036	Line Position Offset	S. Scan: Middle: Line: Y	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-182-037	Line Position Offset	S. Scan: Middle: Subline: Y	ENG*	[-1.00 to 1.00 / 0.00 / 0.01line/step]
2-182-038	Line Position Offset	S. Scan: Low: Line: Y	ENG*	[-16384 to 16383 / 0 / 1line/step]
2-182-039	Line Position Offset	S. Scan: Low: Subline: Y	ENG*	[-1.00 to 1.00 / 0.00 / 0.01line/step]
2-190-012	Line Position Adj. Select	Detection Error Level: um	ENG*	[-3500 to 3500 / 0 / 1um/step]
2-193-002	MUSIC Condition Set	Page: Job End: BW+FC	ENG*	[0 to 999 / 500 / 1page/step]
2-193-003	MUSIC Condition Set	Page: Job End: FC	ENG*	[0 to 999 / 200 / 1page/step]
2-193-004	MUSIC Condition Set	Page: Interrupt: BW+FC	ENG*	[0 to 999 / 200 / 1page/step]
2-193-005	MUSIC Condition Set	Page: Interrupt: FC	ENG*	[0 to 999 / 200 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-193-006	MUSIC Condition Set	Page: Standby: BW	ENG*	[0 to 999 / 100 / 1page/step]
2-193-007	MUSIC Condition Set	Page: Standby: FC	ENG*	[0 to 999 / 100 / 1page/step]
2-193-008	MUSIC Condition Set	Temp. Change	ENG*	[0 to 100 / 5 / 1deg/step]
2-193-011	MUSIC Condition Set	Temp. Change 2	ENG*	[0 to 100 / 10 / 1deg/step]
2-193-016	MUSIC Condition Set	Page: Power ON:BW+FC	ENG*	[0 to 999 / 200 / 1page/step]
2-194-001	MUSIC Execution Result	Year	ENG*	[0 to 99 / 0 / 1year/step]
2-194-002	MUSIC Execution Result	Month	ENG*	[1 to 12 / 1 / 1month/step]
2-194-003	MUSIC Execution Result	Day	ENG*	[1 to 31 / 1 / 1day/step]
2-194-004	MUSIC Execution Result	Hour	ENG*	[0 to 23 / 0 / 1hour/step]
2-194-005	MUSIC Execution Result	Minute	ENG*	[0 to 59 / 0 / 1minute/step]
2-194-006	MUSIC Execution Result	Temperature	ENG*	[0 to 100 / 0 / 1deg/step]
2-194-007	MUSIC Execution Result	Execution Result	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-194-008	MUSIC Execution Result	Number of Execution	ENG*	[0 to 999999 / 0 / 1times/step]
2-194-009	MUSIC Execution Result	Number of Failure	ENG*	[0 to 999999 / 0 / 1times/step]
2-194-010	MUSIC Execution Result	Error Result: C	ENG*	[0 to 9 / 0 / 1/step]
2-194-011	MUSIC Execution Result	Error Result: M	ENG*	[0 to 9 / 0 / 1/step]
2-194-012	MUSIC Execution Result	Error Result: Y	ENG*	[0 to 9 / 0 / 1/step]
2-194-013	MUSIC Execution Result	Error Result: Bk	ENG*	[0 to 9 / 0 / 1/step]
2-221-001	LD Power: Fixed: Set	Standard Speed: Bk	ENG*	[0 to 255 / 100 / 1%/step]
2-221-002	LD Power: Fixed: Set	Standard Speed: C	ENG*	[0 to 255 / 100 / 1%/step]
2-221-003	LD Power: Fixed: Set	Standard Speed: M	ENG*	[0 to 255 / 100 / 1%/step]
2-221-004	LD Power: Fixed: Set	Standard Speed: Y	ENG*	[0 to 255 / 100 / 1%/step]
2-221-011	LD Power: Fixed: Set	Low Speed: M	ENG*	[0 to 200 / 100 / 1%/step]
2-221-012	LD Power: Fixed: Set	Low Speed: Y	ENG*	[0 to 200 / 100 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-229-001	Develop DC Bias: Fixed	Standard Speed: Bk	ENG*	[0 to 800 / 450 / 1-V/step]
2-229-002	Develop DC Bias: Fixed	Standard Speed: C	ENG*	[0 to 800 / 450 / 1-V/step]
2-229-003	Develop DC Bias: Fixed	Standard Speed: M	ENG*	[0 to 800 / 450 / 1-V/step]
2-229-004	Develop DC Bias: Fixed	Standard Speed: Y	ENG*	[0 to 800 / 450 / 1-V/step]
2-241-003	PCDU Temperature: Display	Time Interval: Fan Extension Control	ENG*	[1 to 300 / 10 / 1sec/step]
2-241-004	PCDU Temperature: Display	PCDU Temperature	ENG	[0.0 to 70.0 / 0.0 / 0.1deg/step]
2-242-001	TS Operation Env. Log	Distance: PCU: Bk: TS<=A-3	ENG	[0 to 99999999 / 0 / 1mm/step]
2-242-002	TS Operation Env. Log	Distance: PCU: Bk: A-3<TS<=A	ENG	[0 to 99999999 / 0 / 1mm/step]
2-242-003	TS Operation Env. Log	Distance: PCU: Bk: A<TS<=A+3	ENG	[0 to 99999999 / 0 / 1mm/step]
2-242-004	TS Operation Env. Log	Distance: PCU: Bk: A+3<TS	ENG	[0 to 99999999 / 0 / 1mm/step]
2-242-100	TS Operation Env. Log	Log Clear	ENG	[0 to 1 / 0 / 1/step]
2-251-001	Interval Cleaning Threshold	Std Spd 2 : BW Mode	ENG*	[0 to 1000000 / 1000000 / 10msec/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-251-002	Interval Cleaning Threshold	Std Spd : BW Mode	ENG*	[0 to 1000000 / 1000000 / 10msec/step]
2-251-003	Interval Cleaning Threshold	Std Spd : FC Mode	ENG*	[0 to 1000000 / 1000000 / 10msec/step]
2-251-004	Interval Cleaning Threshold	Middle Spd : BW Mode	ENG*	[0 to 1000000 / 1000000 / 10msec/step]
2-251-005	Interval Cleaning Threshold	Middle Spd : FC Mode	ENG*	[0 to 1000000 / 1000000 / 10msec/step]
2-251-006	Interval Cleaning Threshold	Low Spd : BW Mode	ENG*	[0 to 1000000 / 1000000 / 10msec/step]
2-251-007	Interval Cleaning Threshold	Low Spd : FC Mode	ENG*	[0 to 1000000 / 1000000 / 10msec/step]
2-302-001	Environmental Correction:Trans	Current Environmental Display	ENG	[0 to 0 / 0 / 0/step]
2-302-002	Environmental Correction:Trans	Forced Setting	ENG*	[0 to 6 / 0 / 1/step]
2-302-003	Environmental Correction:Trans	Absolute Humidity:Threshold 1	ENG*	[0.00 to 100.00 / 4.50 / 0.01g/m3/step]
2-302-004	Environmental Correction:Trans	Absolute Humidity:Threshold 2	ENG*	[0.00 to 100.00 / 9.00 / 0.01g/m3/step]
2-302-005	Environmental Correction:Trans	Absolute Humidity:Threshold 3	ENG*	[0.00 to 100.00 / 17.50 / 0.01g/m3/step]
2-302-006	Environmental Correction:Trans	Absolute Humidity:Threshold 4	ENG*	[0.00 to 100.00 / 24.00 / 0.01g/m3/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-302-007	Environmental Correction:Trans	Temperature:Threshold	ENG*	[-5 to 30 / 10 / 1deg/step]
2-303-001	Time-Lapse Correction	Current Div Bk	ENG*	[0 to 3 / 0 / 1/step]
2-303-002	Time-Lapse Correction	Current Div C	ENG*	[0 to 3 / 0 / 1/step]
2-303-003	Time-Lapse Correction	Current Div M	ENG*	[0 to 3 / 0 / 1/step]
2-303-004	Time-Lapse Correction	Current Div Y	ENG*	[0 to 3 / 0 / 1/step]
2-303-005	Time-Lapse Correction	Correction Threshold 1_Bk	ENG*	[0 to 600000 / 5000 / 10page/step]
2-303-006	Time-Lapse Correction	Correction Threshold 1_Color	ENG*	[0 to 600000 / 5000 / 10page/step]
2-303-007	Time-Lapse Correction	Correction Threshold 2_Bk	ENG*	[0 to 600000 / 20000 / 10page/step]
2-303-008	Time-Lapse Correction	Correction Threshold 2_Color	ENG*	[0 to 600000 / 20000 / 10page/step]
2-303-009	Time-Lapse Correction	Correction Threshold 3_Bk	ENG*	[0 to 600000 / 50000 / 10page/step]
2-303-010	Time-Lapse Correction	Correction Threshold 3_Color	ENG*	[0 to 600000 / 50000 / 10page/step]
2-304-001	Time-Lapse Correction:Transfer	Threshold 1	ENG*	[0 to 999999999 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-304-002	Time-Lapse Correction:Transfer	Threshold 2	ENG*	[0 to 999999999 / 0 / 1mm/step]
2-304-003	Time-Lapse Correction:Transfer	Threshold 3	ENG*	[0 to 999999999 / 0 / 1mm/step]
2-304-004	Time-Lapse Correction:Transfer	Threshold 4	ENG*	[0 to 999999999 / 0 / 1mm/step]
2-305-001	Vc Correction	Threshold 1	ENG*	[0 to 2000 / 450 / 10-V/step]
2-305-002	Vc Correction	Threshold 2	ENG*	[0 to 2000 / 600 / 10-V/step]
2-305-003	Vc Correction	Threshold 3	ENG*	[0 to 2000 / 750 / 10-V/step]
2-305-004	Vc Correction	Threshold 4	ENG*	[0 to 2000 / 900 / 10-V/step]
2-308-001	Paper Size Correction	Threshold 1	ENG*	[0 to 250 / 194 / 1mm/step]
2-308-002	Paper Size Correction	Threshold 2	ENG*	[0 to 250 / 165 / 1mm/step]
2-308-003	Paper Size Correction	Threshold 3	ENG*	[0 to 250 / 139 / 1mm/step]
2-311-001	Non Image Area: Bias	Image Transfer	ENG*	[0 to 2000 / 100 / 10%/step]
2-311-003	Non Image Area: Bias	Paper Transfer	ENG*	[0 to 2100 / 500 / 10-V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-316-001	Power ON: Bias	Image Transfer	ENG*	[0 to 2100 / 1400 / 10V/step]
2-326-001	Transfer Roller CL: Bias	Neg. Bias: Befor and After JOB	ENG*	[0 to 2100 / 250 / 10-V/step]
2-326-002	Transfer Roller CL: Bias	Pos. Bias Cor Coef: Befor and After JOB	ENG*	[10 to 995 / 100 / 10%/step]
2-326-003	Transfer Roller CL: Bias	Neg. Bias: After ProControl	ENG*	[0 to 2100 / 1000 / 10-V/step]
2-326-004	Transfer Roller CL: Bias	Pos. Bias Corr Coef: After ProCon	ENG*	[10 to 995 / 100 / 10%/step]
2-326-005	Transfer Roller CL: Bias	Neg. Bias: Dirt Prevention	ENG*	[0 to 2100 / 500 / 10-V/step]
2-326-011	Transfer Roller CL: Envir	Neg. Bias: Befor and After JOB	ENG*	[1 to 100 / 9 / 1/step]
2-326-013	Transfer Roller CL: Envir	Neg. Bias: After ProControl	ENG*	[1 to 100 / 2 / 1/step]
2-326-015	Transfer Roller CL: Envir	Neg. Bias: Dirt Prevention	ENG*	[1 to 100 / 9 / 1/step]
2-327-001	PTR Cleaning After ProCon	ON/OFF	ENG*	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
2-351-001	Common: BW: Bias	Image Transfer: Standard Speed	ENG*	IM C300 series: [0 to 2100 / 1300 / 10V/step] IM C400 series: [0 to 2100 / 1500 / 10V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-351-002	Common: BW: Bias	Image Transfer: Middle Speed	ENG*	[0 to 2100 / 1300 / 10V/step]
2-351-003	Common: BW: Bias	Image Transfer: Low Speed	ENG*	[0 to 2100 / 1100 / 10V/step]
2-351-201	Common: BW: Bias	Image Transfer: Std Spd:2	ENG*	[0 to 2100 / 1500 / 10V/step]
2-357-001	Common: FC: Bias	Image Transfer: Std Spd: Bk	ENG*	IM C300 series: [0 to 2100 / 1300 / 10V/step] IM C400 series: [0 to 2100 / 1500 / 10V/step]
2-357-002	Common: FC: Bias	Image Transfer: Std Spd: C	ENG*	IM C300 series: [0 to 2100 / 1200 / 10V/step] IM C400 series: [0 to 2100 / 1400 / 10V/step]
2-357-003	Common: FC: Bias	Image Transfer: Std Spd: M	ENG*	IM C300 series: [0 to 2100 / 1200 / 10V/step] IM C400 series: [0 to 2100 / 1400 / 10V/step]
2-357-004	Common: FC: Bias	Image Transfer: Std Spd: Y	ENG*	IM C300 series: [0 to 2100 / 1200 / 10V/step] IM C400 series: [0 to 2100 / 1400 / 10V/step]
2-357-005	Common: FC: Bias	Image Transfer: Middle Spd: Bk	ENG*	[0 to 2100 / 1300 / 10V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-357-006	Common: FC: Bias	Image Transfer: Middle Spd: C	ENG*	[0 to 2100 / 1200 / 10V/step]
2-357-007	Common: FC: Bias	Image Transfer: Middle Spd: M	ENG*	[0 to 2100 / 1200 / 10V/step]
2-357-008	Common: FC: Bias	Image Transfer: Middle Spd: Y	ENG*	[0 to 2100 / 1200 / 10V/step]
2-357-009	Common: FC: Bias	Image Transfer: Low Spd: Bk	ENG*	[0 to 2100 / 1100 / 10V/step]
2-357-010	Common: FC: Bias	Image Transfer: Low Spd: C	ENG*	[0 to 2100 / 1100 / 10V/step]
2-357-011	Common: FC: Bias	Image Transfer: Low Spd: M	ENG*	[0 to 2100 / 1100 / 10V/step]
2-357-012	Common: FC: Bias	Image Transfer: Low Spd: Y	ENG*	[0 to 2100 / 1100 / 10V/step]
2-360-001	Common:BW:Env.CorrectionTable	Image Transfer: Standard Spd	ENG*	[1 to 100 / 9 / 1/step]
2-360-002	Common:BW:Env.CorrectionTable	Image Transfer: Middle Spd	ENG*	[1 to 100 / 9 / 1/step]
2-360-003	Common:BW:Env.CorrectionTable	Image Transfer: Low Spd	ENG*	[1 to 100 / 5 / 1/step]
2-360-004	Common:FC:Env.CorrectionTable	ImageTransfer: Std Spd: Bk	ENG*	[1 to 100 / 9 / 1/step]
2-360-005	Common:FC:Env.CorrectionTable	ImageTransfer: Std Spd: C	ENG*	[1 to 100 / 5 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-360-006	Common:FC:Env.CorrectionTable	ImageTransfer: Std Spd: M	ENG*	[1 to 100 / 5 / 1/step]
2-360-007	Common:FC:Env.CorrectionTable	ImageTransfer: Std Spd: Y	ENG*	[1 to 100 / 5 / 1/step]
2-360-008	Common:FC:Env.CorrectionTable	ImageTransfer: Middle Spd: Bk	ENG*	[1 to 100 / 9 / 1/step]
2-360-009	Common:FC:Env.CorrectionTable	ImageTransfer: Middle Spd: C	ENG*	[1 to 100 / 5 / 1/step]
2-360-010	Common:FC:Env.CorrectionTable	ImageTransfer: Middle Spd: M	ENG*	[1 to 100 / 5 / 1/step]
2-360-011	Common:FC:Env.CorrectionTable	ImageTransfer: Middle Spd: Y	ENG*	[1 to 100 / 5 / 1/step]
2-360-012	Common:FC:Env.CorrectionTable	Image Transfer: Low Spd: Bk	ENG*	[1 to 100 / 5 / 1/step]
2-360-013	Common:FC:Env.CorrectionTable	Image Transfer: Low Spd: C	ENG*	[1 to 100 / 5 / 1/step]
2-360-014	Common:FC:Env.CorrectionTable	Image Transfer: Low Spd: M	ENG*	[1 to 100 / 5 / 1/step]
2-360-015	Common:FC:Env.CorrectionTable	Image Transfer: Low Spd: Y	ENG*	[1 to 100 / 5 / 1/step]
2-361-001	Time-Lapse Correction: Div 1	Standard Speed: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-361-002	Time-Lapse Correction: Div 1	Middle Speed: Bk	ENG*	[1 to 60 / 1 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-361-003	Time-Lapse Correction: Div 1	Low Speed: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-361-004	Time-Lapse Correction: Div 1	Standard Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-361-005	Time-Lapse Correction: Div 1	Standard Speed: FC: C	ENG*	[1 to 60 / 1 / 1/step]
2-361-006	Time-Lapse Correction: Div 1	Standard Speed: FC: M	ENG*	[1 to 60 / 1 / 1/step]
2-361-007	Time-Lapse Correction: Div 1	Standard Speed: FC: Y	ENG*	[1 to 60 / 1 / 1/step]
2-361-008	Time-Lapse Correction: Div 1	Middle Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-361-009	Time-Lapse Correction: Div 1	Middle Speed: FC: C	ENG*	[1 to 60 / 1 / 1/step]
2-361-010	Time-Lapse Correction: Div 1	Middle Speed: FC: M	ENG*	[1 to 60 / 1 / 1/step]
2-361-011	Time-Lapse Correction: Div 1	Middle Speed: FC: Y	ENG*	[1 to 60 / 1 / 1/step]
2-361-012	Time-Lapse Correction: Div 1	Low Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-361-013	Time-Lapse Correction: Div 1	Low Speed: FC: C	ENG*	[1 to 60 / 1 / 1/step]
2-361-014	Time-Lapse Correction: Div 1	Low Speed: FC: M	ENG*	[1 to 60 / 1 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-361-015	Time-Lapse Correction: Div 1	Low Speed: FC: Y	ENG*	[1 to 60 / 1 / 1/step]
2-362-001	Time-Lapse Correction: Div 2	Standard Speed: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-362-002	Time-Lapse Correction: Div 2	Middle Speed: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-362-003	Time-Lapse Correction: Div 2	Low Speed: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-362-004	Time-Lapse Correction: Div 2	Standard Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-362-005	Time-Lapse Correction: Div 2	Standard Speed: FC: C	ENG*	[1 to 60 / 1 / 1/step]
2-362-006	Time-Lapse Correction: Div 2	Standard Speed: FC: M	ENG*	[1 to 60 / 1 / 1/step]
2-362-007	Time-Lapse Correction: Div 2	Standard Speed: FC: Y	ENG*	[1 to 60 / 1 / 1/step]
2-362-008	Time-Lapse Correction: Div 2	Middle Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-362-009	Time-Lapse Correction: Div 2	Middle Speed: FC: C	ENG*	[1 to 60 / 1 / 1/step]
2-362-010	Time-Lapse Correction: Div 2	Middle Speed: FC: M	ENG*	[1 to 60 / 1 / 1/step]
2-362-011	Time-Lapse Correction: Div 2	Middle Speed: FC: Y	ENG*	[1 to 60 / 1 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-362-012	Time-Lapse Correction: Div 2	Low Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-362-013	Time-Lapse Correction: Div 2	Low Speed: FC: C	ENG*	[1 to 60 / 1 / 1/step]
2-362-014	Time-Lapse Correction: Div 2	Low Speed: FC: M	ENG*	[1 to 60 / 1 / 1/step]
2-362-015	Time-Lapse Correction: Div 2	Low Speed: FC: Y	ENG*	[1 to 60 / 1 / 1/step]
2-363-001	Time-Lapse Correction: Div 3	Standard Speed: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-363-002	Time-Lapse Correction: Div 3	Middle Speed: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-363-003	Time-Lapse Correction: Div 3	Low Speed: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-363-004	Time-Lapse Correction: Div 3	Standard Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-363-005	Time-Lapse Correction: Div 3	Standard Speed: FC: C	ENG*	[1 to 60 / 1 / 1/step]
2-363-006	Time-Lapse Correction: Div 3	Standard Speed: FC: M	ENG*	[1 to 60 / 1 / 1/step]
2-363-007	Time-Lapse Correction: Div 3	Standard Speed: FC: Y	ENG*	[1 to 60 / 1 / 1/step]
2-363-008	Time-Lapse Correction: Div 3	Middle Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-363-009	Time-Lapse Correction: Div 3	Middle Speed: FC: C	ENG*	[1 to 60 / 1 / 1/step]
2-363-010	Time-Lapse Correction: Div 3	Middle Speed: FC: M	ENG*	[1 to 60 / 1 / 1/step]
2-363-011	Time-Lapse Correction: Div 3	Middle Speed: FC: Y	ENG*	[1 to 60 / 1 / 1/step]
2-363-012	Time-Lapse Correction: Div 3	Low Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1/step]
2-363-013	Time-Lapse Correction: Div 3	Low Speed: FC: C	ENG*	[1 to 60 / 1 / 1/step]
2-363-014	Time-Lapse Correction: Div 3	Low Speed: FC: M	ENG*	[1 to 60 / 1 / 1/step]
2-363-015	Time-Lapse Correction: Div 3	Low Speed: FC: Y	ENG*	[1 to 60 / 1 / 1/step]
2-371-001	Time-Lapse Correction:Transfer	Standard Speed: Div1	ENG*	[0 to 2000 / 0 / 10V/step]
2-371-002	Time-Lapse Correction:Transfer	Middle Speed: Div1	ENG*	[0 to 2000 / 0 / 10V/step]
2-371-003	Time-Lapse Correction:Transfer	Low Speed: Div1	ENG*	[0 to 2000 / 0 / 10V/step]
2-372-001	Time-Lapse Correction:Transfer	Standard Speed: Div2	ENG*	[0 to 2000 / 0 / 10V/step]
2-372-002	Time-Lapse Correction:Transfer	Middle Speed: Div2	ENG*	[0 to 2000 / 0 / 10V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-372-003	Time-Lapse Correction:Transfer	Low Speed: Div2	ENG*	[0 to 2000 / 0 / 10V/step]
2-373-001	Time-Lapse Correction:Transfer	Standard Speed: Div3	ENG*	[0 to 2000 / 0 / 10V/step]
2-373-002	Time-Lapse Correction:Transfer	Middle Speed: Div3	ENG*	[0 to 2000 / 0 / 10V/step]
2-373-003	Time-Lapse Correction:Transfer	Low Speed: Div3	ENG*	[0 to 2000 / 0 / 10V/step]
2-374-001	Time-Lapse Correction:Transfer	Standard Speed: Div4	ENG*	[0 to 2000 / 0 / 10V/step]
2-374-002	Time-Lapse Correction:Transfer	Middle Speed: Div4	ENG*	[0 to 2000 / 0 / 10V/step]
2-374-003	Time-Lapse Correction:Transfer	Low Speed: Div4	ENG*	[0 to 2000 / 0 / 10V/step]
2-381-001	Vc Correction	Standard Speed: Div 1	ENG*	[0 to 2000 / 0 / 10-V/step]
2-381-002	Vc Correction	Middle Speed: Div 1	ENG*	[0 to 2000 / 0 / 10-V/step]
2-381-003	Vc Correction	Low Speed: Div 1	ENG*	[0 to 2000 / 0 / 10-V/step]
2-382-001	Vc Correction	Standard Speed: Div2	ENG*	[0 to 2000 / 0 / 10-V/step]
2-382-002	Vc Correction	Middle Speed: Div 2	ENG*	[0 to 2000 / 0 / 10-V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-382-003	Vc Correction	Low Speed: Div2	ENG*	[0 to 2000 / 0 / 10-V/step]
2-383-001	Vc Correction	Standard Speed: Div3	ENG*	[0 to 2000 / 0 / 10-V/step]
2-383-002	Vc Correction	Middle Speed: Div3	ENG*	[0 to 2000 / 0 / 10-V/step]
2-383-003	Vc Correction	Low Speed: Div3	ENG*	[0 to 2000 / 0 / 10-V/step]
2-384-001	Vc Correction	Standard Speed: Div4	ENG*	[0 to 2000 / 0 / 10-V/step]
2-384-002	Vc Correction	Middle Speed: Div4	ENG*	[0 to 2000 / 0 / 10-V/step]
2-384-003	Vc Correction	Low Speed: Div4	ENG*	[0 to 2000 / 0 / 10-V/step]
2-385-001	Vc Correction	Standard Speed: Div5	ENG*	[0 to 2000 / 0 / 10-V/step]
2-385-002	Vc Correction	Middle Speed: Div5	ENG*	[0 to 2000 / 0 / 10-V/step]
2-385-003	Vc Correction	Low Speed: Div5	ENG*	[0 to 2000 / 0 / 10-V/step]

SP2-XXX (Drum) -2

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-401-001	T1 at low temp and tempolarity	Standard speed:K	ENG*	[0 to 2100 / 1300 / 10V/step]
2-401-002	T1 at low temp and tempolarity	Standard speed:C	ENG*	[0 to 2100 / 1300 / 10V/step]
2-401-003	T1 at low temp and tempolarity	Standard speed:M	ENG*	[0 to 2100 / 1300 / 10V/step]
2-401-004	T1 at low temp and tempolarity	Standard speed:Y	ENG*	[0 to 2100 / 1300 / 10V/step]
2-403-001	Plain 1: Bias: BW	Paper Transfer: Std Spd: 1Side	ENG*	IM C300 series: [0 to 200 / 21 / 1uA/step] IM C400 series: [0 to 200 / 30 / 1uA/step]
2-403-002	Plain 1: Bias: BW	Paper Transfer: Std Spd: 2Side	ENG*	IM C300 series: [0 to 200 / 16 / 1uA/step] IM C400 series: [0 to 200 / 22 / 1uA/step]
2-403-003	Plain 1: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 14 / 1uA/step]
2-403-004	Plain 1: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 10 / 1uA/step]
2-403-201	Plain 1: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 32 / 1uA/step]
2-403-202	Plain 1: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / 24 / 1uA/step]
2-407-001	Plain 1: Bias: FC	Paper Transfer: Std Spd: 1Side	ENG*	IM C300 series: [0 to 200 / 22 / 1uA/step] IM C400 series: [0 to

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
				200 / 30 / 1uA/step]
2-407-002	Plain 1: Bias: FC	Paper Transfer: Std Spd: 2Side	ENG*	IM C300 series: [0 to 200 / 18 / 1uA/step] IM C400 series: [0 to 200 / 25 / 1uA/step]
2-407-003	Plain 1: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 15 / 1uA/step]
2-407-004	Plain 1: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 12 / 1uA/step]
2-411-001	Plain 1: Size Correction:BW	Paper Transfer: Std Spd:1Sid:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-411-002	Plain 1: Size Correction:BW	Paper Transfer: Std Spd:2Sid:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-411-003	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-411-004	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-411-007	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 121 / 5%/step]
2-411-008	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 200 / 5%/step]
2-411-011	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 136 / 5%/step]
2-411-012	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 300 / 5%/step]
2-	Plain 1: Size Correction:BW	Paper Transfer: Low Spd:	ENG*	[100 to 995 / 143 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
411-015		1Side:S4		5%/step]
2-411-016	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 400 / 5%/step]
2-412-001	Plain 1: Size Correction:FC	Paper Transfer: Std Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-412-002	Plain 1: Size Correction:FC	Paper Transfer: Std Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-412-003	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-412-004	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-412-007	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 133 / 5%/step]
2-412-008	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 200 / 5%/step]
2-412-011	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 167 / 5%/step]
2-412-012	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 300 / 5%/step]
2-412-015	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 200 / 5%/step]
2-412-016	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 433 / 5%/step]
2-	Plain 1: Size-	Paper Transfer: Std Spd:	ENG*	[1 to 100 / 21 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
413-001	Env.Correct:BW	1Side:S1		
2-413-002	Plain 1: Size-Env.Correct:BW	Paper Transfer: Std Spd: 2Side:S1	ENG*	[1 to 100 / 22 / 1/step]
2-413-003	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 25 / 1/step]
2-413-004	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 26 / 1/step]
2-413-007	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 27 / 1/step]
2-413-008	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 28 / 1/step]
2-413-011	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 29 / 1/step]
2-413-012	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 30 / 1/step]
2-413-015	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 31 / 1/step]
2-413-016	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 32 / 1/step]
2-414-001	Plain 1: Size-Env.Correct:FC	Paper Transfer: Std Spd: 1Side:S1	ENG*	[1 to 100 / 23 / 1/step]
2-414-002	Plain 1: Size-Env.Correct:FC	Paper Transfer: Std Spd: 2Side:S1	ENG*	[1 to 100 / 24 / 1/step]
2-	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd:	ENG*	[1 to 100 / 25 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
414-003		1Side:S1		
2-414-004	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 26 / 1/step]
2-414-007	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 27 / 1/step]
2-414-008	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 28 / 1/step]
2-414-011	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 29 / 1/step]
2-414-012	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 30 / 1/step]
2-414-015	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 31 / 1/step]
2-414-016	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 32 / 1/step]
2-415-001	Plain 1: Leading Edge Correct.	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-415-002	Plain 1: Leading Edge Correct.	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-415-003	Plain 1: Leading Edge Correct.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-415-004	Plain 1: Leading Edge Correct.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-	Plain 1: Leading Edge	Separation DC: Std Spd:	ENG*	[0 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
415-005	Correct.	1Side		5%/step]
2-415-006	Plain 1: Leading Edge Correct.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-415-007	Plain 1: Leading Edge Correct.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-415-008	Plain 1: Leading Edge Correct.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-416-001	Plain 1: SW Timing Lead Edge	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-416-002	Plain 1: SW Timing Lead Edge	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-416-003	Plain 1: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-416-004	Plain 1: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-416-005	Plain 1: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-416-006	Plain 1: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-416-007	Plain 1: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-416-008	Plain 1: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-	Plain 1: Trail Edge	Paper Transfer: Std Spd:	ENG*	[0 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
417-001	Correction	1Side		5%/step]
2-417-002	Plain 1: Trail Edge Correction	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-417-003	Plain 1: Trail Edge Correction	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-417-004	Plain 1: Trail Edge Correction	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-417-005	Plain 1: Trail Edge Correction	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-417-006	Plain 1: Trail Edge Correction	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-417-007	Plain 1: Trail Edge Correction	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-417-008	Plain 1: Trail Edge Correction	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-418-001	Plain 1: SW Timing Trail Edge	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-418-002	Plain 1: SW Timing Trail Edge	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-418-003	Plain 1: SW Timing Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-418-004	Plain 1: SW Timing Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-	Plain 1: SW Timing Trail	Separation DC: Std Spd:	ENG*	[0 to 50 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
418-005	Edge	1Side		2mm/step]
2-418-006	Plain 1: SW Timing Trail Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-418-007	Plain 1: SW Timing Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-418-008	Plain 1: SW Timing Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-419-013	Plain 1: Envir Correct. Table	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-419-014	Plain 1: Envir Correct. Table	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-419-015	Plain 1: Envir Correct. Table	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-419-016	Plain 1: Envir Correct. Table	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-419-017	Plain 1: Edge Envir Correct.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 50 / 1/step]
2-419-018	Plain 1: Edge Envir Correct.	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 50 / 1/step]
2-419-019	Plain 1: Edge Envir Correct.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 50 / 1/step]
2-419-020	Plain 1: Edge Envir Correct.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 50 / 1/step]
2-	T1 at low temp and	Middle speed:K	ENG*	[0 to 2100 / 1300 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
421-001	tempolarity			10V/step]
2-421-002	T1 at low temp and tempolarity	Middle speed:C	ENG*	[0 to 2100 / 1300 / 10V/step]
2-421-003	T1 at low temp and tempolarity	Middle speed:M	ENG*	[0 to 2100 / 1300 / 10V/step]
2-421-004	T1 at low temp and tempolarity	Middle speed:Y	ENG*	[0 to 2100 / 1300 / 10V/step]
2-423-001	Plain 2: Bias: BW	Paper Transfer: Std Spd: 1Side	ENG*	IM C300 series: [0 to 200 / 23 / 1uA/step] IM C400 series: [0 to 200 / 32 / 1uA/step]
2-423-002	Plain 2: Bias: BW	Paper Transfer: Std Spd: 2Side	ENG*	IM C300 series: [0 to 200 / 17 / 1uA/step] IM C400 series: [0 to 200 / 24 / 1uA/step]
2-423-003	Plain 2: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 26 / 1uA/step]
2-423-004	Plain 2: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 14 / 1uA/step]
2-423-201	Plain 2: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 35 / 1uA/step]
2-423-202	Plain 2: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / 26 / 1uA/step]
2-427-001	Plain 2: Bias: FC	Paper Transfer: Std Spd: 1Side	ENG*	IM C300 series: [0 to 200 / 25 / 1uA/step] IM C400 series: [0 to 200 / 36 / 1uA/step]
2-427-	Plain 2: Bias: FC	Paper Transfer: Std Spd: 2Side	ENG*	IM C300 series: [0 to 200 / 18 / 1uA/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				IM C400 series: [0 to 200 / 25 / 1uA/step]
2-427-003	Plain 2: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 28 / 1uA/step]
2-427-004	Plain 2: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 16 / 1uA/step]
2-431-001	Plain 2: Size Correction:BW	Paper Transfer: Std Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-431-002	Plain 2: Size Correction:BW	Paper Transfer: Std Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-431-003	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-431-004	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-431-007	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 112 / 5%/step]
2-431-008	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 129 / 5%/step]
2-431-011	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 123 / 5%/step]
2-431-012	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 157 / 5%/step]
2-431-015	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 123 / 5%/step]
2-	Plain 2: Size Correction:BW	Paper Transfer: Low Spd:	ENG*	[100 to 995 / 200 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
431-016		2Side:S4		5%/step]
2-432-001	Plain 2: Size Correction:FC	Paper Transfer: Std Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-432-002	Plain 2: Size Correction:FC	Paper Transfer: Std Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-432-003	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-432-004	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-432-007	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 125 / 5%/step]
2-432-008	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 150 / 5%/step]
2-432-011	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 150 / 5%/step]
2-432-012	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 200 / 5%/step]
2-432-015	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 150 / 5%/step]
2-432-016	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 250 / 5%/step]
2-433-001	Plain 2: Size-Env.Correct:BW	Paper Transfer: Std Spd: 1Side:S1	ENG*	[1 to 100 / 33 / 1/step]
2-	Plain 2: Size-	Paper Transfer: Std Spd:	ENG*	[1 to 100 / 34 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
433-002	Env.Correct:BW	2Side:S1		
2-433-003	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 37 / 1/step]
2-433-004	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 38 / 1/step]
2-433-007	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 39 / 1/step]
2-433-008	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 40 / 1/step]
2-433-011	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 41 / 1/step]
2-433-012	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 42 / 1/step]
2-433-015	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 43 / 1/step]
2-433-016	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 44 / 1/step]
2-434-001	Plain 2: Size-Env.Correct:FC	Paper Transfer: Std Spd: 1Side:S1	ENG*	[1 to 100 / 35 / 1/step]
2-434-002	Plain 2: Size-Env.Correct:FC	Paper Transfer: Std Spd: 2Side:S1	ENG*	[1 to 100 / 36 / 1/step]
2-434-003	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 37 / 1/step]
2-	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd:	ENG*	[1 to 100 / 38 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
434-004		2Side:S1		
2-434-007	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 39 / 1/step]
2-434-008	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 40 / 1/step]
2-434-011	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 41 / 1/step]
2-434-012	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 42 / 1/step]
2-434-015	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 43 / 1/step]
2-434-016	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 44 / 1/step]
2-435-001	Plain 2: Leading Edge Correct.	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-435-002	Plain 2: Leading Edge Correct.	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-435-003	Plain 2: Leading Edge Correct.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-435-004	Plain 2: Leading Edge Correct.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-435-005	Plain 2: Leading Edge Correct.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-	Plain 2: Leading Edge	Separation DC: Std Spd:	ENG*	[0 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
435-006	Correct.	2Side		5%/step]
2-435-007	Plain 2: Leading Edge Correct.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-435-008	Plain 2: Leading Edge Correct.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-436-001	Plain 2: SW Timing Lead Edge	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-436-002	Plain 2: SW Timing Lead Edge	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-436-003	Plain 2: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-436-004	Plain 2: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-436-005	Plain 2: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-436-006	Plain 2: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-436-007	Plain 2: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-436-008	Plain 2: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-437-001	Plain 2: Trail Edge Correction	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-	Plain 2: Trail Edge	Paper Transfer: Std Spd:	ENG*	[0 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
437-002	Correction	2Side		5%/step]
2-437-003	Plain 2: Trail Edge Correction	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-437-004	Plain 2: Trail Edge Correction	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-437-005	Plain 2: Trail Edge Correction	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-437-006	Plain 2: Trail Edge Correction	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-437-007	Plain 2: Trail Edge Correction	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-437-008	Plain 2: Trail Edge Correction	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-438-001	Plain 2: SW Timing Trail Edge	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-438-002	Plain 2: SW Timing Trail Edge	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-438-003	Plain 2: SW Timing Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-438-004	Plain 2: SW Timing Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-438-005	Plain 2: SW Timing Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-	Plain 2: SW Timing Trail	Separation DC: Std Spd:	ENG*	[0 to 50 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
438-006	Edge	2Side		2mm/step]
2-438-007	Plain 2: SW Timing Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-438-008	Plain 2: SW Timing Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-439-013	Plain 2: Envir Correct. Table	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-439-014	Plain 2: Envir Correct. Table	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-439-015	Plain 2: Envir Correct. Table	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-439-016	Plain 2: Envir Correct. Table	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-439-017	Plain 2: Edge Envir Correct.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 50 / 1/step]
2-439-018	Plain 2: Edge Envir Correct.	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 50 / 1/step]
2-439-019	Plain 2: Edge Envir Correct.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 50 / 1/step]
2-439-020	Plain 2: Edge Envir Correct.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 50 / 1/step]
2-441-001	T1 at low temp and tempolarity	Low speed:K	ENG*	[0 to 2100 / 1300 / 10V/step]
2-	T1 at low temp and	Low speed:C	ENG*	[0 to 2100 / 1300 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
441-002	tempolarity			10V/step]
2-441-003	T1 at low temp and tempolarity	Low speed:M	ENG*	[0 to 2100 / 1300 / 10V/step]
2-441-004	T1 at low temp and tempolarity	Low speed:Y	ENG*	[0 to 2100 / 1300 / 10V/step]
2-443-001	M-Thick: Bias: BW	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / 20 / 1uA/step]
2-443-002	M-Thick: Bias: BW	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / 16 / 1uA/step]
2-443-003	M-Thick: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 14 / 1uA/step]
2-443-004	M-Thick: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 14 / 1uA/step]
2-447-001	M-Thick: Bias: FC	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / 22 / 1uA/step]
2-447-002	M-Thick: Bias: FC	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / 21 / 1uA/step]
2-447-003	M-Thick: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 15 / 1uA/step]
2-447-004	M-Thick: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 15 / 1uA/step]
2-451-001	M-Thick: Size Correction:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-	M-Thick: Size Correction:BW	Paper Transfer: Std/Mid	ENG*	[100 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
451-002		Spd: 2Side:S1		5%/step]
2-451-003	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-451-004	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-451-007	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 107 / 5%/step]
2-451-008	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 214 / 5%/step]
2-451-011	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 114 / 5%/step]
2-451-012	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 314 / 5%/step]
2-451-015	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 129 / 5%/step]
2-451-016	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 357 / 5%/step]
2-452-001	M-Thick: Size Correction:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-452-002	M-Thick: Size Correction:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-452-003	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-	M-Thick: Size Correction:FC	Paper Transfer: Low Spd:	ENG*	[100 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
452-004		2Side:S1		5%/step]
2-452-007	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 127 / 5%/step]
2-452-008	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 240 / 5%/step]
2-452-011	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 147 / 5%/step]
2-452-012	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 373 / 5%/step]
2-452-015	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 147 / 5%/step]
2-452-016	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 533 / 5%/step]
2-453-001	M-Thick: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 21 / 1/step]
2-453-002	M-Thick: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 22 / 1/step]
2-453-003	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 47 / 1/step]
2-453-004	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 48 / 1/step]
2-453-007	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 49 / 1/step]
2-	M-Thick: Size-	Paper Transfer: Low Spd:	ENG*	[1 to 100 / 50 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
453-008	Env.Correct:BW	2Side:S2		
2-453-011	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 51 / 1/step]
2-453-012	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 52 / 1/step]
2-453-015	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 53 / 1/step]
2-453-016	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 54 / 1/step]
2-454-001	M-Thick: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 45 / 1/step]
2-454-002	M-Thick: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 46 / 1/step]
2-454-003	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 47 / 1/step]
2-454-004	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 48 / 1/step]
2-454-007	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 49 / 1/step]
2-454-008	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 50 / 1/step]
2-454-011	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 51 / 1/step]
2-	M-Thick: Size-	Paper Transfer: Low Spd:	ENG*	[1 to 100 / 52 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
454-012	Env.Correct:FC	2Side:S3		
2-454-015	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 53 / 1/step]
2-454-016	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 54 / 1/step]
2-455-001	M-Thick: Leading Edge Correct.	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-455-002	M-Thick: Leading Edge Correct.	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-455-003	M-Thick: Leading Edge Correct.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-455-004	M-Thick: Leading Edge Correct.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-455-005	M-Thick: Leading Edge Correct.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-455-006	M-Thick: Leading Edge Correct.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-455-007	M-Thick: Leading Edge Correct.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-455-008	M-Thick: Leading Edge Correct.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-456-001	M-Thick: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-	M-Thick: SW Timing Lead	Paper Transfer: Std/Mid	ENG*	[0 to 50 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
456-002	Edge	Spd: 2Side		2mm/step]
2-456-003	M-Thick: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-456-004	M-Thick: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-456-005	M-Thick: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-456-006	M-Thick: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-456-007	M-Thick: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-456-008	M-Thick: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-457-001	M-Thick: Trail Edge Correction	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-457-002	M-Thick: Trail Edge Correction	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-457-003	M-Thick: Trail Edge Correction	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-457-004	M-Thick: Trail Edge Correction	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-457-005	M-Thick: Trail Edge Correction	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-	M-Thick: Trail Edge	Separation DC: Std Spd:	ENG*	[0 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
457-006	Correction	2Side		5%/step]
2-457-007	M-Thick: Trail Edge Correction	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-457-008	M-Thick: Trail Edge Correction	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-458-001	M-Thick: SW Timing Trail Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-458-002	M-Thick: SW Timing Trail Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-458-003	M-Thick: SW Timing Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-458-004	M-Thick: SW Timing Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-458-005	M-Thick: SW Timing Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-458-006	M-Thick: SW Timing Trail Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-458-007	M-Thick: SW Timing Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-458-008	M-Thick: SW Timing Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-459-013	M-Thick: Envir Correct. Table	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-	M-Thick: Envir Correct. Table	Separation DC: Std Spd:	ENG*	[1 to 100 / 30 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
459-014		2Side		
2-459-015	M-Thick: Envir Correct. Table	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-459-016	M-Thick: Envir Correct. Table	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-459-017	M-Thick: Edge Envir Correction	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 50 / 1/step]
2-459-018	M-Thick: Edge Envir Correction	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 50 / 1/step]
2-459-019	M-Thick: Edge Envir Correction	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 50 / 1/step]
2-459-020	M-Thick: Edge Envir Correction	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 50 / 1/step]
2-481-003	Thick 1: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 0 / 10-V/step]
2-481-004	Thick 1: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 0 / 10-V/step]
2-483-003	Thick 1: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 14 / 1uA/step]
2-483-004	Thick 1: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 14 / 1uA/step]
2-487-003	Thick 1: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 15 / 1uA/step]
2-	Thick 1: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 15 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
487-004				1uA/step]
2-491-003	Thick 1: Size Correction:BW	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-491-004	Thick 1: Size Correction:BW	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-491-007	Thick 1: Size Correction:BW	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 121 / 5%/step]
2-491-008	Thick 1: Size Correction:BW	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 143 / 5%/step]
2-491-011	Thick 1: Size Correction:BW	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 143 / 5%/step]
2-491-012	Thick 1: Size Correction:BW	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 179 / 5%/step]
2-491-015	Thick 1: Size Correction:BW	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 143 / 5%/step]
2-491-016	Thick 1: Size Correction:BW	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 429 / 5%/step]
2-492-003	Thick 1: Size Correction:FC	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-492-004	Thick 1: Size Correction:FC	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-492-007	Thick 1: Size Correction:FC	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 120 / 5%/step]
2-	Thick 1: Size Correction:FC	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 213 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
492-008				5%/step]
2-492-011	Thick 1: Size Correction:FC	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 133 / 5%/step]
2-492-012	Thick 1: Size Correction:FC	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 300 / 5%/step]
2-492-015	Thick 1: Size Correction:FC	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 133 / 5%/step]
2-492-016	Thick 1: Size Correction:FC	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 400 / 5%/step]
2-493-003	Thick 1: Size-Env.Correct:BW	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 59 / 1/step]
2-493-004	Thick 1: Size-Env.Correct:BW	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 60 / 1/step]
2-493-007	Thick 1: Size-Env.Correct:BW	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 61 / 1/step]
2-493-008	Thick 1: Size-Env.Correct:BW	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 62 / 1/step]
2-493-011	Thick 1: Size-Env.Correct:BW	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 63 / 1/step]
2-493-012	Thick 1: Size-Env.Correct:BW	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 64 / 1/step]
2-493-015	Thick 1: Size-Env.Correct:BW	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 65 / 1/step]
2-	Thick 1: Size-	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 66 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
493-016	Env.Correct:BW			
2-494-003	Thick 1: Size-Env.Correct:FC	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 59 / 1/step]
2-494-004	Thick 1: Size-Env.Correct:FC	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 60 / 1/step]
2-494-007	Thick 1: Size-Env.Correct:FC	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 61 / 1/step]
2-494-008	Thick 1: Size-Env.Correct:FC	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 62 / 1/step]
2-494-011	Thick 1: Size-Env.Correct:FC	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 63 / 1/step]
2-494-012	Thick 1: Size-Env.Correct:FC	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 64 / 1/step]
2-494-015	Thick 1: Size-Env.Correct:FC	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 65 / 1/step]
2-494-016	Thick 1: Size-Env.Correct:FC	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 66 / 1/step]
2-495-003	Thick 1: Leading Edge Correct.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-495-004	Thick 1: Leading Edge Correct.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-495-007	Thick 1: Leading Edge Correct.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-	Thick 1: Leading Edge	Separation DC: 2Side	ENG*	[0 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
495-008	Correct.			5%/step]
2-496-003	Thick 1: SW Timing Lead Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-496-004	Thick 1: SW Timing Lead Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-496-007	Thick 1: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-496-008	Thick 1: SW Timing Lead Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-497-003	Thick 1: Trail Edge Correction	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-497-004	Thick 1: Trail Edge Correction	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-497-007	Thick 1: Trail Edge Correction	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-497-008	Thick 1: Trail Edge Correction	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-498-003	Thick 1: SW Timing Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-498-004	Thick 1: SW Timing Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-498-007	Thick 1: SW Timing Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-	Thick 1: SW Timing Trail	Separation DC: 2Side	ENG*	[0 to 50 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
498-008	Edge			2mm/step]
2-499-015	Thick 1: Envir Correct. Table	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-499-016	Thick 1: Envir Correct. Table	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-499-019	Thick 1: Edge Envir Correct.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-499-020	Thick 1: Edge Envir Correct.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-501-003	Thick 2: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 0 / 10-V/step]
2-501-004	Thick 2: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 0 / 10-V/step]
2-503-003	Thick 2: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 14 / 1uA/step]
2-503-004	Thick 2: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 14 / 1uA/step]
2-507-003	Thick 2: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 15 / 1uA/step]
2-507-004	Thick 2: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 15 / 1uA/step]
2-511-003	Thick 2: Size Correction:BW	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-	Thick 2: Size Correction:BW	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
511-004				5%/step]
2-511-007	Thick 2: Size Correction:BW	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 121 / 5%/step]
2-511-008	Thick 2: Size Correction:BW	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 143 / 5%/step]
2-511-011	Thick 2: Size Correction:BW	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 143 / 5%/step]
2-511-012	Thick 2: Size Correction:BW	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 179 / 5%/step]
2-511-015	Thick 2: Size Correction:BW	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 143 / 5%/step]
2-511-016	Thick 2: Size Correction:BW	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 429 / 5%/step]
2-512-003	Thick 2: Size Correction:FC	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-512-004	Thick 2: Size Correction:FC	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-512-007	Thick 2: Size Correction:FC	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 120 / 5%/step]
2-512-008	Thick 2: Size Correction:FC	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 167 / 5%/step]
2-512-011	Thick 2: Size Correction:FC	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 133 / 5%/step]
2-	Thick 2: Size Correction:FC	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 233 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
512-012				5%/step]
2-512-015	Thick 2: Size Correction:FC	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 133 / 5%/step]
2-512-016	Thick 2: Size Correction:FC	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 400 / 5%/step]
2-513-003	Thick 2: Size-Env.Correct:BW	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 67 / 1/step]
2-513-004	Thick 2: Size-Env.Correct:BW	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 68 / 1/step]
2-513-007	Thick 2: Size-Env.Correct:BW	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 69 / 1/step]
2-513-008	Thick 2: Size-Env.Correct:BW	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 70 / 1/step]
2-513-011	Thick 2: Size-Env.Correct:BW	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 71 / 1/step]
2-513-012	Thick 2: Size-Env.Correct:BW	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 72 / 1/step]
2-513-015	Thick 2: Size-Env.Correct:BW	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 73 / 1/step]
2-513-016	Thick 2: Size-Env.Correct:BW	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 74 / 1/step]
2-514-003	Thick 2: Size-Env.Correct:FC	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 67 / 1/step]
2-	Thick 2: Size-Env.Correct:FC	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 68 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
514-004				
2-514-007	Thick 2: Size-Env.Correct:FC	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 69 / 1/step]
2-514-008	Thick 2: Size-Env.Correct:FC	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 70 / 1/step]
2-514-011	Thick 2: Size-Env.Correct:FC	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 71 / 1/step]
2-514-012	Thick 2: Size-Env.Correct:FC	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 72 / 1/step]
2-514-015	Thick 2: Size-Env.Correct:FC	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 73 / 1/step]
2-514-016	Thick 2: Size-Env.Correct:FC	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 74 / 1/step]
2-515-003	Thick 2: Leading Edge Correct.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-515-004	Thick 2: Leading Edge Correct.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-515-007	Thick 2: Leading Edge Correct.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-515-008	Thick 2: Leading Edge Correct.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-516-003	Thick 2: SW Timing Lead Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-	Thick 2: SW Timing Lead	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
516-004	Edge			2mm/step]
2-516-007	Thick 2: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-516-008	Thick 2: SW Timing Lead Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-517-003	Thick 2: Trail Edge Correction	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-517-004	Thick 2: Trail Edge Correction	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-517-007	Thick 2: Trail Edge Correction	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-517-008	Thick 2: Trail Edge Correction	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-518-003	Thick 2: SW Timing Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-518-004	Thick 2: SW Timing Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-518-007	Thick 2: SW Timing Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-518-008	Thick 2: SW Timing Trail Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-519-015	Thick 2: Envir Correct. Table	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-	Thick 2: Envir Correct. Table	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
519-016				
2-519-019	Thick 2: Edge Envir Correct.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-519-020	Thick 2: Edge Envir Correct.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-521-003	Thick 3: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 0 / 10-V/step]
2-521-004	Thick 3: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 0 / 10-V/step]
2-523-003	Thick 3: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 10 / 1uA/step]
2-523-004	Thick 3: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 10 / 1uA/step]
2-527-003	Thick 3: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 11 / 1uA/step]
2-527-004	Thick 3: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 13 / 1uA/step]
2-531-003	Thick 3: Size Correction:BW	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-531-004	Thick 3: Size Correction:BW	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-531-007	Thick 3: Size Correction:BW	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 110 / 5%/step]
2-	Thick 3: Size Correction:BW	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 210 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
531-008				5%/step]
2-531-011	Thick 3: Size Correction:BW	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 120 / 5%/step]
2-531-012	Thick 3: Size Correction:BW	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 320 / 5%/step]
2-531-015	Thick 3: Size Correction:BW	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 160 / 5%/step]
2-531-016	Thick 3: Size Correction:BW	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 320 / 5%/step]
2-532-003	Thick 3: Size Correction:FC	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-532-004	Thick 3: Size Correction:FC	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-532-007	Thick 3: Size Correction:FC	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 118 / 5%/step]
2-532-008	Thick 3: Size Correction:FC	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 185 / 5%/step]
2-532-011	Thick 3: Size Correction:FC	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 145 / 5%/step]
2-532-012	Thick 3: Size Correction:FC	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 269 / 5%/step]
2-532-015	Thick 3: Size Correction:FC	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 182 / 5%/step]
2-	Thick 3: Size Correction:FC	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 292 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
532-016				5%/step]
2-533-003	Thick 3: Size-Env.Correct:BW	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 75 / 1/step]
2-533-004	Thick 3: Size-Env.Correct:BW	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 76 / 1/step]
2-533-007	Thick 3: Size-Env.Correct:BW	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 77 / 1/step]
2-533-008	Thick 3: Size-Env.Correct:BW	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 78 / 1/step]
2-533-011	Thick 3: Size-Env.Correct:BW	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 79 / 1/step]
2-533-012	Thick 3: Size-Env.Correct:BW	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 80 / 1/step]
2-533-015	Thick 3: Size-Env.Correct:BW	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 81 / 1/step]
2-533-016	Thick 3: Size-Env.Correct:BW	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 82 / 1/step]
2-534-003	Thick 3: Size-Env.Correct:FC	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 75 / 1/step]
2-534-004	Thick 3: Size-Env.Correct:FC	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 76 / 1/step]
2-534-007	Thick 3: Size-Env.Correct:FC	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 77 / 1/step]
2-	Thick 3: Size-Env.Correct:FC	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 78 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
534-008				
2-534-011	Thick 3: Size-Env.Correct:FC	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 79 / 1/step]
2-534-012	Thick 3: Size-Env.Correct:FC	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 80 / 1/step]
2-534-015	Thick 3: Size-Env.Correct:FC	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 81 / 1/step]
2-534-016	Thick 3: Size-Env.Correct:FC	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 82 / 1/step]
2-535-003	Thick 3: Leading Edge Correct.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-535-004	Thick 3: Leading Edge Correct.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-535-007	Thick 3: Leading Edge Correct.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-535-008	Thick 3: Leading Edge Correct.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-536-003	Thick 3: SW Timing Lead Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-536-004	Thick 3: SW Timing Lead Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-536-007	Thick 3: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-	Thick 3: SW Timing Lead	Separation DC: 2Side	ENG*	[0 to 50 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
536-008	Edge			2mm/step]
2-537-003	Thick 3: Trail Edge Correction	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-537-004	Thick 3: Trail Edge Correction	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-537-007	Thick 3: Trail Edge Correction	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-537-008	Thick 3: Trail Edge Correction	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-538-003	Thick 3: SW Timing Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-538-004	Thick 3: SW Timing Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-538-007	Thick 3: SW Timing Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-538-008	Thick 3: SW Timing Trail Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-539-015	Thick 3: Envir Correct. Table	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-539-016	Thick 3: Envir Correct. Table	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-539-019	Thick 3: Edge Envir Correct.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-	Thick 3: Edge Envir Correct.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
539-020				
2-541-003	OHP: Bias	Separation DC	ENG*	[0 to 4000 / 0 / 10-V/step]
2-543-003	OHP: Bias: BW	Paper Transfer	ENG*	[0 to 200 / 9 / 1uA/step]
2-547-003	OHP: Bias: FC	Paper Transfer	ENG*	[0 to 200 / 10 / 1uA/step]
2-551-003	OHP: Size Correction:BW	PaperTransfer:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-551-007	OHP: Size Correction:BW	PaperTransfer:S2	ENG*	[100 to 995 / 122 / 5%/step]
2-551-011	OHP: Size Correction:BW	PaperTransfer:S3	ENG*	[100 to 995 / 156 / 5%/step]
2-551-015	OHP: Size Correction:BW	PaperTransfer:S4	ENG*	[100 to 995 / 189 / 5%/step]
2-552-003	OHP: Size Correction:FC	PaperTransfer:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-552-007	OHP: Size Correction:FC	PaperTransfer:S2	ENG*	[100 to 995 / 118 / 5%/step]
2-552-011	OHP: Size Correction:FC	PaperTransfer:S3	ENG*	[100 to 995 / 164 / 5%/step]
2-552-015	OHP: Size Correction:FC	PaperTransfer:S4	ENG*	[100 to 995 / 182 / 5%/step]
2-	OHP: Size-Env.Correct:BW	PaperTransfer:S1	ENG*	[1 to 100 / 83 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
553-003				
2-553-007	OHP: Size-Env.Correct:BW	PaperTransfer:S2	ENG*	[1 to 100 / 84 / 1/step]
2-553-011	OHP: Size-Env.Correct:BW	PaperTransfer:S3	ENG*	[1 to 100 / 85 / 1/step]
2-553-015	OHP: Size-Env.Correct:BW	PaperTransfer:S4	ENG*	[1 to 100 / 86 / 1/step]
2-554-003	OHP: Size-Env.Correct:FC	PaperTransfer:S1	ENG*	[1 to 100 / 83 / 1/step]
2-554-007	OHP: Size-Env.Correct:FC	PaperTransfer:S2	ENG*	[1 to 100 / 84 / 1/step]
2-554-011	OHP: Size-Env.Correct:FC	PaperTransfer:S3	ENG*	[1 to 100 / 85 / 1/step]
2-554-015	OHP: Size-Env.Correct:FC	PaperTransfer:S4	ENG*	[1 to 100 / 86 / 1/step]
2-555-003	OHP: Leading Edge Correction	Paper Transfer	ENG*	[0 to 995 / 100 / 5%/step]
2-555-007	OHP: Leading Edge Correction	Separation DC	ENG*	[0 to 995 / 100 / 5%/step]
2-556-003	OHP: Switch Timing Lead Edge	Paper Transfer	ENG*	[0 to 50 / 0 / 2mm/step]
2-556-007	OHP: Switch Timing Lead Edge	Separation DC	ENG*	[0 to 50 / 0 / 2mm/step]
2-	OHP: Trail Edge Correction	Paper Transfer	ENG*	[0 to 995 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
557-003				5%/step]
2-557-007	OHP: Trail Edge Correction	Separation DC	ENG*	[0 to 995 / 100 / 5%/step]
2-558-003	OHP: Switch Timing Trail Edge	Paper Transfer	ENG*	[0 to 50 / 0 / 2mm/step]
2-558-007	OHP: Switch Timing Trail Edge	Separation DC	ENG*	[0 to 50 / 0 / 2mm/step]
2-559-015	OHP: Environment Correct Table	Separation DC	ENG*	[1 to 100 / 30 / 1/step]
2-559-019	OHP: Edge Environment Correc.	Separation DC	ENG*	[1 to 100 / 30 / 1/step]
2-561-001	Special 1: Bias	Separation DC: Std Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-561-002	Special 1: Bias	Separation DC: Std Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-561-003	Special 1: Bias	Separation DC: Low Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-561-004	Special 1: Bias	Separation DC: Low Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-563-001	Special 1: Bias: BW	Paper Transfer: Std/Mid Spd: 1Side	ENG*	IM C300 series: [0 to 200 / 21 / 1uA/step] IM C400 series: [0 to 200 / 24 / 1uA/step]
2-563-002	Special 1: Bias: BW	Paper Transfer: Std/Mid Spd: 2Side	ENG*	IM C300 series: [0 to 200 / 16 / 1uA/step] IM C400 series: [0 to 200 / 18 / 1uA/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-563-003	Special 1: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 10 / 1uA/step]
2-563-004	Special 1: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 8 / 1uA/step]
2-563-201	Special 1: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 30 / 1uA/step]
2-563-202	Special 1: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / 22 / 1uA/step]
2-567-001	Special 1: Bias: FC	Paper Transfer: Std/Mid Spd: 1Side	ENG*	IM C300 series: [0 to 200 / 22 / 1uA/step] IM C400 series: [0 to 200 / 25 / 1uA/step]
2-567-002	Special 1: Bias: FC	Paper Transfer: Std/Mid Spd: 2Side	ENG*	IM C300 series: [0 to 200 / 18 / 1uA/step] IM C400 series: [0 to 200 / 20 / 1uA/step]
2-567-003	Special 1: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 11 / 1uA/step]
2-567-004	Special 1: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 10 / 1uA/step]
2-571-001	Special 1: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-571-002	Special 1: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-571-003	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-571-	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				
2-571-007	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 120 / 5%/step]
2-571-008	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 175 / 5%/step]
2-571-011	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 130 / 5%/step]
2-571-012	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 213 / 5%/step]
2-571-015	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 140 / 5%/step]
2-571-016	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 275 / 5%/step]
2-572-001	Special 1: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-572-002	Special 1: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-572-003	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-572-004	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-572-007	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 118 / 5%/step]
2-572-	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 150 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
008				
2-572-011	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 130 / 5%/step]
2-572-012	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 180 / 5%/step]
2-572-015	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 140 / 5%/step]
2-572-016	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 250 / 5%/step]
2-573-001	Special 1: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 21 / 1/step]
2-573-002	Special 1: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 22 / 1/step]
2-573-003	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 25 / 1/step]
2-573-004	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 26 / 1/step]
2-573-007	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 27 / 1/step]
2-573-008	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 28 / 1/step]
2-573-011	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 29 / 1/step]
2-573-	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 30 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
012				
2-573-015	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 31 / 1/step]
2-573-016	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 32 / 1/step]
2-574-001	Special 1: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 23 / 1/step]
2-574-002	Special 1: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 24 / 1/step]
2-574-003	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 25 / 1/step]
2-574-004	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 26 / 1/step]
2-574-007	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 27 / 1/step]
2-574-008	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 28 / 1/step]
2-574-011	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 29 / 1/step]
2-574-012	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 30 / 1/step]
2-574-015	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 31 / 1/step]
2-574-	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 32 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
016				
2-575-001	Special 1: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-575-002	Special 1: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-575-003	Special 1: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-575-004	Special 1: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-575-005	Special 1: LeadingEdgeCorrect.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-575-006	Special 1: LeadingEdgeCorrect.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-575-007	Special 1: LeadingEdgeCorrect.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-575-008	Special 1: LeadingEdgeCorrect.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-576-001	Special 1: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-576-002	Special 1: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-576-003	Special 1: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-576-	Special 1: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				
2-576-005	Special 1: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-576-006	Special 1: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-576-007	Special 1: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-576-008	Special 1: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-577-001	Special 1: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-577-002	Special 1: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-577-003	Special 1: TrailEdgeCorrection	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-577-004	Special 1: TrailEdgeCorrection	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-577-005	Special 1: TrailEdgeCorrection	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-577-006	Special 1: TrailEdgeCorrection	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-577-007	Special 1: TrailEdgeCorrection	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-577-	Special 1: TrailEdgeCorrection	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
008				
2-578-001	Special 1: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-578-002	Special 1: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-578-003	Special 1: SWTiming Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-578-004	Special 1: SWTiming Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-578-005	Special 1: SWTiming Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-578-006	Special 1: SWTiming Trail Edge	Separation DC: Std Spd: 2side	ENG*	[0 to 50 / 0 / 2mm/step]
2-578-007	Special 1: SWTiming Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-578-008	Special 1: SWTiming Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-579-013	Special 1: EnvCorrectionTable	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-579-014	Special 1: EnvCorrectionTable	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1/step]
2-579-015	Special 1: EnvCorrectionTable	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-579-	Special 1: EnvCorrectionTable	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
016				
2-579-017	Special 1: Edge Envir Correc.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 50 / 1/step]
2-579-018	Special 1: Edge Envir Correc.	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 50 / 1/step]
2-579-019	Special 1: Edge Envir Correc.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 50 / 1/step]
2-579-020	Special 1: Edge Envir Correc.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 50 / 1/step]
2-581-001	Special 2: Bias	Separation DC: Std Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-581-002	Special 2: Bias	Separation DC: Std Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-581-003	Special 2: Bias	Separation DC: Low Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-581-004	Special 2: Bias	Separation DC: Low Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-583-001	Special 2: Bias: BW	Paper Transfer: Std/Mid Spd: 1Side	ENG*	IM C300 series: [0 to 200 / 19 / 1uA/step] IM C400 series: [0 to 200 / 22 / 1uA/step]
2-583-002	Special 2: Bias: BW	Paper Transfer: Std/Mid Spd: 2Side	ENG*	IM C300 series: [0 to 200 / 16 / 1uA/step] IM C400 series: [0 to 200 / 18 / 1uA/step]
2-583-003	Special 2: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 11 / 1uA/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-583-004	Special 2: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 11 / 1uA/step]
2-583-201	Special 2: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 26 / 1uA/step]
2-583-202	Special 2: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / 22 / 1uA/step]
2-587-001	Special 2: Bias: FC	Paper Transfer: Std/Mid Spd: 1Side	ENG*	IM C300 series: [0 to 200 / 22 / 1uA/step] IM C400 series: [0 to 200 / 25 / 1uA/step]
2-587-002	Special 2: Bias: FC	Paper Transfer: Std/Mid Spd: 2Side	ENG*	IM C300 series: [0 to 200 / 18 / 1uA/step] IM C400 series: [0 to 200 / 20 / 1uA/step]
2-587-003	Special 2: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 13 / 1uA/step]
2-587-004	Special 2: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 13 / 1uA/step]
2-591-001	Special 2: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-591-002	Special 2: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-591-003	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-591-004	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-591-	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 120 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				
2-591-008	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 175 / 5%/step]
2-591-011	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 140 / 5%/step]
2-591-012	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 213 / 5%/step]
2-591-015	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 150 / 5%/step]
2-591-016	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 275 / 5%/step]
2-592-001	Special 2: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-592-002	Special 2: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-592-003	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-592-004	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-592-007	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 118 / 5%/step]
2-592-008	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 150 / 5%/step]
2-592-	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 136 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
011				
2-592-012	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 154 / 5%/step]
2-592-015	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 140 / 5%/step]
2-592-016	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 250 / 5%/step]
2-593-001	Special 2: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 33 / 1/step]
2-593-002	Special 2: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 34 / 1/step]
2-593-003	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 37 / 1/step]
2-593-004	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 38 / 1/step]
2-593-007	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 39 / 1/step]
2-593-008	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 40 / 1/step]
2-593-011	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 41 / 1/step]
2-593-012	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 42 / 1/step]
2-593-	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 43 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
015				
2-593-016	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 44 / 1/step]
2-594-001	Special 2: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 35 / 1/step]
2-594-002	Special 2: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 36 / 1/step]
2-594-003	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 37 / 1/step]
2-594-004	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 38 / 1/step]
2-594-007	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 39 / 1/step]
2-594-008	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 40 / 1/step]
2-594-011	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 41 / 1/step]
2-594-012	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 42 / 1/step]
2-594-015	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 43 / 1/step]
2-594-016	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 44 / 1/step]
2-595-	Special 2: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				
2-595-002	Special 2: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-595-003	Special 2: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-595-004	Special 2: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-595-005	Special 2: LeadingEdgeCorrect.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-595-006	Special 2: LeadingEdgeCorrect.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-595-007	Special 2: LeadingEdgeCorrect.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-595-008	Special 2: LeadingEdgeCorrect.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-596-001	Special 2: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-596-002	Special 2: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-596-003	Special 2: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-596-004	Special 2: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-596-	Special 2: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
005				
2-596-006	Special 2: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-596-007	Special 2: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-596-008	Special 2: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-597-001	Special 2: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-597-002	Special 2: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-597-003	Special 2: TrailEdgeCorrection	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-597-004	Special 2: TrailEdgeCorrection	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-597-005	Special 2: TrailEdgeCorrection	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-597-006	Special 2: TrailEdgeCorrection	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-597-007	Special 2: TrailEdgeCorrection	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-597-008	Special 2: TrailEdgeCorrection	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-598-	Special 2: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				
2-598-002	Special 2: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-598-003	Special 2: SWTiming Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-598-004	Special 2: SWTiming Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-598-005	Special 2: SWTiming Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-598-006	Special 2: SWTiming Trail Edge	Separation DC: Std Spd: 2side	ENG*	[0 to 50 / 0 / 2mm/step]
2-598-007	Special 2: SWTiming Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-598-008	Special 2: SWTiming Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-599-013	Special 2: EnvCorrectionTable	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-599-014	Special 2: EnvCorrectionTable	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1/step]
2-599-015	Special 2: EnvCorrectionTable	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-599-016	Special 2: EnvCorrectionTable	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-599-	Special 2: Edge Envir Correc.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
017				
2-599-018	Special 2: Edge Envir Correc.	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1/step]
2-599-019	Special 2: Edge Envir Correc.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-599-020	Special 2: Edge Envir Correc.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-601-001	Special 3: Bias	Separation DC: Std Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-601-002	Special 3: Bias	Separation DC: Std Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-601-003	Special 3: Bias	Separation DC: Low Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-601-004	Special 3: Bias	Separation DC: Low Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-603-001	Special 3: Bias: BW	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / 20 / 1uA/step]
2-603-002	Special 3: Bias: BW	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / 16 / 1uA/step]
2-603-003	Special 3: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 10 / 1uA/step]
2-603-004	Special 3: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 8 / 1uA/step]
2-603-	Special 3: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 26 / 1uA/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
201				
2-603-202	Special 3: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / 22 / 1uA/step]
2-607-001	Special 3: Bias: FC	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / 22 / 1uA/step]
2-607-002	Special 3: Bias: FC	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / 18 / 1uA/step]
2-607-003	Special 3: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 11 / 1uA/step]
2-607-004	Special 3: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 10 / 1uA/step]
2-611-001	Special 3: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-611-002	Special 3: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-611-003	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-611-004	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-611-007	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 130 / 5%/step]
2-611-008	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 163 / 5%/step]
2-611-	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 150 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
011				
2-611-012	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 250 / 5%/step]
2-611-015	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 150 / 5%/step]
2-611-016	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 375 / 5%/step]
2-612-001	Special 3: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-612-002	Special 3: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-612-003	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-612-004	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%/step]
2-612-007	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 136 / 5%/step]
2-612-008	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 180 / 5%/step]
2-612-011	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 150 / 5%/step]
2-612-012	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 250 / 5%/step]
2-612-	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 150 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
015				
2-612-016	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 350 / 5%/step]
2-613-001	Special 3: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 21 / 1/step]
2-613-002	Special 3: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 22 / 1/step]
2-613-003	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 47 / 1/step]
2-613-004	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 48 / 1/step]
2-613-007	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 49 / 1/step]
2-613-008	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 50 / 1/step]
2-613-011	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 51 / 1/step]
2-613-012	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 52 / 1/step]
2-613-015	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 53 / 1/step]
2-613-016	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 54 / 1/step]
2-614-	Special 3: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 45 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				
2-614-002	Special 3: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 46 / 1/step]
2-614-003	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 47 / 1/step]
2-614-004	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 48 / 1/step]
2-614-007	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 49 / 1/step]
2-614-008	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 50 / 1/step]
2-614-011	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 51 / 1/step]
2-614-012	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 52 / 1/step]
2-614-015	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 53 / 1/step]
2-614-016	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 54 / 1/step]
2-615-001	Special 3: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-615-002	Special 3: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-615-	Special 3: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				
2-615-004	Special 3: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-615-005	Special 3: LeadingEdgeCorrect.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-615-006	Special 3: LeadingEdgeCorrect.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-615-007	Special 3: LeadingEdgeCorrect.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-615-008	Special 3: LeadingEdgeCorrect.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-616-001	Special 3: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-616-002	Special 3: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-616-003	Special 3: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-616-004	Special 3: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-616-005	Special 3: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-616-006	Special 3: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-616-	Special 3: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				
2-616-008	Special 3: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-617-001	Special 3: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-617-002	Special 3: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-617-003	Special 3: TrailEdgeCorrection	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-617-004	Special 3: TrailEdgeCorrection	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-617-005	Special 3: TrailEdgeCorrection	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-617-006	Special 3: TrailEdgeCorrection	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-617-007	Special 3: TrailEdgeCorrection	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-617-008	Special 3: TrailEdgeCorrection	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-618-001	Special 3: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-618-002	Special 3: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-618-	Special 3: SWTiming Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				
2-618-004	Special 3: SWTiming Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-618-005	Special 3: SWTiming Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-618-006	Special 3: SWTiming Trail Edge	Separation DC: Std Spd: 2side	ENG*	[0 to 50 / 0 / 2mm/step]
2-618-007	Special 3: SWTiming Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-618-008	Special 3: SWTiming Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-619-013	Special 3: EnvCorrectionTable	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-619-014	Special 3: EnvCorrectionTable	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1/step]
2-619-015	Special 3: EnvCorrectionTable	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-619-016	Special 3: EnvCorrectionTable	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-619-017	Special 3: Edge Envir Correc.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-619-018	Special 3: Edge Envir Correc.	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1/step]
2-619-	Special 3: Edge Envir Correc.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
019				
2-619-020	Special 3: Edge Envir Correc.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-621-003	Special 4: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-621-004	Special 4: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-623-003	Special 4: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 14 / 1uA/step]
2-623-004	Special 4: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 9 / 1uA/step]
2-627-003	Special 4: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 15 / 1uA/step]
2-627-004	Special 4: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 11 / 1uA/step]
2-631-003	Special 4: SizeCorrection:BW	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-631-004	Special 4: SizeCorrection:BW	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-631-007	Special 4: SizeCorrection:BW	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 100 / 5%/step]
2-631-008	Special 4: SizeCorrection:BW	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 156 / 5%/step]
2-631-	Special 4: SizeCorrection:BW	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 107 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
011				
2-631-012	Special 4: SizeCorrection:BW	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 167 / 5%/step]
2-631-015	Special 4: SizeCorrection:BW	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 100 / 5%/step]
2-631-016	Special 4: SizeCorrection:BW	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 278 / 5%/step]
2-632-003	Special 4: SizeCorrection:FC	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-632-004	Special 4: SizeCorrection:FC	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-632-007	Special 4: SizeCorrection:FC	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 100 / 5%/step]
2-632-008	Special 4: SizeCorrection:FC	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 164 / 5%/step]
2-632-011	Special 4: SizeCorrection:FC	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 120 / 5%/step]
2-632-012	Special 4: SizeCorrection:FC	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 227 / 5%/step]
2-632-015	Special 4: SizeCorrection:FC	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 130 / 5%/step]
2-632-016	Special 4: SizeCorrection:FC	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 364 / 5%/step]
2-633-	Special 4: Size-Env.Correct:BW	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 59 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				
2-633-004	Special 4: Size-Env.Correct:BW	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 60 / 1/step]
2-633-007	Special 4: Size-Env.Correct:BW	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 61 / 1/step]
2-633-008	Special 4: Size-Env.Correct:BW	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 62 / 1/step]
2-633-011	Special 4: Size-Env.Correct:BW	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 55 / 1/step]
2-633-012	Special 4: Size-Env.Correct:BW	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 56 / 1/step]
2-633-015	Special 4: Size-Env.Correct:BW	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 57 / 1/step]
2-633-016	Special 4: Size-Env.Correct:BW	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 58 / 1/step]
2-634-003	Special 4: Size-Env.Correct:FC	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 59 / 1/step]
2-634-004	Special 4: Size-Env.Correct:FC	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 60 / 1/step]
2-634-007	Special 4: Size-Env.Correct:FC	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 61 / 1/step]
2-634-008	Special 4: Size-Env.Correct:FC	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 62 / 1/step]
2-634-	Special 4: Size-Env.Correct:FC	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 63 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
011				
2-634-012	Special 4: Size-Env.Correct:FC	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 64 / 1/step]
2-634-015	Special 4: Size-Env.Correct:FC	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 65 / 1/step]
2-634-016	Special 4: Size-Env.Correct:FC	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 66 / 1/step]
2-635-003	Special 4: LeadingEdgeCorrect.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-635-004	Special 4: LeadingEdgeCorrect.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-635-007	Special 4: LeadingEdgeCorrect.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-635-008	Special 4: LeadingEdgeCorrect.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-636-003	Special 4: SW Timing Lead Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-636-004	Special 4: SW Timing Lead Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-636-007	Special 4: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-636-008	Special 4: SW Timing Lead Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-637-	Special 4: TrailEdgeCorrection	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				
2-637-004	Special 4: TrailEdgeCorrection	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-637-007	Special 4: TrailEdgeCorrection	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-637-008	Special 4: TrailEdgeCorrection	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-638-003	Special 4: SWTiming Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-638-004	Special 4: SWTiming Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-638-007	Special 4: SWTiming Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-638-008	Special 4: SWTiming Trail Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-639-015	Special 4: EnvCorrectionTable	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-639-016	Special 4: EnvCorrectionTable	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-639-019	Special 4: Edge Envir Correc.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-639-020	Special 4: Edge Envir Correc.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-641-	Special 5: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 2000 / 10-V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				
2-641-004	Special 5: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-643-003	Special 5: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 11 / 1uA/step]
2-643-004	Special 5: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 8 / 1uA/step]
2-647-003	Special 5: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 12 / 1uA/step]
2-647-004	Special 5: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 9 / 1uA/step]
2-651-003	Special 5: SizeCorrection:BW	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-651-004	Special 5: SizeCorrection:BW	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-651-007	Special 5: SizeCorrection:BW	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 100 / 5%/step]
2-651-008	Special 5: SizeCorrection:BW	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 163 / 5%/step]
2-651-011	Special 5: SizeCorrection:BW	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 136 / 5%/step]
2-651-012	Special 5: SizeCorrection:BW	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 250 / 5%/step]
2-651-	Special 5: SizeCorrection:BW	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 164 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
015				
2-651-016	Special 5: SizeCorrection:BW	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 313 / 5%/step]
2-652-003	Special 5: SizeCorrection:FC	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-652-004	Special 5: SizeCorrection:FC	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-652-007	Special 5: SizeCorrection:FC	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 100 / 5%/step]
2-652-008	Special 5: SizeCorrection:FC	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 200 / 5%/step]
2-652-011	Special 5: SizeCorrection:FC	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 138 / 5%/step]
2-652-012	Special 5: SizeCorrection:FC	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 278 / 5%/step]
2-652-015	Special 5: SizeCorrection:FC	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 154 / 5%/step]
2-652-016	Special 5: SizeCorrection:FC	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 389 / 5%/step]
2-653-003	Special 5: Size-Env.Correct:BW	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 67 / 1/step]
2-653-004	Special 5: Size-Env.Correct:BW	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 68 / 1/step]
2-653-	Special 5: Size-Env.Correct:BW	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 69 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				
2-653-008	Special 5: Size-Env.Correct:BW	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 70 / 1/step]
2-653-011	Special 5: Size-Env.Correct:BW	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 71 / 1/step]
2-653-012	Special 5: Size-Env.Correct:BW	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 72 / 1/step]
2-653-015	Special 5: Size-Env.Correct:BW	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 73 / 1/step]
2-653-016	Special 5: Size-Env.Correct:BW	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 74 / 1/step]
2-654-003	Special 5: Size-Env.Correct:FC	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 67 / 1/step]
2-654-004	Special 5: Size-Env.Correct:FC	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 68 / 1/step]
2-654-007	Special 5: Size-Env.Correct:FC	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 69 / 1/step]
2-654-008	Special 5: Size-Env.Correct:FC	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 70 / 1/step]
2-654-011	Special 5: Size-Env.Correct:FC	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 71 / 1/step]
2-654-012	Special 5: Size-Env.Correct:FC	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 72 / 1/step]
2-654-	Special 5: Size-Env.Correct:FC	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 73 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
015				
2-654-016	Special 5: Size-Env.Correct:FC	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 74 / 1/step]
2-655-003	Special 5: LeadingEdgeCorrect.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-655-004	Special 5: LeadingEdgeCorrect.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-655-007	Special 5: LeadingEdgeCorrect.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-655-008	Special 5: LeadingEdgeCorrect.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-656-003	Special 5: SW Timing Lead Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-656-004	Special 5: SW Timing Lead Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-656-007	Special 5: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-656-008	Special 5: SW Timing Lead Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-657-003	Special 5: TrailEdgeCorrection	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-657-004	Special 5: TrailEdgeCorrection	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-657-	Special 5: TrailEdgeCorrection	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				
2-657-008	Special 5: TrailEdgeCorrection	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-658-003	Special 5: SWTiming Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-658-004	Special 5: SWTiming Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-658-007	Special 5: SWTiming Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-658-008	Special 5: SWTiming Trail Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-659-015	Special 5: EnvCorrectionTable	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-659-016	Special 5: EnvCorrectionTable	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-659-019	Special 5: Edge Envir Correc.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-659-020	Special 5: Edge Envir Correc.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-661-003	Special 6: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-661-004	Special 6: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 2000 / 10-V/step]
2-663-	Special 6: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 9 / 1uA/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				
2-663-004	Special 6: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 7 / 1uA/step]
2-667-003	Special 6: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 11 / 1uA/step]
2-667-004	Special 6: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 9 / 1uA/step]
2-671-003	Special 6: SizeCorrection:BW	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-671-004	Special 6: SizeCorrection:BW	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-671-007	Special 6: SizeCorrection:BW	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 122 / 5%/step]
2-671-008	Special 6: SizeCorrection:BW	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 186 / 5%/step]
2-671-011	Special 6: SizeCorrection:BW	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 156 / 5%/step]
2-671-012	Special 6: SizeCorrection:BW	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 271 / 5%/step]
2-671-015	Special 6: SizeCorrection:BW	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 170 / 5%/step]
2-671-016	Special 6: SizeCorrection:BW	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 357 / 5%/step]
2-672-	Special 6: SizeCorrection:FC	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				
2-672-004	Special 6: SizeCorrection:FC	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%/step]
2-672-007	Special 6: SizeCorrection:FC	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 118 / 5%/step]
2-672-008	Special 6: SizeCorrection:FC	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 200 / 5%/step]
2-672-011	Special 6: SizeCorrection:FC	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 140 / 5%/step]
2-672-012	Special 6: SizeCorrection:FC	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 278 / 5%/step]
2-672-015	Special 6: SizeCorrection:FC	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 150 / 5%/step]
2-672-016	Special 6: SizeCorrection:FC	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 389 / 5%/step]
2-673-003	Special 6: Size-Env.Correct:BW	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 75 / 1/step]
2-673-004	Special 6: Size-Env.Correct:BW	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 76 / 1/step]
2-673-007	Special 6: Size-Env.Correct:BW	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 77 / 1/step]
2-673-008	Special 6: Size-Env.Correct:BW	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 78 / 1/step]
2-673-	Special 6: Size-Env.Correct:BW	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 79 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
011				
2-673-012	Special 6: Size-Env.Correct:BW	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 80 / 1/step]
2-673-015	Special 6: Size-Env.Correct:BW	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 81 / 1/step]
2-673-016	Special 6: Size-Env.Correct:BW	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 82 / 1/step]
2-674-003	Special 6: Size-Env.Correct:FC	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 75 / 1/step]
2-674-004	Special 6: Size-Env.Correct:FC	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 76 / 1/step]
2-674-007	Special 6: Size-Env.Correct:FC	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 77 / 1/step]
2-674-008	Special 6: Size-Env.Correct:FC	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 78 / 1/step]
2-674-011	Special 6: Size-Env.Correct:FC	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 79 / 1/step]
2-674-012	Special 6: Size-Env.Correct:FC	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 80 / 1/step]
2-674-015	Special 6: Size-Env.Correct:FC	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 81 / 1/step]
2-674-016	Special 6: Size-Env.Correct:FC	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 82 / 1/step]
2-675-	Special 6: LeadingEdgeCorrect.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				
2-675-004	Special 6: LeadingEdgeCorrect.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-675-007	Special 6: LeadingEdgeCorrect.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-675-008	Special 6: LeadingEdgeCorrect.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-676-003	Special 6: SWTimingLeadEdge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-676-004	Special 6: SWTimingLeadEdge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-676-007	Special 6: SWTimingLeadEdge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-676-008	Special 6: SWTimingLeadEdge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-677-003	Special 6: TrailEdgeCorrection	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-677-004	Special 6: TrailEdgeCorrection	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-677-007	Special 6: TrailEdgeCorrection	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%/step]
2-677-008	Special 6: TrailEdgeCorrection	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%/step]
2-678-	Special 6: SWTimingTrailEdge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				
2-678-004	Special 6: SWTimingTrailEdge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-678-007	Special 6: SWTimingTrailEdge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-678-008	Special 6: SWTimingTrailEdge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm/step]
2-679-015	Special 6: EnvCorrectionTable	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-679-016	Special 6: EnvCorrectionTable	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-679-019	Special 6: Edge Envir Correc.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1/step]
2-679-020	Special 6: Edge Envir Correc.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1/step]
2-690-001	ITB Contact Setting	Thick 1	ENG*	[0 to 1 / 0 / 1/step]
2-690-002	ITB Contact Setting	Thick 2	ENG*	[0 to 1 / 0 / 1/step]
2-690-003	ITB Contact Setting	Thick 3	ENG*	[0 to 1 / 0 / 1/step]
2-690-014	ITB Contact Setting	Special 4	ENG*	[0 to 1 / 0 / 1/step]
2-690-	ITB Contact Setting	Special 5	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
015				
2-690-016	ITB Contact Setting	Special 6	ENG*	[0 to 1 / 0 / 1/step]
2-900-001	Job End: Drum Idling Time	Standard Speed	ENG*	[0 to 30 / 0 / 1s/step]
2-900-002	Job End: Drum Idling Time	Middle Speed	ENG*	[0 to 30 / 0 / 1s/step]
2-900-003	Job End: Drum Idling Time	Low Speed	ENG*	[0 to 30 / 0 / 1s/step]
2-901-001	Fus. Reload:DrumIdleTimeOffset	Coverage: 0-6%	ENG*	[-60 to 300 / 0 / 1sec/step]
2-901-002	Fus. Reload:DrumIdleTimeOffset	Coverage: 6-10%	ENG*	[-60 to 300 / -11 / 1sec/step]
2-901-003	Fus. Reload:DrumIdleTimeOffset	Coverage: 10-20%	ENG*	[-60 to 300 / -26 / 1sec/step]
2-901-004	Fus. Reload:DrumIdleTimeOffset	Coverage: 20-40%	ENG*	[-60 to 300 / -21 / 1sec/step]
2-901-005	Fus. Reload:DrumIdleTimeOffset	Coverage: 40% over	ENG*	[-60 to 300 / -21 / 1sec/step]
2-905-003	Dev Rvs Time	Bk	ENG*	[0 to 200 / 80 / 10msec/step]
2-905-004	Dev Rvs Time	Color	ENG*	[0 to 200 / 80 / 10msec/step]
2-905-	Dev Rvs Threshold	ALL	ENG*	[0 to 400000 / 18430 / 10mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
005				
2-905-006	Dev Rvs Counter	Bk	ENG*	[0 to 999999999 / 0 / 1mm/step]
2-905-007	Dev Rvs Counter	Color	ENG*	[0 to 999999999 / 0 / 1mm/step]
2-905-010	Dev pre-drive : ON/OFF	ON/OFF	ENG*	[0 to 1 / 0 / 1/step] 0: OFF 1: ON
2-905-020	Last Dev drive speed	Last Dev drive speed:Bk	ENG*	[0 to 2 / 0 / 1/step]
2-905-021	Last Dev drive speed	Last Dev drive speed:Col	ENG*	[0 to 2 / 0 / 1/step]
2-905-030	Dev pre-drive : ON/OFF	nomal-middle	ENG	[0 to 3 / 0 / 1/step]
2-905-031	Dev pre-drive : ON/OFF	middle-low	ENG	[0 to 3 / 0 / 1/step]
2-905-032	Dev pre-drive : ON/OFF	nomal-low	ENG	[0 to 3 / 0 / 1/step]
2-905-033	Dev pre-drive Threshould2	Absolute Humidity Threshold	ENG	[0.0 to 1000.0 / 10.3 / 0.1g/m3/step]
2-905-040	Development pre-drive Distance	nomal speed pre-drive distance	ENG	IM C300 series: [0 to 5800 / 300 / 1mm/step] IM C400 series: [0 to 5800 / 600 / 1mm/step]
2-905-041	Development pre-drive Distance	low speed pre-drive distance	ENG	[0 to 5800 / 300 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-905-042	Development pre-drive Distance	mid speed pre-drive distance	ENG	[0 to 5800 / 300 / 1mm/step]
2-907-001	ACS Setting (FC)	Continuous Bk Pages	ENG*	[0 to 10 / 0 / 1sheet/step]
2-915-001	Gain Set: Bk OPC Drum	Standard Speed1	ENG*	[0 to 1 / 0 / 1STEP/step]
2-915-002	Gain Set: Bk OPC Drum	Low Speed	ENG*	[0 to 1 / 1 / 1STEP/step]
2-915-003	Gain Set: Bk OPC Drum	Standard Speed2	ENG*	[0 to 1 / 0 / 1STEP/step]
2-915-004	Gain Set: Bk OPC Drum	Middle Speed	ENG*	[0 to 1 / 0 / 1STEP/step]
2-916-001	Gain Set: Color OPC Drum	Standard Speed1	ENG*	[0 to 1 / 0 / 1STEP/step]
2-916-002	Gain Set: Color OPC Drum	Low Speed	ENG*	[0 to 1 / 1 / 1STEP/step]
2-916-003	Gain Set: Color OPC Drum	Middle Speed	ENG*	[0 to 1 / 0 / 1STEP/step]
2-930-001	Paper Transfer: Bias Limiter	Bias	ENG*	[0 to 7000 / 6000 / 10V/step]
2-960-001	Process Down Interval	Additional Time	ENG*	[0 to 10 / 0 / 1sec/step]
2-990-001	Print Duty Control	Duty Control Status	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-990-002	Print Duty Control	Exec Interval: Duty Control	ENG*	[30 to 3600 / 30 / 1sec/step]
2-990-004	Print Duty Control	Forced Process Down Thresh: No Duty Control	ENG*	[0 to 5000 / 0 / 1page/step]
2-990-005	Print Duty Control	Down-time BW: No Duty Control	ENG*	[0 to 120 / 0 / 1sec/step]
2-990-006	Print Duty Control	Down-time FC: No Duty Control	ENG*	[0 to 120 / 0 / 1sec/step]
2-990-007	Print Duty Control	Forced Process Down Thresh: Duty Control	ENG*	[0 to 5000 / 3 / 1page/step]
2-990-008	Print Duty Control	Down-time BW: Duty Control	ENG*	[0 to 120 / 0 / 1sec/step]
2-990-009	Print Duty Control	Down-time FC: Duty Control	ENG*	[0 to 120 / 64 / 1sec/step]
2-990-010	Print Duty Control	Correction Coefficient	ENG*	[-1.0 to 1.0 / -0.5 / 0.1/step]
2-990-011	Print Duty Control	Execution Temperature	ENG*	[20.0 to 70.0 / 42.0 / 0.1deg/step]
2-990-012	Print Duty Control	Cancellation Temp. Threshold	ENG*	[0.0 to 20.0 / 1.0 / 0.1deg/step]
2-990-013	Print Duty Control	ON/OFF Setting	ENG*	[0 to 1 / 1 / 1/step]
2-990-014	Print Duty Control	Duty Control: Down-time_BW	ENG*	[0 to 120 / 0 / 1sec/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-990-015	Print Duty Control	Duty Control: Down-time_FC	ENG*	[0 to 120 / 0 / 1sec/step]
2-990-016	Print Duty Control	Execution Temp. Upper Threshold	ENG*	[0.0 to 99.0 / 42.0 / 0.1deg/step]
2-990-017	Print Duty Control	Execution Temp. Lower Threshold	ENG*	[0.0 to 99.0 / 38.0 / 0.1deg/step]

