MP C307/C407
Machine Code: D296/D297/D298/D299
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.

Safety

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 installed with the ADF/ARDF:
    When a thick book or three-dimensional original is placed on the exposure glass and the ARDF cover is lowered, the back side of the ARDF rises up to accommodate the original. Therefore, when closing the ARDF, please be sure to keep your hands away from the hinges at the back of the ARDF.
18. When using a vacuum cleaner around the machine, keep others away from the cleaner, especially small children.
19. For machines installed with the anti-tip components:
    The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety. The aim of these components is 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. (U.S.: UL60950-1, Europe: EN60950-1) Therefore, removal of such components must always be with the consent of the customer. Do not remove them at your own judgment.

20. **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 for several months 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 the machines installed with the 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

1. Do not incinerate toner bottles or used toner. Toner dust may ignite suddenly when exposed to an open flame.
2. Dispose of used toner, developer, organic photoconductors, and AIO unit in accordance with local regulations. (These are non-toxic supplies.)
3. Dispose of replaced parts in accordance with local regulations.
4. 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.
5. 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.

Handling the development unit cooling system

For the machines installed the development cooling system:

1. The development unit cooling system circulates propylene glycol from a sealed tank through hoses that pass behind cooling plates on the sides of each development unit.
2. The coolant tank is located at the bottom of the cooling box on the back of the main machine.
3. Always obey local laws and regulations if you need to dispose of a tank or the propylene glycol coolant.
4. The tank must never be emptied directly into a local drainage system, river, pond, or lake.
5. Contact a professional industrial waste disposal organization and ask them to dispose of the tank.

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   _safe007   _safe008

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

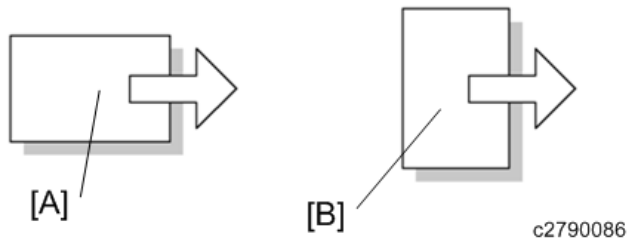
1. Always replace a battery with the same type of battery prescribed for use with the color controller unit. Replacing a battery with any type other than the one prescribed for use could cause an explosion.
2. Never discard used batteries by mixing them with other batteries or other refuse.
3. Always 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:

Microsoft® Windows® 7 Home Premium

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:

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Microsoft® Windows Server® 2008 R2 Enterprise

- The product names of Windows Server 2012 are as follows:

Microsoft® Windows Server® 2012 Foundation

Microsoft® Windows Server® 2012 Essentials

Microsoft® Windows Server® 2012 Standard

- The product names of Windows Server 2012 R2 are as follows:

Microsoft® Windows Server® 2012 R2 Foundation

Microsoft® Windows Server® 2012 R2 Essentials

Microsoft® Windows Server® 2012 R2 Standard

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1. Product Information

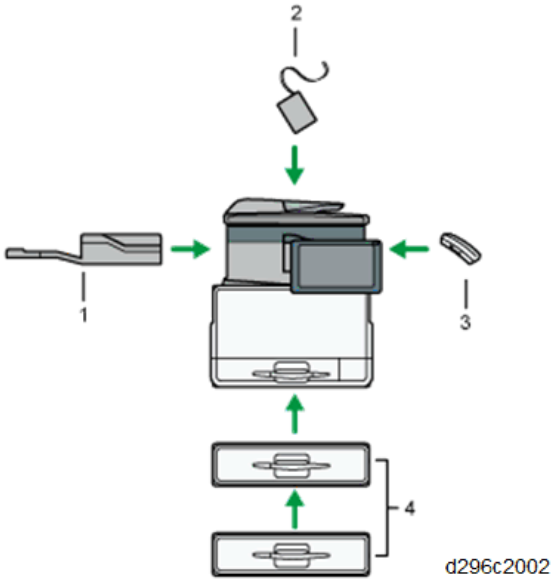
Specifications

See "Appendices" for the following information:

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

Machine Configuration

Main Unit

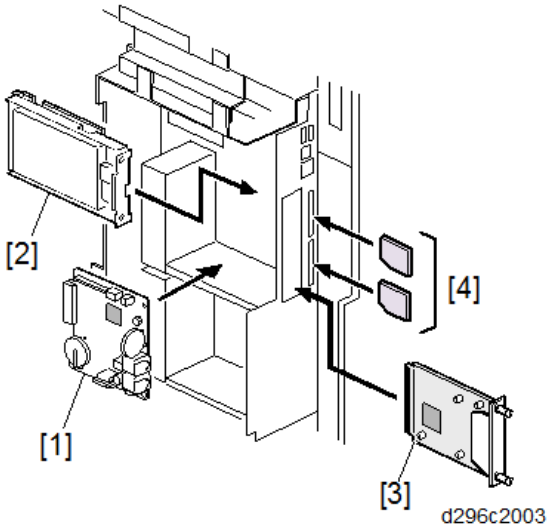


Note

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

Item	Machine Code	Remarks	New Option?
Mainframe	D298	MP C307SP for EU/AA	-
	D297	MP C307SPF for NA/EU/AA/TWN	-
	D299	MP C407SP for AA/CHN/KOR	-
	D296	MP C407SPF for NA/EU/AA/TWN	-
1 Bin Tray BN1030 [1]	D574	-	Yes
Page Keeper Type M28 [2]	D3DQ	Only for NA/EU	Yes
Handset Type C5502 [3]	D645	Only for NA Requires the Fax Option.	No
Paper Feed Unit PB1080 [4]	D573	Up to 2 can be stacked	No
Paper Feed Unit PB1080TE [4]	D573	Only for NA	Yes

Controller Options

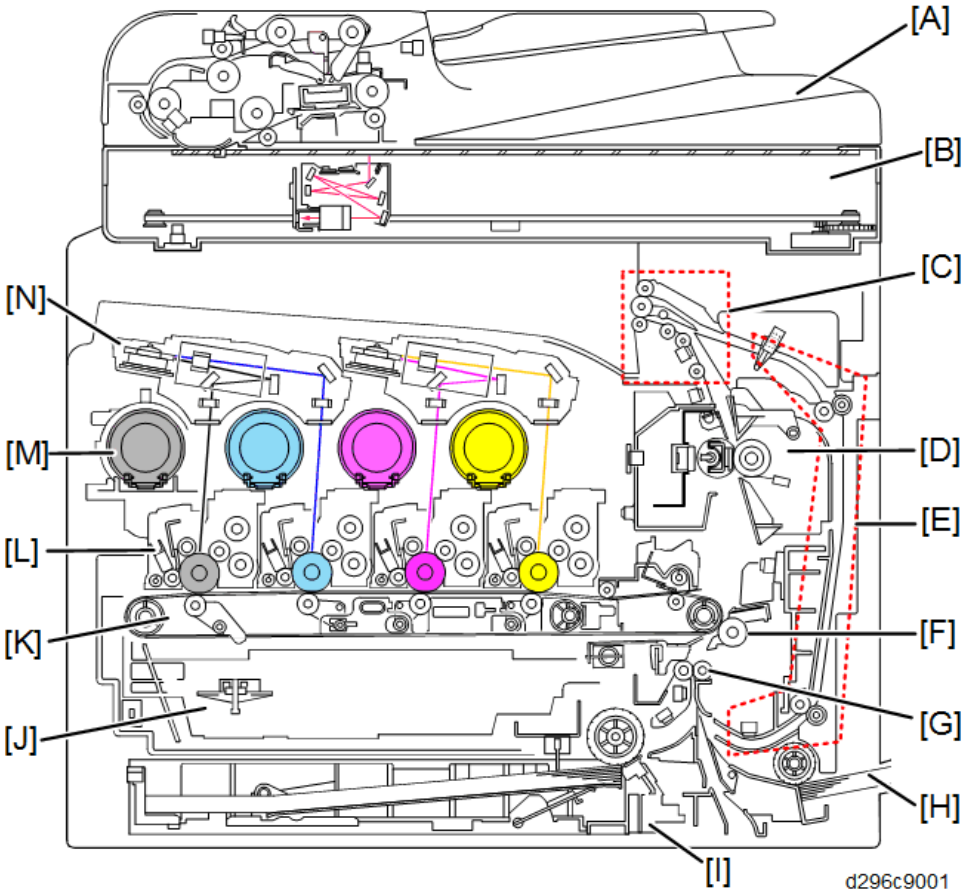


Item	Machine Code	Remarks	New Option?
Fax Option Type M28 [1]	D3E7-02 (EU, AA,KOR) D3E7-03 (CHN)	Standard: NA, TWN Option: EU, AA, CHN, KOR	Yes
Fax Connection Unit Type M28	D3E7-00	Only for machines equipped with a fax unit.	Yes
Enhanced Security HDD Option Type M10 [2]	D792-09 (NA, EU)	-	No
IEEE1284 Interface Board Type M19 [3]	D3C0-17	One from these cards can be installed at the same time.	No
IEEE 802.11a/g/n Interface Unit Type M19 [3]	D3BR-01 (NA, EU, AA)		No
File Format Converter Type M19 [3]	D3BR-04		No
USB Device Server Option Type M19 [3]	D3BC-28 (NA) D3BC-29 (EU, AA, KOR)		No
Extended USB Board Type M19 [3]	D3BS-01		No
Camera Direct Print Card Type M26 [4]	D3D8-13	If multiple applications are required, merge all applications into one SD card with the SP mode. (SD Card Appli Move)	No
XPS Direct Print Option	D3E6-02 (NA)		Yes

Item	Machine Code	Remarks	New Option?
Type M28 [4]	D3E6-19 (EU) D3E6-20 (Other)		
PostScript3 Unit Type M28 [4]	D3E6-26 (NA) D3E6-27 (EU) D3E6-28 (Other)		Yes
OCR Unit Type M13 [4]	D3AC-23 (NA) D3AC-24 (EU) D3AC-25 (Other)		No
Data Overwrite Security Unit Type M19	D3BS-03		No
NFC Card Reader Type M13	D3AC-21	-	No

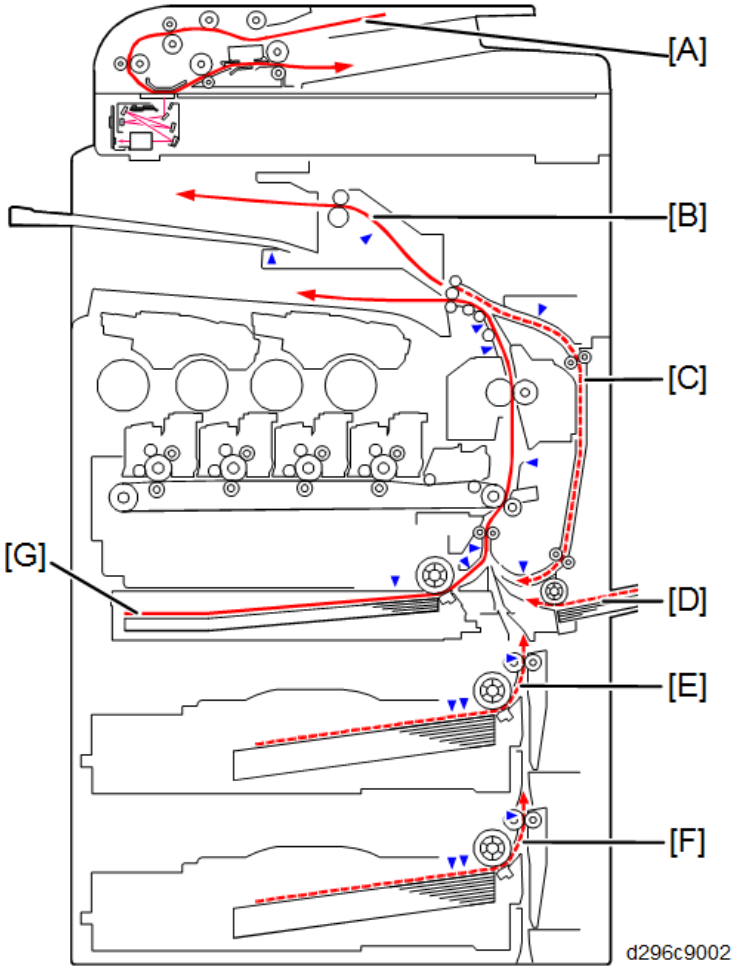
Machine Overview

Overview



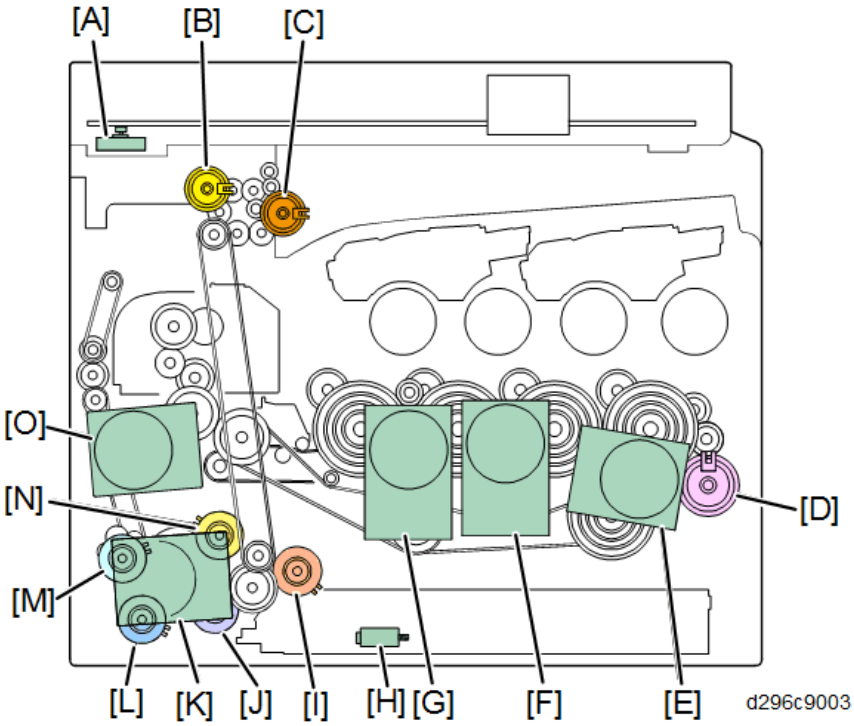
Callout	Item	Callout	Item
[A]	ADF	[H]	Bypass feed tray
[B]	Scanner unit	[I]	Paper feed tray
[C]	Paper exit unit	[J]	Waste toner bottle
[D]	Fusing unit	[K]	ITB unit
[E]	Duplex unit	[L]	PCDU
[F]	Paper transfer roller	[M]	Toner bottle
[G]	Registration roller	[N]	Laser unit

Paper Path



Callout	Item	Callout	Item
[A]	ADF transport path	[E]	Optional paper feed unit path (1st)
[B]	1-Bin tray path	[F]	Optional paper feed unit path (2nd)
[C]	Duplex paper transport path	[G]	Standard paper tray path
[D]	Bypass paper feed path		

Drive Layout

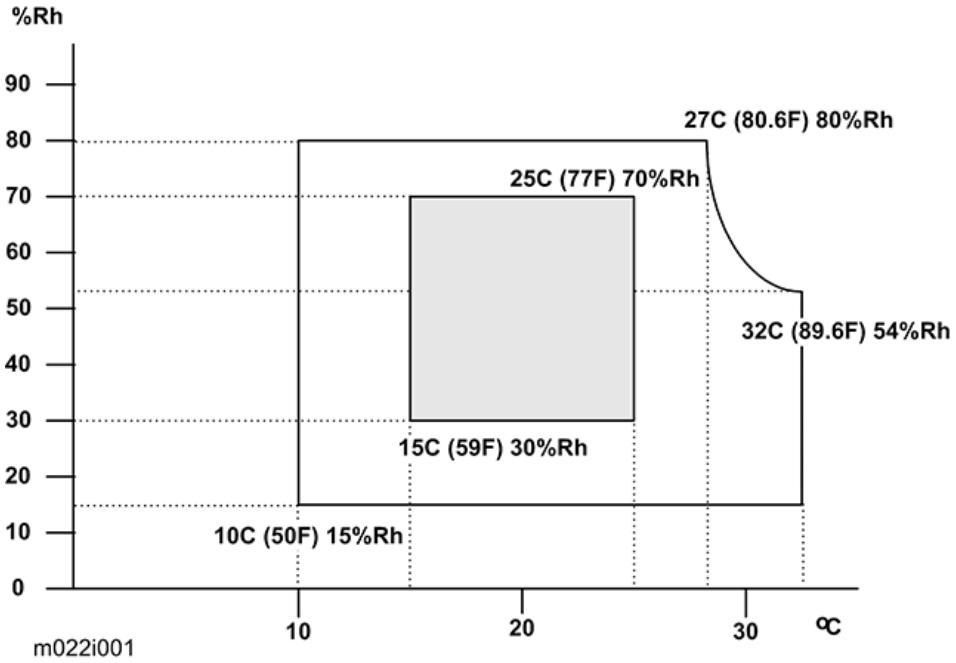


Callout	Item	Callout	Item
[A]	Scanner motor	[I]	Paper feed clutch
[B]	Paper exit clutch	[J]	Bypass lift clutch
[C]	Reverse clutch	[K]	Transport motor
[D]	Development clutch (K)	[L]	Bypass feed clutch
[E]	Drum motor (K)	[M]	Duplex clutch
[F]	Drum motor (CMY)	[N]	Registration clutch
[G]	Development motor (CMY)	[O]	Fusing motor
[H]	Tray lift motor		

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. Do not let the machine get exposed 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 strong, 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

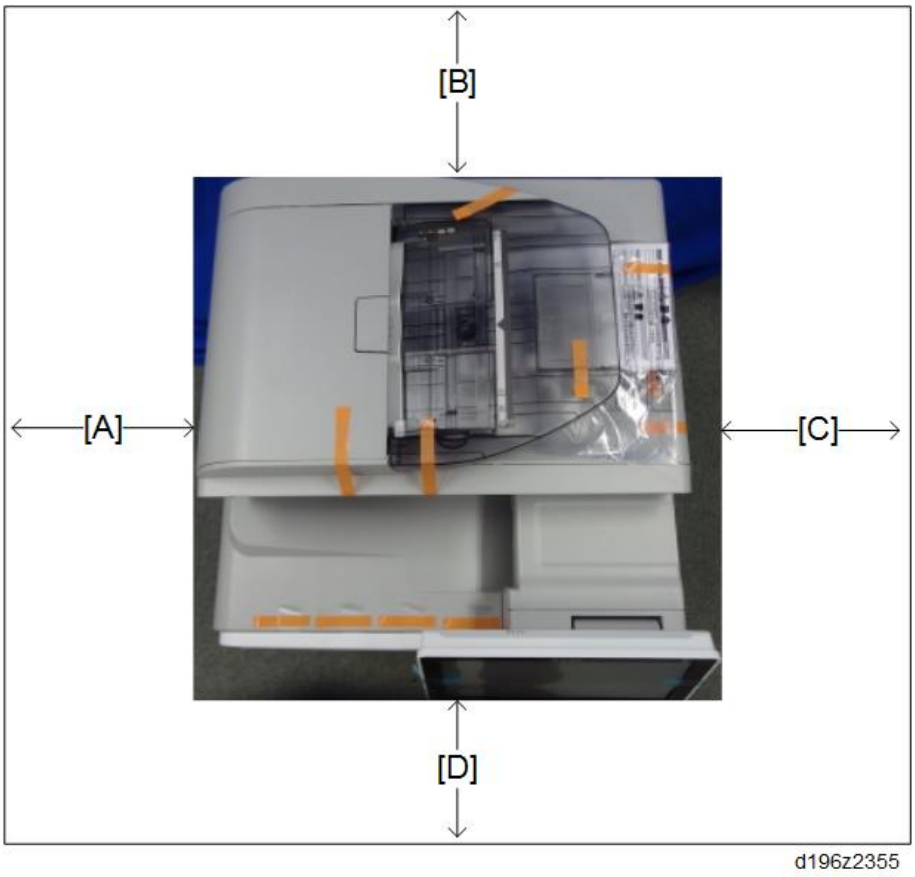
Front to back: Within 5 mm (0.2")

Right to left: Within 5 mm (0.2")

Machine Space Requirements

⚠CAUTION

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



A: Over 70 mm (2.8") (Base machine) / 120 mm (4.7“) (with 1-Bin tray unit)

B: Over 100 mm (3.9")

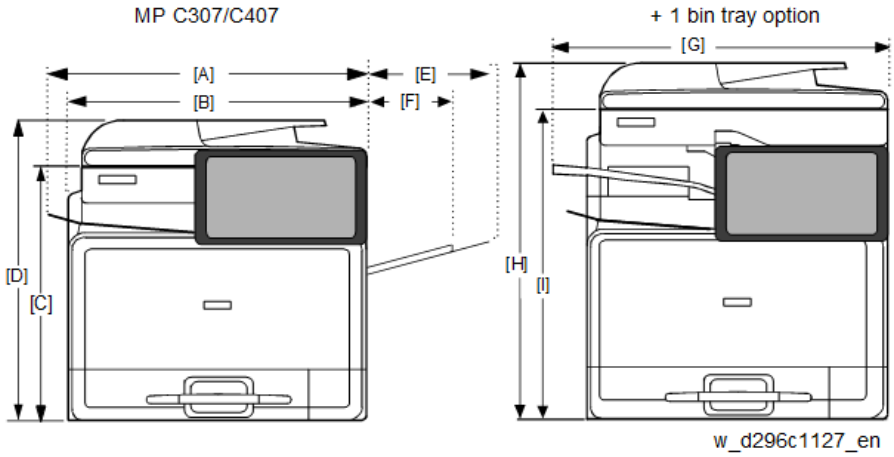
C: Over 402 mm (15.8")

D: Over 420 mm (16.5")

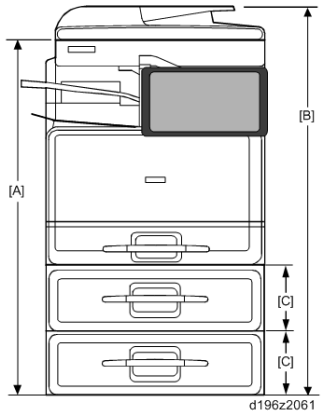
Put the machine near the power source with the clearance shown above.

Machine Dimensions

W×D×H: 498 × 585 × 510 mm (19.6" × 23.0" × 20.1")



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

	Callout	mm (inch)	Note
	[A]	808 mm (approx. 31.8")	With 1 Bin Tray Unit
	[B]	893 mm (approx. 35.2")	[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 %)

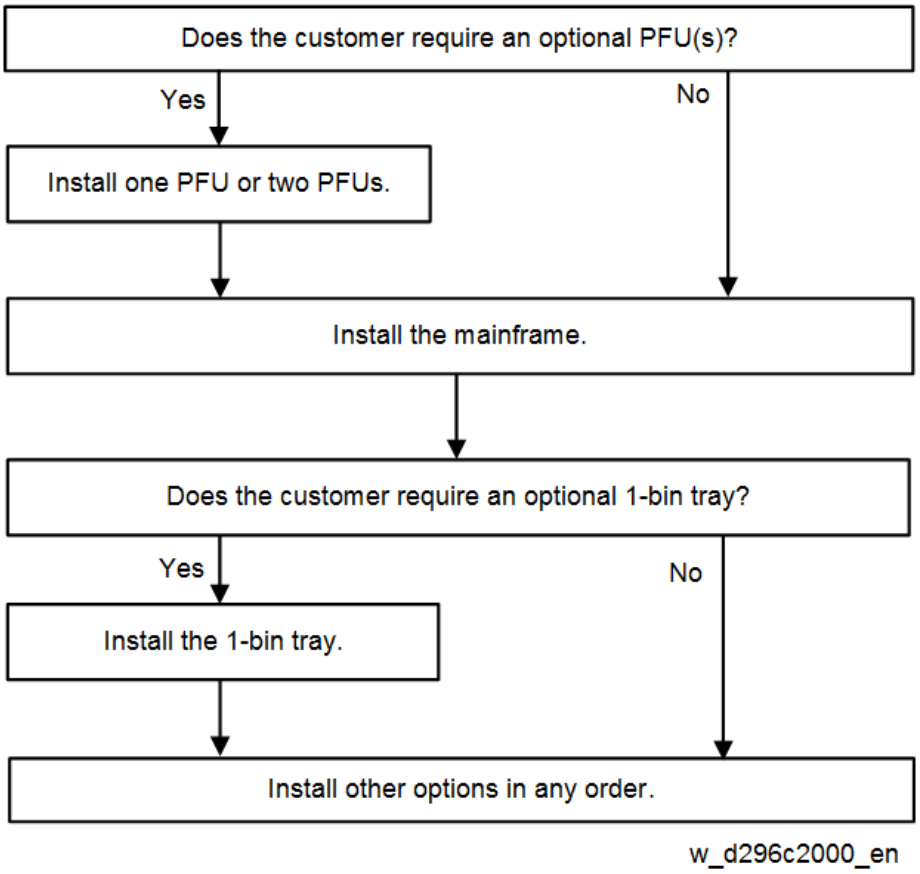
Taiwan: 99 V (110 V -10%) – 121 V (110 V + 10%)

3. Do not put things on the power cord.

Mainframe Installation

Installation Flowchart

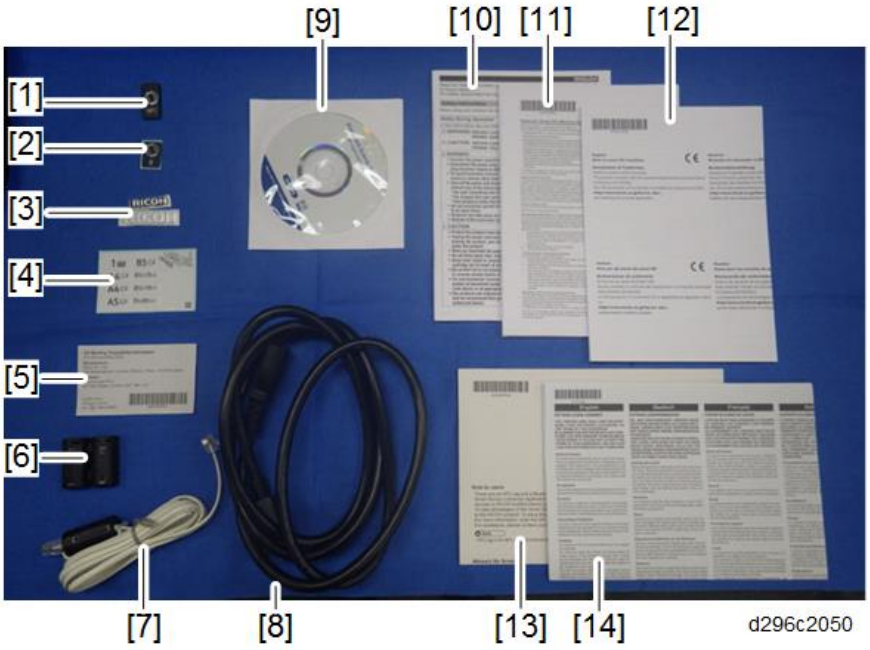
This flowchart shows the best procedure for installation.



Accessory Check

For D296/D297

Check the quantity and condition of these accessories.



Component List

No.	Description	Remark	Q'ty			
			NA	EU	AA	TWN
1	NFC Tag	To be attached to the device.	1	1	1	1
2	Decal – Bluetooth		1	1	1	1
3	Decal – Emblem	For the front cover and operation panel	2	2	2	-
4	Decal – Paper Tray		1	1	1	1
5	CE Marking Traceability Information	Only for EU	-	1	-	-
6	Ferrite Core		-	1	1	1
7	Modular Cord with Ferrite Core		1	-	-	-
8	Power Supply Cord		1	1	1	1
9	CD-ROM (Printer and Scanner Drivers)		1	1	1	-
	CD-ROM (Operating Instructions)		-	-	1	-
	CD-ROM (Printer and Scanner Drivers/ Operating Instructions)		-	-	-	1
10	Safety Information	Only for EU	-	1	-	-
11	Note to Using This Machine Safely		1	1	1	1
12	Note to Users in EU Countries		-	1	-	-
	Note to Users in the USA		1	-	-	-
	Note to Users in Canada		1	-	-	-
13	Notes to Users (NFC Tag Leaflet)	Regarding the installation of the NFC tag.	1	1	1	1
14	Software License Agreement		1	1	1	1

No.	Description	Remark	Q'ty			
			NA	EU	AA	TWN
-	Notes For Users	For printing with AirPrint	1	-	1	1
-	For Users of This Product	Before using the wireless function	1	-	1	-
-	Manual: Read This First		1	-	1	1
-	Manual: Start Guide		1	-	1	-

Note

- An NFC tag is required for connecting this machine to an Android smart device that has the Ricoh Smart Device Connector application installed. Give this NFC tag to the customer so that they can attach it to the machine. Where the tag should be attached and how to set it up for using the smart-device application are described in the help guide within the application. The setup procedure should be performed by the customer.

For D298/D299

Check the quantity and condition of these accessories.

Component List

No.	Description	Remark	Q'ty		
			EU	AA	CHN
1	NFC Tag	To be attached to the device.	1	1	1
2	Decal – Bluetooth		1	1	1
3	Decal – Emblem	For the front cover and operation	2	2	-

No.	Description	Remark	Q'ty		
			EU	AA	CHN
		panel			
4	Decal – Paper Tray		1	1	1
5	CE Marking Traceability Information	For EU only	1	-	-
6	Power Supply Cord		1	1	1
7	CD-ROM (Printer and Scanner Drivers)		1	1	-
	CD-ROM (Operating Instructions)		-	1	-
	CD-ROM (Printer and Scanner Drivers/ Operating Instructions)		-	-	1
8	Safety Information	For EU only	1	-	-
9	Notes for Using This Machine Safely		1	1	1
10	Note to Users in EU Countries		1	-	-
11	Notes to Users (NFC Tag Leaflet)	Regarding the installation of the NFC tag.	1	1	1
12	Software License Agreement		1	1	1
-	Notes For Users	For printing with AirPrint	-	1	1
-	For Users of This Product	Before using the wireless function	-	1	-
-	Sheet - TEL		-	-	1
-	Manual: Read This First		-	1	1
-	Manual: Start Guide		-	1	-

Note

- An NFC tag is required for connecting this machine to an Android smart device that has the Ricoh Smart Device Connector application installed. Give this NFC tag to the customer so that they can attach it to the machine. Where the tag should be attached and how to set it up for using the smart-device application are described in the help guide within the application. The setup procedure should be performed by the customer.

Installation Procedure

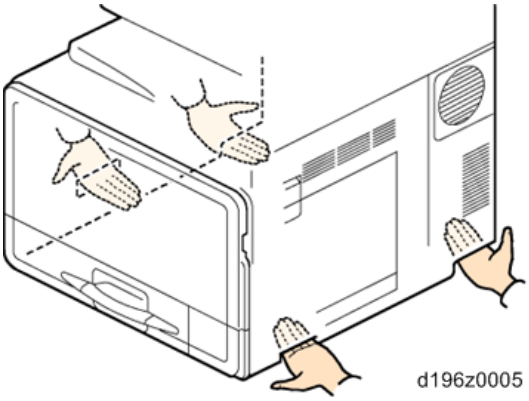
Put the machine on the optional paper tray unit first if you install an optional paper feed unit at the same time. Then install the machine and other options.

Note

- Keep the shipping retainers after you install the machine. You may need them in the future if you transport the machine to another location.

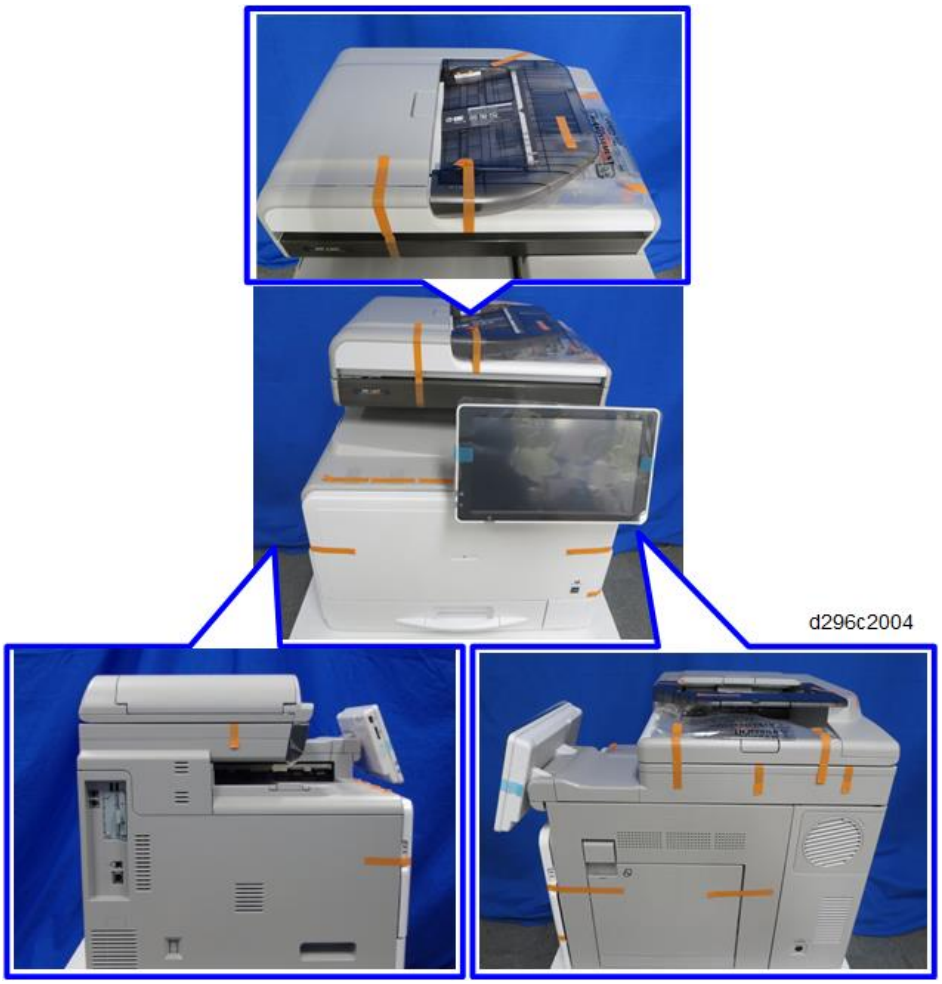
⚠CAUTION

- Hold the specified positions as shown below when lifting the machine up or down.



Tapes, Retainers and Toner Bottles

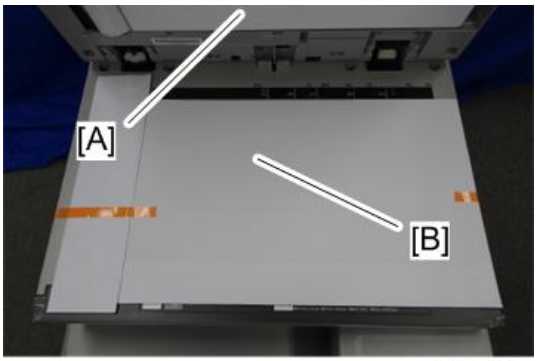
1. Remove the tapes and the retainers from the machine.



2. Do the following steps:

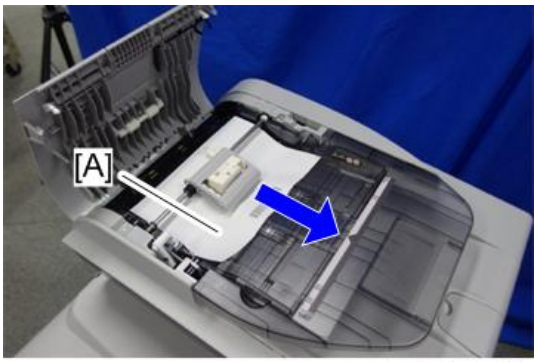
- Open the ADF cover [A].

- Remove all the tapes and the retainer (protective paper) [B] from the exposure glass.



d196z2003

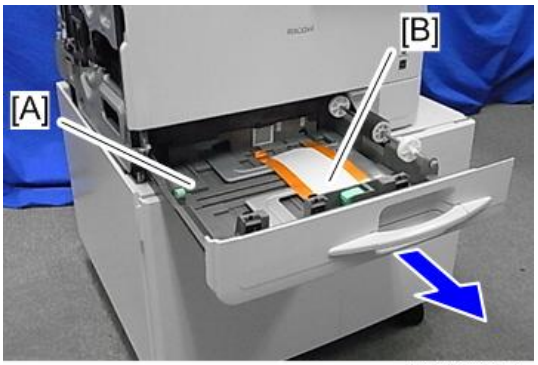
3. Remove the sheet [A] inside the ADF.



d196z2011

4. Remove the following items:

- Paper tray [A]
- Retainer [B]



d196z2006a

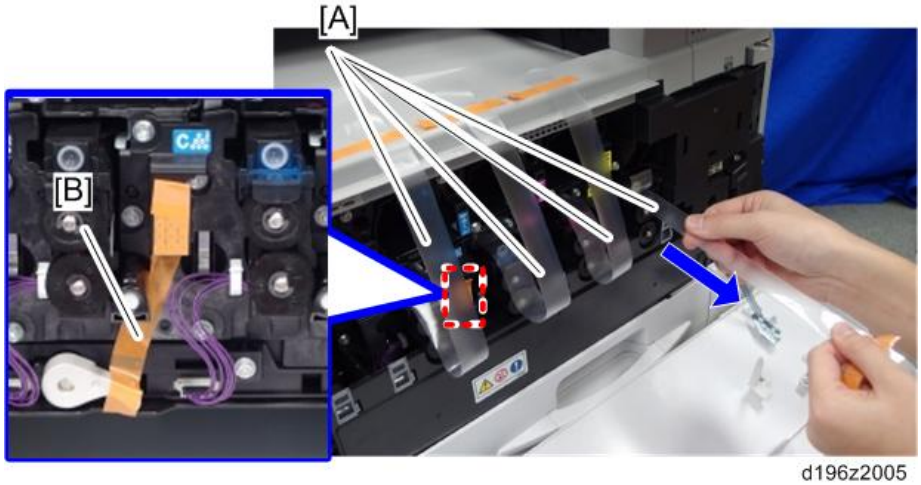
5. Open the front door [A].

d196z2004

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

Note

- Do not remove the orange tape [B] at this time.

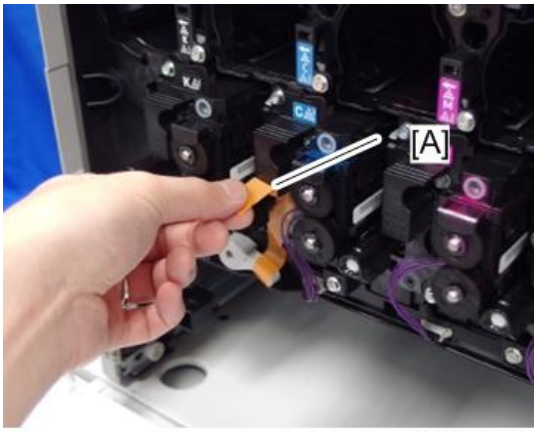


d196z2005

7. Remove the waste toner bottle [A].

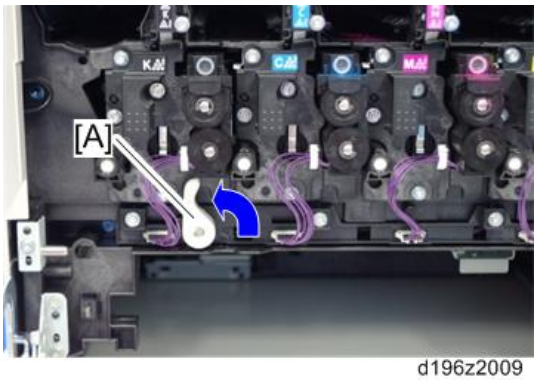
d196z2007

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



d196z2008

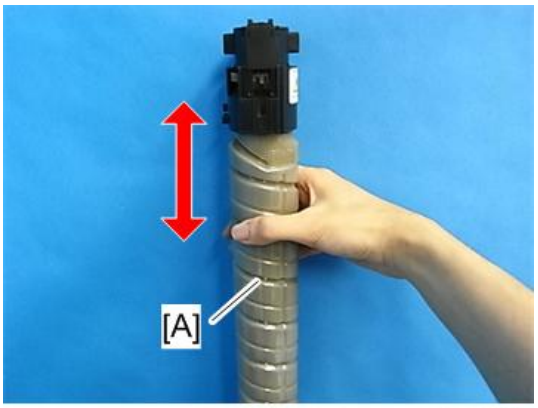
9. Set the lever [A] to the upright position.



d196z2009

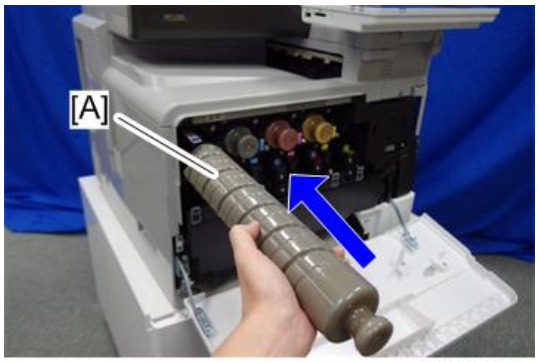
10. Attach the waste toner bottle.

11. Shake each toner bottle [A] from eight to ten times.



m022i511

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



d196z2010

13. Close the front door.

14. Connect the power cord to the machine.

15. Attach the paper tray.

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.

18. The machine starts the initial settings automatically.

Note

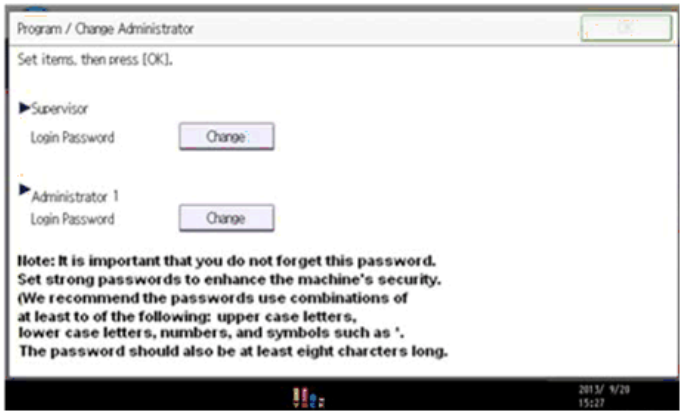
- A message "Turn the main power switch off then on" may appear during the initial settings. However, **DO NOT** switch off the main power until the machine finishes the initial settings and emits a beep sound. It takes about five minutes to finish the initial settings.

Important Notice on Security Issues

In order to increase the security of the MFP, and to ensure that the customer sets the administrator password, an administrator set/change prompt display appears at the first power-up.

Overview

The following Program/Change Administrator screen appears at the first power-up.



d296c2047

When the customers set the administrator/supervisor login password, the screen disappears and the home display appears. The customers, however, can erase this screen with the following procedure if they think there is no need

to set the password.

1. On the Program/Change Administrator screen, press [Change] next to Supervisor and then touch [OK] without entering any password.
2. Touch [OK] again when the Confirm password display appears.
3. For Administrator 1, do the same procedure as steps 1 and 2.
4. Press [OK], then the home display appears.
5. Turn the main power OFF and ON.

SP5-755-002 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.

Password Setting Procedure

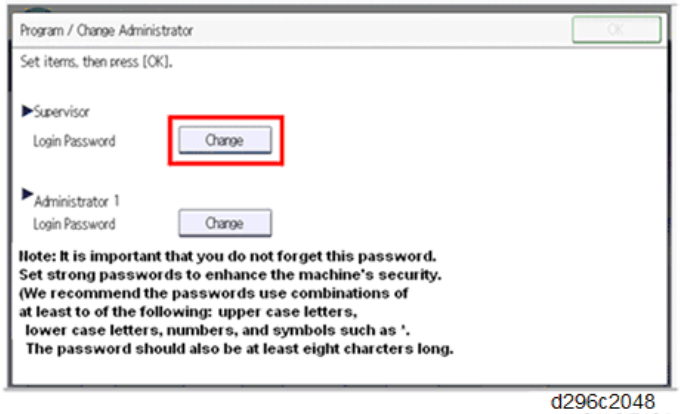
Note

- For more details about this security issue, see “Notes on Using Multi-Function Printers Safely” supplied with the MFP.

⚠CAUTION

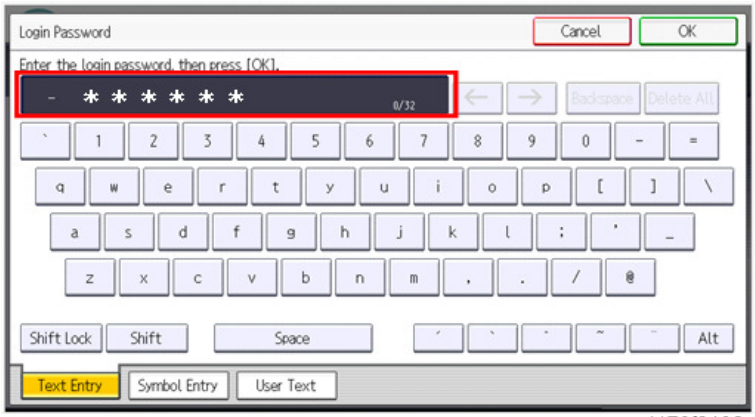
- When Supervisor / Administrator 1-4 passwords are configured via network, the “Change Supervisor login password” window will not display.
- The passwords for Supervisor or Administrator 1 to 4 can be set via “System Settings”. But the Program/Change Administrator screen appears every time the power switch is turned ON if the passwords are input this way. So we recommend the customers to set the passwords via network or the Program/Change Administrator screen.

1. Install the MFP.
2. Turn ON the main power.
3. Change the Supervisor login password.



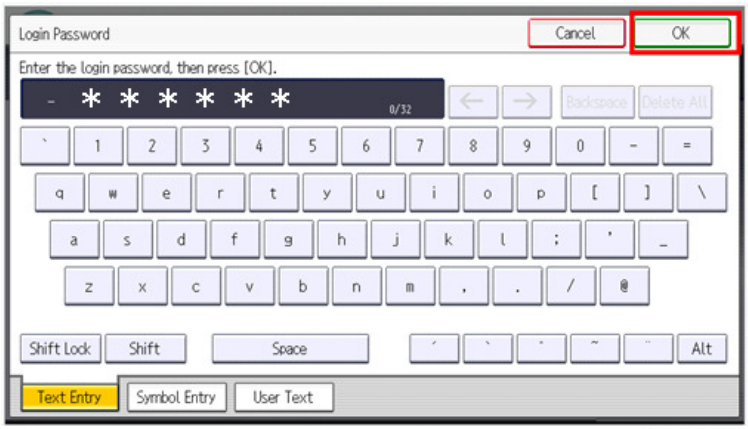
d296c2048

4. Enter a password.



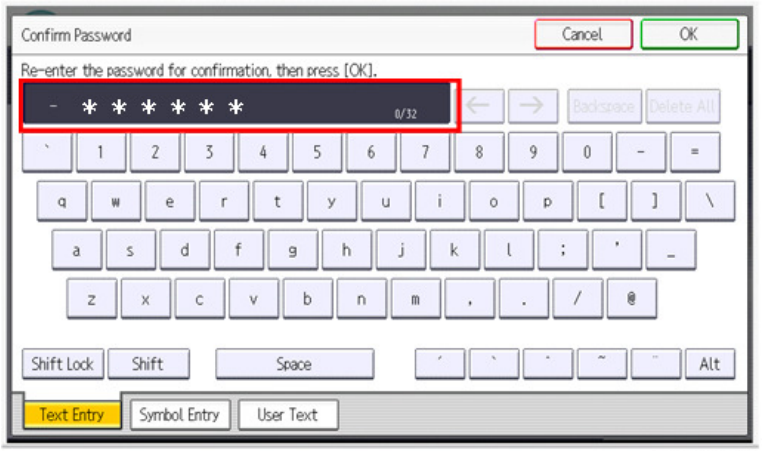
d176f2102

5. Press [OK].



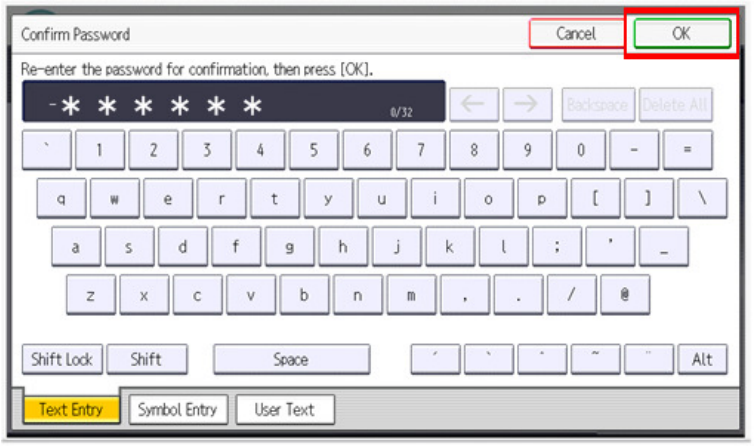
d176f2103

6. Confirm the Password.



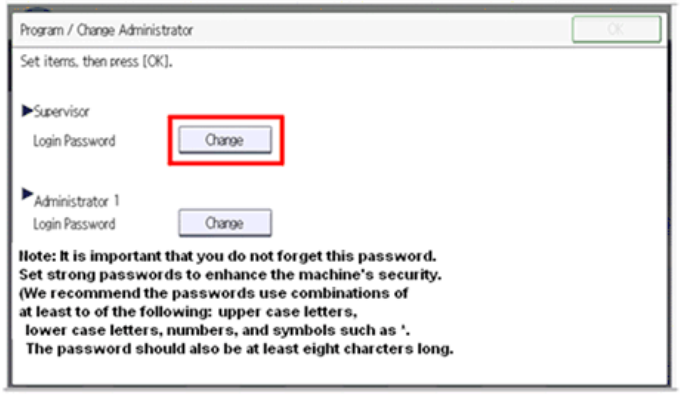
d176f2104

7. Press [OK].



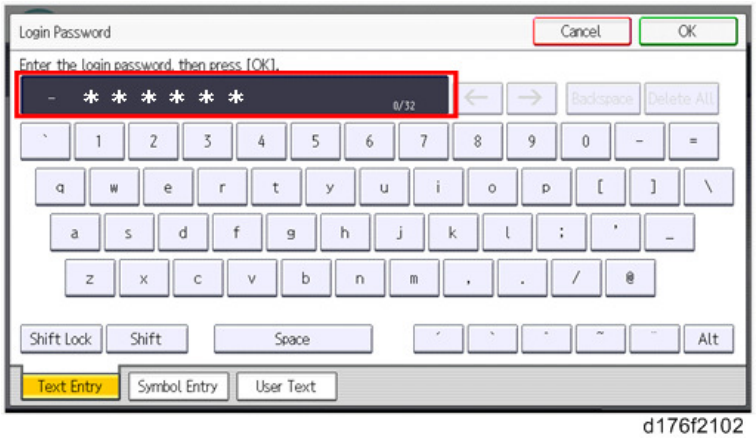
d176f2105

8. Change the Administrator 1 login password.



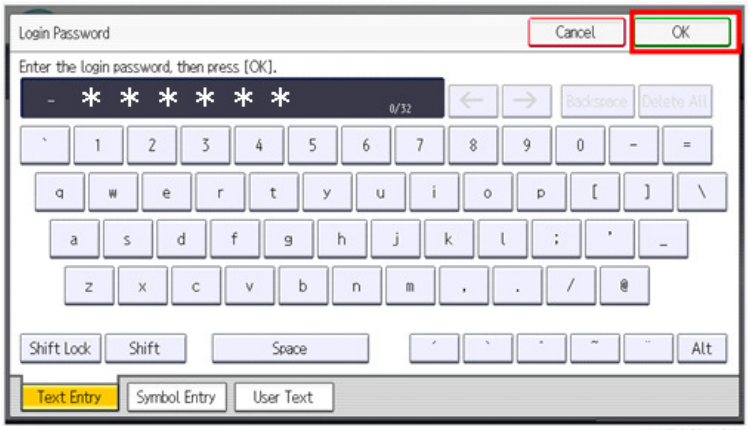
d296c2049

9. Enter the password.



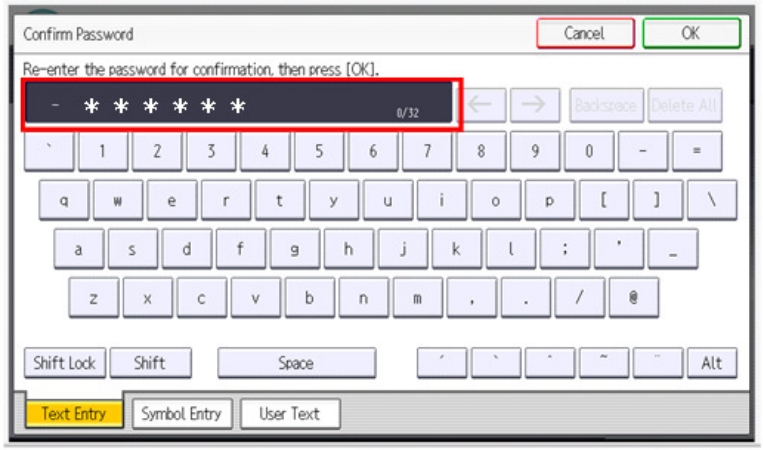
d176f2102

10. Press [OK].



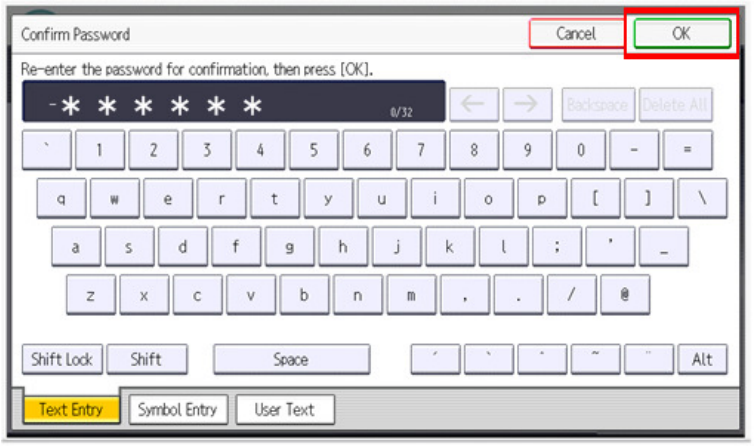
d176f2103

11. Confirm the password.



d176f2104

12. Press [OK].



d176f2105

13. If necessary, set “Admin. Authentication” ON.

[User Tools] -> [Machine Features] -> [System Settings] -> [Administrator Tools] -> [Administrator Authentication Management] -> [Admin. Authentication]

If this setting is OFF, [Login] for administrators is not displayed on the operation panel.

14. Turn the main power OFF and ON.

Checking the Image Quality

Checking Paper Setting

Do the following procedure after installing all the options.

1. Check that all tapes are removed. Then connect the power plug into the wall socket.
2. Pull out the paper feed tray [A] until it stops.

d196z2006

3. Release the side fence.
4. Load paper into the paper feed tray.
5. Set the side fence according to the paper size while pressing the unlock lever.

Note

- To move the fences, first pull out the tray fully. Then push down the green lock at the front inside the tray.

6. Set the end fence according to the paper size while pressing the unlock lever.
7. Set SP5-131 to set paper size for the main paper tray.
8. 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)

   Note

   - Refer to the “Image Adjustment” section in this manual for how to adjust the SP setting.
   - 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)

Executing the Automatic Color Calibration (ACC)

Note

- Be sure to do this procedure when installing the mainframe.
- Do not open the ADF while ACC is running.
- Settings must be made before you can login as Administrator. (Refer to "Before You Begin the Procedure".)

1. Login as Administrator.
2. Press [User Tools] icon on the operation panel.
3. Press [Machine Features].

4. Press [Maintenance].
5. Press [Auto Color Calibration]
6. Press [Start] for the Copier function.
7. Press [Start Printing].
8. Take the sheet that was just printed, and put it on the exposure glass. Press [Start Scanning].
9. Do the same procedure for the Printer function.

Note

- Be sure to check the four resolution-based items for the printer function.

Checking the Copy Image with Test chart

Check the copy image quality with a test chart.

For SP models, check that the printer can print out in the customer's environment. For SPF models, check that the fax can output a received image as well.

Color Skew Adjustment

The skew adjustment of this machine should be performed manually.

The adjustment procedure is as follows:

1. Execute 'MUSIC' (SP2-111-002) and 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)
2. The color skew adjustment (Color Skew Adjustment) should be executed if one or more of the above SP values is not within ±5. No skew adjustment is required if all SP values are within ±5.

Auto Remote Firmware Update (ARFU) Settings

Specify ARFU settings as required.

Important

Operating Conditions:

- ARFU requires connection to the Internet. Be sure to get permission from the customer before setting ARFU up. Otherwise, it may cause an incident.
- ARFU is available only for machines that contain a HDD. If the machine does not have a HDD, an option HDD must be installed.

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)

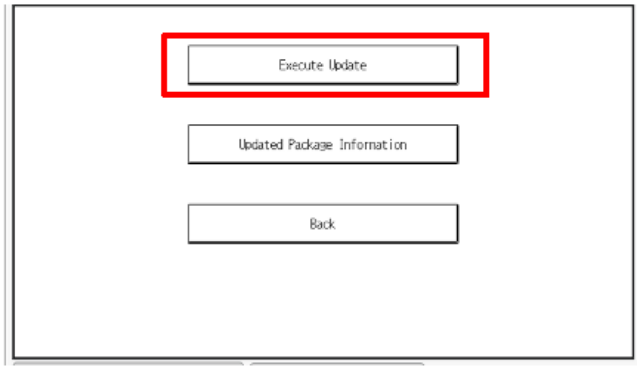
   Note

   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 the message appears, it is possible to execute ARFU. 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

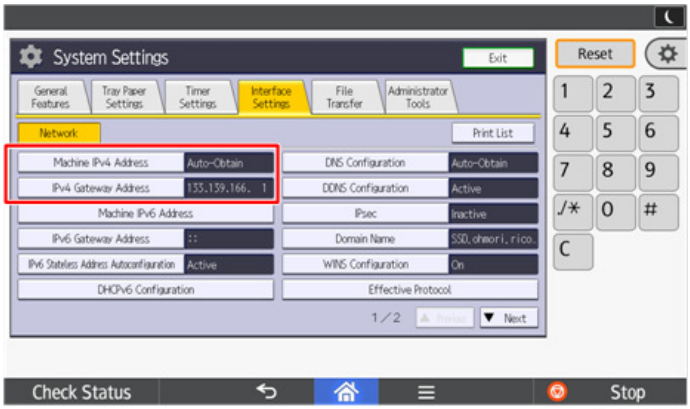
If error code 71: [Network connection error] appears when you click [Firmware update] > [Update] > [Execute update] in SP mode, check the following.

- 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
- 4-4. Encryption level setting SP

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 User Tools > Machine Features > System Settings > Interface Settings)



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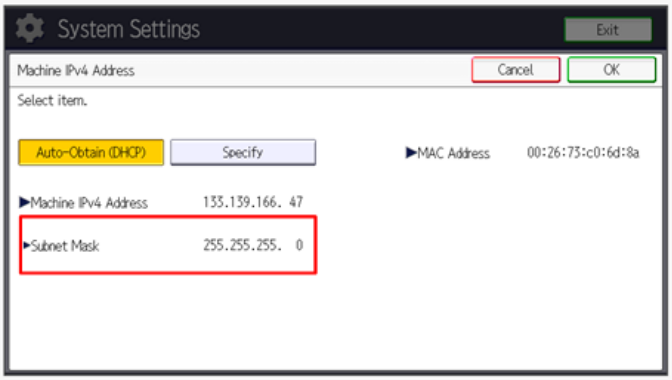

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4-2. IPv4 address of the DNS server

Check the DNS IPv4 address and check the connection.

(In User Tools > Machine Features > System Settings > Interface Settings > DNS configuration)

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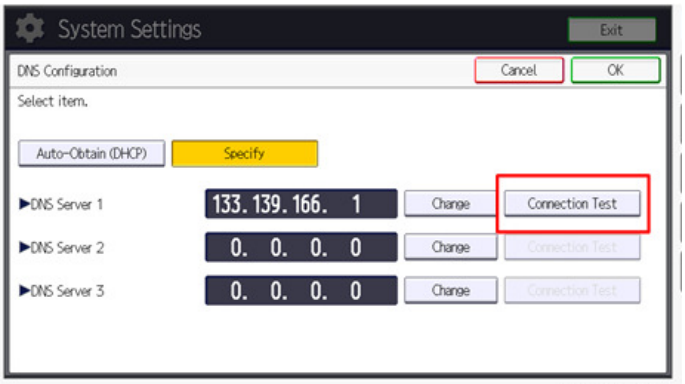
Note

How to find the IP address:

Ask the customer to tell you 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

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

4-4. Encryption level setting SP

Check SP5-816-087 (Remote Service: CERT:Macro Ver) and make sure the encryption level is [2]: 2048 bit.

Important

If SP5-816-087 is [1]: 512 bit, specify the settings as follows:

1. Initialize the encryption level by executing SP5-870-003 (Common Key Info Writing: Initialize)
2. Rewrite as 2048 bit in SP5-870-004 (Common Key Info Writing: Writing 2048 bit).
3. Turn the main switch off and on.

Note

Make sure to check the conditions before changing the encryption level and do the corresponding workaround. ARFU uses the same certificate as @Remote to communicate with the Global Server. This may cause failure in connecting with the Center Server, if the device is to be installed in the following conditions.

Conditions

1) Customer uses RC Gate Type BN1.

RC Gate Type BN1 does not support 2048 bit encryption level communication with Ricoh devices (HTTPS Managed device). Therefore, the device cannot be registered under RC Gate Type BN 1.

2) Ricoh device (HTTPS Managed) that supports only 512 bit encryption level is registered as an external appliance.

Only one encryption level can be set for an external appliance for its communication with imaging devices. If a 512 bit encryption level Ricoh device (HTTPS Managed) is registered, the external appliance as well as other devices must also use 512 bit encryption even if 2048 bit encryption is supported on those devices.

Workaround

For Condition 1:

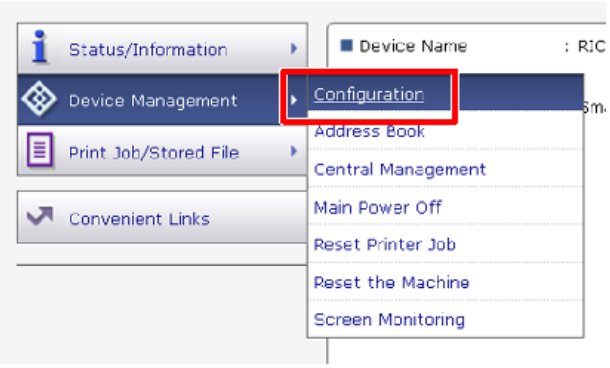
Advise your customer to change to the latest appliance that supports 2048 bit encryption level communication.

For Condition 2:

1. Manage the device with embedded RC Gate (2048 bit)
2. Exclude non-supported devices (i.e., those devices that cannot be changed from 512-bit to 2048-bit) from the external appliances, then change the encryption level of external appliances and all managed devices (from 512 bit to 2048 bit).

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. Point to [Device Management], and then click [Configuration].



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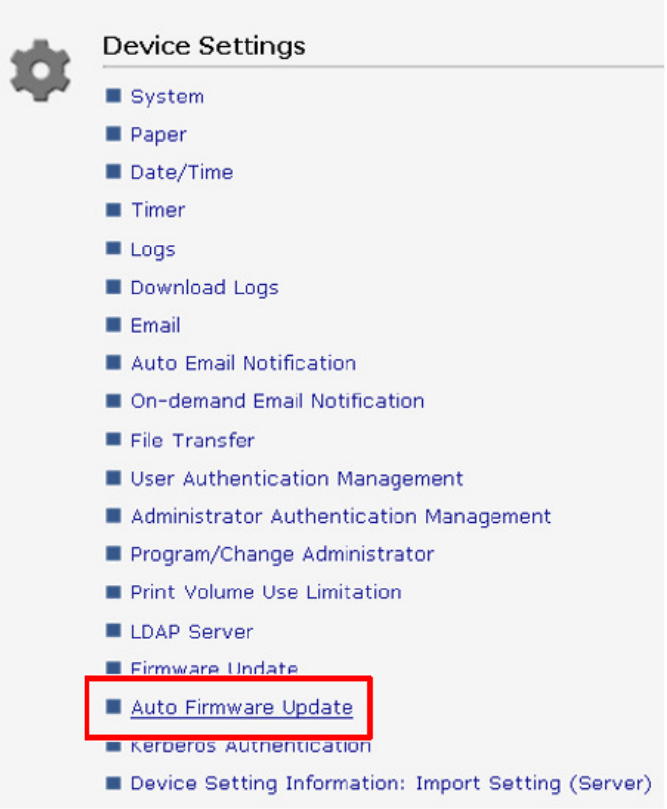
4. Click "Auto Firmware Update".



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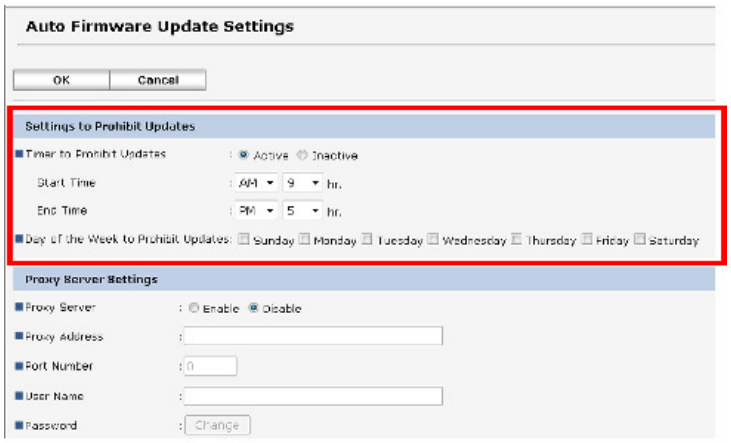
Note

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 of the week to prohibit updating on that day



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Language Selection

1. Press [User Tools] on the operation panel.

2. Press [Screen Features].
3. Press [Language & Input].
4. Press [Change Language].

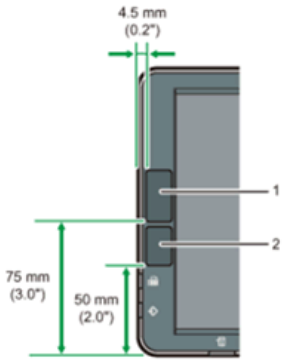
   The machine shows the preset language list.

   - If the language you want is listed, press the language, and then go to Step 9.
   - If the required language is not in the list, go to the next step.
5. Press [Select Switchable Language] and select the language you want.
6. Press [Language & Input], and then press [Change Language].
7. Select the language you set in Step 6.
8. Make sure that the language is changed successfully.
9. Exit [User Tools].

Brand Plate, Decals

1. Attach the brand plates to the front door and the operation panel, if the brand plates are not attached.

2. Attach the correct paper tray number and size decals to the paper trays.
3. Attach the NFC tag and the Bluetooth decal to the operation panel.



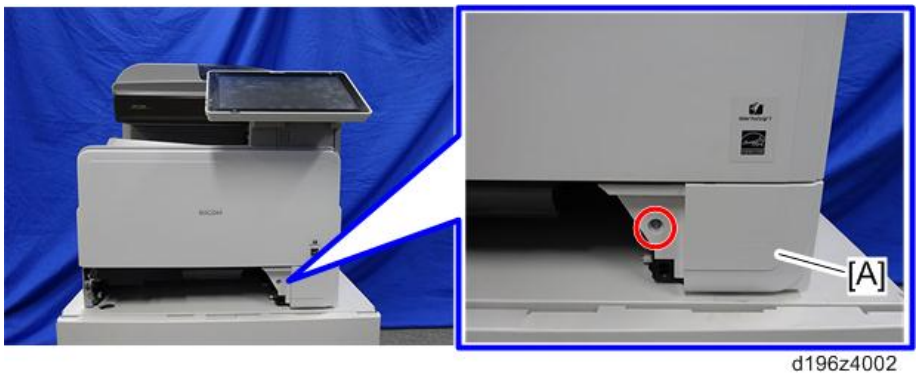
[1]: NFC tag, [2]: Bluetooth decal

Note

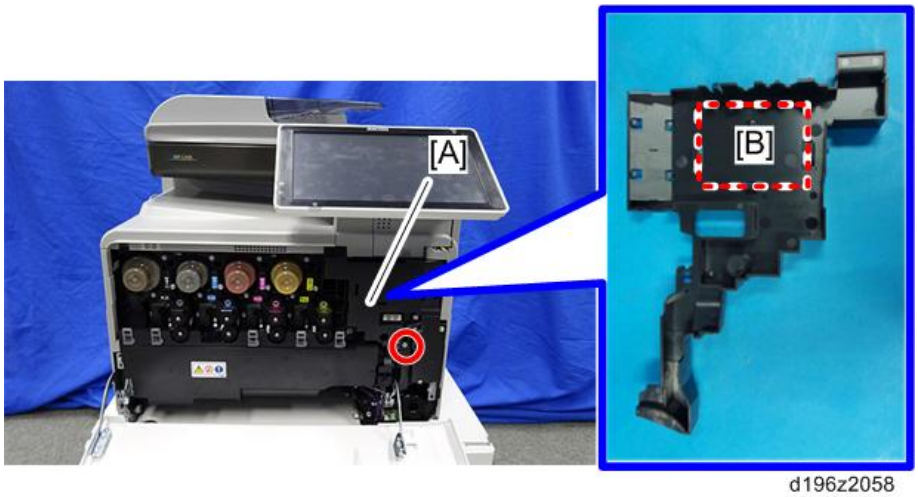
Storing Unnecessary Decals

If the IC card reader option or NFC reader option are not to be installed immediately, store the decals for these options in the specified area as shown below:

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



3. Open the front cover.
4. Remove the inner cover [A] (× 1) and then store the decal in the area [B].



Settings Relevant to the Service Contract

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

Note

- You must select one of the counter methods (developments/prints) in accordance with the contract (SP5-045-001).

Counting method		
SP No.	Function	Default
SP5-045-001	Specifies if the counting method used in meter charge mode is based on developments or prints. NOTE: You can set this one time only. You cannot change the setting after you have set it for the first time.	"1": Prints
Service Tel. No. Setting		
SP No.	Function	Default
SP5-812-001	SP5-812-002 programs the service station fax number. The number is printed on	-

through 004	the counter list when the meter charge mode is selected. This lets the user fax the counter data to the service station.	

Settings for @Remote Service

Note

- Prepare and check the following check points before you visit the customer site. 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 then check if a device ID2 (SP5-811-003) must be correctly programmed.
   - 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 which you have 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	Processing… Please wait.

Value	Meaning	Solution/ Workaround
	executing	
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	unplugged modem	
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.
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	unplugged modem	
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	
-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.

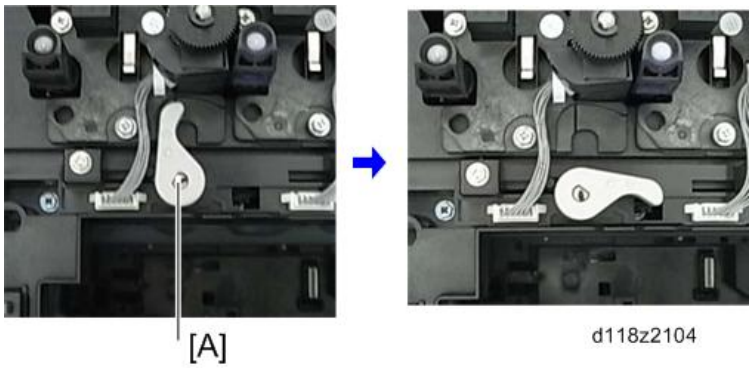
Transporting the Machine

⚠CAUTION

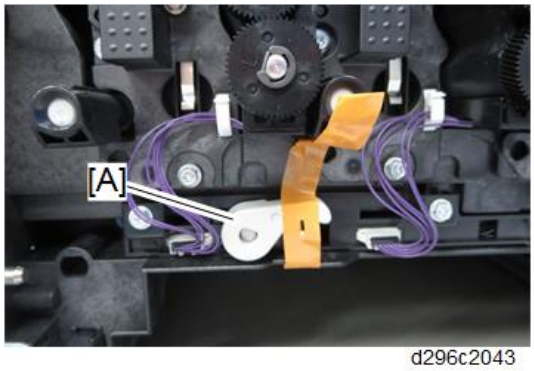
- **Do not lift the machine together with one or more paper feed unit(s):**
  If there is already a machine with one or more optional paper feed unit(s), be sure to disconnect the machine and paper feed unit(s), and lift them up separately when moving/transporting. Otherwise, the handle of the paper 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 [A] down to the shipping position. This moves the ITB away from the PCDU (K).



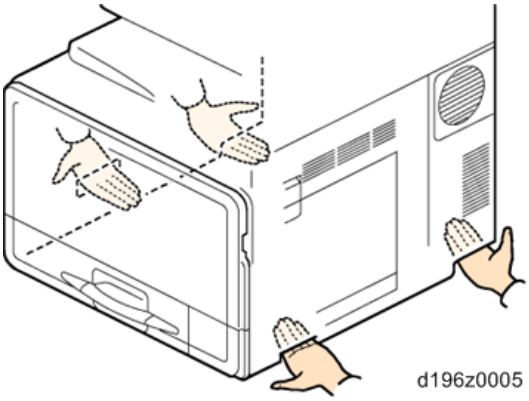
2. Hold the lever [A] in this position with tape.



3. Do SP4-806-001 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 flow into the toner supply tube, which is caused by 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. Then fix down the bottom plates with a sheet of paper and 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

- Hold the specified positions as shown below when lifting the machine up or down.



Instructions for the Customers

The following items should be advised when the machine is installed. 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

Security Setting

Security Function Installation

Important

- 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. When the “Enhanced Security HDD Option Type M10” and security functions (Data Overwrite Security and HDD Encryption Unit) 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 unit) in the controller board.

If you are installing a new machine, it is recommended to activate Data Overwrite Security and HDD Encryption by selecting "Format All Data" from “System Settings” on the operation panel.

Note

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

If the customer wishes to activate the Data Overwrite Security and HDD Encryption unit on a machine that is already running, it is recommended to activate the unit by selecting "All Data" from “System Settings” on the operation panel.

Important

- Selecting "All Data" will preserve the data that has already been saved to the HDD. (If "Format All Data" is selected, all user data saved to the HDD up to that point will be erased).

Immediately after encryption is enabled, the encryption setting process will take several minutes to complete before you can begin using the machine.

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.

Make sure that the machine's main power is not turned OFF 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 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, HDD and NVRAM must all be replaced at the same time.

Note

- "NVRAM" mentioned in here means the NVRAM on the Controller Board.
- "NVRAM" or EEPROM on the BCU has nothing to do with this.

Please use the following procedures when the Data Overwrite Security and HDD Encryption must be reinstalled.

Data Overwrite Security

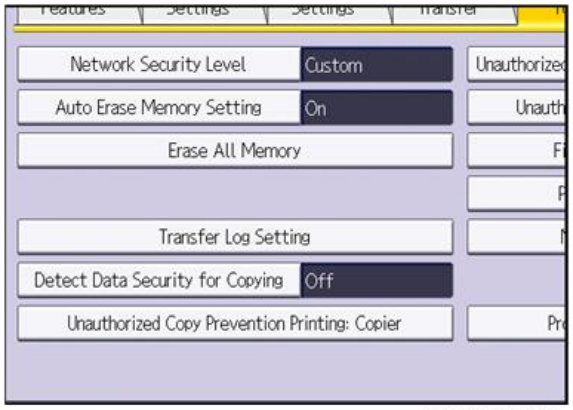
Before You Begin the Procedure

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 you do the installation procedure.
2. Make sure that “Admin. Authentication” is on.
   [User Tools] > [Machine Features] > [System Settings] > [Administrator Tools] > [Administrator Authentication Management] > [Admin. Authentication]
   If this setting is off, tell the customer this setting must be on before you do the installation procedure.
3. Make sure that “Administrator Tools” is enabled (selected).
   [User Tools] > [Machine Features] > [System Settings] > [Administrator Tools] > [Administrator Authentication Management] > [Available Settings]
   If this setting is disabled (not selected), tell the customer this setting must be enabled (selected) before you do 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 control panel.
2. Press [User Tools].
3. Press [Machine Features].
4. Press [System Settings].
5. Press [Administrator Tools].
6. Press [Next] three times.
7. Press [Auto Erase Memory Setting].



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8. Press [On].
9. Select the method of overwriting.

If you select [NSA] or [DoD], proceed to step 10.

If you select [Random Numbers], proceed to step 12.

10. Press [Change].

11. Enter the number of times that you want to overwrite using the number keys, and then press [#].

12. Press [OK]. Auto Erase Memory is set.

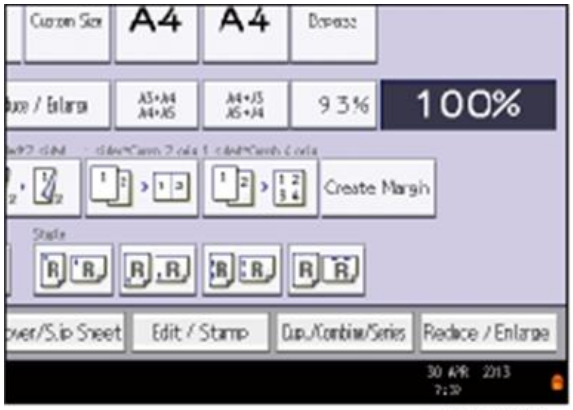
13. Log out.

14. Check the display and make sure that the overwrite erase icon appears.

15. 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.



w_d1822516

	Icon [1]	This icon is lit when there is temporary data to be overwritten, and blinks during overwriting.
	Icon [2]	This icon is lit when there is no temporary data to be overwritten.

HDD Encryption

Before You Begin the Procedure

1. Make sure that the following settings (1) to (3) are not at the factory default settings.

(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 you do the installation procedure.

2. Confirm that "Admin. Authentication" is on:

[User Tools] > [Machine Features] > [System Settings] > [Administrator Tools] > [Administrator Authentication Management] > [Admin. Authentication]

If this setting is off, tell the customer that this setting must be on before you can do the installation procedure.

3. Confirm that "Administrator Tools" is selected and enabled.
   [User Tools] > [Machine Features] > [System Settings] > [Administrator Tools] > [Administrator Authentication Management] >[Available Settings]
   "Available Settings" is not displayed until step 2 is done.
   If this setting is not selected, tell the customer that this setting must be selected before you can do the installation procedure.

Enable Encryption Setting

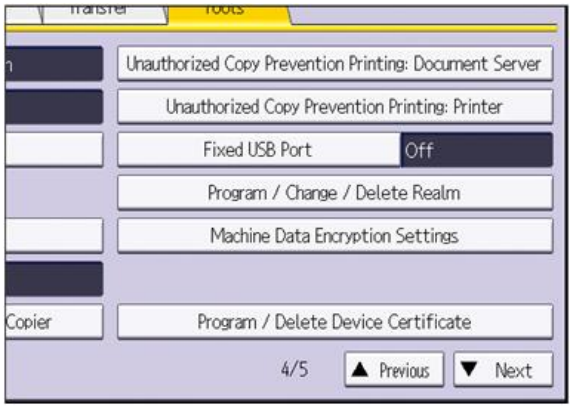
Machine Data Encryption Settings can be enabled by the following procedure.

Setting Up Encryption

Important

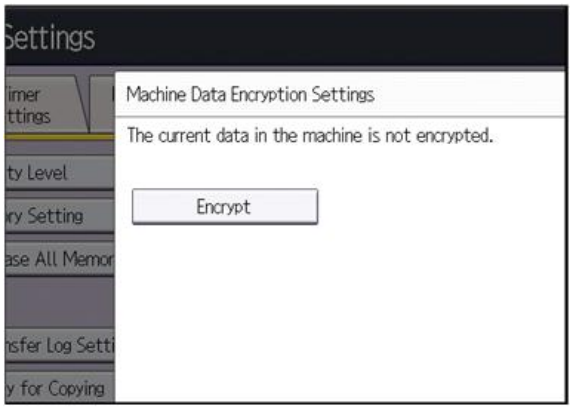
- When setting up encryption, specify whether to start encryption after deleting data (initialize) or encrypt and retain existing data. If data is retained, it may take some time to encrypt it.

1. Turn ON the main power.
2. Log in as the machine administrator from the control panel.
3. Press [User Tools].
4. Press [Machine Features].
5. Press [System Settings].
6. Press [Administrator Tools].
7. Press [Next] three times.
8. Press [Machine Data Encryption Settings].



w_d1822518

9. Press [Encrypt].



w_d1822519

10. Select the data to be carried over to the HDD and not be reset.

To carry all of the data over to the HDD, select [All Data].

To carry over only the machine settings data, select [File System Data Only].

To reset all of the data, select [Format All Data].

11. 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] to back up the machine's data encryption key.

If you have selected [Print on Paper], press the [Start] key. Print out the machine's data encryption key.

12. Press [OK].

13. Press [Exit].

14. Press [Exit].

15. Log out.

16. 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. Press [User Tools].

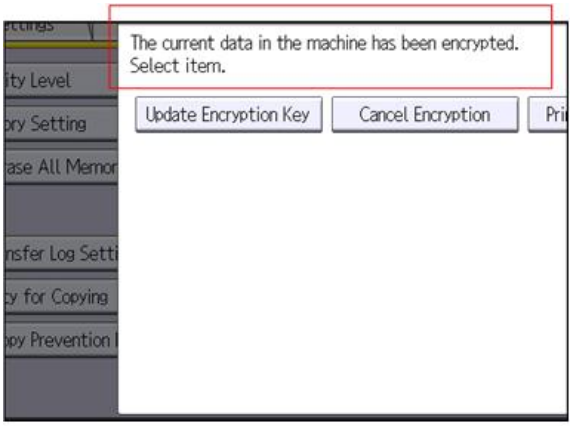
2. Press [Machine Features].

3. Press [System Settings].

4. Press [Administrator Tools].

5. Press [Machine Data Encryption Settings].

6. Confirm whether the encryption has been completed or not on this display.



w_d1822520

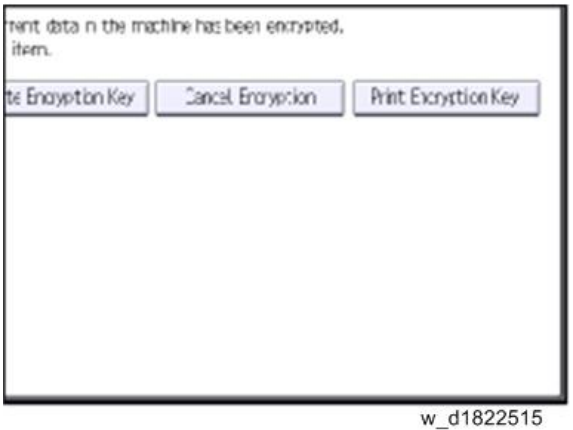
Backing Up the Encryption Key

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. Log in as the machine administrator from the control panel.
2. Press [User Tools].
3. Press [Machine Features].
4. Press [System Settings].
5. Press [Administrator Tools].
6. Press [Next] three times.
7. Press [Machine Data Encryption Settings].
8. Press [Print Encryption Key].



w_d1822515

9. 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].

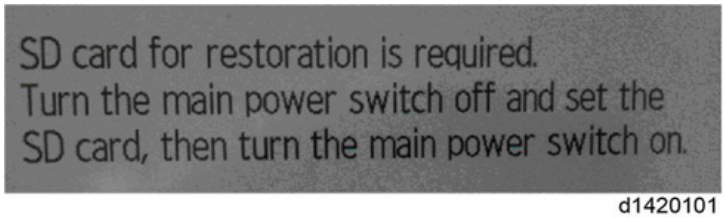
   If you have selected [Print on Paper], press the [Start] key. Print out the machine's data encryption key.
10. Press [Exit].

11. Log out.

Encryption Key Restoration

How to restore the old encryption key to the machine

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



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, “xxxxxxxxxxx” (11 digits).

4. Create a text file called "key_xxxxxxxxxxx.txt" and save it in the "xxxxxxxxxxx“ folder. Write the encryption key in the text file.

/restore_key/xxxxxxxxxxx/key_xxxxxxxxxxx.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_xxxxxxxxxxx.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.

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 back-up 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.

2.Installation

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.

Paper Feed Unit PB1080 (D573-57), Paper Feed Unit PB1080TE (D573-13)

Paper Feed Unit PB1080TE is only for NA.

Accessory Check

Confirm that you have the accessories listed below.

No.	Description	Q'ty
1	EMC Address	1
2	Name Plate	1
3	Decal Size Indication	1
4	Decal CHN 10mm	1
5	Decal CHN Date 40mm	1

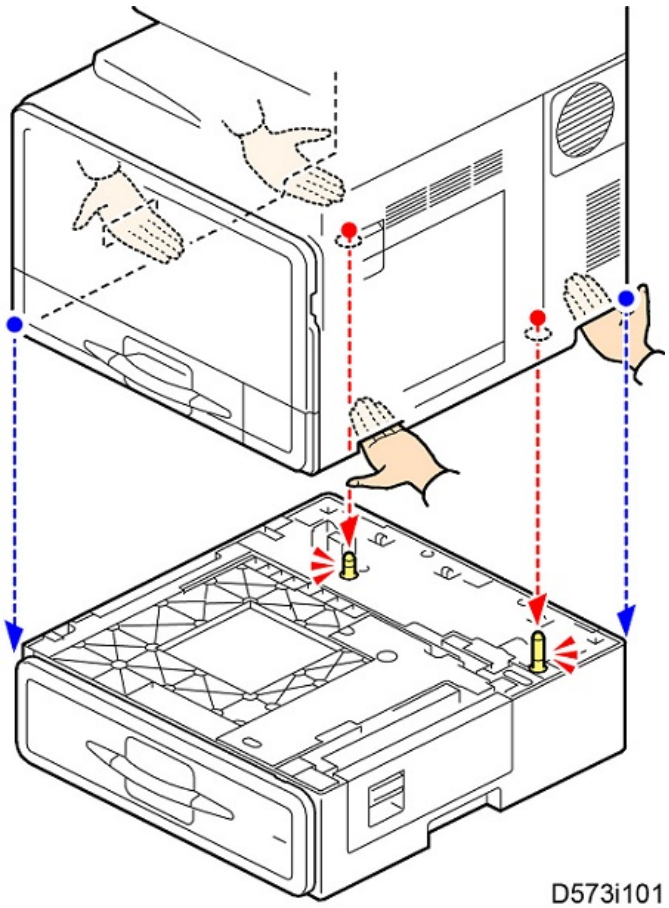
Installation Procedure

⚠CAUTION

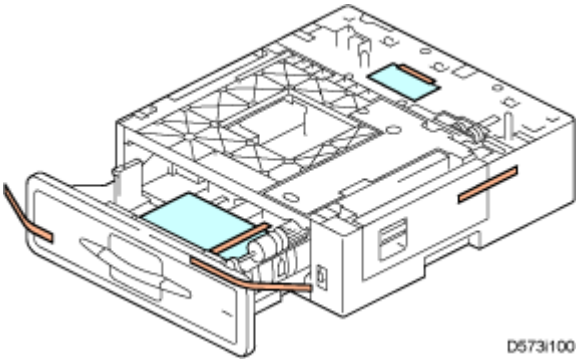
- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.
- You need two or more persons to lift the mainframe. The mainframe is highly unstable when lifted by one person, and may cause injury or property damage.
- Do not lift the machine together with one or more paper feed unit(s):
  If there is already a machine with one or more optional paper feed unit(s), 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.

RTB 27
Before you install the PB1080TE, do the procedure in the RTB

- Be sure to hold the following positions when lifting the mainframe.



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

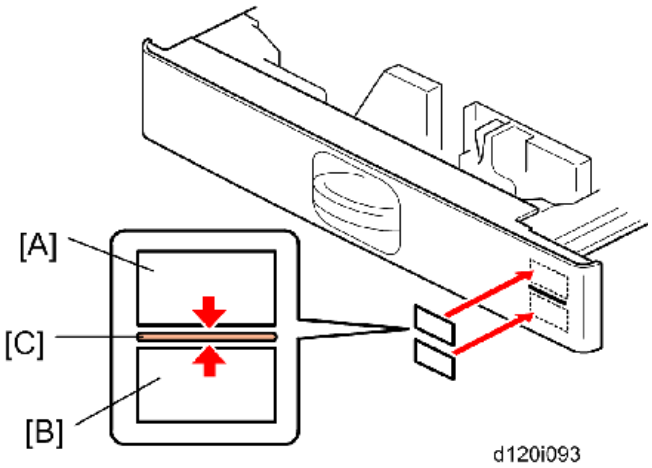


2. Set the copier on the paper feed unit.

Note

- When installing a second paper feed unit, place it on the first paper feed unit. Then place the copier 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 SP1002-003
- For tray 3, use SP1002-004

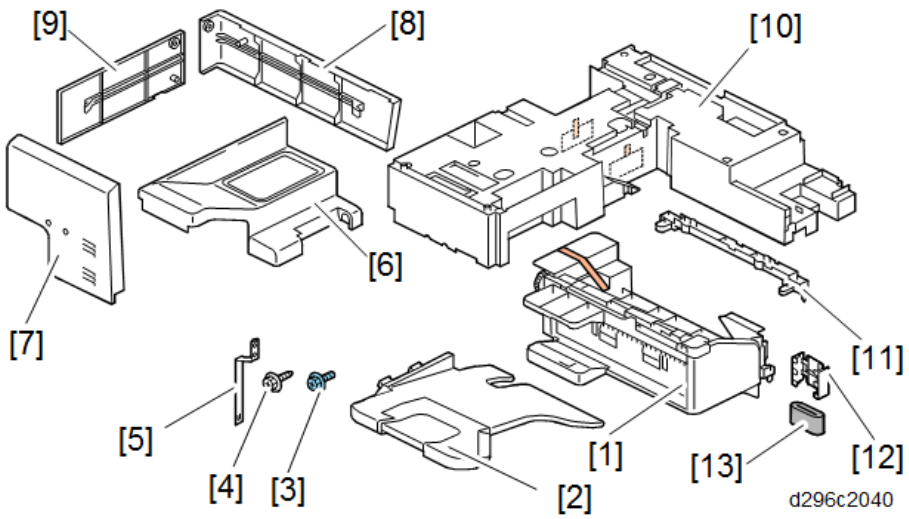
6. Check the paper feed unit operation and copy quality.

1-Bin Tray BN1030 (D574-58)

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

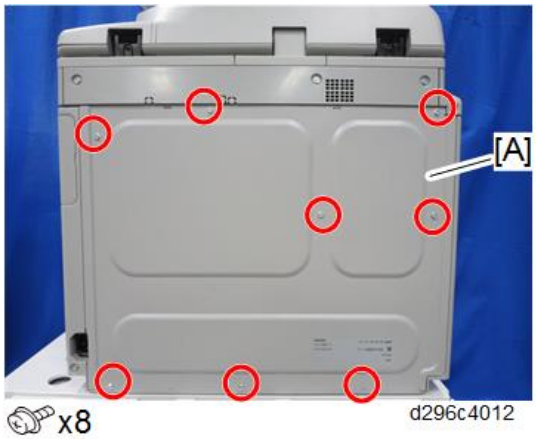
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

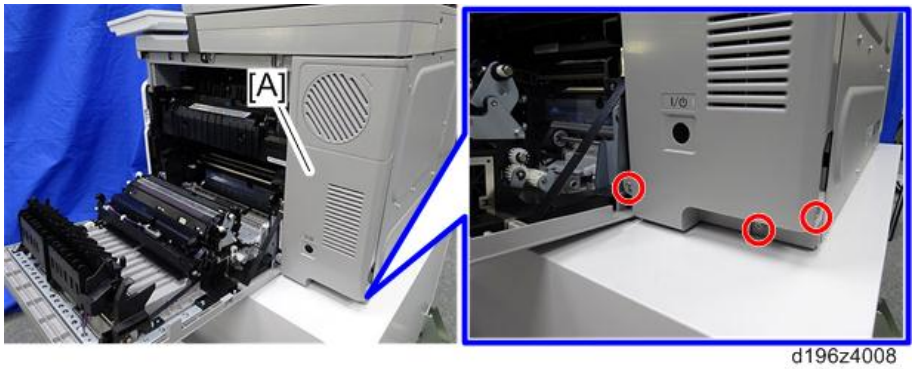
Remove the ADF and scanner unit

1. Remove the left upper cover [A] (× 1).

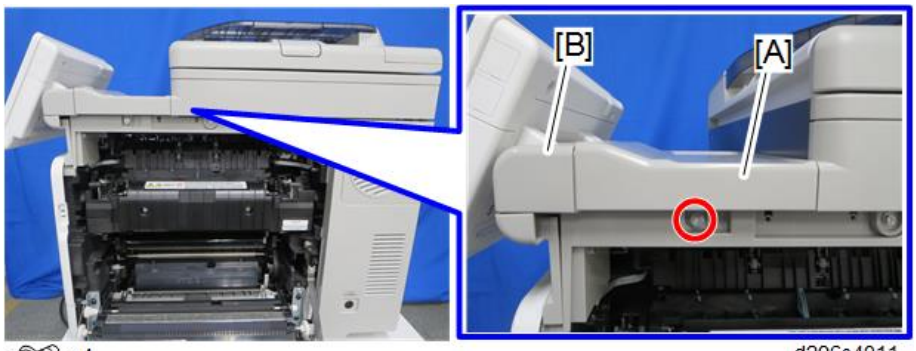
2. Remove the rear cover [A].



3. Open the right cover, and then remove the right cover [A] (× 3).

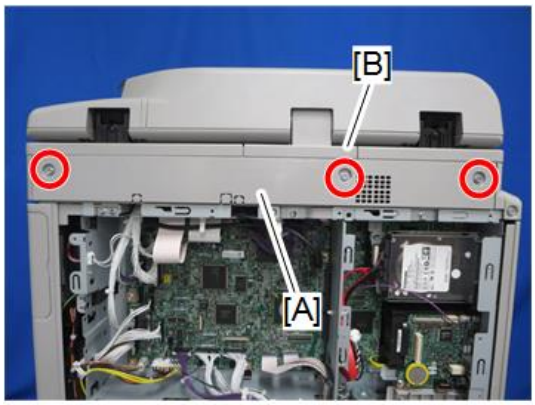


4. Remove the front right cover [A] and the hinge cover [B].



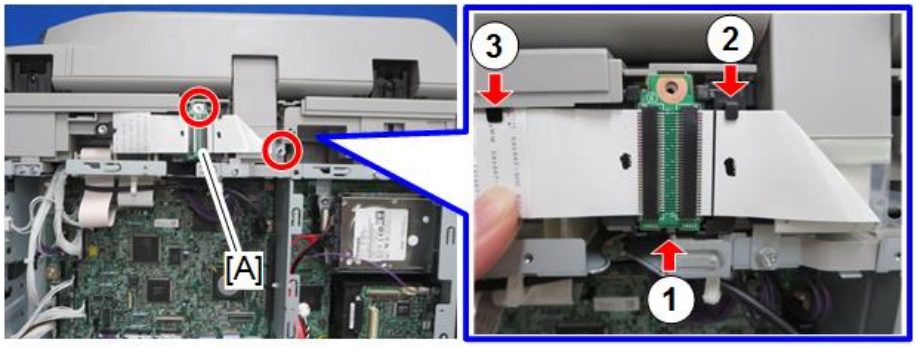
x1 d296c4011

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



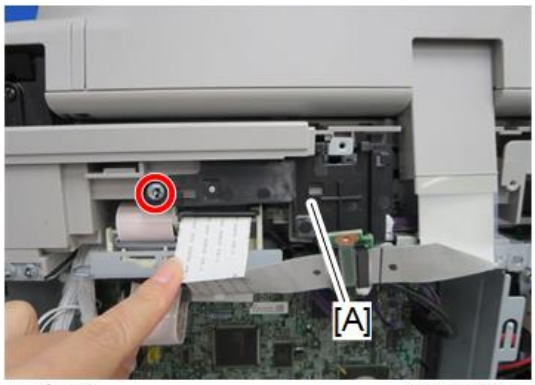
x3 d296c4003

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



x2 d296c4004

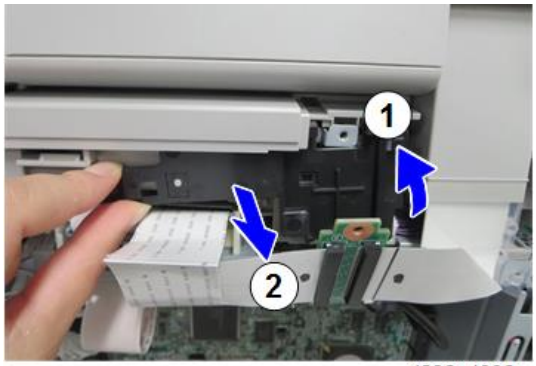
7. Remove the FFC fixing bracket [A] on the back side of the FFC.



x1 d296c4005

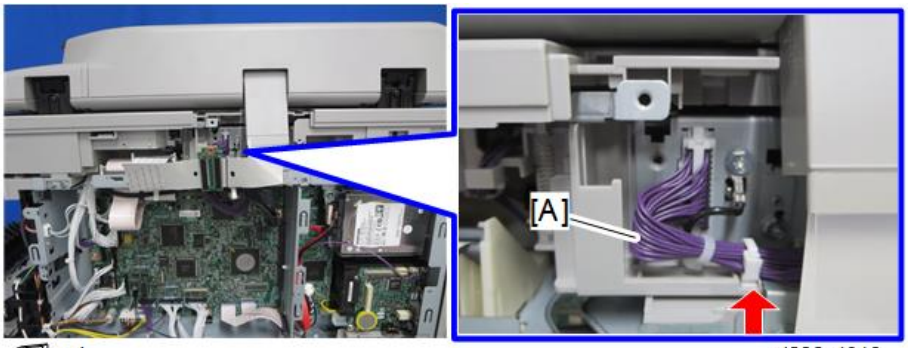
Note

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



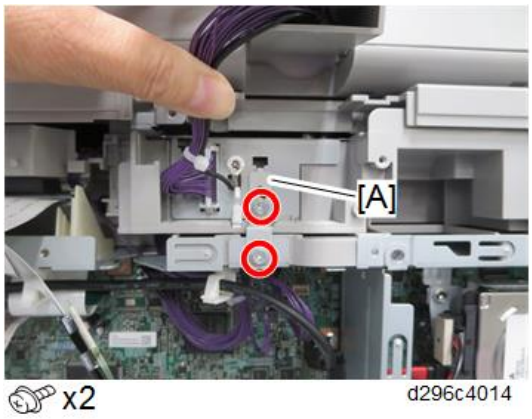
d296c4006

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

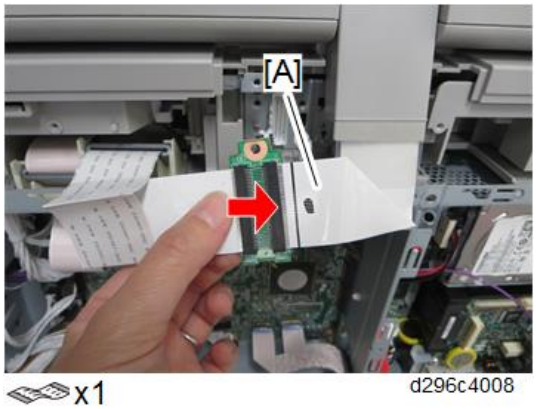


x1 d296c4013

9. Remove the grounding plate [A].



10. Disconnect the FFC [A] from the relay board.

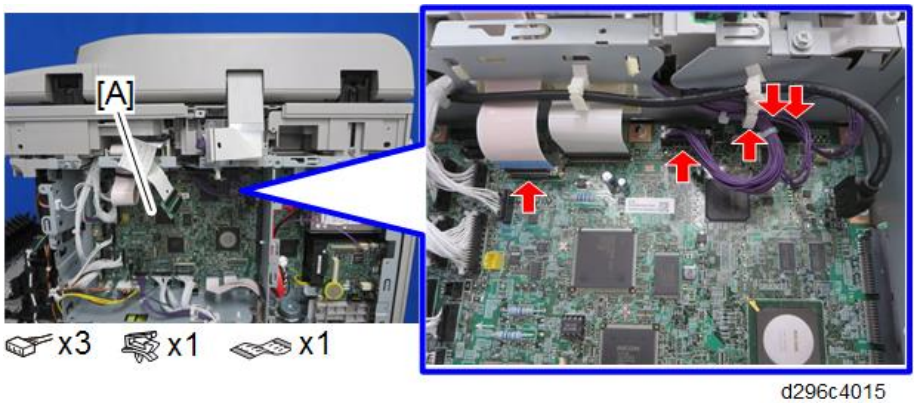


Note

Disconnect the FFC for the relay board 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 [A].

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

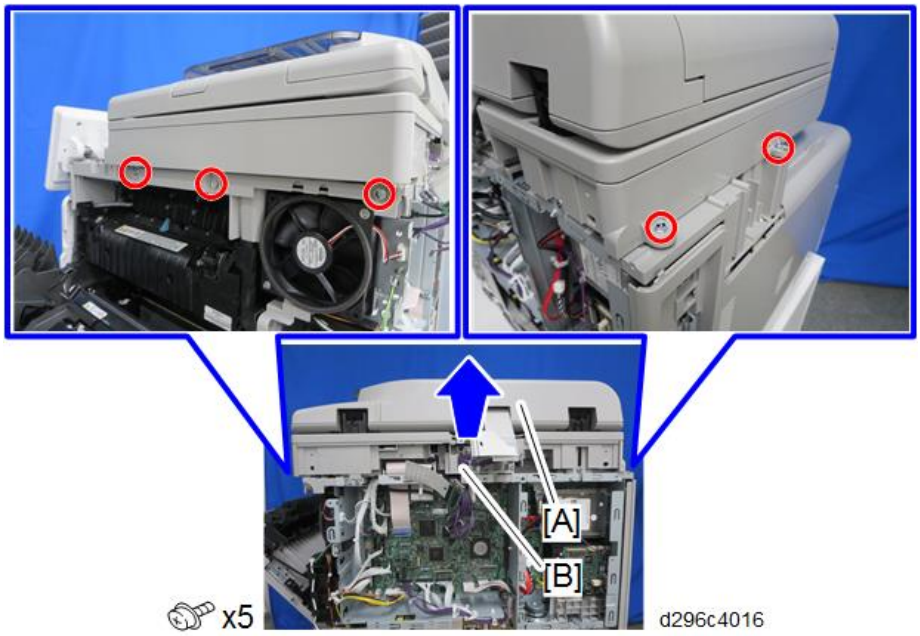


Note

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

d296c4017

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

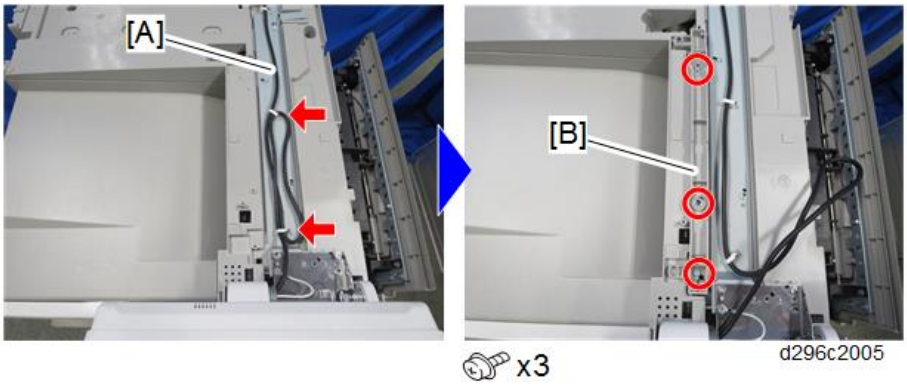


Install the 1-bin Tray Unit

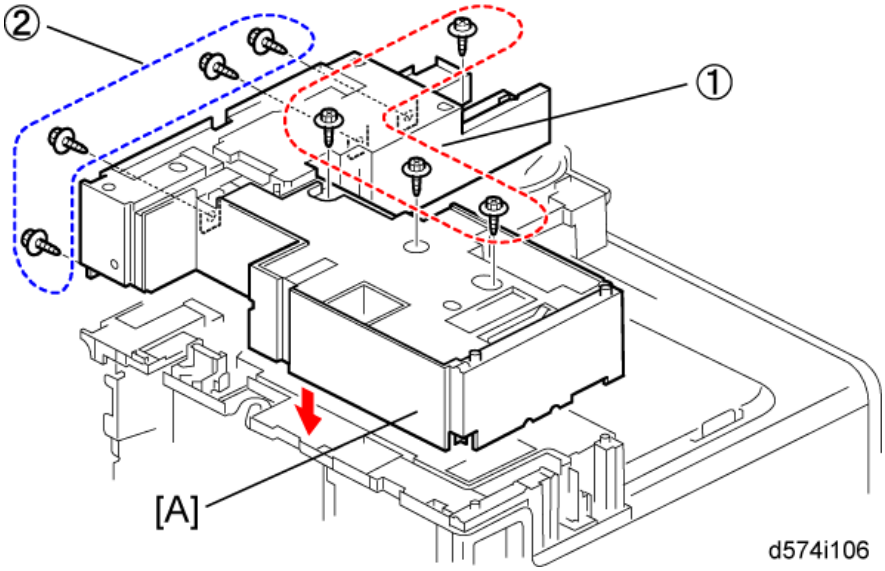
1. Remove the orange tapes on the 1-bin tray unit.

2. Remove the two clamps of the USB cable [A] of the control panel, bundle the excessive cable, and fasten with the clamps again.

3. Attach the small frame [B].



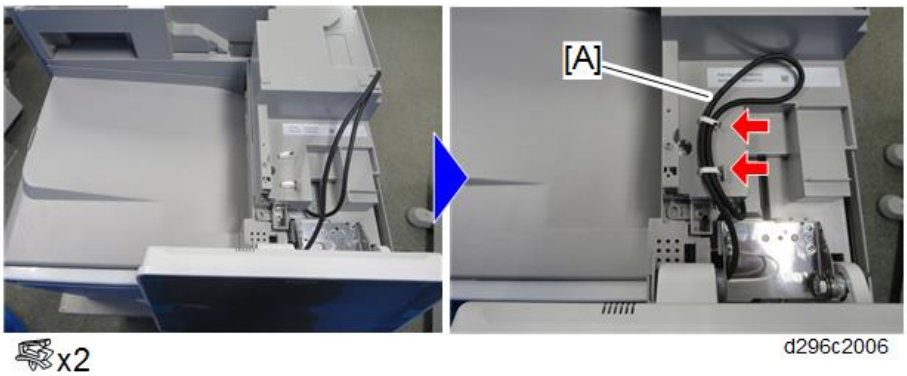
4. Attach the mounting frame [A]. (M3×10: × 8)



Note

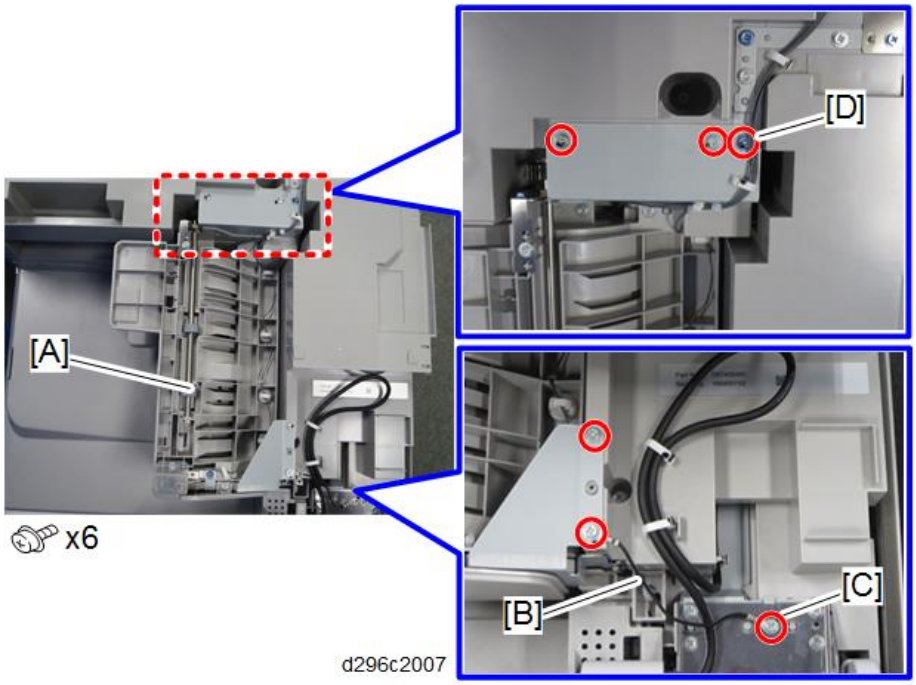
- Install the screws in this order: ①→②.

5. Route the USB cable [A] on the mounting frame and fasten with the two clamps.

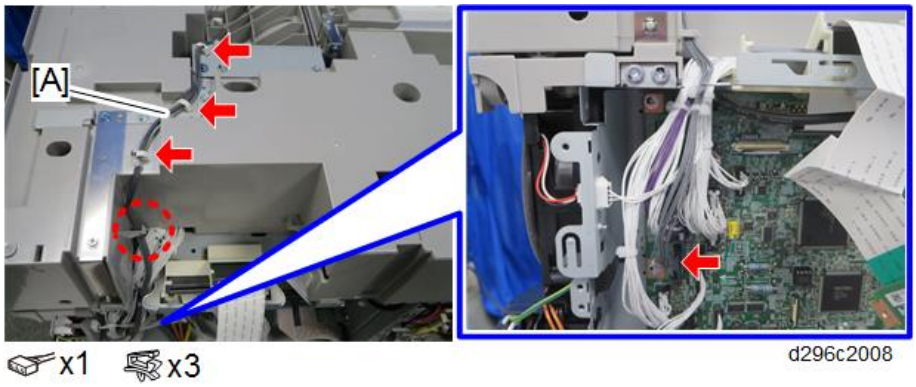


6. Attach the 1-bin tray unit [A]. (M3x10: 4 screw, and blue screw [D])

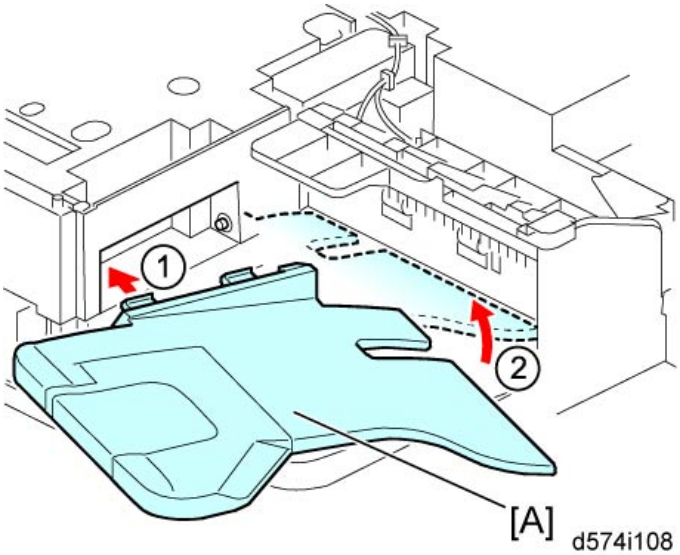
Fasten the grounding wire [B] included in this kit with one screw as shown below. Fasten the other end of the grounding wire with the screw [C].



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



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

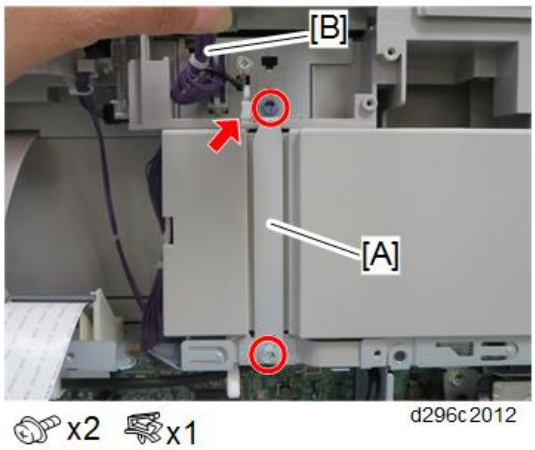


9. Install the scanner unit [A] with the ADF.

Note

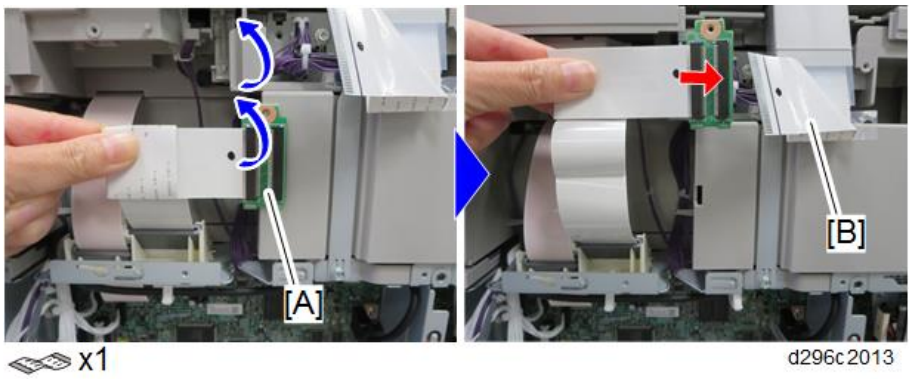
When installing the scanner unit, make sure that the harnesses are not pinched between the scanner unit and the 1-bin tray unit (marked by the dashed circle).

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



11. Connect the relay board [A] and FFC [B].

Turn over twice to spread the FFC that was folded, and connect it.

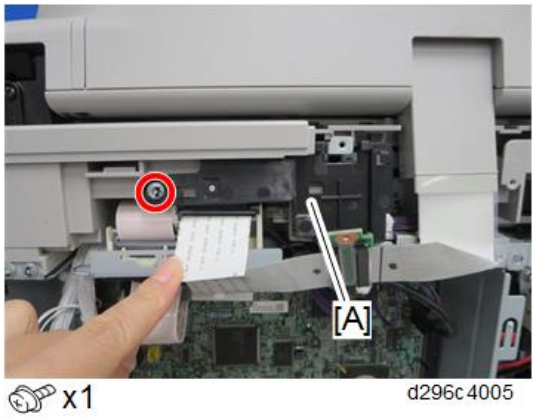


Note

Connect the FFC by pushing it straight, because it does not have a lock mechanism.

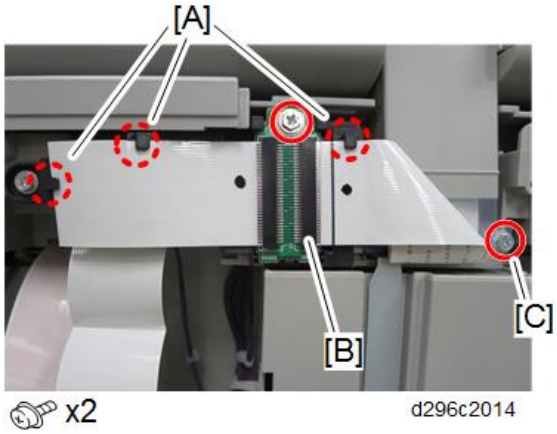
When reassembling, the FFC must be connected straight.

12. Attach the FFC fixing bracket [A].

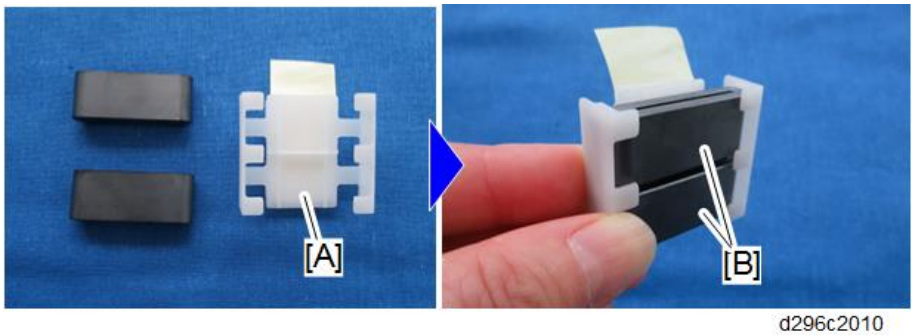


13. Attach the relay board [B] with the three hooks [A] on the FFC fixing bracket.

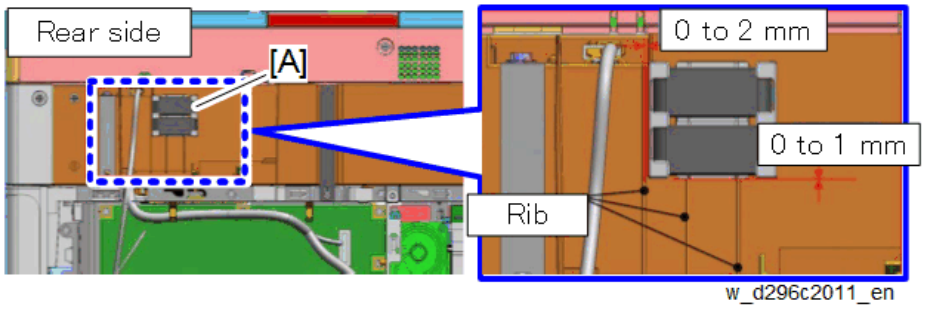
14. Attach the FFC with the screw [C].



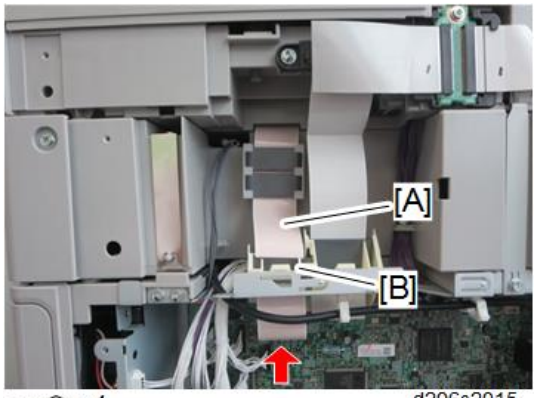
15. Set two ferrite cores [B] in the ferrite core holder [A] included in this kind.



16. Route the FFC of the scanner unit through the two ferrite cores in step 15.
Align the ferrite core holder [A] with the reference ribs on the back of the unit, and attach it with double-sided tape.