SP3-XXX (Process)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-011-001	Manual ProCon :Exe	Normal ProCon	ENG	[0 to 1 / 0 / 1/step]
3-011-002	Manual ProCon :Exe	Toner Density Adjustment	ENG	[0 to 1 / 0 / 1/step]
3-011-003	Manual ProCon :Exe	ACC RunTime ProCon	ENG	[0 to 1 / 0 / 1/step]
3-011-004	Manual ProCon :Exe	Full MUSIC	ENG	[0 to 1 / 0 / 1/step]
3-011-005	Manual ProCon :Exe	Normal MUSIC	ENG	[0 to 1 / 0 / 1/step]
3-011-011	Manual ProCon :Exe	Normal ProCon BW	ENG	[0 to 1 / 0 / 1/step]
3-012-001	ProCon Execute Result: Display	History: Last	ENG *	[0 to 99999999 / 0 / 1/step]
3-012-002	ProCon Execute Result: Display	History: Last 2	ENG *	[0 to 99999999 / 0 / 1/step]
3-012-003	ProCon Execute Result: Display	History: Last 3	ENG *	[0 to 99999999 / 0 / 1/step]
3-012-004	ProCon Execute Result: Display	History: Last 4	ENG *	[0 to 99999999 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-012-005	ProCon Execute Result: Display	History: Last 5	ENG *	[0 to 99999999 / 0 / 1/step]
3-012-006	ProCon Execute Result: Display	History: Last 6	ENG *	[0 to 99999999 / 0 / 1/step]
3-012-007	ProCon Execute Result: Display	History: Last 7	ENG *	[0 to 99999999 / 0 / 1/step]
3-012-008	ProCon Execute Result: Display	History: Last 8	ENG *	[0 to 99999999 / 0 / 1/step]
3-012-009	ProCon Execute Result: Display	History: Last 9	ENG *	[0 to 99999999 / 0 / 1/step]
3-012-010	ProCon Execute Result: Display	History: Last 10	ENG *	[0 to 99999999 / 0 / 1/step]
3-030-001	TD Sensor Initial Set: Execute	Execute: ALL	ENG	[0 to 1 / 0 / 1/step]
3-030-002	TD Sensor Initial Set: Execute	Execute: Color	ENG	[0 to 1 / 0 / 1/step]
3-030-003	TD Sensor Initial Set: Execute	Execute: Bk	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-030-004	TD Sensor Initial Set: Execute	Execute: C	ENG	[0 to 1 / 0 / 1/step]
3-030-005	TD Sensor Initial Set: Execute	Execute: M	ENG	[0 to 1 / 0 / 1/step]
3-030-006	TD Sensor Initial Set: Execute	Execute: Y	ENG	[0 to 1 / 0 / 1/step]
3-031-001	TD Sen. Ini. Set: Result: Disp	From Left:Y,M,C,Bk	ENG *	[0 to 9999 / 0 / 1/step]
3-050-001	Forced Toner Supply: Exe	Execute: ALL	ENG	[0 to 1 / 0 / 1/step]
3-050-002	Forced Toner Supply: Exe	Execute: Color	ENG	[0 to 1 / 0 / 1/step]
3-050-003	Forced Toner Supply: Exe	Execute: Bk	ENG	[0 to 1 / 0 / 1/step]
3-050-004	Forced Toner Supply: Exe	Execute: C	ENG	[0 to 1 / 0 / 1/step]
3-050-005	Forced Toner Supply: Exe	Execute: M	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-050-006	Forced Toner Supply: Exe	Execute: Y	ENG	[0 to 1 / 0 / 1/step]
3-050-021	Forced Toner Supply: Exe	Supply Quantity: Bk	ENG *	[0.0 to 5.0 / 0.5 / 0.1wt%/step]
3-050-022	Forced Toner Supply: Exe	Supply Quantity: C	ENG *	[0.0 to 5.0 / 0.5 / 0.1wt%/step]
3-050-023	Forced Toner Supply: Exe	Supply Quantity: M	ENG *	[0.0 to 5.0 / 0.5 / 0.1wt%/step]
3-050-024	Forced Toner Supply: Exe	Supply Quantity: Y	ENG *	[0.0 to 5.0 / 0.5 / 0.1wt%/step]
3-050-033	Forced Toner Supply: Exe	Repeat Count	ENG *	[0 to 255 / 8 / 1times/step]
3-072-001	TD Sensor Check	Exe All Colors	ENG	[0 to 1 / 0 / 1/step]
3-073-001	TD Sensor Check: Display	mu Count:Bk	ENG *	[0 to 65535 / 0 / 1/step]
3-073-002	TD Sensor Check: Display	mu Count:C	ENG *	[0 to 65535 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-073-003	TD Sensor Check: Display	mu Count:M	ENG *	[0 to 65535 / 0 / 1/step]
3-073-004	TD Sensor Check: Display	mu Count:Y	ENG *	[0 to 65535 / 0 / 1/step]
3-074-001	ID Sensor Check: Exe	All Sensors	ENG	[0 to 1 / 0 / 1/step]
3-075-001	ID Sensor Check: Display	Vsg reg(front)	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-075-002	ID Sensor Check: Display	Vsg reg(center)	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-075-003	ID Sensor Check: Display	Vsg reg(rear)	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-075-011	ID Sensor Check: Display	Voffset(front)	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-075-012	ID Sensor Check: Display	Voffset(center)	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-075-013	ID Sensor Check: Display	Voffset(rear)	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-	Toner End Detection: Set	ON/OFF	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
100-001			*	0: Detect 1: Not Detect
3-100-002	Toner End Detection: Set	NE Detection Select	ENG *	[0 to 1 / 0 / 1/step] 0: ALL 1: TE Sensor
3-101-001	Toner Status: Display	Bk	ENG *	[0 to 2 / 2 / 1/step]
3-101-002	Toner Status: Display	C	ENG *	[0 to 2 / 2 / 1/step]
3-101-003	Toner Status: Display	M	ENG *	[0 to 2 / 2 / 1/step]
3-101-004	Toner Status: Display	Y	ENG *	[0 to 2 / 2 / 1/step]
3-102-001	Toner Remaining: Display	Toner Supply Motor Drive Time: Bk	ENG *	[0.000 to 500.000 / 0.000 / 0.001g/step]
3-102-002	Toner Remaining: Display	Toner Supply Motor Drive Time: C	ENG *	[0.000 to 500.000 / 0.000 / 0.001g/step]
3-102-003	Toner Remaining: Display	Toner Supply Motor Drive Time: M	ENG *	[0.000 to 500.000 / 0.000 / 0.001g/step]
3-	Toner Remaining:	Toner Supply Motor Drive Time:	ENG	[0.000 to 500.000 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
102-004	Display	Y	*	0.000 / 0.001g/step]
3-102-011	Toner Remaining: Display	Pixel: Bk	ENG *	[0.000 to 500.000 / 0.000 / 0.001g/step]
3-102-012	Toner Remaining: Display	Pixel: C	ENG *	[0.000 to 500.000 / 0.000 / 0.001g/step]
3-102-013	Toner Remaining: Display	Pixel: M	ENG *	[0.000 to 500.000 / 0.000 / 0.001g/step]
3-102-014	Toner Remaining: Display	Pixel: Y	ENG *	[0.000 to 500.000 / 0.000 / 0.001g/step]
3-102-021	Toner Remaining: Display	Replenishment Amount: Bk	ENG *	[0 to 500 / 0 / 1g/step]
3-102-022	Toner Remaining: Display	Replenishment Amount: C	ENG *	[0 to 500 / 0 / 1g/step]
3-102-023	Toner Remaining: Display	Replenishment Amount: M	ENG *	[0 to 500 / 0 / 1g/step]
3-102-024	Toner Remaining: Display	Replenishment Amount: Y	ENG *	[0 to 500 / 0 / 1g/step]
3-110-	NE Detect: Toner Remain Thresh	Bk	ENG *	[0 to 500 / 23 / 1g/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				
3-110-002	NE Detect: Toner Remain Thresh	C	ENG *	[0 to 500 / 10 / 1g/step]
3-110-003	NE Detect: Toner Remain Thresh	M	ENG *	[0 to 500 / 10 / 1g/step]
3-110-004	NE Detect: Toner Remain Thresh	Y	ENG *	[0 to 500 / 10 / 1g/step]
3-121-001	TE Counter: Display	Bk	ENG *	[0 to 99 / 0 / 1times/step]
3-121-002	TE Counter: Display	C	ENG *	[0 to 99 / 0 / 1times/step]
3-121-003	TE Counter: Display	M	ENG *	[0 to 99 / 0 / 1times/step]
3-121-004	TE Counter: Display	Y	ENG *	[0 to 99 / 0 / 1times/step]
3-123-021	Toner End Sen Status: Display	Latest Output: Bk	ENG	[0 to 1 / 0 / 1/step]
3-123-022	Toner End Sen Status: Display	Latest Output: C	ENG	[0 to 1 / 0 / 1/step]
3-123	Toner End Sen Status: Display	Latest Output: M	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-023				
3-123-024	Toner End Sen Status: Display	Latest Output: Y	ENG	[0 to 1 / 0 / 1/step]
3-131-001	Vt TE Thresh	Delta Vt Thresh	ENG *	[0.00 to 5.00 / 0.50 / 0.01V/step]
3-131-002	Vt TE Thresh	Delta Vt Sum Thresh	ENG *	[0 to 99 / 10 / 1V/step]
3-131-011	Vt TE Thresh	Delta Vt Thresh Before NE	ENG *	[0.00 to 5.00 / 0.50 / 0.01V/step]
3-131-012	Vt TE Thresh	Delta Vt Sum Thresh Before NE	ENG *	[0 to 99 / 10 / 1V/step]
3-131-021	Vt TE Thresh	High TC Delta Vt Thresh	ENG *	[0.00 to 5.00 / 0.30 / 0.01V/step]
3-131-022	Vt TE Thresh	High TC Delta Vt Sum Thresh	ENG *	[0 to 99 / 3 / 1V/step]
3-131-023	Vt TE Thresh	High TC Delta Vt Thresh Before NE	ENG *	[0.00 to 5.00 / 0.70 / 0.01V/step]
3-131-	Vt TE Thresh	High TC Delta Vt Sum Thresh Before NE	ENG *	[0 to 99 / 10 / 1V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
024				
3-131-031	Vt TE Thresh	Low TC Delta Vt Thresh	ENG *	[0.00 to 5.00 / 0.30 / 0.01V/step]
3-131-032	Vt TE Thresh	Low TC Delta Vt Sum Thresh	ENG *	[0 to 99 / 3 / 1V/step]
3-131-033	Vt TE Thresh	Low TC Delta Vt Thresh Before NE	ENG *	[0.00 to 5.00 / 0.70 / 0.01V/step]
3-131-034	Vt TE Thresh	Low TC Delta Vt Sum Thresh Before NE	ENG *	[0 to 99 / 10 / 1V/step]
3-131-041	Vt TE Thresh	TC Thresh	ENG *	[0.0 to 25.5 / 4.0 / 0.1wt%/step]
3-132-001	Delta Vt Sum: Display	Bk	ENG *	[0.00 to 99.00 / 0.00 / 0.01V/step]
3-132-002	Delta Vt Sum: Display	C	ENG *	[0.00 to 99.00 / 0.00 / 0.01V/step]
3-132-003	Delta Vt Sum: Display	M	ENG *	[0.00 to 99.00 / 0.00 / 0.01V/step]
3-132-	Delta Vt Sum: Display	Y	ENG *	[0.00 to 99.00 / 0.00 / 0.01V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				
3-200-001	Toner Density: Display	Bk	ENG *	[0.0 to 25.5 / 0.0 / 0.1wt%/step]
3-200-002	Toner Density: Display	C	ENG *	[0.0 to 25.5 / 0.0 / 0.1wt%/step]
3-200-003	Toner Density: Display	M	ENG *	[0.0 to 25.5 / 0.0 / 0.1wt%/step]
3-200-004	Toner Density: Display	Y	ENG *	[0.0 to 25.5 / 0.0 / 0.1wt%/step]
3-201-001	Toner Density Limits: Set	Upper TC	ENG *	[1.0 to 15.0 / 8.7 / 0.1wt%/step]
3-201-002	Toner Density Limits: Set	Lower TC	ENG *	[1.0 to 15.0 / 4.0 / 0.1wt%/step]
3-206-001	TD Sensor Bulk Corr.: Set	Abs. Humidity Cnver. Coef.: Bk	ENG *	[0.0000 to 6.5535 / 0.4340 / 0.0001g/cm3/g/m3/step]
3-206-002	TD Sensor Bulk Corr.: Set	Abs. Humidity Cnver. Coef.: C	ENG *	[0.0000 to 6.5535 / 0.6859 / 0.0001g/cm3/g/m3/step]
3-206-	TD Sensor Bulk Corr.: Set	Abs. Humidity Cnver. Coef.: M	ENG *	[0.0000 to 6.5535 / 0.6859 / 0.0001g/cm3/g/m3/step

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				]
3-206-004	TD Sensor Bulk Corr.: Set	Abs. Humidity Cnver. Coef.: Y	ENG *	[0.0000 to 6.5535 / 0.6859 / 0.0001g/cm3/g/m3/step]
3-206-011	TD Sensor Bulk Corr.: Set	Color Conversion Coef.: Bk	ENG *	[0 to 200 / 100 / 1%/step]
3-206-012	TD Sensor Bulk Corr.: Set	Color Conversion Coef.: C	ENG *	[0 to 200 / 100 / 1%/step]
3-206-013	TD Sensor Bulk Corr.: Set	Color Conversion Coef.: M	ENG *	[0 to 200 / 100 / 1%/step]
3-206-014	TD Sensor Bulk Corr.: Set	Color Conversion Coef.: Y	ENG *	[0 to 200 / 100 / 1%/step]
3-206-021	TD Sensor Bulk Corr.: Set	Weight Coefficient	ENG *	[0 to 200 / 100 / 1%/step]
3-206-031	TD Sensor Bulk Corr.: Set	Offset: Bk	ENG *	[-2.0000 to 2.0000 / 0.0000 / 0.0001g/cm3/step]
3-206-032	TD Sensor Bulk Corr.: Set	Offset: C	ENG *	[-2.0000 to 2.0000 / 0.0000 / 0.0001g/cm3/step]
3-206-033	TD Sensor Bulk Corr.: Set	Offset: M	ENG *	[-2.0000 to 2.0000 / 0.0000 / 0.0001g/cm3/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-206-034	TD Sensor Bulk Corr.: Set	Offset: Y	ENG *	[-2.0000 to 2.0000 / 0.0000 / 0.0001g/cm3/step]
3-206-041	TD Sensor Bulk Corr.: Set	Conversion Coeff. Beta: Bk	ENG *	[-999.0 to 0.0 / -1.0 / 0.1count/g/cm3/step]
3-206-042	TD Sensor Bulk Corr.: Set	Conversion Coeff. Beta: C	ENG *	[-999.0 to 0.0 / -1.0 / 0.1count/g/cm3/step]
3-206-043	TD Sensor Bulk Corr.: Set	Conversion Coeff. Beta: M	ENG *	[-999.0 to 0.0 / -1.0 / 0.1count/g/cm3/step]
3-206-044	TD Sensor Bulk Corr.: Set	Conversion Coeff. Beta: Y	ENG *	[-999.0 to 0.0 / -1.0 / 0.1count/g/cm3/step]
3-210-001	TD Sensor: Vt: Display	Current: Bk	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-210-002	TD Sensor: Vt: Display	Current: C	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-210-003	TD Sensor: Vt: Display	Current: M	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-210-004	TD Sensor: Vt: Display	Current: Y	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-212-101	Vt Shift: Set	TC Cor.(ON/OFF)	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-213-001	Vt Shift: Set	TC Cor.(ON/OFF)	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-213-021	Vt Shift: Set	Low Speed TC Correction: Bk	ENG *	[-0.50 to 0.50 / 0.00 / 0.01V/step]
3-213-022	Vt Shift: Set	Low Speed TC Correction: C	ENG *	[-0.50 to 0.50 / 0.00 / 0.01V/step]
3-213-023	Vt Shift: Set	Low Speed TC Correction: M	ENG *	[-0.50 to 0.50 / 0.00 / 0.01V/step]
3-213-024	Vt Shift: Set	Low Speed: TC Correction: Y	ENG *	[-0.50 to 0.50 / 0.00 / 0.01V/step]
3-213-031	Vt Shift: Set	Std Speed 2 TC Correction: Bk	ENG *	[-0.50 to 0.50 / 0.00 / 0.01V/step]
3-214-001	Vt Save: Set	Dot Coverage Thresh	ENG *	[0 to 100 / 20 / 1%/step]
3-230-001	Vtref: Display/Set	Current: Bk	ENG *	[0.00 to 5.00 / 2.00 / 0.01V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-230-002	Vtref: Display/Set	Current: C	ENG *	[0.00 to 5.00 / 2.00 / 0.01V/step]
3-230-003	Vtref: Display/Set	Current: M	ENG *	[0.00 to 5.00 / 2.00 / 0.01V/step]
3-230-004	Vtref: Display/Set	Current: Y	ENG *	[0.00 to 5.00 / 2.00 / 0.01V/step]
3-232-001	Vtref Correct: Pixel: Set	ON/OFF	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-232-011	Vtref Correct: Pixel: Set	Low Coverage Coefficient: Bk	ENG *	[0.0 to 5.0 / 0.3 / 0.1/step]
3-232-012	Vtref Correct: Pixel: Set	Low Coverage Coefficient: C	ENG *	[0.0 to 5.0 / 0.3 / 0.1/step]
3-232-013	Vtref Correct: Pixel: Set	Low Coverage Coefficient: M	ENG *	[0.0 to 5.0 / 0.3 / 0.1/step]
3-232-014	Vtref Correct: Pixel: Set	Low Coverage Coefficient: Y	ENG *	[0.0 to 5.0 / 0.3 / 0.1/step]
3-232-021	Vtref Correct: Pixel: Set	High Coverage Coefficient: Bk	ENG *	[0.0 to 5.0 / 0.4 / 0.1/step]
3-	Vtref Correct: Pixel: Set	High Coverage Coefficient: C	ENG	[0.0 to 5.0 / 0.4 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
232-022			*	0.1/step]
3-232-023	Vtref Correct: Pixel: Set	High Coverage Coefficient: M	ENG *	[0.0 to 5.0 / 0.4 / 0.1/step]
3-232-024	Vtref Correct: Pixel: Set	High Coverage Coefficient: Y	ENG *	[0.0 to 5.0 / 0.4 / 0.1/step]
3-232-040	Vtref Correct: Pixel: Set	Initial ProCon Interval	ENG *	[0 to 255 / 6 / 1times/step]
3-232-041	Vtref Correct: Pixel: Set	High Coverage Thresh	ENG *	[0 to 100 / 60 / 1%/step]
3-232-050	Vtref Correct: Pixel: Set	ProCon Interval	ENG *	[0 to 255 / 14 / 1times/step]
3-232-060	Vtref Correct: Pixel: Set	Low Coverage Thresh	ENG *	[0.0 to 100.0 / 100.0 / 0.1%/step]
3-232-071	Vtref Correct: Pixel: Set	TC Upper Limit: Display: Bk	ENG *	[1.0 to 15.0 / 8.5 / 0.1wt%/step]
3-232-072	Vtref Correct: Pixel: Set	TC Upper Limit: Display: C	ENG *	[1.0 to 15.0 / 8.5 / 0.1wt%/step]
3-	Vtref Correct: Pixel: Set	TC Upper Limit: Display: M	ENG	[1.0 to 15.0 / 8.5 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
232-073			*	0.1wt%/step]
3-232-074	Vtref Correct: Pixel: Set	TC Upper Limit: Display: Y	ENG *	[1.0 to 15.0 / 8.5 / 0.1wt%/step]
3-232-081	Vtref Correct: Pixel: Set	TC Upper Limit Correction:K	ENG *	[0.0 to 5.0 / 0.0 / 0.1wt%/step]
3-232-082	Vtref Correct: Pixel: Set	TC Upper Limit Correction:C	ENG *	[0.0 to 5.0 / 0.5 / 0.1wt%/step]
3-232-083	Vtref Correct: Pixel: Set	TC Upper Limit Correction:M	ENG *	[0.0 to 5.0 / 0.5 / 0.1wt%/step]
3-232-084	Vtref Correct: Pixel: Set	TC Upper Limit Correction:Y	ENG *	[0.0 to 5.0 / 0.5 / 0.1wt%/step]
3-234-001	Vtref Correction.: Set	ON/OFF	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-234-011	Vtref Correction.: Set	Correction Amount (+): Bk	ENG *	[0.00 to 1.00 / 0.05 / 0.01V/step]
3-234-012	Vtref Correction.: Set	Correction Amount (+): C	ENG *	[0.00 to 1.00 / 0.05 / 0.01V/step]
3-234	Vtref Correction.: Set	Correction Amount (+): M	ENG *	[0.00 to 1.00 / 0.05 / 0.01V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-013				
3-234-014	Vtref Correction.: Set	Correction Amount (+): Y	ENG *	[0.00 to 1.00 / 0.05 / 0.01V/step]
3-234-021	Vtref Correction.: Set	Correction Amount (-): Bk	ENG *	[0.00 to 1.00 / 0.05 / 0.01V/step]
3-234-022	Vtref Correction.: Set	Correction Amount (-): C	ENG *	[0.00 to 1.00 / 0.05 / 0.01V/step]
3-234-023	Vtref Correction.: Set	Correction Amount (-): M	ENG *	[0.00 to 1.00 / 0.05 / 0.01V/step]
3-234-024	Vtref Correction.: Set	Correction Amount (-): Y	ENG *	[0.00 to 1.00 / 0.05 / 0.01V/step]
3-234-031	Vtref Correction.: Set	P Rank 1 Threshold	ENG *	[0.00 to 2.00 / 0.15 / 0.01/step]
3-234-032	Vtref Correction.: Set	P Rank 2 Threshold	ENG *	[0.00 to 2.00 / 0.05 / 0.01/step]
3-234-033	Vtref Correction.: Set	P Rank 3 Threshold	ENG *	[-2.00 to 0.00 / -0.05 / 0.01/step]
3-234	Vtref Correction.: Set	P Rank 4 Threshold	ENG *	[-2.00 to 0.00 / -0.10 / 0.01/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-034				
3-234-041	Vtref Correction.: Set	T Rank 1 Threshold	ENG *	[-1.00 to 0.00 / -0.20 / 0.01V/step]
3-234-042	Vtref Correction.: Set	T Rank 2 Threshold	ENG *	[0.00 to 1.00 / 0.20 / 0.01V/step]
3-234-050	Vtref Correction.: Set	Correction Coefficient	ENG *	[1.0 to 5.0 / 2.0 / 0.1/step]
3-250-001	Image Area: Display	Latest: Bk	ENG *	[0 to 9999 / 0 / 1cm2/step]
3-250-002	Image Area: Display	Latest: C	ENG *	[0 to 9999 / 0 / 1cm2/step]
3-250-003	Image Area: Display	Latest: M	ENG *	[0 to 9999 / 0 / 1cm2/step]
3-250-004	Image Area: Display	Latest: Y	ENG *	[0 to 9999 / 0 / 1cm2/step]
3-251-001	Dot Coverage: Display	Latest: Bk	ENG *	[0.00 to 100.00 / 0.00 / 0.01%/step]
3-251	Dot Coverage: Display	Latest: C	ENG *	[0.00 to 100.00 / 0.00 / 0.01%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-002				
3-251-003	Dot Coverage: Display	Latest: M	ENG *	[0.00 to 100.00 / 0.00 / 0.01%/step]
3-251-004	Dot Coverage: Display	Latest: Y	ENG *	[0.00 to 100.00 / 0.00 / 0.01%/step]
3-251-011	Dot Coverage: Display	Accumulate: Average: S: Bk	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-012	Dot Coverage: Display	Accumulate: Average: S: C	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-013	Dot Coverage: Display	Accumulate: Average: S: M	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-014	Dot Coverage: Display	Accumulate: Average: S: Y	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-021	Dot Coverage: Display	Accumulate: Average: M: Bk	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-022	Dot Coverage: Display	Accumulate: Average: M: C	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-	Dot Coverage: Display	Accumulate: Average: M: M	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
023				
3-251-024	Dot Coverage: Display	Accumulate: Average: M: Y	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-031	Dot Coverage: Display	Accumulate: Average: L: Bk	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-032	Dot Coverage: Display	Accumulate: Average: L: C	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-033	Dot Coverage: Display	Accumulate: Average: L: M	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-034	Dot Coverage: Display	Accumulate: Average: L: Y	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-041	Dot Coverage: Display	Accumulate Page: Set: S	ENG *	[1 to 255 / 5 / 1sheets/step]
3-251-042	Dot Coverage: Display	Accumulate Page: Set: M	ENG *	[1 to 500 / 10 / 1sheets/step]
3-251-043	Dot Coverage: Display	Accumulate Page: Set: L	ENG *	[1 to 999 / 50 / 1sheets/step]
3-251-	Dot Coverage: Display	Accumulate Page: Set: A	ENG *	[1 to 6000 / 2000 / 1sheets/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
044				
3-251-051	Dot Coverage: Display	Accumulate Page: Set: S2	ENG *	[1 to 255 / 40 / 1sheets/step]
3-251-052	Dot Coverage: Display	Accumulate Page: Set: M2	ENG *	[1 to 500 / 10 / 1sheets/step]
3-251-053	Dot Coverage: Display	Accumulate Page: Set: L2	ENG *	[1 to 999 / 50 / 1sheets/step]
3-251-054	Dot Coverage: Display	Accumulate Page: Set: A2	ENG *	[1 to 6000 / 2000 / 1sheets/step]
3-251-101	Dot Coverage: Display	Accumulate: Average: A: Bk	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-102	Dot Coverage: Display	Accumulate: Average: A: C	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-103	Dot Coverage: Display	Accumulate: Average: A: M	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-104	Dot Coverage: Display	Accumulate: Average: A: Y	ENG *	[0.0000 to 100.0000 / 5.0000 / 0.0001%/step]
3-251-	Dot Coverage: Display	Accumulate: Average: Bk	ENG *	[0.00 to 100.00 / 0.00 / 0.01%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
151				
3-251-152	Dot Coverage: Display	Accumulate: Average: C	ENG *	[0.00 to 100.00 / 0.00 / 0.01%/step]
3-251-153	Dot Coverage: Display	Accumulate: Average: M	ENG *	[0.00 to 100.00 / 0.00 / 0.01%/step]
3-251-154	Dot Coverage: Display	Accumulate: Average: Y	ENG *	[0.00 to 100.00 / 0.00 / 0.01%/step]
3-252-001	Accumulate Image Area: Display	Latest: Bk	ENG *	[0 to 65535 / 0 / 1cm^2/step]
3-252-002	Accumulate Image Area: Display	Latest: C	ENG *	[0 to 65535 / 0 / 1cm^2/step]
3-252-003	Accumulate Image Area: Display	Latest: M	ENG *	[0 to 65535 / 0 / 1cm^2/step]
3-252-004	Accumulate Image Area: Display	Latest: Y	ENG *	[0 to 65535 / 0 / 1cm^2/step]
3-252-011	Accumulate Image Area: Display	Developer: Bk	ENG *	[0 to 4294967295 / 0 / 1cm2/step]
3-252-012	Accumulate Image Area: Display	Developer: C	ENG *	[0 to 4294967295 / 0 / 1cm2/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-252-013	Accumulate Image Area: Display	Developer: M	ENG *	[0 to 4294967295 / 0 / 1cm2/step]
3-252-014	Accumulate Image Area: Display	Developer: Y	ENG *	[0 to 4294967295 / 0 / 1cm2/step]
3-260-001	Temperature/Humidity: Display	Temperature: Display	ENG	[-5.0 to 45.0 / 0.0 / 0.1deg/step]
3-260-002	Temperature/Humidity: Display	Relative Humidity: Display	ENG	[0.0 to 100.0 / 0.0 / 0.1%RH/step]
3-260-003	Temperature/Humidity: Display	Absolute Humidity: Display	ENG	[0.00 to 100.00 / 0.00 / 0.01g/m3/step]
3-310-001	ID.Sen. Detection: Voffset	Voffset reg	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-310-011	ID.Sen. Detection: Voffset	Voffset dif	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-310-021	ID.Sen. Detection: Voffset	Voffset TM (Front)	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-310-022	ID.Sen. Detection: Voffset	Voffset TM (Center)	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-	ID.Sen. Detection:	Voffset TM (Rear)	ENG	[0.00 to 5.50 / 0.00 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
310-023	Voffset		*	0.01V/step]
3-311-001	ID.Sen. Detection :Vmin	Vmin_K	ENG *	[0.000 to 5.000 / 0.000 / 0.001V/step]
3-312-001	ID.Sen. Detection: Vct	Vct_reg	ENG *	[0.000 to 5.000 / 0.000 / 0.001V/step]
3-312-011	ID.Sen. Detection: Vct	Vct_dif	ENG *	[0.000 to 5.000 / 0.000 / 0.001V/step]
3-320-001	Vsg Adj.: Execute	ID/TM Sensor	ENG	[0 to 1 / 0 / 1/step]
3-321-001	Vsg Adj. Result: Vsg	Vsg reg	ENG *	[0.00 to 5.50 / 4.00 / 0.01V/step]
3-321-011	Vsg Adj. Result: Vsg	Vsg dif	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-321-021	Vsg Adj. Result: Vsg	Vsg reg (BW)	ENG *	[0.00 to 5.50 / 4.00 / 0.01V/step]
3-321-031	Vsg Adj. Result: Vsg	Vsg dif (BW)	ENG *	[0.00 to 5.50 / 0.00 / 0.01V/step]
3-321-041	Vsg Adj. Result: Vsg	Vsg TM (Front)	ENG *	[0.00 to 5.50 / 4.00 / 0.01V/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-321-042	Vsg Adj. Result: Vsg	Vsg TM (Center)	ENG *	[0.00 to 5.50 / 4.00 / 0.01V/step]
3-321-043	Vsg Adj. Result: Vsg	Vsg TM (Rear)	ENG *	[0.00 to 5.50 / 4.00 / 0.01V/step]
3-322-001	Vsg Adj. Result: Ifsg	Ifsg	ENG *	[0.000 to 50.000 / 27.000 / 0.001mA/step]
3-322-011	Vsg Adj. Result: Ifsg	Ifsg (minimum)	ENG *	[0.000 to 50.000 / 27.000 / 0.001mA/step]
3-322-021	Vsg Adj. Result: Ifsg	Ifsg: TM (Front)	ENG *	[0.000 to 50.000 / 27.000 / 0.001mA/step]
3-322-022	Vsg Adj. Result: Ifsg	Ifsg: TM (Center)	ENG *	[0.000 to 50.000 / 27.000 / 0.001mA/step]
3-322-023	Vsg Adj. Result: Ifsg	Ifsg: TM (Rear)	ENG *	[0.000 to 50.000 / 27.000 / 0.001mA/step]
3-323-001	Vsg Adj. Result: Display	Latest	ENG *	[0 to 999 / 0 / 1/step]
3-323-002	Vsg Adj. Result: Display	Latest 1	ENG *	[0 to 999 / 0 / 1/step]
3-	Vsg Adj. Result: Display	Latest 2	ENG	[0 to 999 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
323-003			*	
3-323-004	Vsg Adj. Result: Display	Latest 3	ENG *	[0 to 999 / 0 / 1/step]
3-323-005	Vsg Adj. Result: Display	Latest 4	ENG *	[0 to 999 / 0 / 1/step]
3-323-006	Vsg Adj. Result: Display	Latest 5	ENG *	[0 to 999 / 0 / 1/step]
3-323-007	Vsg Adj. Result: Display	Latest 6	ENG *	[0 to 999 / 0 / 1/step]
3-323-008	Vsg Adj. Result: Display	Latest 7	ENG *	[0 to 999 / 0 / 1/step]
3-323-009	Vsg Adj. Result: Display	Latest 8	ENG *	[0 to 999 / 0 / 1/step]
3-323-010	Vsg Adj. Result: Display	Latest 9	ENG *	[0 to 999 / 0 / 1/step]
3-330-001	ID Sen. Sensitivity Coef.: Set	K2(Latest)	ENG *	[0.0000 to 5.0000 / 0.5280 / 0.0001/step]
3-	ID Sen. Sensitivity Coef.:	K5(Latest)	ENG	[0.0000 to 10.0000 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
330-011	Set		*	2.0000 / 0.0001/step]
3-331-021	ID Sen. Sensitivity Coef.: Set	K2: Check	ENG *	[0.000 to 1.000 / 0.528 / 0.001/step]
3-331-031	ID Sen. Sensitivity Coef.: Set	Diffuse Ratio Correction Coef.	ENG *	[0.75 to 1.35 / 1.00 / 0.01/step]
3-400-001	Toner Supply Type Select	Bk	ENG *	[0 to 4 / 4 / 1/step] 0: FIXED 2: PID 4: DANC
3-400-002	Toner Supply Type Select	C	ENG *	[0 to 4 / 4 / 1/step] 0: FIXED 2: PID 4: DANC
3-400-003	Toner Supply Type Select	M	ENG *	[0 to 4 / 4 / 1/step] 0: FIXED 2: PID 4: DANC
3-400-004	Toner Supply Type Select	Y	ENG *	[0 to 4 / 4 / 1/step] 0: FIXED 2: PID 4: DANC
3-411-001	Toner Supply Qty: Display	Bk	ENG	[0.0 to 40000.0 / 0.0 / 0.1mg/step]
3-411-002	Toner Supply Qty: Display	C	ENG	[0.0 to 40000.0 / 0.0 / 0.1mg/step]
3-411-003	Toner Supply Qty: Display	M	ENG	[0.0 to 40000.0 / 0.0 / 0.1mg/step]
3-	Toner Supply Qty:	Y	ENG	[0.0 to 40000.0 / 0.0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
411-004	Display			0.1mg/step]
3-420-001	Developer Weight: Set	Developer Weight: Bk	ENG *	[50 to 2000 / 120 / 1g/step]
3-421-001	Toner Supply Ability: Set	Bk	ENG *	[0.001 to 2.000 / 0.700 / 0.001g/sec/step]
3-421-002	Toner Supply Ability: Set	C	ENG *	[0.001 to 2.000 / 0.700 / 0.001g/sec/step]
3-421-003	Toner Supply Ability: Set	M	ENG *	[0.001 to 2.000 / 0.700 / 0.001g/sec/step]
3-421-004	Toner Supply Ability: Set	Y	ENG *	[0.001 to 2.000 / 0.700 / 0.001g/sec/step]
3-421-011	Toner Supply Ability: Set	Coefficient 1	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-012	Toner Supply Ability: Set	Coefficient 2	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-013	Toner Supply Ability: Set	Coefficient 3	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-	Toner Supply Ability: Set	Coefficient 4	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
014				
3-421-015	Toner Supply Ability: Set	Coefficient 5	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-016	Toner Supply Ability: Set	Coefficient 6	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-017	Toner Supply Ability: Set	Coefficient 7	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-018	Toner Supply Ability: Set	Coefficient 8	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-019	Toner Supply Ability: Set	Coefficient 9	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-020	Toner Supply Ability: Set	Coefficient 10	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-021	Toner Supply Ability: Set	Unit Time	ENG *	[0 to 60000 / 3000 / 1msec/step]
3-421-031	Toner Supply Ability: Set	Environment Threshold: 1	ENG *	[0.0 to 65.0 / 17.0 / 0.1g/m3/step]
3-421-	Toner Supply Ability: Set	Environment Threshold: 2	ENG *	[0.0 to 65.0 / 29.0 / 0.1g/m3/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
032				
3-421-033	Toner Supply Ability: Set	Environment Threshold: 3	ENG *	[0.0 to 65.0 / 34.0 / 0.1g/m3/step]
3-421-041	Toner Supply Ability: Set	Environment Coefficient 1	ENG *	[0.50 to 2.00 / 1.04 / 0.01/step]
3-421-042	Toner Supply Ability: Set	Environment Coefficient 2	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-043	Toner Supply Ability: Set	Environment Coefficient 3	ENG *	[0.50 to 2.00 / 1.00 / 0.01/step]
3-421-044	Toner Supply Ability: Set	Environment Coefficient 4	ENG *	[0.50 to 2.00 / 0.96 / 0.01/step]
3-422-001	Toner Supply Limits: Set	Max Supply Rate: Bk	ENG *	[0 to 255 / 100 / 1%/step]
3-422-002	Toner Supply Limits: Set	Max Supply Rate: C	ENG *	[0 to 255 / 100 / 1%/step]
3-422-003	Toner Supply Limits: Set	Max Supply Rate: M	ENG *	[0 to 255 / 100 / 1%/step]
3-422-	Toner Supply Limits: Set	Max Supply Rate: Y	ENG *	[0 to 255 / 100 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				
3-422-011	Toner Supply Limits: Set	Min Supply Time: Bk	ENG *	[0 to 255 / 100 / 1msec/step]
3-422-012	Toner Supply Limits: Set	Min Supply Time: C	ENG *	[0 to 255 / 100 / 1msec/step]
3-422-013	Toner Supply Limits: Set	Min Supply Time: M	ENG *	[0 to 255 / 100 / 1msec/step]
3-422-014	Toner Supply Limits: Set	Min Supply Time: Y	ENG *	[0 to 255 / 100 / 1msec/step]
3-432-001	Supply Drive Time: Setting	Drive Time (Maximum)	ENG *	[0 to 1500 / 800 / 1msec/step]
3-440-001	Fixed Supply Mode	Fixed Rate: Bk	ENG *	[0 to 100 / 10 / 1%/step]
3-440-002	Fixed Supply Mode	Fixed Rate: C	ENG *	[0 to 100 / 10 / 1%/step]
3-440-003	Fixed Supply Mode	Fixed Rate: M	ENG *	[0 to 100 / 10 / 1%/step]
3-440-004	Fixed Supply Mode	Fixed Rate: Y	ENG *	[0 to 100 / 10 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-450-001	Toner Supply PID: Setting	Vt Proportion Coef.: Bk	ENG *	[0 to 2550 / 40 / 1/step]
3-450-002	Toner Supply PID: Setting	Vt Proportion Coef.: C	ENG *	[0 to 2550 / 40 / 1/step]
3-450-003	Toner Supply PID: Setting	Vt Proportion Coef.: M	ENG *	[0 to 2550 / 40 / 1/step]
3-450-004	Toner Supply PID: Setting	Vt Proportion Coef.: Y	ENG *	[0 to 2550 / 40 / 1/step]
3-450-011	Toner Supply PID: Setting	Pixel Proportion Coef. 1: Bk	ENG *	[0.00 to 2.55 / 0.60 / 0.01/step]
3-450-012	Toner Supply PID: Setting	Pixel Proportion Coef. 1: C	ENG *	[0.00 to 2.55 / 0.60 / 0.01/step]
3-450-013	Toner Supply PID: Setting	Pixel Proportion Coef. 1: M	ENG *	[0.00 to 2.55 / 0.60 / 0.01/step]
3-450-014	Toner Supply PID: Setting	Pixel Proportion Coef. 1: Y	ENG *	[0.00 to 2.55 / 0.60 / 0.01/step]
3-450-021	Toner Supply PID: Setting	Pixel Proportion Coef. 2: Bk	ENG *	[0.00 to 2.55 / 1.00 / 0.01/step]
3-	Toner Supply PID:	Pixel Proportion Coef. 2: C	ENG	[0.00 to 2.55 / 1.00 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
450-022	Setting		*	0.01/step]
3-450-023	Toner Supply PID: Setting	Pixel Proportion Coef. 2: M	ENG *	[0.00 to 2.55 / 1.00 / 0.01/step]
3-450-024	Toner Supply PID: Setting	Pixel Proportion Coef. 2: Y	ENG *	[0.00 to 2.55 / 1.00 / 0.01/step]
3-450-031	Toner Supply PID: Setting	Correction Coefficient: 1	ENG *	[0.00 to 2.55 / 1.00 / 0.01/step]
3-450-032	Toner Supply PID: Setting	Correction Coefficient: 2	ENG *	[0.00 to 2.55 / 0.50 / 0.01/step]
3-450-033	Toner Supply PID: Setting	Correction Coefficient: 3	ENG *	[0.00 to 2.55 / 0.00 / 0.01/step]
3-450-034	Toner Supply PID: Setting	Correction Coefficient: 4	ENG *	[0.00 to 2.55 / 0.25 / 0.01/step]
3-450-035	Toner Supply PID: Setting	Correction Coefficient: 5	ENG *	[0.00 to 2.55 / 0.50 / 0.01/step]
3-450-041	Toner Supply PID: Setting	Pixel Proportion Coef. 3: Bk	ENG *	[0.70 to 1.30 / 1.00 / 0.01/step]
3-	Toner Supply PID:	Pixel Proportion Coef. 3: C	ENG	[0.70 to 1.30 / 1.00 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
450-042	Setting		*	0.01/step]
3-450-043	Toner Supply PID: Setting	Pixel Proportion Coef. 3: M	ENG *	[0.70 to 1.30 / 1.00 / 0.01/step]
3-450-044	Toner Supply PID: Setting	Pixel Proportion Coef. 3: Y	ENG *	[0.70 to 1.30 / 1.00 / 0.01/step]
3-450-051	Toner Supply PID: Setting	Correction Value 1	ENG *	[-0.10 to 0.00 / -0.01 / 0.01/step]
3-450-052	Toner Supply PID: Setting	Correction Value 2	ENG *	[0.00 to 0.10 / 0.01 / 0.01/step]
3-450-061	Toner Supply PID: Setting	Pixel Proportion Coef. Err	ENG *	[0.00 to 1.00 / 0.35 / 0.01/step]
3-450-071	Toner Supply PID: Setting	I_Vt_Coef: Bk	ENG *	[0 to 2550 / 500 / 1/step]
3-450-072	Toner Supply PID: Setting	I_Vt_Coef: C	ENG *	[0 to 2550 / 500 / 1/step]
3-450-073	Toner Supply PID: Setting	I_Vt_Coef: M	ENG *	[0 to 2550 / 500 / 1/step]
3-	Toner Supply PID:	I_Vt_Coef: Y	ENG	[0 to 2550 / 500 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
450-074	Setting		*	1/step]
3-450-081	Toner Supply PID: Setting	Si:Bk	ENG *	[-255.00 to 255.00 / 0.00 / 0.01/step]
3-450-082	Toner Supply PID: Setting	Si:C	ENG *	[-255.00 to 255.00 / 0.00 / 0.01/step]
3-450-083	Toner Supply PID: Setting	Si:M	ENG *	[-255.00 to 255.00 / 0.00 / 0.01/step]
3-450-084	Toner Supply PID: Setting	Si:Y	ENG *	[-255.00 to 255.00 / 0.00 / 0.01/step]
3-450-091	Toner Supply PID: Setting	Vt Sum Times: Bk	ENG *	[1 to 255 / 20 / 1times/step]
3-450-092	Toner Supply PID: Setting	Vt Sum Times: C	ENG *	[1 to 255 / 20 / 1times/step]
3-450-093	Toner Supply PID: Setting	Vt Sum Times: M	ENG *	[1 to 255 / 20 / 1times/step]
3-450-094	Toner Supply PID: Setting	Vt Sum Times: Y	ENG *	[1 to 255 / 20 / 1times/step]
3-	Toner Supply Ctrl:	Minimum Supply Time	ENG	[0 to 250 / 100 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
460-011	DANC: Set		*	1msec/step]
3-460-012	Toner Supply Ctrl: DANC: Set	Maximum Supply Time	ENG *	[0 to 1000 / 200 / 1msec/step]
3-460-022	Toner Supply Ctrl: DANC: Set	SMITH: Supply Amount: Bk	ENG *	[1 to 500 / 129 / 1mg/step]
3-460-111	Toner Supply Ctrl: DANC: Set	Transfer Rate: Bk	ENG *	[1.00 to 1.50 / 1.00 / 0.01/step]
3-460-112	Toner Supply Ctrl: DANC: Set	Transfer Rate: C	ENG *	[1.00 to 1.50 / 1.00 / 0.01/step]
3-460-113	Toner Supply Ctrl: DANC: Set	Transfer Rate: M	ENG *	[1.00 to 1.50 / 1.00 / 0.01/step]
3-460-114	Toner Supply Ctrl: DANC: Set	Transfer Rate: Y	ENG *	[1.00 to 1.50 / 1.00 / 0.01/step]
3-461-001	Toner Supply Ctrl: DANC: Set	PI Rate	ENG *	[5 to 200 / 100 / 1%/step]
3-461-011	Toner Supply Ctrl: DANC: Set	PI: P Gain: Bk	ENG *	[0.0000 to 1.0000 / 0.0100 / 0.0001/step]
3-461-012	Toner Supply Ctrl: DANC: Set	P Limits: Ratio: Up: Bk	ENG *	[0.00 to 1.00 / 0.05 / 0.01/step]
3-461-	Toner Supply Ctrl: DANC: Set	P Limits: Ratio: Low: Bk	ENG *	[0.00 to 1.00 / 0.20 / 0.01/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
013				
3-461-021	Toner Supply Ctrl: DANC: Set	PI: I Gain: Bk	ENG *	[0.0000 to 0.1000 / 0.0100 / 0.0001/step]
3-461-022	Toner Supply Ctrl: DANC: Set	I Limits: Ratio: Up: Bk	ENG *	[0.00 to 1.00 / 0.40 / 0.01/step]
3-461-023	Toner Supply Ctrl: DANC: Set	I Limits: Ratio: Low: Bk	ENG *	[0.00 to 1.00 / 0.30 / 0.01/step]
3-461-052	Toner Supply Ctrl: DANC: Set	AW:AWIpni:Bk	ENG *	[0 to 2000 / 100 / 1/step]
3-461-102	Toner Supply Ctrl: DANC: Set	PI: Line Spd Corr.: StdSpd1: Bk	ENG *	IM C300 series: [0.05 to 1.00 / 1.00 / 0.01/step] IM C400 series: [0.05 to 1.00 / 0.84 / 0.01/step]
3-461-103	Toner Supply Ctrl: DANC: Set	PI: Line Spd Corr.: StdSpd2: Bk	ENG *	IM C300 series: [0.05 to 1.00 / 1.00 / 0.01/step] IM C400 series: [0.05 to 1.00 / 0.71 / 0.01/step]
3-461-104	Toner Supply Ctrl: DANC: Set	PI: Line Spd Corr.: LowSpd: Bk	ENG *	IM C300 series: [0.05 to 1.00 / 0.50 / 0.01/step] IM C400 series: [0.05 to 1.00 / 0.35 / 0.01/step]
3-	Toner Supply Ctrl:	SMITH: Gain: Bk	ENG	[0.00 to 2.00 / 1.00 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
461-121	DANC: Set		*	0.01/step]
3-461-122	Toner Supply Ctrl: DANC: Set	SMITH: Ratio: Std Speed 1: Bk	ENG *	[0.00 to 1.00 / 1.00 / 0.01/step]
3-461-123	Toner Supply Ctrl: DANC: Set	SMITH: Ratio: Std Speed 2: Bk	ENG *	[0.00 to 1.00 / 1.00 / 0.01/step]
3-461-124	Toner Supply Ctrl: DANC: Set	SMITH: Ratio: Low Speed: Bk	ENG *	[0.00 to 1.00 / 1.00 / 0.01/step]
3-462-001	Toner Supply Ctrl: DANC: Set	ANC: Rate	ENG *	[0 to 200 / 100 / 1%/step]
3-462-101	Toner Supply Ctrl: DANC: Set	ANC: Gain: Bk	ENG *	[0.00 to 2.00 / 1.00 / 0.01/step]
3-462-102	Toner Supply Ctrl: DANC: Set	ANC: Ratio: Std Speed 1: Bk	ENG *	[0.05 to 1.00 / 1.00 / 0.01/step]
3-462-103	Toner Supply Ctrl: DANC: Set	ANC: Ratio: Std Speed 2: Bk	ENG *	[0.05 to 1.00 / 1.00 / 0.01/step]
3-462-104	Toner Supply Ctrl: DANC: Set	ANC: Ratio: Low Speed: Bk	ENG *	[0.05 to 1.00 / 1.00 / 0.01/step]
3-	Toner Supply Ctrl:	Integral: I: Save: Bk	ENG	[-1000.0000 to

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
463-101	DANC: Set		*	1000.0000 / 0.0000 / 0.0001/step]
3-463-102	Toner Supply Ctrl: DANC: Set	Integral: I: Save: C	ENG *	[-1000.0000 to 1000.0000 / 0.0000 / 0.0001/step]
3-463-103	Toner Supply Ctrl: DANC: Set	Integral: I: Save: M	ENG *	[-1000.0000 to 1000.0000 / 0.0000 / 0.0001/step]
3-463-104	Toner Supply Ctrl: DANC: Set	Integral: I: Save: Y	ENG *	[-1000.0000 to 1000.0000 / 0.0000 / 0.0001/step]
3-463-111	Toner Supply Ctrl: DANC: Set	ANC:Ref Save: Bk	ENG *	[-1000.0000 to 1000.0000 / 0.0000 / 0.0001/step]
3-463-112	Toner Supply Ctrl: DANC: Set	ANC:Ref Save: C	ENG *	[-1000.0000 to 1000.0000 / 0.0000 / 0.0001/step]
3-463-113	Toner Supply Ctrl: DANC: Set	ANC:Ref Save: M	ENG *	[-1000.0000 to 1000.0000 / 0.0000 / 0.0001/step]
3-463-114	Toner Supply Ctrl: DANC: Set	ANC:Ref Save: Y	ENG *	[-1000.0000 to 1000.0000 / 0.0000 / 0.0001/step]
3-463-201	Toner Supply Ctrl: DANC: Set	Save_DANC: Bk	ENG *	[0 to 9999 / 0 / 1cm2/step]
3-463-202	Toner Supply Ctrl: DANC: Set	Save_DANC: C	ENG *	[0 to 9999 / 0 / 1cm2/step]
3-	Toner Supply Ctrl:	Save_DANC: M	ENG	[0 to 9999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
463-203	DANC: Set		*	1cm2/step]
3-463-204	Toner Supply Ctrl: DANC: Set	Save_DANC: Y	ENG *	[0 to 9999 / 0 / 1cm2/step]
3-500-001	Image Quality Adj.: ON/OFF	ALL	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-500-002	Image Quality Adj.: ON/OFF	Process Control	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-500-003	Image Quality Adj.: ON/OFF	MUSIC	ENG *	[0 to 1 / 1 / 1/step]
3-500-004	Image Quality Adj.: ON/OFF	TD Sensor Initial Set	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-501-001	Toner End Prohibition Setting	Process Control	ENG *	[0 to 1 / 1 / 1/step] 0: Permit 1: Forbid
3-501-002	Toner End Prohibition Setting	MUSIC	ENG *	[0 to 1 / 1 / 1/step] 0: Permit 1: Forbid
3-501-003	Toner End Prohibition Setting	TC Adjustment	ENG *	[0 to 1 / 1 / 1/step] 0: Permit 1: Forbid
3-	ImgQltyAdj :ModeSelect	FC/BW Mode Priority Setting	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
509-011			*	0: FC Priority 1: BW Priority
3-510-024	Image Quality Adj.: Exec Flag	MUSIC	ENG *	[0 to 2 / 0 / 1/step]
3-520-001	Image Quality Adj.: Interval	During Job	ENG *	[0 to 100 / 5 / 1pages/step]
3-520-002	Image Quality Adj.: Interval	During Stand-by	ENG *	[0 to 100 / 10 / 1minute/step]
3-521-001	Drum Stop: Time: Display	Year	ENG *	[0 to 99 / 0 / 1year/step]
3-521-002	Drum Stop: Time: Display	Month	ENG *	[1 to 12 / 1 / 1month/step]
3-521-003	Drum Stop: Time: Display	Day	ENG *	[1 to 31 / 1 / 1day/step]
3-521-004	Drum Stop: Time: Display	Hour	ENG *	[0 to 23 / 0 / 1hour/step]
3-521-005	Drum Stop: Time: Display	Minute	ENG *	[0 to 59 / 0 / 1minute/step]
3-521	Drum Stop Time :Disp	Year:Col	ENG *	[0 to 99 / 0 / 1year/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-011				
3-521-012	Drum Stop Time :Disp	Month:Col	ENG *	[1 to 12 / 1 / 1month/step]
3-521-013	Drum Stop Time :Disp	Day:Col	ENG *	[1 to 31 / 1 / 1day/step]
3-521-014	Drum Stop Time :Disp	Hour:Col	ENG *	[0 to 23 / 0 / 1hour/step]
3-521-015	Drum Stop Time :Disp	Minute:Col	ENG *	[0 to 59 / 0 / 1minute/step]
3-522-001	Drum Stop:Environment:Display	Temperature	ENG *	[-1280.0 to 1270.0 / 0.0 / 0.1deg/step]
3-522-002	Drum Stop:Environment:Display	Relative Humidity	ENG *	[0.0 to 1000.0 / 0.0 / 0.1%RH/step]
3-522-003	Drum Stop:Environment:Display	Absolute Humidity	ENG *	[0.0 to 1000.0 / 0.0 / 0.1g/m3/step]
3-522-011	Drum Stop Environ :Disp	Temperature:Col	ENG *	[-1280.0 to 1270.0 / 0.0 / 0.1deg/step]
3-522-012	Drum Stop Environ :Disp	Rel Humidity:Col	ENG *	[0.0 to 1000.0 / 0.0 / 0.1%RH/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-522-013	Drum Stop Environ :Disp	Abs Humidity:Col	ENG *	[0.0 to 1000.0 / 0.0 / 0.1g/m3/step]
3-522-100	Rapi_timer	Time Setting	ENG *	[0 to 255 / 30 / 1sec/step]
3-529-001	ProCon Auto Exe Interval: Set	Development Gamma Correction	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-529-002	ProCon Auto Exe Interval: Set	Environment Correction	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-529-003	ProCon Auto Exe Interval: Set	Absolute Humidity Threshold	ENG *	[0.0 to 99.0 / 4.3 / 0.1g/m3/step]
3-529-004	ProCon Auto Exe Interval: Set	Maximum Correction Times	ENG *	[0 to 99 / 4 / 1counts/step]
3-529-005	ProCon Auto Exe Interval: Set	Execution Counter	ENG	[0 to 255 / 0 / 1counts/step]
3-529-006	ProCon Auto Exe Interval: Set	Page Counter: BW	ENG *	[0 to 5000 / 0 / 1sheets/step]
3-529-007	ProCon Auto Exe Interval: Set	Page Counter: FC	ENG *	[0 to 5000 / 0 / 1sheets/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-529-008	ProCon Auto Exe Interval: Set	Absolute Humidity high Threshold	ENG *	[0.0 to 100.0 / 17.0 / 0.1g/m3/step]
3-530-001	Power ON ProCon: Set	Non-use Time Setting	ENG *	[0 to 1440 / 360 / 1minute/step]
3-530-002	Power ON ProCon: Set	Temperature Range Threshold	ENG *	[0 to 99 / 10 / 1deg/step]
3-530-003	Power ON ProCon: Set	Relative Humidity Range Thresh	ENG *	[0 to 99 / 50 / 1%RH/step]
3-530-004	Power ON ProCon: Set	Absolute Humidity Range Thresh	ENG *	[0 to 99 / 6 / 1g/m3/step]
3-530-005	Power ON ProCon: Set	Interval: BW	ENG *	[0 to 5000 / 250 / 1sheets/step]
3-530-006	Power ON ProCon: Set	Interval: FC	ENG *	[0 to 5000 / 100 / 1sheets/step]
3-530-007	Power ON ProCon: Set	Page Counter: BW	ENG *	[0 to 5000 / 0 / 1sheets/step]
3-530-008	Power ON ProCon: Set	Page Counter: FC	ENG *	[0 to 5000 / 0 / 1sheets/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-530-009	Power ON ProCon: Set	Non-use Time Setting (Long)	ENG *	[0 to 65535 / 2880 / 1min/step]
3-531-001	Non-useTime Procon: Set	Non-use Time Setting	ENG *	[0 to 1440 / 360 / 1minute/step]
3-531-002	Non-useTime Procon: Set	Temperature Range Threshold	ENG *	[0 to 99 / 10 / 1deg/step]
3-531-003	Non-useTime Procon: Set	Relative Humidity Range Thresh	ENG *	[0 to 99 / 50 / 1%RH/step]
3-531-004	Non-useTime Procon: Set	Absolute Humidity Range Thresh	ENG *	[0 to 99 / 6 / 1g/m3/step]
3-531-005	Non-useTime Procon: Set	Maximum Execution Times	ENG *	[0 to 99 / 14 / 1times/step]
3-531-011	Density Adjustment time :Disp	Year:Col	ENG *	[0 to 99 / 0 / 1year/step]
3-531-012	Density Adjustment time :Disp	Month:Col	ENG *	[1 to 12 / 1 / 1month/step]
3-531-013	Density Adjustment time :Disp	Day:Col	ENG *	[1 to 31 / 1 / 1day/step]
3-	Density Adjustment	Year:Col	ENG	[0 to 99 / 0 / 1year/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
531-014	time :Disp		*	
3-531-015	Density Adjustment time :Disp	Month:Col	ENG *	[1 to 12 / 1 / 1month/step]
3-531-016	Density Adjustment time :Disp	Day:Col	ENG *	[1 to 31 / 1 / 1day/step]
3-533-001	Interrupt ProCon: Set	Interval: Set: BW	ENG *	[0 to 5000 / 500 / 1sheets/step]
3-533-002	Interrupt ProCon: Set	Interval: Display: BW	ENG *	[0 to 5000 / 500 / 1sheets/step]
3-533-003	Interrupt ProCon: Set	Correction (Short): BW	ENG *	[0.00 to 1.00 / 0.10 / 0.01/step]
3-533-004	Interrupt ProCon: Set	Correction (Mid.): BW	ENG *	[0.00 to 1.00 / 1.00 / 0.01/step]
3-533-005	Interrupt ProCon: Set	Correction (Short2): BW	ENG *	[0.00 to 1.00 / 1.00 / 0.01/step]
3-533-011	Interrupt ProCon: Set	Interval: Set: FC	ENG *	[0 to 5000 / 200 / 1sheets/step]
3-533	Interrupt ProCon: Set	Interval: Display: FC	ENG *	[0 to 5000 / 200 / 1sheets/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-012				
3-533-013	Interrupt ProCon: Set	Correction (Short): FC	ENG *	[0.00 to 1.00 / 0.25 / 0.01/step]
3-533-014	Interrupt ProCon: Set	Correction (Mid.): FC	ENG *	[0.00 to 1.00 / 1.00 / 0.01/step]
3-533-015	Interrupt ProCon: Set	Correction (Short2): FC	ENG *	[0.00 to 1.00 / 1.00 / 0.01/step]
3-534-001	JobEnd ProCon: Set	Interval: Set: BW	ENG *	[0 to 5000 / 250 / 1sheets/step]
3-534-002	JobEnd ProCon: Set	Interval: Display: BW	ENG *	[0 to 5000 / 250 / 1sheets/step]
3-534-003	JobEnd ProCon: Set	Correction (Short): BW	ENG *	[0.00 to 1.00 / 0.20 / 0.01/step]
3-534-004	JobEnd ProCon: Set	Correction (Mid.): BW	ENG *	[0.00 to 1.00 / 1.00 / 0.01/step]
3-534-005	Interrupt ProCon: Set	Correction (Short2): BW	ENG *	[0.00 to 1.00 / 0.08 / 0.01/step]
3-534	JobEnd ProCon: Set	Interval: Set: FC	ENG *	[0 to 1000 / 100 / 1sheets/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-011				
3-534-012	JobEnd ProCon: Set	Interval: Display: FC	ENG *	[0 to 5000 / 100 / 1sheets/step]
3-534-013	JobEnd ProCon: Set	Correction (Short): FC	ENG *	[0.00 to 1.00 / 0.50 / 0.01/step]
3-534-014	JobEnd ProCon: Set	Correction (Mid.): FC	ENG *	[0.00 to 1.00 / 1.00 / 0.01/step]
3-534-015	Interrupt ProCon: Set	Correction (Short2): FC	ENG *	[0.00 to 1.00 / 0.20 / 0.01/step]
3-539-001	Dev Agitating Time: Set	Agitating Time	ENG *	[0 to 3000 / 10 / 1sec/step]
3-539-010	Dev Agitating Time: Set	ON/OFF(Abs Humidity Reference)	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-539-011	Dev Agitating Time: Set	Absolute Humidity Reference: 1	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-012	Dev Agitating Time: Set	Absolute Humidity Reference: 2	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-013	Dev Agitating Time: Set	Absolute Humidity Reference: 3	ENG *	[0 to 3000 / 5 / 1sec/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-539-014	Dev Agitating Time: Set	Absolute Humidity Reference: 4	ENG *	[0 to 3000 / 5 / 1sec/step]
3-539-015	Dev Agitating Time: Set	Absolute Humidity Reference: 5	ENG *	[0 to 3000 / 5 / 1sec/step]
3-539-016	Dev Agitating Time: Set	Absolute Humidity Reference: 6	ENG *	[0 to 3000 / 5 / 1sec/step]
3-539-021	Dev Agitating Time: Set	Absolute Humidity Threshold: 1	ENG *	[0.0 to 65.0 / 4.0 / 0.1g/m3/step]
3-539-022	Dev Agitating Time: Set	Absolute Humidity Threshold: 2	ENG *	[0.0 to 65.0 / 8.0 / 0.1g/m3/step]
3-539-023	Dev Agitating Time: Set	Absolute Humidity Threshold: 3	ENG *	[0.0 to 65.0 / 12.0 / 0.1g/m3/step]
3-539-024	Dev Agitating Time: Set	Absolute Humidity Threshold: 4	ENG *	[0.0 to 65.0 / 16.0 / 0.1g/m3/step]
3-539-025	Dev Agitating Time: Set	Absolute Humidity Threshold: 5	ENG *	[0.0 to 65.0 / 24.0 / 0.1g/m3/step]
3-539-030	Dev Agitating Time: Set	ON/OFF(Non-use Time Reference)	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-539-031	Dev Agitating Time: Set	Non-use Time Reference: 1	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-032	Dev Agitating Time: Set	Non-use Time Reference: 2	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-033	Dev Agitating Time: Set	Non-use Time Reference: 3	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-034	Dev Agitating Time: Set	Non-use Time Reference: 4	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-035	Dev Agitating Time: Set	Non-use Time Reference: 5	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-036	Dev Agitating Time: Set	Non-use Time Reference: 6	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-037	Dev Agitating Time: Set	Non-use Time Reference: 7	ENG *	[0 to 3000 / 5 / 1sec/step]
3-539-038	Dev Agitating Time: Set	Non-use Time Reference: 8	ENG *	[0 to 3000 / 5 / 1sec/step]
3-539-039	Dev Agitating Time: Set	Non-use Time Reference: 9	ENG *	[0 to 3000 / 5 / 1sec/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-539-040	Dev Agitating Time: Set	Non-use Time Reference: 10	ENG *	[0 to 3000 / 10 / 1sec/step]
3-539-041	Dev Agitating Time: Set	Non-use Time Threshold: 1	ENG *	[0 to 30000 / 15 / 1min/step]
3-539-042	Dev Agitating Time: Set	Non-use Time Threshold: 2	ENG *	[0 to 30000 / 30 / 1min/step]
3-539-043	Dev Agitating Time: Set	Non-use Time Threshold: 3	ENG *	[0 to 30000 / 60 / 1min/step]
3-539-044	Dev Agitating Time: Set	Non-use Time Threshold: 4	ENG *	[0 to 30000 / 120 / 1min/step]
3-539-045	Dev Agitating Time: Set	Non-use Time Threshold: 5	ENG *	[0 to 30000 / 240 / 1min/step]
3-539-046	Dev Agitating Time: Set	Non-use Time Threshold: 6	ENG *	[0 to 30000 / 360 / 1min/step]
3-539-047	Dev Agitating Time: Set	Non-use Time Threshold: 7	ENG *	[0 to 30000 / 720 / 1min/step]
3-539-048	Dev Agitating Time: Set	Non-use Time Threshold: 8	ENG *	[0 to 30000 / 1440 / 1min/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-539-049	Dev Agitating Time: Set	Non-use Time Threshold: 9	ENG *	[0 to 30000 / 2880 / 1min/step]
3-539-050	Dev Agitating Time: Set	ON/OFF(Dot Coverage Reference)	ENG *	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
3-539-051	Dev Agitating Time: Set	Dot Coverage Reference: 1	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-052	Dev Agitating Time: Set	Dot Coverage Reference: 2	ENG *	[0 to 3000 / 0 / 1sec/step]
3-539-053	Dev Agitating Time: Set	Dot Coverage Reference: 3	ENG *	[0 to 3000 / 5 / 1sec/step]
3-539-054	Dev Agitating Time: Set	Dot Coverage Reference: 4	ENG *	[0 to 3000 / 5 / 1sec/step]
3-539-055	Dev Agitating Time: Set	Dot Coverage Reference: 5	ENG *	[0 to 3000 / 10 / 1sec/step]
3-539-056	Dev Agitating Time: Set	Dot Coverage Reference: 6	ENG *	[0 to 3000 / 10 / 1sec/step]
3-539-061	Dev Agitating Time: Set	Dot Coverage Threshold: 1	ENG *	[0 to 100 / 10 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-539-062	Dev Agitating Time: Set	Dot Coverage Threshold: 2	ENG *	[0 to 100 / 20 / 1%/step]
3-539-063	Dev Agitating Time: Set	Dot Coverage Threshold: 3	ENG *	[0 to 100 / 40 / 1%/step]
3-539-064	Dev Agitating Time: Set	Dot Coverage Threshold: 4	ENG *	[0 to 100 / 60 / 1%/step]
3-539-065	Dev Agitating Time: Set	Dot Coverage Threshold: 5	ENG *	[0 to 100 / 80 / 1%/step]
3-539-099	Dev Agitating Time: Set	Upper Limit	ENG *	[0 to 3600 / 30 / 1sec/step]
3-541-001	Music Interval :Set	Page Counter: BW	ENG *	[0 to 5000 / 0 / 1sheets/step]
3-541-002	Music Interval :Set	Page Counter: FC	ENG *	[0 to 5000 / 0 / 1sheets/step]
3-550-001	Refresh Mode	Required Area: Bk	ENG *	[0 to 65535 / 0 / 1cm^2/step]
3-550-002	Refresh Mode	Required Area: C	ENG *	[0 to 65535 / 0 / 1cm^2/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-550-003	Refresh Mode	Required Area: M	ENG *	[0 to 65535 / 0 / 1cm^2/step]
3-550-004	Refresh Mode	Required Area: Y	ENG *	[0 to 65535 / 0 / 1cm^2/step]
3-550-011	Refresh Mode	Dev. Motor Rotation: Display: Bk	ENG *	[0.0 to 1000.0 / 0.0 / 0.1m/step]
3-550-012	Refresh Mode	Dev. Motor Rotation: Display: C	ENG *	[0.0 to 1000.0 / 0.0 / 0.1m/step]
3-550-013	Refresh Mode	Dev. Motor Rotation: Display: M	ENG *	[0.0 to 1000.0 / 0.0 / 0.1m/step]
3-550-014	Refresh Mode	Dev. Motor Rotation: Display: Y	ENG *	[0.0 to 1000.0 / 0.0 / 0.1m/step]
3-550-021	Refresh Mode	Rotation Threshold	ENG *	[0.0 to 1000.0 / 0.1 / 0.1m/step]
3-550-031	Refresh Mode	Refresh Threshold: Bk	ENG *	[0 to 255 / 25 / 1cm^2/m/step]
3-550-032	Refresh Mode	Refresh Threshold: C	ENG *	[0 to 255 / 25 / 1cm^2/m/step]
3-	Refresh Mode	Refresh Threshold: M	ENG	[0 to 255 / 25 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
550-033			*	1cm^2/m/step]
3-550-034	Refresh Mode	Refresh Threshold: Y	ENG *	[0 to 255 / 25 / 1cm^2/m/step]
3-550-041	Refresh Mode	Job End Area Coefficient	ENG *	[0.1 to 25.5 / 1.0 / 0.1/step]
3-550-042	Refresh Mode	Job End Vb Coefficient	ENG *	[0 to 100 / 34 / 1%/step]
3-550-043	Refresh Mode	Job End Length	ENG *	[0 to 99 / 77 / 1mm/step]
3-550-044	Refresh Mode	Job End Supply	ENG *	[0.000 to 1.000 / 0.450 / 0.001mg/cm2/step]
3-550-081	Refresh Mode	Consumption Counts (Max)	ENG *	[0 to 50 / 0 / 1/step]
3-550-091	Refresh Mode	Total Refresh Amount: K	ENG *	[0 to 4294967295 / 0 / 1mg/step]
3-550-092	Refresh Mode	Total Refresh Amount: C	ENG *	[0 to 4294967295 / 0 / 1mg/step]
3-	Refresh Mode	Total Refresh Amount: M	ENG	[0 to 4294967295 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
550-093			*	1mg/step]
3-550-094	Refresh Mode	Total Refresh Amount: Y	ENG *	[0 to 4294967295 / 0 / 1mg/step]
3-550-121	Refresh Mode	Refresh Page Threshold: Bk	ENG *	[0 to 200 / 100 / 1page/step]
3-550-122	Refresh Mode	Refresh Page Threshold: Col	ENG *	[0 to 200 / 100 / 1page/step]
3-550-131	Refresh Mode	Refresh Page Counter Bk	ENG *	[0 to 999999 / 0 / 1page/step]
3-550-132	Refresh Mode	Refresh Page Counter C	ENG *	[0 to 999999 / 0 / 1page/step]
3-550-133	Refresh Mode	Refresh Page Counter M	ENG *	[0 to 999999 / 0 / 1page/step]
3-550-134	Refresh Mode	Refresh Page Counter Y	ENG *	[0 to 999999 / 0 / 1page/step]
3-553-001	Transfer Belt Cleaning	Transfer Idle Time Temp.: H	ENG *	[0.0 to 3.0 / 0.0 / 0.1revolutions/step]
3-	Transfer Belt Cleaning	Transfer Idle Time Temp.: M	ENG	[0.0 to 3.0 / 0.0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
553-002			*	0.1revolutions/step]
3-553-003	Transfer Belt Cleaning	Transfer Idle Time Temp.: L	ENG *	[0.0 to 3.0 / 0.0 / 0.1revolutions/step]
3-553-004	Transfer Belt Cleaning	Transfer Idle Time Temp.: L: ON	ENG *	[0.0 to 3.0 / 0.0 / 0.1revolutions/step]
3-553-005	Transfer Belt Cleaning	Temperature Threshold:T2	ENG *	[20 to 30 / 25 / 1deg/step]
3-553-006	Transfer Belt Cleaning	Temperature Threshold:T1	ENG *	[0 to 15 / 15 / 1deg/step]
3-553-007	Transfer Belt Cleaning	Temperature Threshold:T3	ENG *	[0 to 30 / 18 / 1deg/step]
3-555-001	Execution Interval: Set	Charge AC Control Counter: FC	ENG *	[0 to 2000 / 500 / 1page/step]
3-555-002	Execution Interval: Set	Charge AC Control Counter: Bk	ENG *	[0 to 2000 / 500 / 1page/step]
3-600-001	Select ProCon	Potential Control	ENG *	[0 to 1 / 1 / 1/step] 0: FIXED 1: CONTROL
3-	Select ProCon	LD Control	ENG	[0 to 3 / 1 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
600-002			*	0: OFF 1: ON
3-600-003	Select ProCon	TC Adj. Mode	ENG *	[0 to 3 / 3 / 1/step] 0: Do Not Execute 1: 1st Power On 2: 1st Power On & Job End 3: Dev gamma judgment
3-600-004	Select ProCon	ACC Before ProCon	ENG *	[0 to 3 / 2 / 1/step] 0: Not Execute 1: Process Control 2: TC Control
3-600-060	Select ProCon	Vsg ITB Prev Pattern Corr.	ENG *	[0 to 2 / 2 / 1/step] 0: OFF 1: All Time 2: Non-use Time (Long)
3-610-001	Charging AC Control: Display	Standard Speed: Bk	ENG *	[0.00 to 3.00 / 2.10 / 0.01kV/step]
3-610-002	Charging AC Control: Display	Standard Speed: C	ENG *	[0.00 to 3.00 / 2.10 / 0.01kV/step]
3-610-003	Charging AC Control: Display	Standard Speed: M	ENG *	[0.00 to 3.00 / 2.10 / 0.01kV/step]
3-610-004	Charging AC Control: Display	Standard Speed: Y	ENG *	[0.00 to 3.00 / 2.10 / 0.01kV/step]
3-611-	Charging DC Control: Display	Standard Speed: Bk	ENG *	[300 to 1000 / 700 / 1-V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				
3-611-002	Charging DC Control: Display	Standard Speed: C	ENG *	[300 to 1000 / 690 / 1-V/step]
3-611-003	Charging DC Control: Display	Standard Speed: M	ENG *	[300 to 1000 / 690 / 1-V/step]
3-611-004	Charging DC Control: Display	Standard Speed: Y	ENG *	[300 to 1000 / 690 / 1-V/step]
3-611-011	Charging DC Control: Display	Mid Speed: Bk	ENG *	[300 to 1000 / 700 / 1-V/step]
3-611-012	Charging DC Control: Display	Mid Speed: C	ENG *	[300 to 1000 / 690 / 1-V/step]
3-611-013	Charging DC Control: Display	Mid Speed: M	ENG *	[300 to 1000 / 690 / 1-V/step]
3-611-014	Charging DC Control: Display	Mid Speed: Y	ENG *	[300 to 1000 / 690 / 1-V/step]
3-611-021	Charging DC Control: Display	Low Speed: Bk	ENG *	[300 to 1000 / 700 / 1-V/step]
3-611-022	Charging DC Control: Display	Low Speed: C	ENG *	[300 to 1000 / 690 / 1-V/step]
3-611-023	Charging DC Control: Display	Low Speed: M	ENG *	[300 to 1000 / 690 / 1-V/step]
3-611-024	Charging DC Control: Display	Low Speed: Y	ENG *	[300 to 1000 / 690 / 1-V/step]
3-	Charging DC Control:	Std Speed: BW	ENG	[300 to 1000 / 700 / 1-

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
611-051	Display		*	V/step]
3-611-061	Charging DC Control: Display	Mid Speed: BW	ENG *	[300 to 1000 / 700 / 1- V/step]
3-611-071	Charging DC Control: Display	Low Speed: BW	ENG *	[300 to 1000 / 700 / 1- V/step]
3-611-081	Charging DC Control: Display	Std Speed2: BW	ENG *	[300 to 1000 / 700 / 1- V/step]
3-612-001	Dev DC Control: Display	Std Speed: Bk	ENG *	[200 to 800 / 550 / 1- V/step]
3-612-002	Dev DC Control: Display	Std Speed: C	ENG *	[200 to 800 / 550 / 1- V/step]
3-612-003	Dev DC Control: Display	Std Speed: M	ENG *	[200 to 800 / 550 / 1- V/step]
3-612-004	Dev DC Control: Display	Std Speed: Y	ENG *	[200 to 800 / 550 / 1- V/step]
3-612-011	Dev DC Control: Display	Mid Speed: Bk	ENG *	[200 to 800 / 550 / 1- V/step]
3-612-012	Dev DC Control: Display	Mid Speed: C	ENG *	[200 to 800 / 550 / 1- V/step]
3-612	Dev DC Control: Display	Mid Speed: M	ENG *	[200 to 800 / 550 / 1- V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-013				
3-612-014	Dev DC Control: Display	Mid Speed: Y	ENG *	[200 to 800 / 550 / 1-V/step]
3-612-021	Dev DC Control: Display	Low Speed: Bk	ENG *	[200 to 800 / 550 / 1-V/step]
3-612-022	Dev DC Control: Display	Low Speed: C	ENG *	[200 to 800 / 550 / 1-V/step]
3-612-023	Dev DC Control: Display	Low Speed: M	ENG *	[200 to 800 / 550 / 1-V/step]
3-612-024	Dev DC Control: Display	Low Speed: Y	ENG *	[200 to 800 / 550 / 1-V/step]
3-612-041	Dev DC Control: Display	Vb Limit	ENG *	[0 to 500 / 50 / 1V/step]
3-612-051	Dev DC Control: Display	Std Speed: BW	ENG *	[200 to 800 / 550 / 1-V/step]
3-612-061	Dev DC Control: Display	Mid Speed: BW	ENG *	[200 to 800 / 550 / 1-V/step]
3-612	Dev DC Control: Display	Low Speed: BW	ENG *	[200 to 800 / 550 / 1-V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-071				
3-612-081	Dev DC Control: Display	Std Speed2: BW	ENG *	[200 to 800 / 550 / 1-V/step]
3-612-124	Dev DC Control: Display	Set:PCU Distance Thresh:K	ENG *	[0 to 999999999 / 23968496 / 1mm/step]
3-612-125	Dev DC Control: Display	Set:PCU Distance Thresh:Col	ENG *	[0 to 999999999 / 17451292 / 1mm/step]
3-612-126	Dev DC Control: Display	Set:Temperature Thresh	ENG *	[0 to 100 / 15 / 1deg/step]
3-612-131	Dev DC Control: Display	Set:Upper Vb Current:K	ENG *	[0 to 800 / 560 / 1V/step]
3-612-132	Dev DC Control: Display	Set:Upper Vb Current:C	ENG *	[0 to 800 / 560 / 1V/step]
3-612-133	Dev DC Control: Display	Set:Upper Vb Current:M	ENG *	[0 to 800 / 560 / 1V/step]
3-612-134	Dev DC Control: Display	Set:Upper Vb Current:Y	ENG *	[0 to 800 / 560 / 1V/step]
3-613	LD Power Control: Display	Std Speed: Bk	ENG *	[0 to 200 / 100 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-001				
3-613-002	LD Power Control: Display	Std Speed: C	ENG *	[0 to 200 / 100 / 1%/step]
3-613-003	LD Power Control: Display	Std Speed: M	ENG *	[0 to 200 / 100 / 1%/step]
3-613-004	LD Power Control: Display	Std Speed: Y	ENG *	[0 to 200 / 100 / 1%/step]
3-613-011	LD Power Control: Display	Mid Speed: Bk	ENG *	[0 to 200 / 100 / 1%/step]
3-613-012	LD Power Control: Display	Mid Speed: C	ENG *	[0 to 200 / 100 / 1%/step]
3-613-013	LD Power Control: Display	Mid Speed: M	ENG *	[0 to 200 / 100 / 1%/step]
3-613-014	LD Power Control: Display	Mid Speed: Y	ENG *	[0 to 200 / 100 / 1%/step]
3-613-021	LD Power Control: Display	Low Speed: Bk	ENG *	[0 to 200 / 100 / 1%/step]
3-613-	LD Power Control: Display	Low Speed: C	ENG *	[0 to 200 / 100 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
022				
3-613-023	LD Power Control: Display	Low Speed: M	ENG *	[0 to 200 / 100 / 1%/step]
3-613-024	LD Power Control: Display	Low Speed: Y	ENG *	[0 to 200 / 100 / 1%/step]
3-613-051	LD Power Control: Display	Std Speed: BW	ENG *	[0 to 200 / 100 / 1%/step]
3-613-061	LD Power Control: Display	Mid Speed: BW	ENG *	[0 to 200 / 100 / 1%/step]
3-613-071	LD Power Control: Display	Low Speed: BW	ENG *	[0 to 200 / 100 / 1%/step]
3-613-081	LD Power Control: Display	Std Speed2: BW	ENG *	[0 to 200 / 100 / 1%/step]
3-613-101	LD Power Control: Display	ProCon Corr: Bk	ENG *	[0 to 200 / 160 / 1%/step]
3-613-102	LD Power Control: Display	ProCon Corr: C	ENG *	[0 to 200 / 160 / 1%/step]
3-613-	LD Power Control: Display	ProCon Corr: M	ENG *	[0 to 200 / 160 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
103				
3-613-104	LD Power Control: Display	ProCon Corr: Y	ENG *	[0 to 200 / 160 / 1%/step]
3-619-001	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed: Bk	ENG *	[0.00 to 2.55 / 0.57 / 0.01/step]
3-619-002	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed: C	ENG *	[0.00 to 2.55 / 0.87 / 0.01/step]
3-619-003	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed: M	ENG *	[0.00 to 2.55 / 0.85 / 0.01/step]
3-619-004	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed: Y	ENG *	[0.00 to 2.55 / 0.79 / 0.01/step]
3-619-005	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: Bk	ENG *	[0.00 to 2.55 / 0.57 / 0.01/step]
3-619-006	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: C	ENG *	[0.00 to 2.55 / 0.87 / 0.01/step]
3-619-007	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: M	ENG *	[0.00 to 2.55 / 0.85 / 0.01/step]
3-619-	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: Y	ENG *	[0.00 to 2.55 / 0.79 / 0.01/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
008				
3-619-011	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed: Bk	ENG *	[-1000 to 1000 / 264 / 1V/step]
3-619-012	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed: C	ENG *	[-1000 to 1000 / 159 / 1V/step]
3-619-013	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed: M	ENG *	[-1000 to 1000 / 141 / 1V/step]
3-619-014	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed: Y	ENG *	[-1000 to 1000 / 196 / 1V/step]
3-619-015	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: Bk	ENG *	[-1000 to 1000 / 264 / 1V/step]
3-619-016	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: C	ENG *	[-1000 to 1000 / 159 / 1V/step]
3-619-017	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: M	ENG *	[-1000 to 1000 / 141 / 1V/step]
3-619-018	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: Y	ENG *	[-1000 to 1000 / 196 / 1V/step]
3-619-021	Img Bias: Line Spd Corr: Set	Vb Coef: Standard Speed 2: Bk	ENG *	[0.00 to 2.55 / 0.57 / 0.01/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-619-024	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: Std Speed 2	ENG *	[0.00 to 2.55 / 0.57 / 0.01/step]
3-619-025	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: Std Speed 2	ENG *	[0.00 to 2.55 / 0.57 / 0.01/step]
3-619-026	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed 2: Std Speed 2	ENG *	[0.00 to 2.55 / 0.57 / 0.01/step]
3-619-031	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed 2: Bk	ENG *	[-1000 to 1000 / 264 / 1V/step]
3-619-034	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: Std Speed 2	ENG *	[-1000 to 1000 / 264 / 1V/step]
3-619-035	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: Std Speed 2	ENG *	[-1000 to 1000 / 264 / 1V/step]
3-619-036	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed 2: Std Speed 2	ENG *	[-1000 to 1000 / 264 / 1V/step]
3-619-041	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: Bk	ENG *	[0.00 to 2.55 / 0.57 / 0.01/step]
3-619-042	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: C	ENG *	[0.00 to 2.55 / 0.87 / 0.01/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-619-043	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: M	ENG *	[0.00 to 2.55 / 0.85 / 0.01/step]
3-619-044	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: Y	ENG *	[0.00 to 2.55 / 0.79 / 0.01/step]
3-619-045	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: Bk	ENG *	[-1000 to 1000 / 264 / 1V/step]
3-619-046	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: C	ENG *	[-1000 to 1000 / 159 / 1V/step]
3-619-047	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: M	ENG *	[-1000 to 1000 / 141 / 1V/step]
3-619-048	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: Y	ENG *	[-1000 to 1000 / 196 / 1V/step]
3-620-001	ProCon Target M/A	Maximum M/A: Bk	ENG *	[0.250 to 0.750 / 0.380 / 0.001mg/cm2/step]
3-620-002	ProCon Target M/A	Maximum M/A: C	ENG *	[0.250 to 0.750 / 0.370 / 0.001mg/cm2/step]
3-620-003	ProCon Target M/A	Maximum M/A: M	ENG *	[0.250 to 0.750 / 0.360 / 0.001mg/cm2/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-620-004	ProCon Target M/A	Maximum M/A: Y	ENG *	[0.250 to 0.750 / 0.330 / 0.001mg/cm2/step]
3-620-051	ProCon Target M/A	Maximum M/A: BW	ENG *	[0.250 to 0.750 / 0.337 / 0.001mg/cm2/step]
3-622-001	Development Potential: Display	Bk	ENG *	[0 to 800 / 0 / 1V/step]
3-622-002	Development Potential: Display	C	ENG *	[0 to 800 / 0 / 1V/step]
3-622-003	Development Potential: Display	M	ENG *	[0 to 800 / 0 / 1V/step]
3-622-004	Development Potential: Display	Y	ENG *	[0 to 800 / 0 / 1V/step]
3-622-021	Development Potential: Display	Bk: BW	ENG *	[0 to 800 / 0 / 1V/step]
3-622-051	Development Potential: Display	Upper Limit: Bk	ENG *	[400 to 800 / 757 / 1V/step]
3-622-052	Development Potential: Display	Upper Limit: C	ENG *	[400 to 800 / 617 / 1V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-622-053	Development Potential: Display	Upper Limit: M	ENG *	[400 to 800 / 652 / 1V/step]
3-622-054	Development Potential: Display	Upper Limit: Y	ENG *	[400 to 800 / 632 / 1V/step]
3-622-061	Development Potential: Display	Lower Limit: Bk	ENG *	[0 to 400 / 250 / 1V/step]
3-622-062	Development Potential: Display	Lower Limit: C	ENG *	[0 to 400 / 250 / 1V/step]
3-622-063	Development Potential: Display	Lower Limit: M	ENG *	[0 to 400 / 250 / 1V/step]
3-622-064	Development Potential: Display	Lower Limit: Y	ENG *	[0 to 400 / 250 / 1V/step]
3-623-001	LD Power: Set	Standard Speed Slope: Bk	ENG *	IM C300 series: [-1000 to 1000 / 186 / 1/step] IM C400 series: [-1000 to 1000 / 249 / 1/step]
3-623-002	LD Power: Set	Standard Speed Slope: C	ENG *	IM C300 series: [-1000 to 1000 / 186 / 1/step] IM C400 series: [-1000 to 1000 / 249 / 1/step]
3-623-003	LD Power: Set	Standard Speed Slope: M	ENG *	IM C300 series: [-1000 to 1000 / 186 / 1/step] IM C400 series: [-1000 to 1000 / 249 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-623-004	LD Power: Set	Standard Speed Slope: Y	ENG *	IM C300 series: [-1000 to 1000 / 186 / 1/step] IM C400 series: [-1000 to 1000 / 249 / 1/step]
3-623-011	LD Power: Set	Standard Speed Offset: Bk	ENG *	IM C300 series: [-1000 to 1000 / 6 / 1/step] IM C400 series: [-1000 to 1000 / -22 / 1/step]
3-623-012	LD Power: Set	Standard Speed Offset: C	ENG *	IM C300 series: [-1000 to 1000 / 8 / 1/step] IM C400 series: [-1000 to 1000 / -22 / 1/step]
3-623-013	LD Power: Set	Standard Speed Offset: M	ENG *	IM C300 series: [-1000 to 1000 / 8 / 1/step] IM C400 series: [-1000 to 1000 / -22 / 1/step]
3-623-014	LD Power: Set	Standard Speed Offset: Y	ENG *	IM C300 series: [-1000 to 1000 / 8 / 1/step] IM C400 series: [-1000 to 1000 / -22 / 1/step]
3-623-021	LD Power: Set	Mid. Speed Slope: Bk	ENG *	[-1000 to 1000 / 231 / 1/step]
3-623-022	LD Power: Set	Mid. Speed Slope: C	ENG *	[-1000 to 1000 / 231 / 1/step]
3-623-023	LD Power: Set	Mid. Speed Slope: M	ENG *	[-1000 to 1000 / 231 / 1/step]
3-623-024	LD Power: Set	Mid. Speed Slope: Y	ENG *	[-1000 to 1000 / 231 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-623-031	LD Power: Set	Mid. Speed Offset: Bk	ENG *	[-1000 to 1000 / -14 / 1/step]
3-623-032	LD Power: Set	Mid. Speed Offset: C	ENG *	[-1000 to 1000 / -14 / 1/step]
3-623-033	LD Power: Set	Mid. Speed Offset: M	ENG *	[-1000 to 1000 / -14 / 1/step]
3-623-034	LD Power: Set	Mid. Speed Offset: Y	ENG *	[-1000 to 1000 / -14 / 1/step]
3-623-041	LD Power: Set	Low Speed Slope: Bk	ENG *	IM C300 series: [-1000 to 1000 / 144 / 1/step] IM C400 series: [-1000 to 1000 / 154 / 1/step]
3-623-042	LD Power: Set	Low Speed Slope: C	ENG *	IM C300 series: [-1000 to 1000 / 144 / 1/step] IM C400 series: [-1000 to 1000 / 154 / 1/step]
3-623-043	LD Power: Set	Low Speed Slope: M	ENG *	IM C300 series: [-1000 to 1000 / 144 / 1/step] IM C400 series: [-1000 to 1000 / 154 / 1/step]
3-623-044	LD Power: Set	Low Speed Slope: Y	ENG *	IM C300 series: [-1000 to 1000 / 144 / 1/step] IM C400 series: [-1000 to 1000 / 154 / 1/step]
3-623-051	LD Power: Set	Low Speed Offset: Bk	ENG *	IM C300 series: [-1000 to 1000 / 26 / 1/step] IM C400 series: [-1000 to 1000 / 12 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-623-052	LD Power: Set	Low Speed Offset: C	ENG *	IM C300 series: [-1000 to 1000 / 28 / 1/step] IM C400 series: [-1000 to 1000 / 12 / 1/step]
3-623-053	LD Power: Set	Low Speed Offset: M	ENG *	IM C300 series: [-1000 to 1000 / 28 / 1/step] IM C400 series: [-1000 to 1000 / 12 / 1/step]
3-623-054	LD Power: Set	Low Speed Offset: Y	ENG *	IM C300 series: [-1000 to 1000 / 28 / 1/step] IM C400 series: [-1000 to 1000 / 12 / 1/step]
3-623-061	LD Power: Set	Standard Speed 2 Slope: Bk	ENG *	[-1000 to 1000 / 227 / 1/step]
3-623-071	LD Power: Set	Standard Speed 2 Offset: Bk	ENG *	[-1000 to 1000 / -3 / 1/step]
3-624-001	TC Adj. Mode: Set	Target (Upper Limit)	ENG *	[0.00 to 1.00 / 0.15 / 0.01mg/cm2/-kV/step]
3-624-002	TC Adj. Mode: Set	Target (Lower Limit)	ENG *	[-1.00 to 0.00 / -0.10 / 0.01mg/cm2/-kV/step]
3-624-007	TC Adj. Mode: Set	Consume Counts (Upper Limit)	ENG *	[0 to 16 / 16 / 1times/step]
3-624-021	TC Adj. Mode: Set	Consump Pattern Duty:Bk	ENG *	[0 to 15 / 15 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-624-022	TC Adj. Mode: Set	Consump Pattern Duty:C	ENG *	[0 to 15 / 15 / 1/step]
3-624-023	TC Adj. Mode: Set	Consump Pattern Duty:M	ENG *	[0 to 15 / 15 / 1/step]
3-624-024	TC Adj. Mode: Set	Consump Pattern Duty:Y	ENG *	[0 to 15 / 15 / 1/step]
3-624-031	TC Adj. Mode: Set	Max Adj. Counts:PowerON	ENG *	[0 to 10 / 1 / 1/step]
3-624-032	TC Adj. Mode	Max Counts:Job In	ENG *	[0 to 10 / 0 / 1/step]
3-624-033	TC Adj. Mode	Max Counts:Printing	ENG *	[0 to 10 / 0 / 1/step]
3-624-034	TC Adj. Mode: Set	Max Adj. Counts:Jobend	ENG *	[0 to 10 / 0 / 1/step]
3-624-035	TC Adj. Mode: Set	Max Adj. Counts:ACC	ENG *	[0 to 10 / 3 / 1/step]
3-624-036	TC Adj. Mode: Set	Max Adj. Counts:Initialized	ENG *	[0 to 10 / 3 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-624-040	TC Adj. Mode: Set	Max Adj. Counts:TE Check	ENG *	[0 to 10 / 1 / 1/step]
3-624-051	TC Adj. Mode: Set	Supply Gain(Bk)	ENG *	[0.0 to 1.0 / 0.5 / 0.1/step]
3-624-052	TC Adj. Mode: Set	Supply Gain(C)	ENG *	[0.0 to 1.0 / 0.5 / 0.1/step]
3-624-053	TC Adj. Mode: Set	Supply Gain(M)	ENG *	[0.0 to 1.0 / 0.5 / 0.1/step]
3-624-054	TC Adj. Mode: Set	Supply Gain(Y)	ENG *	[0.0 to 1.0 / 0.5 / 0.1/step]
3-624-061	TC Adj. Mode: Set	Consump Gain(Bk)	ENG *	[0.0 to 1.0 / 0.5 / 0.1/step]
3-624-062	TC Adj. Mode: Set	Consump Gain(C)	ENG *	[0.0 to 1.0 / 0.5 / 0.1/step]
3-624-063	TC Adj. Mode: Set	Consump Gain(M)	ENG *	[0.0 to 1.0 / 0.5 / 0.1/step]
3-624-064	TC Adj. Mode: Set	Consump Gain(Y)	ENG *	[0.0 to 1.0 / 0.5 / 0.1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-627-001	ID Pattern Extraction: Set	Edge Detection Threshold: Bk	ENG *	[0.0 to 5.0 / 2.5 / 0.1V/step]
3-627-002	ID Pattern Extraction: Set	Edge Detection Threshold: C	ENG *	[0.0 to 5.0 / 2.5 / 0.1V/step]
3-627-003	ID Pattern Extraction: Set	Edge Detection Threshold: M	ENG *	[0.0 to 5.0 / 2.5 / 0.1V/step]
3-627-004	ID Pattern Extraction: Set	Edge Detection Threshold: Y	ENG *	[0.0 to 5.0 / 2.5 / 0.1V/step]
3-627-011	ID Pattern Extraction: Set	Edge Upper Limit	ENG *	IM C300 series: [0 to 255 / 34 / 1point/step] IM C400 series: [0 to 255 / 24 / 1point/step]
3-627-012	ID Pattern Extraction: Set	Edge Upper Limit: Std Speed 2	ENG *	[0 to 255 / 22 / 1point/step]
3-627-021	ID Pattern Extraction: Set	Edge Lower Limit	ENG *	IM C300 series: [0 to 255 / 14 / 1point/step] IM C400 series: [0 to 255 / 10 / 1point/step]
3-627-022	ID Pattern Extraction: Set	Edge Lower Limit: Std Speed 2	ENG *	[0 to 255 / 9 / 1point/step]
3-627-031	ID Pattern Extraction: Set	Vsg Upper Threshold	ENG *	[0.000 to 5.000 / 4.800 / 0.001V/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-627-041	ID Pattern Extraction: Set	Vsg Lower Threshold	ENG *	[0.000 to 5.000 / 3.000 / 0.001V/step]
3-628-001	ID Pattern Timing: Set	Scan: YMCK	ENG *	[-500.0 to 500.0 / 0.0 / 0.1mm/step]
3-628-002	ID Pattern Timing: Set	Detection Delay Time	ENG *	[0 to 2500 / 0 / 1msec/step]
3-628-003	ID Pattern Timing: Set	Delay Time	ENG *	IM C300 series: [0 to 2500 / 701 / 1msec/step] IM C400 series: [0 to 2500 / 592 / 1msec/step]
3-628-004	ID Pattern Timing: Set	MUSIC Delay Time	ENG *	[-2500 to 2500 / 150 / 1msec/step]
3-628-005	ID Pattern Timing: Set	Delay Time: Std Speed 2	ENG *	[0 to 2500 / 569 / 1msec/step]
3-630-001	Dev gamma: Disp/Set	Current:Bk	ENG *	[0.10 to 6.00 / 0.80 / 0.01mg/cm2/-kV/step]
3-630-002	Dev gamma: Disp/Set	Current:C	ENG *	[0.10 to 6.00 / 0.75 / 0.01mg/cm2/-kV/step]
3-630	Dev gamma: Disp/Set	Current:M	ENG *	[0.10 to 6.00 / 0.75 / 0.01mg/cm2/-kV/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-003				
3-630-004	Dev gamma: Disp/Set	Current:Y	ENG *	[0.10 to 6.00 / 0.75 / 0.01mg/cm2/-kV/step]
3-630-011	Dev gamma: Disp/Set	Target:Bk	ENG *	[0.50 to 2.55 / 0.80 / 0.01mg/cm2/-kV/step]
3-630-012	Dev gamma: Disp/Set	Target:C	ENG *	[0.50 to 2.55 / 0.75 / 0.01mg/cm2/-kV/step]
3-630-013	Dev gamma: Disp/Set	Target:M	ENG *	[0.50 to 2.55 / 0.75 / 0.01mg/cm2/-kV/step]
3-630-014	Dev gamma: Disp/Set	Target:Y	ENG *	[0.50 to 2.55 / 0.75 / 0.01mg/cm2/-kV/step]
3-630-061	Dev gamma: Disp/Set	Toner Density: Bk	ENG *	[0.0 to 25.5 / 0.0 / 0.1wt%/step]
3-630-062	Dev gamma: Disp/Set	Toner Density: C	ENG *	[0.0 to 25.5 / 0.0 / 0.1wt%/step]
3-630-063	Dev gamma: Disp/Set	Toner Density: M	ENG *	[0.0 to 25.5 / 0.0 / 0.1wt%/step]
3-630-	Dev gamma: Disp/Set	Toner Density: Y	ENG *	[0.0 to 25.5 / 0.0 / 0.1wt%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
064				
3-631-001	Development Start Vk :Display	Bk	ENG *	[-300 to 300 / 0 / 1-V/step]
3-631-002	Development Start Vk :Display	C	ENG *	[-300 to 300 / 0 / 1-V/step]
3-631-003	Development Start Vk :Display	M	ENG *	[-300 to 300 / 0 / 1-V/step]
3-631-004	Development Start Vk :Display	Y	ENG *	[-300 to 300 / 0 / 1-V/step]
3-700-001	New Unit Detection	ON/OFF Setting	ENG *	[0 to 1 / 1 / 1/step]
3-701-002	Manual New Unit Set	# PCU:Bk	ENG *	[0 to 1 / 0 / 1/step]
3-701-003	Manual New Unit Set	# Dev Unit:Bk	ENG *	[0 to 1 / 0 / 1/step]
3-701-025	Manual New Unit Set	# PCU:C	ENG *	[0 to 1 / 0 / 1/step]
3-701-	Manual New Unit Set	# Dev Unit:C	ENG *	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
026				
3-701-048	Manual New Unit Set	# PCU:M	ENG *	[0 to 1 / 0 / 1/step]
3-701-049	Manual New Unit Set	# Dev Unit:M	ENG *	[0 to 1 / 0 / 1/step]
3-701-071	Manual New Unit Set	# PCU:Y	ENG *	[0 to 1 / 0 / 1/step]
3-701-072	Manual New Unit Set	# Dev Unit:Y	ENG *	[0 to 1 / 0 / 1/step]
3-701-093	Manual New Unit Set	# ITB Unit	ENG *	[0 to 1 / 0 / 1/step]
3-701-102	Manual New Unit Set	# ITB Cleaning Unit	ENG *	[0 to 1 / 0 / 1/step]
3-701-109	Manual New Unit Set	# PTR Unit	ENG *	[0 to 1 / 0 / 1/step]
3-701-115	Manual New Unit Set	# Fusing Unit	ENG *	[0 to 1 / 0 / 1/step]
3-701-116	Manual New Unit Set	Fusing Sleeve	ENG *	[0 to 1 / 0 / 1/step]
3-	Manual New Unit Set	Pressure Roller	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
701-118			*	
3-701-142	Manual New Unit Set	#Waste Toner Bottle	ENG *	[0 to 1 / 0 / 1/step]
3-701-145	Manual New Unit Set	Tray1 Roller Assembly	ENG *	[0 to 1 / 0 / 1/step]
3-701-147	Manual New Unit Set	#IMC300:PaperFeedRoller:Tray 1	ENG *	[0 to 1 / 0 / 1/step]
3-701-148	Manual New Unit Set	#IMC300:FrictionPad:Tray1	ENG *	[0 to 1 / 0 / 1/step]
3-701-149	Manual New Unit Set	Tray 2 Roller Assembly	ENG *	[0 to 1 / 0 / 1/step]
3-701-150	Manual New Unit Set	#Paper Feed Roller:Tray 2	ENG *	[0 to 1 / 0 / 1/step]
3-701-151	Manual New Unit Set	#Friction Pad:Bank 2	ENG *	[0 to 1 / 0 / 1/step]
3-701-152	Manual New Unit Set	Tray 3 Roller Assembly	ENG *	[0 to 1 / 0 / 1/step]
3-701	Manual New Unit Set	#Paper Feed Roller:Tray 3	ENG *	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-153				
3-701-154	Manual New Unit Set	#Friction Pad:Bank 3	ENG *	[0 to 1 / 0 / 1/step]
3-701-155	Manual New Unit Set	Tray 4 Roller Assembly	ENG *	[0 to 1 / 0 / 1/step]
3-701-156	Manual New Unit Set	#Paper Feed Roller:Tray 4	ENG *	[0 to 1 / 0 / 1/step]
3-701-157	Manual New Unit Set	#Friction Pad:Bank 4	ENG *	[0 to 1 / 0 / 1/step]
3-701-158	Manual New Unit Set	#IMC400:Pick-upRoller:Tray1	ENG *	[0 to 1 / 0 / 1/step]
3-701-159	Manual New Unit Set	#IMC400:FeedingRoller:Tray1	ENG *	[0 to 1 / 0 / 1/step]
3-701-160	Manual New Unit Set	#IMC400:SeparationRoller:Tray 1	ENG *	[0 to 1 / 0 / 1/step]
3-701-169	Manual New Unit Set	#Feed Roller:Bypass	ENG *	[0 to 1 / 0 / 1/step]
3-701	Manual New Unit Set	DF Friction Pad	ENG *	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-206				
3-701-207	Manual New Unit Set	DF Pickup Roller	ENG *	[0 to 1 / 0 / 1/step]
3-701-208	Manual New Unit Set	DF Feed Roller	ENG *	[0 to 1 / 0 / 1/step]
3-701-220	Manual New Unit Set	Toner Sub Hopper:Bk	ENG *	[0 to 1 / 0 / 1/step]
3-701-221	Manual New Unit Set	Toner Sub Hopper:C	ENG *	[0 to 1 / 0 / 1/step]
3-701-222	Manual New Unit Set	Toner Sub Hopper:M	ENG *	[0 to 1 / 0 / 1/step]
3-701-223	Manual New Unit Set	Toner Sub Hopper:Y	ENG *	[0 to 1 / 0 / 1/step]
3-710-001	mu Concentration Control: Set	Control Method: Selection	ENG *	[0 to 1 / 1 / 1/step] 0: Not Use 1: Use
3-800-001	Waste Toner Full Detection	Condition	ENG *	[0 to 4 / 0 / 1/step]
3-800	Waste Toner Full Detection	Print Page After Near Full	ENG *	[0 to 10000 / 0 / 1sheets/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
-002				
3-800-003	Waste Toner Full Detection	Volume Count 1 After Near Full	ENG *	[0.0 to 100000.0 / 0.0 / 0.1/step]
3-800-005	Waste Toner Full Detection	Volume Count 2 After Near Full	ENG *	[0.0 to 1000000.0 / 0.0 / 0.1/step]
3-800-007	Waste Toner Full Detection	Volume Count After Replacement	ENG *	[0.0 to 1000000.0 / 0.0 / 0.1/step]
3-800-012	Waste Toner Full Detection	Remaining days Threshold	ENG *	[0 to 255 / 15 / 1/step]
3-800-020	Waste Toner Full Detection	Mechanical Full Detection Date	ENG *	[0 to 1 / 0 / 1/step]
3-810-001	Paper Interval Ext.: Low Spd	Formula: Slope	ENG *	[0 to 100 / 10 / 1%/step]
3-810-002	Paper Interval Ext.: Low Spd	Formula: Intercept	ENG *	[-2000 to 2000 / 0 / 1%/step]
3-810-003	Paper Interval Ext.: Low Spd	Formula: Upper Limit	ENG *	[100 to 2000 / 100 / 1%/step]

SP4-XXX (Scanner)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-008-001	Sub Scan Magnification Adj.		ENG*	[-1.0 to 1.0 / 0.0 / 0.1%/step]
4-010-001	Sub Scan Registration Adj.		ENG*	[-1.0 to 1.0 / 0.0 / 0.1mm/step]
4-011-001	Main Scan Registration Adj.		ENG*	[-2.0 to 2.0 / 0.0 / 0.1mm/step]
4-012-001	Scanner Erase Margin: Scale	Book: Sub Scan Leading Edge (Left)	ENG*	[0.0 to 3.0 / 1.0 / 0.1mm/step]
4-012-002	Scanner Erase Margin: Scale	Book: Sub Scan Trailing Edge (Right)	ENG*	[0.0 to 3.0 / 1.0 / 0.1mm/step]
4-012-003	Scanner Erase Margin: Scale	Book: Main Scan Leading Edge (Rear)	ENG*	[0.0 to 3.0 / 1.0 / 0.1mm/step]
4-012-004	Scanner Erase Margin: Scale	Book: Main Scan Trailing Edge (Front)	ENG*	[0.0 to 3.0 / 1.0 / 0.1mm/step]
4-013-001	Scanner Free Run	Lamp OFF	ENG	[0 to 1 / 0 / 1/step]
4-013-002	Scanner Free Run	Lamp ON	ENG	[0 to 1 / 0 / 1/step]
4-014-001	Scan	HP Detection Enable	ENG	[0 to 1 / 0 / 1/step]
4-014-002	Scan	HP Detection Disable	ENG	[0 to 1 / 0 / 1/step]
4-014-003	Scan	HP Detec. On (FC 600dpi LG)	ENG	[0 to 1 / 0 / 1/step]
4-014-004	Scan	HP Detec. On (BW 600dpi LG)	ENG	[0 to 1 / 0 / 1/step]
4-014-005	Scan	HP Detec. On (FC 1200dpi LG)	ENG	[0 to 1 / 0 / 1/step]
4-016-001	DF Scan	FC 600 x 300dpi Duplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
4-016-002	DF Scan	Bk 600 x 300dpi Duplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
4-016-003	DF Scan	FC 600 x 600dpi Duplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
4-016-	DF Scan	Bk 600 x 600dpi Duplex	ENG	[0 to 1 / 0 / 1STEP/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004		Mode		
4-016-005	DF Scan	Bk 600 x 200dpi Duplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
4-016-006	DF Scan	FC 600 x 300dpi Simplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
4-016-007	DF Scan	Bk 600 x 300dpi Simplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
4-016-008	DF Scan	FC 600 x 600dpi Simplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
4-016-009	DF Scan	Bk 600 x 600dpi Simplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
4-016-010	DF Scan	Bk 600 x 200dpi Simplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
4-020-001	Dust Check	Dust Detect:On/Off	ENG	[0 to 1 / 0 / 1/step]
4-020-002	Dust Check	Dust Detect:Lvl	ENG	[0 to 8 / 4 / 1/step]
4-020-003	Dust Check	Dust Reject:Lvl	ENG	[0 to 4 / 0 / 1/step]
4-020-011	DF Dust Check	Dust Detect Level:Rear	ENG	[0 to 1 / 0 / 1/step]
4-020-012	DF Dust Check	Correction Level:Rear	ENG	[0 to 8 / 4 / 1/step]
4-400-001	Scanner Erase Margin	Book: Sub Scan Leading Edge (Left)	ENG*	[0.0 to 3.0 / 1.0 / 0.1mm/step]
4-400-002	Scanner Erase Margin	Book: Sub Scan Leading Edge (Right)	ENG*	[0.0 to 3.0 / 1.0 / 0.1mm/step]
4-400-003	Scanner Erase Margin	Book: Main Scan Leading Edge (Rear)	ENG*	[0.0 to 3.0 / 1.0 / 0.1mm/step]
4-400-004	Scanner Erase Margin	Book: Main Scan Trailing Edge (Front)	ENG*	[0.0 to 3.0 / 1.0 / 0.1mm/step]
4-400-005	Original Erase Margin	ADF:Sub:L-Edge	ENG*	[0.0 to 3.0 / 1.6 / 0.1mm/step]
4-400-007	Original Erase Margin	ADF:Main:Edge	ENG*	[0.0 to 3.0 / 1.6 / 0.1mm/step]
4-400-	Original Erase	ADF:Main:T-Edge	ENG*	[0.0 to 3.0 / 1.6 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
008	Margin			0.1mm/step]
4-417-001	IPU Test Pattern	Test Pattern	ENG	[0 to 11 / 0 / 1/step] 0: Scanned image 1: Gradation main scan A 2: Patch 16C 3: Grid pattern A 4: Slant grid pattern B 5: Slant grid pattern C 6: Slant grid pattern D 7: Scanned+Slant Grid C 8: Scanned+Slant Grid D 9: Scanned+Slant Grid B 10: 5C Checkered1:A3/A4 LEF C 11: 5C Checkered2:A4 SEF C
4-429-001	Select Copy Data Security	Copying	ENG	[0 to 3 / 3 / 1/step]
4-429-002	Select Copy Data Security	Scanning	ENG	[0 to 3 / 3 / 1/step]
4-429-003	Select Copy Data Security	Fax Operation	ENG	[0 to 3 / 3 / 1/step]
4-460-001	Digital AE	Low Limit Value	ENG	[0 to 1023 / 364 / 1/step]
4-460-002	Digital AE	Background level	ENG	[512 to 1535 / 932 / 1/step]
4-482-001	Scanner ACC: Rear	Read New Chart	ENG	[0 to 1 / 0 / 1/step]
4-482-002	Scanner ACC: Rear	Recall Prev Chart	ENG	[0 to 1 / 0 / 1/step]
4-482-003	Scanner ACC: Rear	Error code	ENG	[0 to 15 / 0 / 1/step]
4-483-001	Scanner ACC: Rear: Setting	Collect ON / OFF	ENG*	[0 to 1 / 1 / 1/step]
4-501-001	ACC Target Den	Copy:K:Text	ENG*	[0 to 10 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-501-002	ACC Target Den	Copy:C:Text	ENG*	[0 to 10 / 0 / 1/step]
4-501-003	ACC Target Den	Copy:M:Text	ENG*	[0 to 10 / 0 / 1/step]
4-501-004	ACC Target Den	Copy:Y:Text	ENG*	[0 to 10 / 0 / 1/step]
4-501-005	ACC Target Den	Copy:K:Photo	ENG*	[0 to 10 / 0 / 1/step]
4-501-006	ACC Target Den	Copy:C:Photo	ENG*	[0 to 10 / 0 / 1/step]
4-501-007	ACC Target Den	Copy:M:Photo	ENG*	[0 to 10 / 0 / 1/step]
4-501-008	ACC Target Den	Copy:Y:Photo	ENG*	[0 to 10 / 0 / 1/step]
4-505-001	ACC Cor:Bright	Master:K	ENG	[-128 to 127 / 0 / 1/step]
4-505-002	ACC Cor:Bright	Master:C	ENG	[-128 to 127 / 0 / 1/step]
4-505-003	ACC Cor:Bright	Master:M	ENG	[-128 to 127 / 0 / 1/step]
4-505-004	ACC Cor:Bright	Master:Y	ENG	[-128 to 127 / 0 / 1/step]
4-505-005	ACC Cor:Bright	Slave:K	ENG	[-128 to 127 / 0 / 1/step]
4-505-006	ACC Cor:Bright	Slave:C	ENG	[-128 to 127 / 0 / 1/step]
4-505-007	ACC Cor:Bright	Slave:M	ENG	[-128 to 127 / 0 / 1/step]
4-505-008	ACC Cor:Bright	Slave:Y	ENG	[-128 to 127 / 0 / 1/step]
4-506-001	ACC Cor:Dark	Master:K	ENG	[-128 to 127 / 0 / 1/step]
4-506-002	ACC Cor:Dark	Master:C	ENG	[-128 to 127 / 0 / 1/step]
4-506-003	ACC Cor:Dark	Master:M	ENG	[-128 to 127 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-506-004	ACC Cor:Dark	Master:Y	ENG	[-128 to 127 / 0 / 1/step]
4-506-005	ACC Cor:Dark	Slave:K	ENG	[-128 to 127 / 0 / 1/step]
4-506-006	ACC Cor:Dark	Slave:C	ENG	[-128 to 127 / 0 / 1/step]
4-506-007	ACC Cor:Dark	Slave:M	ENG	[-128 to 127 / 0 / 1/step]
4-506-008	ACC Cor:Dark	Slave:Y	ENG	[-128 to 127 / 0 / 1/step]
4-540-001	Print Coverage	RY Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-002	Print Coverage	RY Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-003	Print Coverage	RY Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-004	Print Coverage	RY Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-005	Print Coverage	YR Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-006	Print Coverage	YR Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-007	Print Coverage	YR Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-008	Print Coverage	YR Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-009	Print Coverage	YG Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-010	Print Coverage	YG Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-011	Print Coverage	YG Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-012	Print Coverage	YG Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-013	Print Coverage	GY Phase: Option	ENG	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-540-014	Print Coverage	GY Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-015	Print Coverage	GY Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-016	Print Coverage	GY Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-017	Print Coverage	GC Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-018	Print Coverage	GC Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-019	Print Coverage	GC Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-020	Print Coverage	GC Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-021	Print Coverage	CG Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-022	Print Coverage	CG Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-023	Print Coverage	CG Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-024	Print Coverage	CG Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-025	Print Coverage	CB Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-026	Print Coverage	CB Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-027	Print Coverage	CB Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-028	Print Coverage	CB Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-029	Print Coverage	BC Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-030	Print Coverage	BC Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-031	Print Coverage	BC Phase: G	ENG	[-256 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-540-032	Print Coverage	BC Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-033	Print Coverage	BM Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-034	Print Coverage	BM Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-035	Print Coverage	BM Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-036	Print Coverage	BM Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-037	Print Coverage	MB Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-038	Print Coverage	MB Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-039	Print Coverage	MB Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-040	Print Coverage	MB Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-041	Print Coverage	MR Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-042	Print Coverage	MR Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-043	Print Coverage	MR Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-044	Print Coverage	MR Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-045	Print Coverage	RM Phase: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-046	Print Coverage	RM Phase: R	ENG	[-256 to 255 / 0 / 1/step]
4-540-047	Print Coverage	RM Phase: G	ENG	[-256 to 255 / 0 / 1/step]
4-540-048	Print Coverage	RM Phase: B	ENG	[-256 to 255 / 0 / 1/step]
4-540-049	Print Coverage	WHITE: Option	ENG	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-540-050	Print Coverage	WHITE:R	ENG	[-256 to 255 / 0 / 1/step]
4-540-051	Print Coverage	WHITE:G	ENG	[-256 to 255 / 0 / 1/step]
4-540-052	Print Coverage	WHITE:B	ENG	[-256 to 255 / 0 / 1/step]
4-540-053	Print Coverage	BLACK: Option	ENG	[0 to 255 / 0 / 1/step]
4-540-054	Print Coverage	BLACK:R	ENG	[-256 to 255 / 0 / 1/step]
4-540-055	Print Coverage	BLACK:G	ENG	[-256 to 255 / 0 / 1/step]
4-540-056	Print Coverage	BLACK:B	ENG	[-256 to 255 / 0 / 1/step]
4-541-001	Photo Correction	Copied Photo	ENG	[0 to 1 / 0 / 1/step]
4-550-005	Scan Apli:Txt/Print	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-550-006	Scan Apli:Txt/Print	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-550-007	Scan Apli:Txt/Print	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-550-008	Scan Apli:Txt/Print	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-550-009	Scan Apli:Txt/Print	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-551-005	Scan Apli:Txt	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-551-006	Scan Apli:Txt	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-551-007	Scan Apli:Txt	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-551-008	Scan Apli:Txt	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-551-009	Scan Apli:Txt	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-552-005	Scan Apli:Txt Dropout	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-552-006	Scan Apli:Txt Dropout	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-552-007	Scan Apli:Txt Dropout	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-552-008	Scan Apli:Txt Dropout	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-552-009	Scan Apli:Txt Dropout	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-553-005	Scan Apli:Txt/Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-553-006	Scan Apli:Txt/Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-553-007	Scan Apli:Txt/Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-553-008	Scan Apli:Txt/Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-553-009	Scan Apli:Txt/Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-554-005	Scan Apli:Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-554-006	Scan Apli:Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-554-007	Scan Apli:Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-554-008	Scan Apli:Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-554-009	Scan Apli:Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-565-005	Scan Apli:GrayScale	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-565-006	Scan Apli:GrayScale	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-565-007	Scan Apli:GrayScale	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-565-008	Scan Apli:GrayScale	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-565-009	Scan Apli:GrayScale	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-570-005	Scan Apli:Col Txt/Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-570-006	Scan Apli:Col Txt/Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-570-007	Scan Apli:Col Txt/Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-570-008	Scan Apli:Col Txt/Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-570-009	Scan Apli:Col Txt/Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-571-005	Scan Apli:Col Gloss Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-571-006	Scan Apli:Col Gloss Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-571-007	Scan Apli:Col Gloss Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-571-008	Scan Apli:Col Gloss Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-571-009	Scan Apli:Col Gloss Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-572-005	Scan Apli:AutoCol	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-572-006	Scan Apli:AutoCol	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-572-007	Scan Apli:AutoCol	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-572-008	Scan Apli:AutoCol	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-572-009	Scan Apli:AutoCol	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-573-005	Scan Apli:Shiny Materials	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-573-006	Scan Apli:Shiny Materials	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-573-007	Scan Apli:Shiny Materials	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-573-008	Scan Apli:Shiny Materials	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-573-009	Scan Apli:Shiny Materials	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-580-005	Fax Apli:Txt/Chart	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-580-006	Fax Apli:Txt/Chart	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-580-007	Fax Apli:Txt/Chart	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-580-008	Fax Apli:Txt/Chart	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-580-009	Fax Apli:Txt/Chart	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-580-010	Fax Apli:Txt/Chart	Texture Erase: 0	ENG	[0 to 2 / 0 / 1/step]
4-581-005	Fax Apli:Txt	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-581-006	Fax Apli:Txt	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-581-007	Fax Apli:Txt	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-581-008	Fax Apli:Txt	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-581-009	Fax Apli:Txt	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-582-005	Fax Apli:Txt/Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-582-006	Fax Apli:Txt/Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-582-007	Fax Apli:Txt/Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-582-008	Fax Apli:Txt/Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-582-009	Fax Apli:Txt/Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-582-010	Fax Apli:Txt/Photo	Texture Erase: 0	ENG	[0 to 2 / 0 / 1/step]
4-583-005	Fax Apli:Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-583-006	Fax Apli:Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-583-007	Fax Apli:Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-583-008	Fax Apli:Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-583-009	Fax Apli:Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-583-010	Fax Apli:Photo	Texture Erase: 0	ENG	[0 to 2 / 0 / 1/step]
4-584-005	Fax Apli:Original 1	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-584-006	Fax Apli:Original 1	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-584-007	Fax Apli:Original 1	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-584-008	Fax Apli:Original 1	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-584-009	Fax Apli:Original 1	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1/step]
4-585-005	Fax Apli:Original 2	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1/step]
4-585-006	Fax Apli:Original 2	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1/step]
4-585-007	Fax Apli:Original 2	Brightness: 1-255	ENG	[1 to 255 / 128 / 1/step]
4-585-008	Fax Apli:Original 2	Contrast: 1-255	ENG	[1 to 255 / 128 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-585-009	Fax Apli:Original 2	Independent Dot Erase (0)/ 1-7 (Strong)	ENG	[0 to 7 / 0 / 1/step]
4-600-001	SCN Version Display	SCN ID	ENG	[0x00 to 0xFF / 0 / 1/step]
4-605-001	Abnormal Analysis Operation	HP Detection Enable	ENG	[0 to 1 / 0 / 1/step]
4-605-002	Abnormal Analysis Operation	HP Detection Disable	ENG	[0 to 1 / 0 / 1/step]
4-609-001	Gray Balance Set: R	Book Scan	ENG*	[-384 to 255 / -100 / 1digit/step]
4-609-002	Gray Balance Set: R	DF Scan	ENG*	[-384 to 255 / -100 / 1digit/step]
4-610-001	Gray Balance Set: G	Book Scan	ENG*	[-384 to 255 / -100 / 1digit/step]
4-610-002	Gray Balance Set: G	DF Scan	ENG*	[-384 to 255 / -100 / 1digit/step]
4-611-001	Gray Balance Set: B	Book Scan	ENG*	[-384 to 255 / -100 / 1digit/step]
4-611-002	Gray Balance Set: B	DF Scan	ENG*	[-384 to 255 / -100 / 1digit/step]
4-635-001	SSCG Correction Set	Mode Selection	ENG*	[0 to 1 / 1 / 1/step]
4-645-001	Abnormal Error Flag	Md	ENG	[0 to 65535 / 0 / 1/step]
4-645-002	Abnormal Error Flag	Power System	ENG	[0 to 65535 / 0 / 1/step]
4-645-003	Abnormal Error Flag	Image	ENG	[0 to 65535 / 0 / 1/step]
4-646-001	Scan Adjust Error	White level	ENG*	[0 to 65535 / 0 / 1/step]
4-646-002	Scan Adjust Error	Black level	ENG*	[0 to 65535 / 0 / 1/step]
4-646-003	Scan Adjust Error	SSCG Correction	ENG*	[0 to 65535 / 0 / 1/step]
4-647-001	Scanner Hard Error		ENG	[0 to 65535 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-648-001	Scannar Adjust Select	Adjust Mode	ENG*	[0 to 1 / 0 / 1/step]
4-688-001	DF Density Adjustment	ARDF	ENG*	[80 to 120 / 100 / 1%/step]
4-688-002	DF Density Adjustment	1-Pass	ENG*	[80 to 120 / 100 / 1%/step]
4-699-001	SBU Test Pattern Change		ENG	[0 to 3 / 0 / 1/step]
4-703-001	Scan Mode Selection	Copying	ENG	[0 to 1 / 0 / 1/step]
4-703-002	Scan Mode Selection	Scanning	ENG	[0 to 1 / 0 / 1/step]
4-712-001	CIS GB Adj. Value: R		ENG*	[-384 to 255 / -89 / 1digit/step]
4-713-001	CIS GB Adj. Value: G		ENG*	[-384 to 255 / -76 / 1digit/step]
4-714-001	CIS GB Adj. Value: B		ENG*	[-384 to 255 / -85 / 1digit/step]
4-723-001	OUTPUT Check	Scanner Lamp: Color	ENG	[0 to 1 / 0 / 1/step]
4-745-001	CIS Scan Adjust Error	White level	ENG	[0 to 65535 / 0 / 1/step]
4-745-002	CIS Scan Adjust Error	Black level	ENG	[0 to 65535 / 0 / 1/step]
4-746-001	CIS GB Adj Error Flag		ENG	[0 to 7 / 0 / 1/step]
4-747-001	CIS Scanner Hard Error	Power-ON	ENG	[0 to 65535 / 0 / 1/step]
4-785-001	CIS White Level Peak Target	Color	ENG*	[0 to 1024 / 707 / 1digit/step]
4-796-001	Low Density Color Correction	Front Side	ENG*	[0 to 3 / 0 / 1/step] 0: OFF 1: WEAK 2: MEDIUM 3: STRONG
4-796-	Low Density Color	Rear Side	ENG*	[0 to 3 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002	Correction			0: OFF 1: WEAK 2: MEDIUM 3: STRONG
4-797-001	Rear Side: Digital AE	Low Limit Setting	ENG	[0 to 1023 / 364 / 1/step]
4-797-002	Rear Side: Digital AE	Background Erase Level	ENG	[512 to 1535 / 932 / 1/step]
4-799-001	CIS Test Pattern Change		ENG	[0 to 255 / 0 / 1/step]
4-802-001	DF Shading FreeRun	Lamp OFF	ENG	[0 to 1 / 0 / 1/step]
4-802-002	DF Shading FreeRun	Lamp ON	ENG	[0 to 1 / 0 / 1/step]
4-803-001	Home Position Adj.		ENG*	[-1.5 to 1.0 / 0.0 / 0.1mm/step]
4-804-001	Home Position Operation		ENG	[0 to 1 / 0 / 1/step]
4-806-001	Carriage Retract Operation		ENG	[0 to 1 / 0 / 1/step]
4-902-001	Disp ACC Data	ditect patch(up)1	ENG	[0 to 255 / 0 / 1/step]
4-902-002	Disp ACC Data	ditect patch(up)2	ENG	[0 to 255 / 0 / 1/step]
4-902-003	Disp ACC Data	ditect patch(up)3	ENG	[0 to 255 / 0 / 1/step]
4-902-004	Disp ACC Data	ditect patch(up)4	ENG	[0 to 255 / 0 / 1/step]
4-902-005	Disp ACC Data	ditect patch(up)5	ENG	[0 to 255 / 0 / 1/step]
4-902-006	Disp ACC Data	ditect patch(up)6	ENG	[0 to 255 / 0 / 1/step]
4-902-007	Disp ACC Data	ditect patch(up)7	ENG	[0 to 255 / 0 / 1/step]
4-902-008	Disp ACC Data	ditect patch(up)8	ENG	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-902-009	Disp ACC Data	ditect patch(up)9	ENG	[0 to 255 / 0 / 1/step]
4-902-010	Disp ACC Data	ditect patch(up)10	ENG	[0 to 255 / 0 / 1/step]
4-902-011	Disp ACC Data	ditect patch(up)11	ENG	[0 to 255 / 0 / 1/step]
4-902-012	Disp ACC Data	ditect patch(up)12	ENG	[0 to 255 / 0 / 1/step]
4-902-013	Disp ACC Data	ditect patch(up)13	ENG	[0 to 255 / 0 / 1/step]
4-902-014	Disp ACC Data	ditect patch(up)14	ENG	[0 to 255 / 0 / 1/step]
4-902-015	Disp ACC Data	ditect patch(up)15	ENG	[0 to 255 / 0 / 1/step]
4-902-016	Disp ACC Data	ditect patch(up)16	ENG	[0 to 255 / 0 / 1/step]
4-902-017	Disp ACC Data	ditect patch(up)17	ENG	[0 to 255 / 0 / 1/step]
4-902-018	Disp ACC Data	ditect patch(up)18	ENG	[0 to 255 / 0 / 1/step]
4-902-019	Disp ACC Data	ditect patch(up)19	ENG	[0 to 255 / 0 / 1/step]
4-902-020	Disp ACC Data	ditect patch(up)20	ENG	[0 to 255 / 0 / 1/step]
4-902-021	Disp ACC Data	K patch (text)1	ENG	[0 to 255 / 0 / 1/step]
4-902-038	Disp ACC Data	K patch (text)18	ENG	[0 to 255 / 0 / 1/step]
4-902-039	Disp ACC Data	K patch (text)19	ENG	[0 to 255 / 0 / 1/step]
4-902-040	Disp ACC Data	K patch (text)20	ENG	[0 to 255 / 0 / 1/step]
4-902-041	Disp ACC Data	C patch (text)1	ENG	[0 to 255 / 0 / 1/step]
4-902-058	Disp ACC Data	C patch (text)18	ENG	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-902-059	Disp ACC Data	C patch (text)19	ENG	[0 to 255 / 0 / 1/step]
4-902-060	Disp ACC Data	C patch (text)20	ENG	[0 to 255 / 0 / 1/step]
4-902-061	Disp ACC Data	M patch (text)1	ENG	[0 to 255 / 0 / 1/step]
4-902-078	Disp ACC Data	M patch (text)18	ENG	[0 to 255 / 0 / 1/step]
4-902-079	Disp ACC Data	M patch (text)19	ENG	[0 to 255 / 0 / 1/step]
4-902-080	Disp ACC Data	M patch (text)20	ENG	[0 to 255 / 0 / 1/step]
4-902-081	Disp ACC Data	Y patch (text)1	ENG	[0 to 255 / 0 / 1/step]
4-902-098	Disp ACC Data	Y patch (text)18	ENG	[0 to 255 / 0 / 1/step]
4-902-099	Disp ACC Data	Y patch (text)19	ENG	[0 to 255 / 0 / 1/step]
4-902-100	Disp ACC Data	Y patch (text)20	ENG	[0 to 255 / 0 / 1/step]
4-902-101	Disp ACC Data	K patch (photo)1	ENG	[0 to 255 / 0 / 1/step]
4-902-118	Disp ACC Data	K patch (photo)18	ENG	[0 to 255 / 0 / 1/step]
4-902-119	Disp ACC Data	K patch (photo)19	ENG	[0 to 255 / 0 / 1/step]
4-902-120	Disp ACC Data	K patch (photo)20	ENG	[0 to 255 / 0 / 1/step]
4-902-121	Disp ACC Data	C patch (photo)1	ENG	[0 to 255 / 0 / 1/step]
4-902-138	Disp ACC Data	C patch (photo)18	ENG	[0 to 255 / 0 / 1/step]
4-902-139	Disp ACC Data	C patch (photo)19	ENG	[0 to 255 / 0 / 1/step]
4-902-140	Disp ACC Data	C patch (photo)20	ENG	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-902-141	Disp ACC Data	M patch (photo)1	ENG	[0 to 255 / 0 / 1/step]
4-902-158	Disp ACC Data	M patch (photo)18	ENG	[0 to 255 / 0 / 1/step]
4-902-159	Disp ACC Data	M patch (photo)19	ENG	[0 to 255 / 0 / 1/step]
4-902-160	Disp ACC Data	M patch (photo)20	ENG	[0 to 255 / 0 / 1/step]
4-902-161	Disp ACC Data	Y patch (photo)1	ENG	[0 to 255 / 0 / 1/step]
4-902-178	Disp ACC Data	Y patch (photo)18	ENG	[0 to 255 / 0 / 1/step]
4-902-179	Disp ACC Data	Y patch (photo)19	ENG	[0 to 255 / 0 / 1/step]
4-902-180	Disp ACC Data	Y patch (photo)20	ENG	[0 to 255 / 0 / 1/step]
4-902-181	Disp ACC Data	ditectpatch down1	ENG	[0 to 255 / 0 / 1/step]
4-902-182	Disp ACC Data	ditectpatch down2	ENG	[0 to 255 / 0 / 1/step]
4-902-183	Disp ACC Data	ditectpatch down3	ENG	[0 to 255 / 0 / 1/step]
4-902-184	Disp ACC Data	ditectpatch down4	ENG	[0 to 255 / 0 / 1/step]
4-902-185	Disp ACC Data	ditectpatch down5	ENG	[0 to 255 / 0 / 1/step]
4-902-186	Disp ACC Data	ditectpatch down6	ENG	[0 to 255 / 0 / 1/step]
4-902-187	Disp ACC Data	ditectpatch down7	ENG	[0 to 255 / 0 / 1/step]
4-902-188	Disp ACC Data	ditectpatch down8	ENG	[0 to 255 / 0 / 1/step]
4-902-189	Disp ACC Data	ditectpatch down9	ENG	[0 to 255 / 0 / 1/step]
4-902-190	Disp ACC Data	ditectpatch down10	ENG	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-902-191	Disp ACC Data	ditectpatch down11	ENG	[0 to 255 / 0 / 1/step]
4-902-192	Disp ACC Data	ditectpatch down12	ENG	[0 to 255 / 0 / 1/step]
4-902-193	Disp ACC Data	ditectpatch down13	ENG	[0 to 255 / 0 / 1/step]
4-902-194	Disp ACC Data	ditectpatch down14	ENG	[0 to 255 / 0 / 1/step]
4-902-195	Disp ACC Data	ditectpatch down15	ENG	[0 to 255 / 0 / 1/step]
4-902-196	Disp ACC Data	ditectpatch down16	ENG	[0 to 255 / 0 / 1/step]
4-902-197	Disp ACC Data	ditectpatch down17	ENG	[0 to 255 / 0 / 1/step]
4-902-198	Disp ACC Data	ditectpatch down18	ENG	[0 to 255 / 0 / 1/step]
4-902-199	Disp ACC Data	ditectpatch down19	ENG	[0 to 255 / 0 / 1/step]
4-902-200	Disp ACC Data	ditectpatch down20	ENG	[0 to 255 / 0 / 1/step]
4-903-001	Filter Setting	Ind Dot Erase: Text	ENG	[0 to 7 / 0 / 1/step]
4-903-002	Filter Setting	Ind Dot Erase: Generation Copy	ENG	[0 to 7 / 0 / 1/step]
4-905-001	Select Gradation Level		ENG	[0 to 255 / 0 / 1/step]
4-907-001	Gamma Correction	Stamp Entry	ENG	[0 to 2 / 1 / 1/step]
4-918-009	Man Gamma Adj		ENG	[0 to 0 / 0 / 0/step]
4-930-001	Coverage Ctrl: Text	Copy: Full Color 1	ENG	[0 to 400 / 200 / 1/step]
4-930-002	Coverage Ctrl: Text	Copy: Full Color 2	ENG	[0 to 400 / 200 / 1/step]
4-930-003	Coverage Ctrl: Text	Copy: Single Color	ENG	[0 to 400 / 100 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-930-004	Coverage Ctrl: Text	Copy: Color Conversion	ENG	[0 to 400 / 180 / 1/step]
4-930-005	Coverage Ctrl: Text	Coverage Ctrl OFF	ENG	[0 to 400 / 400 / 1/step]
4-931-001	Coverage Ctrl: Photo	Copy: Full Color 1	ENG	[0 to 400 / 240 / 1/step]
4-931-002	Coverage Ctrl: Photo	Copy: Full Color 2	ENG	[0 to 400 / 260 / 1/step]
4-931-003	Coverage Ctrl: Photo	Copy: Single Color	ENG	[0 to 400 / 100 / 1/step]
4-931-004	Coverage Ctrl: Photo	Copy: Color Conversion	ENG	[0 to 400 / 200 / 1/step]
4-931-005	Coverage Ctrl: Photo	Coverage Ctrl OFF	ENG	[0 to 400 / 400 / 1/step]
4-938-001	ACS:Edge Mask	Copy:Sub LEdge	ENG	[0 to 31 / 15 / 1mm/step]
4-938-002	ACS:Edge Mask	Copy:Sub TEdge	ENG	[0 to 31 / 10 / 1mm/step]
4-938-003	ACS:Edge Mask	Copy:Main LEdge	ENG	[0 to 31 / 10 / 1mm/step]
4-938-004	ACS:Edge Mask	Copy:Main TEdge	ENG	[0 to 31 / 10 / 1mm/step]
4-938-005	ACS:Edge Mask	Scan:Sub LEdge	ENG	[0 to 31 / 15 / 1mm/step]
4-938-006	ACS:Edge Mask	Scan:Sub TEdge	ENG	[0 to 31 / 15 / 1mm/step]
4-938-007	ACS:Edge Mask	Scan:Main LEdge	ENG	[0 to 31 / 15 / 1mm/step]
4-938-008	ACS:Edge Mask	Scan:Main TEdge	ENG	[0 to 31 / 15 / 1mm/step]
4-939-001	ACS:Color Range		ENG	[-2 to 2 / 0 / 1/step]
4-950-001	ACC Position Error Count		ENG	[0 to 65535 / 0 / 1/step]
4-993-001	High Light Correction	Sensitivity Selection	ENG	[0 to 9 / 4 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-993-002	High Light Correction	Range Selection	ENG	[0 to 9 / 4 / 1/step]
4-994-001	Adj Txt/Photo Recog Level	High Compression PDF	ENG	[0 to 2 / 1 / 1/step]
4-996-001	White Paper Detection Level	strength(fax)	ENG	[0 to 6 / 3 / 1/step]
4-997-001	White Paper count conditions	conditions 1	ENG	[0 to 255 / 255 / 1/step]
4-997-002	White Paper count conditions	conditions 2	ENG	[0 to 255 / 255 / 1/step]
4-997-003	White Paper count conditions	conditions 3	ENG	[0 to 255 / 80 / 1/step]
4-997-004	White Paper count conditions	conditions 4	ENG	[0 to 16777215 / 16777215 / 1/step]
4-998-001	White Paper Binary thresh	strength 0:up side	ENG	[0 to 255 / 26 / 1/step]
4-998-002	White Paper Binary thresh	strength 1:up side	ENG	[0 to 255 / 42 / 1/step]
4-998-003	White Paper Binary thresh	strength 2:up side	ENG	[0 to 255 / 58 / 1/step]
4-998-004	White Paper Binary thresh	strength 3:up side	ENG	[0 to 255 / 74 / 1/step]
4-998-005	White Paper Binary thresh	strength 4:up side	ENG	[0 to 255 / 90 / 1/step]
4-998-006	White Paper Binary thresh	strength 5:up side	ENG	[0 to 255 / 106 / 1/step]
4-998-007	White Paper Binary thresh	strength 6:up side	ENG	[0 to 255 / 122 / 1/step]
4-998-008	White Paper Binary thresh	strength 0:down side	ENG	[0 to 255 / 29 / 1/step]
4-998-009	White Paper Binary thresh	strength 1:down side	ENG	[0 to 255 / 45 / 1/step]
4-998-010	White Paper Binary thresh	strength 2:down side	ENG	[0 to 255 / 61 / 1/step]
4-998-011	White Paper Binary thresh	strength 3:down side	ENG	[0 to 255 / 77 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
4-998-012	White Paper Binary thresh	strength 4:down side	ENG	[0 to 255 / 93 / 1/step]
4-998-013	White Paper Binary thresh	strength 5:down side	ENG	[0 to 255 / 109 / 1/step]
4-998-014	White Paper Binary thresh	strength 6:down side	ENG	[0 to 255 / 125 / 1/step]