17. Route the FFC [A] in step 16 through one ferrite core [B] attached to the control box, and connect it to the BiCU.



x1 d296c2015

18.

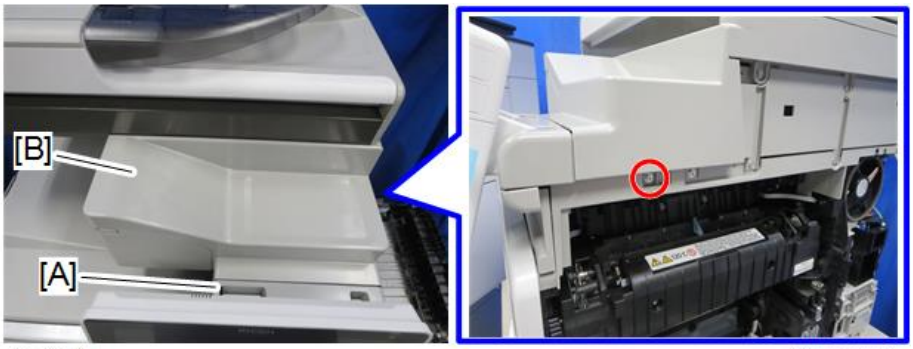
Note

- 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 while pressing the lock release button.

d296c4017

19. Attach the following items:

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



x1 d296c2016

20. 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)

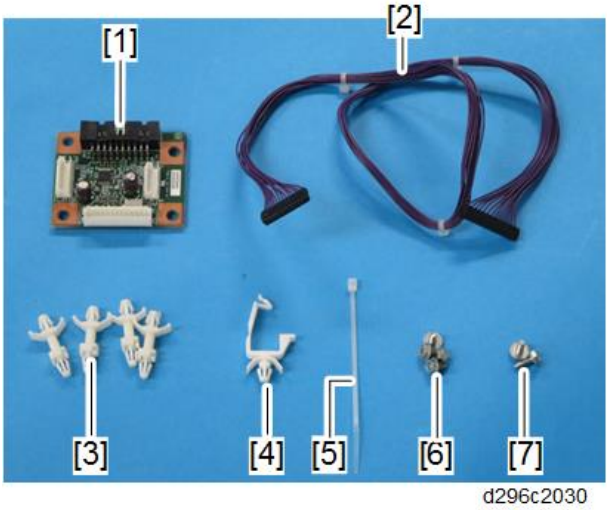
21. Attach the following items:

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

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

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

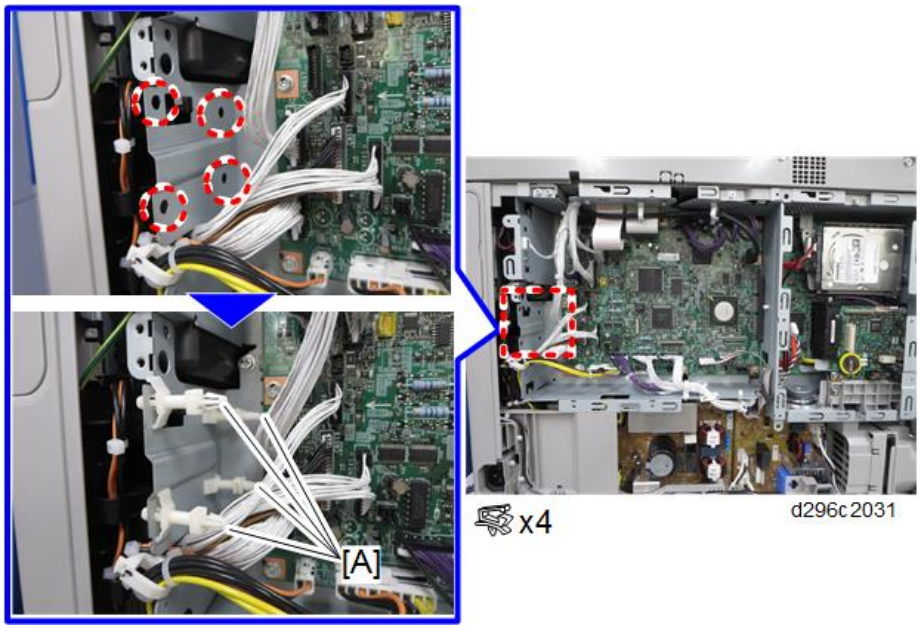
Installation Procedure

⚠CAUTION

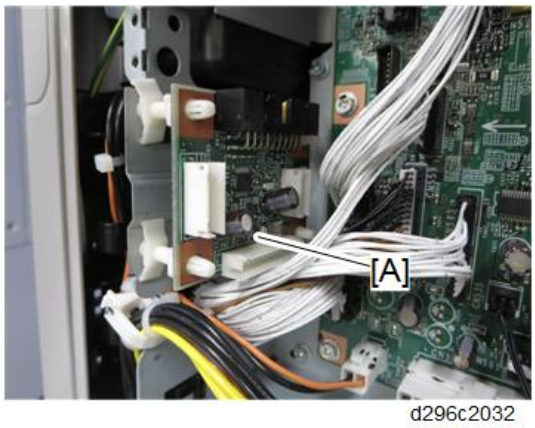
- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

1. Remove the rear cover. (Rear Cover)

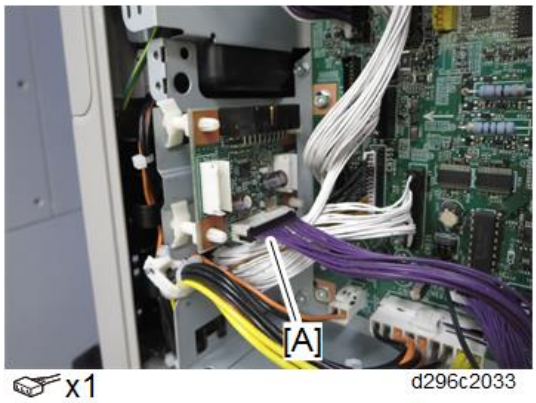
2. Install the four studs [A] in the controller box.



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



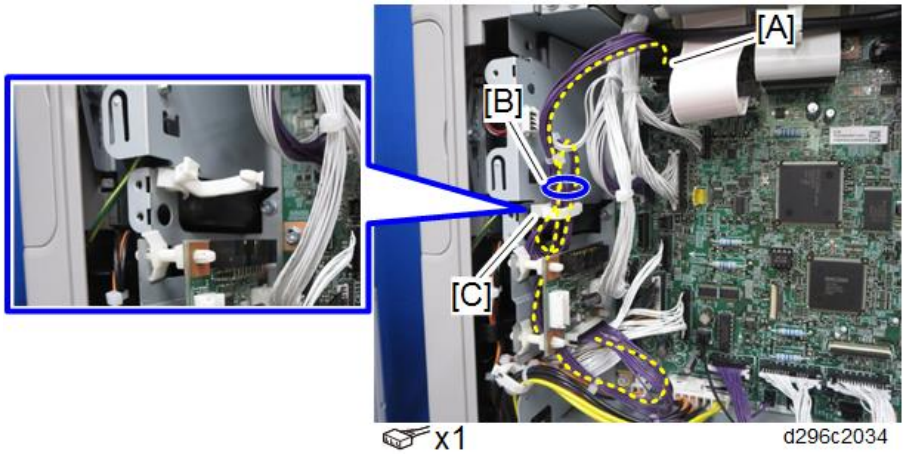
4. Connect the harness included in this kit to the connector [A] on the interface board.



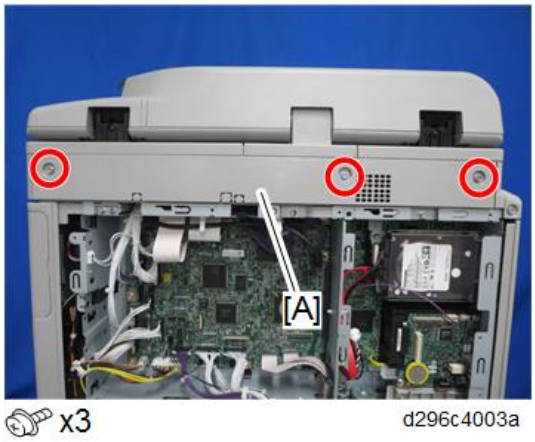
5. Do the following steps:

- 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.

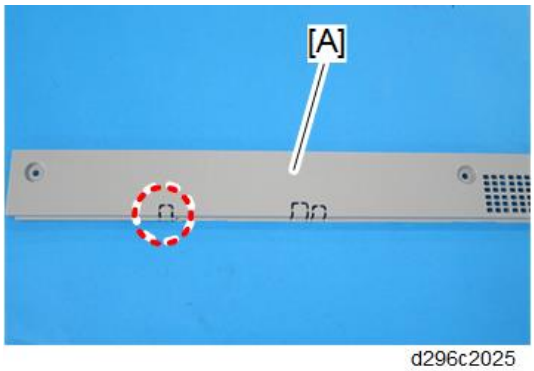
- Insert the clamp included in this kit at [C], and clamp the harness with the clamp to prevent interference with other harnesses.



6. Remove the scanner rear cover [A].



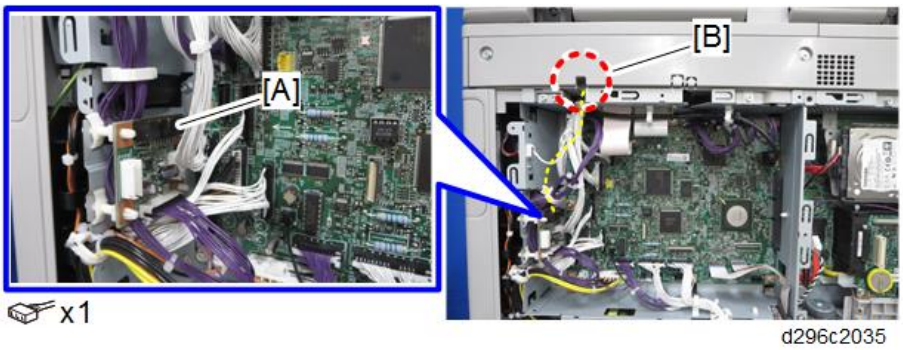
7. Cut out the hole for the counter device cable to pass through the scanner rear cover [A].



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.

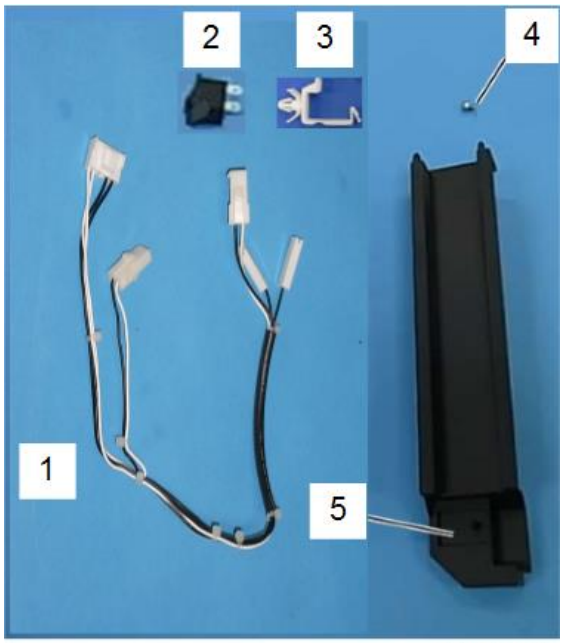
Anti-condensation Heater (Mainframe)

Accessory Check

All the accessories required to install the anti-condensation heater for mainframe are available as the following parts. Order these separately from the heater.

Note

- These part numbers are correct as of November, 2016. Refer to the “Option” section in the mainframe’s parts catalog to check the latest part numbers.
- The shape of the actual parts may differ from the photo.



d196z2400

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: D1955265) is also used as a harness for Anti-condensation Heater for optional paper feed unit, and Anti-condensation Heater for mainframe paper feed tray. 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 together with one or more paper feed unit(s):**

If there is already a machine with one or more optional paper feed unit(s), 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

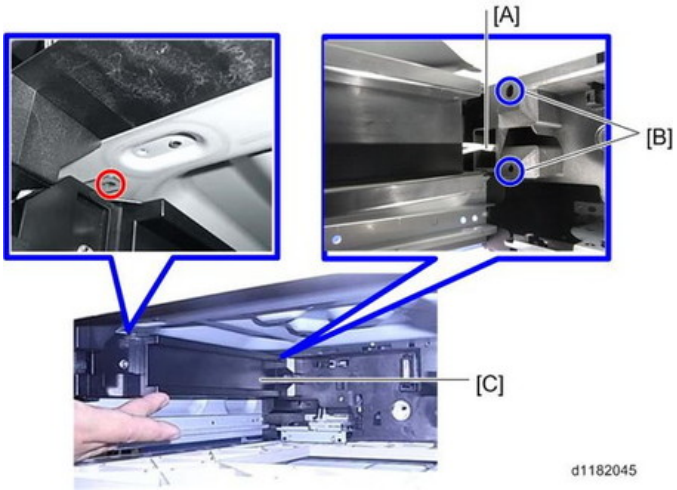
- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

1. Remove the following items.

- Paper tray
- Waste toner bottle (Waste Toner Bottle)
- Left cover (Left Cover)
- Rear cover (Rear Cover)
- PSU fan (PSU Fan)

2. Do the following steps:

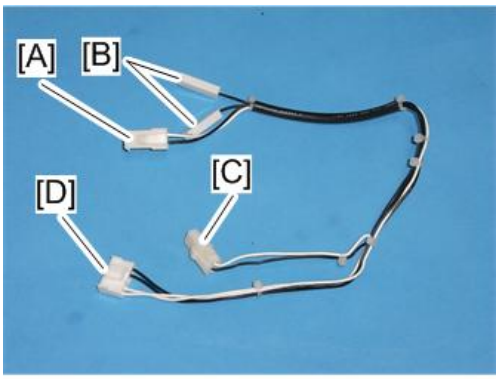
- Insert the heater harness into the hole [A].
- Fit the bosses of the heater into the holes [B] to install the heater [C] (🔩(M3×6) × 1)



Note

- Use a short screwdriver to secure the screw.

Junction harness connections:



d196z2022

A: To the heater

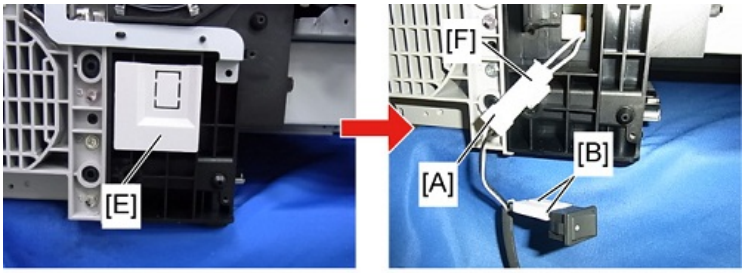
B: To the power switch

C: To the optional PFU heater (if installed)

D: To the PSU

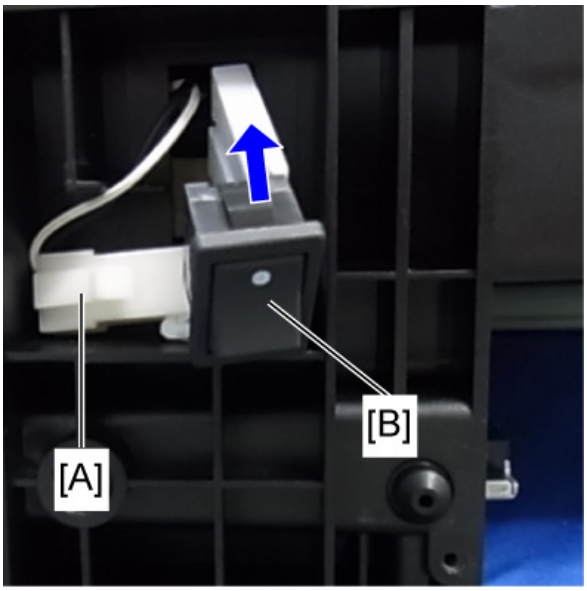
3. Do the following steps:

- Remove the cover [E], and then pull out the heater harness [F].
- Connect the heater harness to the connector of the junction harness [A]. (× 1)
- Connect the heater power switch to the connectors of the junction harness [B]. (× 2)



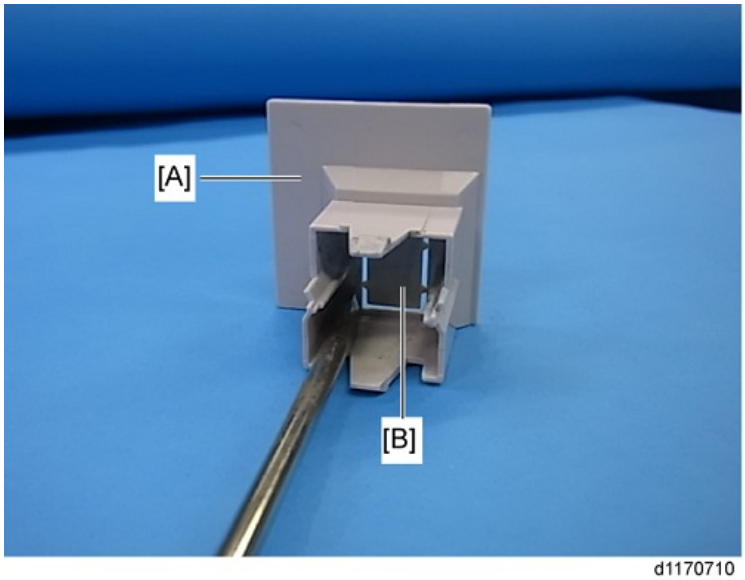
d1170706

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



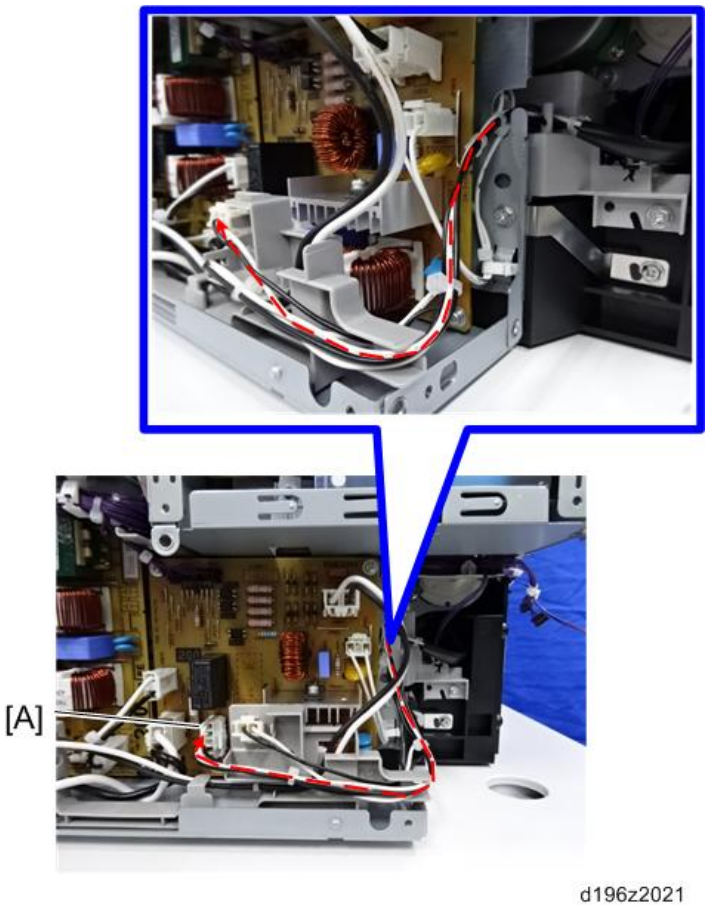
d1170707

5. Cut out the switch hole [B] in the switch cover, and then attach the cover [A]. (Hooks × 2)



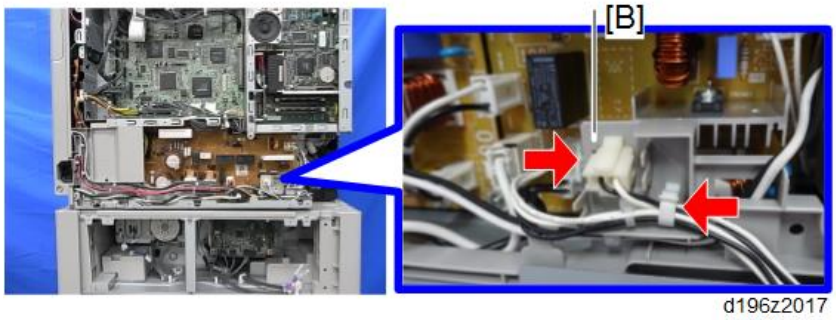
6. Route the junction harness as shown below.

- Connect the connector [A] to CN600.

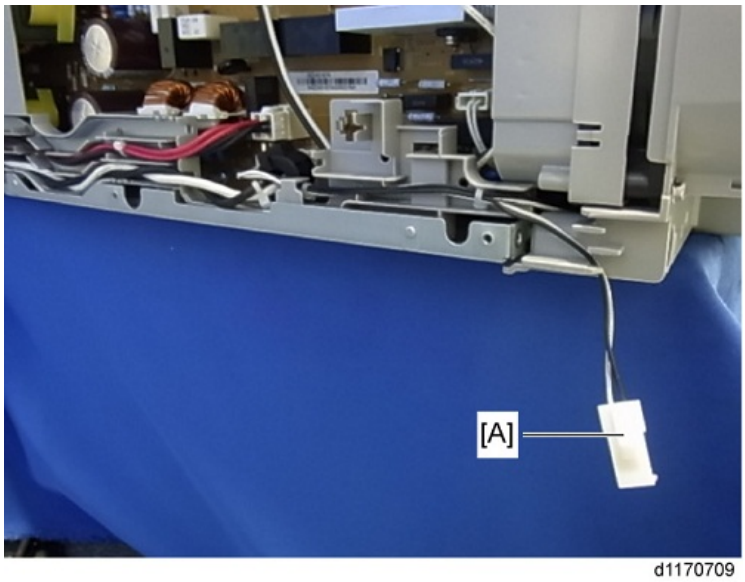


- Attach the clamp and route the harness. (✎ × 1)

- Only when the heater for optional paper feed tray will not be installed, store the connector [B] in the holder.



7. When the optional PFU tray heater will be installed: Pull out the connector [A] and its harness to the lower part of the machine. Then uncap the connector isolation cap in the optional PFU and connect the connector [A] to the uncapped connector. (Anti-condensation Heater (Optional Paper Feed Unit))



8. Reassemble the machine.

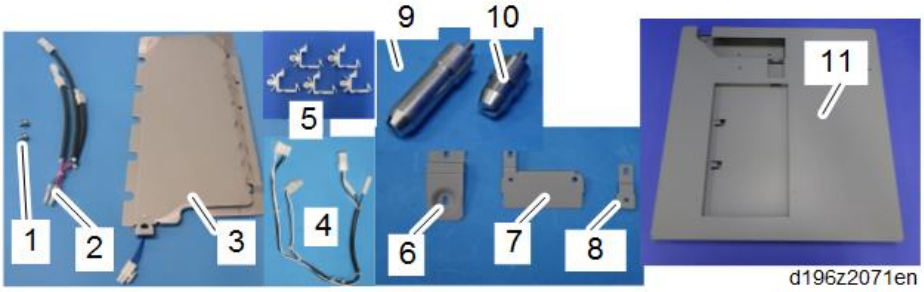
Note

- The mainframe and the optional paper feed unit should be joined to each other if the anti-condensation heater of the optional paper feed unit is installed. See Anti-condensation Heater (Optional Paper Feed Unit) for details.

Anti-condensation Heater (for Mainframe Paper Tray)

Accessory Check

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: D1955265) is also used as a harness for Anti-condensation Heater for optional paper feed unit, and Anti-condensation Heater for mainframe. 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 anti-condensation heater for mainframe paper tray 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)
- These part numbers are correct as of November, 2016. Refer to the "Option" section in the mainframe's parts catalog to check the latest part numbers.

Installation Procedure

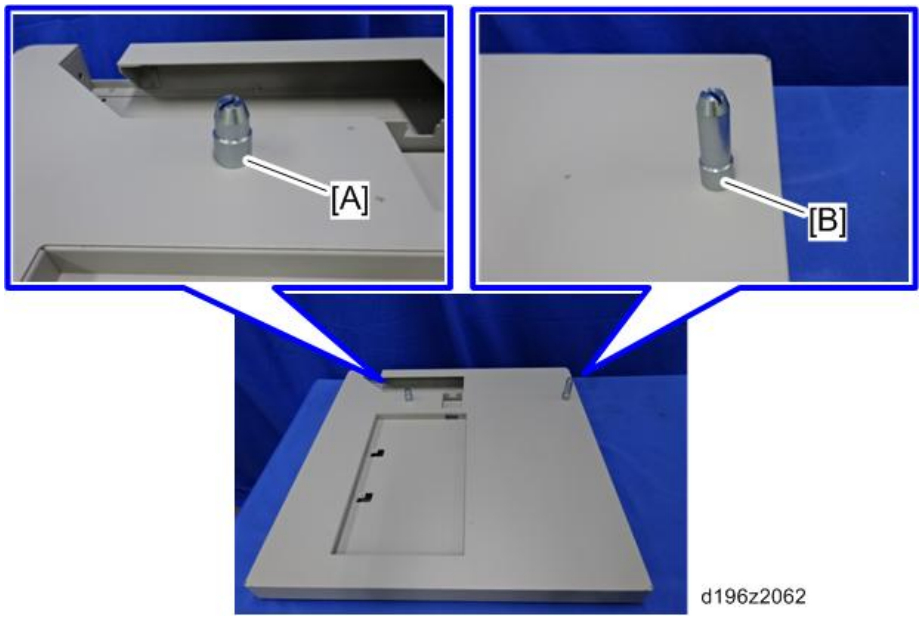
⚠CAUTION

- **Do not lift the machine together with one or more paper feed unit(s):**
  If there is already a machine with one or more optional paper feed unit(s), 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.

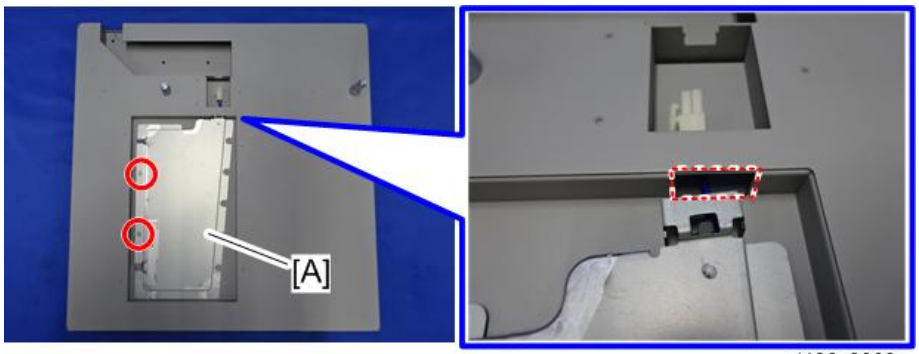
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may 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]. (× 2)



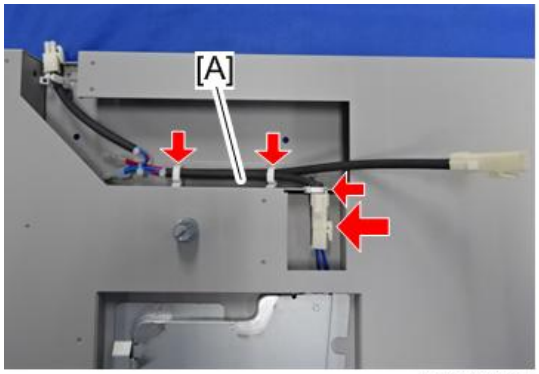
d196z2063

Note

- Pass the connector through the hole in the table.

3. Connect the heater harness [A] to the anti-condensation heater and route it as shown below. (× 1, ×

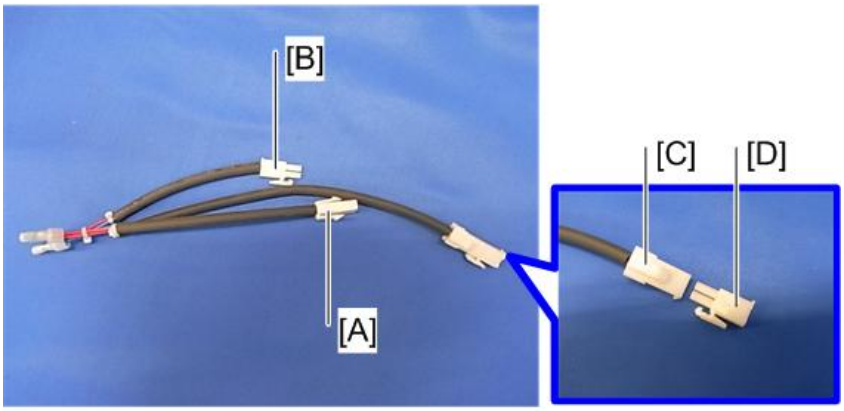
3)



d196z2065

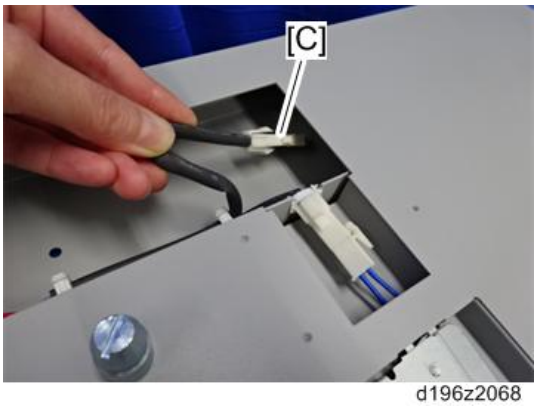
Note

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



d118z2017

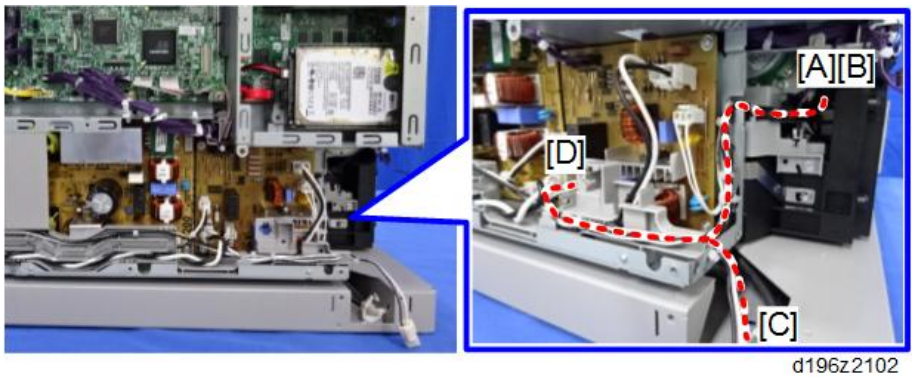
- The connector [C] is not used. Put the connector into the opening.



d196z2068

4. Put the mainframe on the table.
5. Remove the rear cover. (Rear Cover)
6. Remove the left cover. (Left Cover)
7. Remove the PSU fan. (PSU Fan)

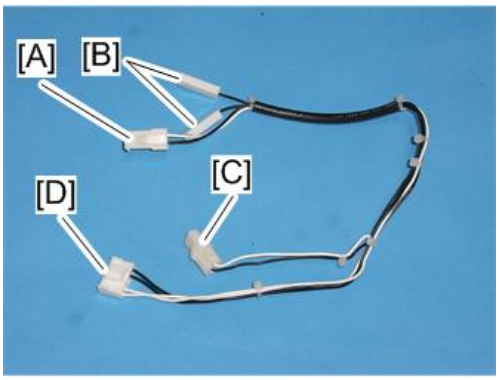
8. Connect the connector to CN600 on the PSU and route the junction harness along the red dotted line in the photo. (☞ × 1)



d196z2102

Note

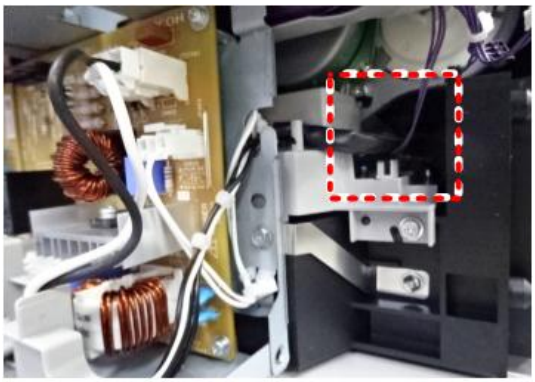
- A: Not used (For the drum heater: If installing the anti-condensation heater for the mainframe)
- B: Not used
- C: For the heater harness
- D: For the PSU (CN600)



d196z2022

RTB 34
This step was modified

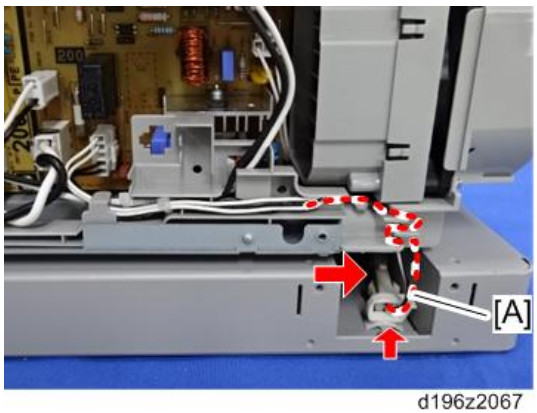
- If the anti-condensation heater for mainframe is not going to be installed, put the connector [A] and the connector [B] into the area as shown below.



d196z2103

9. Install the PSU fan.

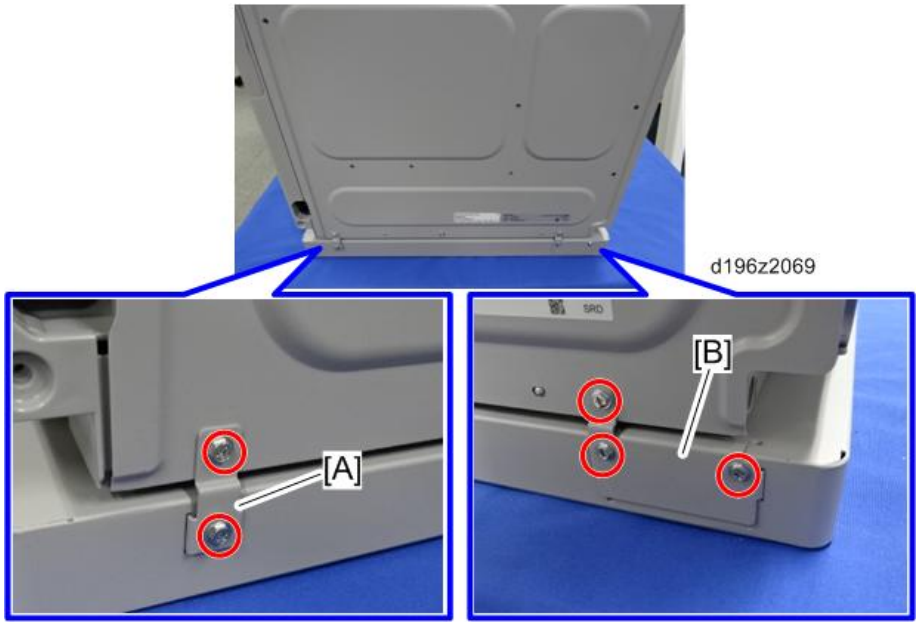
10. Connect the junction harness [A] to the heater harness and route the junction harness along the red dotted line in the photo.



d196z2067

11. Reattach the rear cover.

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

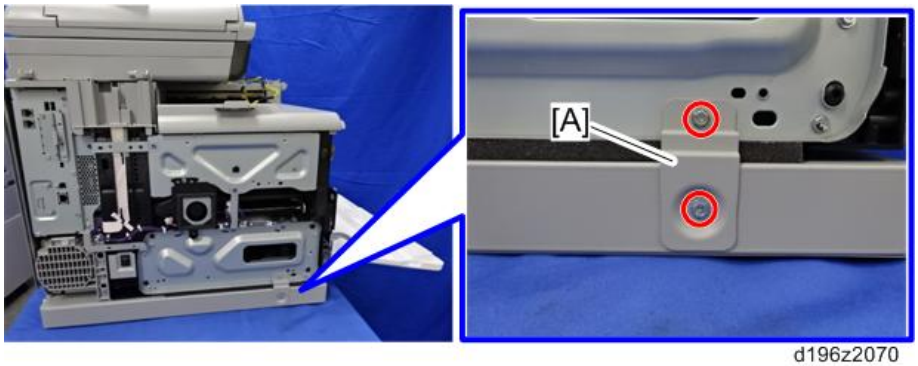


d196z2069

Note

- Use the screws which are holding the rear cover.

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



d196z2070

14. Reattach the left cover.

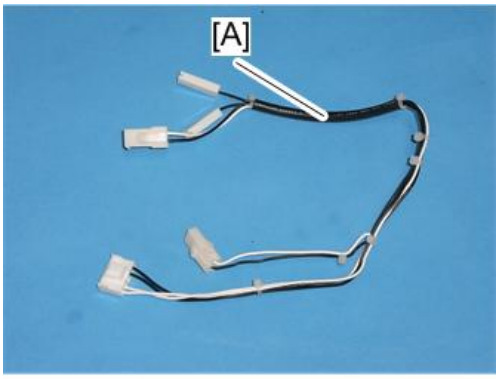
Anti-condensation Heater (Optional Paper Feed Unit)

Accessory Check

Check the quantity and condition of the accessories against the following list. Other components included in this kit are not used for installation on this machine.

Important

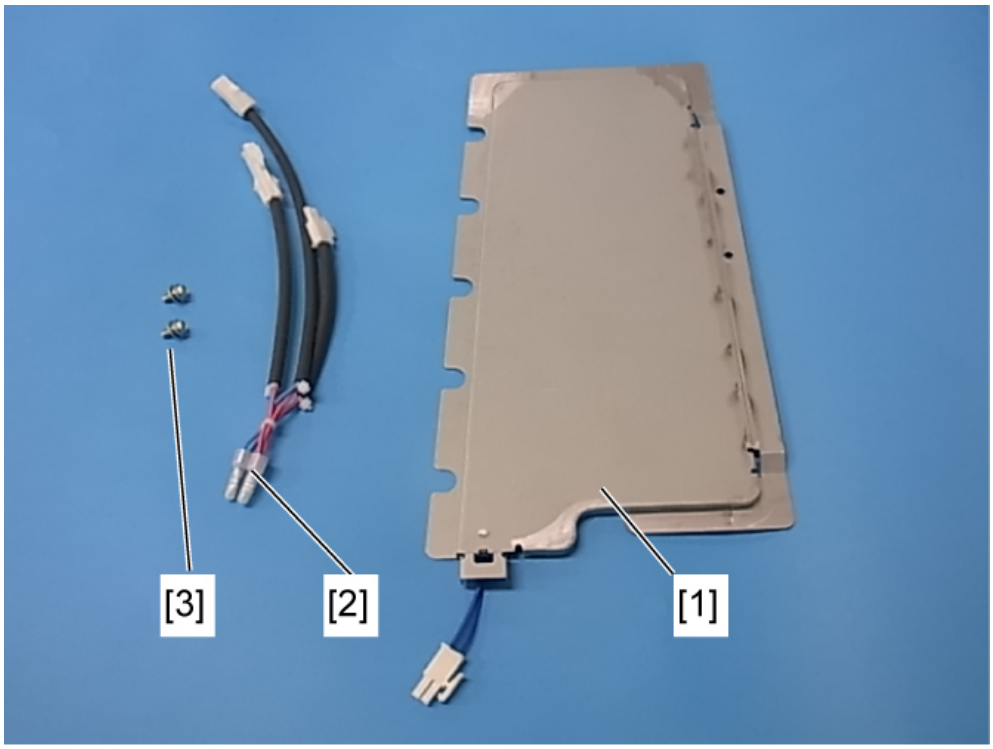
- The following junction harness (P/N: D1965265) is required to install the anti-condensation heater for optional paper feed unit. If you have already ordered this harness for installing the other anti-condensation heaters for mainframe or mainframe paper tray, it is not necessary to order this junction harness again at this time.



d196z2221

For Installing the Heater:

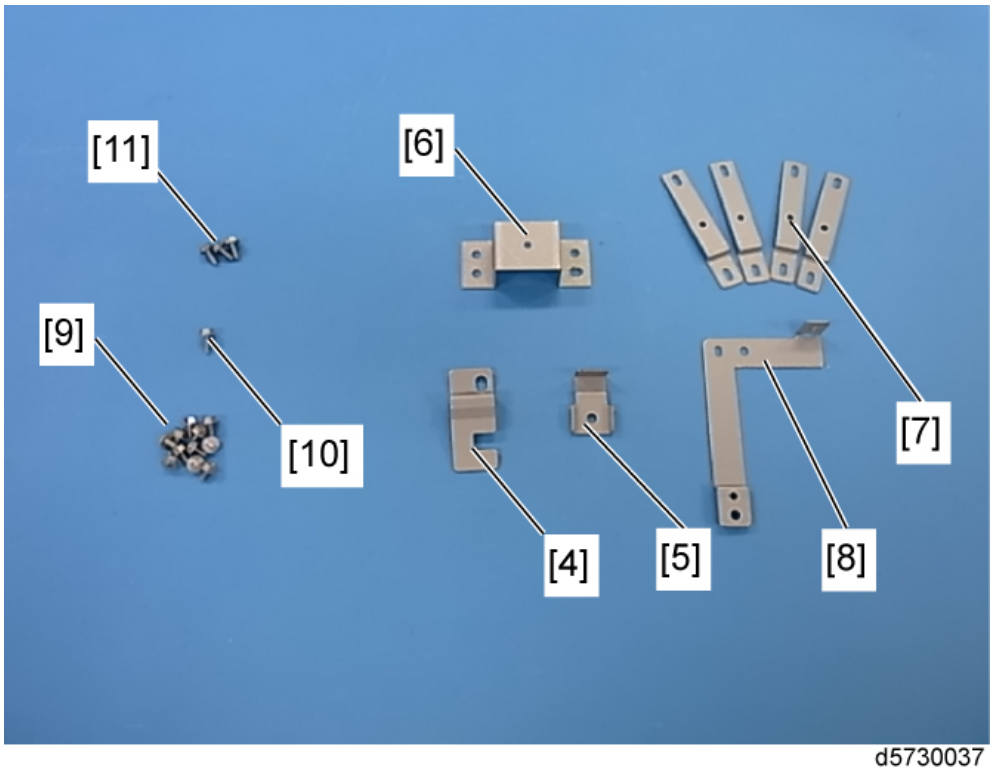
No.	Description	Q'ty	Remark
1	Anti-condensation heater	1	
2	Harness with the isolation cap	1	
3	M4 × 10: Screw	2	



d5730031

For Joining the Mainframe and Another Paper Feed Unit:

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



d5730037

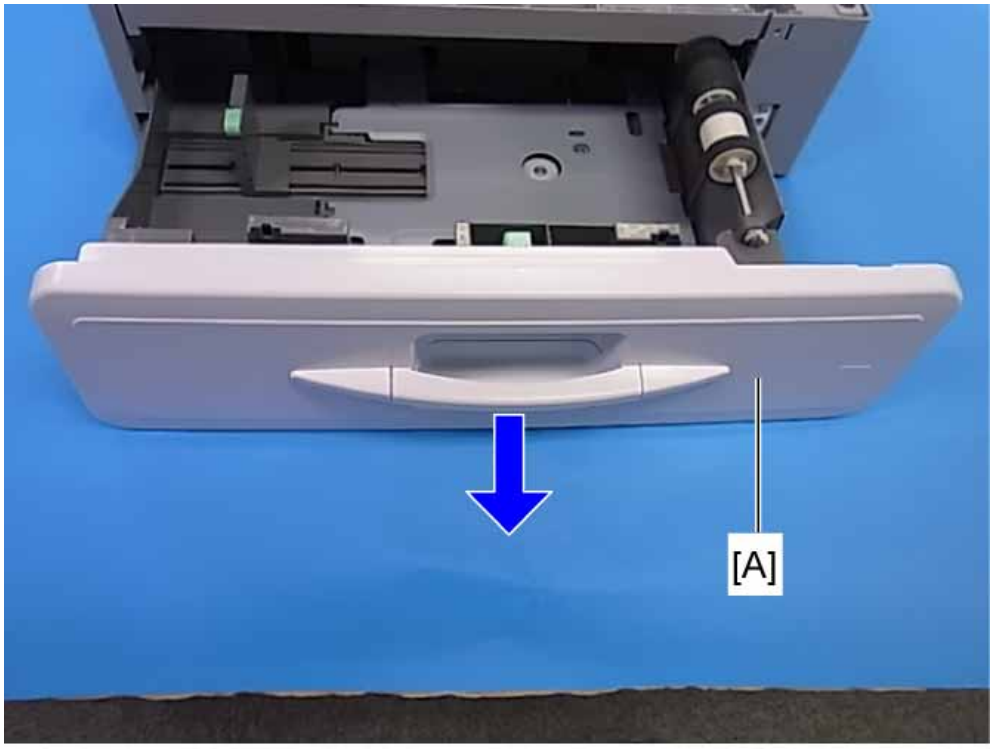
Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.
- Do the following procedure not to damage any harnesses.
- Check that harnesses are not damaged or pinched after installation.

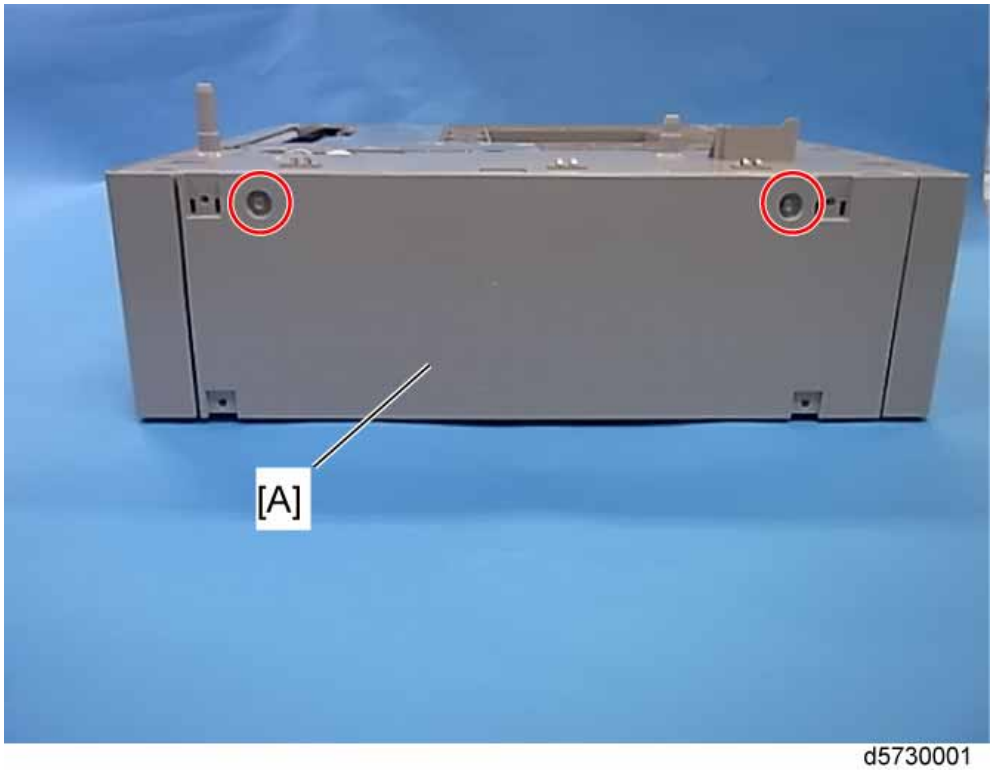
For Installing the Tray Heater on the 1st Paper Feed Unit

1. Pull out the tray [A] in the optional paper tray.



d5730002

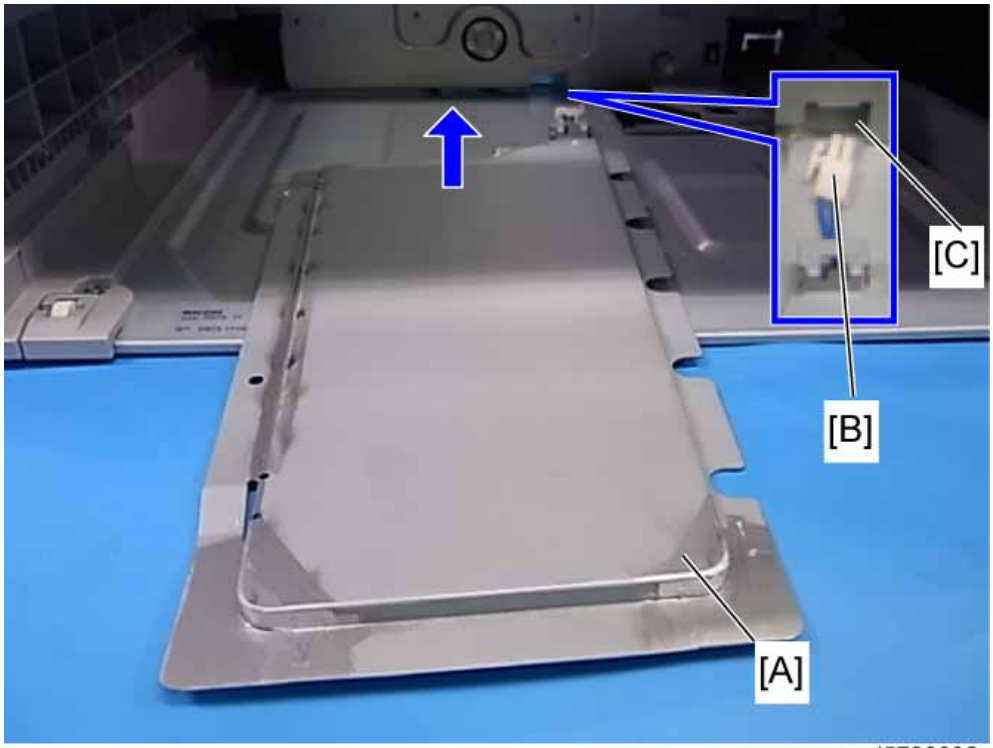
2. Remove the rear cover [A] (x 2)



d5730001

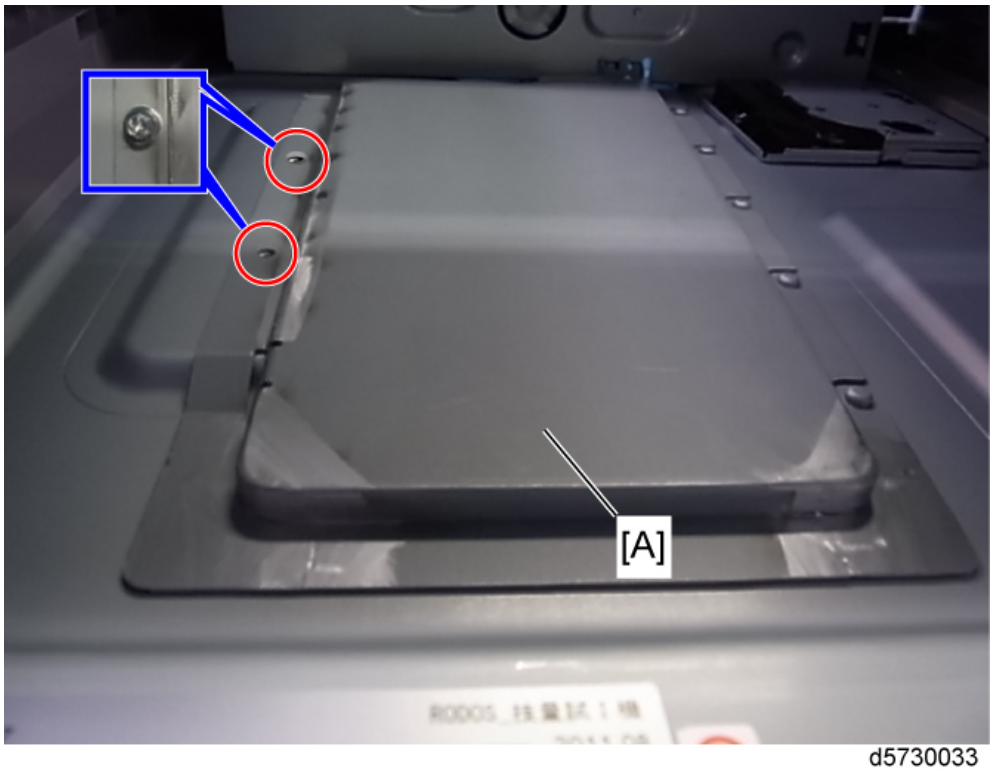
3. Remove the left cover. (Left Cover)

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



d5730032

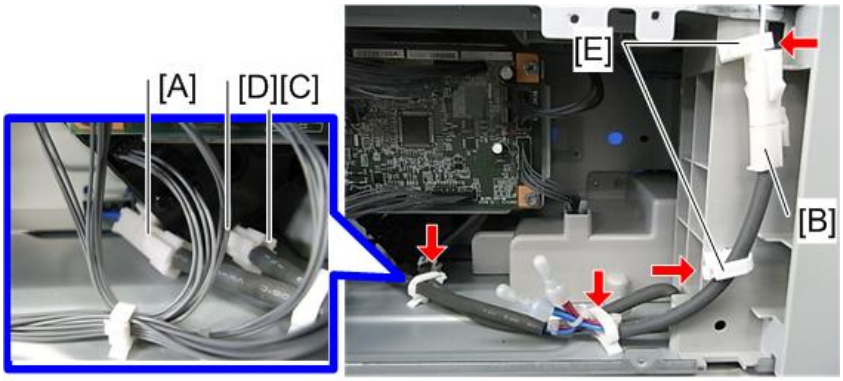
5. Install the tray heater [A] in the paper feed unit. (× 2)



d5730033

6. Do the following steps:

- Connect the connector [A] to the tray heater connector (attached in step 4). (× 1)
- Connect the harness [B] to the junction harness (mainframe).
- Attach two clamps [E] and route the harness through them. (× 4)

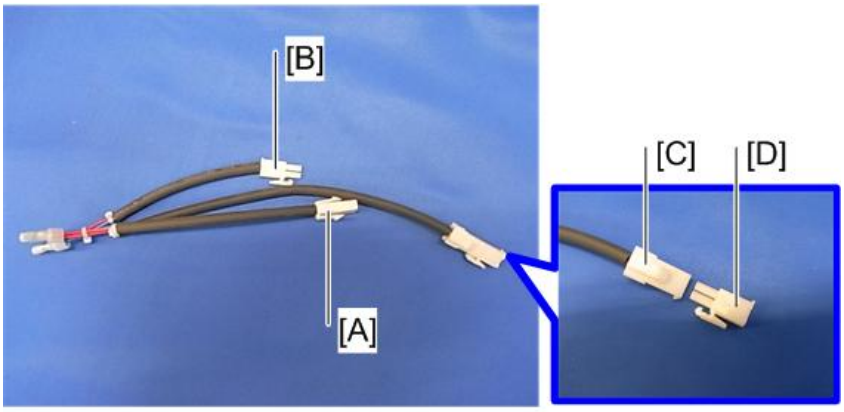


d118z2018

Note

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

RTB 34
A note was added



d118z2017

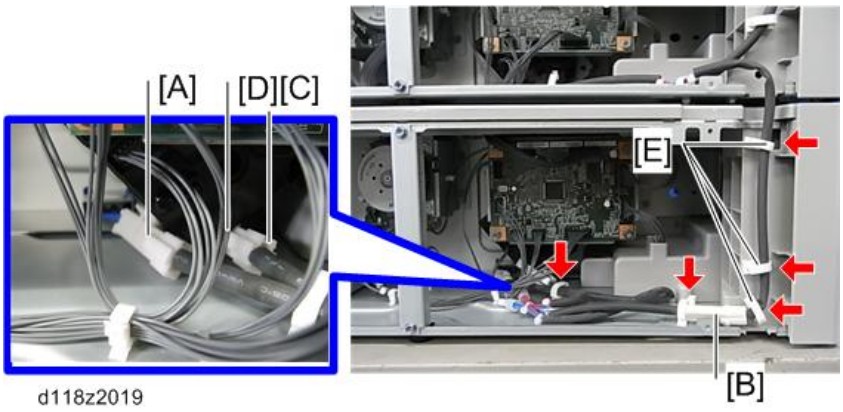
7. Reattach all the covers removed.

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 6.

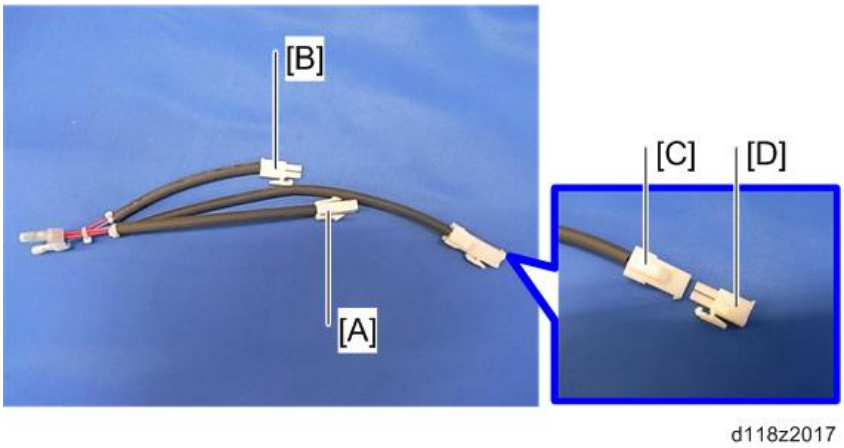
2. Do the following steps:

- Connect the harness [A] and heater connector for the 2nd tray.
- Remove the cap on the 1st tray harness.
- Connect the 2nd tray harness [B].
- Attach three clamps [E] and route the harness through them. (✂ × 5)



Note

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



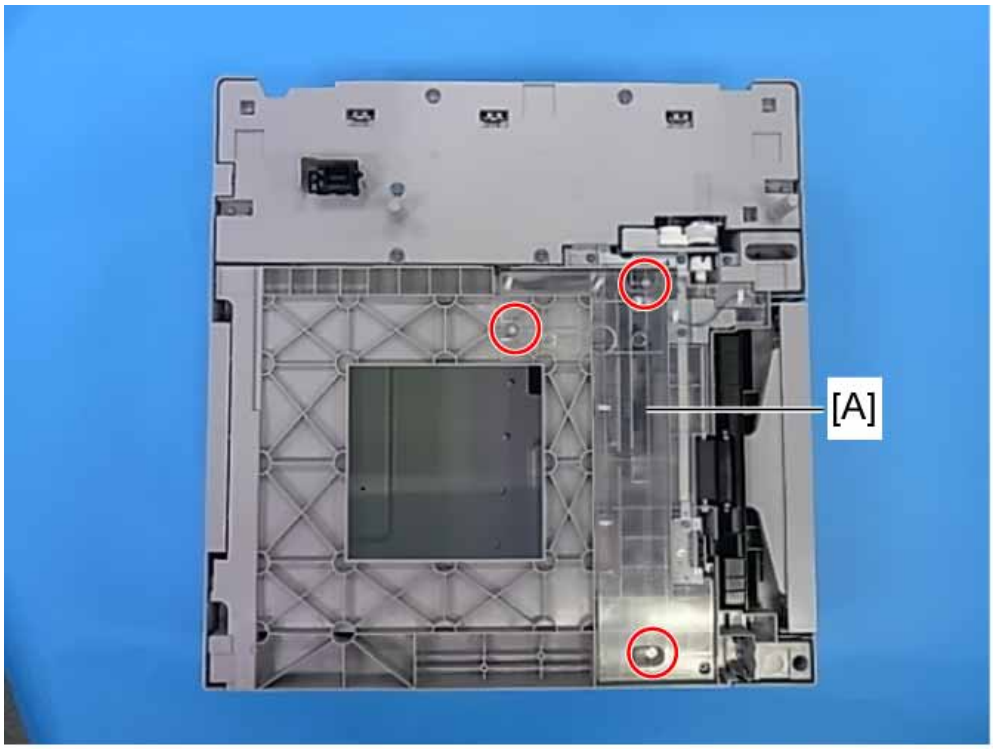
3. Reattach all the covers removed.

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 anti-condensation heater installation, because the heater harness may be damaged when the mainframe is removed accidentally.

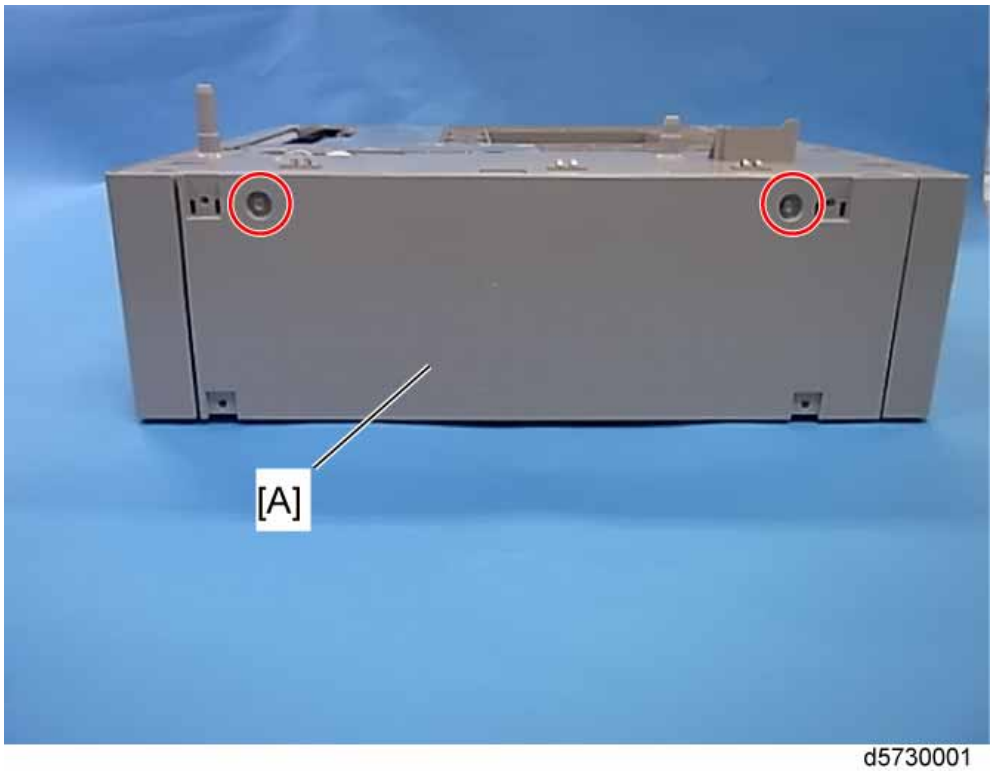
2.Installation

1. Remove the upper cover [A] of the paper feed unit. (☞ × 3)



d5730007

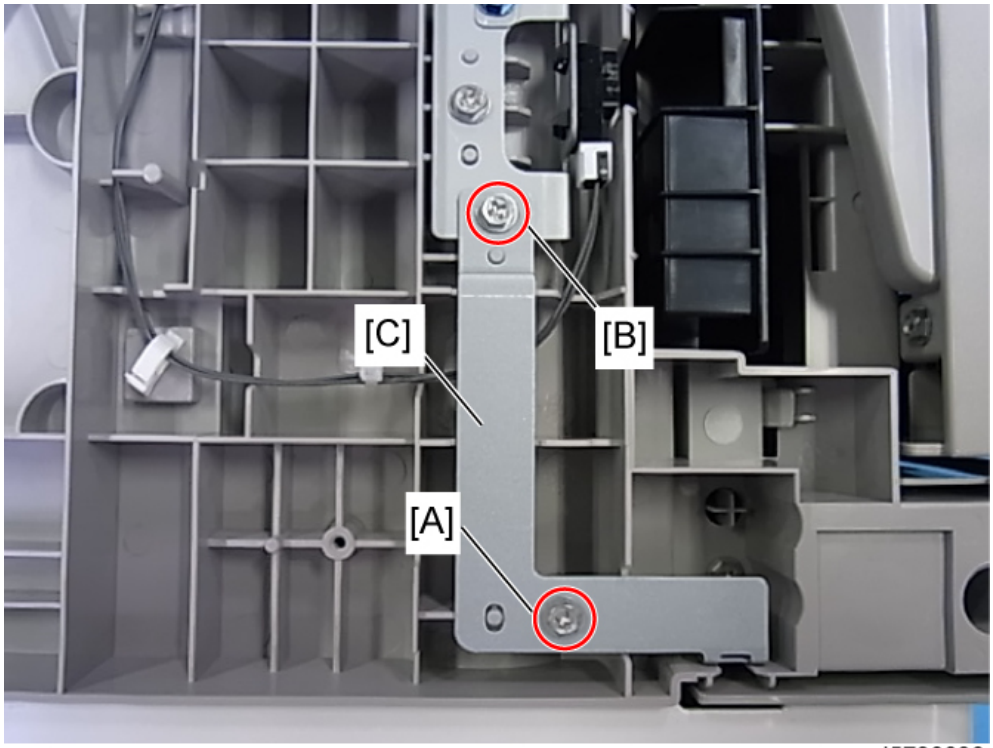
2. Remove the rear cover [A] of the paper feed unit. (☞ × 2)



d5730001

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

paper feed unit. (☞ × 3)

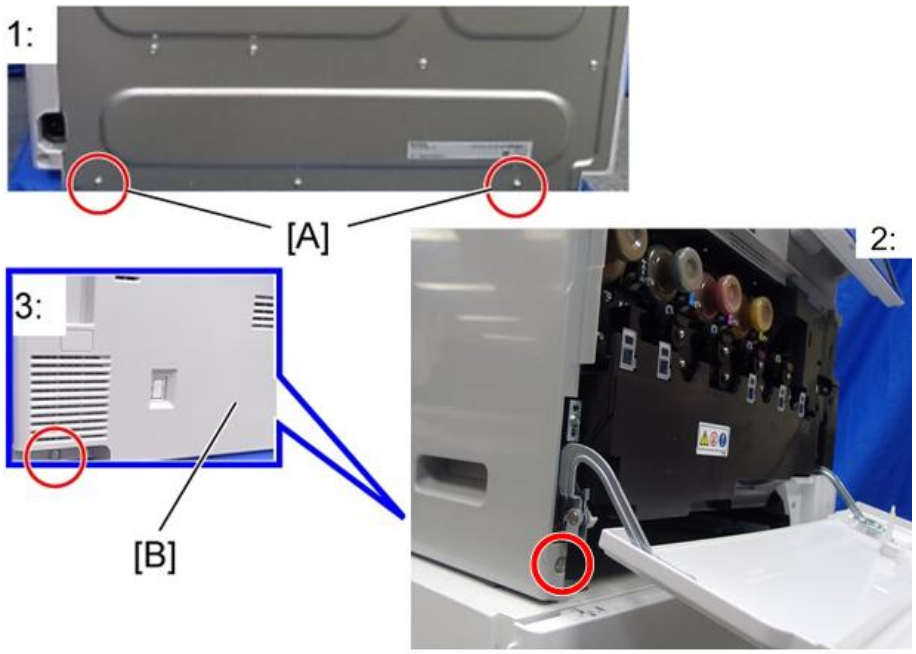


d5730038

4. Put the mainframe on the paper feed unit.

5. Do the following steps.

- Remove the paper trays from the mainframe and the optional paper feed unit.
- Remove two screws [A] on the rear panel of the mainframe. Keep these screws until the joint brackets (rear) are installed.
- Remove the left cover [B] of the mainframe. (☞ × 2)



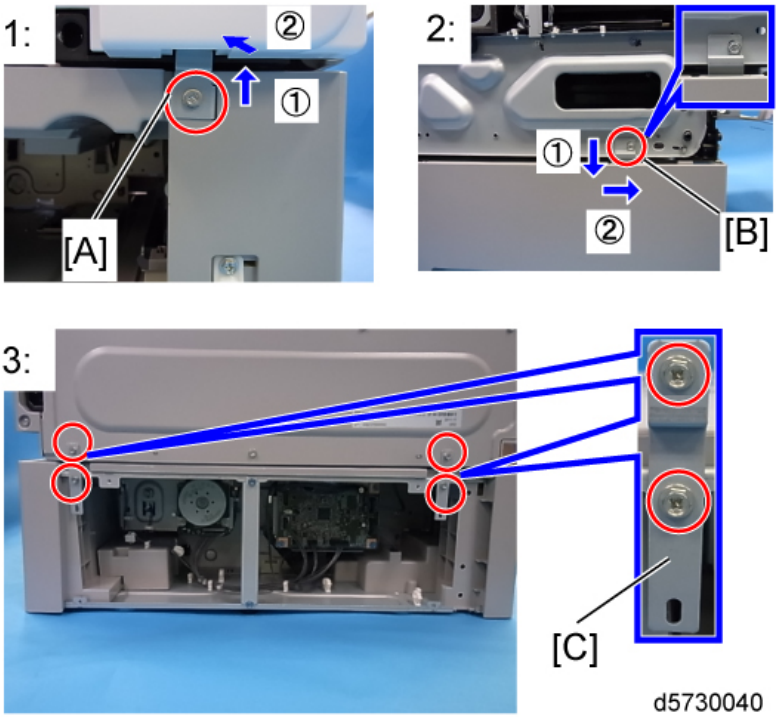
d196z2015

1: Rear

2: Front

3: Left

6. 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)

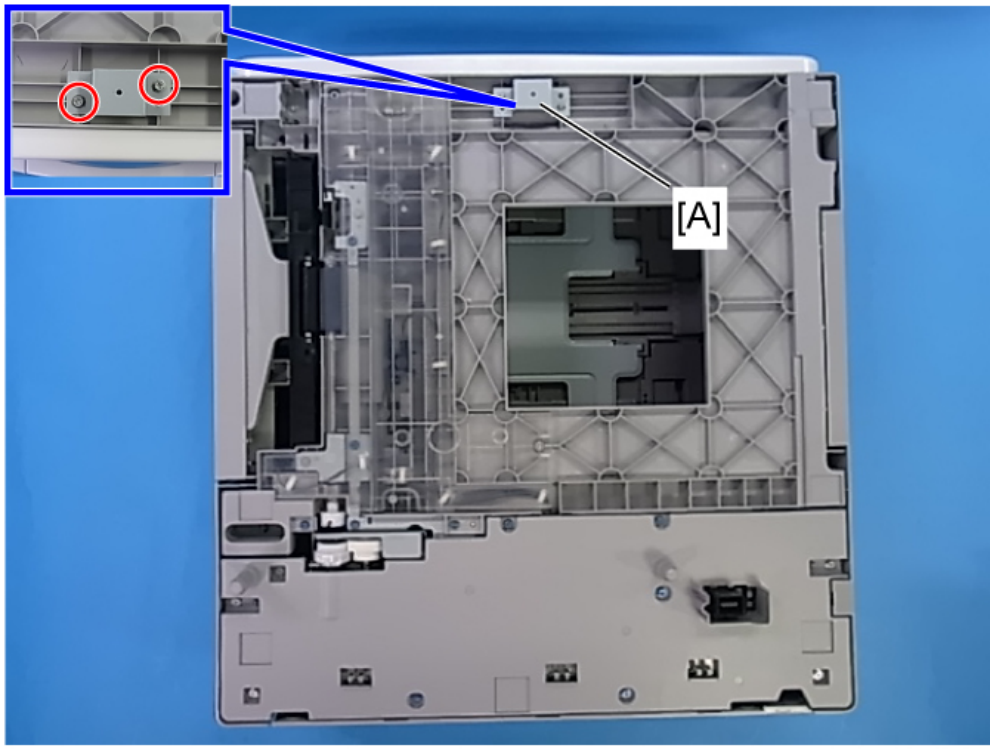
[C] (Lower): M3×6 (included in this kit)

7. Reassemble the mainframe and the paper feed unit.

Joining Two Optional Paper Feed Units

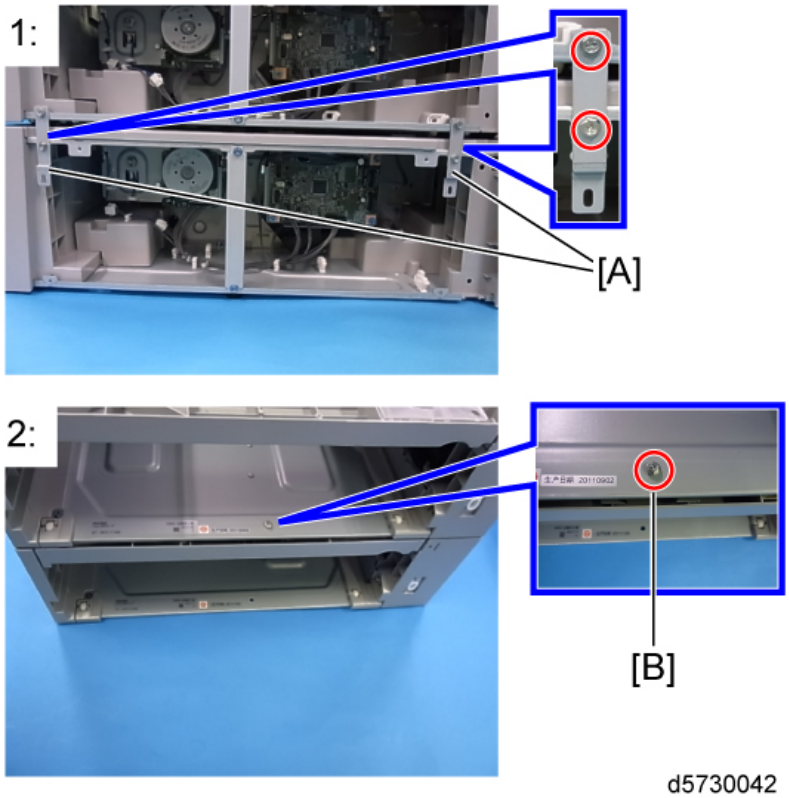
1. Attach the joint bracket (front center) [A] to the paper feed unit that will be installed at the lowest position.

(:Tapping × 2 (included in this kit))



d5730041

2. Put the optional paper feed unit on the paper feed unit that was 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))



d5730042

1: Rear

2: Front center

5. Reassemble the mainframe and the paper feed units.

CAUTION

- **Do not lift the machine together with one or more paper feed unit(s):**
  If there is already a machine with one or more optional paper feed unit(s), 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.

Note

- When installing the mainframe with two paper feed units, join the two paper feed units first, and then join the mainframe with the paper feed units.

Enhanced Security HDD Option Type M10 (D792-09)

Accessory Check

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

d191b0076

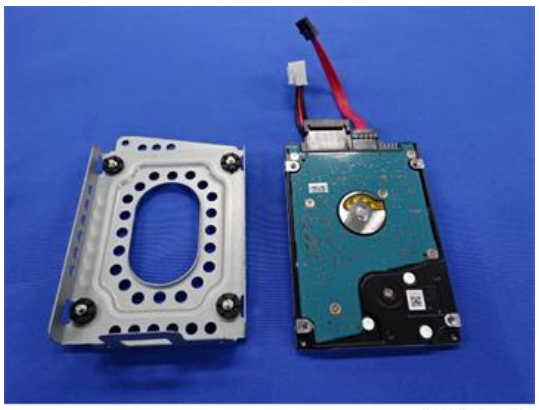
Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may 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)

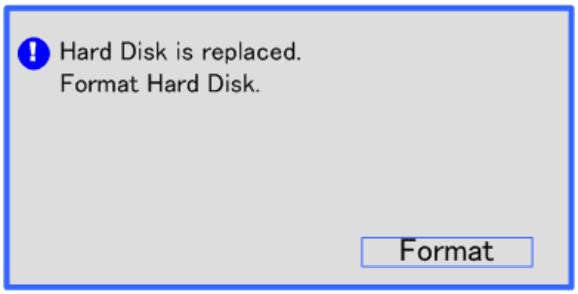
d196z2121

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

8. Reassemble the machine.

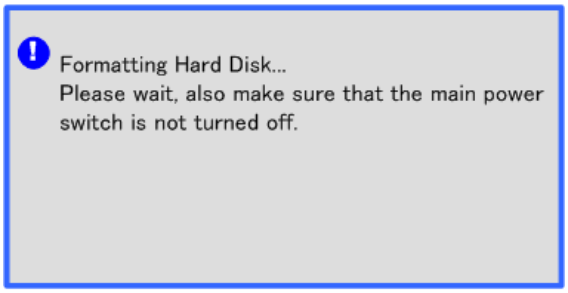
After Installing the HDD

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



d191b0081

2. Touch [Format].

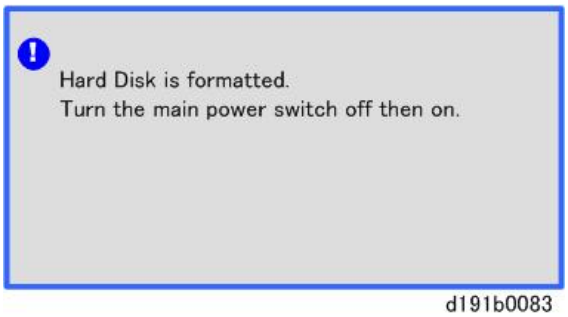


d191b0082

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.



4. Cycle 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.

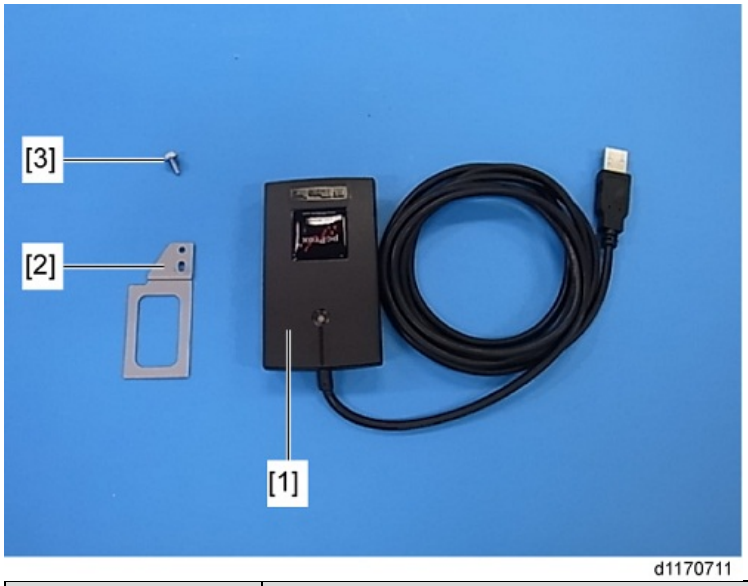
Important

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

IC Card Reader (External Option)

Accessory Check

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



No.	Description	Q'ty
1	IC Card Reader	1
2	Bracket*	1
3	Screw	1

*The IC card reader attaching bracket has two types. One is for the base machine. The other is for machines that have the 1-Bin Tray Unit. This bracket [2] is for the base machine.

Note

- Consult your supervisor to obtain the bracket for machines that have the 1-Bin Tray Unit.

Installation Procedure

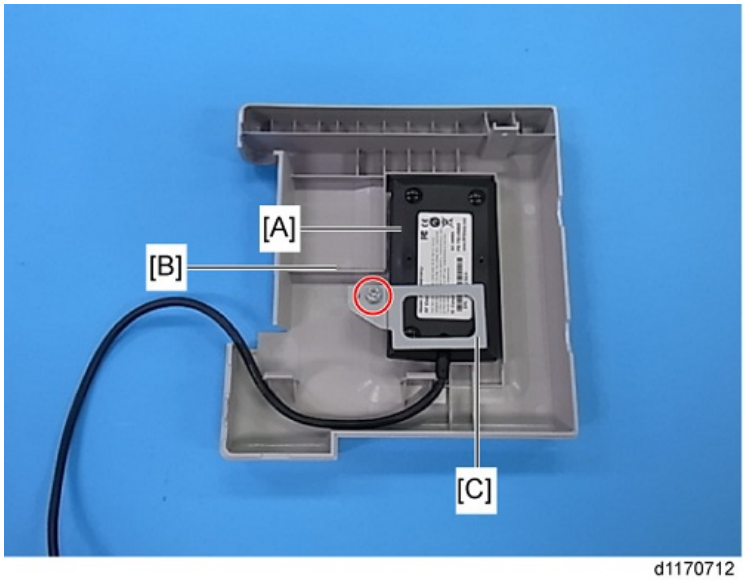
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

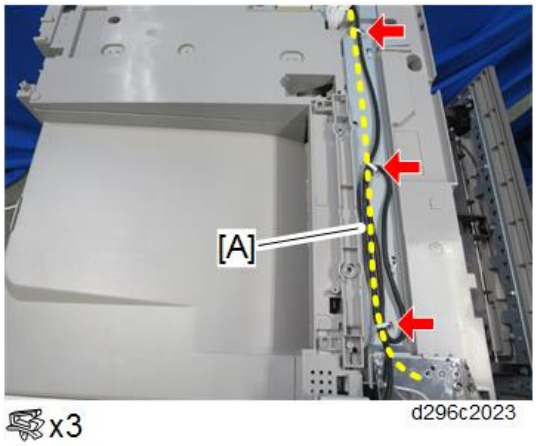
When Installing in a Machine That Does Not Have the 1-Bin Tray Unit

1. Remove the scanner unit and the ADF. (Scanner Unit with the ADF)
2. Attach the IC card reader [A] to the rear of the front right cover [B] with the bracket [C]. (× 1 included in

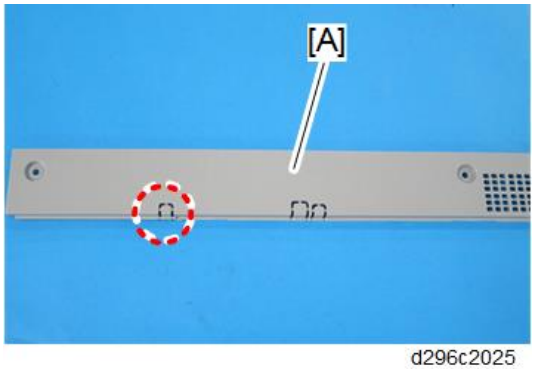
this kit)



3. Route the USB cable [A] from the IC card reader as shown below, and then pull out the USB cable from the rear of the machine.



4. Cut out the hole for the USB cable to pass through the scanner rear cover [A].



5. Pass the USB cable from the IC card reader through the hole in the scanner rear cover, and then reassemble the machine.

6. Do the following steps:

- Attach the clamps [A] to prevent the cable from sagging.
- Connect the USB cable to the USB connector at the left of the mainframe as shown below. Either

connector can be used.

Note

- Obtain these clamps [A] in advance, because they are not included in this kit.

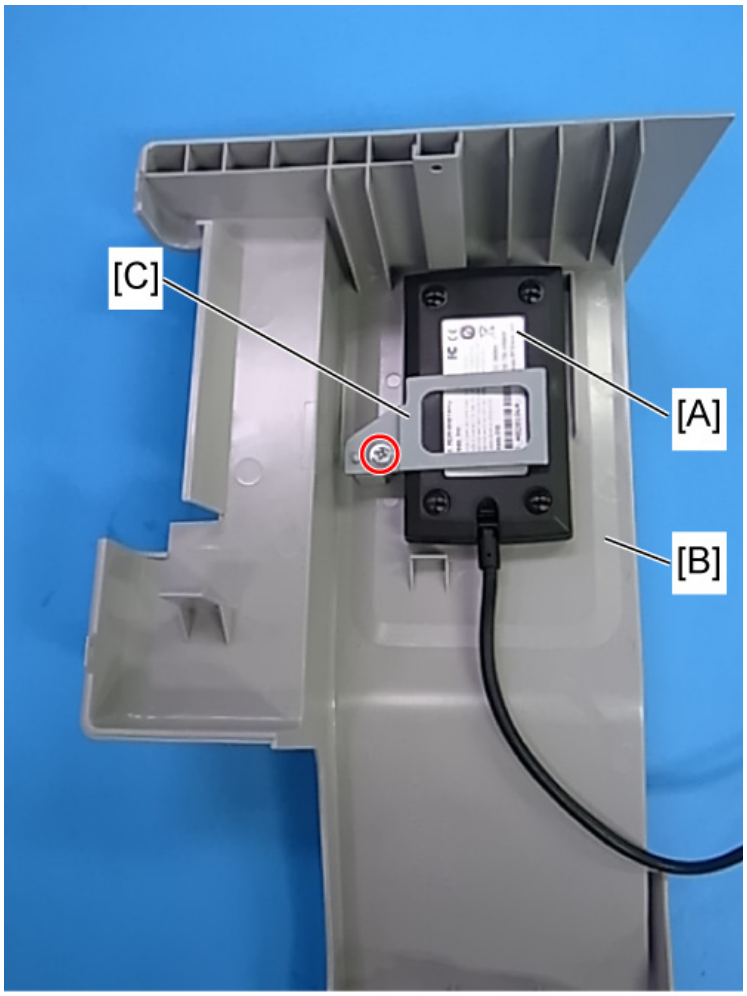
When Installing in a Machine That Has a 1-Bin Tray Unit

1. Remove the following items.

- Scanner unit and ADF. (Scanner Unit with the ADF)
- 1-bin tray unit (1-Bin Tray BN1030 (D574-58))

2. Attach the IC card reader [A] to the rear of the front right cover [B] with the bracket [C]. (× 1 included in

this kit)

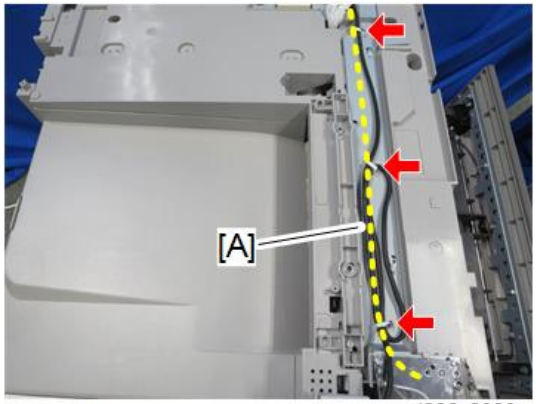


d1170716

Note

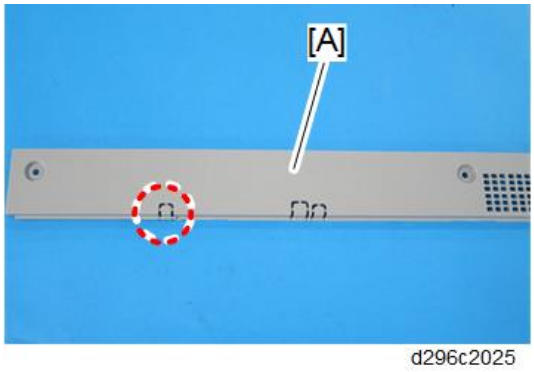
- The bracket [C] is different from that of the base machine. The bracket for the base machine cannot be used. Consult your supervisor to obtain the correct bracket.

3. Route the USB cable [A] from the IC card reader as shown below, and then pull out the USB cable from the rear of the machine.



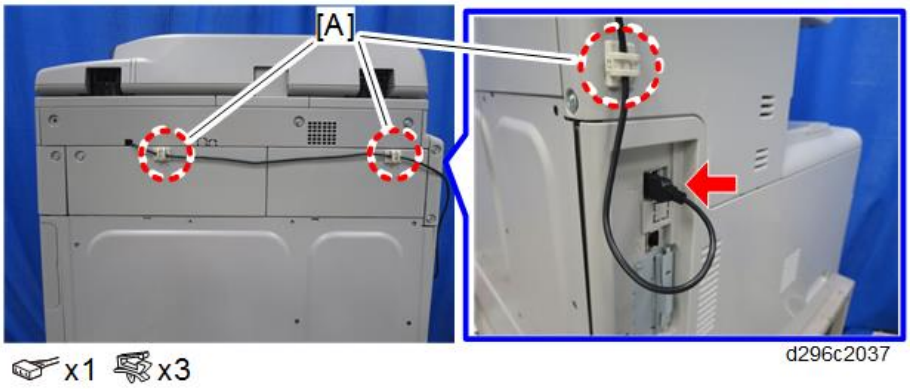
x3 d296c2023

4. Cut out the hole for the USB cable to pass through the scanner rear cover [A].



5. Pass the USB cable from the IC card reader through the hole in the scanner rear cover, and then reassemble the machine.

6. Attach the clamps [A] to prevent the cable from sagging.



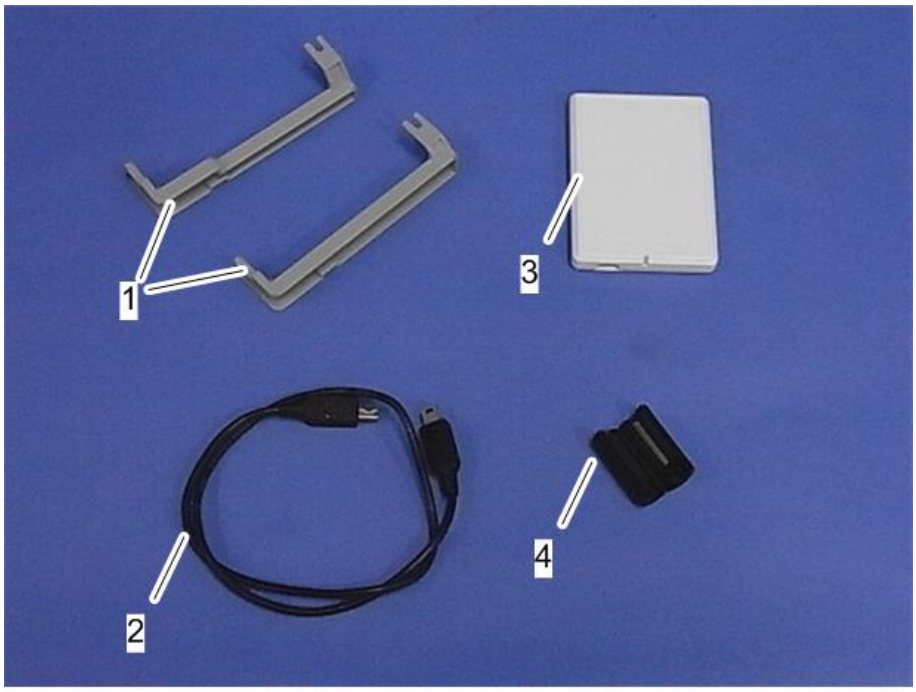
7. Connect the USB cable to the USB connector at the left of the mainframe as shown above. Either connector can be used.

Note

- Obtain these clamps [A] in advance, because they are not included in this kit.

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

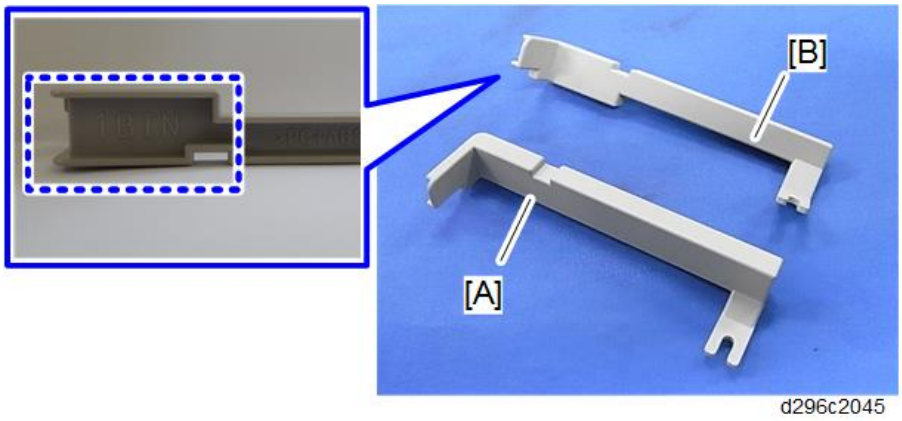
Note

- Two types of cable cover are included:

  [A]: For a machine that has no 1-Bin tray unit.

  [B]: For a machine that has a 1-Bin tray unit installed, the cable cover is inscribed "1 BIN".

RTB 30
Additional decal for Taiwan



Installation Procedure

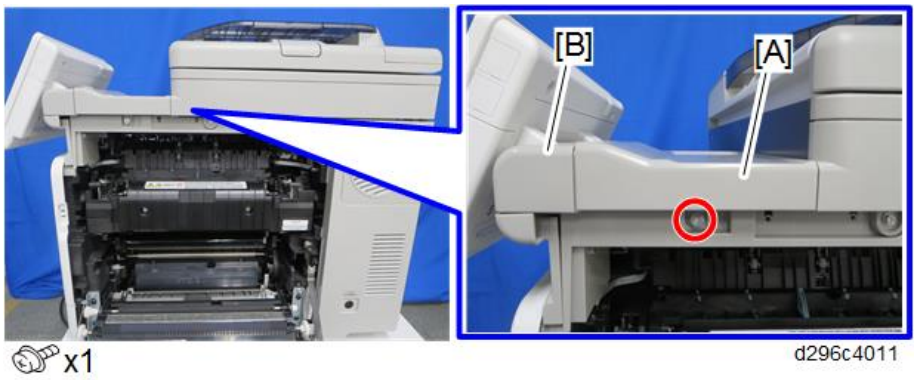
This section includes the procedure for a machine that has no 1-Bin Tray Unit option. However, this procedure can be used for a machine that has a 1-Bin Tray Unit installed.

⚠CAUTION

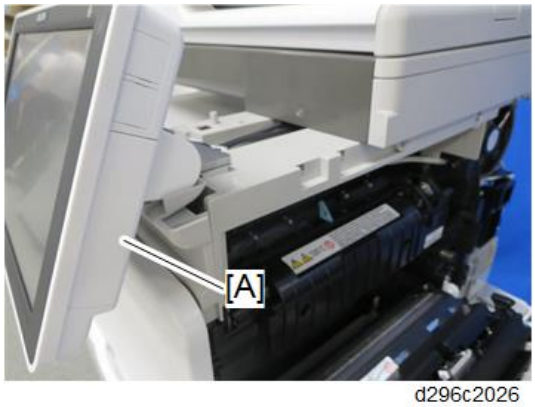
- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

1. Open the right cover.

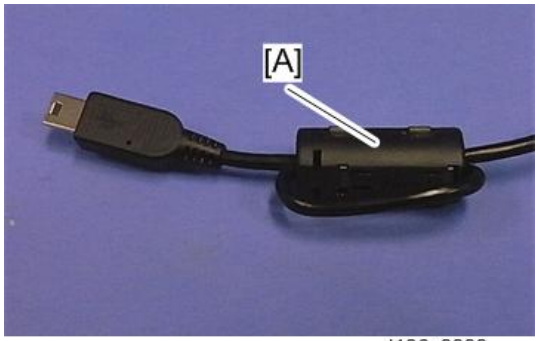
2. Remove the front right cover [A] and hinge cover [B].



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

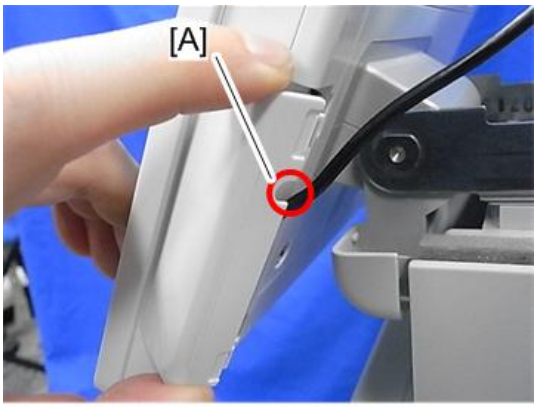
5. Connect the USB cable to the operation panel.

d296c2027

6. Attach the cover removed in step 3.

Note

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



d196z4161

7. Attach the hinge cover [A].

Note

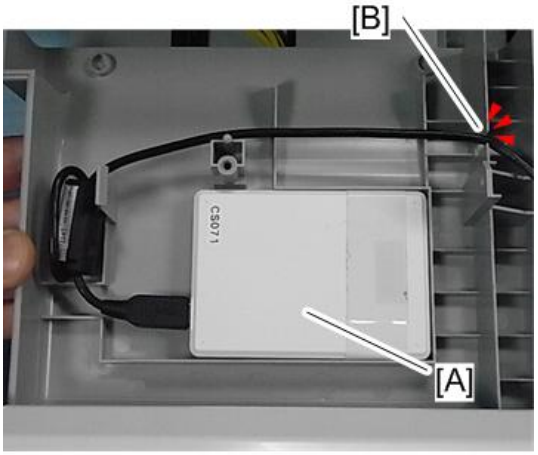
- Fit the cable into the slit.

d196z4162

8. Attach the fasteners to the front side of the NFC reader [A].

d196z2301

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



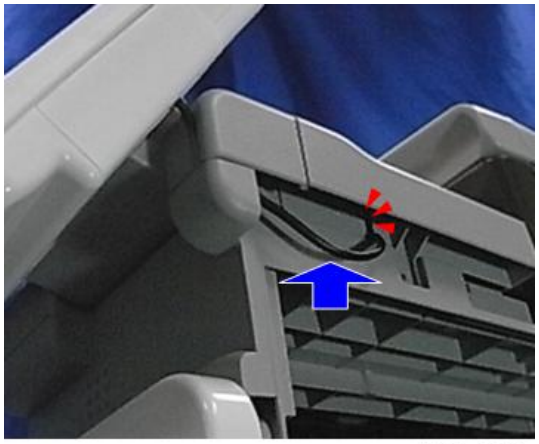
d196z4166

Note

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

10. Reattach the front right cover with the NFC reader.

11. Push the USB cable into the covers.

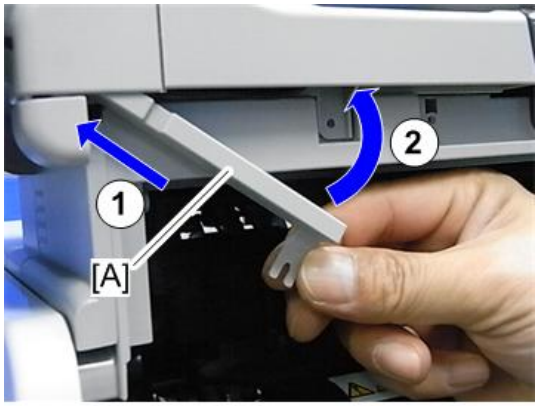


d196z2223

Note

- Again, make sure that the cable fits in the slit.

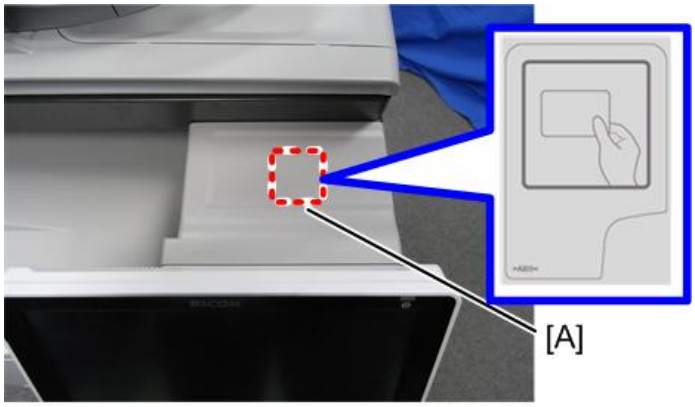
12. Slide the cable cover [A] into the front right small cover as shown below.



d196z4164

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

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



d196z2019

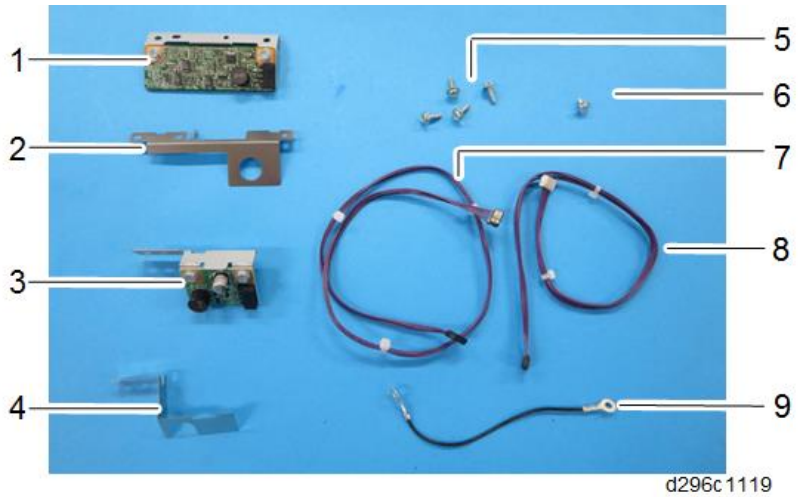
RTB 30
Additional instructions for Taiwan

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	1	
2	Ground plate: Receiver	1	
3	Double-feed sensor: Emitter	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

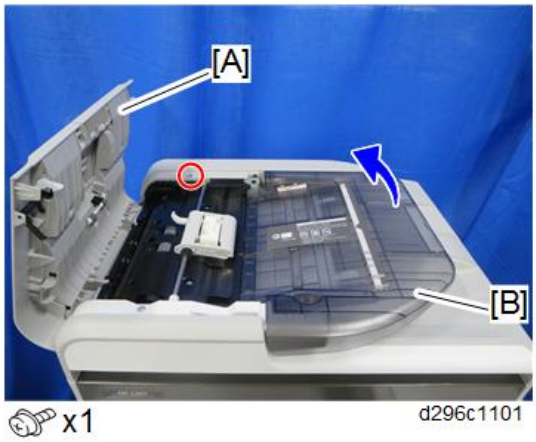
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

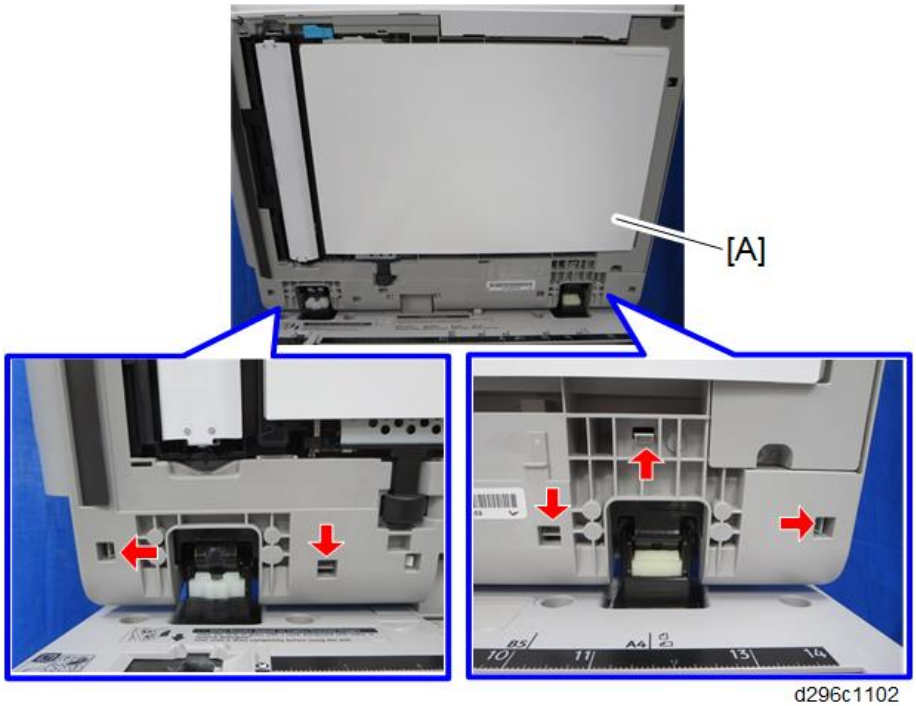
Removing the ADF rear cover

1. Open the ADF top cover [A].

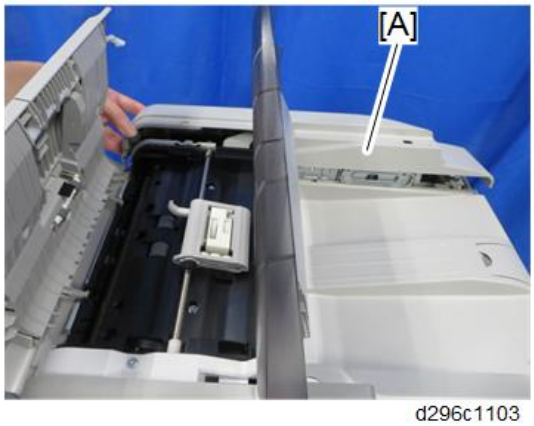
2. Remove the screw, and lift up the original tray [B].



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



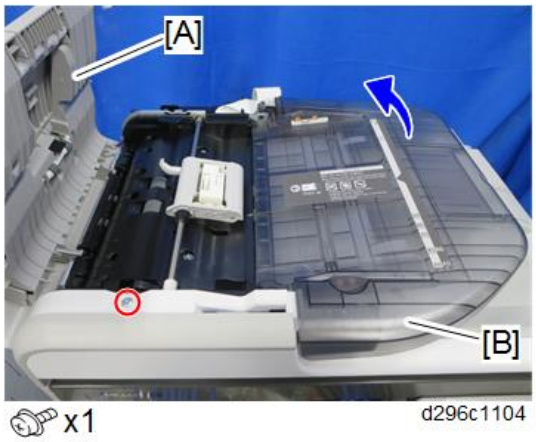
4. Remove the ADF rear cover [A].



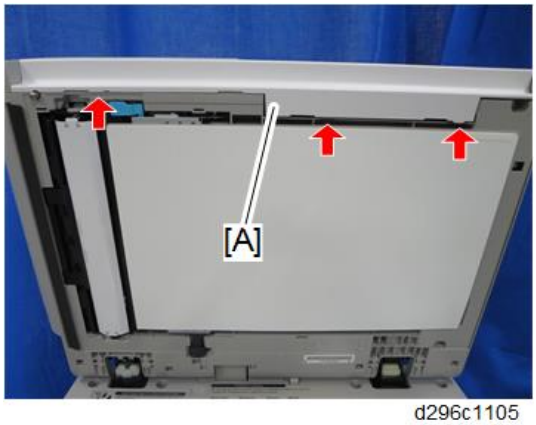
5. Close the ADF.

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].



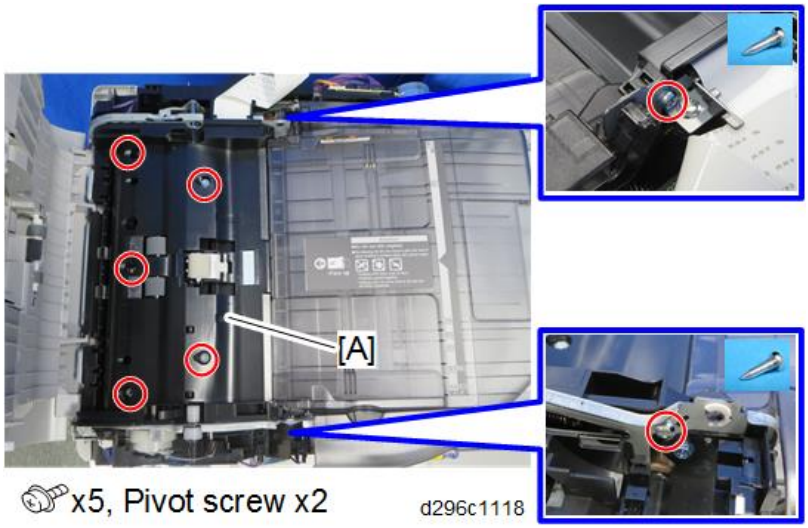
4. Close the ADF slightly, then remove the ADF front cover [A] while releasing the two tabs with a thin screwdriver.

Installing the double-feed sensor (emitter)

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

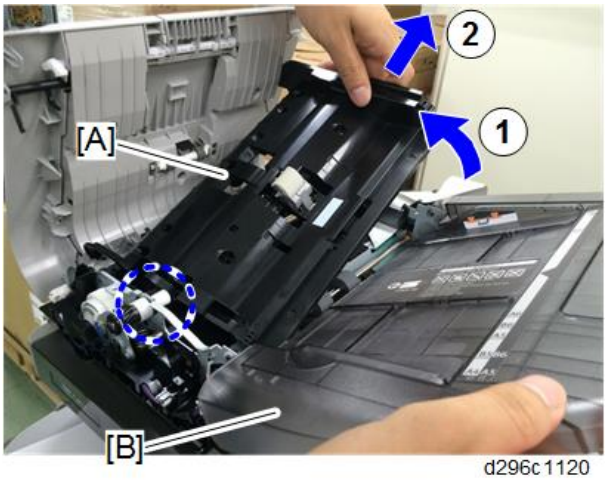
d296c1106

2. Remove the ADF inner cover [A].



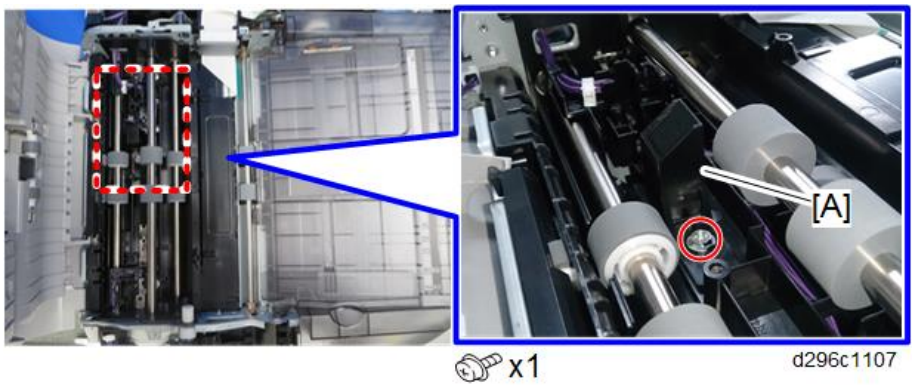
Note

- 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.

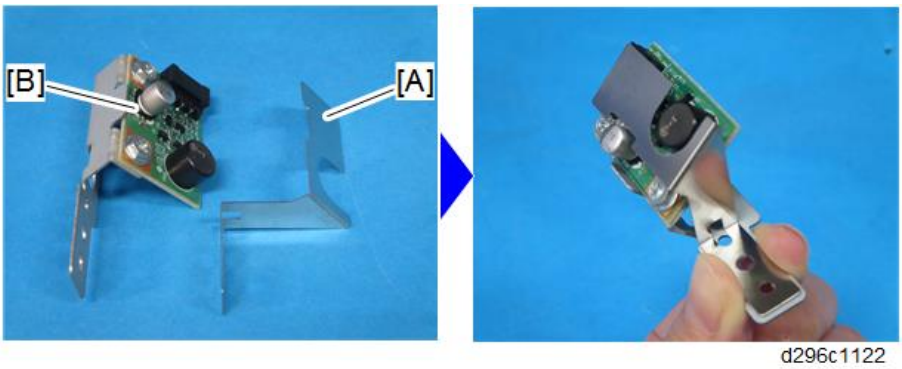


d296c1120

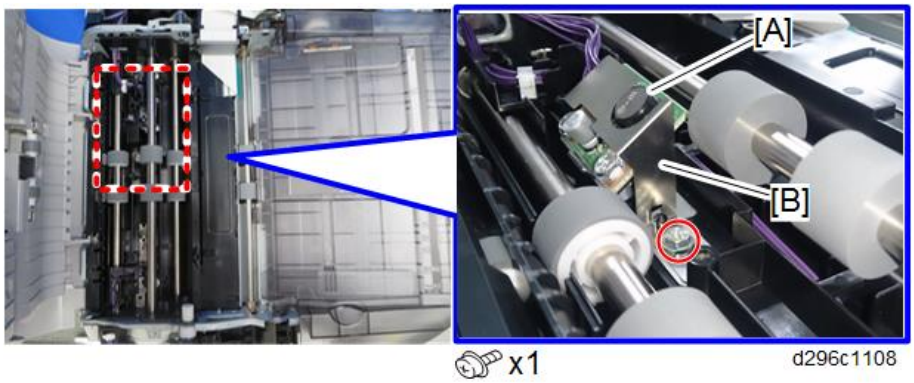
3. Remove the guard [A].



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

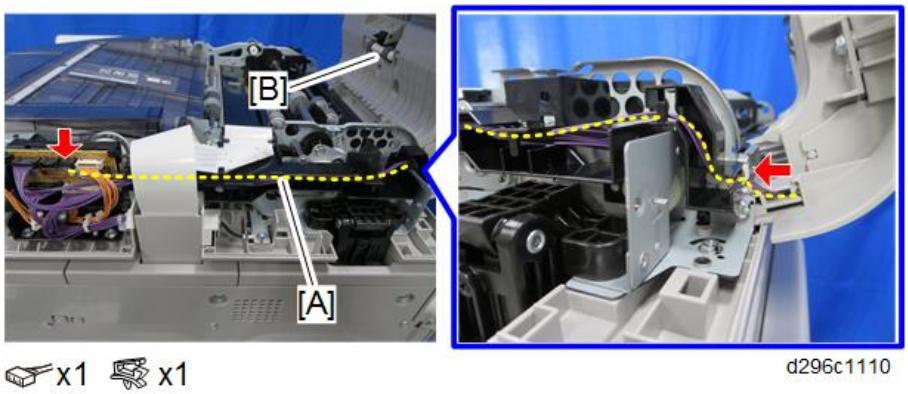


5. Attach the double-feed sensor (emitter) [A] and grounding plate [B] as a set. (Tapping screw: 3x10)

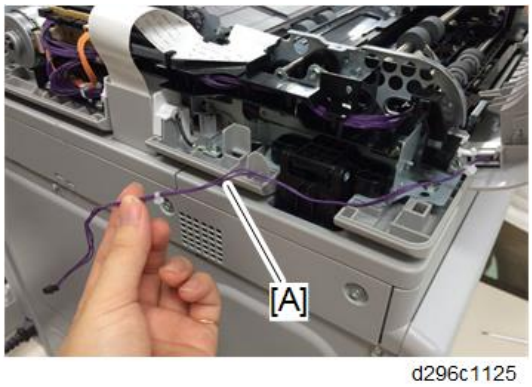


Installing the double-feed sensor (receiver)

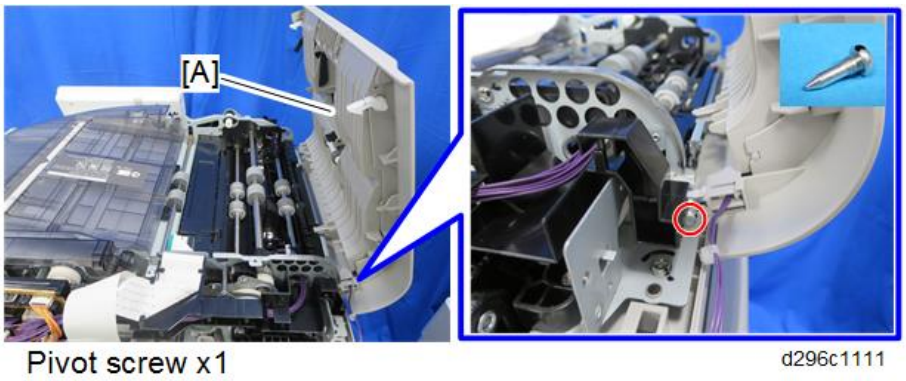
1. Disconnect the harness [A] of the ADF top cover [B] from ADF relay board (CN5), and release the clamp.



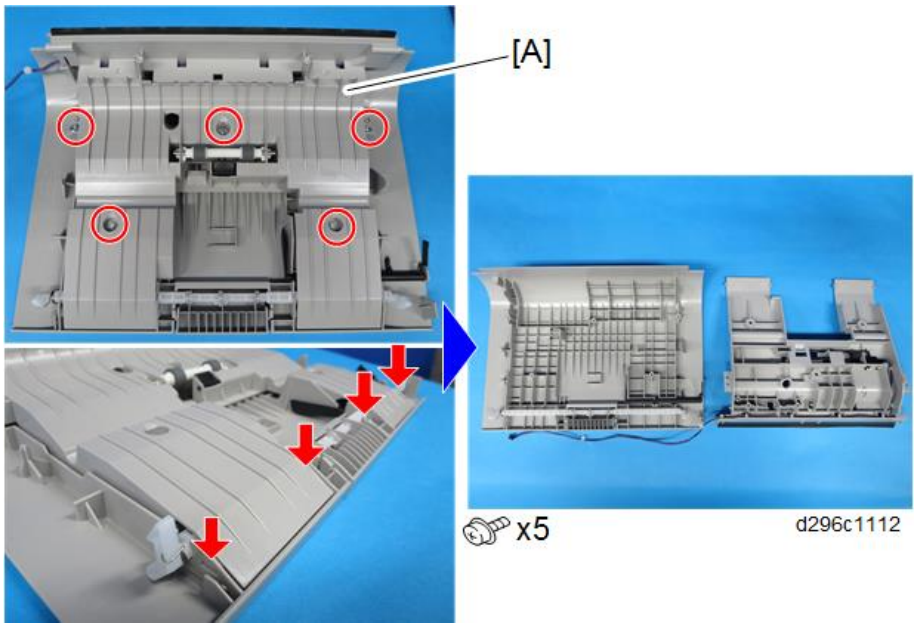
2. Remove the harness [A] from the harness guide.



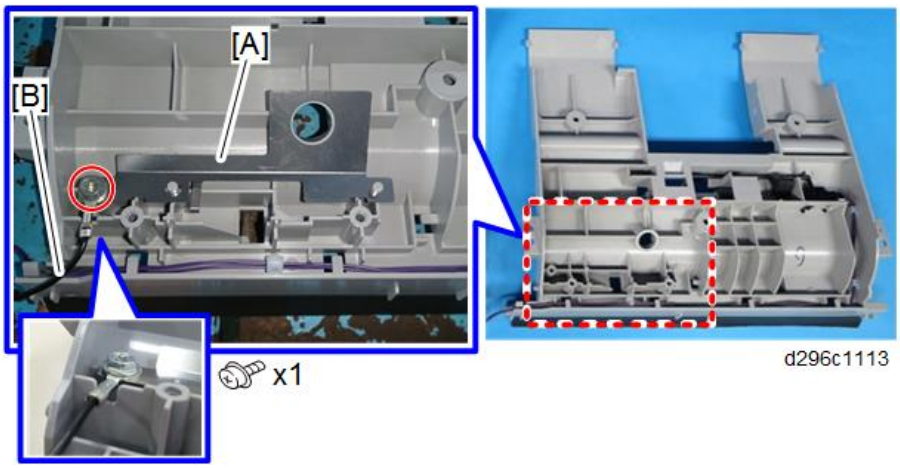
3. Remove the ADF top cover [A].



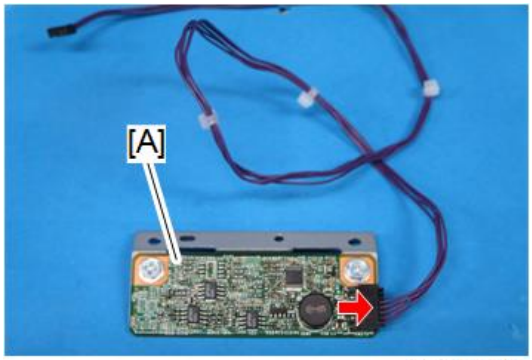
4. Remove the five screws and release the four tabs, and then remove the inner cover [A].



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

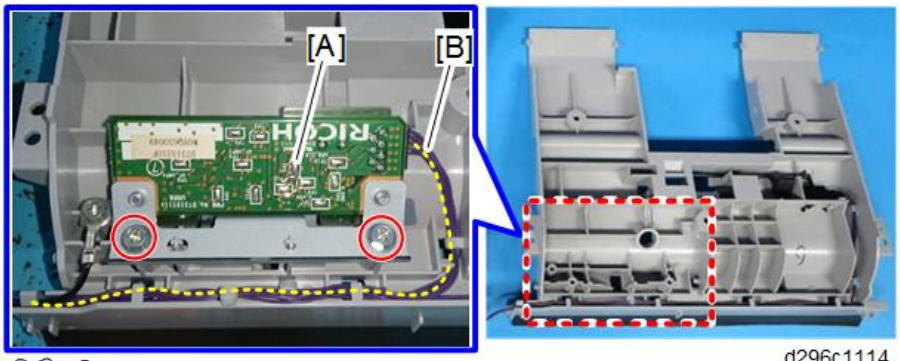


6. Connect the long harness to the double-feed sensor (receiver) [A].



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

8. Route the harnesses [B].



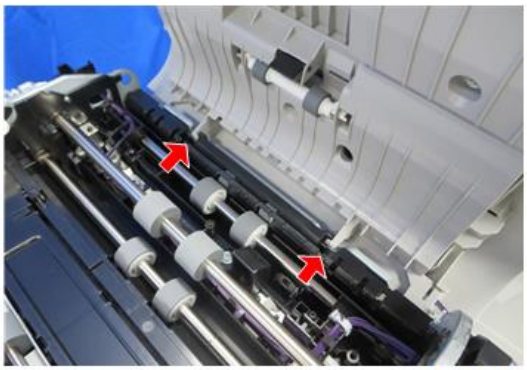
x2

d296c1114

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

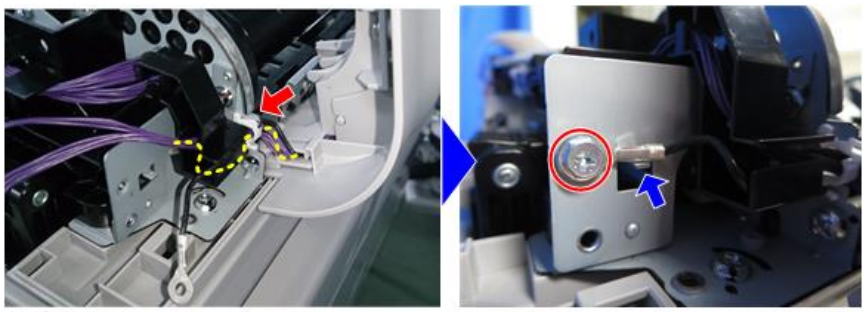
Note

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



d296c1117

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)



x1 x1

d296c1115

Connecting the harnesses

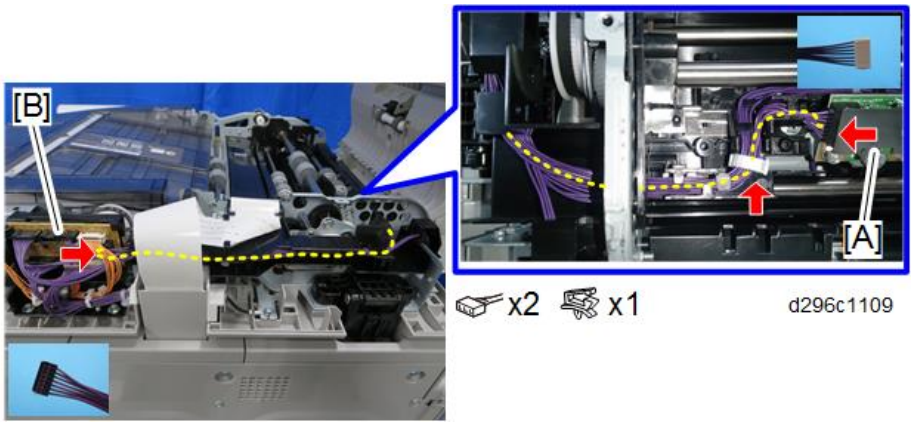
1. Connect the harness to the connector of the double-feed sensor (emitter) [A] and ADF relay board [B] (CN3), and then route it.

Note

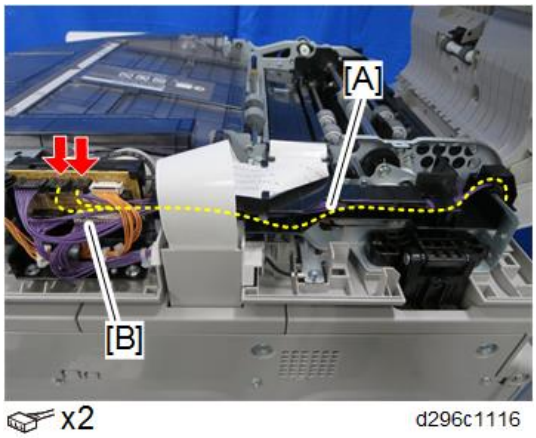
Connect with attention to the connector colors.

- Double-feed sensor: White connector

- ADF relay board: Black connector



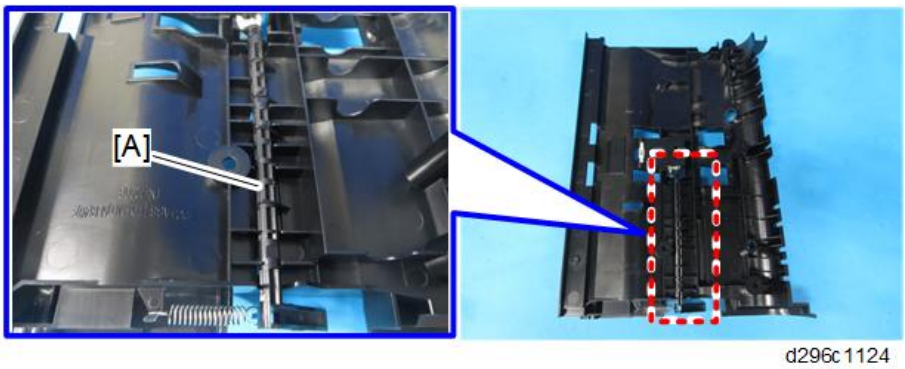
2. Connect the harnesses [A] from the ADF top cover to the connectors of the ADF relay board [B] (CN5, CN6).



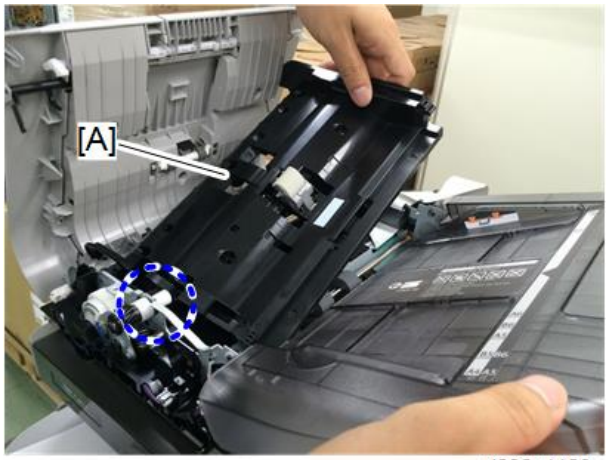
3. Reattach the covers and original feed unit.

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.



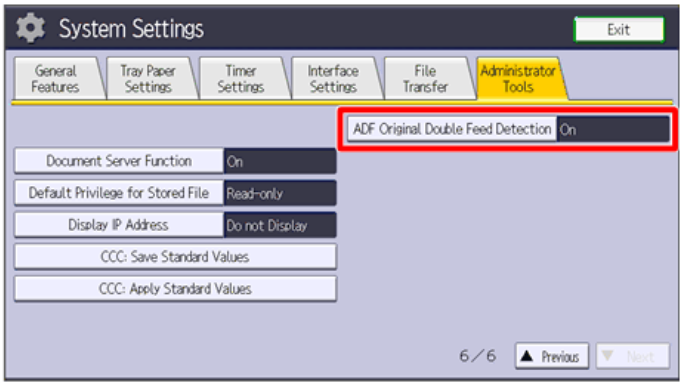
When reattaching the ADF inner cover [A], move it under the coupling shaft (marked by the dashed circle) of the original feed unit, and then you can install the ADF inner cover correctly.



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 "User Tools" icon.
8. Press [Machine Features] > [System Settings] > [Administrator Tools].
9. Check that [ADF Optional Double Feed Detection] is displayed.



d296c2029

Controller Options

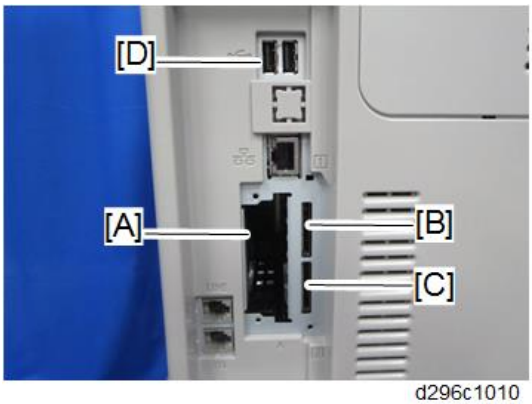
Overview

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).



d296c1010

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, USB Device Server Option, Extended USB board
[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, updating the firmware).
[D]	USB I/F	These ports (right and left) [B] are used for the IC Card Reader.

SD Card Appli Move

Overview

The service program "SD Card Appli Move" (SP5-873) allows you to move application programs from one SD card to another SD card.

If more than one application is required, the applications must be moved to one SD card with SP5-873-001.

Be very careful when you do the SD Card Appli Move procedure:

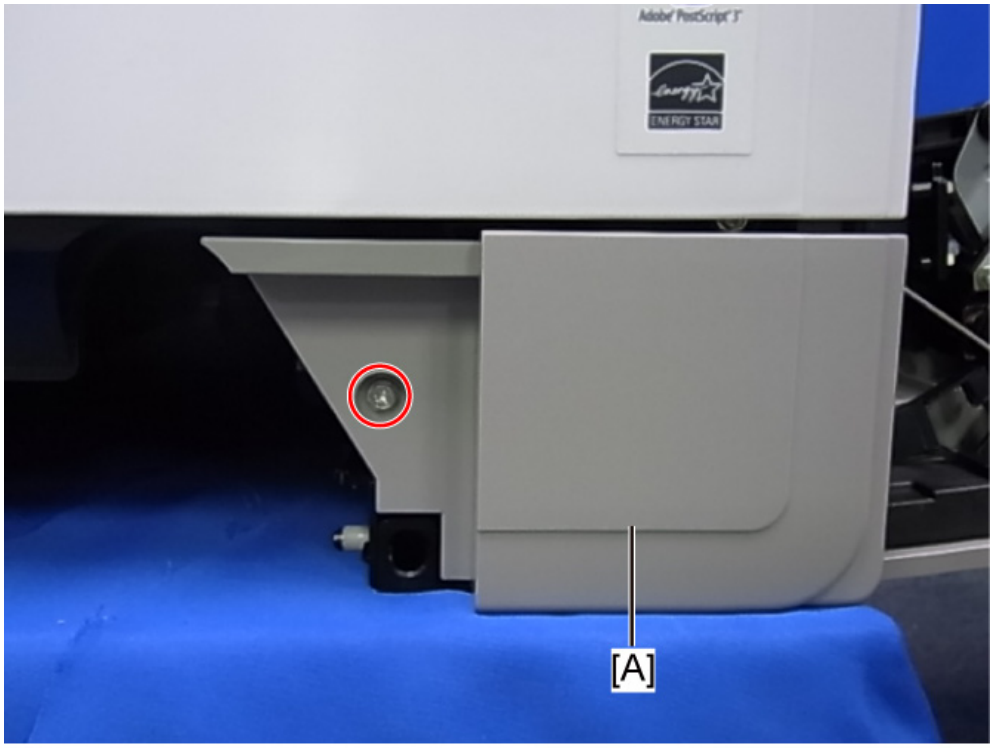
- The data necessary for authentication is transferred with the application program from an SD card to another SD card. Authentication fails if you try to use the SD card after you move the application program from one card to another card.
- Do not use the SD card if it has been used before for other purposes. Normal operation is not guaranteed

when such an SD card is used.

- The original application SD card should be stored using the following procedure.

1. Remove the paper tray.

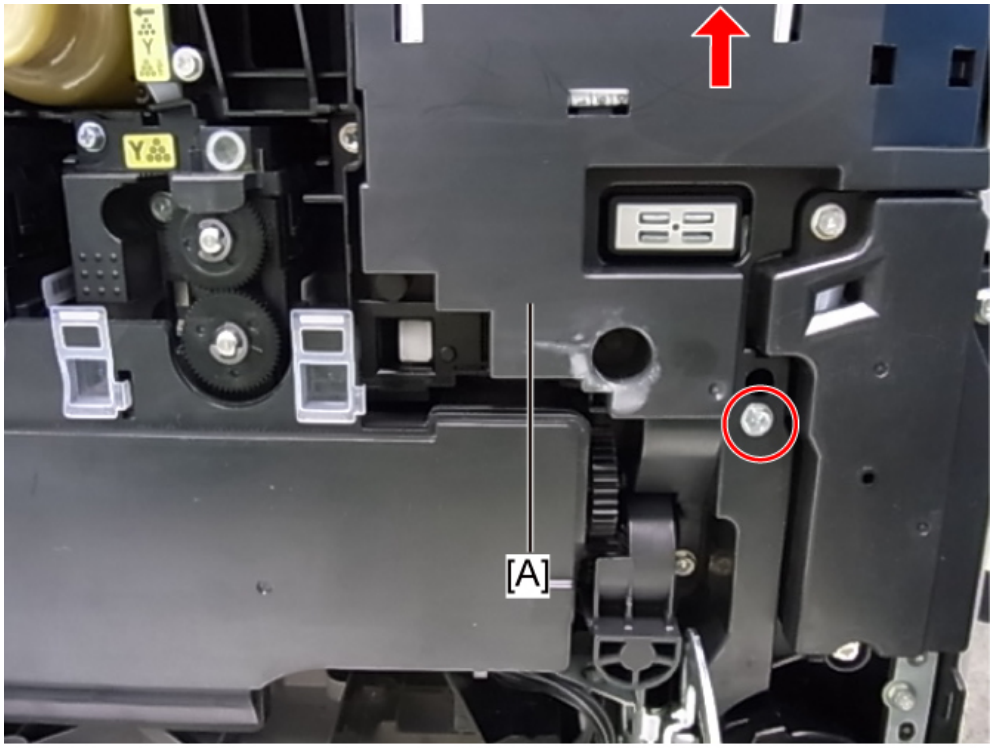
2. Remove the cover [A]. (× 1)



d1170210

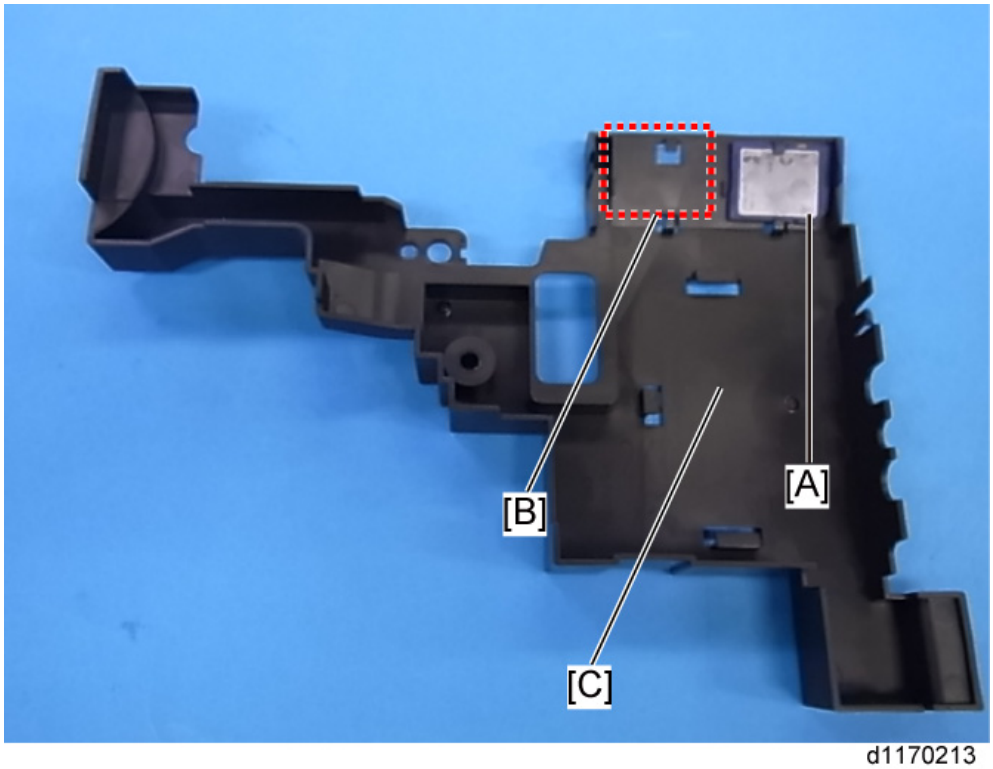
3. Open the front door.

4. Remove the cover [A]. (× 1, hook × 1)



d1170212

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



d1170213

Note

- The place [C] on the cover is for storing the SMC list.

6. Reassemble the machine.

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

- The SD card can be the only proof that the user is licensed to use the application program.
- You may need to check the SD card and its data to solve a problem in the future.

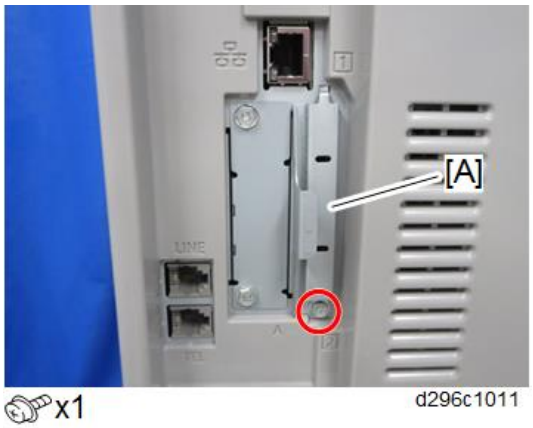
Move Exec

"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.

Undo Exec

"Undo Exec" (SP5-873-002) lets you move back application programs from an SD card in SD card slot 1 (upper) to the original SD card in SD card slot 2 (lower). You can use this program when, for example, you have mistakenly copied some programs by 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. Insert the original SD card in SD card slot 2 (lower). The application program is copied back into this card.
3. Insert the SD card with the application program in SD card slot 1 (upper). The application program is copied back from this SD card.
4. Turn ON the power.
5. Start the SP mode.
6. Select SP5-873-002 "Undo Exec."
7. Follow the messages shown on the operation panel.
8. Turn OFF the power.
9. Remove the SD card from SD card slot 2 (lower).
10. Turn ON the power.
11. Check that the application programs run normally.
12. Make sure that the machine can recognize the option (see Check All Connections at the end of this section).

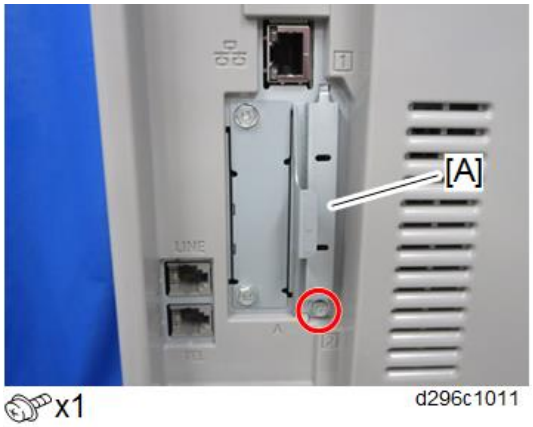
PostScript3 Unit Type M28 (D3E6-26, -27, -28)

RTB 26: Procedure replaced

CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

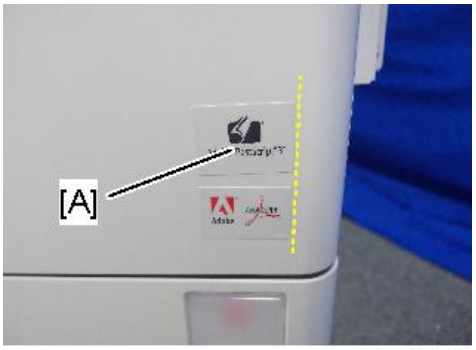
1. Remove the SD card slot cover [A].



RTB 25
Adobe PS vs. Clone PS

2. Insert the SD card in SD slot 1 (upper) with its label face to the front of the machine.
   Merge the SD card contents if necessary. (SD Card Appli Move)
3. Attach the SD card slot cover.

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



d238m0643

RTB 25
Adobe PS vs. Clone PS

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

Note

- The PDF firmware installed as standard contains a program required to print PS3 data as default. However, this PS3 program is normally disabled.
- The PS3 firmware is a dongle (key) which enables PS3 data printing functions. When the PS3 firmware is installed, the PS3 program in the PDF firmware is enabled. Due to this specification, the self-diagnosis result report shows the ROM part number/software version of the PDF firmware contained in the PS3 program.

Camera Direct Print Card Type M26 (D3D8-13)

CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

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

x1
d296c1011

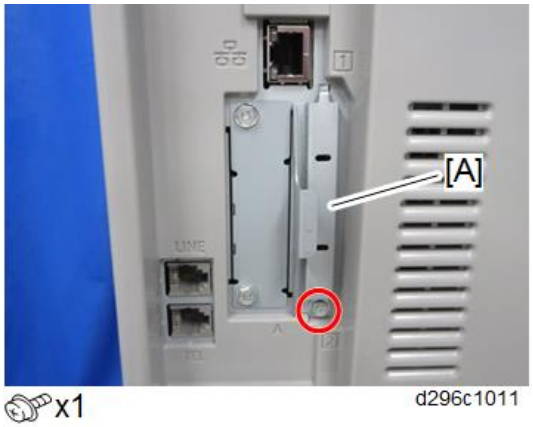
2. Insert the SD card (PictBridge) in SD slot 1 (upper) with its label face to the front of the machine.
   Merge the SD card contents if necessary. (SD Card Appli Move)
3. Attach the SD card slot cover.
4. Turn ON the power.
5. Make sure that the machine can recognize the option. (see Check All Connections at the end of this section)

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

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

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



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.

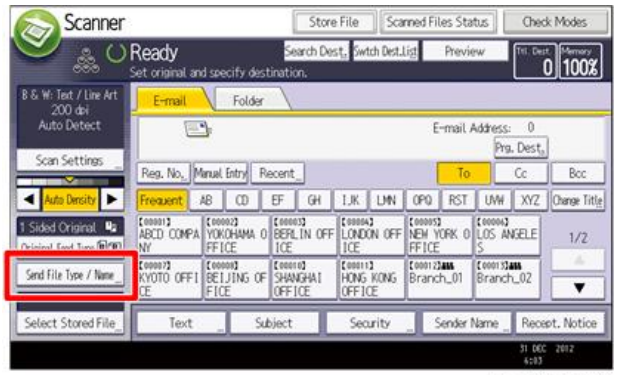
   Note

   - 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 [Send File Type / Name] on the [Scanner] screen.



w_d1351739

12. 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.

When storing the original SD card and;

- When only the HDD is replaced;
  Reinstall using the original SD card.
- When only the NVRAM is replaced;
  When performing upload/download of NVRAM data, reinstall using the original SD card.
  When not performing upload/download of 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.

If the original SD card is lost;

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

Note

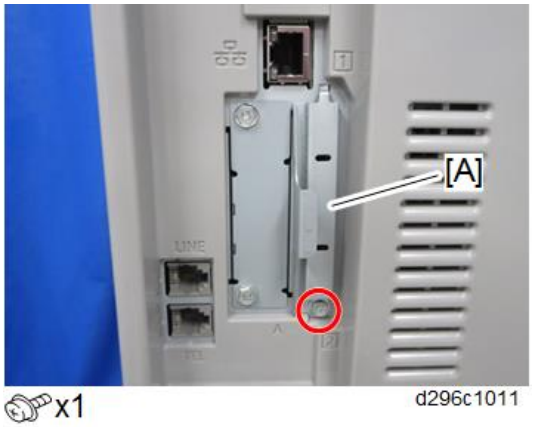
- Perform reinstallation in the same way as installation.

XPS Direct Print Option Type M28 (D3E6-02, -19, -20)

CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may 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.
   Merge the SD card contents if necessary. (SD Card Appli Move)
3. Attach the SD card slot cover.
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)

Data Overwrite Security Unit Type M19 (D3BS-03)

Overview

This option should be installed only for the customer who requires the **CC certified Data Overwrite Security function**.

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).

The function of this option is completely the same as the Data Overwrite Security in Security Functions, which is standard on this machine.

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 you install any version other than "**Type M19**", you have to replace the NVRAM and do this installation procedure again.

2. Make sure that the following settings are not at their factory default values:
   - 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 you do the installation procedure.

3. Make sure that “Admin. Authentication” is ON.

   [User Tools] > [Machine Features] > [System Settings] > [Administrator Tools] > [Administrator Authentication Management] > [Admin. Authentication]

   If this setting is OFF, tell the customer this setting must be ON before you do the installation procedure.

4. Make sure that “Administrator Tools” is enabled (selected).

   [User Tools] > [Machine Features] > [System Settings] > [Administrator Tools] > [Administrator Authentication Management] > [Available Settings]

   If this setting is disabled (not selected), tell the customer this setting must be enabled (selected) before you do the installation procedure.

Seal Check and Removal

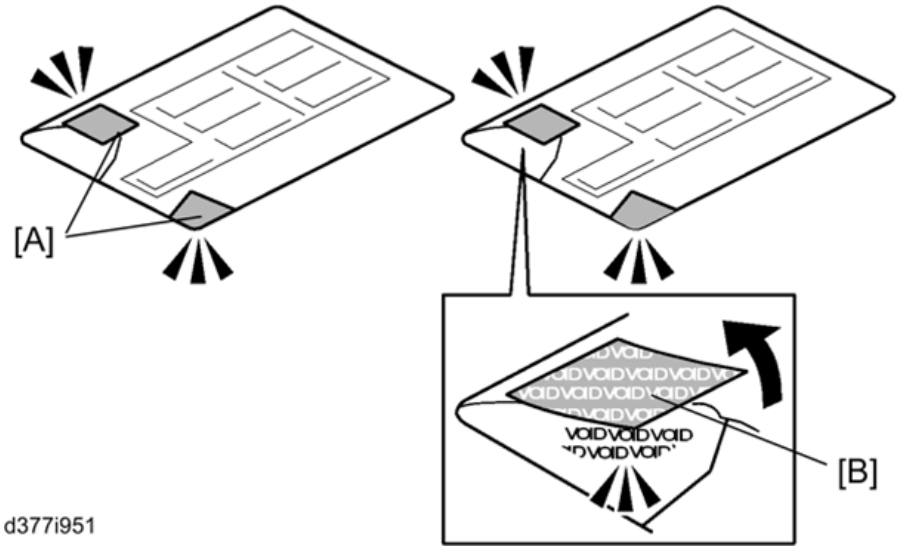
⚠CAUTION

- You must check the box seals to make sure that they are not removed after the items have been sealed in the box at the factory before you do the installation.

1. Check the box seals [A] on each corner of the box.
   - Make sure that a tape is attached to each corner.
   - The surfaces of the tapes must be blank. If you see “VOID” on the tapes, do not install the components in the box.

2. If the surfaces of the tapes do 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.

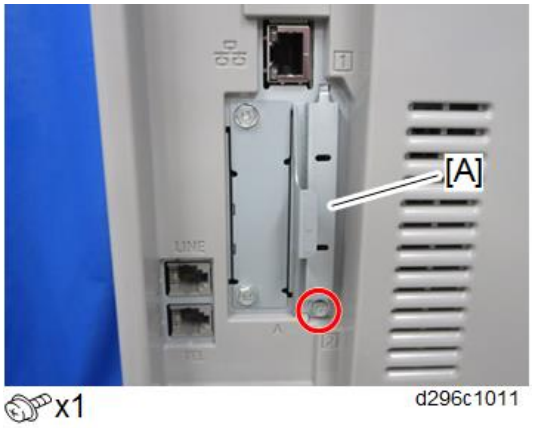


Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

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



2. Insert the SD card (DataOverwriteSecurity Unit) in SD slot 1 (upper) with its label face to the front of the machine.
   Merge the SD card contents if necessary. (SD Card Appli Move)
3. Reattach the SD card slot cover.
4. Turn ON the main power.
5. Enter the SP mode.
6. Do this step only if you are installing the option on a machine that is already in use (not a new machine):
   - **If the customer wishes to** continue using the same hard disk, execute all three SP modes below.
     - SP5-801-014 (Clear DCS Setting)

- SP5-832-001 (HDD Formatting (ALL))
- SP5-832-002 (HDD Formatting (IMH))

- **If customer wishes to** replace the hard disk with a new one, execute SP5-801-014 only.

Note

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.

7. Set SP5-836-001 (Capture Function (0:Off 1:On)) to a value of 0 (disabled).
8. Execute SP5-878-001 ([Option Setup: Data Overwrite Security).
   If the installation fails, "Installation failed" is displayed when this SP is executed.
9. Print out the System Settings List and make sure that the option was installed successfully.
10. Reconnect the network cable.
11. 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.
12. Make sure that ROM number "D3BC5757A" and firmware version "1.02" 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."

File Format Converter Type M19 (D3BR-04)

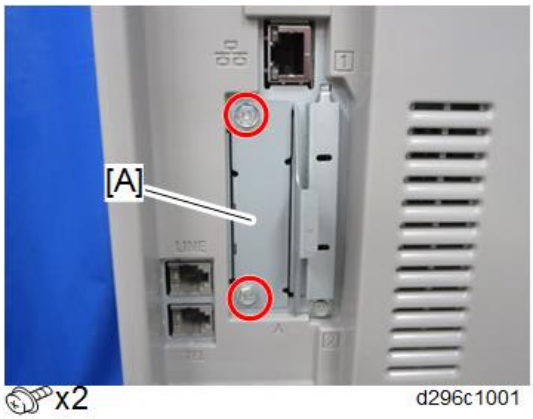
CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

You can only install one of the following network interfaces at a time:

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

1. Remove the slot cover [A].



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

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).

IEEE 1284 Interface Board Type M19 (D3C0-17)

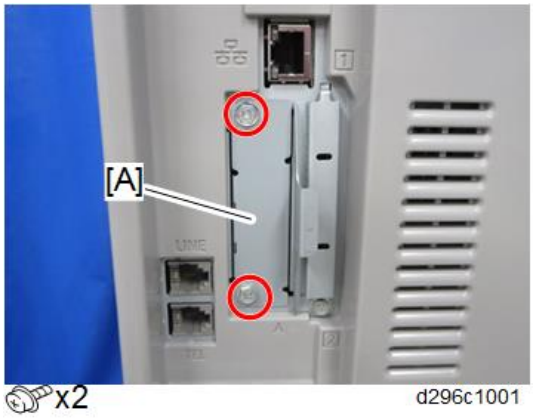
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

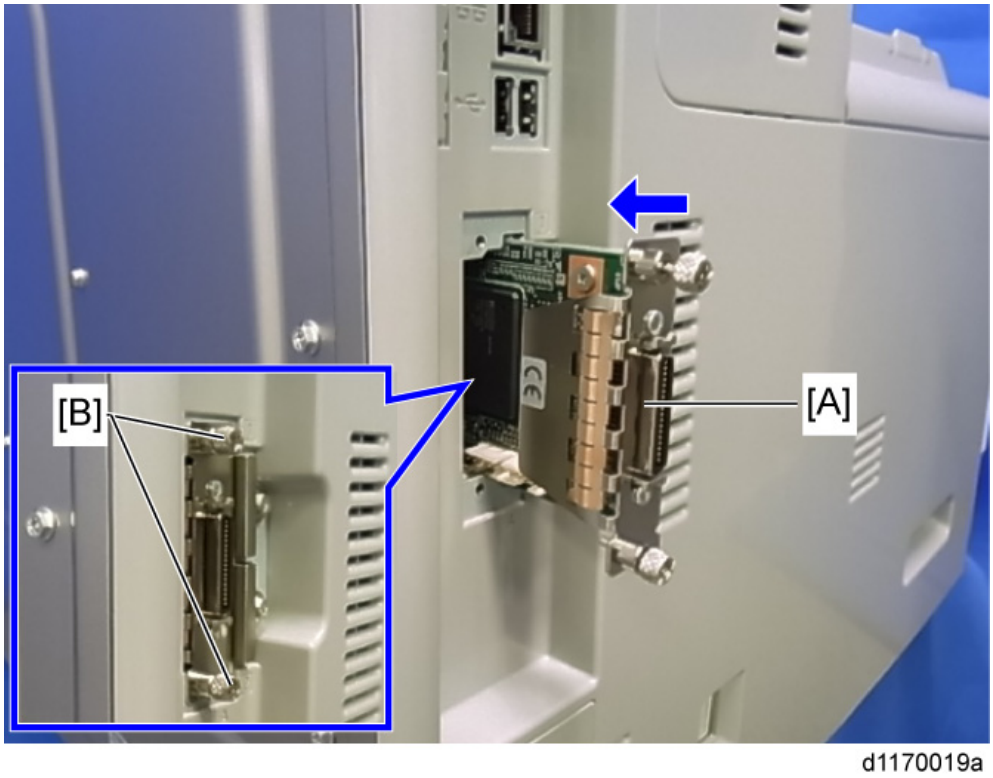
You can only install one of the following network interfaces at a time:

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

1. Remove the slot cover [A].



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



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

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

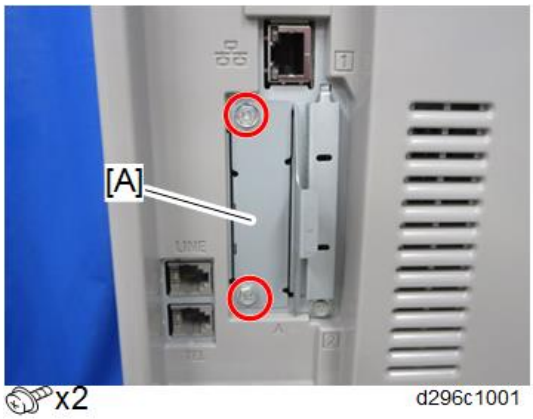
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

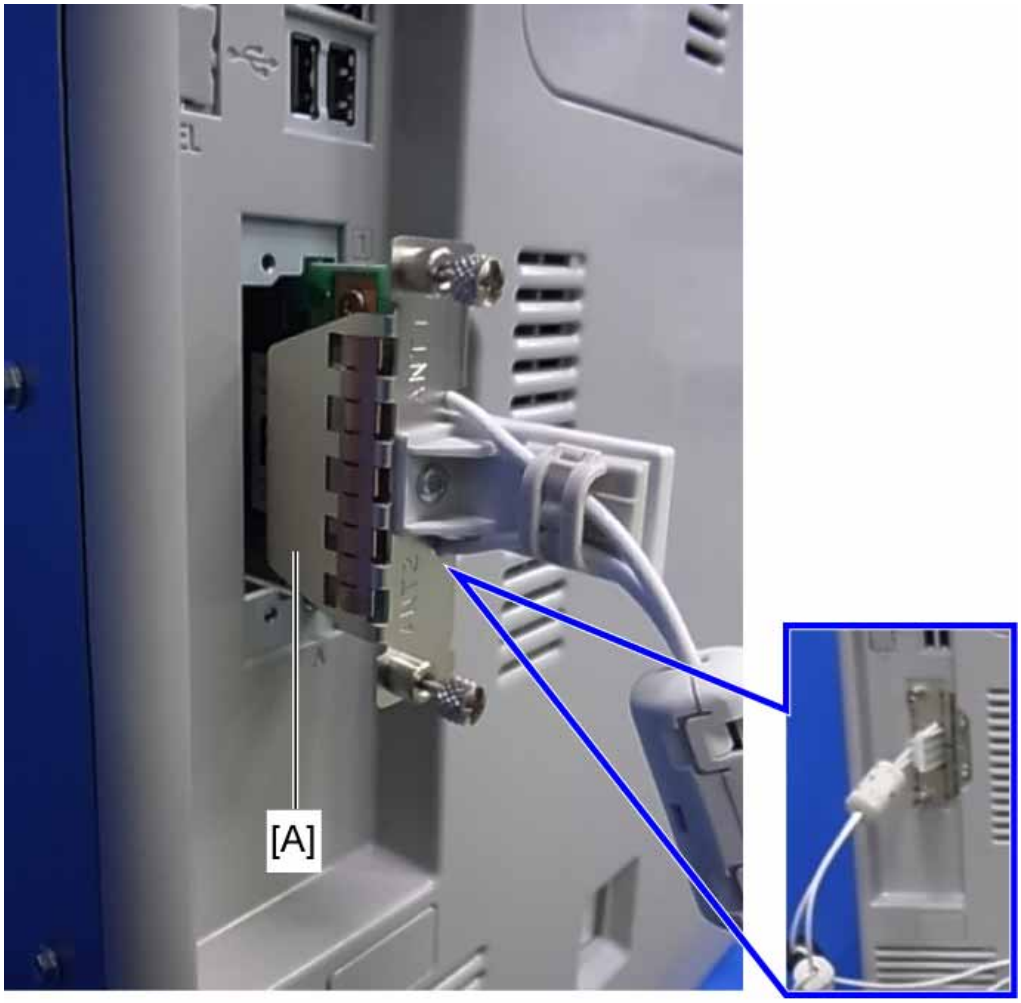
You can only install one of the following network interfaces at a time:

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

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



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



d1170022

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

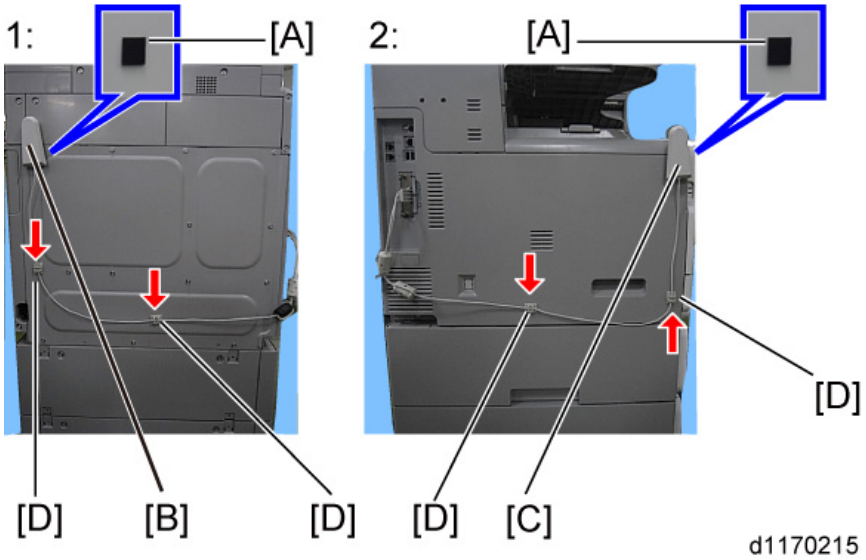
4. Do the following steps.

- Peel off the double-sided tapes on the Velcro fasteners [A], and then attach them [A] at the front left and rear of the machine.
- Attach "ANT1" (having a black ferrite core) [B] to the rear of the machine.
- Attach "ANT2" (having a white ferrite core) [C] to the front left (forward) of the machine.

Note

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

- Attach the clamps [D] as shown below.



1: Rear

2: Left

5. Wire the cables and clamp them. (× 4)

Note

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

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. Then do 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 "User Tool" icon.
2. Press "Machine Features" > "System Settings".

Note

- Select "Interface Settings"> "Network" > "LAN Type". The "LAN Type" (default: Ethernet) must be set for either Ethernet or wireless LAN.

3. Select "Interface Settings" > "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" 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

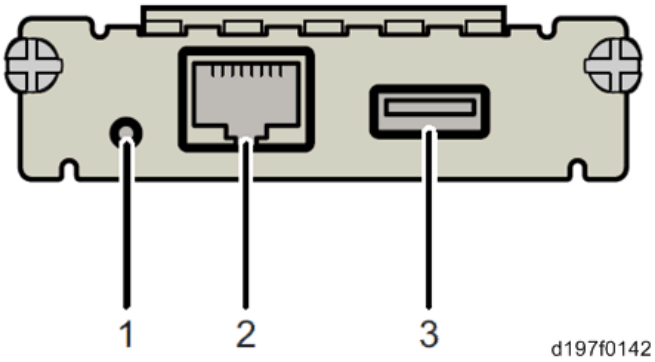
SP Mode and UP Mode Settings for IEEE 802.11a/g/n

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.

USB Device Server Option Type M19 (D3BC-28, -29)

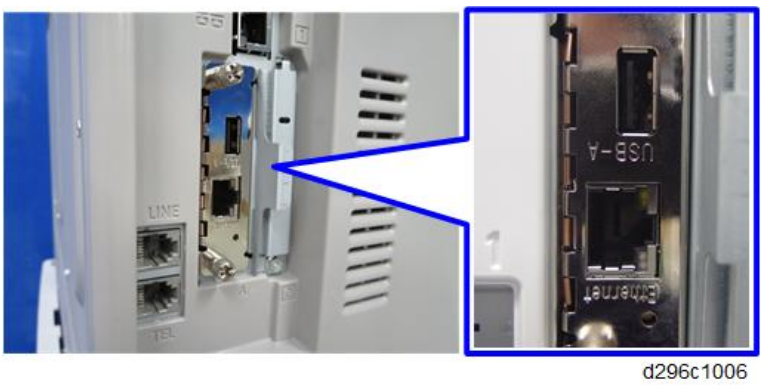
Interface Board Surface



No.	Item	Description
1	Switch	Used to reset to the factory settings.
2	Ethernet port	Used to connect the Ethernet cable.
3	USB port	Used to connect this option to the main machine. Do not use this port with other options.

Note

When installing the USB device server option, make sure that the labels 'USB-A' and 'Ethernet' are upside down.



Installation Procedure

⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

You can only install one of the following network interfaces at a time:

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

Important

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

1. Remove the upper left cover [A].

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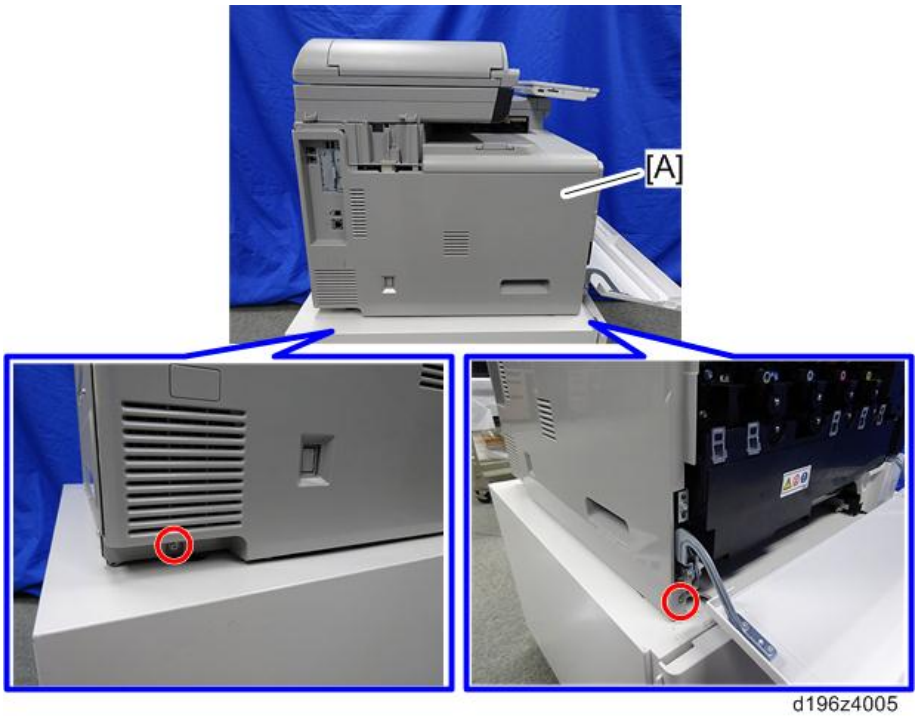
2. Open the front cover, and then remove the left cover [A].



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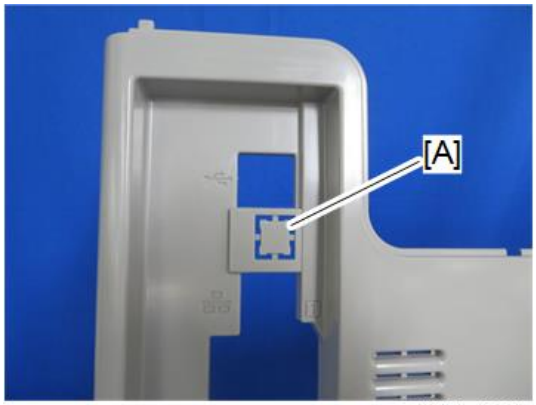
3. Cut off the USB port cover [A] with nippers or other such tool.



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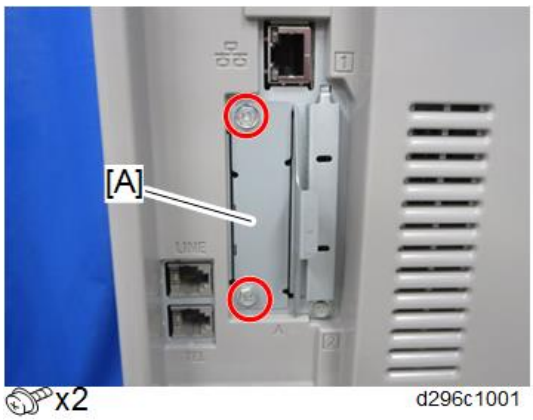
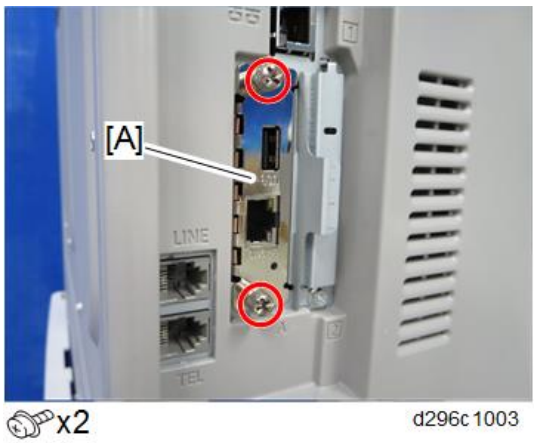
4. Reattach the left cover and upper left cover.

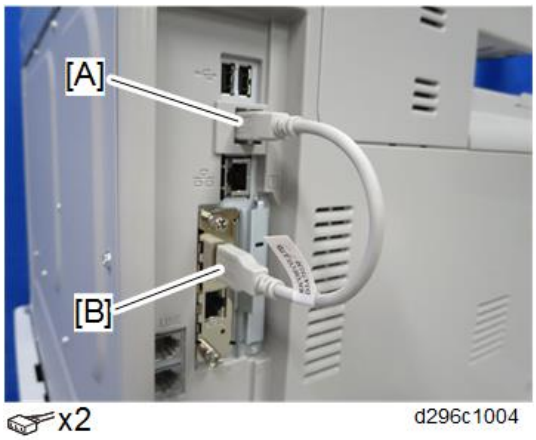
5. Remove the interface slot cover [A].



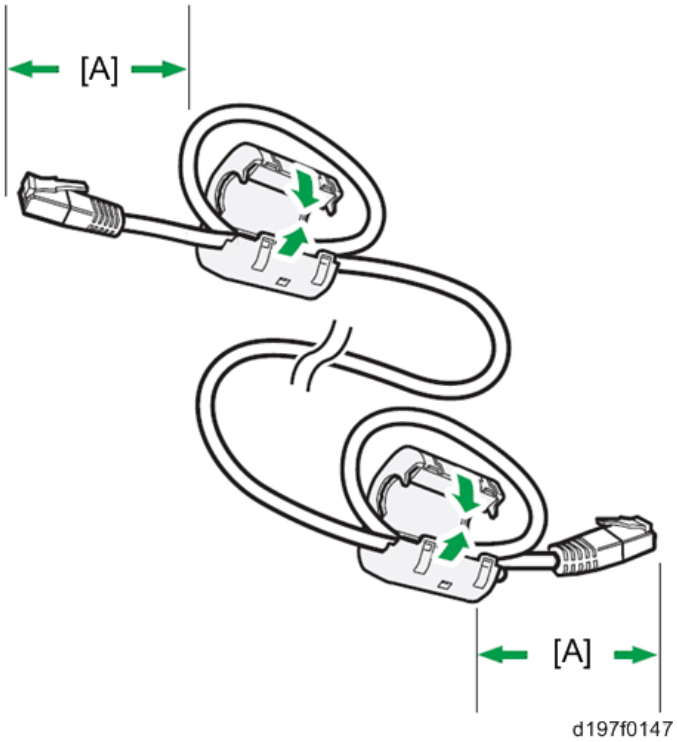
6. Insert the interface board [A] in the interface slot and then fasten it with screws.



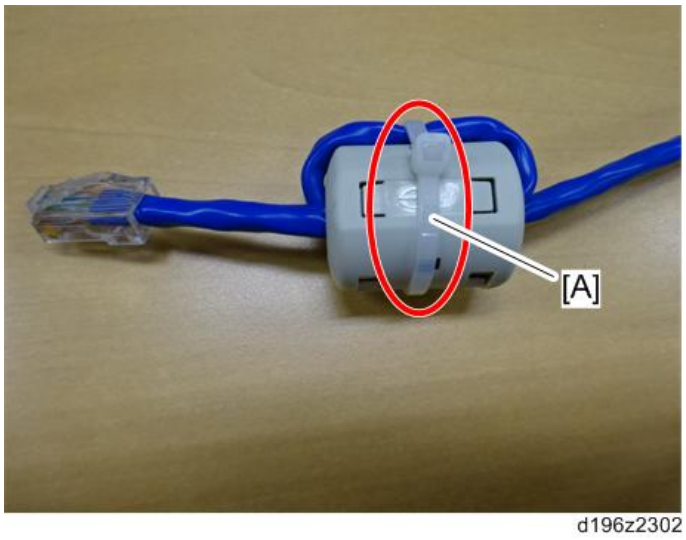
7. Insert the USB cable into the USB port (Type A) [A] on the main machine, and insert the other side of the USB cable into the USB port (Type B) [B] on this option.



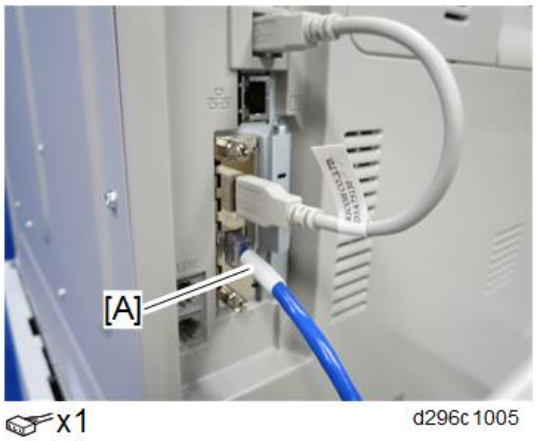
8. Attach the ferrite cores to the Ethernet cable, while looping the cable at 3 cm (approx. 1.2 inch) [A] from the each end of the cable.



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



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



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

12. Plug the power cord and turn ON the power.

Note

- Do not unplug the USB cable while the machine is recognizing this option. It may take between 30 seconds to 1 minute to finish recognizing it (the LEDs on the Ethernet port of this option light up after recognizing this option; see below). If unplugged, connect the cable again.

13. 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.

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

   Example: http://RX0080926A3264

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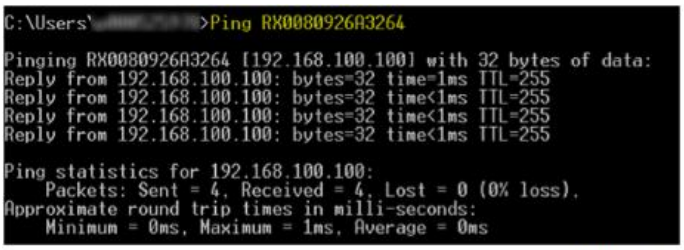
4. Ping the “RX” + “MAC address” from the command prompt, on a windows PC which is on the same network as the mainframe.



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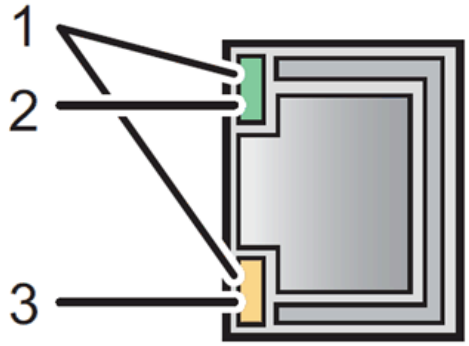
Note

- When installing the USB Device Server Option Type M19, the installation status is not shown on the Configuration Page.

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.



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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 the machine which has this option enters into the energy save mode, you cannot print because there will be a communication error. Follow the instructions below to disable the machine’s entering the energy save mode.

1. Press [Features Settings] on the operation panel.

2. Press [Administrator Tools] in [System Settings].

3. Press [Energy Saver Mode to Disable Print Server].

4. Press [Disable Mode].
5. Press [OK].
6. Press [Features Settings].

IP Address Setting

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

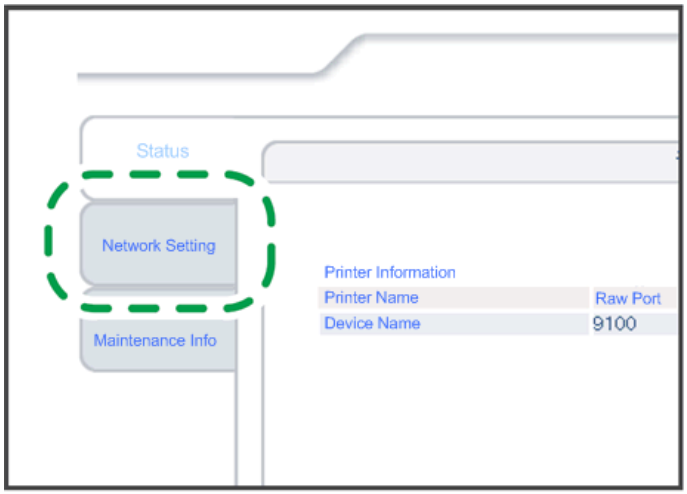
Important

- You cannot change the IP address for this option from the operation panel of the main machine. The setting must be done from a web browser on your PC.
- 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 your PC must be in the same network segment to change the network setting of this option.

1. Make a note of the current network settings of your PC.
2. Change the IP address on your PC to [192.168.100.xxx (*0 - 255)].
3. Change the subnet mask on your PC to [255.255.255.0].
4. Open a web browser.
5. Type [http://192.168.100.100/] in the address bar.
6. Press the “Enter” key.

   Note

   - The setting screen for this option appears.
7. Click [Network Setting].



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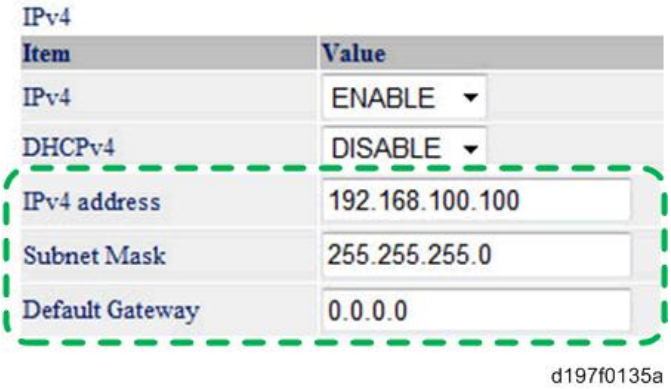
8. Enter “root” in the user name textbox and click [OK].

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



10. Set other items if necessary.

11. Press [Set].

12. Close the web browser.

13. Disconnect the Ethernet cable from the PC.

14. Connect the Ethernet cable to a network device (e.g. switching hub).

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

Extended USB Board Type M19 (D3BS-01)

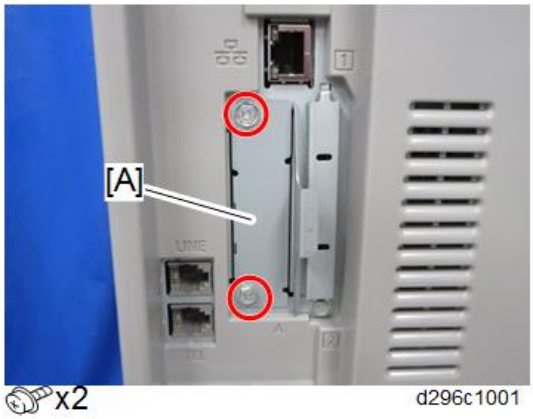
⚠CAUTION

- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

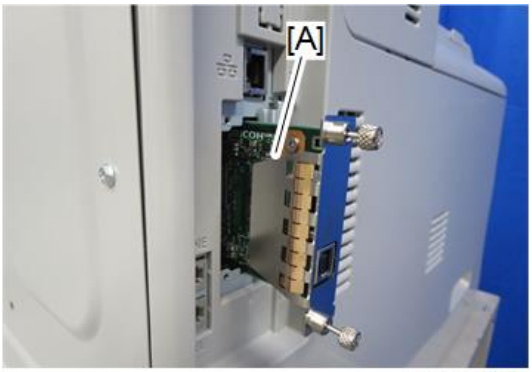
You can only install one of the following network interfaces at a time:

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

1. Remove the slot cover [A].



2. Install the interface board [A] into the slot and then fasten it with screws.



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3. Make sure that the machine can recognize the option on Web Image Monitor.
   1. Start Web Image Monitor.
   2. Log in as the machine administrator.
   3. Click [Device Management] > [Configuration] > [Interface Setting].
   4. Check that the [USB] is "Active".

Check All Connections

1. Plug in the power cord.
2. Turn ON the main power.
3. Enter the printer user mode. Then print the configuration page.
   [User Tools] > [Machine Features] > [Printer Features] > [List Test Print] > [Configuration Page]
   All installed options are shown in the "System Reference" column.

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

   You can print out the PM counter list as follows.

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

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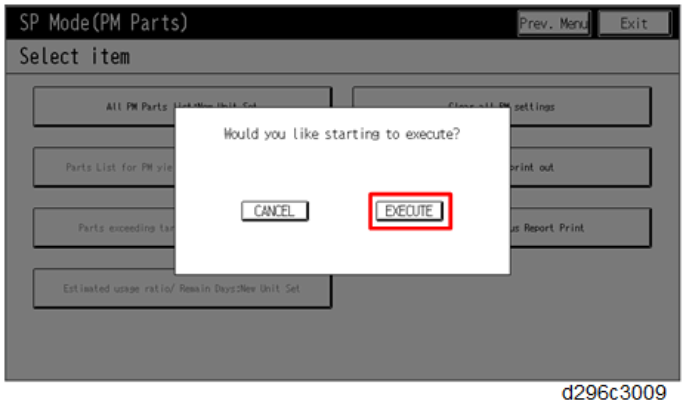
   2. Press [Counterlist print out].

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
Tray paper feed	Feed roller:SP3-701-147 Friction pad: SP3-701-148
Bypass feed roller	SP3-701-169
ADF	Friction pad: SP3-701-206 Pickup roller: SP3-701-207

Item	SP
	Feed roller: SP3-701-208
Toner transport section	K: SP3-701-220 C: SP3-701-221 M: SP3-701-222 Y: SP3-701-223

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

   You can print out the PM counter list as follows.

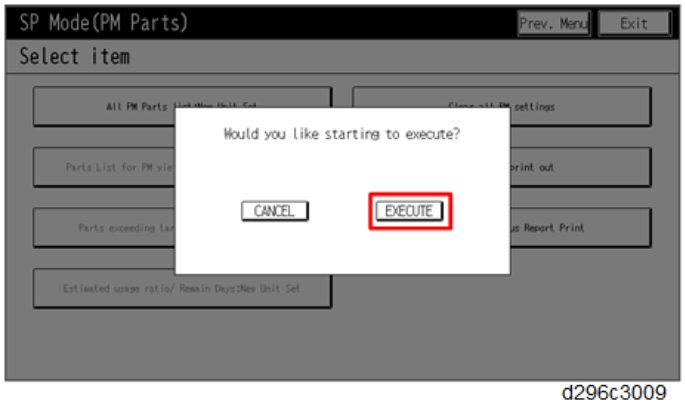
   1. In the SP mode menu, press [PM Counter / New Unit Set].

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].

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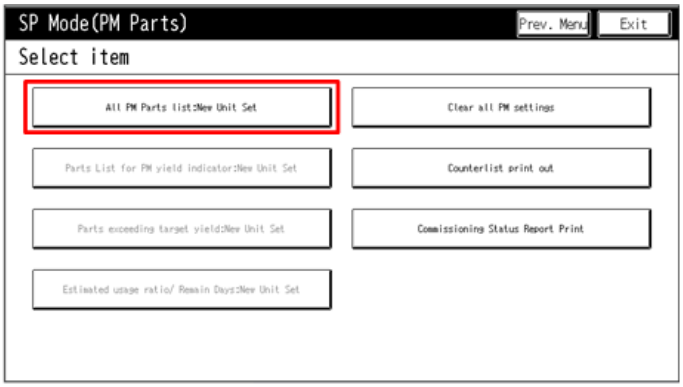
5. Press [All PM Parts List : New Unit Set].



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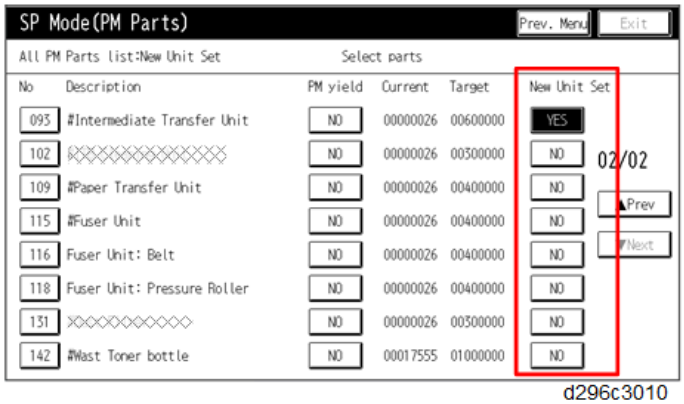
6. Set the PM part that you want to replace to "YES" under "New Unit Set".
   After pressing "YES", the [Exit] key will not be available.



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

You can print out the PM counter list as follows.

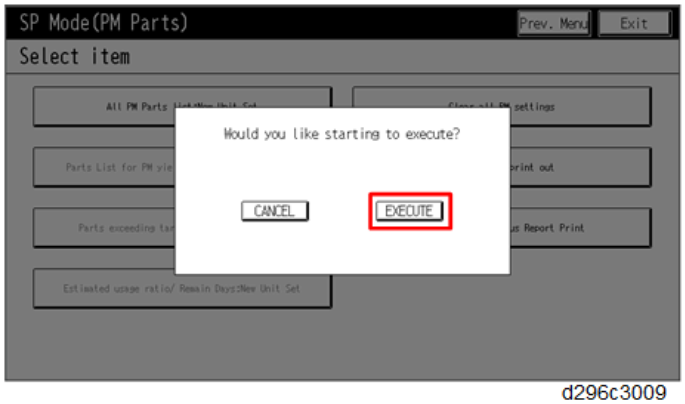
1. Press [PM Counter / New Unit Set].

d296c3006

2. Press [Counterlist print out].

d296c3007

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



d296c3009

Preparation before Operation Check

1. Clean the exposure glasses (for DF and book scanning).

2. Enter the user tools mode.

3. Do the "Automatic Color Calibration (ACC)" for the copier mode and printer mode as follows:

- Print the ACC test pattern (User Tools > Maintenance > ACC > Start).
- Put the printout on the exposure glass.

- Put 10 sheets of white paper on the test chart. This ensures a precise ACC adjustment.
- Close the ADF or the platen cover.
- Press "Start Scanning" on the LCD. Then, the machine starts the ACC.

4. Exit the User Tools mode, and then enter the SP mode.

5. Do the "Forced line position adjustment" as follows.

- First do SP2-111-3 (Mode c).
- Then do SP2-111-1 (Mode a).
- To check if SP 2-111-1 was successful, watch the screen during the process. A message is displayed at the end. Also, you can check the result with SP 2-194-10 to -12.

6. 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

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 (DC Switch)

Power is supplied to the machine even when the main power switch 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, the operation unit and other modules even when the main power is turned OFF. When replacing the controller board and the operation unit in this state, not only these boards, it will damage other electrical components.
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.

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. 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 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, 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 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.

Shutdown Method

1. Press the main power switch [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.

⚠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. Take out the power cord after shutdown.
4. Press the power switch 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 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.
- 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 of the machine has been turned off, the power relay board (SDB) keeps the power supply to the controller until the HDD unit has been shut down safely.

Special Tools

Part Number	Description	Q'ty
B645 5010	SD Card 128MB	1
B645 5020	SD Card 1GB	1
B645 5030	SD Card 2GB	1
B645 5040	SD Card 8GB	1
5203 9502	Silicone Grease G-501	1
A257 9300	Grease Barrierta – S552R	1
C401 9503	20X Magnification Scope	1
VSST 9003	C-5Y Color Chart (3 pcs/set)	1
B132 9700	Lubricant Powder	1

Note

- C-5Y Color Chart is a set of two A4 size charts and looks like this.

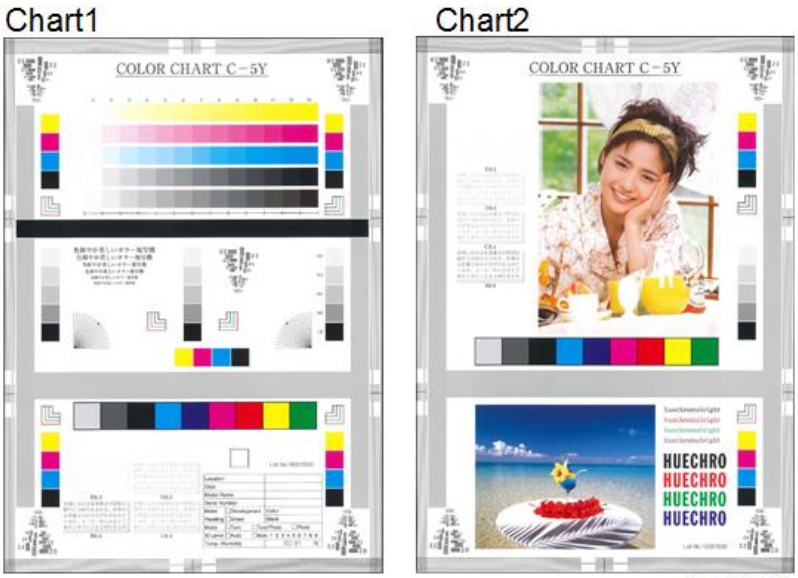


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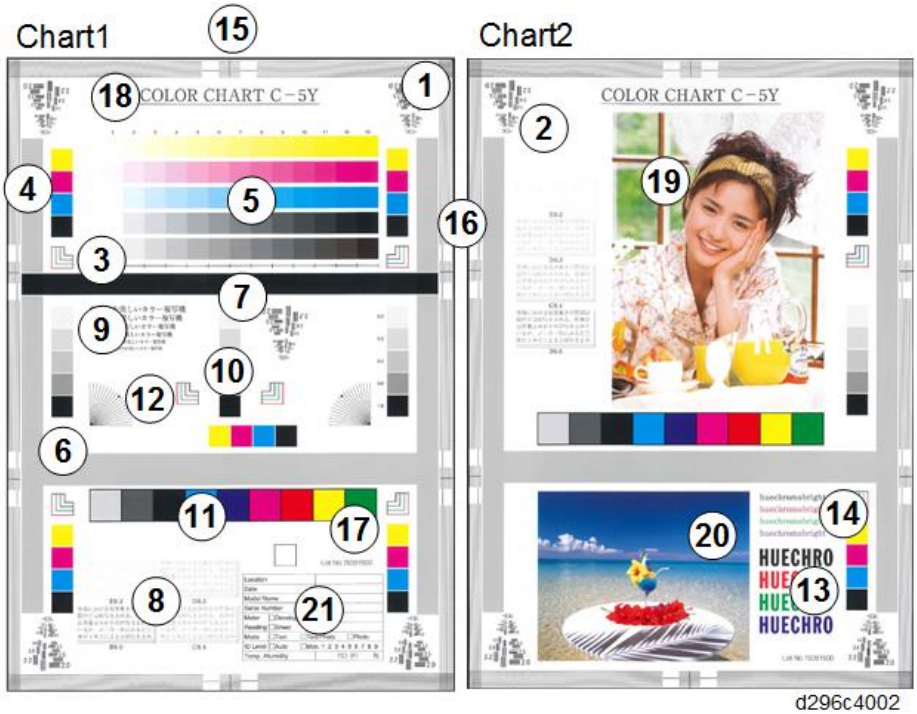
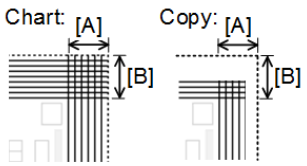
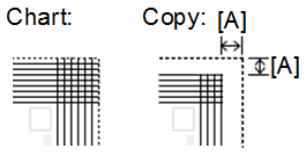
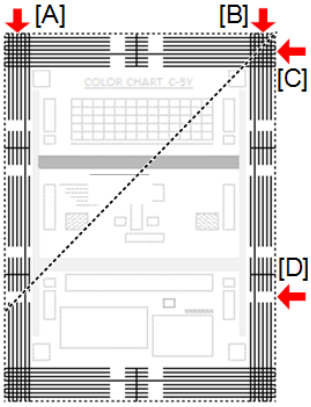
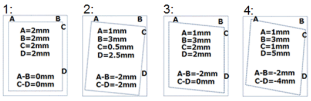
Image Adjustment

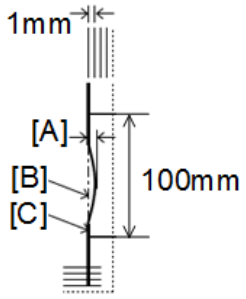
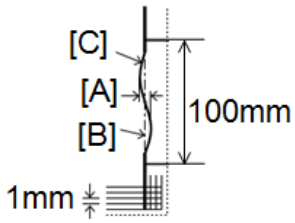
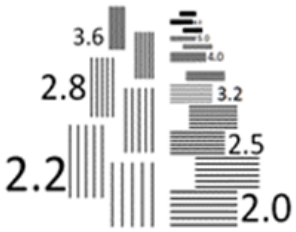
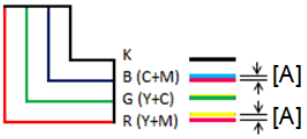
How to Use the Color Charts

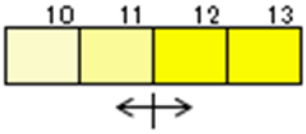
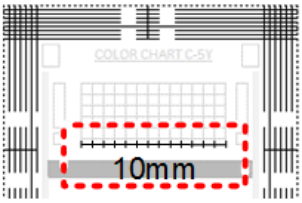
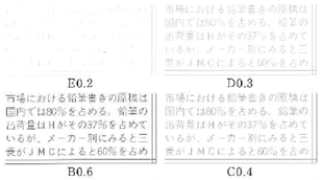
Here is an introduction of how to check the image quality using the color charts.

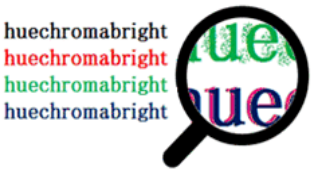
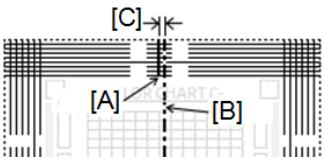


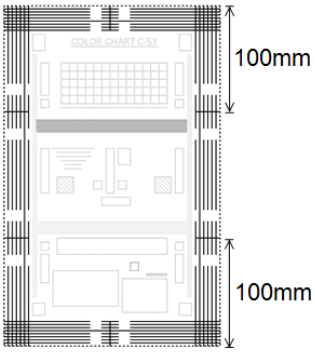
No.	Check Area	Check Item	Description
1	Frame line	Registration amount	Check the registration amount of the leading edge and trailing edge (sub scan direction). Overlay the chart and the copy, then check that the frame lines of the side [A] and leading edge [B] do not deviate. 
		Margin length	Check 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 direction and sub scan

No.	Check Area	Check Item	Description
			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 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

No.	Check Area	Check Item	Description
			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. 
4	Solid color patches	Solid density	Check the density of each color patch between the chart and the copy .

No.	Check Area	Check Item	Description
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 or blurred characters)	Check the minimum size of characters that are readable, and that have no broken lines 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.

No.	Check Area	Check Item	Description
		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 scale	Equal magnification (Sub scan direction)	Check the magnification error in the sub scan direction using the crossed lines 100mm away from the leading and trailing edges of the paper

No.	Check Area	Check Item	Description
			
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.

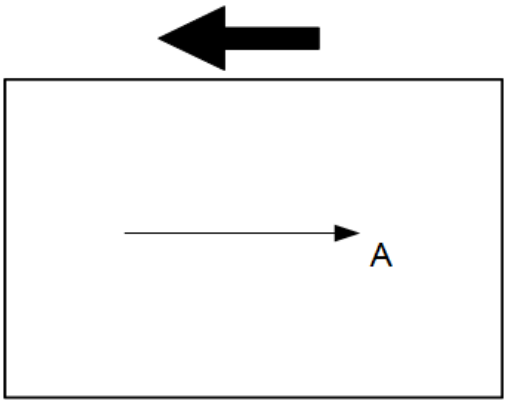
Scanning

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.

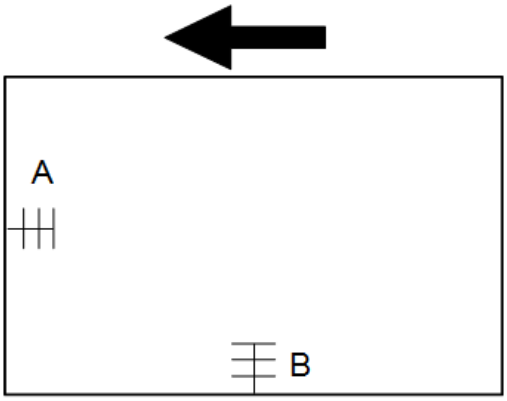
Scanner Sub-Scan Magnification



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

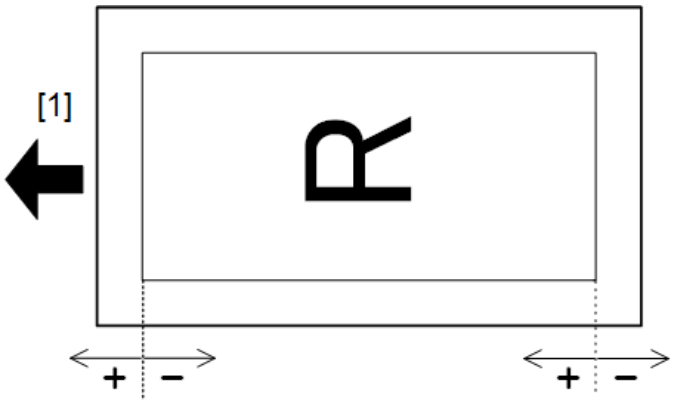
ADF Adjustment

ADF Side-to-Side and Leading Edge Registration

Use A4/LT paper to make a temporary test chart as shown above.

1. Put the temporary test chart on the ADF. 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: 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

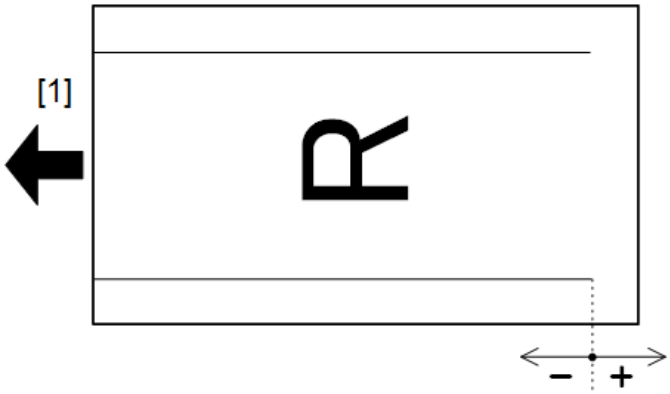
SP Code	What It Does	Adjustment Range
SP6-006-001	Side-to-Side Regist: Face	± 3.0 mm
SP6-006-002	Side-to-Side Regist (1-pass): Back	± 2.0 mm
SP6-006-010	Leading Edge Regist (1-pass): Face	± 5.0 mm
SP6-006-011	Leading Edge Regist (1-pass): Back	± 5.0 mm

ADF Trailing Edge Erase Width

Use A4/LT paper to make a temporary test chart as shown above.

1. Put the temporary test chart on the ADF. Then make a copy from one of the feed stations.

2. 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

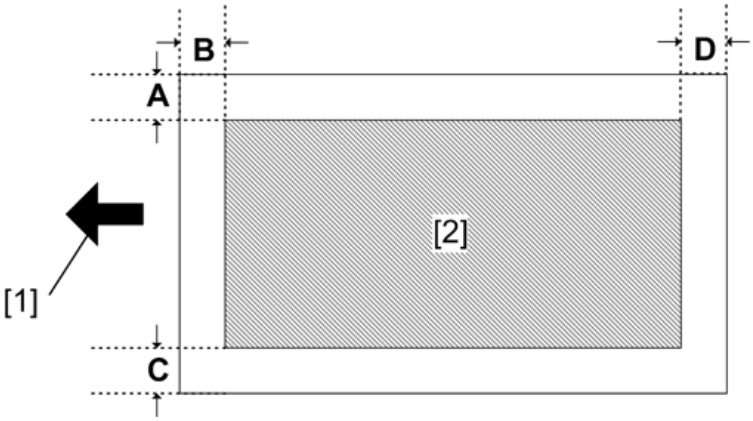
ADF Sub-scan Magnification

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).

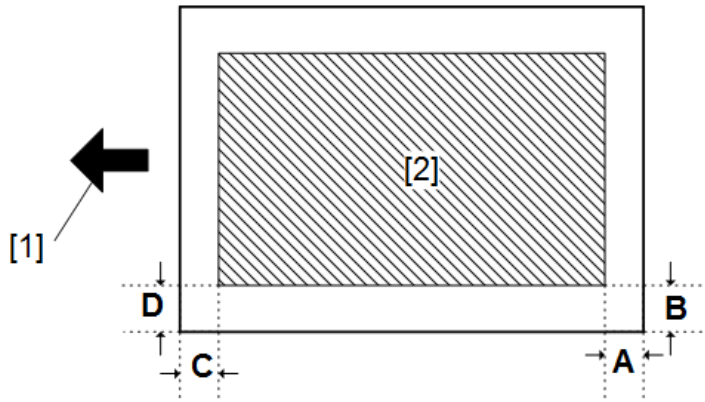
   3) Input the value. Then press [#].

   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 A and B.
- If they are not within the specifications (see below), then adjust A and B with SP2-103-001 to -004 as explained below. Then check Margins C and D 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

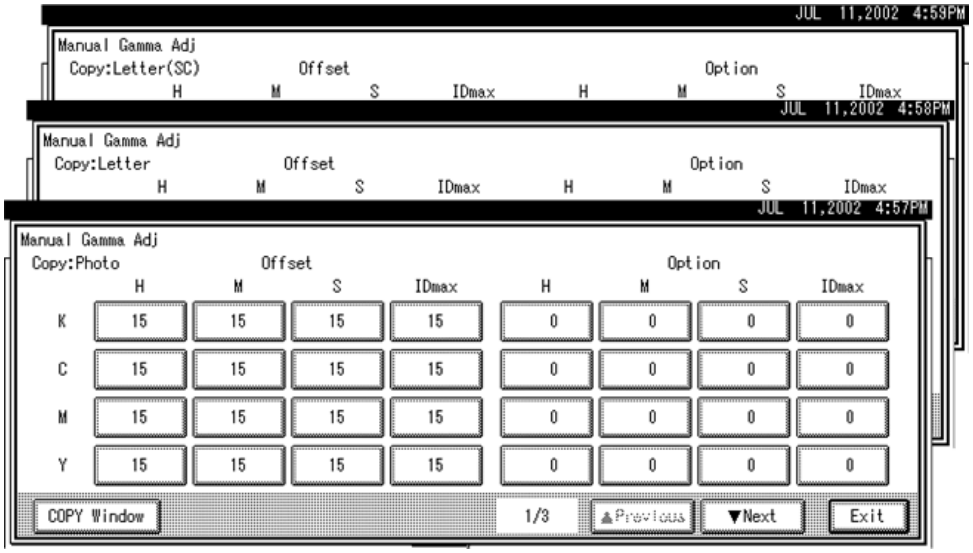
- Never change "Option" values (the default value is 0).

Highlight (Low	Levels 1 through 6 in the C5-Y chart 13-level scale

ID)	
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: (K, C, M, and Y)	1 2 3 4 5 6 7 8 9 10 11 12 13	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, C, M, and Y)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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>	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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, C, M, and	1 2 3 4 5 6 7 8 9 10 11 12 13	Adjust the offset value so that the density of level 7 matches that of level 7 on the C-5Y chart.

	Y)		
3	Shadow (High ID) (K, C, M, and Y)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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)	1 2 3 4 5 6 7 8 9 10 11 12 13	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 six adjustable modes (select these modes with printer SP1-102-001):

- 1200 x 1200 photo mode (1bit/4col)
- 600 x 600 photo mode (4bit/4col)
- 600 x 600 photo mode (2bit/4col)
- 600 x 600 photo mode (1bit/4col)
- 1200 x 1200 text mode (1bit/4col)
- 600 x 600 text mode (4bit/4col)
- 600 x 600 text mode (2bit/4col)
- 600 x 600 text mode (1bit/4col)

	K	C	M	Y
Highlight	SP1-104-001	SP1-104-021	SP1-104-041	SP1-104-061

	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

- 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

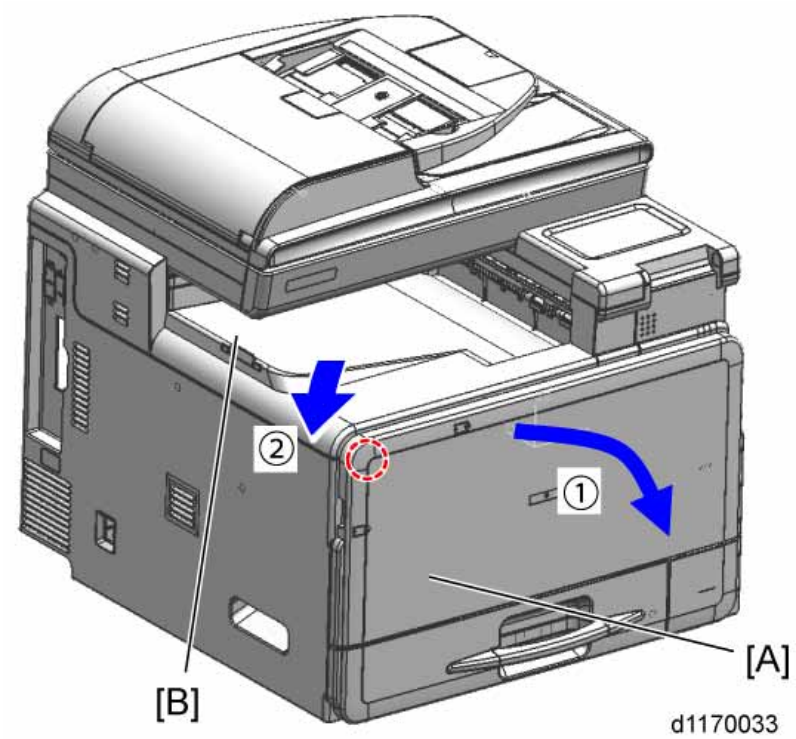
7. Use SP1-105-001 to keep the adjusted settings.

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. Open the front door [A] and then remove the paper exit tray [B]. (x 1)



2. Close the front door and execute MUSIC (SP2-111-004).

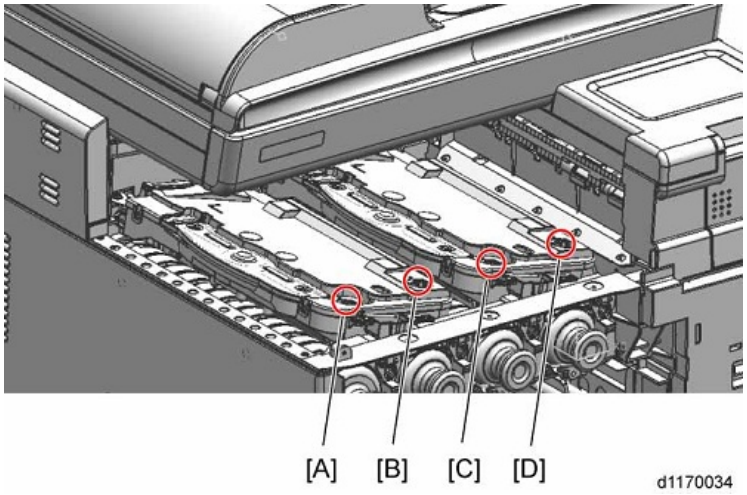
3. Check the result for each color with the following SPs.

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

Note

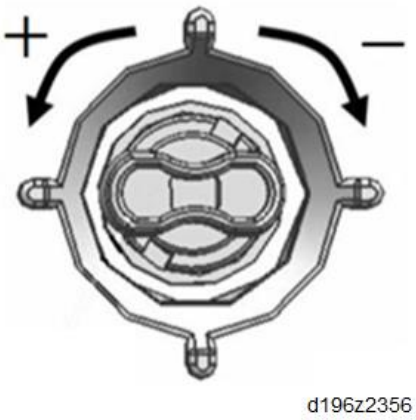
- If all of the SP values are within ±5, go to Step 5.
- If any of the SP values are not within ±5, go to Step 4.

4. Rotate the knob(s) shown in the diagram [A] to [D] at 90 degree intervals until the SP value for the affected color(s) is within ±5 (target: 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. Reattach all parts that you removed in the above steps.

Note

- Do not touch the LD units while installing the Paper Exit Tray. Otherwise, the LD unit may move, and you may have to adjust the color skew again.

Exterior Covers

Front Cover

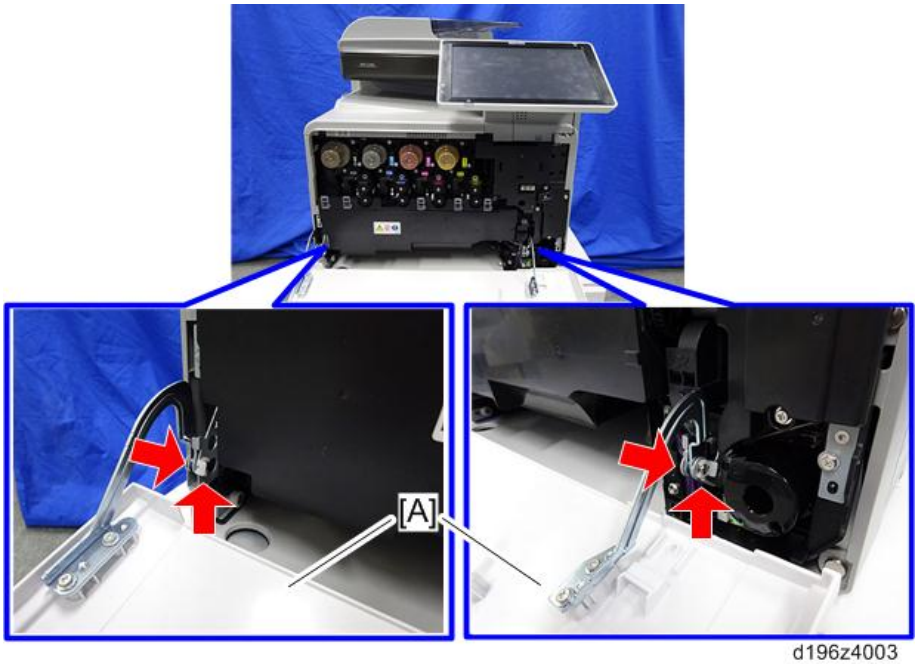
1. Pull out the paper tray.

d196z4001

2. Remove the front lower cover [A] (× 1)

d196z4002

3. Open the front cover.
4. Remove the front cover [A] (× 2, pins × 2)



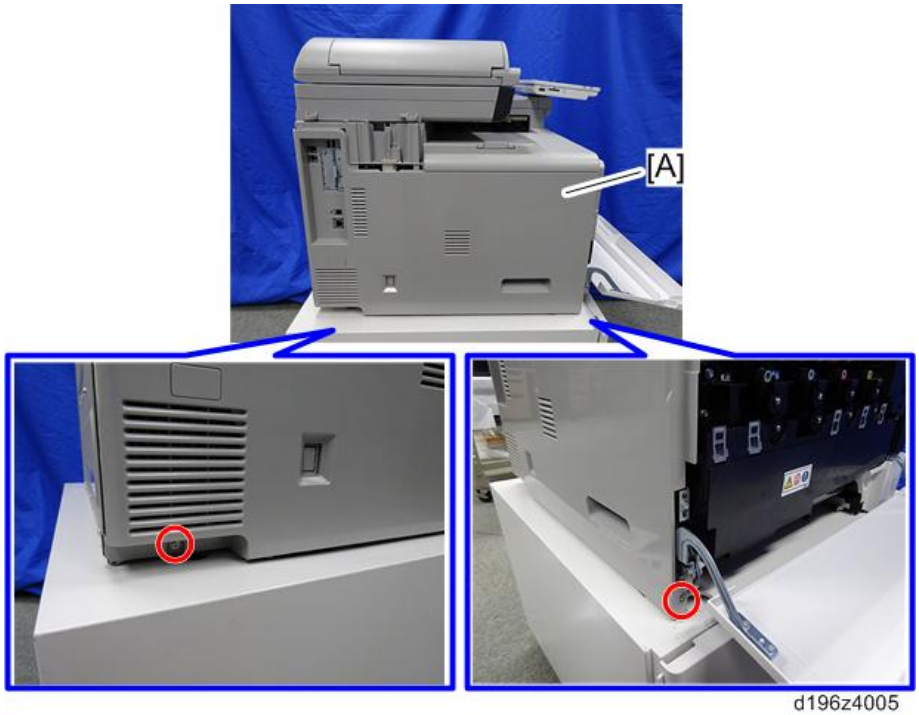
d196z4003

Upper Left Cover

1. Remove the upper left cover [A]. (× 1)

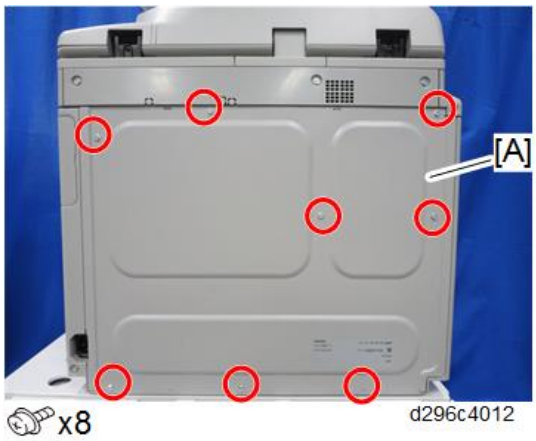
Left Cover

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]. (× 2)



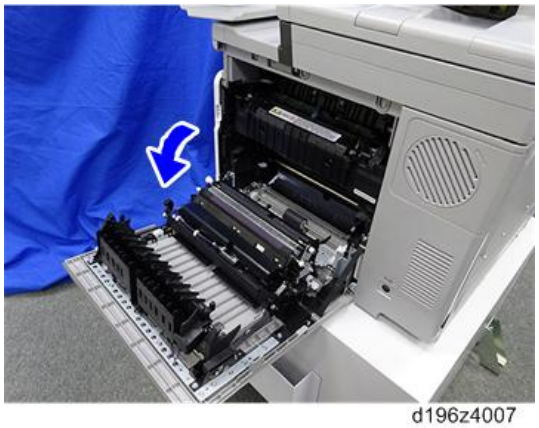
Rear Cover

1. Remove the rear cover [A].

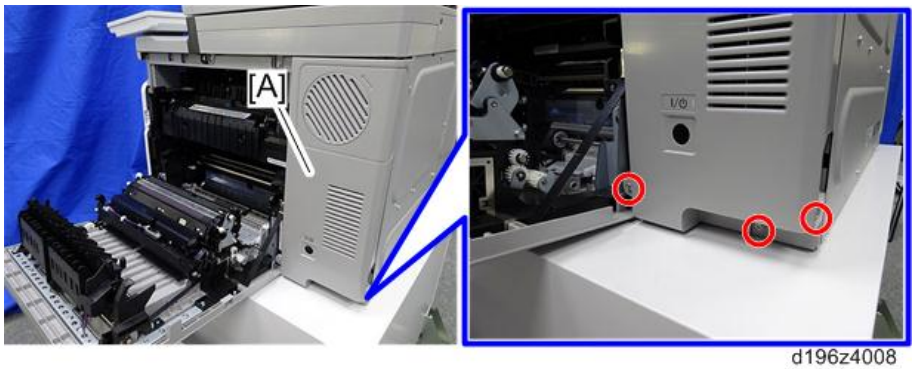


Right Rear Cover

1. Open the right cover.



2. Remove the right rear cover [A] (× 3)



Note

- Remove the right rear cover while pushing it downward.

Paper Exit Tray

1. Open the front cover.

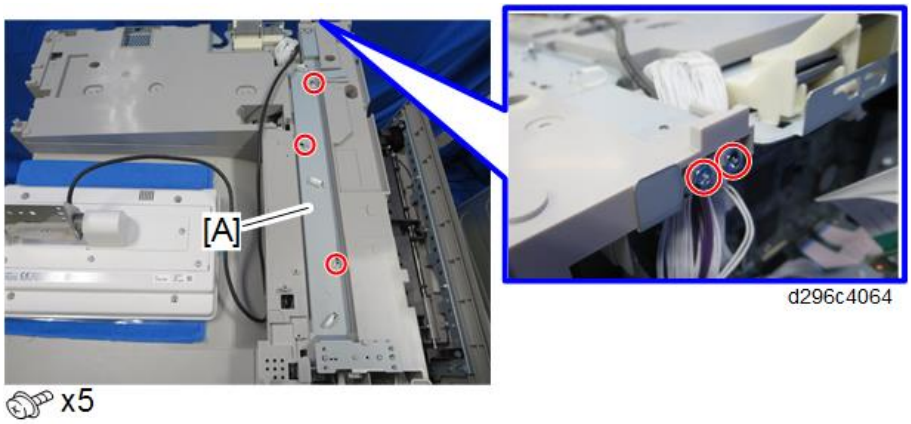
2. Remove the paper exit tray [A]. (× 1)

Scanner Inner Cover

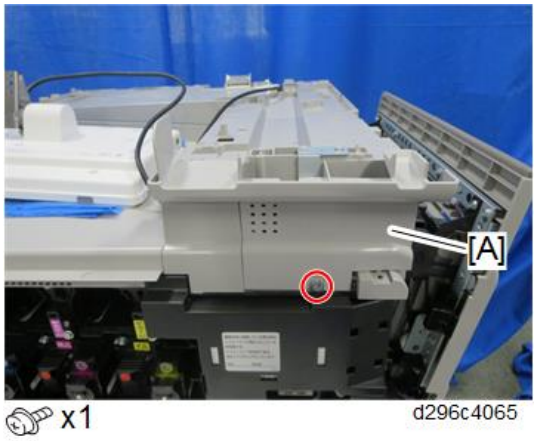
1. Remove the ADF and scanner unit (Scanner Unit with the ADF)

2. Remove the operation panel (Operation Panel)

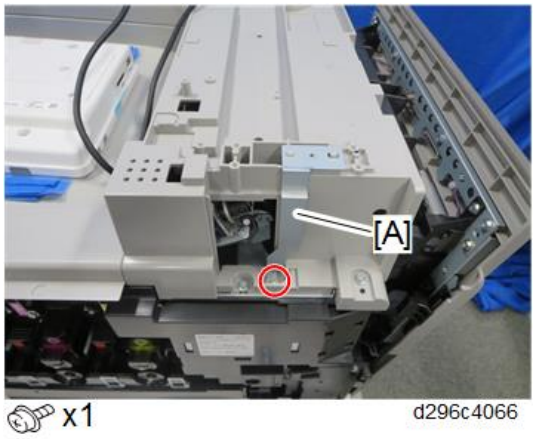
3. Remove the bracket [A].



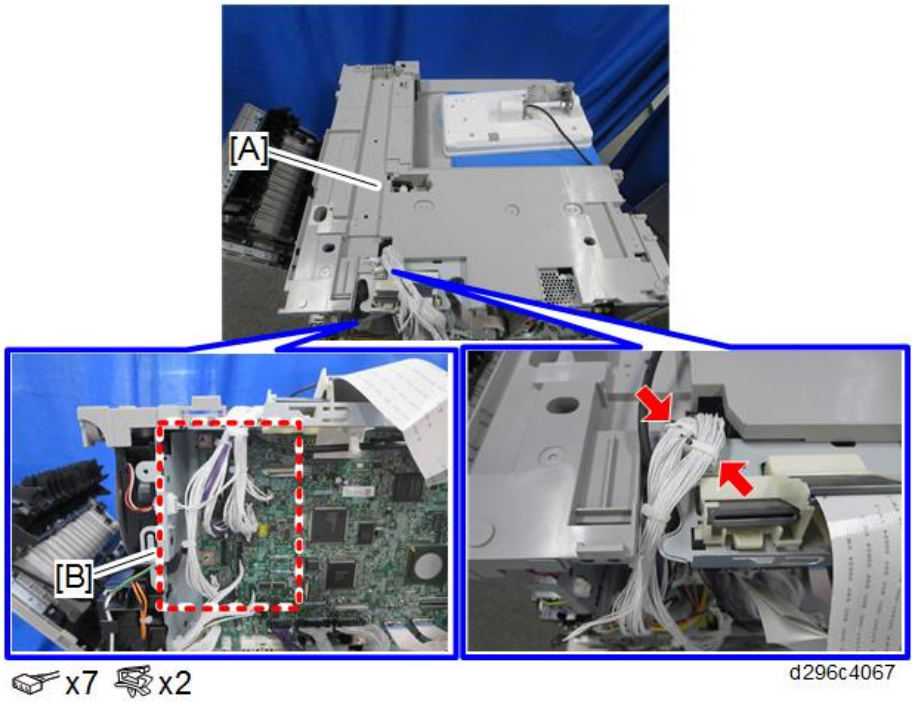
4. Remove the cover [A] under the operation panel.



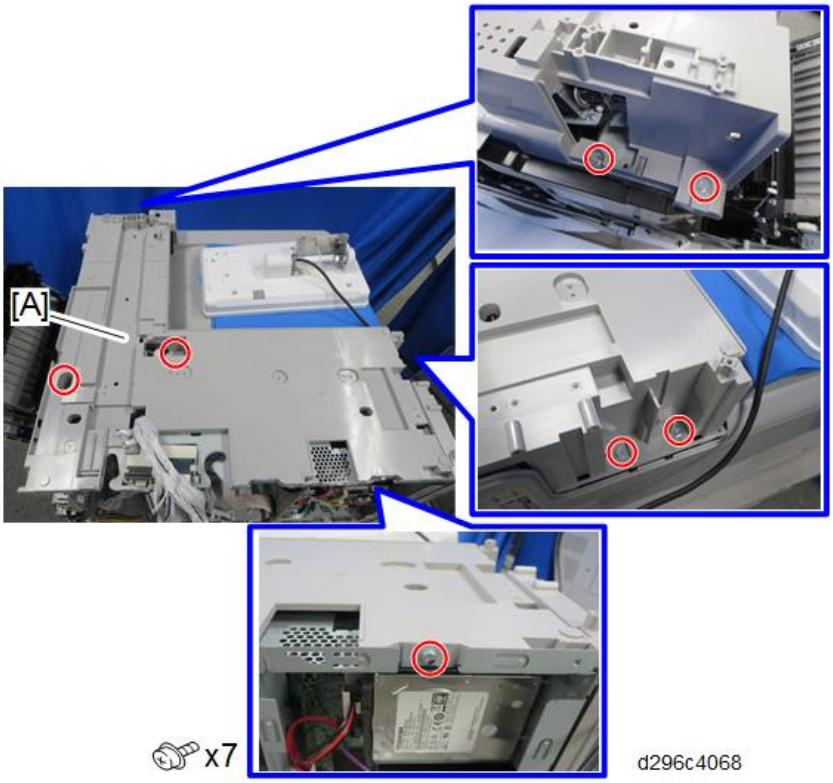
5. Remove the bracket [A].



6. Disconnect the harness [B] to remove the inner cover [A].

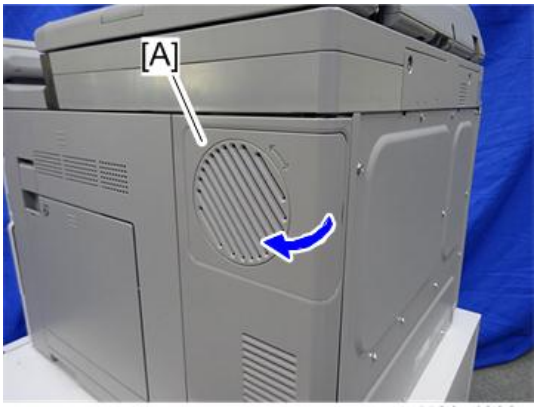


7. Remove the scanner inner cover [A].



Ozone Filter

1. Remove the filter cover [A].



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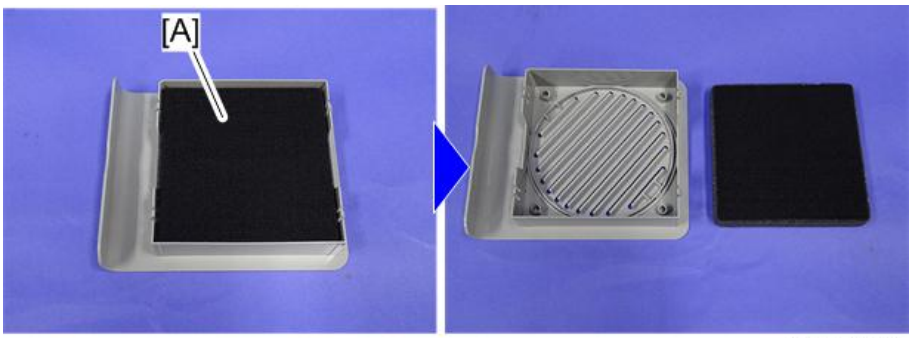
2. Remove the ozone filter [A] from the filter cover.



d196z4010

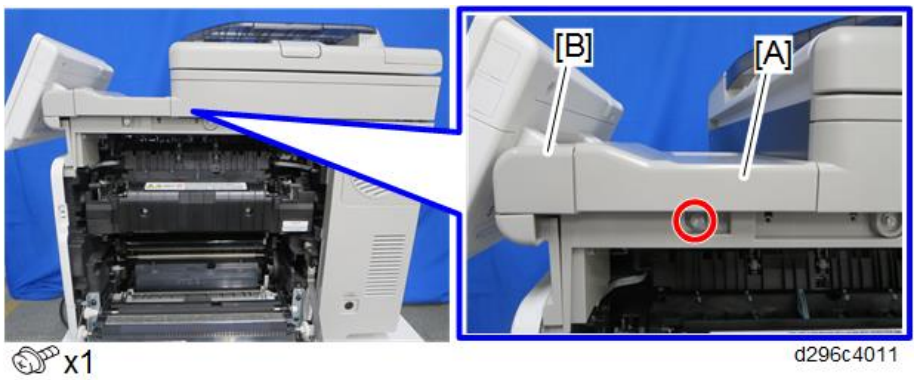
Operation Panel

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.

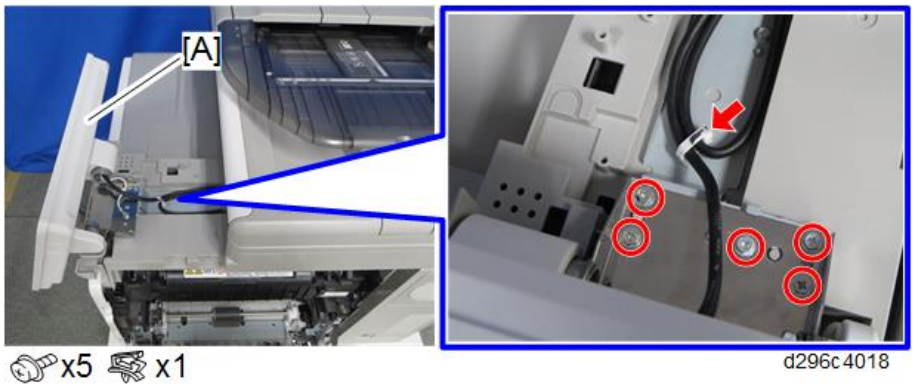
Operation Panel

1. Open the right cover.

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



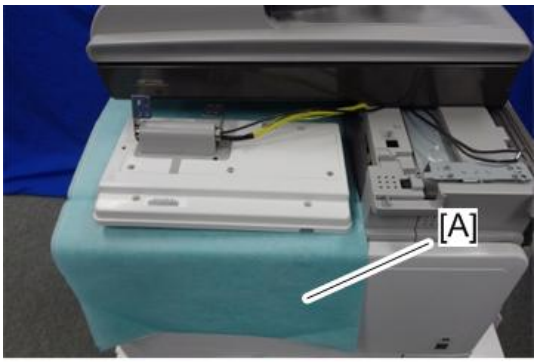
3. Remove the screws fixing the operation panel [A].



Important

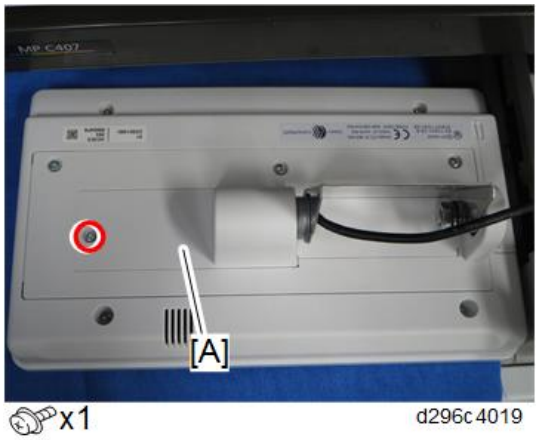
- Spread a cloth or service mat [A] on the paper exit tray to protect the display. Place the operation

panel on the paper exit tray so that the display faces down.

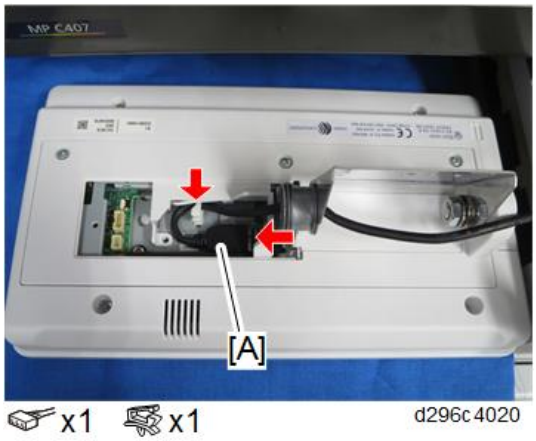


d196z4103

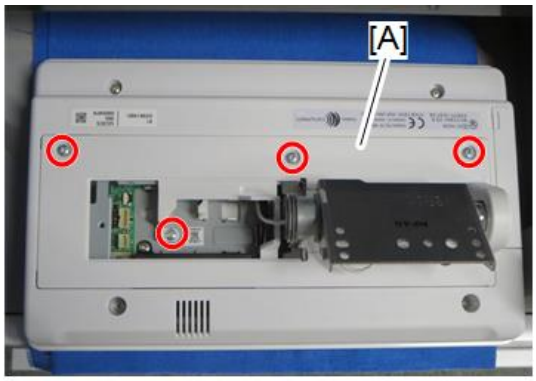
4. Remove the small rear cover [A].



5. Disconnect the connector [A].

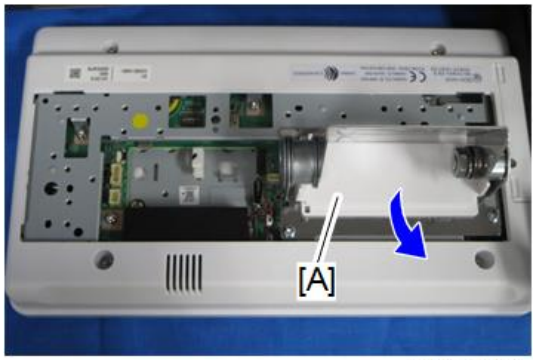


6. Remove the rear cover [A].



x4 d296c4021

7. Remove the hinge base cover [A].



d296c4022

8. Remove the hinge base [A].

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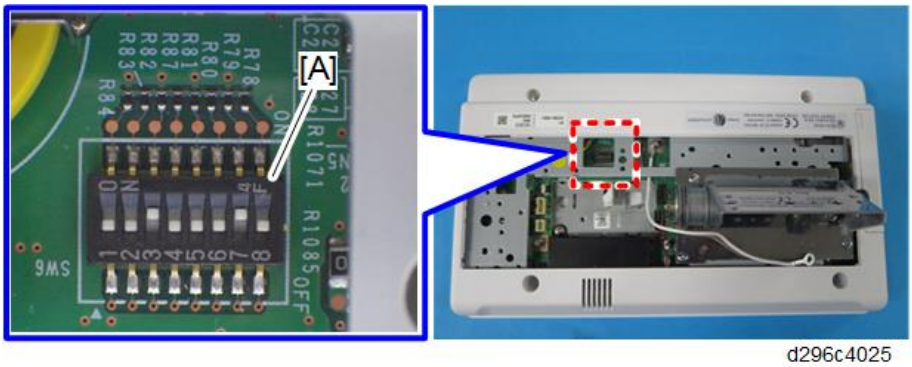
Check before Installing the New Operation Panel

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 C307/C407 series, make sure that switches 3 and 7 are ON. Otherwise, SC672-11 occurs when starting the machine.

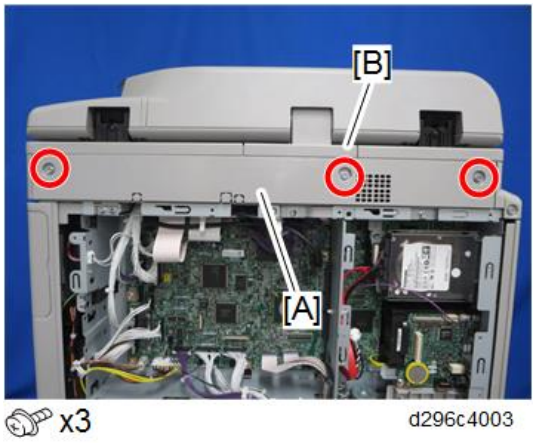
Internal Parts

Refer to the FSM for the Smart Operation Panel.

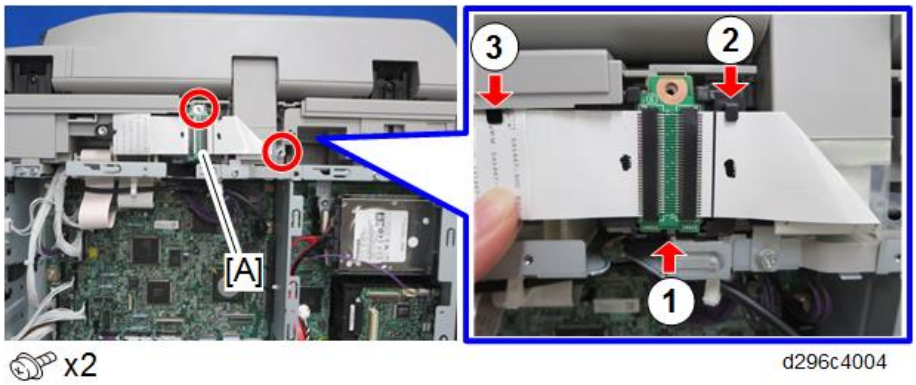
ADF

ADF Unit

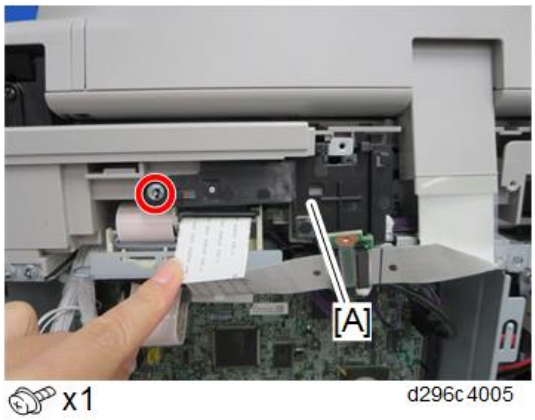
1. Remove the rear cover. (Rear Cover)
2. Remove the scanner rear cover [A] and scanner rear small cover [B].



3. Release the two screws and three tabs for attaching the relay board [A] and FFC to release the FFC.

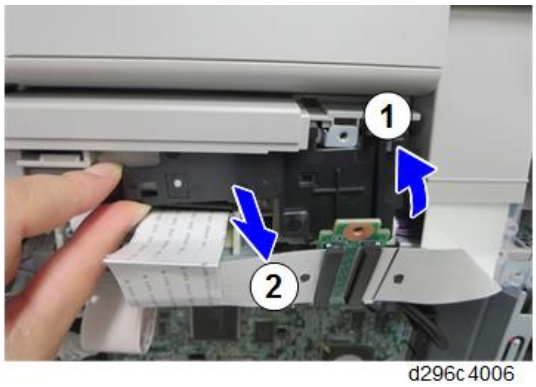


4. Remove the FFC fixing bracket [A] on the back side of the FFC.

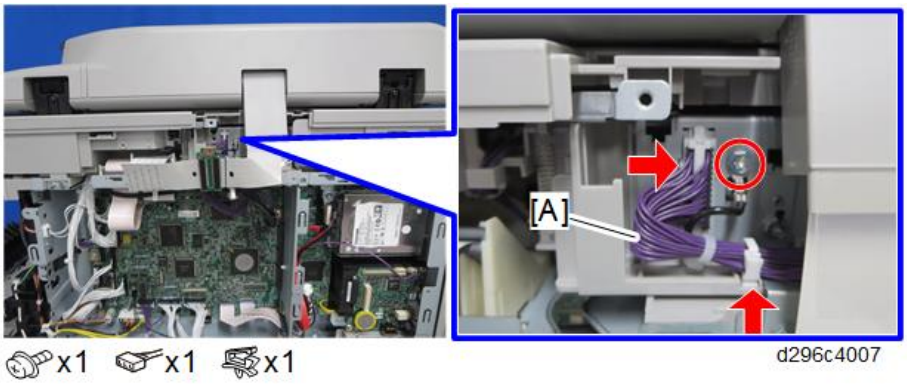


Note

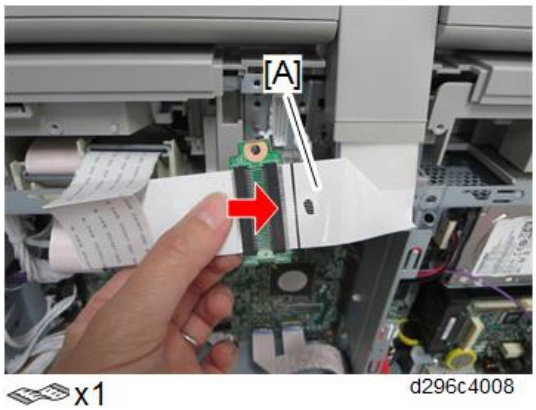
Remove the FFC fixing bracket while turning it counterclockwise and releasing the tab.



5. Disconnect the harness [A] from the ADF.



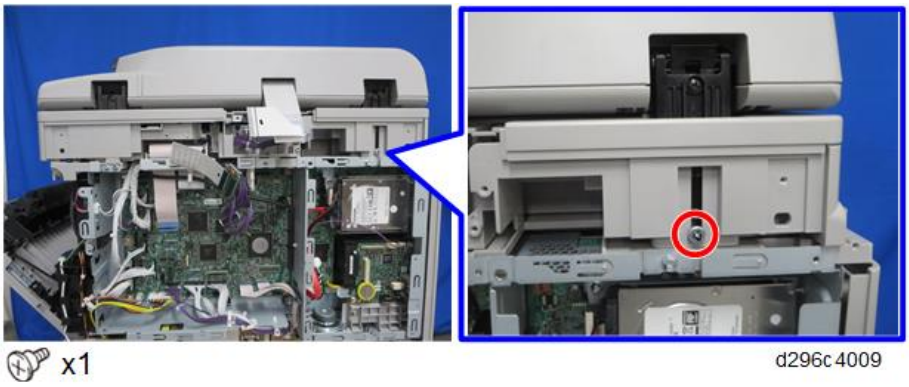
6. Disconnect the FFC [A] from the relay board.



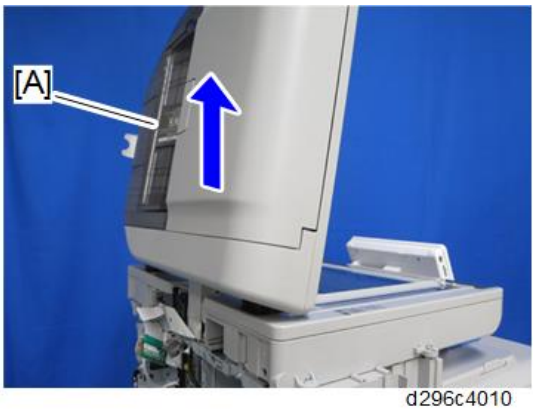
Note

Disconnect the FFC for the relay board 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.