SP5-XXX (Mode)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-009-201	Add display language	1-8	CTL*	[0 to 255 / 0 / 1/step]
5-009-202	Add display language	9-16	CTL*	[0 to 255 / 0 / 1/step]
5-009-203	Add display language	17-24	CTL*	[0 to 255 / 0 / 1/step]
5-009-204	Add display language	25-32	CTL*	[0 to 255 / 0 / 1/step]
5-009-205	Add display language	33-40	CTL*	[0 to 255 / 0 / 1/step]
5-009-206	Add display language	41-48	CTL*	[0 to 255 / 0 / 1/step]
5-009-207	Add display language	49-56	CTL*	[0 to 255 / 0 / 1/step]
5-024-001	mm/inch Display Selection	0:mm 1:inch	CTL*	[0 to 1 / * / 1/step] NA: 1 Other than NA: 0
5-045-001	Accounting counter	Counter Method	CTL*	[0 to 7 / 0 / 1/step]
5-047-001	Paper Display	Backing Paper	CTL*	[0 to 1 / 0 / 1/step]
5-051-001	TonerRefillDetectionDisplay		CTL*	[0 to 1 / 0 / 1/step]
5-	Display IP address		CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
055-001				
5-061-101	Toner Remaining Window Display Change		CTL*	[0 to 255 / 3 / 1/step]
5-062-002	Part Replacement Alert Display	#PCU:Bk	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-025	Part Replacement Alert Display	#PCU:C	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-048	Part Replacement Alert Display	#PCU:M	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-071	Part Replacement Alert Display	#PCU:Y	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-093	Part Replacement Alert Display	#Image Transfer Belt Unit	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-109	Part Replacement Alert Display	#Paper Transfer Roller Unit	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-115	Part Replacement Alert Display	#Fusing Unit	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-116	Part Replacement Alert Display	Fusing Sleeve	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-118	Part Replacement Alert Display	Pressure Roller	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-142	Part Replacement Alert Display	#Wast Toner bottle	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-062-147	Part Replacement Alert Display	#Paper Feed Roller:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-148	Part Replacement Alert Display	#Friction Pad:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-150	Part Replacement Alert Display	#Paper Feed Roller:Tray 2	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-151	Part Replacement Alert Display	#Friction Pad:Bank 2	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-153	Part Replacement Alert Display	#Paper Feed Roller:Tray 3	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-154	Part Replacement Alert Display	#Friction Pad:Bank 3	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-156	Part Replacement Alert Display	#Paper Feed Roller:Tray 4	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-157	Part Replacement Alert Display	#Friction Pad:Bank 4	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-158	Part Replacement Alert Display	#Pick-up Roller:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-159	Part Replacement Alert Display	#Feeding Roller:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-160	Part Replacement Alert Display	#Separation Roller:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-062-169	Part Replacement Alert Display	#Feed Roller:Bypass	CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-066-001	PM Parts Display		CTL*	[0 to 1 / 0 / 1/step] 0: No Display 1: Display
5-067-002	Part Replacement Operation Type	#PCU:Bk	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-025	Part Replacement Operation Type	#PCU:C	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-048	Part Replacement Operation Type	#PCU:M	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-071	Part Replacement Operation Type	#PCU:Y	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-093	Part Replacement Operation Type	#Image Transfer Belt Unit	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-109	Part Replacement Operation Type	#Paper Transfer Roller Unit	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-115	Part Replacement Operation Type	#Fusing Unit	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-116	Part Replacement Operation Type	Fusing Sleeve	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-118	Part Replacement Operation Type	Pressure Roller	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-142	Part Replacement Operation Type	#Wast Toner bottle	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-147	Part Replacement Operation Type	#Paper Feed Roller:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-067-148	Part Replacement Operation Type	#Friction Pad:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-150	Part Replacement Operation Type	#Paper Feed Roller:Tray 2	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-151	Part Replacement Operation Type	#Friction Pad:Bank 2	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-153	Part Replacement Operation Type	#Paper Feed Roller:Tray 3	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-154	Part Replacement Operation Type	#Friction Pad:Bank 3	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-156	Part Replacement Operation Type	#Paper Feed Roller:Tray 4	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-157	Part Replacement Operation Type	#Friction Pad:Bank 4	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-158	Part Replacement Operation Type	#Pick-up Roller:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-159	Part Replacement Operation Type	#Feeding Roller:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-160	Part Replacement Operation Type	#Separation Roller:Tray1	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-067-169	Part Replacement Operation Type	#Feed Roller:Bypass	CTL*	[0 to 1 / 0 / 1/step] 0: Service 1: User
5-071-001	Set Bypass Paper Size Display		CTL	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-074-002	Home Key Customization	Login Setting	CTL*	[0 to 255 / 0 / 1/step]
5-074-050	Home Key Customization	Show Home Edit Menu	CTL	[0 to 2 / 0 / 1/step]
5-074-091	Home Key Customization	Function Setting	CTL*	[0 to 2 / 0 / 1/step]
5-074-092	Home Key Customization	Product ID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-074-093	Home Key Customization	Application Screen ID	CTL*	[0 to 255 / 0 / 1/step]
5-075-003	USB Keyboard	Display setting	CTL*	[0 to 1 / 0 / 1/step]
5-076-001	Copy:LT/LG Mixed Sizes Setting	0:OFF 1:ON	CTL*	[0 to 1 / * / 1/step] NA: 1 Other than NA:0
5-081-001	ServiceSP Entry Code Setting		CTL*	[0 to 0 / 0 / 0/step]
5-083-001	LED Light Switch Setting	Toner Near End	CTL*	[0 to 1 / 0 / 1/step]
5-083-002	LED Light Switch Setting	Waste Toner Near End	CTL*	[0 to 1 / 0 / 1/step]
5-085-001	Keybord Setting	CH/TW SoftKeybord Setting	CTL*	[0 to 2 / 0 / 1/step]
5-101-202	Copy Auto Clear Setting	Auto Clear Timer Setting (0:ON 1:OFF)	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-113-001	Optional Counter Type	Default Optional Counter Type	CTL*	[0 to 8 / 0 / 1/step] 0: None 1: Key Card(RK3,4) 2: Key Card(down) 3: PrepaidCard 5: MFKeyCard 4: Coin Rack 6: Coin Rack(Recommend) 8: Key Counter + Vendor
5-113-002	Optional Counter Type	External Optional Counter Type	CTL*	[0 to 3 / 0 / 1/step] 0: None 1: Expansion Device 1 2: Expansion Device 2 3: Expansion Device 3
5-114-001	Optional Counter I/F	MF Key Card Extension	CTL*	[0 to 1 / 0 / 1/step]
5-118-001	Disable Copying		CTL*	[0 to 1 / 0 / 1/step]
5-118-002	Secure Mode Set	0:Standard Mode 1:Secure Mode	CTL*	[0 to 1 / 0 / 1/step]
5-118-003	Copy mode setting	DocumentServer:Printed File Auto Delete	CTL*	[0 to 1 / 0 / 1/step]
5-118-004	Copy mode setting	Print Limit Warning Display Setting	CTL	[0 to 1 / 1 / 1/step]
5-120-	Mode Clear Opt. Counter Removal	0:Yes 1:StandBy 2:No	CTL*	[0 to 2 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				
5-121-001	Counter Up Timing	0:Feed 1:Exit	CTL*	[0 to 1 / 0 / 1/step]
5-127-001	APS OFF Mode		CTL*	[0 to 1 / 0 / 1/step]
5-128-001	Code Mode With Key/Card Option		CTL*	[0 to 1 / 0 / 1/step]
5-131-001	Paper Size Type Selection		ENG*	NA: [0 to 2 / 1 / 1/step] TWN: [0 to 2 / 2 / 1/step] KOR: [0 to 2 / 2 / 1/step] EU: [0 to 2 / 2 / 1/step] CHN: [0 to 2 / 2 / 1/step] AS: [0 to 2 / 2 / 1/step] 0: JP 1: NA 2: EU/ASIA
5-144-001	Tray Lock	Bypass	CTL*	[0 to 1 / 1 / 1/step]
5-144-002	Tray Lock	Tray 1	CTL*	[0 to 1 / 0 / 1/step]
5-144-003	Tray Lock	Tray 2	CTL*	[0 to 1 / 0 / 1/step]
5-144-	Tray Lock	Tray 3	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				
5-144-005	Tray Lock	Tray 4	CTL*	[0 to 1 / 0 / 1/step]
5-167-001	Fax Printing Mode at Optional Counter Off		CTL*	[0 to 1 / 0 / 1/step]
5-169-001	CE Login		CTL*	[0 to 1 / 0 / 1/step]
5-186-001	RK4 Pulling		ENG*	[0 to 1 / 1 / 1/step]
5-188-001	Copy Nv Version		CTL*	[0 to 0 / 0 / 0/step]
5-191-001	Mode Set	Power Str Set	CTL*	[0 to 1 / 1 / 1/step]
5-195-001	Limitless SW		CTL*	[0 to 1 / 0 / 1/step]
5-199-001	Paper Exit After Staple End	Staple(1:Without 2:After 0:Auto)	CTL	[0 to 0 / 0 / 1/step]
5-212-003	Page Numbering	Duplex Printout Left/Right Position of Left/Right Facing	CTL*	[-1000 to 1000 / 0 / 0.01mm/step]
5-212-004	Page Numbering	Duplex Printout Top/Bottom Position of Left/Right Facing	CTL*	[-1000 to 1000 / 0 / 0.01mm/step]
5-212-018	Page Numbering	Duplex Printout Left/Right Position of Top/Bottom Facing	CTL*	[-1000 to 1000 / 0 / 0.01mm/step]
5-	Page Numbering	Duplex Printout Top/Bottom	CTL*	[-1000 to 1000 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
212-019		Position of Top/Bottom Facing		0.01mm/step]
5-227-201	Page Numbering	Allow Page No. Entry	CTL*	[2 to 9 / 9 / 1/step]
5-227-202	Page Numbering	Zero Surplus Setting	CTL*	[0 to 1 / 0 / 1/step]
5-302-002	Set Time	Time Difference	CTL*	[-1440 to 1440 / * / 1/step] NA:-300 EU: 60 AS: 480 CHN: 480 KOR: 480 TWN: 480
5-305-101	Auto Off Set	Auto Off Limit Set	CTL*	[0 to 1 / 1 / 1/step]
5-307-001	Daylight Saving Time	Setting	CTL*	[0 to 1 / * / 1/step] NA: 1 EU: 1 AS: 0 CHN: 0 KOR: 0 TWN: 0
5-307-003	Daylight Saving Time	Rule Set(Start)	CTL*	[0 to 0xffffffff / * / 1/step] NA: 0x03200210 EU: 0x03500010 AS: 0x10500010 CHN: 0 KOR: 0 TWN: 0
5-307-	Daylight Saving Time	Rule Set(End)	CTL*	[0 to 0xffffffff / * / 1/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				NA: 0x11100200 EU: 0x10500100 AS: 0x03100000 CHN: 0 KOR: 0 TWN: 0
5-401-103	Access Control	Default Document ACL	CTL*	[0 to 3 / 0 / 1/step]
5-401-104	Access Control	Authentication Time	CTL*	[0 to 255 / 0 / 1sec/step]
5-401-162	Access Control	Extend Certification Detail	CTL*	[0 to 0xff / 0 / 1/step]
5-401-200	Access Control	SDK1 UniqueID	CTL*	[0 to 0xFFFFFFFF / 0 / 1/step]
5-401-201	Access Control	SDK1 Certification Method	CTL*	[0 to 0xFF / 0 / 1/step]
5-401-210	Access Control	SDK2 UniqueID	CTL*	[0 to 0xFFFFFFFF / 0 / 1/step]
5-401-211	Access Control	SDK2 Certification Method	CTL*	[0 to 0xFF / 0 / 1/step]
5-401-220	Access Control	SDK3 UniqueID	CTL*	[0 to 0xFFFFFFFF / 0 / 1/step]
5-401-221	Access Control	SDK3 Certification Method	CTL*	[0 to 0xFF / 0 / 1/step]
5-401-230	Access Control	SDK Certification Device	CTL*	[0 to 0xff / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-401-240	Access Control	Detail Option	CTL*	[0 to 0xff / 0 / 1/step]
5-402-101	Access Control	SDKJ1 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-102	Access Control	SDKJ2 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-103	Access Control	SDKJ3 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-104	Access Control	SDKJ4 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-105	Access Control	SDKJ5 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-106	Access Control	SDKJ6 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-107	Access Control	SDKJ7 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-108	Access Control	SDKJ8 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-109	Access Control	SDKJ9 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-110	Access Control	SDKJ10 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-111	Access Control	SDKJ11 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-402-112	Access Control	SDKJ12 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-113	Access Control	SDKJ13 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-114	Access Control	SDKJ14 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-115	Access Control	SDKJ15 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-116	Access Control	SDKJ16 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-117	Access Control	SDKJ17 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-118	Access Control	SDKJ18 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-119	Access Control	SDKJ19 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-120	Access Control	SDKJ20 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-121	Access Control	SDKJ21 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-122	Access Control	SDKJ22 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-123	Access Control	SDKJ23 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-402-124	Access Control	SDKJ24 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-125	Access Control	SDKJ25 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-126	Access Control	SDKJ26 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-127	Access Control	SDKJ27 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-128	Access Control	SDKJ28 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-129	Access Control	SDKJ29 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-130	Access Control	SDKJ30 Limit Setting	CTL*	[0 to 0xFF / 0 / 1/step]
5-402-141	Access Control	SDKJ1 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-142	Access Control	SDKJ2 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-143	Access Control	SDKJ3 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-144	Access Control	SDKJ4 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-145	Access Control	SDKJ5 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-402-146	Access Control	SDKJ6 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-147	Access Control	SDKJ7 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-148	Access Control	SDKJ8 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-149	Access Control	SDKJ9 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-150	Access Control	SDKJ10 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-151	Access Control	SDKJ11 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-152	Access Control	SDKJ12 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-153	Access Control	SDKJ13 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-154	Access Control	SDKJ14 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-155	Access Control	SDKJ15 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-156	Access Control	SDKJ16 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-157	Access Control	SDKJ17 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-402-158	Access Control	SDKJ18 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-159	Access Control	SDKJ19 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-160	Access Control	SDKJ20 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-161	Access Control	SDKJ21 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-162	Access Control	SDKJ22 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-163	Access Control	SDKJ23 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-164	Access Control	SDKJ24 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-165	Access Control	SDKJ25 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-166	Access Control	SDKJ26 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-167	Access Control	SDKJ27 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-168	Access Control	SDKJ28 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-402-169	Access Control	SDKJ29 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-402-170	Access Control	SDKJ30 ProductID	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-404-001	User Code Count Clear	User Code Count Clear	CTL	[0 to 0 / 0 / 0/step]
5-404-101	User Code Count Clear	User Code Count Clear Permit Setting	CTL*	[0 to 1 / 0 / 1/step] 0: Clear 1: No Clear
5-411-004	LDAP-Certification	Simplified Authentication	CTL*	[0 to 1 / 1 / 1/step]
5-411-005	LDAP-Certification	Password Null Not Permit	CTL*	[0 to 1 / 1 / 1/step]
5-411-006	LDAP-Certification	Detail Option	CTL*	[0 to 0xff / 0 / 1/step]
5-412-100	Krb-Certification	Encrypt Mode	CTL*	[0 to 0xFF / 0x1F / 1/step]
5-413-001	Lockout Setting	Lockout On/Off	CTL*	[0 to 1 / 0 / 1/step]
5-413-002	Lockout Setting	Lockout Threshold	CTL*	[1 to 10 / 5 / 1/step]
5-413-003	Lockout Setting	Cancelation On/Off	CTL*	[0 to 1 / 0 / 1/step]
5-413-004	Lockout Setting	Cancelation Time	CTL*	[1 to 9999 / 60 / 1min/step]
5-414-001	Access Mitigation	Mitigation On/Off	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-414-002	Access Mitigation	Mitigation Time	CTL*	[0 to 60 / 15 / 1min/step]
5-415-001	Password Attack	Permissible Number	CTL*	[0 to 100 / 30 / 1/step]
5-415-002	Password Attack	Detect Time	CTL*	[1 to 10 / 5 / 1/step]
5-416-001	Access Information	Access User Max Num	CTL*	[50 to 200 / 200 / 1/step]
5-416-002	Access Information	Access Password Max Num	CTL*	[50 to 200 / 200 / 1/step]
5-416-003	Access Information	Monitor Interval	CTL*	[1 to 10 / 3 / 1/step]
5-417-001	Access Attack	Access Permissible Number	CTL*	[0 to 500 / 100 / 1/step]
5-417-002	Access Attack	Attack Detect Time	CTL*	[10 to 30 / 10 / 1sec/step]
5-417-003	Access Attack	Productivity Fall Waite	CTL*	[0 to 9 / 3 / 1sec/step]
5-417-004	Access Attack	Attack Max Num	CTL*	[50 to 200 / 200 / 1/step]
5-420-001	User Authentication	Copy	CTL*	[0 to 1 / 0 / 1/step]
5-420-002	User Authentication	Color Security Setting	CTL	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-420-011	User Authentication	DocumentServer	CTL*	[0 to 1 / 0 / 1/step]
5-420-021	User Authentication	Fax	CTL*	[0 to 1 / 0 / 1/step]
5-420-031	User Authentication	Scanner	CTL*	[0 to 1 / 0 / 1/step]
5-420-041	User Authentication	Printer	CTL*	[0 to 1 / 0 / 1/step]
5-420-051	User Authentication	SDK1	CTL*	[0 to 1 / 0 / 1/step]
5-420-061	User Authentication	SDK2	CTL*	[0 to 1 / 0 / 1/step]
5-420-071	User Authentication	SDK3	CTL*	[0 to 1 / 0 / 1/step]
5-420-081	User Authentication	Browser	CTL*	[0 to 1 / 0 / 1/step]
5-430-001	Auth Dialog Message Change	Message Change On/Off	CTL*	[0 to 1 / 0 / 1/step]
5-430-002	Auth Dialog Message Change	Message Text Download	CTL	[0 to 0 / 0 / 0/step]
5-430-003	Auth Dialog Message Change	Message Text ID	CTL	[0 to 0 / 0 / 0/step]
5-431-010	External Auth User Preset	Tag	CTL*	[0 to 1 / 1 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-431-011	External Auth User Preset	Entry	CTL*	[0 to 1 / 1 / 1/step]
5-431-012	External Auth User Preset	Group	CTL*	[0 to 1 / 1 / 1/step]
5-431-020	External Auth User Preset	Mail	CTL*	[0 to 1 / 1 / 1/step]
5-431-030	External Auth User Preset	Fax	CTL*	[0 to 1 / 1 / 1/step]
5-431-031	External Auth User Preset	FaxSub	CTL*	[0 to 1 / 1 / 1/step]
5-431-032	External Auth User Preset	Folder	CTL*	[0 to 1 / 1 / 1/step]
5-431-033	External Auth User Preset	ProtectCode	CTL*	[0 to 1 / 1 / 1/step]
5-431-034	External Auth User Preset	SmtpAuth	CTL*	[0 to 1 / 1 / 1/step]
5-431-035	External Auth User Preset	LdapAuth	CTL*	[0 to 1 / 1 / 1/step]
5-431-036	External Auth User Preset	Smb Ftp Fldr Auth	CTL*	[0 to 1 / 1 / 1/step]
5-431-037	External Auth User Preset	AcntAcl	CTL*	[0 to 1 / 1 / 1/step]
5-431-038	External Auth User Preset	DocumentAcl	CTL*	[0 to 1 / 1 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-431-040	External Auth User Preset	CertCrypt	CTL*	[0 to 1 / 0 / 1/step]
5-431-050	External Auth User Preset	UserLimitCount	CTL*	[0 to 1 / 1 / 1/step]
5-481-001	Authentication Error Code	System Log Disp	CTL*	[0 to 1 / 0 / 1/step]
5-481-002	Authentication Error Code	Panel Disp	CTL*	[0 to 1 / 1 / 1/step]
5-490-001	MF KeyCard	Job Permit Setting	CTL*	[0 to 1 / 0 / 1/step]
5-490-002	MF KeyCard	Count Mode Setting	CTL*	[0 to 1 / 0 / 1/step]
5-491-001	Optional Counter	Detail Option	CTL*	[0 to 0xff / 0 / 1/step]
5-501-001	PM Alarm	PM Alarm Level	CTL*	[0 to 9999 / 0 / 1/step]
5-504-001	Jam Alarm		CTL*	[0 to 3 / 3 / 1/step]
5-504-002	Jam Alarm	Threshold	CTL*	[1 to 99 / 10 / 1/step]
5-505-001	Error Alarm		CTL*	IM C300 series: [0 to 255 / 10 / 1/step] IM C400 series: [0 to 255 / 15 / 1/step]
5-505-	Error Alarm	Threshold	CTL*	[1 to 99 / 5 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				
5-507-001	Supply/CC Alarm	Paper Supply Alarm	CTL*	[0 to 1 / 0 / 1/step]
5-507-002	Supply/CC Alarm	Staple Supply Alarm	CTL*	[0 to 1 / 1 / 1/step]
5-507-003	Supply/CC Alarm	Toner Supply Alarm	CTL*	[0 to 1 / 1 / 1/step]
5-507-080	Supply/CC Alarm	Toner Call Timing	CTL*	[0 to 1 / 0 / 1/step] 0: At replacement 1: AtLessThanThresh
5-507-081	Supply/CC Alarm	Toner Call Threshold	CTL*	[10 to 90 / 10 / 10%/step]
5-507-128	Supply/CC Alarm	Interval: Others	CTL*	[250 to 10000 / 1000 / 1/step]
5-507-133	Supply/CC Alarm	Interval: A4	CTL*	[250 to 10000 / 1000 / 1/step]
5-507-134	Supply/CC Alarm	Interval: A5	CTL*	[250 to 10000 / 1000 / 1/step]
5-507-142	Supply/CC Alarm	Interval: B5	CTL*	[250 to 10000 / 1000 / 1/step]
5-507-164	Supply/CC Alarm	Interval: LG	CTL*	[250 to 10000 / 1000 / 1/step]
5-507-166	Supply/CC Alarm	Interval: LT	CTL*	[250 to 10000 / 1000 / 1/step]
5-	Supply/CC Alarm	Interval: HLT	CTL*	[250 to 10000 / 1000

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
507-172				/ 1/step]
5-508-001	CC Call	Jam Remains	CTL*	[0 to 1 / 1 / 1/step]
5-508-002	CC Call	Continuous Jams	CTL*	[0 to 1 / 1 / 1/step]
5-508-003	CC Call	Continuous Door Open	CTL*	[0 to 1 / 1 / 1/step]
5-508-011	CC Call	Jam Detection: Time Length	CTL*	[3 to 30 / 10 / 1/step]
5-508-012	CC Call	Jam Detection: Continuous Count	CTL*	[2 to 10 / 5 / 1/step]
5-508-013	CC Call	Door Open: Time Length	CTL*	[3 to 30 / 10 / 1/step]
5-513-001	PartsAlermlevelCount	Normal	CTL*	[1 to 9999 / 300 / 1/step]
5-513-002	PartsAlermlevelCount	Df	CTL*	[1 to 9999 / 300 / 1/step]
5-514-001	PartsAlermlev	Normal	CTL*	[0 to 1 / 1 / 1/step]
5-514-002	PartsAlermlev	Df	CTL*	[0 to 1 / 0 / 1/step]
5-515-001	SC/Alarm Setting	SC Call	CTL*	[0 to 1 / 1 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-515-002	SC/Alarm Setting	Service Parts Near End Call	CTL*	[0 to 1 / 1 / 1/step]
5-515-003	SC/Alarm Setting	Service Parts End Call	CTL*	[0 to 1 / 1 / 1/step]
5-515-004	SC/Alarm Setting	User Call	CTL*	[0 to 1 / 1 / 1/step]
5-515-006	SC/Alarm Setting	Communication Test Call	CTL*	[0 to 1 / 1 / 1/step]
5-515-007	SC/Alarm Setting	Machine Information Notice	CTL*	[0 to 1 / 1 / 1/step]
5-515-008	SC/Alarm Setting	Alarm Notice	CTL*	[0 to 1 / 1 / 1/step]
5-515-009	SC/Alarm Setting	Non Genuine Tonner Ararm	CTL*	[0 to 1 / 1 / 1/step]
5-515-010	SC/Alarm Setting	Supply Automatic Ordering Call	CTL*	[0 to 1 / 1 / 1/step]
5-515-011	SC/Alarm Setting	Supply Management Report Call	CTL*	[0 to 1 / 1 / 1/step]
5-515-012	SC/Alarm Setting	Jam/Door Open Call	CTL*	[0 to 1 / 1 / 1/step]
5-515-050	SC/Alarm Setting	Timeout:Manual Call	CTL*	[1 to 255 / 5 / 1min/step]
5-515-051	SC/Alarm Setting	Timeout:Other Call	CTL*	[1 to 255 / 10 / 1min/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-517-061	Get Machine Information	AutoDiscovery Execution Setting	CTL	[0 to 1 / 0 / 1/step]
5-517-062	Get Machine Information	AutoDiscovery Execution Interval	CTL	[0 to 1 / 0 / 1/step]
5-517-063	Get Machine Information	AutoDiscovery Execution Weekday	CTL	[0 to 6 / 0 / 1/step]
5-517-064	Get Machine Information	AutoDiscovery Execution Hour	CTL	[0 to 23 / 0 / 1/step]
5-517-065	Get Machine Information	AutoDiscovery Execution Minute	CTL	[0 to 59 / 0 / 1/step]
5-517-066	Get Machine Information	AutoDiscovery SNMP Community Name	CTL	[0 to 0 / 0 / 0/step]
5-517-100	Get Machine Information	GetLog:NotificationSetting	CTL*	[0 to 1 / 0 / 1/step]
5-610-004	Base Gamma Ctrl Pt:Execute	Get Factory Default	ENG	[0 to 1 / 0 / 1/step]
5-610-005	Base Gamma Ctrl Pt:Execute	Set Factory Default	ENG	[0 to 1 / 0 / 1/step]
5-610-006	Base Gamma Ctrl Pt:Execute	Restore Orginal Value	ENG	[0 to 1 / 0 / 1/step]
5-611-001	Toner Color in 2C	B-C	ENG	[0 to 128 / 100 / 1/step]
5-611-002	Toner Color in 2C	B-M	ENG	[0 to 128 / 100 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-611-003	Toner Color in 2C	G-C	ENG	[0 to 128 / 100 / 1/step]
5-611-004	Toner Color in 2C	G-Y	ENG	[0 to 128 / 100 / 1/step]
5-611-005	Toner Color in 2C	R-M	ENG	[0 to 128 / 100 / 1/step]
5-611-006	Toner Color in 2C	R-Y	ENG	[0 to 128 / 100 / 1/step]
5-618-001	Color Mode Display Selection		CTL*	[0 to 1 / 1 / 1/step]
5-728-001	Network Setting	NAT Machine Port1	CTL*	[1 to 65535 / 49101 / 1/step]
5-728-002	Network Setting	NAT UI Port1	CTL*	[1 to 65535 / 55101 / 1/step]
5-728-003	Network Setting	NAT Machine Port2	CTL*	[1 to 65535 / 49102 / 1/step]
5-728-004	Network Setting	NAT UI Port2	CTL*	[1 to 65535 / 55102 / 1/step]
5-728-005	Network Setting	NAT Machine Port3	CTL*	[1 to 65535 / 49103 / 1/step]
5-728-006	Network Setting	NAT UI Port3	CTL*	[1 to 65535 / 55103 / 1/step]
5-728-007	Network Setting	NAT Machine Port4	CTL*	[1 to 65535 / 49104 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-728-008	Network Setting	NAT UI Port4	CTL*	[1 to 65535 / 55104 / 1/step]
5-728-009	Network Setting	NAT Machine Port5	CTL*	[1 to 65535 / 49105 / 1/step]
5-728-010	Network Setting	NAT UI Port5	CTL*	[1 to 65535 / 55105 / 1/step]
5-728-011	Network Setting	NAT Machine Port6	CTL*	[1 to 65535 / 49106 / 1/step]
5-728-012	Network Setting	NAT UI Port6	CTL*	[1 to 65535 / 55106 / 1/step]
5-728-013	Network Setting	NAT Machine Port7	CTL*	[1 to 65535 / 49107 / 1/step]
5-728-014	Network Setting	NAT UI Port7	CTL*	[1 to 65535 / 55107 / 1/step]
5-728-015	Network Setting	NAT Machine Port8	CTL*	[1 to 65535 / 49108 / 1/step]
5-728-016	Network Setting	NAT UI Port8	CTL*	[1 to 65535 / 55108 / 1/step]
5-728-017	Network Setting	NAT Machine Port9	CTL*	[1 to 65535 / 49109 / 1/step]
5-728-018	Network Setting	NAT UI Port9	CTL*	[1 to 65535 / 55109 / 1/step]
5-728-019	Network Setting	NAT Machine Port10	CTL*	[1 to 65535 / 49110 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-728-020	Network Setting	NAT UI Port10	CTL*	[1 to 65535 / 55110 / 1/step]
5-728-101	Network Setting	PacketCapture	CTL	[0 to 1 / 0 / 1/step]
5-728-102	Network Setting	PacketCapture:mode	CTL	[0 to 1 / 0 / 1/step]
5-728-103	Network Setting	PacketCapture:interface	CTL	[0 to 3 / 0 / 1/step]
5-728-104	Network Setting	PacketCapture:length	CTL	[54 to 65535 / 128 / 1/step]
5-728-105	Network Setting	PacketCapture:broadcast	CTL	[0 to 1 / 0 / 1/step]
5-728-106	Network Setting	PacketCapture:specify port	CTL	[0 to 1 / 0 / 1/step]
5-728-107	Network Setting	PacketCapture:portnumber	CTL	[0 to 65535 / 0 / 1/step]
5-728-108	Network Setting	PacketCapture:time	CTL	[0 to 0xffffffff / 0 / 1/step]
5-729-013	Print Server	Active IPv6 Link Local Address	CTL*	[0 to 0 / 0 / 0/step]
5-729-014	Print Server	IPv6 Stateless Auto Setting	CTL*	[0 to 1 / 1 / 1/step]
5-729-015	Print Server	Active IPv6 Stateless Address 1	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-729-016	Print Server	Active IPv6 Stateless Address 2	CTL	[0 to 0 / 0 / 0/step]
5-729-019	Print Server	IPv6 Manual Address	CTL*	[0 to 0 / 0 / 0/step]
5-729-020	Print Server	IPv6 Gateway Address	CTL*	[0 to 0 / 0 / 0/step]
5-730-010	Extended Function Setting	Expiration Prior Alarm Set	CTL*	[0 to 999 / 20 / 1days/step]
5-731-001	Counter Effect	Change Mk1 Cnt(Paper->Combine)	CTL*	[0 to 1 / 0 / 1/step]
5-734-001	PDF Setting	PDF/A Fixed	CTL*	[0 to 1 / 0 / 1/step]
5-741-001	Node Authentication Timuout		CTL*	[1 to 255 / 60 / 1sec/step]
5-745-211	DeemedPowerConsumption	Controller Standby	CTL*	[0 to 9999 / 0 / 1/step]
5-745-212	DeemedPowerConsumption	STR	CTL*	[0 to 9999 / 0 / 1/step]
5-745-213	DeemedPowerConsumption	Main Power Off	CTL*	[0 to 9999 / 0 / 1/step]
5-745-214	DeemedPowerConsumption	Scanning and Printing	CTL*	[0 to 9999 / 0 / 1/step]
5-745-215	DeemedPowerConsumption	Printing	CTL*	[0 to 9999 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-745-216	DeemedPowerConsumption	Scanning	CTL*	[0 to 9999 / 0 / 1/step]
5-745-217	DeemedPowerConsumption	Engine Standby	CTL*	[0 to 9999 / 0 / 1/step]
5-745-218	DeemedPowerConsumption	Low Power Consumption	CTL*	[0 to 9999 / 0 / 1/step]
5-745-219	DeemedPowerConsumption	Silent condition	CTL*	[0 to 9999 / 0 / 1/step]
5-745-220	DeemedPowerConsumption	Heater Off	CTL*	[0 to 9999 / 0 / 1/step]
5-748-101	OpePanel Setting	Op Type Action Setting	CTL	[0 to 255 / 0 / 1/step]
5-748-201	OpePanel Setting	Cheetah Panel Connect Setting	CTL	[0 to 1 / 0 / 1/step]
5-749-001	Import/Export	Export	CTL	[0 to 0 / 0 / 0/step]
5-749-101	Import/Export	Import	CTL	[0 to 0 / 0 / 0/step]
5-752-001	Copy:WebAPI Setting	Copy:FlairAPI Setting	CTL*	[0 to 255 / 0 / 1/step]
5-755-001	Display Setting	Disp Administrator Password Change Scrn	CTL	[0 to 0 / 0 / 0/step]
5-755-002	Display Setting	Hide Administrator Password Change Scrn	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-758-001	RemoteUI Setting	Authentication	CTL*	[0 to 1 / 0 / 1/step]
5-759-001	Machine Limit Count	Machine Limit Count Setting	CTL*	[0 to 1 / 0 / 1/step]
5-759-061	Machine Limit Count	Full Color Limit Count	CTL*	[0 to 99999999 / 0 / 1/step]
5-759-062	Machine Limit Count	Mono Color Limit Count	CTL*	[0 to 99999999 / 0 / 1/step]
5-760-001	PaaS	Status	CTL*	[0 to 1 / 0 / 1/step]
5-760-002	PaaS	Enter PaaS Mode	CTL	[0 to 1 / 0 / 1/step]
5-760-003	PaaS	Contract ID	CTL*	[0 to 0 / 0 / 0/step]
5-760-004	PaaS	Authentication Key	CTL*	[0 to 0 / 0 / 0/step]
5-760-005	PaaS	Server Name	CTL*	[0 to 0 / 0 / 0/step]
5-760-006	PaaS	Server URL Path	CTL*	[0 to 0 / 0 / 0/step]
5-760-007	PaaS	Server Port Number	CTL*	[1 to 65535 / 443 / 1/step]
5-760-008	PaaS	Contract Status	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-760-009	PaaS	Registration	CTL	[0 to 1 / 0 / 1/step]
5-760-010	PaaS	Unregistration	CTL	[0 to 1 / 0 / 1/step]
5-760-011	PaaS	Overwrite Registration on Server	CTL	[0 to 1 / 0 / 1/step]
5-760-012	PaaS	Execution Return Code	CTL	[0 to 255 / 0 / 1/step]
5-760-013	PaaS	Error Code	CTL	[0 to 0xffffffff / 0 / 1/step]
5-760-014	PaaS	3G Signal Error	CTL	[0 to 0 / 0 / 0/step]
5-760-015	PaaS	Use Proxy	CTL*	[0 to 1 / 0 / 1/step]
5-760-016	PaaS	Proxy Server	CTL*	[0 to 0 / 0 / 0/step]
5-760-017	PaaS	Proxy Port Number	CTL*	[0 to 65535 / 0 / 1/step]
5-760-018	PaaS	Proxy User Name	CTL*	[0 to 0 / 0 / 0/step]
5-760-019	PaaS	Proxy User Password	CTL*	[0 to 0 / 0 / 0/step]
5-760-020	PaaS	Retry Interval	CTL*	[0 to 65535 / 5 / 1sec/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-760-021	PaaS	Retry Count	CTL*	[0 to 255 / 3 / 1/step]
5-760-022	PaaS	Device Information Call	CTL	[0 to 1 / 0 / 1/step]
5-760-023	PaaS	Next Update Time	CTL*	[0 to 0 / 0 / 1/step]
5-760-024	PaaS	Enter Normal Mode	CTL	[0 to 1 / 0 / 1/step]
5-760-025	PaaS	Prescribed Print Sheet No/Page	CTL	[0 to 99999999 / 0 / 1/step]
5-760-027	PaaS	Permit Setting	CTL*	[0 to 3 / 0 / 1/step]
5-760-028	PaaS	Selection Country	CTL*	[0 to 1 / 0 / 1/step] 0: China 1: India
5-760-029	PaaS	Connect Type	CTL*	[0 to 2 / 0 / 1/step]
5-761-001	SmartOperationPanel Setting	Restore the default Home screen	CTL*	[0 to 255 / 0 / 1/step]
5-761-007	SmartOperationPanel Setting	Introduction Setting Boot Mode	CTL*	[0 to 255 / 0 / 1/step]
5-761-009	SmartOperationPanel Setting	SmartOperationPanel Font Setting	CTL*	[0 to 255 / 0 / 1/step]
5-764-001	NFC Setting	GuestNetwork	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-764-002	NFC Setting	Encrypted Communication Permission	CTL*	[0 to 1 / 0 / 1/step]
5-764-003	NFC Setting	Access Port1	CTL*	[0 to 65535 / 8081 / 1/step]
5-764-004	NFC Setting	Access Port2	CTL*	[0 to 65535 / 8080 / 1/step]
5-764-005	NFC Setting	Access Port3	CTL*	[0 to 65535 / 80 / 1/step]
5-767-001	Screen USB host port	Port1	CTL*	[0 to 1 / 0 / 1/step]
5-767-002	Screen USB host port	Port2	CTL*	[0 to 1 / 0 / 1/step]
5-767-101	Screen USB host port	Screen USB memory	CTL*	[0 to 1 / 0 / 1/step]
5-768-001	Remaining toner detection type	MIB Output	ENG	[0 to 1 / 0 / 1/step] 0: 0%-100% (10% increments) 1: 0%-100% (1% increments)
5-780-001	ACT Version	Current Version Display	CTL	[0 to 0 / 0 / 1/step]
5-780-002	ACT Version	Max Version Display in ROM	CTL	[0 to 0 / 0 / 1/step]
5-780-003	ACT Version	HDD Version Display	CTL	[0 to 0 / 0 / 1/step]
5-	ACT Version	Panel Version Display	CTL	[0 to 0 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
780-004				
5-780-050	ACT Version	Lump Activate Execution	CTL	[0 to 0 / 0 / 1/step]
5-780-100	ACT Version	Auto Activate Setting	CTL	[0 to 1 / 0 / 1/step]
5-780-200	ACT Version	Restore from NV	CTL	[0 to 0 / 0 / 1/step]
5-780-201	ACT Version	Restore from HDD	CTL	[0 to 0 / 0 / 1/step]
5-780-202	ACT Version	Restore from Operation Panel	CTL	[0 to 0 / 0 / 1/step]
5-785-001	SmartSDK	Version Setting	CTL*	[0 to 0 / 0 / 0/step]
5-801-001	Memory Clear	All Clear	CTL	[0 to 0 / 0 / 0/step]
5-801-002	Memory Clear	Engine	ENG	[0 to 1 / 0 / 1/step]
5-801-003	Memory Clear	SCS	CTL	[0 to 0 / 0 / 0/step]
5-801-004	Memory Clear	IMH Memory Clr	CTL	[0 to 0 / 0 / 0/step]
5-801-005	Memory Clear	MCS	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-801-006	Memory Clear	Copier application	CTL	[0 to 0 / 0 / 0/step]
5-801-007	Memory Clear	Fax Application	CTL	[0 to 0 / 0 / 0/step]
5-801-008	Memory Clear	Printer Application	CTL	[0 to 0 / 0 / 0/step]
5-801-009	Memory Clear	Scanner Application	CTL	[0 to 0 / 0 / 0/step]
5-801-010	Memory Clear	Web Service	CTL	[0 to 0 / 0 / 0/step]
5-801-011	Memory Clear	NCS	CTL	[0 to 0 / 0 / 0/step]
5-801-012	Memory Clear	R-FAX	CTL	[0 to 0 / 0 / 0/step]
5-801-014	Memory Clear	Clear DCS Setting	CTL	[0 to 0 / 0 / 0/step]
5-801-015	Memory Clear	Clear UCS Setting	CTL	[0 to 0 / 0 / 0/step]
5-801-016	Memory Clear	MIRS Setting	CTL	[0 to 0 / 0 / 0/step]
5-801-017	Memory Clear	CCS	CTL	[0 to 0 / 0 / 0/step]
5-801-018	Memory Clear	SRM Memory Clr	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-801-019	Memory Clear	LCS	CTL	[0 to 0 / 0 / 0/step]
5-801-020	Cleae Memory	Web Uapli	CTL	[0 to 0 / 0 / 0/step]
5-801-021	Memory Clear	ECS	CTL	[0 to 0 / 0 / 0/step]
5-801-023	Memory Clear	AICS	CTL	[0 to 0 / 0 / 0/step]
5-801-025	Cleae Memory	websys	CTL	[0 to 0 / 0 / 0/step]
5-801-027	Memory Clear	SAS	CTL	[0 to 0 / 0 / 0/step]
5-801-028	Memory Clear	Rest WebService	CTL	[0 to 0 / 0 / 0/step]
5-803-001	INPUT Check	Registration Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-002	INPUT Check	Tray Paper End Detection Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-003	INPUT Check	Bypass Paper End Detection Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-004	INPUT Check	Bypass Paper Width Detection Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-006	INPUT Check	Duplex Exit Sensor	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-803-007	INPUT Check	Exit Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-008	INPUT Check	Duplex Entrance Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-010	INPUT Check	By-pass Lift Position Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-011	INPUT Check	Tray Exit Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-012	INPUT Check	Interlock Release Detection 1	ENG	[0 to 1 / 0 / 1/step]
5-803-013	INPUT Check	Interlock Release Detection 2	ENG	[0 to 1 / 0 / 1/step]
5-803-014	INPUT Check	Right Cover Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-016	INPUT Check	Image Transfer Contact HP Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-019	INPUT Check	Toner Collection Full Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-020	INPUT Check	Toner Collection Bottle Set Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-022	INPUT Check	Toner End Sensor: Y	ENG	[0 to 1 / 0 / 1/step]
5-803-023	INPUT Check	Toner End Sensor: M	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-803-024	INPUT Check	Toner End Sensor: C	ENG	[0 to 1 / 0 / 1/step]
5-803-026	INPUT Check	Fusing Entrance Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-027	INPUT Check	Fusing Exit Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-028	INPUT Check	Set and Destination Detection	ENG	[0 to 3 / 0 / 1/step]
5-803-029	INPUT Check	Fusing New Unit Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-030	INPUT Check	Fusing High Temp Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-032	INPUT Check	Fusing Fan: Lock	ENG	[0 to 1 / 0 / 1/step]
5-803-033	INPUT Check	Laser Unit Fan: Lock	ENG	[0 to 1 / 0 / 1/step]
5-803-034	INPUT Check	PSU Fan: Lock	ENG	[0 to 1 / 0 / 1/step]
5-803-035	INPUT Check	PCDU Cooling Fan: Lock	ENG	[0 to 1 / 0 / 1/step]
5-803-038	INPUT Check	Bk Drum Motor: Lock	ENG	[0 to 1 / 0 / 1/step]
5-803-039	INPUT Check	FC Dev Motor: Lock	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-803-040	INPUT Check	FC Drum Motor: Lock	ENG	[0 to 1 / 0 / 1/step]
5-803-041	INPUT Check	Fusing Motor: Lock	ENG	[0 to 1 / 0 / 1/step]
5-803-042	INPUT Check	Transport Motor: Lock	ENG	[0 to 1 / 0 / 1/step]
5-803-044	INPUT Check	PP:CB:SC Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-045	INPUT Check	PP:T1T2:SC Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-047	INPUT Check	Key Counter 1: Set Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-048	INPUT Check	Key Counter 2: Set Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-049	INPUT Check	Keycard: Set Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-050	INPUT Check	1-Bin:Exit Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-051	INPUT Check	1-Bin:Paper Remaining Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-052	INPUT Check	1-Bin: Set Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-053	INPUT Check	Tray Lift Sensor	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-803-054	INPUT Check	Tray Set Detection	ENG	[0 to 1 / 0 / 1/step]
5-803-056	INPUT Check	BiCU Version Detection	ENG	[0 to 15 / 0 / 1/step]
5-803-060	INPUT Check	PFU Vertical Transport Sen. 1	ENG	[0 to 1 / 0 / 1/step]
5-803-061	INPUT Check	PFU Vertical Transport Sen. 2	ENG	[0 to 1 / 0 / 1/step]
5-803-062	INPUT Check	PFU Door Sensor 1	ENG	[0 to 1 / 0 / 1/step]
5-803-063	INPUT Check	PFU Door Sensor 2	ENG	[0 to 1 / 0 / 1/step]
5-803-066	INPUT Check	Tray UL Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-067	INPUT Check	Feed Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-068	INPUT Check	PFU Vertical Transport Sen. 3	ENG	[0 to 1 / 0 / 1/step]
5-803-069	INPUT Check	PFU Door Sensor 3	ENG	[0 to 1 / 0 / 1/step]
5-803-070	INPUT Check	Exit Exhaust Fan: Lock	ENG	[0 to 1 / 0 / 1/step]
5-803-094	INPUT Check	LD Off Check	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-803-200	INPUT Check	Scanner HP Sensor	ENG	[0 to 1 / 0 / 1/step]
5-803-201	INPUT Check	Platen Cover Sensor	ENG	[0 to 1 / 0 / 1/step]
5-804-001	OUTPUT Check	Registration Clutch	ENG	[0 to 1 / 0 / 1/step]
5-804-002	OUTPUT Check	Paper Feed Clutch	ENG	[0 to 1 / 0 / 1/step]
5-804-003	OUTPUT Check	Duplex Clutch	ENG	[0 to 1 / 0 / 1/step]
5-804-004	OUTPUT Check	Bypass Feed Clutch	ENG	[0 to 1 / 0 / 1/step]
5-804-005	OUTPUT Check	Bypass Lift Clutch	ENG	[0 to 1 / 0 / 1/step]
5-804-007	OUTPUT Check	Tray Lift Motor	ENG	[0 to 1 / 0 / 1/step]
5-804-008	OUTPUT Check	Paper Exit Rotary Solenoid	ENG	[0 to 1 / 0 / 1/step]
5-804-009	OUTPUT Check	Fusing Fan: High Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-010	OUTPUT Check	Fusing Fan: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-011	OUTPUT Check	Laser Unit Fan: High Speed	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-804-012	OUTPUT Check	Laser Unit Fan: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-013	OUTPUT Check	PSU Fan: High Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-014	OUTPUT Check	PSU Fan: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-015	OUTPUT Check	PCDU Cooling Fan: High Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-016	OUTPUT Check	PCDU Cooling Fan: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-021	OUTPUT Check	TM Sensor Shutter Solenoid	ENG	[0 to 1 / 0 / 1/step]
5-804-022	OUTPUT Check	Bk Drum Motor: Std Speed 1	ENG	[0 to 1 / 0 / 1/step]
5-804-023	OUTPUT Check	Bk Drum Motor: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-024	OUTPUT Check	FC Dev Motor: Std Speed 1	ENG	[0 to 1 / 0 / 1/step]
5-804-025	OUTPUT Check	FC Dev Motor: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-026	OUTPUT Check	Development Clutch: Bk	ENG	[0 to 1 / 0 / 1/step]
5-804-027	OUTPUT Check	FC Drum Motor: Std Speed 1	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-804-028	OUTPUT Check	FC Drum Motor: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-029	OUTPUT Check	Fusing Motor: Standard Speed 1	ENG	[0 to 1 / 0 / 1/step]
5-804-030	OUTPUT Check	Fusing Motor: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-031	OUTPUT Check	Transport Motor: Std Speed 1	ENG	[0 to 1 / 0 / 1/step]
5-804-032	OUTPUT Check	Transport Motor: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-033	OUTPUT Check	Image Transfer Contact Motor	ENG	[0 to 1 / 0 / 1/step]
5-804-035	OUTPUT Check	Toner Supply Motor: Y	ENG	[0 to 1 / 0 / 1/step]
5-804-036	OUTPUT Check	Toner Supply Motor: M	ENG	[0 to 1 / 0 / 1/step]
5-804-037	OUTPUT Check	Toner Supply Motor: C	ENG	[0 to 1 / 0 / 1/step]
5-804-038	OUTPUT Check	Toner Supply Motor: Bk	ENG	[0 to 1 / 0 / 1/step]
5-804-039	OUTPUT Check	Toner End Sensor Power	ENG	[0 to 1 / 0 / 1/step]
5-804-042	OUTPUT Check	ID Tag: Power Supply Control	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-804-043	OUTPUT Check	Toner Sensor Power	ENG	[0 to 1 / 0 / 1/step]
5-804-044	OUTPUT Check	PP:Charge DC:Y	ENG	[0 to 1 / 0 / 1/step]
5-804-045	OUTPUT Check	PP:Charge DC:M	ENG	[0 to 1 / 0 / 1/step]
5-804-046	OUTPUT Check	PP:Charge DC:C	ENG	[0 to 1 / 0 / 1/step]
5-804-047	OUTPUT Check	PP:Charge DC:Bk	ENG	[0 to 1 / 0 / 1/step]
5-804-048	OUTPUT Check	PP:Development: Y	ENG	[0 to 1 / 0 / 1/step]
5-804-049	OUTPUT Check	PP:Development: M	ENG	[0 to 1 / 0 / 1/step]
5-804-050	OUTPUT Check	PP:Development: C	ENG	[0 to 1 / 0 / 1/step]
5-804-051	OUTPUT Check	PP:Development: Bk	ENG	[0 to 1 / 0 / 1/step]
5-804-053	OUTPUT Check	PP: Image Transfer: YMC	ENG	[0 to 1 / 0 / 1/step]
5-804-056	OUTPUT Check	PP: Image Transfer: Bk	ENG	[0 to 1 / 0 / 1/step]
5-804-057	OUTPUT Check	PP: Paper Transfer: +	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-804-058	OUTPUT Check	PP: Paper Transfer: -	ENG	[0 to 1 / 0 / 1/step]
5-804-059	OUTPUT Check	PP:Charge AC:Y	ENG	[0 to 1 / 0 / 1/step]
5-804-061	OUTPUT Check	PP:Charge AC:M	ENG	[0 to 1 / 0 / 1/step]
5-804-063	OUTPUT Check	PP:Charge AC:C	ENG	[0 to 1 / 0 / 1/step]
5-804-065	OUTPUT Check	PP:Charge AC:Bk	ENG	[0 to 1 / 0 / 1/step]
5-804-071	OUTPUT Check	TM/ID Sensor: Front	ENG	[0 to 1 / 0 / 1/step]
5-804-072	OUTPUT Check	TM/ID Sensor: Center	ENG	[0 to 1 / 0 / 1/step]
5-804-073	OUTPUT Check	TM/ID Sensor: Rear	ENG	[0 to 1 / 0 / 1/step]
5-804-080	OUTPUT Check	PFU Transport Motor 1: High	ENG	[0 to 1 / 0 / 1/step]
5-804-081	OUTPUT Check	PFU Transport Motor 1: Low	ENG	[0 to 1 / 0 / 1/step]
5-804-082	OUTPUT Check	PFU Transport Motor 2: High	ENG	[0 to 1 / 0 / 1/step]
5-804-083	OUTPUT Check	PFU Transport Motor 2: Low	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-804-084	OUTPUT Check	PFU Paper Feed CL1	ENG	[0 to 1 / 0 / 1/step]
5-804-085	OUTPUT Check	PFU Paper Feed CL2	ENG	[0 to 1 / 0 / 1/step]
5-804-086	OUTPUT Check	PFU Vertical Transport CL1	ENG	[0 to 1 / 0 / 1/step]
5-804-087	OUTPUT Check	PFU Vertical Transport CL2	ENG	[0 to 1 / 0 / 1/step]
5-804-088	OUTPUT Check	Exit Clutch	ENG	[0 to 1 / 0 / 1/step]
5-804-089	OUTPUT Check	Reverse Clutch	ENG	[0 to 1 / 0 / 1/step]
5-804-090	OUTPUT Check	Bk Drum Motor: Standard Speed 2	ENG	[0 to 1 / 0 / 1/step]
5-804-091	OUTPUT Check	Fusing Motor: Standard Speed 2	ENG	[0 to 1 / 0 / 1/step]
5-804-092	OUTPUT Check	Transport Motor: Standard Speed 2	ENG	[0 to 1 / 0 / 1/step]
5-804-093	OUTPUT Check	Bk Drum Motor: Middle Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-094	OUTPUT Check	FC Dev Motor: Middle Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-095	OUTPUT Check	FC Drum Motor: Middle Speed	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-804-096	OUTPUT Check	Fusing Motor: Middle Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-097	OUTPUT Check	Transport Motor: Middle Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-103	OUTPUT Check	Polygon Motor1: Standard2	ENG	[0 to 1 / 0 / 1/step]
5-804-104	OUTPUT Check	Polygon Motor1: Standard	ENG	[0 to 1 / 0 / 1/step]
5-804-105	OUTPUT Check	Polygon Motor1: Low	ENG	[0 to 1 / 0 / 1/step]
5-804-107	OUTPUT Check	Polygon Motor2: Standard2	ENG	[0 to 1 / 0 / 1/step]
5-804-108	OUTPUT Check	Polygon Motor2: Standard	ENG	[0 to 1 / 0 / 1/step]
5-804-109	OUTPUT Check	Polygon Motor2: Low	ENG	[0 to 1 / 0 / 1/step]
5-804-111	OUTPUT Check	Polygon Motor1,2: Standard2	ENG	[0 to 1 / 0 / 1/step]
5-804-112	OUTPUT Check	Polygon Motor1,2: Standard	ENG	[0 to 1 / 0 / 1/step]
5-804-113	OUTPUT Check	Polygon Motor1,2: Low	ENG	[0 to 1 / 0 / 1/step]
5-804-114	OUTPUT Check	V Transport Clutch	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-804-115	OUTPUT Check	PFU Transport Motor 3: High	ENG	[0 to 1 / 0 / 1/step]
5-804-116	OUTPUT Check	PFU Transport Motor 3: Low	ENG	[0 to 1 / 0 / 1/step]
5-804-117	OUTPUT Check	PFU Paper Feed CL3	ENG	[0 to 1 / 0 / 1/step]
5-804-118	OUTPUT Check	PFU Vertical Transport CL3	ENG	[0 to 1 / 0 / 1/step]
5-804-120	OUTPUT Check	Exit Exhaust Fan: High Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-121	OUTPUT Check	Exit Exhaust Fan: Low Speed	ENG	[0 to 1 / 0 / 1/step]
5-804-202	OUTPUT Check	Scanner Lamp	ENG	[0 to 1 / 0 / 1/step]
5-804-203	OUTPUT Check	Scanner Lamp: Color 1200	ENG	[0 to 1 / 0 / 1/step]
5-804-204	OUTPUT Check	Scanner Lamp: Bk	ENG	[0 to 1 / 0 / 1/step]
5-805-001	Noise Detection	Power(24V)	ENG*	[0 to 1023 / 0 / 1/step]
5-805-011	Noise Detection	Power(5VKC)	ENG*	[0 to 1023 / 0 / 1/step]
5-805-021	Noise Detection	Power(5VMY)	ENG*	[0 to 1023 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-805-031	LOCK Detection	1(TOTAL)	ENG*	[0 to 4294967295 / 0 / 1/step]
5-805-032	LOCK Detection	2(TOTAL)	ENG*	[0 to 4294967295 / 0 / 1/step]
5-805-033	LOCK Detection	3(TOTAL)	ENG*	[0 to 4294967295 / 0 / 1/step]
5-805-041	LOCK Detection	1	ENG*	[0 to 65535 / 0 / 1/step]
5-805-042	LOCK Detection	2	ENG*	[0 to 65535 / 0 / 1/step]
5-805-043	LOCK Detection	3	ENG*	[0 to 65535 / 0 / 1/step]
5-805-051	Upper Limit Flag	1(TOTAL)	ENG*	[0 to 1 / 0 / 1/step]
5-805-052	Upper Limit Flag	2(TOTAL)	ENG*	[0 to 1 / 0 / 1/step]
5-805-053	Upper Limit Flag	3(TOTAL)	ENG*	[0 to 1 / 0 / 1/step]
5-805-061	Upper Limit Flag	1	ENG*	[0 to 1 / 0 / 1/step]
5-805-062	Upper Limit Flag	2	ENG*	[0 to 1 / 0 / 1/step]
5-805-063	Upper Limit Flag	3	ENG*	[0 to 1 / 0 / 1/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-807-001	Area Selection		ENG*	[1 to 7 / 2 / 1/step] 1: Japan 2: NA 3: EU 4: Taiwan 5: Asia 6: China 7: Korea
5-810-001	Fusing SC Reset	Fusing SC Reset	ENG	[0 to 1 / 0 / 1/step]
5-810-002	Fusing SC Reset	Hard High Temp. Detection	ENG	[0 to 1 / 0 / 1/step]
5-811-002	Machine Serial	Display	ENG*	[0 to 255 / 0 / 1/step]
5-812-001	Service Tel. No. Setting	Service	CTL*	[0 to 0 / 0 / 0/step]
5-812-002	Service Tel. No. Setting	Facsimile	CTL*	[0 to 0 / 0 / 0/step]
5-812-003	Service Tel. No. Setting	Supply	CTL*	[0 to 0 / 0 / 0/step]
5-812-004	Service Tel. No. Setting	Operation	CTL*	[0 to 0 / 0 / 0/step]
5-816-001	Remote Service	I/F Setting	CTL*	[0 to 2 / 2 / 1/step]
5-816-002	Remote Service	CE Call	CTL*	[0 to 1 / 0 / 1/step]
5-	Remote Service	Function Flag	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
816-003				
5-816-007	Remote Service	SSL Disable	CTL*	[0 to 1 / 0 / 1/step]
5-816-008	Remote Service	RCG Connect Timeout	CTL*	[1 to 90 / 30 / 1sec/step]
5-816-009	Remote Service	RCG Write Timeout	CTL*	[0 to 100 / 60 / 1sec/step]
5-816-010	Remote Service	RCG Read Timeout	CTL*	[0 to 100 / 60 / 1sec/step]
5-816-011	Remote Service	Port 80 Enable	CTL*	[0 to 1 / 0 / 1/step]
5-816-013	Remote Service	RFU Timing	CTL*	[0 to 1 / 1 / 1/step]
5-816-014	Remote Service	RCG Error Cause	CTL	[0 to 2 / 0 / 1/step]
5-816-021	Remote Service	RCG-C Registed	CTL*	[0 to 1 / 0 / 1/step]
5-816-023	Remote Service	Connect Type(N/M/3G)	CTL*	[0 to 2 / 0 / 1/step]
5-816-061	Remote Service	Cert Expire Timing	CTL*	[0 to 0 / 0 / 1/step]
5-816-062	Remote Service	Use Proxy	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-816-063	Remote Service	Proxy Host	CTL*	[0 to 0 / 0 / 0/step]
5-816-064	Remote Service	Proxy PortNumber	CTL*	[0 to 0xffff / 0 / 1/step]
5-816-065	Remote Service	Proxy User Name	CTL*	[0 to 0 / 0 / 0/step]
5-816-066	Remote Service	Proxy Password	CTL*	[0 to 0 / 0 / 0/step]
5-816-067	Remote Service	CERT:Up State	CTL*	[0 to 255 / 0 / 1/step]
5-816-068	Remote Service	CERT:Error	CTL*	[0 to 255 / 0 / 1/step]
5-816-069	Remote Service	CERT:Up ID	CTL*	[0 to 0 / 0 / 0/step]
5-816-083	Remote Service	Firm Up Status	CTL*	[0 to 1 / 0 / 1/step]
5-816-085	Remote Service	Firm Up User Check	CTL*	[0 to 1 / 0 / 1/step]
5-816-086	Remote Service	Firmware Size	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-816-087	Remote Service	CERT:Macro Ver.	CTL	[0 to 0 / 0 / 0/step]
5-816-088	Remote Service	CERT:PAC Ver.	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-816-089	Remote Service	CERT:ID2Code	CTL	[0 to 0 / 0 / 0/step]
5-816-090	Remote Service	CERT:Subject	CTL	[0 to 0 / 0 / 0/step]
5-816-091	Remote Service	CERT:SerialNo.	CTL	[0 to 0 / 0 / 0/step]
5-816-092	Remote Service	CERT:Issuer	CTL	[0 to 0 / 0 / 0/step]
5-816-093	Remote Service	CERT:Valid Start	CTL	[0 to 0 / 0 / 0/step]
5-816-094	Remote Service	CERT:Valid End	CTL	[0 to 0 / 0 / 0/step]
5-816-102	Remote Service	CERT:Encrypt Level	CTL*	[1 to 2 / 1 / 1/step]
5-816-103	Remote Service	Client Communication Method	CTL*	[0 to 3 / 0 / 1/step]
5-816-104	Remote Service	Client Communication Limit	CTL*	[1 to 7 / 7 / 1/step]
5-816-115	Remote Service	Network Information Waiting timer	CTL*	[5 to 255 / 5 / 1sec/step]
5-816-150	Remote Service	Selection Country	CTL*	[0 to 10 / 0 / 1/step] 0: Japan 1: USA 2: Canada 3: UK 4: Germany

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
				5: France 6: Italy 7: Netherlands 8: Belgium 9: Luxembourg 10: Spain
5-816-151	Remote Service	Line Type Automatic Judgement	CTL	[0 to 1 / 0 / 1/step]
5-816-152	Remote Service	Line Type Judgement Result	CTL	[0 to 255 / 0 / 0/step]
5-816-153	Remote Service	Selection Dial / Push	CTL*	[0 to 2 / 0 / 0/step] 0: Tone dialing phone 1: Pulse dialing phone 2: 20PPS
5-816-154	Remote Service	Outside Line Outgoing Number	CTL*	[0 to 0 / 0 / 0/step]
5-816-156	Remote Service	Dial Up User Name	CTL*	[0 to 0 / 0 / 0/step]
5-816-157	Remote Service	Dial Up Password	CTL*	[0 to 0 / 0 / 0/step]
5-816-161	Remote Service	Local Phone Number	CTL*	[0 to 0 / 0 / 0/step]
5-816-162	Remote Service	Connection Timing Adjustment Incoming	CTL*	[0 to 24 / 1 / 1/step]
5-816-163	Remote Service	Access Point	CTL*	[0 to 0 / 0 / 0/step]
5-	Remote Service	Line Connecting	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
816-164				0: Sharing FAX 1: No Sharing FAX
5-816-173	Remote Service	Modem Serial No.	CTL*	[0 to 0 / 0 / 0/step]
5-816-174	Remote Service	Retransmission Limit	CTL	[0 to 1 / 0 / 1/step]
5-816-187	Remote Service	FAX TX Priority	CTL*	[0 to 1 / 0 / 1/step] 0: OFF 1: ON
5-816-190	Remote Service	3G DongleID	CTL*	[0 to 0 / 0 / 0/step]
5-816-199	Remote Service	ppp Connect Timer	CTL*	[15 to 30 / 15 / 1min/step]
5-816-200	Remote Service	Manual Polling	CTL	[0 to 1 / 0 / 1/step]
5-816-201	Remote Service	Regist Status	CTL	[0 to 255 / 0 / 1/step]
5-816-202	Remote Service	Letter Number	CTL*	[0 to 0 / 0 / 0/step]
5-816-203	Remote Service	Confirm Execute	CTL	[0 to 1 / 0 / 1/step]
5-816-204	Remote Service	Confirm Result	CTL	[0 to 255 / 0 / 1/step]
5-816-205	Remote Service	Confirm Place	CTL	[0 to 1 / 0 / 1/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-816-206	Remote Service	Register Execute	CTL	[0 to 1 / 0 / 1/step]
5-816-207	Remote Service	Register Result	CTL	[0 to 255 / 0 / 1/step]
5-816-208	Remote Service	Error Code	CTL	[-2147483647 to 2147483647 / 0 / 0/step]
5-816-209	Remote Service	Instl Clear	CTL	[0 to 1 / 0 / 1/step]
5-816-240	Remote Service	CommErrorTime	CTL	[0 to 0 / 0 / 1/step]
5-816-241	Remote Service	CommErrorCode 1	CTL*	[0 to 0xffffffff / 0x00000000 / 1/step]
5-816-242	Remote Service	CommErrorCode 2	CTL*	[0 to 0xffffffff / 0x00000000 / 1/step]
5-816-243	Remote Service	CommErrorCode 3	CTL*	[0 to 0xffffffff / 0x00000000 / 1/step]
5-816-244	Remote Service	CommErrorState 1	CTL*	[0 to 0xffff / 0x0000 / 1/step]
5-816-245	Remote Service	CommErrorState 2	CTL*	[0 to 0xffff / 0x0000 / 1/step]
5-816-246	Remote Service	CommErrorState 3	CTL*	[0 to 0xffff / 0x0000 / 1/step]
5-816-247	Remote Service	SSL Error Count	CTL*	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-816-248	Remote Service	Other Err Count	CTL*	[0 to 255 / 0 / 1/step]
5-816-250	Remote Service	CommLog Print	CTL	[0 to 255 / 0 / 0/step]
5-821-002	Remote Service RCG Setting	RCG IPv4 Address	CTL*	[0 to 0xffffffff / 0 / 1/step]
5-821-003	Remote Service RCG Setting	RCG Port	CTL*	[0 to 65535 / 443 / 1/step]
5-821-004	Remote Service RCG Setting	RCG IPv4 URL Path	CTL*	[0 to 0 / 0 / 0/step]
5-821-005	Remote Service RCG Setting	RCG IPv6 Address	CTL*	[0 to 0 / 0 / 0/step]
5-821-006	Remote Service RCG Setting	RCG IPv6 URL Path	CTL*	[0 to 0 / 0 / 0/step]
5-821-007	Remote Service RCG Setting	RCG Host Name	CTL*	[0 to 0 / 0 / 0/step]
5-821-008	Remote Service RCG Setting	RCG Host URL Path	CTL*	[0 to 0 / 0 / 0/step]
5-824-001	NV-RAM Data Upload		CTL	[0 to 0 / 0 / 0/step]
5-825-001	NV-RAM Data Download		CTL	[0 to 0 / 0 / 0/step]
5-828-039	Network Setting	User Class	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-828-040	Network Setting	Class Id	CTL*	[0 to 0 / 0 / 0/step]
5-828-050	Network Setting	1284 Compatiblity (Centro)	CTL*	[0 to 1 / 1 / 1/step]
5-828-052	Network Setting	ECP (Centro)	CTL*	[0 to 1 / 1 / 1/step]
5-828-065	Network Setting	Job Spooling	CTL*	[0 to 1 / 0 / 1/step]
5-828-066	Network Setting	Job Spooling Clear: Start Time	CTL*	[0 to 1 / 1 / 1/step] 0: ON 1: OFF
5-828-069	Network Setting	Job Spooling (Protocol)	CTL*	[0x00 to 0xff / 0x7f / 0/step]
5-828-087	Network Setting	Protocol usage	CTL*	[0x00000000 to 0xffffffff / 0x00000000 / 1/step]
5-828-090	Network Setting	TELNET(0:OFF 1:ON)	CTL*	[0 to 1 / 1 / 1/step]
5-828-091	Network Setting	Web(0:OFF 1:ON)	CTL*	[0 to 1 / 1 / 1/step]
5-828-145	Network Setting	Active IPv6 Link Local Address	CTL	[0 to 0 / 0 / 0/step]
5-828-147	Network Setting	Active IPv6 Stateless Address 1	CTL	[0 to 0 / 0 / 0/step]
5-828-149	Network Setting	Active IPv6 Stateless Address 2	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-828-151	Network Setting	Active IPv6 Stateless Address 3	CTL	[0 to 0 / 0 / 0/step]
5-828-153	Network Setting	Active IPv6 Stateless Address 4	CTL	[0 to 0 / 0 / 0/step]
5-828-155	Network Setting	Active IPv6 Stateless Address 5	CTL	[0 to 0 / 0 / 0/step]
5-828-156	Network Setting	IPv6 Manual Address	CTL*	[0 to 0 / 0 / 0/step]
5-828-158	Network Setting	IPv6 Gateway Address	CTL*	[0 to 0 / 0 / 0/step]
5-828-161	Network Setting	IPv6 Stateless Auto Setting	CTL*	[0 to 1 / 1 / 1/step]
5-828-219	Network Setting	IPsec Aggressive Mode Setting	CTL*	[0 to 1 / 0 / 1/step]
5-828-236	Network Setting	Web Item visible	CTL*	[0x0000 to 0xffff / 0xffff / 1/step]
5-828-237	Network Setting	Web shopping link visible	CTL*	[0 to 1 / 1 / 1/step]
5-828-238	Network Setting	Web Supplies Link visible	CTL*	[0 to 1 / 1 / 1/step]
5-828-239	Network Setting	Web Link1 Name	CTL*	[0 to 0 / 0 / 0/step]
5-828-240	Network Setting	Web Link1 URL	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-828-241	Network Setting	Web Link1 visible	CTL*	[0 to 1 / 1 / 1/step]
5-828-242	Network Setting	Web Link2 Name	CTL*	[0 to 0 / 0 / 0/step]
5-828-243	Network Setting	Web Link2 URL	CTL*	[0 to 0 / 0 / 0/step]
5-828-244	Network Setting	Web Link2 visible	CTL*	[0 to 1 / 1 / 1/step]
5-828-249	Network Setting	DHCPv6 DUID	CTL	[0 to 0 / 0 / 0/step]
5-832-001	HDD	HDD Formatting (ALL)	CTL*	[0 to 0 / 0 / 0/step]
5-832-002	HDD	HDD Formatting (IMH)	CTL	[0 to 0 / 0 / 0/step]
5-832-003	HDD	HDD Formatting (Thumbnail/OCR)	CTL	[0 to 0 / 0 / 0/step]
5-832-004	HDD	HDD Formatting (Job Log)	CTL	[0 to 0 / 0 / 0/step]
5-832-005	HDD	HDD Formatting (Printer Fonts)	CTL	[0 to 0 / 0 / 0/step]
5-832-006	HDD	HDD Formatting (User Info)	CTL	[0 to 0 / 0 / 0/step]
5-832-007	HDD	Mail RX Data	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-832-008	HDD	Mail TX Data	CTL	[0 to 0 / 0 / 0/step]
5-832-009	HDD	HDD Formatting (Data for a Design)	CTL	[0 to 0 / 0 / 0/step]
5-832-010	HDD	HDD Formatting (Log)	CTL	[0 to 0 / 0 / 0/step]
5-832-011	HDD	HDD Formatting (Ridoc I/F)	CTL	[0 to 0 / 0 / 0/step]
5-832-012	HDD	HDD Formatting (Thumbnail)	CTL	[0 to 0 / 0 / 0/step]
5-836-001	Capture Setting	Capture Function (0:Off 1:On)	CTL*	[0 to 1 / 0 / 1/step]
5-836-011	Capture Setting	Capture Setting: Copy	CTL*	[0 to 1 / 0 / 1/step]
5-836-012	Capture Setting	Capture Setting: Doc. Svr.	CTL*	[0 to 1 / 0 / 1/step]
5-836-013	Capture Setting	Capture Setting: Fax RX Printer	CTL*	[0 to 1 / 0 / 1/step]
5-836-014	Capture Setting	Capture Setting: Fax TX	CTL*	[0 to 1 / 0 / 1/step]
5-836-015	Capture Setting	Capture Setting: Printer	CTL*	[0 to 1 / 0 / 1/step]
5-836-016	Capture Setting	Capture Setting: Scanner	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-836-017	Capture Setting	Capture Setting: SDK	CTL*	[0 to 1 / 0 / 1/step]
5-836-061	Capture Setting	Captured File Resend (0:Off 1:On)	CTL*	[0 to 1 / 1 / 1/step]
5-836-071	Capture Setting	Reduction for Copy Color	CTL*	[0 to 3 / 2 / 1/step]
5-836-072	Capture Setting	Reduction for Copy B&W Text	CTL*	[0 to 6 / 0 / 1/step] 0: 1 1: 1/2 2: 1/3 3: 1/4 6: 2/3
5-836-073	Capture Setting	Reduction for Copy B&W Other	CTL*	[0 to 6 / 0 / 1/step] 0: 1 1: 1/2 2: 1/3 3: 1/4 6: 2/3
5-836-074	Capture Setting	Reduction for Printer Color	CTL*	[0 to 3 / 2 / 1/step]
5-836-075	Capture Setting	Reduction for Printer B&W	CTL*	[0 to 6 / 0 / 1/step] 0: 1 1: 1/2 2: 1/3 3: 1/4 6: 2/3
5-836-077	Capture Setting	Reduction for Printer Color 1200dpi	CTL*	[1 to 5 / 4 / 1/step] 1: 1/2 3: 1/4 4: 1/6 5: 1/8
5-	Capture Setting	Reduction for Printer B&W	CTL*	[1 to 5 / 1 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
836-078		1200dpi		1: 1/2 3: 1/4 4: 1/6 5: 1/8
5-836-081	Capture Setting	Format for Copy Color	CTL*	[0 to 0 / 0 / 1/step]
5-836-082	Capture Setting	Format for Copy B&W Text	CTL*	[0 to 3 / 1 / 1/step]
5-836-083	Capture Setting	Format for Copy B&W Other	CTL*	[0 to 3 / 1 / 1/step]
5-836-084	Capture Setting	Format for Printer Color	CTL*	[0 to 0 / 0 / 1/step]
5-836-085	Capture Setting	Format for Printer B&W	CTL*	[0 to 3 / 1 / 1/step]
5-836-091	Capture Setting	Default for JPEG	CTL*	[5 to 95 / 50 / 1/step]
5-836-101	Capture Setting	Primary srv IP address	CTL*	[0 to 0xffffffff / 0x00 / 0/step]
5-836-102	Capture Setting	Primary srv scheme	CTL*	[0 to 0 / 0 / 0/step]
5-836-103	Capture Setting	Primary srv port number	CTL*	[1 to 65535 / 80 / 1/step]
5-836-104	Capture Setting	Primary srv URL path	CTL*	[0 to 0 / 0 / 0/step]
5-836-	Capture Setting	Secondary srv IP address	CTL*	[0 to 0xffffffff / 0x00 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
111				
5-836-112	Capture Setting	Secondary srv scheme	CTL*	[0 to 0 / 0 / 0/step]
5-836-113	Capture Setting	Secondary srv port number	CTL*	[1 to 65535 / 80 / 1/step]
5-836-114	Capture Setting	Secondary srv URL path	CTL*	[0 to 0 / 0 / 0/step]
5-836-120	Capture Setting	Default Reso Rate Switch	CTL*	[0 to 1 / 0 / 1/step]
5-836-121	Capture Setting	Reso: Copy(Color)	CTL*	[0 to 255 / 2 / 1/step]
5-836-122	Capture Setting	Reso: Copy(Mono)	CTL*	[0 to 255 / 3 / 1/step]
5-836-123	Capture Setting	Reso: Print(Color)	CTL*	[0 to 255 / 2 / 1/step]
5-836-124	Capture Setting	Reso: Print(Mono)	CTL*	[0 to 255 / 3 / 1/step]
5-836-125	Capture Setting	Reso: Fax(Color)	CTL*	[0 to 255 / 4 / 1/step]
5-836-126	Capture Setting	Reso: Fax(Mono)	CTL*	[0 to 255 / 3 / 1/step]
5-836-127	Capture Setting	Reso: Scan(Color)	CTL*	[0 to 255 / 4 / 1/step]
5-	Capture Setting	Reso: Scan(Mono)	CTL*	[0 to 255 / 3 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
836-128				
5-836-129	Capture Setting	Reso: SDK(Color)	CTL*	[0 to 255 / 4 / 1/step]
5-836-130	Capture Setting	Reso: SDK(Mono)	CTL*	[0 to 255 / 3 / 1/step]
5-836-141	Capture Setting	All Addr Info Switch	CTL*	[0 to 1 / 1 / 1/step]
5-836-142	Capture Setting	Stand-by Doc Max Number	CTL*	[10 to 10000 / 2000 / 1/step]
5-836-143	Capture Setting	ClearLightPDF Switch	CTL*	[0 to 1 / 0 / 1/step]
5-840-006	IEEE 802.11	Channel MAX	CTL*	[1 to 14 / 14 / 1/step]
5-840-007	IEEE 802.11	Channel MIN	CTL*	[1 to 14 / 1 / 1/step]
5-840-011	IEEE 802.11	WEP Key Select	CTL*	[0x00 to 0x11 / 0x00 / 0/step]
5-840-045	IEEE 802.11	WPA Debug Lvl	CTL*	[1 to 3 / 3 / 1/step]
5-840-046	IEEE 802.11	11w	CTL*	[0 to 2 / 0 / 1/step]
5-840-047	IEEE 802.11	PSK Set Type	CTL*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-841-001	Supply Name Setting	Toner Name Setting: Black	CTL*	[0 to 0 / 0 / 0/step]
5-841-002	Supply Name Setting	Toner Name Setting: Cyan	CTL*	[0 to 0 / 0 / 0/step]
5-841-003	Supply Name Setting	Toner Name Setting: Yellow	CTL*	[0 to 0 / 0 / 0/step]
5-841-004	Supply Name Setting	Toner Name Setting: Magenta	CTL*	[0 to 0 / 0 / 0/step]
5-841-011	Supply Name Setting	StapleStd1	CTL*	[0 to 0 / 0 / 0/step]
5-842-001	GWWS Analysis	Setting 1	CTL*	[0x00 to 0xFF / 0 / 1/step]
5-842-002	GWWS Analysis	Setting 2	CTL*	[0x00 to 0xFF / 0 / 1/step]
5-844-001	USB	Transfer Rate	CTL*	[1 to 4 / 4 / 0/step] 1: Full Speed 4: Auto Change
5-844-002	USB	Vendor ID	CTL*	[0x0000 to 0xffff / 0x05ca / 0/step]
5-844-003	USB	Product ID	CTL*	[0x0000 to 0xffff / 0x0403 / 0/step]
5-844-004	USB	Device Release Number	CTL*	[0 to 9999 / 100 / 1/step]
5-844-005	USB	Fixed USB Port	CTL*	[0 to 2 / 0 / 1/step] 0: OFF 1: Level1