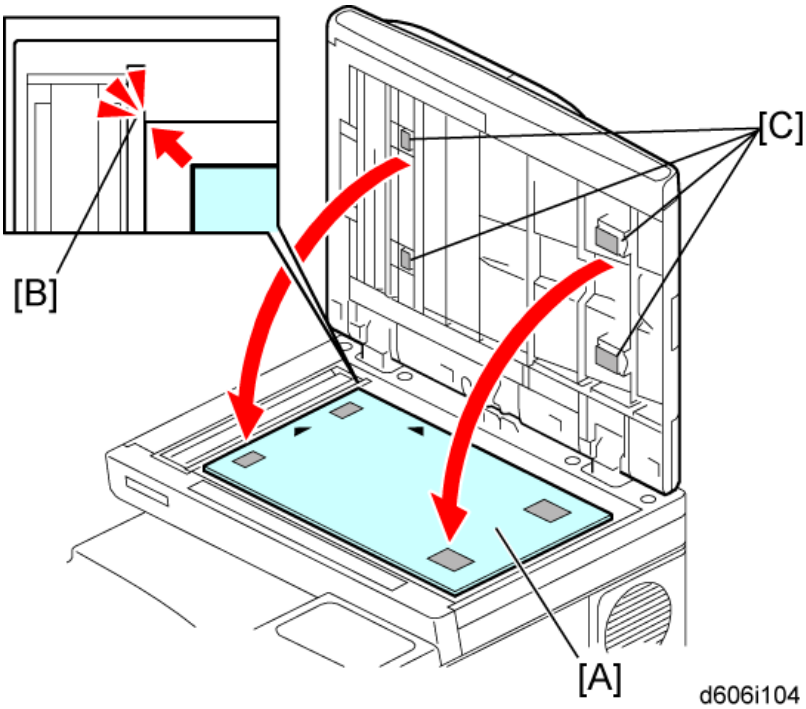
When Installing the ADF

1. Open the ADF.

2. Do the following steps:

- Place the platen sheet [A] on the exposure glass.

- Align the platen sheet with Velcro tape [C], with the rear left corner [B] on the exposure glass as a reference.



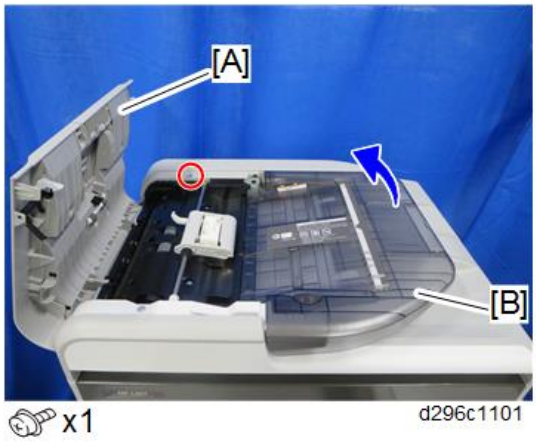
3. Close the ADF.
4. Reopen the ADF.
5. Press the surface of the platen sheet gently to fix it on the ADF firmly.

Adjustment after ADF Unit Replacement

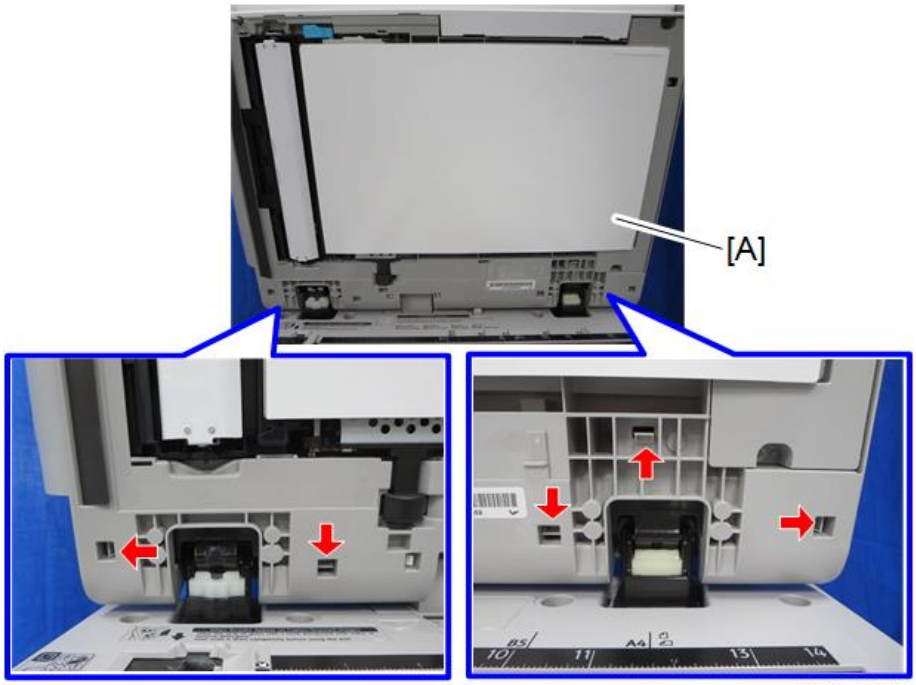
See "Adjustment after CIS Unit Replacement".

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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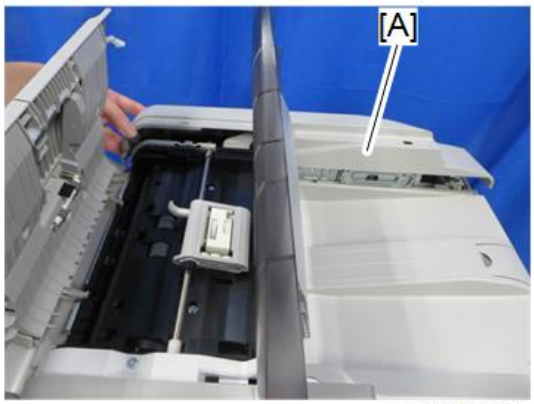
4. Remove the ADF rear cover [A].



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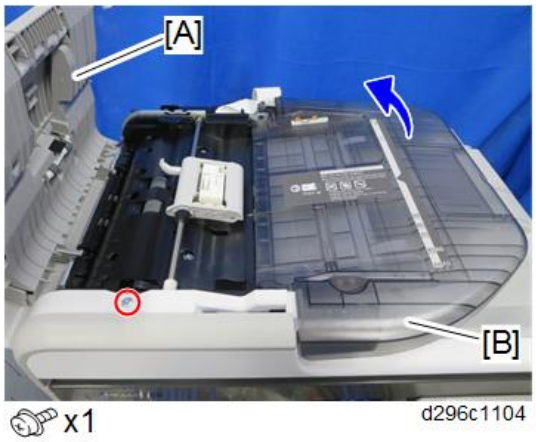
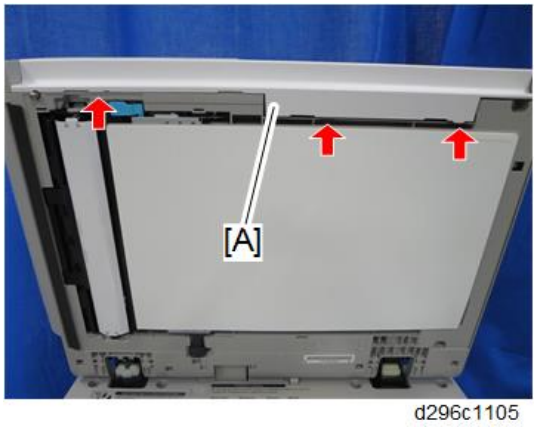
ADF Front Cover

1. Open the ADF top cover [A].

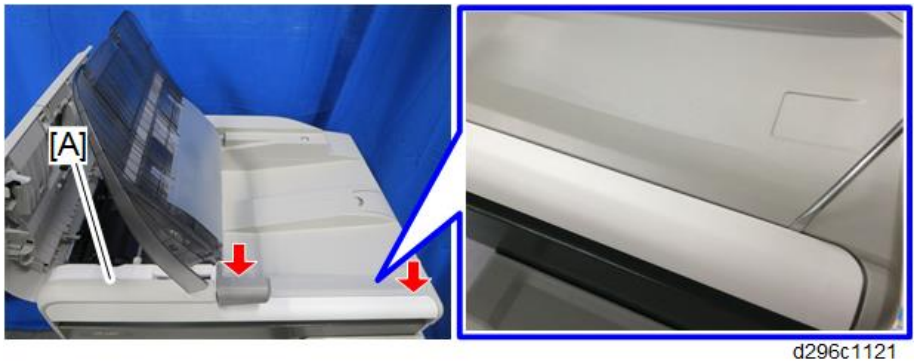
2. Remove the screw, and lift up the original tray [B].



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



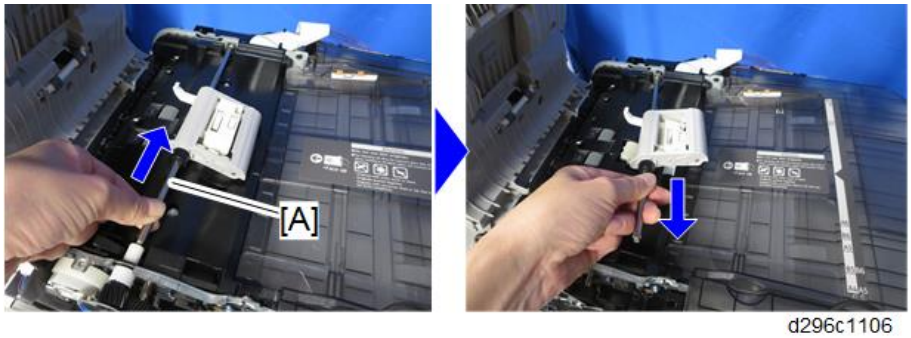
4. Close the ADF slightly, then remove the ADF front cover [A] while releasing the two tabs with a thin screwdriver.



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.



Pickup Roller, Feed Roller

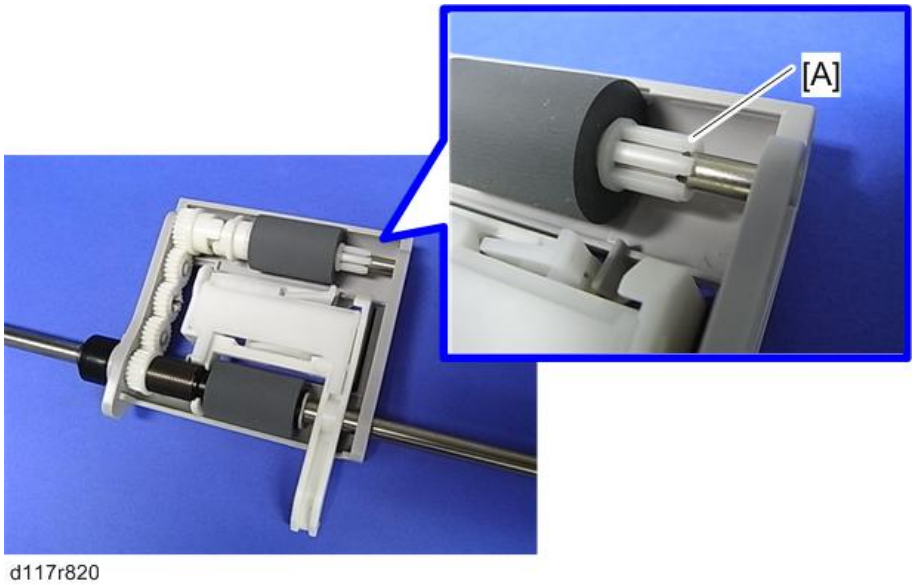
Before Replacing the Pickup Roller and Feed Roller

Before replacing the pickup roller and feed roller, reset the PM counter.

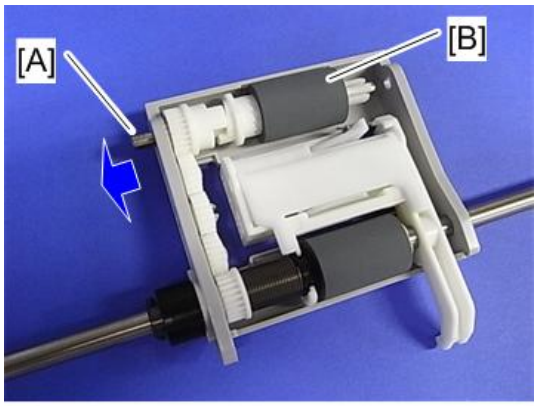
1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

Replacing the Pickup Roller

1. Remove the original feed unit. (Original Feed Unit)
2. Release the hook [A].



3. Slide the shaft [A], and then remove the pickup roller [B].



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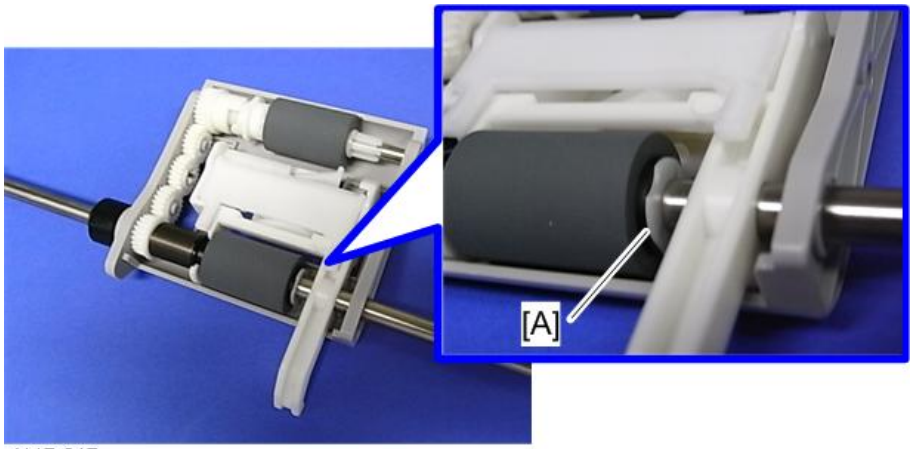
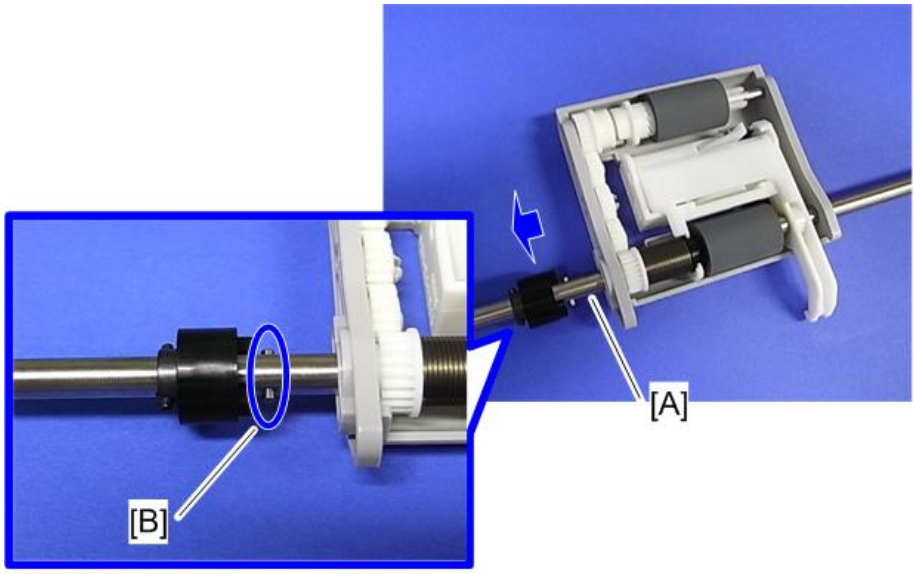
Replacing the Feed Roller

1. Remove the original feed unit. (Original Feed Unit)
2. Remove the clip [A].



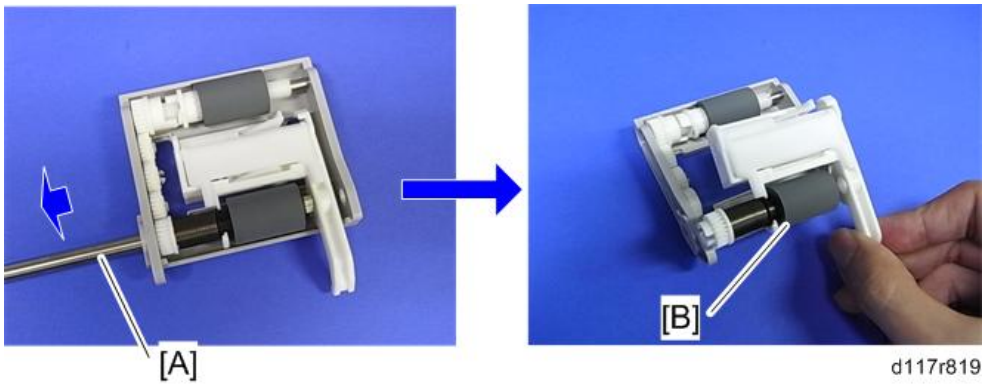
d117r817

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

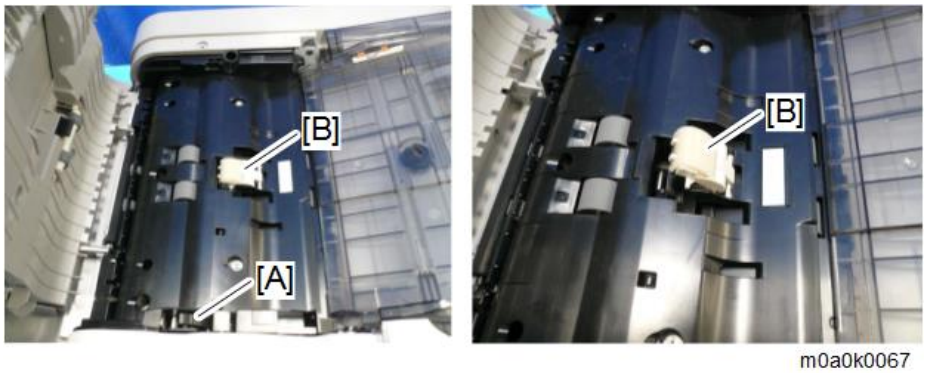
Before Replacing the Friction Pad

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

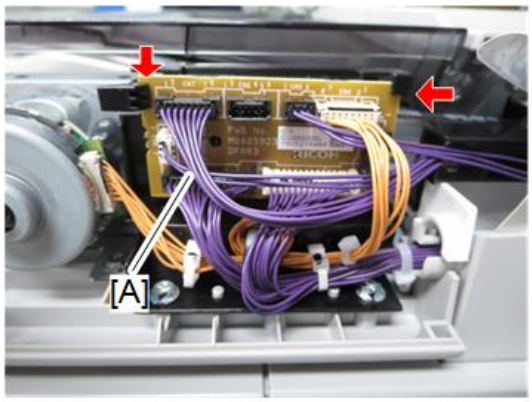
1. Remove the original feed unit. (Original Feed Unit)
2. Push the lever [A] and then remove the friction pad [B].



ADF Relay Board

1. Remove the ADF rear cover. (ADF Rear Cover)

2. Remove the ADF relay board [A] while releasing the hook.

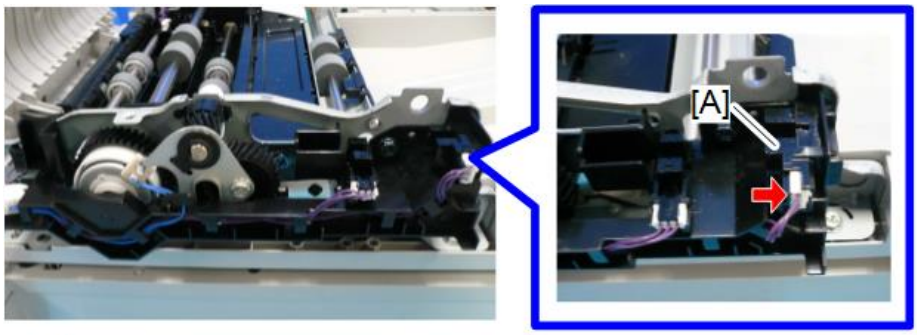


x all d296c4080

Top Cover Set Sensor, Original Set Sensor

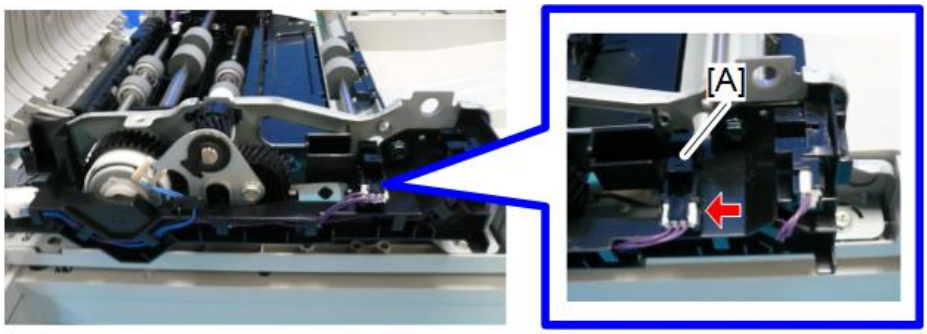
1. Remove the ADF front cover (ADF Front Cover)

2. Remove the top cover set sensor [A].



×1 m0a0k0069

3. Remove the original set sensor [A].

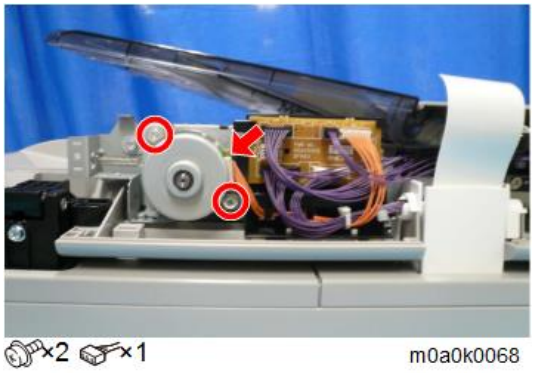


×1 m0a0k0070

ADF Drive Motor

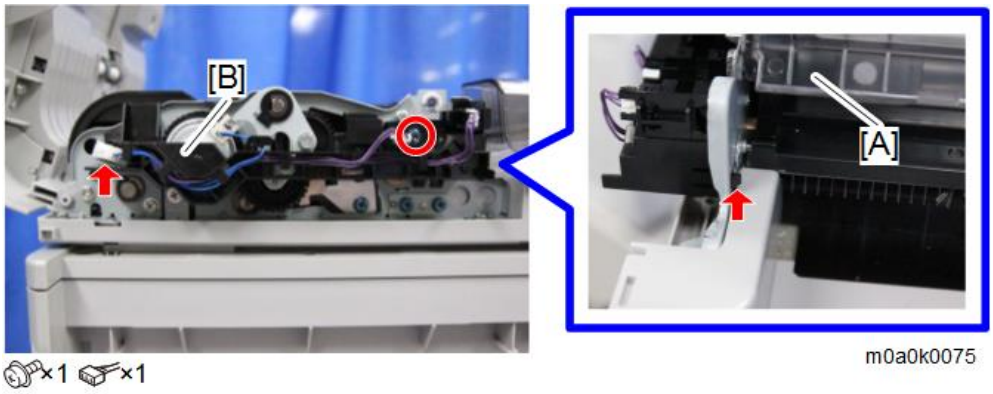
1. Remove the ADF rear cover. (ADF Rear Cover)

2. Remove the ADF drive motor [A].

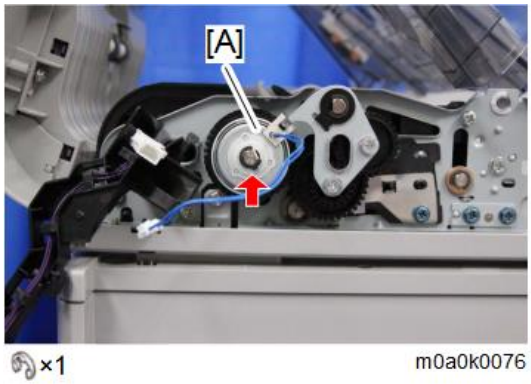


ADF Feed Clutch

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].



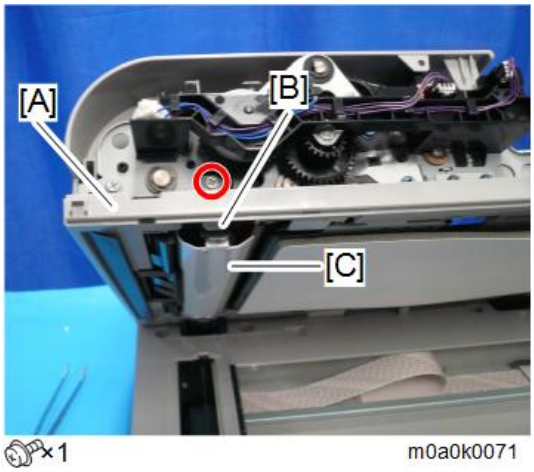
3. Remove the ADF feed clutch [A].



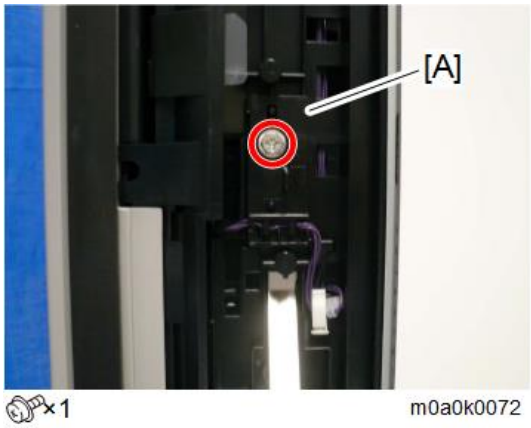
ADF Registration Sensor

1. Remove the ADF front cover. (ADF Front Cover)
2. Open the ADF [A].

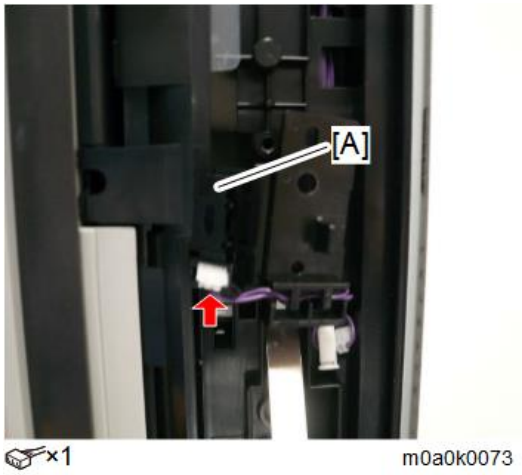
3. Slide the hook [B], and then remove the white plate [C].



4. Remove the ADF registration sensor holder [A].



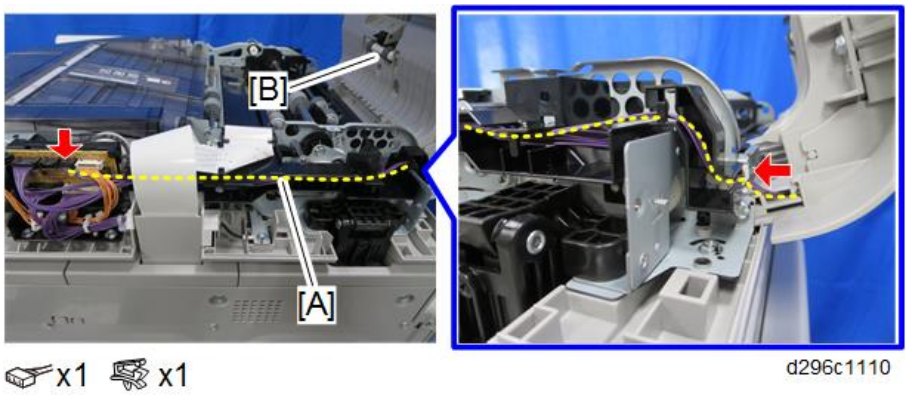
5. Remove the ADF registration sensor [A] from the holder.



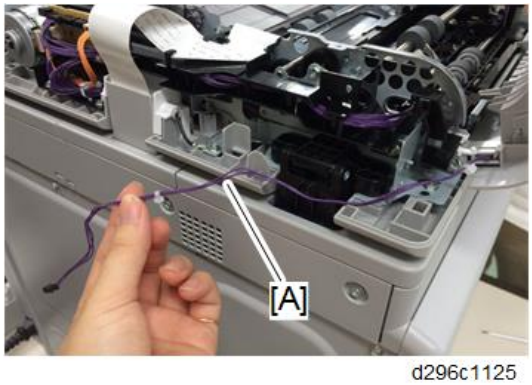
ADF Feed Sensor

1. Remove the ADF rear cover. (ADF Rear Cover)

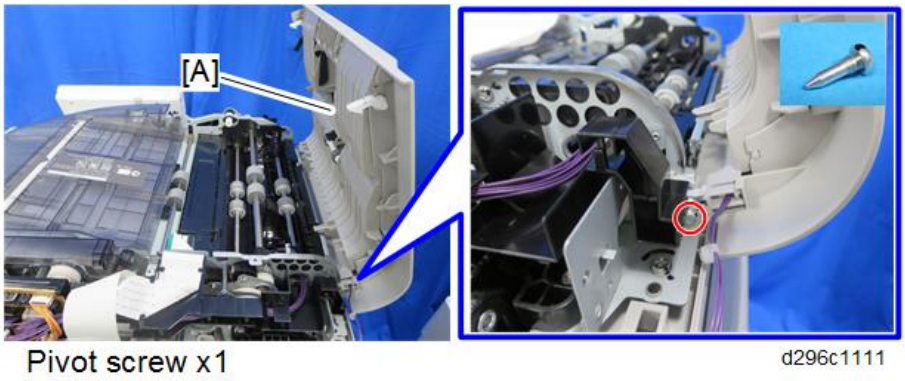
2. Disconnect the harness [A] from the ADF top cover [B], and release the clamp.



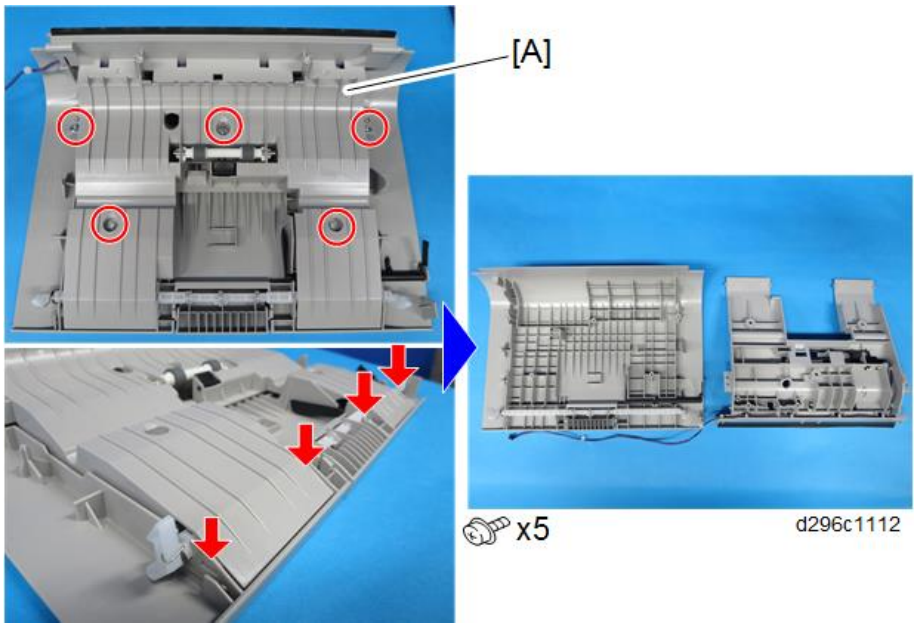
3. Remove the harness [A] from the harness guide.



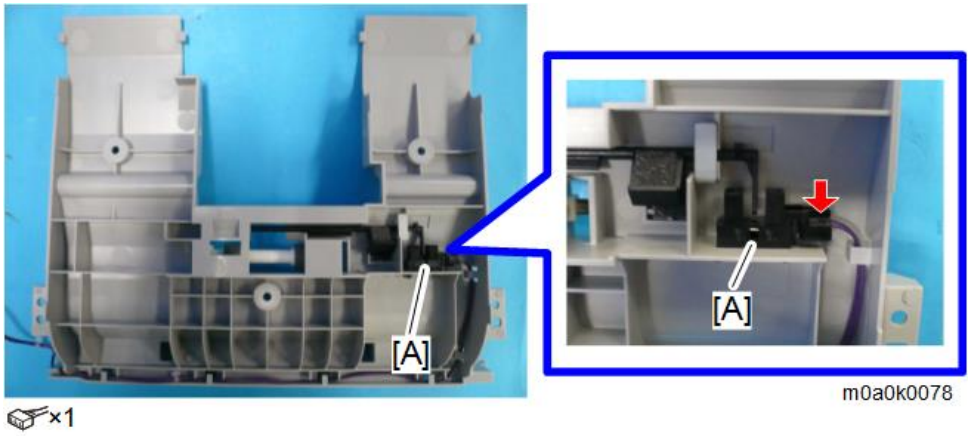
4. Remove the ADF top cover [A].



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

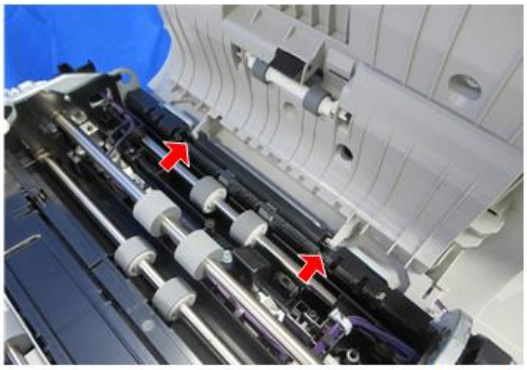


6. Remove the ADF feed sensor [A].



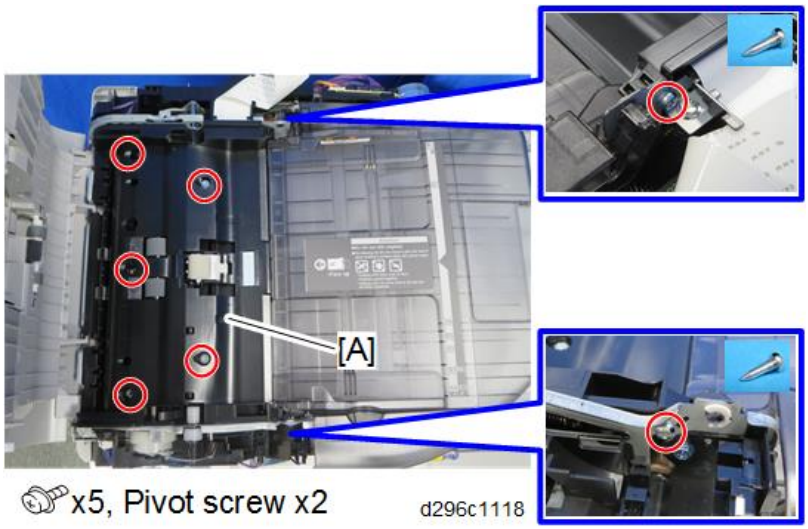
Note

- When reattaching the ADF top cover, make sure it is set correctly so that the two tabs fit into the holes.



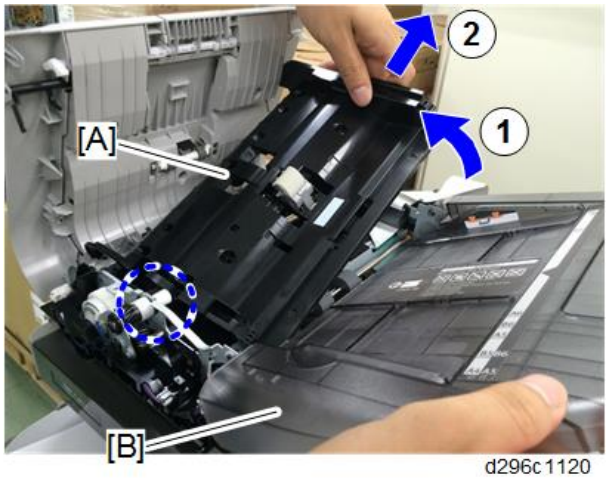
CIS Unit

1. Remove the ADF rear cover. (ADF Rear Cover)
2. Remove the ADF front cover. (ADF Front Cover)
3. Remove the original feed unit. (Original Feed Unit)
4. Remove the ADF inner cover [A].

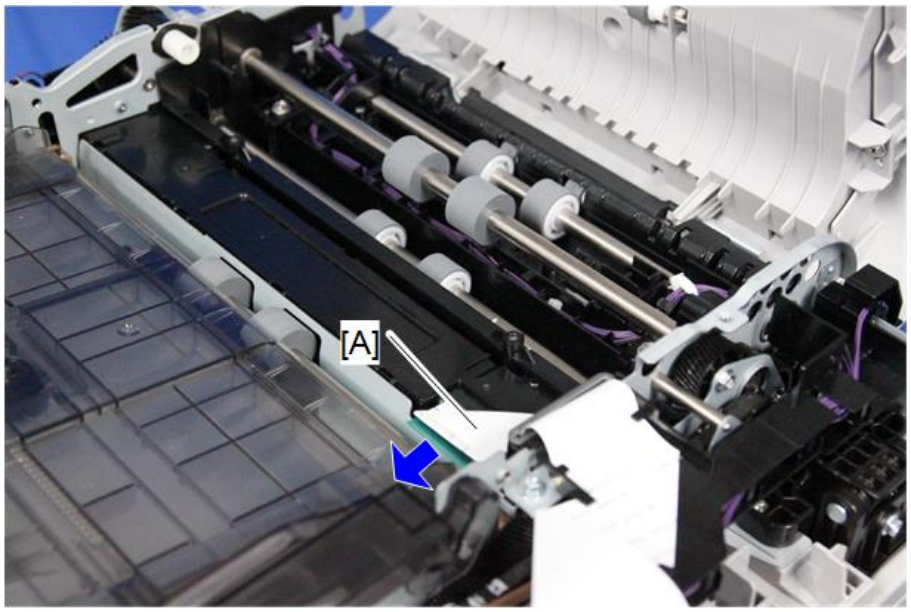


Note

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.

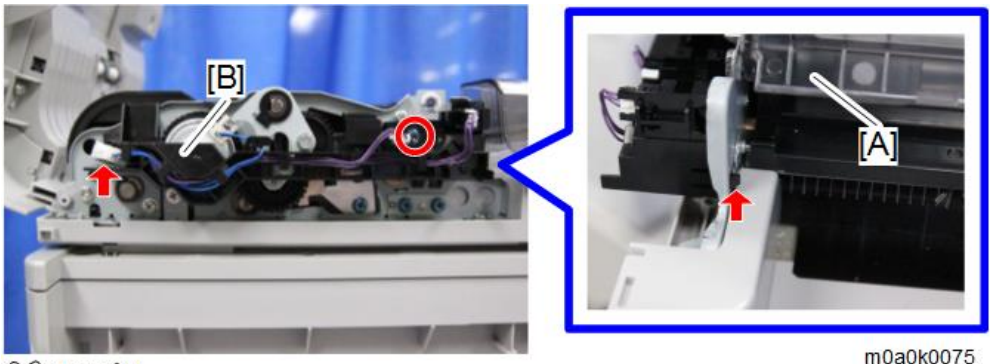


5. Disconnect the FFC [A].



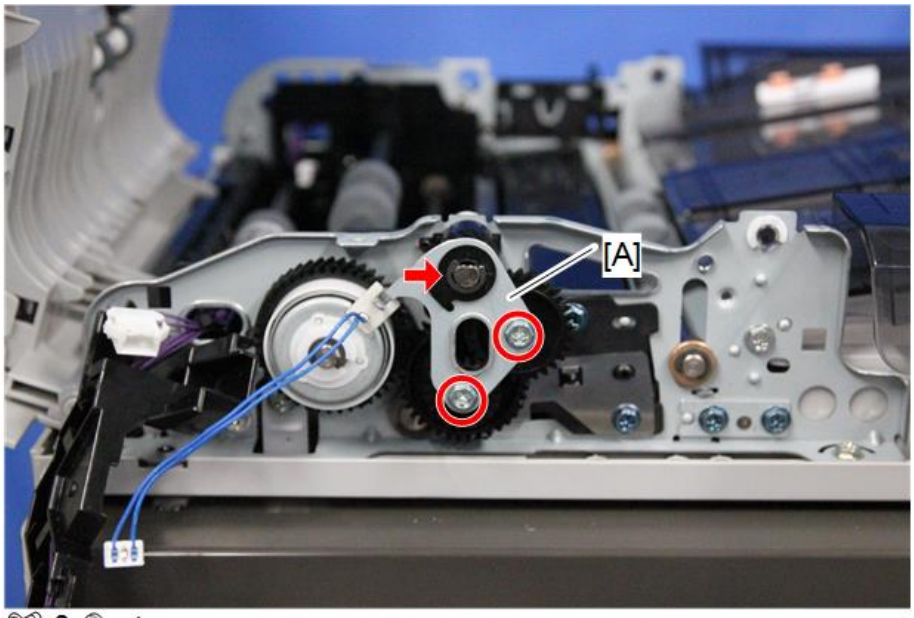
×1 m0a0k3035

6. Release the hook while swinging up the original tray [A], and then remove the harness guide [B].



×1 ×1 m0a0k0075

7. Remove the gear bracket [A].

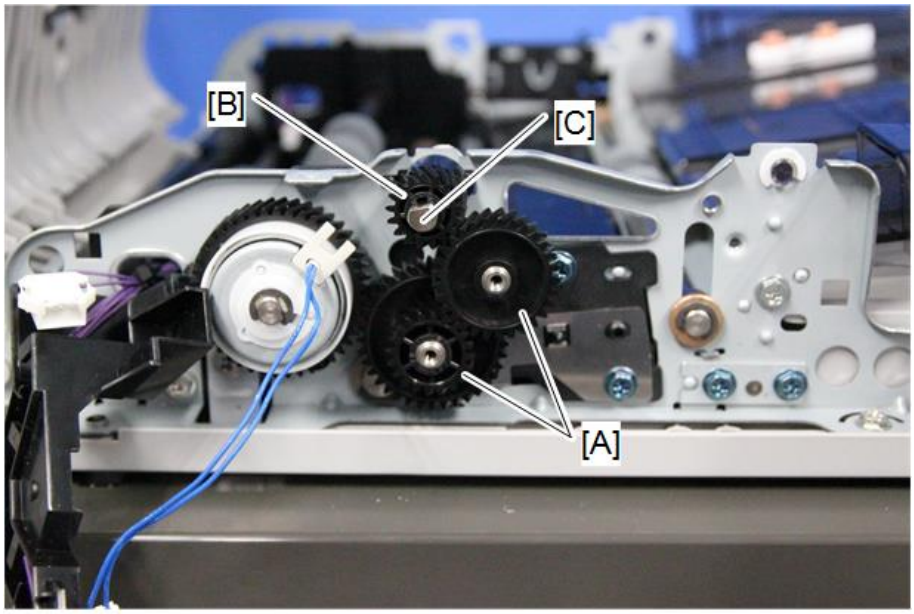


×2 ×1 m0a0k3032

8. Remove the two gears [A].

Important

Do not remove the gear [B], to prevent the inner pin [C] from dropping into the machine.

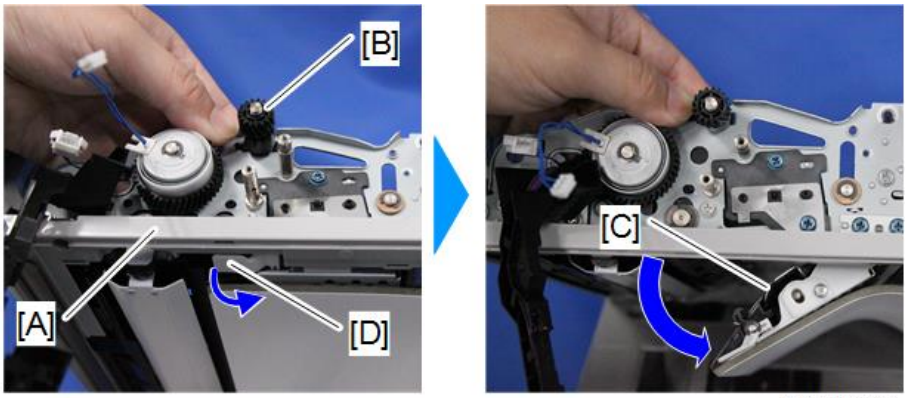


m0a0k3033

9. Open the ADF unit [A] while holding the gear [B] by hand, and 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.

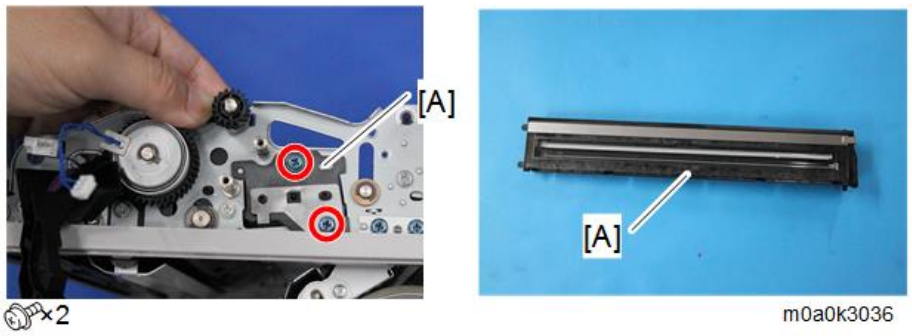


m0a0k3034

10. Pull out the CIS unit [A] from the ADF unit.

Note

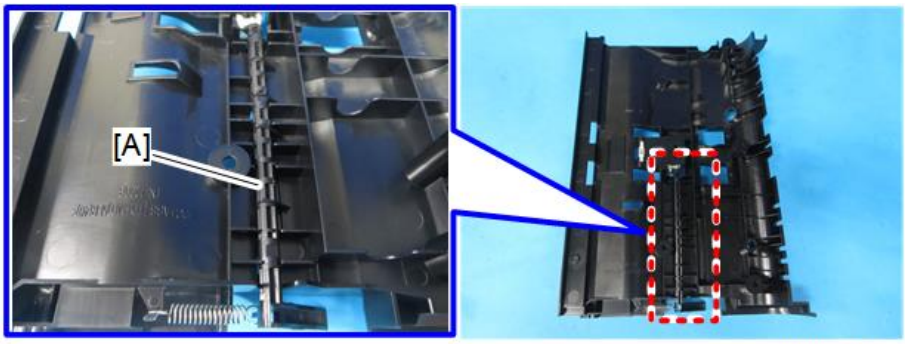
The CIS unit can be easily removed by pushing it from behind.



m0a0k3036

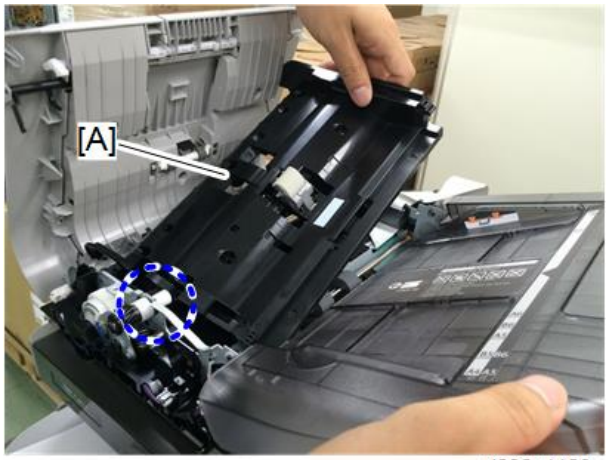
Note

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.



d296c1124

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.

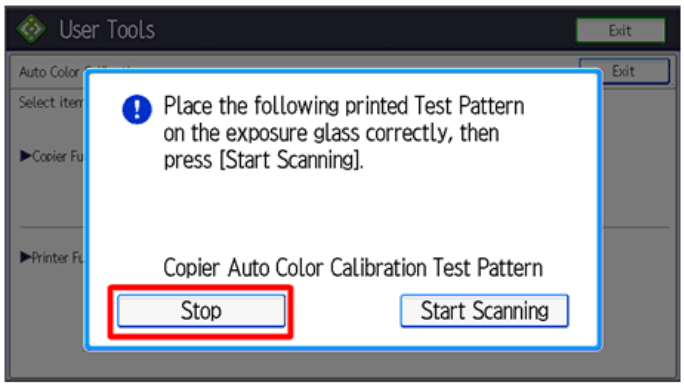


d296c1123

Adjustment after CIS Unit Replacement

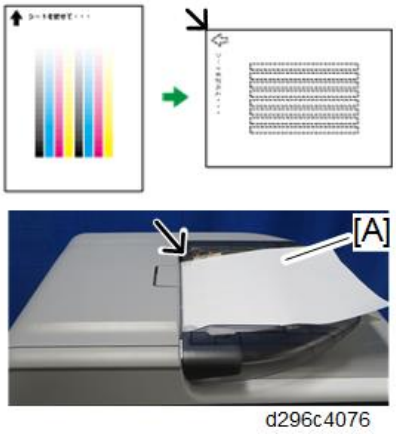
Correct the color deviation of the CIS after replacing the ADF unit or CIS unit.

1. Perform the registration adjustment of the ADF (back side). (ADF Side-to-Side and Leading Edge Registration)
2. Print an ACC test pattern.
   [User Tools] icon > [Machine Features] > [Maintenance] > [Auto Color Calibration] > [Copier Function] > [Start] > [Start Printing]
3. Press [Stop].
   An error screen will be displayed if [Start Scanning] is pressed.



d296c4078

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.)

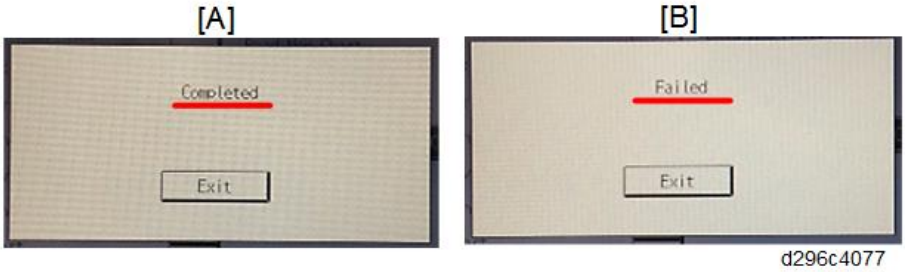


d296c4076

5. Exit the User Tools mode, and then enter the SP mode.

6. Execute SP4-958-001 (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.

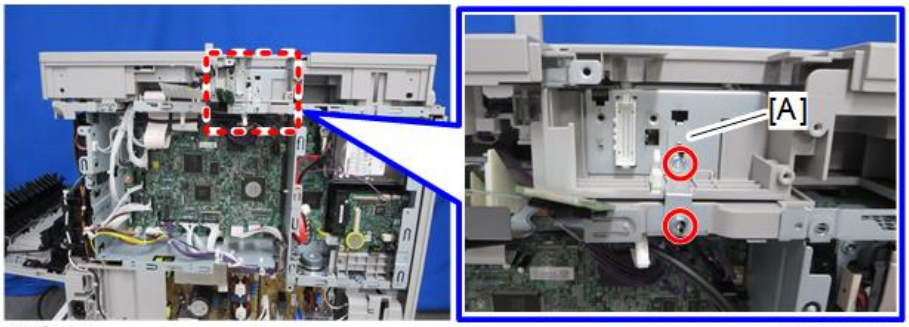
Scanner

Scanner Unit

1. Remove the ADF. (ADF Unit)
2. Remove the right rear cover. (Right Rear Cover)
3. Remove the upper left cover. (Upper Left Cover)
4. Remove the front right cover [A].

d196z4100

5. Remove the grounding plate [A].

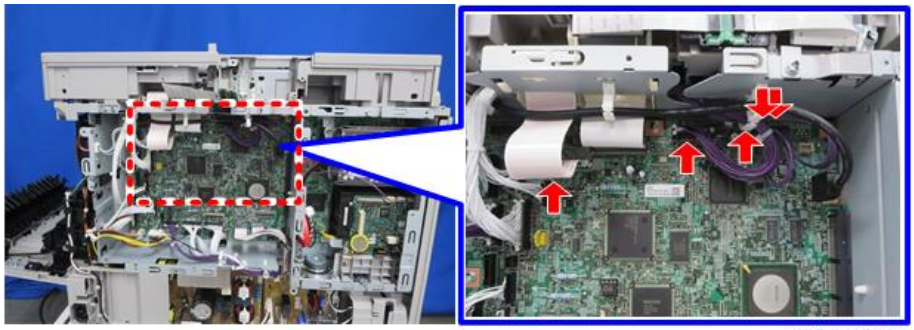


x2

d296c4026

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.

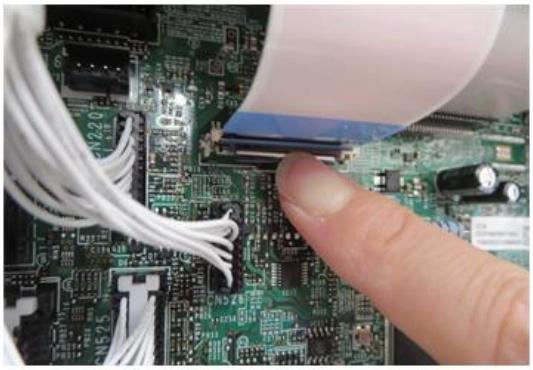


x3 x1 x1

d296c4028

Note

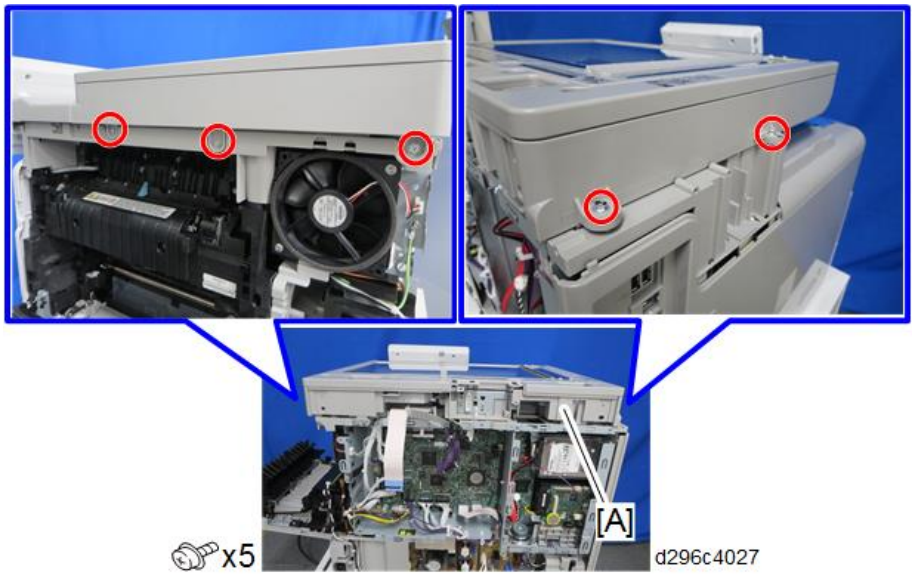
- When disconnecting or connecting the FFC, push the lock button to unlock it as shown below.



d296c4017

- If the FFC is not connected correctly, SC101 may occur.

7. Remove the scanner unit [A].



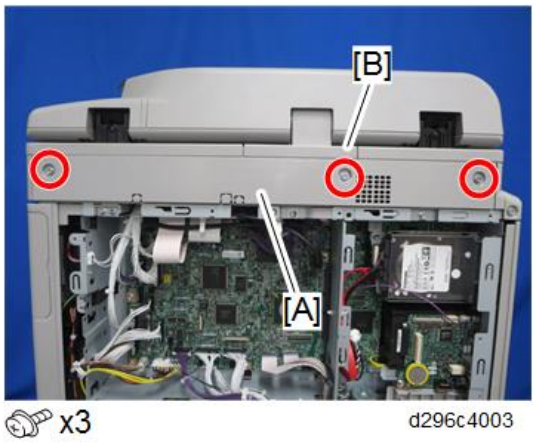
d296c4027

Scanner Unit with the ADF

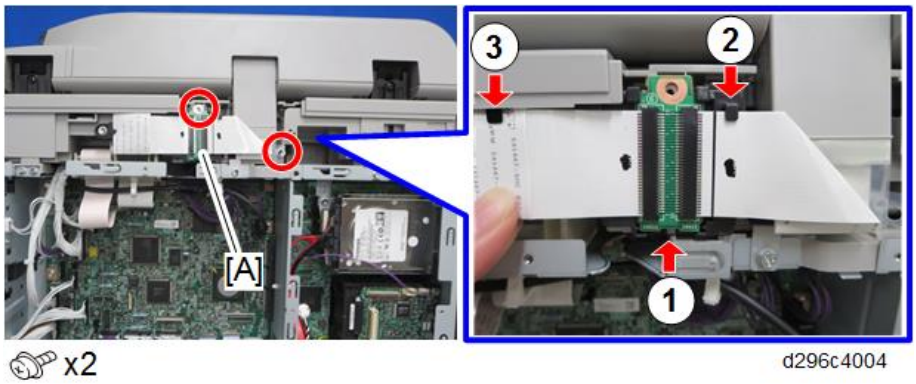
1. Remove the rear cover. (Rear Cover)
2. Remove the right rear cover. (Right Rear Cover)
3. Remove the upper left cover. (Upper Left Cover)

4. Remove the front right cover [A].

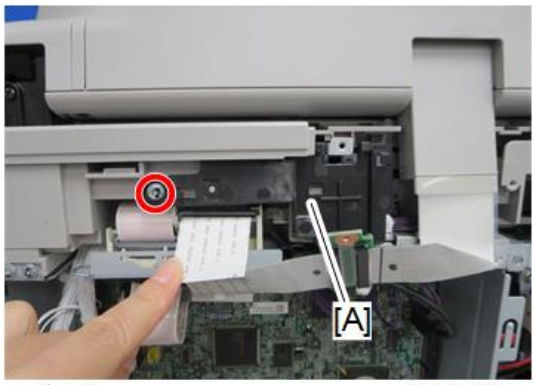
5. Remove the scanner rear cover [A] and scanner rear small cover [B].



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



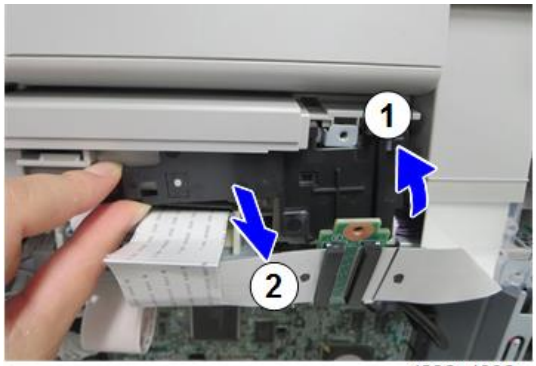
7. Remove the FFC fixing bracket [A] on the back side of the FFC.



x1 d296c4005

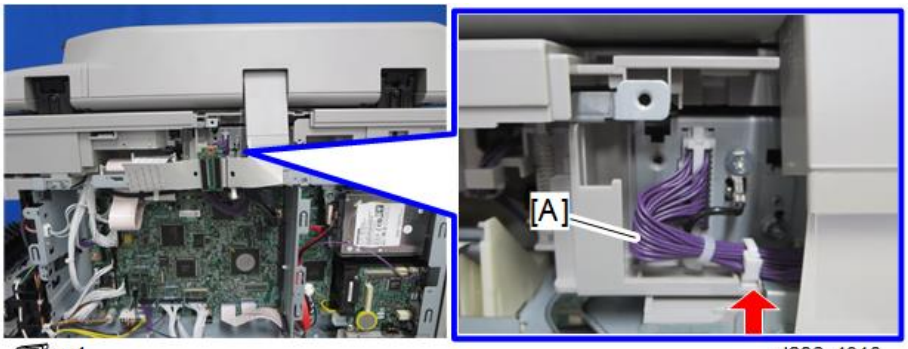
Note

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



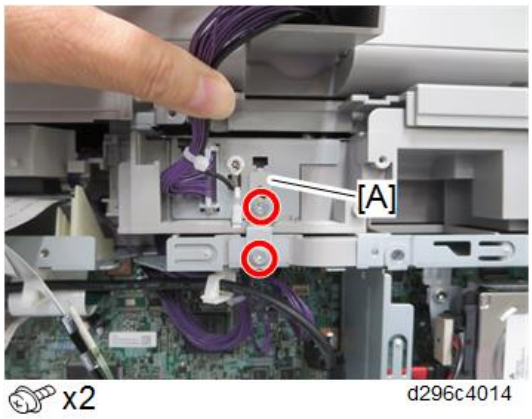
d296c4006

8. Release the clamp for the harness [A] to the ADF.

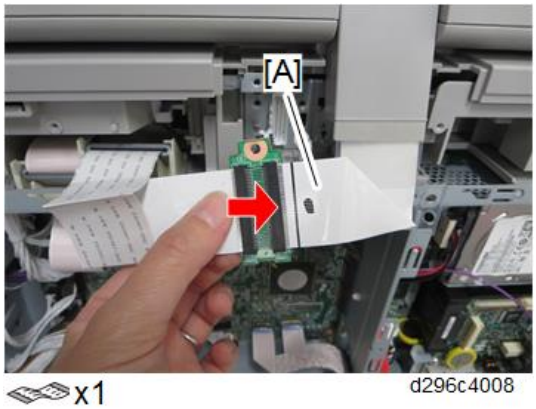


x1 d296c4013

9. Remove the grounding plate [A].



10. Disconnect the FFC [A] from the relay board.

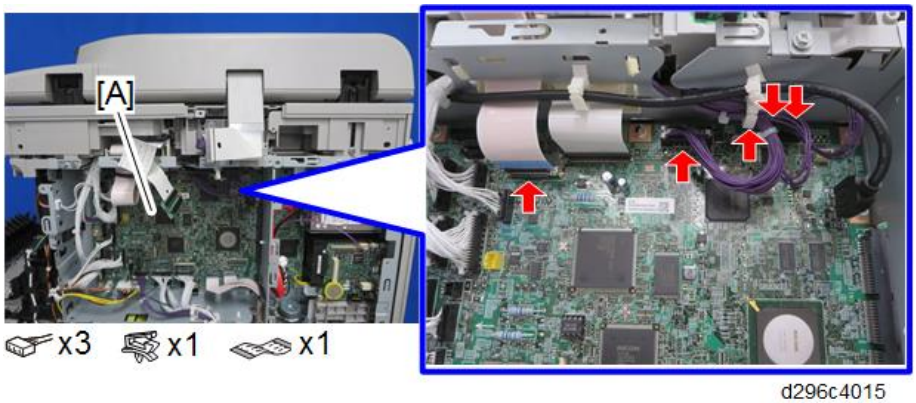


Note

Disconnect the FFC for relay board by pulling it out straight, because it does not have a lock mechanism. When reassembling, the FFC must be connected straight.

11. 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.



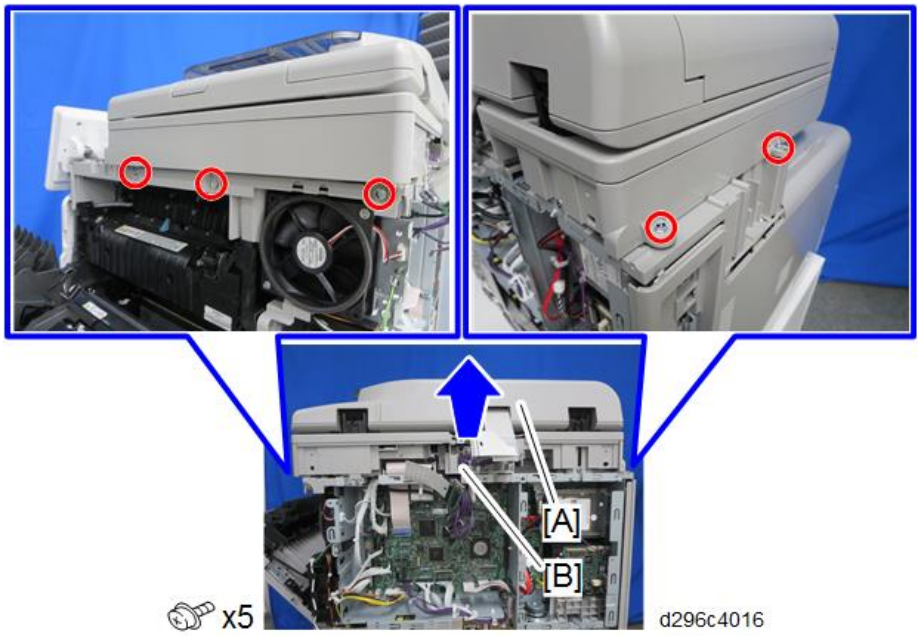
Note

When disconnecting or connecting the FFC, push the lock button to unlock it as shown below.

d296c4017

If the FFC is not connected correctly, SC101 may occur.

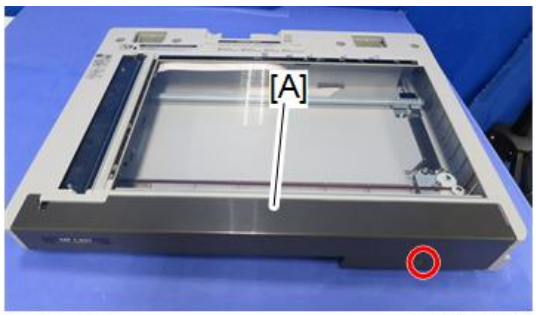
12. Remove the scanner unit [B] with the ADF [A].



ADF Set Sensor

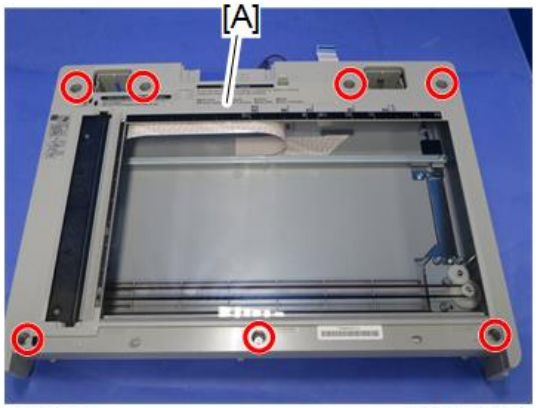
1. Remove the scanner unit. (Scanner Unit)

2. Remove the scanner front cover [A].



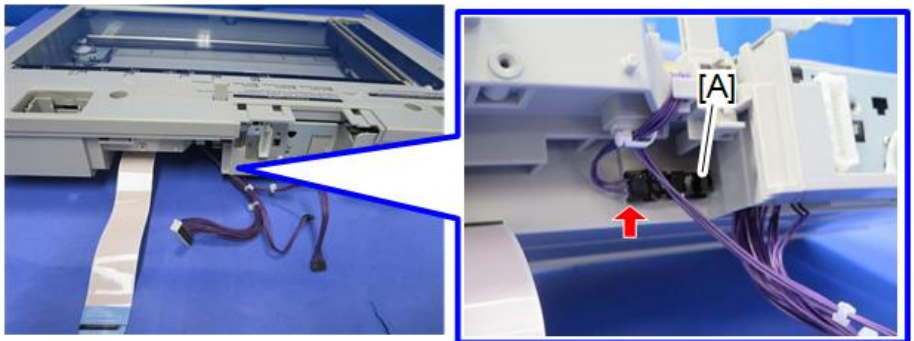
x1 d296c4029

3. Remove the scanner upper cover [A].



x7 d296c4030

4. Remove the ADF set sensor [A].



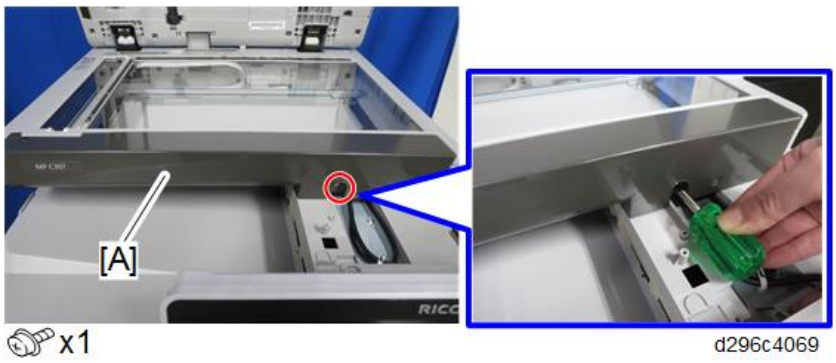
x1 d296c4031

Scanner Front Cover

1. Open the right cover, and then remove the front right cover [A].

d196z4100

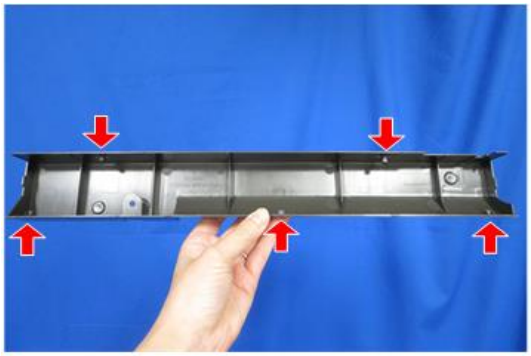
2. Open the ADF.
3. Remove the scanner front cover [A]. Use a short screwdriver.



d296c4069

Note

There are five tabs on the back of the scanner front cover.

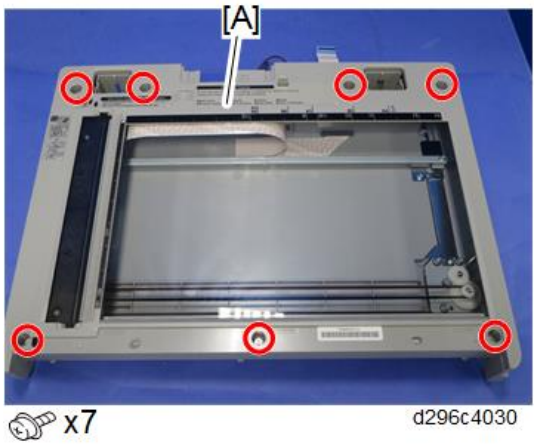


d296c4070

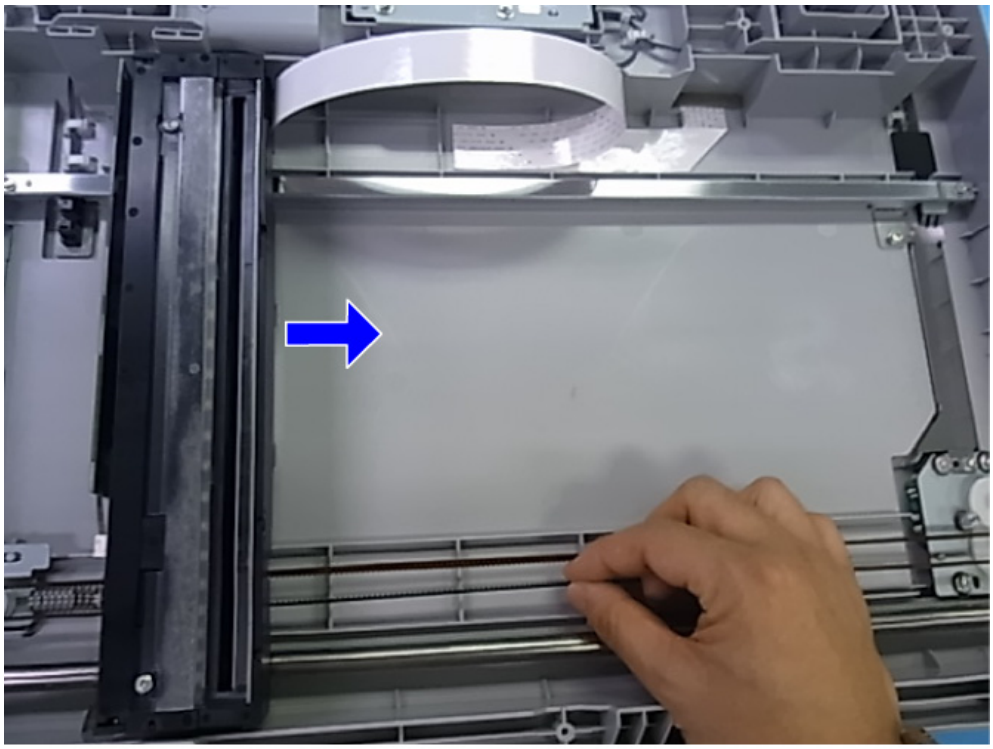
Scanner HP Sensor

1. Remove the ADF unit. (ADF Unit)
2. Remove the scanner front cover. (Scanner Front Cover)

3. Remove the scanner upper cover [A].



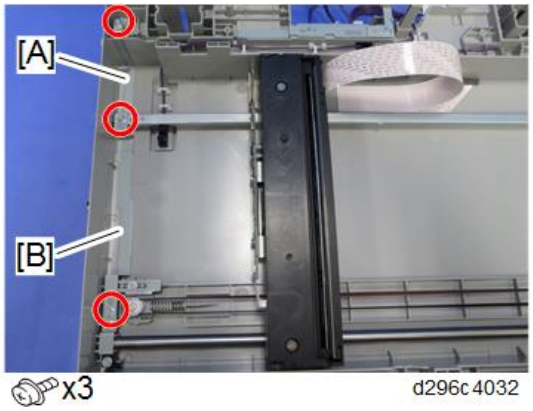
4. Move the scanner carriage to the right.



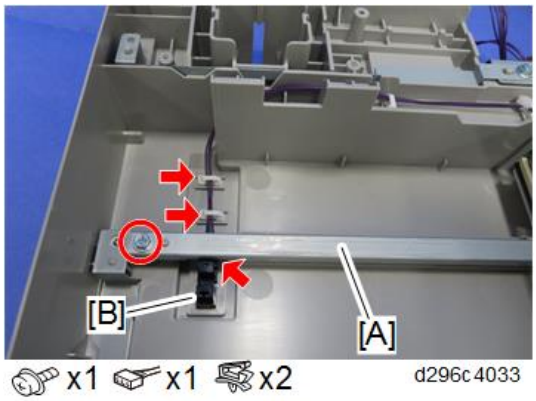
Important

- To move the carriage, hold the carriage belt and move it carefully.
- Never hold the carriage itself.

5. Remove the brackets [A][B].

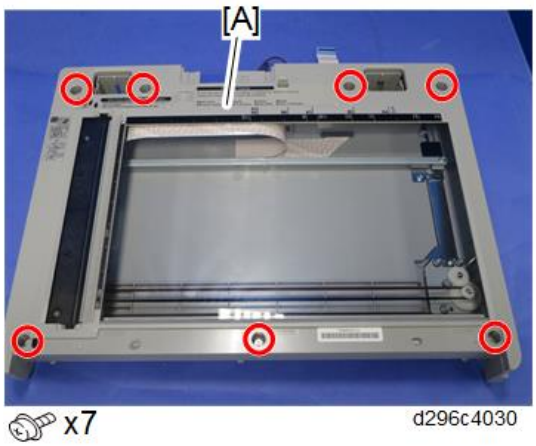


6. Remove the scanner HP sensor [B] while lifting up the bracket [A] slightly.

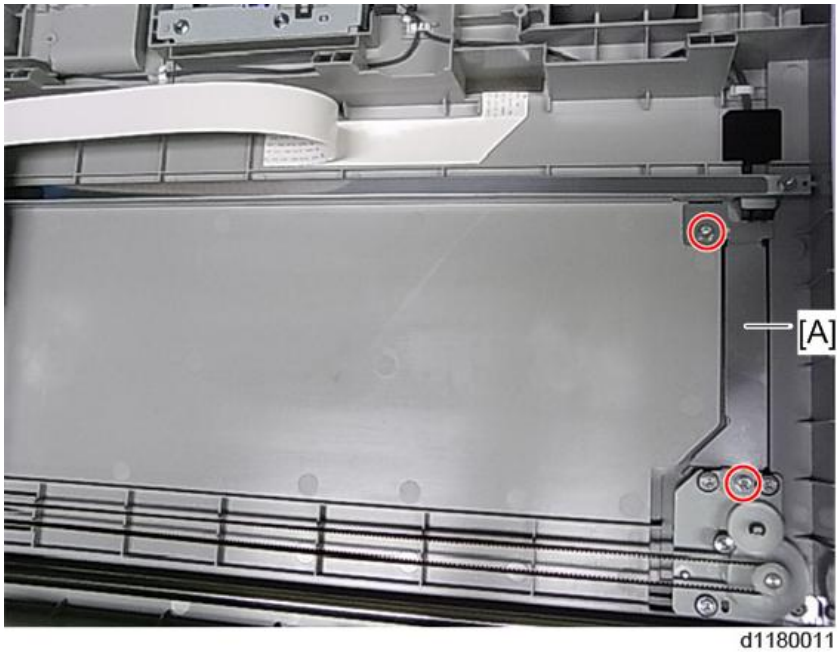


Scanner Motor

1. Remove the ADF unit. (ADF Unit)
2. Remove the scanner front cover. (Scanner Front Cover)
3. Remove the scanner upper cover [A].

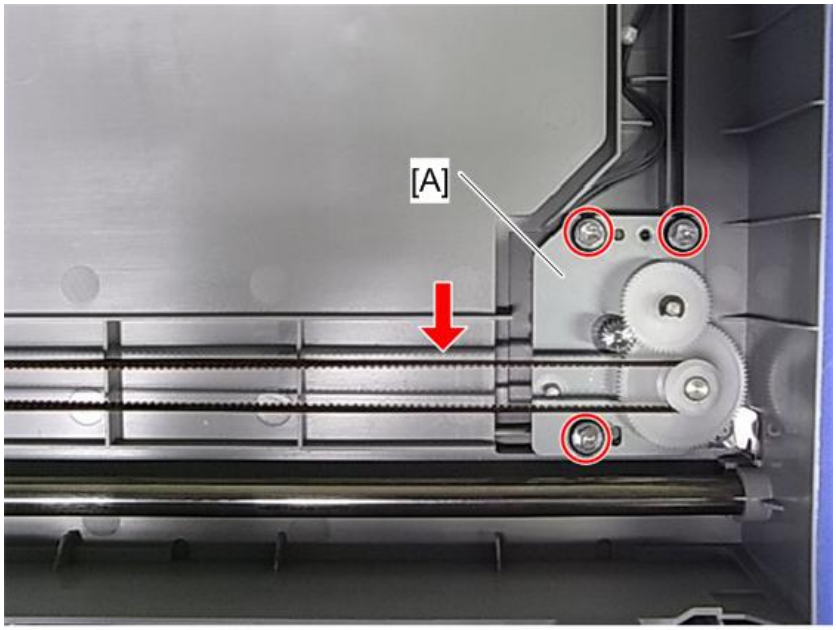


4. Remove the shield plate [A]. (🔩 × 2)



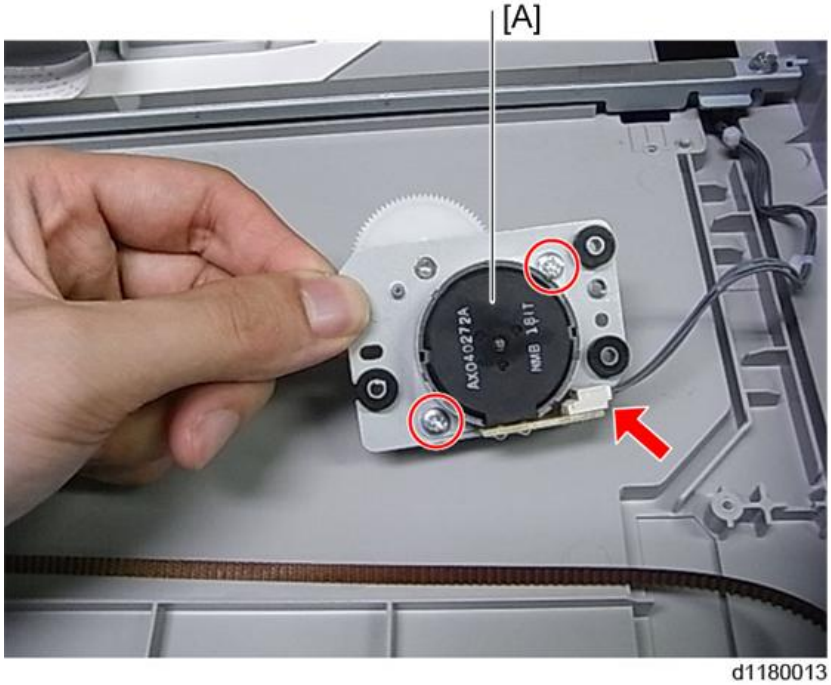
d1180011

5. Remove the scanner motor with the bracket [A]. (🔩 × 3, belt × 1)



d1180012

6. Remove the scanner motor [A]. (× 1, × 2)

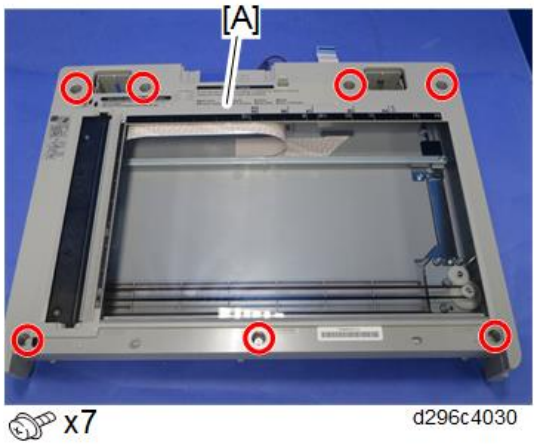


Scanner Carriage

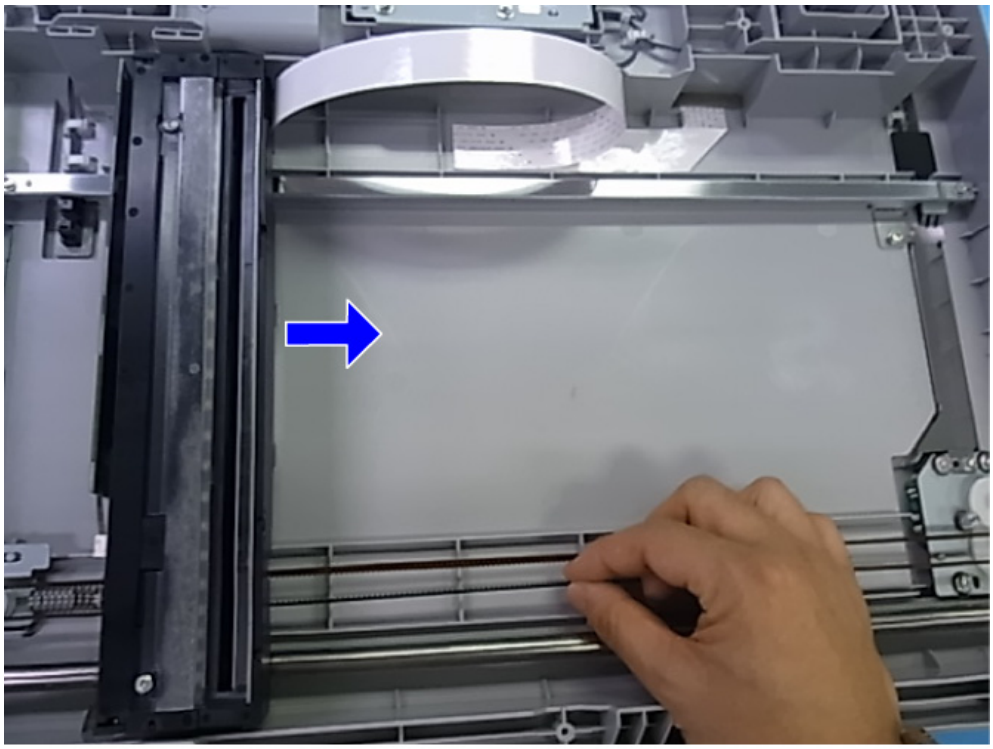
1. Remove the ADF unit. (ADF Unit)

2. Remove the scanner front cover. (Scanner Front Cover)

3. Remove the scanner upper cover [A].



4. Move the carriage to the right.

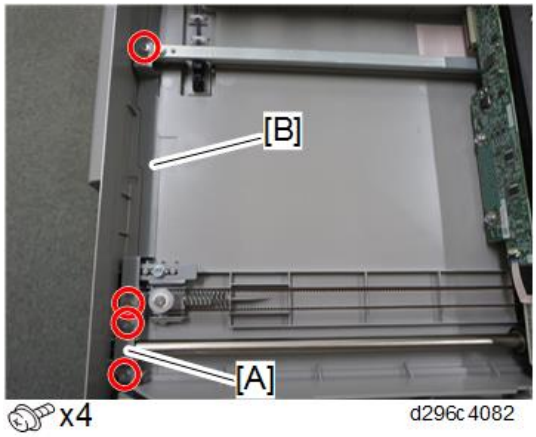


d1180008

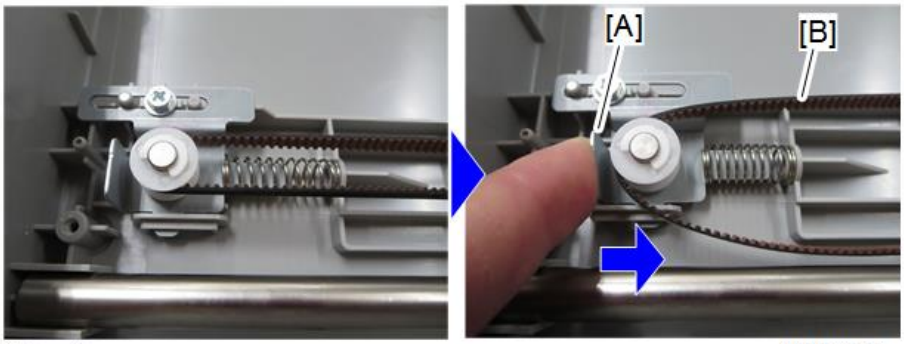
Important

- To move the carriage, hold the carriage belt and move it carefully.
- Never hold the carriage itself.

5. Remove the brackets [A][B].

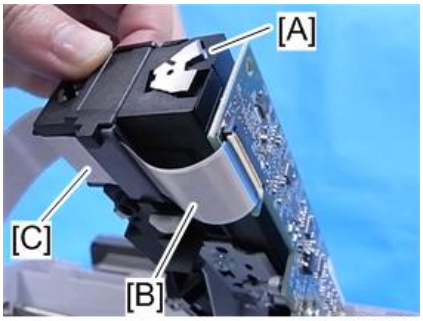


6. Slide the bracket [A] and then detach the carriage belt [B] from the pulley.



x1 d296c4083

7. Disconnect the FFC [B] while lifting up the scanner carriage [A]. (x1)

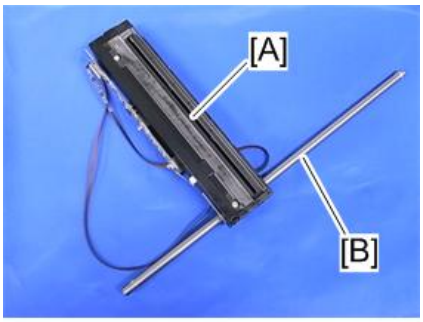


m1600045

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

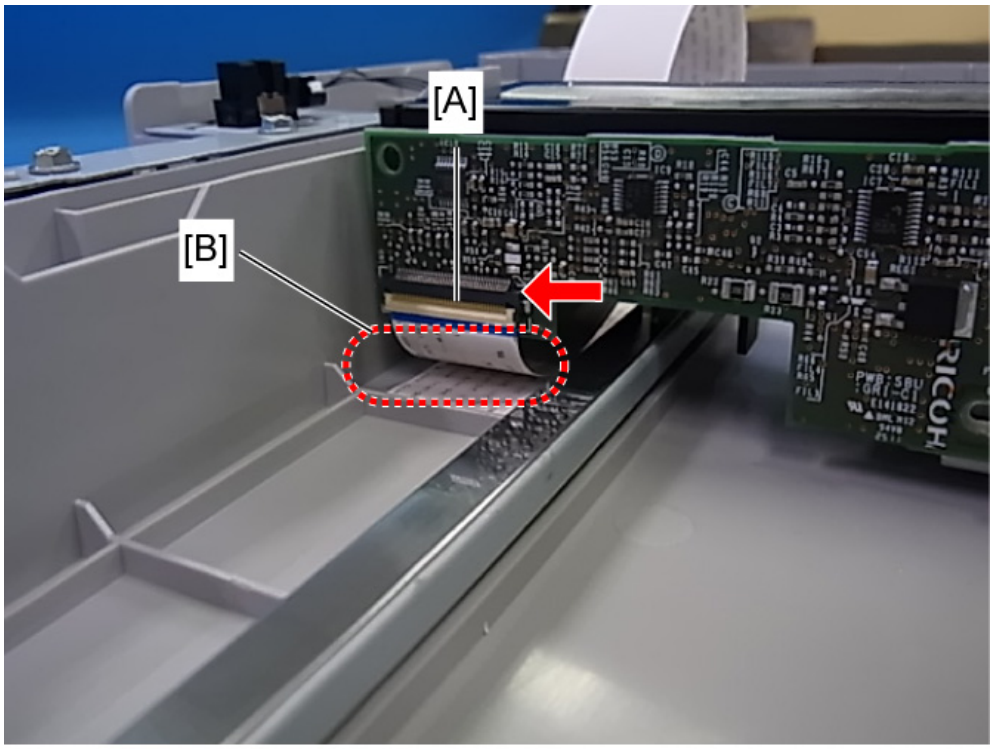
Make sure that the FFC of the carriage is correctly connected and routed referring to the following points.

- The FFC [A] must be connected straight, and not at an angle.

Important

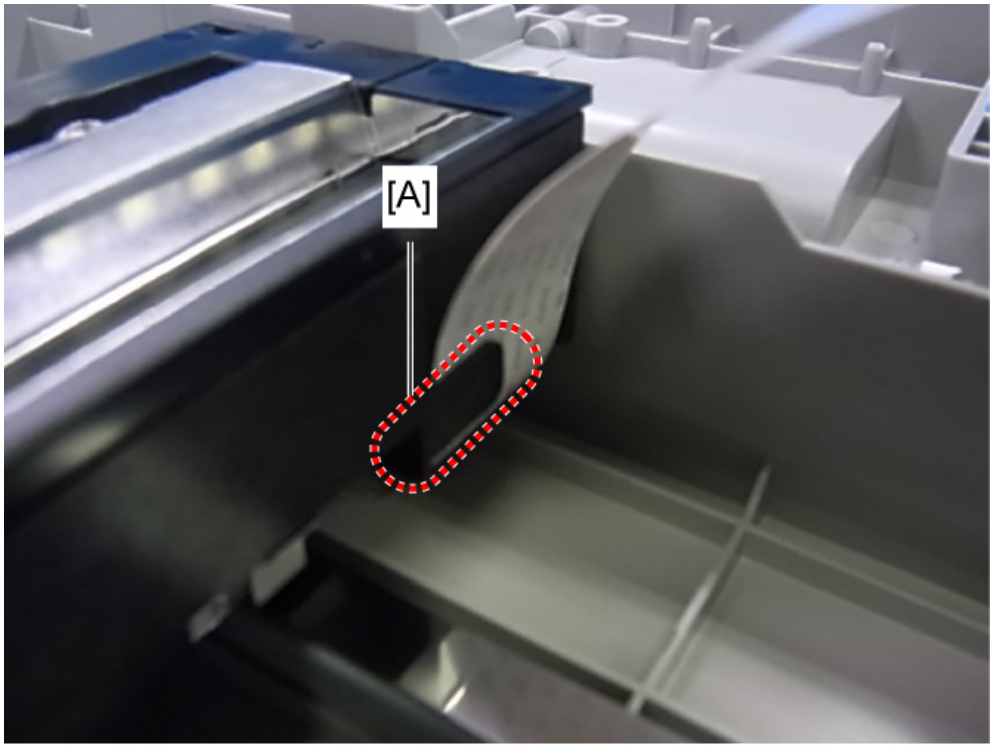
- Never connect the FFC to the carriage connector at an angle. Otherwise, the BiCU or the SBU may be damaged.

- The FFC must not be sagging and must not drag on the bottom of the scanner unit [B].



d1170737

- The FFC must be hooked at part [A] of the carriage.



d1170738

Laser Optics

⚠WARNING

- Turn off the main power switch and unplug the machine before beginning any of the procedures in this section. Laser beams can cause serious eye injury.

Caution Decal Location

The caution decal is attached as shown below.

d238m1031

d296c0003

Laser Units

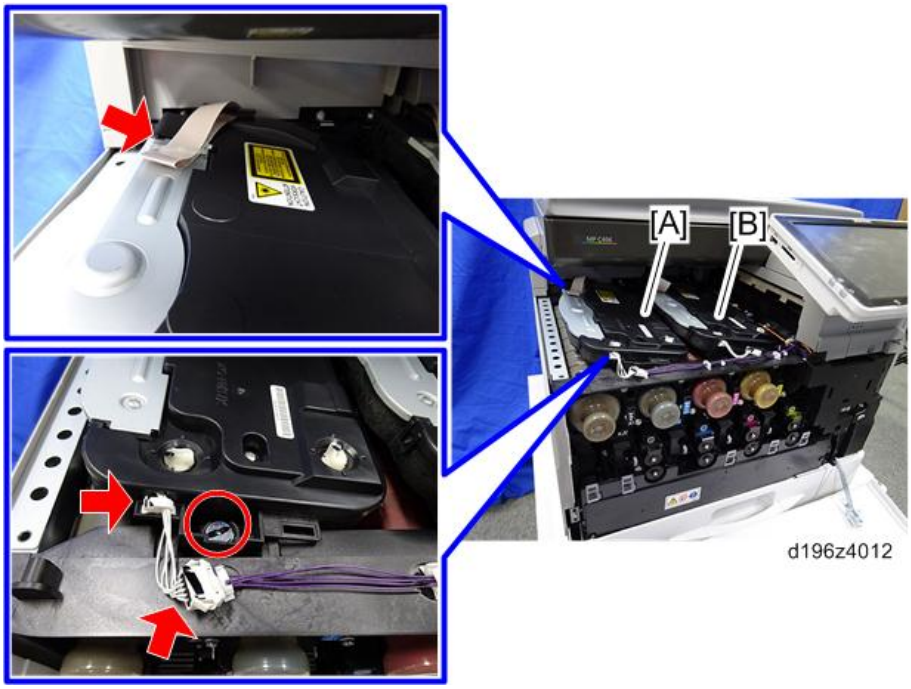
Note

- 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 screw and connector. Disconnect the stopper of the FFC of the laser unit 1 [A]. (× 1, × 1, × 2)

Repeat this procedure with the laser unit 2 [B].



d196z4012

Note

- Be sure to install the washer under the screw when assembling.

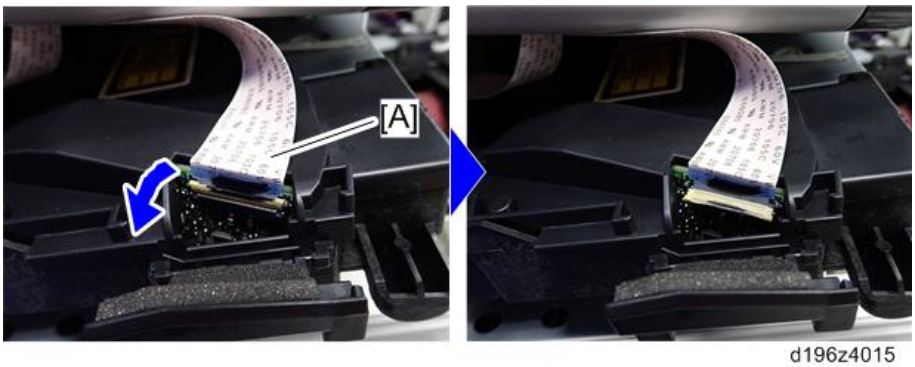
d196z4013

3. Pull the laser unit [A] out slightly, open the connector cover, and then disconnect the FFC [B]. (× 1)

d196z4014

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 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

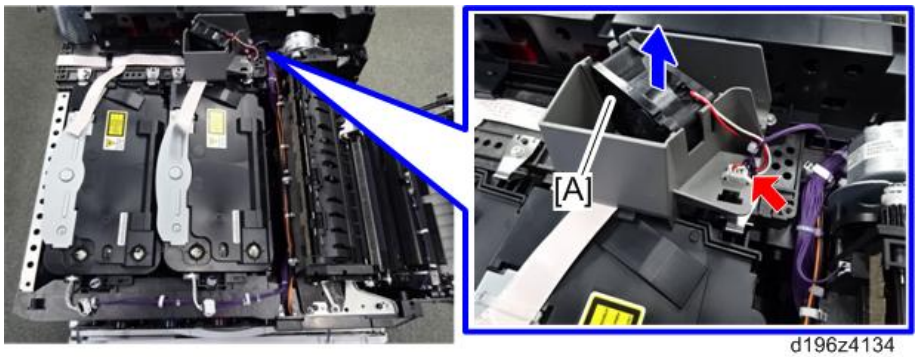
Do the skew adjustment manually.

Refer to "Color Skew Adjustment"

LD Unit Cooling Fan

1. Remove the scanner inner cover. (Scanner Inner Cover)
2. Remove the paper exit tray (Paper Exit Tray)

3. Remove the LD unit cooling fan [A]. (☞ × 1)



PCDU, Toner Supply

PCDU (Photo Conductor and Development Unit)

Important

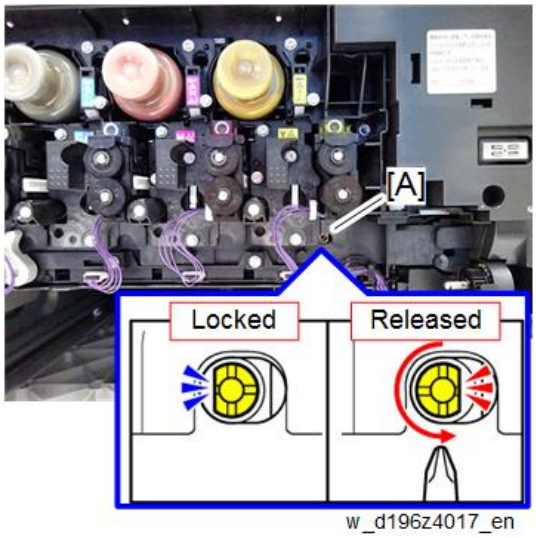
- The PCDU (K) for MP C307 is different from the one for MP C407. Make sure that you use the correct part number when ordering a PCDU (K).

1. Remove the waste toner bottle. (Waste Toner Bottle)
2. Only when removing the PCDU (K), release the ITB contact lever [A].

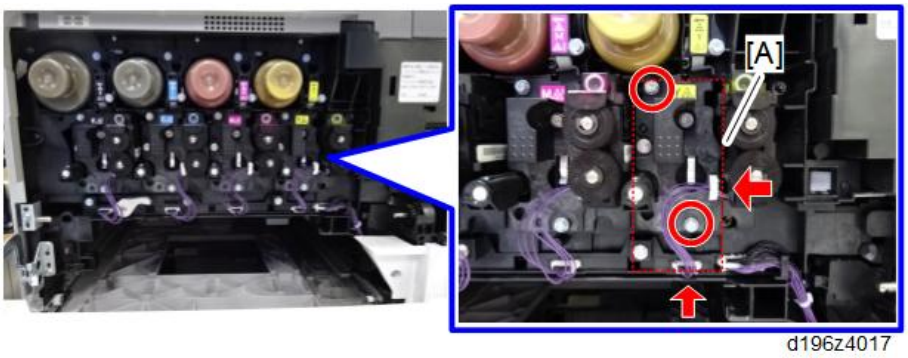
Note

- This step is not required for removing the PCDU (CMY).

3. 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.



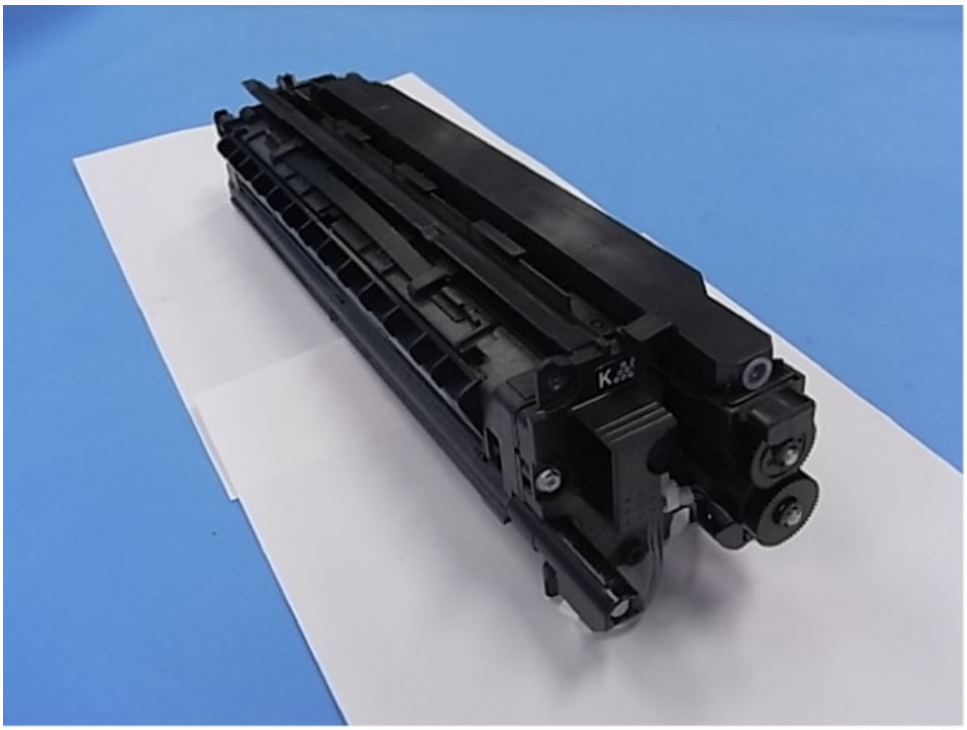
4. Remove the PCDU [A] (× 2, × 1, × 1)



CAUTION

- Before putting the PCDU back in the machine, check that the ITB has no tension. See step 3 for how to do this.

5. Put the removed PCDU on a flat surface with a sheet of paper under it.



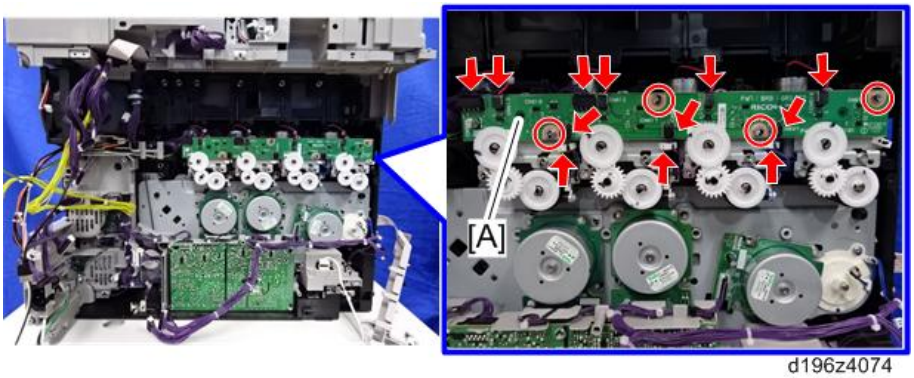
Note

- After replacing the PCDU, set the ITB contact lever released in step 2.
- 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 Detection Board

1. Remove the power pack (Development). (Power Pack (Development))

2. Remove the toner bottle detection board [A]. (× 4, × 3, × 9)



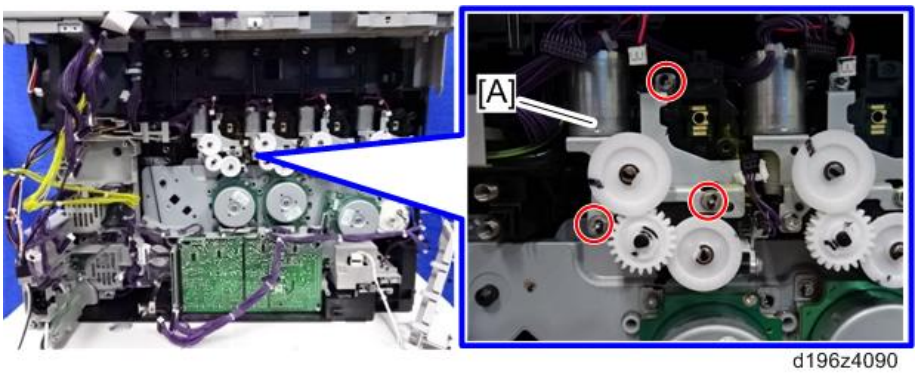
Toner Supply Motors

Note

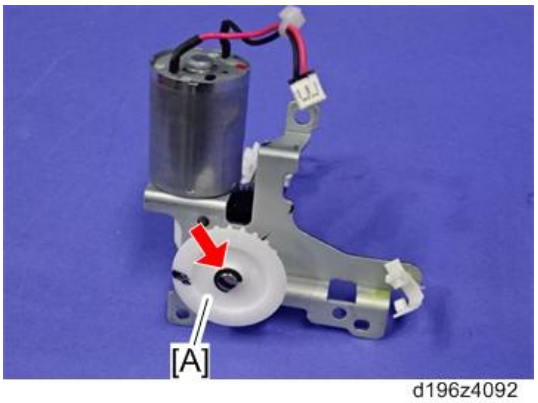
- The following is the replacement procedure for Y. The motors for the other three colors can be replaced with the same procedure as Y.

1. Remove the toner bottle detection board. (Toner Bottle Detection Board)

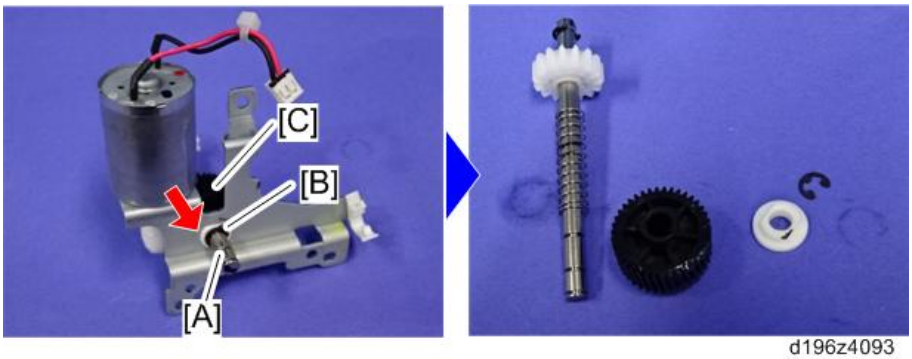
2. Remove the toner supply motor unit [A]. (× 3 each)



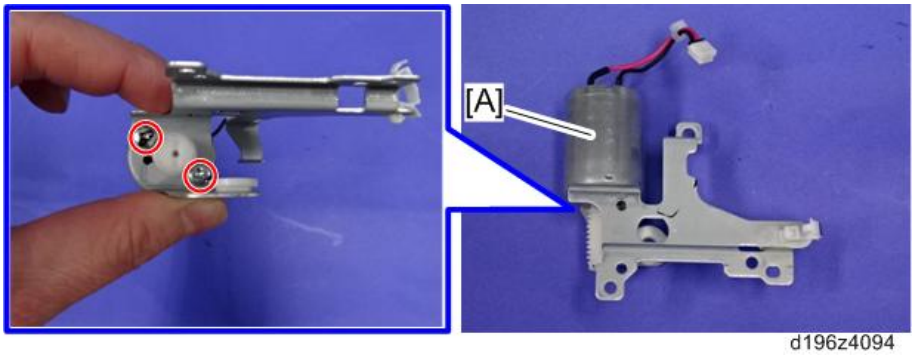
3. Remove the gear [A]. (× 1 each)



4. Remove the shaft [A], bearing [B], and gear [C]. (× 1 each)



5. Remove the toner supply motor [A]. (× 2 each)



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.

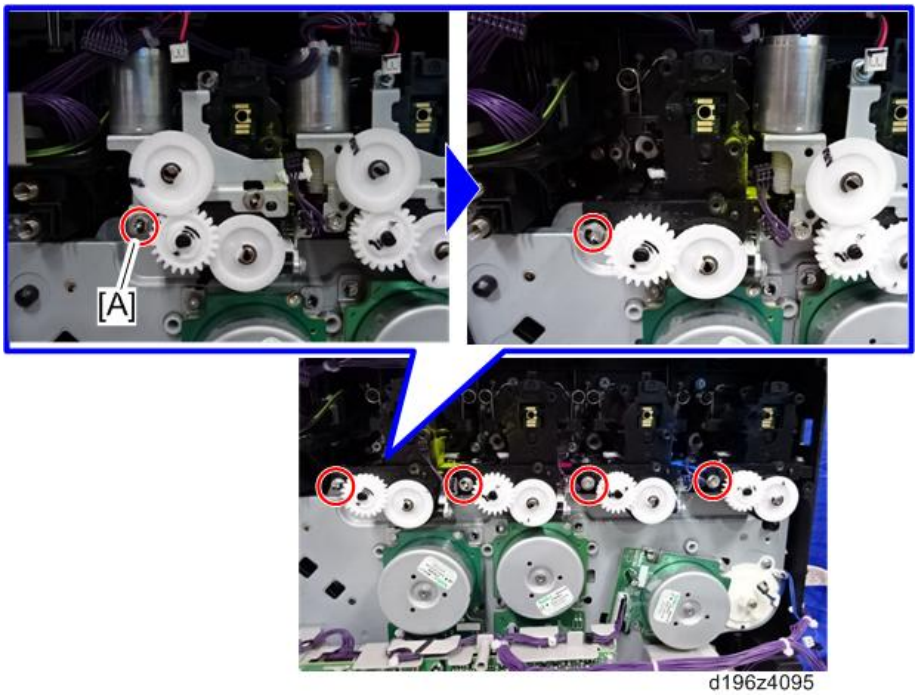
6. Turn the power OFF.

Replacing the Toner Transport Section

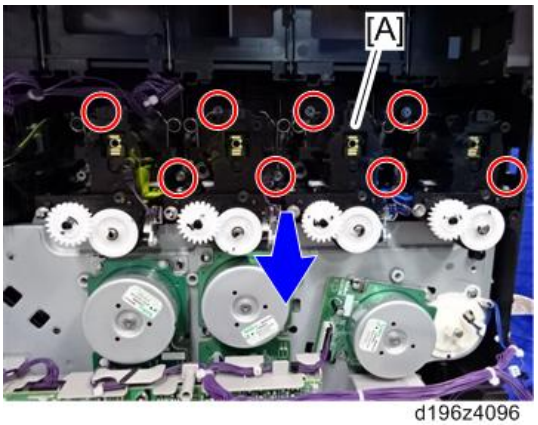
1. Remove the toner supply motors (All colors). (Toner Supply Motors)

Note

- After removing the toner supply motor, secure four screws [A] on the toner transport section to prevent toner from flying off.



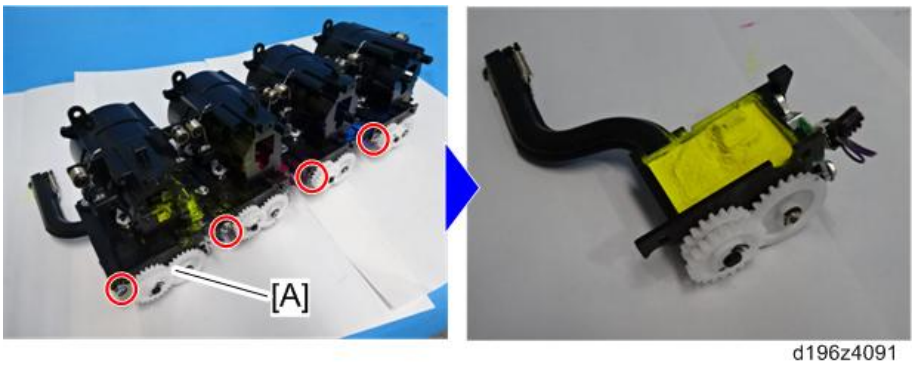
2. Remove the toner bottles (all colors).
3. Remove the PCDU (all colors). (PCDU (Photo Conductor and Development Unit))
4. Remove the toner supply unit. (× 8)



Note

- Pull out the toner supply unit upward at an angle.

5. Remove the toner transport section [A]. (× 1)



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.

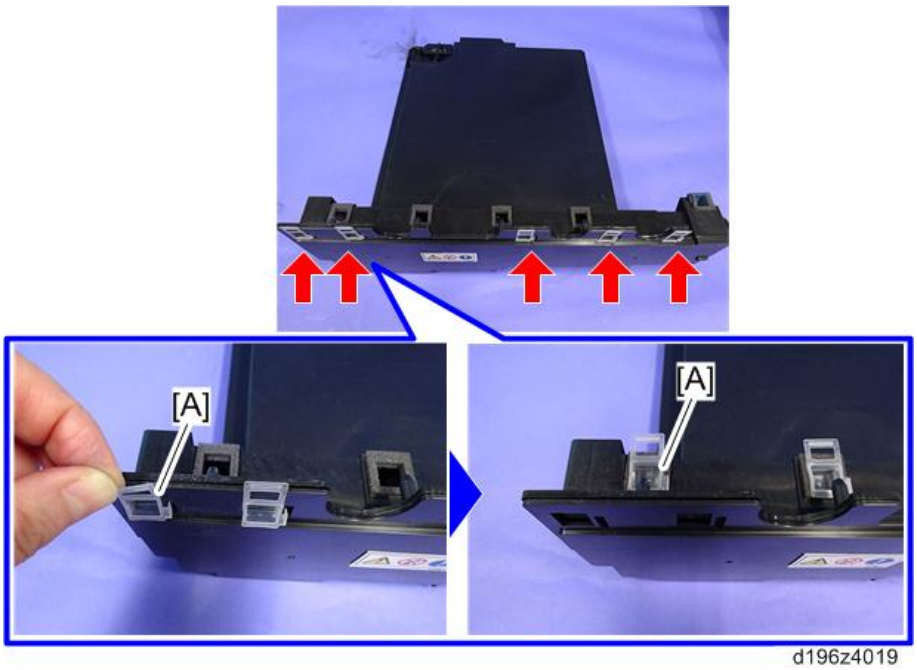
When you replace the waste toner bottle BEFORE a waste toner full or near-full message appears on the operation panel, do the following procedure to reset the PM counter.

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.
2. Open the front cover.
3. Pull out the waste toner bottle [A].

4. Install the five waste toner bottle caps on the waste toner inlets. The examples [A] in the photo are for black.



Waste Toner Full Sensor

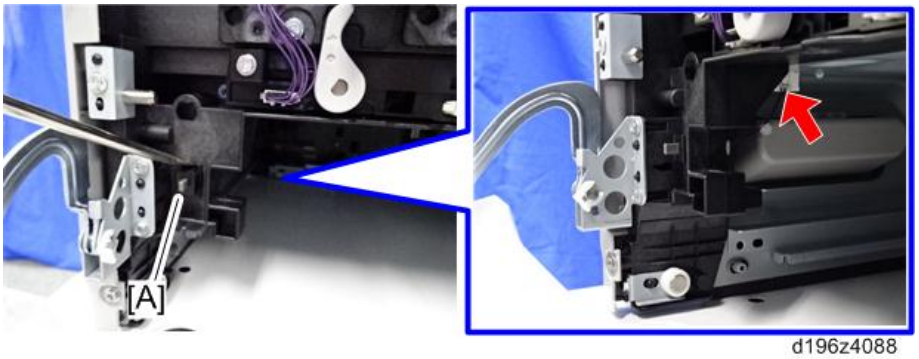
1. Remove the waste toner bottle. (Waste Toner Bottle)

2. Remove the waste toner full sensor [A]. (☞ × 1, hook × 2)

Waste Toner Bottle Set Switch

1. Remove the waste toner bottle. (Waste Toner Bottle)

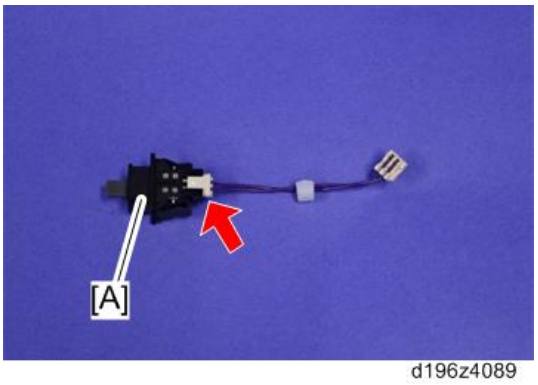
2. Remove the waste toner bottle set switch [A]. (☞ × 1)



Note

- Release the tab with a jeweler's screwdriver to remove the switch.

3. Remove the harness from the waste toner bottle set switch [A]. (☞ × 1)



Image/Paper Transfer

ITB (Image Transfer Belt) Unit

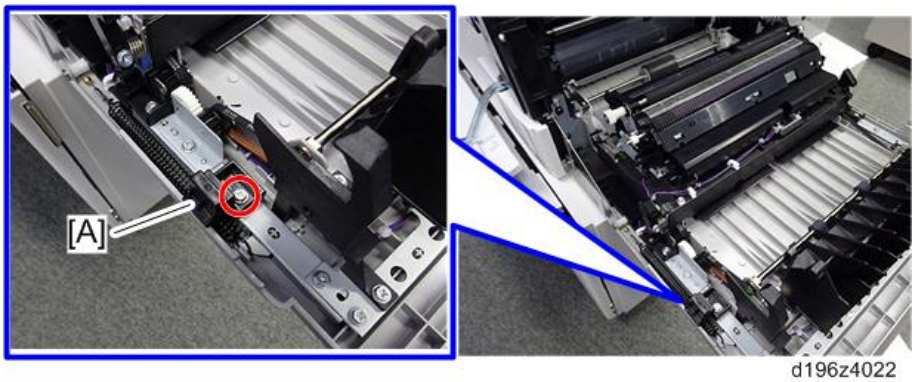
Before Replacing the ITB Unit

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.

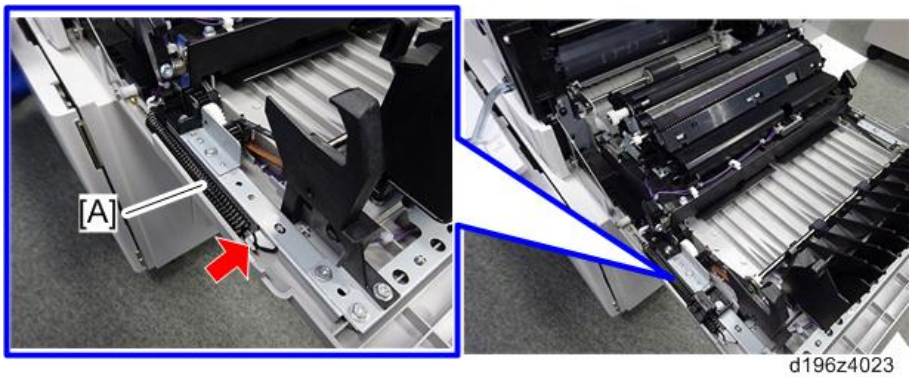
Replacing the ITB Unit

1. Remove all the PCDUs (PCDU (Photo Conductor and Development Unit))
2. Remove the fusing unit. (Fusing Unit)
3. Remove the tension spring cover [A]. (× 1)



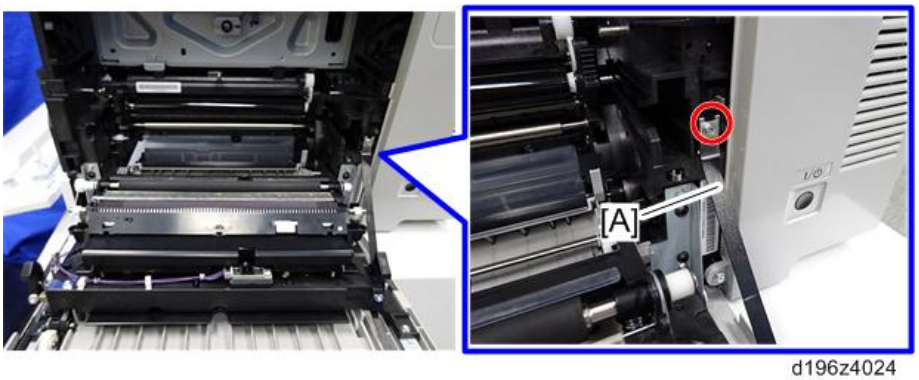
d196z4022

4. Release the tension spring [A]. (× 1)



d196z4023

5. Release the tension belt [A]. (× 1)



d196z4024

6. Put a sheet of paper [A] on the duplex unit with the short edge of the paper pointing towards the ITB unit.

d196z4025

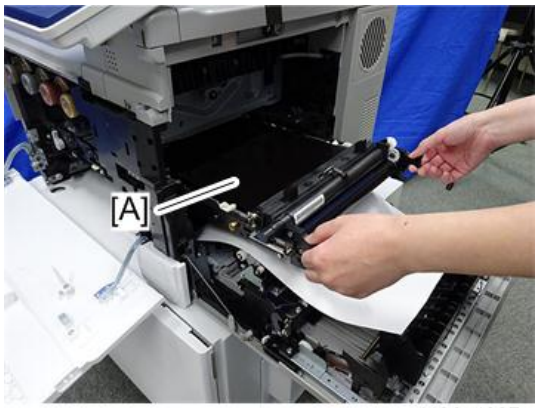
Note

- This is to protect the paper transfer unit from toner when removing the ITB unit.

7. Remove the ITB unit securing bracket [A]. (× 1)

d196z4026

8. Pull out the ITB unit [A].



d196z4027

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”.

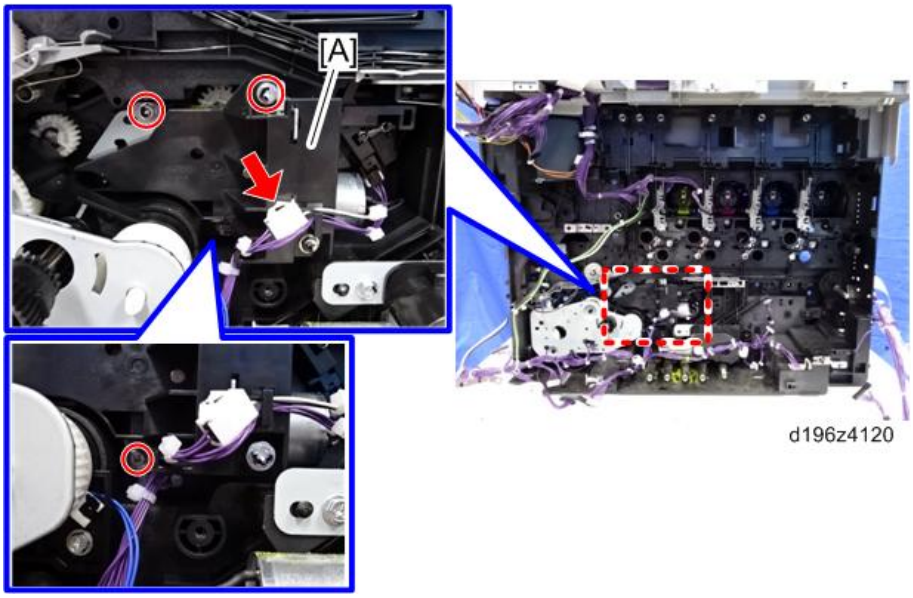
3. Execute SP2-111-004 (Forced Line Position Adj. Mode d).

4. SP values from SP1-001-033 to 040 (Leading Edge Registration Offset Standard: 1 to 8) are updated by the above steps.

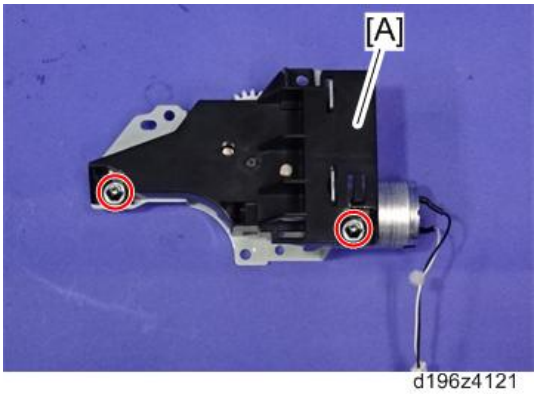
5. Reset SP1-001-031 to “0”.
6. Exit from the SP mode.
7. Turn the main power off and on.

ITB Contact Motor

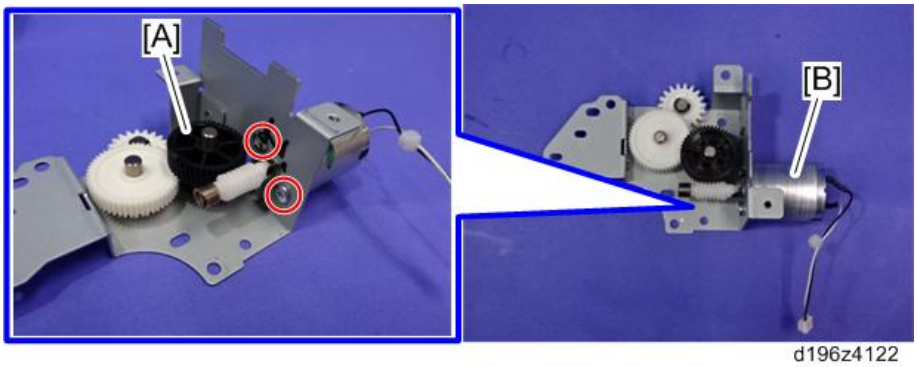
1. Remove the drive unit. (Drive Unit)
2. Remove the ITB contact unit [A]. (× 3, × 1)



3. Remove the cover [A]. (× 2)

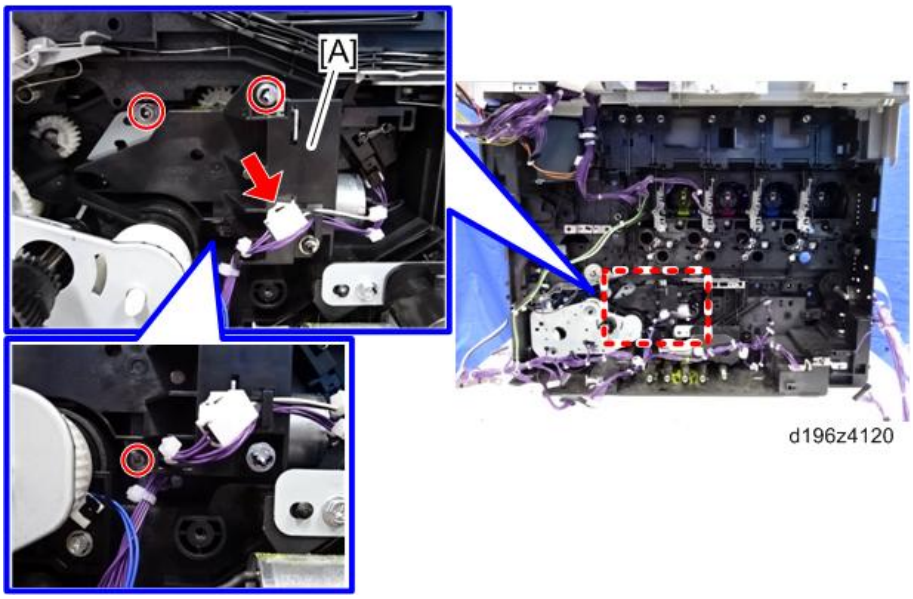


4. Remove the gear [A] and ITB contact motor [B]. (× 2)

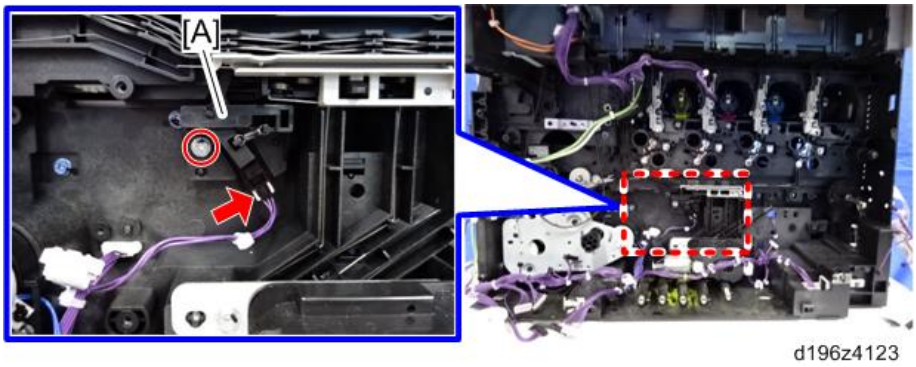


ITB Contact HP Sensor

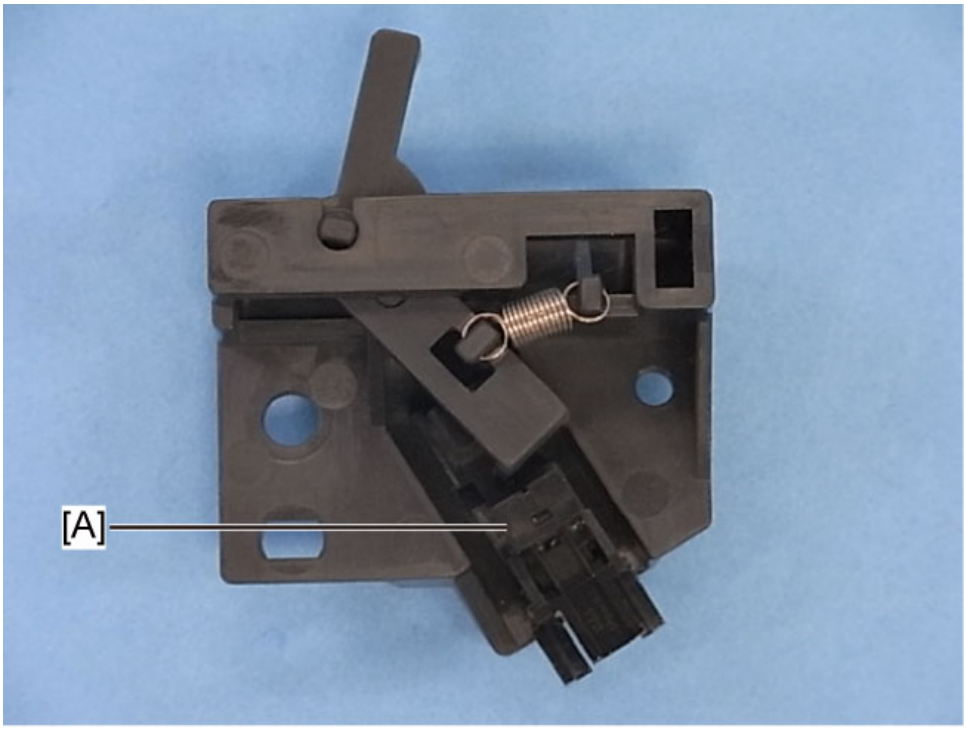
1. Remove the drive unit. (Drive Unit)
2. Remove the ITB contact unit [A]. (× 3, × 1)



3. Remove the ITB contact HP sensor with the bracket [A]. (× 1, × 1)



4. Remove the ITB contact HP sensor [A]. (Hook × 2)



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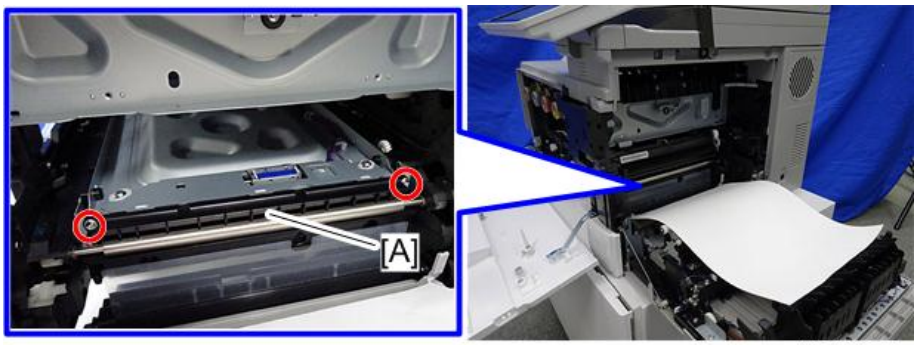
ID Sensor

1. Remove the ITB unit. (ITB (Image Transfer Belt) Unit)

2. Remove the guide plate [A]. (× 2)



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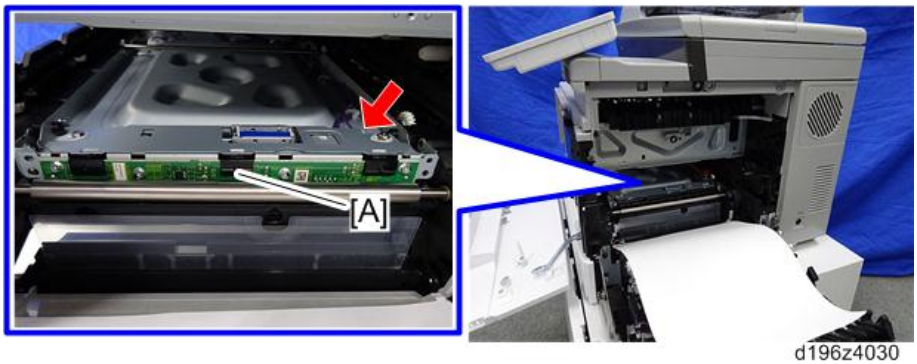
3. Remove the ID sensor [A] with the bracket. (× 1)



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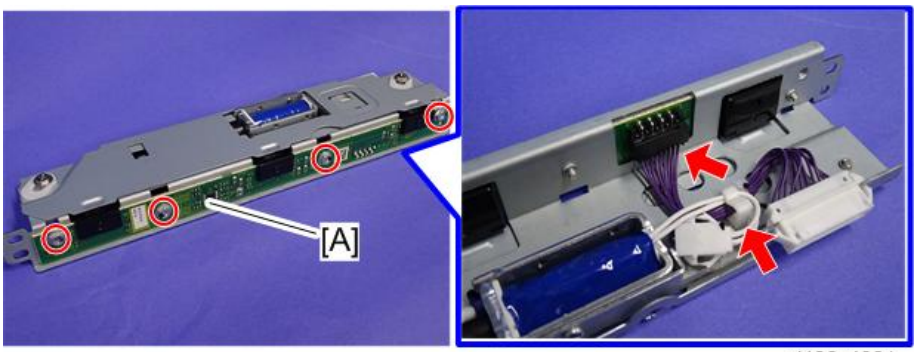
4. Remove the ID sensor [A]. (× 4, × 1, × 1)



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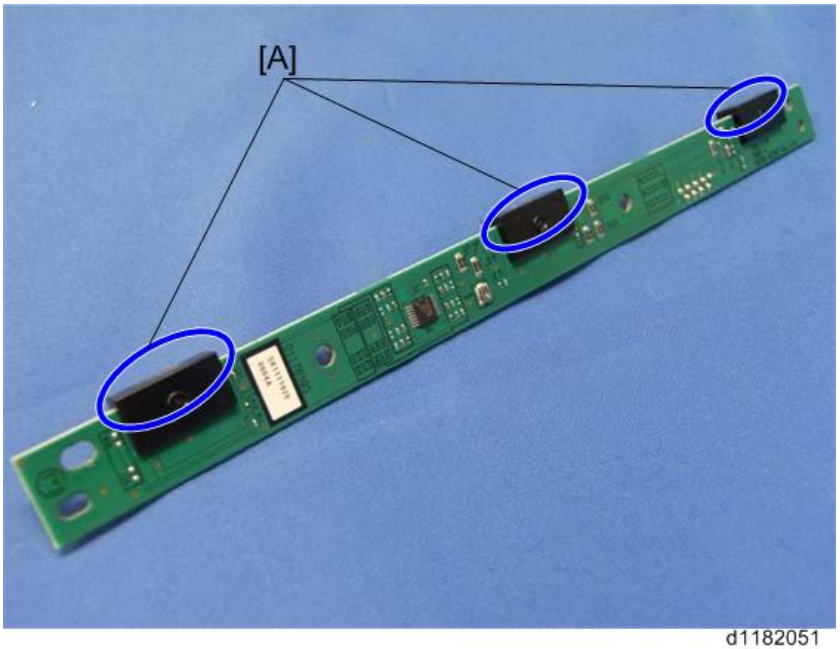
Note

- 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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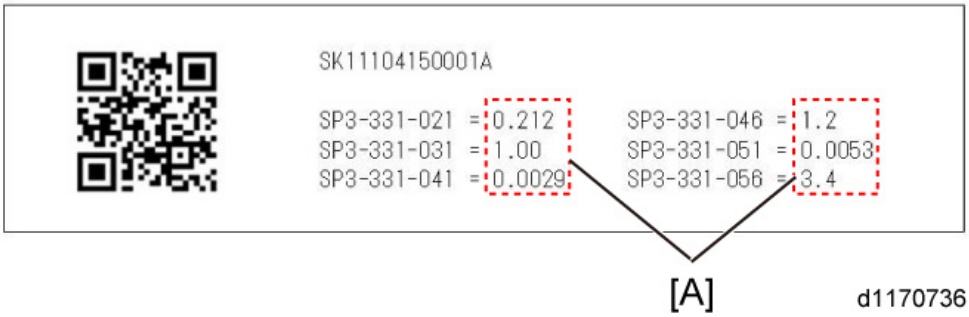
After Installing a New ID Sensor Board

Do the following adjustment after installing a new ID sensor board.

1. Plug in and turn on the main power.

2. Enter the SP mode.

3. Enter all correction coefficients [A] for the ID sensor with the SP modes, referring to the barcode sheet provided with the new ID sensor board.



Note

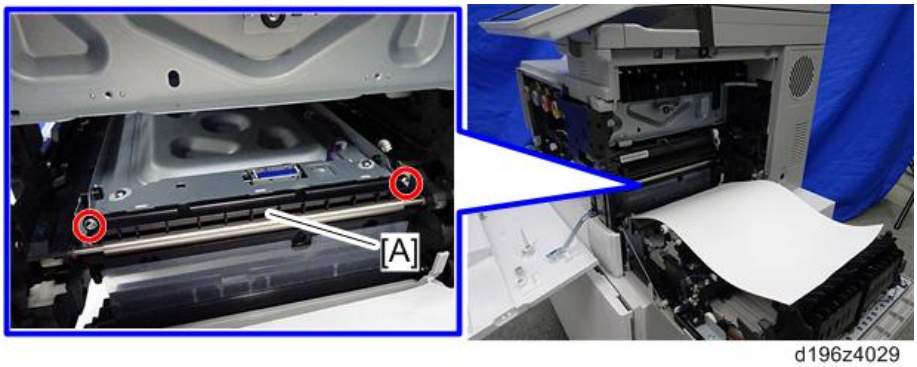
- For example, enter "1.2" with SP3-331-046.

4. Exit the SP mode.

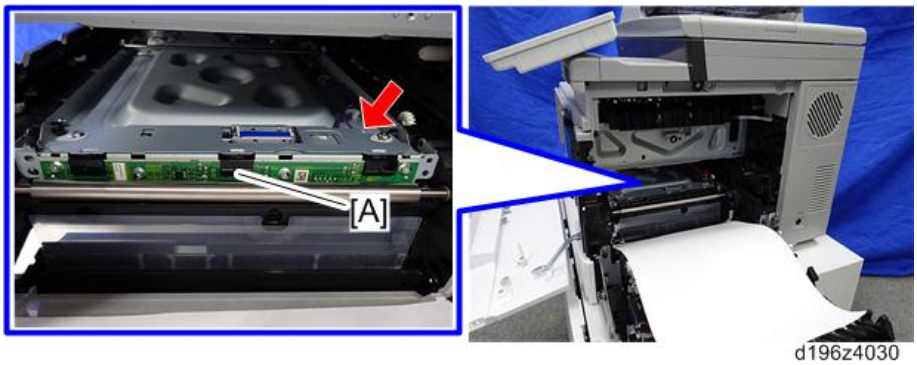
ID Sensor Shutter Solenoid

1. Remove the ITB unit. (ITB (Image Transfer Belt) Unit)

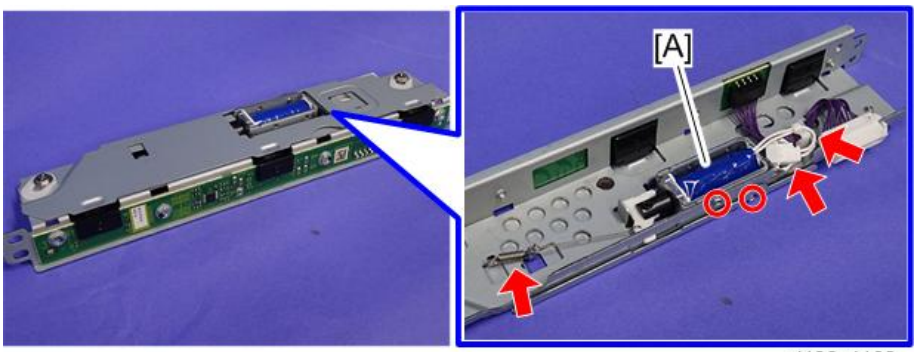
2. Remove the guide plate [A]. (☞ × 2)



3. Remove the ID sensor [A] with the bracket. (☞ × 1)



4. Remove the ID sensor shutter solenoid [A]. (× 2, × 1, × 1, × 1)



d196z4109

Paper Transfer Roller Unit

Before Replacing the Paper Transfer Roller Unit

Before replacing the paper transfer roller unit, reset the PM counter.

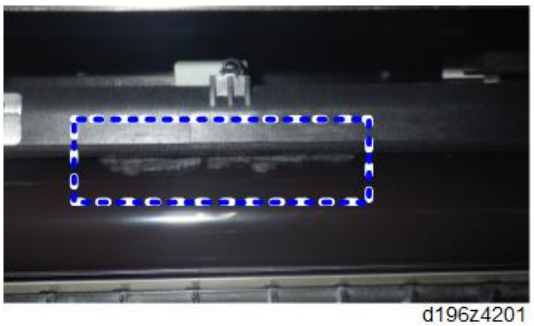
1. Turn the power ON.
2. Reset the PM counter. (Refer to Replacement Procedure of the PM/Yield Parts)
3. Turn the power OFF.

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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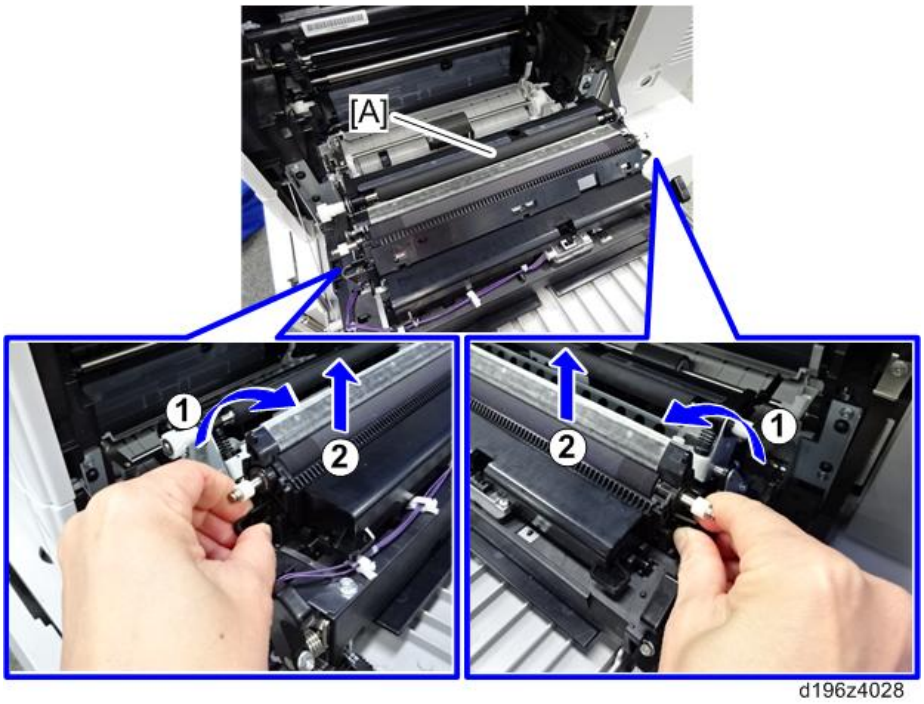
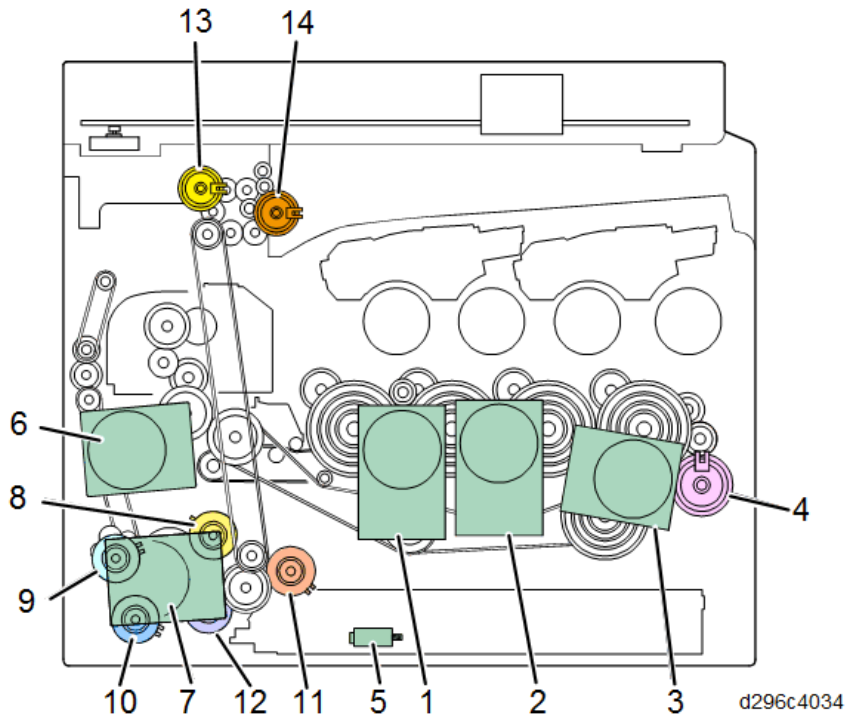
2. Remove the paper transfer unit [A] while holding the knobs on both ends of the paper transfer roller with your fingers.



Drive

Overview

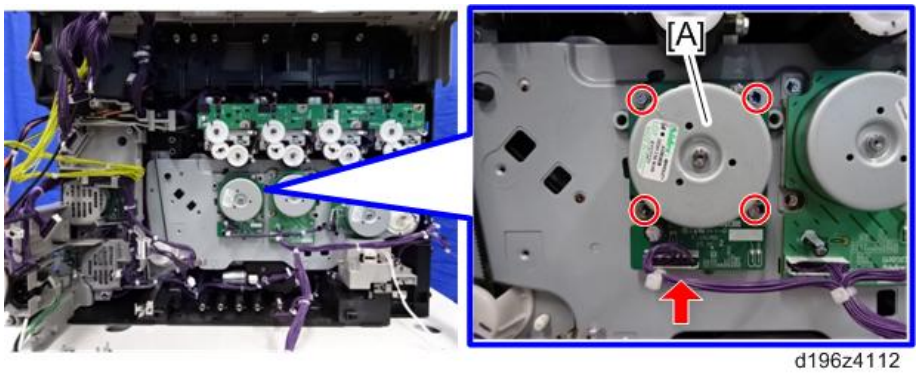


1. Development motor (CMY)
2. Drum motor (CMY)
3. Drum motor (K)
4. Development clutch (K)
5. Tray lift motor
6. Fusing motor
7. Paper transport motor
8. Registration clutch
9. Duplex clutch
10. Bypass feed clutch
11. Paper feed clutch
12. Bypass lift clutch
13. Reverse clutch
14. Paper exit clutch

Development Motor (CMY)

1. Remove the power pack (Transfer) with the bracket. (Power Pack (Transfer))

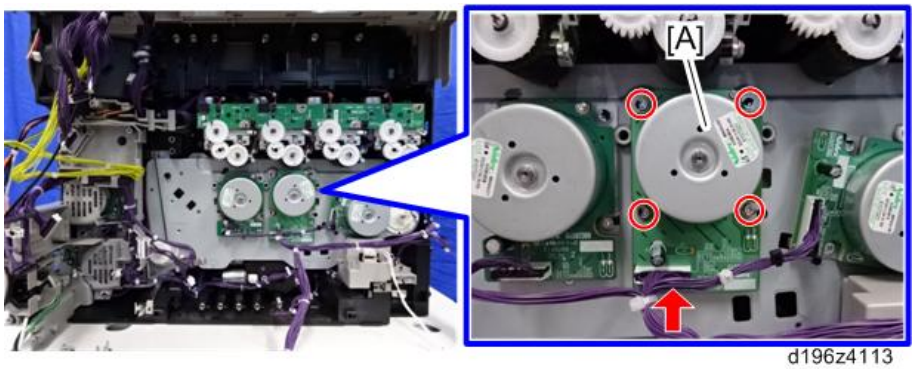
2. Remove the development motor (CMY) [A]. (× 4, × 1)



Drum Motor (CMY)

1. Remove the power pack (Transfer) with the bracket. (Power Pack (Transfer))

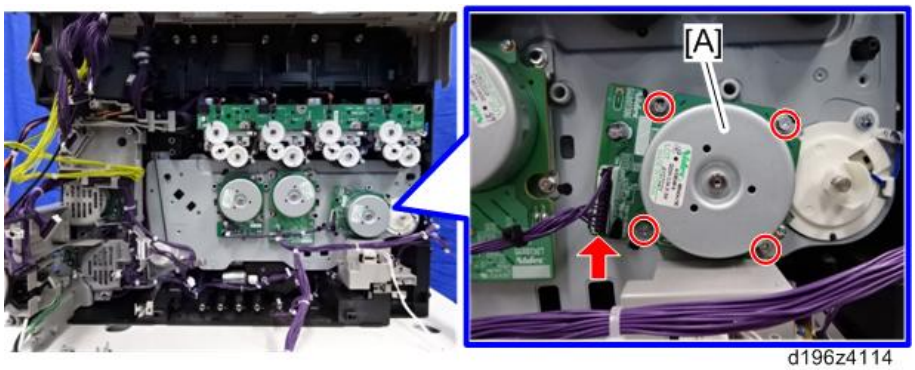
2. Remove the drum motor (CMY) [A]. (× 4, × 1)



Drum Motor (K)

1. Remove the power pack (Transfer) with the bracket. (Power Pack (Transfer))

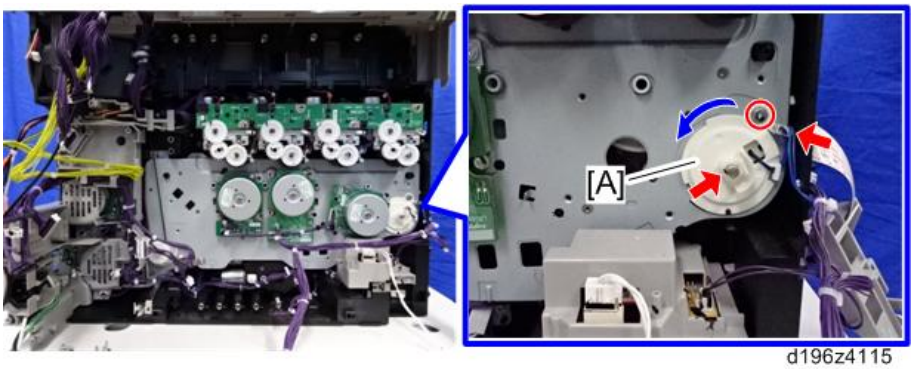
2. Remove the drum motor (K) [A]. (× 4, × 1)



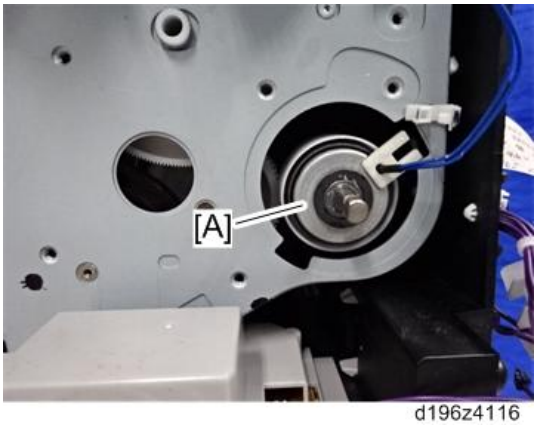
Development Clutch (K)

1. Remove the drum motor (K). (Drum Motor (K))

2. Remove the development clutch cover [A] by rotating it counterclockwise. (× 1, × 1, × 1)

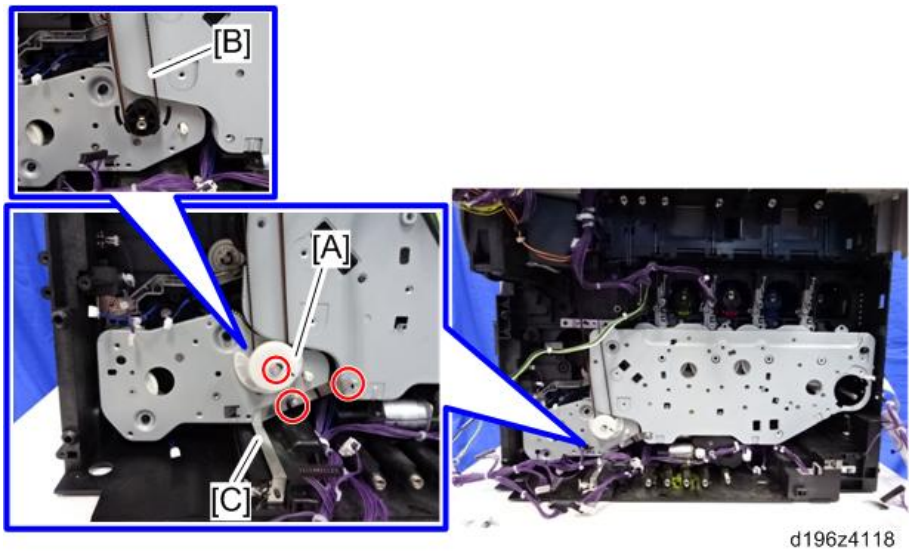


3. Remove the development clutch [A].

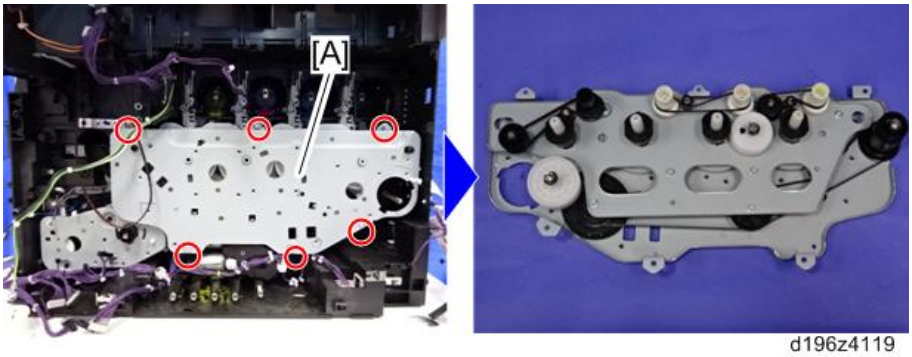


Drive Unit

1. Remove the toner transport section. (Toner Transport Section)
2. Remove the development motor (CMY). (Development Motor (CMY))
3. Remove the drum motor (CMY). (Drum Motor (CMY))
4. Remove the drum motor (K). (Drum Motor (K))
5. Remove the development clutch (K). (Development Clutch (K))
6. Remove the gear cover [A], belt [B], and grounding plate [C]. (× 3, × 1)



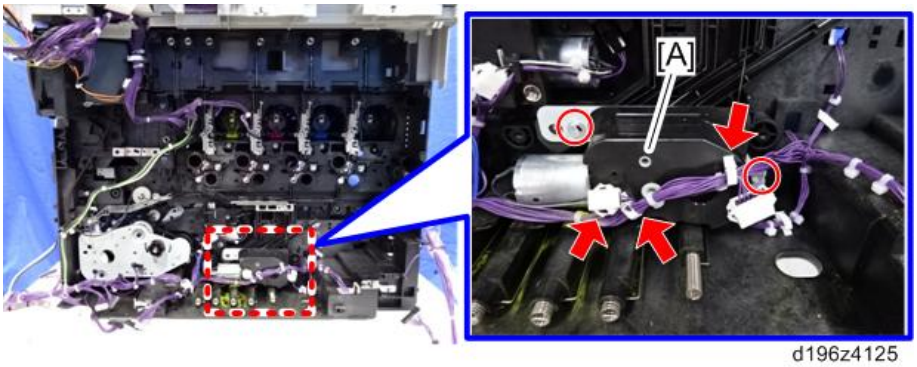
7. Remove the drive unit [A]. (× 6)



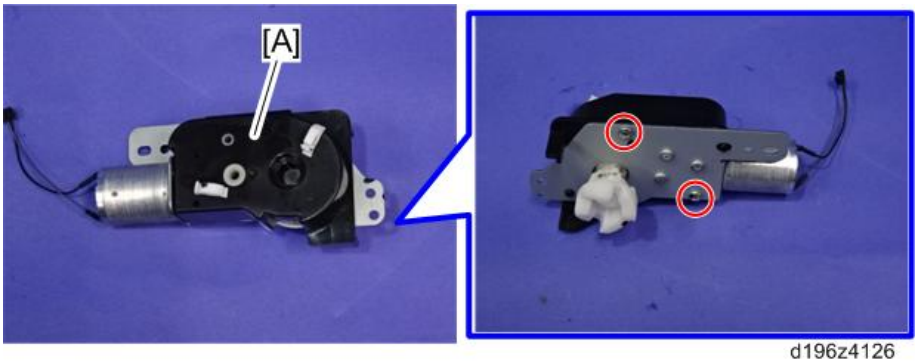
Tray Lift Motor

1. Remove the drive unit. (Drive Unit)

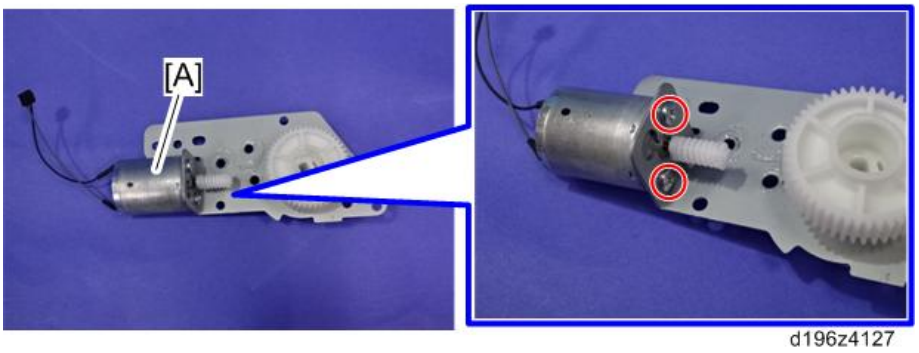
2. Remove the tray lift motor unit [A]. (× 2, × 2, × 1)



3. Remove the motor cover [A]. (× 2)

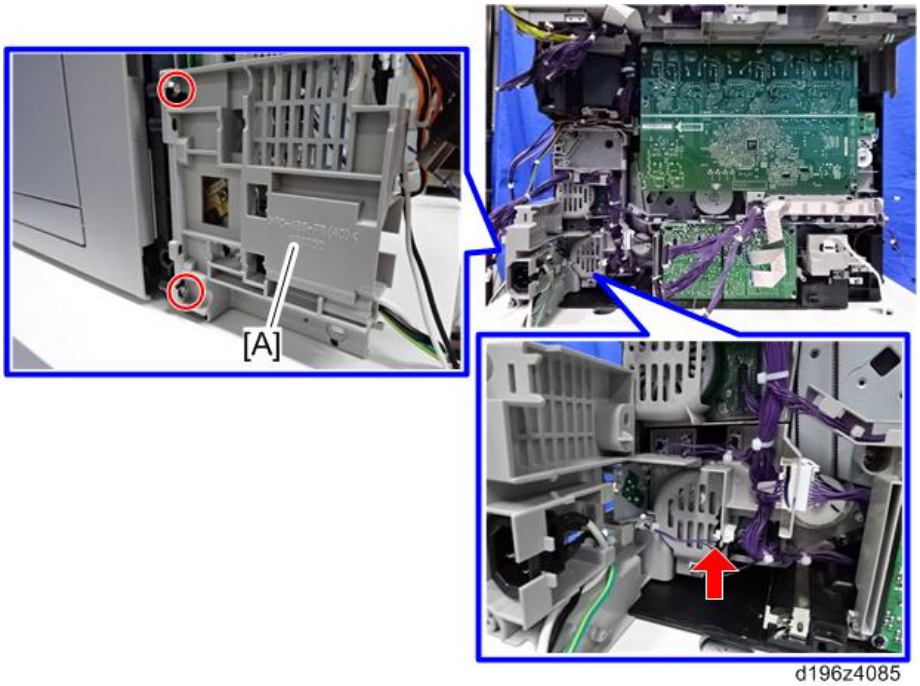


4. Remove the tray lift motor [A]. (× 2)

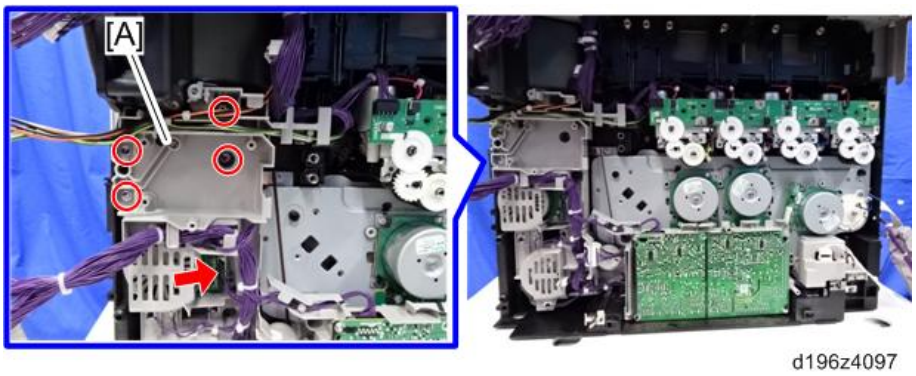


Fusing Motor

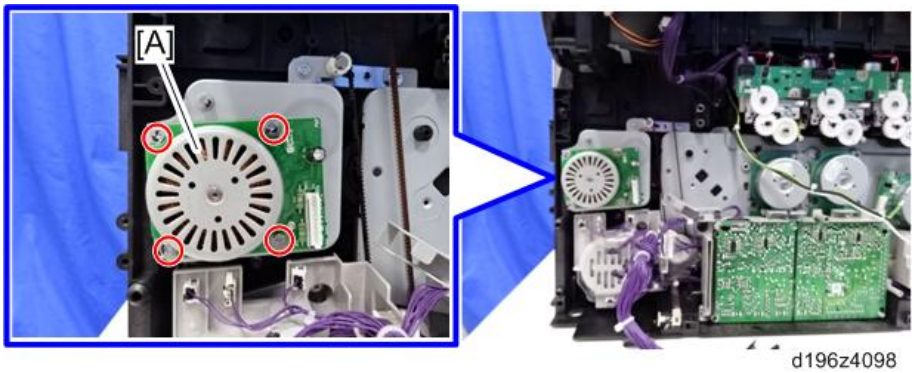
1. Remove the PSUs with the bracket. (PSU (AC), PSU (DC))
2. Remove the DC switch cover [A]. (× 2, × 1)



3. Remove the power pack (Development). (Power Pack (Development))
4. Release the harness and remove the harness guide [A]. (× 4, × 1)

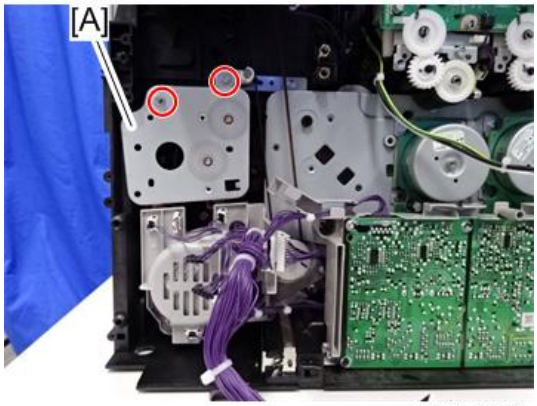


5. Remove the fusing motor [A]. (× 4)



Paper Transport Motor

1. Remove the fusing motor. (Fusing Motor)
2. Remove the fusing motor bracket [A]. (× 2)



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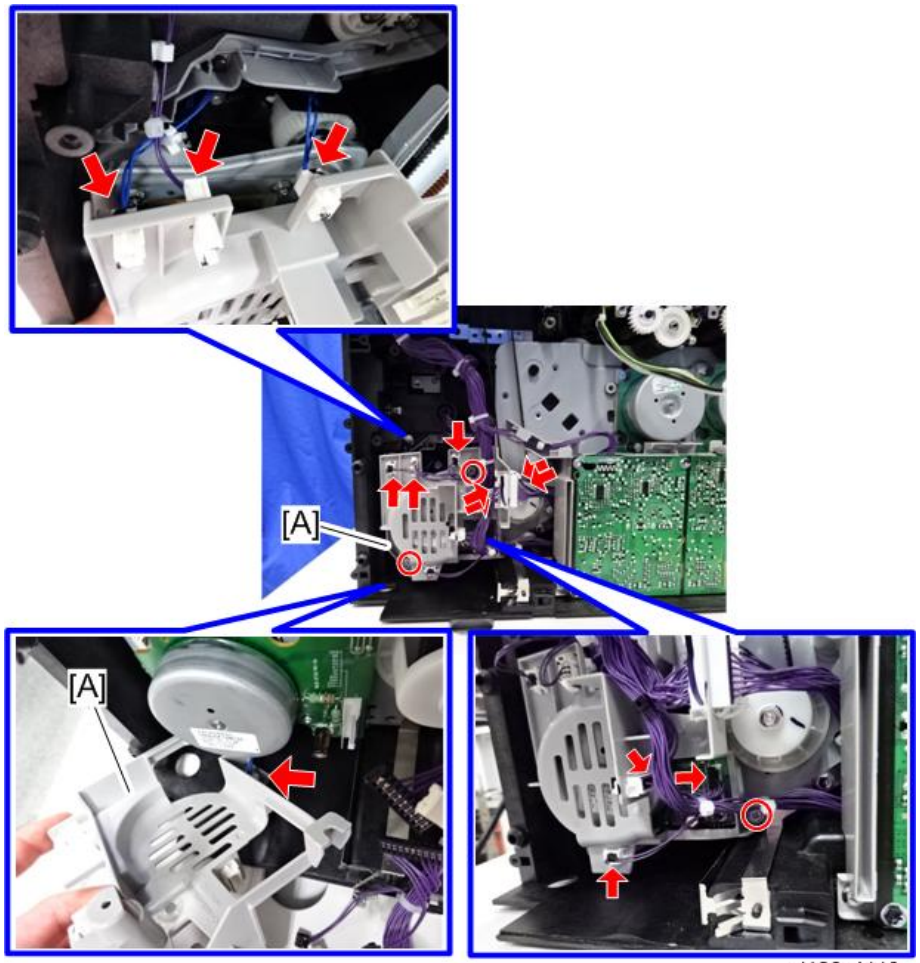
3. Remove the harness guide [A]. (× 3, × 14)

Note

- There are connectors behind the harness guide. Remove the guide carefully.



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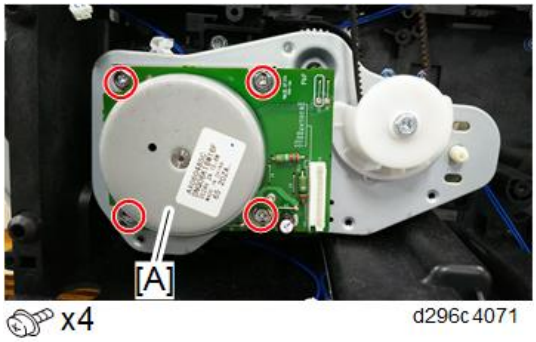
4. Remove the paper transport motor [A].



Duplex Clutch, Bypass Feed Clutch, Registration Clutch, Paper Feed Clutch

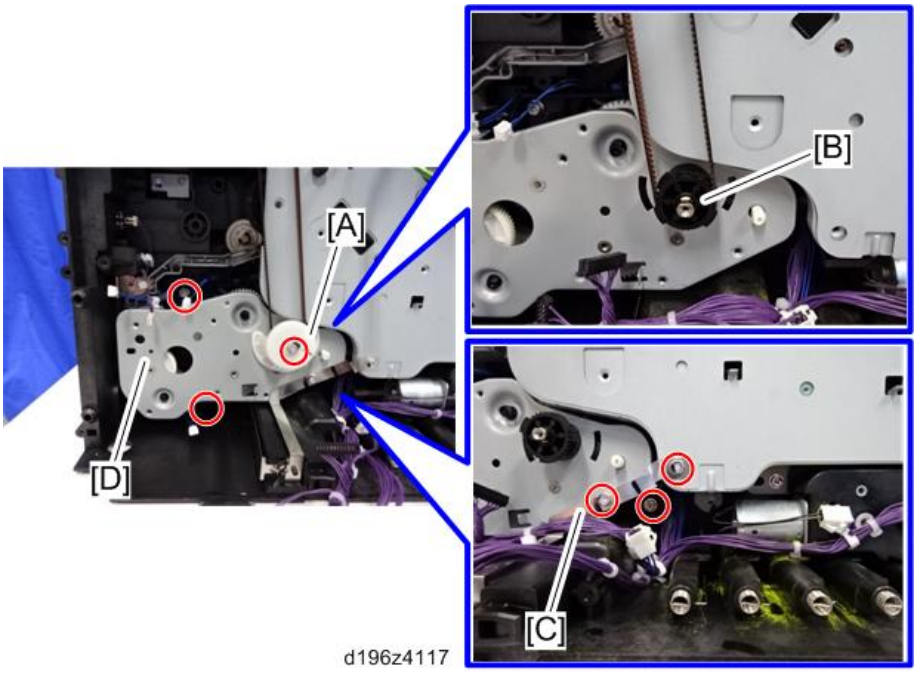
1. Remove the paper transport motor. (Paper Transport Motor)

2. Remove the power pack (Transfer) with the bracket. (Power Pack (Transfer))

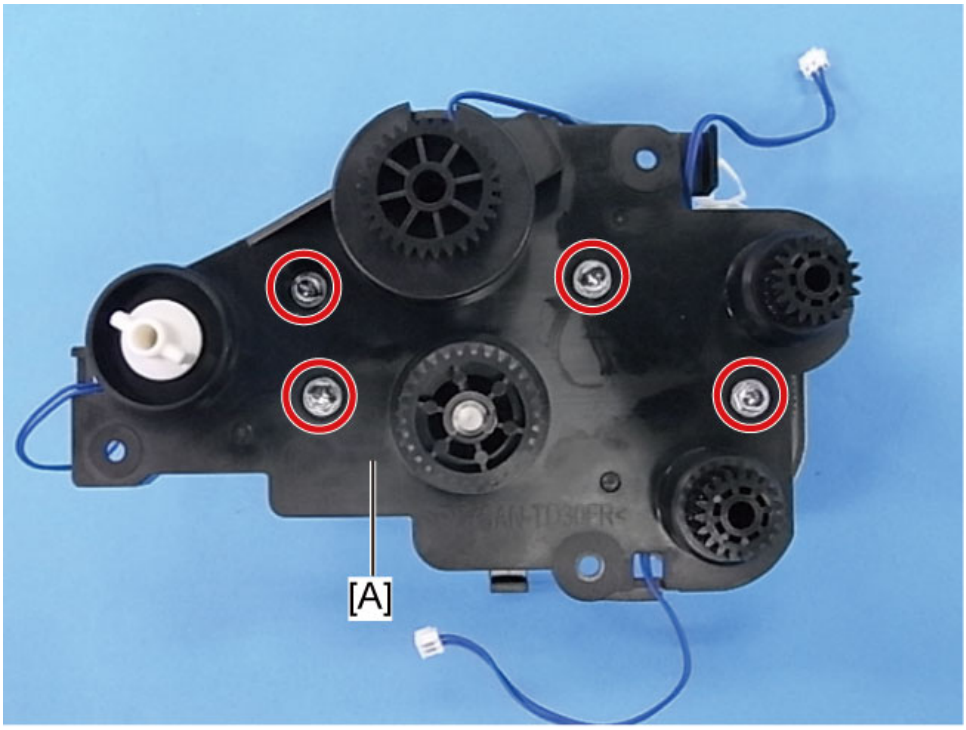
3. Remove the gear cover [A] and gear [B]. (× 1, × 1)

4. Remove the grounding plate [C]. (× 2)

5. Remove the paper transport unit [D]. (× 3)



6. Remove the paper transport unit cover [A]. (☞ × 4)



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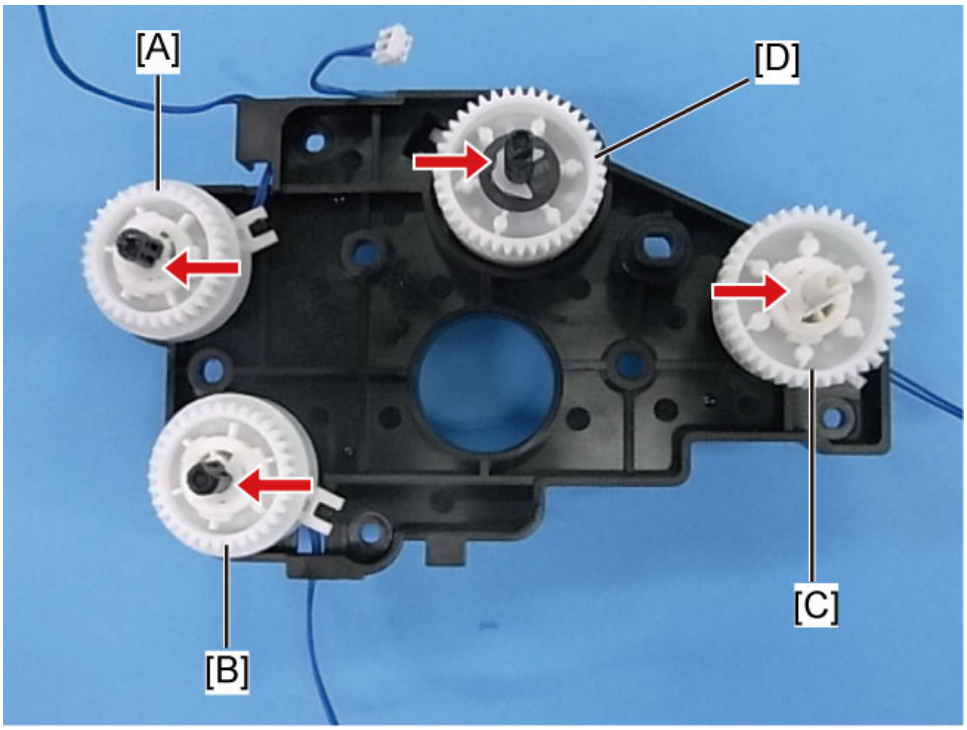
7. Remove each clutch. (☞ × 1 each)



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[A]: Duplex clutch

[B]: Bypass feed clutch

[C]: Paper feed clutch

[D]: Registration clutch

Fusing

Fusing Unit

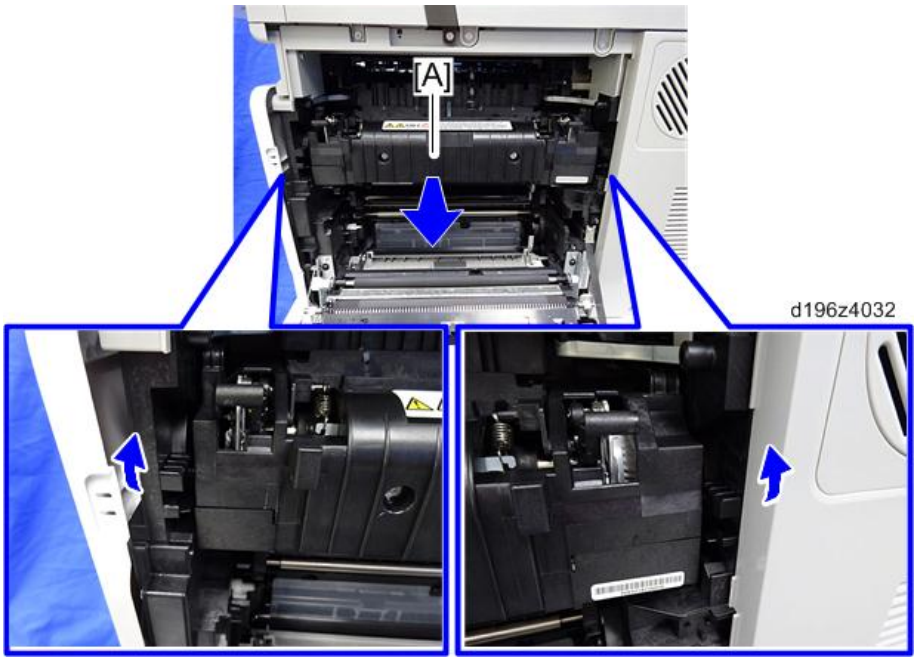
⚠CAUTION

- Turn off the main switch and wait until the fusing unit cools down before beginning any of the procedures in this section. The fusing unit can cause serious burns.

Important

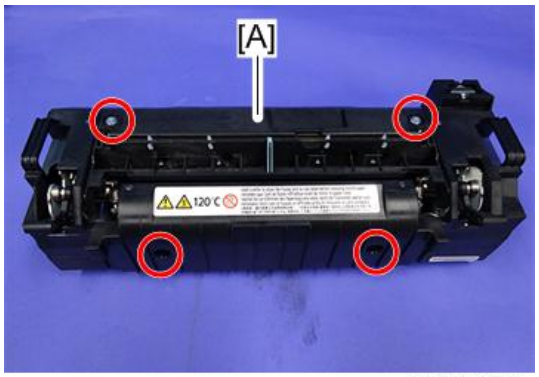
- Basically, the entire fusing unit must be replaced when SC544-00 or SC554-00 occurs.
- In some cases, the fusing unit need not be replaced if SC544-00 or SC554-00 occurs. See "Actions When SC544-00 or SC554-00 Occurs" for these cases.

1. Release the left and right lock levers, then pull out the fusing unit [A].



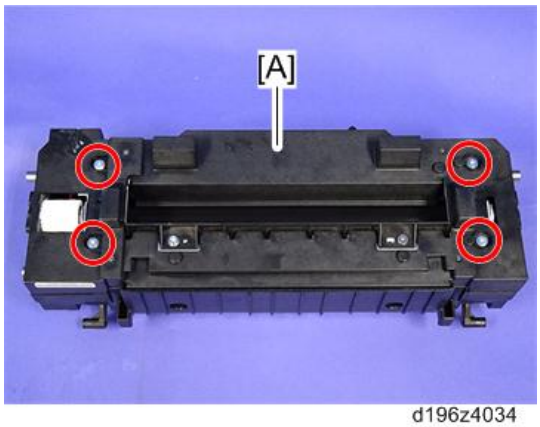
Fusing Upper Cover

1. Remove the fusing unit. (Fusing Unit)
2. Remove the fusing upper cover [A]. (× 4)



Fusing Lower Cover

1. Remove the fusing unit. (Fusing Unit)
2. Remove the fusing lower cover [A]. (× 4)



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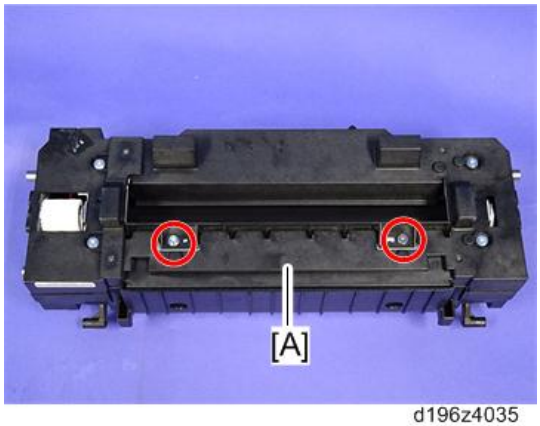
Fusing Entrance Guide Plate

1. Remove the fusing unit. (Fusing Unit)
2. Remove the fusing entrance guide plate [A]. (× 2)



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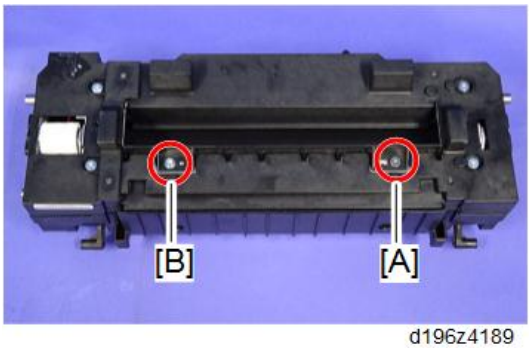
Note

- 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)



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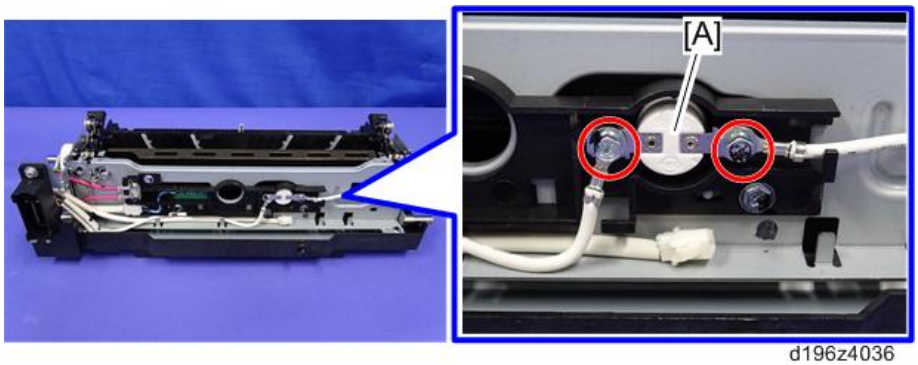
Fusing Thermostat

1. Remove the fusing upper cover. (Fusing Upper Cover)
2. Remove the fusing thermostat [A]. (× 2)



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Note

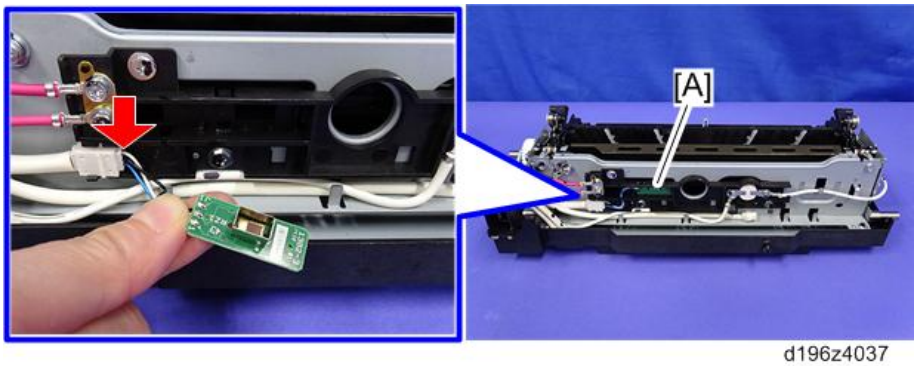
- Never re-use a thermostat that has activated. Use a new thermostat for replacement.

Fusing Thermistor (NC Sensor)

Important

- If the hook of the fusing thermistor is broken, the fusing thermistor cannot be attached. Replace the entire fusing unit in that case.

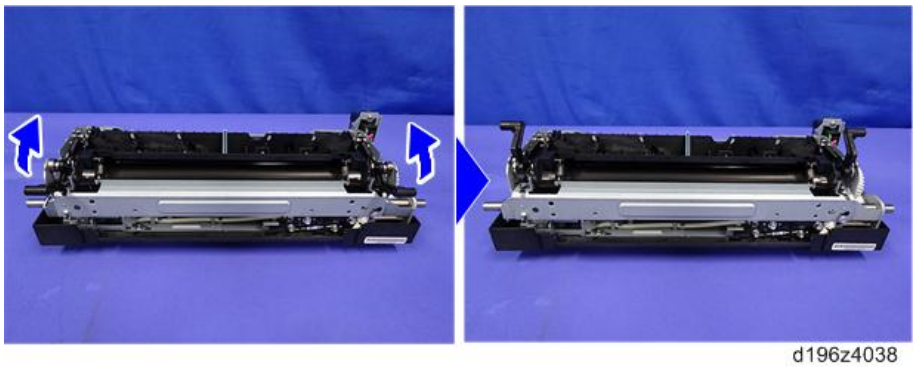
1. Remove the fusing upper cover. (Fusing Upper Cover)
2. Push the hooks and remove the fusing thermistor [A]. (× 1).



d196z4037

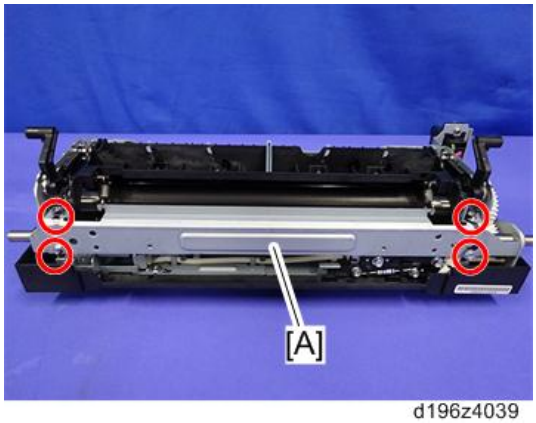
Fusing Pressure Roller Thermistors

1. Remove the fusing upper cover (Fusing Upper Cover)
2. Raise the fusing lever.



d196z4038

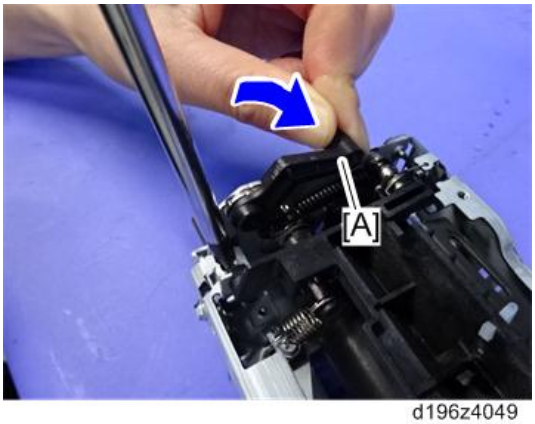
3. Remove the bracket [A]. (× 4)



d196z4039

Note

- Lift the fusing lever while removing the upper screws.



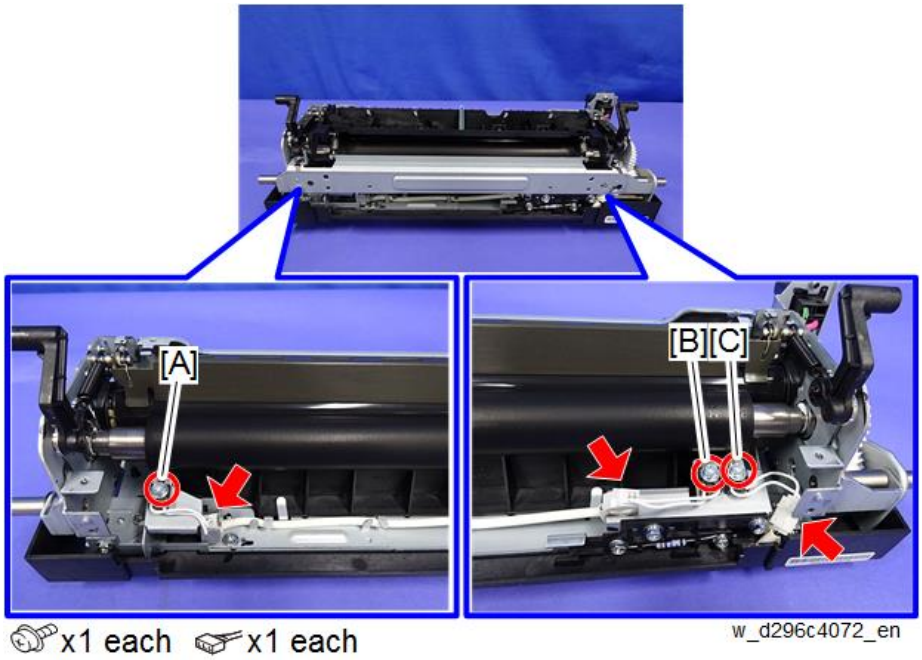
d196z4049

4. Remove the pressure roller thermistors [A], [B] or [C].

   A: Pressure roller thermistor (Front)

   B: Pressure roller thermistor (Center)

   C: Pressure roller thermistor (Rear)



Pressure Roller

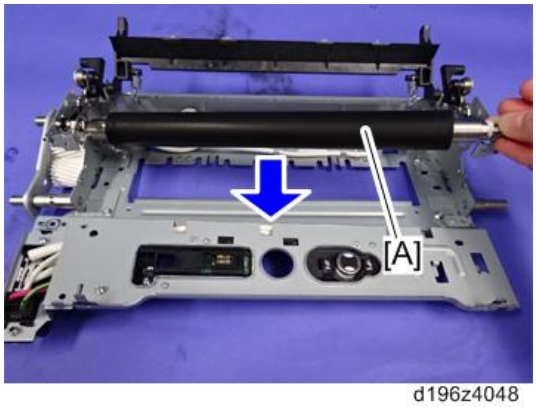
Before Replacing the Pressure Roller

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

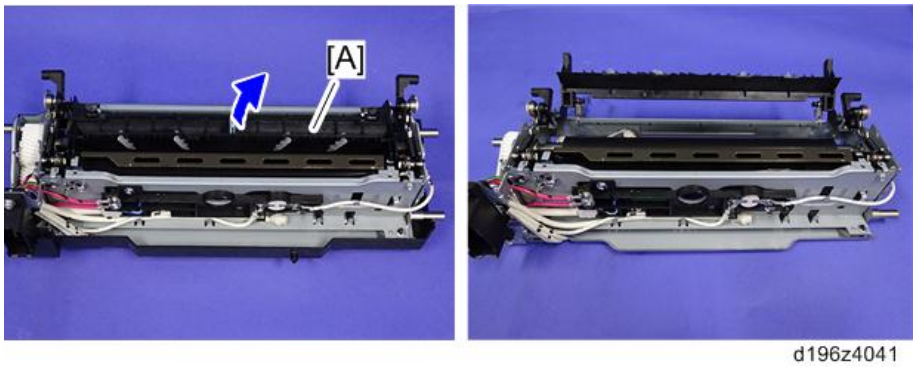
Before Replacing the Fusing Sleeve Belt Assembly

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

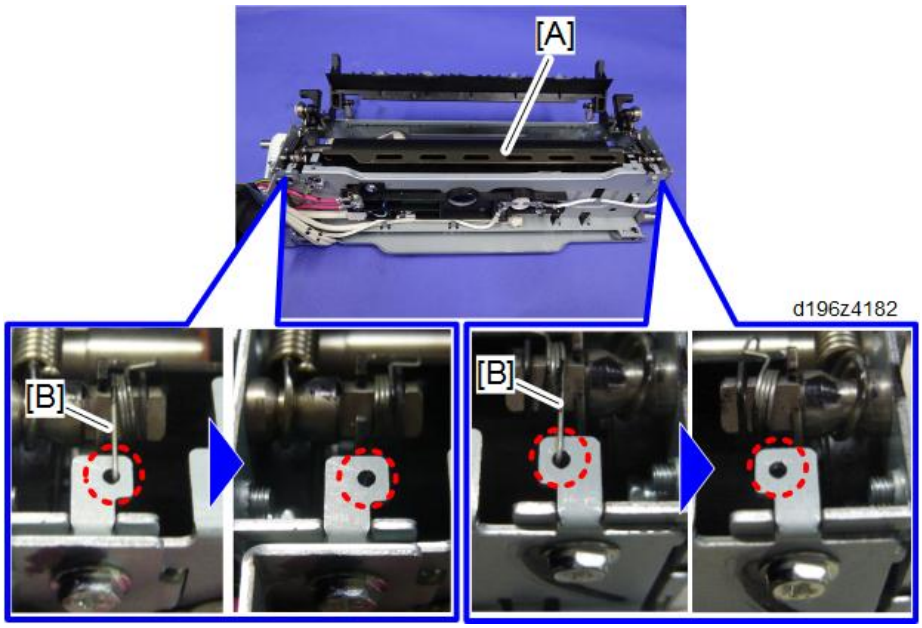
1. Remove the fusing lower cover. (Fusing Lower Cover)
2. Remove the fusing entrance guide plate. (Fusing Entrance Guide Plate)
3. Remove the fusing upper cover. (Fusing Upper Cover)
4. Raise the fusing exit guide plate [A].



⚠CAUTION

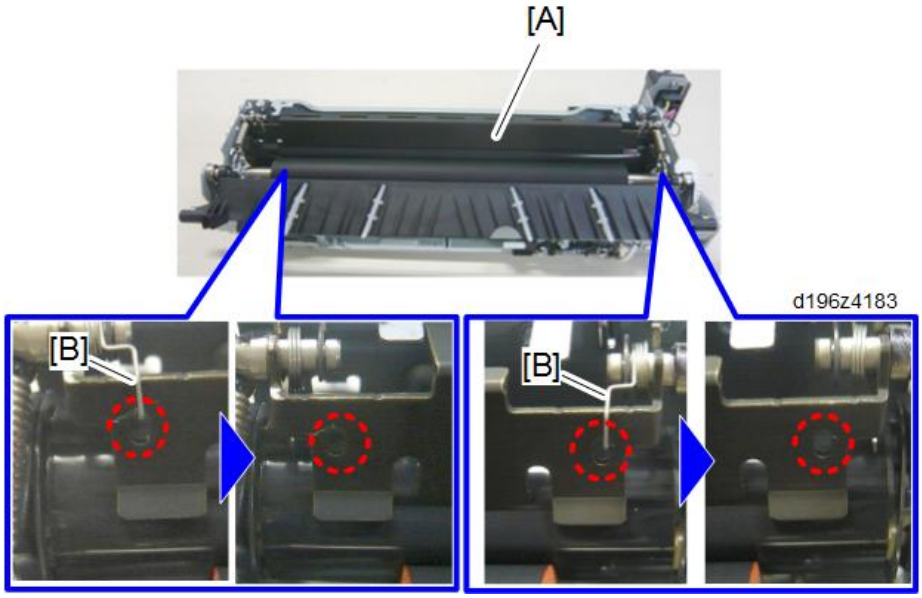
Place a cloth or sheet of paper under the fusing unit when removing the fusing lower cover. Otherwise, the screw(s) and gear(s) exposed after removing the cover will scratch or transfer grease to the work surface.

5. Remove the springs [B], which are on both ends of the separation plate [A], from the holes in the frame. (× 2)

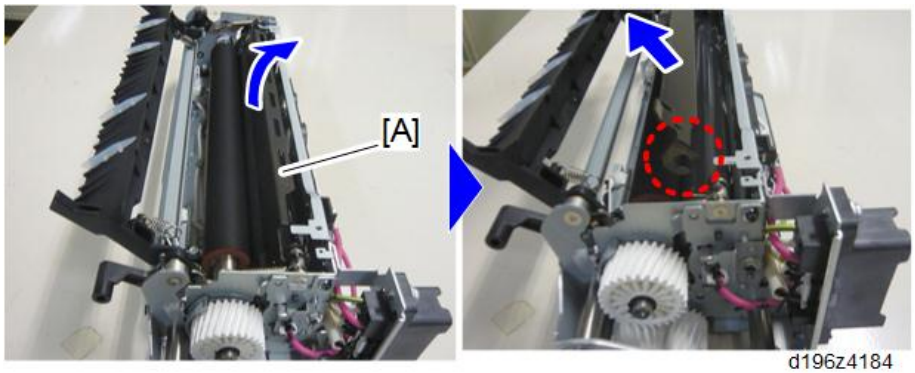


6. Remove the springs [B], which are on both ends of the separation plate [A], from the holes in the separation

plate. (× 2)



7. Rotate the separation plate [A], and remove it from the frame.



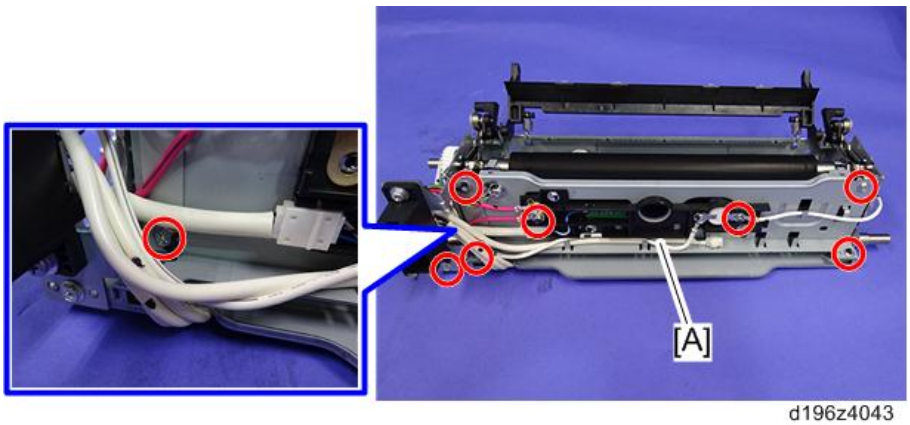
⚠CAUTION

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.

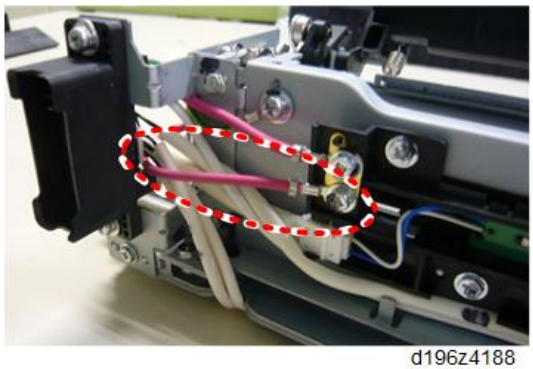
8. Remove the fusing lamp harnesses. (× 2)

9. Remove the screws on the rear frame [A]. (× 6)



Note

When reattaching the harness, route the harness exactly the same way as before removal.



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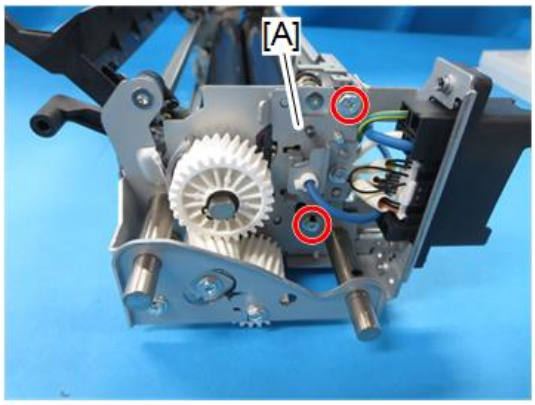
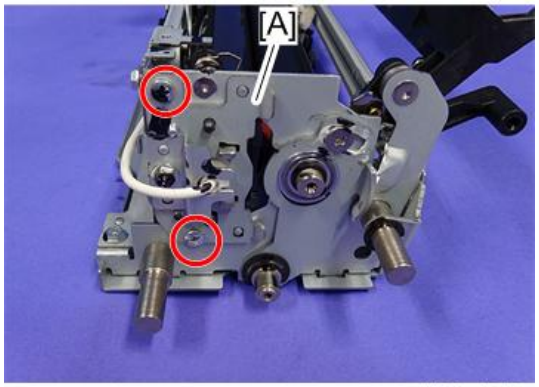
10. Remove the screws of the frame [A] at the right.



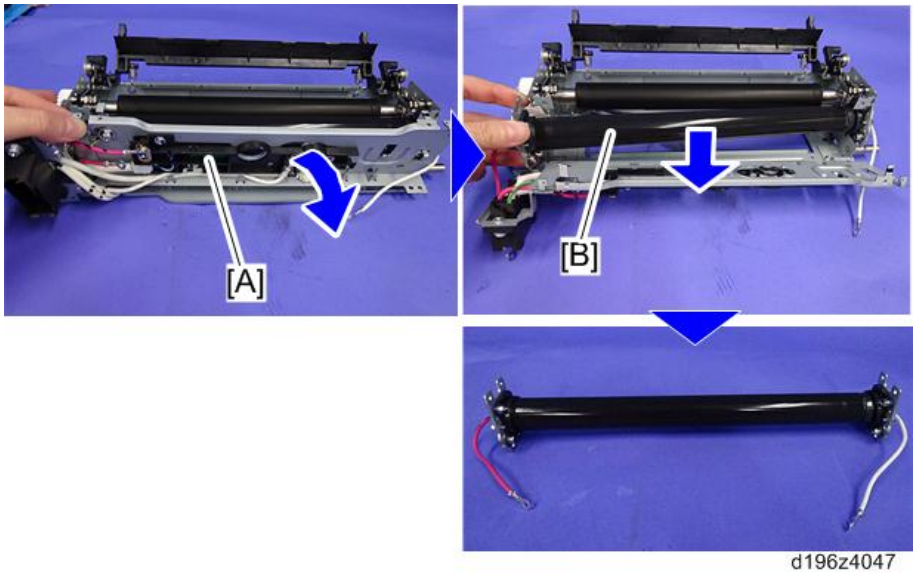
x2 d296c4081

11. Remove the screws of the frame [A] at the left. (× 2)



d196z4046

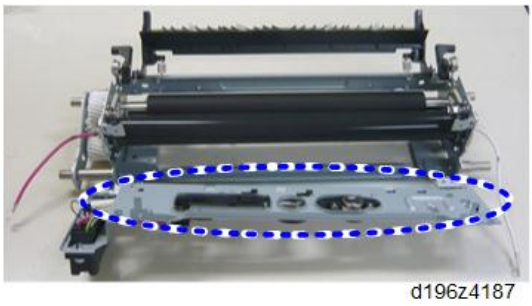
12. Pull out the rear frame [A], and take out the fusing sleeve belt assembly [B].



⚠CAUTION

Do not touch the surface of the fusing sleeve belt assembly.

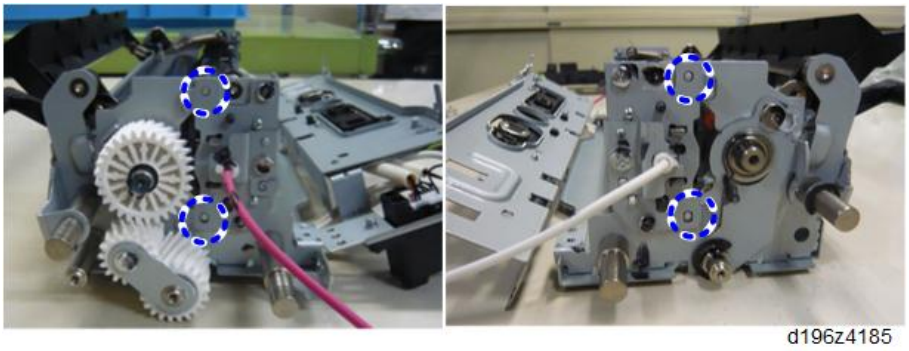
When reattaching the rear frame, do not let the fusing sleeve belt hit the projection of the thermostat and the frame.



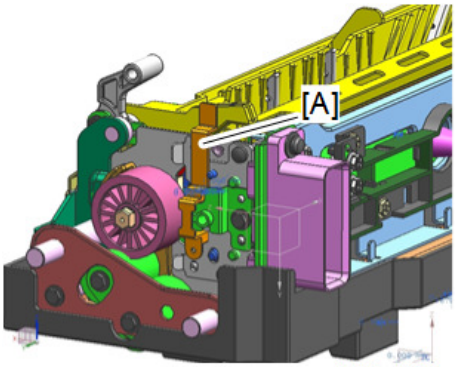
When reattaching the fusing sleeve belt assembly, do not let the fusing sleeve belt assembly hit the projection of the sensor or the screws on the stay.

Note

Make sure that both side plates fit right into the locating bosses of the frame before securing the screws.



The new fusing sleeve belt assembly has a jig [A], which must be removed. Set the fusing sleeve belt assembly first, tighten the screws, then remove the jig.



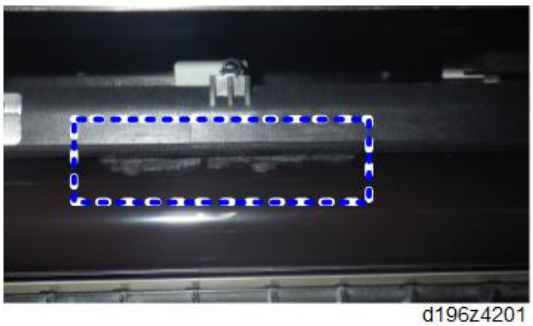
d196z4186

Fusing Entrance Sensor

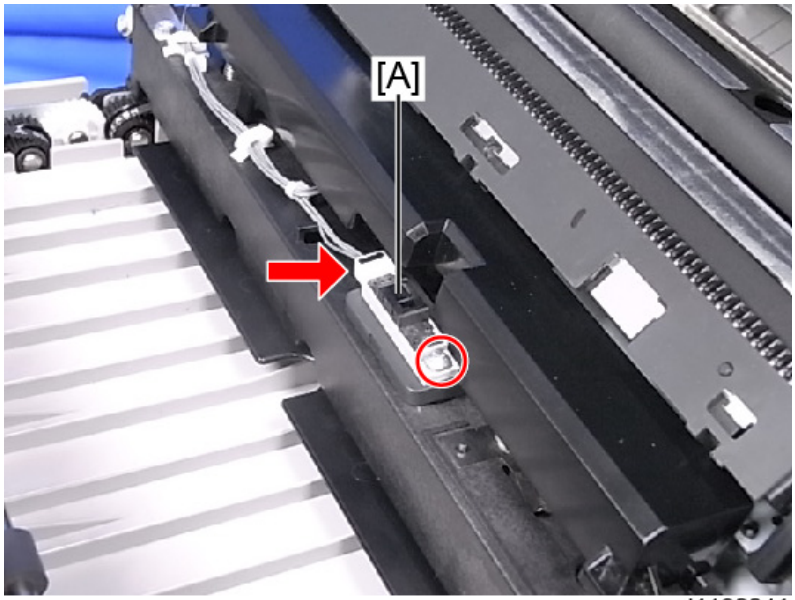
1. Open the right door.

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.


d196z4201

2. Remove the fusing entrance sensor [A]. (× 1, × 1)

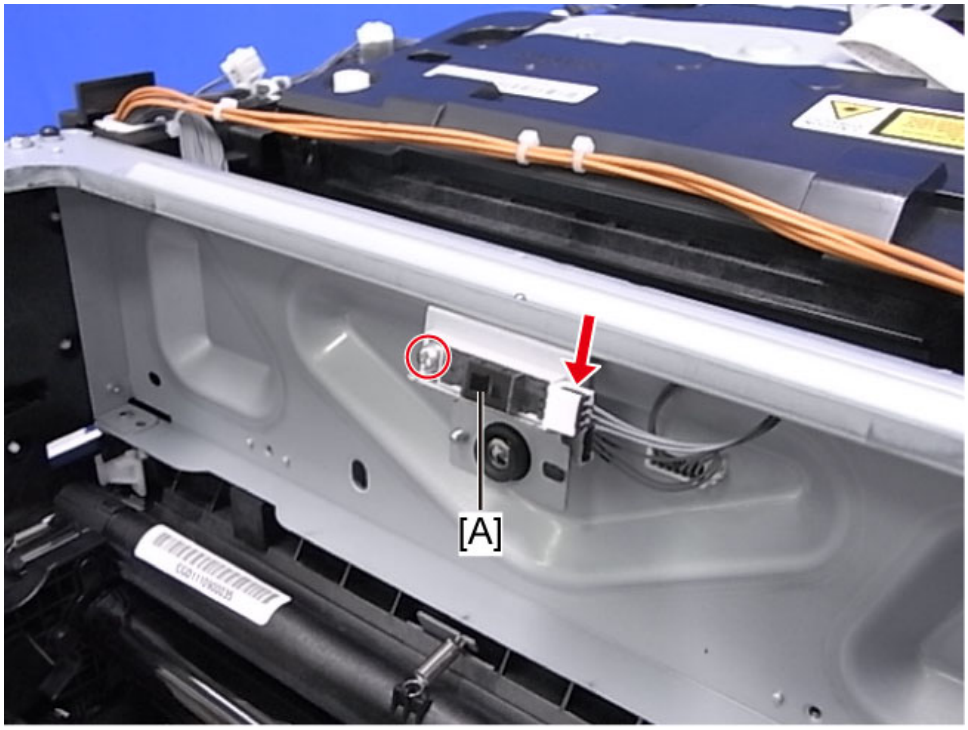


d1180041

Fusing Exit Sensor

1. Remove the paper exit unit. (Paper Exit Unit)

2. Remove the fusing exit sensor [A]. (× 1, × 1)

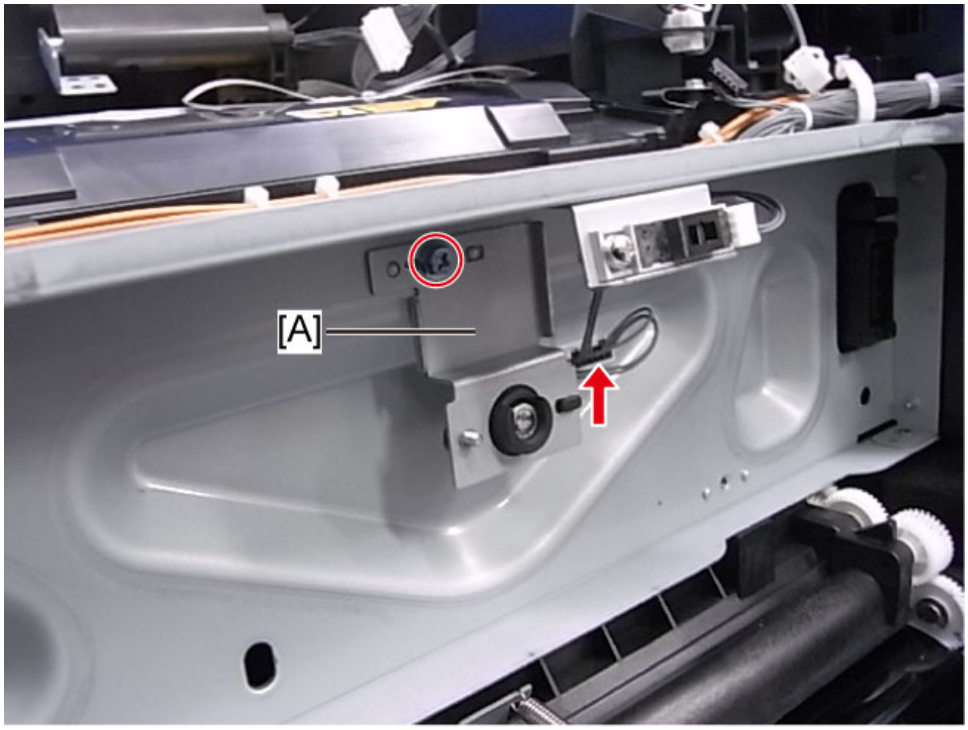


d1170127

Fusing Thermopile

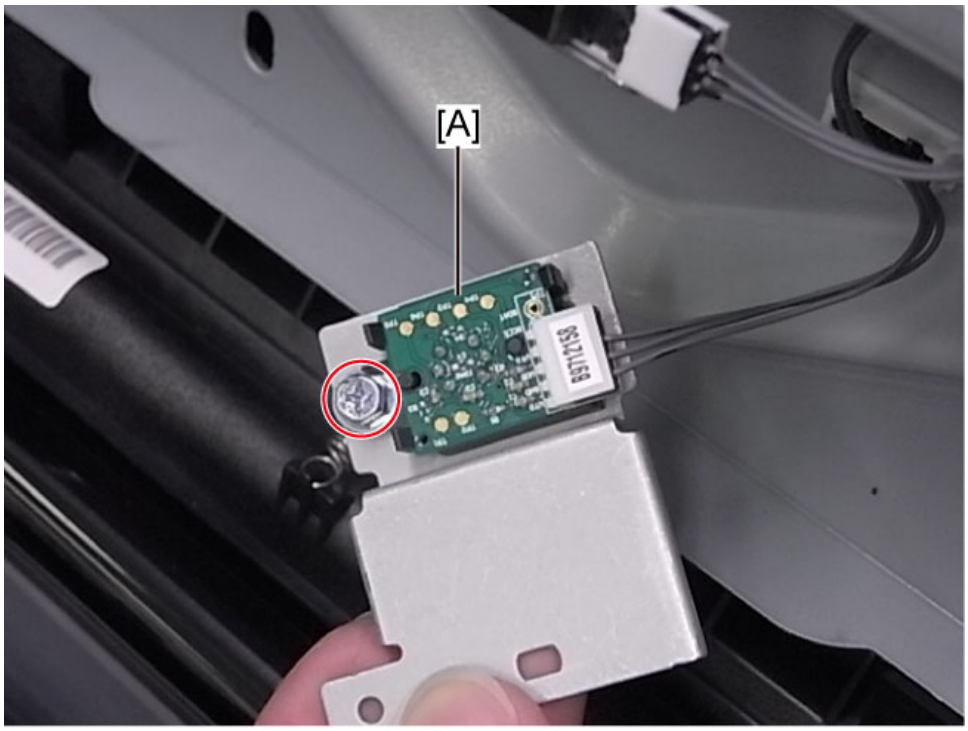
1. Remove the paper exit unit. (Paper Exit Unit)

2. Remove the fusing thermopile with the bracket [A]. (× 1, × 1)



d1170128

3. Remove the fusing thermopile [A]. (× 1)

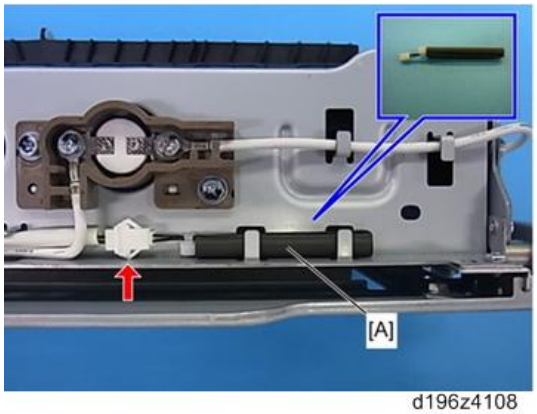


d1170129

New Fusing Unit Detection Fuse

1. Remove the fusing upper cover. (Fusing Upper Cover)

2. Remove the new fusing unit detection fuse [A] if the old blown fuse is attached. (x 1)



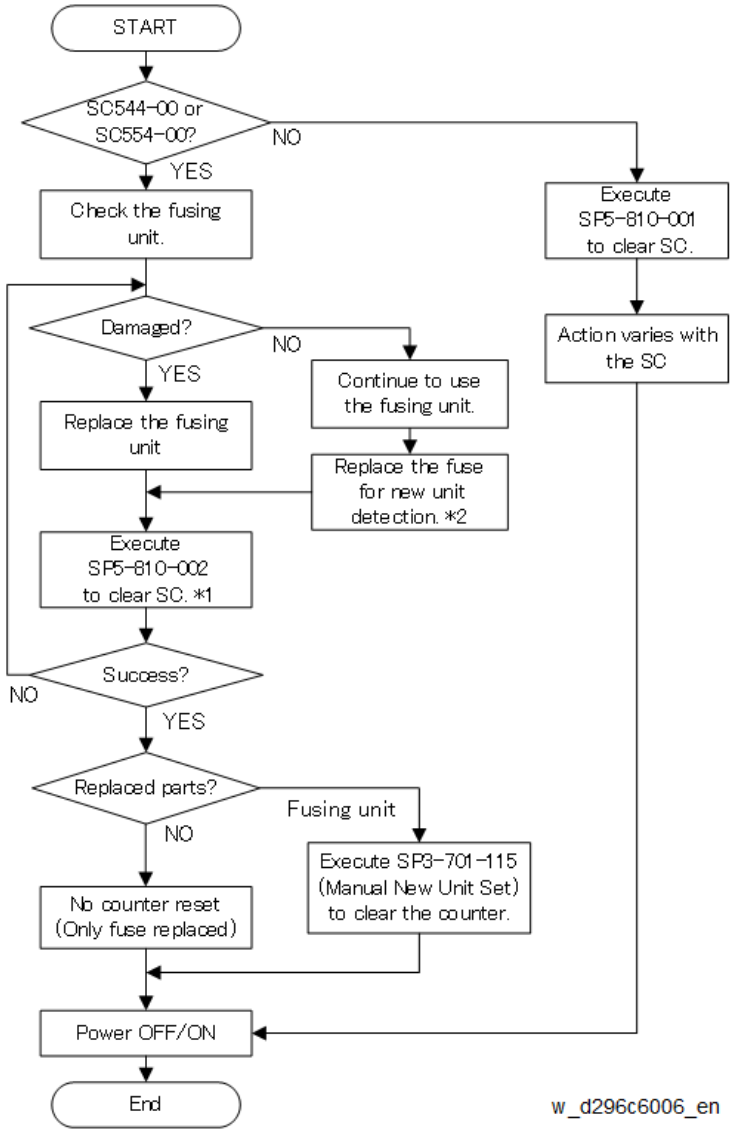
3. Connect the fuse connector, and insert the fuse into place from the upper side.

Note

- Refer to the flow chart below when SC544-00 or SC554-00 occurs. (Actions When SC544-00 or SC554-00 Occurs)

Actions When SC544-00 or SC554-00 Occurs

Basically, the entire fusing unit must be replaced when SC544-00 or SC554-00 occurs. However, it is possible to continue to use the old fusing unit when there is no damage found when you inspect the fusing unit in accordance with the flow chart shown below.



*1:

Do not open the door when doing the procedure in this flow chart ("SC reset failure" will be shown.). The SC reset will be successful if the fuse for new fusing unit detection is blown if the machine door is open during the SC reset, and it will not be successful if it is not blown. The SC reset should be performed again if it fails.

"SC reset failure" will be shown when this SP (SP5-810-002) is executed if an SC other than SC544-00/SC554-00 occurred. RTB 28: Modified

*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

Paper Feed Roller, Friction Pad (Standard Tray)

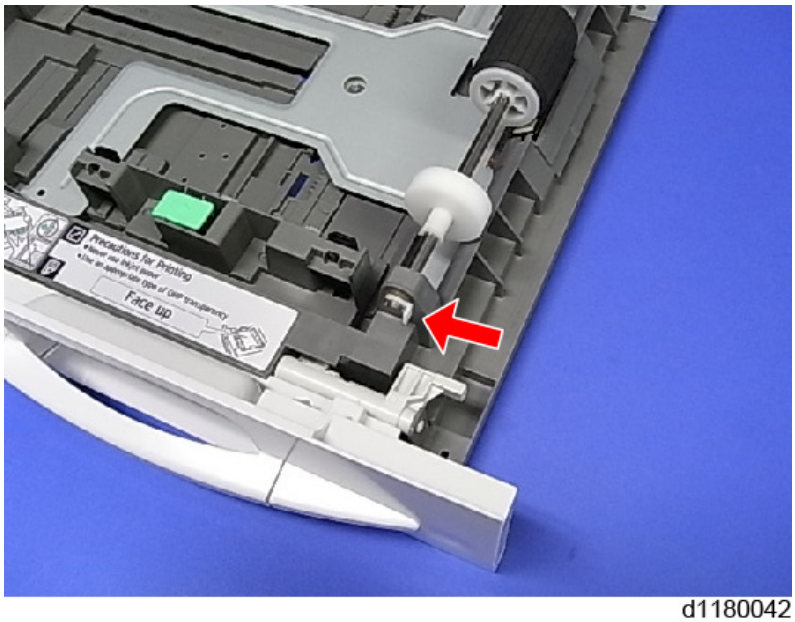
Before Replacing the Paper Feed Roller and Friction Pad

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.

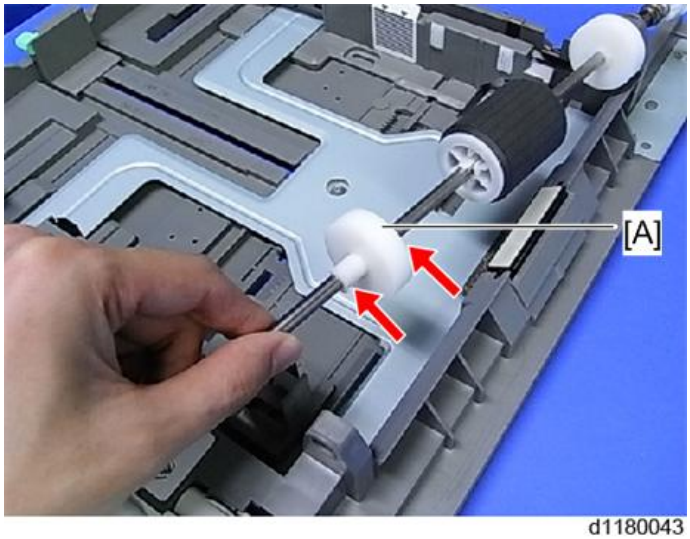
Replacing the Paper Feed Roller and Friction Pad

1. Pull out the paper tray.
2. Pull out the bearing. (× 1)



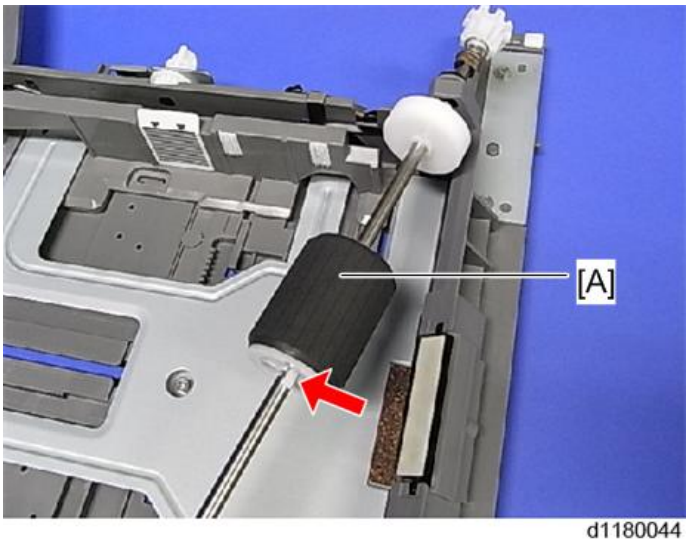
d1180042

3. Lift up the shaft, then remove the sub paper feed roller [A]. (× 2)



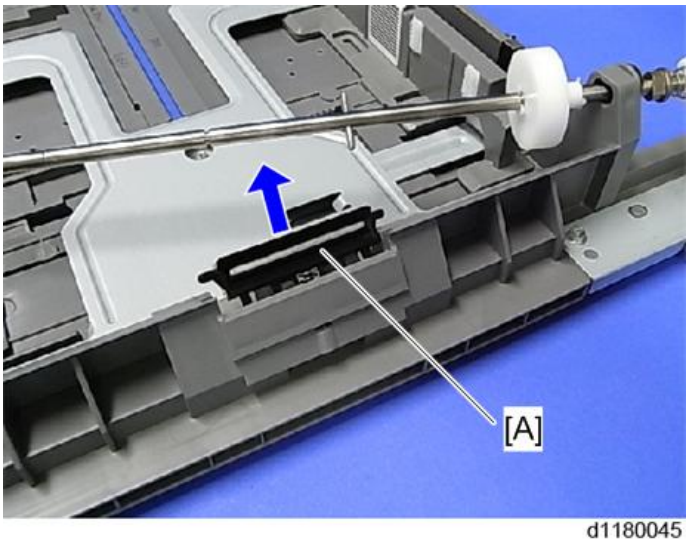
d1180043

4. Remove the paper feed roller. (Hook × 1)



d1180044

5. Remove the friction pad [A]. (Hooks × 2)



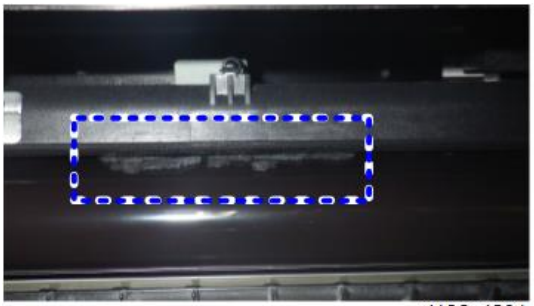
d1180045

Registration Sensor, Paper Feed Sensor

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.



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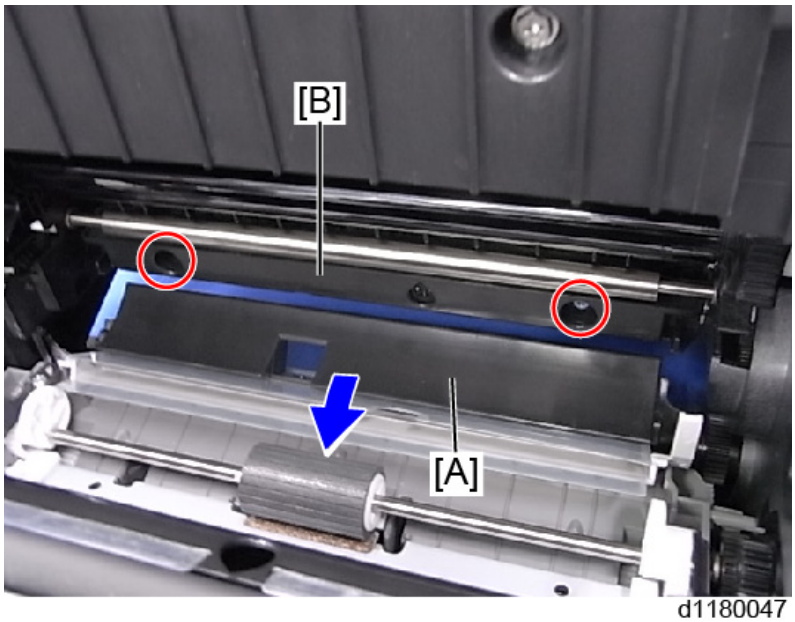
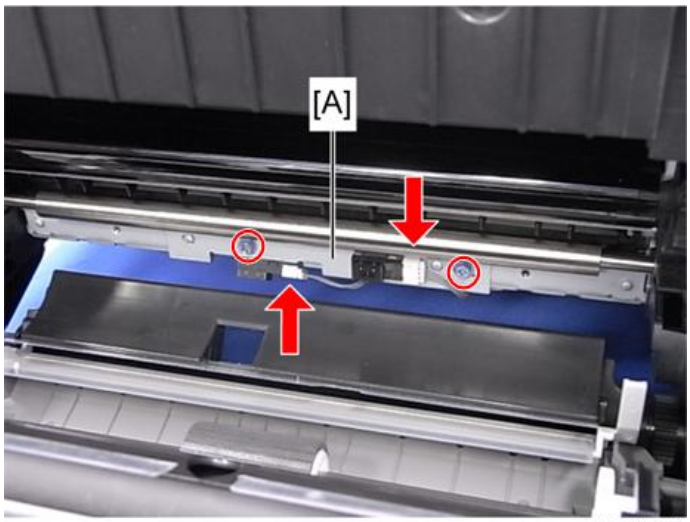
2. Pull down the guide plate [A].

3. Remove the sensor cover [B]. (× 2)



d1180047

4. Remove the sensor bracket [A]. (× 2, × 2)



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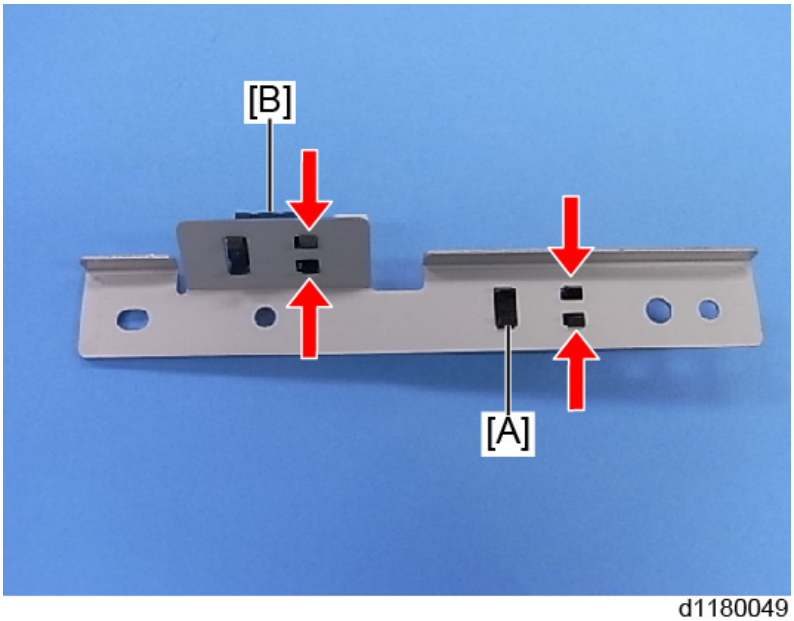
5. Remove the registration sensor [A]. (Hook × 2)

6. Remove the paper feed sensor [B]. (Hook × 2)

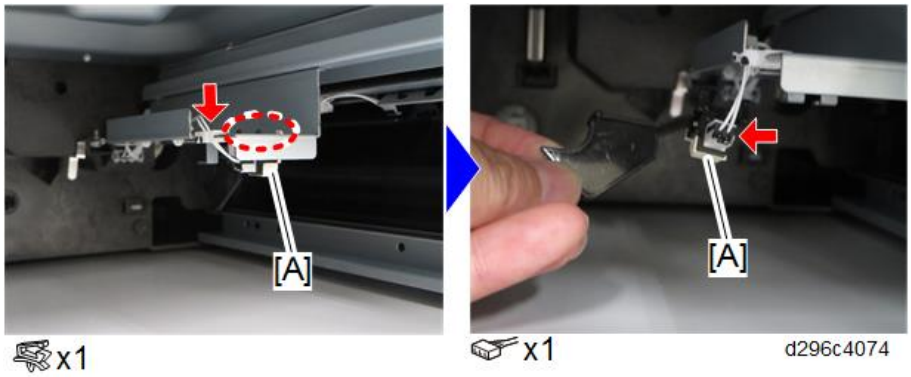


d1180049

Tray Paper End Sensor

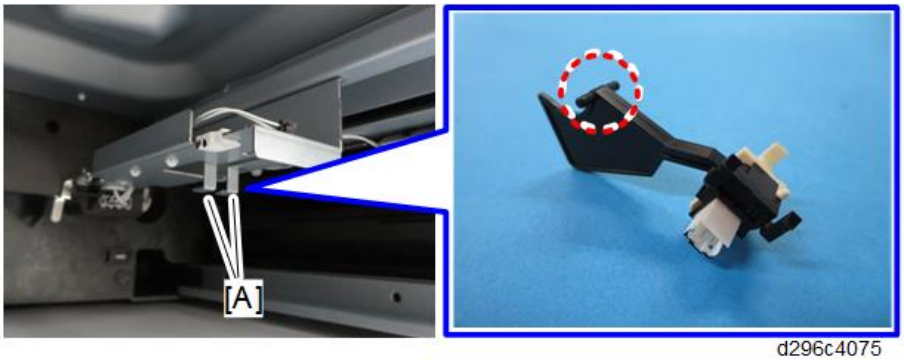
1. Remove the waste toner bottle. (Waste Toner Bottle)

2. Remove the tray paper end sensor [A]. (☞ × 1, hook × 2)



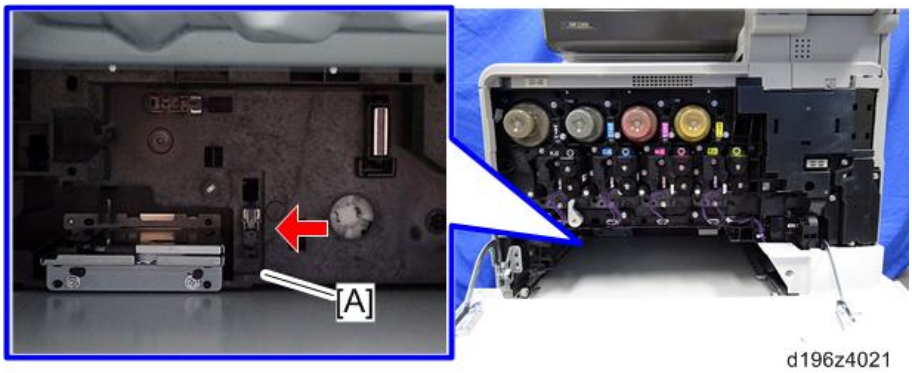
Note

When reattaching the tray paper end sensor, make sure that the shaft of the feeler is hooked onto the bracket [A].