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
				2: Level2
5-844-006	USB	PnP Model Name	CTL*	[0 to 0 / 0 / 0/step]
5-844-007	USB	PnP Serial Number	CTL*	[0 to 0 / 0 / 0/step]
5-844-008	USB	Mac Supply Level	CTL*	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
5-844-009	USB	USB Toggle Clear Mode	CTL*	[0 to 1 / 0 / 1/step]
5-844-100	USB	Notify Unsupport	CTL*	[0 to 1 / 1 / 1/step]
5-845-001	Delivery Server Setting	FTP Port No.	CTL*	[1 to 65535 / 3670 / 1/step]
5-845-002	Delivery Server Setting	IP Address (Primary)	CTL*	[0 to 0xffffffff / 0x00 / /step]
5-845-006	Delivery Server Setting	Delivery Error Display Time	CTL*	[0 to 999 / 300 / 1sec/step]
5-845-008	Delivery Server Setting	IP Address (Secondary)	CTL*	[0 to 0xffffffff / 0x00 / /step]
5-845-009	Delivery Server Setting	Delivery Server Model	CTL*	[0 to 4 / 0 / 1/step]
5-845-010	Delivery Server Setting	Delivery Svr. Capability	CTL*	[0 to 255 / 0 / 1/step]
5-	Delivery Server Setting	Delivery Svr. Capability (Ext)	CTL*	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
845-011				
5-845-013	Delivery Server Setting	Server Scheme(Primary)	CTL*	[0 to 0 / 0 / 0/step]
5-845-014	Delivery Server Setting	Server Port Number(Primary)	CTL*	[1 to 65535 / 80 / 1/step]
5-845-015	Delivery Server Setting	Server URL Path(Primary)	CTL*	[0 to 0 / 0 / 0/step]
5-845-016	Delivery Server Setting	Server Scheme(Secondary)	CTL*	[0 to 0 / 0 / 0/step]
5-845-017	Delivery Server Setting	Server Port Number(Secondary)	CTL*	[1 to 65535 / 80 / 1/step]
5-845-018	Delivery Server Setting	Server URL Path(Secondary)	CTL*	[0 to 0 / 0 / 0/step]
5-845-022	Delivery Server Setting	Rapid Sending Control	CTL*	[0 to 1 / 1 / 1/step]
5-846-001	UCS Setting	Machine ID (for Delivery Server)	CTL*	[0 to 0 / 0 / 0/step]
5-846-002	UCS Setting	Machine ID Clear (for Delivery Server)	CTL*	[0 to 0 / 0 / 0/step]
5-846-003	UCS Setting	Maximum Entries	CTL*	[2000 to 20000 / 2000 / 1/step]
5-846-006	UCS Setting	Delivery Server Retry Timer	CTL*	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-846-007	UCS Setting	Delivery Server Retry Times	CTL*	[0 to 255 / 0 / 1/step]
5-846-008	UCS Setting	Delivery Server Maximum Entries	CTL*	[2000 to 20000 / 2000 / 1/step]
5-846-010	UCS Setting	LDAP Search Timeout	CTL*	[1 to 255 / 60 / 1/step]
5-846-020	UCS Setting	WSD Maximum Entries	CTL*	[50 to 250 / 250 / 1/step]
5-846-021	UCS Setting	Folder Auth Change	CTL*	[0 to 1 / 0 / 1/step] 0: Login User 1: Destination
5-846-040	UCS Setting	Addr Book Migration(USB->HDD)	CTL	[0 to 0 / 0 / 0/step]
5-846-041	UCS Setting	Fill Addr Acl Info	CTL	[0 to 0 / 0 / 0/step]
5-846-043	UCS Setting	Addr Book Media	CTL*	[0 to 30 / 0 / 1/step]
5-846-047	UCS Setting	Initialize Local Addr Book	CTL	[0 to 0 / 0 / 0/step]
5-846-048	UCS Setting	Initialize Delivery Addr Book	CTL	[0 to 0 / 0 / 0/step]
5-846-049	UCS Setting	Initialize LDAP Addr Book	CTL	[0 to 0 / 0 / 0/step]
5-846-050	UCS Setting	Initialize All Addr Book	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-846-051	UCS Setting	Backup All Addr Book	CTL	[0 to 0 / 0 / 0/step]
5-846-052	UCS Setting	Restore All Addr Book	CTL	[0 to 0 / 0 / 0/step]
5-846-053	UCS Setting	Clear Backup Info	CTL	[0 to 0 / 0 / 0/step]
5-846-060	UCS Setting	Search option	CTL*	[0x00 to 0xff / 0x0f / 1/step]
5-846-062	UCS Setting	Complexity option 1	CTL*	[0 to 32 / 0 / 1/step]
5-846-063	UCS Setting	Complexity option 2	CTL*	[0 to 32 / 0 / 1/step]
5-846-064	UCS Setting	Complexity option 3	CTL*	[0 to 32 / 0 / 1/step]
5-846-065	UCS Setting	Complexity option 4	CTL*	[0 to 32 / 0 / 1/step]
5-846-091	UCS Setting	FTP Auth Port Setting	CTL*	[0 to 65535 / 3671 / 1/step]
5-846-094	UCS Setting	Encryption Stat	CTL*	[0 to 255 / 0 / 0/step]
5-846-100	UCS Setting	Initialize Suprvisor	CTL	[0 to 0 / 0 / 0/step]
5-847-001	Rep Resolution Reduction	Rate for Copy Color	CTL*	[0 to 5 / 2 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-847-002	Rep Resolution Reduction	Rate for Copy B&W Text	CTL*	[0 to 6 / 0 / 1/step]
5-847-003	Rep Resolution Reduction	Rate for Copy B&W Other	CTL*	[0 to 6 / 0 / 1/step]
5-847-004	Rep Resolution Reduction	Rate for Printer Color	CTL*	[0 to 5 / 2 / 1/step]
5-847-005	Rep Resolution Reduction	Rate for Printer B&W	CTL*	[0 to 6 / 0 / 1/step]
5-847-006	Rep Resolution Reduction	Rate for Printer Color 1200dpi	CTL*	[0 to 5 / 4 / 1/step]
5-847-007	Rep Resolution Reduction	Rate for Printer B&W 1200dpi	CTL*	[0 to 6 / 1 / 1/step]
5-847-021	Rep Resolution Reduction	Network Quality Default for JPEG	CTL*	[5 to 95 / 50 / 1/step]
5-848-002	Web Service	Access Ctrl: Repository(onlyLower4bits)	CTL*	[0x00 to 0xFF / 0x02 / 0/step]
5-848-003	Web Service	Access Ctrl: Doc.Svr.Print (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0/step]
5-848-004	Web Service	Access Ctrl: udirectory (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0/step]
5-848-007	Web Service	Access Ctrl: Comm. Log Fax(Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0/step]
5-848-009	Web Service	Access Ctrl: Job Ctrl (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-848-011	Web Service	Access Ctrl: Devicemanagement(Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0/step]
5-848-021	Web Service	Access Ctrl: Delivery (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0/step]
5-848-022	Web Service	Access Ctrl: uadministration (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0/step]
5-848-024	Web Service	Access Ctrl: Log Service (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0/step]
5-848-025	Web Service	Access Ctrl: Rest WebService (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0/step]
5-848-045	Web Service	Reverse Proxy Server Setting(ESA Port)	CTL*	[0x00 to 0xFF / 0 / 1/step]
5-848-046	Web Service	8080/51443 Port Open Time	CTL*	[0 to 300 / 60 / 1/step]
5-848-099	Web Service	Repository: Download Image Setting	CTL*	[0x00 to 0xFF / 0x00 / 1/step]
5-848-100	Web Service	Repository: Download Image Max. Size	CTL*	[1 to 2048 / 2048 / 1/step]
5-848-150	Web Service	Log Operation Mode	CTL*	[0 to 9 / 0 / 1/step]
5-848-160	Log Robustness	Log Robustness Setting	CTL*	[0 to 9 / 0 / 1/step]
5-848-217	LogTrans	Setting: Timing	CTL*	[0 to 2 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-848-218	SysLogTrans	Setting: Timing	CTL	[0 to 1 / 0 / 1/step]
5-848-220	SysLogTrans	Primary srv port number	CTL	[1 to 65535 / 80 / 1/step]
5-848-221	SysLogTrans	Check Cert	CTL	[0 to 1 / 0 / 1/step]
5-849-001	Installation Date	Display	CTL*	[0 to 0 / 0 / 0/step]
5-849-002	Installation Date	Switch to Print	CTL*	[0 to 1 / 1 / 1/step] 0: OFF 1: ON
5-849-003	Installation Date	Total Counter	CTL*	[0 to 99999999 / 0 / 1/step]
5-850-003	Address Book Function	Replacement of Circuit Classifications	CTL	[0 to 0 / 0 / 0/step]
5-851-001	Bluetooth	Mode	CTL*	[0 to 1 / 0 / 1/step] 0: Public 1: Private
5-853-001	Stamp Data Download		CTL	[0 to 0 / 0 / 0/step]
5-856-002	Remote ROM Update	Local Port	CTL	[0 to 1 / 0 / 1/step]
5-858-001	Collect Machine Info	0:OFF 1:ON	CTL	[0 to 1 / 1 / 1/step]
5-858-002	Collect Machine Info	Save To (0:HDD 1:SD)	CTL	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-858-003	Collect Machine Info	Make Log Trace Dir	CTL	[0 to 1 / 0 / 0/step]
5-858-101	Collect Machine Info	Failure Occuring Date	CTL	[0 to 20371212 / 0 / 1/step]
5-858-102	Collect Machine Info	Tracing Days	CTL	[1 to 180 / 2 / 1day/step]
5-858-103	Collect Machine Info	Acquire Fax Address(0:OFF 1:ON)	CTL	[0 to 1 / 0 / 1/step]
5-858-111	Collect Machine Info	Acquire All Info & Logs	CTL	[0 to 1 / 0 / 0/step]
5-858-121	Collect Machine Info	Acquire Configuration Page	CTL	[0 to 1 / 0 / 0/step]
5-858-122	Collect Machine Info	Acquire Font Page	CTL	[0 to 1 / 0 / 0/step]
5-858-123	Collect Machine Info	Acquire Print Setting List	CTL	[0 to 1 / 0 / 0/step]
5-858-124	Collect Machine Info	Acquire Error Log	CTL	[0 to 1 / 0 / 0/step]
5-858-131	Collect Machine Info	Acquire Fax Info	CTL	[0 to 1 / 0 / 0/step]
5-858-141	Collect Machine Info	Acquire All Debug Logs	CTL	[0 to 1 / 0 / 0/step]
5-858-142	Collect Machine Info	Acquire Controller Debug Logs Only	CTL	[0 to 1 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-858-143	Collect Machine Info	Acquire Engine Debug Logs Only	CTL	[0 to 1 / 0 / 0/step]
5-858-144	Collect Machine Info	Acquire Opepanel Debug Logs Only	CTL	[0 to 1 / 0 / 0/step]
5-858-145	Collect Machine Info	Acquire FCU Debug Logs Only	CTL	[0 to 1 / 0 / 0/step]
5-858-146	Collect Machine Info	Acquire Only Network Packets	CTL	[0 to 1 / 0 / 0/step]
5-860-020	SMTP/POP3/IMAP4	Partial Mail Receive Timeout	CTL*	[1 to 168 / 72 / 1hour/step]
5-860-021	SMTP/POP3/IMAP4	MDN Response RFC2298 Compliance	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
5-860-022	SMTP/POP3/IMAP4	SMTP Auth. From Field Replacement	CTL*	[0 to 1 / 0 / 1/step] 0: No 1: Yes
5-860-025	SMTP/POP3/IMAP4	SMTP Auth. Direct Setting	CTL*	[0 to 0xff / 0x0 / 1/step]
5-860-026	SMTP/POP3/IMAP4	S/MIME:MIME Header Setting	CTL*	[0 to 2 / 0 / 1/step]
5-860-028	SMTP/POP3/IMAP4	S/MIME: Authentication Check	CTL*	[0 to 1 / 0 / 1/step]
5-860-029	SMTP/POP3/IMAP4	SMTP Server 3G Line IP Address	CTL*	[0 to 0xffffffff / 0x00 / /step]
5-861-201	Account Setting	Send Domain1	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-861-202	Account Setting	Send Domain2	CTL*	[0 to 0 / 0 / 0/step]
5-861-203	Account Setting	Send Domain3	CTL*	[0 to 0 / 0 / 0/step]
5-866-001	E-Mail Report	Report Validity	CTL*	[0 to 1 / 0 / 1/step]
5-866-005	E-Mail Report	Add Date Field	CTL*	[0 to 1 / 0 / 1/step]
5-866-109	E-Mail Report	CounterE-Mail:3G Line Validity	CTL*	[0 to 1 / 0 / 1/step]
5-866-110	E-Mail Report	CounterE-Mail:Validity	CTL*	[0 to 1 / 0 / 1/step]
5-866-111	E-Mail Report	CounterE-Mail:Destination Registration	CTL*	[0 to 0 / 0 / 0/step]
5-866-112	E-Mail Report	CounterE-Mail:Send Test	CTL*	[0 to 0 / 0 / 0/step]
5-866-113	E-Mail Report	CounterE-Mail:Next Send Date	CTL*	[0 to 0 / 0 / 0/step]
5-866-114	E-Mail Report	CounterE-Mail:Send Date Setting	CTL*	[0 to 31 / 0 / 1/step]
5-866-115	E-Mail Report	CounterE-Mail:Send Time Setting	CTL*	[0 to 2359 / 0 / 1/step]
5-866-121	E-Mail Report	CounterE-Mail:Destination1	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-866-122	E-Mail Report	CounterE-Mail:Destination2	CTL*	[0 to 0 / 0 / 0/step]
5-866-123	E-Mail Report	CounterE-Mail:Destination3	CTL*	[0 to 0 / 0 / 0/step]
5-870-001	Common KeyInfo Writing	Writing	CTL	[0 to 1 / 0 / 1/step]
5-870-003	Common KeyInfo Writing	Initialize	CTL	[0 to 1 / 0 / 1/step]
5-870-004	Common Key Info Writing	Writing: 2048bit	CTL	[0 to 1 / 0 / 1/step]
5-873-001	SDCardAppliMove	MoveExec	CTL	[0 to 0 / 0 / 1/step]
5-873-002	SDCardAppliMove	UndoExec	CTL	[0 to 0 / 0 / 1/step]
5-875-001	SC Auto Reboot	Reboot Setting	CTL*	[0 to 1 / 0 / 1/step]
5-875-002	SC Auto Reboot	Reboot Type	CTL*	[0 to 1 / 0 / 1/step]
5-878-001	Option Setup	Data Overwrite Security	CTL	[0 to 0 / 0 / 0/step]
5-878-004	Option Setup	OCR Dictionary	CTL	[0 to 0 / 0 / 0/step]
5-881-001	Fixed Phrase Block Erasing		CTL	[0 to 0 / 0 / 0/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-885-020	Set WIM Function	DocSvr Acc Ctrl	CTL	[0x00 to 0xFF / 0x00 / 0/step]
5-885-050	Set WIM Function	DocSvr Format	CTL	[0 to 2 / 0 / 1/step]
5-885-051	Set WIM Function	DocSvr Trans	CTL*	[5 to 20 / 10 / 1/step]
5-885-100	Set WIM Function	Set Signature	CTL*	[0 to 2 / 0 / 1/step]
5-885-101	Set WIM Function	Set Encrypsion	CTL*	[0 to 1 / 0 / 1/step]
5-885-200	Set WIM Function	Detect Mem Leak	CTL*	[0x00 to 0xFF / 0x00 / 0/step]
5-885-205	Set WIM Function	MonitorDisable	CTL*	[0 to 1 / 0 / 1/step]
5-886-100	Farm Update Setting	Skip Version Check	CTL	[0 to 1 / 0 / 1/step]
5-886-101	Farm Update Setting	Skip LR Check	CTL	[0 to 1 / 0 / 1/step]
5-886-111	Farm Update Setting	Auto Update Setting	CTL*	[0 to 1 / 0 / 1/step]
5-886-112	Farm Update Setting	Auto Update Prohibit Term Setting	CTL*	[0 to 1 / 1 / 1/step]
5-886-113	Farm Update Setting	Auto Update Prohibit Start hour	CTL*	[0 to 23 / 9 / 1hour/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-886-114	Farm Update Setting	Auto Update Prohibit End hour	CTL*	[0 to 23 / 17 / 1hour/step]
5-886-115	Farm Update Setting	SFU Auto Download Setting	CTL*	[0 to 1 / 0 / 1/step]
5-886-116	Farm Update Setting	Auto Update Next Date	CTL*	[0 to 0 / 0 / 0/step]
5-886-117	Farm Update Setting	Auto Update Retry Interval Hour	CTL*	[1 to 24 / 1 / 1hour/step]
5-886-120	Farm Update Setting	Auto Update Prohibit Day of Week Setting	CTL*	[0 to 255 / 0 / 1/step]
5-886-201	Farm Update Setting	Restore Date	CTL*	[0 to 0 / 0 / 0/step]
5-886-202	Farm Update Setting	Save Old Version List	CTL	[0 to 0 / 0 / 0/step]
5-887-001	SD GetCounter		CTL	[0 to 0 / 0 / 0/step]
5-888-001	Personal Information Protect		CTL*	[0 to 1 / 0 / 1/step]
5-893-001	SDK Application Counter	SDK-1	CTL	[0 to 0 / 0 / 0/step]
5-893-002	SDK Application Counter	SDK-2	CTL	[0 to 0 / 0 / 0/step]
5-893-003	SDK Application Counter	SDK-3	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-893-004	SDK Application Counter	SDK-4	CTL	[0 to 0 / 0 / 0/step]
5-893-005	SDK Application Counter	SDK-5	CTL	[0 to 0 / 0 / 0/step]
5-893-006	SDK Application Counter	SDK-6	CTL	[0 to 0 / 0 / 0/step]
5-893-007	SDK Application Counter	SDK-7	CTL	[0 to 0 / 0 / 0/step]
5-893-008	SDK Application Counter	SDK-8	CTL	[0 to 0 / 0 / 0/step]
5-893-009	SDK Application Counter	SDK-9	CTL	[0 to 0 / 0 / 0/step]
5-893-010	SDK Application Counter	SDK-10	CTL	[0 to 0 / 0 / 0/step]
5-893-011	SDK Application Counter	SDK-11	CTL	[0 to 0 / 0 / 0/step]
5-893-012	SDK Application Counter	SDK-12	CTL	[0 to 0 / 0 / 0/step]
5-894-001	External Counter Option Set	Counter Mode Switch Setting	ENG*	[0 to 2 / 0 / 1/step]
5-895-001	Application invalidation	Printer	CTL	[0 to 1 / 0 / 0/step]
5-895-002	Application invalidation	Scanner	CTL	[0 to 1 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-900-001	Engine Log Upload	Pattern	ENG*	[0 to 4 / 0 / 1/step]
5-900-002	Engine Log Upload	Trigger	ENG*	[0 to 3 / 0 / 1/step]
5-900-003	Engine Log Upload	Execute	ENG	[0 to 1 / 0 / 1/step]
5-907-001	Plug & Play Maker/Model Name		CTL*	[0 to 255 / 0 / 1/step]
5-913-002	Switchover Permission Time	Print Application Timer	CTL*	[0 to 30 / 3 / 1/step]
5-967-001	Copy Server : Set Function	(0:ON 1:OFF)	CTL*	[0 to 1 / 0 / 1/step]
5-973-101	User Stamp Registration	Frame deletion setting	CTL*	[0 to 3 / 0 / 1/step]
5-985-001	Device Setting	On Board NIC	CTL	[0 to 2 / 0 / 1/step]
5-985-002	Device Setting	On Board USB	CTL	[0 to 1 / 0 / 1/step]
5-987-001	Mech. Counter Protection	0:OFF / 1:ON	ENG*	[0 to 1 / 0 / 1/step]
5-990-001	SP Print Mode	All (Data List)	CTL	[0 to 255 / 0 / 0/step]
5-990-002	SP Print Mode	SP (Mode Data List)	CTL	[0 to 255 / 0 / 0/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-990-003	SP Print Mode	User Program	CTL	[0 to 255 / 0 / 0/step]
5-990-004	SP Print Mode	Logging Data	CTL	[0 to 255 / 0 / 0/step]
5-990-005	SP Print Mode	Diagnostic Report	CTL	[0 to 255 / 0 / 0/step]
5-990-006	SP Print Mode	Non-Default	CTL	[0 to 255 / 0 / 0/step]
5-990-007	SP Print Mode	NIB Summary	CTL	[0 to 0 / 0 / 0/step]
5-990-008	SP Print Mode	Capture Log	CTL	[0 to 255 / 0 / 1/step]
5-990-021	SMC Print	Copier User Program	CTL	[0 to 0 / 0 / 0/step]
5-990-022	SP Print Mode	Scanner SP	CTL	[0 to 255 / 0 / 0/step]
5-990-023	SP Print Mode	Scanner User Program	CTL	[0 to 255 / 0 / 0/step]
5-990-024	SP Print Mode	SDK/J Summary	CTL	[0 to 0 / 0 / 0/step]
5-990-025	SP Print Mode	SDK/J Application Info	CTL	[0 to 0 / 0 / 0/step]
5-990-026	SP Print Mode	Printer SP	CTL	[0 to 255 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-990-027	SP Print Mode	SmartOperationPanel SP	CTL	[0 to 255 / 0 / 0/step]
5-990-028	SP Print Mode	SmartOperationPanel UP	CTL	[0 to 255 / 0 / 0/step]
5-992-001	SP Text Mode	All (Data List)	CTL	[0 to 255 / 0 / 0/step]
5-992-002	SP Text Mode	SP (Mode Data List)	CTL	[0 to 255 / 0 / 0/step]
5-992-003	SP Text Mode	User Program	CTL	[0 to 255 / 0 / 0/step]
5-992-004	SP Text Mode	Logging Data	CTL	[0 to 255 / 0 / 0/step]
5-992-005	SP Text Mode	Diagnostic Report	CTL	[0 to 255 / 0 / 0/step]
5-992-006	SP Text Mode	Non-Default	CTL	[0 to 255 / 0 / 0/step]
5-992-007	SP Text Mode	NIB Summary	CTL	[0 to 0 / 0 / 0/step]
5-992-008	SP Text Mode	Capture Log	CTL	[0 to 255 / 0 / 1/step]
5-992-021	SP Text Mode	Copier User Program	CTL	[0 to 0 / 0 / 0/step]
5-992-022	SP Text Mode	Scanner SP	CTL	[0 to 255 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-992-023	SP Text Mode	Scanner User Program	CTL	[0 to 255 / 0 / 0/step]
5-992-024	SP Text Mode	SDK/J Summary	CTL	[0 to 0 / 0 / 0/step]
5-992-025	SP Text Mode	SDK/J Application Info	CTL	[0 to 0 / 0 / 0/step]
5-992-026	SP Text Mode	Printer SP	CTL	[0 to 255 / 0 / 0/step]
5-992-027	SP Text Mode	SmartOperationPanel SP	CTL	[0 to 255 / 0 / 0/step]
5-992-028	SP Text Mode	SmartOperationPanel UP	CTL	[0 to 255 / 0 / 0/step]
5-993-001	SP Text Mode(Privacy)	All (Data List)	CTL	[0 to 255 / 0 / 0/step]
5-993-002	SP Text Mode(Privacy)	SP (Mode Data List)	CTL	[0 to 255 / 0 / 0/step]
5-993-003	SP Text Mode(Privacy)	User Program	CTL	[0 to 255 / 0 / 0/step]
5-993-004	SP Text Mode(Privacy)	Logging Data	CTL	[0 to 255 / 0 / 0/step]
5-993-005	SP Text Mode(Privacy)	Diagnostic Report	CTL	[0 to 255 / 0 / 0/step]
5-993-006	SP Text Mode(Privacy)	Non-Default	CTL	[0 to 255 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-993-007	SP Text Mode(Privacy)	NIB Summary	CTL	[0 to 0 / 0 / 0/step]
5-993-008	SP Text Mode(Privacy)	Capture Log	CTL	[0 to 255 / 0 / 1/step]
5-993-021	SP Text Mode(Privacy)	Copier User Program	CTL	[0 to 0 / 0 / 0/step]
5-993-022	SP Text Mode(Privacy)	Scanner SP	CTL	[0 to 255 / 0 / 0/step]
5-993-023	SP Text Mode(Privacy)	Scanner User Program	CTL	[0 to 255 / 0 / 0/step]
5-993-024	SP Text Mode(Privacy)	SDK/J Summary	CTL	[0 to 0 / 0 / 0/step]
5-993-025	SP Text Mode(Privacy)	SDK/J Application Info	CTL	[0 to 0 / 0 / 0/step]
5-993-026	SP Text Mode(Privacy)	Printer SP	CTL	[0 to 255 / 0 / 0/step]
5-993-027	SP Text Mode(Privacy)	SmartOperationPanel SP	CTL	[0 to 255 / 0 / 0/step]
5-993-028	SP Text Mode(Privacy)	SmartOperationPanel UP	CTL	[0 to 255 / 0 / 0/step]
5-998-001	Fusing Precedence Warm Up	On/Off	ENG*	[0 to 1 / 1 / 1/step] 0: OFF 1: ON

SP6-XXX (Peripherals)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
6-006-001	ADF Adjustment	Side-to-Side Regist:Face	ENG*	[-3.0 to 3.0 / 0.0 / 0.1mm/step]
6-006-002	ADF Adjustment	Side-to-Side Regist (1-Pass):Back	ENG*	[-2.0 to 2.0 / 0.0 / 0.1mm/step]
6-006-003	ADF Adjustment	L-Edge Regist (ARDF):Face	ENG*	[-5.0 to 5.0 / 0.0 / 0.1mm/step]
6-006-004	ADF Adjustment	L-Edge Regist (ARDF):Back	ENG*	[-5.0 to 5.0 / 0.0 / 0.1mm/step]
6-006-005	ADF Adjustment	Side-to-Side Regist (ARDF):Back	ENG*	[-3.0 to 3.0 / 0.0 / 0.1mm/step]
6-006-007	ADF Adjustment	T-Edge Erase (ARDF)	ENG*	[-5.0 to 5.0 / -1.6 / 0.1mm/step]
6-006-010	ADF Adjustment	L-Edge Regist (1-Pass):Face	ENG*	[-5.0 to 5.0 / 0.0 / 0.1mm/step]
6-006-011	ADF Adjustment	L-Edge Regist (1-Pass):Back	ENG*	[-5.0 to 5.0 / 0.0 / 0.1mm/step]
6-006-014	ADF Adjustment	T-Edge Erase Width (1-Pass):Face	ENG*	[-5.0 to 5.0 / -1.6 / 0.1mm/step]
6-006-015	ADF Adjustment	T-Edge Erase Width (1-Pass):Back	ENG*	[-5.0 to 5.0 / -1.6 / 0.1mm/step]
6-007-009	ADF INPUT Check	Original Detection Sensor	ENG	[0 to 1 / 0 / 1STEP/step]
6-007-013	ADF INPUT Check	Registration Sensor	ENG	[0 to 1 / 0 / 1STEP/step]
6-007-015	ADF INPUT Check	Feed Cover Sensor	ENG	[0 to 1 / 0 / 1STEP/step]
6-008-003	ADF OUTPUT Check	Transport Motor:Forword	ENG	[0 to 1 / 0 / 1STEP/step]
6-008-004	ADF OUTPUT Check	Transport Motor:Reverse	ENG	[0 to 1 / 0 / 1STEP/step]
6-008-009	ADF OUTPUT Check	ADF:Feed Solenoid	ENG	[0 to 1 / 0 / 1STEP/step]
6-008-011	ADF OUTPUT Check	ADF:Revers Solenoid	ENG	[0 to 1 / 0 / 1STEP/step]
6-009-	ADF Free Run	Simplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				
6-009-002	ADF Free Run	Duplex Mode	ENG	[0 to 1 / 0 / 1STEP/step]
6-011-009	1-Pass ADF INPUT Check	Original Detection	ENG	[0 to 1 / 0 / 1STEP/step]
6-011-010	1-Pass ADF INPUT Check	DF Feed Sensor	ENG	[0 to 1 / 0 / 1STEP/step]
6-011-013	1-Pass ADF INPUT Check	Registration Sensor	ENG	[0 to 1 / 0 / 1STEP/step]
6-011-015	1-Pass ADF INPUT Check	Feed Cover Sensor	ENG	[0 to 1 / 0 / 1STEP/step]
6-011-024	1-Pass ADF INPUT Check	Page Keeper Sensor	ENG	[0 to 1 / 0 / 1/step]
6-012-003	1-Pass ADF OUTPUT Check	Motor Forward	ENG	[0 to 1 / 0 / 1STEP/step]
6-012-004	1-Pass ADF OUTPUT Check	Motor Reverse	ENG	[0 to 1 / 0 / 1STEP/step]
6-012-014	1-Pass ADF OUTPUT Check	Feed Clutch	ENG	[0 to 1 / 0 / 1STEP/step]
6-017-001	ADF Adjustment L-Edge Mag		ENG*	[-5.0 to 5.0 / 0.0 / 0.1%/step]
6-018-001	1-Pass ADF OUTPUT Check	Back shading	ENG	[0 to 1 / 0 / 1STEP/step]
6-021-001	ARDF Motor	Gain Selection	ENG*	[0 to 2 / 0 / 1/step]
6-030-001	DF Hinge	Hinge Open Counter	ENG*	[0 to 999999 / 0 / 1/step]
6-030-002	DF Hinge	Hinge Open State	ENG*	[0 to 1 / 0 / 1/step]
6-030-003	DF Hinge	Hinge Open Counter Clear	ENG	[0 to 0 / 0 / 0/step]
6-040-001	Page Keeper	Mount Select	ENG*	[0 to 1 / 0 / 1/step]
6-040-005	Page Keeper	Clear Select	ENG*	[0 to 1 / 1 / 1/step]
6-132-	Jogger Fence Fine	A4 SEF	ENG*	[-1.0 to 1.0 / 0.0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003	Adj.			0.1mm/step]
6-132-005	Jogger Fence Fine Adj.	B5 SEF	ENG*	[-1.0 to 1.0 / 0.0 / 0.1mm/step]
6-132-008	Jogger Fence Fine Adj.	LG SEF	ENG*	[-1.0 to 1.0 / 0.0 / 0.1mm/step]
6-132-009	Jogger Fence Fine Adj.	LT SEF	ENG*	[-1.0 to 1.0 / 0.0 / 0.1mm/step]
6-132-012	Jogger Fence Fine Adj.	Other	ENG*	[-1.0 to 1.0 / 0.0 / 0.1mm/step]
6-137-001	Finisher Free Run	Free Run1	ENG	[0 to 1 / 0 / 1/step]
6-137-002	Finisher Free Run	Free Run2	ENG	[0 to 1 / 0 / 1/step]
6-137-003	Finisher Free Run	Free Run3	ENG	[0 to 1 / 0 / 1/step]
6-137-004	Finisher Free Run	Free Run4	ENG	[0 to 1 / 0 / 1/step]
6-145-001	FIN Input Check	Entrance Sensor	ENG	[0 to 1 / 0 / 1/step]
6-145-002	FIN Input Check	Paper Exit Sensor	ENG	[0 to 1 / 0 / 1/step]
6-145-003	FIN Input Check	Jogger HP Sensor	ENG	[0 to 1 / 0 / 1/step]
6-145-004	FIN Input Check	Shift Roller HP SN	ENG	[0 to 1 / 0 / 1/step]
6-145-005	FIN Input Check	Positioning Roller HP SN	ENG	[0 to 1 / 0 / 1/step]
6-145-006	FIN Input Check	Ext Guide Plate HP SN	ENG	[0 to 1 / 0 / 1/step]
6-145-007	FIN Input Check	Staple Tray Paper SN	ENG	[0 to 1 / 0 / 1/step]
6-145-008	FIN Input Check	Tray Paper Height SN	ENG	[0 to 1 / 0 / 1/step]
6-145-009	FIN Input Check	Tray Overflow SN	ENG	[0 to 1 / 0 / 1/step]
6-145-	FIN Input Check	Staple HP Sensor	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
010				
6-145-011	FIN Input Check	Staple Near End SN	ENG	[0 to 1 / 0 / 1/step]
6-145-012	FIN Input Check	Self Priming Sensor	ENG	[0 to 1 / 0 / 1/step]
6-145-013	FIN Input Check	Front Door SW	ENG	[0 to 1 / 0 / 1/step]
6-146-001	FIN Output Check	Transport Motor	ENG	[0 to 1 / 0 / 1/step]
6-146-002	FIN Output Check	Paper Ext Motor	ENG	[0 to 1 / 0 / 1/step]
6-146-003	FIN Output Check	Jogger Motor	ENG	[0 to 1 / 0 / 1/step]
6-146-004	FIN Output Check	Shift Roller Motor	ENG	[0 to 1 / 0 / 1/step]
6-146-005	FIN Output Check	Positioning Motor	ENG	[0 to 1 / 0 / 1/step]
6-146-006	FIN Output Check	Ext Guide Plate Motor	ENG	[0 to 1 / 0 / 1/step]
6-146-007	FIN Output Check	Tray Lift Motor	ENG	[0 to 1 / 0 / 1/step]
6-146-008	FIN Output Check	Stapler Motor	ENG	[0 to 1 / 0 / 1/step]
6-146-009	FIN Output Check	Paper Height SOL	ENG	[0 to 1 / 0 / 1/step]
6-830-001	Extra	Staples 0 to 50 (Initial:0)	CTL*	[0 to 50 / 0 / 1/step]

SP7-XXX (Data Log)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-334-001	Function Use Count	Original Orientation	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-002	Function Use Count	Reverse Orientation	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-003	Function Use Count	All Job Stop	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-004	Function Use Count	Copy Quality	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-005	Function Use Count	Mag. FixRatio	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-006	Function Use Count	Mag. Ratio	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-007	Function Use Count	Size Mag.	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-008	Function Use Count	Direct. Mag.	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-009	Function Use Count	Dir. Size Mag.	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-010	Function Use Count	Auto Reduce/Enlarge	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-011	Function Use Count	Create Margin	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-	Function Use Count	OneSideDpx	CTL*	[0 to 0xffffffff / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
334-012				0/step]
7-334-013	Function Use Count	Cover	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-014	Function Use Count	Chapter	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-015	Function Use Count	SlipSheet	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-016	Function Use Count	EraseCenter	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-017	Function Use Count	EraseFrame	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-018	Function Use Count	MarginAdj	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-019	Function Use Count	Centering	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-021	Function Use Count	Repeat	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-024	Function Use Count	NumBeringStmp	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-025	Function Use Count	Stmp	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-026	Function Use Count	UserStmp	CTL*	[0 to 0xffffffff / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-334-027	Function Use Count	DateStmp	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-028	Function Use Count	PageStmp	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-029	Function Use Count	CharStmp	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-030	Function Use Count	CharNumStmp	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-031	Function Use Count	JimonStmp	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-032	Function Use Count	ReserveCopy	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-033	Function Use Count	IntCopy	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-034	Function Use Count	ProgrameCopy	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-035	Function Use Count	CheckCopy	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-036	Function Use Count	BackNum	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-037	Function Use Count	FullColor	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-038	Function Use Count	TwoColor	CTL*	[0 to 0xffffffff / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-334-039	Function Use Count	SingleColor	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-040	Function Use Count	MonoColor	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-041	Function Use Count	Acs	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-042	Function Use Count	Accessibility	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-334-044	Function Use Count	Jewelry	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-335-001	Total Job Count	LegacyCopy	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-335-002	Total Job Count	SmartCopy	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-335-003	Total Job Count	SmartCopy FullHouse	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-335-004	Total Job Count	SimpleCopy	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-335-005	Total Job Count	OtherCopy	CTL*	[0 to 0xffffffff / 0 / 0/step]
7-401-001	Total SC	SC Counter	CTL*	[0 to 65535 / 0 / 0/step]
7-401-002	Total SC	Total SC Counter	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-403-001	SC History	Latest	CTL*	[0 to 0 / 0 / 0/step]
7-403-002	SC History	Latest 1	CTL*	[0 to 0 / 0 / 0/step]
7-403-003	SC History	Latest 2	CTL*	[0 to 0 / 0 / 0/step]
7-403-004	SC History	Latest 3	CTL*	[0 to 0 / 0 / 0/step]
7-403-005	SC History	Latest 4	CTL*	[0 to 0 / 0 / 0/step]
7-403-006	SC History	Latest 5	CTL*	[0 to 0 / 0 / 0/step]
7-403-007	SC History	Latest 6	CTL*	[0 to 0 / 0 / 0/step]
7-403-008	SC History	Latest 7	CTL*	[0 to 0 / 0 / 0/step]
7-403-009	SC History	Latest 8	CTL*	[0 to 0 / 0 / 0/step]
7-403-010	SC History	Latest 9	CTL*	[0 to 0 / 0 / 0/step]
7-404-001	Software Error History	Latest	CTL*	[0 to 0 / 0 / 0/step]
7-404-002	Software Error History	Latest 1	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-404-003	Software Error History	Latest 2	CTL*	[0 to 0 / 0 / 0/step]
7-404-004	Software Error History	Latest 3	CTL*	[0 to 0 / 0 / 0/step]
7-404-005	Software Error History	Latest 4	CTL*	[0 to 0 / 0 / 0/step]
7-404-006	Software Error History	Latest 5	CTL*	[0 to 0 / 0 / 0/step]
7-404-007	Software Error History	Latest 6	CTL*	[0 to 0 / 0 / 0/step]
7-404-008	Software Error History	Latest 7	CTL*	[0 to 0 / 0 / 0/step]
7-404-009	Software Error History	Latest 8	CTL*	[0 to 0 / 0 / 0/step]
7-404-010	Software Error History	Latest 9	CTL*	[0 to 0 / 0 / 0/step]
7-502-001	Total Paper Jam	Jam Counter	CTL*	[0 to 65535 / 0 / 0/step]
7-502-002	Total Paper Jam	Total Jam Counter	CTL*	[0 to 65535 / 0 / 0/step]
7-503-001	Total Original Jam	Original Jam Counter	CTL*	[0 to 65535 / 0 / 0/step]
7-503-002	Total Original Jam	Total Original Jam Counter	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-504-001	Paper Jam Location	At Power On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-003	Paper Jam Location	Tray1: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-004	Paper Jam Location	Tray2: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-005	Paper Jam Location	Tray3: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-006	Paper Jam Location	Tray4: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-008	Paper Jam Location	Regist Sn: On(Bypass)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-009	Paper Jam Location	Regist Sn: On(Dup)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-010	Paper Jam Location	Regist:NoPaperBuckle(Dup)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-011	Paper Jam Location	Regist Sn: On (Tray)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-012	Paper Jam Location	Bank Transport Sn 1: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-013	Paper Jam Location	Bank Transport Sn 2: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-014	Paper Jam Location	Regist Sn: On(Bank)	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-504-015	Paper Jam Location	Regist:NoPaperBuckle(Bypass)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-016	Paper Jam Location	Regist:NoPaperBuckle(Bank)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-017	Paper Jam Location	Regist:NoPaperBuckle(Tray)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-018	Paper Jam Location	Fusing Entrance: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-019	Paper Jam Location	Fusing Exit: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-020	Paper Jam Location	Paper Exit: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-021	Paper Jam Location	1bin: Exit Sensor: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-025	Paper Jam Location	Duplex Exit : On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-026	Paper Jam Location	Duplex Entrance: On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-050	Paper Jam Location	Regist Sn: Off(Dup)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-052	Paper Jam Location	Bank Transport Sn 1: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-504-053	Paper Jam Location	Bank Transport Sn 2: Off	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-504-054	Paper Jam Location	Bank Transport Sn 3: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-504-055	Paper Jam Location	Regist Sn: Off(Bypass)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-056	Paper Jam Location	Regist Sn: Off(Bank)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-057	Paper Jam Location	Regist Sn: Off(Tray)	CTL*	[0 to 65535 / 0 / 0/step]
7-504-060	Paper Jam Location	Paper Exit: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-504-061	Paper Jam Location	1bin: Exit Sensor: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-504-065	Paper Jam Location	Duplex Exit : Off	CTL*	[0 to 65535 / 0 / 0/step]
7-504-066	Paper Jam Location	Duplex Entrance: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-504-230	Paper Jam Location	NoFinsherResp	CTL*	[0 to 65535 / 0 / 0/step]
7-504-240	Paper Jam Location	EntSns:On	CTL*	[0 to 65535 / 0 / 0/step]
7-504-241	Paper Jam Location	EntSns:Off	CTL*	[0 to 65535 / 0 / 0/step]
7-504-242	Paper Jam Location	Paper Exit	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-504-243	Paper Jam Location	Jogger Mtr	CTL*	[0 to 65535 / 0 / 0/step]
7-504-244	Paper Jam Location	ShiftRollerMtr	CTL*	[0 to 65535 / 0 / 0/step]
7-504-245	Paper Jam Location	PosRollerMtr	CTL*	[0 to 65535 / 0 / 0/step]
7-504-246	Paper Jam Location	ExGuidePlateMtr	CTL*	[0 to 65535 / 0 / 0/step]
7-504-247	Paper Jam Location	Tray Lift Mtr	CTL*	[0 to 65535 / 0 / 0/step]
7-504-248	Paper Jam Location	Stapler Mtr	CTL*	[0 to 65535 / 0 / 0/step]
7-504-249	Paper Jam Location	PaperStopperMtr	CTL*	[0 to 65535 / 0 / 0/step]
7-504-250	Paper Jam Location	Invalid Data	CTL*	[0 to 65535 / 0 / 0/step]
7-505-001	Original Jam Detection	At Power On	CTL*	[0 to 65535 / 0 / 0/step]
7-505-004	Original Jam Detection	Regist Sn: On	CTL*	[0 to 65535 / 0 / 0/step]
7-505-013	Original Jam Detection	DF Feed Sn:On	CTL*	[0 to 65535 / 0 / 0/step]
7-505-054	Original Jam Detection	Regist Sn: Off	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-505-063	Original Jam Detection	DF Feed Sn:Off	CTL*	[0 to 65535 / 0 / 0/step]
7-505-097	Original Jam Detection	Timing Error	CTL*	[0 to 65535 / 0 / 0/step]
7-505-098	Original Jam Detection	Narrow Interval	CTL*	[0 to 65535 / 0 / 0/step]
7-505-099	Original Jam Detection	Double Feed	CTL*	[0 to 65535 / 0 / 0/step]
7-505-100	Original Jam Detection	Motor Error	CTL*	[0 to 65535 / 0 / 0/step]
7-506-006	Jam Count by Paper Size	A5 LEF	CTL*	[0 to 65535 / 0 / 0/step]
7-506-044	Jam Count by Paper Size	HLT LEF	CTL*	[0 to 65535 / 0 / 0/step]
7-506-133	Jam Count by Paper Size	A4 SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-506-134	Jam Count by Paper Size	A5 SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-506-142	Jam Count by Paper Size	B5 SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-506-164	Jam Count by Paper Size	LG SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-506-166	Jam Count by Paper Size	LT SEF	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-506-172	Jam Count by Paper Size	HLT SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-506-255	Jam Count by Paper Size	Others	CTL*	[0 to 65535 / 0 / 0/step]
7-507-001	Plotter Jam History	Latest	CTL*	[0 to 0 / 0 / 0/step]
7-507-002	Plotter Jam History	Latest 1	CTL*	[0 to 0 / 0 / 0/step]
7-507-003	Plotter Jam History	Latest 2	CTL*	[0 to 0 / 0 / 0/step]
7-507-004	Plotter Jam History	Latest 3	CTL*	[0 to 0 / 0 / 0/step]
7-507-005	Plotter Jam History	Latest 4	CTL*	[0 to 0 / 0 / 0/step]
7-507-006	Plotter Jam History	Latest 5	CTL*	[0 to 0 / 0 / 0/step]
7-507-007	Plotter Jam History	Latest 6	CTL*	[0 to 0 / 0 / 0/step]
7-507-008	Plotter Jam History	Latest 7	CTL*	[0 to 0 / 0 / 0/step]
7-507-009	Plotter Jam History	Latest 8	CTL*	[0 to 0 / 0 / 0/step]
7-507-010	Plotter Jam History	Latest 9	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-508-001	Original Jam History	Latest	CTL*	[0 to 0 / 0 / 0/step]
7-508-002	Original Jam History	Latest 1	CTL*	[0 to 0 / 0 / 0/step]
7-508-003	Original Jam History	Latest 2	CTL*	[0 to 0 / 0 / 0/step]
7-508-004	Original Jam History	Latest 3	CTL*	[0 to 0 / 0 / 0/step]
7-508-005	Original Jam History	Latest 4	CTL*	[0 to 0 / 0 / 0/step]
7-508-006	Original Jam History	Latest 5	CTL*	[0 to 0 / 0 / 0/step]
7-508-007	Original Jam History	Latest 6	CTL*	[0 to 0 / 0 / 0/step]
7-508-008	Original Jam History	Latest 7	CTL*	[0 to 0 / 0 / 0/step]
7-508-009	Original Jam History	Latest 8	CTL*	[0 to 0 / 0 / 0/step]
7-508-010	Original Jam History	Latest 9	CTL*	[0 to 0 / 0 / 0/step]
7-514-001	Paper Jam Count by Location	At Power On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-003	Paper Jam Count by Location	Tray1: On	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-514-004	Paper Jam Count by Location	Tray2: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-005	Paper Jam Count by Location	Tray3: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-006	Paper Jam Count by Location	Tray4: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-008	Paper Jam Count by Location	Regist Sn: On(Bypass)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-009	Paper Jam Count by Location	Regist Sn: On(Dup)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-010	Paper Jam Count by Location	Regist:NoPaperBuckle(Dup)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-011	Paper Jam Count by Location	Regist Sn: On (Tray)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-012	Paper Jam Count by Location	Bank Transport Sn 1: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-013	Paper Jam Count by Location	Bank Transport Sn 2: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-014	Paper Jam Count by Location	Regist Sn: On(Bank)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-015	Paper Jam Count by Location	Regist:NoPaperBuckle(Bypass)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-016	Paper Jam Count by Location	Regist:NoPaperBuckle(Bank)	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-514-017	Paper Jam Count by Location	Regist:NoPaperBuckle(Tray)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-018	Paper Jam Count by Location	Fusing Entrance: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-019	Paper Jam Count by Location	Fusing Exit: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-020	Paper Jam Count by Location	Paper Exit: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-021	Paper Jam Count by Location	1bin: Exit Sensor: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-025	Paper Jam Count by Location	Duplex Exit : On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-026	Paper Jam Count by Location	Duplex Entrance: On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-050	Paper Jam Count by Location	Regist Sn: Off(Dup)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-052	Paper Jam Count by Location	Bank Transport Sn 1: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-514-053	Paper Jam Count by Location	Bank Transport Sn 2: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-514-054	Paper Jam Count by Location	Bank Transport Sn 3: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-514-055	Paper Jam Count by Location	Regist Sn: Off(Bypass)	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-514-056	Paper Jam Count by Location	Regist Sn: Off(Bank)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-057	Paper Jam Count by Location	Regist Sn: Off(Tray)	CTL*	[0 to 65535 / 0 / 0/step]
7-514-060	Paper Jam Count by Location	Paper Exit: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-514-061	Paper Jam Count by Location	1bin: Exit Sensor: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-514-065	Paper Jam Count by Location	Duplex Exit : Off	CTL*	[0 to 65535 / 0 / 0/step]
7-514-066	Paper Jam Count by Location	Duplex Entrance: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-514-230	Paper Jam Count by Location	NoFinsherResp	CTL*	[0 to 65535 / 0 / 0/step]
7-514-240	Paper Jam Count by Location	EntSns:On	CTL*	[0 to 65535 / 0 / 0/step]
7-514-241	Paper Jam Count by Location	EntSns:Off	CTL*	[0 to 65535 / 0 / 0/step]
7-514-242	Paper Jam Count by Location	Paper Exit	CTL*	[0 to 65535 / 0 / 0/step]
7-514-243	Paper Jam Count by Location	Jogger Mtr	CTL*	[0 to 65535 / 0 / 0/step]
7-514-244	Paper Jam Count by Location	ShiftRollerMtr	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-514-245	Paper Jam Count by Location	PosRollerMtr	CTL*	[0 to 65535 / 0 / 0/step]
7-514-246	Paper Jam Count by Location	ExGuidePlateMtr	CTL*	[0 to 65535 / 0 / 0/step]
7-514-247	Paper Jam Count by Location	Tray Lift Mtr	CTL*	[0 to 65535 / 0 / 0/step]
7-514-248	Paper Jam Count by Location	Stapler Mtr	CTL*	[0 to 65535 / 0 / 0/step]
7-514-249	Paper Jam Count by Location	PaperStopperMtr	CTL*	[0 to 65535 / 0 / 0/step]
7-514-250	Paper Jam Count by Location	Invalid Data	CTL*	[0 to 65535 / 0 / 0/step]
7-515-001	Original Jam Count by Detection	At Power On	CTL*	[0 to 65535 / 0 / 0/step]
7-515-004	Original Jam Count by Detection	Regist Sn: On	CTL*	[0 to 65535 / 0 / 0/step]
7-515-013	Original Jam Count by Detection	DF Feed Sn:On	CTL*	[0 to 65535 / 0 / 0/step]
7-515-054	Original Jam Count by Detection	Regist Sn: Off	CTL*	[0 to 65535 / 0 / 0/step]
7-515-063	Original Jam Count by Detection	DF Feed Sn:Off	CTL*	[0 to 65535 / 0 / 0/step]
7-515-097	Original Jam Count by Detection	Timing Error	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-515-098	Original Jam Count by Detection	Narrow Interval	CTL*	[0 to 65535 / 0 / 0/step]
7-515-099	Original Jam Count by Detection	Double Feed	CTL*	[0 to 65535 / 0 / 0/step]
7-515-100	Original Jam Count by Detection	Motor Error	CTL*	[0 to 65535 / 0 / 0/step]
7-516-006	Paper Size Jam Count	A5 LEF	CTL*	[0 to 65535 / 0 / 0/step]
7-516-044	Paper Size Jam Count	HLT LEF	CTL*	[0 to 65535 / 0 / 0/step]
7-516-133	Paper Size Jam Count	A4 SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-516-134	Paper Size Jam Count	A5 SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-516-142	Paper Size Jam Count	B5 SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-516-164	Paper Size Jam Count	LG SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-516-166	Paper Size Jam Count	LT SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-516-172	Paper Size Jam Count	HLT SEF	CTL*	[0 to 65535 / 0 / 0/step]
7-516-255	Paper Size Jam Count	Others	CTL*	[0 to 65535 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-520-001	Update Log	ErrorRecord1	CTL*	[0 to 255 / 0 / 1/step]
7-520-002	Update Log	ErrorRecord2	CTL*	[0 to 255 / 0 / 1/step]
7-520-003	Update Log	ErrorRecord3	CTL*	[0 to 255 / 0 / 1/step]
7-520-004	Update Log	ErrorRecord4	CTL*	[0 to 255 / 0 / 1/step]
7-520-005	Update Log	ErrorRecord5	CTL*	[0 to 255 / 0 / 1/step]
7-520-006	Update Log	ErrorRecord6	CTL*	[0 to 255 / 0 / 1/step]
7-520-007	Update Log	ErrorRecord7	CTL*	[0 to 255 / 0 / 1/step]
7-520-008	Update Log	ErrorRecord8	CTL*	[0 to 255 / 0 / 1/step]
7-520-009	Update Log	ErrorRecord9	CTL*	[0 to 255 / 0 / 1/step]
7-520-010	Update Log	ErrorRecord10	CTL*	[0 to 255 / 0 / 1/step]
7-520-011	Update Log	Auto:StartDate1	CTL*	[0 to 0 / 0 / 0/step]
7-520-012	Update Log	Auto:StartDate2	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-520-013	Update Log	Auto:StartDate3	CTL*	[0 to 0 / 0 / 0/step]
7-520-014	Update Log	Auto:StartDate4	CTL*	[0 to 0 / 0 / 0/step]
7-520-015	Update Log	Auto:StartDate5	CTL*	[0 to 0 / 0 / 0/step]
7-520-021	Update Log	Auto:EndDate1	CTL*	[0 to 0 / 0 / 0/step]
7-520-022	Update Log	Auto:EndDate2	CTL*	[0 to 0 / 0 / 0/step]
7-520-023	Update Log	Auto:EndDate3	CTL*	[0 to 0 / 0 / 0/step]
7-520-024	Update Log	Auto:EndDate4	CTL*	[0 to 0 / 0 / 0/step]
7-520-025	Update Log	Auto:EndDate5	CTL*	[0 to 0 / 0 / 0/step]
7-520-031	Update Log	Auto:Piecemark1	CTL*	[0 to 0 / 0 / 0/step]
7-520-032	Update Log	Auto:Piecemark2	CTL*	[0 to 0 / 0 / 0/step]
7-520-033	Update Log	Auto:Piecemark3	CTL*	[0 to 0 / 0 / 0/step]
7-520-034	Update Log	Auto:Piecemark4	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-520-035	Update Log	Auto:Piecemark5	CTL*	[0 to 0 / 0 / 0/step]
7-520-041	Update Log	Auto:Version1	CTL*	[0 to 0 / 0 / 0/step]
7-520-042	Update Log	Auto:Version2	CTL*	[0 to 0 / 0 / 0/step]
7-520-043	Update Log	Auto:Version3	CTL*	[0 to 0 / 0 / 0/step]
7-520-044	Update Log	Auto:Version4	CTL*	[0 to 0 / 0 / 0/step]
7-520-045	Update Log	Auto:Version5	CTL*	[0 to 0 / 0 / 0/step]
7-520-051	Update Log	Auto:Result1	CTL*	[0 to 255 / 0 / 1/step]
7-520-052	Update Log	Auto:Result2	CTL*	[0 to 255 / 0 / 1/step]
7-520-053	Update Log	Auto:Result3	CTL*	[0 to 255 / 0 / 1/step]
7-520-054	Update Log	Auto:Result4	CTL*	[0 to 255 / 0 / 1/step]
7-520-055	Update Log	Auto:Result5	CTL*	[0 to 255 / 0 / 1/step]
7-520-056	Update Log	Auto:Result6	CTL*	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-520-057	Update Log	Auto:Result7	CTL*	[0 to 255 / 0 / 1/step]
7-520-058	Update Log	Auto:Result8	CTL*	[0 to 255 / 0 / 1/step]
7-520-059	Update Log	Auto:Result9	CTL*	[0 to 255 / 0 / 1/step]
7-520-060	Update Log	Auto:Result10	CTL*	[0 to 255 / 0 / 1/step]
7-617-001	PM Parts Counter Display	Normal	CTL*	[0 to 9999999 / 0 / 0/step]
7-617-002	PM Parts Counter Display	Df	CTL*	[0 to 9999999 / 0 / 0/step]
7-618-001	PM Parts Counter Reset	Normal	CTL	[0 to 0 / 0 / 0/step]
7-618-002	PM Parts Counter Reset	Df	CTL	[0 to 0 / 0 / 0/step]
7-621-002	PM Counter Display: Pages	# PCU:Bk	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-003	PM Counter Display: Pages	# Dev Unit:Bk	ENG*	[0 to 99999999 / 0 / 1page/step]
7-621-025	PM Counter Display: Pages	# PCU:C	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-026	PM Counter Display: Pages	# Dev Unit:C	ENG*	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-621-048	PM Counter Display: Pages	# PCU:M	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-049	PM Counter Display: Pages	# Dev Unit:M	ENG*	[0 to 99999999 / 0 / 1page/step]
7-621-071	PM Counter Display: Pages	# PCU:Y	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-072	PM Counter Display: Pages	# Dev Unit:Y	ENG*	[0 to 99999999 / 0 / 1page/step]
7-621-093	PM Counter Display: Pages	# ITB Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-102	PM Counter Display: Pages	# ITB Cleaning Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-109	PM Counter Display: Pages	# PTR Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-115	PM Counter Display: Pages	# Fusing Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-116	PM Counter Display: Pages	Fusing Sleeve	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-118	PM Counter Display: Pages	Pressure Roller	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-142	PM Counter Display: Pages	#Waste Toner bottle	ENG	[0 to 999999999 / 0 / 1mg/step]
7-621-145	PM Counter Display: Pages	Tray1 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-621-147	PM Counter Display: Pages	#IMC300:PaperFeedRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-148	PM Counter Display: Pages	#IMC300:FrictionPad:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-149	PM Counter Display: Pages	Tray 2 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-150	PM Counter Display: Pages	#Paper Feed Roller:Tray 2	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-151	PM Counter Display: Pages	#Friction Pad:Bank 2	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-152	PM Counter Display: Pages	Tray 3 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-153	PM Counter Display: Pages	#Paper Feed Roller:Tray 3	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-154	PM Counter Display: Pages	#Friction Pad:Bank 3	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-155	PM Counter Display: Pages	Tray 4 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-156	PM Counter Display: Pages	#Paper Feed Roller:Tray 4	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-157	PM Counter Display: Pages	#Friction Pad:Bank 4	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-158	PM Counter Display: Pages	#IMC400:Pick-upRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-621-159	PM Counter Display: Pages	#IMC400:FeedingRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-160	PM Counter Display: Pages	#IMC400:SeparationRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-169	PM Counter Display: Pages	#Feed Roller:Bypass	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-206	PM Counter Display: Pages	DF Friction Pad	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-207	PM Counter Display: Pages	DF Pickup Roller	ENG	[0 to 99999999 / 0 / 1page/step]
7-621-208	PM Counter Display: Pages	DF Feed Roller	ENG	[0 to 99999999 / 0 / 1page/step]
7-622-002	PM Counter Clear	# PCU:Bk	ENG	[0 to 1 / 0 / 1/step]
7-622-003	PM Counter Clear	# Dev Unit:Bk	ENG	[0 to 1 / 0 / 1/step]
7-622-025	PM Counter Clear	# PCU:C	ENG	[0 to 1 / 0 / 1/step]
7-622-026	PM Counter Clear	# Dev Unit:C	ENG	[0 to 1 / 0 / 1/step]
7-622-048	PM Counter Clear	# PCU:M	ENG	[0 to 1 / 0 / 1/step]
7-622-049	PM Counter Clear	# Dev Unit:M	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-622-071	PM Counter Clear	# PCU:Y	ENG	[0 to 1 / 0 / 1/step]
7-622-072	PM Counter Clear	# Dev Unit:Y	ENG	[0 to 1 / 0 / 1/step]
7-622-093	PM Counter Clear	# ITB Unit	ENG	[0 to 1 / 0 / 1/step]
7-622-102	PM Counter Clear	# ITB Cleaning Unit	ENG	[0 to 1 / 0 / 1/step]
7-622-109	PM Counter Clear	# PTR Unit	ENG	[0 to 1 / 0 / 1/step]
7-622-115	PM Counter Clear	# Fusing Unit	ENG	[0 to 1 / 0 / 1/step]
7-622-116	PM Counter Clear	Fusing Sleeve	ENG	[0 to 1 / 0 / 1/step]
7-622-118	PM Counter Clear	Pressure Roller	ENG	[0 to 1 / 0 / 1/step]
7-622-145	PM Counter Clear	Tray1 Roller Assembly	ENG	[0 to 1 / 0 / 1/step]
7-622-147	PM Counter Clear	#IMC300:PaperFeedRoller:Tray1	ENG	[0 to 1 / 0 / 1/step]
7-622-148	PM Counter Clear	#IMC300:FrictionPad:Tray1	ENG	[0 to 1 / 0 / 1/step]
7-622-149	PM Counter Clear	Tray 2 Roller Assembly	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-622-150	PM Counter Clear	#Paper Feed Roller:Tray 2	ENG	[0 to 1 / 0 / 1/step]
7-622-151	PM Counter Clear	#Friction Pad:Bank 2	ENG	[0 to 1 / 0 / 1/step]
7-622-152	PM Counter Clear	Tray 3 Roller Assembly	ENG	[0 to 1 / 0 / 1/step]
7-622-153	PM Counter Clear	#Paper Feed Roller:Tray 3	ENG	[0 to 1 / 0 / 1/step]
7-622-154	PM Counter Clear	#Friction Pad:Bank 3	ENG	[0 to 1 / 0 / 1/step]
7-622-155	PM Counter Clear	Tray 4 Roller Assembly	ENG	[0 to 1 / 0 / 1/step]
7-622-156	PM Counter Clear	#Paper Feed Roller:Tray 4	ENG	[0 to 1 / 0 / 1/step]
7-622-157	PM Counter Clear	#Friction Pad:Bank 4	ENG	[0 to 1 / 0 / 1/step]
7-622-158	PM Counter Clear	#IMC400:Pick-upRoller:Tray1	ENG	[0 to 1 / 0 / 1/step]
7-622-159	PM Counter Clear	#IMC400:FeedingRoller:Tray1	ENG	[0 to 1 / 0 / 1/step]
7-622-160	PM Counter Clear	#IMC400:SeparationRoller:Tray1	ENG	[0 to 1 / 0 / 1/step]
7-622-169	PM Counter Clear	#Feed Roller:Bypass	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-622-206	PM Counter Clear	DF Friction Pad	ENG	[0 to 1 / 0 / 1/step]
7-622-207	PM Counter Clear	DF Pickup Roller	ENG	[0 to 1 / 0 / 1/step]
7-622-208	PM Counter Clear	DF Feed Roller	ENG	[0 to 1 / 0 / 1/step]
7-622-220	PM Counter Clear	Toner Sub Hopper:Bk	ENG	[0 to 1 / 0 / 1/step]
7-622-221	PM Counter Clear	Toner Sub Hopper:C	ENG	[0 to 1 / 0 / 1/step]
7-622-222	PM Counter Clear	Toner Sub Hopper:M	ENG	[0 to 1 / 0 / 1/step]
7-622-223	PM Counter Clear	Toner Sub Hopper:Y	ENG	[0 to 1 / 0 / 1/step]
7-622-245	PM Counter Clear	PCU:All Colors	ENG	[0 to 1 / 0 / 1/step]
7-622-246	PM Counter Clear	Development Unit:All Colors	ENG	[0 to 1 / 0 / 1/step]
7-622-249	PM Counter Clear	Toner Sub Hopper:All Colors	ENG	[0 to 1 / 0 / 1/step]
7-622-250	PM Counter Clear	All Clear	ENG	[0 to 1 / 0 / 1/step]
7-623-002	PM Value Setting: Life Pages	# PCU:Bk	ENG	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-623-003	PM Value Setting: Life Pages	# Dev Unit:Bk	ENG	[0 to 99999999 / 0 / 1page/step]
7-623-025	PM Value Setting: Life Pages	# PCU:C	ENG	[0 to 99999999 / 0 / 1page/step]
7-623-026	PM Value Setting: Life Pages	# Dev Unit:C	ENG	[0 to 99999999 / 0 / 1page/step]
7-623-048	PM Value Setting: Life Pages	# PCU:M	ENG	[0 to 99999999 / 0 / 1page/step]
7-623-049	PM Value Setting: Life Pages	# Dev Unit:M	ENG	[0 to 99999999 / 0 / 1page/step]
7-623-071	PM Value Setting: Life Pages	# PCU:Y	ENG	[0 to 99999999 / 0 / 1page/step]
7-623-072	PM Value Setting: Life Pages	# Dev Unit:Y	ENG	[0 to 99999999 / 0 / 1page/step]
7-623-093	PM Value Setting: Life Pages	# ITB Unit	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-102	PM Value Setting: Life Pages	# ITB Cleaning Unit	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-109	PM Value Setting: Life Pages	# PTR Unit	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-115	PM Value Setting: Life Pages	# Fusing Unit	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-116	PM Value Setting: Life Pages	Fusing Sleeve	ENG	[0 to 99999999 / 120000 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-623-118	PM Value Setting: Life Pages	Pressure Roller	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-142	PM Value Setting: Life Pages	#Waste Toner bottle	ENG	[0 to 999999999 / 800000 / 1mg/step]
7-623-145	PM Value Setting Life Pages	Tray1 Roller Assembly	ENG	IM C300 series: [0 to 99999999 / 120000 / 1page/step] IM C400 series: [0 to 99999999 / 300000 / 1page/step]
7-623-147	PM Value Setting Life Pages	#IMC300:PaperFeedRoller:Tray1	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-148	PM Value Setting Life Pages	#IMC300:FrictionPad:Tray1	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-149	PM Value Setting Life Pages	Tray 2 Roller Assembly	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-150	PM Value Setting Life Pages	#Paper Feed Roller:Tray 2	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-151	PM Value Setting Life Pages	#Friction Pad:Bank 2	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-152	PM Value Setting Life Pages	Tray 3 Roller Assembly	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-153	PM Value Setting Life Pages	#Paper Feed Roller:Tray 3	ENG	[0 to 99999999 / 120000 / 1page/step]
7-	PM Value Setting Life	#Friction Pad:Bank 3	ENG	[0 to 99999999 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
623-154	Pages			120000 / 1page/step]
7-623-155	PM Value Setting Life Pages	Tray 4 Roller Assembly	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-156	PM Value Setting Life Pages	#Paper Feed Roller:Tray 4	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-157	PM Value Setting Life Pages	#Friction Pad:Bank 4	ENG	[0 to 99999999 / 120000 / 1page/step]
7-623-158	PM Value Setting Life Pages	#IMC400:Pick-upRoller:Tray1	ENG	[0 to 99999999 / 300000 / 1page/step]
7-623-159	PM Value Setting Life Pages	#IMC400:FeedingRoller:Tray1	ENG	[0 to 99999999 / 300000 / 1page/step]
7-623-160	PM Value Setting Life Pages	#IMC400:SeparationRoller:Tray1	ENG	[0 to 99999999 / 300000 / 1page/step]
7-623-169	PM Value Setting Life Pages	#Feed Roller:Bypass	ENG	[0 to 99999999 / 120000 / 1page/step]
7-624-002	Part Replacement Operation ON/OFF	#PCU:Bk	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-025	Part Replacement Operation ON/OFF	#PCU:C	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-048	Part Replacement Operation ON/OFF	#PCU:M	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-071	Part Replacement Operation ON/OFF	#PCU:Y	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-624-093	Part Replacement Operation ON/OFF	#Image Transfer Belt Unit	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-109	Part Replacement Operation ON/OFF	#Paper Transfer Roller Unit	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-115	Part Replacement Operation ON/OFF	#Fusing Unit	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-116	Part Replacement Operation ON/OFF	Fusing Sleeve	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-118	Part Replacement Operation ON/OFF	Pressure Roller	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-142	Part Replacement Operation ON/OFF	#Wast Toner bottle	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-147	Part Replacement Operation ON/OFF	#Paper Feed Roller:Tray1	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-148	Part Replacement Operation ON/OFF	#Friction Pad:Tray1	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-150	Part Replacement Operation ON/OFF	#Paper Feed Roller:Tray 2	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-151	Part Replacement Operation ON/OFF	#Friction Pad:Bank 2	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-153	Part Replacement Operation ON/OFF	#Paper Feed Roller:Tray 3	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-154	Part Replacement Operation ON/OFF	#Friction Pad:Bank 3	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-624-156	Part Replacement Operation ON/OFF	#Paper Feed Roller:Tray 4	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-157	Part Replacement Operation ON/OFF	#Friction Pad:Bank 4	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-158	Part Replacement Operation ON/OFF	#Pick-up Roller:Tray1	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-159	Part Replacement Operation ON/OFF	#Feeding Roller:Tray1	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-160	Part Replacement Operation ON/OFF	#Separation Roller:Tray1	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-624-169	Part Replacement Operation ON/OFF	#Feed Roller:Bypass	CTL*	[0 to 1 / 1 / 1/step] 0: No 1: Yes
7-625-002	Previous Unit Counter: Pages	# PCU:Bk	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-003	Previous Unit Counter: Pages	# Dev Unit:Bk	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-025	Previous Unit Counter: Pages	# PCU:C	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-026	Previous Unit Counter: Pages	# Dev Unit:C	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-048	Previous Unit Counter: Pages	# PCU:M	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-049	Previous Unit Counter: Pages	# Dev Unit:M	ENG	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-625-071	Previous Unit Counter: Pages	# PCU:Y	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-072	Previous Unit Counter: Pages	# Dev Unit:Y	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-093	Previous Unit Counter: Pages	# ITB Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-102	Previous Unit Counter: Pages	# ITB Cleaning Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-109	Previous Unit Counter: Pages	# PTR Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-115	Previous Unit Counter: Pages	# Fusing Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-116	Previous Unit Counter: Pages	Fusing Sleeve	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-118	Previous Unit Counter: Pages	Pressure Roller	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-142	Previous Unit Counter: Pages	#Waste Toner bottle	ENG	[0 to 999999999 / 0 / 1mg/step]
7-625-145	Previous Unit Counter: Pages	Tray1 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-147	Previous Unit Counter: Pages	#IMC300:PaperFeedRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-148	Previous Unit Counter: Pages	#IMC300:FrictionPad:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-625-149	Previous Unit Counter: Pages	Tray 2 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-150	Previous Unit Counter: Pages	#Paper Feed Roller:Tray 2	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-151	Previous Unit Counter: Pages	#Friction Pad:Bank 2	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-152	Previous Unit Counter: Pages	Tray 3 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-153	Previous Unit Counter: Pages	#Paper Feed Roller:Tray 3	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-154	Previous Unit Counter: Pages	#Friction Pad:Bank 3	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-155	Previous Unit Counter: Pages	Tray 4 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-156	Previous Unit Counter: Pages	#Paper Feed Roller:Tray 4	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-157	Previous Unit Counter: Pages	#Friction Pad:Bank 4	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-158	Previous Unit Counter: Pages	#IMC400:Pick-upRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-159	Previous Unit Counter: Pages	#IMC400:FeedingRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-160	Previous Unit Counter: Pages	#IMC400:SeparationRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-625-169	Previous Unit Counter: Pages	#Feed Roller:Bypass	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-206	Previous Unit Counter: Pages	DF Friction Pad	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-207	Previous Unit Counter: Pages	DF Pickup Roller	ENG	[0 to 99999999 / 0 / 1page/step]
7-625-208	Previous Unit Counter: Pages	DF Feed Roller	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-002	Previous Unit Counter2: Pages	# PCU:Bk	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-003	Previous Unit Counter2: Pages	# Dev Unit:Bk	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-025	Previous Unit Counter2: Pages	# PCU:C	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-026	Previous Unit Counter2: Pages	# Dev Unit:C	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-048	Previous Unit Counter2: Pages	# PCU:M	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-049	Previous Unit Counter2: Pages	# Dev Unit:M	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-071	Previous Unit Counter2: Pages	# PCU:Y	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-072	Previous Unit Counter2: Pages	# Dev Unit:Y	ENG	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-626-093	Previous Unit Counter2: Pages	# ITB Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-102	Previous Unit Counter2: Pages	# ITB Cleaning Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-109	Previous Unit Counter2: Pages	# PTR Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-115	Previous Unit Counter2: Pages	# Fusing Unit	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-116	Previous Unit Counter2: Pages	Fusing Sleeve	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-118	Previous Unit Counter2: Pages	Pressure Roller	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-142	Previous Unit Counter2: Pages	#Waste Toner bottle	ENG	[0 to 999999999 / 0 / 1mg/step]
7-626-145	Previous Unit Counter2: Pages	Tray1 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-147	Previous Unit Counter2: Pages	#IMC300:PaperFeedRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-148	Previous Unit Counter2: Pages	#IMC300:FrictionPad:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-149	Previous Unit Counter2: Pages	Tray 2 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-150	Previous Unit Counter2: Pages	#Paper Feed Roller:Tray 2	ENG	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-626-151	Previous Unit Counter2: Pages	#Friction Pad:Bank 2	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-152	Previous Unit Counter2: Pages	Tray 3 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-153	Previous Unit Counter2: Pages	#Paper Feed Roller:Tray 3	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-154	Previous Unit Counter2: Pages	#Friction Pad:Bank 3	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-155	Previous Unit Counter2: Pages	Tray 4 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-156	Previous Unit Counter2: Pages	#Paper Feed Roller:Tray 4	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-157	Previous Unit Counter2: Pages	#Friction Pad:Bank 4	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-158	Previous Unit Counter2: Pages	#IMC400:Pick-upRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-159	Previous Unit Counter2: Pages	#IMC400:FeedingRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-160	Previous Unit Counter2: Pages	#IMC400:SeparationRoller:Tray1	ENG	[0 to 99999999 / 0 / 1page/step]
7-626-169	Previous Unit Counter2: Pages	#Feed Roller:Bypass	ENG	[0 to 99999999 / 0 / 1page/step]
7-628-002	PM Counter Clear	All Clear	ENG	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-700-001	Accum Cvrg 1 img Process.:Disp	Bk	ENG*	[0.0 to 400000000.0 / 0.0 / 0.1%/step]
7-700-002	Accum Cvrg 1 img Process.:Disp	C	ENG*	[0.0 to 400000000.0 / 0.0 / 0.1%/step]
7-700-003	Accum Cvrg 1 img Process.:Disp	M	ENG*	[0.0 to 400000000.0 / 0.0 / 0.1%/step]
7-700-004	Accum Cvrg 1 img Process.:Disp	Y	ENG*	[0.0 to 400000000.0 / 0.0 / 0.1%/step]
7-701-001	Accum Cvrg 2 img Process.:Disp	Bk	ENG*	[0.0 to 400000000.0 / 0.0 / 0.1%/step]
7-701-002	Accum Cvrg 2 img Process.:Disp	C	ENG*	[0.0 to 400000000.0 / 0.0 / 0.1%/step]
7-701-003	Accum Cvrg 2 img Process.:Disp	M	ENG*	[0.0 to 400000000.0 / 0.0 / 0.1%/step]
7-701-004	Accum Cvrg 2 img Process.:Disp	Y	ENG*	[0.0 to 400000000.0 / 0.0 / 0.1%/step]
7-710-001	Print Pages: Display	Bk	ENG*	[0 to 99999999 / 0 / 1page/step]
7-710-002	Print Pages: Display	C	ENG*	[0 to 99999999 / 0 / 1page/step]
7-710-003	Print Pages: Display	M	ENG*	[0 to 99999999 / 0 / 1page/step]
7-710-004	Print Pages: Display	Y	ENG*	[0 to 99999999 / 0 / 1page/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-720-001	Avg. Cvrg for img.: Display	Bk	ENG*	[0.00 to 100.00 / 0.00 / 0.01%/step]
7-720-002	Avg. Cvrg for img.: Display	C	ENG*	[0.00 to 100.00 / 0.00 / 0.01%/step]
7-720-003	Avg. Cvrg for img.: Display	M	ENG*	[0.00 to 100.00 / 0.00 / 0.01%/step]
7-720-004	Avg. Cvrg for img.: Display	Y	ENG*	[0.00 to 100.00 / 0.00 / 0.01%/step]
7-801-002	ROM No.	Engine	ENG	[0 to 0 / 0 / 0/step]
7-801-007	ROM No.	Finisher	ENG	[0 to 0 / 0 / 0/step]
7-801-009	ROM No.	PFU	ENG	[0 to 0 / 0 / 0/step]
7-801-019	ROM No.	PFU2	ENG	[0 to 0 / 0 / 0/step]
7-801-040	ROM No.	PFU3	ENG	[0 to 0 / 0 / 0/step]
7-801-102	Firmware Version	Engine	ENG	[0 to 0 / 0 / 0/step]
7-801-107	Firmware Version	Finisher	ENG	[0 to 0 / 0 / 0/step]
7-801-109	Firmware Version	PFU	ENG	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-801-119	Firmware Version	PFU2	ENG	[0 to 0 / 0 / 0/step]
7-801-140	Firmware Version	PFU3	ENG	[0 to 0 / 0 / 0/step]
7-801-255	ROM No./ Firmware Version		CTL	[0 to 0 / 0 / 0/step]
7-803-001	PM Counter Display	Paper	CTL*	[0 to 9999999 / 0 / 0/step]
7-804-001	PM Counter Reset	Paper	CTL	[0 to 0 / 0 / 0/step]
7-807-001	SC/Jam Counter Reset		CTL	[0 to 0 / 0 / 0/step]
7-826-001	MF Error Counter	Error Total	CTL*	[0 to 9999999 / 0 / 0/step]
7-826-002	MF Error Counter	Error Staple	CTL*	[0 to 9999999 / 0 / 0/step]
7-827-001	MF Error Counter Clear		CTL	[0 to 0 / 0 / 0/step]
7-832-001	Self-Diagnose Result Display		CTL	[0 to 0 / 0 / 0/step]
7-835-001	ACC Counter	Copy ACC	CTL*	[0 to 9999999 / 0 / 0/step]
7-835-002	ACC Counter	Printer ACC	CTL*	[0 to 9999999 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-836-001	Total Memory Size		CTL	[0 to 0xffffffff / 0 / 0MB/step]
7-840-001	ServiceSP Entry Code Chg Hist	Change Time :Latest	CTL*	[0 to 0 / 0 / 0/step]
7-840-002	ServiceSP Entry Code Chg Hist	Change Time :Last1	CTL*	[0 to 0 / 0 / 0/step]
7-840-101	ServiceSP Entry Code Chg Hist	Initialize Time :Latest	CTL*	[0 to 0 / 0 / 0/step]
7-840-102	ServiceSP Entry Code Chg Hist	Initialize Time :Last1	CTL*	[0 to 0 / 0 / 0/step]
7-841-001	HddSmartInfoNrs	1-9	CTL	[0 to 0 / 0 / 0/step]
7-841-002	HddSmartInfoNrs	10-18	CTL	[0 to 0 / 0 / 0/step]
7-841-003	HddSmartInfoNrs	19-27	CTL	[0 to 0 / 0 / 0/step]
7-841-004	HddSmartInfoNrs	28	CTL	[0 to 0 / 0 / 0/step]
7-841-051	HddSmartInfoSc	1-9	CTL*	[0 to 0 / 0 / 0/step]
7-841-052	HddSmartInfoSc	10-18	CTL*	[0 to 0 / 0 / 0/step]
7-841-053	HddSmartInfoSc	19-27	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-841-054	HddSmartInfoSc	28	CTL*	[0 to 0 / 0 / 0/step]
7-852-001	DF Glass Dust Check	Dust Detection Counter	ENG*	[0 to 65535 / 0 / 1/step]
7-852-002	DF Glass Dust Check	Dust Detection Clear Counter	ENG*	[0 to 65535 / 0 / 1/step]
7-852-003	DF Glass Dust Check	(1-Pass) Dust Detection Counter: Back	ENG*	[0 to 65535 / 0 / 1/step]
7-853-002	Replace Counter	# PCU:Bk	ENG	[0 to 255 / 0 / 1/step]
7-853-003	Replace Counter	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1/step]
7-853-025	Replace Counter	# PCU:C	ENG	[0 to 255 / 0 / 1/step]
7-853-026	Replace Counter	# Dev Unit:C	ENG	[0 to 255 / 0 / 1/step]
7-853-048	Replace Counter	# PCU:M	ENG	[0 to 255 / 0 / 1/step]
7-853-049	Replace Counter	# Dev Unit:M	ENG	[0 to 255 / 0 / 1/step]
7-853-071	Replace Counter	# PCU:Y	ENG	[0 to 255 / 0 / 1/step]
7-853-072	Replace Counter	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-853-093	Replace Counter	# ITB Unit	ENG	[0 to 255 / 0 / 1/step]
7-853-102	Replace Counter	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1/step]
7-853-109	Replace Counter	# PTR Unit	ENG	[0 to 255 / 0 / 1/step]
7-853-115	Replace Counter	# Fusing Unit	ENG	[0 to 255 / 0 / 1/step]
7-853-116	Replace Counter	Fusing Sleeve	ENG	[0 to 255 / 0 / 1/step]
7-853-118	Replace Counter	Pressure Roller	ENG	[0 to 255 / 0 / 1/step]
7-853-142	Replace Counter	#Waste Toner bottle	ENG	[0 to 255 / 0 / 1/step]
7-855-001	Coverage Range	Coverage Range 1	CTL*	[1 to 200 / 5 / 1%/step]
7-855-002	Coverage Range	Coverage Range 2	CTL*	[1 to 200 / 20 / 1%/step]
7-901-001	Assert Info.	File Name	CTL*	[0 to 0 / 0 / 0/step]
7-901-002	Assert Info.	Number of Lines	CTL*	[0 to 0 / 0 / 0/step]
7-901-003	Assert Info.	Location	CTL*	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-906-002	Previous Unit Counter:Distance	# PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-003	Previous Unit Counter:Distance	# Dev Unit:Bk	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-025	Previous Unit Counter:Distance	# PCU:C	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-026	Previous Unit Counter:Distance	# Dev Unit:C	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-048	Previous Unit Counter:Distance	# PCU:M	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-049	Previous Unit Counter:Distance	# Dev Unit:M	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-071	Previous Unit Counter:Distance	# PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-072	Previous Unit Counter:Distance	# Dev Unit:Y	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-093	Previous Unit Counter:Distance	# ITB Unit	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-102	Previous Unit Counter:Distance	# ITB Cleaning Unit	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-109	Previous Unit Counter:Distance	# PTR Unit	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-115	Previous Unit Counter:Distance	# Fusing Unit	ENG	[0 to 4294967295 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-906-116	Previous Unit Counter:Distance	Fusing Sleeve	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-118	Previous Unit Counter:Distance	Pressure Roller	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-220	Previous Unit Counter:Distance	Toner Sub Hopper:Bk	ENG	[0 to 999999999 / 0 / 1/step]
7-906-221	Previous Unit Counter:Distance	Toner Sub Hopper:C	ENG	[0 to 999999999 / 0 / 1/step]
7-906-222	Previous Unit Counter:Distance	Toner Sub Hopper:M	ENG	[0 to 999999999 / 0 / 1/step]
7-906-223	Previous Unit Counter:Distance	Toner Sub Hopper:Y	ENG	[0 to 999999999 / 0 / 1/step]
7-906-230	Previous Unit Counter:Distance	Low Speed: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-231	Previous Unit Counter:Distance	Low Speed: # PCU:C	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-232	Previous Unit Counter:Distance	Low Speed: # PCU:M	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-233	Previous Unit Counter:Distance	Low Speed: # PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-234	Previous Unit Counter:Distance	Middle Speed: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-235	Previous Unit Counter:Distance	Middle Speed: # PCU:C	ENG	[0 to 4294967295 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-906-236	Previous Unit Counter:Distance	Middle Speed: # PCU:M	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-237	Previous Unit Counter:Distance	Middle Speed: # PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-906-238	Previous Unit Counter:Distance	Standard Speed2: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-907-002	Previous Unit Cntr:Distance(%)	# PCU:Bk	ENG	[0 to 255 / 0 / 1%/step]
7-907-003	Previous Unit Cntr:Distance(%)	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1%/step]
7-907-025	Previous Unit Cntr:Distance(%)	# PCU:C	ENG	[0 to 255 / 0 / 1%/step]
7-907-026	Previous Unit Cntr:Distance(%)	# Dev Unit:C	ENG	[0 to 255 / 0 / 1%/step]
7-907-048	Previous Unit Cntr:Distance(%)	# PCU:M	ENG	[0 to 255 / 0 / 1%/step]
7-907-049	Previous Unit Cntr:Distance(%)	# Dev Unit:M	ENG	[0 to 255 / 0 / 1%/step]
7-907-071	Previous Unit Cntr:Distance(%)	# PCU:Y	ENG	[0 to 255 / 0 / 1%/step]
7-907-072	Previous Unit Cntr:Distance(%)	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1%/step]
7-907-093	Previous Unit Cntr:Distance(%)	# ITB Unit	ENG	[0 to 255 / 0 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-907-102	Previous Unit Cntr:Distance(%)	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1%/step]
7-907-109	Previous Unit Cntr:Distance(%)	# PTR Unit	ENG	[0 to 255 / 0 / 1%/step]
7-907-115	Previous Unit Cntr:Distance(%)	# Fusing Unit	ENG	[0 to 255 / 0 / 1%/step]
7-907-116	Previous Unit Cntr:Distance(%)	Fusing Sleeve	ENG	[0 to 255 / 0 / 1%/step]
7-907-118	Previous Unit Cntr:Distance(%)	Pressure Roller	ENG	[0 to 255 / 0 / 1%/step]
7-908-002	Previous Unit Counter:Pages(%)	# PCU:Bk	ENG	[0 to 255 / 0 / 1%/step]
7-908-003	Previous Unit Counter:Pages(%)	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1%/step]
7-908-025	Previous Unit Counter:Pages(%)	# PCU:C	ENG	[0 to 255 / 0 / 1%/step]
7-908-026	Previous Unit Counter:Pages(%)	# Dev Unit:C	ENG	[0 to 255 / 0 / 1%/step]
7-908-048	Previous Unit Counter:Pages(%)	# PCU:M	ENG	[0 to 255 / 0 / 1%/step]
7-908-049	Previous Unit Counter:Pages(%)	# Dev Unit:M	ENG	[0 to 255 / 0 / 1%/step]
7-908-071	Previous Unit Counter:Pages(%)	# PCU:Y	ENG	[0 to 255 / 0 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-908-072	Previous Unit Counter:Pages(%)	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1%/step]
7-908-093	Previous Unit Counter:Pages(%)	# ITB Unit	ENG	[0 to 255 / 0 / 1%/step]
7-908-102	Previous Unit Counter:Pages(%)	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1%/step]
7-908-109	Previous Unit Counter:Pages(%)	# PTR Unit	ENG	[0 to 255 / 0 / 1%/step]
7-908-115	Previous Unit Counter:Pages(%)	# Fusing Unit	ENG	[0 to 255 / 0 / 1%/step]
7-908-116	Previous Unit Counter:Pages(%)	Fusing Sleeve	ENG	[0 to 255 / 0 / 1%/step]
7-908-118	Previous Unit Counter:Pages(%)	Pressure Roller	ENG	[0 to 255 / 0 / 1%/step]
7-908-142	Previous Unit Counter:Pages(%)	#Waste Toner bottle	ENG	[0 to 255 / 0 / 1%/step]
7-908-145	Previous Unit Counter:Pages(%)	Tray1 Roller Assembly	ENG	[0 to 255 / 0 / 1%/step]
7-908-147	Previous Unit Counter:Pages(%)	#IMC300:PaperFeedRoller:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-908-148	Previous Unit Counter:Pages(%)	#IMC300:FrictionPad:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-908-149	Previous Unit Counter:Pages(%)	Tray 2 Roller Assembly	ENG	[0 to 255 / 0 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-908-150	Previous Unit Counter:Pages(%)	#Paper Feed Roller:Tray 2	ENG	[0 to 255 / 0 / 1%/step]
7-908-151	Previous Unit Counter:Pages(%)	#Friction Pad:Bank 2	ENG	[0 to 255 / 0 / 1%/step]
7-908-152	Previous Unit Counter:Pages(%)	Tray 3 Roller Assembly	ENG	[0 to 255 / 0 / 1%/step]
7-908-153	Previous Unit Counter:Pages(%)	#Paper Feed Roller:Tray 3	ENG	[0 to 255 / 0 / 1%/step]
7-908-154	Previous Unit Counter:Pages(%)	#Friction Pad:Bank 3	ENG	[0 to 255 / 0 / 1%/step]
7-908-155	Previous Unit Counter:Pages(%)	Tray 4 Roller Assembly	ENG	[0 to 255 / 0 / 1%/step]
7-908-156	Previous Unit Counter:Pages(%)	#Paper Feed Roller:Tray 4	ENG	[0 to 255 / 0 / 1%/step]
7-908-157	Previous Unit Counter:Pages(%)	#Friction Pad:Bank 4	ENG	[0 to 255 / 0 / 1%/step]
7-908-158	Previous Unit Counter:Pages(%)	#IMC400:Pick-upRoller:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-908-159	Previous Unit Counter:Pages(%)	#IMC400:FeedingRoller:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-908-160	Previous Unit Counter:Pages(%)	#IMC400:SeparationRoller:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-908-169	Previous Unit Counter:Pages(%)	#Feed Roller:Bypass	ENG	[0 to 255 / 0 / 1%/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-910-001	ROM No	System/Copy	CTL	[0 to 0 / 0 / 0/step]
7-910-002	ROM No	Engine	CTL	[0 to 0 / 0 / 0/step]
7-910-003	ROM No	Lcdc	CTL	[0 to 0 / 0 / 0/step]
7-910-007	ROM No	Finisher1	CTL	[0 to 0 / 0 / 0/step]
7-910-009	ROM No	Bank	CTL	[0 to 0 / 0 / 0/step]
7-910-012	ROM No	FCU	CTL	[0 to 0 / 0 / 0/step]
7-910-018	ROM No	NetworkSupport	CTL	[0 to 0 / 0 / 0/step]
7-910-019	ROM No	Bank2	CTL	[0 to 0 / 0 / 0/step]
7-910-022	ROM No	BIOS	CTL	[0 to 0 / 0 / 0/step]
7-910-023	ROM No	HDD Format Option	CTL	[0 to 0 / 0 / 0/step]
7-910-040	ROM No	Bank3	CTL	[0 to 0 / 0 / 0/step]
7-910-150	ROM No	RPCS	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-910-151	ROM No	PS	CTL	[0 to 0 / 0 / 0/step]
7-910-152	ROM No	RPDL	CTL	[0 to 0 / 0 / 0/step]
7-910-153	ROM No	R98	CTL	[0 to 0 / 0 / 0/step]
7-910-154	ROM No	R16	CTL	[0 to 0 / 0 / 0/step]
7-910-156	ROM No	R55	CTL	[0 to 0 / 0 / 0/step]
7-910-157	ROM No	RTIFF	CTL	[0 to 0 / 0 / 0/step]
7-910-158	ROM No	PCL	CTL	[0 to 0 / 0 / 0/step]
7-910-159	ROM No	PCLXL	CTL	[0 to 0 / 0 / 0/step]
7-910-160	ROM No	MSIS	CTL	[0 to 0 / 0 / 0/step]
7-910-162	ROM No	PDF	CTL	[0 to 0 / 0 / 0/step]
7-910-164	ROM No	PictBridge	CTL	[0 to 0 / 0 / 0/step]
7-910-165	ROM No	PJL	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-910-167	ROM No	MediaPrint:JPEG	CTL	[0 to 0 / 0 / 0/step]
7-910-168	ROM No	MediaPrint:TIFF	CTL	[0 to 0 / 0 / 0/step]
7-910-169	ROM No	XPS	CTL	[0 to 0 / 0 / 0/step]
7-910-180	ROM No	FONT	CTL	[0 to 0 / 0 / 0/step]
7-910-181	ROM No	FONT1	CTL	[0 to 0 / 0 / 0/step]
7-910-182	ROM No	FONT2	CTL	[0 to 0 / 0 / 0/step]
7-910-183	ROM No	FONT3	CTL	[0 to 0 / 0 / 0/step]
7-910-184	ROM No	FONT4	CTL	[0 to 0 / 0 / 0/step]
7-910-185	ROM No	FONT5	CTL	[0 to 0 / 0 / 0/step]
7-910-186	ROM No	FONT6	CTL	[0 to 0 / 0 / 0/step]
7-910-187	ROM No	FONT7	CTL	[0 to 0 / 0 / 0/step]
7-910-200	ROM No	Factory	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-910-201	ROM No	Copy	CTL	[0 to 0 / 0 / 0/step]
7-910-202	ROM No	NetworkDocBox	CTL	[0 to 0 / 0 / 0/step]
7-910-203	ROM No	Fax	CTL	[0 to 0 / 0 / 0/step]
7-910-204	ROM No	Printer	CTL	[0 to 0 / 0 / 0/step]
7-910-205	ROM No	Scanner	CTL	[0 to 0 / 0 / 0/step]
7-910-206	ROM No	RFax	CTL	[0 to 0 / 0 / 0/step]
7-910-210	ROM No	MIB	CTL	[0 to 0 / 0 / 0/step]
7-910-211	ROM No	Websupport	CTL	[0 to 0 / 0 / 0/step]
7-910-212	ROM No	WebUapl	CTL	[0 to 0 / 0 / 0/step]
7-910-213	ROM No	SDK1	CTL	[0 to 0 / 0 / 0/step]
7-910-214	ROM No	SDK2	CTL	[0 to 0 / 0 / 0/step]
7-910-215	ROM No	SDK3	CTL	[0 to 0 / 0 / 0/step]

3.SP Mode Tables

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-910-250	ROM No	Package	CTL	[0 to 0 / 0 / 0/step]
7-911-001	Firmware Version	System/Copy	CTL	[0 to 0 / 0 / 0/step]
7-911-002	Firmware Version	Engine	CTL	[0 to 0 / 0 / 0/step]
7-911-003	Firmware Version	Lcdc	CTL	[0 to 0 / 0 / 0/step]
7-911-007	Firmware Version	Finisher1	CTL	[0 to 0 / 0 / 0/step]
7-911-009	Firmware Version	Bank	CTL	[0 to 0 / 0 / 0/step]
7-911-012	Firmware Version	FCU	CTL	[0 to 0 / 0 / 0/step]
7-911-018	Firmware Version	NetworkSupport	CTL	[0 to 0 / 0 / 0/step]
7-911-019	Firmware Version	Bank2	CTL	[0 to 0 / 0 / 0/step]
7-911-022	Firmware Version	BIOS	CTL	[0 to 0 / 0 / 0/step]
7-911-023	Firmware Version	HDD Format Option	CTL	[0 to 0 / 0 / 0/step]
7-911-040	Firmware Version	Bank3	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-911-150	Firmware Version	RPCS	CTL	[0 to 0 / 0 / 0/step]
7-911-151	Firmware Version	PS	CTL	[0 to 0 / 0 / 0/step]
7-911-152	Firmware Version	RPDL	CTL	[0 to 0 / 0 / 0/step]
7-911-153	Firmware Version	R98	CTL	[0 to 0 / 0 / 0/step]
7-911-154	Firmware Version	R16	CTL	[0 to 0 / 0 / 0/step]
7-911-156	Firmware Version	R55	CTL	[0 to 0 / 0 / 0/step]
7-911-157	Firmware Version	RTIFF	CTL	[0 to 0 / 0 / 0/step]
7-911-158	Firmware Version	PCL	CTL	[0 to 0 / 0 / 0/step]
7-911-159	Firmware Version	PCLXL	CTL	[0 to 0 / 0 / 0/step]
7-911-160	Firmware Version	MSIS	CTL	[0 to 0 / 0 / 0/step]
7-911-162	Firmware Version	PDF	CTL	[0 to 0 / 0 / 0/step]
7-911-164	Firmware Version	PictBridge	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-911-165	Firmware Version	PJL	CTL	[0 to 0 / 0 / 0/step]
7-911-167	Firmware Version	MediaPrint:JPEG	CTL	[0 to 0 / 0 / 0/step]
7-911-168	Firmware Version	MediaPrint:TIFF	CTL	[0 to 0 / 0 / 0/step]
7-911-169	Firmware Version	XPS	CTL	[0 to 0 / 0 / 0/step]
7-911-180	Firmware Version	FONT	CTL	[0 to 0 / 0 / 0/step]
7-911-181	Firmware Version	FONT1	CTL	[0 to 0 / 0 / 0/step]
7-911-182	Firmware Version	FONT2	CTL	[0 to 0 / 0 / 0/step]
7-911-183	Firmware Version	FONT3	CTL	[0 to 0 / 0 / 0/step]
7-911-184	Firmware Version	FONT4	CTL	[0 to 0 / 0 / 0/step]
7-911-185	Firmware Version	FONT5	CTL	[0 to 0 / 0 / 0/step]
7-911-186	Firmware Version	FONT6	CTL	[0 to 0 / 0 / 0/step]
7-911-187	Firmware Version	FONT7	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-911-200	Firmware Version	Factory	CTL	[0 to 0 / 0 / 0/step]
7-911-201	Firmware Version	Copy	CTL	[0 to 0 / 0 / 0/step]
7-911-202	Firmware Version	NetworkDocBox	CTL	[0 to 0 / 0 / 0/step]
7-911-203	Firmware Version	Fax	CTL	[0 to 0 / 0 / 0/step]
7-911-204	Firmware Version	Printer	CTL	[0 to 0 / 0 / 0/step]
7-911-205	Firmware Version	Scanner	CTL	[0 to 0 / 0 / 0/step]
7-911-206	Firmware Version	RFax	CTL	[0 to 0 / 0 / 0/step]
7-911-210	Firmware Version	MIB	CTL	[0 to 0 / 0 / 0/step]
7-911-211	Firmware Version	Websupport	CTL	[0 to 0 / 0 / 0/step]
7-911-212	Firmware Version	WebUapl	CTL	[0 to 0 / 0 / 0/step]
7-911-213	Firmware Version	SDK1	CTL	[0 to 0 / 0 / 0/step]
7-911-214	Firmware Version	SDK2	CTL	[0 to 0 / 0 / 0/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-911-215	Firmware Version	SDK3	CTL	[0 to 0 / 0 / 0/step]
7-911-250	Firmware Version	Package	CTL	[0 to 0 / 0 / 0/step]
7-912-002	PCB Parts Number Display	BICU	ENG	[0 to 255 / 0 / 1/step]
7-913-002	PCB Serial Number Display	BICU	ENG	[0 to 255 / 0 / 1/step]
7-931-001	Toner Bottle Bk	Machine Serial ID	ENG*	[0 to 255 / 0 / 1/step]
7-931-002	Toner Bottle Bk	Cartridge Ver	ENG*	[0 to 255 / 0 / 1/step]
7-931-003	Toner Bottle Bk	Brand ID	ENG*	[0 to 255 / 0 / 1/step]
7-931-004	Toner Bottle Bk	Area ID	ENG*	[0 to 255 / 0 / 1/step]
7-931-005	Toner Bottle Bk	Product ID	ENG*	[0 to 255 / 0 / 1/step]
7-931-006	Toner Bottle Bk	Color ID	ENG*	[0 to 255 / 0 / 1/step]
7-931-007	Toner Bottle Bk	Maintenance ID	ENG*	[0 to 255 / 0 / 1/step]
7-931-008	Toner Bottle Bk	New Product Information	ENG*	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-931-009	Toner Bottle Bk	Recycle Counter	ENG*	[0 to 255 / 0 / 1/step]
7-931-010	Toner Bottle Bk	Date	ENG*	[0 to 1 / 0 / 1/step]
7-931-011	Toner Bottle Bk	SerialNo.	ENG*	[0 to 1 / 0 / 1/step]
7-931-012	Toner Bottle Bk	Toner Remaining	ENG*	[0 to 100 / 100 / 1%/step]
7-931-013	Toner Bottle Bk	EDP Code	ENG*	[0 to 1 / 0 / 1/step]
7-931-014	Toner Bottle Bk	End History	ENG*	[0 to 1 / 0 / 1/step]
7-931-015	Toner Bottle Bk	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-931-016	Toner Bottle Bk	Attachment: Total Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-931-017	Toner Bottle Bk	Attachment: Color Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-931-018	Toner Bottle Bk	End: Total Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-931-019	Toner Bottle Bk	End: Color Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-931-020	Toner Bottle Bk	Attachment Date	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-931-021	Toner Bottle Bk	End Date	ENG*	[0 to 1 / 0 / 1/step]
7-932-001	Toner Bottle M	Machine Serial ID	ENG*	[0 to 255 / 0 / 1/step]
7-932-002	Toner Bottle M	Cartridge Ver	ENG*	[0 to 255 / 0 / 1/step]
7-932-003	Toner Bottle M	Brand ID	ENG*	[0 to 255 / 0 / 1/step]
7-932-004	Toner Bottle M	Area ID	ENG*	[0 to 255 / 0 / 1/step]
7-932-005	Toner Bottle M	Product ID	ENG*	[0 to 255 / 0 / 1/step]
7-932-006	Toner Bottle M	Color ID	ENG*	[0 to 255 / 0 / 1/step]
7-932-007	Toner Bottle M	Maintenance ID	ENG*	[0 to 255 / 0 / 1/step]
7-932-008	Toner Bottle M	New Product Information	ENG*	[0 to 255 / 0 / 1/step]
7-932-009	Toner Bottle M	Recycle Counter	ENG*	[0 to 255 / 0 / 1/step]
7-932-010	Toner Bottle M	Date	ENG*	[0 to 1 / 0 / 1/step]
7-932-011	Toner Bottle M	SerialNo.	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-932-012	Toner Bottle M	Toner Remaining	ENG*	[0 to 100 / 100 / 1%/step]
7-932-013	Toner Bottle M	EDP Code	ENG*	[0 to 1 / 0 / 1/step]
7-932-014	Toner Bottle M	End History	ENG*	[0 to 1 / 0 / 1/step]
7-932-015	Toner Bottle M	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-932-016	Toner Bottle M	Attachment: Total Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-932-017	Toner Bottle M	Attachment: Color Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-932-018	Toner Bottle M	End: Total Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-932-019	Toner Bottle M	End: Color Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-932-020	Toner Bottle M	Attachment Date	ENG*	[0 to 1 / 0 / 1/step]
7-932-021	Toner Bottle M	End Date	ENG*	[0 to 1 / 0 / 1/step]
7-933-001	Toner Bottle C	Machine Serial ID	ENG*	[0 to 255 / 0 / 1/step]
7-933-002	Toner Bottle C	Cartridge Ver	ENG*	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-933-003	Toner Bottle C	Brand ID	ENG*	[0 to 255 / 0 / 1/step]
7-933-004	Toner Bottle C	Area ID	ENG*	[0 to 255 / 0 / 1/step]
7-933-005	Toner Bottle C	Product ID	ENG*	[0 to 255 / 0 / 1/step]
7-933-006	Toner Bottle C	Color ID	ENG*	[0 to 255 / 0 / 1/step]
7-933-007	Toner Bottle C	Maintenance ID	ENG*	[0 to 255 / 0 / 1/step]
7-933-008	Toner Bottle C	New Product Information	ENG*	[0 to 255 / 0 / 1/step]
7-933-009	Toner Bottle C	Recycle Counter	ENG*	[0 to 255 / 0 / 1/step]
7-933-010	Toner Bottle C	Date	ENG*	[0 to 1 / 0 / 1/step]
7-933-011	Toner Bottle C	SerialNo.	ENG*	[0 to 1 / 0 / 1/step]
7-933-012	Toner Bottle C	Toner Remaining	ENG*	[0 to 100 / 100 / 1%/step]
7-933-013	Toner Bottle C	EDP Code	ENG*	[0 to 1 / 0 / 1/step]
7-933-014	Toner Bottle C	End History	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-933-015	Toner Bottle C	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-933-016	Toner Bottle C	Attachment: Total Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-933-017	Toner Bottle C	Attachment: Color Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-933-018	Toner Bottle C	End: Total Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-933-019	Toner Bottle C	End: Color Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-933-020	Toner Bottle C	Attachment Date	ENG*	[0 to 1 / 0 / 1/step]
7-933-021	Toner Bottle C	End Date	ENG*	[0 to 1 / 0 / 1/step]
7-934-001	Toner Bottle Y	Machine Serial ID	ENG*	[0 to 255 / 0 / 1/step]
7-934-002	Toner Bottle Y	Cartridge Ver	ENG*	[0 to 255 / 0 / 1/step]
7-934-003	Toner Bottle Y	Brand ID	ENG*	[0 to 255 / 0 / 1/step]
7-934-004	Toner Bottle Y	Area ID	ENG*	[0 to 255 / 0 / 1/step]
7-934-005	Toner Bottle Y	Product ID	ENG*	[0 to 255 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-934-006	Toner Bottle Y	Color ID	ENG*	[0 to 255 / 0 / 1/step]
7-934-007	Toner Bottle Y	Maintenance ID	ENG*	[0 to 255 / 0 / 1/step]
7-934-008	Toner Bottle Y	New Product Information	ENG*	[0 to 255 / 0 / 1/step]
7-934-009	Toner Bottle Y	Recycle Counter	ENG*	[0 to 255 / 0 / 1/step]
7-934-010	Toner Bottle Y	Date	ENG*	[0 to 1 / 0 / 1/step]
7-934-011	Toner Bottle Y	SerialNo.	ENG*	[0 to 1 / 0 / 1/step]
7-934-012	Toner Bottle Y	Toner Remaining	ENG*	[0 to 100 / 100 / 1%/step]
7-934-013	Toner Bottle Y	EDP Code	ENG*	[0 to 1 / 0 / 1/step]
7-934-014	Toner Bottle Y	End History	ENG*	[0 to 1 / 0 / 1/step]
7-934-015	Toner Bottle Y	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-934-016	Toner Bottle Y	Attachment: Total Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-934-017	Toner Bottle Y	Attachment: Color Counter	ENG*	[0 to 99999999 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-934-018	Toner Bottle Y	End: Total Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-934-019	Toner Bottle Y	End: Color Counter	ENG*	[0 to 99999999 / 0 / 1/step]
7-934-020	Toner Bottle Y	Attachment Date	ENG*	[0 to 1 / 0 / 1/step]
7-934-021	Toner Bottle Y	End Date	ENG*	[0 to 1 / 0 / 1/step]
7-935-001	Toner Bottle Log 1: Bk	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-935-002	Toner Bottle Log 1: Bk	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-935-003	Toner Bottle Log 1: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-935-004	Toner Bottle Log 1: Bk	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-935-011	Toner Bottle Log 2: Bk	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-935-012	Toner Bottle Log 2: Bk	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-935-013	Toner Bottle Log 2: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-935-014	Toner Bottle Log 2: Bk	Refill Information	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-935-021	Toner Bottle Log 3: Bk	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-935-022	Toner Bottle Log 3: Bk	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-935-023	Toner Bottle Log 3: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-935-024	Toner Bottle Log 3: Bk	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-935-031	Toner Bottle Log 4: Bk	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-935-032	Toner Bottle Log 4: Bk	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-935-033	Toner Bottle Log 4: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-935-034	Toner Bottle Log 4: Bk	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-935-041	Toner Bottle Log 5: Bk	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-935-042	Toner Bottle Log 5: Bk	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-935-043	Toner Bottle Log 5: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-935-044	Toner Bottle Log 5: Bk	Refill Information	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-936-001	Toner Bottle Log 1: M	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-936-002	Toner Bottle Log 1: M	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-936-003	Toner Bottle Log 1: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-936-004	Toner Bottle Log 1: M	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-936-011	Toner Bottle Log 2: M	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-936-012	Toner Bottle Log 2: M	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-936-013	Toner Bottle Log 2: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-936-014	Toner Bottle Log 2: M	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-936-021	Toner Bottle Log 3: M	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-936-022	Toner Bottle Log 3: M	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-936-023	Toner Bottle Log 3: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-936-024	Toner Bottle Log 3: M	Refill Information	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-936-031	Toner Bottle Log 4: M	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-936-032	Toner Bottle Log 4: M	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-936-033	Toner Bottle Log 4: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-936-034	Toner Bottle Log 4: M	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-936-041	Toner Bottle Log 5: M	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-936-042	Toner Bottle Log 5: M	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-936-043	Toner Bottle Log 5: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-936-044	Toner Bottle Log 5: M	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-937-001	Toner Bottle Log 1: C	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-937-002	Toner Bottle Log 1: C	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-937-003	Toner Bottle Log 1: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-937-004	Toner Bottle Log 1: C	Refill Information	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-937-011	Toner Bottle Log 2: C	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-937-012	Toner Bottle Log 2: C	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-937-013	Toner Bottle Log 2: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-937-014	Toner Bottle Log 2: C	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-937-021	Toner Bottle Log 3: C	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-937-022	Toner Bottle Log 3: C	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-937-023	Toner Bottle Log 3: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-937-024	Toner Bottle Log 3: C	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-937-031	Toner Bottle Log 4: C	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-937-032	Toner Bottle Log 4: C	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-937-033	Toner Bottle Log 4: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-937-034	Toner Bottle Log 4: C	Refill Information	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-937-041	Toner Bottle Log 5: C	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-937-042	Toner Bottle Log 5: C	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-937-043	Toner Bottle Log 5: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-937-044	Toner Bottle Log 5: C	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-938-001	Toner Bottle Log 1: Y	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-938-002	Toner Bottle Log 1: Y	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-938-003	Toner Bottle Log 1: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-938-004	Toner Bottle Log 1: Y	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-938-011	Toner Bottle Log 2: Y	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-938-012	Toner Bottle Log 2: Y	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-938-013	Toner Bottle Log 2: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-938-014	Toner Bottle Log 2: Y	Refill Information	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-938-021	Toner Bottle Log 3: Y	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-938-022	Toner Bottle Log 3: Y	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-938-023	Toner Bottle Log 3: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-938-024	Toner Bottle Log 3: Y	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-938-031	Toner Bottle Log 4: Y	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-938-032	Toner Bottle Log 4: Y	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-938-033	Toner Bottle Log 4: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-938-034	Toner Bottle Log 4: Y	Refill Information	ENG*	[0 to 1 / 0 / 1/step]
7-938-041	Toner Bottle Log 5: Y	SerialNo.	ENG	[0 to 1 / 0 / 1/step]
7-938-042	Toner Bottle Log 5: Y	Attachment Date	ENG	[0 to 1 / 0 / 1/step]
7-938-043	Toner Bottle Log 5: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1/step]
7-938-044	Toner Bottle Log 5: Y	Refill Information	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-940-002	PM Value Setting:Life Distance	# PCU:Bk	ENG	[0 to 999999999 / 0 / 1mm/step]
7-940-003	PM Value Setting:Life Distance	# Dev Unit:Bk	ENG	[0 to 999999999 / 0 / 1mm/step]
7-940-025	PM Value Setting:Life Distance	# PCU:C	ENG	[0 to 999999999 / 0 / 1mm/step]
7-940-026	PM Value Setting:Life Distance	# Dev Unit:C	ENG	[0 to 999999999 / 0 / 1mm/step]
7-940-048	PM Value Setting:Life Distance	# PCU:M	ENG	[0 to 999999999 / 0 / 1mm/step]
7-940-049	PM Value Setting:Life Distance	# Dev Unit:M	ENG	[0 to 999999999 / 0 / 1mm/step]
7-940-071	PM Value Setting:Life Distance	# PCU:Y	ENG	[0 to 999999999 / 0 / 1mm/step]
7-940-072	PM Value Setting:Life Distance	# Dev Unit:Y	ENG	[0 to 999999999 / 0 / 1mm/step]
7-940-093	PM Value Setting:Life Distance	# ITB Unit	ENG	[0 to 999999999 / 99454501 / 1mm/step]
7-940-102	PM Value Setting:Life Distance	# ITB Cleaning Unit	ENG	[0 to 999999999 / 99454501 / 1mm/step]
7-940-109	PM Value Setting:Life Distance	# PTR Unit	ENG	[0 to 999999999 / 99454501 / 1mm/step]
7-940-115	PM Value Setting:Life Distance	# Fusing Unit	ENG	[0 to 999999999 / 168978600 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-940-116	PM Value Setting:Life Distance	Fusing Sleeve	ENG	[0 to 999999999 / 168978600 / 1mm/step]
7-940-118	PM Value Setting:Life Distance	Pressure Roller	ENG	[0 to 999999999 / 168978600 / 1mm/step]
7-942-002	PM Counter Display:Distance(%)	# PCU:Bk	ENG	[0 to 255 / 0 / 1%/step]
7-942-003	PM Counter Display:Distance(%)	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1%/step]
7-942-025	PM Counter Display:Distance(%)	# PCU:C	ENG	[0 to 255 / 0 / 1%/step]
7-942-026	PM Counter Display:Distance(%)	# Dev Unit:C	ENG	[0 to 255 / 0 / 1%/step]
7-942-048	PM Counter Display:Distance(%)	# PCU:M	ENG	[0 to 255 / 0 / 1%/step]
7-942-049	PM Counter Display:Distance(%)	# Dev Unit:M	ENG	[0 to 255 / 0 / 1%/step]
7-942-071	PM Counter Display:Distance(%)	# PCU:Y	ENG	[0 to 255 / 0 / 1%/step]
7-942-072	PM Counter Display:Distance(%)	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1%/step]
7-942-093	PM Counter Display:Distance(%)	# ITB Unit	ENG	[0 to 255 / 0 / 1%/step]
7-942-102	PM Counter Display:Distance(%)	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-942-109	PM Counter Display:Distance(%)	# PTR Unit	ENG	[0 to 255 / 0 / 1%/step]
7-942-115	PM Counter Display:Distance(%)	# Fusing Unit	ENG	[0 to 255 / 0 / 1%/step]
7-942-116	PM Counter Display:Distance(%)	Fusing Sleeve	ENG	[0 to 255 / 0 / 1%/step]
7-942-118	PM Counter Display:Distance(%)	Pressure Roller	ENG	[0 to 255 / 0 / 1%/step]
7-944-002	PM Counter Display: Distance	# PCU:Bk	ENG*	[0 to 4294967295 / 0 / 1mm/step]
7-944-003	PM Counter Display: Distance	# Dev Unit:Bk	ENG*	[0 to 4294967295 / 0 / 1mm/step]
7-944-025	PM Counter Display: Distance	# PCU:C	ENG*	[0 to 4294967295 / 0 / 1mm/step]
7-944-026	PM Counter Display: Distance	# Dev Unit:C	ENG*	[0 to 4294967295 / 0 / 1mm/step]
7-944-048	PM Counter Display: Distance	# PCU:M	ENG*	[0 to 4294967295 / 0 / 1mm/step]
7-944-049	PM Counter Display: Distance	# Dev Unit:M	ENG*	[0 to 4294967295 / 0 / 1mm/step]
7-944-071	PM Counter Display: Distance	# PCU:Y	ENG*	[0 to 4294967295 / 0 / 1mm/step]
7-944-072	PM Counter Display: Distance	# Dev Unit:Y	ENG*	[0 to 4294967295 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-944-093	PM Counter Display: Distance	# ITB Unit	ENG*	[0 to 4294967295 / 0 / 1mm/step]
7-944-102	PM Counter Display: Distance	# ITB Cleaning Unit	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-109	PM Counter Display: Distance	# PTR Unit	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-115	PM Counter Display: Distance	# Fusing Unit	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-116	PM Counter Display: Distance	Fusing Sleeve	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-118	PM Counter Display: Distance	Pressure Roller	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-220	PM Counter Display: Distance	Toner Sub Hopper:Bk	ENG	[0 to 999999999 / 0 / 1/step]
7-944-221	PM Counter Display: Distance	Toner Sub Hopper:C	ENG	[0 to 999999999 / 0 / 1/step]
7-944-222	PM Counter Display: Distance	Toner Sub Hopper:M	ENG	[0 to 999999999 / 0 / 1/step]
7-944-223	PM Counter Display: Distance	Toner Sub Hopper:Y	ENG	[0 to 999999999 / 0 / 1/step]
7-944-230	PM Counter Display: Distance	Low Speed: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-231	PM Counter Display: Distance	Low Speed: # PCU:C	ENG	[0 to 4294967295 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-944-232	PM Counter Display: Distance	Low Speed: # PCU:M	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-233	PM Counter Display: Distance	Low Speed: # PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-234	PM Counter Display: Distance	Middle Speed: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-235	PM Counter Display: Distance	Middle Speed: # PCU:C	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-236	PM Counter Display: Distance	Middle Speed: # PCU:M	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-237	PM Counter Display: Distance	Middle Speed: # PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-238	PM Counter Display: Distance	Standard Speed2: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm/step]
7-944-240	PM Counter Display: Distance	ITB Unit:FC	ENG*	[0 to 4294967295 / 0 / 1mm/step]
7-950-002	Unit Replacement Date	# PCU:Bk	ENG*	[0 to 1 / 0 / 1/step]
7-950-003	Unit Replacement Date	# Dev Unit:Bk	ENG*	[0 to 1 / 0 / 1/step]
7-950-025	Unit Replacement Date	# PCU:C	ENG*	[0 to 1 / 0 / 1/step]
7-950-026	Unit Replacement Date	# Dev Unit:C	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-950-048	Unit Replacement Date	# PCU:M	ENG*	[0 to 1 / 0 / 1/step]
7-950-049	Unit Replacement Date	# Dev Unit:M	ENG*	[0 to 1 / 0 / 1/step]
7-950-071	Unit Replacement Date	# PCU:Y	ENG*	[0 to 1 / 0 / 1/step]
7-950-072	Unit Replacement Date	# Dev Unit:Y	ENG*	[0 to 1 / 0 / 1/step]
7-950-093	Unit Replacement Date	# ITB Unit	ENG*	[0 to 1 / 0 / 1/step]
7-950-102	Unit Replacement Date	# ITB Cleaning Unit	ENG*	[0 to 1 / 0 / 1/step]
7-950-109	Unit Replacement Date	# PTR Unit	ENG*	[0 to 1 / 0 / 1/step]
7-950-115	Unit Replacement Date	# Fusing Unit	ENG*	[0 to 1 / 0 / 1/step]
7-950-116	Unit Replacement Date	Fusing Sleeve	ENG*	[0 to 1 / 0 / 1/step]
7-950-118	Unit Replacement Date	Pressure Roller	ENG*	[0 to 1 / 0 / 1/step]
7-950-142	Unit Replacement Date	#Waste Toner bottle	ENG*	[0 to 1 / 0 / 1/step]
7-950-145	Unit Replacement Date	Tray1 Roller Assembly	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-950-147	Unit Replacement Date	#IMC300:PaperFeedRoller:Tray1	ENG*	[0 to 1 / 0 / 1/step]
7-950-148	Unit Replacement Date	#IMC300:FrictionPad:Tray1	ENG*	[0 to 1 / 0 / 1/step]
7-950-149	Unit Replacement Date	Tray 2 Roller Assembly	ENG*	[0 to 1 / 0 / 1/step]
7-950-150	Unit Replacement Date	#Paper Feed Roller:Tray 2	ENG*	[0 to 1 / 0 / 1/step]
7-950-151	Unit Replacement Date	#Friction Pad:Bank 2	ENG*	[0 to 1 / 0 / 1/step]
7-950-152	Unit Replacement Date	Tray 3 Roller Assembly	ENG*	[0 to 1 / 0 / 1/step]
7-950-153	Unit Replacement Date	#Paper Feed Roller:Tray 3	ENG*	[0 to 1 / 0 / 1/step]
7-950-154	Unit Replacement Date	#Friction Pad:Bank 3	ENG*	[0 to 1 / 0 / 1/step]
7-950-155	Unit Replacement Date	Tray 4 Roller Assembly	ENG*	[0 to 1 / 0 / 1/step]
7-950-156	Unit Replacement Date	#Paper Feed Roller:Tray 4	ENG*	[0 to 1 / 0 / 1/step]
7-950-157	Unit Replacement Date	#Friction Pad:Bank 4	ENG*	[0 to 1 / 0 / 1/step]
7-950-158	Unit Replacement Date	#IMC400:Pick-upRoller:Tray1	ENG*	[0 to 1 / 0 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-950-159	Unit Replacement Date	#IMC400:FeedingRoller:Tray1	ENG*	[0 to 1 / 0 / 1/step]
7-950-160	Unit Replacement Date	#IMC400:SeparationRoller:Tray1	ENG*	[0 to 1 / 0 / 1/step]
7-950-169	Unit Replacement Date	#Feed Roller:Bypass	ENG*	[0 to 1 / 0 / 1/step]
7-951-002	Remain Day Counter: Pages	# PCU:Bk	ENG	[0 to 255 / 255 / 1days/step]
7-951-003	Remain Day Counter: Pages	# Dev Unit:Bk	ENG	[0 to 255 / 255 / 1days/step]
7-951-025	Remain Day Counter: Pages	# PCU:C	ENG	[0 to 255 / 255 / 1days/step]
7-951-026	Remain Day Counter: Pages	# Dev Unit:C	ENG	[0 to 255 / 255 / 1days/step]
7-951-048	Remain Day Counter: Pages	# PCU:M	ENG	[0 to 255 / 255 / 1days/step]
7-951-049	Remain Day Counter: Pages	# Dev Unit:M	ENG	[0 to 255 / 255 / 1days/step]
7-951-071	Remain Day Counter: Pages	# PCU:Y	ENG	[0 to 255 / 255 / 1days/step]
7-951-072	Remain Day Counter: Pages	# Dev Unit:Y	ENG	[0 to 255 / 255 / 1days/step]
7-951-093	Remain Day Counter: Pages	# ITB Unit	ENG	[0 to 255 / 255 / 1days/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-951-102	Remain Day Counter: Pages	# ITB Cleaning Unit	ENG	[0 to 255 / 255 / 1days/step]
7-951-109	Remain Day Counter: Pages	# PTR Unit	ENG	[0 to 255 / 255 / 1days/step]
7-951-115	Remain Day Counter: Pages	# Fusing Unit	ENG	[0 to 255 / 255 / 1days/step]
7-951-116	Remain Day Counter: Pages	Fusing Sleeve	ENG	[0 to 255 / 255 / 1days/step]
7-951-118	Remain Day Counter: Pages	Pressure Roller	ENG	[0 to 255 / 255 / 1days/step]
7-951-142	Remain Day Counter: Pages	#Waste Toner bottle	ENG	[0 to 255 / 255 / 1days/step]
7-951-145	Remain Day Counter: Pages	Tray1 Roller Assembly	ENG	[0 to 255 / 255 / 1days/step]
7-951-147	Remain Day Counter: Pages	#IMC300:PaperFeedRoller:Tray1	ENG	[0 to 255 / 255 / 1days/step]
7-951-148	Remain Day Counter: Pages	#IMC300:FrictionPad:Tray1	ENG	[0 to 255 / 255 / 1days/step]
7-951-149	Remain Day Counter: Pages	Tray 2 Roller Assembly	ENG	[0 to 255 / 255 / 1days/step]
7-951-150	Remain Day Counter: Pages	#Paper Feed Roller:Tray 2	ENG	[0 to 255 / 255 / 1days/step]
7-951-151	Remain Day Counter: Pages	#Friction Pad:Bank 2	ENG	[0 to 255 / 255 / 1days/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-951-152	Remain Day Counter: Pages	Tray 3 Roller Assembly	ENG	[0 to 255 / 255 / 1days/step]
7-951-153	Remain Day Counter: Pages	#Paper Feed Roller:Tray 3	ENG	[0 to 255 / 255 / 1days/step]
7-951-154	Remain Day Counter: Pages	#Friction Pad:Bank 3	ENG	[0 to 255 / 255 / 1days/step]
7-951-155	Remain Day Counter: Pages	Tray 4 Roller Assembly	ENG	[0 to 255 / 255 / 1days/step]
7-951-156	Remain Day Counter: Pages	#Paper Feed Roller:Tray 4	ENG	[0 to 255 / 255 / 1days/step]
7-951-157	Remain Day Counter: Pages	#Friction Pad:Bank 4	ENG	[0 to 255 / 255 / 1days/step]
7-951-158	Remain Day Counter: Pages	#IMC400:Pick-upRoller:Tray1	ENG	[0 to 255 / 255 / 1days/step]
7-951-159	Remain Day Counter: Pages	#IMC400:FeedingRoller:Tray1	ENG	[0 to 255 / 255 / 1days/step]
7-951-160	Remain Day Counter: Pages	#IMC400:SeparationRoller:Tray1	ENG	[0 to 255 / 255 / 1days/step]
7-951-169	Remain Day Counter: Pages	#Feed Roller:Bypass	ENG	[0 to 255 / 255 / 1days/step]
7-952-002	Remain Day Counter: Distance	# PCU:Bk	ENG	[0 to 255 / 255 / 1days/step]
7-952-003	Remain Day Counter: Distance	# Dev Unit:Bk	ENG	[0 to 255 / 255 / 1days/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-952-025	Remain Day Counter: Distance	# PCU:C	ENG	[0 to 255 / 255 / 1days/step]
7-952-026	Remain Day Counter: Distance	# Dev Unit:C	ENG	[0 to 255 / 255 / 1days/step]
7-952-048	Remain Day Counter: Distance	# PCU:M	ENG	[0 to 255 / 255 / 1days/step]
7-952-049	Remain Day Counter: Distance	# Dev Unit:M	ENG	[0 to 255 / 255 / 1days/step]
7-952-071	Remain Day Counter: Distance	# PCU:Y	ENG	[0 to 255 / 255 / 1days/step]
7-952-072	Remain Day Counter: Distance	# Dev Unit:Y	ENG	[0 to 255 / 255 / 1days/step]
7-952-093	Remain Day Counter: Distance	# ITB Unit	ENG	[0 to 255 / 255 / 1days/step]
7-952-102	Remain Day Counter: Distance	# ITB Cleaning Unit	ENG	[0 to 255 / 255 / 1days/step]
7-952-109	Remain Day Counter: Distance	# PTR Unit	ENG	[0 to 255 / 255 / 1days/step]
7-952-115	Remain Day Counter: Distance	# Fusing Unit	ENG	[0 to 255 / 255 / 1days/step]
7-952-116	Remain Day Counter: Distance	Fusing Sleeve	ENG	[0 to 255 / 255 / 1days/step]
7-952-118	Remain Day Counter: Distance	Pressure Roller	ENG	[0 to 255 / 255 / 1days/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-953-001	Operation Env. Log: PCU: Bk	T<=0	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-002	Operation Env. Log: PCU: Bk	0<T<=5:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-003	Operation Env. Log: PCU: Bk	0<T<=5:30<=H<70	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-004	Operation Env. Log: PCU: Bk	0<T<=5:70<=H<=100	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-005	Operation Env. Log: PCU: Bk	5<T<15:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-006	Operation Env. Log: PCU: Bk	5<T<15:30<=H<55	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-007	Operation Env. Log: PCU: Bk	5<T<15:55<=H<80	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-008	Operation Env. Log: PCU: Bk	5<T<15:80<=H<=100	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-009	Operation Env. Log: PCU: Bk	15<=T<25:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-010	Operation Env. Log: PCU: Bk	15<=T<25:30<=H<55	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-011	Operation Env. Log: PCU: Bk	15<=T<25:55<=H<80	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-012	Operation Env. Log: PCU: Bk	15<=T<25:80<=H<=100	ENG	[0 to 99999999 / 0 / 1mm/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-953-013	Operation Env. Log: PCU: Bk	25<=T<30:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-014	Operation Env. Log: PCU: Bk	25<=T<30:30<=H<55	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-015	Operation Env. Log: PCU: Bk	25<=T<30:55<=H<80	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-016	Operation Env. Log: PCU: Bk	25<=T<30:80<=H<=100	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-017	Operation Env. Log: PCU: Bk	30<=T<35:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-018	Operation Env. Log: PCU: Bk	30<=T<35:30<=H<55	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-019	Operation Env. Log: PCU: Bk	30<=T<35:55<=H<80	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-020	Operation Env. Log: PCU: Bk	30<=T<35:80<=H<=100	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-021	Operation Env. Log: PCU: Bk	35<=T	ENG	[0 to 99999999 / 0 / 1mm/step]
7-953-100	Operation Env. Log Clear		ENG	[0 to 1 / 0 / 1/step]
7-954-002	PM Counter Display: Pages (%)	# PCU:Bk	ENG	[0 to 255 / 0 / 1%/step]
7-954-003	PM Counter Display: Pages (%)	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-954-025	PM Counter Display: Pages (%)	# PCU:C	ENG	[0 to 255 / 0 / 1%/step]
7-954-026	PM Counter Display: Pages (%)	# Dev Unit:C	ENG	[0 to 255 / 0 / 1%/step]
7-954-048	PM Counter Display: Pages (%)	# PCU:M	ENG	[0 to 255 / 0 / 1%/step]
7-954-049	PM Counter Display: Pages (%)	# Dev Unit:M	ENG	[0 to 255 / 0 / 1%/step]
7-954-071	PM Counter Display: Pages (%)	# PCU:Y	ENG	[0 to 255 / 0 / 1%/step]
7-954-072	PM Counter Display: Pages (%)	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1%/step]
7-954-093	PM Counter Display: Pages (%)	# ITB Unit	ENG	[0 to 255 / 0 / 1%/step]
7-954-102	PM Counter Display: Pages (%)	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1%/step]
7-954-109	PM Counter Display: Pages (%)	# PTR Unit	ENG	[0 to 255 / 0 / 1%/step]
7-954-115	PM Counter Display: Pages (%)	# Fusing Unit	ENG	[0 to 255 / 0 / 1%/step]
7-954-116	PM Counter Display: Pages (%)	Fusing Sleeve	ENG	[0 to 255 / 0 / 1%/step]
7-954-118	PM Counter Display: Pages (%)	Pressure Roller	ENG	[0 to 255 / 0 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-954-142	PM Counter Display: Pages (%)	#Waste Toner bottle	ENG	[0 to 255 / 0 / 1%/step]
7-954-145	PM Counter Display: Pages (%)	Tray1 Roller Assembly	ENG	[0 to 255 / 0 / 1%/step]
7-954-147	PM Counter Display: Pages (%)	#IMC300:PaperFeedRoller:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-954-148	PM Counter Display: Pages (%)	#IMC300:FrictionPad:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-954-149	PM Counter Display: Pages (%)	Tray 2 Roller Assembly	ENG	[0 to 255 / 0 / 1%/step]
7-954-150	PM Counter Display: Pages (%)	#Paper Feed Roller:Tray 2	ENG	[0 to 255 / 0 / 1%/step]
7-954-151	PM Counter Display: Pages (%)	#Friction Pad:Bank 2	ENG	[0 to 255 / 0 / 1%/step]
7-954-152	PM Counter Display: Pages (%)	Tray 3 Roller Assembly	ENG	[0 to 255 / 0 / 1%/step]
7-954-153	PM Counter Display: Pages (%)	#Paper Feed Roller:Tray 3	ENG	[0 to 255 / 0 / 1%/step]
7-954-154	PM Counter Display: Pages (%)	#Friction Pad:Bank 3	ENG	[0 to 255 / 0 / 1%/step]
7-954-155	PM Counter Display: Pages (%)	Tray 4 Roller Assembly	ENG	[0 to 255 / 0 / 1%/step]
7-954-156	PM Counter Display: Pages (%)	#Paper Feed Roller:Tray 4	ENG	[0 to 255 / 0 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-954-157	PM Counter Display: Pages (%)	#Friction Pad:Bank 4	ENG	[0 to 255 / 0 / 1%/step]
7-954-158	PM Counter Display: Pages (%)	#IMC400:Pick-upRoller:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-954-159	PM Counter Display: Pages (%)	#IMC400:FeedingRoller:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-954-160	PM Counter Display: Pages (%)	#IMC400:SeparationRoller:Tray1	ENG	[0 to 255 / 0 / 1%/step]
7-954-169	PM Counter Display: Pages (%)	#Feed Roller:Bypass	ENG	[0 to 255 / 0 / 1%/step]
7-958-002	PM Value Setting:DaysThreshold	# PCU:Bk	ENG	[1 to 30 / 15 / 1days/step]
7-958-003	PM Value Setting:DaysThreshold	# Dev Unit:Bk	ENG	[1 to 30 / 15 / 1days/step]
7-958-025	PM Value Setting:DaysThreshold	# PCU:C	ENG	[1 to 30 / 15 / 1days/step]
7-958-026	PM Value Setting:DaysThreshold	# Dev Unit:C	ENG	[1 to 30 / 15 / 1days/step]
7-958-048	PM Value Setting:DaysThreshold	# PCU:M	ENG	[1 to 30 / 15 / 1days/step]
7-958-049	PM Value Setting:DaysThreshold	# Dev Unit:M	ENG	[1 to 30 / 15 / 1days/step]
7-958-071	PM Value Setting:DaysThreshold	# PCU:Y	ENG	[1 to 30 / 15 / 1days/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-958-072	PM Value Setting:DaysThreshold	# Dev Unit:Y	ENG	[1 to 30 / 15 / 1days/step]
7-958-093	PM Value Setting:DaysThreshold	# ITB Unit	ENG	[1 to 30 / 15 / 1days/step]
7-958-102	PM Value Setting:DaysThreshold	# ITB Cleaning Unit	ENG	[1 to 30 / 15 / 1days/step]
7-958-109	PM Value Setting:DaysThreshold	# PTR Unit	ENG	[1 to 30 / 15 / 1days/step]
7-958-115	PM Value Setting:DaysThreshold	# Fusing Unit	ENG	[1 to 30 / 15 / 1days/step]
7-958-116	PM Value Setting:DaysThreshold	Fusing Sleeve	ENG	[1 to 30 / 15 / 1days/step]
7-958-118	PM Value Setting:DaysThreshold	Pressure Roller	ENG	[1 to 30 / 15 / 1days/step]
7-958-142	PM Value Setting:DaysThreshold	#Waste Toner bottle	ENG	[1 to 30 / 15 / 1days/step]
7-958-145	PM Value Setting:DaysThreshold	Tray1 Roller Assembly	ENG	[1 to 30 / 15 / 1days/step]
7-958-147	PM Value Setting:DaysThreshold	#IMC300:PaperFeedRoller:Tray1	ENG	[1 to 30 / 15 / 1days/step]
7-958-148	PM Value Setting:DaysThreshold	#IMC300:FrictionPad:Tray1	ENG	[1 to 30 / 15 / 1days/step]
7-958-149	PM Value Setting:DaysThreshold	Tray 2 Roller Assembly	ENG	[1 to 30 / 15 / 1days/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-958-150	PM Value Setting:DaysThreshold	#Paper Feed Roller:Tray 2	ENG	[1 to 30 / 15 / 1days/step]
7-958-151	PM Value Setting:DaysThreshold	#Friction Pad:Bank 2	ENG	[1 to 30 / 15 / 1days/step]
7-958-152	PM Value Setting:DaysThreshold	Tray 3 Roller Assembly	ENG	[1 to 30 / 15 / 1days/step]
7-958-153	PM Value Setting:DaysThreshold	#Paper Feed Roller:Tray 3	ENG	[1 to 30 / 15 / 1days/step]
7-958-154	PM Value Setting:DaysThreshold	#Friction Pad:Bank 3	ENG	[1 to 30 / 15 / 1days/step]
7-958-155	PM Value Setting:DaysThreshold	Tray 4 Roller Assembly	ENG	[1 to 30 / 15 / 1days/step]
7-958-156	PM Value Setting:DaysThreshold	#Paper Feed Roller:Tray 4	ENG	[1 to 30 / 15 / 1days/step]
7-958-157	PM Value Setting:DaysThreshold	#Friction Pad:Bank 4	ENG	[1 to 30 / 15 / 1days/step]
7-958-158	PM Value Setting:DaysThreshold	#IMC400:Pick-upRoller:Tray1	ENG	[1 to 30 / 15 / 1days/step]
7-958-159	PM Value Setting:DaysThreshold	#IMC400:FeedingRoller:Tray1	ENG	[1 to 30 / 15 / 1days/step]
7-958-160	PM Value Setting:DaysThreshold	#IMC400:SeparationRoller:Tray1	ENG	[1 to 30 / 15 / 1days/step]
7-958-169	PM Value Setting:DaysThreshold	#Feed Roller:Bypass	ENG	[1 to 30 / 15 / 1days/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-978-001	SC670-01 Log	First Occurred	ENG*	[0 to 1 / 0 / 1/step]
7-978-002	SC670-01 Log	First Data1	ENG*	[0x00000000 to 0xFFFFFFFF / 0x00000000 / 1/step]
7-978-003	SC670-01 Log	First Data2	ENG*	[0x00000000 to 0xFFFFFFFF / 0x00000000 / 1/step]
7-978-004	SC670-01 Log	First Data3	ENG*	[0x00000000 to 0xFFFFFFFF / 0x00000000 / 1/step]
7-978-005	SC670-01 Log	First Data4	ENG*	[0x00000000 to 0xFFFFFFFF / 0x00000000 / 1/step]
7-978-006	SC670-01 Log	First Data5	ENG*	[0x00000000 to 0xFFFFFFFF / 0x00000000 / 1/step]
7-978-011	SC670-01 Log	Latest Occurred	ENG*	[0 to 1 / 0 / 1/step]
7-978-012	SC670-01 Log	Latest Data1	ENG*	[0x00000000 to 0xFFFFFFFF / 0x00000000 / 1/step]
7-978-013	SC670-01 Log	Latest Data2	ENG*	[0x00000000 to 0xFFFFFFFF / 0x00000000 / 1/step]
7-978-	SC670-01 Log	Latest Data3	ENG*	[0x00000000 to 0xFFFFFFFF /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
014				0x00000000 / 1/step]
7-978-015	SC670-01 Log	Latest Data4	ENG*	[0x00000000 to 0xFFFFFFFF / 0x00000000 / 1/step]
7-978-016	SC670-01 Log	Latest Data5	ENG*	[0x00000000 to 0xFFFFFFFF / 0x00000000 / 1/step]
7-979-001	CPU Reset Log	Data1	ENG*	[0x00 to 0xFF / 0x00 / 1/step]
7-979-002	CPU Reset Log	Data2	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-003	CPU Reset Log	Data3	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-004	CPU Reset Log	Data4	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-005	CPU Reset Log	Data5	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-006	CPU Reset Log	Data6	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-007	CPU Reset Log	Data7	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-008	CPU Reset Log	Data8	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-	CPU Reset Log	Data9	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
009				
7-979-010	CPU Reset Log	Data10	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-011	CPU Reset Log	Data11	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-012	CPU Reset Log	Data12	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-013	CPU Reset Log	Data13	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-014	CPU Reset Log	Data14	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-015	CPU Reset Log	Data15	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-016	CPU Reset Log	Data16	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-017	CPU Reset Log	Data17	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-018	CPU Reset Log	Data18	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-019	CPU Reset Log	Data19	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-979-020	CPU Reset Log	Data20	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1/step]
7-	CPU Reset Log	Data21	ENG*	[0x0000 to 0xFFFF /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
979-021				0x0000 / 1/step]

SP8-XXX (Data Log2)

Overview

Many of these counters are provided for features that are currently not available, such as sending color faxes, and so on. However, here are some Group 8 codes that when used in combination with others, can provide useful information.

SP Numbers	What They Do
SP8-211 to SP8-216	The number of pages scanned to the document server.
SP8-401 to SP8-406	The number of pages printed from the document server.
SP8-691 to SP8-696	The number of pages sent from the document server.

Specifically, the following questions can be answered:

- How is the document server actually being used?
- What application is using the document server most frequently?
- What data in the document server is being reused?

Most of the SPs in this group are prefixed with a letter that indicates the mode of operation (the mode of operation is referred to as an "application"). Before reading the Group 8 Service Table, make sure that you understand what these prefixes mean.

Prefixes	What it means	
T:	Total: (Grand Total).	Grand total of the items counted for all applications (C, F, P, etc.).
C:	Copy application.	Totals (pages, jobs, etc.) executed for each application when the job was not stored on the document server.
F:	Fax application.	
P:	Print application.	
S:	Scan application.	
L:	Local storage (document server)	Totals (jobs, pages, etc.) for the document server. The L: counters work differently case by case. Sometimes, they count jobs/pages stored on the document server; this can be in document server mode (from the document server window), or from another mode, such as from a printer driver or by pressing the Store File button in the Copy mode window. Sometimes, they include occasions when the user uses a file that is already on the document server. Each counter will be discussed case by case.
O:	Other applications (external network applications, for example)	Refers to network applications such as Web Image Monitor. Utilities developed with the SDK (Software Development Kit) will also be counted with this group in the future.

The Group 8 SP codes are limited to 17 characters, forced by the necessity of displaying them on the small LCDs of printers and faxes that also use these SPs. Read over the list of abbreviations below and refer to it again if you see the name of an SP that you do not understand.

Key for Abbreviations

Abbreviation	What it means
/	"By", e.g. "T:Jobs/Apl" = Total Jobs "by" Application
>	More (2> "2 or more", 4> "4 or more"
AddBook	Address Book
Apl	Application
B/W	Black & White
Bk	Black
C	Cyan
ColCr	Color Create
ColMode	Color Mode
Comb	Combine
Comp	Compression
Deliv	Delivery
DesApl	Designated Application. The application (Copy, Fax, Scan, Print) used to store the job on the document server, for example.
Dev Counter	Development Count, no. of pages developed.
Dup, Duplex	Duplex, printing on both sides
Emul	Emulation
FC	Full Color
FIN	Post-print processing, i.e. finishing (punching, stapling, etc.)
Full Bleed	No Margins
GenCopy	Generation Copy Mode
GPC	Get Print Counter. For jobs 10 pages or less, this counter does not count up. For jobs larger than 10 pages, this counter counts up by the number that is in excess of 10 (e.g., for an 11-page job, the counter counts up 11-10 =1)
IFax	Internet Fax
ImgEdt	Image Edit performed on the original with the copier GUI, e.g. border removal, adding stamps, page numbers, etc.
K	Black (YMCK)
LS	Local Storage. Refers to the document server.
LSize	Large (paper) Size
Mag	Magnification
MC	One color (monochrome)
NRS	New Remote Service, which allows a service center to monitor machines remotely. "NRS" is used overseas, "CSS" is used in Japan.
Org	Original for scanning
OrgJam	Original Jam

Abbreviation	What it means
Palm 2	Print Job Manager/Desk Top Editor: A pair of utilities that allows print jobs to be distributed evenly among the printers on the network, and allows files to moved around, combined, and converted to different formats.
PC	Personal Computer
PGS	Pages. A page is the total scanned surface of the original. Duplex pages count as two pages, and A3 simplex count as two pages if the A3/DLT counter SP is switched ON.
PJob	Print Jobs
Ppr	Paper
PrtJam	Printer (plotter) Jam
PrtPGS	Print Pages
R	Red (Toner Remaining). Applies to the wide format model A2 only. This machine is under development and currently not available.
Rez	Resolution
SC	Service Code (Error SC code displayed)
Scn	Scan
Sim, Simplex	Simplex, printing on 1 side.
S-to-Email	Scan-to-E-mail
SMC	SMC report printed with SP5-990. All of the Group 8 counters are recorded in the SMC report.
Svr	Server
TonEnd	Toner End
TonSave	Toner Save
TXJob	Send, Transmission
YMC	Yellow, Magenta, Cyan
YMCK	Yellow, Magenta, Cyan, Black

Note

- All of the Group 8 SPs are reset with SP5-801-001 (Memory All Clear).