Tray Lift Sensor

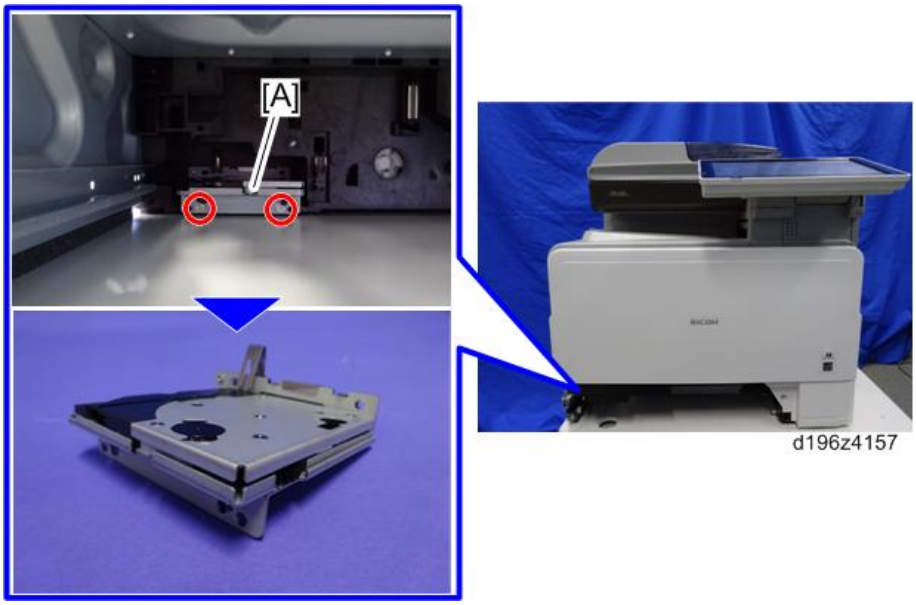
1. Remove the waste toner bottle. (Waste Toner Bottle)
2. Remove the tray lift sensor [A]. (× 1, hook × 2)



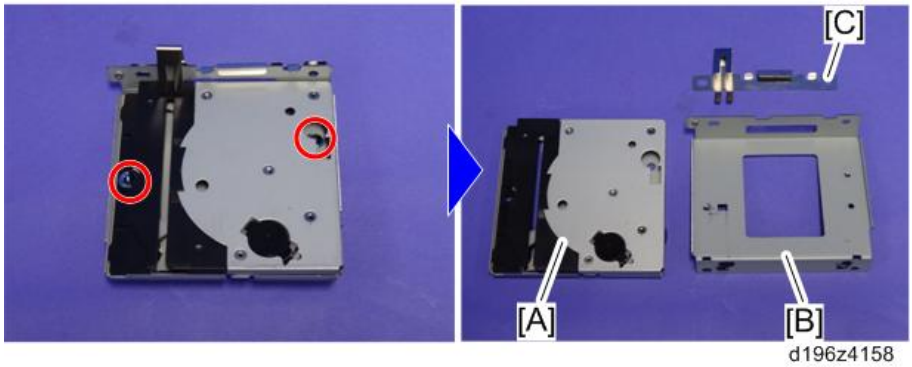
Draw-in Unit

1. Remove the PSU fan. (PSU Fan)
2. Remove the rear cover. (Rear Cover)
3. Remove the screw. (× 1)

4. Remove the draw-in unit [A] with bracket. (× 2)

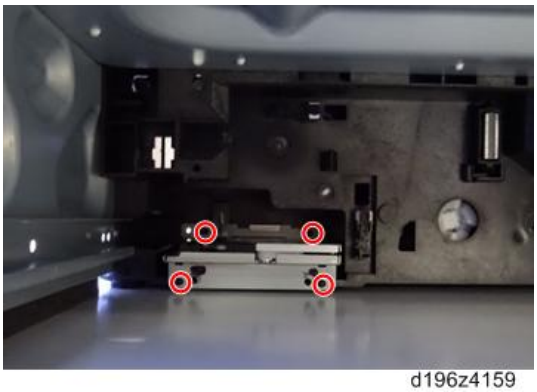


5. Remove the bracket [B] and grounding plate [C] from the draw-in unit [A].



Note

- When installing the draw-in unit, fit the bracket's holes onto the bosses on the mainframe. (× 4)



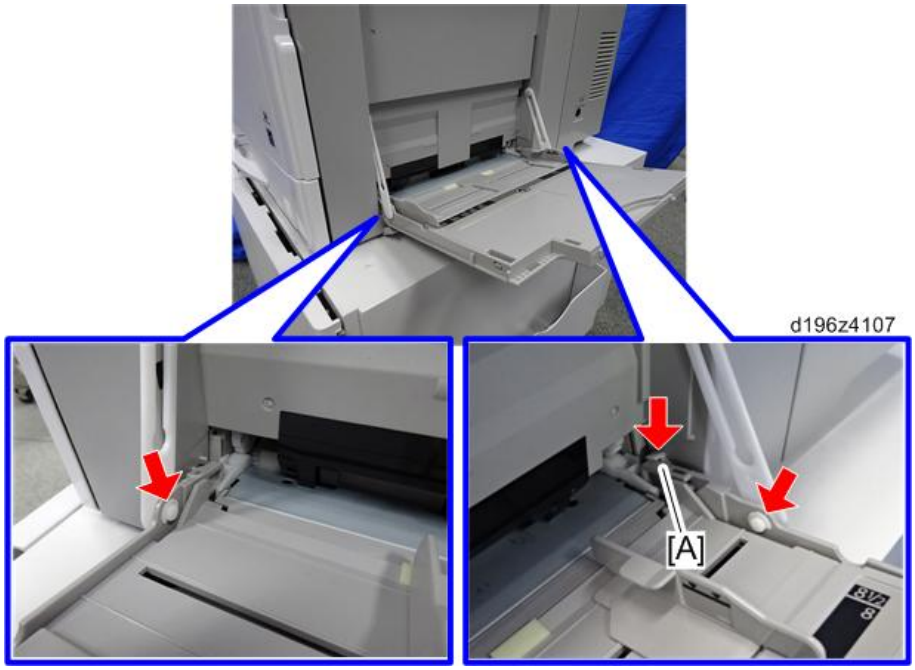
Bypass

Bypass Tray

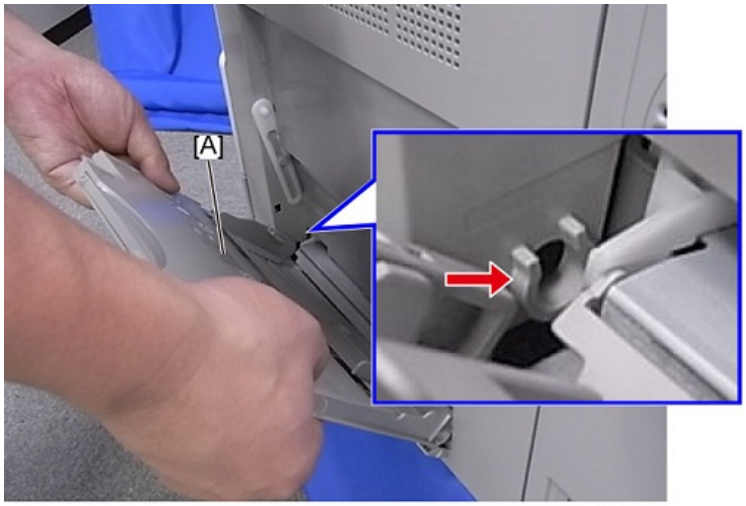
1. Open the bypass tray [A].

d1170089

2. Remove the stopper [A], and E-rings. (ℂ× 2, Stopper × 1)



3. Close the bypass tray [A] slightly and pull it out upwards.



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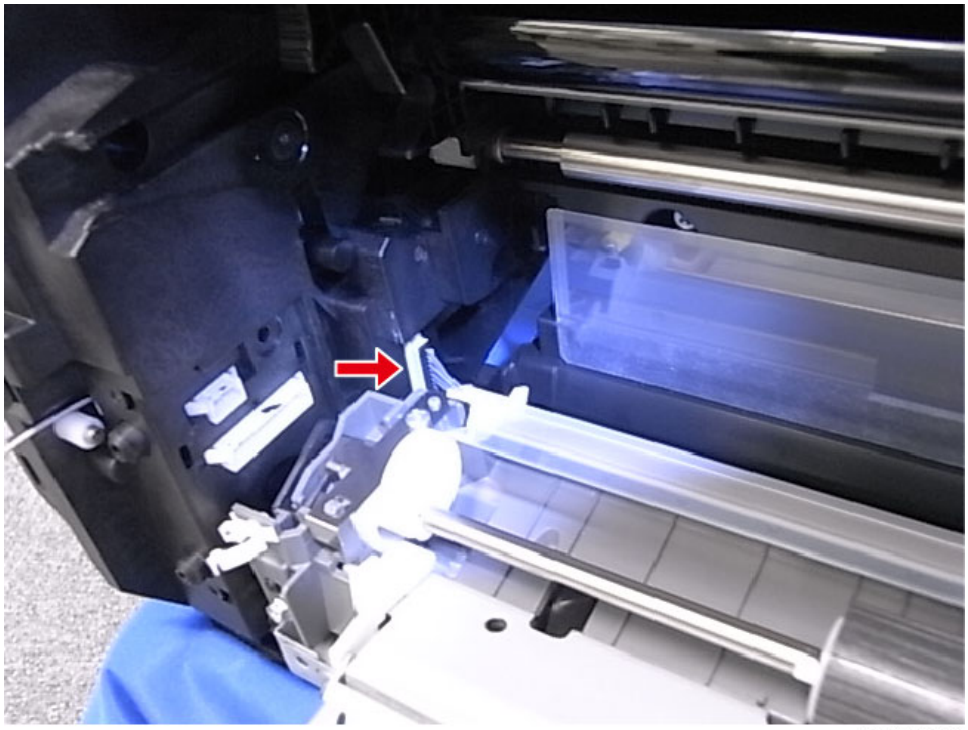
Bypass Feed Unit

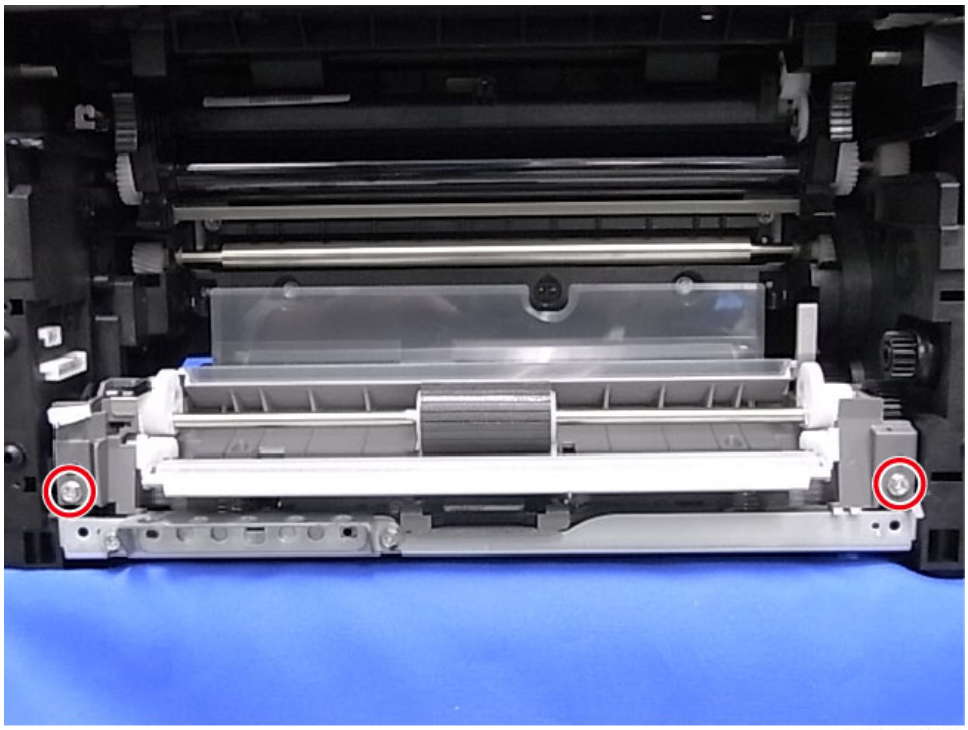
1. Remove the duplex unit. (Duplex Unit)

2. Disconnect the connector. (☞ × 1)



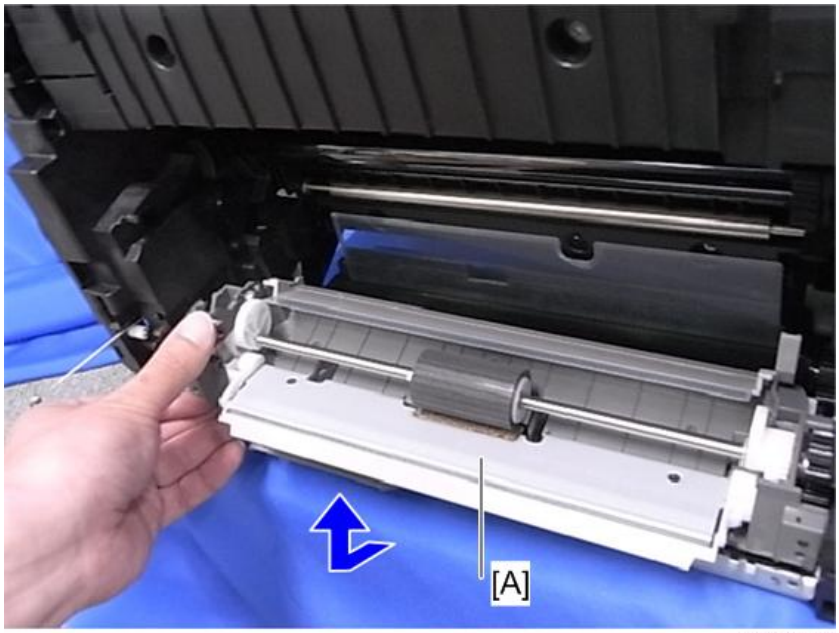
d1170086

3. Remove the two screws. (× 2)



d1170087

4. Remove the bypass feed unit [A].



d1170088

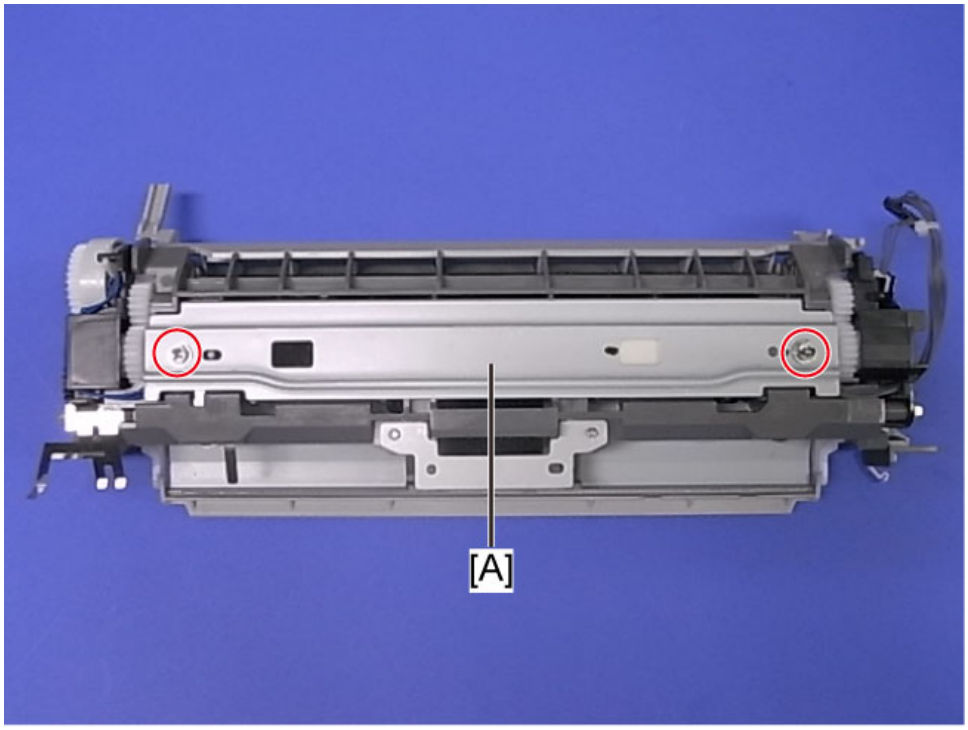
Note

- Lift up the left side of the unit and remove it while pulling it out forward.

Bypass Paper End Sensor

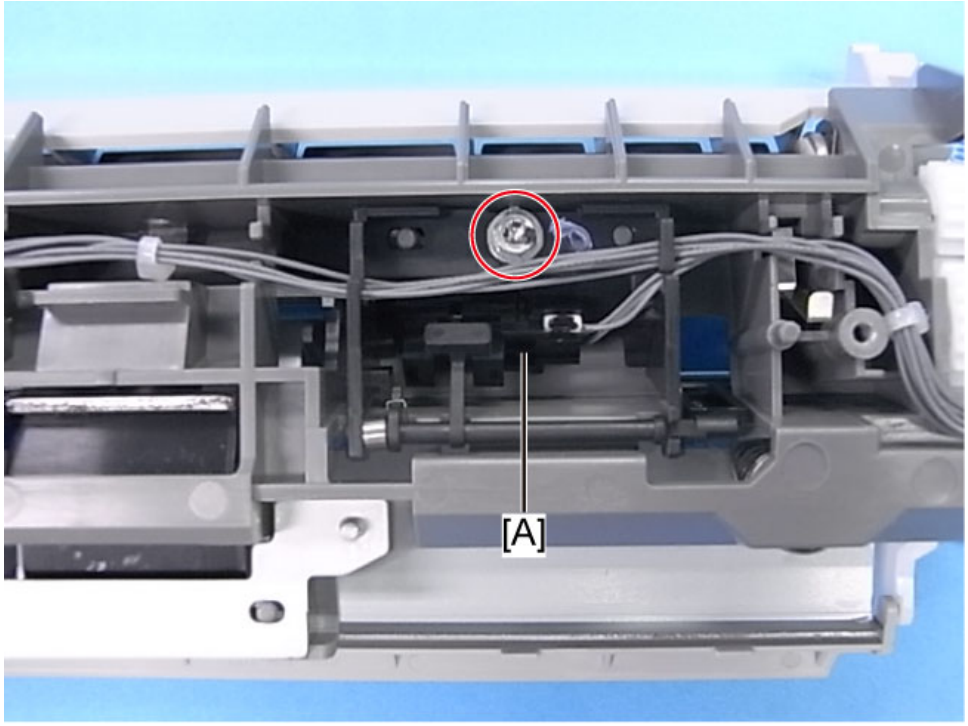
1. Remove the bypass feed unit. (Bypass Feed Unit)

2. Remove the bracket [A]. (× 2)



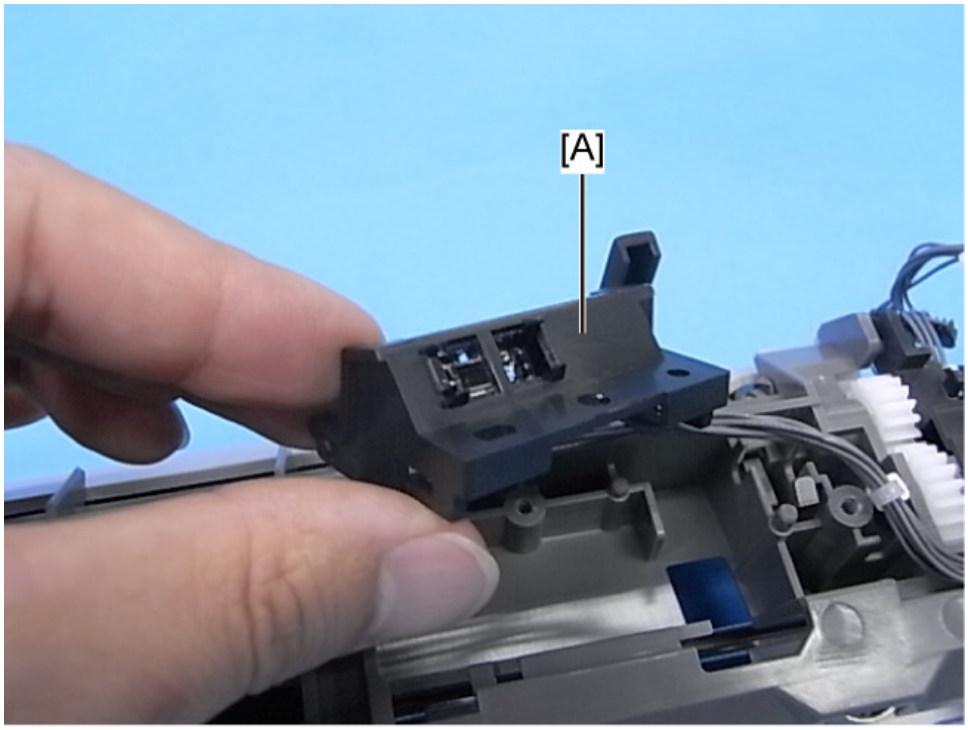
d1170116

3. Remove the bypass paper end sensor with the holder [A]. (× 1)



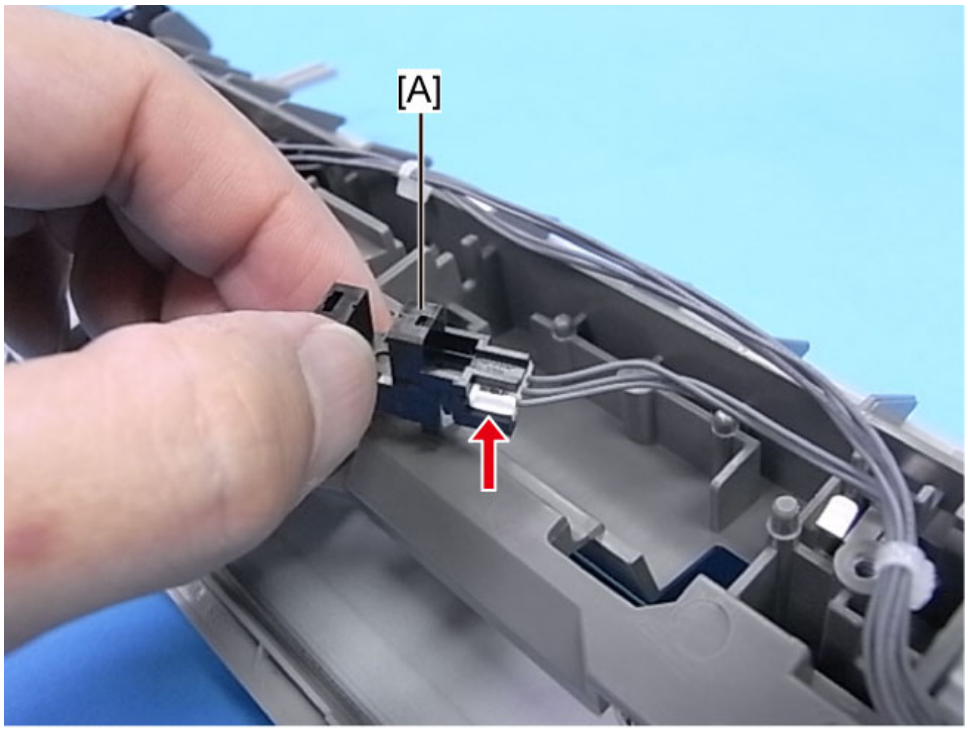
d1170117

4. Remove the sensor holder [A]. (Hook × 2)



d1170118

5. Remove the bypass paper end sensor [A]. (☞ × 1)

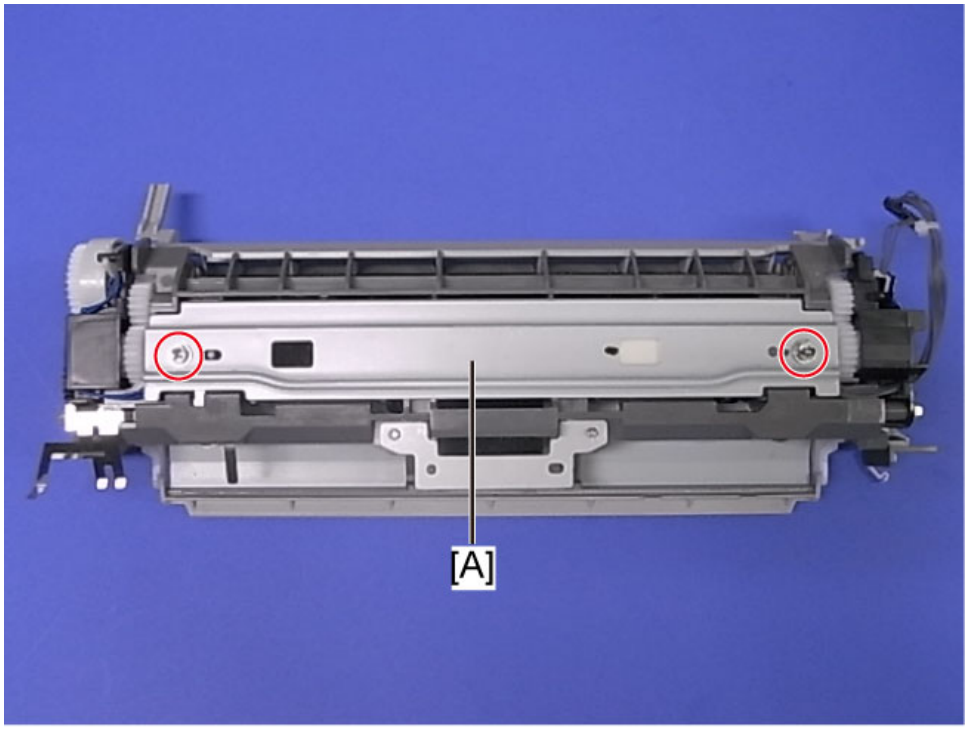


d1170119

Bypass Paper Width Sensor

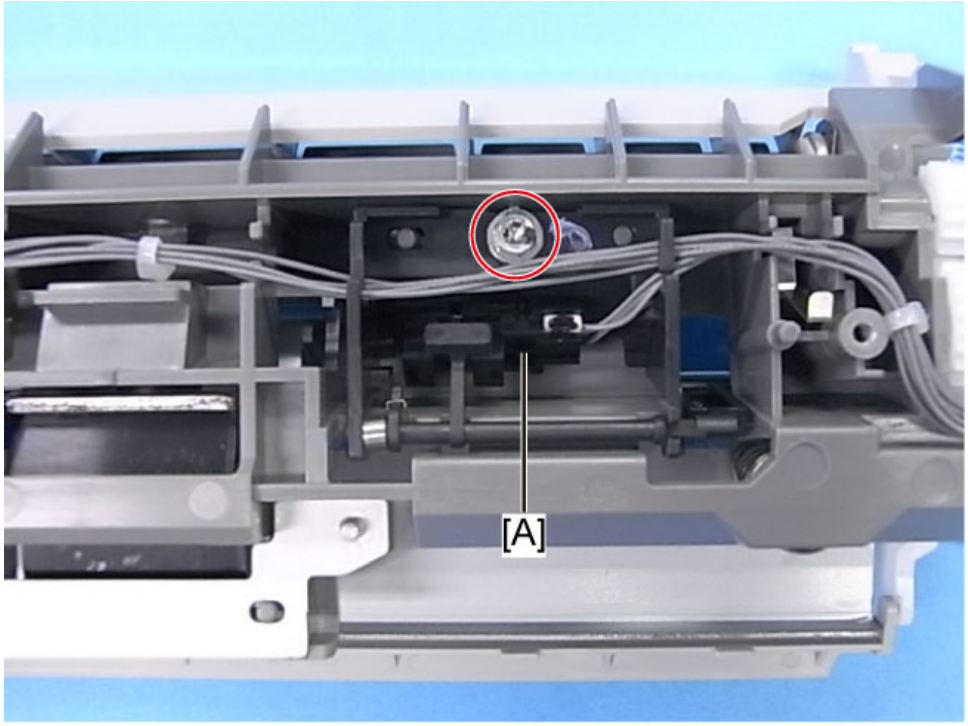
1. Remove the bypass feed unit. (Bypass Feed Unit)

2. Remove the bracket [A]. (✆ × 2)



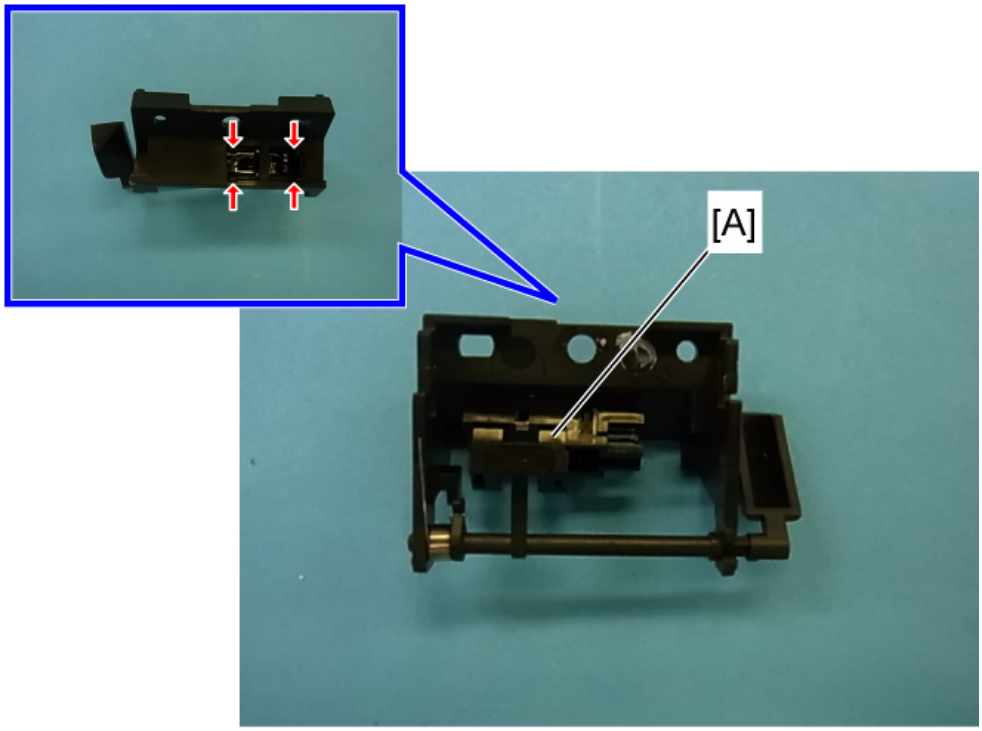
d1170122

3. Remove the bypass paper width sensor with the holder [A]. (✆ × 1)



d1170117

4. Remove the bypass paper width sensor [A]. (Hooks × 4)



d1170742

Bypass Feed Roller

Before Replacing the Bypass Feed Roller

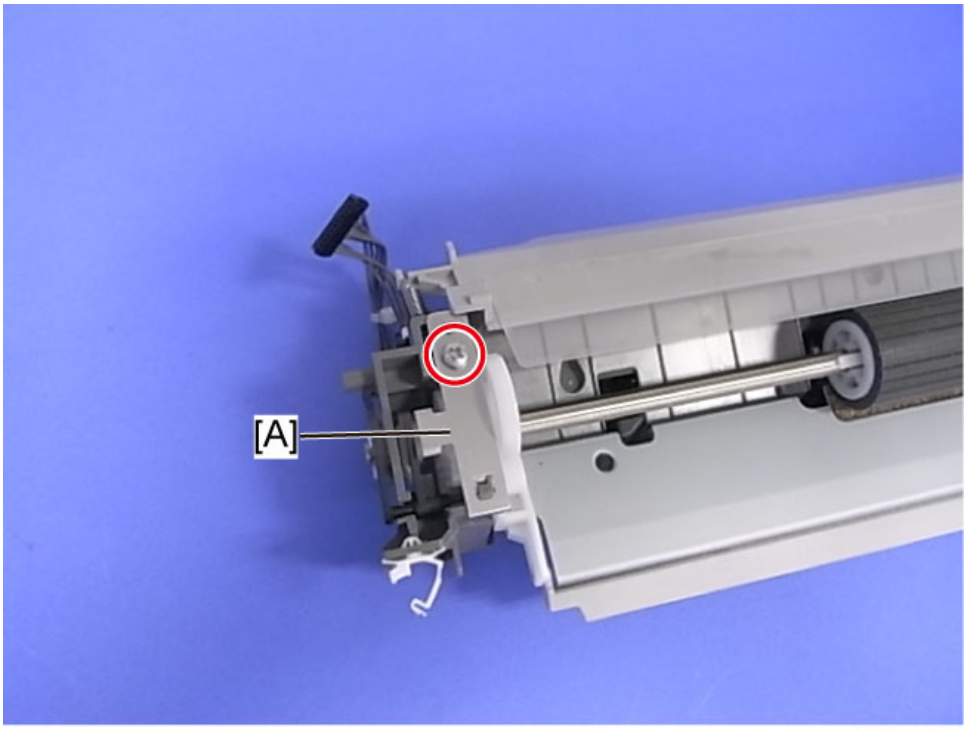
Before replacing the bypass feed roller, reset the PM counter.

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

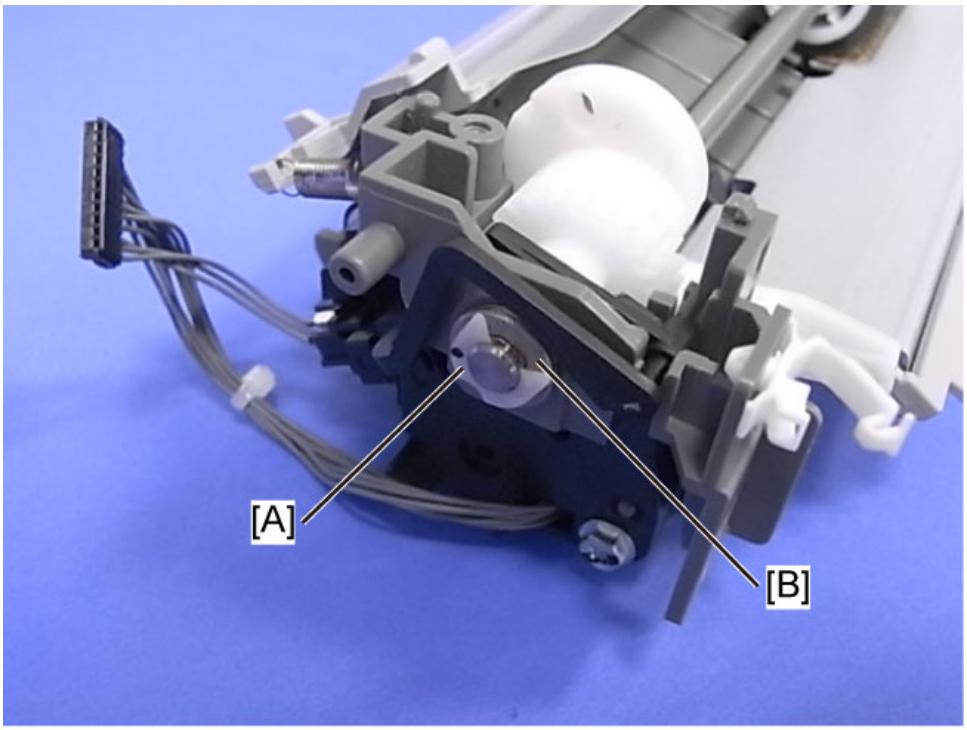
1. Remove the bypass feed unit. (Bypass Feed Unit)

2. Remove the bracket [A]. (× 1)



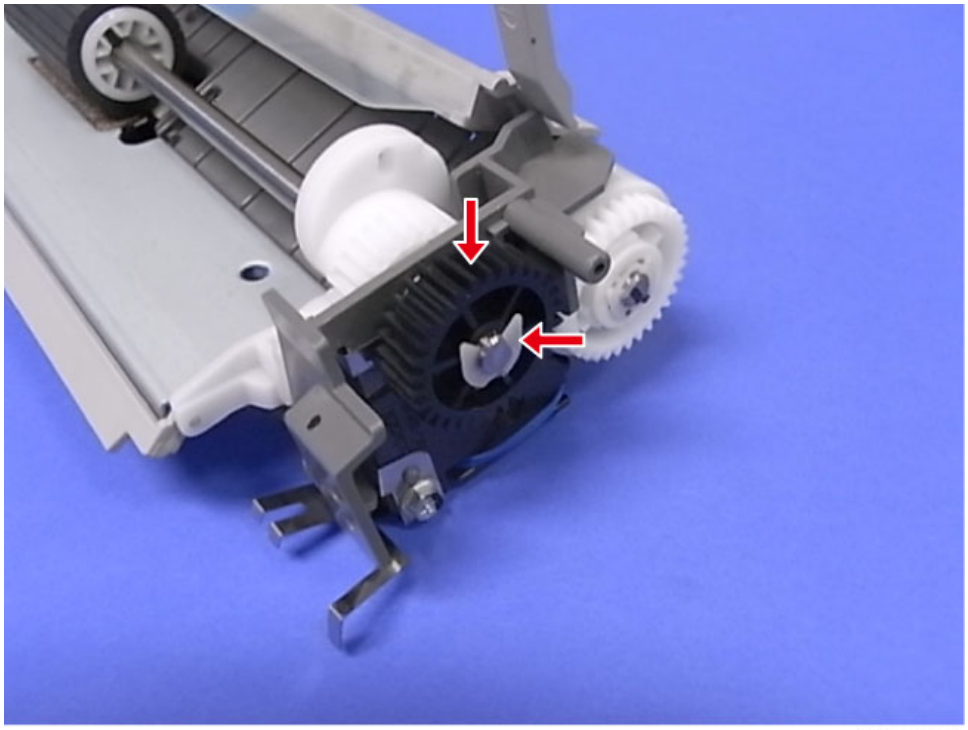
d1170067

3. Remove the E-ring [A] and bearing [B] at the front of the bypass feed unit. (× 1, bearing × 1)



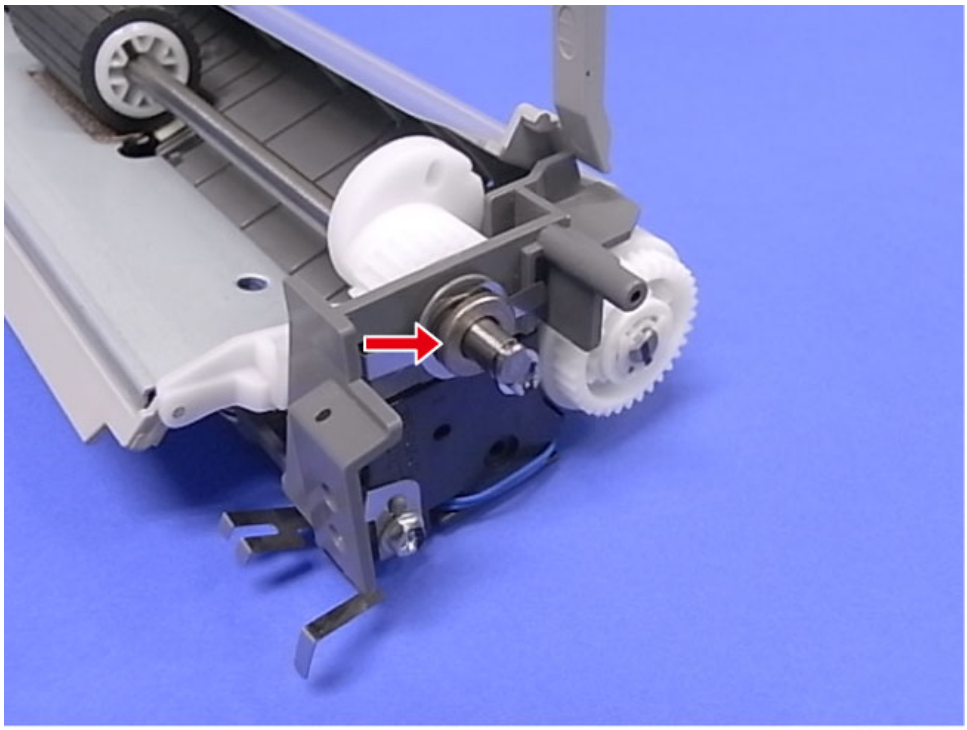
d1170068

4. Remove the E-ring and the gear at the rear of the bypass feed unit. (ℂ × 1, gear × 1)



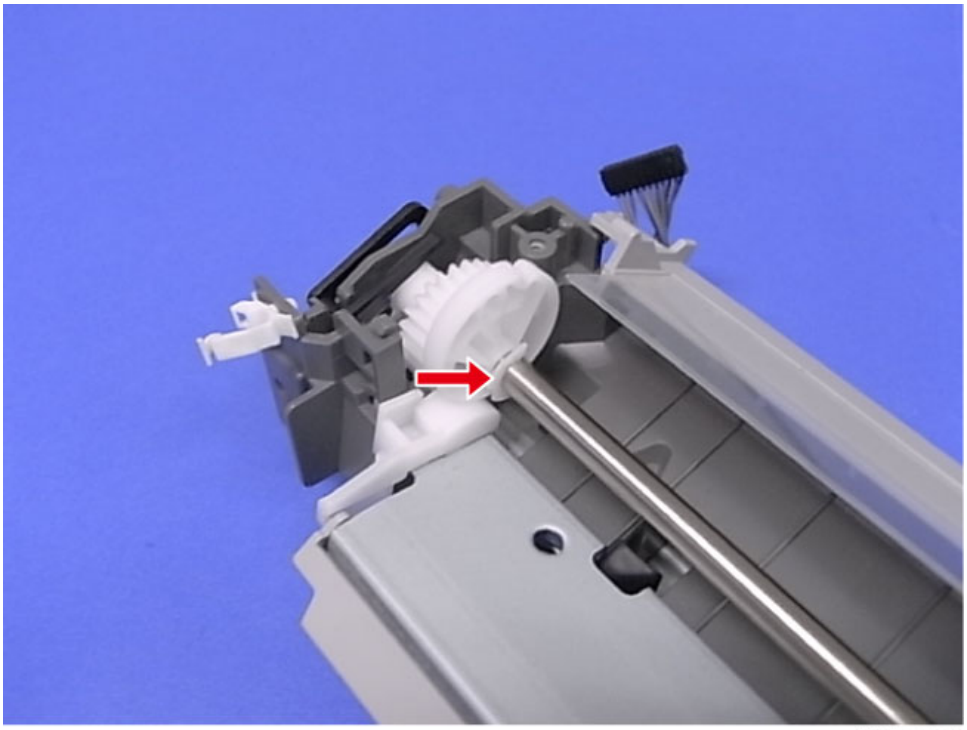
d1170069

5. Bearing (bearing × 1)



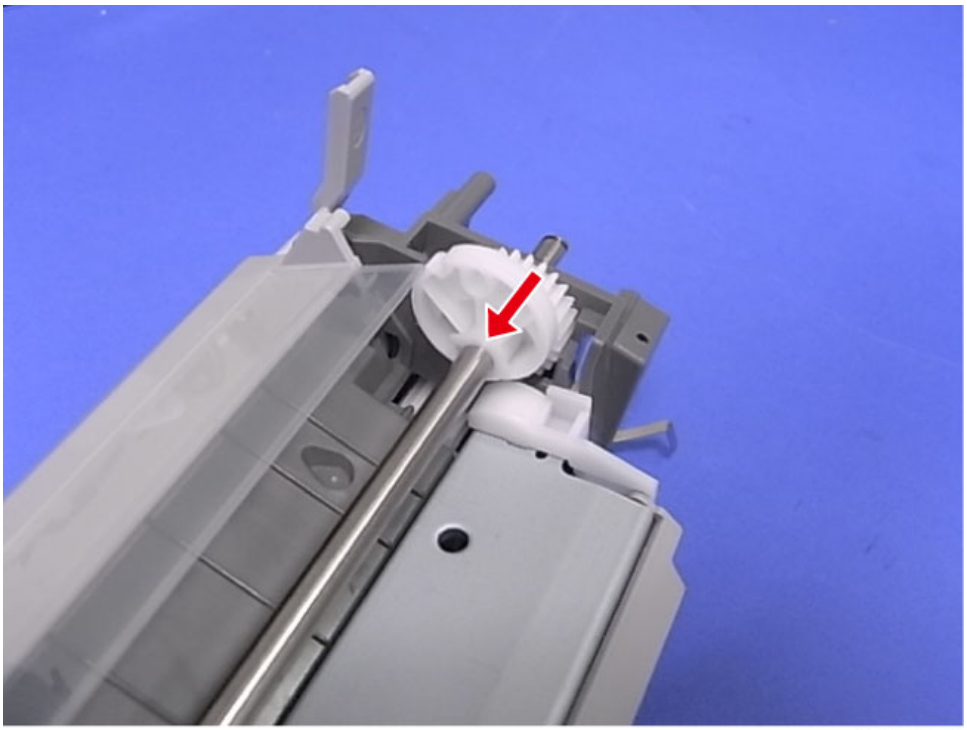
d1170070

6. E-ring at the front of the bypass feed unit (ℂ × 1)



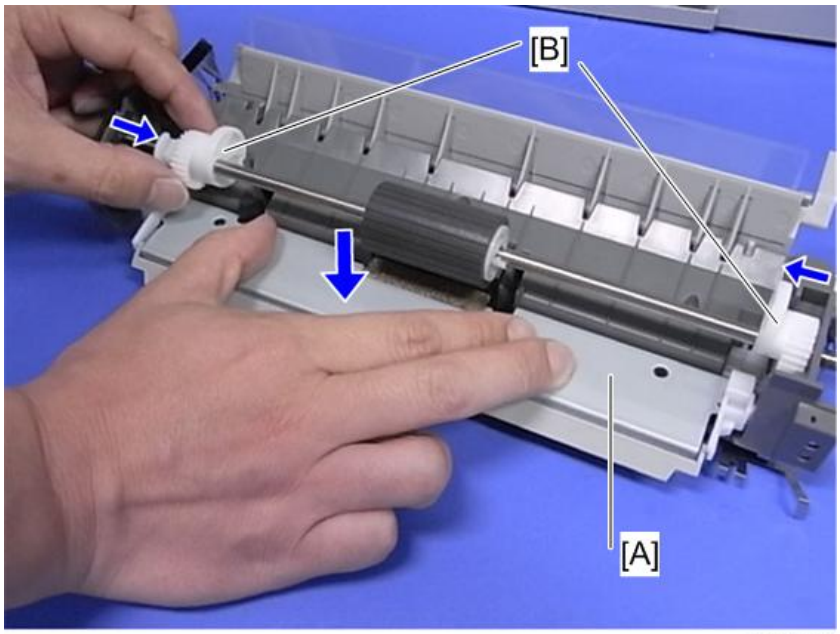
d1170071

7. E-ring at the rear of the bypass feed unit (ℂ × 1)



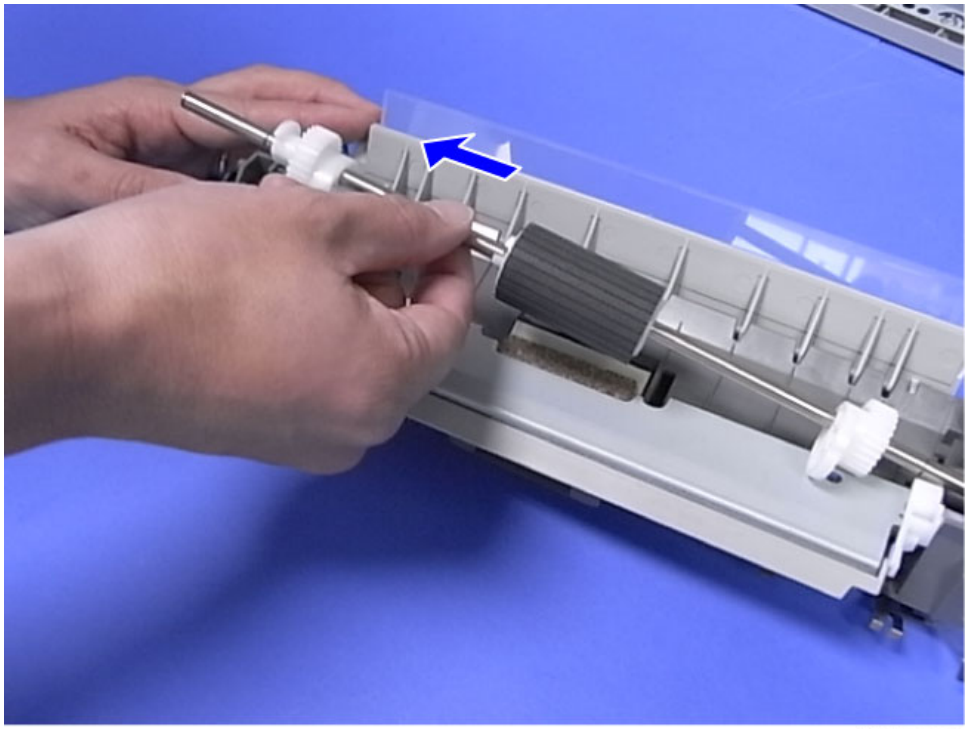
d1170072

8. Move the front cam and rear cam [B] inward while pushing down the bottom plate [A].



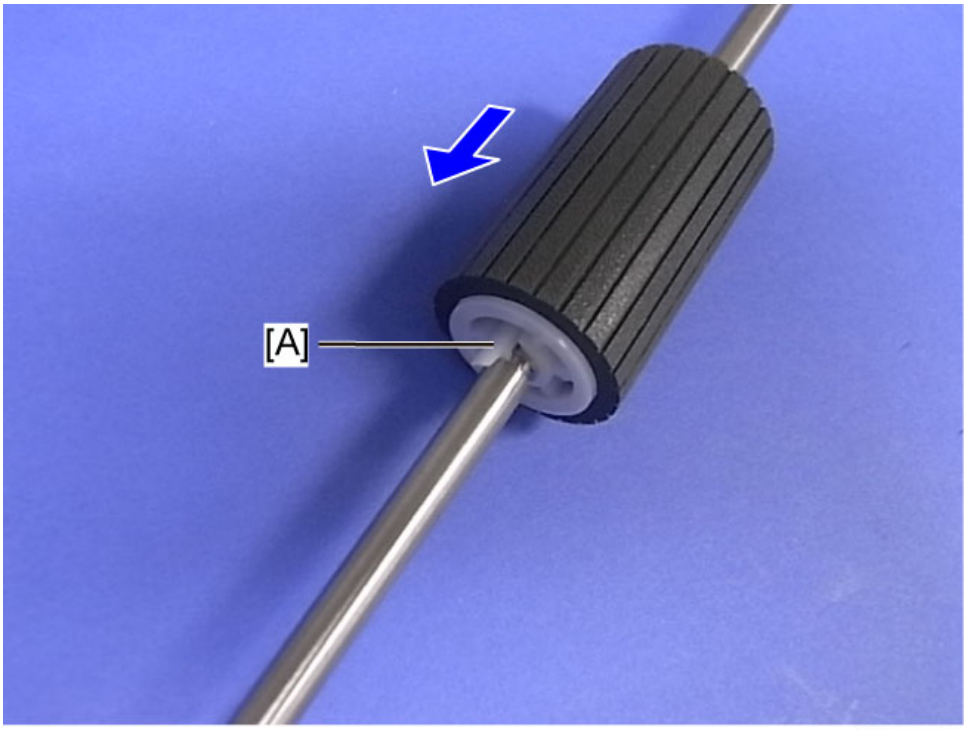
d1170073

9. Remove the bypass feed roller with the shaft from the front side.



d1170074

10. Bypass feed roller [A] (Hook × 1)

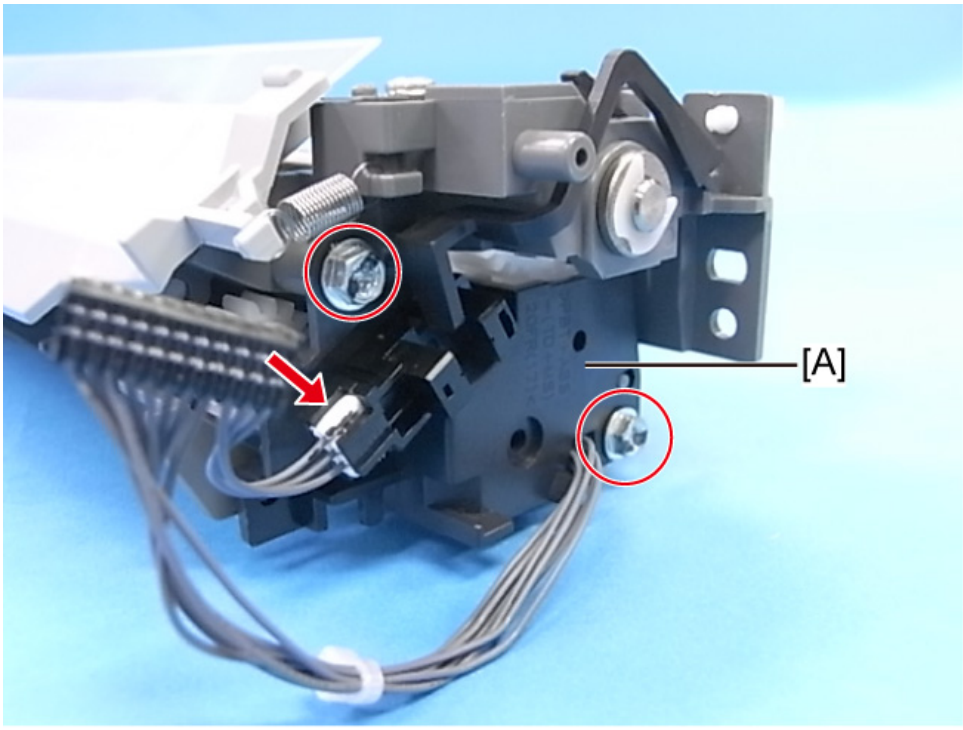


d1170075

Bypass Lift Sensor

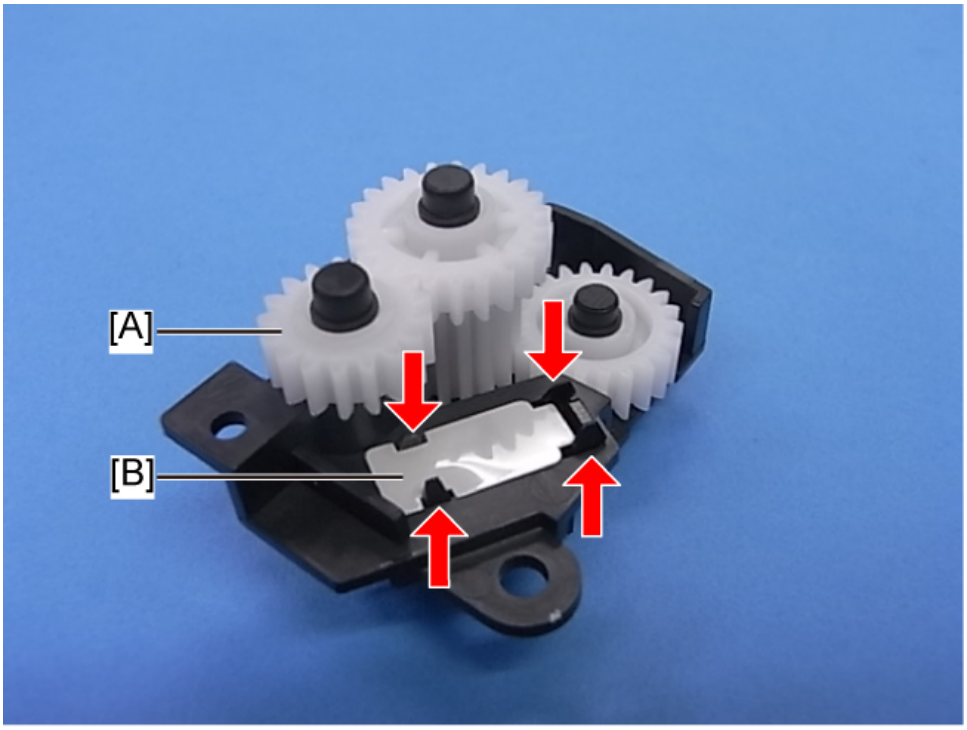
1. Remove the bypass feed unit. (Bypass Feed Unit)

2. Remove the sensor holder [A]. (× 2, × 1)



d1170120

3. Remove the gear [A] and bypass lift sensor [B]. (Hooks × 4)

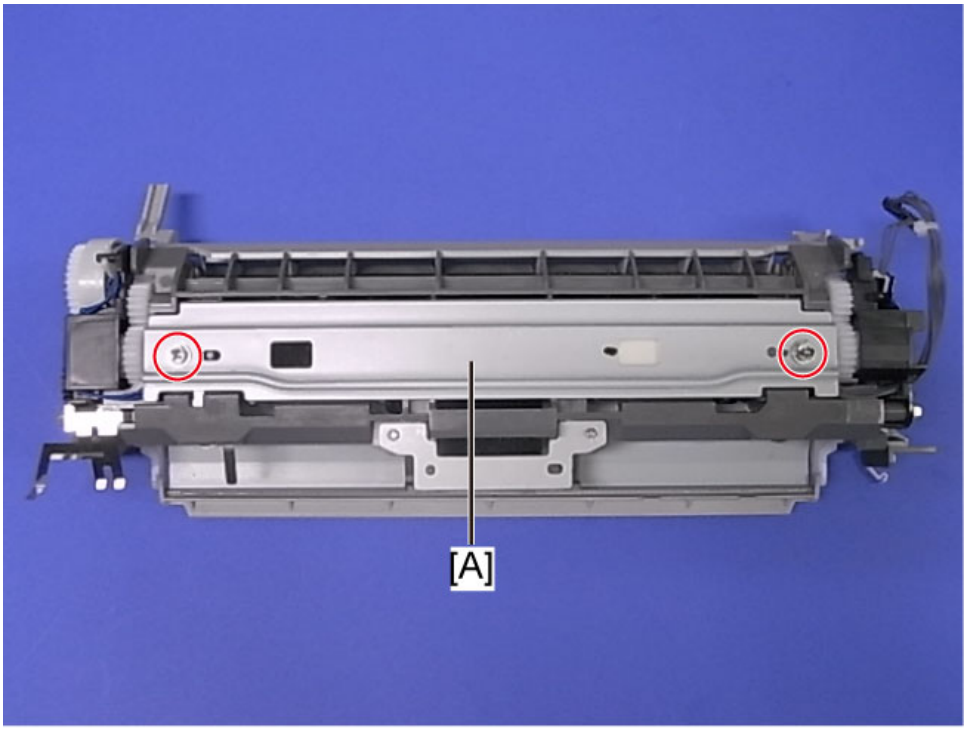


d1170121

Bypass Lift Clutch

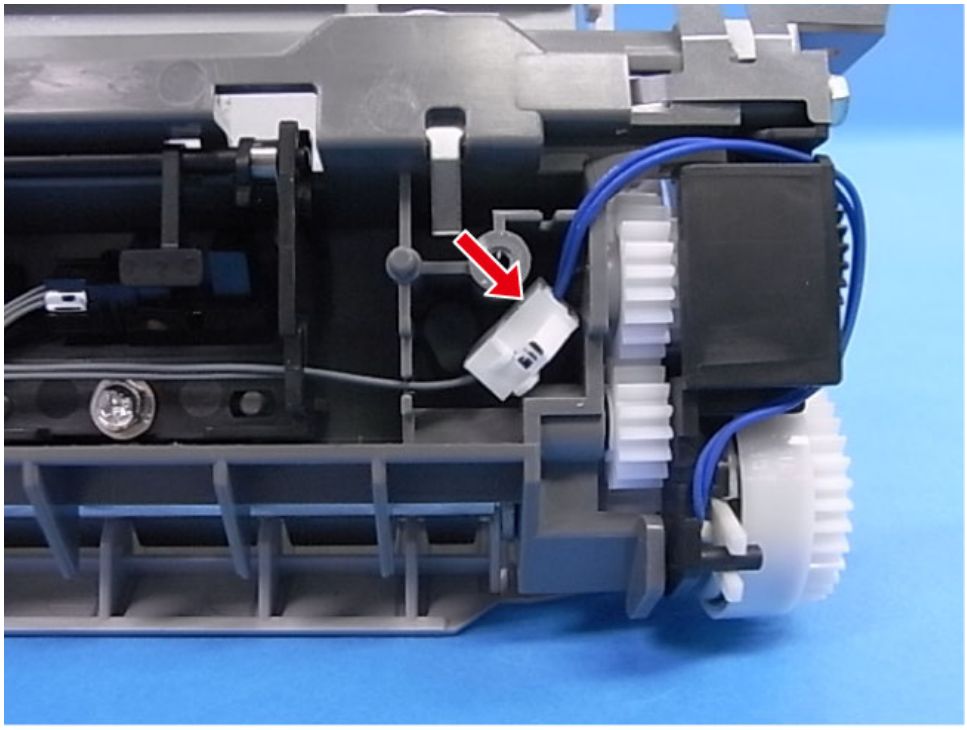
1. Remove the bypass feed unit. (Bypass Feed Unit)

2. Remove the bracket [A]. (× 2)



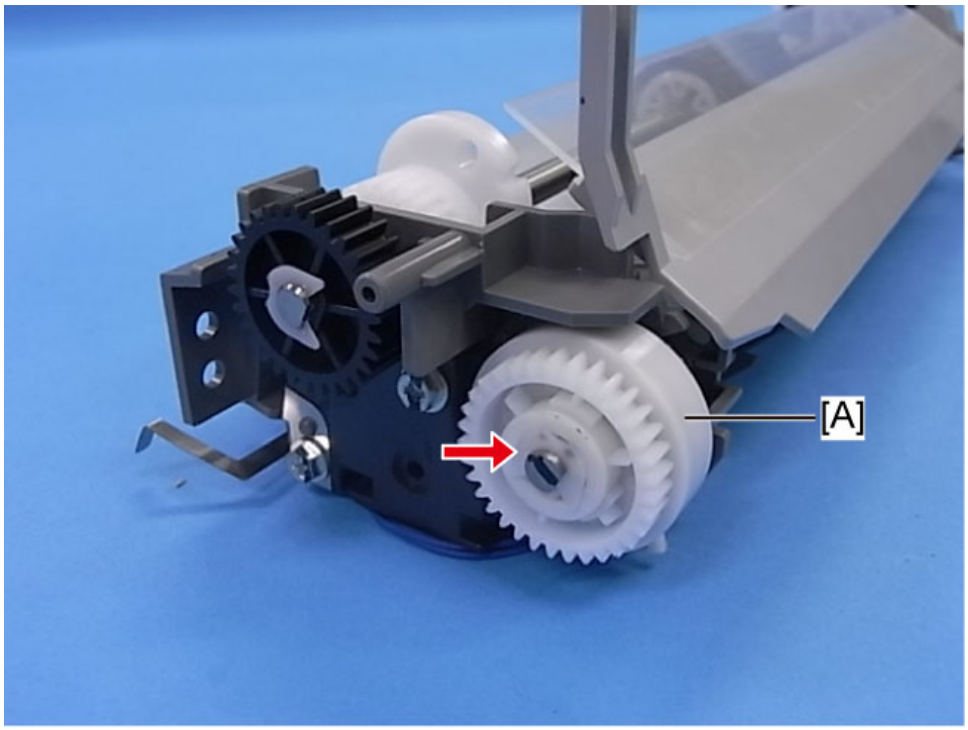
d1170122

3. Disconnect the connector of the clutch. (☞ × 1)



d1170123

4. Remove the bypass lift clutch [A]. (☾ × 1)

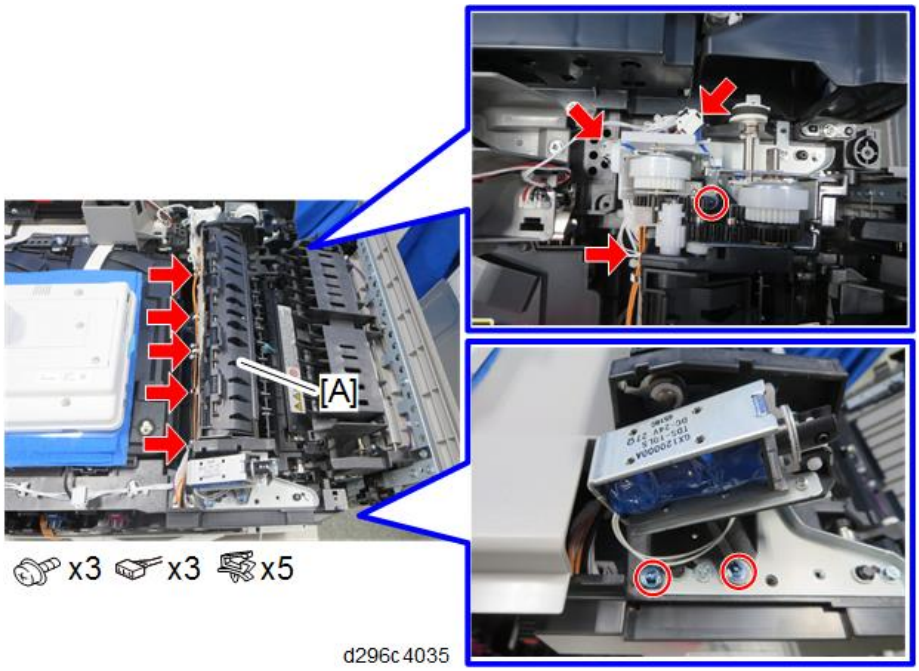


d1170124

Paper Exit

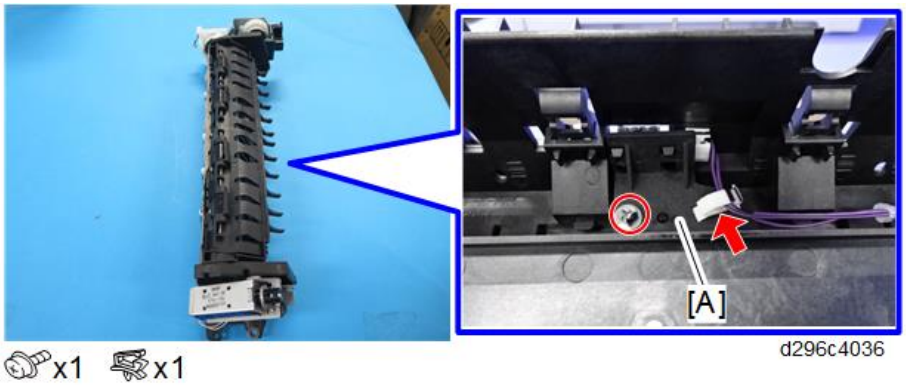
Paper Exit Unit

1. Remove the scanner inner cover. (Scanner Inner Cover)
2. Remove the paper exit unit [A].

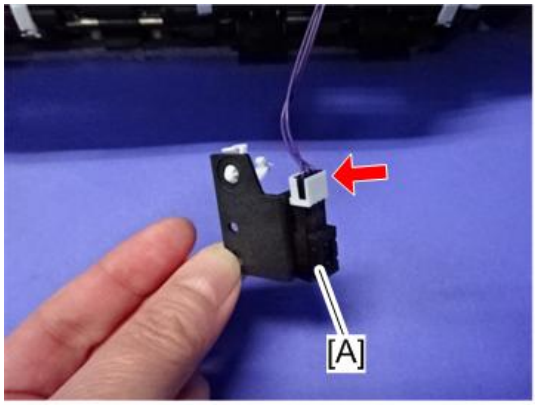


Paper Exit Sensor

1. Remove the paper exit unit. (Paper Exit Unit)
2. Remove the sensor holder [A].



3. Remove the paper exit sensor [A]. (☞ × 1)



d196z4138

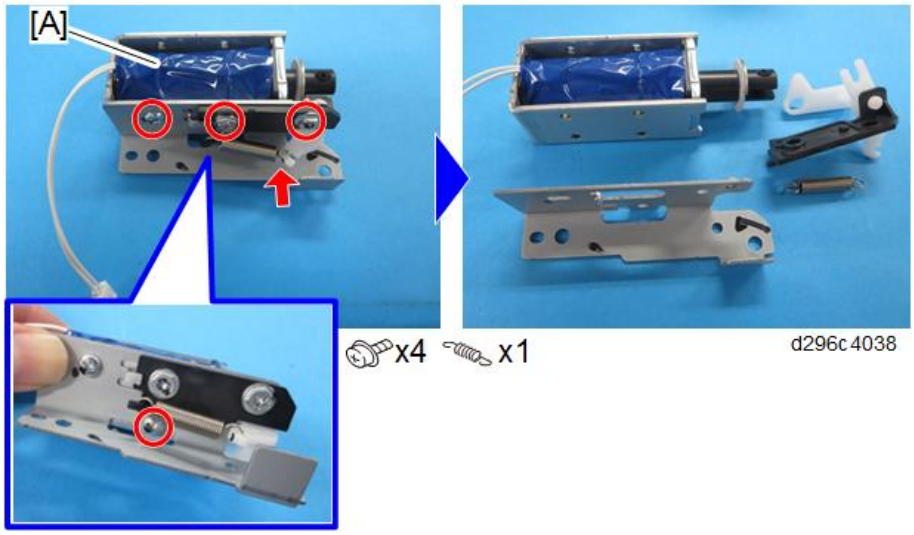
Exit Junction Gate Solenoid

1. Remove the paper exit unit. (Paper Exit Unit)

2. Remove the exit junction gate solenoid [A] with the bracket.

d296c4037

3. Remove the bracket from the exit junction gate solenoid [A].



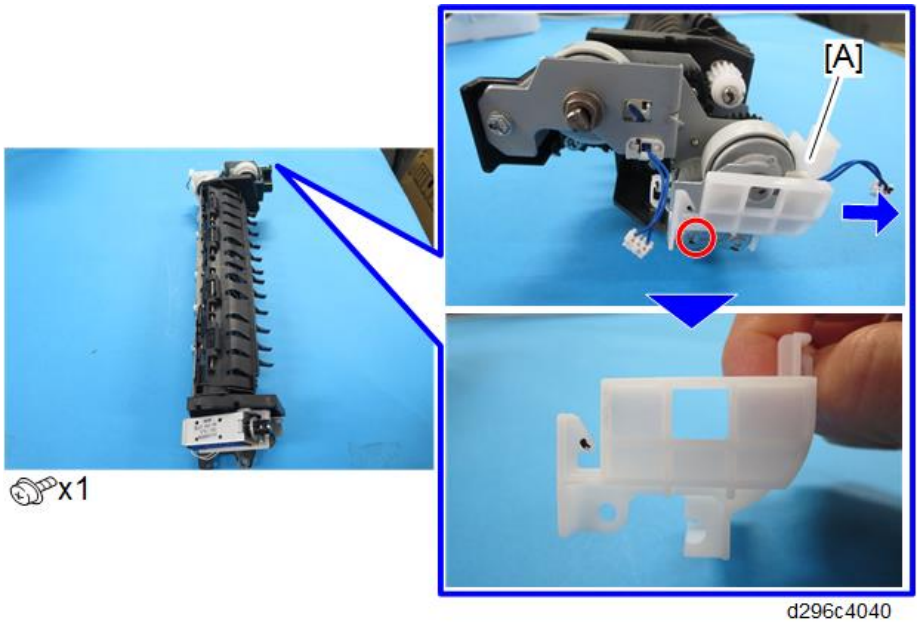
Note

When reattaching the exit junction gate solenoid, make sure that the solenoid works in conjunction with the exit junction gate.

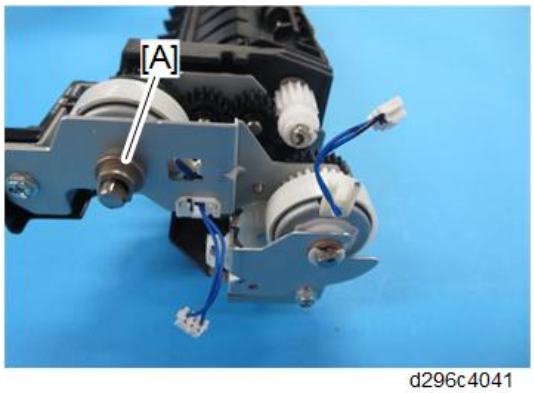
Paper Exit Clutch, Reverse Clutch

1. Remove the paper exit unit. (Paper Exit Unit)

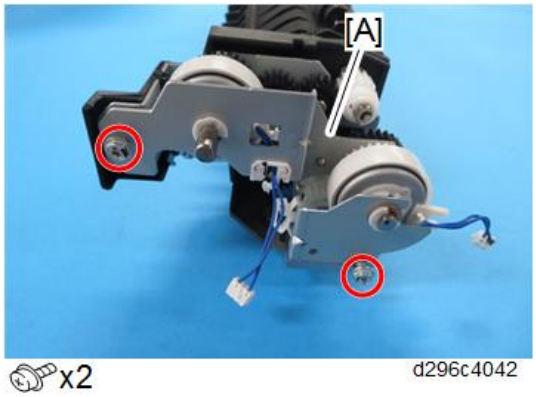
2. Remove the cover [A].



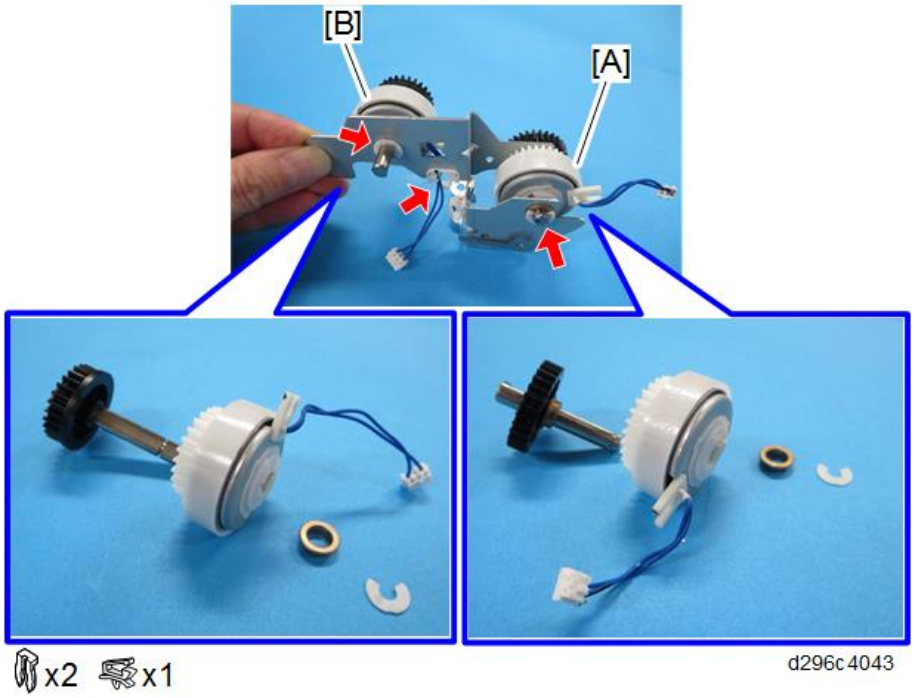
3. Pull out the bearing [A].



4. Remove the paper exit clutch and reverse clutch with the bracket [A].



5. Remove the paper exit clutch [A] and reverse clutch [B].



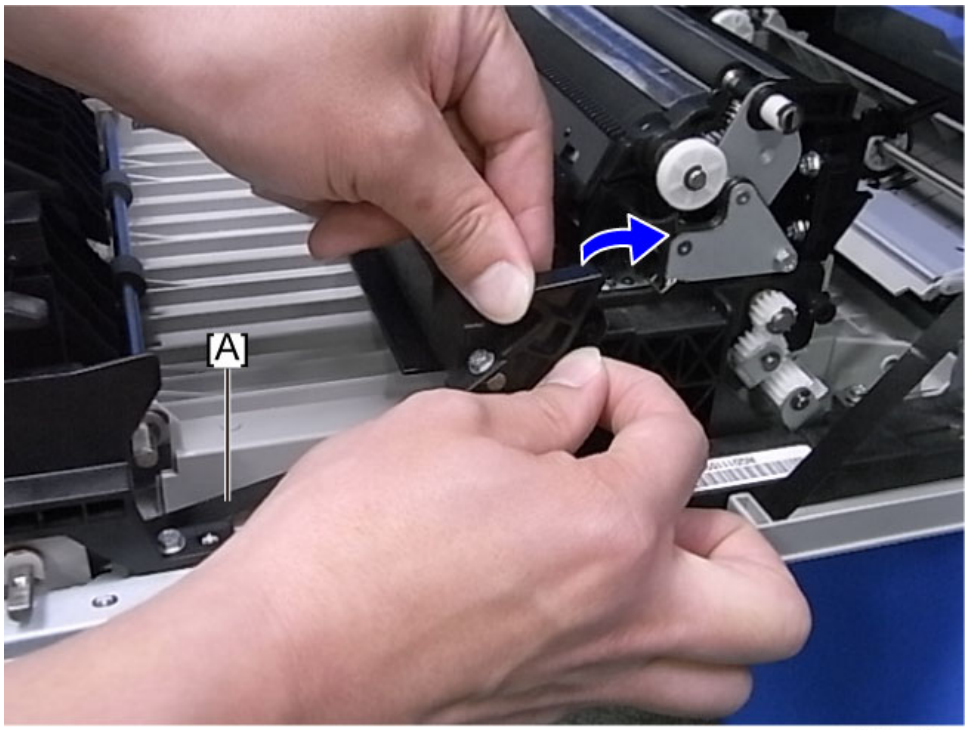
Duplex

Duplex Unit

1. Open the right door.

d196z4007

2. Push the lever and reduce the tension of the belt [A], then remove the belt.

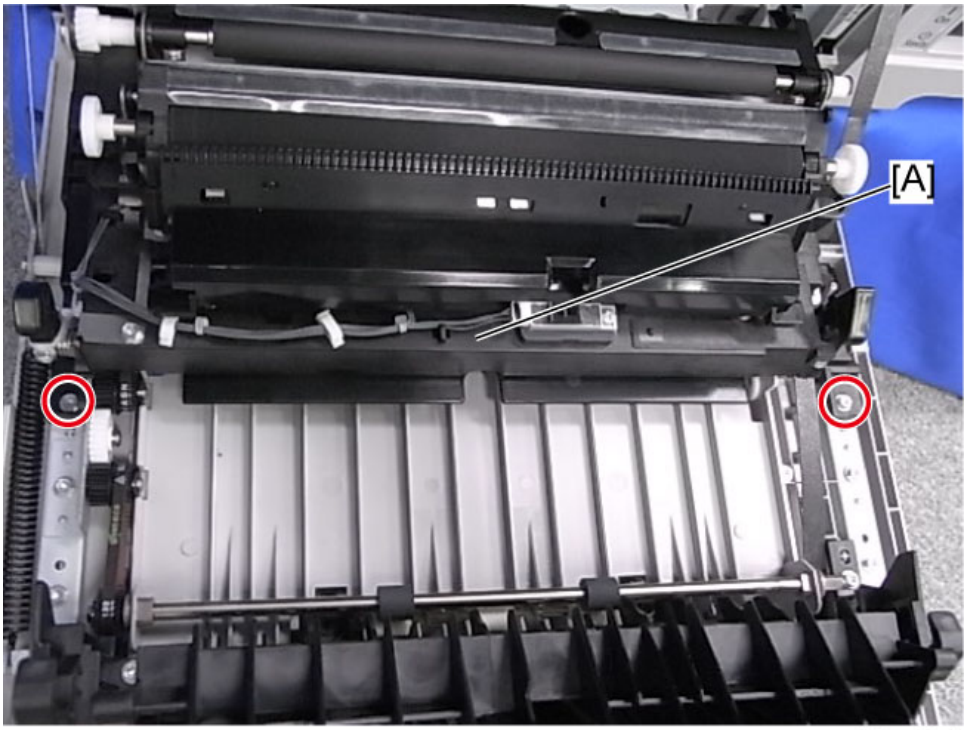


d1170077

⚠CAUTION

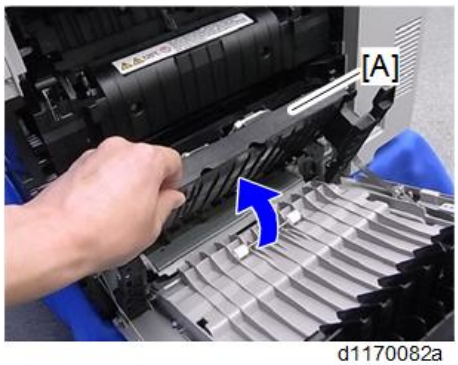
When reattaching the duplex unit, make sure that the belt [A] is attached firmly. If the belt is not attached, the right door will not be opened even if the opening/closing lever is operated. For details, please refer to When You Cannot Open the Right Door

3. Remove the two screws on the paper transport unit [A]. (× 2)



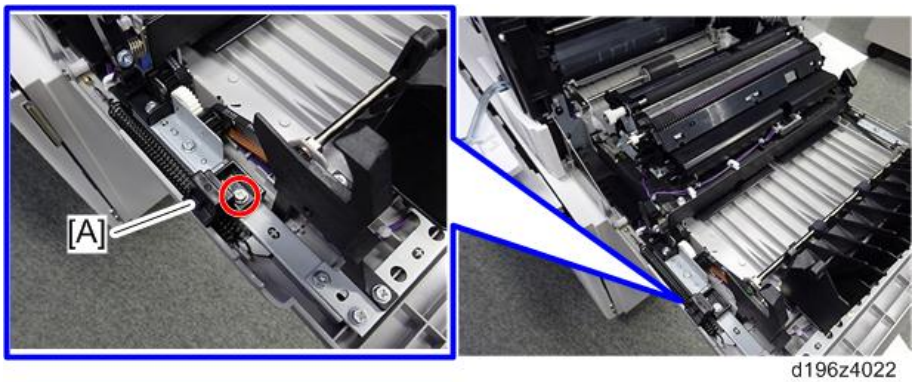
d1170078

4. Lift the paper transport unit [A].



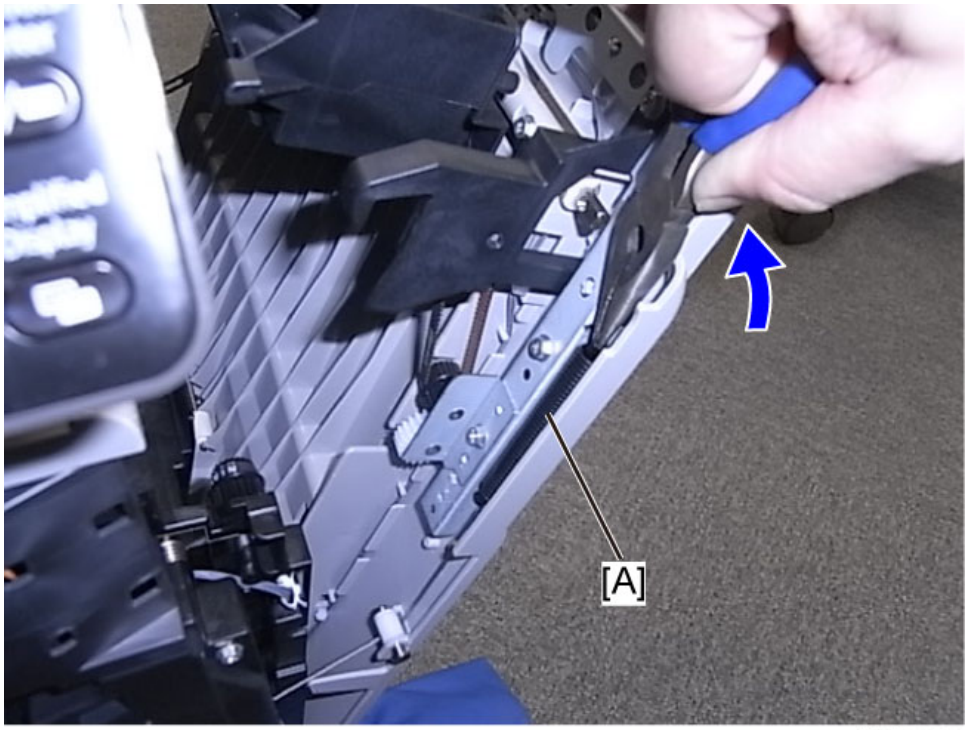
d1170082a

5. Remove the tension spring cover [A]. (× 1)



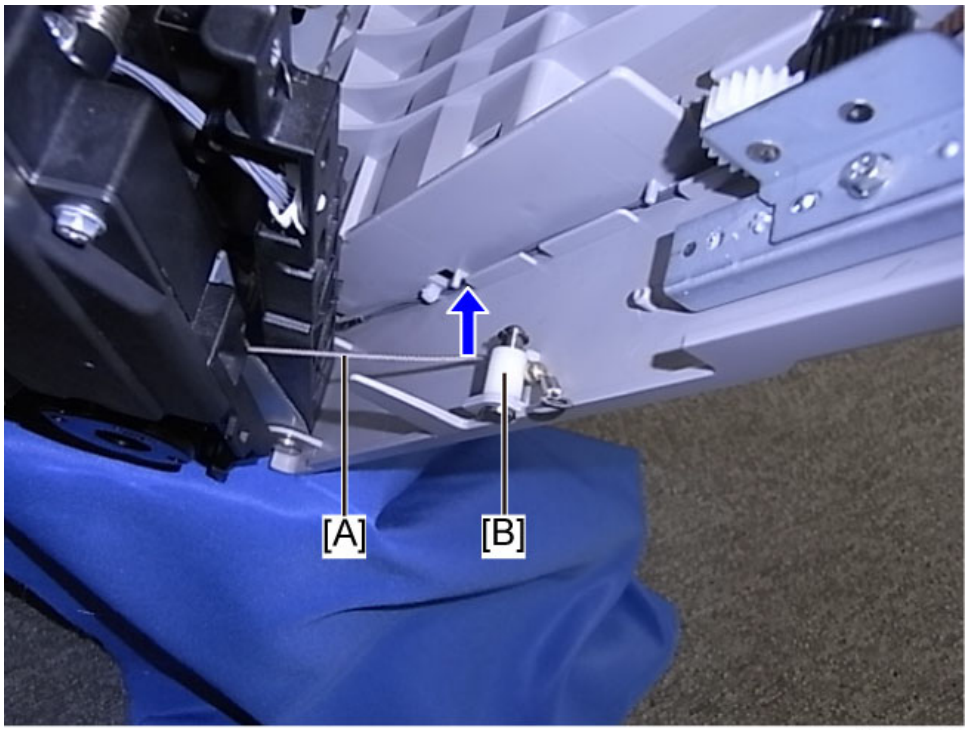
d196z4022

6. Lift the duplex unit, then remove the tension spring [A].



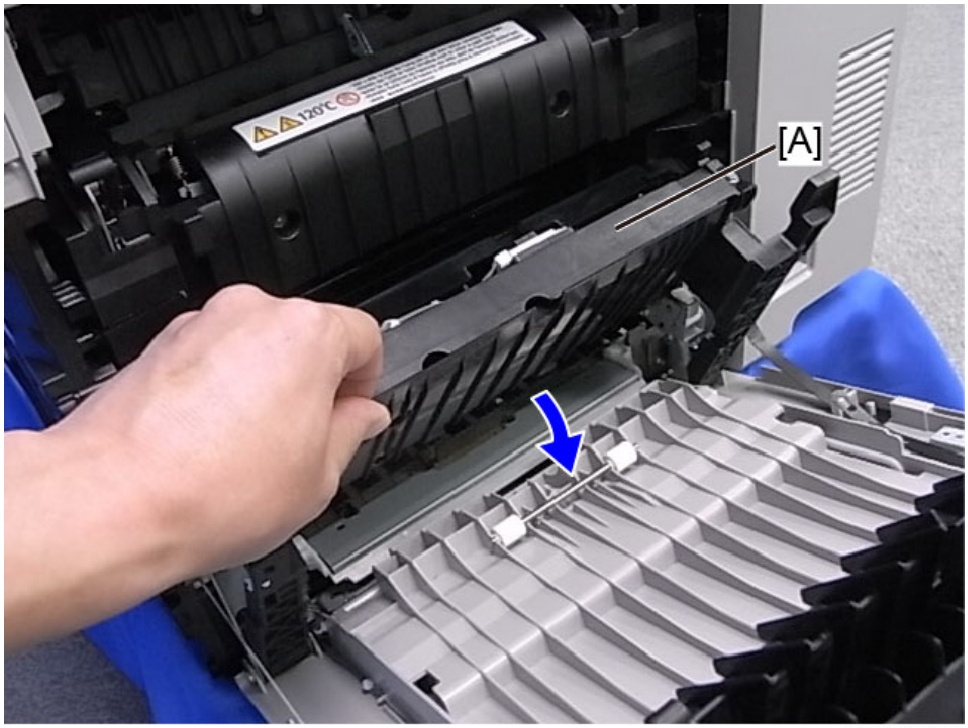
d1170080

7. Release the tension wire [A] from the roller [B].



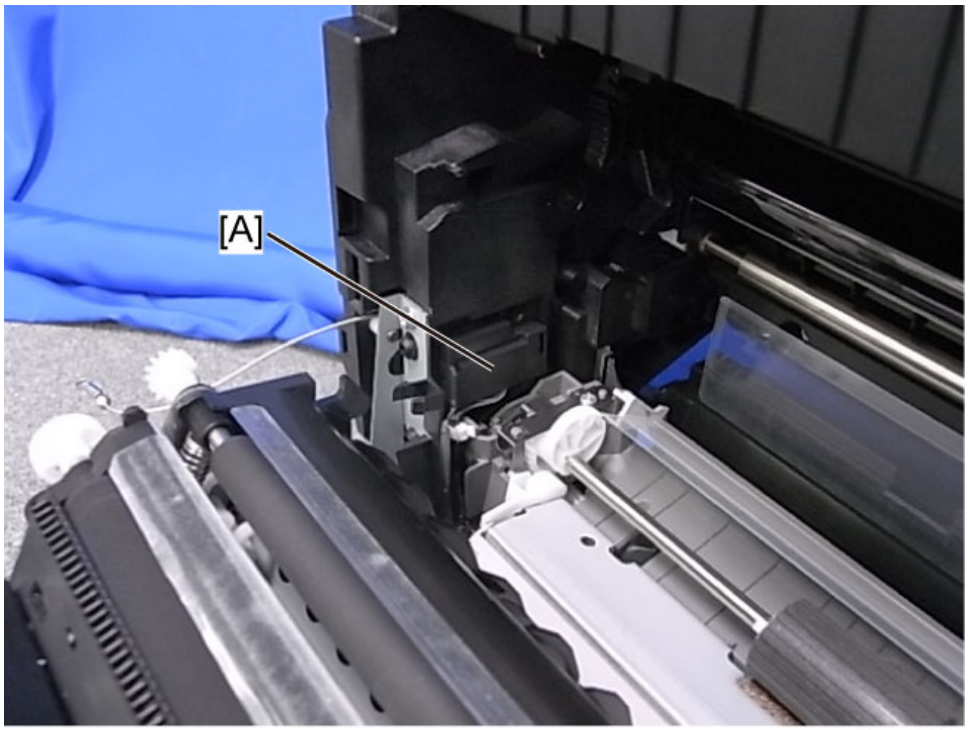
d1170081

8. Restore the paper transport unit [A].



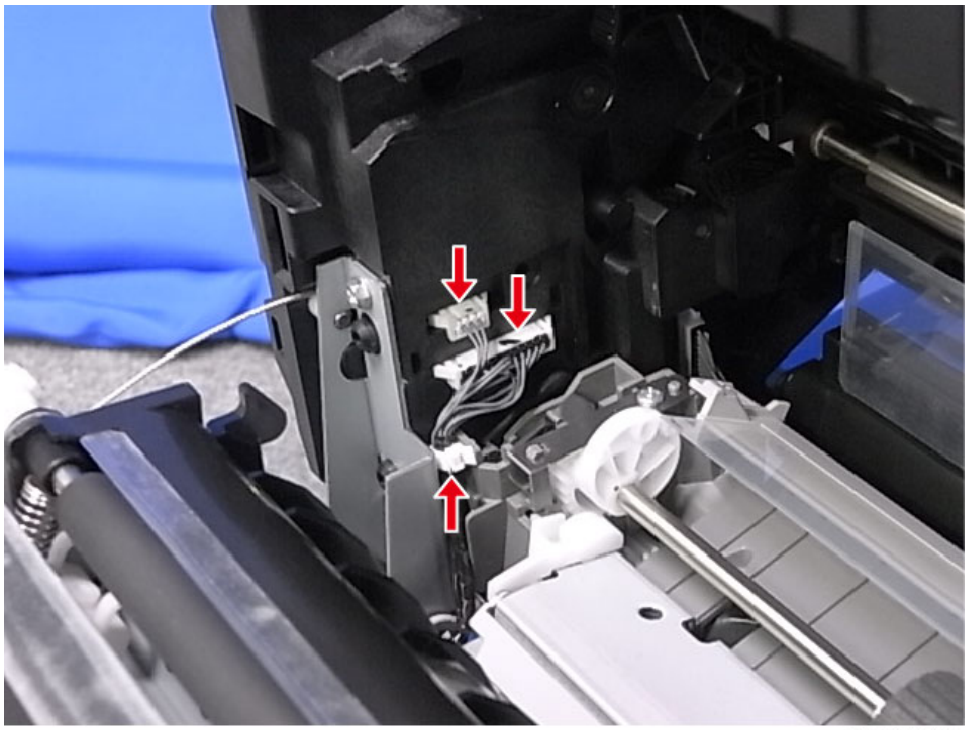
d1170082

9. Remove the connector cover [A].



d1170083

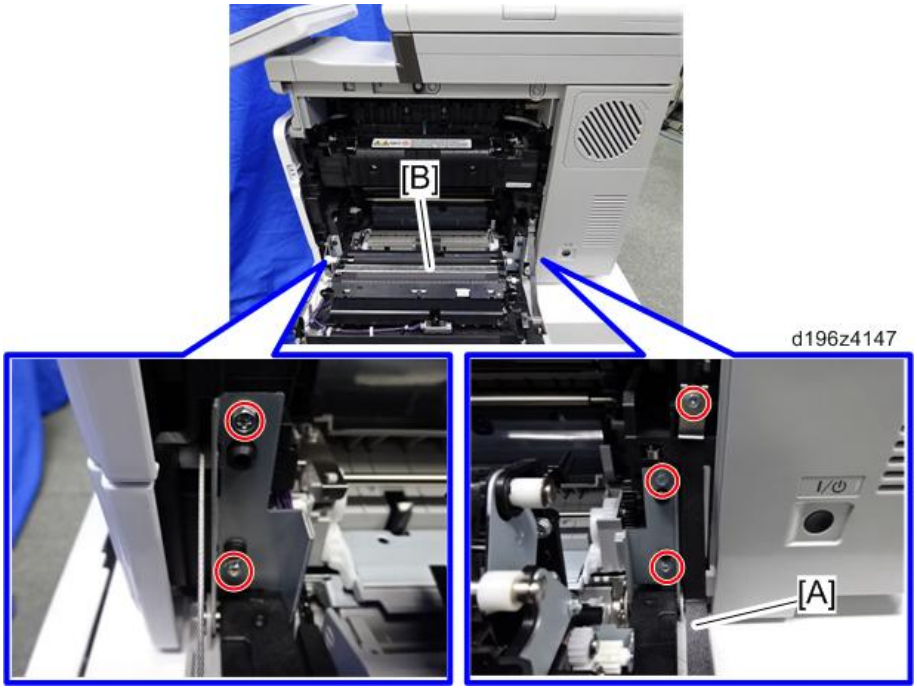
10. Disconnect the connectors. (× 2, × 1)



d1170084

11. Release the belt [A] and then remove the duplex unit [B].

- Belt [A] (× 1)
- Duplex unit [B] (× 4)

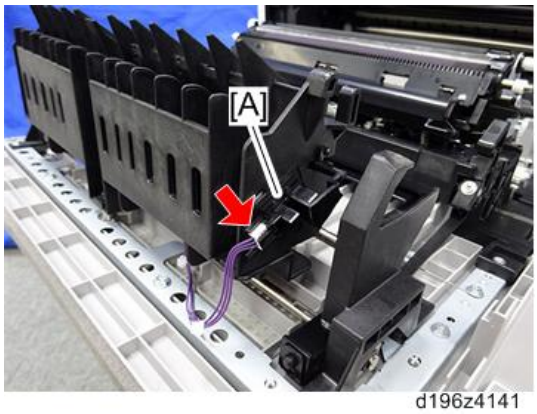


Duplex Entrance Sensor

1. Open the right door.

2. Remove the sensor cover [A]. (Hooks × 3)

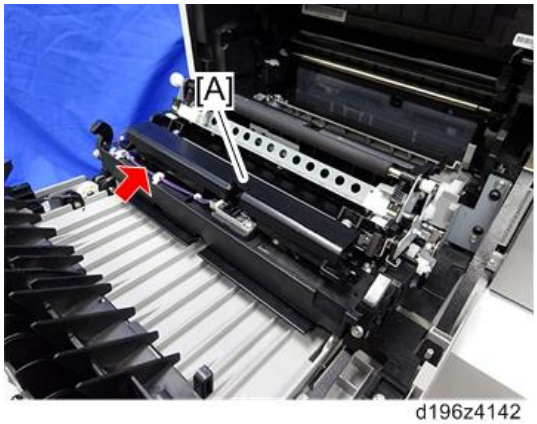
3. Remove the duplex entrance sensor [A]. (× 1)



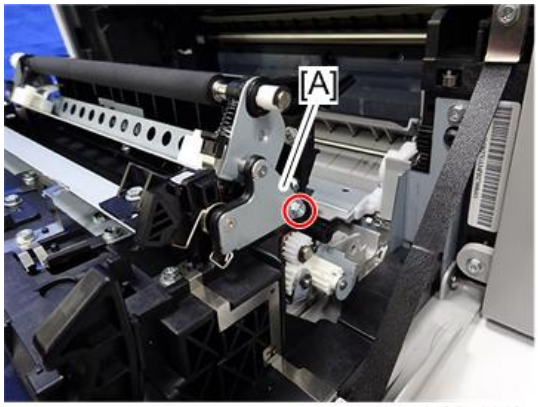
Duplex Exit Sensor

1. Remove the paper transfer roller unit. (Paper Transfer Roller Unit)

2. Remove the cover [A]. (Hook × 1)

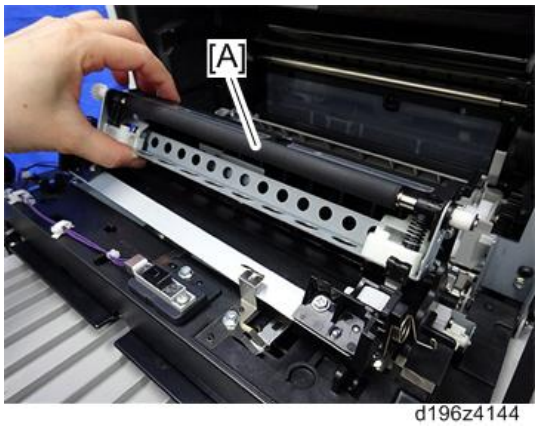


3. Remove the bracket [A]. (× 1)



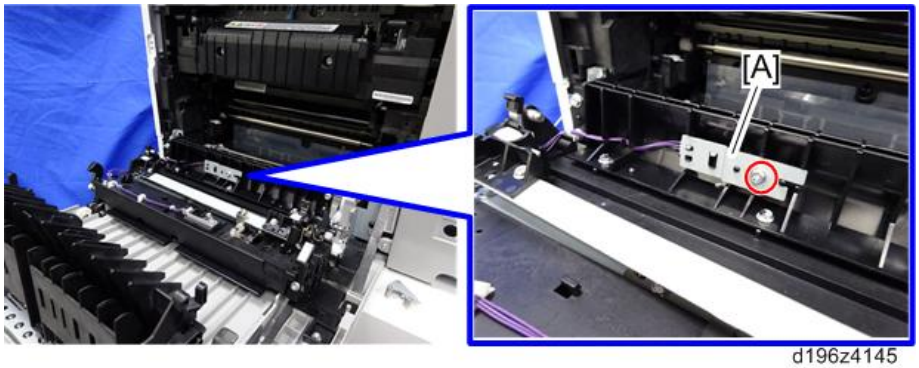
d196z4143

4. Remove the registration roller unit [A].



d196z4144

5. Remove the sensor bracket [A]. (× 1)



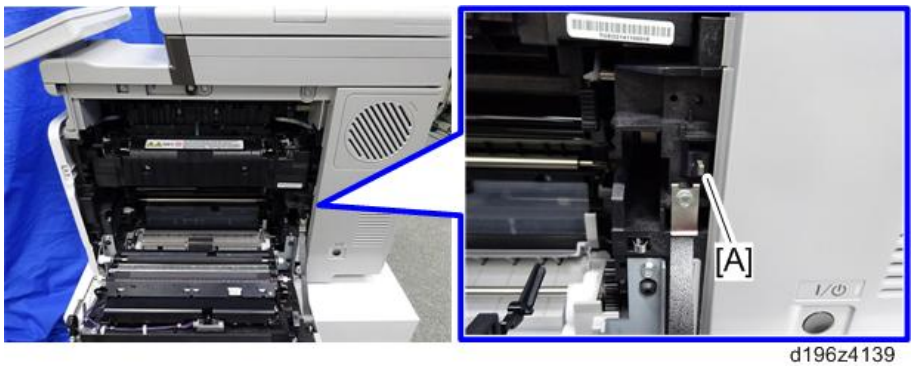
d196z4145

6. Remove the duplex exit sensor [A]. (× 1)

d196z4146

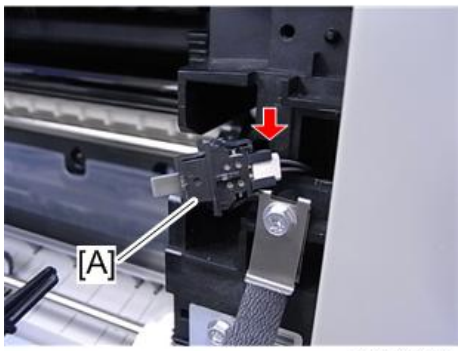
Right Cover Switch

1. Open the right door.
2. Release the tab of the right cover switch [A] with a jeweler's screwdriver.



d196z4139

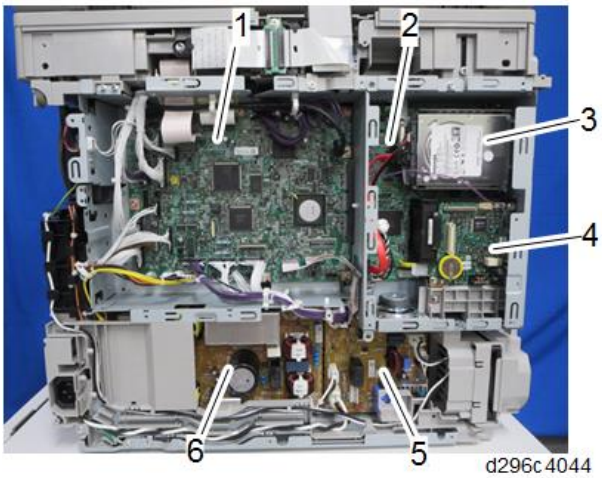
3. Remove the right cover switch [A]. (× 1)

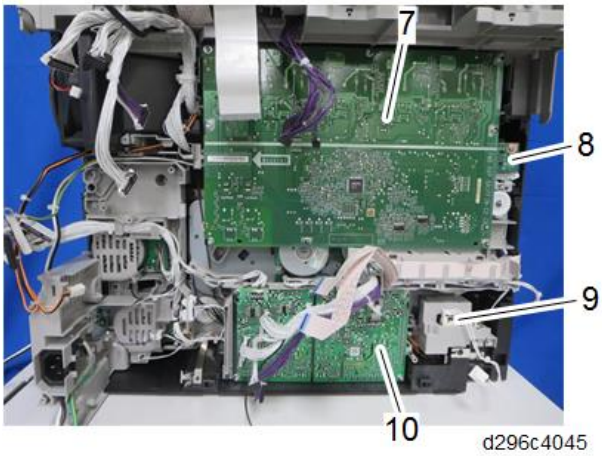


d1182511

Electrical Components

Electrical Components Overview





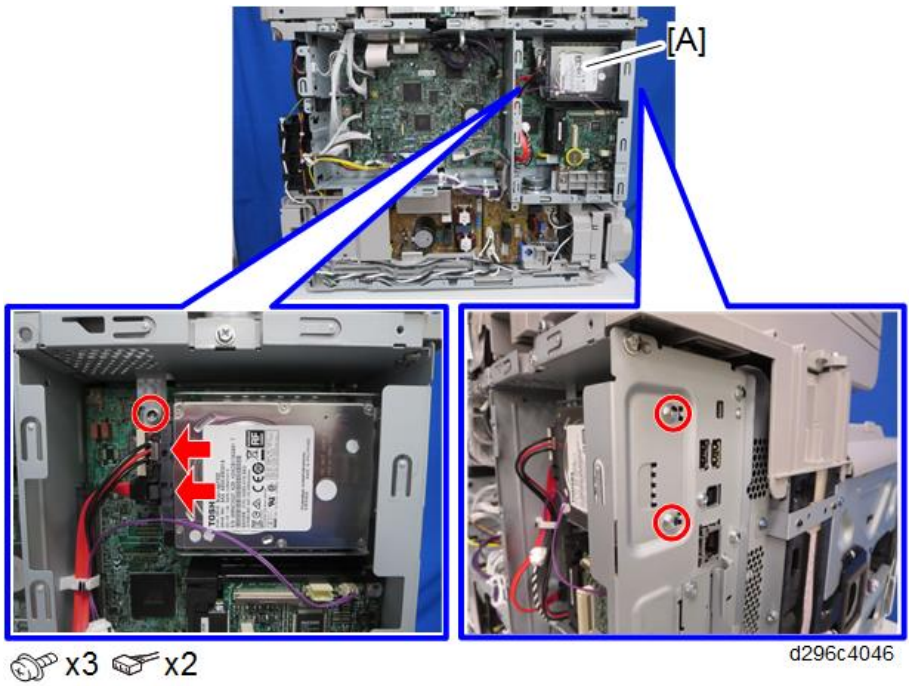
1. BiCU
2. Controller Board
3. HDD
4. FCU (if the machine has the fax unit)
5. PSU (AC)
6. PSU (DC)
7. Power Pack (Development)
8. Toner Bottle Detection Board
9. AC Detection Board
10. Power Pack (Transfer)

HDD

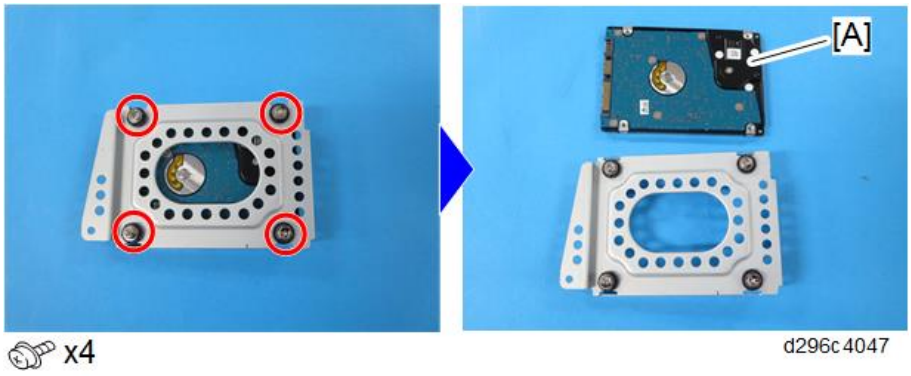
Note

- 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 rear cover. (Rear Cover)
2. Remove the left cover. (Left Cover)
3. Remove the HDD with the bracket [A].



4. 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. If applicable, do SP5-846-052 to restore the address data from SD card to the HDD.

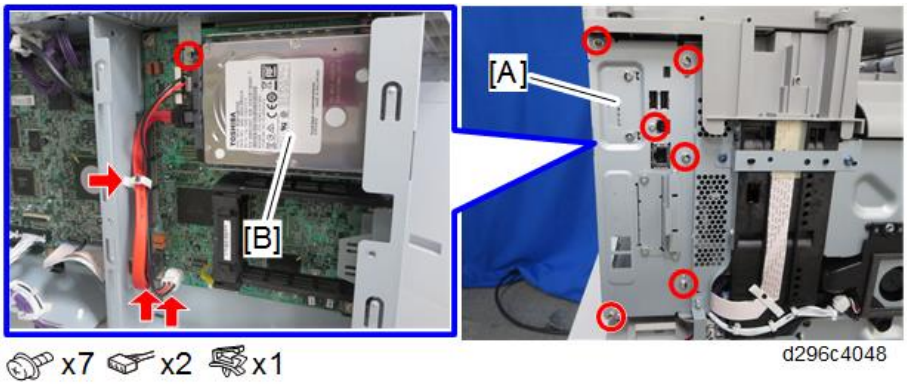
3. Cycle the power Off/On.

Controller Board

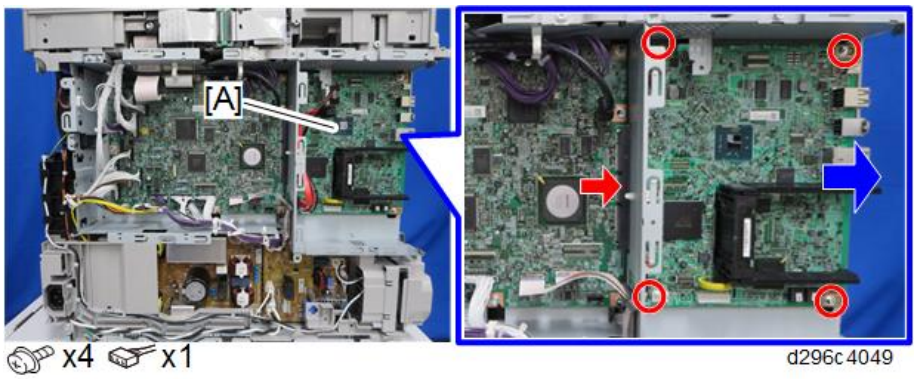
Note

- Keep NVRAMs away from any objects that can cause static electricity. Static electricity can damage NVRAM data.

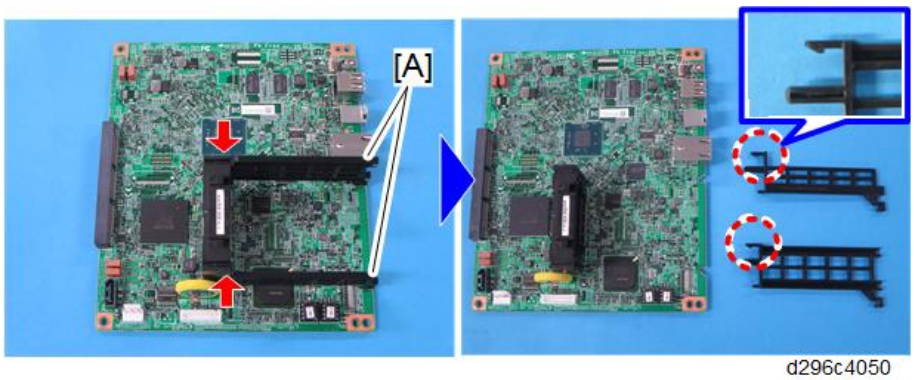
1. Remove the rear cover. (Rear Cover)
2. Remove the left cover. (Left Cover)
3. Remove the FCU (if the machine has the fax unit) (Refer to the FSM for Fax Option)
4. Remove the controller box cover [A] with the HDD [B].



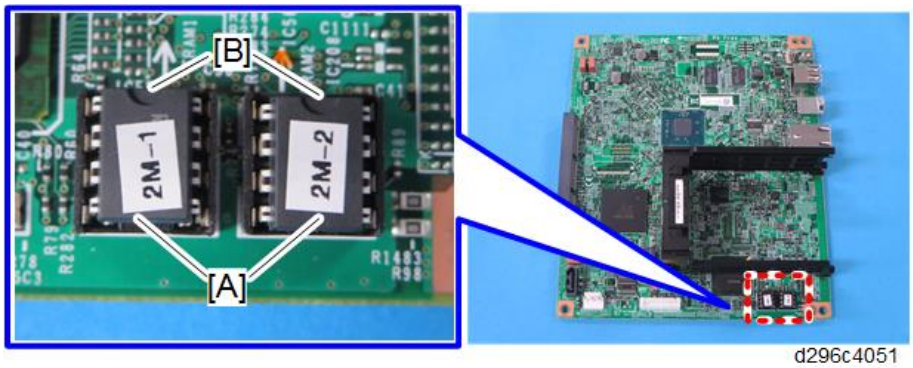
5. Pull out the controller board [A].



6. Remove the guide rails [A] from the old controller board, and install them on the new controller board.



7. Remove the two used NVRAMs from the old controller board, and install them 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.
- Incorrect installation of the NVRAM will damage both the controller board and NVRAM.

NVRAM on the controller board

CAUTION

- SC195 (Machine serial number error) will be displayed if you forget to attach the NVRAM.
- 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 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.
4. Insert a blank SD card in the SD slot 2, and then turn on the main power switch.
5. Use SP5-824-001 to upload the NVRAM data from the controller board.
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.
   - [User Tools/Counter] - [Facsimile Features] - [General Settings] - [Box Setting: Print List]
2. Print the Special Sender List by pressing these buttons in the following order.
   - [User Tools/Counter] - [Facsimile Features] - [Reception Settings] - [Program Special Sender: Print List]
3. Write down the following fax settings.
   - [Receiver] in [User Tools/Counter] - [Facsimile Features] - [Reception Settings] - [Reception File Settings] - [Forwarding].
   - [Notify Destination] in [User Tools/Counter] - [Facsimile Features] - [Reception Settings] - [Reception File Settings] - [Store].
   - [Specify User] in [User Tools/Counter] - [Facsimile Features] - [Reception Settings] - [Stored Reception File User Setting].
   - [Notify Destination] in [User Tools/Counter] - [Facsimile Features] - [Reception Settings] - [Folder Transfer Result Report].
   - Specified folder in [User Tools/Counter] - [Facsimile Features] - [Send Settings] - [Backup File TX Setting].
   - [Receiver] in [User Tools/Counter] - [Facsimile Features] - [Reception Settings] - [Reception File Settings] - [Output Mode Switch Timer].
   - [Store: Notify Destination] in [User Tools/Counter] - [Facsimile Features] - [Reception 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 ON again to discharge the residual charge.

10. Replace the NV-RAM with a new one.

11. Turn the power ON.

Important

- 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.

1. Change the SP settings for the operation panel.
   - 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”.

12. Cycle the main power OFF/ON with the SD card where the NV-RAM data has been uploaded in SD slot 2.

Important

- SC992 appears at start-up, but this is normal behavior. This is because information written to the NV-RAM and on the hard disk do not match due to replacement of the NV-RAM. Go to Step 13.

13. 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.

14. Turn the main power OFF and remove the SD card from SD slot 2.

15. Turn the main power ON.

16. Restore the original settings of the following SPs, referring to the SMC data obtained in step 2.

Note

- SP5-825-001 does not download the following SP data to the new NV-RAM. So you must set them manually.

a. SP5-985-001(Device Setting: On Board NIC)

b. SP5-985-002(Device Setting: On Board USB)

17. If the security functions (HDD Encryption and HDD Data Overwrite Security) were applied, set the functions again.

18. 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 NV-RAM replacement to avoid accidentally taking out the customer's data.

19. 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).

Note

- Check that the counters are reset.

20. 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.

21. Execute the process control (SP3-011-001).

Important

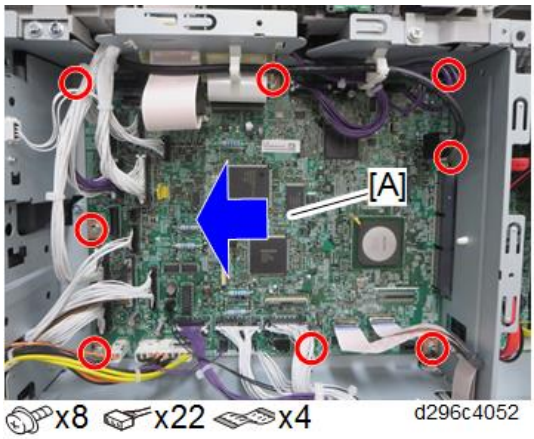
- Try all the items below if NVRAM upload (SP5-824-001) or download (SP5-825-001) cannot be done.
- Check the SP values that changed on the SMC you printed out in step 2. Adjust the values manually. Make sure that the values of SP5-045-001 and SP5-302-002 are the same as before replacing.
- Replace all PM parts because all PM counters will be reset.

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"

BiCU

1. Remove the rear cover. (Rear Cover)
2. Slide the BiCU [A] in the direction of the blue arrow below and remove it.



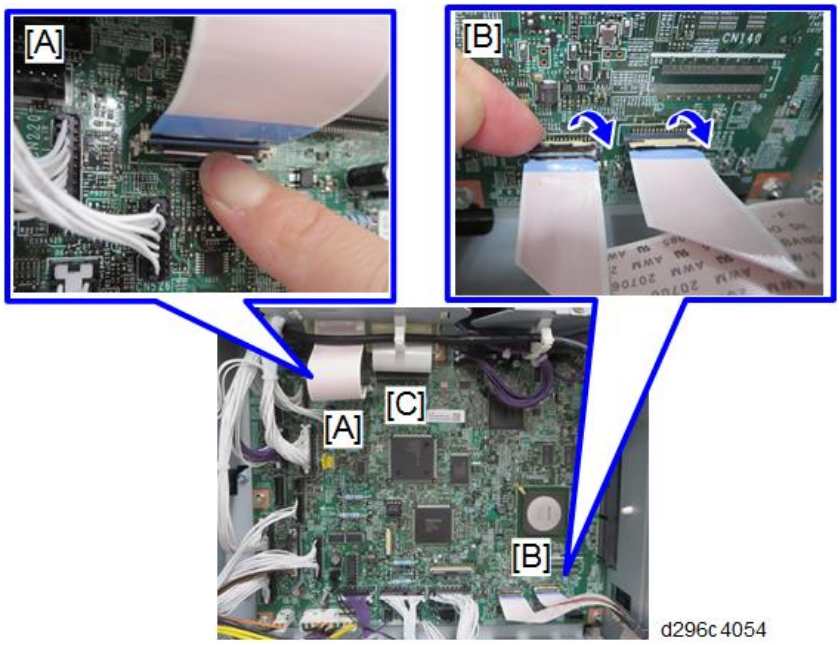
Note

There are three kinds of FFC connectors.

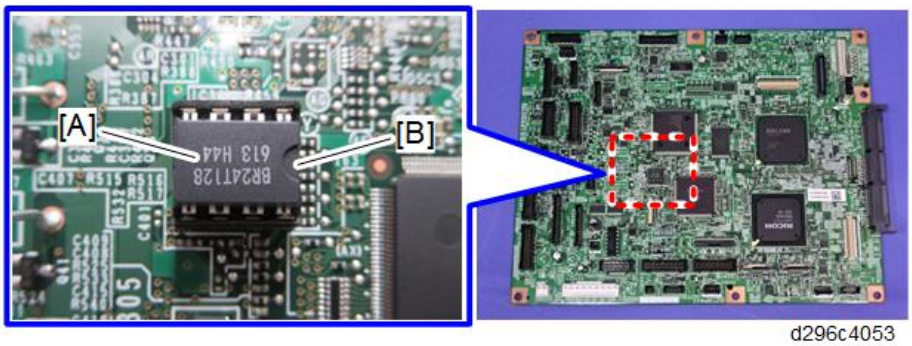
A: Disconnect the FFC while pushing the lock lever.

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 NVRAM from the old BiCU and attach it to the new BiCU.



Note

- Attaching the used NVRAM to the new BiCU allows users to use old data such as SP settings.
- SC995 occurs when replacing the BiCU. Execute SP5-811-004 then turn the main power off and on.
- Install a new NVRAM [A] so that the indentation [B] on the NVRAM corresponds with the mark on the BiCU. Incorrect installation of the NVRAM will damage both the BiCU and NVRAM.

Replacing the NVRAM (EEPROM) on the BiCU

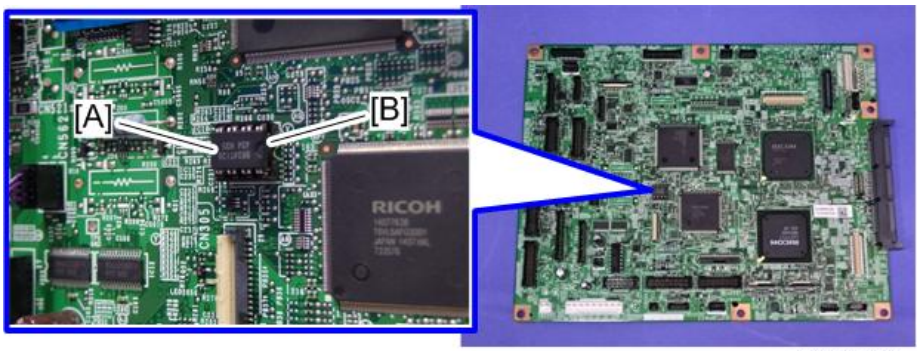
Note

- The following shows the procedure for replacing the NVRAM on the BiCU with a new NVRAM.

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/SP5-992-001.
3. Turn off the main switch.
4. Insert a blank SD card in the SD slot #2, and then turn on the main switch.
5. Use SP5-824-001 to upload the NVRAM data from the BiCU
6. Turn off the main power switch and unplug the power cord.
7. Replace the NVRAM on the BCU with a new one.

Note

- Install a new NVRAM [A] so that the indentation [B] on the NVRAM corresponds with the mark on the BiCU. Incorrect installation of the NVRAM will damage both the BiCU and NVRAM.



8. Plug in, and then turn on the main switch.

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).

Important

- After changing the EEPROM, some SPs do not have the correct values.
- Because of this, steps 10 to 12 must be done.

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.

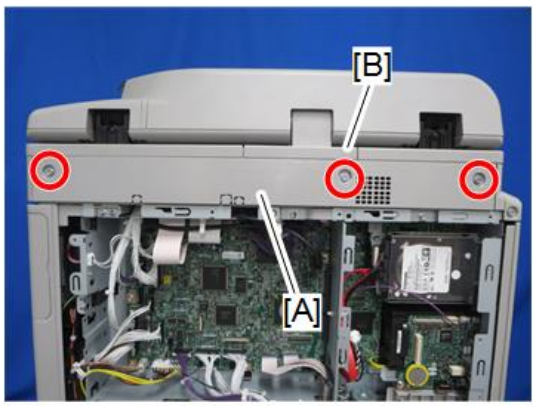
11. Cycle the power off/on.
12. Use SP5-801-002 “Memory Clear Engine”.
13. Turn off the machine, and then turn it back on.
14. From the SD card where you saved the NV-RAM data in step 5, download the NV-RAM data with SP5-825-001.
15. Turn off the machine, and then remove the SD card from SD slot 2.
16. Turn on the main power switch.
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

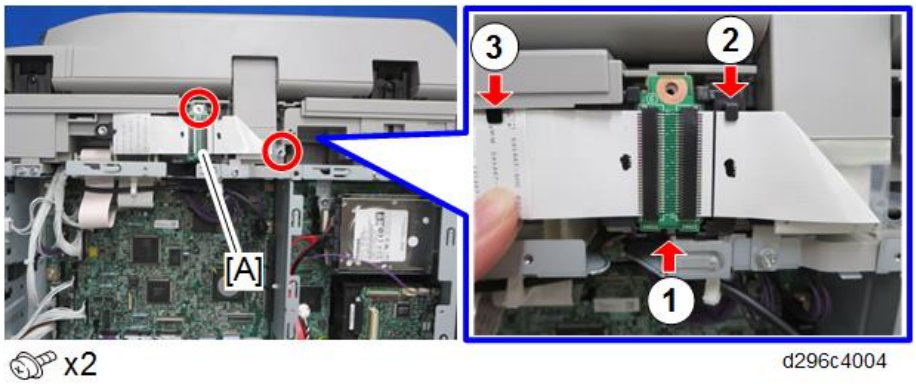
- If the optional counter interface unit is installed, remove the optional counter interface unit before removing the controller box.

1. Remove the rear cover. (Rear Cover)
2. Remove the left cover. (Left Cover)
3. Remove the right rear cover. (Right Rear Cover)
4. Remove the scanner rear cover [A] and scanner rear small cover [B].

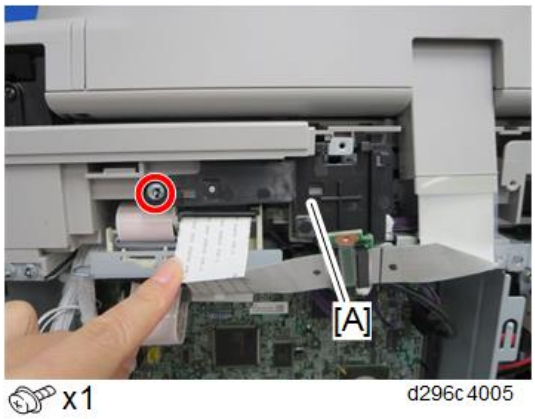


x3 d296c4003

5. Release two screws and two tabs for attaching the relay board [A] and FFC, to release the FFC.

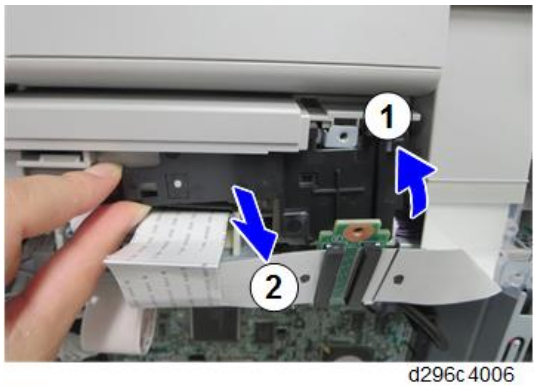


6. Remove the FFC fixing bracket [A] on the back side of the FFC.

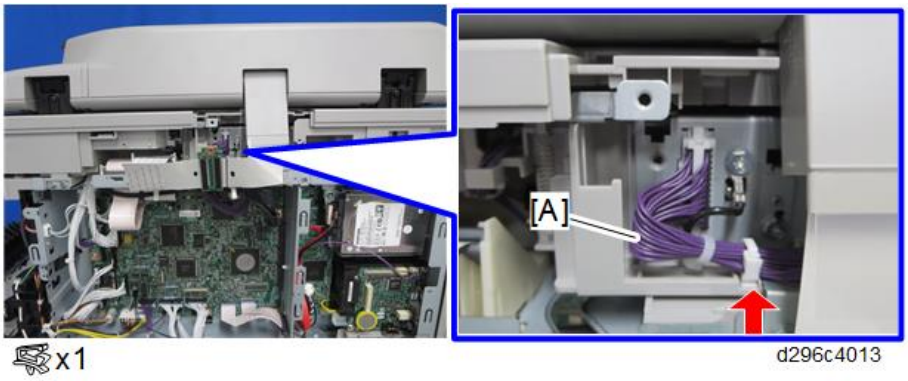


Note

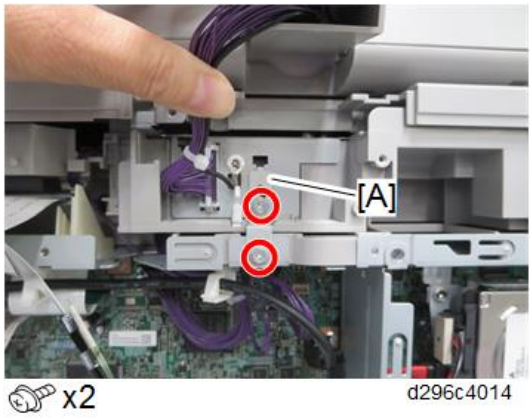
Remove the FFC fixing bracket while turning it counterclockwise and releasing the tab.



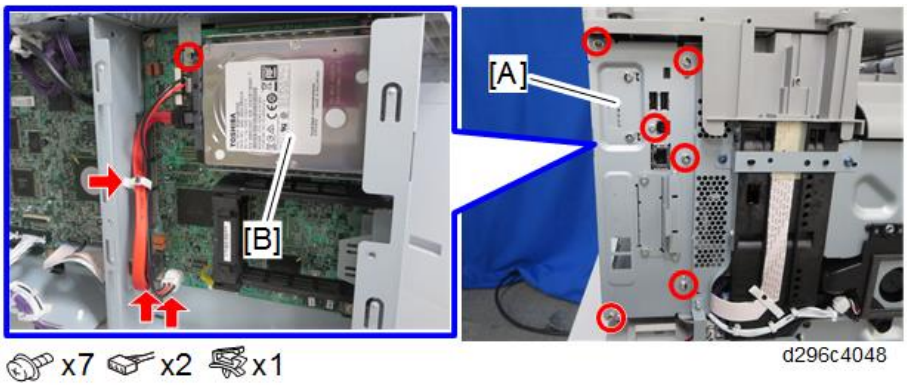
7. Release the clamp of the harness to the ADF [A].



8. Remove the grounding plate [A].

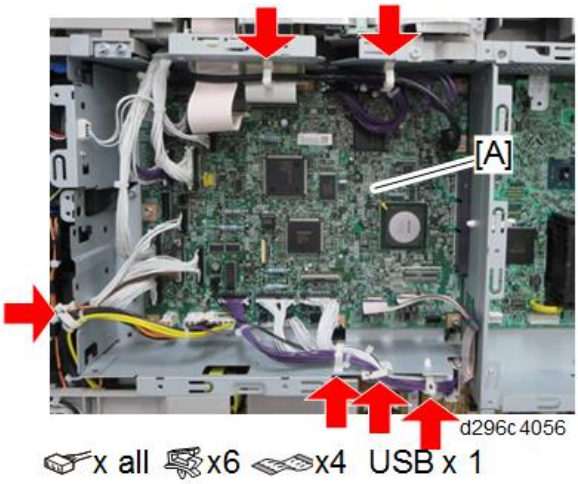


9. Remove the controller box cover [A] with the HDD [B].



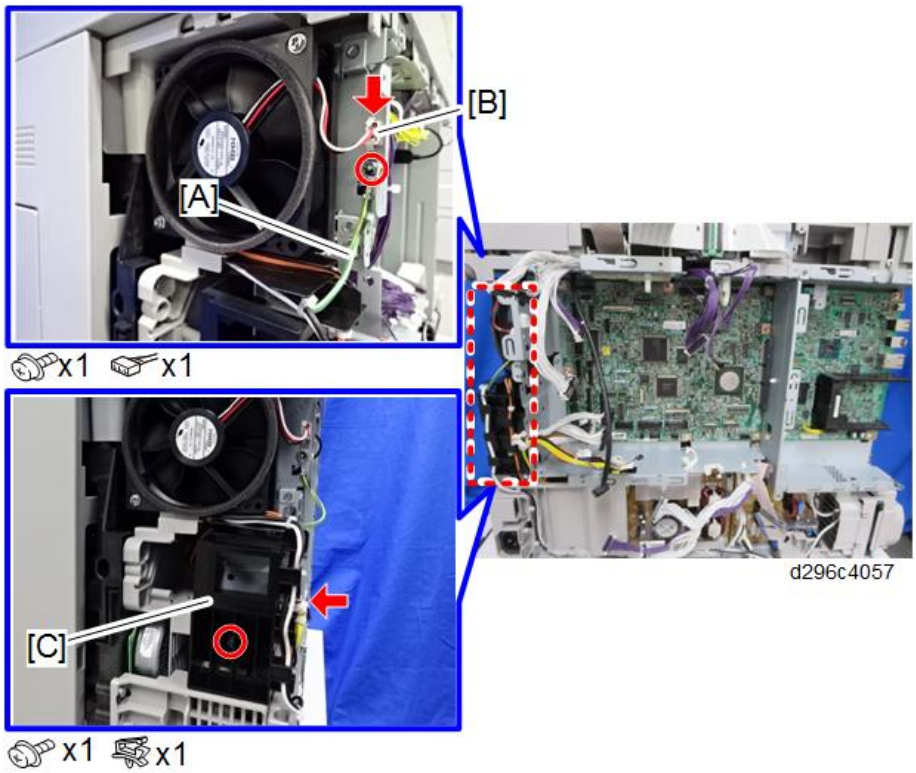
10. Disconnect all the connectors on the BiCU [A].

Remove the clamps to make room for removal of the BiCU [A].

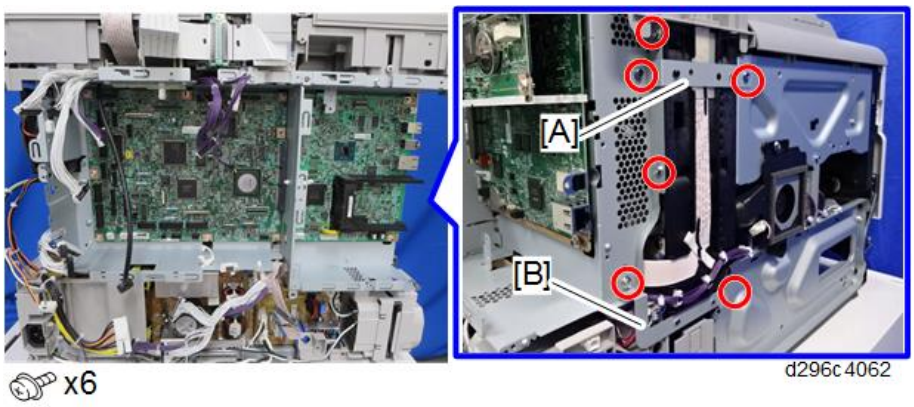


11. Do the following steps:

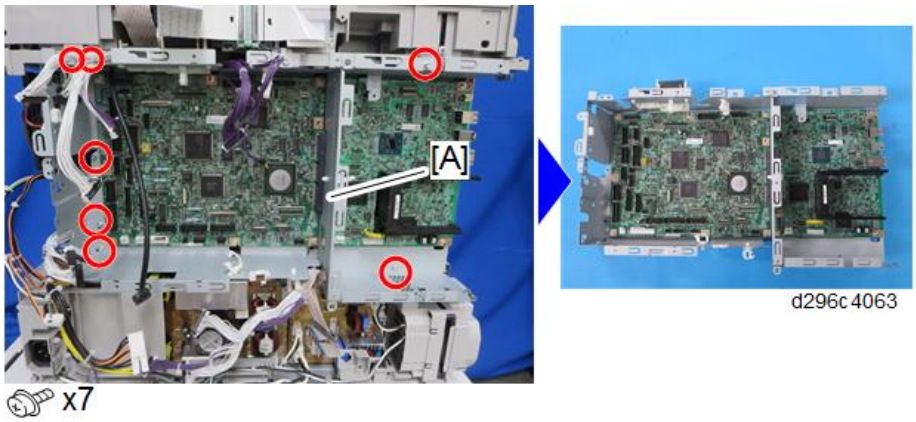
- Remove the grounding wire [A] and connector [B] from the left side of the controller box.
- Remove the harness guide [C] while releasing the harnesses on it.



12. Remove the brackets ([A] and [B]), and two screws from the right side of the controller box.



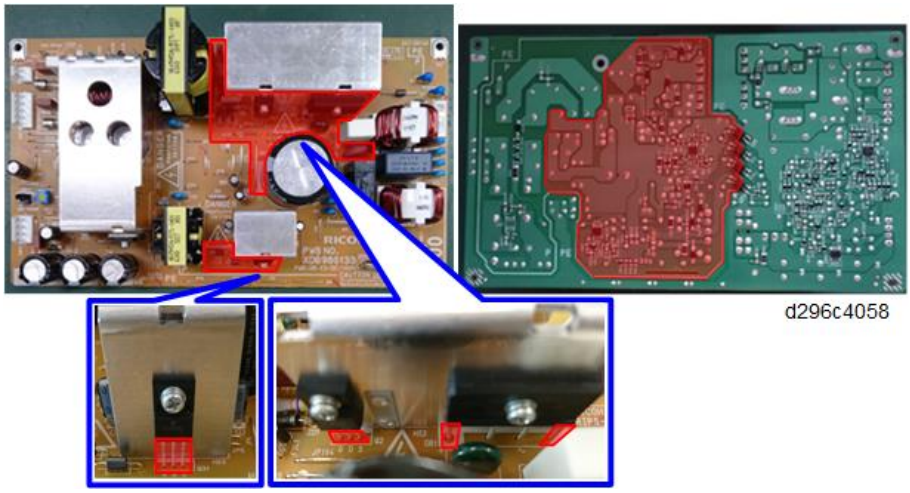
13. Remove the controller box [A].



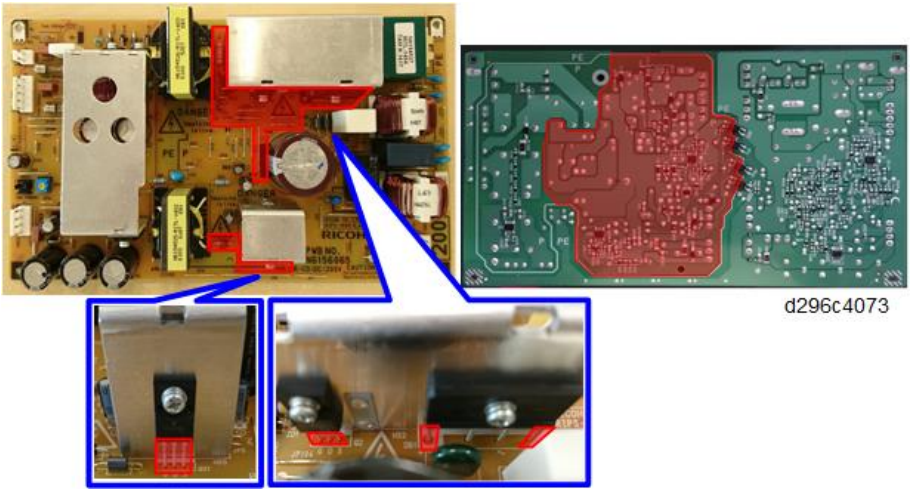
PSU (AC), PSU (DC)

⚠CAUTION

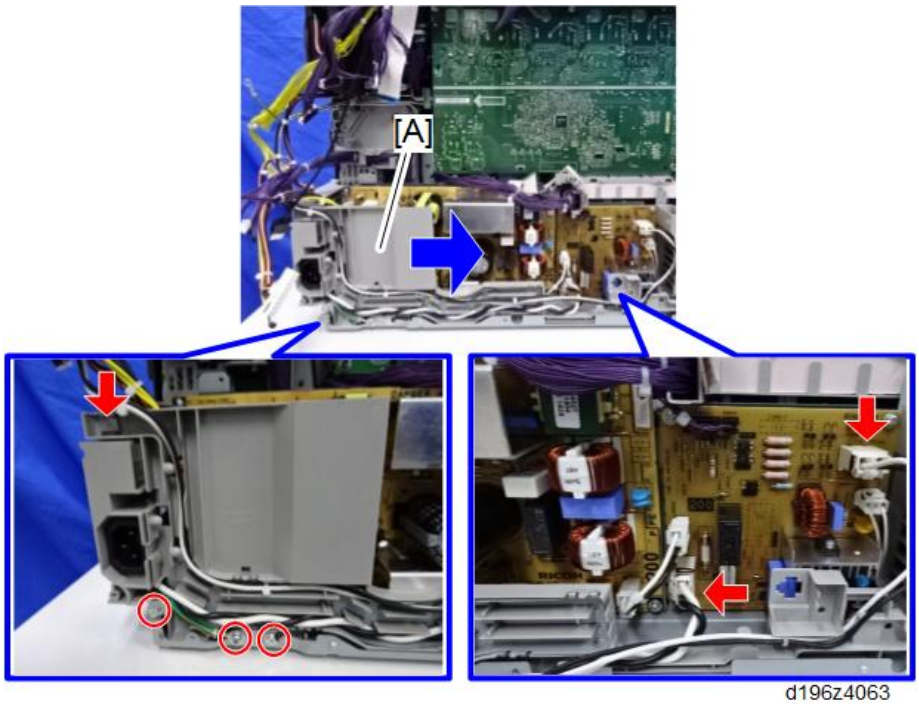
- Do not touch the areas outlined in red in the following diagrams when replacing the PSU. Residual charge on the board may cause electric shock.
- For 100V:



- For 200V:

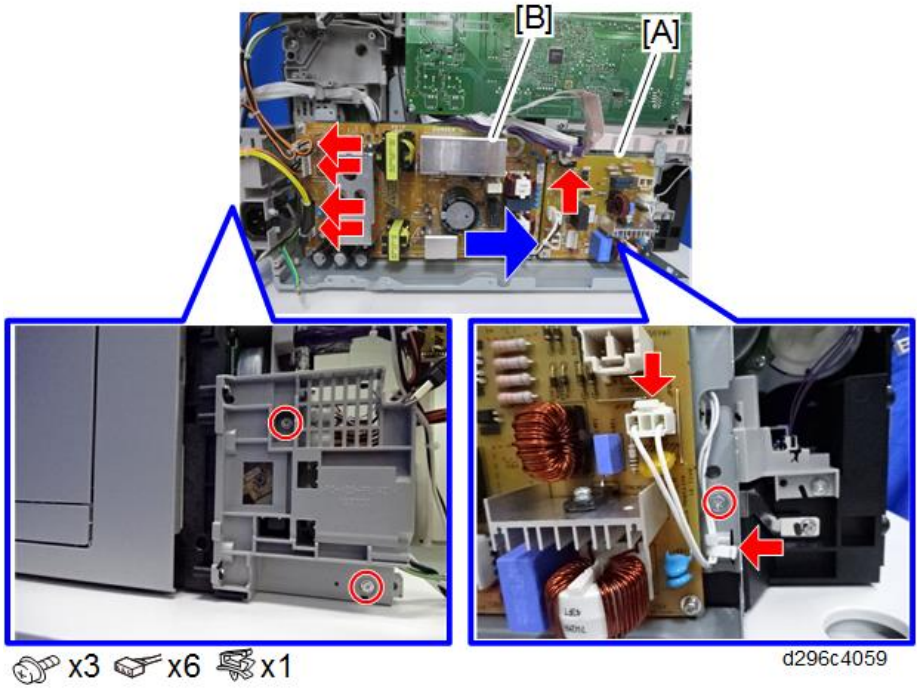


1. Remove the controller box. (Controller Box)
2. Remove the PSU fan. (PSU Fan)
3. Disconnect the harness and remove the harness guide [A]. (×3, ×2, Hook ×1)

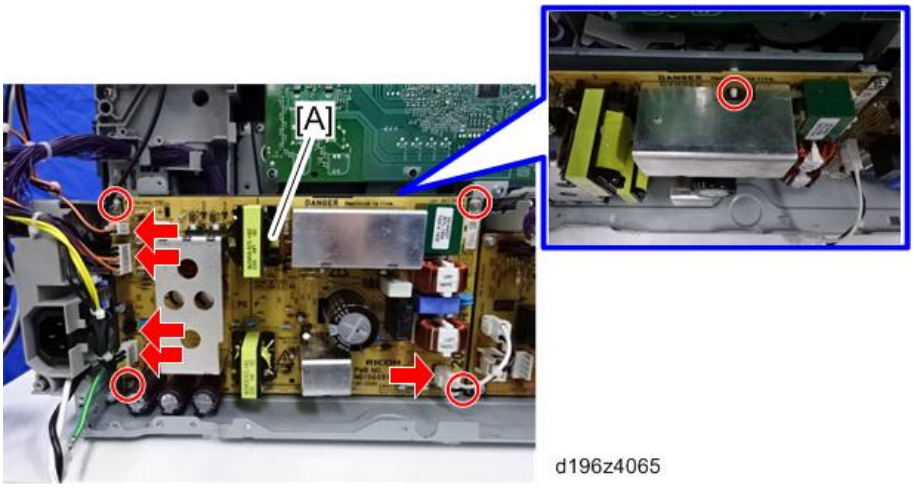


4. The next step varies according to the parts that you want to remove.

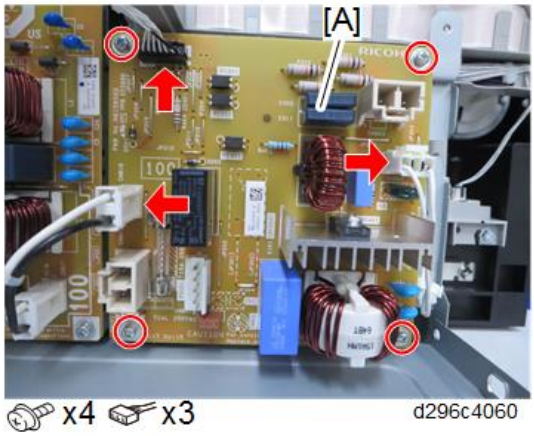
- **For removing the PSUs with the bracket**, disconnect the connectors on the PSU (AC) [A] and PSU (DC) [B].



- **For removing the PSU (DC) alone,** remove the PSU (DC) [A]. (×4, ×5, Locking wire saddle ×1)



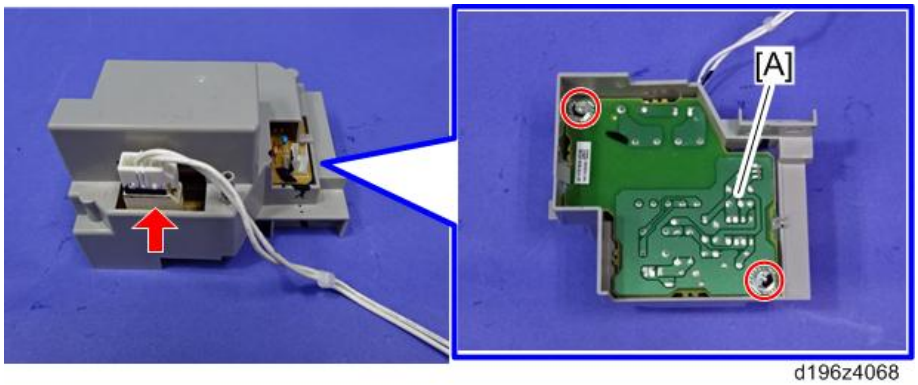
- **For removing the PSU (AC) alone,** remove the PSU (AC) [A].



AC Detection Board

1. Remove the PSU with the bracket. (PSU (AC), PSU (DC))
2. Remove the AC detection board with the bracket [A]. (× 1, × 1)

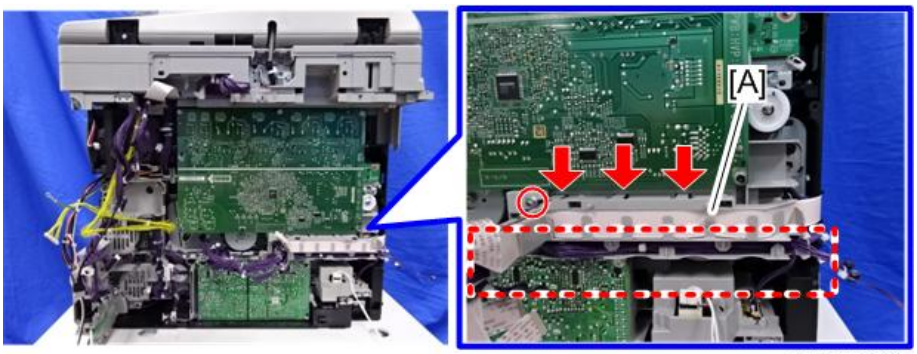
3. Remove the AC detection board [A]. (× 2, × 1)



Power Pack (Development)

1. Remove the PSU with the bracket. (PSU (AC), PSU (DC))

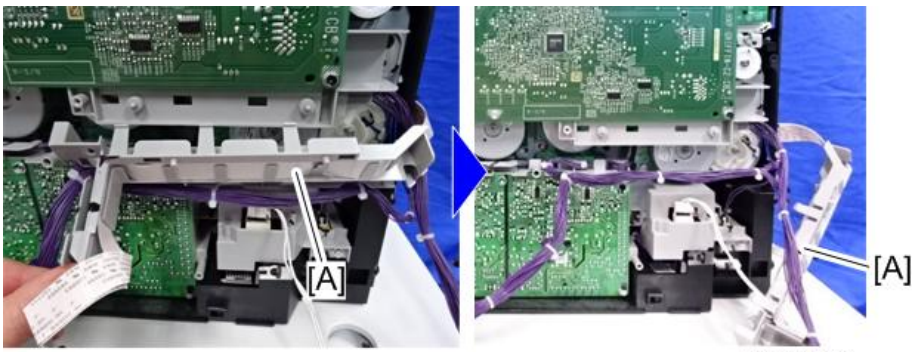
2. Disconnect the harness and remove the harness guide [A]. (× 1, hook × 3)



d196z4069

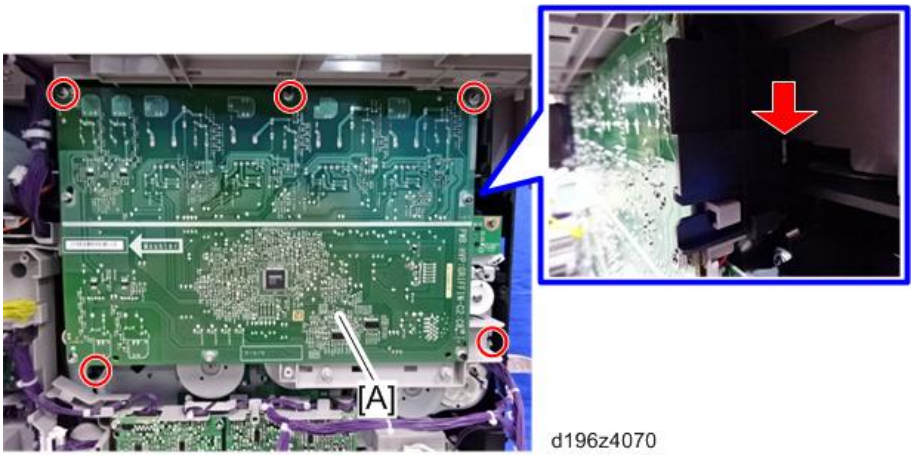
Note

- Release the harness guide [A] as shown below.



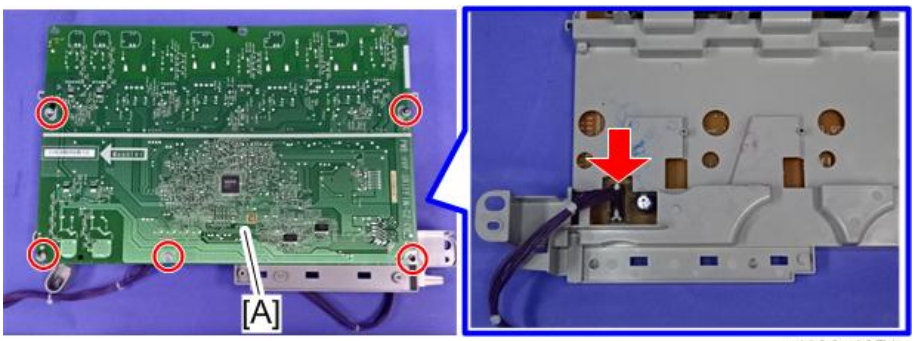
d196z4150

3. Remove the power pack (Development) [A] with the bracket. (× 5, hook × 1)



d196z4070

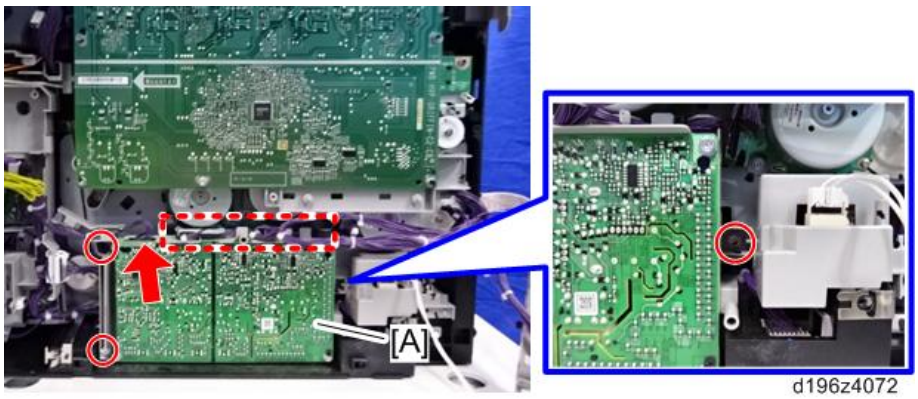
4. Remove the power pack (Development) [A]. (× 5, × 1)



d196z4071

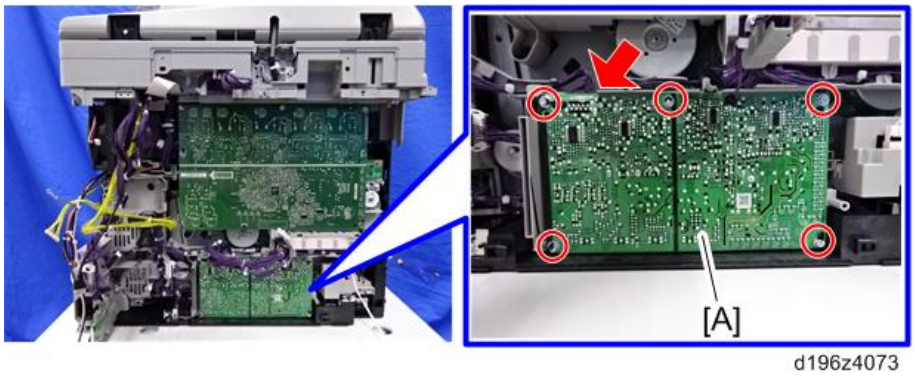
Power Pack (Transfer)

1. Remove the PSU with the bracket. (PSU (AC), PSU (DC))
2. Disconnect the harness attached to the power pack's bracket, and then remove the power pack [A] with the bracket. (× 3, × 1)



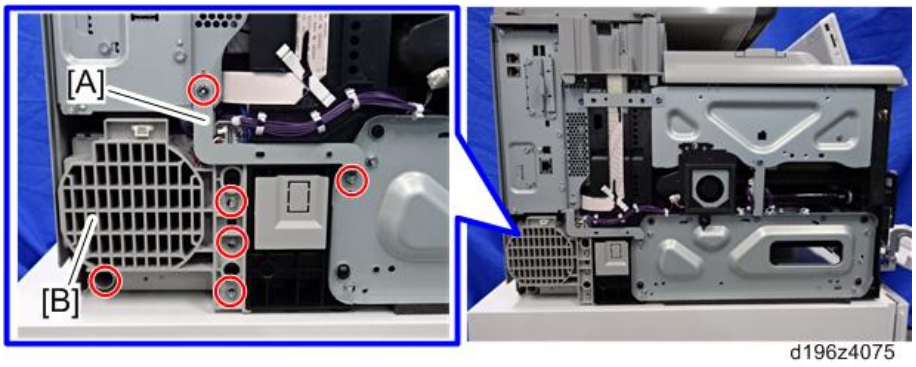
Removing the Power Pack (Transfer) Alone

1. Remove the PSU with the bracket. (PSU (AC), PSU (DC))
2. Remove the power pack (Transfer) [A]. (× 5, × 1)

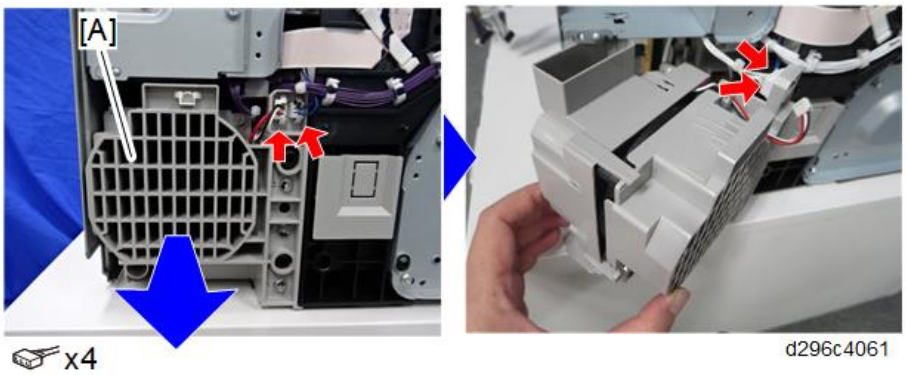


PSU Fan

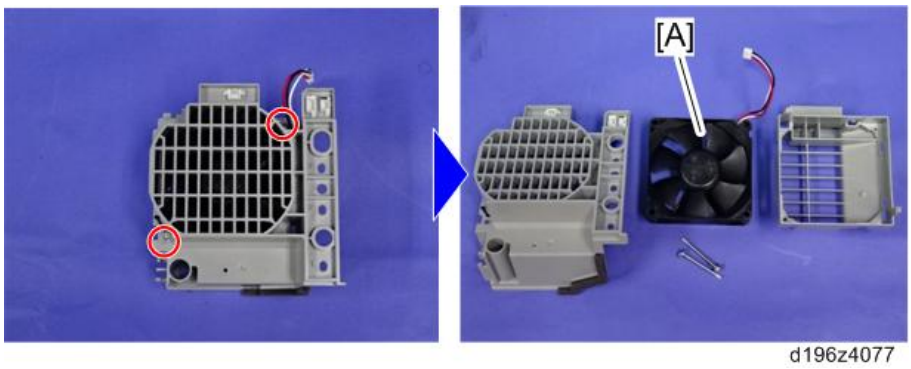
1. Remove the left cover. (Left Cover)
2. Remove the bracket [A]. (× 2)
3. Remove the screws of the fan cover [B]. (× 4)



4. Disconnect the connectors and pull out the PSU fan [A] with the cover.



5. Remove the cover from the PSU fan [A]. (× 2)



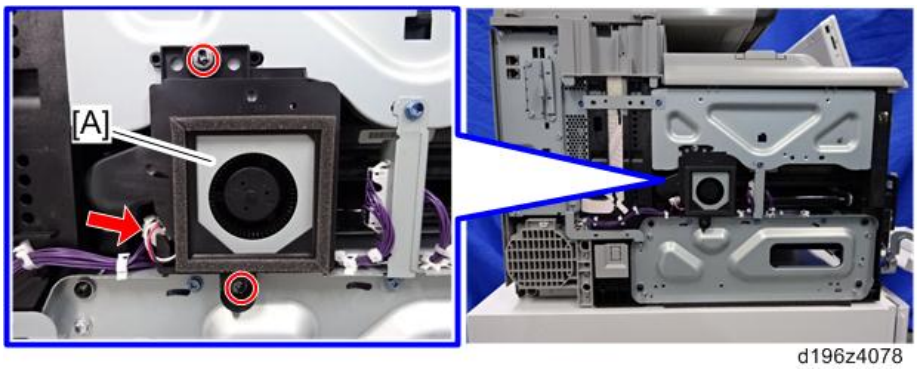
Note

- Install the PSU fan with its label facing the inside of the machine.

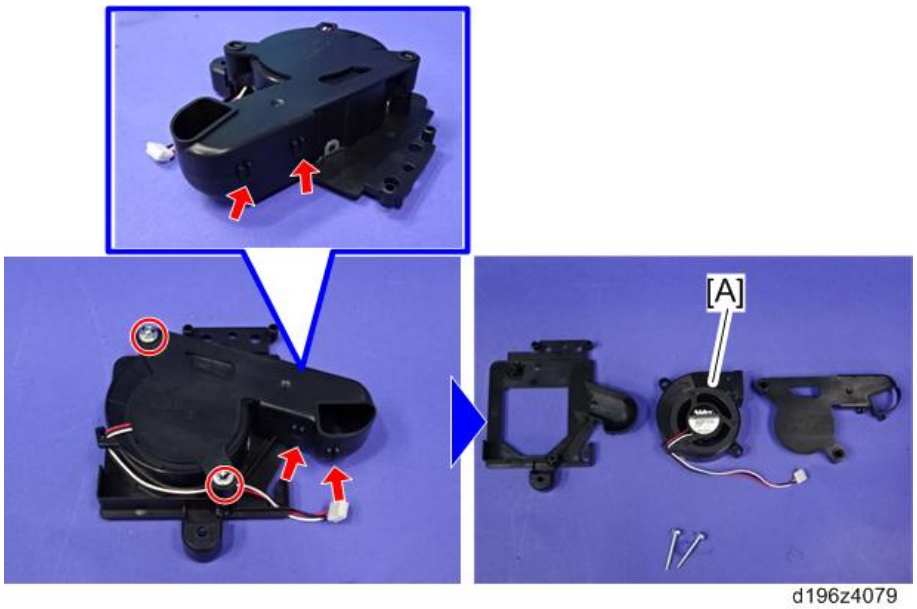
PCDU Cooling Fan

1. Remove the left cover. (Left Cover)

2. Remove the PCDU cooling fan [A] with the duct. (× 2, × 1)



3. Remove the PCDU cooling fan [A]. (× 2, hook × 4)



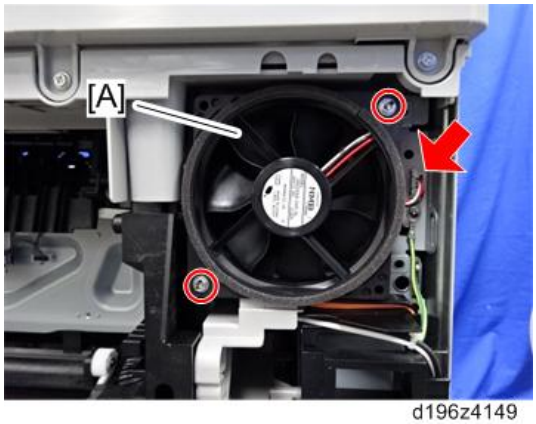
Note

- Install the PCDU cooling fan with its label facing the inside of the machine.

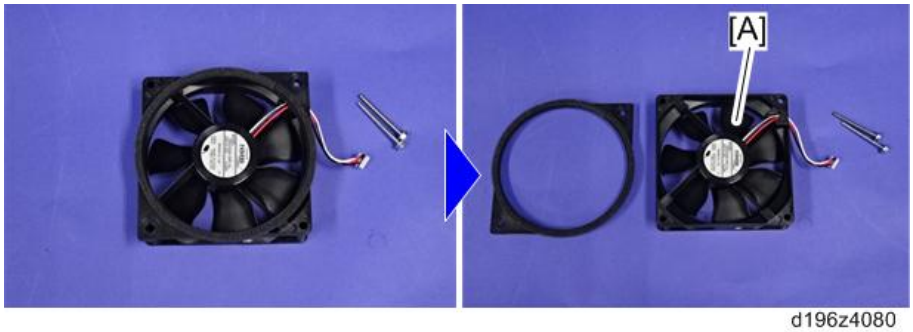
Fusing Fan

1. Remove the right rear cover. (Right Rear Cover)

2. Remove the fusing fan [A] with the cover. (× 2, × 1)



3. Remove the cover from the fusing fan [A].

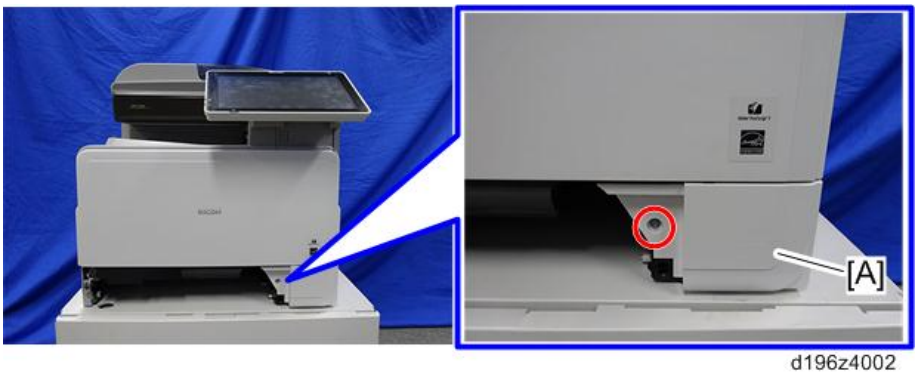


CAUTION

- Install the fusing fan with its label facing the outside of the machine.

Temperature/Humidity Sensor

1. Pull out the paper tray.
2. Remove the front lower cover [A]. (× 1)



3. Remove the temperature/humidity sensor [A]. (× 1, × 1)

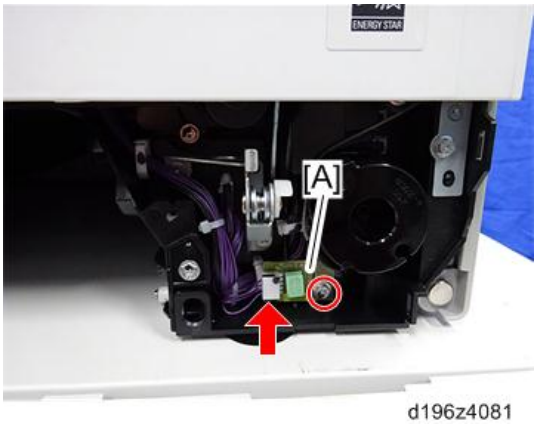
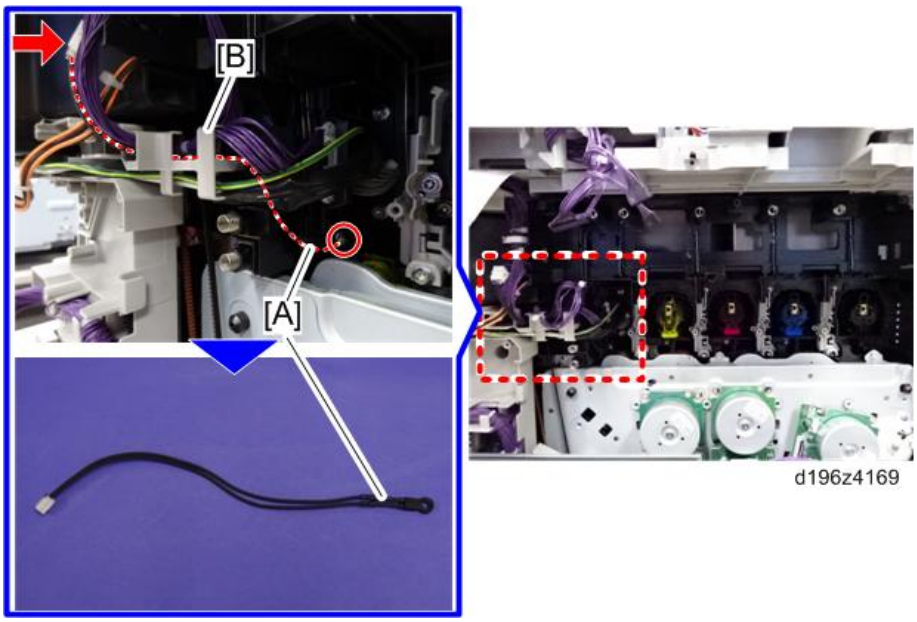


Image Creation Temperature Sensor

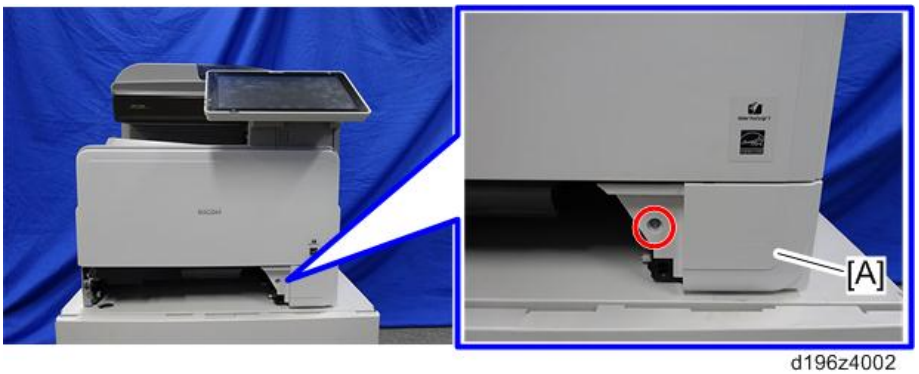
1. Remove the toner transport section. (Toner Transport Section)
2. Remove the image creation temperature sensor [A] while releasing the harness of the image creation

temperature sensor from the harness guide [B]. (× 1, × 1)



Interlock Switches

1. Pull out the paper tray.
2. Remove the front lower cover [A]. (× 1)



3. Remove the cover [A]. (× 1)

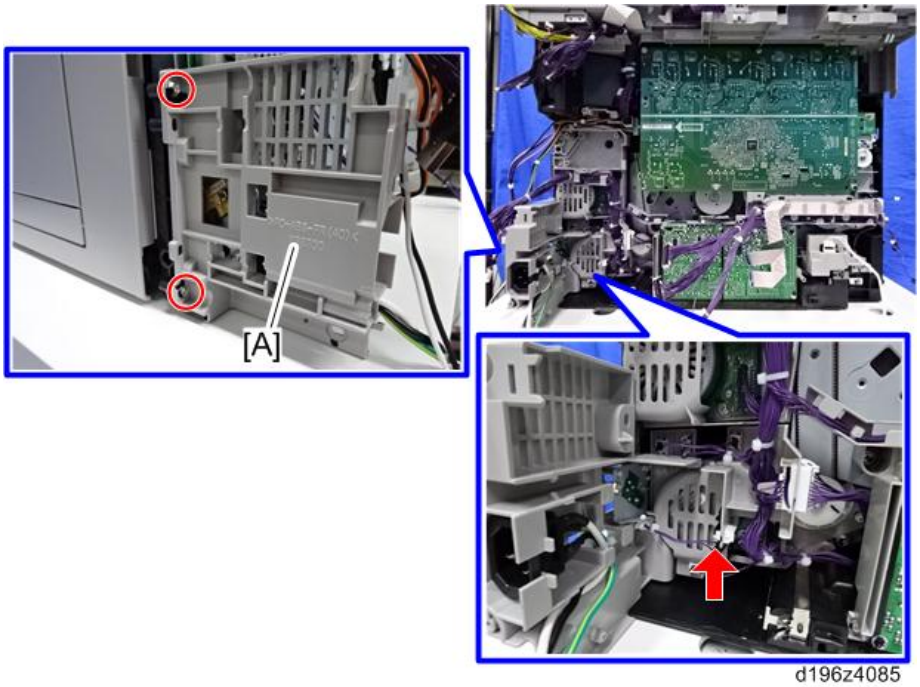
4. Remove the interlock switch cover [A]. (× 3)

5. Remove the Interlock switches [A]. (× each 2)

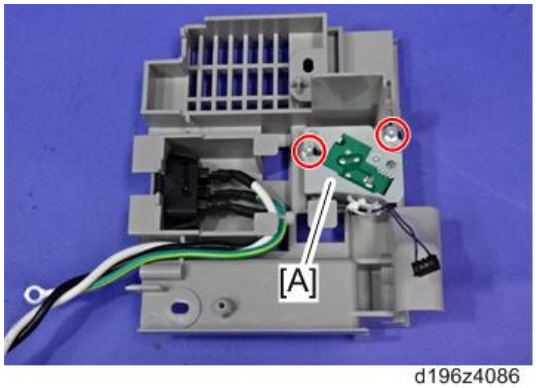
DC Switch

1. Remove the PSU with the bracket. (PSU (AC), PSU (DC))

2. Remove the DC switch cover [A]. (× 2, × 1)



3. Remove the DC switch [A] with the bracket. (× 2)



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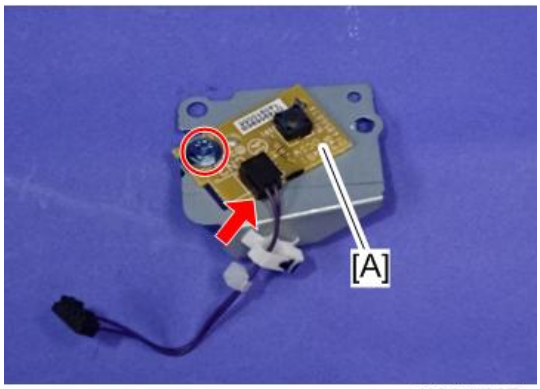
4. Remove the DC switch [A]. (× 1, × 1)



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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

Firmware Update (SD Card)

Overview

In order to update the firmware of this machine, it is necessary to download the latest version of firmware on a SD card.
Insert the SD card in SD card slot 2 beside the left rear of the controller box.

Types of firmware update files, supported update methods:

Individual firmware	N/A	Available	Available	N/A
Package firmware	Available	Available	Available	Available
	SFU	SD Card	RFU	ARFU

Firmware Type

Firmware type	Firmware location
System/Copy	Controller Board
Engine	BiCU
Operation Panel	Smart Operation Panel
ADF	ADF
Bank	Bank
FCU	FCU
Network Support	Smart Operation Panel – CPU board
Bank2	Bank
BIOS	BiCU
HDD format option	Controller Board
RPCS	Controller Board
PS	Controller Board
RPDL	Controller Board
R98	Controller Board
R16	Controller Board
RPGL	Controller Board
R55	Controller Board
RTIFF	Controller Board
PCL	Controller Board
PCLXL	Controller Board
MSIS	Controller Board
PDF	Controller Board
PictBridge	Controller Board
PJL	Controller Board

Firmware type	Firmware location
MediaPrint: JPEG	Controller Board
MediaPrint: TIFF	Controller Board
XPS	Controller Board
FONT	Controller Board
FONT1	Controller Board
FONT2	Controller Board
Copy apl	Smart Operation Panel – CPU board
NetworkDocBox	Smart Operation Panel – CPU board
Fax apl	Smart Operation Panel – CPU board
Printer apl	Smart Operation Panel – CPU board
Scanner apl	Smart Operation Panel – CPU board
Remote Fax apl	Smart Operation Panel – CPU board
MIB	Smart Operation Panel – CPU board
Websupport	Smart Operation Panel – CPU board
WebUapl	Smart Operation Panel – CPU board
CSPF	Smart Operation Panel – CPU board

What is Included in the Firmware Package

Modules included in the firmware package are indicated by ticks (✓).

Firmware not included in the package require updating by SD cards, etc.

Included	Firmware
-	aics
✓	animation
✓	Application Site
✓	BluetoothService
✓	CheetahSystem
-	CSPF
-	Data Erase Onb
-	EcoInfoWidget
✓	Engine
-	External Auth
✓	Fax
-	FaxInfoWidget
✓	GWFCU3.8-9(WW)

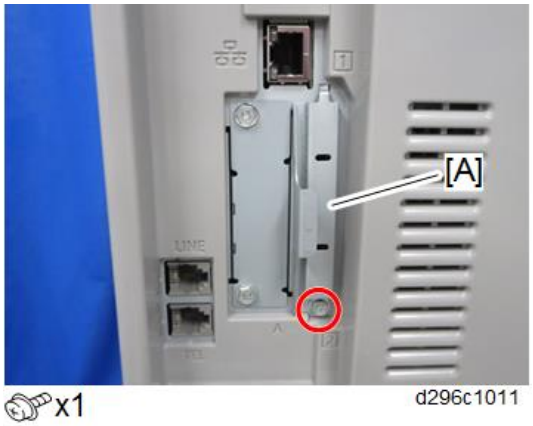
Procedure

Important

- A SD card is a precision device, so when you handle an SD card, respect the following.
- When the power is switched ON, do not insert or remove a card.
- During installation, do not switch the power OFF.
- Since the card is manufactured to high precision, do not store it in a hot or humid location, or in direct sunlight.
- Do not bend the card, scratch it, or give it a strong shock.
- Before downloading firmware on an SD card, check whether write-protection of the SD card is canceled. If write-protection is enabled, an error code (error code 44, etc.) will be displayed during download, and the download will fail.
- Before updating firmware, remove the network cable from this machine.
- If SC818 is generated during software update, switch the power OFF -> ON, and complete the update which was interrupted.
- During software update, network cables, remove interface cables, wireless boards, etc., (so that they are not accessed during update).

Update procedure

1. First download the new firmware to the SD card.
2. Turn OFF the power.
3. Remove the SD card slot covers [A].



4. Insert the SD card into SD card slot 2 [A: Lower Slot].

d296c1012

Note

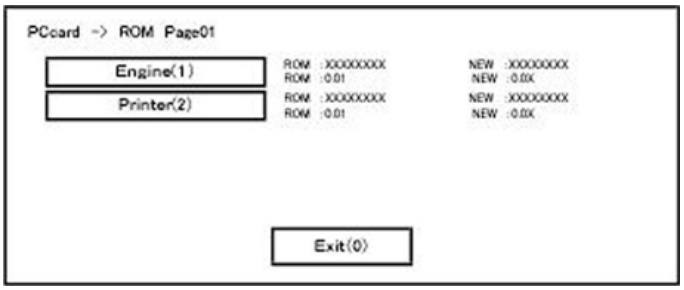
- Check whether the card is properly in the SD card slot. When a SD card is inserted, a click is heard, and it is locked.
- To remove the card, release by pressing once.

5. Turn ON the power.

6. Wait until the update screen starts (about 45 seconds).

When it appears, "Please Wait" is displayed.

7. Check whether a program installation screen is displayed. (English display) When the SD card contains two or more software modules, they are displayed as follows.



<<When two or more software names are displayed>>

1. Press the module selection button or [1] - [5] on the 10-key pad.
2. Choose the appropriate module. (If already selected, cancel the selection)

Operation of keys or buttons

Keys or buttons to press	Contents
[Exit] or 10-key pad [0]	Returns to normal screen.
[Start] Key	Select all modules.
[Clear/Stop] key	Cancel all selections.

Display contents

On the above screen, two programs, i.e., engine firmware and printer application are displayed. (The screen may change depending on the firmware or application).

The display contents are as follows:

Display	Contents
ROM:	Display installed module number / version information.

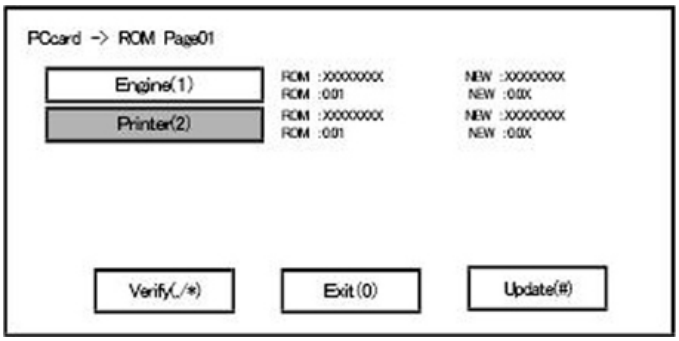
Display	Contents
NEW:	Display module number / version information in the card.

The upper row corresponds to the module name, the lower row corresponds to the version number.

8. Select the module with the module selection button or 10 key pad operation. The selected module is highlighted, and [Verify] and [Update] are displayed.

Note

- Depending on the combination of modules to update, it may not be possible to select all of them simultaneously.

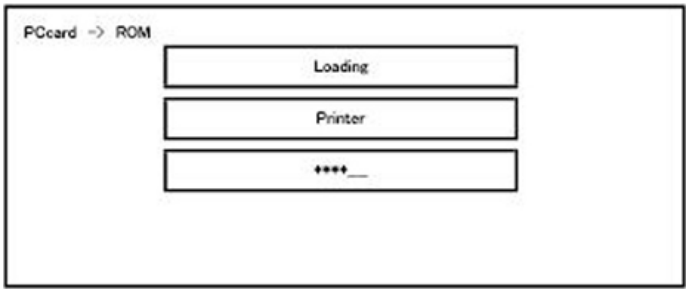


<<Key or button operations>>

Keys or buttons to press	Contents
[Update] or [#] key	Update the ROM of the selected module.
[Verify] button or [./*] key	Perform verification of the selected module.

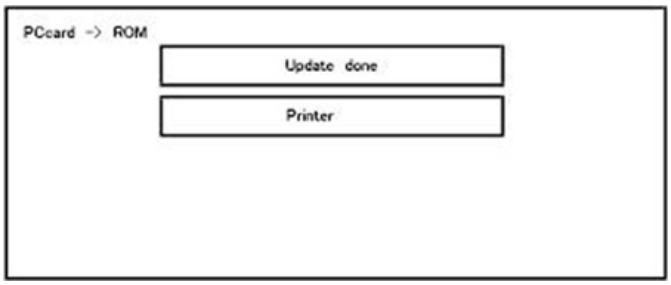
9. Press the [Update] or [#] key, and perform software update.

10. During firmware update, a "firmware update/ verification progress screen" is displayed. When firmware update is complete, a "firmware update end screen" is displayed.



- In the middle row, the name of the module currently being updated is displayed. (in this case, the printer module is being updated)
- In the lower row, a progress bar is displayed in ten steps. (The more *, the more the progress.)

<<Firmware update end screen>>



- This screen is displayed when all selected firmware modules are to be updated. "Printer" in the second

row shows that the module updated last is the printer. (When more than one were updated simultaneously, only the module that was updated last is displayed.)

- When Verify has completed normally, the Update done display of the above screen is "Verify done." If "Verify Error" is displayed, reinstall the software of the application displayed in the lower row.

11. After turning the main power OFF, remove the SD card.

12. Turn the main power ON again, and check whether the machine is operating normally.

13. Return the SD card slot cover to the original position.

Note

- When the power supply is switched OFF during firmware update, update is interrupted, and the power is switched ON again, normal operation cannot be guaranteed.
- To guarantee operation, an update error continues to be displayed until update is successful.
- In this case, insert the SD card again, switch the power ON, and continue download of firmware from the SD card automatically.
- 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.

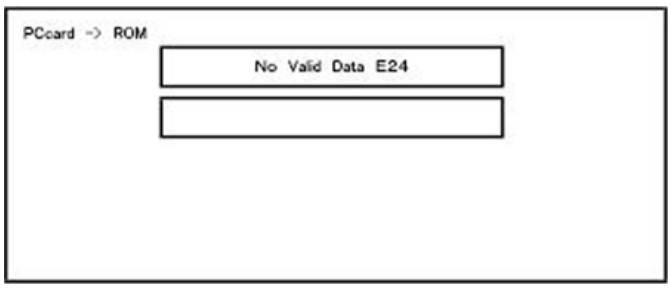
Preparation

- If the SD card is blank, copy the entire "romdata" folder onto the SD card.
- If the card already contains the "romdata" folder, copy the "D296" folder onto the card.
- If the card already contains folders up to "D296", copy the necessary firmware files (e.g. D296xxxx.fwu) into this folder.

Note

- Do not put multiple machine firmware programs on the same SD card. Copy the only model firmware you want.

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 SD card to reboot it. • Replace the controller board 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 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 SD card used for the update. • Replace the controller board if the above solutions do not solve the problem.
24	SD card access error	• Re-insert the SD card. • Switch the main power supply off and on to try again. • Replace the SD card used for the update. • Replace the controller board if the above solutions do not solve the problem.
32	The SD card used after download suspension is incorrect. SD cards are different between the one which was inserted before power interruption and the one which was inserted after power interruption.	• Insert the SD card containing the same program as when the firmware update was suspended, and then switch the main power supply off and on to try again. • There is a possibility that the SD card is damaged if the update cannot be done after the correct SD card has been inserted. In this case, try again with a different SD card. • Replace the controller board if the above solutions do not solve the problem. Replace all relevant boards if the update is done for the BiCU and FCU. Replace the operation panel unit if the update is done for the operation panel.
33	Card version error. The wrong card version is downloaded.	• Install the correct ROM update data for each version in the SD card.

Code	Contents	Solutions
34	Destination error. A card for the wrong destination is inserted.	• Install the correct ROM update data for each destination (JPN/ EXP/ OEM) in the SD card.
35	Model error. A card for the wrong model is inserted.	• Install the correct ROM update data for each model in the SD card.
36	Module error. The program to be downloaded does not exist on the main unit. The download destination specified by the card does not match up to the destination for the main unit's program.	• Install the program to be updated in advance. • There is a possibility that the SD card containing the program to be updated has not been mounted. Check to confirm that the SD card has been correctly mounted. • The SD card is incorrect if the program to be updated has been correctly installed. In this case, insert the correct SD card.
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. • If the download fails again, replace the controller board and the BiCU.
41	Fax download fails.	• Switch the main power supply off and on to try again. • If the download fails again, replace the controller board and the FCU board.
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 and the operation panel unit.
43	Printing download fails.	• Switch the main power supply off and on to try again. • The SD card media is damaged if the update fails again. Replace the SD card 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 SD card. • Replace the controller board if the data to be overwritten is contained on the controller board.
49	Firmware updates are currently prohibited.	• The setting of Update Firmware in the Administrator Tools has been set to [Prohibit] by

Code	Contents	Solutions
		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 SD card.
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 information from the Gateway fails.	• Check that the network is connected correctly.
69	Download fails at the reserved date/time of the remote firmware update from the network.	• Check that the network is connected correctly.

Code	Contents	Solutions
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].
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 information	• Check that the network is connected correctly.

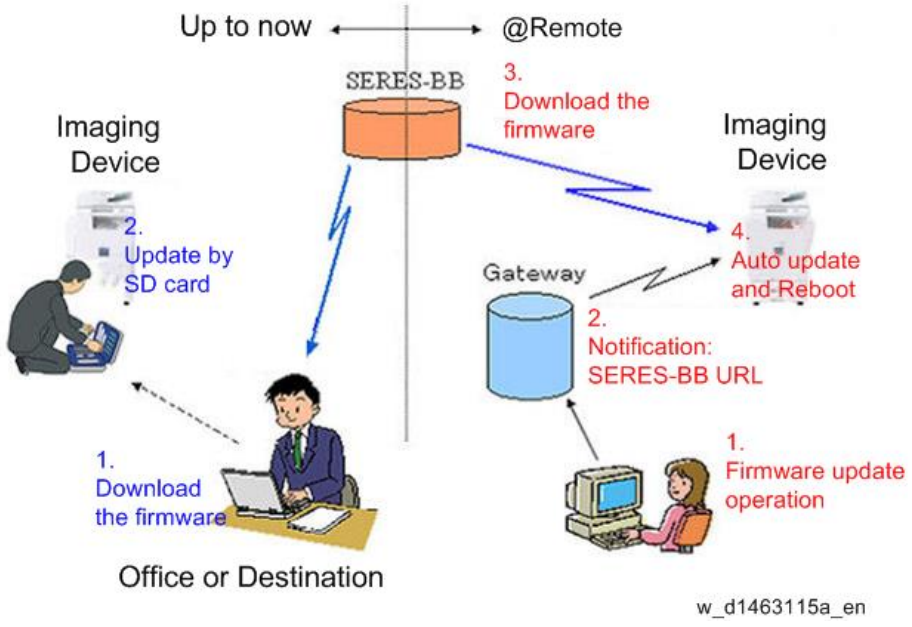
Code	Contents	Solutions
	from the Gateway fails.	
69	Download fails at the reserved date/time of the remote firmware update from the network.	• Check that the network is connected correctly.
70	Package firmware download from the network fails.	• Check that the network is connected correctly.
71	Network 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].

Note

- The PDF firmware installed as standard contains a program required to print PS3 data as default. However, this PS3 program is normally disabled.
- The PS3 firmware is a dongle (key) which enables PS3 data printing functions. When the PS3 firmware is installed, the PS3 program in the PDF firmware is enabled. Due to this specification, the self-diagnosis result report shows the ROM part number/software version of the PDF firmware contained in the PS3 program.

Firmware Update (Remote Firmware Update)

In this machine, software can be updated by remote control using @Remote.



Types of firmware update files, supported update methods:

	SFU	SD Card	RFU	ARFU
Individual firmware	N/A	Available	Available	N/A
Package firmware	Available	Available	Available	Available

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 (Smart Firmware Update)

⚠CAUTION

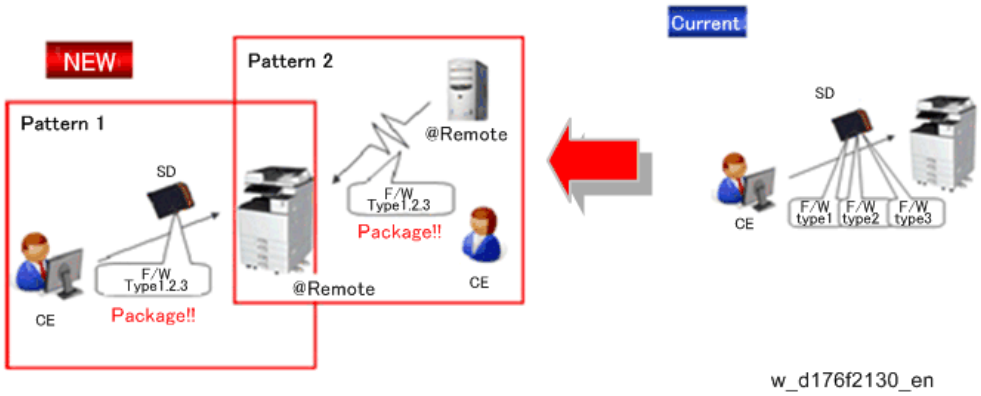
- A HDD unit must be installed on the machine to enable the SFU or the package firmware update via SD card.

Overview

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 two ways to update using the firmware package.

- Package Firmware Update via a network: SFU (Smart Firmware Update)
- Package Firmware Update with an SD card



Package Firmware Update via a network: SFU (Smart Firmware Update)

- There are two methods for SFU.
  - Immediate Update: To update the firmware when visiting
  - Update at the next visit: To set the date and time for 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.

Other than SFU, package firmware update can also be performed by using the following three methods.

- Package Firmware Update via a network: ARFU (Auto Remote Firmware Update)
- Package Firmware Update via an SD Card
- Package Firmware Update via a network: RFU (Remote Firmware Update)

Types of firmware update files, supported update methods:

	SFU	SD Card	RFU	ARFU
Individual firmware	N/A	Available	Available	N/A
Package firmware	Available	Available	Available	Available

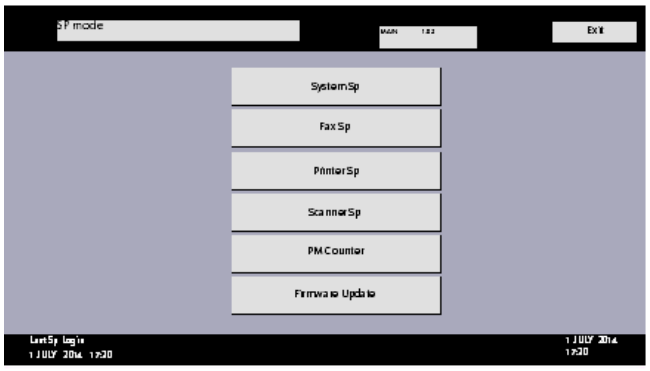
Immediate Update

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 Error Screens During Updating (Error Screens During Updating).

1. Enter the SP mode.
2. Touch [Firmware Update].



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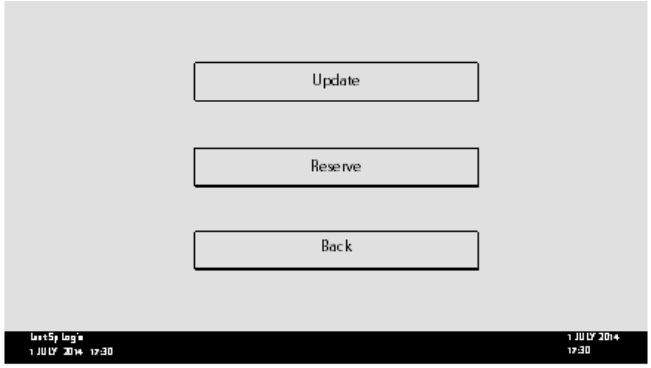
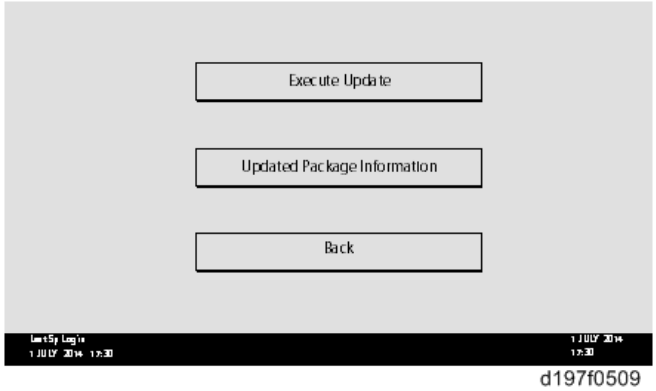
3. Touch [Update].



d197f0508

4. Touch [Execute Update].



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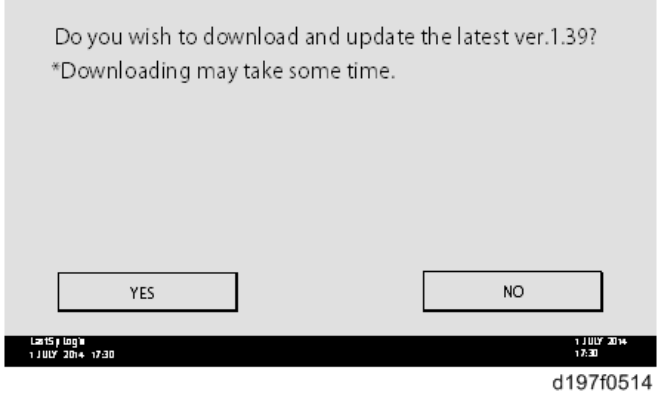
5. Touch [YES].



d197f0514

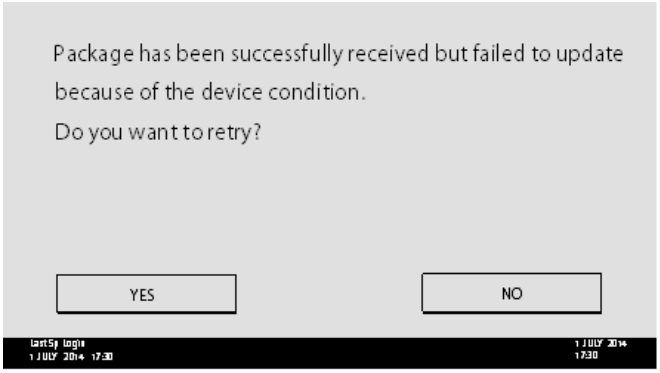
6. The following display will be displayed.

d197f0513

Note

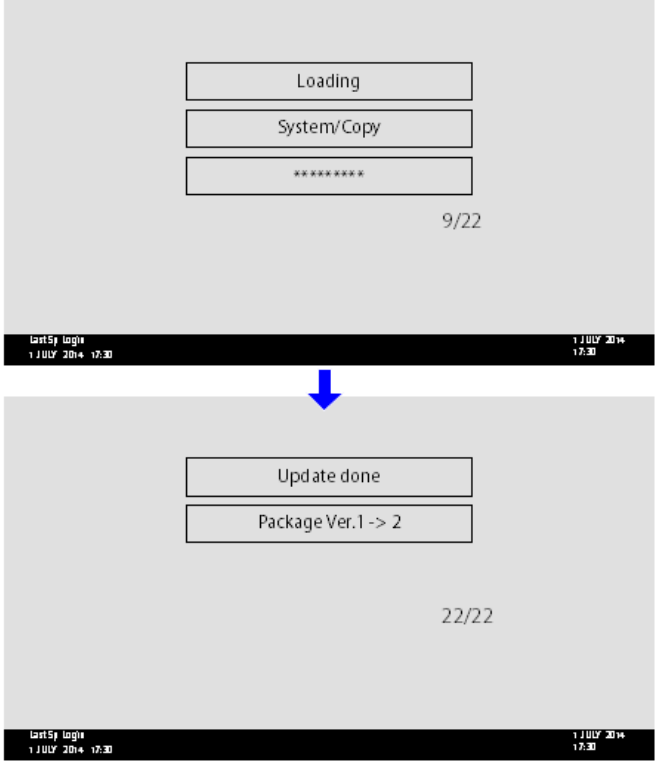
- If the error code E66, which indicates that the download of the firmware has failed, is displayed, implement this procedure from step 1.
- Update will be started automatically after the download is finished.

- When the machine is in the update mode, the automatic update is suspended if a print job is implemented. After the print job is finished, touch [YES] on the display shown with the following picture to restart updating.



d197f0515

7. [Update done] is displayed.
   - The machine will automatically reboot itself.



d197f0518

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.

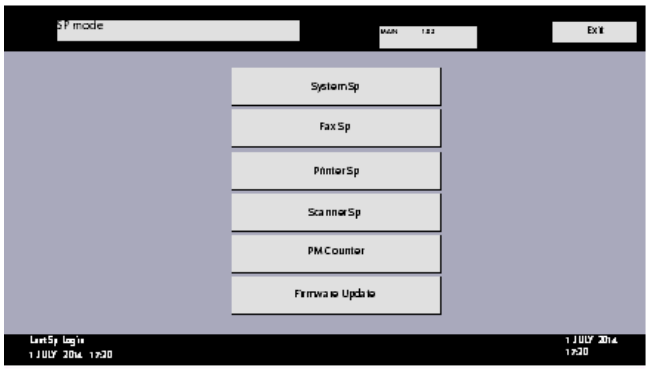
How to Set the Machine to Download Firmware Later (RESERVE)

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 Error Screens During Updating (Error Screens During Updating).

1. Enter the SP mode.
2. Touch [Firmware Update].



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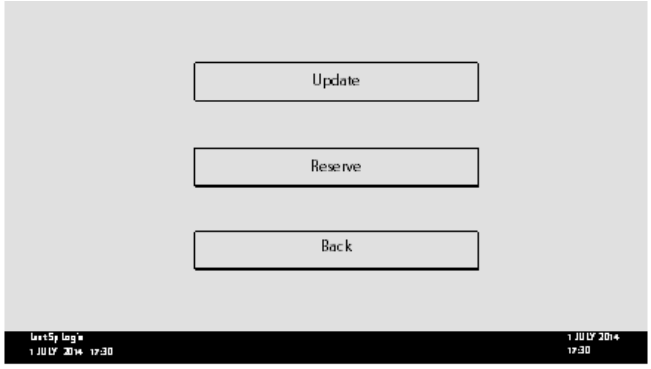
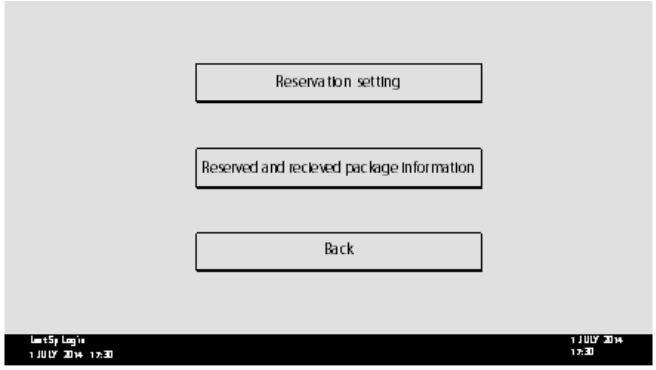
3. Touch [Reserve].



d197f0508

4. Touch [Reservation setting].

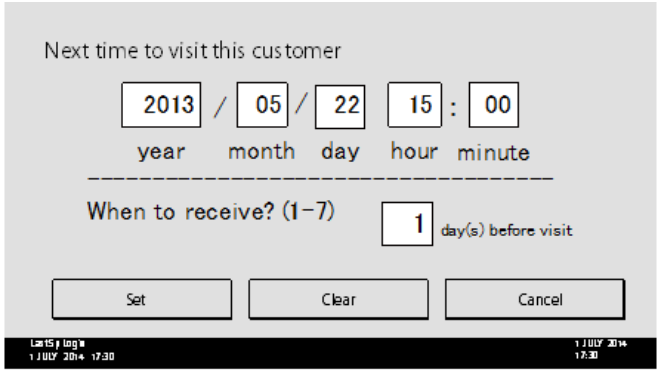


d197f0510

5. Enter the dates and times of next visit and start of receiving data.
   - ”Next time to visit this customer”: The package firmware will be automatically downloaded by this

time/date.

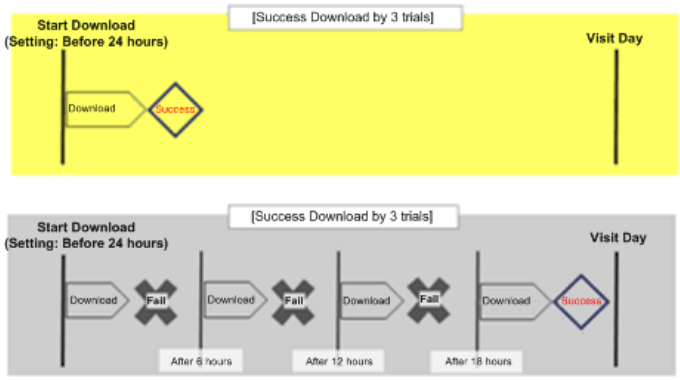
- ”When to receive? (1-7)”: The download of the package firmware will begin this number of days before the next visit.



d197f0512

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.



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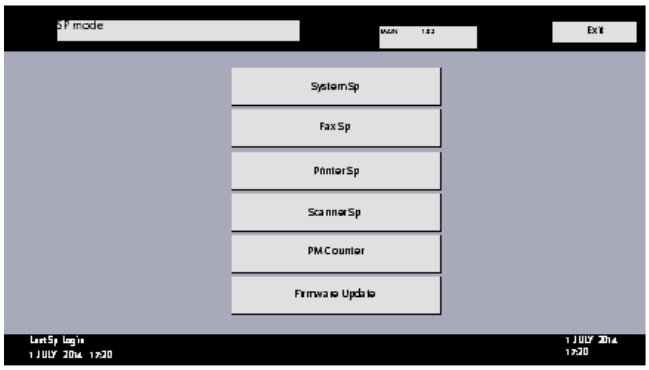
- If the firmware download fails or cannot be completed due to the network settings/condition, no power to the machine, or other reason, the machine will continue retrying every six hours until the scheduled deadline (up to a maximum of four tries). For example, if the download is set for the day before 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

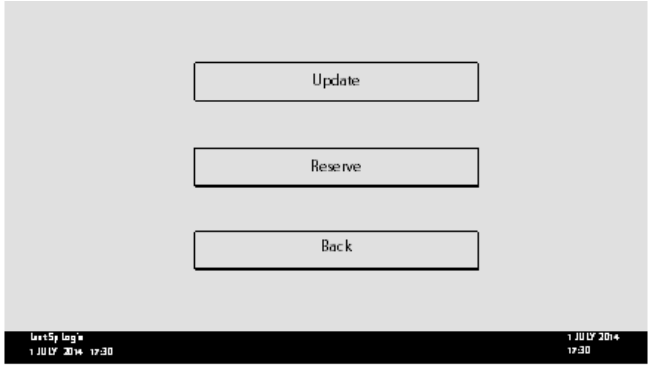
1. Enter the SP mode.

2. Touch [Firmware Update].



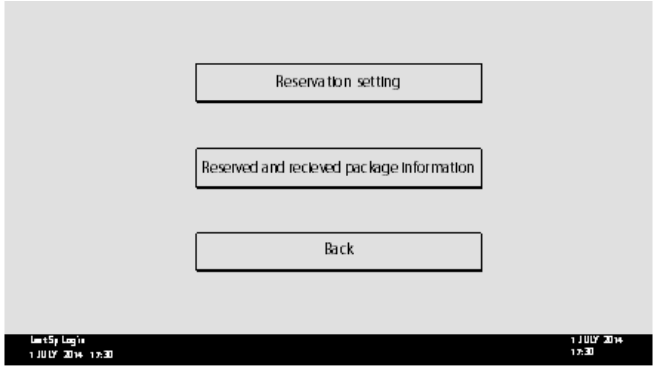
d197f0507

3. Touch [Reserve].



d197f0508

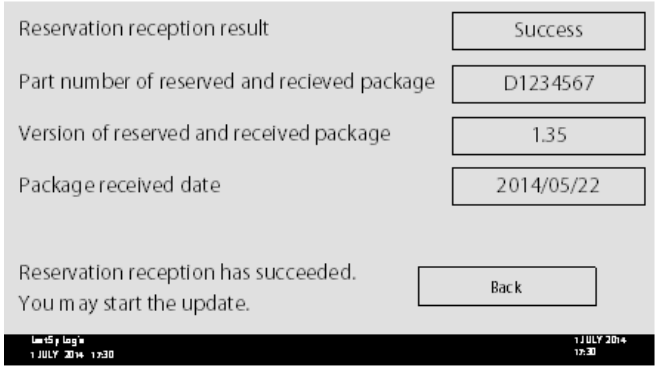
4. Touch [Reserve and received package information].



d197f0510

5. Check the information displayed.

When the package firmware is downloaded successfully, the details of the download result are displayed as the following picture shows.



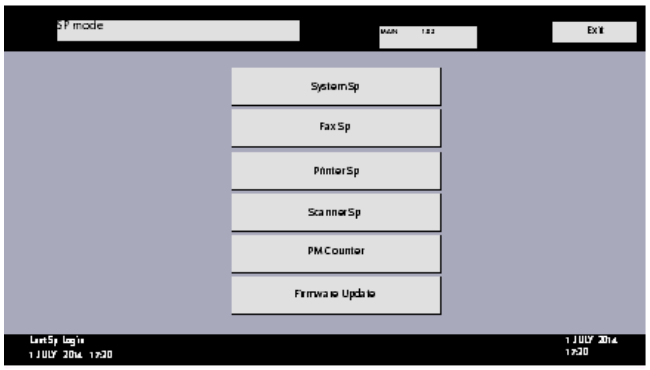
d197f0511

Note

- This information will only be displayed if the reserved firmware has already been downloaded. If not, all the data items are indicated with "-".

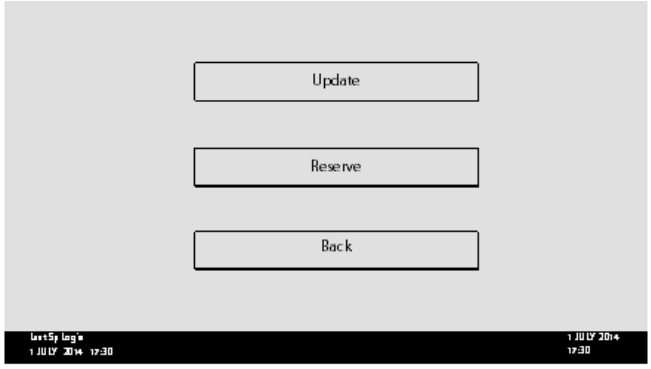
How to Install Firmware Downloaded with RESERVE

1. Enter the SP mode.
2. Touch [Firmware Update].



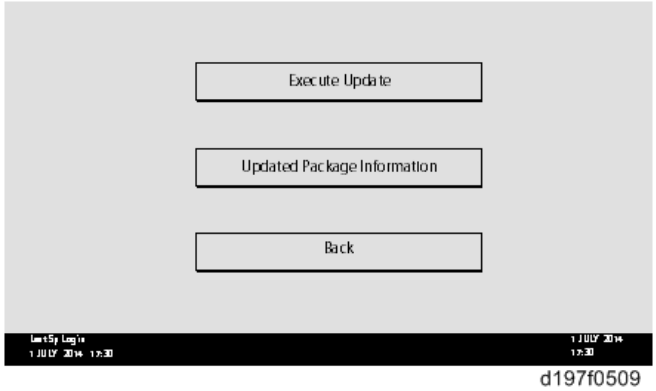
d197f0507

3. Touch [Update].



d197f0508

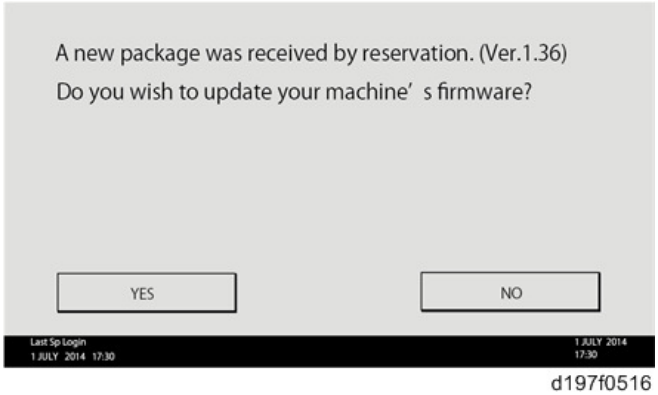
4. Touch [Execute Update].



d197f0509

5. Check the version of the received package firmware, and then touch [YES].

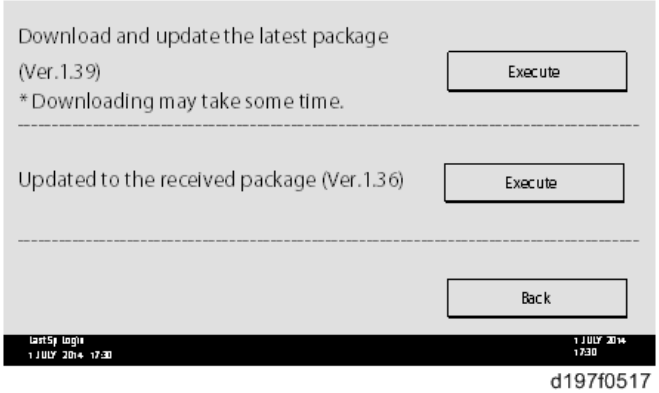
- Update is started.



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.

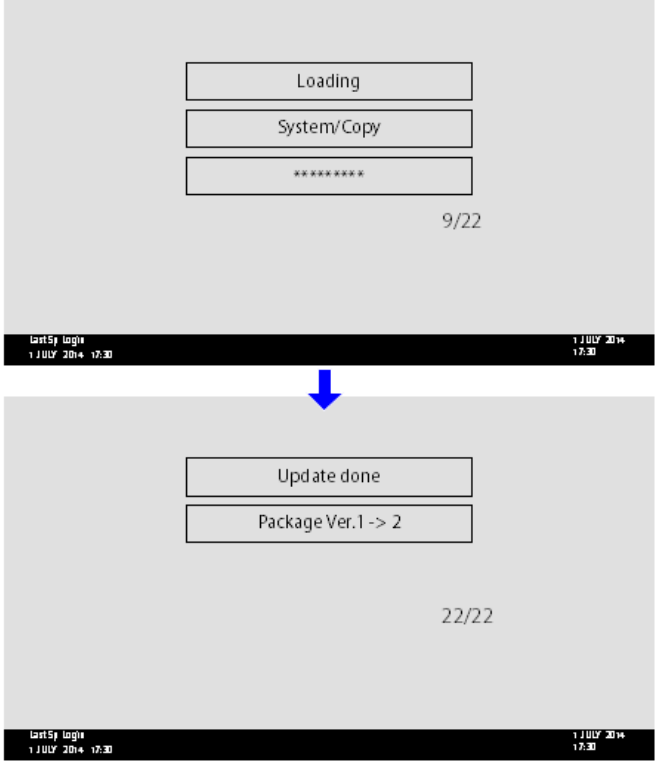


d197f0517

- If you wish to download the latest version, touch [Execute] beside the message "Download and update the latest package." Then 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] message is displayed.

- The machine will automatically reboot itself.



d197f0518

Note

- The figures at the lower right of the display indicate “Number of updated items/ All items to be updated”.

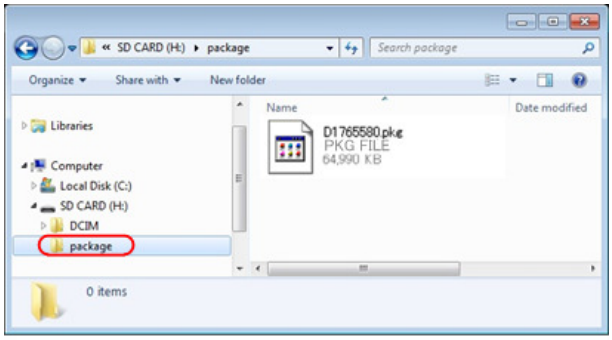
Update via SD card

Update with an SD card, which is the conventional method, is available if you write the package firmware to the SD card.

Note

- If an error code is displayed, refer to Error Screens During Updating (Error Screens During Updating).

1. Create a new folder in the SD card, and then name it “package”.
2. Copy the package firmware (xxxxxxxx.pkg) to this folder.



d197f0504

Important

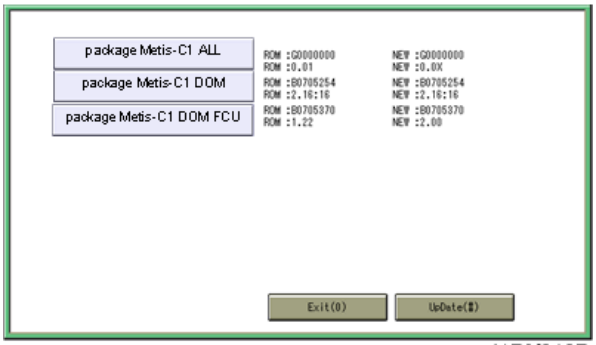
- If you copy the package firmware into the conventional “romdata” folder, the update will not work.

- Only one version of the package firmware should be copied into the folder. If you copy multiple versions of package firmware to the SD card, the machine will select only one version of the firmware randomly.

3. Turn the power OFF.

4. Insert the SD card which contains the package into SD card slot 2 (for service).

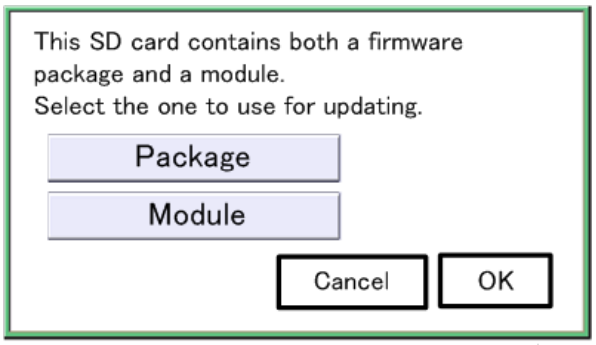
5. Turn the power ON and touch [Update].



d176f2127

Note

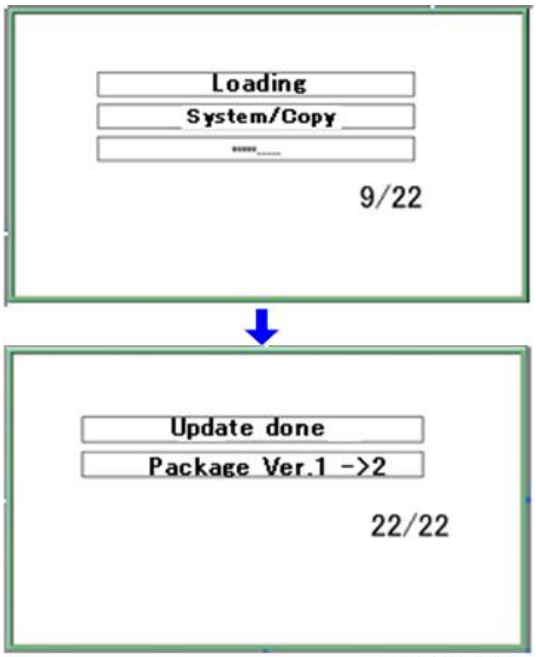
- When the SD card contains both a firmware package and one or more modules, the following display may show up. Select [Package] and touch [OK] to move to step 4 above.



d176f2128

6. Update is started automatically after the package firmware download to the HDD has been completed.

7. When update is completed, “Update done” is displayed.



w_d177z0021a

Note

- The figures at the lower right of the display indicate “Number of updated items/ All items to be updated”.

8. Turn the main power switch OFF, and then pull out the SD card from SD card slot 2.

9. Turn the power ON.

Firmware Update (Auto Remote Firmware Update)

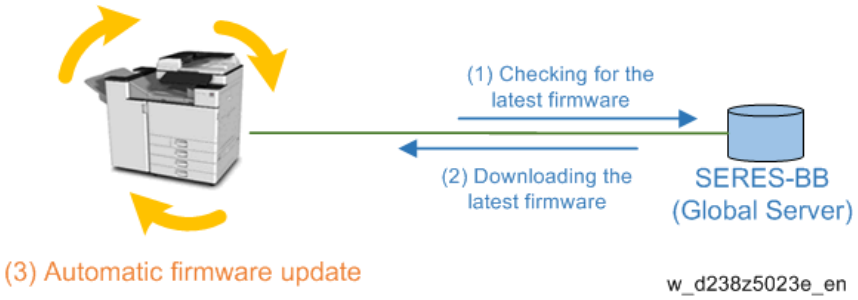
Note

- Auto remote firmware update (ARFU) requires connection to the Internet. Be sure to get permission from the customer before setting up this feature.

Overview

By Auto Remote Firmware Update (ARFU), the firmware is updated by checking the global server every 76 hours and downloading the latest package if it is newer than the one installed on the machine.

Function Overview



Types of firmware update files, supported update methods:

	SFU	SD Card	RFU	ARFU
Individual firmware	N/A	Available	Available	N/A
Package firmware	Available	Available	Available	Available

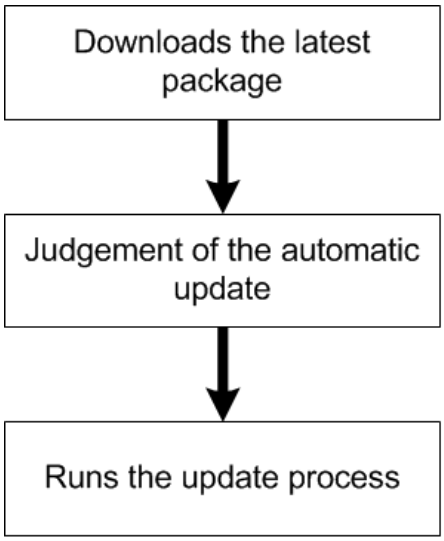
What is Included in the Firmware Package

Modules included in the firmware package are indicated by ticks (✓) in the firmware download web site.
Firmware not included in the package require updating by SD cards, etc.

Included	Firmware
-	aics
✓	animation
✓	Application Site
✓	BluetoothService
✓	CheetahSystem
-	CSPF
-	Data Erase Onb
-	EcoInfoWidget
✓	Engine
-	External Auth
✓	Fax
-	FaxInfoWidget

Included	Firmware
✓	GWFCU3.8-9(WW)

Downloading and Updating Process



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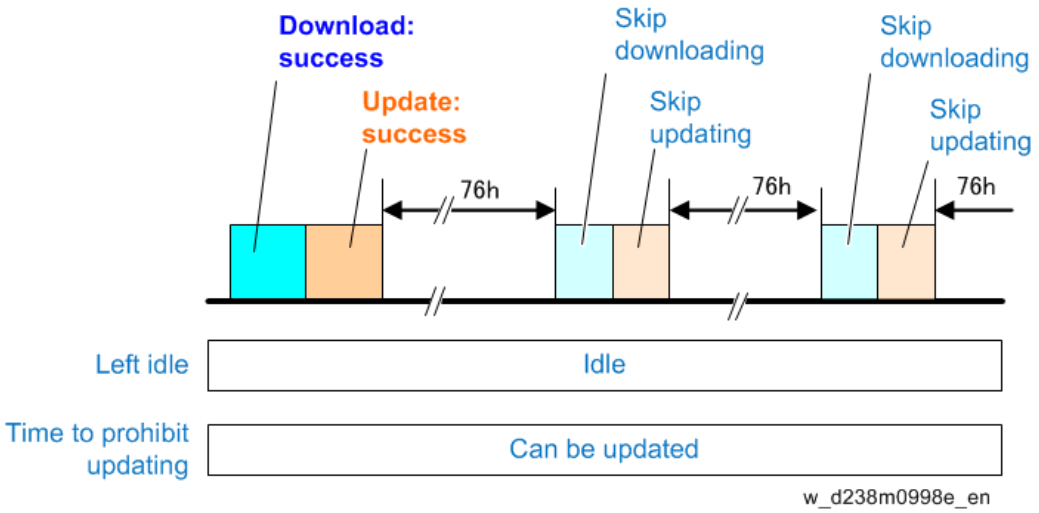
Downloads the Latest Package

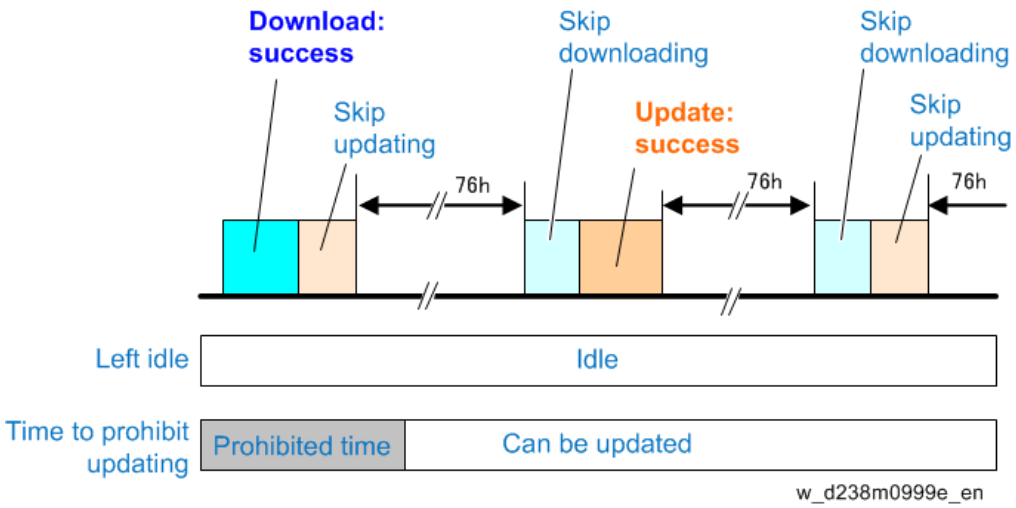
The machine checks the server for the latest package version.
If the version of the package on the global server is later than that of the package installed on the machine, or if the machine has not downloaded the firmware package, the machine downloads the latest package in the background even when the customer is using the machine.
If 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, the firmware package data becomes lost from the hard disk. Even if the latest firmware is on the new hard disk, be sure to receive 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 are needed. The machine will still try to download the package even if the name cannot be resolved, but will fail because 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.

Judgement of ARFU

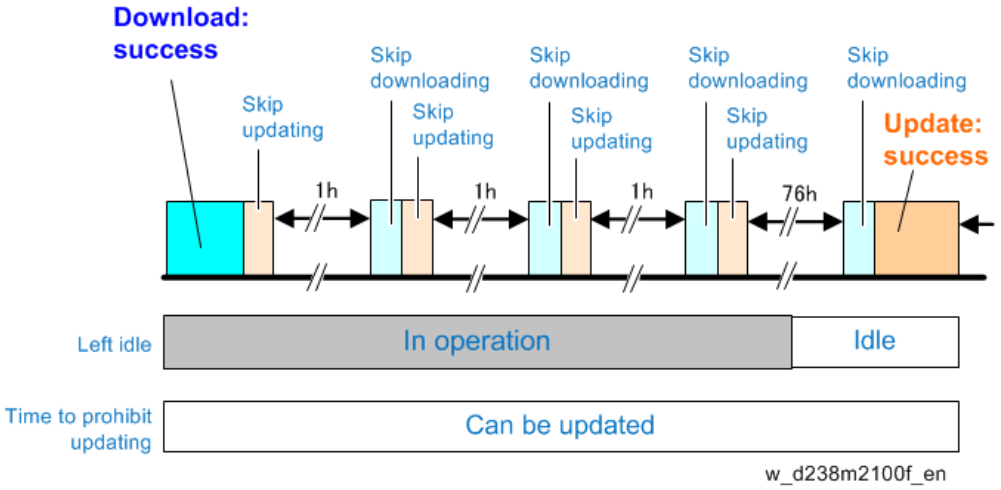
Update judgement is done when the latest update package is successfully downloaded, or the package has already been downloaded.



If the judgement timing is in the range of the update prohibited time or day set with SP or WIM, the machine will retry the update after 76 hours.



If the machine is in use when the judgement process runs, the process is retried. Retry is done up to three times every hour (can be changed with SP) and if the machine is in use for all three retries, the machine will retry the update after 76 hours

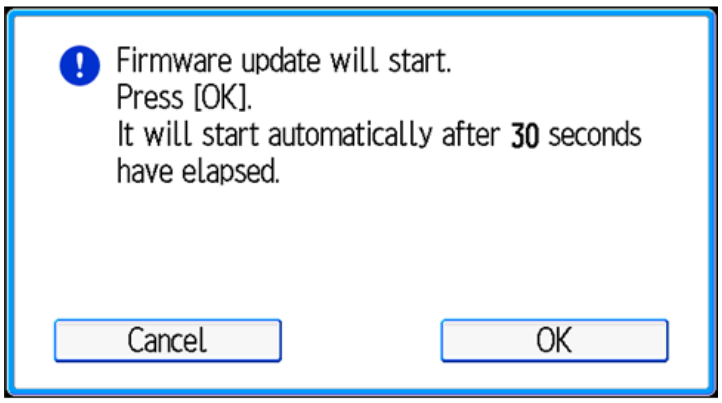


Situations judged as machine in use

No.	Situations judged as machine in use
1	When the control 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 network
7	While initial setting (User Tools settings) or SP is being set
8	While fax is transferring data
9	During on hook / on handset
10	During the PC-FAX process (from PC to machine data transfer to the end of the job)
11	While shifting to/from the energy server mode
12	When not being able to run 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

Update Process

When the machine has decided to run the auto firmware update, the following message is displayed.



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The popup will have "Cancel" and "OK" buttons and the update process will start either when the "OK" button is selected or 30 seconds has passed.

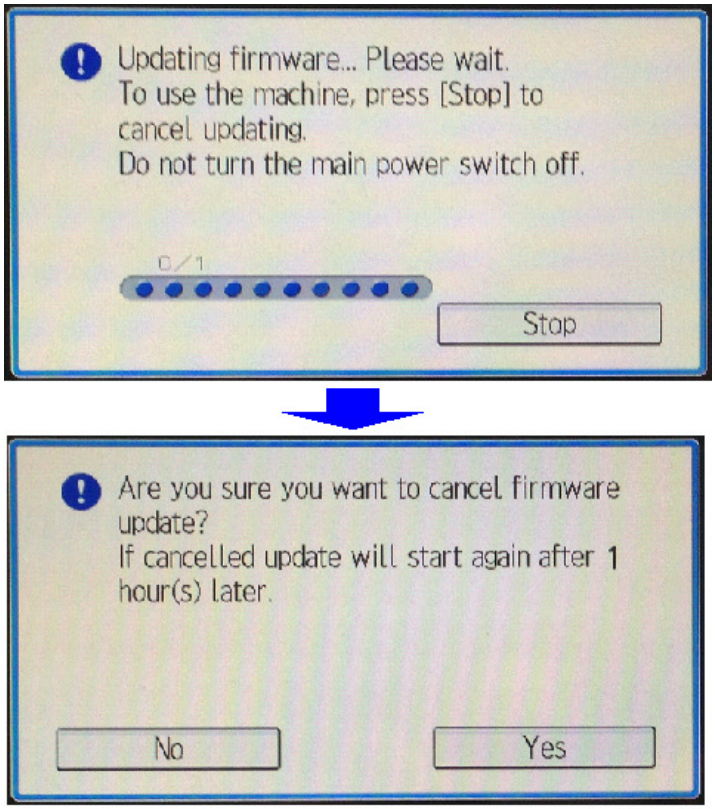
When the "Cancel" button is selected, the machine will run the "Retry update" process.
When the device update and three retries in recovery mode both fail, it is determined as a device defect and will display an SC for the defective device. If such an SC appears, replace the indicated board. In the case of SC845, the SC cannot be reported to the call center.

Device and corresponding SC number

Device name	SC number
Engine board	SC845-01
Controller board	SC845-02
Operation panel (normal panel)	SC845-03
Operation panel (smart panel)	SC845-04
FCU	SC845-05

Canceling the update

It is possible to cancel the Auto Remote Firmware Update (ARFU) or update in recovery mode from the operation panel.



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But this is not possible while updating the operation panel itself. On the other hand, the update for the operation panel will run at the final stage of the update. Thus canceling the update at that stage has no real effect.
When the update is cancelled, the machine will reboot when updates for all modules of one of the following devices is done.

1. Engine Board
2. FCU

3. Controller Board
4. Operation Panel

For example, when the update process is cancelled while updating the first module of the operation panel, the machine will reboot when all modules in the operation panel have been updated.

The firmware contents included in the package can be referred to in the release note in the SERES release of the package.

The next update will run 76 hours after the cancellation. The old (cancelled) package will be discarded if the package downloaded 76 hours later is the latest.

Checking the ARFU Result

1. Enter the SP mode.
2. Press [Firmware update].
3. Press [Update].
4. Press [Update Package Information].
5. If the firmware package is the same as the one on the global server, the update was completed successfully. Otherwise, check the result using the logging date.
   In SP7-520-041 to -045 (Update Log: Auto:Version), you can check the versions of the packages updated by ARFU. (-041 displays the latest result. It is also printed on the SMC sheet.)

Checking the Result Using the Logging Data

1. Enter the SP mode.
2. Press [System/Copy].
3. Check the results for ARFU by SP7-520-051 to 060 (Update Log: Auto:Result)
   "-051" is the latest update result. For details about the number of each result log, see the next section "Related SP."

Related SP

SP Number	Selection **Def.**	Overview
SP5-886-111	**0: OFF** 1: ON	Sets auto update by ARFU ON/OFF .
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
SP5-886-113	0 to 23 **9**	
SP5-886-114	0 to 23 **17**	

SP Number	Selection **Def.**	Overview
		not be prohibited.)
SP5-886-115	**0: OFF** 1: ON	Even when the 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**	Update will not run if the corresponding bit for each day below is set to 1. • Prohibited at all times: bit 7 • Monday: bit 6 • Tuesday: bit 5 • Wednesday: bit 4 • Thursday: bit 3 • Friday: bit 2 • Saturday: bit 1 • Sunday: bit 0 This setting is not changed 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 dates and times when update has started. The five most recent are recorded, the lowest number being most recent. If the last update failed, this is not recorded.
SP7-520-021 to 025	Display only	History of dates and times when update has finished. The five most recent are recorded, the lowest number being most recent. The record is created when the update has successfully finished. When the update is cancelled, no record is created.
SP7-520-031 to 035	Display only	History of the package numbers (including suffix) for which update has completed. The five most recent are recorded, the lowest number being most recent. The record is created when the update has successfully finished. When the update is cancelled, no record is created.
SP7-520-041 to 045	Display only	History of the package versions for which update has completed. The five most recent are recorded, the lowest number being most recent. The record is created when the update has successfully finished. When the update is cancelled, no record is created.
SP7-520-051 to 060	Display only	History of the results 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 because the machine is now downloading the package for SFU.
2	HDD not installed	Cannot download or update because the machine has no HDD.
3	Updating with SFU	Cannot download or update because the machine is being updated with SFU.
4	HDD error	Cannot download or update because the HDD cannot be used.
5	Version information obtain error	Cannot download or update because the version information cannot be obtained.
6	Update download error	Cannot download or update because the update download 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 because 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 because 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 because 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 machine in use	Cannot start update due to the following conditions when 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 • Firmware update is running with another method • Configuration change prohibited • Verifying the operation panel (smart panel)
11	Update cancelled by user	Update was cancelled because a user selected "Cancel" in the popup shown before starting the update.
12	Offline failed	Cannot start to update because the machine is offline for other reasons.
13	Update successful	Update was started and successfully completed.

No.	Result	Description
14	Update failed	Update was started but failed.
15	Update deemed completed	Update was cancelled 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 completed by another method.
16	Update cancelled by user after update initiated	Update was cancelled after the process initiated because a user selected "Cancel" during the update.
17	Version information obtain error (communication error occurred for hostname)	Cannot download or update because the name cannot be resolved when obtaining version information.
18	Version information obtain error (proxy verification failure)	Cannot download or update because the proxy verification failed with proxy settings when obtaining version information.
19	Version information obtain error (other than proxy verification failure when proxy is set)	Cannot download or update because an error other than proxy verification with proxy settings occurred when obtaining version information.
20	Update download error (proxy verification failure)	Cannot download or update because the proxy verification failed with proxy settings when downloading the package.
21	Update download error (other than proxy verification failure when proxy is set)	Cannot download or update because an error other than proxy verification with proxy settings occurred when downloading the package.
22	Update by retry successful	After power failure, unsuccessful update, or rebooting, update by retry is executed successfully. However, this does not apply to the case where the update was cancelled 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).

Updating JavaVM

Creating an SD Card for Updating

1. Download the update modules from Firmware Download Center. As one of the model modules, "Java VM v12 UpdateTool" is available for download. (The version differs depending on the model.)
2. Unzip the downloaded file. Copy the whole "sdk" folder to the root of the SD card directly below.

Note

- When unzipping the downloaded file, two subfolders ("update" and "sdk") exist in the "sdk" folder. Rather than just copying the subfolder "sdk", copy the whole folder "sdk".

Updating Procedure

CAUTION

- SD card can be inserted with the machine power off.
- During the updating process, do not turn OFF the power.
- If you turn OFF the power during the updating, the machine performance is not guaranteed. (There is a possibility that an SC and boot failure occurs.)
- If you accidentally turn OFF the power during the updating, retry the updating procedure from the beginning. (If the update fails again, you will need to replace the controller board.)

1. If the boot priority application is set to the ESA application, switch to the copy application. ([System Settings]-[General Features]-[Function Priority])
2. Insert the SD card you created into the service slot, and then turn ON the power.
3. Take a note of the current Heap size. ([Extended Feature Settings] – [Administrator Tools] – [Heap/Stack Size Settings])
   The Heap size setting is changed to the initial setting when updating.
4. Turn OFF the power.
5. Insert the SD card for update into the service slot.
6. Turn ON the power.
7. After booting Java VM, update of the application is started. "Updating SDK/J" appears in the banner message of the touch panel display. (Estimated time: about 2 minutes)
8. After completing the update and starting the Java VM, "Update SDK / J done SUCCESS" appear in the banner message of the touch panel display. After turning OFF the power, remove the SD card from the slot. When you fail to update, "Update SDK/J done FAIL" is displayed. You can confirm the cause of the error message below.
9. Turn ON the power.
10. Reconfigure the Heap size. ([Extended Feature Settings]-[Administrator Tools]-[Heap/Stack Size Settings]). See the manual for the ESA application to know what value to set for the heap size.
11. Return to the previous setting for the boot priority application.

List of Error Messages

Update results are output as a text file on the SD card called "sdkjversionup.log" in the "\sdk \update" folder.

Result	File contents	Description of the output
Success	script file = /mnt/sd0/sdk/update/bootscript 2012/08/22 17:57:47 start 2012/08/22 17:59:47 end SUCCESS	Boot script path Boot scripts processing start time End time boot script processing, the results
Failure	script file = /mnt/sd0/sdk/update/bootscript 2012/08/22 17:57:47 start XXXX Error 2012/08/22 17:57:57 end FAIL	Boot script path Boot scripts processing start time Error message (Possibly multiple) End time boot script processing, the results

Error Message	Cause	Remedy
PIECEMARK Error,machine=XXXXX	Applied the wrong updating tool (Using the updating tool of a different model)	Use the correct updating tool for this model.
pasePut() - error : The file of the copy origin is not found Put Error!	Inadequacy with the SD card for updating (Files are missing in the updating tool)	Re-create the SD card for updating.
paseCopy() - error : The file of the copy origin is not found. Copy Error!	Inadequacy SD card for updating (Files in the updating tool are missing)	Inadequacy SD card for updating (Files in the updating tool are missing)
[file name: XX] error,No space left on device pasePut() - error : The destination directory cannot be made. pasePut() - error : fileCopy Error. Put Error!	Writing destination is full. (The NAND flash memory on the controller board is full.)	Uninstall the unnecessary SDK applications. If you can not uninstall it, implement escalation, stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file."
[file name: XX] error,No space left on device paseCopy() - error : The destination directory cannot be made. paseCopy() - error : fileCopy Error.	Writing destination is full. (The NAND flash memory on the controller board is full.)	Uninstall the unnecessary SDK applications. If you can not uninstall it, implement escalation stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file."

Error Message	Cause	Remedy
Copy Error!		
Put Error! *1	Error, not normally expected to occur	If you cannot uninstall it, implement escalation stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file." *1 Without the foregoing error message, only "Put Error / Copy Error" will be displayed
Copy Error! *1		
Delete Error!		
[XXXXX] is an unsupported command.		
Version Error		

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 four.

- Controller device log including operation log
- Engine device log
- FCU device log
- Operation panel 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 at the time that 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 (4 GB) or SD card connected to the service slot. When the data gets over 4.0 GB, 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. If fax application is unavailable (e.g. not installed), the machine does not transfer the log.	HDD or SD card connected to the service slot
Operation panel log	• When an error related to the operation panel occurs.	Memory in the operation panel.

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. 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".

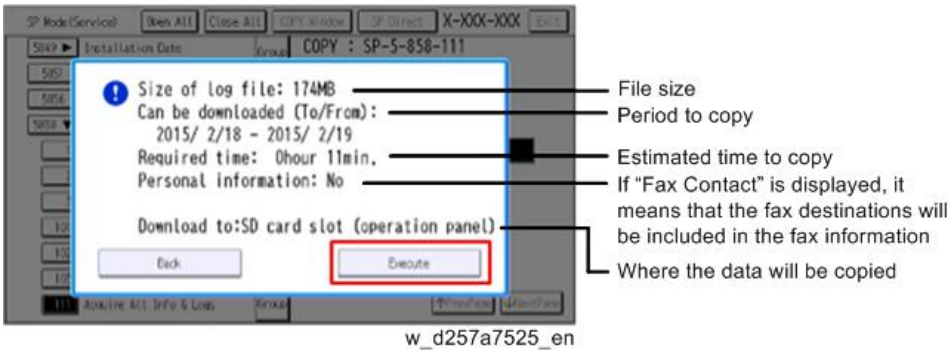
   ** The part number of the SD card with 8 GBs that is registered as a service part is "B6455040".
2. Turn ON the main power.
3. Enter SP mode.
4. Specify the date that the problem occurred in SP5-858-101 (Start Date) by setting it to the year-month-day calendar format.
   - For example, if a problem occurred 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.
5. 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.
6. 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, and SMC.

SP	Collectable Information and/or Logs
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

7. 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"



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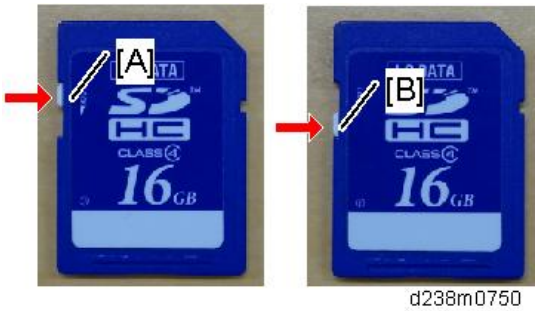
Note

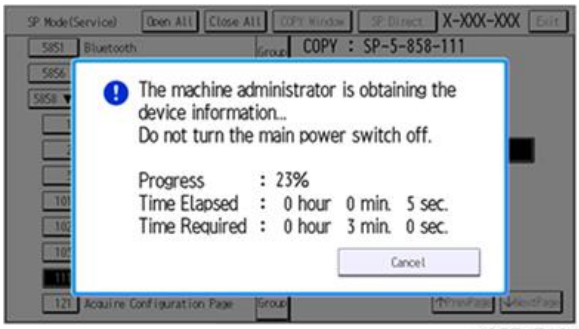
- The approximate time it takes to transfer the debug log is as follows. Transfer time may be affected by the type or format of the SD card.
  Controller device log (GW device log): 2 - 20 minutes
  Engine device log: 2 minutes
  Operation panel device log: 2 - 20 minutes

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.

Error Code	Description
	 d238m0750 [A]: Unlocked, [B]: Locked

8. Wait for the information and/or logs to be copied to the SD card.



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9. 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.

10. Make sure that the SD card access LED is off, 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

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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 "Download".

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Note

- "3" 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. 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 open-or-save dialog to appear.

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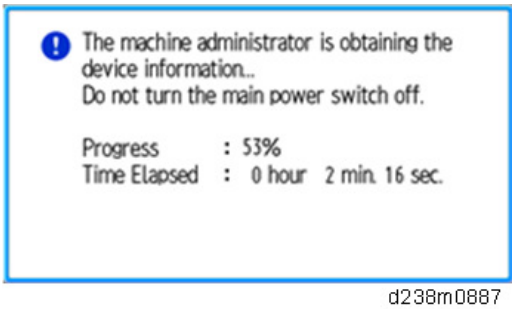
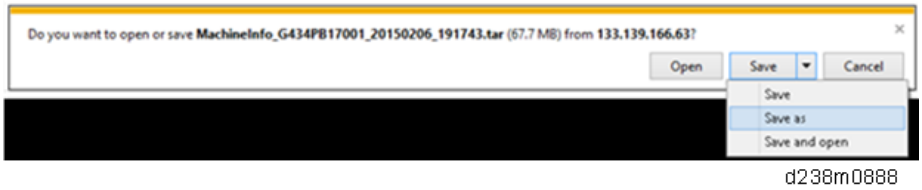
Note

- To cancel downloading, click "Cancel".
- To reconfigure some settings, click "Download again".

- Operation panel when downloading the logs:



4. After a while, the open-or-save dialog will appear. Specify where to download and save the file.



Note

- The debug logs are saved with the following file names. These names are the same as the files downloaded with SD card.

The device logs are saved with the following file names.