SP8-XXX (Data Log2) -1

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
8-001-001	T:Total Jobs		CTL*	[0 to 99999999 / 0 / 1/step]
8-002-001	C:Total Jobs		CTL*	[0 to 99999999 / 0 / 1/step]
8-003-	F:Total Jobs		CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-004-001	P:Total Jobs		CTL*	[0 to 99999999 / 0 / 1/step]
8-005-001	S:Total Jobs		CTL*	[0 to 99999999 / 0 / 1/step]
8-006-001	L:Total Jobs		CTL*	[0 to 99999999 / 0 / 1/step]
8-011-001	T:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-012-001	C:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-013-001	F:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-014-001	P:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-015-001	S:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-016-001	L:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-017-001	O:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-021-001	T:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-022-001	C:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-023-001	F:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-024-001	P:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-025-001	S:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-026-001	L:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-027-001	O:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-031-	T:Pjob/DesApl		CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-032-001	C:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-033-001	F:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-034-001	P:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-035-001	S:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-036-001	L:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-037-001	O:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-041-001	T:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-042-001	C:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-043-001	F:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-044-001	P:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-045-001	S:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-046-001	L:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-047-001	O:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-051-001	T:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-052-001	C:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-053-001	F:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-054-001	P:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-055-	S:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-056-001	L:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-057-001	O:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1/step]
8-061-001	T:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-002	T:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-003	T:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-004	T:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-005	T:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-006	T:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-007	T:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-008	T:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-009	T:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-010	T:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-011	T:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-012	T:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-013	T:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-014	T:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-015	T:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-061-	T:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
016				1/step]
8-062-001	C:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-002	C:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-003	C:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-004	C:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-005	C:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-006	C:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-007	C:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-008	C:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-009	C:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-010	C:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-011	C:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-012	C:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-013	C:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-014	C:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-015	C:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-062-016	C:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-001	F:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-	F:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				1/step]
8-063-003	F:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-004	F:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-005	F:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-006	F:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-007	F:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-008	F:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-009	F:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-010	F:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-011	F:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-012	F:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-013	F:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-014	F:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-015	F:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-063-016	F:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-001	P:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-002	P:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-003	P:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-	P:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				1/step]
8-064-005	P:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-006	P:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-007	P:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-008	P:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-009	P:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-010	P:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-011	P:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-012	P:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-013	P:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-014	P:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-015	P:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-064-016	P:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-001	S:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-002	S:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-003	S:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-004	S:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-005	S:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-	S:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
006				1/step]
8-065-007	S:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-008	S:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-009	S:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-010	S:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-011	S:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-012	S:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-013	S:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-014	S:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-015	S:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-065-016	S:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-001	L:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-002	L:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-003	L:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-004	L:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-005	L:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-006	L:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-007	L:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-	L:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
008				1/step]
8-066-009	L:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-010	L:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-011	L:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-012	L:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-013	L:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-014	L:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-015	L:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-066-016	L:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-001	O:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-002	O:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-003	O:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-004	O:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-005	O:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-006	O:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-007	O:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-008	O:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-009	O:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-	O:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
010				1/step]
8-067-011	O:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-012	O:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-013	O:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-014	O:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-015	O:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-067-016	O:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-001	T:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-002	T:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-003	T:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-004	T:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-005	T:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-006	T:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-007	T:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-008	T:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-009	T:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-010	T:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-011	T:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-	T:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
012				1/step]
8-071-013	T:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-071-014	T:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-001	C:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-002	C:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-003	C:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-004	C:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-005	C:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-006	C:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-007	C:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-008	C:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-009	C:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-010	C:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-011	C:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-012	C:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-013	C:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-072-014	C:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-001	F:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-	F:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				1/step]
8-073-003	F:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-004	F:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-005	F:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-006	F:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-007	F:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-008	F:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-009	F:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-010	F:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-011	F:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-012	F:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-013	F:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-073-014	F:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-001	P:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-002	P:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-003	P:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-004	P:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-005	P:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-	P:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
006				1/step]
8-074-007	P:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-008	P:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-009	P:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-010	P:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-011	P:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-012	P:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-013	P:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-074-014	P:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-001	S:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-002	S:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-003	S:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-004	S:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-005	S:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-006	S:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-007	S:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-008	S:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-009	S:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-	S:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
010				1/step]
8-075-011	S:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-012	S:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-013	S:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-075-014	S:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-001	L:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-002	L:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-003	L:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-004	L:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-005	L:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-006	L:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-007	L:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-008	L:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-009	L:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-010	L:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-011	L:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-012	L:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-013	L:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-076-	L:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
014				1/step]
8-077-001	O:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-002	O:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-003	O:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-004	O:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-005	O:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-006	O:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-007	O:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-008	O:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-009	O:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-010	O:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-011	O:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-012	O:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-013	O:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-077-014	O:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-081-001	T:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1/step]
8-082-001	C:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1/step]
8-083-001	F:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1/step]
8-084-	P:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-085-001	S:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-001	T:Jobs/Driv	V3 RPCS	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-002	T:Jobs/Driv	V3 RPCS Basic	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-003	T:Jobs/Driv	V4 RPCS Inbox	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-004	T:Jobs/Driv	V4 RPCS Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-005	T:Jobs/Driv	V4 RPCS	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-006	T:Jobs/Driv	V3 XPS(RPCS)	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-007	T:Jobs/Driv	V3 PS	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-008	T:Jobs/Driv	V3 PS UD	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-009	T:Jobs/Driv	V3 PS UD Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-010	T:Jobs/Driv	V4 PS UD	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-011	T:Jobs/Driv	V4 PS UD Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-012	T:Jobs/Driv	V3 GL/GL2	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-013	T:Jobs/Driv	V3 GL/GL2 Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-014	T:Jobs/Driv	V4 GL/GL2	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-015	T:Jobs/Driv	PDF Direct	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-016	T:Jobs/Driv	V3 PCL5e/5c	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-	T:Jobs/Driv	V3 PCL5e/5c Generic	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
017				1/step]
8-091-018	T:Jobs/Driv	V3 PCL XL	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-019	T:Jobs/Driv	V3 PCL XL UD	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-020	T:Jobs/Driv	V3 PCL XL UD Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-021	T:Jobs/Driv	V4 PCL XL UD	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-022	T:Jobs/Driv	V4 PCL XL UD Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-023	T:Jobs/Driv	XPS	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-024	T:Jobs/Driv	V3 PC-Fax	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-025	T:Jobs/Driv	V4 PC-Fax	CTL*	[0 to 99999999 / 0 / 1/step]
8-091-026	T:Jobs/Driv	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-001	P:Jobs/Driv	V3 RPCS	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-002	P:Jobs/Driv	V3 RPCS Basic	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-003	P:Jobs/Driv	V4 RPCS Inbox	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-004	P:Jobs/Driv	V4 RPCS Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-005	P:Jobs/Driv	V4 RPCS	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-006	P:Jobs/Driv	V3 XPS(RPCS)	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-007	P:Jobs/Driv	V3 PS	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-008	P:Jobs/Driv	V3 PS UD	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-	P:Jobs/Driv	V3 PS UD Generic	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
009				1/step]
8-094-010	P:Jobs/Driv	V4 PS UD	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-011	P:Jobs/Driv	V4 PS UD Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-012	P:Jobs/Driv	V3 GL/GL2	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-013	P:Jobs/Driv	V3 GL/GL2 Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-014	P:Jobs/Driv	V4 GL/GL2	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-015	P:Jobs/Driv	PDF Direct	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-016	P:Jobs/Driv	V3 PCL5e/5c	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-017	P:Jobs/Driv	V3 PCL5e/5c Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-018	P:Jobs/Driv	V3 PCL XL	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-019	P:Jobs/Driv	V3 PCL XL UD	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-020	P:Jobs/Driv	V3 PCL XL UD Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-021	P:Jobs/Driv	V4 PCL XL UD	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-022	P:Jobs/Driv	V4 PCL XL UD Generic	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-023	P:Jobs/Driv	XPS	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-024	P:Jobs/Driv	V3 PC-Fax	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-025	P:Jobs/Driv	V4 PC-Fax	CTL*	[0 to 99999999 / 0 / 1/step]
8-094-026	P:Jobs/Driv	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-111-	T:FAX TX Jobs	B/W(Tel)	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-111-002	T:FAX TX Jobs	Color(Tel)	CTL*	[0 to 99999999 / 0 / 1/step]
8-111-101	T:FAX TX Jobs	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1/step]
8-111-102	T:FAX TX Jobs	Color(Cloud)	CTL*	[0 to 99999999 / 0 / 1/step]
8-113-001	F:FAX TX Jobs	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1/step]
8-113-002	F:FAX TX Jobs	Color(Tel)	CTL*	[0 to 99999999 / 0 / 1/step]
8-113-101	F:FAX TX Jobs	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1/step]
8-113-102	F:FAX TX Jobs	Color(Cloud)	CTL*	[0 to 99999999 / 0 / 1/step]
8-121-001	T:IFAX TX Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-121-002	T:IFAX TX Jobs	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-123-001	F:IFAX TX Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-123-002	F:IFAX TX Jobs	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-131-001	T:S-to-Email Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-131-002	T:S-to-Email Jobs	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-131-003	T:S-to-Email Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-135-001	S:S-to-Email Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-135-002	S:S-to-Email Jobs	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-135-003	S:S-to-Email Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-141-	T:Deliv Jobs/Svr	B/W	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-141-002	T:Deliv Jobs/Svr	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-141-003	T:Deliv Jobs/Svr	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-145-001	S:Deliv Jobs/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-145-002	S:Deliv Jobs/Svr	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-145-003	S:Deliv Jobs/Svr	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-151-001	T:Deliv Jobs/PC	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-151-002	T:Deliv Jobs/PC	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-151-003	T:Deliv Jobs/PC	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-155-001	S:Deliv Jobs/PC	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-155-002	S:Deliv Jobs/PC	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-155-003	S:Deliv Jobs/PC	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-161-001	T:PCFAX TX Jobs		CTL*	[0 to 99999999 / 0 / 1/step]
8-163-001	F:PCFAX TX Jobs		CTL*	[0 to 99999999 / 0 / 1/step]
8-171-001	T:Deliv Jobs/WSD/DSM	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-171-002	T:Deliv Jobs/WSD/DSM	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-171-003	T:Deliv Jobs/WSD/DSM	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-175-001	S:Deliv Jobs/WSD/DSM	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-175-	S:Deliv	Color	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002	Jobs/WSD/DSM			1/step]
8-175-003	S:Deliv Jobs/WSD/DSM	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-181-001	T:Scan to Media Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-181-002	T:Scan to Media Jobs	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-181-003	T:Scan to Media Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-185-001	S:Scan to Media Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-185-002	S:Scan to Media Jobs	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-185-003	S:Scan to Media Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1/step]
8-191-001	T:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1/step]
8-192-001	C:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1/step]
8-193-001	F:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1/step]
8-195-001	S:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1/step]
8-196-001	L:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1/step]
8-201-001	T:LSize Scan PGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1/step]
8-203-001	F:LSize Scan PGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1/step]
8-205-001	S:LSize Scan PGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1/step]
8-211-001	T:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-212-001	C:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-213-	F:Scan PGS/LS		CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-215-001	S:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-216-001	L:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-221-001	ADF Org Feeds	Front	CTL*	[0 to 99999999 / 0 / 1/step]
8-221-002	ADF Org Feeds	Back	CTL*	[0 to 99999999 / 0 / 1/step]
8-231-001	Scan PGS/Mode	Large Volume	CTL*	[0 to 99999999 / 0 / 1/step]
8-231-002	Scan PGS/Mode	SADF	CTL*	[0 to 99999999 / 0 / 1/step]
8-231-003	Scan PGS/Mode	Mixed Size	CTL*	[0 to 99999999 / 0 / 1/step]
8-231-004	Scan PGS/Mode	Custom Size	CTL*	[0 to 99999999 / 0 / 1/step]
8-231-005	Scan PGS/Mode	Platen	CTL*	[0 to 99999999 / 0 / 1/step]
8-231-006	Scan PGS/Mode	Mixed 1side/2side	CTL*	[0 to 99999999 / 0 / 1/step]
8-231-007	Scan PGS/Mode	ID card Feeder	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-001	T:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-002	T:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-003	T:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-004	T:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-005	T:Scan PGS/Org	Map	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-006	T:Scan PGS/Org	Normal/Detail	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-	T:Scan PGS/Org	Fine/Super Fine	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				1/step]
8-241-008	T:Scan PGS/Org	Binary	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-009	T:Scan PGS/Org	Grayscale	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-010	T:Scan PGS/Org	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-241-011	T:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-242-001	C:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1/step]
8-242-002	C:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1/step]
8-242-003	C:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1/step]
8-242-004	C:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1/step]
8-242-005	C:Scan PGS/Org	Map	CTL*	[0 to 99999999 / 0 / 1/step]
8-242-011	C:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-243-001	F:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1/step]
8-243-002	F:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1/step]
8-243-003	F:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1/step]
8-243-006	F:Scan PGS/Org	Normal/Detail	CTL*	[0 to 99999999 / 0 / 1/step]
8-243-007	F:Scan PGS/Org	Fine/Super Fine	CTL*	[0 to 99999999 / 0 / 1/step]
8-243-011	F:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-245-001	S:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1/step]
8-245-	S:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				1/step]
8-245-003	S:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1/step]
8-245-004	S:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1/step]
8-245-008	S:Scan PGS/Org	Binary	CTL*	[0 to 99999999 / 0 / 1/step]
8-245-009	S:Scan PGS/Org	Grayscale	CTL*	[0 to 99999999 / 0 / 1/step]
8-245-010	S:Scan PGS/Org	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-245-011	S:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-246-001	L:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1/step]
8-246-002	L:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1/step]
8-246-003	L:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1/step]
8-246-004	L:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1/step]
8-246-005	L:Scan PGS/Org	Map	CTL*	[0 to 99999999 / 0 / 1/step]
8-246-011	L:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-251-001	T:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1/step]
8-252-001	C:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1/step]
8-255-001	S:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1/step]
8-256-001	L:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1/step]
8-257-001	O:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1/step]
8-261-	T:Scn PGS/ColCr	Color Conversion	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-261-002	T:Scn PGS/ColCr	Color Erase	CTL*	[0 to 99999999 / 0 / 1/step]
8-261-003	T:Scn PGS/ColCr	Background	CTL*	[0 to 99999999 / 0 / 1/step]
8-261-004	T:Scn PGS/ColCr	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-262-001	C:Scn PGS/ColCr	Color Conversion	CTL*	[0 to 99999999 / 0 / 1/step]
8-262-002	C:Scn PGS/ColCr	Color Erase	CTL*	[0 to 99999999 / 0 / 1/step]
8-262-003	C:Scn PGS/ColCr	Background	CTL*	[0 to 99999999 / 0 / 1/step]
8-262-004	C:Scn PGS/ColCr	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-265-001	S:Scn PGS/ColCr	Color Conversion	CTL*	[0 to 99999999 / 0 / 1/step]
8-265-002	S:Scn PGS/ColCr	Color Erase	CTL*	[0 to 99999999 / 0 / 1/step]
8-265-003	S:Scn PGS/ColCr	Background	CTL*	[0 to 99999999 / 0 / 1/step]
8-265-004	S:Scn PGS/ColCr	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-266-001	L:Scn PGS/ColCr	Color Conversion	CTL*	[0 to 99999999 / 0 / 1/step]
8-266-002	L:Scn PGS/ColCr	Color Erase	CTL*	[0 to 99999999 / 0 / 1/step]
8-266-003	L:Scn PGS/ColCr	Background	CTL*	[0 to 99999999 / 0 / 1/step]
8-266-004	L:Scn PGS/ColCr	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-281-001	T:Scan PGS/TWAIN		CTL*	[0 to 99999999 / 0 / 1/step]
8-285-001	S:Scan PGS/TWAIN		CTL*	[0 to 99999999 / 0 / 1/step]
8-291-	T:Scan PGS/Stamp		CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-293-001	F:Scan PGS/Stamp		CTL*	[0 to 99999999 / 0 / 1/step]
8-295-001	S:Scan PGS/Stamp		CTL*	[0 to 99999999 / 0 / 1/step]
8-301-001	T:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-002	T:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-003	T:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-004	T:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-005	T:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-006	T:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-007	T:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-008	T:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-009	T:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-010	T:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-254	T:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-301-255	T:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-001	C:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-002	C:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-003	C:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-	C:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				1/step]
8-302-005	C:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-006	C:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-007	C:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-008	C:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-009	C:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-010	C:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-254	C:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-302-255	C:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-001	F:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-002	F:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-003	F:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-004	F:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-005	F:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-006	F:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-007	F:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-008	F:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-009	F:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-	F:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
010				1/step]
8-303-254	F:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-303-255	F:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-001	S:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-002	S:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-003	S:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-004	S:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-005	S:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-006	S:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-007	S:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-008	S:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-009	S:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-010	S:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-254	S:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-305-255	S:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-001	L:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-002	L:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-003	L:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-	L:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				1/step]
8-306-005	L:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-006	L:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-007	L:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-008	L:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-009	L:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-010	L:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-254	L:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-306-255	L:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-311-001	T:Scan PGS/Rez	1200dpi ~	CTL*	[0 to 99999999 / 0 / 1/step]
8-311-002	T:Scan PGS/Rez	600dpi~1199dpi	CTL*	[0 to 99999999 / 0 / 1/step]
8-311-003	T:Scan PGS/Rez	400dpi~599dpi	CTL*	[0 to 99999999 / 0 / 1/step]
8-311-004	T:Scan PGS/Rez	200dpi~399dpi	CTL*	[0 to 99999999 / 0 / 1/step]
8-311-005	T:Scan PGS/Rez	~199dpi	CTL*	[0 to 99999999 / 0 / 1/step]
8-315-001	S:Scan PGS/Rez	1200dpi ~	CTL*	[0 to 99999999 / 0 / 1/step]
8-315-002	S:Scan PGS/Rez	600dpi~1199dpi	CTL*	[0 to 99999999 / 0 / 1/step]
8-315-003	S:Scan PGS/Rez	400dpi~599dpi	CTL*	[0 to 99999999 / 0 / 1/step]
8-315-004	S:Scan PGS/Rez	200dpi~399dpi	CTL*	[0 to 99999999 / 0 / 1/step]
8-315-	S:Scan PGS/Rez	~199dpi	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
005				1/step]
8-321-001	T:Sacn Poster	2 Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-321-002	T:Sacn Poster	4 Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-321-003	T:Sacn Poster	9 Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-322-001	C:Sacn Poster	2 Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-322-002	C:Sacn Poster	4 Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-322-003	C:Sacn Poster	9 Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-326-001	L:Sacn Poster	2 Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-326-002	L:Sacn Poster	4 Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-326-003	L:Sacn Poster	9 Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-381-001	T:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1/step]
8-381-101	T:Total PrtPGS	DFE:Field Number	CTL*	[0 to 99999999 / 0 / 1/step]
8-382-001	C:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1/step]
8-383-001	F:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1/step]
8-384-001	P:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1/step]
8-384-101	P:Total PrtPGS	DFE:Field Number	CTL*	[0 to 99999999 / 0 / 1/step]
8-385-001	S:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1/step]
8-386-001	L:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1/step]
8-387-	O:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-391-001	LSize PrtPGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1/step]
8-391-003	LSize PrtPGS	BannerPaper	CTL*	[0 to 99999999 / 0 / 1/step]
8-401-001	T:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-402-001	C:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-403-001	F:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-404-001	P:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-405-001	S:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-406-001	L:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-411-001	Prints/Duplex		CTL*	[0 to 99999999 / 0 / 1/step]
8-421-001	T:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-002	T:PrtPGS/Dup Comb	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-003	T:PrtPGS/Dup Comb	Book> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-004	T:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-005	T:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-006	T:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-007	T:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-008	T:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-	T:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
009				1/step]
8-421-010	T:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-011	T:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-012	T:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-013	T:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-014	T:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-015	T:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-016	T:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-017	T:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-018	T:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-019	T:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-020	T:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-021	T:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-022	T:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-023	T:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-421-024	T:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-001	C:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-002	C:PrtPGS/Dup Comb	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-	C:PrtPGS/Dup Comb	Book> Duplex	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				1/step]
8-422-004	C:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-005	C:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-006	C:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-007	C:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-009	C:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-012	C:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-013	C:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-014	C:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-015	C:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-017	C:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-019	C:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-020	C:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-422-022	C:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-001	F:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-004	F:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-005	F:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-006	F:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-	F:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				1/step]
8-423-009	F:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-011	F:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-012	F:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-013	F:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-014	F:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-015	F:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-017	F:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-019	F:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-020	F:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-022	F:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-423-024	F:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-001	P:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-004	P:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-005	P:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-006	P:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-007	P:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-008	P:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-	P:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
009				1/step]
8-424-010	P:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-011	P:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-012	P:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-013	P:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-014	P:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-015	P:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-016	P:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-017	P:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-018	P:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-019	P:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-020	P:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-021	P:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-022	P:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-023	P:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-424-024	P:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-001	S:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-004	S:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-	S:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
005				1/step]
8-425-006	S:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-007	S:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-009	S:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-010	S:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-011	S:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-012	S:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-013	S:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-014	S:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-015	S:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-017	S:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-018	S:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-019	S:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-020	S:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-022	S:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-023	S:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-425-024	S:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-001	L:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-	L:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				1/step]
8-426-005	L:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-006	L:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-007	L:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-009	L:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-011	L:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-012	L:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-013	L:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-014	L:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-015	L:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-017	L:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-019	L:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-020	L:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-022	L:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-426-024	L:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-001	O:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-002	O:PrtPGS/Dup Comb	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-003	O:PrtPGS/Dup Comb	Book> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-	O:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				1/step]
8-427-005	O:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-006	O:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-007	O:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-008	O:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-009	O:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-010	O:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-011	O:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-012	O:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-013	O:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-014	O:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-015	O:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-016	O:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-017	O:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-018	O:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-019	O:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-020	O:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-021	O:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-	O:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
022				1/step]
8-427-023	O:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-427-024	O:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
8-431-001	T:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-431-002	T:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1/step]
8-431-003	T:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1/step]
8-432-001	C:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-432-002	C:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1/step]
8-432-003	C:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1/step]
8-434-001	P:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-434-002	P:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1/step]
8-434-003	P:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1/step]
8-436-001	L:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-436-002	L:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1/step]
8-436-003	L:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1/step]
8-437-001	O:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1/step]
8-437-002	O:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1/step]
8-437-003	O:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-	T:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-441-002	T:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-003	T:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-004	T:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-005	T:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-006	T:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-007	T:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-008	T:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-009	T:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-010	T:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-254	T:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-441-255	T:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-001	C:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-002	C:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-003	C:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-004	C:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-005	C:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-006	C:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-	C:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				1/step]
8-442-008	C:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-009	C:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-010	C:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-254	C:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-442-255	C:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-001	F:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-002	F:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-003	F:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-004	F:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-005	F:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-006	F:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-007	F:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-008	F:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-009	F:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-010	F:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-254	F:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-443-255	F:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-	P:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-444-002	P:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-003	P:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-004	P:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-005	P:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-006	P:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-007	P:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-008	P:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-009	P:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-010	P:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-254	P:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-444-255	P:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-001	S:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-002	S:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-003	S:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-004	S:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-005	S:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-006	S:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-	S:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				1/step]
8-445-008	S:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-009	S:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-010	S:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-254	S:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-445-255	S:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-001	L:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-002	L:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-003	L:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-004	L:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-005	L:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-006	L:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-007	L:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-008	L:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-009	L:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-010	L:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-254	L:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-446-255	L:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-	O:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-447-002	O:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-003	O:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-004	O:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-005	O:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-006	O:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-007	O:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-008	O:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-009	O:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-010	O:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-254	O:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
8-447-255	O:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-001	PrtPGS/Ppr Tray	Bypass Tray	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-002	PrtPGS/Ppr Tray	Tray 1	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-003	PrtPGS/Ppr Tray	Tray 2	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-004	PrtPGS/Ppr Tray	Tray 3	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-005	PrtPGS/Ppr Tray	Tray 4	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-006	PrtPGS/Ppr Tray	Tray 5	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-	PrtPGS/Ppr Tray	Tray 6	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				1/step]
8-451-008	PrtPGS/Ppr Tray	Tray 7	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-009	PrtPGS/Ppr Tray	Tray 8	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-010	PrtPGS/Ppr Tray	Tray 9	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-011	PrtPGS/Ppr Tray	Tray 10	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-012	PrtPGS/Ppr Tray	Tray 11	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-013	PrtPGS/Ppr Tray	Tray 12	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-014	PrtPGS/Ppr Tray	Tray 13	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-015	PrtPGS/Ppr Tray	Tray 14	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-016	PrtPGS/Ppr Tray	Tray 15	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-101	PrtPGS/Ppr Tray	LC Inserter	CTL*	[0 to 99999999 / 0 / 1/step]
8-451-102	PrtPGS/Ppr Tray	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-461-001	T:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1/step]
8-461-002	T:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1/step]
8-461-003	T:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1/step]
8-461-004	T:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1/step]
8-461-005	T:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-461-006	T:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-461-	T:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				1/step]
8-461-008	T:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-462-001	C:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1/step]
8-462-002	C:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1/step]
8-462-003	C:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1/step]
8-462-004	C:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1/step]
8-462-005	C:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-462-006	C:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-462-007	C:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1/step]
8-462-008	C:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-463-001	F:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1/step]
8-463-002	F:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1/step]
8-463-003	F:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1/step]
8-463-004	F:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1/step]
8-463-005	F:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-463-006	F:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-463-007	F:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1/step]
8-463-008	F:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-464-	P:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-464-002	P:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1/step]
8-464-003	P:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1/step]
8-464-004	P:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1/step]
8-464-005	P:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-464-006	P:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-464-007	P:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1/step]
8-464-008	P:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-466-001	L:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1/step]
8-466-002	L:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1/step]
8-466-003	L:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1/step]
8-466-004	L:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1/step]
8-466-005	L:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-466-006	L:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1/step]
8-466-007	L:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1/step]
8-466-008	L:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-471-001	PrtPGS/Mag	~49%	CTL*	[0 to 99999999 / 0 / 1/step]
8-471-002	PrtPGS/Mag	50%~99%	CTL*	[0 to 99999999 / 0 / 1/step]
8-471-	PrtPGS/Mag	100%	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				1/step]
8-471-004	PrtPGS/Mag	101%~200%	CTL*	[0 to 99999999 / 0 / 1/step]
8-471-005	PrtPGS/Mag	201% ~	CTL*	[0 to 99999999 / 0 / 1/step]
8-481-001	T:PrtPGS/TonSave		CTL*	[0 to 99999999 / 0 / 1/step]
8-484-001	P:PrtPGS/TonSave		CTL*	[0 to 99999999 / 0 / 1/step]
8-491-001	T:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-491-002	T:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-491-003	T:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-491-004	T:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-491-051	T:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-491-052	T:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-491-053	T:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-491-054	T:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-492-001	C:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-492-002	C:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-492-003	C:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-492-004	C:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-492-051	C:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-492-	C:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
052				1/step]
8-492-053	C:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-492-054	C:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-493-001	F:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-493-002	F:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-493-003	F:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-493-004	F:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-493-051	F:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-493-052	F:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-493-053	F:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-493-054	F:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-496-001	L:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-496-002	L:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-496-003	L:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-496-004	L:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-496-051	L:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-496-052	L:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-496-053	L:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-496-	L:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
054				1/step]
8-497-001	O:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-497-002	O:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-497-003	O:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-497-004	O:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-497-051	O:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-497-052	O:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-497-053	O:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-497-054	O:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-001	T:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-002	T:PrtPGS/Col Mode	Mono Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-003	T:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-004	T:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-005	T:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-051	T:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-052	T:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-053	T:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-054	T:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-	T:PrtPGS/Col Mode	DFE:B/W	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
101				1/step]
8-501-102	T:PrtPGS/Col Mode	DFE:Mono Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-103	T:PrtPGS/Col Mode	DFE:Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-104	T:PrtPGS/Col Mode	DFE:Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-105	T:PrtPGS/Col Mode	DFE:Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-151	T:PrtPGS/Col Mode	DFE:B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-152	T:PrtPGS/Col Mode	DFE:Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-153	T:PrtPGS/Col Mode	DFE:Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-501-154	T:PrtPGS/Col Mode	DFE:Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-001	P:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-002	P:PrtPGS/Col Mode	Mono Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-003	P:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-004	P:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-005	P:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-051	P:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-052	P:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-053	P:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-054	P:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-	P:PrtPGS/Col Mode	DFE:B/W	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
101				1/step]
8-504-102	P:PrtPGS/Col Mode	DFE:Mono Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-103	P:PrtPGS/Col Mode	DFE:Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-104	P:PrtPGS/Col Mode	DFE:Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-105	P:PrtPGS/Col Mode	DFE:Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-151	P:PrtPGS/Col Mode	DFE:B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-152	P:PrtPGS/Col Mode	DFE:Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-153	P:PrtPGS/Col Mode	DFE:Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-504-154	P:PrtPGS/Col Mode	DFE:Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-507-001	O:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-507-002	O:PrtPGS/Col Mode	Mono Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-507-003	O:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-507-004	O:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-507-005	O:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-507-051	O:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-507-052	O:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-507-053	O:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-507-054	O:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-	T:PrtPGS/Emul	RPCS	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-511-002	T:PrtPGS/Emul	RPDL	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-003	T:PrtPGS/Emul	PS3	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-004	T:PrtPGS/Emul	R98	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-005	T:PrtPGS/Emul	R16	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-006	T:PrtPGS/Emul	GL/GL2	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-007	T:PrtPGS/Emul	R55	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-008	T:PrtPGS/Emul	RTIFF	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-009	T:PrtPGS/Emul	PDF	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-010	T:PrtPGS/Emul	PCL5e/5c	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-011	T:PrtPGS/Emul	PCL XL	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-012	T:PrtPGS/Emul	IPDL-C	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-013	T:PrtPGS/Emul	BM-Links	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-014	T:PrtPGS/Emul	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-015	T:PrtPGS/Emul	IPDS	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-016	T:PrtPGS/Emul	XPS	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-017	T:PrtPGS/Emul	IRIPS PS	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-018	T:PrtPGS/Emul	IRIPS PDF	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-	T:PrtPGS/Emul	PictBridge	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
019				1/step]
8-511-020	T:PrtPGS/Emul	MediaPrintTIFF	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-021	T:PrtPGS/Emul	MediaPrintJPEG	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-022	T:PrtPGS/Emul	GG PDF	CTL*	[0 to 99999999 / 0 / 1/step]
8-511-023	T:PrtPGS/Emul	GG PCL	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-001	P:PrtPGS/Emul	RPCS	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-002	P:PrtPGS/Emul	RPDL	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-003	P:PrtPGS/Emul	PS3	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-004	P:PrtPGS/Emul	R98	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-005	P:PrtPGS/Emul	R16	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-006	P:PrtPGS/Emul	GL/GL2	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-007	P:PrtPGS/Emul	R55	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-008	P:PrtPGS/Emul	RTIFF	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-009	P:PrtPGS/Emul	PDF	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-010	P:PrtPGS/Emul	PCL5e/5c	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-011	P:PrtPGS/Emul	PCL XL	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-012	P:PrtPGS/Emul	IPDL-C	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-013	P:PrtPGS/Emul	BM-Links	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-	P:PrtPGS/Emul	Other	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
014				1/step]
8-514-015	P:PrtPGS/Emul	IPDS	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-016	P:PrtPGS/Emul	XPS	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-017	P:PrtPGS/Emul	IRIPS PS	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-018	P:PrtPGS/Emul	IRIPS PDF	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-019	P:PrtPGS/Emul	PictBridge	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-020	P:PrtPGS/Emul	MediaPrintTIFF	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-021	P:PrtPGS/Emul	MediaPrintJPEG	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-022	P:PrtPGS/Emul	GG PDF	CTL*	[0 to 99999999 / 0 / 1/step]
8-514-023	P:PrtPGS/Emul	GG PCL	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-001	T:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-002	T:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-003	T:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-004	T:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-005	T:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-006	T:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-007	T:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-008	T:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-	T:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
009				1/step]
8-521-010	T:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-011	T:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-012	T:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-013	T:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-014	T:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-015	T:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-521-016	T:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-001	C:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-002	C:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-003	C:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-004	C:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-005	C:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-006	C:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-007	C:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-008	C:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-009	C:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-010	C:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-	C:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
011				1/step]
8-522-012	C:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-013	C:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-014	C:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-015	C:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-522-016	C:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-001	F:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-002	F:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-003	F:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-004	F:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-005	F:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-006	F:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-007	F:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-008	F:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-009	F:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-010	F:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-011	F:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-012	F:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-	F:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
013				1/step]
8-523-014	F:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-015	F:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-523-016	F:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-001	P:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-002	P:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-003	P:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-004	P:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-005	P:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-006	P:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-007	P:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-008	P:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-009	P:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-010	P:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-011	P:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-012	P:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-013	P:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-014	P:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-524-	P:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
015				1/step]
8-524-016	P:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-001	S:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-002	S:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-003	S:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-004	S:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-005	S:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-006	S:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-007	S:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-008	S:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-009	S:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-010	S:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-011	S:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-012	S:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-013	S:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-014	S:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-015	S:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-525-016	S:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-	L:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-526-002	L:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-003	L:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-004	L:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-005	L:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-006	L:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-007	L:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-008	L:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-009	L:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-010	L:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-011	L:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-012	L:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-013	L:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-014	L:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-015	L:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1/step]
8-526-016	L:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-531-001	Staple	Staples	CTL*	[0 to 99999999 / 0 / 1/step]
8-531-002	Staple	Stapless	CTL*	[0 to 99999999 / 0 / 1/step]
8-551-	T:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
001				1/step]
8-551-002	T:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-551-003	T:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-552-001	C:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-552-002	C:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-552-003	C:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-554-001	P:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-554-002	P:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-554-003	P:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-556-001	L:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-556-002	L:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-556-003	L:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
8-561-001	T:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-561-002	T:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-561-003	T:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-561-004	T:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-562-001	C:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-562-002	C:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-562-	C:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
003				1/step]
8-562-004	C:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-563-001	F:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-563-002	F:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-563-003	F:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-563-004	F:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-564-001	P:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-564-002	P:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-564-003	P:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-564-004	P:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-566-001	L:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-566-002	L:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-566-003	L:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-566-004	L:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-567-001	O:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-567-002	O:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-567-003	O:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-567-004	O:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]

SP8-XXX (Data Log2) -2

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
8-581-001	T:Counter	Total	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-002	T:Counter	Total: Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-003	T:Counter	B&W/Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-004	T:Counter	Development: CMY	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-005	T:Counter	Development: K	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-006	T:Counter	Copy: Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-007	T:Counter	Copy: B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-008	T:Counter	Print: Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-009	T:Counter	Print: B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-010	T:Counter	Total: Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-011	T:Counter	Total: B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-012	T:Counter	Full Color: A3	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-013	T:Counter	Full Color: B4 JIS or Smaller	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-014	T:Counter	Full Color Print	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-015	T:Counter	Mono Color Print	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-016	T:Counter	Full Color GPC	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-017	T:Counter	Twin Color Mode Print	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-	T:Counter	Full Color Print(Twin)	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
018				1/step]
8-581-019	T:Counter	Mono Color Print(Twin)	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-020	T:Counter	Full Color Total(CV)	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-021	T:Counter	Mono Color Total(CV)	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-022	T:Counter	Full Color Print(CV)	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-028	T:Counter	Development: CMY(A3)	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-029	T:Counter	Development: K(A3)	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-030	T:Counter	Total: Color(A3)	CTL*	[0 to 99999999 / 0 / 1/step]
8-581-031	T:Counter	Total: B/W(A3)	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-001	C:Counter	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-002	C:Counter	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-003	C:Counter	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-004	C:Counter	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-011	C:Counter	B/W:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-012	C:Counter	B/W:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-013	C:Counter	B/W:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-014	C:Counter	B/W:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-015	C:Counter	Single Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-	C:Counter	Single Color:Simplex:Under	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
016		A3/DLT		1/step]
8-582-017	C:Counter	Single Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-018	C:Counter	Single Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-019	C:Counter	Two Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-020	C:Counter	Two Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-021	C:Counter	Two Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-022	C:Counter	Two Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-023	C:Counter	Full Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-024	C:Counter	Full Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-025	C:Counter	Full Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-582-026	C:Counter	Full Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-583-001	F:Counter	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-583-002	F:Counter	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-583-011	F:Counter	B/W:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-583-012	F:Counter	B/W:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-583-013	F:Counter	B/W:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-583-014	F:Counter	B/W:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-583-015	F:Counter	Single Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-583-	F:Counter	Single Color:Simplex:Under	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
016		A3/DLT		1/step]
8-583-017	F:Counter	Single Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-583-018	F:Counter	Single Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-001	P:Counter	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-002	P:Counter	Mono Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-003	P:Counter	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-004	P:Counter	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-005	P:Counter	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-011	P:Counter	B/W:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-012	P:Counter	B/W:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-013	P:Counter	B/W:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-014	P:Counter	B/W:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-015	P:Counter	Single Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-016	P:Counter	Single Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-017	P:Counter	Single Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-018	P:Counter	Single Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-019	P:Counter	Two Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-020	P:Counter	Two Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-	P:Counter	Two Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
021				1/step]
8-584-022	P:Counter	Two Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-023	P:Counter	Full Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-024	P:Counter	Full Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-025	P:Counter	Full Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-584-026	P:Counter	Full Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-585-001	S:Counter	Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-585-002	S:Counter	Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-001	L:Counter	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-002	L:Counter	Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-003	L:Counter	Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-004	L:Counter	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-011	L:Counter	B/W:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-012	L:Counter	B/W:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-013	L:Counter	B/W:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-014	L:Counter	B/W:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-015	L:Counter	Single Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-016	L:Counter	Single Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-	L:Counter	Single Color:Duplex:Over	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
017		A3/DLT		1/step]
8-586-018	L:Counter	Single Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-019	L:Counter	Two Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-020	L:Counter	Two Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-021	L:Counter	Two Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-022	L:Counter	Two Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-023	L:Counter	Full Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-024	L:Counter	Full Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-025	L:Counter	Full Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-586-026	L:Counter	Full Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-011	O:Counter	B/W:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-012	O:Counter	B/W:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-013	O:Counter	B/W:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-014	O:Counter	B/W:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-015	O:Counter	Single Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-016	O:Counter	Single Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-017	O:Counter	Single Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-018	O:Counter	Single Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-	O:Counter	Two Color:Simplex:Over	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
019		A3/DLT		1/step]
8-587-020	O:Counter	Two Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-021	O:Counter	Two Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-022	O:Counter	Two Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-023	O:Counter	Full Color:Simplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-024	O:Counter	Full Color:Simplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-025	O:Counter	Full Color:Duplex:Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-587-026	O:Counter	Full Color:Duplex:Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-591-001	O:Counter	A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-591-002	O:Counter	Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-591-005	O:Counter	Banner	CTL*	[0 to 99999999 / 0 / 1/step]
8-601-001	T:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-601-002	T:Coverage Counter	Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-601-011	T:Coverage Counter	B/W Printing Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-601-012	T:Coverage Counter	Color Printing Pages	CTL*	[0 to 99999999 / 0 / 1/step]
8-601-021	T:Coverage Counter	Coverage Counter 1	CTL*	[0 to 99999999 / 0 / 1/step]
8-601-022	T:Coverage Counter	Coverage Counter 2	CTL*	[0 to 99999999 / 0 / 1/step]
8-601-023	T:Coverage Counter	Coverage Counter 3	CTL*	[0 to 99999999 / 0 / 1/step]
8-601-	Coverage Counter	Coverage Counter 1 (YMC)	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
031				1/step]
8-601-032	Coverage Counter	Coverage Counter 2 (YMC)	CTL*	[0 to 99999999 / 0 / 1/step]
8-601-033	Coverage Counter	Coverage Counter 3 (YMC)	CTL*	[0 to 99999999 / 0 / 1/step]
8-602-001	C:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-602-002	C:Coverage Counter	Single Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-602-003	C:Coverage Counter	Two Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-602-004	C:Coverage Counter	Full Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-603-001	F:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-603-002	F:Coverage Counter	Single Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-604-001	P:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-604-002	P:Coverage Counter	Single Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-604-003	P:Coverage Counter	Two Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-604-004	P:Coverage Counter	Full Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-606-001	L:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-606-002	L:Coverage Counter	Single Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-606-003	L:Coverage Counter	Two Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-606-004	L:Coverage Counter	Full Color	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-617-001	SDK Apli Counter	SDK-1	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-	SDK Apli Counter	SDK-2	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				1/step]
8-617-003	SDK Apli Counter	SDK-3	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-004	SDK Apli Counter	SDK-4	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-005	SDK Apli Counter	SDK-5	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-006	SDK Apli Counter	SDK-6	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-007	SDK Apli Counter	SDK-7	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-008	SDK Apli Counter	SDK-8	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-009	SDK Apli Counter	SDK-9	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-010	SDK Apli Counter	SDK-10	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-011	SDK Apli Counter	SDK-11	CTL*	[0 to 99999999 / 0 / 1/step]
8-617-012	SDK Apli Counter	SDK-12	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-001	Func Use Counter	Function-001	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-002	Func Use Counter	Function-002	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-003	Func Use Counter	Function-003	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-004	Func Use Counter	Function-004	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-005	Func Use Counter	Function-005	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-006	Func Use Counter	Function-006	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-007	Func Use Counter	Function-007	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-	Func Use Counter	Function-008	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
008				1/step]
8-621-009	Func Use Counter	Function-009	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-010	Func Use Counter	Function-010	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-011	Func Use Counter	Function-011	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-012	Func Use Counter	Function-012	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-013	Func Use Counter	Function-013	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-014	Func Use Counter	Function-014	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-015	Func Use Counter	Function-015	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-016	Func Use Counter	Function-016	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-017	Func Use Counter	Function-017	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-018	Func Use Counter	Function-018	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-019	Func Use Counter	Function-019	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-020	Func Use Counter	Function-020	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-021	Func Use Counter	Function-021	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-022	Func Use Counter	Function-022	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-023	Func Use Counter	Function-023	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-024	Func Use Counter	Function-024	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-025	Func Use Counter	Function-025	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-	Func Use Counter	Function-026	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
026				1/step]
8-621-027	Func Use Counter	Function-027	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-028	Func Use Counter	Function-028	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-029	Func Use Counter	Function-029	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-030	Func Use Counter	Function-030	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-031	Func Use Counter	Function-031	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-032	Func Use Counter	Function-032	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-033	Func Use Counter	Function-033	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-034	Func Use Counter	Function-034	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-035	Func Use Counter	Function-035	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-036	Func Use Counter	Function-036	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-037	Func Use Counter	Function-037	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-038	Func Use Counter	Function-038	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-039	Func Use Counter	Function-039	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-040	Func Use Counter	Function-040	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-041	Func Use Counter	Function-041	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-042	Func Use Counter	Function-042	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-043	Func Use Counter	Function-043	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-	Func Use Counter	Function-044	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
044				1/step]
8-621-045	Func Use Counter	Function-045	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-046	Func Use Counter	Function-046	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-047	Func Use Counter	Function-047	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-048	Func Use Counter	Function-048	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-049	Func Use Counter	Function-049	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-050	Func Use Counter	Function-050	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-051	Func Use Counter	Function-051	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-052	Func Use Counter	Function-052	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-053	Func Use Counter	Function-053	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-054	Func Use Counter	Function-054	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-055	Func Use Counter	Function-055	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-056	Func Use Counter	Function-056	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-057	Func Use Counter	Function-057	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-058	Func Use Counter	Function-058	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-059	Func Use Counter	Function-059	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-060	Func Use Counter	Function-060	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-061	Func Use Counter	Function-061	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-	Func Use Counter	Function-062	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
062				1/step]
8-621-063	Func Use Counter	Function-063	CTL*	[0 to 99999999 / 0 / 1/step]
8-621-064	Func Use Counter	Function-064	CTL*	[0 to 99999999 / 0 / 1/step]
8-631-001	T:FAX TX PGS	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1/step]
8-631-002	T:FAX TX PGS	Color(Tel)	CTL*	[0 to 99999999 / 0 / 1/step]
8-631-101	T:FAX TX PGS	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1/step]
8-631-102	T:FAX TX PGS	Color(Cloud)	CTL*	[0 to 99999999 / 0 / 1/step]
8-633-001	F:FAX TX PGS	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1/step]
8-633-002	F:FAX TX PGS	Color(Tel)	CTL*	[0 to 99999999 / 0 / 1/step]
8-633-101	F:FAX TX PGS	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1/step]
8-633-102	F:FAX TX PGS	Color(Cloud)	CTL*	[0 to 99999999 / 0 / 1/step]
8-641-001	T:IFAX TX PGS	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-641-002	T:IFAX TX PGS	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-643-001	F:IFAX TX PGS	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-643-002	F:IFAX TX PGS	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-651-001	T:S-to-Email PGS	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-651-002	T:S-to-Email PGS	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-655-001	S:S-to-Email PGS	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-655-	S:S-to-Email PGS	Color	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				1/step]
8-661-001	T:Deliv PGS/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-661-002	T:Deliv PGS/Svr	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-665-001	S:Deliv PGS/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-665-002	S:Deliv PGS/Svr	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-671-001	T:Deliv PGS/PC	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-671-002	T:Deliv PGS/PC	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-675-001	S:Deliv PGS/PC	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-675-002	S:Deliv PGS/PC	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-681-001	T:PCFAX TXPGS		CTL*	[0 to 99999999 / 0 / 1/step]
8-683-001	F:PCFAX TXPGS		CTL*	[0 to 99999999 / 0 / 1/step]
8-691-001	T:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-692-001	C:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-693-001	F:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-694-001	P:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-695-001	S:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-696-001	L:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1/step]
8-701-001	TX PGS/Port	PSTN-1	CTL*	[0 to 99999999 / 0 / 1/step]
8-701-	TX PGS/Port	PSTN-2	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				1/step]
8-701-003	TX PGS/Port	PSTN-3	CTL*	[0 to 99999999 / 0 / 1/step]
8-701-004	TX PGS/Port	ISDN(G3,G4)	CTL*	[0 to 99999999 / 0 / 1/step]
8-701-005	TX PGS/Port	Network	CTL*	[0 to 99999999 / 0 / 1/step]
8-711-001	T:Scan PGS/Comp	JPEG/JPEG2000	CTL*	[0 to 99999999 / 0 / 1/step]
8-711-002	T:Scan PGS/Comp	TIFF(Multi/Single)	CTL*	[0 to 99999999 / 0 / 1/step]
8-711-003	T:Scan PGS/Comp	PDF	CTL*	[0 to 99999999 / 0 / 1/step]
8-711-004	T:Scan PGS/Comp	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-711-005	T:Scan PGS/Comp	PDF/Comp	CTL*	[0 to 99999999 / 0 / 1/step]
8-711-006	T:Scan PGS/Comp	PDF/A	CTL*	[0 to 99999999 / 0 / 1/step]
8-711-007	T:Scan PGS/Comp	PDF(OCR)	CTL*	[0 to 99999999 / 0 / 1/step]
8-711-008	T:Scan PGS/Comp	PDF/Comp(OCR)	CTL*	[0 to 99999999 / 0 / 1/step]
8-711-009	T:Scan PGS/Comp	PDF/A(OCR)	CTL*	[0 to 99999999 / 0 / 1/step]
8-715-001	S:Scan PGS/Comp	JPEG/JPEG2000	CTL*	[0 to 99999999 / 0 / 1/step]
8-715-002	S:Scan PGS/Comp	TIFF(Multi/Single)	CTL*	[0 to 99999999 / 0 / 1/step]
8-715-003	S:Scan PGS/Comp	PDF	CTL*	[0 to 99999999 / 0 / 1/step]
8-715-004	S:Scan PGS/Comp	Other	CTL*	[0 to 99999999 / 0 / 1/step]
8-715-005	S:Scan PGS/Comp	PDF/Comp	CTL*	[0 to 99999999 / 0 / 1/step]
8-715-	S:Scan PGS/Comp	PDF/A	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
006				1/step]
8-715-007	S:Scan PGS/Comp	PDF(OCR)	CTL*	[0 to 99999999 / 0 / 1/step]
8-715-008	S:Scan PGS/Comp	PDF/Comp(OCR)	CTL*	[0 to 99999999 / 0 / 1/step]
8-715-009	S:Scan PGS/Comp	PDF/A(OCR)	CTL*	[0 to 99999999 / 0 / 1/step]
8-721-001	T:Deliv PGS/WSD/DSM	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-721-002	T:Deliv PGS/WSD/DSM	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-725-001	S:Deliv PGS/WSD/DSM	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-725-002	S:Deliv PGS/WSD/DSM	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-731-001	T:Scan PGS/Media	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-731-002	T:Scan PGS/Media	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-735-001	S:Scan PGS/Media	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
8-735-002	S:Scan PGS/Media	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-741-001	RX PGS/Port	PSTN-1	CTL*	[0 to 99999999 / 0 / 1/step]
8-741-002	RX PGS/Port	PSTN-2	CTL*	[0 to 99999999 / 0 / 1/step]
8-741-003	RX PGS/Port	PSTN-3	CTL*	[0 to 99999999 / 0 / 1/step]
8-741-004	RX PGS/Port	ISDN(G3,G4)	CTL*	[0 to 99999999 / 0 / 1/step]
8-741-005	RX PGS/Port	Network	CTL*	[0 to 99999999 / 0 / 1/step]
8-771-001	Dev Counter	Total	CTL*	[0 to 99999999 / 0 / 1/step]
8-771-	Dev Counter	K	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				1/step]
8-771-003	Dev Counter	Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-771-004	Dev Counter	M	CTL*	[0 to 99999999 / 0 / 1/step]
8-771-005	Dev Counter	C	CTL*	[0 to 99999999 / 0 / 1/step]
8-781-001	Toner_Botol_Info.	BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-781-002	Toner_Botol_Info.	Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-781-003	Toner_Botol_Info.	M	CTL*	[0 to 99999999 / 0 / 1/step]
8-781-004	Toner_Botol_Info.	C	CTL*	[0 to 99999999 / 0 / 1/step]
8-791-001	LS Memory Remain		CTL*	[0 to 100 / 0 / 1%/step]
8-801-001	Toner Remain	K	CTL*	[0 to 100 / 0 / 1%/step]
8-801-002	Toner Remain	Y	CTL*	[0 to 100 / 0 / 1%/step]
8-801-003	Toner Remain	M	CTL*	[0 to 100 / 0 / 1%/step]
8-801-004	Toner Remain	C	CTL*	[0 to 100 / 0 / 1%/step]
8-811-001	Eco Counter	Eco Total	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-002	Eco Counter	Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-003	Eco Counter	Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-004	Eco Counter	Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-005	Eco Counter	Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-	Eco Counter	Color(%)	CTL*	[0 to 100 / 0 / 1%/step]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
006				
8-811-007	Eco Counter	Full Color(%)	CTL*	[0 to 100 / 0 / 1%/step]
8-811-008	Eco Counter	Duplex(%)	CTL*	[0 to 100 / 0 / 1%/step]
8-811-009	Eco Counter	Combine(%)	CTL*	[0 to 100 / 0 / 1%/step]
8-811-010	Eco Counter	Paper Cut(%)	CTL*	[0 to 100 / 0 / 1%/step]
8-811-051	Eco Counter	Sync Eco Total	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-052	Eco Counter	Sync Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-053	Eco Counter	Sync Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-054	Eco Counter	Sync Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-055	Eco Counter	Sync Combine	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-056	Eco Counter	Sync Color(%)	CTL*	[0 to 100 / 0 / 1%/step]
8-811-057	Eco Counter	Sync Full Color(%)	CTL*	[0 to 100 / 0 / 1%/step]
8-811-058	Eco Counter	Sync Duplex(%)	CTL*	[0 to 100 / 0 / 1%/step]
8-811-059	Eco Counter	Sync Combine(%)	CTL*	[0 to 100 / 0 / 1%/step]
8-811-060	Eco Counter	Sync Paper Cut(%)	CTL*	[0 to 100 / 0 / 1%/step]
8-811-101	Eco Counter	Eco Totalr:Last	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-102	Eco Counter	Color:Last	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-103	Eco Counter	Full Color:Last	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-	Eco Counter	Duplex:Last	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
104				1/step]
8-811-105	Eco Counter	Combine:Last	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-106	Eco Counter	Color(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-811-107	Eco Counter	Full Color(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-811-108	Eco Counter	Duplex(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-811-109	Eco Counter	Combine(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-811-110	Eco Counter	Paper Cut(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-811-151	Eco Counter	Sync Eco Totalr:Last	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-152	Eco Counter	Sync Color:Last	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-153	Eco Counter	Sync Full Color:Last	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-154	Eco Counter	Sync Duplex:Last	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-155	Eco Counter	Sync Combine:Last	CTL*	[0 to 99999999 / 0 / 1/step]
8-811-156	Eco Counter	Sync Color(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-811-157	Eco Counter	Sync Full Color(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-811-158	Eco Counter	Sync Duplex(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-811-159	Eco Counter	Sync Combine(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-811-160	Eco Counter	Sync Paper Cut(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
8-851-011	Cvr Cnt:0-10%	0~2%:BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-	Cvr Cnt:0-10%	0~2%:Y	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
012				1/step]
8-851-013	Cvr Cnt:0-10%	0~2%:M	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-014	Cvr Cnt:0-10%	0~2%:C	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-021	Cvr Cnt:0-10%	3~4%:BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-022	Cvr Cnt:0-10%	3~4%:Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-023	Cvr Cnt:0-10%	3~4%:M	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-024	Cvr Cnt:0-10%	3~4%:C	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-031	Cvr Cnt:0-10%	5~7%:BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-032	Cvr Cnt:0-10%	5~7%:Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-033	Cvr Cnt:0-10%	5~7%:M	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-034	Cvr Cnt:0-10%	5~7%:C	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-041	Cvr Cnt:0-10%	8~10%:BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-042	Cvr Cnt:0-10%	8~10%:Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-043	Cvr Cnt:0-10%	8~10%:M	CTL*	[0 to 99999999 / 0 / 1/step]
8-851-044	Cvr Cnt:0-10%	8~10%:C	CTL*	[0 to 99999999 / 0 / 1/step]
8-861-001	Cvr Cnt:11-20%	BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-861-002	Cvr Cnt:11-20%	Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-861-003	Cvr Cnt:11-20%	M	CTL*	[0 to 99999999 / 0 / 1/step]
8-861-	Cvr Cnt:11-20%	C	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
004				1/step]
8-871-001	Cvr Cnt:21-30%	BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-871-002	Cvr Cnt:21-30%	Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-871-003	Cvr Cnt:21-30%	M	CTL*	[0 to 99999999 / 0 / 1/step]
8-871-004	Cvr Cnt:21-30%	C	CTL*	[0 to 99999999 / 0 / 1/step]
8-881-001	Cvr Cnt:31%-	BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-881-002	Cvr Cnt:31%-	Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-881-003	Cvr Cnt:31%-	M	CTL*	[0 to 99999999 / 0 / 1/step]
8-881-004	Cvr Cnt:31%-	C	CTL*	[0 to 99999999 / 0 / 1/step]
8-891-001	Page/Toner Bottle	BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-891-002	Page/Toner Bottle	Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-891-003	Page/Toner Bottle	M	CTL*	[0 to 99999999 / 0 / 1/step]
8-891-004	Page/Toner Bottle	C	CTL*	[0 to 99999999 / 0 / 1/step]
8-901-001	Page/Toner_Prev1	BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-901-002	Page/Toner_Prev1	Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-901-003	Page/Toner_Prev1	M	CTL*	[0 to 99999999 / 0 / 1/step]
8-901-004	Page/Toner_Prev1	C	CTL*	[0 to 99999999 / 0 / 1/step]
8-911-001	Page/Toner_Prev2	BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-911-	Page/Toner_Prev2	Y	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
002				1/step]
8-911-003	Page/Toner_Prev2	M	CTL*	[0 to 99999999 / 0 / 1/step]
8-911-004	Page/Toner_Prev2	C	CTL*	[0 to 99999999 / 0 / 1/step]
8-921-001	Cvr Cnt/Total	Coverage(%):BK	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-921-002	Cvr Cnt/Total	Coverage(%):Y	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-921-003	Cvr Cnt/Total	Coverage(%):M	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-921-004	Cvr Cnt/Total	Coverage(%):C	CTL*	[0 to 2147483647 / 0 / 1%/step]
8-921-011	Cvr Cnt/Total	Coverage/P:BK	CTL*	[0 to 99999999 / 0 / 1/step]
8-921-012	Cvr Cnt/Total	Coverage/P:Y	CTL*	[0 to 99999999 / 0 / 1/step]
8-921-013	Cvr Cnt/Total	Coverage/P:M	CTL*	[0 to 99999999 / 0 / 1/step]
8-921-014	Cvr Cnt/Total	Coverage/P:C	CTL*	[0 to 99999999 / 0 / 1/step]
8-941-001	Machine Status	Operation Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-941-002	Machine Status	Standby Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-941-003	Machine Status	Energy Save Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-941-004	Machine Status	Low Power Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-941-005	Machine Status	Off Mode Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-941-006	Machine Status	SC	CTL*	[0 to 99999999 / 0 / 1/step]
8-941-007	Machine Status	PrtJam	CTL*	[0 to 99999999 / 0 / 1/step]
8-941-	Machine Status	OrgJam	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
008				1/step]
8-941-009	Machine Status	Supply PM Unit End	CTL*	[0 to 99999999 / 0 / 1/step]
8-951-001	AddBook Register	User Code /User ID	CTL*	[0 to 99999 / 0 / 1/step]
8-951-002	AddBook Register	Mail Address	CTL*	[0 to 99999 / 0 / 1/step]
8-951-003	AddBook Register	Fax Destination	CTL*	[0 to 99999 / 0 / 1/step]
8-951-004	AddBook Register	Group	CTL*	[0 to 99999 / 0 / 1/step]
8-951-005	AddBook Register	Transfer Request	CTL*	[0 to 99999 / 0 / 1/step]
8-951-006	AddBook Register	F-Code	CTL*	[0 to 99999 / 0 / 1/step]
8-951-007	AddBook Register	Copy Program	CTL*	[0 to 255 / 0 / 1/step]
8-951-008	AddBook Register	Fax Program	CTL*	[0 to 255 / 0 / 1/step]
8-951-009	AddBook Register	Printer Program	CTL*	[0 to 255 / 0 / 1/step]
8-951-010	AddBook Register	Scanner Program	CTL*	[0 to 255 / 0 / 1/step]
8-961-001	Electricity Status	Ctrl Standby Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-002	Electricity Status	STR Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-003	Electricity Status	Main Power Off Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-004	Electricity Status	Reading and Printing Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-005	Electricity Status	Printing Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-006	Electricity Status	Reading Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-	Electricity Status	Eng Waiting Time	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
007				1/step]
8-961-008	Electricity Status	Low Pawer State Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-009	Electricity Status	Silent State Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-010	Electricity Status	Heater Off State Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-011	Electricity Status	LCD on Time	CTL*	[0 to 99999999 / 0 / 1/step]
8-961-101	Electricity Status	Silent Print	CTL*	[0 to 99999999 / 0 / 1/step]
8-971-001	Unit Control	Engine Off Recovery Count	CTL*	[0 to 99999999 / 0 / 1/step]
8-971-002	Unit Control	Power Off Count	CTL*	[0 to 99999999 / 0 / 1/step]
8-971-003	Unit Control	Force Power Off Count	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-001	Admin. Counter List	Total	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-002	Admin. Counter List	Copy: Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-003	Admin. Counter List	Copy: BW	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-004	Admin. Counter List	Copy: Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-005	Admin. Counter List	Copy: Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-006	Admin. Counter List	Printer: Full Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-007	Admin. Counter List	Printer: BW	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-008	Admin. Counter List	Printer: Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-009	Admin. Counter List	Printer: Two Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-	Admin. Counter List	Fax Print: BW	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
010				1/step]
8-999-011	Admin. Counter List	Fax Print: Single Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-013	Admin. Counter List	Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-022	Admin. Counter List	Copy: Full Color(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-023	Admin. Counter List	Copy: BW(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-024	Admin. Counter List	Copy: Single Color(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-025	Admin. Counter List	Copy: Two Color(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-026	Admin. Counter List	Printer: Full Color(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-027	Admin. Counter List	Printer: BW(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-028	Admin. Counter List	Printer: Single Color(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-029	Admin. Counter List	Printer: Two Color(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-030	Admin. Counter List	Fax Print: BW(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-031	Admin. Counter List	Fax Print: Single Color(%)	CTL*	[0 to 2147483647 / 0 / 1/step]
8-999-101	Admin. Counter List	Transmission Total: Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-102	Admin. Counter List	Transmission Total: BW	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-103	Admin. Counter List	FAX Transmission	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-104	Admin. Counter List	Scanner Transmission: Color	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-105	Admin. Counter List	Scanner Transmission: BW	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-	Admin. Counter List	Total: Full Color Simplex Under	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
112		A3/DLT		1/step]
8-999-114	Admin. Counter List	Total: Full Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-116	Admin. Counter List	Total: BW Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-118	Admin. Counter List	Total: BW Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-120	Admin. Counter List	Total: Single Color Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-122	Admin. Counter List	Total: Single Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-124	Admin. Counter List	Total: Two Color Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-126	Admin. Counter List	Total: Two Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-132	Admin. Counter List	Copy: Full Color Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-134	Admin. Counter List	Copy: Full Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-136	Admin. Counter List	Copy: BW Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-138	Admin. Counter List	Copy: BW Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-140	Admin. Counter List	Copy: Single Color Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-142	Admin. Counter List	Copy: Single Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-144	Admin. Counter List	Copy: Two Color Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-146	Admin. Counter List	Copy: Two Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-152	Admin. Counter List	Printer: Full Color Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-154	Admin. Counter List	Printer: Full Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-	Admin. Counter List	Printer: BW Simplex Under	CTL*	[0 to 99999999 / 0 /

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
156		A3/DLT		1/step]
8-999-158	Admin. Counter List	Printer: BW Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-160	Admin. Counter List	Printer: Single Color Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-162	Admin. Counter List	Printer: Single Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-164	Admin. Counter List	Printer: Two Color Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-166	Admin. Counter List	Printer: Two Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-172	Admin. Counter List	Fax: BW Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-174	Admin. Counter List	Fax: BW Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-176	Admin. Counter List	Fax: One Color Simplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-178	Admin. Counter List	Fax: One Color Duplex Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]
8-999-192	Admin. Counter List	Scan: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1/step]

Printer Service Mode

1001	Bit Switch			
001	Bit Switch 1		0	1
	bit 0	**DFU**	-	-
	bit 1	**sysName Value**	Model name (PnP name)	Hostname
		This BitSw can switch the value of the sysName of the standard MIB. 0 (default):Model name (PnP name) 1: Host name		
	bit 2	**DFU**	-	-
	bit 3	**I/O Timeout**	Disabled	Enabled
		Enables/Disables MFP I/O Timeouts. If disabled, the MFP I/O Timeout setting will not be in effect. I/O Timeouts will never occur.		
	bit 4	**SD Card Save Mode**	Disabled	Enabled
		This BitSw enables the SD card save mode setting menu to be displayed. After enabling this BitSw, the Card Save settings will appear under: "User Tools > Machine Features >Printer Features > List/Test print"		
	bit 5	**Paper Size Error Margin**	±5pt	±10pt
		When a PS job is printed on a custom paper size, the job might not print because of a paper size mismatch caused by a calculation error. This BitSw can set the allowable margin of error value.Note:This is available for PS, PDF only		
	bit 6	**Color Balance Switching 1**	Disabled	Enabled
		This BitSw can be used to restore the color balance to match that of Fuji-Xerox devices. Note: If both BitSw #2-0, BitSw #2-4 and BitSw #1-6 are configured to "1", the configuration of #2-0 will be given priority and the color balance of 09S and earlier models will be used.		
	bit 7	**DFU**	-	-

1001	Bit Switch			
002	Bit Switch 2		0	1
	bit 0	**Color Balance Switching 2**	Standard Color Balance	Color balance of 09S and earlier models.
		This BitSw can be used to restore the color balance to match 09S and earlier model deveices. Note: If both BitSw #2-0 and BitSw #2-4 are configured to "1", the configuration of #2-0 will be given priority and the color balance of 09S and earlier models will be used.		

1001	Bit Switch			
	bit 1	**DFU**	-	-
	bit 2	**Collation Type**	Shift Collation	Normal Collation
		The type of collation will be applied to a job when the job does not explicitly define a collation type. Note: If #5-0 is enabled, this BitSw has no effect.		
	bit 3	PDL Auto Switching	Enable	Disable
		Enables/Disables the MFPs ability to switch the PDL processor when receiving a job which contains both PS and PCL5e/c.		
	bit 4	**Color Balance Switching 3**	Standard Color Balance	Color balance of 09A and extended 09A models.
		This BitSw can be used to restore the color balance to match 09A and extended 09A model devices. Note: If both BitSw #2-0 and BitSw #2-4 are configured to "1", the configuration of #2-0 will be given priority and the color balance of 09S and earlier models will be used.		
	bit 5	**DFU**	-	-
	bit 6	**Switch dither**	Use normal dither	Use alternative dither
		*Please refer to RTB#RD014018		
	bit 7	**DFU**	-	-

1001	Bit Switch			
003	Bit Switch 3		0	1
	bit 0	**DFU**	-	-
	bit 1	**DFU**	-	-
	bit 2	**Legacy HP Compatibility**	Disabled	Enabled
		Uses the same left margin as older HP models such as HP4000/HP8000.This setting enables the starting position of the graphics in the job to be changed.If this BitSw is enabled, the left margin command of "<ESC>*r0A" will be conducted as "<ESC>*r1A". PCL command are bellow: - <Esc> *r0A ->Start Graphics at X coordinate of Zero - <Esc> *r1A ->Start Graphics at Current Cursor Note:This is available for PCL5e/c only.		
	bit 3 to	**DFU**	-	-

1001	Bit Switch			
	7			

1001	Bit Switch			
004	Bit Switch 4		0	1
	bit 0 to5	**DFU**	-	-
	bit 6	Bypass Tray Paper Direction	LEF	SEF
		Changes the paper direction used with "Machine Setting(s): Any Type" in the bypass tray. This setting enables the direction of the paper in the bypass tray to specified		
	bit 7	**DFU**	-	-

1001	Bit Switch			
005	Bit Switch 5		0	1
	bit 0	**Display Finishing Settings**	Hide settings	Display settings
		If enabled, users will be able to configure the Collate Settings, Staple Settings, and Punch Settings from the operation panel. The available Settings will depend on the device and configured options. After enabling this BitSw, the settings will appear under: "User Tools > Machine Features >Printer Features > System"		
	bit 1	**Number of Copies with Paper Mismatch**	Print Single Copy	Print All Copies
		If a paper size or type mismatch occurs during the printing of multiple copies, only a single copy is output by default. Using this bit switch, the device can be configured to print all copies even if a paper mismatch occurs.		
	bit 2	GPS Filter	Enabled	Disabled
		If the GPS Filter is disabled, SDK applications will not be able to alter the print data standard printer applications receive. Note: The main purpose of this BitSw is for troubleshooting the effects of SDK applications on data.		
	bit 3	**PS Trigger for PDL Switching**	Standard pattern	Pattern1
		Specifying the auto detection algorithm for PS while switching the print language. If the Pattern1 is selected, "%%" is used as a printer system PS trigger.		
	bit 4	**Increase max. number of stored jobs.**	Disabled (100)	Enabled (750)
		Changes the maximum number of jobs that can be stored on the HDD. The default (disabled) is 100. If this is enabled, the max. will be raised to 750 or 1000 depending on the model.		

1001	Bit Switch			
	bit 5	**Direction of Output**	Face-down	Face-up
		This setting enables you to specify the whether the paper is output face-down or face-up onto the output tray.		
	bit 6	**Change Imposition Specification**	Standard specification	Old model specification
		This setting enables the specification for imposition such as page alignment and image rotation to be changed to the specification of old models when job orientation and paper size are mixed. The old models are below: - PCL: 04A and earlier models - PS/PDF/RPCS: 05S and earlier models - BMLinkS: 05A and earlier models IRIPS PS/PDF: - 09A and earlier models: Operation under current model specification is not supported (Operation with older specification is recommended) - 15S and later models: Operation under current model specification is supported.		
	bit 7	**Paper Path for Letterhead Simplex Job**	Simplex paper path	Duplex paper path
		This setting enables the simplex job to be routed through the duplex unit. Only affects jobs specified as letterhead.		

1001	Bit Switch			
006	Bit Switch 6		0	1
	bit 0	**Forced printing**	Disabled	Enabled
		If enabled, the image will be printed regardless of whether the specified roller is of the correct size paper or not. This is similar to "Form Feed" on a standard printer. The default is disabled.		
		Include bypass in auto tray select	Disable	Enable
		If enabled, the Bypass tray will be included in auto tray selection.		
	bit 1 to 7	**DFU**	-	-

1001	Bit Switch			
007	Bit Switch 7		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
008	Bit Switch 8		0	1
	bit 0 to 2	**DFU**	-	-
	bit 3	**BW Printing without the PJL Color Command "DATAMODE"**	Disabled	Enabled
		This setting enables a job to be printed in BW without the PJL color command "DATAMODE". Note: Color jobs will not be printed without the PJL color command "DATAMODE". Note:This is available for PCL, PS only.		
	bit 4 to 5	**DFU**	-	-
	bit 6	**Orientation Auto Detect Function (PS)**	Enabled	Disabled
		Automatically chooses page orientation of PostScript jobs (Landscape or Portrait) based on the content.		
		PJL/PDL Color Command Priority	PJL Priority	PDL Priority
		This setting enables the priority of a PDL color command to be changed when a PJL color command is "@PJL RENDERMODE = GRAYSCALE" in a job. Note:This is available for PCL,RPCS,PS.		
	bit 7	**[PDF]: Orientation Auto Detect Function**	Enabled	Disabled
		Automatically chooses page orientations of PDF jobs (Landscape or Portrait) based on the content.		

1001	Bit Switch			
009	Bit Switch 9		0	1
	bit 0	**PDL Auto Detection timeout of jobs submitted via USB or Parallel Port (IEEE 1284).**	Disabled (Immediately)	Enabled (10 seconds)
		To be used if PDL auto-detection fails. A failure of PDL autodetection does not necessarily mean that the job can not be printed. This bit switch tells the device whether to time-out immediately (default) upon failure or to wait 10 seconds.		
	bit 1	**DFU**	-	-
	bit 2	**Job Cancel after Jam**	Not cancelled	Cancelled
		This setting enables it to be specifed whether jobs will be cancelled after a jam occurs. Note: If this BitSw is enabled, printing under the following conditions might result in problems: - Job submission via USB or Parallel Port		

1001	Bit Switch			
		- Spool printing (WIM >Configuration > Device Settings > System) - Printing a large number of jobs continuously (The status of the job are not acquired when jobs exceeding the number guaranteed by the job monitor are continuously printed.)		
	bit 3	**DFU**	-	-
	bit 4	**Timing of the PJL Status ReadBack (JOB END) when printing multiple collated copies.**	Mode 0	Mode 1
		This BitSw determines the timing of the PJL STATUS JOB END sent when multiple collated copies are being printed. Mode 0: JOB END is sent by the device to the client after the first copy has completed printing. This causes the page counter to be incremented after the first copy and then again at the end of the job. Mode 1: JOB END is sent by the device to the client after the last copy has finished printing. This causes the page counter to be incremented at the end of each job.		
	bit 5	**UTF-8 Mode**	Enabled	Disabled
		Enabled (=0): Text composed of UTF-8 characters can be displayed in the operation panel. Disabled (=1): UTF-8 characters cannot be displayed in the operation panel. For example, job names are sometimes stored in the MIB using UTF-8 encoded characters. When these are displayed on the operation panel, they will be garbled unless this BitSw is enabled (=0).		
	bit 6	**Print Option Configuration (rsh, rcp, ftp)**	Enabled	Disable
		This BitSw enables the specification of the configuration of the print option using rcp/rsh/ftp.		
	bit 7	**Enable/Disable Print from USB/SD's Preview function**	Enabled	Disabled
		Determines whether the Print from USB/SD function will have the Preview function. Enabled (=0): Print from USB/SD will have the Preview function. Disabled (=1): Print from USB/SD will not have the Preview function.		

1001	Bit Switch			
010	Bit Switch A		0	1
	bit 0 to 3	**DFU**	-	-
	bit 4	**Not Used**	-	-

1001	Bit Switch			
	bit 5	**Store and Skip Errored Job locks the queue**	Queue is not locked after SSEJ	Queue locked after SSEJ
		If this is 1, then after a job is stored using Store and Skip Errored Job (SSEJ), new jobs cannot be added to the queue until the stored job has been completely printed.		
	bit 6	**Allow use of Store and Skip error Job if connected to an external charge device.**	Does not allow SSEJ with ECD	Allows SSEJ with ECD
		If this is 0, Store and Skip Errored Job (SSEJ) will be automatically disabled if an external charge device is connected. **Note:** We do not officially support enabling this bit switch (1). Use it at your own risk.		
	bit 7	**Job cancels remaining pages when the paid-for pages have been printed on an external charge device**	Job does not cancel	Job cancels
		When setting 1 is enabled, after printing the paid-for pages on an external charge device, the job that includes any remaining pages will be canceled. This setting will prevent the next user from printing the unnecessary pages from the previous user's print job.		

1001	Bit Switch			
011	Bit Switch B		0	1
	bit 0	**Show Menu List**	Hide Menu List	Show Menu List
		If this is 0, the Menu List button will be removed from Printer Features.		
	bit 1	**Print job interruption**	Does not allow interruption	Allow interruption
		0 (Default): Print jobs are not interrupted. If a job is promoted to the top of the print queue, it will wait for the currently printing job to finish. 1: If a job is promoted to the top of the queue, it will interrupt the currently printing job and start printing immediately.		
	bit 2	**Limitless Paper Feeding for the Bypass Tray**	Enable	Disable
		When the Bypass Tray is the target of the "Auto Tray Select", and "Machine Setting(s): Any Type" is configured for the "Tray Setting Priority" of the Bypass Tray, this BitSw can switch the behavior whether or not Limitless Paper Feeding is applied to the Bypass Tray. Enabled (=0: Default): Limitless Paper Feeding is applied to the Bypass Tray. If a tray other than the Bypass Tray matches the job's paper size and type but has run out of paper, printing will occur from the Bypass Tray.		

1001	Bit Switch			
		Disabled (=1): Limitless Paper Feeding is not applied to the Bypass Tray. If a tray other than the Bypass Tray matches the job's paper size and type but has run out of paper, printing will stop and an alert will appear on the LCD screen, stating that the tray has run out of paper. This prevents unexpected use of the Bypass Tray. Limitations when this BitSw is set to "1": - Jobs that contain more than one paper size cannot be printed. - The "Paper Tray Priority: Printer" setting must be configured to a tray other than the Bypass Tray.		
	bit 3	**DFU**	-	-
	bit 4	**"Apply Auto Paper Select" to Override Paper Size or Paper Type of the Device**	Disabled	Enabled
		If this BitSw is enabled, the "Apply Auto Paper Select" setting will decide if the paper size or paper type that is specified in the device settings should be overridden by the job's commands when "Tray Setting Priority" is set to "Driver/Command" or "Machine Setting(s): Any Type". - Apply Auto Paper Select = OFF: Overridden (priority is given to the job’s commands) - Apply Auto Paper Select = ON: NOT overridden (priority is given to the device settings)		
	bit 5	**Not Used**	-	-
	bit 6	**Tray Selection when a Paper Mismatch Occurs.**	Disabled	Enabled
		This BitSw enables the inactive auto paper select tray to be unselectable when a paper size/type mismatch occurs.		
	bit 7	**Not Used**		

1001	Bit Switch			
012	Bit Switch C		0	1
	bit 0 to 2	**DFU**	-	-
	bit 3	**Switching paper discharge operation when the limit number of sheets stapled is exceeded**	one by one	Upper limit number
		Switching paper discharge operation when the limit number of sheets stapled is exceeded		

1001	Bit Switch			
	bit 4	**DFU**	-	-
	bit 5	**Change the user ID type displayed on the operation panel**	Login User Name	User ID
		If this BitSw is enabled, the user ID type on the operation panel can change to the user ID behavior exhibited in 14A and earlier models.		
	bit 6	**AirPrint**	Enabled	Disabled
		For 15S and later models that support AirPrint, AirPrint can be disabled by changing this Bit Switch from 0 (default) to 1.		
	bit 7	**AirPrint PDF**	Enabled	Disabled
		-		

1001	Bit Switch			
013	Bit Switch (2) 1		0	1
	bit 0	**Paper Size Mismatch Display**	Enabled	Disabled
		Display warning screen (40909) of paper size mismatch		
	bit 1	**Paper set guide**	Enabled	Disabled
		Display the manual feed tray paper set guide screen when auto tray is selected		
	bit 2	**Profile switching**	Low toner color reproduction	Yield improvement
		Profile switching (low toner color reproduction / yield improvement)		
	bit 3	**Switch dither**	Alternative dither	Alternative dither
		Switch dither		
	bit 4	**Input tray mask**	Enabled	Disabled
		Enable / disable input tray mask		
	bit 5	**DFU**	-	-
	bit 6	**DFU**	-	-
	bit 7	**DFU**	-	-

1001	Bit Switch			
014	Bit Switch (2) 2		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
015	Bit Switch (2) 3		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch		
016	Bit Switch (2) 4	0	1

1001	Bit Switch			
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
017	Bit Switch (2) 5		0	1
	bit 0	**PDF speeding printing operation**	Enabled	Disabled
		PDF speeding printing operation		
	bit 1 to 7	**DFU**	-	-

1001	Bit Switch			
017	Bit Switch (2) 6		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
018	Bit Switch (2) 7		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
019	Bit Switch (2) 8		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
020	Bit Switch (2) 9		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
021	Bit Switch (2) A		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
022	Bit Switch (2) B		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
023	Bit Switch (2) C		0	1
	bit 0 to 7	**DFU**	-	-

1003	**[Clear Setting]**

001	Initialize System	CTL*	Initializes settings in the System menu of the user mode.
003	Delete Program	CTL*	**DFU**

1004	**[Print Summary]**		
001	Service Summary	CTL	Prints the service summary sheet (a summary of all the controller settings).

1005	**[Display Version]**		
002	Printer Version	CTL	Displays the version of the controller firmware.

1101	**[ToneCtlSet]**		
	Recalls a set of gamma settings. This can be either a) the factory setting, b) the previous setting, or c) the current setting.		
001	Factory	CTL	[- / - / -] [Execute]
002	Previous	CTL	
003	Current	CTL	
004	ACC	CTL	

1102	**[Resolution Settings]**		
	Sets the printing mode (resolution) for the printer gamma adjustment. The asterisk (*) shows which mode is set. • 00: *1200x1200Photo • 01: 600x600Text • 02: 1200x1200Text • 03: 1200x600Text • 04: 600x600Photo • 05: 1200x600Photo • 06: 600x600Text • 07: 600x600Text		
1102-001	Tone Control Mode Selection	CTL	[0 to 99 / **0** / 1/step]

1103	**[PrnColorSheet]**		
1103-001	ToneCtlSheet	CTL	Prints the test page to check the color balance before and after the gamma adjustment.
1103-002	ColorChart	CTL	

1104	[ToneCtlValue]		
	Adjusts the printer gamma for the mode selected in the Mode Selection menu.		
1104-001	Black: Highlight	CTL	[0 to 30 / **15** / 1/step]
1104-021	Cyan: Highlight	CTL	
1104-041	Magenta: Highlight	CTL	
1104-061	Yellow: Highlight	CTL	
1104-002	Black: Shadow	CTL	[0 to 30 / **15** / 1/step]
1104-022	Cyan: Shadow	CTL	
1104-042	Magenta: Shadow	CTL	
1104-062	Yellow: Shadow	CTL	
1104-003	Black: Middle	CTL	[0 to 30 / **15** / 1/step]
1104-023	Cyan: Middle	CTL	
1104-043	Magenta: Middle	CTL	
1104-063	Yellow: Middle	CTL	
1104-004	Black: IDmax	CTL	[0 to 30 / **15** / 1/step]
1104-024	Cyan: IDmax	CTL	
1104-044	Magenta: IDmax	CTL	
1104-064	Yellow: IDmax	CTL	

1105	[Save Tone Cntrol Value]		
	Saves the print gamma (adjusted with the Gamma Adj.) as the new Current Setting. Before the machine stores the new "current settingR", it moves the data stored as the "current setting" to the "previous setting" memory-storage location.		
1105-001	Save Tone Cntrol Value	CTL*	[EXECUTE]

1106	[Toner Limit]		
	Adjusts the maximum toner amount for image development.		
1106-001	Toner Limit Value	CTL*	[100 to 400 / **0** / 1/step]

1110	[Media Print Device Setting]		
	Enable or disable the media print support function. 0: Disable, 1:Enable		
1110-002	0: Disable 1:Enable	CTL*	[0 to 1 / **1** / 1/step]

1111	[All Job Delete Mode]
	- 0: Exclusive New Job, 1:Including New Job

1110-002	0: Exclusive New Job 1: Including New Job	CTL*	[0 or 1 / **1** / 1/step]

1500	**[-]**		
	Retrieve the type of PS that is running.		
1110-002	0: No Boot 1: Start Adobe PS 2: IRIPS PS Startup	CTL	[0 to 2 / **0** / 1/step]

7910	**[-]**		
	Reports the machine code string.		
7-910-xxx	150:RPCS 151:PS 152:RPDL 153:R98 154:R16 155:RPGL 156:R55 157:RTIFF 158:PCL 159:PCLXL 160:MSIS 161:MSIS(OPT) 162:PDF 163:BMLinkS 164:PICTBRIDGE 165:PJL 166:IPDS 167:MediaPrint:JPEG 168:MediaPrint:TIFF 169:XPS 180:FONT 181:FONT1 182:FONT2 183:FONT3 184:FONT4 185:FONT5 186:FONT6 187:FONT7	CTL	[- / **-** / -]

7911	**[-]**		
	Reports the version character string.		
7-910-xxx	150:RPCS 151:PS 152:RPDL 153:R98 154:R16 155:RPGL 156:R55 157:RTIFF 158:PCL 159:PCLXL 160:MSIS 161:MSIS(OPT) 162:PDF 163:BMLinkS 164:PICTBRIDGE 165:PJL 166:IPDS 167:MediaPrint:JPEG 168:MediaPrint:TIFF 169:XPS 180:FONT 181:FONT1 182:FONT2 183:FONT3 184:FONT4 185:FONT5 186:FONT6 187:FONT7	CTL	[- / - / -]

aper Size Error Mar

Scanner Service Mode

SP1-XXX (System and Others)

1001	[Scan Nv Version]		
1-001-005	-	*CTL	-
	Operates automatic initialization to ensure that scanner NV is initialized if necessary. To do this SP, specify the version of scanner NV within 9 characters. “Function name”_”Machine code”_”Serial number” - Function name: Enter “3”. - Machine code: Enter the machine code with three characters. - Serial number: Enter the number (default: 001).		

1005	[Erase margin(Remote scan)]		
1-005-001	Range from 0 to 5 mm	*CTL	[0 to 5 / **0** / 1 mm/step]
	Creates an erase margin for all edges of the scanned image. If the machine has scanned the edge of the original, create a margin. This SP is activated only when the machine uses TWAIN scanning.		

1009	[Remote scan disable]		
1-009-001	0:enable 1:disable	*CTL	[0 or 1 / **0** / 1 /step]
	Enable or disable remote scan.		

1010	[Non Display ClearLight PDF]		
1-010-001	0:Display 1:Nondisplay	*CTL	[0 or 1 / **0** / 1 /step]
	Display or nondisplay ClearLight PDF function.		

1011	[Org Count Disp]		
1-011-001	0:ON 1:OFF	*CTL	[0 or 1 / **0** / 1 /step]
	Display or nondisplay original counter. 0: Displays remaining memory. 1: Displays original counter.		

1012	[UserInfo Release]		
1-012-001	0:No 1:Yes	*CTL	[0 or 1 / **1** / 1 /step]
	Set if the following user information is released or not. - Destination of the mail, folder, CS - Sender - Message		

	- Subject - Fail name

1013	[Scan to Media Device Setting]		
1-013-002	0:OFF 1:ON	*CTL	[0 or 1 / **1** / 1 /step]
	Enable or disable ScanTo media device.		

1014	[Scan to Folder Pass Input Set]		
1-014-001	0:OFF 1:ON	*CTL	[0 or 1 / **0** / 1 /step]
	Sets enable or disable the password setting when make a Scan to Folder job.		

1016	[Scan To Email Sender Address]		
1-016-001	0: Login user address 1: POP before SMTP address	*CTL	[0 or 1 / **0** / 1 /step]
	Specify the Scan To Email sender address.		

1040	[Scan: LT/LG Mixed Sized Sizes Setting]		
1-040-001	0:OFF 1:ON	*CTL	[0 or 1 / **1** / 1 /step] (NA) [0 or 1 / **0** / 1 /step] (Other)
	Enables or disables mixing LT/LG size documents for scanner. 0: Disable, 1: Enable Default For North America: 1 Others: 0		

1041	[Scan:FlairAPI Setting]			
1-041-001	0x00 – 0xff	*CTL	* see BitSwitch below:	
	Sets Scanner FlairAPI Function enable / disable. This SP is set by BitSwitch and needs to reboot the machine after making changes.			
bit	Setting	meanings		Description
		0	1	
bit 0	Start of FlairAPI Server	**Off (Do not Start)**	On (Start)	Sets whether to start exclusive FlairAPI http server. If it is 0, scanning FlairAPI function and simple UI function will be disabled.
bit 1	Access permission of FlairAPI from outside of the	**Disabled**	Enabled	If it is “0”, accessing is limited from the machine only, such as operating panel, SDK/J, MFP browsers etc… If it is “1”, accessing is allowed from outside of FlairAPI

	machine			such as PC, Remote UI, IT-Box etc…
bit 2	IPv6 (Exclusive) / IPv4 (Priority) Switching	**IPv6 (Exclusive)**	IPv4 (Priority)	If this bit is “0”, only IPv6 accessing is permitted. If this bit is “1” and IPv4 is enabled, the machine uses IPv4 accessing. If this bit is “1” and IPv4 is disabled, the machine uses IPv6 accessing. In this case, it is unable to access through Smart Operation Panel if IPv4 address is enabled.
bit 3	Remote UI Function	**Not Used**	Use	Sets use of Remote UI for scanner function.
bit 4	Reserved	-	-	-
bit 5	Reserved	-	-	-
bit 6	Reserved	-	-	-
bit 7	Reserved	-	-	-

1042	**[Scan To Email Sender Address]**		
1-042-001	0: Pursuant to the language setting (Default) 1: MM/DD/YYYY 2: DD/MM/YYYY 3: YYYY/MM/DD	*CTL	[0 to 3 / **0** / 1 /step]
	Specify the format to display the date when sending files by Scan To Email.		

1043	**[Result Screen Doc Name Display]**		
1-043-001	0: NoDisplay 1: Display	*CTL	[0 to 1 / **0** / 1 /step]
	Specify whether or not to display the document name (for security purposes) on the screen displaying the Scan To Email transmission result.		

SP2-XXX (Scanning-image Quality)

2021	**[Compression Level(Grayscale)]**		
	Selects the compression ratio for grayscale processing mode (JPEG) for the five settings that can be selected at the operation panel.		
2-021-001	Comp1:5-95	*CTL	[5 to 95 / **20** / 1 /step]
2-021-002	Comp2:5-95	*CTL	[5 to 95 / **40** / 1 /step]

2-021-003	Comp3:5-95	*CTL	[5 to 95 / **65** / 1 /step]
2-021-004	Comp4:5-95	*CTL	[5 to 95 / **80** / 1 /step]
2-021-005	Comp5:5-95	*CTL	[5 to 95 / **95** / 1 /step]

2024	**[Compression ratio of ClearLightPDF]**		
	Selects the compression ratio for clearlight PDF for the two settings that can be selected at the operation panel.		
2-024-001	Compression Ratio(Normal)	*CTL	[5 to 95 / **25** / 1 /step]
2-024-002	Compression Ratio(High)	*CTL	[5 to 95 / **15** / 1 /step]

2025	**[Compression ratio of ClearLightPDF JPEG2000]**		
	Selects the compression ratio for clearlight PDF for the two settings that can be selected at the operation panel.		
2-025-001	Compression Ratio(Normal) JPEG2000	*CTL	[5 to 95 / **25** / 1 /step]
2-025-002	Compression Ratio(High) JPEG2000	*CTL	[5 to 95 / **15** / 1 /step]

2030	**[OCR PDF DetectSens]**		
2-030-001	White Lumi Value: 0 - 255	*CTL	[0 to 255 / **250** / 1 / step]
2-030-002	White Pix Ratio: 0 - 100	*CTL	[0 to 100 / **80** / 1 / step]
2-030-003	White Tile Ratio: 0 -100	*CTL	[0 to 100 / **80** / 1 / step]

2031	**[Vertical Judgment Setting]**		
001	Function Setting: 0 - 1	*CTL	[0 to 1/ **0** / 1 / step] 0:Enable 1:Disable
	When the image does not become upright state due to the vertical judgment error, set this SP to "0: Disable". After changing the setting, turn OFF/ON the main power.		
002	Algorithm Setting: 0 - 2	*CTL	[0 to 2 / **0** / 1 / step] 0: Normal Algorithm 1: Simple Algorithm 2: Composite Algorithm

	Set the identification algorithm when SP2-031-001 is "1: Enable". Change the setting when the vertical judgment error occur frequently. After changing the setting, turn OFF/ON the main power.

SP3-XXX

3044	-		
3-044-001	**-**	CTL*	[0 to1 / 1 / **1** / -]
	Specify the compression ratio of scanned image data when using clear light PDF. 0: High (The value in SP2-024-02 is applied.) 1: Normal (The value in SP2-024-01 is applied.)		

3045	-		
3-045-001	**-**	CTL*	[0 to 5 / **5** / 1 / -]
	Specify which location (server) to search first when searching for the mail address. 0: LDAP Server 1 1: LDAP Server 2 2: LDAP Server 3 3: LDAP Server 4 4: LDAP Server 5 5: Machine Address Book		

3053	**-**		
3-053-001	**-**	CTL*	[0 to 1 / **0** / 1 / -]
	Specify the compression ratio of scanned image data when using clear light PDF. 0: JPEG (The value in SP2-025-02 is applied.) 0: JPEG2000 (The value in SP2-025-01 is applied.)		
3-053-002	**-**	CTL*	[0 to 1 / **0** / 1 / -]
	Specify the compression ratio of a scanned text image when using clear light PDF. 0: MMR 1: JBIG2		

3066	**[High CompresssionPDF PrioritySetting]**		
3-066-001	**-**	CTL*	[0to1 / **1** / 1 / -]
	Specify the clear light PDF generation mode. 0: Generate PDF 1: Handling Speed		

3067	[flate Compression Setting]		
3-067-001	-	CTL*	[0to1 / **1** / 1 / -]
	Specify whether to enable or disable clear light PDF compression. 0: Disable 1: Enable		

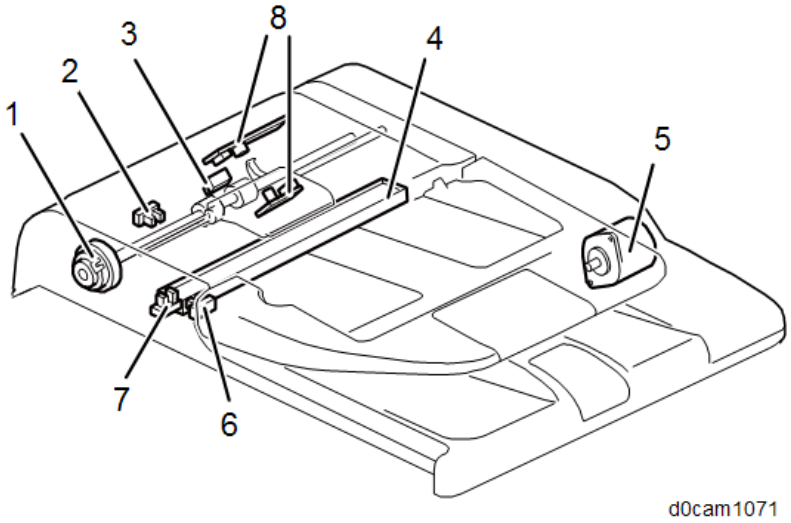
3070	[Scan Limit Warning Display Setting]		
3-070-001	-	CTL*	[0to1 / **1** / 1 / -]
	Specify whether or not to display the warning when the number of scans reaches the upper limit. 0: Not Display 1: Display		

3071	[Function Use Count]		
3-071-001	WSD	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of jobs sent via Scan to PC of the WSD function.		
3-071-002	DSM	CTL*	[0 to 4294967295 / **0**/ 1 / -]
	Counts the number of jobs sent via Scan to PC of the DSM function.		
3-071-003	SmallSizeTray	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of originals fed from the small paper feeding unit. *This machine does not count because it does not come with this optional unit.		
3-071-004	BlankDetect Ocr	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of jobs to which the blank paper elimination function (with OCR) is applied.		
3-071-005	BlankDetect	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of jobs to which the blank paper elimination function (without OCR) is applied.		
3-071-006	AirPrint/Mopria	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of pages scanned with AirPrint/Mopria.		
3-071-007	ScanToURL	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of pages sent with ScanToURL.		

3072	**[Total Job Count]**		
3-072-001	**LegacyScan**	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of times a job is executed using “Scanner (Classic)”.		
3-072-002	SmartScan	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of times a job is executed using “Scanner”.		
3-072-003	SimpleScan	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of times a job is executed using “Simple Scanner”.		
3-072-004	MediaScan	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of times a job is executed using the Media Scanner function.		
3-072-005	OtherScan	CTL*	[0 to 4294967295 / **0** / 1 / -]
	Counts the number of times a job is executed using any other scanner function.		

Input and Output Check

ADF Unit



Input Check

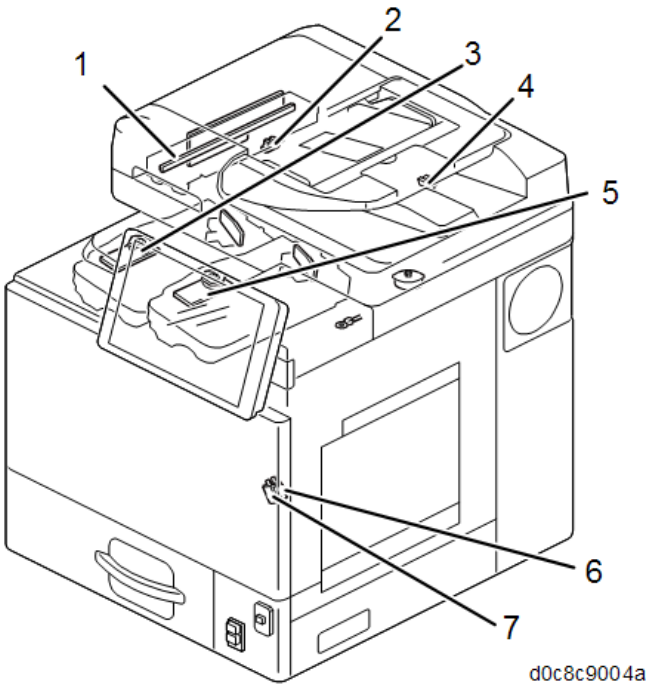
No.	Part Name	SP Name	SP No.	Reading	
				0	1
2	Original feed sensor (S25)	DF Feed Sensor	6-011-010	Paper detected	Paper not detected
3	Registration sensor (S24)	Registration Sensor	6-011-013	Paper detected	Paper not detected
6	ADF top cover sensor (S23)	Feed Cover Sensor	6-011-015	Close	Open
7	Original set sensor (S22)	Original Detection	6-011-009	Not set	Set
8	Double-feed sensor (PCB14) (PCB15)	Page Keeper Sensor	6-011-024	Double feed not detected	Double feed detected

Output check

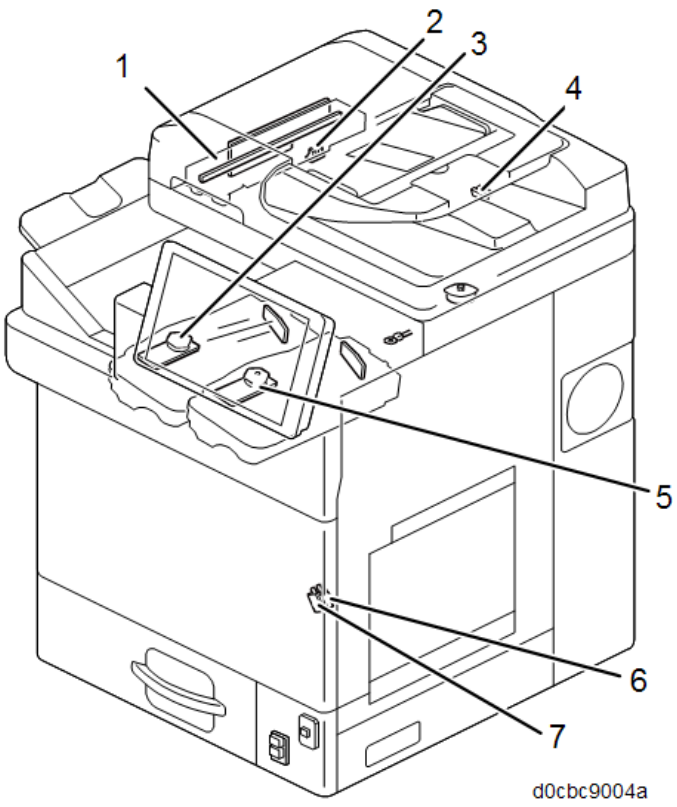
No.	Part Name	SP Name	SP No.	Remark
1	Original feed clutch (CL4)	Feed Clutch	6-012-014	
4	CIS (S21) unit: scanner lamp	Scanner Lamp: Color	4-723-001	
5	ADF motor (M8)	Motor Forward	6-012-003	
		Motor Reverse	6-012-004	

Scanner Unit/ Laser Unit

IM C300series



IM C400series



Input Check

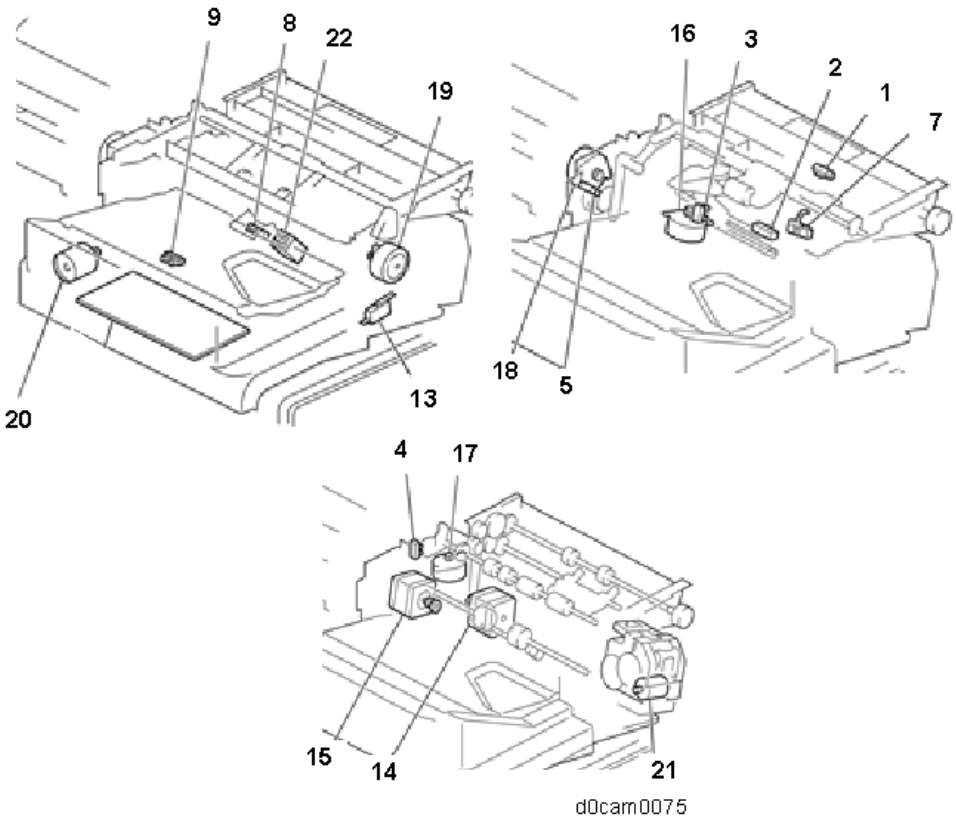
No.	Part Name	SP Name	SP No.	Reading	
				0	1
2	Scanner HP sensor (S20)	Scanner HP Sensor	5-803-200	Not HP	HP
4	ADF position sensor (S19)	Platen Cover Sensor	5-803-201	Close	Open
6	Interlock switch 1	Interlock Release Detection 1	5-803-012	Door open	Door close
7	Interlock switch 2	Interlock Release Detection 1	5-803-013	Door open	Door close
-	-	LD Off Check	5-803-094	-	-

Output check

No.	Part Name	SP Name	SP No.	Remark
1	Scanner lamp	Scanner Lamp	5-804-202	
		Scanner Lamp: Color 1200	5-804-203	Not available
		Scanner Lamp: Bk	5-804-204	Not available
3	Polygon mirror motor (B/C) (M5)	Polygon Motor1: Standard2	5-804-103	
		Polygon Motor1: Standard	5-804-104	
		Polygon Motor1: Low	5-804-105	
5	polygon mirror motor (M/Y) (M6)	Polygon Motor2: Standard2	5-804-107	
		Polygon Motor2: Standard	5-804-108	
		Polygon Motor2: Low	5-804-109	
3, 5	Polygon mirror motor (B/C) (M5), (M/Y) (M6)	Polygon Motor1,2: Standard2	5-804-111	
		Polygon Motor1,2: Standard	5-804-112	

No.	Part Name	SP Name	SP No.	Remark
		Polygon Motor1,2: Low	5-804-113	

Internal Finisher (IM C400SRF Only)



paper exit sensor INPUT Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
1	Entrance sensor (S45)	Entrance Sensor	6-145-001	Closed	Open
2	Paper exit sensor (S43)	Paper Exit Sensor	6-145-002	Paper not detected	Paper detected
3	Jogger fence HP sensor (S41)	Jogger HP Sensor	6-145-003	Paper not detected	Paper detected
4	Shift roller HP sensor (S37)	Shift Roller HP SN	6-145-004	Paper not detected	Paper detected
5	Gathering roller HP sensor (S38)	Positioning Roller HP SN	6-145-005	Paper not detected	Paper detected
6	Exit guide plate HP	Ext Guide Plate HP	6-145-	Paper not	Paper

No.	Part Name	SP Name	SP No.	Reading	
				0	1
	sensor (S44)	SN	006	detected	detected
7	Staple tray paper sensor (S42)	Staple Tray Paper SN	6-145-007	Paper not detected	Paper detected
8	Remaining paper sensor (S40)	Tray Paper Height SN	6-145-008	Paper not detected	Paper detected
9	Tray Lower Limit Sensor (S39)	Tray Overflow SN	6-145-009	Paper not detected	Paper detected
10	-	Staple HP Sensor*1	6-145-010	-	-
11	-	Staple Near End SN*1	6-145-011	-	-
12	-	Self Priming Sensor*1	6-145-012	-	-
13	Interlock switch	Front Door SW	6-145-013	Front door closed	Front door open

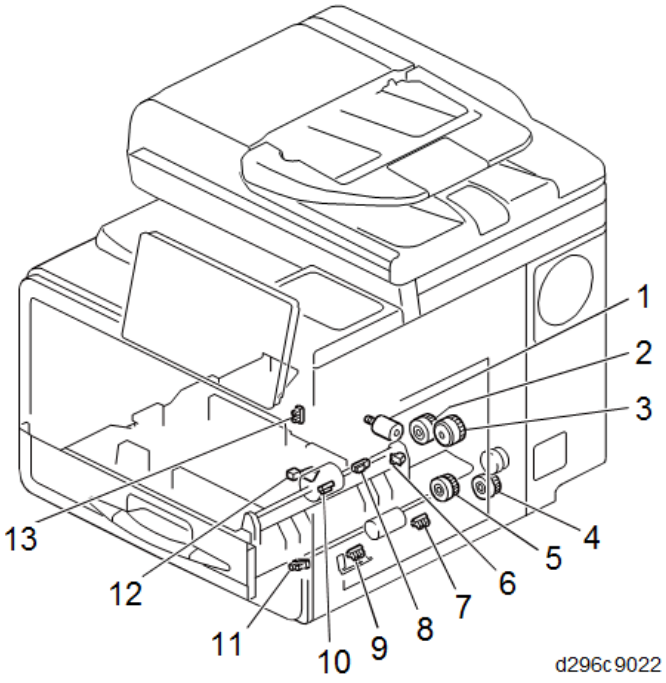
*1 These SPs are not used in this machine.

OUTPUT Check

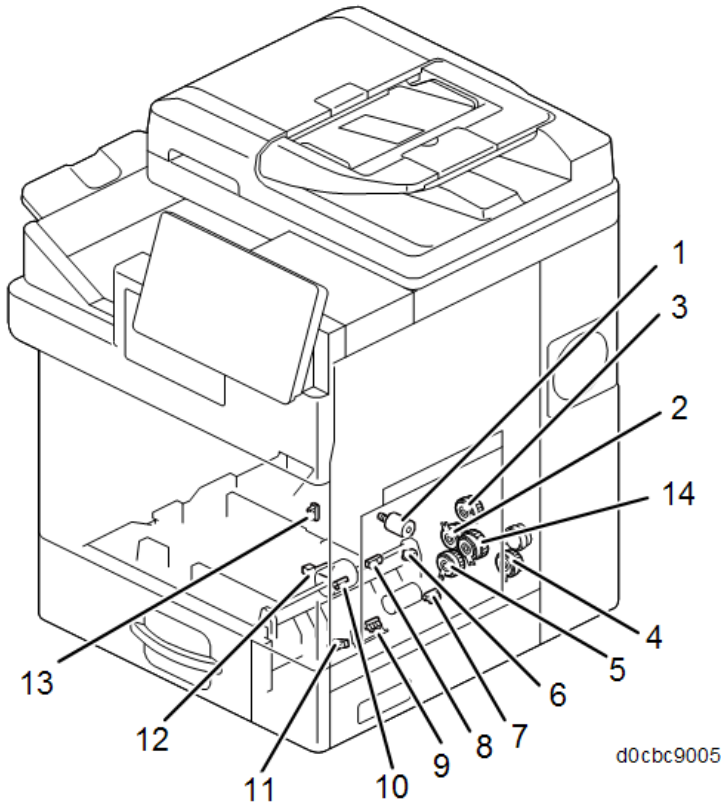
No.	Part Name	SP Name	SP No.	Remarks
14	Paper transport motor (M16)	Transport Motor	6-146-001	
15	Paper exit motor (M17)	Paper Ext Motor	6-146-002	
16	Jogger motor (M20)	Jogger Motor	6-146-003	
17	Shift roller motor (M19)	Shift Roller Motor	6-146-004	
18	Gathering roller motor (M18)	Positioning Motor	6-146-005	
19	Exit guide plate motor (M21)	Ext Guide Plate Motor	6-146-006	
20	Tray lift motor (M22)	Tray Lift Motor	6-146-007	
21	Staple motor (M23)	Stapler Motor	6-146-008	
22	Stopper Solenoid (SOL3)	Paper Height SOL	6-146-009	

Paper Feed

IM C300 series



IM C400 series



Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
6	Tray set sensor (S34)	Tray Set Detection	5-803-054	Set	Not set
7	Paper end sensor (bypass) (S6)	Bypass Paper End Detection Sensor	5-803-003	Paper detected	Paper not detected
8	Registration sensor (S24)	Registration Sensor	5-803-001	Paper detected	Paper not detected
9	Bypass paper width sensor (S5)	Bypass Paper Width Detection Sensor	5-803-004	Paper detected	Paper not detected
10	Paper feed sensor (S31)*1	Tray Exit Sensor	5-803-011	Paper detected	Paper not detected
10	Paper feed sensor (S31)*2	Feed Sensor	5-803-067	Paper detected	Paper not detected
11	Bypass tray lift sensor (S4)	By-pass Lift Position Sensor	5-803-010	Down	Up
12	Tray paper end sensor (main unit) (S30)	Tray Paper End Detection Sensor	5-803-002	Paper detected	Paper not detected
13	Tray lift sensor (S35)	Tray Lift Sensor	5-803-053	Down	Up

*1 IM C300 series

*2 IM C400 series

Output Check

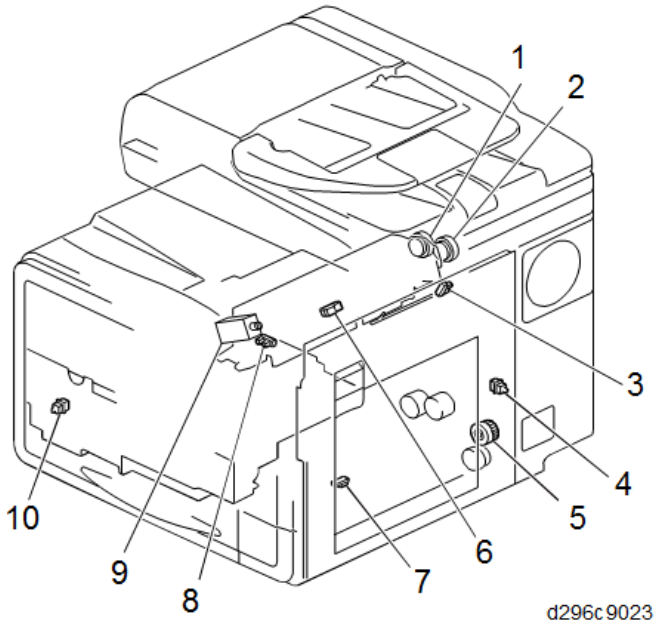
No.	Part Name	SP Name	SP No.	Remark
1	Tray lift motor (M15)	Tray Lift Motor	5-804-007	Do not execute this SP when the paper feed tray is set. If keeps the tray lift motor (M15) switched ON, the bottom plate can lift up too much because the tray lift sensor (S35) does not work. This will cause the sensor to damage.
2	Paper feed clutch (CL9)	Paper Feed Clutch	5-804-002	
3	Registration clutch (CL8)	Registration Clutch	5-804-	

No.	Part Name	SP Name	SP No.	Remark
			001	
4	Bypass feed clutch (CL7)	Bypass Feed Clutch	5-804-004	
5	Bypass lift clutch (CL1)	Bypass Lift Clutch	5-804-005	
14	vertical transport clutch (CL10)*1	Transport Clutch	5-804-114	

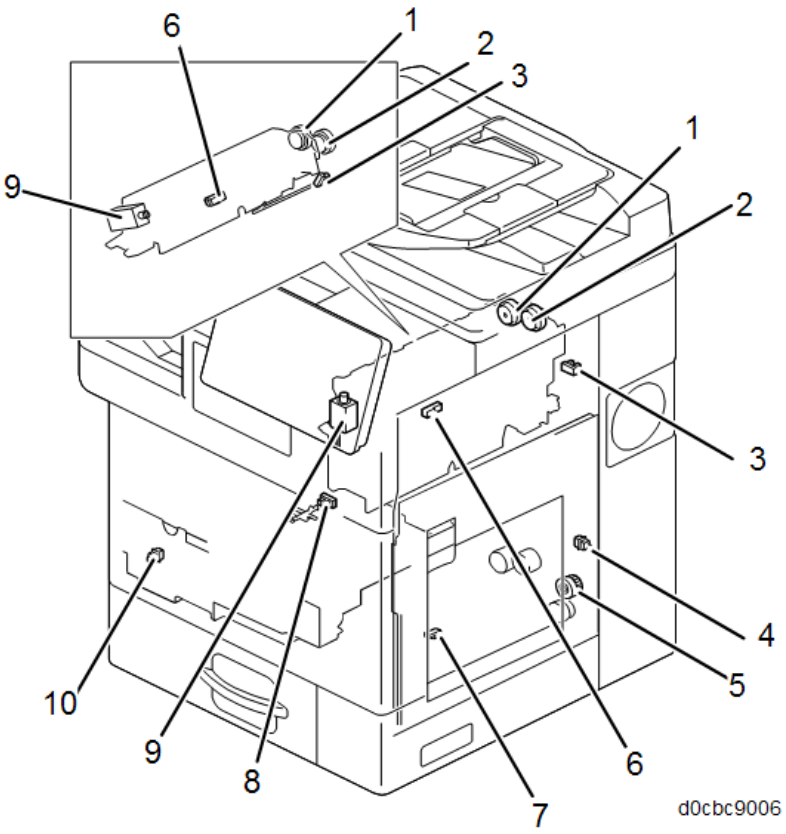
*1 IM C400series only

Paper Exit/ Duplex, Waste Toner Bottle

IM C300series



IM C400series



Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
3	Duplex entrance sensor (S1)	Duplex Entrance Sensor	5-803-008	Paper detected	Paper not detected
4	Right cover sensor (SW2)	Right Cover Sensor	5-803-014	Door close	Door open
6	Paper exit sensor (S7)	Exit Sensor	5-803-007	Paper detected	Paper not detected
7	Duplex exit sensor (S2)	Duplex Exit Sensor	5-803-006	Paper detected	Paper not detected
8	Waste toner full sensor (S36)	Toner Collection Full Sensor	5-803-019	Not full	Full
10	Waste toner bottle set sensor (S26)	Toner Collection Bottle Set Detection	5-803-020	Set	Not set

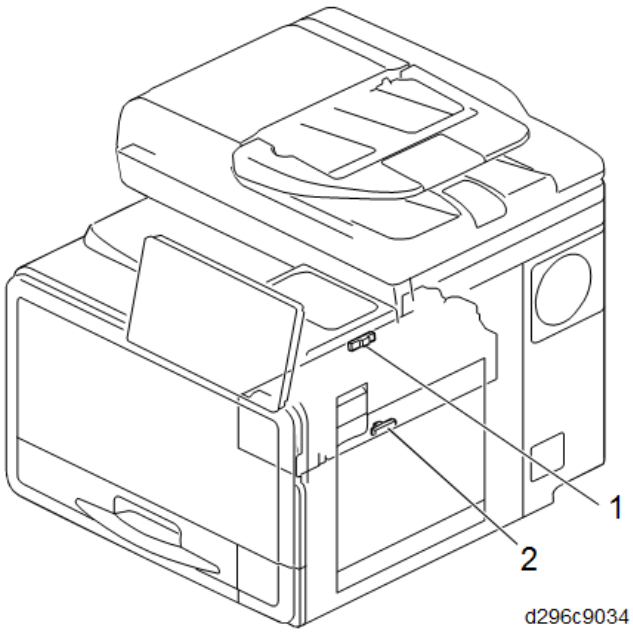
Output Check

No.	Part Name	SP Name	SP No.	Remark
1	Reverse clutch (CL2)	Reverse Clutch	5-804-089	

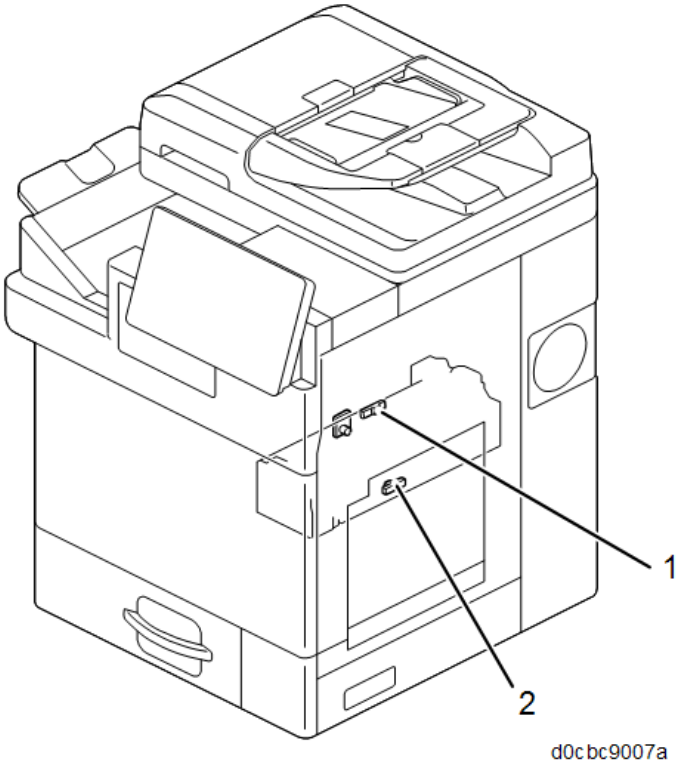
No.	Part Name	SP Name	SP No.	Remark
2	Paper exit clutch (CL3)	Exit Clutch	5-804-088	
5	Duplex clutch (CL6)	Duplex Clutch	5-804-003	
9	Junction gate solenoid (SOL1)	Paper Exit Rotary Solenoid	5-804-008	

Fusing

IM C300series



IM C400series

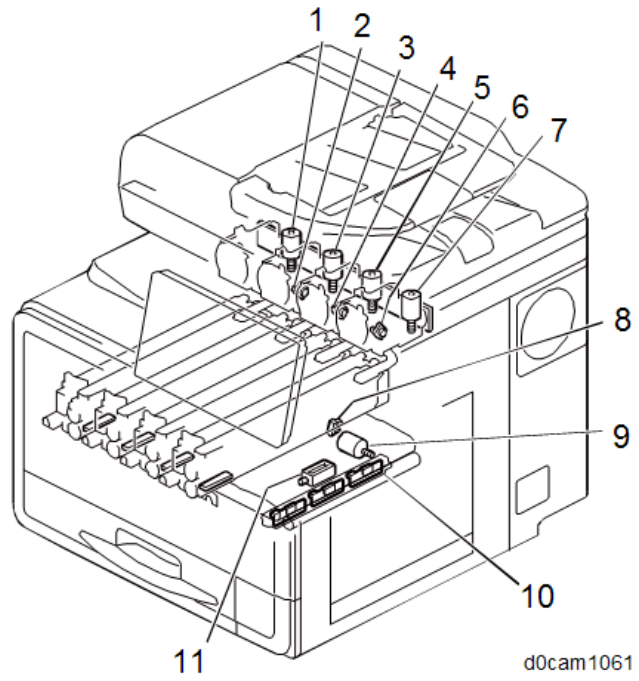


Input Check

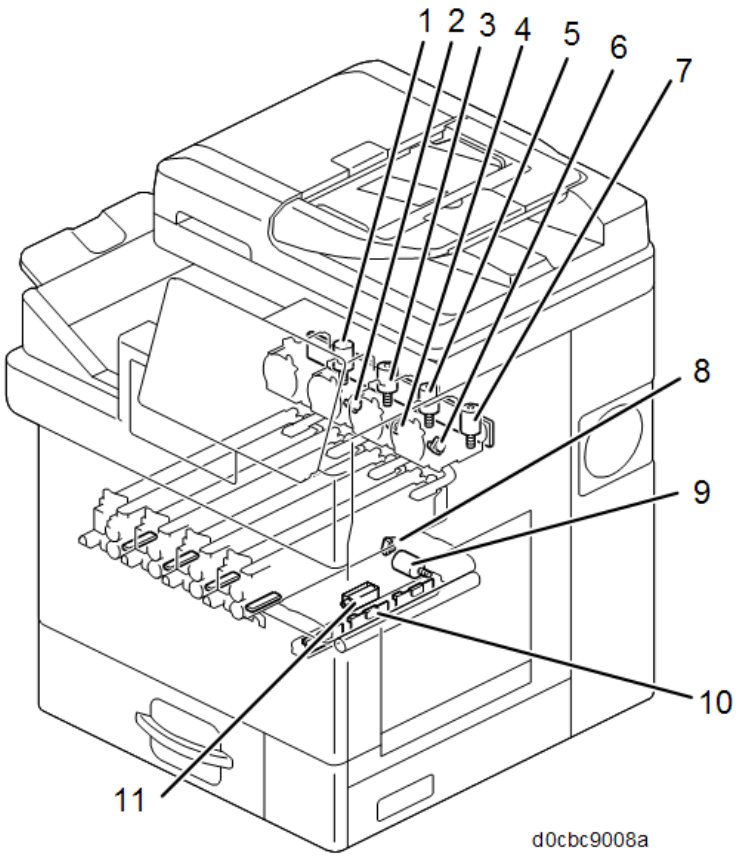
No.	Part Name	SP Name	SP No.	Reading	
				0	1
1	Fusing exit sensor (S8)	Fusing Exit Sensor	5-803-027	Paper detected	Paper not detected
2	Fusing entrance sensor (S3)	Fusing Entrance Sensor	5-803-026	Paper detected	Paper not detected
-	-	Set and Destination Detection	5-803-028	-	-
-	-	Fusing New Unit Detection	5-803-029	New	Not new
-	-	Fusing High Temp Detection	5-803-030	Detected	Not detected

Toner Supply/ Transfer

IM C300series



IM C400series



Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
2	Toner end sensor (C) (S11)	Toner End Sensor: C	5-803-024	Not end	End
4	Toner end sensor (M) (S12)	Toner End Sensor: M	5-803-023	Not end	End
6	Toner end sensor (Y) (S13)	Toner End Sensor: Y	5-803-022	Not end	End
8	ITB lift HP sensor (S33)	Image Transfer Contact HP Sensor	5-803-016	Contact	Not contact

Output Check

No.	Part Name	SP Name	SP No.	Remark

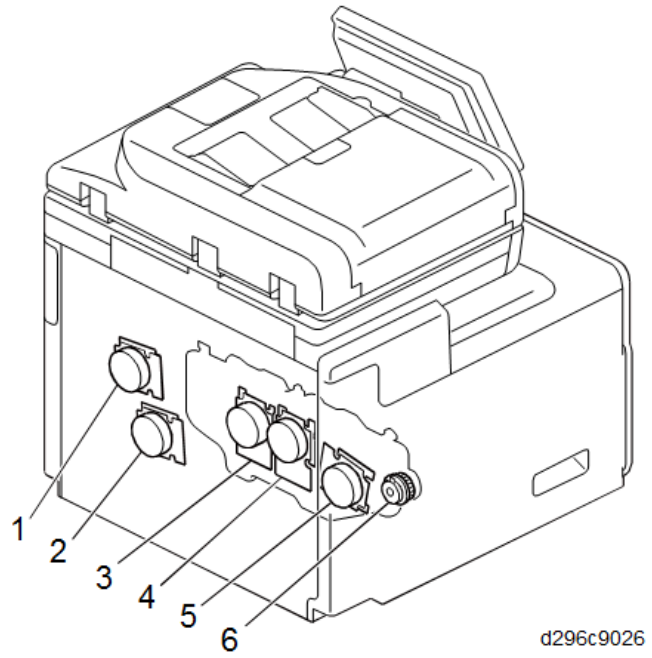
1	Toner supply motor (K) (M1)	Toner Supply Motor: Bk	5-804-038	Operation : Run the toner supply motor for 1.5 sec..
				Notes :
				• If you want to run again, do it after executing SP3-011-001 (Normal ProCon) or printing 1 or more sheet(s) in full color mode.
				• If you run without obeying the above-mentioned operations, following failures may occur.
				  • The toner supply unit and PCDU are damaged, and units replacing is required.
				  • Toner can scatter inside and outside the machine from the supply unit.

3	Toner supply motor (C) (M2)	Toner Supply Motor: C	5-804-037	
5	Toner supply motor (M) (M3)	Toner Supply Motor: M	5-804-036	
7	Toner supply motor (Y) (M4)	Toner Supply Motor: Y	5-804-035	
9	ITB lift motor (M14)	Image Transfer Contact Motor	5-804-033	If you execute this SP, the ITB roller halts at a position which is not at the home position (separated from the ITB). If you remove or install the PCDU or the ITB unit immediately after the motor is switched ON/OFF with this SP, the drums and ITB may be damaged. Before you remove/install the PCDU or the ITB unit, initialize the machine with turning the main power OFF/ON or opening/closing the front door.
10	ID sensor (front) (S27)	TM/ID Sensor: Front	5-804-	

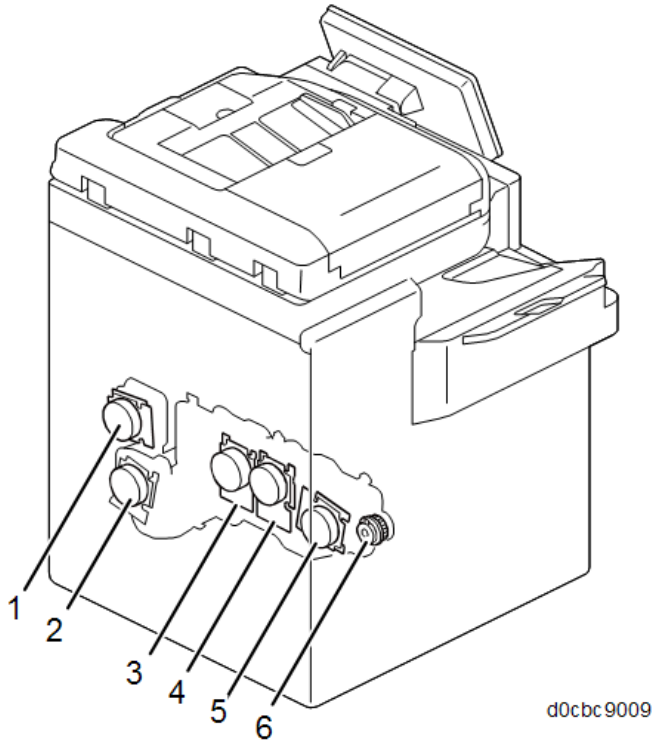
No.	Part Name	SP Name	SP No.	Remark
			071	
	ID sensor (center) (S28)	TM/ID Sensor: Center	5-804-072	
	ID sensor (rear) (S29)	TM/ID Sensor: Rear	5-804-073	
11	ID Sensor Shutter Solenoid (SOL2)	TM Sensor Shutter Solenoid	5-804-021	After the motor is turned ON with this SP, it is turned OFF automatically in about 30 seconds. If you repeat turning OFF and ON continuously, the temperature of the solenoid rises. It can wrinkle the ITB near the solenoid.
-	-	Toner End Sensor Power	5-804-039	
-	-	ID Tag: Power Supply Control	5-804-042	
-	-	Toner Sensor Power	5-804-043	

Drive Unit

IM C300series



IM C400series



Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
1	Fusing motor (M13)	Fusing Motor: Lock	5-803-041	Lock	Normal
2	Paper transport motor (M12)	Transport Motor: Lock	5-803-042	Lock	Normal
3	Development motor (CMY) (M9)	FC Dev Motor: Lock	5-803-039	Lock	Normal
4	Drum motor (CMY) (M10)	FC Drum Motor: Lock	5-803-040	Lock	Normal
5	Drum motor (M11)	Bk Drum Motor: Lock	5-803-038	Lock	Normal

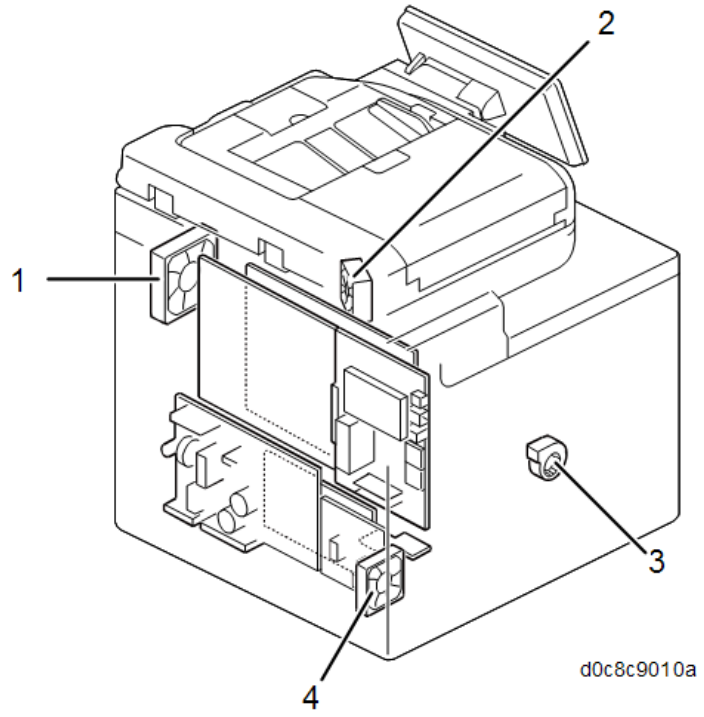
Output Check

No.	Part Name	SP Name	SP No.	Remark
1	Fusing motor (M13)	Fusing Motor: Standard Speed 1	5-804-029	Do not use these SPs, but use following SPs instead. • SP1-158-001 (Abnormal Noise Confirmation: Unit: Execute) • SP1-158-002 (Abnormal Noise Confirmation: No Unit: Execute) A simple heater control is performed in these SPs, and temperature rises excessively. It can cause the fusing sleeve damaged.
		Fusing Motor: Low Speed	5-804-030	
		Fusing Motor: Standard Speed 2	5-804-091	
		Fusing Motor: Middle Speed	5-804-096	
2	Paper transport motor (M12)	Transport Motor: Std Speed 1	5-804-031	
		Transport Motor: Low Speed	5-804-032	
		Transport Motor: Standard Speed 2	5-804-092	
		Transport Motor: Middle Speed	5-804-097	
3	Development	FC Dev Motor:	5-	

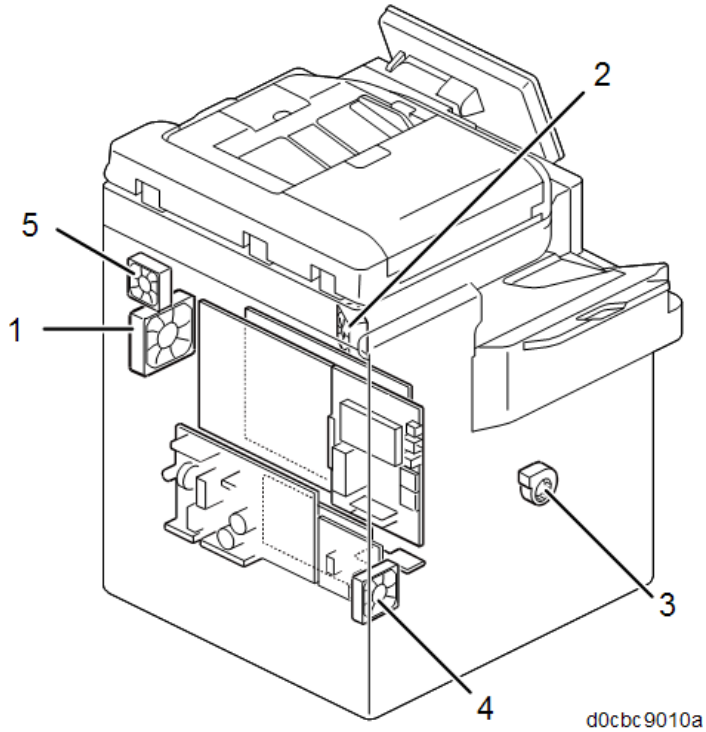
No.	Part Name	SP Name	SP No.	Remark
	motor (CMY) (M9)	Std Speed 1	804-024	
		FC Dev Motor: Low Speed	5-804-025	
		FC Dev Motor: Middle Speed	5-804-094	
4	Drum motor (CMY) (M10)	FC Drum Motor: Std Speed 1	5-804-027	When you turn ON the motor with these SPs, make sure to separate the color drums and ITB. Before the restoration operation of the machine after abnormal stop, for example JAM, if the drum motor (CMY) (M10) is turned ON with these SPs, only the color drums drive. At this time, the ITB has stopped but the ITB is in contact with the color drums. Therefore the color drums and the ITB may be damaged.
		FC Drum Motor: Low Speed	5-804-028	
		FC Drum Motor: Middle Speed	5-804-095	
5	Drum motor (M11)	Bk Drum Motor: Std Speed 1	5-804-022	When you turn ON the motor with these SPs, make sure to separate the color drums and ITB. Before the restoration operation of the machine after abnormal stop, for example JAM, if the drum motor (K) (M11) is turned ON with these SPs, the K drum and ITB drive. At this time, the color drums have stopped but the color drums are in contact with the ITB. Therefore the color drums and the ITB may be damaged. In addition, if turn ON for a long time, the cleaning blade can be distorted. When you keeps ON with the ITB unit installed, make sure to do it within 10 seconds.
		Bk Drum Motor: Low Speed	5-804-023	
		Bk Drum Motor: Standard Speed 2	5-804-090	
		Bk Drum Motor: Middle Speed	5-804-093	
6	Development Clutch (K) (CL5)	Development Clutch: Bk	5-804-026	

Fan/ Board

IM C300series



IM C400series



Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
1	Fusing unit cooling fan (FAN1)	Fusing Fan: Lock	5-803-032	Lock	Normal
2	LD unit cooling fan (FAN2)	Laser Unit Fan: Lock	5-803-033	Lock	Normal
3	PCDU cooling fan (FAN3)	PCDU Cooling Fan: Lock	5-803-035	Lock	Normal
4	PSU Exhaust Fan (FAN4)	PSU Fan: Lock	5-803-034	Lock	Normal
5	Paper exit/exhaust fan (FAN5)*1	Exit Exhaust Fan: Lock	5-803-070	Lock	Normal
-	-	PP:T1T2:SC Detection	5-803-045	SC detected	No SC
-	-	PP:CB:SC Detection	5-803-044	SC detected	No SC
-	-	BiCU Version Detection	5-803-056	-	-
-	-	Key Counter 1: Set Detection	5-803-047	Set	Not set
-	-	Key Counter 2: Set Detection	5-803-048	Not set	Set
-	-	Keycard: Set Detection	5-803-049	Set	Not set

*1 IM C400SRF only

Output Check

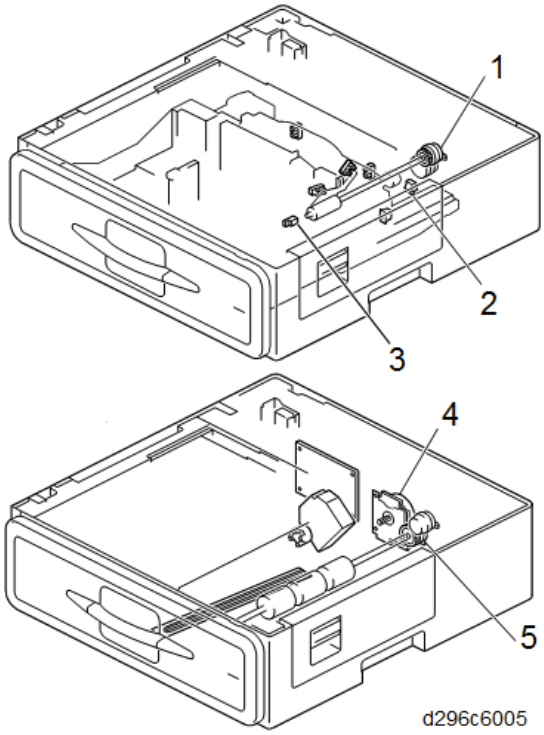
No.	Part Name	SP Name	SP No.	Remark
1	Fusing unit cooling fan (FAN1)	Fusing Fan: High Speed	5-804-009	
		Fusing Fan: Low Speed	5-804-010	
2	LD unit cooling fan (FAN2)	Laser Unit Fan: High Speed	5-804-	

No.	Part Name	SP Name	SP No.	Remark
			011	
		Laser Unit Fan: Low Speed	5-804-012	
3	PCDU cooling fan (FAN3)	PCDU Cooling Fan: High Speed	5-804-015	
		PCDU Cooling Fan: Low Speed	5-804-016	
4	PSU Exhaust Fan (FAN4)	PSU Fan: High Speed	5-804-013	
		PSU Fan: Low Speed	5-804-014	
5	Paper exit/exhaust fan (FAN5)*1	Exit Exhaust Fan: High Speed	5-804-120	
		Exit Exhaust Fan: Low Speed	5-804-121	
-	-	PP:Charge DC:Y	5-804-044	Do not turn ON these SPs with the PCDU installed. If you turn ON with the PCDU installed, an electric current continues to flow in a particular place of the drum. Therefore the drum may be damaged electrostatically. Note: If you turn ON these SPs multiple at the same time, and turn OFF one of the SPs, all of the output will be stopped. When you want to stop the outputs, turn OFF all of the SPs turned ON.
-	-	PP:Charge DC:M	5-804-045	
-	-	PP:Charge DC:C	5-804-046	
-	-	PP:Charge DC:Bk	5-804-047	
-	-	PP:Development: Y	5-804-	

No.	Part Name	SP Name	SP No.	Remark
			048	
-	-	PP:Development: M	5-804-049	
-	-	PP:Development: C	5-804-050	
-	-	PP:Development: Bk	5-804-051	
-	-	PP: Image Transfer: YMC	5-804-053	Do not turn ON these SPs with the PCDU installed. If you turn ON with the PCDU installed, an electric current continues to flow in a particular place of the drum. Therefore the drum may be damaged electrostatically.
-	-	PP: Image Transfer: Bk	5-804-056	
-	-	PP: Paper Transfer: +	5-804-057	• Do not turn on with the ITB unit installed. If the transfer is turned on without turning the transfer belt, a high voltage is continuously applied at the same position, which may cause a problem such as damage to the belt. • Do not apply "PP: Paper Transfer: -" and "PP: Paper Transfer: +" at the same time.
-	-	PP: Paper Transfer: -	5-804-058	
-	-	PP:Charge AC:Y	5-804-059	Do not use these SPs, otherwise SC312 will occur.
-	-	PP:Charge AC:M	5-804-061	
-	-	PP:Charge AC:C	5-804-063	
-	-	PP:Charge AC:Bk	5-804-065	

*1 IM C400SRF only

Paper Feed Unit (Optional)



Input Check

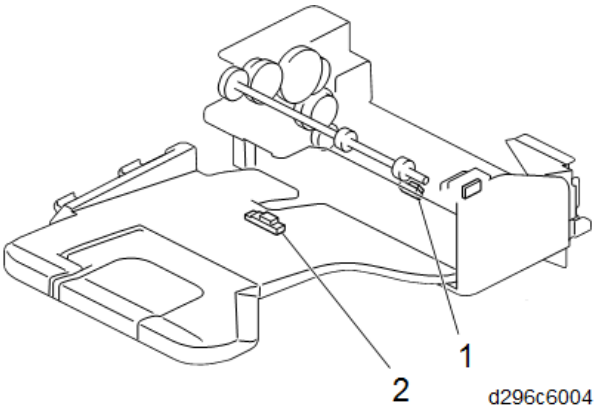
No.	Part Name	SP Name	SP No.	Reading	
				0	1
2	Cover sensor 1 (SW1)	PFU Door Sensor 1	5-803-062	Close	Open
	Cover sensor 2 (SW1)	PFU Door Sensor 2	5-803-063	Close	Open
	Cover sensor 3 (SW1)	PFU Door Sensor 3	5-803-069	Close	Open
3	Paper transport sensor 1 (S1)	PFU Vertical Transport Sen. 1	5-803-060	Paper not detected	Paper detected
	Paper transport sensor 2 (S1)	PFU Vertical Transport Sen. 2	5-803-061	Paper not detected	Paper detected
	Paper transport sensor 3 (S1)	PFU Vertical Transport Sen. 3	5-803-068	Paper not detected	Paper detected

Output check

No.	Part Name	SP Name	SP No.	Remark
1	Paper transport clutch 1 (CL1)	PFU Vertical Transport CL1	5-804-086	Tray 1
	Paper transport clutch 2 (CL1)	PFU Vertical Transport CL2	5-804-087	Tray 2

No.	Part Name	SP Name	SP No.	Remark
	Paper transport clutch 3 (CL1)	PFU Vertical Transport CL3	5-804-118	Tray 3
4	PFU transport motor 1 (M1)	PFU Transport Motor 1: High	5-804-080	Tray 1
		PFU Transport Motor 1: Low	5-804-081	Tray 1
	PFU transport motor 2 (M1)	PFU Transport Motor 2: High	5-804-082	Tray 2
		PFU Transport Motor 2: Low	5-804-083	Tray 2
	PFU transport motor 3 (M1)	PFU Transport Motor 3: High	5-804-115	Tray 3
		PFU Transport Motor 3: Low	5-804-116	Tray 3
5	PFU paper feed clutch 1 (CL2)	PFU Paper Feed CL1	5-804-084	Tray 1
	PFU paper feed clutch 2 (CL2)	PFU Paper Feed CL2	5-804-085	Tray 2
	PFU paper feed clutch 3 (CL2)	PFU Paper Feed CL3	5-804-117	Tray 3

1 Bin Tray Unit (Basic model)



Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
1	1-bin tray exit sensor	1-Bin:Exit Sensor	5-803-050	Paper detected	Paper not detected
2	1-bin tray paper remaining sensor	1-Bin:Paper Remaining Sensor	5-803-051	Paper detected	Paper not detected
-	-	1-Bin: Set Detection	5-803-052	Set	Not set

4. Software Configuration

Management Features

How to Disable the Document Server Function

1. Enter 'Copy' SP mode.
2. Change SP5-967-001 to 1. (0:ON 1:OFF)
3. Reboot the machine.

Note

- When the above SP mode (SP5-967-001) is OFF (=1), both the Document Server and Locked Print functions will be disabled.

Printing Features

Behavior of USB Printer Detection

An MFP connected via USB sends its product name and unique serial number. With the data, the machine determines whether requires a printer driver for the USB device to be installed.
SP5-844-005 allows you to change how to determine the MFP requires a printer driver installation:

- **OFF**
  If SP5-844-005 is set to OFF, the unique serial number of the device is sent to the computer. As a result, if the device is swapped out for a device of the same product, pop-up messages will appear, because the serial numbers between the two are different.
- **Level 1**
  If SP5-844-005 is set to Level 1, a common serial number for the product such as "MP 305+" series is sent to the computer. As a result, if the device is swapped out for a device of the same product, pop-up messages will not appear because the devices are recognized as having the same serial number.
- **Level 2**
  If SP5-844-005 is set to Level 2, a common serial number for all GW/GW+ models is sent to the computer. As a result, if a GW/GW+ device is swapped out for a different GW/GW+ device, pop-up messages will not appear because the devices are both recognized as being based on GW/GW+.

Auto PDL Detection Function

Overview

The Auto PDL Detection function gives the MFP the ability to determine the PDL of a job or of specific parts of a job. This can be especially useful in cases where the PDL is not specified or if the job contains multiple PDLs. This is only possible if the job was not created using a driver.

Conditions for detection of the PDL

The MFP will only attempt to detect a job's PDL if all of the following conditions are met.

- No @PJL ENTER LANGUAGE command is contained in the job
- No submission protocol options (lpr, ftp, rcp, or rsh options) have been used to specify the PDL
- User Tools > Printer > System > Printer Language = Auto

Note

- The printer is unable to detect PCL6 or RPCS. However these are almost always created using a driver and therefore contain the PJL command specifying the PDL.

PDL detection by the printer system, PCL interpreter and PS interpreter

There are 3 components in the printer which can perform Auto PDL Detection:

1. **Printer system:**

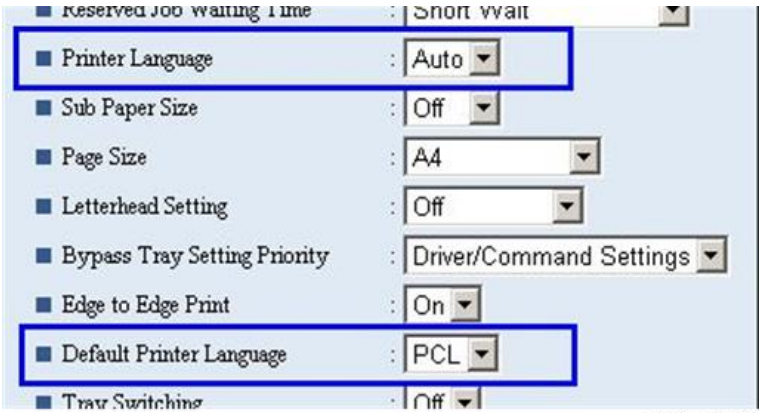
Uses a set of triggers unique to PCL5, PS or PDF. Up to 2KB from the start of the job can be searched for triggers.

2. **PCL interpreter:**
   It can detect PS triggers in PCL data. If a PS trigger is detected, the PCL interpreter will abort processing and return the unprocessed part of the job back to the printer system. Up to 256 bytes from the start of each page can be searched for triggers.
3. **PS interpreter:**
   It can detect PCL5 triggers in PS data. If a PCL trigger is detected, the PS interpreter will abort processing and return the unprocessed part of the job back to the printer system. The entire page (regardless of the number of bytes) is searched for triggers.

Note

- 2. and 3. can be disabled using Printer Bit Switch 2-3=1.
- If the "Printer Language" is configured to anything other than Auto, all detection will be disabled.
- An interpreter submits a job page by page to the rasterizer. Therefore, when an interpreter detects a trigger mid-job, the previous pages will have already been submitted and will be output using the previously detected PDL.
- If the PDL cannot be detected by the printer system, then the PDL defaults to the one configured in "Configuration > Printer Basic Settings > Default Printer Language".

The Printer Language setting and Default Printer Language setting in WIM:



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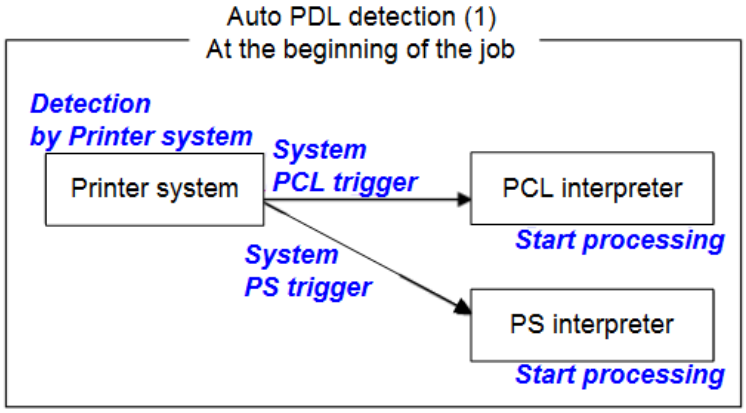
PDL selection and switching

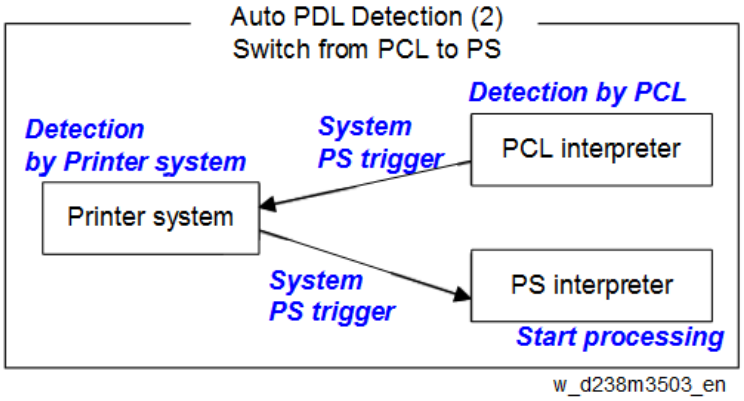
3 types of PDL selection/switching are performed:

1. PDL selection (PCL5 or PS (including PDF)) at the beginning of the job: performed by the printer

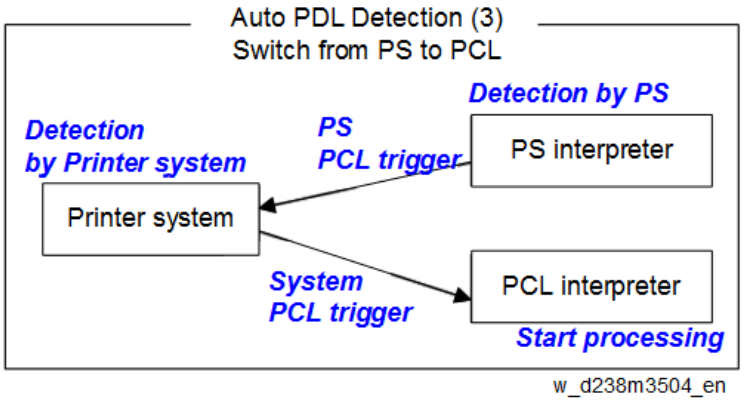
system



2. PDL switching from PCL5 to PS: performed by the PCL interpreter and the printer system



3. PDL switching from PS to PCL5: performed by the PS interpreter and the printer system



Triggers

Printer system

PCL5 triggers	[ESC]E [FF]
PS triggers	%!PS-Adobe-3.1 %! dict begin

	bind def findfont showpage /statusdict 0 startjob [EOT] } + space character + "def" userdict (*)
PDF triggers	%PDF- %!PS-Adobe-M.nPDF- (*M, n=numeric)

* "userdict" is excluded by configuring Printer Bit Switch 5-3=1.

Note

- Up to 2KB from the start of the job can be searched for triggers.
- "%%" can be added to the PS triggers by configuring Printer Bit Switch 5-3=1
- If a job is identified as PDF, it will be sent to the PS interpreter to be processed as a regular PS job.

PS interpreter

PCL5 trigger	[ESC]E and 2 or more continuous PCL commands

Note

- Up to 256 bytes from the start of each page can be searched for triggers.

Some possible problems

Garbled output:

If a string of characters (or binary data) is mistaken as a trigger and an incorrect PDL is applied, the output will be garbled.

Incorrect printer settings:

Printer settings, for example the paper size, is incorrectly applied. This can happen when the printer settings at the beginning of the job are initialized before a PDL switch occurred and no settings were configured for the rest of the job.

Printer Bit Switch description

Bit Switch 2-3

This controls Auto PDL Detection by the PCL interpreter and PS interpreter.

BitSW 2-3=0 (default):

If PDL switching is applied to the job, all of the printer system, PCL interpreter and PS interpreter will search for switching criteria (triggers).

BitSW 2-3=1:

Only the printer system will search for switching criteria (triggers). PCL/PS interpreters will not.

Bit Switch 5-3

This affects the PDL switching criteria (triggers) used by the printer system.

BitSW 5-3=0 (default):

"%%" is not used as a printer system PS trigger. "%%" will not call the PS interpreter.

BitSW 5-3=1:

"%%" is used as a printer system PS trigger.

The reason that "%%" is not included as a trigger by default, is that a string of text in the body of the job such as the below, could result in a false positive. This would trigger a switch and result garbled output.

%%%%%%%%%%%%%%%%%%%%%%%%%%%%

However some customers prefer that "%%" be included as a switching criteria. BitSW5-3=1 should be used in such a case.

Note

- A side effect of BitSW5-3=1 is that "userdict" will no longer be used as a PS trigger.

Bit Switch 9-0

These determine whether Auto PDL Detection for print jobs transmitted via USB/parallel will wait 10 seconds to make sure the first 2KB of the job has been sent.

The Printer system portion of the Auto PDL Detection function is only performed on the first 2KB of a job and can wait up to 10 seconds for that first 2KB to arrive. As the printer is unable to detect the end of jobs submitted over a USB/Parallel connection, it might be preferable to not wait 10 seconds if jobs of less than 2KB are going to be printed. Enabling/disabling this waiting time is the purpose of BitSw 9-0.

BitSw 9-0=0 (default):

The printer system will not wait 10 seconds for the first 2KB of data to arrive.

BitSw 9-0=1:

The printer system will wait up to 10 seconds for the first 2KB of data to arrive.

Print Images Rotation

Printer Bit Switch description

Bit Switch 5-6

This changes the way an MFP/LP rotates PCL, PS, PDF, or RPCS print images.

BitSW 5-6=0 (default):

A uniform binding edge (short or long edge) will be applied to every page of every job. Pages will always be rotated as if they were to be bound on that edge.

BitSW 5-6=1:

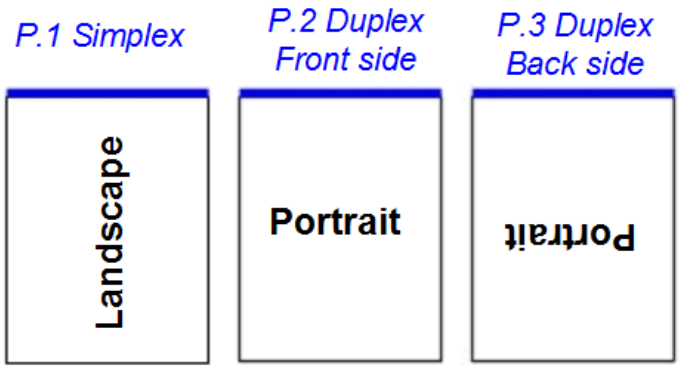
A uniform binding edge (short or long edge) will only be applied if the job is stapled, punched, or Z-folded. Otherwise, the bound edge might differ from page to page.

Example:

A 3-page job. Page 1 has the PCL simplex command. Page 2 and 3 have the PCL duplex long-edge bind commands.

No finishing options (staple, punch, z-fold) are used.

Bit Switch #5-6=0:



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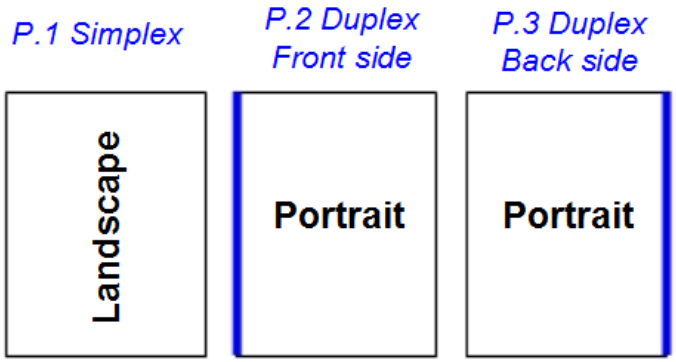
Bit Switch #5-6=1:



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Note

- Used in conjunction with Bit Switch #5-6, Orientation Auto Detect for PS/PDF jobs might cause unexpected results.

PJL USTATUS

Printer Bit Switch description

Bit Switch 9-4

These control the way PJL USTATUS returns page count totals in cases where multiple copies of a job are being printed.

BitSw 9-4=0 (default):

This change the way an MFP/LP rotates PCL, PS, PDF, or RPCS print images.

1. The page count for a single copy is returned after the first copy is printed.
2. The page count for the rest of the copies, excluding the first copy, is returned after all copies have been printed.
3. This emulates an older HP PCL firmware spec. It is only needed for compatibility with legacy software.

BitSw 9-4=1:
The page count for all copies is output after all copies have been printed.
This emulates more recent HP PCL firmware specs.
For example, consider 3 copies of a 3 page job:
9-4 = 0
@PJL USTATUS JOB
START
NAME="TEST_page1-3"
@PJL USTATUS PAGE
1
@PJL USTATUS PAGE
2
@PJL USTATUS PAGE
3
@PJL USTATUS JOB
END
NAME="TEST_page1-3"
PAGES=3
<comment> The page count of the first copy is returned.</comment>
@PJL USTATUS PAGE
1
@PJL USTATUS PAGE
2
@PJL USTATUS PAGE
3
@PJL USTATUS PAGE
4
@PJL USTATUS PAGE
5
@PJL USTATUS PAGE
6
<comment> The page count of the remaining two copies is returned.</comment>
9-4 = 1
@PJL USTATUS JOB
START
NAME="Microsoft Word - TEST_page1-3"
@PJL USTATUS PAGE
1
@PJL USTATUS PAGE

2
@PJL USTATUS PAGE
3
@PJL USTATUS PAGE
4
@PJL USTATUS PAGE
5
@PJL USTATUS PAGE
6@PJL USTATUS PAGE
7
@PJL USTATUS PAGE
8
@PJL USTATUS PAGE
9
@PJL USTATUS JOB
END
NAME="Microsoft Word - TEST_page1-3"
PAGES=9
<comment> The page count of all three copies is returned.</comment>

Scanner Features

Display settings of recently used scan destination

Configuring the scanner interface so that the most recently used scan destination is cleared.
Whether the MFP clears the most recently used scan destination, can be configured using Scanner SP 1-012-001.
By default, this is cleared to avoid subsequent users scanning to it by mistake.
Scanner SP 1-012-001
1 (default): Clear
0: Do not clear
This will cause all of the following to be cleared after the scanning is complete:

- Destination
- Sender
- Email subject
- Email message
- File name

The information in the list above will be cleared after scanning is finished.

Exceptions:

- User Auth.:
  If SP 1-012-001 = 0 and if User Auth. (excluding User Code authentication) is enabled, the most recently used scan destination will only be retained until the user logs out.
- Scanner Auto Reset timer:
  Even if SP 1-012-001 = 0 the most recently used scan destination can still be cleared by the Scanner Auto Reset timer. If the Scanner Auto Reset timer is shorter than the System Auto Reset timer, then the most recently used scan destination will be cleared when the Scanner Auto Reset timer elapses.

The Setting of SMTP authentication in Scan to Email

Scan to Email fails with the error message "Transmission has failed ". The SMTP username and password are correct. How can I make Scan to Email pass?
Change SP 5-860-022 "SMTP Auth. From Field Replacement" to On. By doing this, Scan to Email will pass the SMTP authentication.

Note

- Using this option to solve the above problem, the device SMTP email address will appear in the email's "From" field. The email address of the user who sent the email or the admnistrator will appear in the "Reply-to" field.

Explanation

This is an SMTP authentication issue that aborts transmission of an already started Scan to Email.

Currently this has only been reproduced using MS-Exchange server.

MS-Exchange requires that all of the following match:

1. The sender's address in the "MAIL FROM" field. This is also known as the "envelope sender" or "MIME sender". It is an SMTP command sent at the beginning of the email transmission process.
2. The sender's address in the mail header "From:" field. This appears as "From" in email clients. It is a part of the email itself.
3. The email address corresponding to the SMTP username used to login into the SMTP server.

When the MFP logins into the SMTP server, the email address of the username 3) will be compared to 1) and 2). If these comparisons fail, authentication will also fail. Exchange server will stop the transmission procedure, and the "Transmission has failed" message will be returned to the sender.

Typical example

NG case:

SP5-860-022 is Off:

1. The "MAIL FROM" field = device
2. The mail header "From:" field = use
3. The SMTP username = device

When the SMTP server compares 2) and 3) the Exchange Server will stop the transmission procedure.

OK case:

SP5-860 can be used to make the values in the above example, match.

In this example, if SP5-860-022 is On, the user's email address in the mail header '2)' will be replaced by the Administrator's email address.

To solve the problem, the Administrator's address must be the same as the device's address.

If this is done:

1. The "Mail From: field = device
2. The mail header "From:" field = administrator
3. The SMTP username = device

1,2 and 3 must match and the authentication should be successful.

Note

- The user's email address will still be inserted into the reply-to field.

The device SMTP user name, password, and email address are configurable in [User Tools] > [Machine Features] > [System Settings] > [File Transfer] > [SMTP Authentication].

User email addresses are configurable in the user configuration of the Address Book.

The administrator email address is configurable in [User Tools] > [Machine Features] > [System Settings] > [File Transfer] > [Administrator's Email Address].

The Qualification Switching of Scan to Folder

Determining which account Scan to Folder uses to access a scan destination and the effects of System SP 5-846-021.

This method depends on how the destination is accessed, whether authentication is being used, and SP 5-846-021.

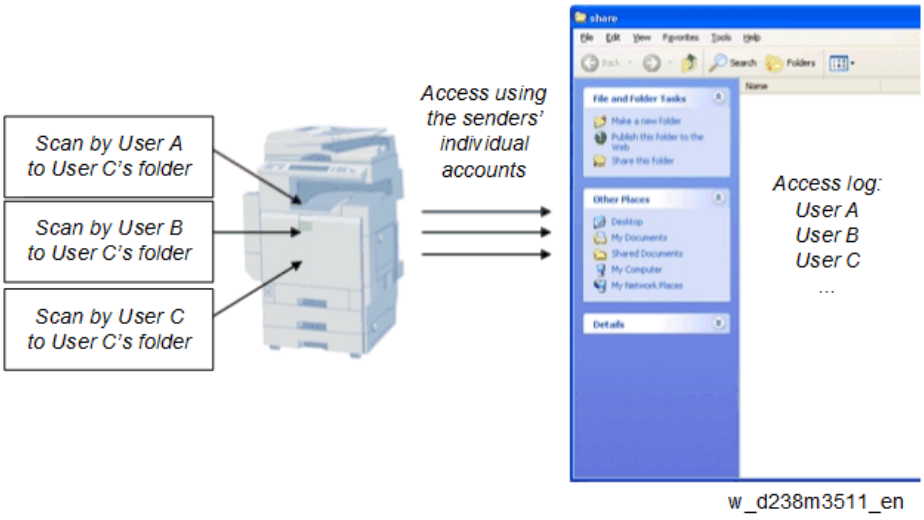
Cases:

Case	Destination selection	User auth.	Account used to access the folder
A	Manual entry	Either enabled or disabled	The user's account *
B	Destination list	disabled	The recipient's account (as configured in the Address Book's Folder Authentication setting)
C		enabled	If SP 5-846-021 = 0 (default): The authenticated user's account 1: The recipient's account (as configured in the Address Book's Folder Authentication setting)

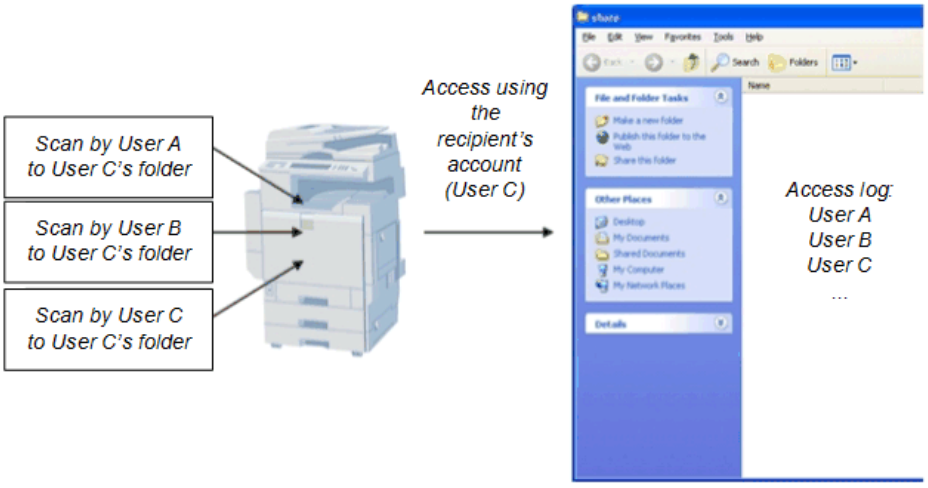
* The "user's account" will be either the one entered during scanning (see the Manual Entry screen capture) or if User Auth. is enabled, the account configured in the user's Folder Authentication setting will be used.

The destination's access logs:

Case A or Case C with SP=0: The access logs can be used to determine which user sent the scan.



Case B or Case C with SP=1: All access will be logged as the same user.



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Security Features

How to Restrict Access to the WIM Job Menu

1. Enter 'Printer' SP mode.
2. Set SP5-888-001

   0: (default): "Job" menu is enabled.

   1: "Job" menu is disabled.

Note

- This setting takes effect only if user authentication (other than User Code auth.) is disabled.

How to Restrict Web Image Monitor Access to the Document Server

System (Copier) SP 5-885-020 bit 0, 1 and 7 restrict Web Image Monitor access to the DS. It disables the following WIM settings:

- The entire Document Server menu (shown in blue in fig1)
- Job > Document Server (shown in red in fig1)

See the following for details:

Bit 0:

Bit 0 = 0 (default): Allows anyone (guests, users, admins) access to the DS via WIM.

Bit 0 = 1: Prevents everyone from accessing the DS via WIM.

Bit 1:

Bit 1 = 0 (default): Allows anyone (guests, users, admins) access to the DS via WIM.

Bit 1 = 1: Only administrators can access the DS via WIM.

Note

- Without admin privileges, even authenticated users will be unable to access the DS via WIM.

Bit 7:

Bit 7 = 0 (default): Allows anyone (guests, users, admins) access to the DS via WIM.

Bit 7 = 1: Only administrators and authenticated users can access the DS via WIM.

The most restrictive result of combining these three configurations will take priority. So for example:

Bit 0 = 0

Bit 1 = 1

Bit 7 = 1

As Bit 1 = 1 is the most restrictive of the three, it will take presedence over the other two and only administrators will be able to access the DS via WIM.

Note

- In order for SP5-885-020 to have any effect, the Document Server must be enabled (SP5-967-001=0). For information about SP5-967-001, refer to Disabling the Document Server using System SP5-967-001.
- Access to the entire "Job" menu can be restricted using SP 5-888-001. For details, refer to Use of SP 5-888-001 to restrict access to the "Job" menu on WIM.

User Authentication for Specific MFP Applications

The SP5-420 settings enable/disable User Authentication for specific MFP applications.

SP 5-420 User Authentication Value (Default: 0)

SP 5-420	User Authentication	Value (Default: 0)	
SP5-420-001	Copy	0 (ON)	1 (OFF)
SP5-420-011	Document Server		
SP5-420-021	Fax		
SP5-420-031	Scanner		
SP5-420-041	Printer		

1. Enable User Authentication for the device as a whole:
   User Tools > System Settings > Administrator Tools > User Authentication Management
2. Use the SP5-420 settings to specify the applications to which User authentication is to apply.