Controller log (mmesg)	/LogTrace/[the model number]/watching/[yyyymmdd_hhmmss]_[a unique value].gz
Engine device log	/LogTrace/[Machine Serial]/engine/[yyyymmdd_hhmmss].gz
Operation panel log	/LogTrace/[the model number]/opepanel/[yyyymmdd_hhmmss].tar.gz
SMC	/LogTrace/[the model number]/smc/[the model number]_[5992XXX]_[yyyymmdd]_[hhmmss].csv
Configuration page	/LogTrace/[the model number]/gps/ConfigrationPage/ConfigrationPage_ [yyyymmdd_hhmmss].csv
Font page	• /LogTrace/[the model number]/gps/FontPage/FontPage_PCL_[the page number]_[yyyymmdd_hhmmss].jpg • /LogTrace/[the model number]/gps/FontPage/FontPage_PDF_[the page number]_[yyyymmdd_hhmmss].jpg • /LogTrace/[the model number]/gps/FontPage/FontPage_PS_[the page number]_[yyyymmdd_hhmmss].jpg
Print settings list	• /LogTrace/[the model number]/gps/PrintSettingList/PrintSettingList_RPGL_[yyyymmdd_hhmmss].txt • /LogTrace/[the model number]/gps/PrintSettingList/PrintSettingList_RTIFF_[yyyymmdd_hhmmss].csv
Error log	/LogTrace/[the model number]/gps/ErrorLog/[yyyymmdd_hhmmss].csv

Fax information	/LogTrace/[the model number]/faxreport/[yyyymmdd_hhmmss].csv
FCU debug log	/LogTrace/[Machine Serial]/fculog/[yyyymmdd_hhmmss].gz

NVRAM Data Upload/Download

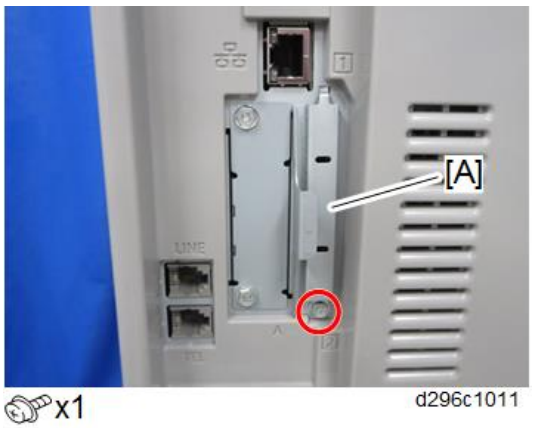
Uploading Content of NVRAM to an SD card

Do the following procedure to upload SP code settings from NVRAM to an SD card.

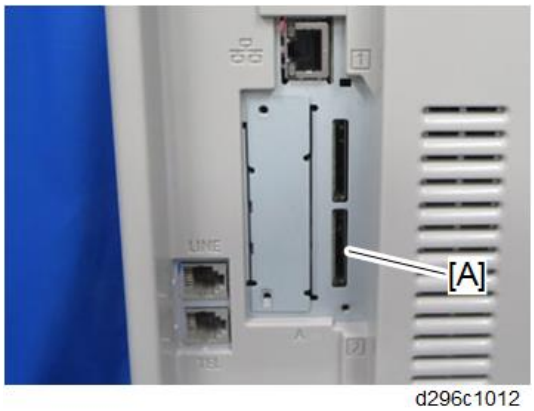
Note

- 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 switch 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 BCU 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

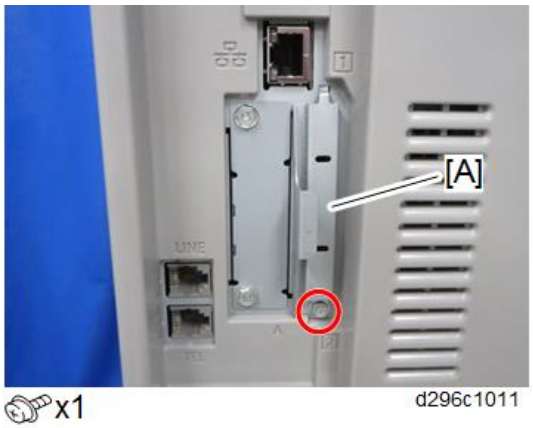
Information List

The following information is possible to be uploaded and downloaded.

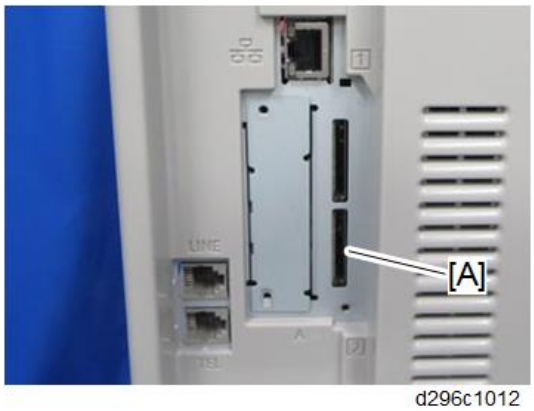
Information	
• Registration No. • User Code • E-mail • Protection Code • Fax Destination • Fax Option • Group Name • Key Display	• Select Title • Folder • Local Authentication • Folder Authentication • Account ACL • New Document Initial ACL • LDAP Authentication

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

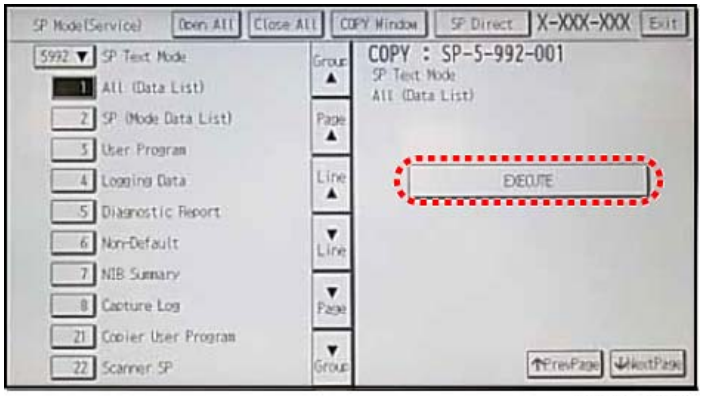
The SMC List Card Save (SP Text Mode) function is used to save the SMC list as CSV files to the SD card inserted into the operation panel SD card slot.

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, and then turn ON the power.
3. Enter SP mode.
4. Select [System/Copy SP].
5. Select SP5-992-001 (SP Text Mode) and press [EXECUTE].



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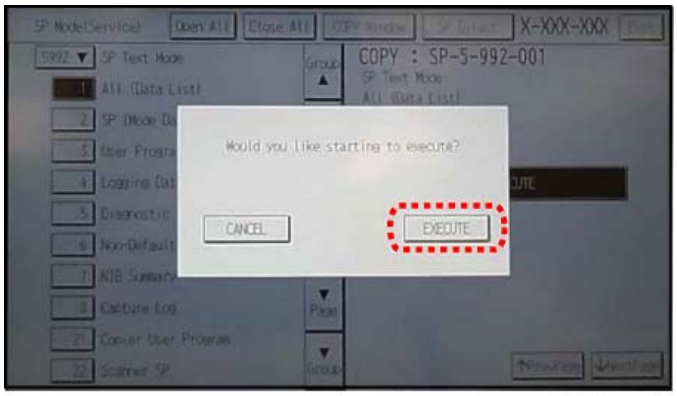
6. Select a detail SP number shown below to save data on the SD card.

   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

Detail No.	SMC Categories to Save
024	SDK/J Summary
025	SDK/J Application Info
026	Printer SP
027	Smart Operation Panel SP
028	Smart Operation Panel UP

7. Press [EXECUTE].



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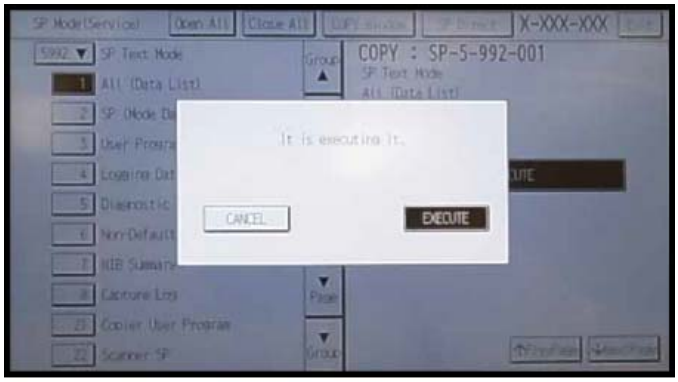
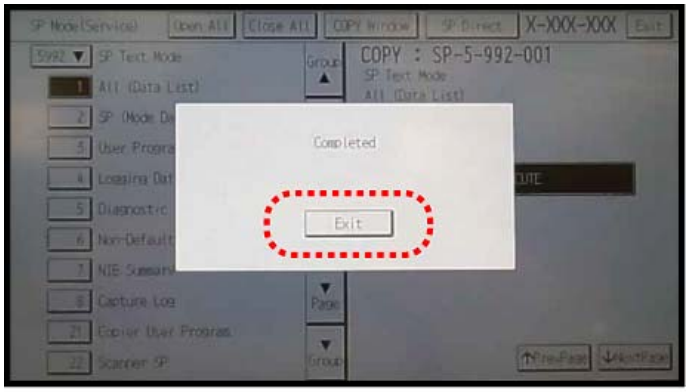
8. Press [EXECUTE] again to start. Press [CANCEL] to cancel the saving.



d1440130

9. "It is executing it" is shown on the screen while executing.



d1440129

10. Wait for 2 to 3 minutes until "Completed" is shown.

Note

- The SMC list saving may take from 2 to 3 minutes to complete.

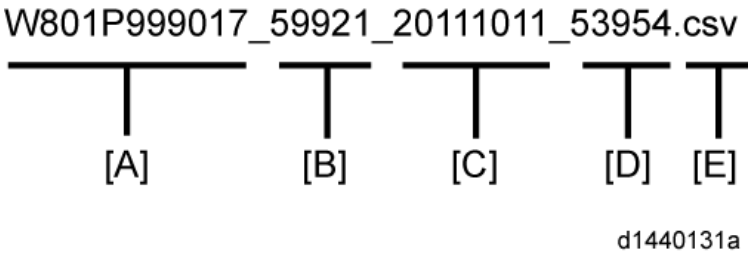
- Press [CANCEL] to abort executing.

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:



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.

UP/SP Data Import/Export

UP Data Import/Export

Data that can be Imported and Exported

- Copier / Document Server Features
- Printer Features
- Scanner Features
- Facsimile Features
- Browser Features
- Extended Feature Settings
- Program (Document Server)
- Program (Copier)
- Program (Scanner)
- Web Image Monitor Setting
- Web Service Settings
- System Settings

Data that cannot be Imported or Exported

- Some System Settings *1 *2
  *1 The setting for the date, settings that require the device certificate, and settings that need to be adjusted for each machine (for example, image adjustment settings) cannot be imported or exported.
  *2 Settings only for executing functions and settings only for viewing cannot be imported or exported.
- Extended Feature Settings
- Address book
- Programs (fax function)
- Programs (printer function)
- User stamp in Copier / Document Server Features
- Settings that can be specified via telnet
- @Remote-related data
- Counters
- EFI printer unit settings
- Settings that can only be specified via Web Image Monitor or Web Service (for example, Bonjour, SSDP setting)

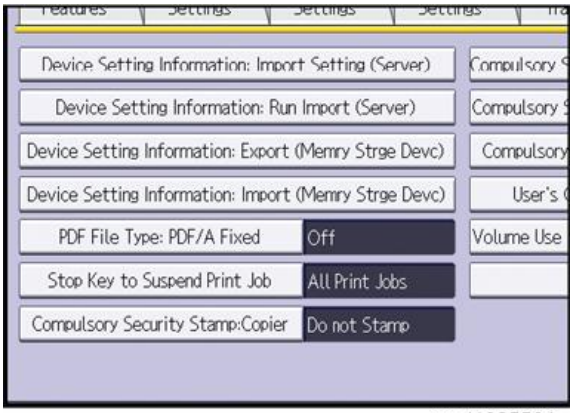
Exporting Device Information

This can be exported / imported by an administrator with all privileges.

When exporting SP device information from the control panel, the data is saved on an SD card.

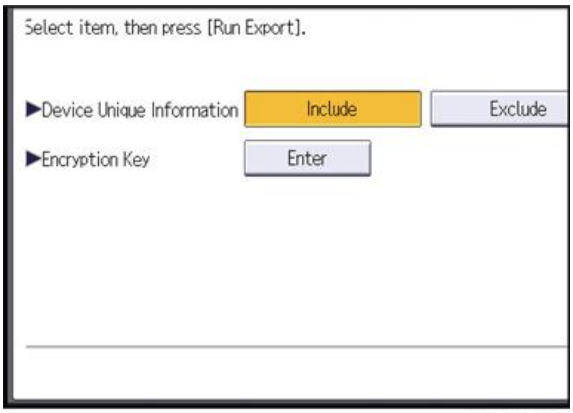
1. Insert an SD card into the media slot on the side of the control panel.
2. Log in from the control panel as an administrator with all privileges.

3. Press [User Tools] icon > [Machine Features] > [System Settings].
4. Press [Administrator Tools].
5. Press [Device Setting Information: Export (Memry Strge Devc)].



w_d1825501

6. Set the export conditions.



w_d1825502

- 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.

7. Press [Run Export].
8. Press [OK].
9. Press [Exit].
10. 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.

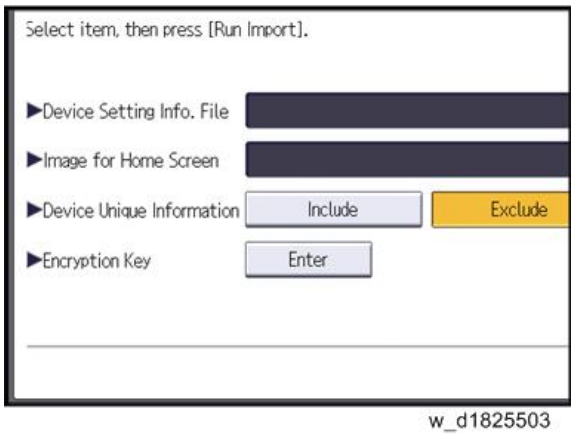
Importing Device Information

This can be exported / imported by an administrator with all privileges.

Import device information saved on an SD card.

1. Insert an SD card into the media slot on the side of the control panel.

2. Log in from the control panel as an administrator with all privileges.
3. [User Tools] icon > [Machine Features] > [System Settings].
4. Press [Administrator Tools].
5. Press [Device Setting Information: Import (Memry Strge Devc)].
6. Configure the import conditions.



- Press [Select] of the "Device Setting Info. File" to select the file(s) to import.
- When inserting a file into a home screen, press [Select] for the Image for Home screen and select the file. You cannot use this setting when using the Smart Operation Panel.
- Specify whether to [Include] or [Exclude] the "Device Unique Information". "Device Unique Information" includes the IP address, host name, fax number, etc.
- Enter the encryption key that was specified when the file was exported.

7. Press [Run Import].
8. Press [OK].
9. Press [Exit].

   The machine restarts.

Note

- If data export 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 control panel, the data is saved on an SD card.

1. Insert an SD card into the media slot on the side of the control panel.
2. Enter SP mode.

3. Do SP5-749-001 (Import/Export: Export).

4. Select “Target” SP settings (System/Printer/Fax/Scanner) 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 “Crpt config” setting (Encryption).

Encryption	Select whether to encrypt or not when exporting. If you push the "Encryption" key, you can export secret information.	If the encryption function is used, setting of an encryption key is required by direct input. • Type the arbitrary password using the soft keyboard

		• Can enter up to 32 characters

7. Press [Execute].
8. Press [OK].

Note

- If data export 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 control panel.
2. Enter SP mode.
3. Do 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 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. 4. NOT EXIST

Result Code	Cause	Solutions
		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 control 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 and select **SP2-109-003**.
2. Enter the number for the test pattern that you want to print and press [#].
3. 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).
4. 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.

5. When you are prompted to confirm your selection, touch "Yes" to select the test pattern for printing.
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.

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

Card Save Function

Overview

Card Save:

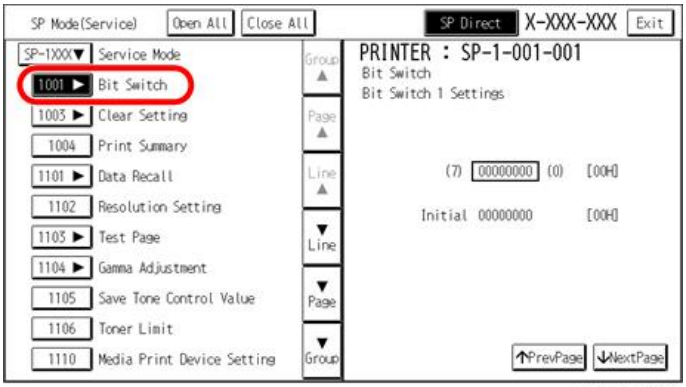
- The Card Save function is used to save print jobs received by the printer on an SD card with no print output. Card Save mode is toggled using printer Bit Switch #1 bit number 4. Card Save will remain enabled until the SD card becomes full, or until all file names have been used.
- Captures are stored 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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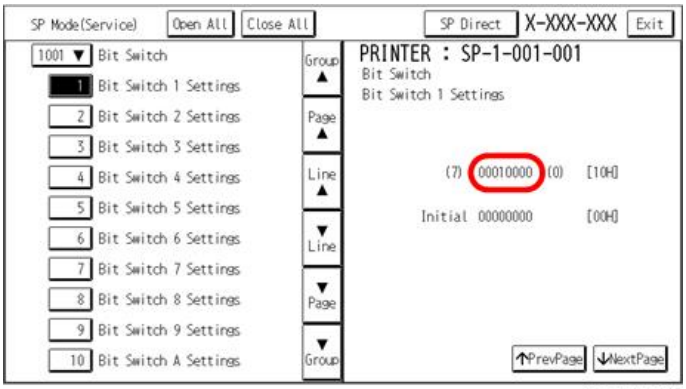
6. Select "Bit Switch 1 Settings" and use the numeric keypad to turn bit 4 ON and then press the "#" button to register the change. The result should look like: 00010000. By doing this, Card Save option will appear in the "List/Test Print" menu.



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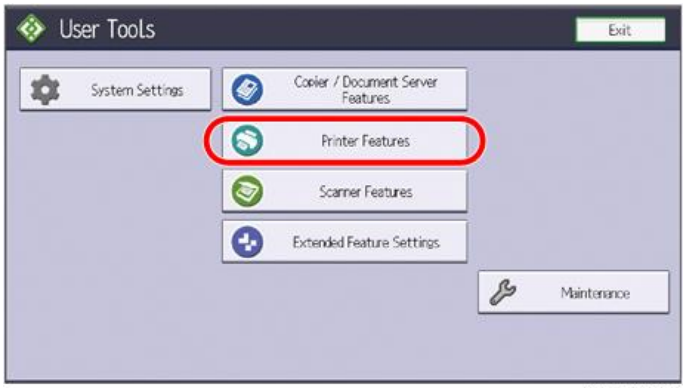
7. Press [Exit] to exit SP Mode.

8. Press [User Tools] icon > [Machine Features].

9. Press [Printer Features].



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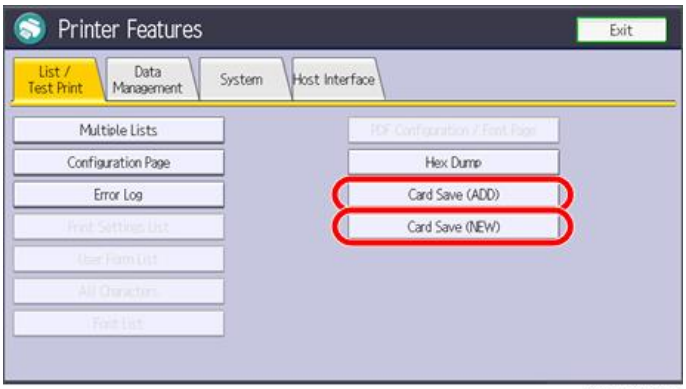
10. Card Save (Add) and Card Save (New) should be displayed on the screen. Select Card Save (Add) or Card Save (New).



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11. Press [OK] and then exit the "User Tools" menu.

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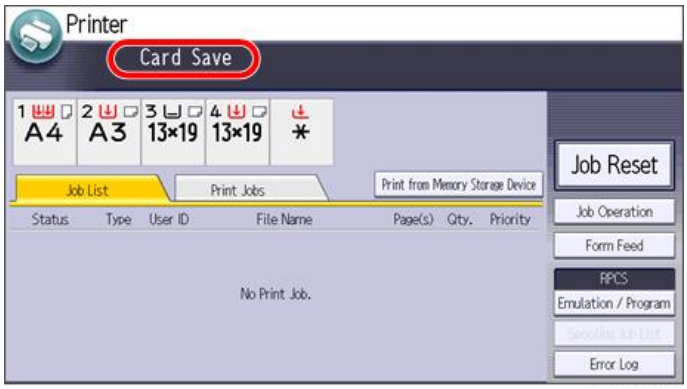
12. Press [Printer (Classic)] icon.

13. "Card Save" is be displayed in the top left of the display panel.



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14. Send a job to the printer. The Communicating light should start blinking.

15. 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.

16. Press [Reset] to exit Card Save mode.

17. Change the Bit Switch Settings back to the default 00000000. Press [#] in the numeric keypad to register the changes.

18. 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 operation switch 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 power OFF and ON.	Occurrence & alarm count ↓ Power OFF and ON ↓ Alarm count and

Type	Display	How to reset	SC call or SC alarm in customer support system
			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 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

    ■■□□□□□□□□

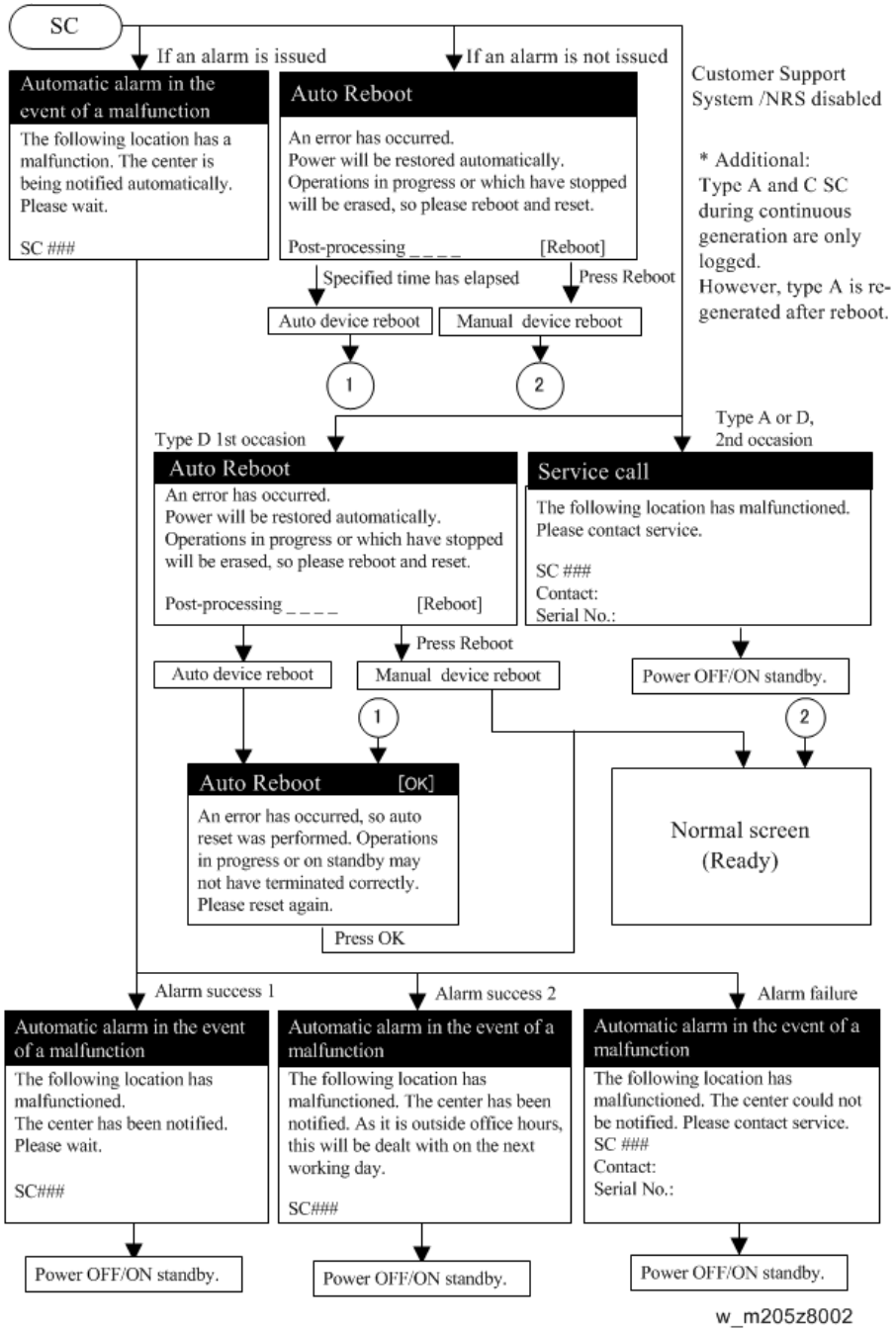
    Until automatic reboot

    □□□□□□□□□□

- Reset key (Reboot key)
  Key to perform reboot
  # Cancel key is not displayed.
- Turn on spanner LED (same as when an SC is generated).

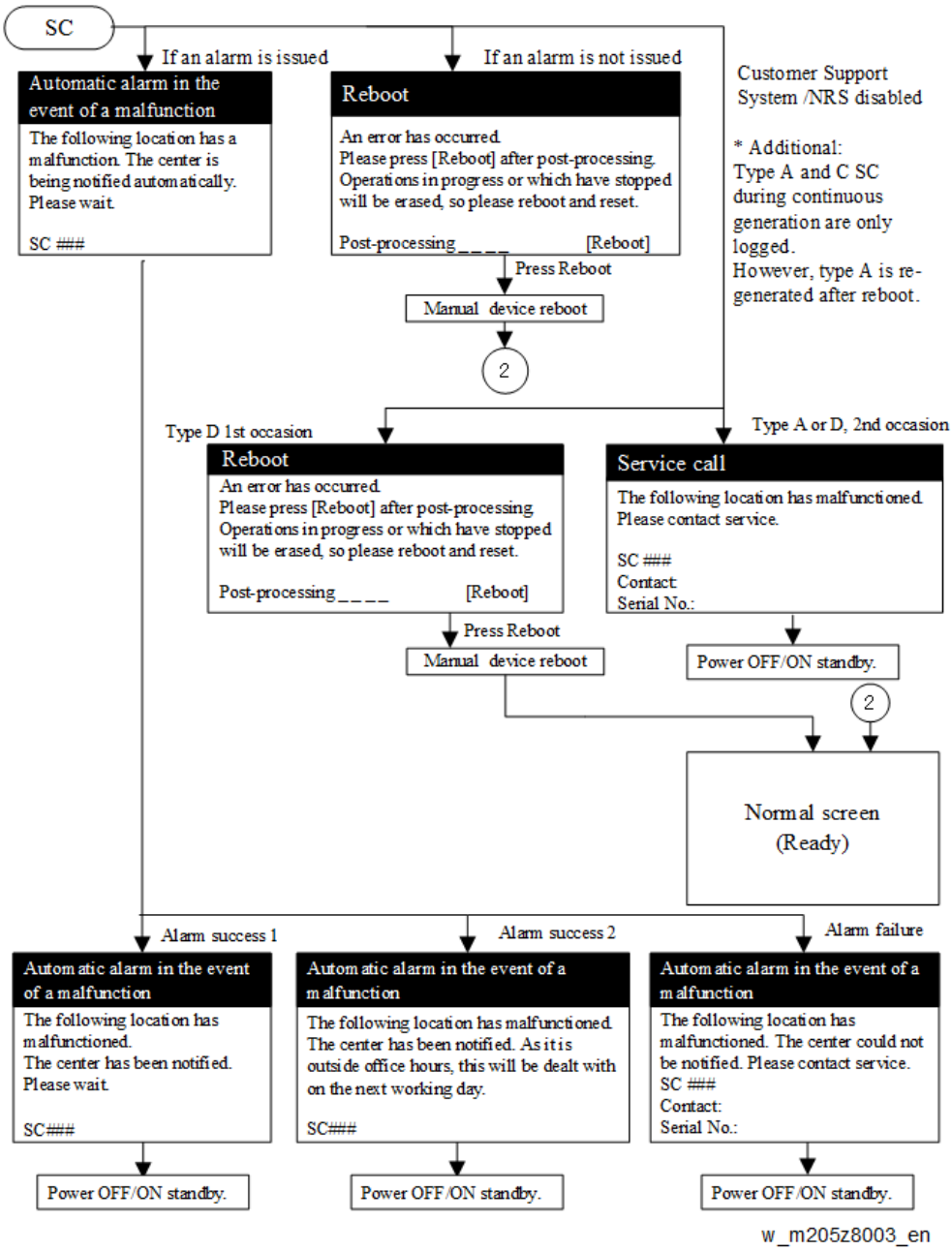
Operation during SC reboot

- 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.


SC
If an alarm is issued
If an alarm is not issued
Automatic alarm in the event of a malfunction
The following location has a malfunction. The center is being notified automatically. Please wait.
SC ###
Reboot
An error has occurred.
Please press [Reboot] after post-processing.
Operations in progress or which have stopped will be erased, so please reboot and reset.
Post-processing _ _ _ _ [Reboot]
Press Reboot
Manual device reboot
2
Customer Support System /NRS disabled
* Additional:
Type A and C SC during continuous generation are only logged.
However, type A is re-generated after reboot.
Type D 1st occasion
Type A or D, 2nd occasion
Reboot
An error has occurred.
Please press [Reboot] after post-processing.
Operations in progress or which have stopped will be erased, so please reboot and reset.
Post-processing _ _ _ _ [Reboot]
Service call
The following location has malfunctioned.
Please contact service.
SC ###
Contact:
Serial No.:
Press Reboot
Manual device reboot
Power OFF/ON standby.
2
Normal screen (Ready)
Alarm success 1
Alarm success 2
Alarm failure
Automatic alarm in the event of a malfunction
The following location has malfunctioned.
The center has been notified.
Please wait.
SC###
Automatic alarm in the event of a malfunction
The following location has malfunctioned.
The center has been notified. As it is outside office hours, this will be dealt with on the next working day.
SC###
Automatic alarm in the event of a malfunction
The following location has malfunctioned. The center could not be notified. Please contact service.
SC ###
Contact:
Serial No.:
Power OFF/ON standby.
Power OFF/ON standby.
Power OFF/ON standby.
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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 • Damaged harness (FFC) • Dirty or incorrect white plate
		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-BiCU harness (FFC) connector SBU-LEDB (scanner lamp board) harness (FFC) connector (SBU) 2. Check the white plate (Exposure glass). Clean or replace the white plate if damaged. 3. Replace the scanner carriage 4. Replace the BiCU. 5. Replace the harness (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.
		• Defective LED • LED driver error • Disconnected connectors or damaged harness (power/signal)
		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 connectors (power/signal). 2. Replace the scanner carriage 3. Replace the harness (power/signal).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC102-	D	LED intensity adjustment error

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
00		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 • Defective scanner carriage • Defective BiCU • 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-BiCU harness (FFC) connector SBU-LEDB (scanner lamp board) harness (FFC) connector (SBU) 2. Check the white plate (Exposure glass). Clean the white plate and/or replace the exposure glass. 3. Replace the scanner carriage. 4. Replace the BiCU. 5. Replace the harness (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 • Damaged harness • Dirty or incorrect white plate • Defective BiCU
		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. Clean or replace the ADF's white plate (rear side). 2. Reconnect the connectors (FFC) between the CIS and BiCU. 3. Replace the CIS. 4. Replace the harness (FFC). 5. Replace the BiCU.

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.

SC No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Loose connector • Defective CIS. • Damaged harness • Dirty or incorrect white plate • Defective BiCU
		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. Clean or replace the ADF's white plate (rear side). 2. Reconnect the connectors (FFC) between the CIS and BiCU. 3. Replace the CIS. 4. Replace the harness (FFC). 5. Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC120-00	D	Scanner home position (HP) error 1
		The scanner HP sensor 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 driver error • Defective motor • Defective HP 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. Replace the scanner HP sensor. 2. Replace the scanner motor. 3. Replace the harness.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC121-00	D	Scanner home position (HP) error 2
		The scanner HP sensor did not go ON : • During homing operation • During auto adjustment • During document, book scanning
		• Motor driver error

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Defective motor • Defective HP Sensor • 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. Replace the scanner HP sensor. 2. Replace the scanner motor. 3. 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 • 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 connector between the SBU and BiCU (FFC). 2. Replace the scanner carriage. 3. Replace the BiCU. 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.
		• Defective SBU • Defective LED • Defective BiCU • Loose connector • Damaged harness (FFC) • Defective scanner motor

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Dirty or incorrect mirror and/or lens • Dirty or incorrect white plate
		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-BiCU harness (FFC) connector SBU-LEDB (scanner lamp board) harness (FFC) connector (SBU) 2. Check the white plate (Exposure glass) Clean the white plate and/or replace the exposure glass. 3. Replace the scanner carriage. 4. Replace the BiCU. 5. Replace the harness (FFC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC144-00	D	SBU communication error
		The machine cannot detect that the SBU is connected.
		• Defective scanner carriage • Defective BiCU • 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 connector between the scanner carriage and BiCU (FFC). 2. Replace the scanner carriage. 3. Replace the BiCU. 4. Replace the harness (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 • Defective BiCU • 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 connectors between the CIS and BiCU (FFC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		2. Replace the CIS. 3. Replace the BiCU. 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 • Defective BiCU • Loose connector • Damaged harness (FFC) • Dirty or incorrect white 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. Clean or replace the white plate (rear side). 2. Reconnect the connectors between the CIS and BiCU (FFC). 3. Replace the CIS. 4. Replace the BiCU. 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 is connected. This SC is detected when: the main power is turned on and the machine returns from the energy saver mode.
		• Defective CIS • Defective BiCU • 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 connector between the CIS and BiCU (FFC). 2. Replace the CIS. 3. Replace the BiCU. 4. Replace the harness between the CIS and BiCU (power/signal).

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 • 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. Reconnect all the connectors on the BiCU board if disconnected, or loose. 2. Replace the BiCU.

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
		1. Check the double-feed sensor and harnesses. 2. Replace the harnesses for double-feed sensors. 3. Replace the double-feed sensors. 4. Replace the ADF relay board.

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 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: Bk, Cy
SC202-03	D	Polygon motor error 1: ON timeout: Ma, Ye
		Polygon mirror motor cannot rotate correctly. This SC is detected when the polygon mirror motor starts rotating, or its rotating speed is changed.
		• Polygon mirror motor failure • Motor driver error • Polygon mirror motor harness is defective, disconnected, or short-circuited • BiCU failure (Incorrect polygon motor control signal, damaged Laser ASIC) • Defective PSU or power supply part for polygon motor • Fuse blown out • Incorrect AC voltage
		1. Cycle the power OFF/ON. 2. Check the harness between LD unit and BiCU. 3. Check CN300 (a connector with five pins) for the polygon mirror motor from the PSU. There is no problem if your multimeter indicates 24±2V. 4. Replace the LD unit (Polygon mirror motor). 5. Replace the harness between the LD unit and BiCU. 6. Replace the BiCU. 7. Replace the fuse. 8. Replace the PSU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC203-01	D	Polygon motor error 0: OFF timeout: Bk, Cy
SC203-03	D	Polygon motor error 1: OFF timeout: Ma, Ye
		Polygon mirror motor cannot stop correctly. This SC is detected when the polygon mirror motor is deactivated.
		• Polygon mirror motor failure • Motor driver error • Polygon mirror motor harness is defective, disconnected, or short-circuited • BiCU failure (Incorrect polygon motor control signal, damaged Laser ASIC)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Defective PSU or power supply part for polygon motor • Fuse blown out • Incorrect AC voltage
		1. Cycle the power OFF/ON. 2. Check the harness between LD unit and BiCU. 3. Check CN300 (a connector with five pins) for the polygon mirror motor from the PSU. There is no problem if your multimeter indicates 24±2V. 4. Replace the LD unit (Polygon mirror motor). 5. Replace the harness between the LD unit and BiCU. 6. Replace the BiCU. 7. Replace the fuse. 8. Replace the PSU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC204-01	D	Polygon motor error 0: XSCRDY signal error: Bk, Cy
SC204-03	D	Polygon motor error 1: XSCRDY signal error: Ma, Ye
		Polygon mirror motor cannot rotate correctly. This SC is detected when the polygon mirror motor is deactivated.
		• Polygon mirror motor failure • Motor driver error • Polygon mirror motor harness is defective, disconnected, or short-circuited • BiCU failure (Incorrect polygon motor control signal, damaged Laser ASIC) • Defective PSU or power supply part for polygon motor • Fuse blown out
		1. Cycle the power OFF/ON. 2. Check the harness between LD unit and BiCU. 3. Check CN300 (a connector with five pins) for the polygon mirror motor from the PSU. There is no problem if your multi meter indicates 24±2V. 4. Replace the LD unit (Polygon mirror motor). 5. Replace the harness between the LD unit and BiCU. 6. Replace the BiCU. 7. Replace the fuse. 8. Replace the PSU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC220-01	D	Laser synchronizing detection error: start position LD1: Bk/C
SC220-03	D	Laser synchronizing detection error: start position LD1: M/Y
		Synchronizing detection signal cannot be received. This SC is detected when: • The machine starts up. • The machine is copying.
		• Defective LD 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. 4. Replace the LD unit. 5. Replace the BiCU. 6. Replace the harness between LDB and BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC230-01	D	FGATE ON error: Bk
SC230-02	D	FGATE ON error: Cy
SC230-03	D	FGATE ON error: Ma
SC230-04	D	FGATE ON error: Ye
		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 and Controller • BiCU failure (Damaged laser ASIC)
		1. Cycle the power off/on. 2. Check the connection between BiCU and Controller. 3. Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC231-01	D	FGATE OFF error: Bk
SC231-02	D	FGATE OFF error: Cy
SC231-03	D	FGATE OFF error: Ma
SC231-04	D	FGATE OFF error: Ye
		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 and Controller

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• BiCU failure (Damaged laser ASIC)
		1. Cycle the power off/on. 2. Check the connection between IPU and Controller. 3. Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC240-01	D	LD error: Bk
SC240-02	D	LD error: Cy
SC240-03	D	LD error: Ma
SC240-04	D	LD error: Ye
		• 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 (LD driver) failure • LDB harness failure
		1. Cycle the power off/on. 2. Check the harness between LDB and IPU. 3. Replace the LD unit. 4. Replace the harness between LDB and BiCU.

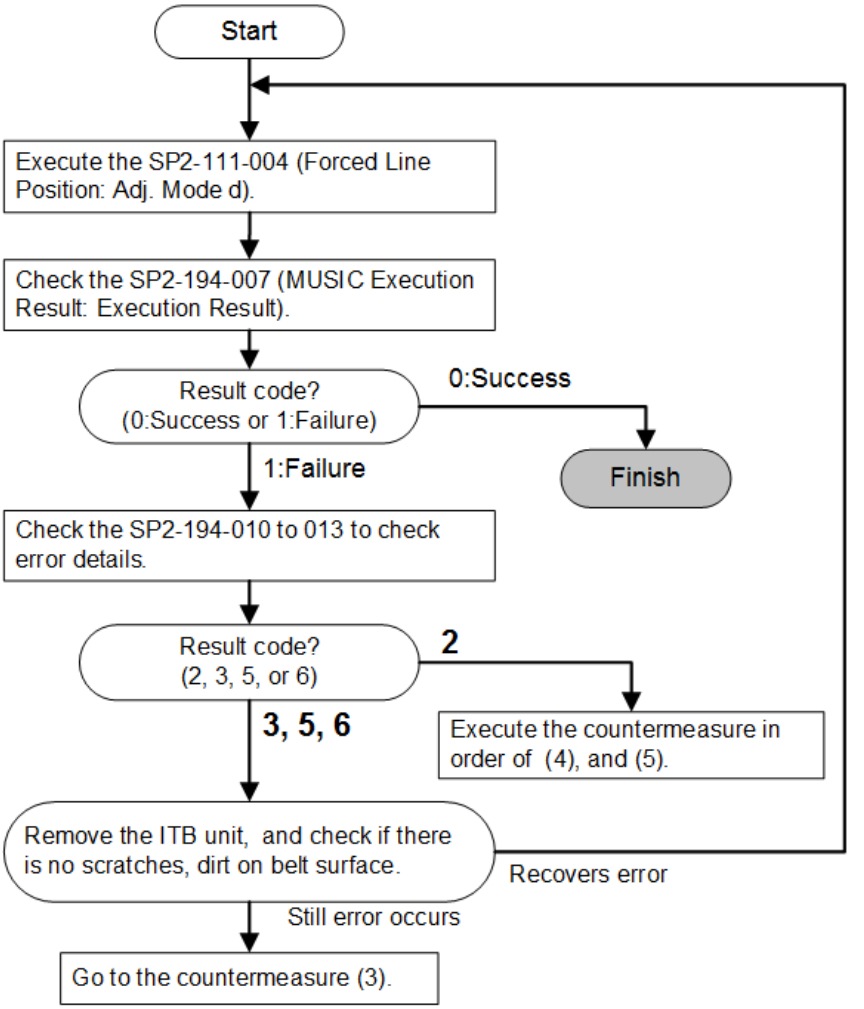
No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC272-01	D	LD driver communication error: Bk
SC272-02	D	LD driver communication error: Cy
SC272-03	D	LD driver communication error: Ma
SC272-04	D	LD driver communication error: Ye
		Power source for LD driver is incorrect. This SC is detected when: • The machine starts up. • The machine returns from energy saver mode. • Covers are closed.
		• BiCU failure (LD5V Power error) • LDB failure (LD drive error)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• LDB harness failure • Interlock switch failure
		1. Cycle the power off/on. 2. Check the harness between LDB and BiCU. 3. Replace the BiCU. 4. Replace the LD unit. 5. Replace the harness between LDB and BiCU. 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 sensor 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 Sensor.
2. Check the harness and connector for ID sensor.
3. Replace the ID sensor.
4. Replace the BiCU.

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 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.

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: Bk
SC312-02	D	Charge roller feed back voltage error: Cy
SC312-03	D	Charge roller feed back voltage error: Ma
SC312-04	D	Charge roller feed back voltage error: Ye
		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 power pack • Damaged/incorrect PCU • Power pack failure • Disconnected harness/connector
		Troubleshooting procedure: 1. **Check the drum condition:** Check the terminal to see if there is dust, damage, or deformation. Check the continuity as well. If not good, replace the PCDU. If the SC reoccurs, go to the next step. 2. **Check all the related connectors are firmly connected:** If not good, reconnect the connector. Check if the SC reoccurs by cycling the power off/on. If the SC reoccurs, go to the next step. 3. **Check the mainframe condition:** Check if there is dust on the terminal for charging, or any damage/deformation. Check the continuity between the power packs and charging terminal. If the SC reoccurs, go to the next step. 4. **Check the power pack:** Try installing a new power pack to determine whether the power pack is the cause. If the SC does not occur with the new one, the old power pack was defective. 5. **Replace the BiCU.**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC325-00	D	Development motor (CMY) error
		The motor LOCK signal is detected for more than 2 seconds while the motor START signal is ON.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• PCDU overload • Defective the motor
		• Replace the PCDU. • Replace the development motor (CMY).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC325-01	D	Development motor (CMY) error (When motor is deactivated)
		The motor LOCK signal is not detected for more than 2 seconds while the motor START signal is OFF.
		• Defective development motor (CMY) • Disconnected harness for the motor • Defective BiCU
		• Replace the development motor (CMY). • Replace the harness for the development motor (CMY). • Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC396-00	D	Drum motor (K) error
SC397-00	D	Drum motor (CMY) error
		The motor LOCK signal is detected for more than 2 seconds while the motor START signal is ON.
		• PCDU overload • Drum motor (K) failure (SC396) • Drum motor (CMY) failure (SC397)
		• Replace the PCDU. • Replace the drum motor (K) (SC396) • Replace the drum motor (CMY) (SC397)

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)
		The motor LOCK signal is not detected for more than 2 seconds while the motor START signal is OFF.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Drum motor (K) failure (SC396) • Drum motor (CMY) failure (SC397) • Disconnected harness for the drum motor • Defective BiCU • PCDU torque increased
		• Replace the drum motor (K) (SC396) • Replace the drum motor (CMY) (SC397) • Reconnect the connector for the drum motor. • Replace the harness for the drum motor. • Replace the BiCU. • Replace the PCDU.

Image Processing 2: Drum

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC360-01	D	TD sensor (Vt high) error 1: Bk
SC360-02	D	TD sensor (Vt high) error 1: Cy
SC360-03	D	TD sensor (Vt high) error 1: Ma
SC360-04	D	TD sensor (Vt high) error 1: Ye
		• 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: 1. **Check all the related connecters are connected.** If not good, reconnect the connectors. Check if the SC reoccurs by cycling the power off/on. If the SC reoccurs, go to next step. 2. **Check the development unit (e.g. Gear/harness disconnected? Heat protection seal removed? Using an old PCDU?).** If not good, replace the development unit. If the SC reoccurs, go to the next step. 3. **Check whether the TD sensor is deformed, scratched, damaged or has dust sticking to it.** If not good, replace the PCDU. If the SC reoccurs, go to the next step. 4. **Check the TD sensor harnesses, and the harness between the mainframe and**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		PCDU. If not good, replace the harness. If the SC reoccurs, go to the next step. 5. **Replace the BiCU.**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC361-01	D	TD sensor (Vt) upper limit error: Bk
SC361-02	D	TD sensor (Vt) upper limit error 1: Cy
SC361-03	D	TD sensor (Vt) upper limit error 1: Ma
SC361-04	D	TD sensor (Vt) upper limit error 1: Ye
		The machine detects that Vt (TD sensor output, SP3-210-001) is higher than the upper limit threshold for the specified consecutive times.
		• TD sensor 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: 1. **Check all the connectors are firmly connected.** If not, reconnect the connectors. Check if the SC reoccurs by cycling the power off/on. If the SC reoccurs, go to the next step. 2. **Check the development unit (e.g. Gear/harness disconnected? Heat protection seal removed? Using an old PCDU?).** If not good, replace the PCDU. If the SC reoccurs, go to the next step. 3. **Check the TD sensor.** If not good, replace the TD sensor. If the SC reoccurs, go to the next step. 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 not good, replace the PCDU and initialize the developer. This corrects the TD sensor settings. 5. **Check the toner supply unit, especially if the image density is too low.** If the toner bottle is empty, the toner supply route is clogged, and/or the toner supply

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		motor operates incorrectly, then correct the problem. If the SC reoccurs, go to the next step. 6. **Check the harness connection.** If not good, replace the harness between BiCU and PCDU. 7. **Replace the BiCU.**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC362-01	D	TD sensor (Vt) lower limit error: Bk
SC362-02	D	TD sensor (Vt) lower limit error 1: Cy
SC362-03	D	TD sensor (Vt) lower limit error 1: Ma
SC362-04	D	TD sensor (Vt) lower limit error 1: Ye
		The value of Vt (SP3-210-003) is lower than the threshold for times specified.
		• TD sensor connector is disconnected.
		• Check the connection of the TD sensor connector. • Check if the TD sensor harness is connected firmly. • Replace the TD sensor if any abnormality is found.

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 sensor • Defective image transfer belt
		To check if the issue is resolved: • Do Vsg adjustment (SP3-320). • Check the result in SP3-323-001. Correct: The result is “1” Incorrect: The result is not “1”
		Troubleshooting procedure: 1. **Check all the connectors are firmly connected.** If not, reconnect the connectors. Check if the SC reoccurs by cycling the power off/on. If the SC reoccurs, go to the next step.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		2. **Clean the detecting part of the ID sensor** Note • Do not wipe with a dry cloth. If the SC reoccurs, go to the next step. 3. **Check the ID sensor shutter.** If the shutter does not move correctly, replace the shutter solenoid. If the SC reoccurs, go to the next step. 4. **Replace the drum and/or ITB if the following is found:** Scratches, toner filming, wavy belt, or insufficient cleaning 5. **Replace the ID sensor.** If the SC reoccurs, go to the next step. 6. **Check and connect the related harness if it is disconnected.** 7. **Replace the BiCU.**

SC4xx: Image Processing

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC442-00	D	Image transfer belt contact motor error
		ITB contact HP sensor cannot detect the sensor feeler condition within a specified time even when the ITB contact motor rotates. • Contact/Release: 5 sec. • Homing: 10 sec. • Sampling interval: 0.01 sec.
		• Broken harness or defective connectors • Disconnected connector of ITB contact sensor or motor • Defective ITB contact motor • Image transfer belt unit not installed
		1. Set the ITB unit firmly. 2. Replace the ITB unit. 3. Clean the ITB contact HP sensor. 4. Check the harnesses. 5. Replace the ITB contact HP sensor. 6. Replace the ITB contact motor.

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) • Power pack (Development/Transfer) 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 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 power pack (charge/development) and cycle the main power off/on. If the SC occurs again, go to the next step. 6. Remove and install the power pack (charge/development) again and cycle the main power off/on. Check if the spring near the power pack 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 power pack (charge/development) and cycle the main power off/on to check if the SC occurs again. 8. Replace the BiCU and cycle the main power off/on to check if the SC occurs again. 9. Make sure that the harnesses on the power pack (charge/development) 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) • Power pack (Transfer) failure **Load related causes:** • Increased impedance in the paper transfer roller • Increased impedance in the ITB • Open-circuit • Transfer unit not installed firmly

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• This is a logging SC (No action required).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC497-00	C	Image creation 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 Image creation temperature sensor
		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 image creation temperature sensor, 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
		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, 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 lift motor malfunction
		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 connector • Loose, disconnected or damaged tray lift sensor connector • An obstruction such as jammed paper scraps blocks the motor operation
		1. Replace the transport motor. 2. Reconnect the connector. 3. Replace the harness. 4. Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC502-00	B	2nd paper tray lift motor malfunction (optional paper feed unit)
SC503-00	B	3rd paper tray lift motor malfunction (optional paper feed unit)
		When the tray is lifted up, the tray lift motor error, or sensor error is detected.
		• PFU tray lift motor disconnection or loose harness • PFU tray lift sensor disconnection or loose harness • PFU Tray bottom plate HP sensor 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. 2. Reconnect the connector of the PFU tray lift sensor. 3. Replace the lift lever encoder, gear encoder for tray lift unit (‘rising unit’ in the parts catalog), and the tension spring for paper feed. 4. Replace the PFU tray lift motor. 5. Replace the harness. 6. Replace the board in the tray.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC508-00	B	Bypass bottom plate error
		The signal from the bypass lift sensor does not change for two seconds after the bypass lift clutch was activated.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		If this condition occurs three consecutive times, this SC is generated.
		• Disconnected or defective connectors of the bypass lift clutch • Disconnected or defective bypass lift sensor • Defective bypass bottom plate detection filler
		1. Check or replace the connectors of the bypass lift clutch. 2. Check or replace the bypass lift sensor.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC524-00	D	Transport motor error
		The motor LOCK signal is detected for more than 2 seconds while the motor is ON.
		• Paper transport unit overload • Defective transport motor
		1. Replace the paper transport unit. 2. Replace the transport motor.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC524-01	D	Transport motor error (While the motor is OFF)
		The motor LOCK signal is not detected for more than 2 seconds while the motor is OFF.
		• Defective transport motor • Disconnected harness for the motor • Defective BiCU
		1. Replace the transport motor. 2. Replace the harness for transport motor. 3. Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC525-00	B	Transport motor error: bank 1
		The motor LOCK signal from a bank 1 is detected while the motor is ON.
SC526-00	B	Transport motor error: bank 2
		The motor LOCK signal from a bank 1 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.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		3. Replace the transport motor.

Fusing

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC530-00	D	Fusing heater exhaust fan motor error
SC531-00	D	Development cooling fan motor error
SC532-00	D	Writing cooling fan motor error
SC533-00	D	PSU fan motor error
		The motor LOCK signal is detected 50 consecutive times (for 5 seconds) while the motor is ON.
		• Defective fan motor • Disconnected harness • Defective BiCU
		1. Replace the fan motor. 2. Replace the harness. 3. Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC530-01	D	Fusing heater exhaust fan motor error (While the motor is OFF)
SC531-01	D	Development cooling fan motor error (While the motor is OFF)
SC532-01	D	Writing cooling fan motor error (While the motor is OFF)
SC533-01	D	PSU fan motor error (While the motor is OFF)
		The motor LOCK signal is not detected 140 consecutive times (for 14 seconds) while the motor is OFF.
		• Defective fan motor • Disconnected or defective harness • Defective BiCU
		1. Replace the fan motor. 2. Check or replace the harness. 3. Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC540-00	D	Fusing motor error
		The motor LOCK signal is detected for 2 seconds while the motor is ON.
		• Defective motor • Disconnected or defective harness • Defective BiCU • Fusing unit torque increased
		1. Replace the fusing motor. 2. Check or replace the harness. 3. Replace the BiCU. 4. Replace the fusing unit.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC540-01	D	Fusing motor error (While the motor is OFF)
		The motor LOCK signal is not detected for 2 seconds while the motor is OFF.
		• Defective motor • Defective harness • Defective BiCU
		1. Replace the fusing motor. 2. Replace the harness. 3. Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC541-01	A	Fusing thermopile error
SC541-11	D	Fusing thermopile error (Low power)
		The machine detects the value of AD is the prescribed value for 0.2 consecutive seconds after the fusing lamp is activated.
		• Broken thermopile • Connector contact failure
		1. Reconnect the connector between the fusing unit and the BiCU. 2. Replace the fusing thermopile 3. Replace the harness between the fusing unit and the BiCU. 4. Replace the BiCU. 5. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC542-02	A	Fusing thermopile reload error
		Fusing temperature failed to reach a temperature of 80 degrees C after passing seven seconds when: • The machine starts warming up. • The machine returns from energy saver mode. • The fusing lamp is activated.
SC542-03	A	Fusing thermopile reload error
		Fusing temperature failed to reach the reload permit temperature after passing eight seconds when: • The machine starts warming up. • The machine returns from energy saver mode. • The fusing lamp is activated.
		• Dirty or deformed thermopile lenses • Input voltage out of specification (out of warranty) • Fuse blown out
		1. Check the power supply voltage (Reconnect the power cord). 2. Check and clean the thermopile lenses or replace the fusing thermopile. 3. Replace the fusing unit. 4. Replace the BiCU. 5. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC542-12	D	Fusing thermopile cannot reload (low power)
		Fusing temperature failed to reach a temperature of 80 degrees C after passing seven seconds when: • The machine starts warming up. • The machine returns from energy saver mode. • The fusing lamp is activated.
SC542-13	D	Fusing thermopile cannot reload (low power)
		Fusing temperature failed to reach the reload permit temperature after passing eight seconds when: • The machine starts warming up. • The machine returns from energy saver mode. • The fusing lamp is activated.
		• Dirty or defective thermopile lenses • Thermopile modification/float • Input voltage out of specification (out of warranty)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Thermostat blown out.
		1. Check the power supply voltage (Reconnect the power cord). 2. Check and clean the thermopile lenses or replace the fusing thermopile. 3. Replace the fusing unit. 4. Replace the BiCU. 5. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC543-00	A	Fusing thermopile 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
		1. Reconnect the connector between the fusing unit and BiCU. 2. Replace the fusing thermopile. 3. Replace the harness between the fusing unit and BiCU. 4. Replace the BiCU. 5. Replace the PSU (AC). 6. Replace the fusing unit (if the problem cannot be resolved).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC544-00	A	Fusing thermopile overheat (hardware error)
		Fusing thermopile detects a temperature of 250 degrees C.
		• Triac short • Defective BiCU • Defective fusing control system
		Basically, the entire fusing unit must be replaced when SC554-00 occurs. For details, refer to "Actions When SC544-00 or SC554-00 Occurs." **Do the following steps:** 1. Inspect the fusing sleeve belt unit, and replace if damaged. 2. Reconnect the connector between the fusing unit and BiCU. 3. Replace the fusing thermopile. 4. Replace the harness between the fusing unit and BiCU. 5. Replace the BiCU. 6. Replace the PSU (AC).

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)
		Fusing lamp runs at full power for consecutive four seconds after reloading the machine
		• Defective thermistor • Broken fusing lamp • Thermostat blown out.
		1. Check there is paper remaining in the fusing unit. 2. Check the power supply voltage (Reconnect the power cord). 3. Replace the fusing lamp. 4. Replace the fusing thermopile. 5. Replace the BiCU. 6. Replace the PSU (AC)

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. This SC is detected when: • The main power is turned on. • The machine returns from the engine-off mode. • The interlock switch is deactivated.
		• Damaged fusing relay • Fusing relay drive circuit failure
		1. Make sure that the harness between the PSC (AC) and BiCU is firmly connected. 2. Replace the PSU (AC). 3. Replace the BiCU.
SC547-02	D	Zero cross error: fusing lamp relay contact defective
		Zero cross signal cannot be detected if the fusing relay is activated. This SC is detected when: • The main power is turned on. • The machine returns from the engine-off mode. • The interlock switch is turned off or on.
		• Broken fusing relay (open circuit) • Fusing relay circuit failure • PSU fuse (24VS) worn out
		1. Make sure that the harness between the PSU (AC) and BiCU is firmly connected. 2. Replace the PSU (AC). 3. Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		4. Replace the harness between the PSU (AC) and BiCU.
SC547-03	D	Zero cross error: low frequencies error
		The frequency of the power source is lower than 44Hz. This SC is detected when the main power is ON.
		• 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).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC549-00	D	Fusing Center Low Temperature
		After passing 60 seconds when FGATE is ON, thermopile 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 input voltage and reconnect the power cord. 2. Replace the fusing lamp. 3. Replace the fusing thermopile 4. Replace the BiCU. 5. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC554-00	A	Fusing thermistor (NC sensor) detects high temperature (Hard)
		Fusing thermistor (NC sensor) detects a temperature of 250 degrees C..
		• Shorted triac • Defective BiCU • Defective fusing control system
		Basically, the entire fusing unit must be replaced when SC554-00 occurs. For details, refer to "Actions When SC544-00 or SC554-00 Occurs." **Do the following steps:** 1. Inspect the fusing sleeve belt unit, and replace if damaged. 2. Reconnect the connector between the fusing unit and the BiCU. 3. Replace the fusing thermistor. 4. Replace the harness between the fusing unit and the BiCU. 5. Replace the BiCU. 6. Replace the PSU (AC).

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) • Defective PSU
		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 (the fusing exit sensor does not detect the paper).
		• 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. 5. Replace the gear (mainframe), if damaged.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC561-01	A	Pressure roller thermistor (center) disconnection
SC561-11	A	Pressure roller thermistor (center) disconnection (low power)
		Pressure roller thermistor (center) detects a temperature of -20 degrees C for 20 consecutive seconds after the fusing lamp is activated when the machine starts, or during feeding paper or in low power.
		• Thermistor disconnection • Loose connector
		1. Reconnect the connectors between the fusing drawer connector, the BiCU, and the pressure roller thermistor. 2. Replace the thermistor. 3. Replace the fusing unit. 4. Replace the harnesses between the BiCU and the fusing unit. 5. Replace the BiCU. 6. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC562-02	A	Pressure roller thermistor (center) cannot be reloaded
SC562-12	A	Pressure roller thermistor (center) cannot be reloaded (low power)
		Pressure roller thermistor (center) detects that the temperature does not reach a temperature of 40 degrees C for 25 consecutive seconds when the main power is turned on.
		• Dirty or deformed thermistor • Input voltage out of specification (out of warranty) • Thermostat blown out
		1. Check the input voltage and reconnect the power cord. 2. Replace the fusing thermostat. 3. Replace the fusing lamp. 4. Replace the thermistor. 5. Replace the BiCU. 6. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC563-00	A	Pressure roller overheat (software error): Center
		Pressure roller thermistor (center) detects a temperature of 248 degrees C 10 times after the fusing relay is ON.
		• Shorted triac • Defective BiCU
		1. Reconnect the connectors between the fusing drawer connector, BiCU, and the pressure roller thermistor. 2. Replace the thermistor. 3. Replace the harnesses between the BiCU and pressure roller thermistor. 4. Replace the BiCU. 5. 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 overheat (hardware error): Center
		Pressure roller thermistor (center) detects a temperature of 248 degrees C.
		• Shorted triac • Defective BiCU • Defective fusing control system
		1. Reconnect the connectors between the fusing drawer connector, BiCU, and the pressure roller thermistor.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		2. Replace the thermistor. 3. Replace the harnesses between the BiCU and pressure roller thermistor. 4. Replace the BiCU. 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 (rear) disconnection
SC571-11	A	Pressure roller thermistor (rear) disconnection (low power)
		Pressure roller thermistor (rear) detects a temperature of -20 degrees C or less for 20 consecutive seconds after the fusing lamp is activated in a specified condition.
		• Thermistor disconnection • Loose connector
		1. Check the input voltage and reconnect the power cord. 2. Reconnect the connectors between the fusing drawer connector, the BiCU, and the pressure roller thermistor. 3. Replace the thermistor. 4. Replace the fusing unit. 5. Replace the harnesses between the BiCU and the fusing unit. 6. Replace the BiCU. 7. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC572-02	A	Pressure roller thermistor (rear) cannot be reloaded
SC572-12	D	Pressure roller thermistor (rear) cannot be reloaded (low power)
		Fusing temperature failed to reach a temperature of 50 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 thermistor • Input voltage out of specification (out of warranty) • Thermostat blown out
		1. Check the input voltage and reconnect the power cord. 2. Replace the fusing thermostat. 3. Replace the fusing lamp. 4. Replace the thermistor.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		5. Replace the BiCU. 6. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC573-00	A	Pressure roller overheat (rear) (software error)
		Pressure roller thermistor (rear) detects a temperature of 248 degrees C for 10 consecutive times in a specific machine condition.
		• Shorted triac • Defective BiCU
		1. Reconnect the connectors between the fusing drawer connector, the BiCU, and the pressure roller thermistor. 2. Replace the thermistor. 3. Replace the harnesses between the BiCU and the pressure roller thermistor. 4. Replace the BiCU. • 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 (rear) overheat (hardware error)
		Pressure roller thermistor (rear) detects a temperature of 248 degrees C.
		• Shorted triac • Defective BiCU • Defective fusing control system
		1. Reconnect the connectors between the fusing drawer connector, the BiCU, and the pressure roller thermistor. 2. Replace the thermistor. 3. Replace the harnesses between the BiCU and the pressure roller thermistor. 4. Replace the BiCU. • Replace the fusing unit if all the above steps cannot resolve the issue.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC581-01	A	Fusing thermistor disconnection
SC581-02	A	Shorted fusing thermistor
SC581-11	D	Fusing thermistor disconnection (low power)
SC581-	D	Shorted fusing thermistor (low power)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
12		
		The machine detects the value of AD is the prescribed value for 0.2 consecutive seconds after the fusing lamp is activated
		• Thermopile disconnection (SC581-01) • Shorted fusing thermistor (SC581-02) • Loose connector
		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. 3. Replace the fusing thermistor. 4. Replace the fusing unit. 5. Replace the harnesses between the BiCU and the fusing drawer connector. 6. Replace the BiCU. 7. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC591-01	A	Pressure roller thermistor (front) disconnection
SC591-11	D	Pressure roller thermistor (front) disconnection (low power)
		Pressure roller thermistor (front) detects a temperature of -20 degrees C or less for 20 consecutive seconds when the fusing lamp is activated.
		• Thermistor disconnection • Loose connector
		1. Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU. 2. Replace the thermistor. 3. Replace the fusing unit. 4. Replace the harnesses between the BiCU and the fusing drawer connector. 5. Replace the BiCU. 6. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC592-02	A	Pressure roller thermistor (front) cannot be reloaded
SC592-12	D	Pressure roller thermistor (front) cannot be reloaded (low power)
		The machine temperature does not reach a temperature of 50 degrees C when 100 seconds passes after starting a job where the paper width is wider than 206 mm AND is equal or

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		smaller than 216 mm.
		• Dirty or deformed thermistor • Input voltage out of specification (out of warranty) • Thermostat blown out
		1. Check the input voltage and replace the power plug. 2. Replace the fusing thermostat 3. Replace the fusing lamp. 4. Replace the thermistor. 5. Replace the BiCU. 6. Replace the PSU (AC).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC593-00	A	Pressure roller thermistor (front) high temperature (software error)
		Pressure roller thermistor (front) detects a temperature of 248 degrees C for consecutive 10 times when the fusing lamp is activated.
		• Shorted triac • Defective BiCU
		1. Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU. 2. Replace the thermistor. 3. Replace the harnesses between the BiCU and the fusing drawer connector. 4. Replace the BiCU. 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 (front) high temperature (hardware error)
		Pressure roller thermistor (front) detects a temperature of 248 degrees C.
		• Shorted triac • Defective BiCU • Defective fusing control system
		1. Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU. 2. Replace the thermistor. 3. Replace the harnesses between the BiCU and the fusing drawer connector. 4. Replace the BiCU. Replace the fusing unit if all the above steps cannot resolve the issue.

SC6xx: Communication

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC622-00	D	1st paper tray communication error
		While the BiCU communicates with an optional unit, an SC code is displayed if one of following conditions occurs. • The BiCU receives the break signal which is generated by the peripherals only just after the main power is turned on. • When the BiCU does not receive an OK signal from a PFU 100ms after sending a command to it.
		• Defective the PFU controller board • Defective the BiCU • Loose or disconnected connector
		• Replace the PFU controller board (1st paper tray). • Replace the BiCU. • Set the 1st paper tray again.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC623-00	D	2nd paper tray communication error
		This SC is not issued for this machine. When a communication error signal between the 1st paper tray and 2nd paper tray is received.
		• Loose or disconnected connector • Defective PFU controller board
		• Replace the PFU controller board (2nd paper tray). • Replace the PFU controller board (1st paper tray). • Set the 1st and 2nd paper tray again.

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

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Cycle the main power off and on.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC637-02	D	Tracking Information notification error (Management server error)
		Tracking information was lost.
		Communication with tracking management server failed. • Network error • tracking management server error • Tracking SDK application error
		Cycle the main power 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 soft error • BiCU soft error • BiCU and controller board connection error
		• Cycle the main power off and on. • Check the connection between the BiCU and the controller board.

SC645-01-04

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)
		• 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).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• 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. • 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, and NVRAM.
		• Used controller board installed • Used NVRAM installed (such 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)
SC653-00	A	Incorrect remote service ID2
		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	ASIC – SRAM Communication error
		• When the machine starts or returns from the energy saver mode, a connection error signal between ASIC and SRAM device is detected.
		• Defective BiCU
		• Cycle the main power off/on. • Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC665-05	D	BiCU control signal connection error
SC665-07	D	BiCU control signal connection error

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC665-08	D	BiCU control signal connection error
		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. SC665-11 through -031: When the machine starts or returns from the energy saver mode, a connection error between CPU and ASIC is detected.
		1. Incorrect FFC connection 2. Damaged FFC (disconnection or dust) 3. BiCU failure (Deteriorated board, sticking dust, or damaged parts)
		• Cycle the main power off/on. • Replace the BiCU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC667-01	D	Master device mode setting error
		When the machine starts or returns from the energy saver mode, a CPU mode setting error is detected.
		• BiCU failure
		• Cycle the power off/on. • Replace the BiCU.
SC667-10	D	Srave device 1 mode setting error
		When the machine starts or returns from the energy saver mode, an error in the slave device 1 is detected.
		• BiCU failure
		• Cycle the power off/on. • Replace the BiCU.
SC667-40	D	ASIC operation mode setting error
		-
		• BiCU failure
		• Cycle the power off/on. • Replace the BiCU.

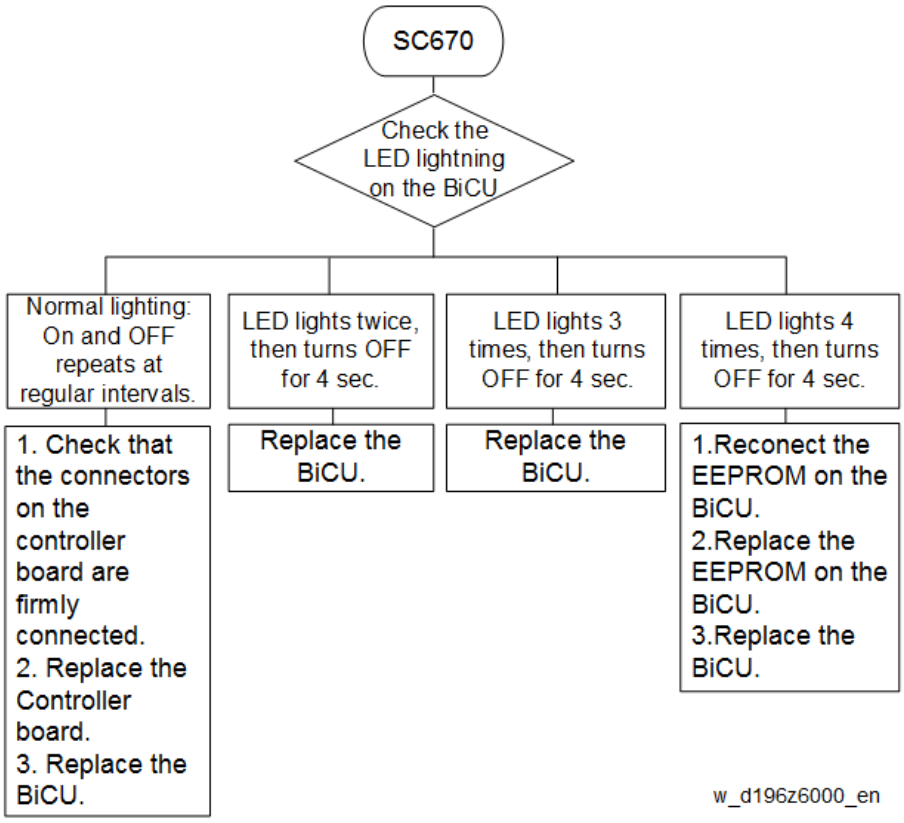
No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC669-00	D	EEPROM error
		The TD sensor cannot be recovered after retrying three times for EEPROM communication error.
		• Corrupted data due to noise

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Incorrect EEPROM installation • Defective EEPROM • Defective BiCU
		1. Cycle the main power off/on. 2. Turn the main power off and re-insert the EEPROM, then turn the main power on. 3. Turn the main power off and replace the EEPROM, then turn the main power on. 4. Turn the main power off and replace the BiCU, then turn the main power on.

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).
		• Engine board does not start up.
		Check the connection between the engine board and the controller board. • If it is always reproduced, replace the engine board. If the problem persists, consider replacing the controller board or other boards between them. • If reproducibility is low, multiple causes are to be considered, such as software, engine board, controller board, and PSU.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC670-02	D	Engine is down when machine starts up (SC reboot can not be performed) (* See “When SC670 Is Displayed” below)
		Machine-down was detected after the /ENGRDY signal was not asserted.
		The engine board was reset at an unexpected time
		Check the connection between the engine board and the controller board. • If it is always reproduced, replace the engine board. If the problem persists, consider replacing the controller board or other boards between them. • If reproducibility is low, multiple causes are to be considered, such as software, engine board, controller board, and PSU.

When SC670 is Displayed



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
		• Cycle the main power off and on. • Check the connection of the controller board. • Replace the controller board. • Check the control panel harness.

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

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		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
		• Cycle the main power off and on. • Check the connection of the controller board. • Replace the controller board. • Check the control panel harness. • Make sure that the DIP switch numbers 3 and 7 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
		• Cycle the main power off and on. • Check the connection of the controller board. • Replace the controller board. • Check the control panel harness.

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 SC672-10, SC672-11, and SC672-12.
		• Controller stalled • Board installed incorrectly • Controller board defective • Operation panel connector loose, broken or defective • Controller late
		• Cycle the main power off and on.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Check the connection of the controller board. • Replace the controller board. • Check the control panel harness.

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
		• Cycle the main power 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. • 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)
		• Cycle the main power 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 • No ID chip • 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

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		3 or 8, then do the above steps for C 4 or 9, then do the above steps for Y
		• Clean the ID chip. • Check the toner bottle detection board, and replace if damaged. • Reconnect the connectors between the BiCU and toner bottle detection board. • Set the toner bottle again. • Replace the harness between the BiCU and toner bottle detection board. • Replace the BiCU.

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 sensor cannot be recovered after retrying three times for an ID chip communication error.
		• Corrupted ID data • Disconnected ID chip • No ID chip • Noise
		1. Remove the PCU and check the connector condition. 2. Re-insert the harness (BiCU side) between the BiCU and the TD sensor. 3. Replace the PCDU (if the TD sensor works incorrectly) 4. Replace the harness between the BiCU and the TD sensor. 5. Replace the BiCU. 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:**

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		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

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 • Inside of the controller defective
		Cycle the main power off/on.

SC7xx: Peripherals

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC790-00	D	Too many paper tray units
		An attachment identification code is other than “01H” or ”02H”.
		• Number of paper tray units is more than the machine specification.
		1. Reduce the number of paper tray units within the machine specification.

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	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 after each step. 1. Update the "System/Copy" firmware and the other system firmware to the latest

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		version. 2. Disable the STR shift function with SP5-191-001 (Power Str Set). 3. Replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC817-00	B	Monitor error: File detection / Digital signature error
		• Bootloader cannot read any of diagnostic module, kernel, or root filesystem. • In a bootloader SD card, the digital signature checking for any of diagnostic module, kernel, or root filesystem is failed.
		• Any of the following items does not exist or is broken OS Flash ROM, Diagnostic module in SD card, Kernel, Root filesystem • Any of the following items is revised fraudulently: Diagnostic module in SD card, Kernel, Root filesystem
		• ROM update for controller system • Use another booting SD card having a valid digital signature

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
		• Cycle the main power off and on. • Replace the controller board.

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

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		device defective) • ASIC defective • Data other than code data was unzipped due to a software malfunction.
		• Cycle the main power off and on. • Replace the HDD. • Replace the memory • Replace the controller board. • Fix the software
	[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.
		Replace the HDD. This SC may occur when turning on the machine for the first time with a new HDD. In this case, turn the main power off/on.
	[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”
		Cycle the main power off and on.
	[0x766d]	VM full error
		Occurs when too much RAM is used during system processing
		"vm_pageout: VM is full"
		Cycle the main power off and on.
	Console string	Other error (characters on operation panel)
		System detected internal mismatch error
		• Software defective • Insufficient memory • Hardware driver defective (RAM, flash memory)
		• Replace with a larger capacity RAM, or flash memory. • Replace the controller board.

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

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	[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
	[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 • 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
		• Cycle the main power off and on. • Reinstall the controller system software. • Replace the controller board • 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
		Replace the controller board

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	C	Self-diagnostics error: CPU [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
		Replace the controller board.

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
		Replace the controller board

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC820-00	C	Self-diagnostics error: CPU [XXXX]: Detailed error code
	[0612]	ASIC interrupt error

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Interrupt occurs in an ASIC.
		• ASIC device error • Peripherals device error
		• Replace the controller board • 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
		Replace the controller board.

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.
		-
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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 • 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

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	[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
		-
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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 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 • 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

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Error occurred during TLB checking.
		CPU device error
		Replace the controller board

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
		Replace the controller board

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
		Replace the controller board.
	[0B06]	ASIC detection error
		Error in the I/O ASIC for system control detection
		• Defective ASIC • Defective North Bridge and PCII/F
		Replace the controller board.
	[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
		Replace the controller board.
	[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

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		ASIC.
		Replace the controller board
	[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
		Replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC822-00	D	Self-diagnostic error: HDD [xxxx]: Detailed error code
	[3003]	HDD timeout
		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 6sec.
		• HDD defective • HDD harness disconnected, defective • Controller board defective
		• Replace the HDD. • Replace the HDD connector. • Replace the controller board.
	[3004]	Diagnostic command error
		No response to the self-diagnostic command from the ASIC to the HDD.
		HDD defective
		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
		• Replace or remove the HDD device. • Replace the HDD connector • Replace the controller board
	[3014]	Diagnostics command error (First machine)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Result of the issuance of diagnostic command is error.
		Defective HDD device
		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)
		Replace the controller board.
	[6104]	PHY IC error
		The PHY IC on the controller cannot be correctly recognized.
		• Defective PHY chip • Defective ASIC MII I/F
		Replace the controller board.
	[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
		Replace the controller board.

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
		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. *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).
		Replace the controller board.
	[0202]	Resident memory structure error
		The SPD values in all RAM DIMM are incorrect or unreadable.
		• Defective RAM DIMM • Defective SPD ROM on RAM DIMM • Defective 12C bus
		Replace the controller board.

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
		Replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC829-00	D	Self-diagnostic error: Optional RAM [XXXX]: Detailed error code
	[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).
		• Defective memory device (on the controller board).
		Replace the controller board.
	[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.
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No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
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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
		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
		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
		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 [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
		Replace the controller board.
	[110C]	DMA verify error

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		The loopback connector is connected but check results is an error.
		• ASIC device error • IEEE1284 connector error • Centronic loopback connector is defective
		Replace the controller board.
	[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
		• Connect the centronic loopback connector • Replace the centronic loopback connector • Replace the controller board.

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
		Replace the controller board.

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.
		Defective controller board
		Replace the controller board.

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.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• 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)
SC842-01	D	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
		Replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC842-02	D	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.
		Number of blocks deleted exceeded threshold for Nand-Flash
		Replace the controller board.

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
SC845-03	D	Operation Panel (Normal)
SC845-04	D	Operation Panel (Smart Panel)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
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
		Replace the target board For SC852-02, HDD and memory may cause the problem. Replace the HDD or memory if the SC cannot be recovered by replacing the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC853-00	B	Bluetooth device connection error
		The Bluetooth hardware (USB type) was connected after the machine was turned on.
		The Bluetooth hardware (USB type) was connected after the machine was turned on.
		Always connect the Bluetooth device (USB type) before the machine is turned on.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC854-00	B	Bluetooth device disconnected
		The Bluetooth hardware (USB type) was disconnected after the machine was turned on.
		The Bluetooth hardware (USB type) was disconnected after the machine was turned on.
		Never remove the Bluetooth device (USB type) after the machine starts

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
		• Cycle the main power off and on. • 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
		• Cycle the main power off and on. • 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.)
		• Check the USB connection. • Replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC858-00	A	Data encryption conversion error (Key Setting Error)
		A serious error occurred during an attempt to update the encryption key.
		• USB Flash, other data, corrupted • Communication error caused by electrostatic noise • Controller board defective
		Replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC858-01	A	Data encryption conversion error (HDD Key Setting Error)
		A serious error occurred during an attempt to update the encryption key.
		• USB Flash, other data, corrupted • Communication error caused by electrostatic noise • Controller board defective
		• Cycle the main power off and on • If the error persists, replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC858-02	A	Data encryption conversion error (NVRAM Read/Write Error)
		A serious error occurred after data conversion during an attempt to update the encryption key.
		NVRAM defective
		• Replace the NVRAM. • Replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC858-30	A	Data encryption conversion error (NVRAM Before Replace Error)
		A serious error occurred after data conversion during an attempt to update the encryption key.
		Software error such as conversion parameters being invalid.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Cycle the main power off and on. • If the error persists, replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC858-31	A	Data encryption conversion error (Other Error)
		A serious error occurred after data conversion during an attempt to update the encryption key.
		Controller board defective
		Replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC859-00	B	Data encryption conversion HDD conversion 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.
		• 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.
		• Check the HDD connection. • Format the HDD (SP5-832: HDD formatting). • If there is a problem with the HDD, it has to be replaced.

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.
		• 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.
		• Check the HDD connection. • Format the HDD (SP5-832: HDD formatting). • 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.
		• Check the HDD connection. • Format the HDD (SP5-832: HDD formatting). • 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*/

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• 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
		Format the HDD (SP5-832: HDD formatting).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC862-00	D	Number of the defective sector reaches the maximum count
		101 defective sectors are generated at the image storage area in the HDD.
		SC863 occurs during the HDD reading and defective sectors are registered up to 101.
		• Format the HDD (SP5-832: HDD formatting). • Replace the HDD.

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 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.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		(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. (An error occurred in an area that does not belong to a partition, such as the disk label area.)
		• Format the HDD. • 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)).
		• Format the HDD (SP5-832: HDD formatting). • Replace the HDD.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC865-00	D	HD 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).
		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.)
		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)).
		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.
		The HDD does not respond to the read/ write command from the machine.
		• Check the harness connections between the controller board and HDD. • 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.
		Store a valid program data on the SD card.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC867-00	D	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).
		Cycle the main power off and on.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC867-01	D	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).
		Cycle the main power off and on.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC867-02	D	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).
		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.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		3. If an error occurs, replace the SD card. **4.** If the error persists even after replacing the SD card, replace the controller board. **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.

* 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-	B	Address Book data error (On startup: Inconsistency in Address Book entry number.)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
11		
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.)
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.)

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
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 • 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 FCS detects FCU defective.
		• Time-out error • Abnormal Parameter
		• Cycle the main power off and on. • 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.
		• Format the HDD (SP5-832-007). • 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.
		• Format the HDD (SP5-832-007). • 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
SC874-61	D	Delete all error (Delete data area) : library error

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
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 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	Delete all error (HDD erasure) (hddchack –i error)
SC875-02	D	Delete all 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.
		Cycle the main power off and on.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC876-00	D	Log Data Error
		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 NV-RAM 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):

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		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
		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 machine operation.
		Inconsistency of encryption key between NV-RAM and HDD.
		• Disable the log encryption setting. • Initialize LCS memory (SP5801-019). • Initialize the HDD (SP5-832-004).

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC876-	D	Log Data Error 4

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
04		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)
		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 NV-RAM 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 NV-RAM. • 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)
SC877-00	B	Data Overwrite Security card error
		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.
		• If the SD card is broken, prepare a new Data Overwrite Security option SD card and replace the NVRAM. • 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
		Replace the controller board.

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
		Replace the controller board.

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
		Replace the controller board.

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
		Replace the controller board.

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
		• Turn the main power OFF/ON. • Replace the controller board 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
		• Turn the main power OFF/ON. • Replace the controller board.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC880-00	D	MLB error
		Reply to MLB access was not returned within a specified time.
		MLB defective
		• Replace the MLB. • Remove the MLB.

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
		Cycle the main power off and on.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
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 • Replace the hardware. In the case of a software error • Cycle the main power off and on. • Try updating the firmware.

SC9xx: Others

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC900-00	D	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.
		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 1 (WORK memory not acquired)
SC920-03	B	Printer application error (Filter process not started)
SC920-04	B	Printer error 1 (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)
		• Cycle the main power off and on. • Increase the memory storage capacity.

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.
		Cycle the main power off and on.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC925-00	B	NetFile function error
SC925-01	B	NetFile function error
		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:

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• 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)
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
		• Cycle the main power OFF/ON. • If the problem cannot be solved, replace the BiCU.

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.
		• Cycle the main power OFF/ON. • Reinstall the software of the controller and BiCU.

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

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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.
		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
		• Check whether an option required by the application (RAM, DIMM, board) is installed properly. • 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
		• Turn the main power switch off and on. • Check whether an option required by the application (RAM, DIMM, board) is installed properly.

No.	Type	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		• Check whether downloaded applications are correctly configured. • Replace the Controller Board.

Process Control Error Conditions

Developer Initialization Result

SP-3-014-001 (Developer Initialization Result)

No.	Result	Description	Possible Causes/Action
1	Successfully completed	Developer initialization is successfully completed.	-
2	Forced termination	Developer initialization was forcibly terminated.	• A cover was opened or the main switch was turned off during the initialization. 1. Do the developer initialization again when done in SP mode. Reinstall the engine main firmware if the result is the same. 2. Cycle the main power off and on when done at unit replacement.
6	Vt error	Vt is more than 0.7V when Vcnt is 4.3V.	1. Make sure that the heat seal on the development unit is not removed. 2. Defective TD sensor
7	Vcnt error 1	Vcnt is less than 4.7V when Vcnt is Vt target ±0.2V.	1. Defective TD sensor 2. Vt target settings are not correct. 3. Toner density error
8	Vcnt error 2	Vt is more than 0.7V when Vcnt is 4.3V and Vcnt is less than 4.7V when Vcnt is Vt target ±0.2V.	1. Make sure that the heat seal on the development unit is not removed. 2. Defective TD sensor
9	Vcnt error 3	Vcnt is less than 4.7V.	1. Make sure that the heat seal on the development unit is not removed. 2. Defective TD sensor 3. Vt target settings are not correct. 4. Toner density error

Note

- The machine starts developer initialization after you set "Enable" in SP3-902-005, 006, 007, or 008. Developer initialization automatically resumes when you open and close the front door or turn the main switch off and on if an error other than Error 8 occurs.

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	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 board. Vt minimum error: 1. Replace the development unit. 2. Replace the BICU board.
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. 3. Replace the BICU board. • Solid image is O.K. 1. Replace the ID sensors. 2. Replace the BICU board. • ID sensor is dirty: 1. Clean the ID sensors. 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 sensor or shutter is 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:	Gamma is out of range.	• ID sensor pattern density is

No.	Result	Description	Possible Causes/Action
	Minimum	Gamma < 0.15	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 sensor (toner, dust, or foreign material) • Dirty transfer belt • Scratched image transfer belt • Defective ID sensor • Poor connection • Defective BICU 1. Clean the ID sensor. 2. Check the belt cleaning. Clean or replace the transfer belt. 3. Replace the image transfer belt. 4. Replace the ID sensor.

No.	Result	Description	Possible Causes/Action
			5. Check the connection. 6. Replace the BICU board.
3	ID sensor output error	ID sensor output is more than "Voffset Threshold" (SP3-324-004)	• Defective ID sensor • Poor connection • Defective BICU 1. Replace the ID sensor. 2. Check the connection. 3. Replace the BICU board.
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 have not detected the patterns for line position adjustment.	See Note
3	Fewer lines on the pattern than the target	The patterns, which ID sensors 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 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 "Troubleshooting Guide - Line Position Adjustment" section.

Troubleshooting Guide

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
	1. Replace the high voltage power supply unit. 2. Do the forced process control (SP3-011-001) or supply some toner (SP3-030-xxx). 3. Replace the BiCU.
Normal image, but with color registration errors	• Defective ID sensor shutter • Defective ID sensor • Defective BiCU
	1. Replace the ID sensor shutter solenoid. 2. Replace the ID sensor. 3. Replace the BiCU.

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
	1. Perform the color skew adjustment (Image Adjustment). 2. Replace the laser unit. 3. Replace the BiCU.
The sub scan registrations of M, C, Y, K are shifted by more than ±20.	• Defective image transfer belt • Defective drive units • Defective BiCU
	1. Replace the image transfer belt. 2. Replace the drum motor. 3. Replace the BiCU.
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 at center • Deformed center area on the image transfer belt • Defective BiCU
	1. Replace the ID sensor. 2. Replace the image transfer belt. 3. Replace the BiCU.
The skew for M, C, Y, K is more than ±0.75 mm.	• Defective PCDU • Defective laser optics housing unit • Defective BiCU
	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.
Others	• Skew correction upper limit error • Defective BiCU • Defective laser optics housing unit
	1. Perform the color skew adjustment (Image Adjustment). 2. Replace the BiCU. 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
	1. Replace the shutter motor. 2. Replace the high voltage power supply unit. 3. Do the forced process control (SP3-011-001) or supply some toner (SP3-030-xxx). 4. Replace the BiCU.
Normal image, but with color registration errors	• Defective ID sensor shutter • Defective ID sensor • Defective BiCU
	1. Replace the ID sensor shutter solenoid. 2. Replace the ID sensor. 3. Replace the BiCU.

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.	• No defective component • Defective laser optics housing unit • Defective BiCU
	1. Do SP2-111-003 again. 2. Replace the laser optics housing unit. 3. Replace the BiCU.
The sub scan registrations of M, C, Y are shifted by more than ±1.4mm from the sub scan registration of K.	• No defective component • Defective image transfer belt • Defective drive units

Test pattern check	Possible cause/Countermeasure
	• Defective BiCU
	1. Do SP2-111-003 again. 2. Replace the image transfer belt. 3. Replace the drum motor. 4. Replace the BiCU.
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 at center • Deformed center area on the image transfer belt • Defective BiCU
	1. Replace the ID sensor. 2. Replace the image transfer belt. 3. Replace the BiCU.
The skew for M, C, Y, K is more than ± 0.75 mm at the end of the scan line?	• Defective PCDU • Defective laser optics housing unit • Defective BiCU
	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.
Others	• Skew correction upper limit error • Defective BiCU • Defective laser optics housing unit
	1. Replace the BiCU. 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).

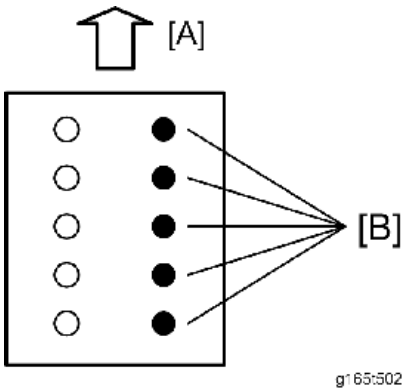
Test pattern check	Possible cause/Countermeasure
The main scan registration is shifted, but only at the central area of the image on the output.	• Defective ID sensor at center • Deformed center area on the image transfer belt • Defective BiCU
	1. Replace the ID sensor. 2. Replace the image transfer belt. 3. Replace the BiCU.
The main scan registrations of M, C, Y, K are shifted.	• Defective laser optics housing unit • Defective ID sensor • Defective BiCU • Incorrect SP value
	1. Perform the color skew adjustment (Image Adjustment). 2. Replace the laser optics housing unit. 3. Replace the ID sensor. 4. Replace the BiCU. 5. Adjust the value with SP2-182-004 to -021.
The sub scan registrations of M, C, Y, K are shifted.	• Defective image transfer belt • Defective drive units • Defective ID sensor • Defective BiCU • Incorrect SP value
	1. Replace the image transfer belt. 2. Replace the ID sensor. 3. Replace the drum motor. 4. Replace the BiCU. 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
	1. Reinstall or replace the PCDU. 2. Perform the color skew adjustment (Image Adjustment). 3. Replace the laser optics housing unit.

Test pattern check	Possible cause/Countermeasure
	4. Replace the BiCU.
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.

Problem at Regular Intervals

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

- Abnormal image at 33.6-mm intervals: Charge roller
- Colored spots at 40.82-mm intervals: Image transfer roller
- Colored spots at 20.9-mm intervals: Development roller
- Abnormal image at 55.4 (center) or 55.0 (end)-mm intervals: Paper transfer roller
- Colored spots at 75.4-mm intervals: OPC drum
- Spots at 78.5-mm intervals: Pressure roller
- Spots at 78.5-mm intervals: Fusing belt

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	Replace the BiCU.

All-Black Print

Symptom	Possible cause	Necessary actions
All the paper is black.	Incorrectly installed PCDU	Install the PCDU correctly.
	Defective PCDU	Replace the PCDU.
	Defective HVPS	Replace the HVPS.
	Defective laser unit	Replace the laser unit.
	Defective BiCU	Replace the BiCU.
	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.
	Loose connection between printer cartridge and BiCU	Replace the drum positioning cover.
	Image transfer belt not contacting PCDU	Check the belt tension unit.
	Defective the drum motor: CMY	Replace the drum motor: CMY.
	Defective BiCU	Replace the BiCU.

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	Repair the paper transfer roller.
	Defective fusing unit	Replace the fusing unit.
	Defective BiCU	Replace the BiCU.

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.

Interval	Possible cause	Necessary actions
At intervals from 55.0 (end) to 55.4 (center) mm (from 2.16 to 2.18 inches)	Defective paper transfer roller	Replace the paper transfer 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.

Symptom	Possible cause	Necessary actions
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	Replace the BiCU.
	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	Incorrect installation of paper	Install the paper correctly.

Symptom	Possible cause	Necessary actions
center.	Incorrect paper guide position	Adjust the paper guide correctly.
	Incorrect margin setting	Adjust the margin setting.
	Defective BiCU	Replace the BiCU.
	Incorrect installation of paper tray	Uninstall the paper tray units and re-install them.

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 :011
SIZE   :05h
TOTAL:000034
DATE  :Fri Feb 15 11:44:50 2006
```

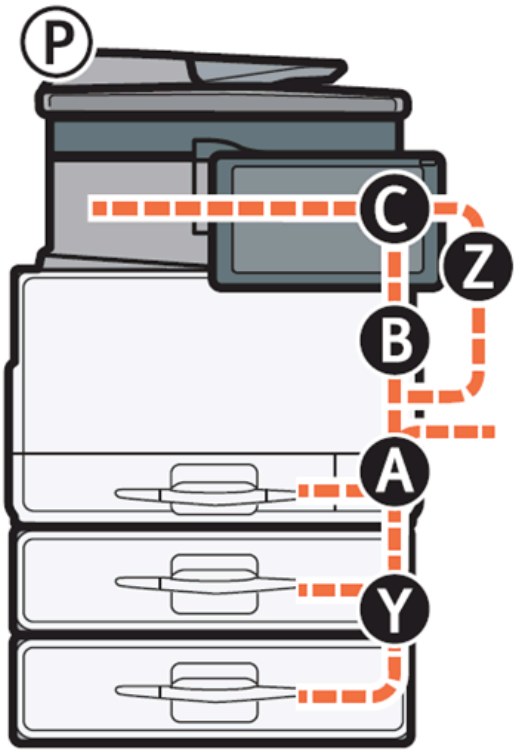
- **CODE**: Indicates the jam code.
- **SIZE**: Indicates the paper size code.
- **TOTAL**: Indicates the total counter (SP7-502-001).
- **DATE**: indicates the date when the jam occurred.

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.



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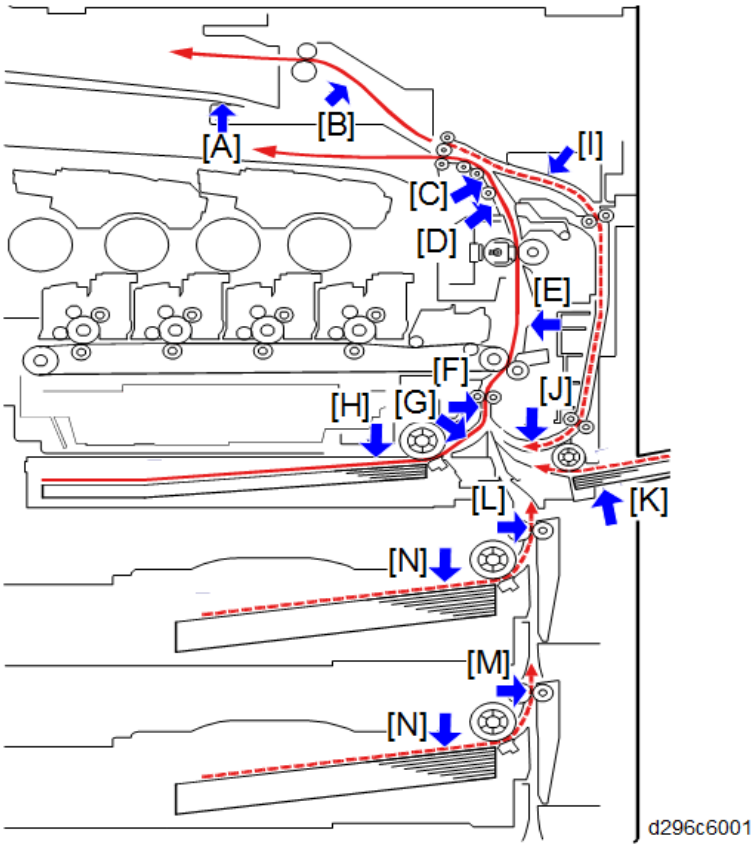
SP7-504 and SP7-505 (for ADF) show how many jams occurred at each location.

Jam Code	Description	SP No.	Indication on the operation panel
001	Initial jam at power on	7-504-001 7-505-001(for ADF)	B, C, Z, Y1, Y2, P
003	Paper is not fed from 1st tray.	7-504-003	A
004	Paper is not fed from 2nd tray.	7-504-004	Y1
005	Paper is not fed from 3rd tray.	7-504-005	Y2
008	Paper is not fed from the bypass tray.	7-504-008	A
009	Paper is jammed at the duplex unit.	7-504-009	Z
012	Paper is not fed from the vertical transport sensor 1.	7-504-012	Y1
017	Registration sensor does not detect paper, and paper exit sensor turns on.	7-504-017	A
018	Fusing entrance sensor does not detect paper.	7-504-018	B
019	Fusing exit sensor does not detect paper.	7-504-019	C
020	Paper exit sensor does not detect paper.	7-504-020	C
021	1-bin tray exit sensor does not detect paper.	7-504-021	C
025	Duplex exit sensor does not detect paper.	7-504-025	Z
026	Duplex entrance sensor does not detect paper.	7-504-026	Z

Jam Code	Description	SP No.	Indication on the operation panel
052	Vertical transport sensor 1 does not turn off.	7-504-052	Y1
053	Vertical transport sensor 2 does not turn off.	7-504-053	Y2
057	Registration sensor does not turn off.	7-504-057	B
060	Paper exit sensor does not turn off.	7-504-060	C
061	1-bin tray exit sensor does not turn off.	7-504-061	C
065	Duplex exit sensor does not turn off.	7-504-065	Z
066	Duplex entrance sensor does not turn off.	7-504-066	Z
004	ADF registration sensor does not turn off.	7-505-004	P
013	ADF feed sensor does not detect paper.	7-505-013	P
054	ADF registration sensor does not turn off.	7-505-054	P
063	ADF feed sensor does not turn off.	7-505-063	P
099	Double-feed detected.	-	Message is displayed on the operation panel.
100	ADF drive motor is defective.	7-505-100	P

Sensor Layout



Callout	Sensor	Callout	Sensor
[A]	1-bin tray paper remaining sensor	[H]	Tray paper end sensor
[B]	1-bin tray exit sensor	[I]	Duplex entrance sensor

Callout	Sensor	Callout	Sensor
[C]	Paper exit sensor	[J]	Duplex exit sensor
[D]	Fusing exit sensor	[K]	Bypass paper end sensor
[E]	Fusing entrance sensor	[L]	Vertical transport sensor 1
[F]	Registration sensor	[M]	Vertical transport sensor 2
[G]	Paper feed sensor	[N]	PFU paper end sensor

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

Electrical Component Defects

Sensors

No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
S1	Bypass Lift Sensor	H	CN523/11	Open	SC508
				Shorted	
S2	By-pass Paper End Sensor	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.
S3	By-pass Paper Size Sensor	L	CN523/2	Open	A4/LT size is not detected.
				Shorted	A4/LT size is detected.
S4	Duplex Entrance Sensor	L	CN523/14	Open	Jam Z (Jam 26)
				Shorted	Jam Z (Jam66)
S5	Fusing Entrance Sensor	L	CN523/20	Open	Jam B (Jam 18)
				Shorted	Jam C
S6	Duplex Exit Sensor	L	CN523/23	Open	Jam Z (Jam 25)
				Shorted	Jam Z
S7	Fusing Exit Sensor	L	CN525/8	Open	Jam C (Jam 19)
				Shorted	Jam C
S8	Fusing Thermopile	A	CN525/6	Open	SC541
				Shorted	
S9	TD Sensor (Mu (μ) Sensor) (K)	A	CN539/8	Open	PCU setting Error occurs.
				Shorted	
S10	TD Sensor (Mu (μ) Sensor) (C)	A	CN540/8	Open	PCU setting Error occurs.
				Shorted	
S11	TD Sensor (Mu (μ) Sensor) (M)	A	CN540/16	Open	PCU setting Error occurs.
				Shorted	
S12	TD Sensor (Mu (μ) Sensor) (Y)	A	CN540/22	Open	PCU setting Error occurs.
				Shorted	
S13	ID Sensor	A	CN555/6,7,10,11	Open	SC370
				Shorted	
S14	ITB Contact HP Sensor	L	CN543/12	Open	SC442
				Shorted	
S15	Tray Paper End Sensor	L	CN559/12	Open	Paper end is detected when there is paper in the paper tray.
				Shorted	Paper end is not detected when

No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
					there is no paper in the paper tray.
S16	Paper Feed Sensor	L	CN559/14	Open	Jam A
				Shorted	Normal operation
S17	ADF Set Sensor	L	CN403/2	Open	ADF open cannot be detected.
				Shorted	
S19	Registration Sensor	L	CN559/17	Open	Jam A (Jam 17)
				Shorted	Jam B
S20	Scanner HP Sensor	H	CN403/5	Open	SC120, SC121
				Shorted	
S21	Temperature/Humidity Sensor	A	CN526/6,8	Open Shorted	• Printed image is wrong, such as rough image, dirty background or weak image. • SC498
S22	Toner End Sensor (C)	A	CN539/16	Open	SC374
				Shorted	
S23	Toner End Sensor (M)	A	CN539/15	Open	SC373
				Shorted	
S24	Toner End Sensor (Y)	A	CN539/14	Open	SC375
				Shorted	
S25	Waste Toner Full Sensor	H	CN543/4	Open	Waste toner full is detected when it is not near full.
				Shorted	Waste toner full cannot be detected when the waste toner bottle is nearly full.
S26	Tray Lift Sensor	H	CN543/7	Open	SC501
				Shorted	
S27	Paper Exit Sensor	L	CN525/11	Open	Jam C (Jam 20)
				Shorted	Jam C (Jam 60)
S28	ADF Feed Sensor	L	CN404/3	Open	Jam P
				Shorted	
S29	Top Cover Set Sensor	L	CN404/24	Open Shorted	Top cover open cannot be detected.
S30	Original Set Sensor	L	CN404/26	Open	Original set cannot be detected.
				Shorted	
S31	ADF Registration Sensor	L	CN404/28	Open	Jam P

No.	Sensor Name/ Sensor Board Name	Active	CN No./ Pin No.	Condition	Symptom
				Shorted	
TH1	Pressure Roller Thermistor (Edge:Rear)	A	CN525/23	Open	SC571
				Shorted	
TH2	Pressure Roller Thermistor (Center)	A	CN525/21	Open	SC561
				Shorted	
TH3	Pressure Roller Thermistor (Edge:Front)	A	CN525/25	Open	SC591
				Shorted	
TH4	Image Creation Temperature Sensor	A	CN526/4	Open	SC497
				Shorted	
TH5	Fusing Thermistor (NC sensor)	A	CN525/27	Open	SC581
				Shorted	
SW4	Right Cover Switch	L	CN559/19	Open	“Cover closed” cannot be detected.
				Shorted	“Open Cover” cannot be detected.
SW5	Tray Set Switch	L	CN543/15	Open	Paper tray cannot be detected.
				Shorted	Paper tray is detected when the paper tray is not set.
SW6	Waste Toner Bottle Set Switch	L	CN535/1	Open	Waste toner bottle cannot be detected.
				Shorted	Waste toner bottle is detected when the waste toner bottle is not set.

Fuse Location

100V (Mainly NA)

Fuse Name	Connector (Out)	Capacity	Voltage	Part No.	Part Name	Replaceable
FU1	CN611-1 (24V)	10A	250V	11071393	51MS(P)-100H GF-009	No
FU2	CN610-1 (24VL)	10A	250V	11071393	51MS(P)-100H GF-009	No
FU3	CN610-2 (24VL_LPS)	4A	250V	11071360	SCT4A	No
FU4	CN611-3 (24V_LPS)	4A	250V	11071393	51MS(P)-100H GF-009	No

Fuse Name	Connector (Out)	Capacity	Voltage	Part No.	Part Name	Replaceable
FU5	CN613-2 (5V)	5A	250V	11071351	SCT5A	No
FU102	N/A (Protecting the voltage converter circuit in the PSU)	10A	250V	11071388	FIH 250V 10A(EM)8A03	No
FU101	N/A (Protecting the fusing circuit in the PSU)	15A	250V	11071241	TCL-15A-N4	Yes
FU103	CN600-4,5 (Anti-condensation Heater)	2A	250V	11071362	SCT2A	No

200V (Mainly EU)

Fuse Name	Connector (Out)	Capacity	Voltage	Part No.	Part Name	Replaceable
FU1	CN611-1 (24V)	10A	250V	11071393	51MS(P)-100H GF-009	No
FU2	CN610-1 (24VL)	10A	250V	11071393	51MS(P)-100H GF-009	No
FU3	CN610-2 (24VL_LPS)	4A	250V	11071360	SCT4A	No
FU4	CN611-3 (24V_LPS)	4A	250V	11071393	51MS(P)-100H GF-009	No
FU5	CN613-2 (5V)	5A	250V	11071351	SCT5A	No
FU102	N/A (Protecting the voltage converter circuit in the PSU)	8A	250V	11071366	FIH 250V 8A(EM)8A03	No
FU101	N/A (Protecting the fusing circuit in the PSU)	8A	250V	11071366	FIH 250V 8A(EM)8A03	No
FU103	CN600-4,5 (Anti-condensation Heater)	1A	250V	11071367	SCT1A	No

Other Troubleshooting

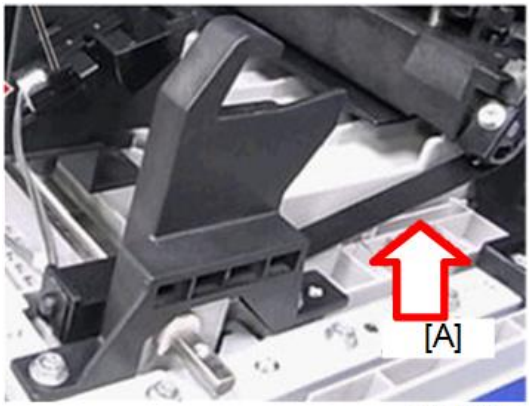
When You Cannot Open the Right Door

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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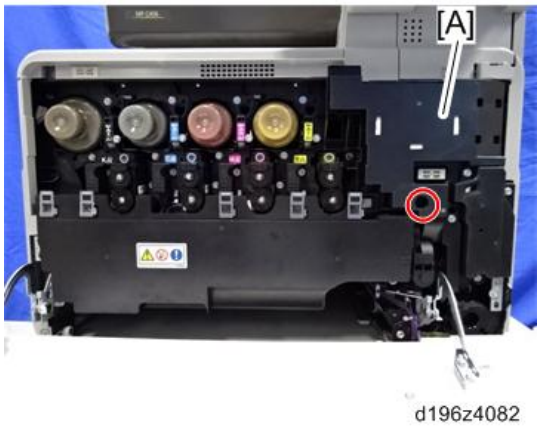
Solutions:

Release the hook, and then attach the belt.

1. Pull out the paper tray.
2. Remove the front lower cover [A]. (× 1)

d196z4002

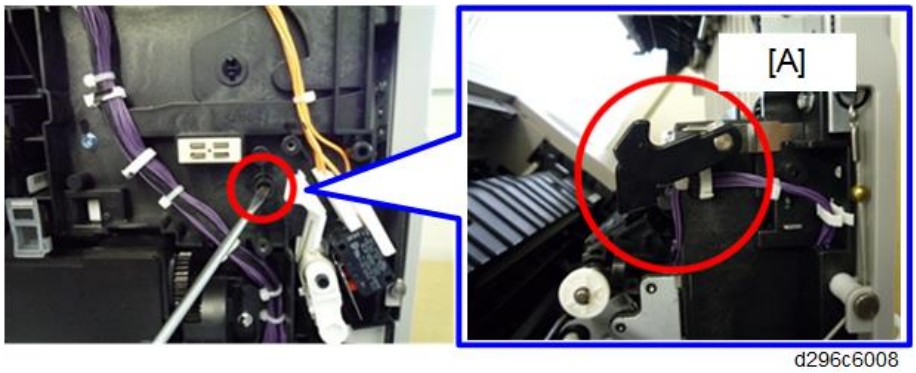
3. Remove the cover [A]. (× 1)



4. Remove the interlock switch cover [A]. (× 3)

5. Remove the bracket. (×1)

6. Release the hook [A] from the hole where the bracket was removed.



When Fluorescent or LED Lamps Flicker

Problem:

Under the usage environment of this machine, at the placement location, fluorescent and/or LED lamps flicker.

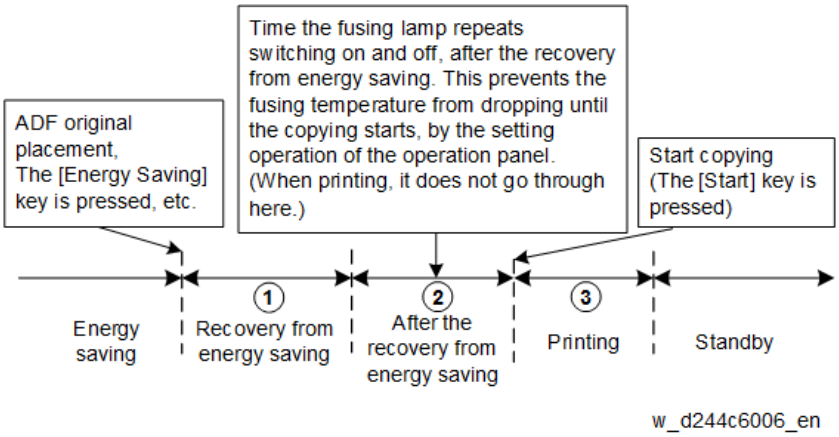
Causes:

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:



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. 0.4 sec.
②After the recovery from energy saving	Set SP1-135-001 (Inrush Control) to "1 (ON)." Set SP1-190-001 (Flicker Control) to "1 (ON)."	• Recovery time from energy saving becomes slower approx. 0.4 sec.. • If the adhesion amount of an image is large, an offset may occur.

Timing	Solutions	Side Effect
		• If a fusing offset occurs, in the related SP to fusing offsets, setting values must be changed
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-thick:BW:Center	SP1-105-015	

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

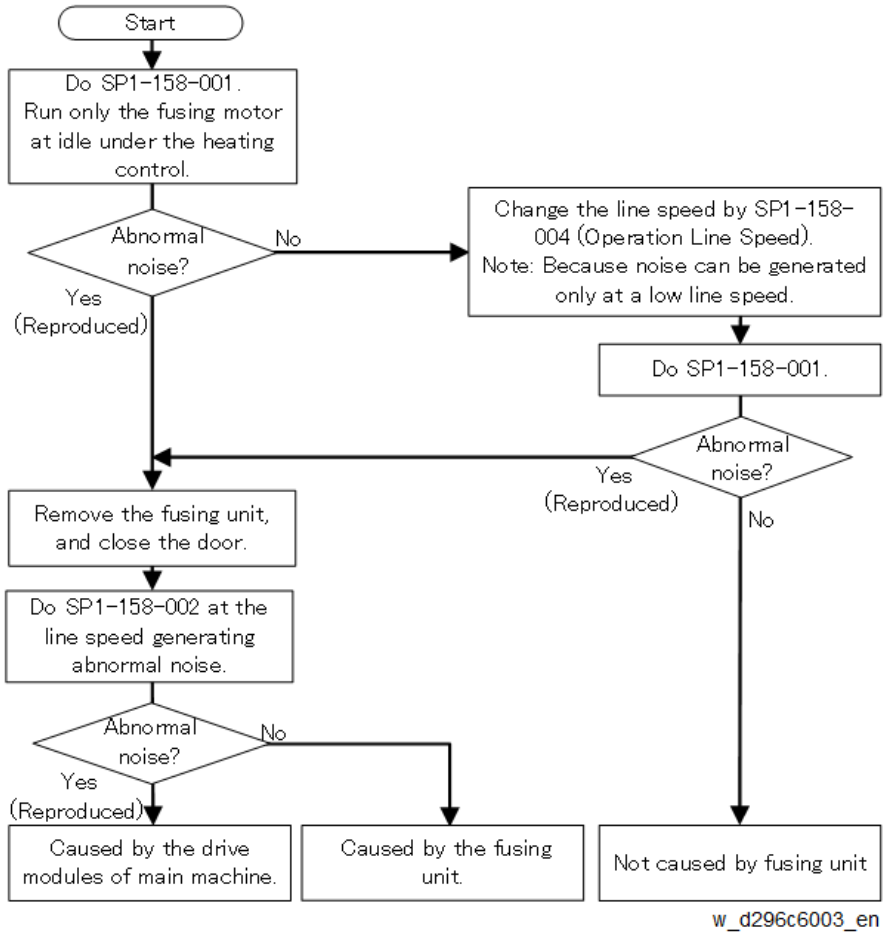
Because damaged or dirty parts can lead to secondary failure, always follow the procedure.

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 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 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 0: 89 mm/s 1: 178 mm/s 2: 212 mm/s * 3: 252 mm/s *	* : Only for MP C407

SP No.	SP Name	Function	Description
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)	

7. Detailed Descriptions

Differences between MP C307/C407 and C306/C406

The following table describes the differences between MP C307/C407 and C306/C406 series:

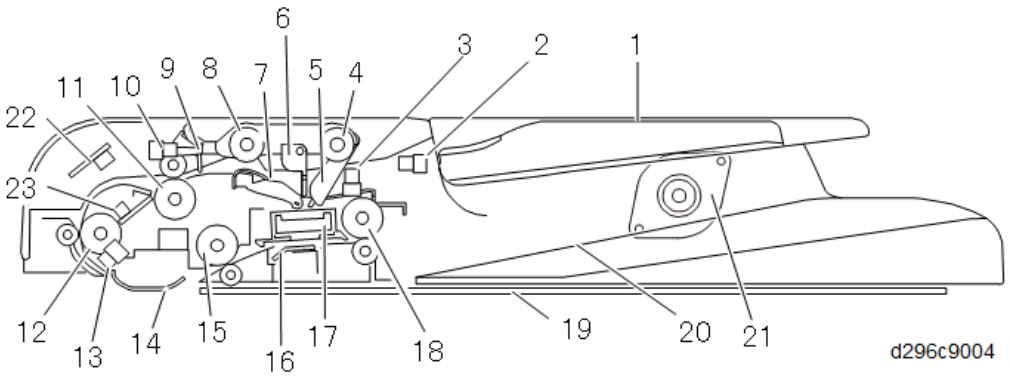
Items	MP C307/C407	MP C306/C406	Note
Mainframe			
Controller	16S	15S	
OCR	Improvement on OCR performance	-	
Higher Yield Toner	Supported (only for C407)	Not available	
Air Print	Supported	Not available	Installation of USB options is required for using this.
Smart Apps UI	Supported	Not available	
Exit and inverter	DCSOL switching + double clutch method	Rotary SOL switching method	
ADF set sensor	Hanging shape of the detection feeler	-	
Auto remote firmware update (ARFU)	Supported from the initial production	Supported from the middle of mass production	
PM parts list menu	Available Printing and display of a PM counters list is available.	Not available	
Laser unit	Adjustment is not required after replacing.	Adjustment is required after replacing.	
Options			
Platen cover	Not available (SPDF is installed as a standard feature for all models.)	Available by option	
ADF	SPDF (Standard) The CIS of back reading has been added. This requires adjustment when replacing of	ARDF (ARDF DF1040) Adjustment is	

Items	MP C307/C407	MP C306/C406	Note
	the CIS unit or SPDF.	not required after replacing.	
Paper Feed Unit	• PB1080 • PB1080TE (Only for NA)	PB1080	PB1080TE is PFU which can be locked with a key.
1 Bin Tray	BN1030	BN1020	
IEEE 802.11a/g/n Interface Unit	Type M19 (Common with MP C6004/C5504/C4504/C3504/C3004)	Type M2	Only for NA/EU/AA
IEEE 1284 Interface Board	Type M19 (Common with MP C6004/C5504/C4504/C3504/C3004)	Type A	
Bluetooth Interface Unit	Not available	Type D	
Page Keeper	Type M28	Not available	Only for NA/EU
Camera Direct Print Card	Type M26	Type M13	
PostScript3 Unit	Available by option (Type M28)	Standard	PS3 will be offered as an option, as MP C307/C407 is implemented of the PDF/PS clone standard. For more details, please refer to PPLI.
XPS Direct Print Option	Type M28	Type M13	
USB Device Server Option	Type M19 (Common with MP C6004/C5504/C4504/C3504/C3004)	Type M12	Only for NA/EU/AA/KOR
Extended USB Board	Type M19 (Common with MP C6004/C5504/C4504/C3504/C3004)	Not available	
Fax Option	Type M28	Type M13	
Fax Connection Unit	Type M28	Type M13	
File Format	Type M19	Type E	

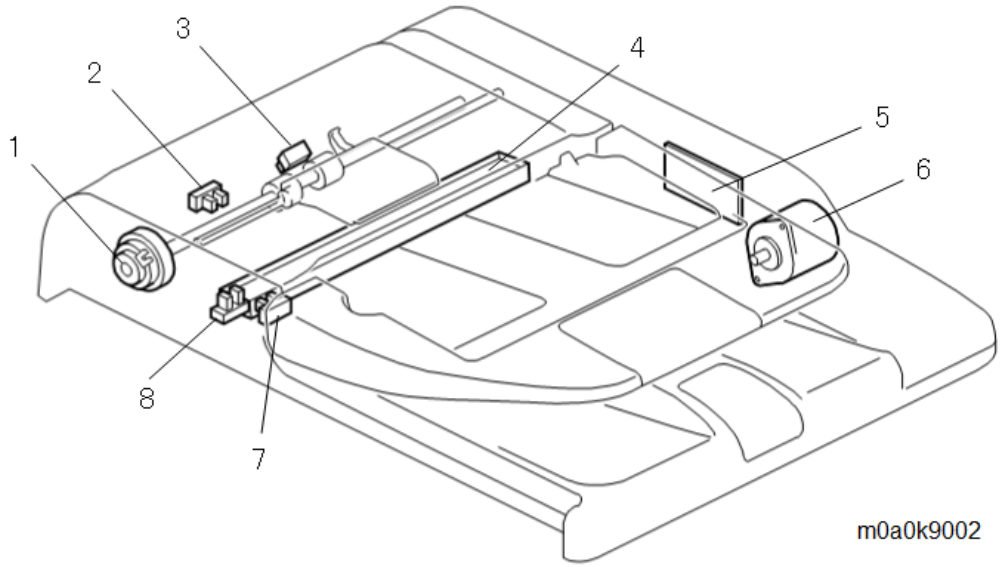
Items	MP C307/C407	MP C306/C406	Note
Converter	(Common with MP C6004/C5504/C4504/C3504/C3004)		
Data Overwrite Security	Type M19 (Common with MP C6004/C5504/C4504/C3504/C3004)	Type I	

ADF Unit

Overview



No.	Name	No.	Name
1	Original tray	13	Transport sensor
2	Top cover set sensor	14	Scanning guide plate (front side)
3	Original set sensor	15	Pre-scanning roller (rear side)
4	Pick-up roller	16	Scanning guide plate (rear side)
5	Original set sensor actuator	17	CIS
6	Stopper	18	ADF exit roller
7	Friction pad	19	Platen
8	Feed roller	20	Original exit tray
9	ADF feed sensor actuator	21	ADF drive motor
10	ADF feed sensor	22	Double-feed sensor unit (receiver) (Option)
11	ADF entrance roller	23	Double-feed sensor unit (emitter) (Option)
12	Pre-scanning roller (front side)		

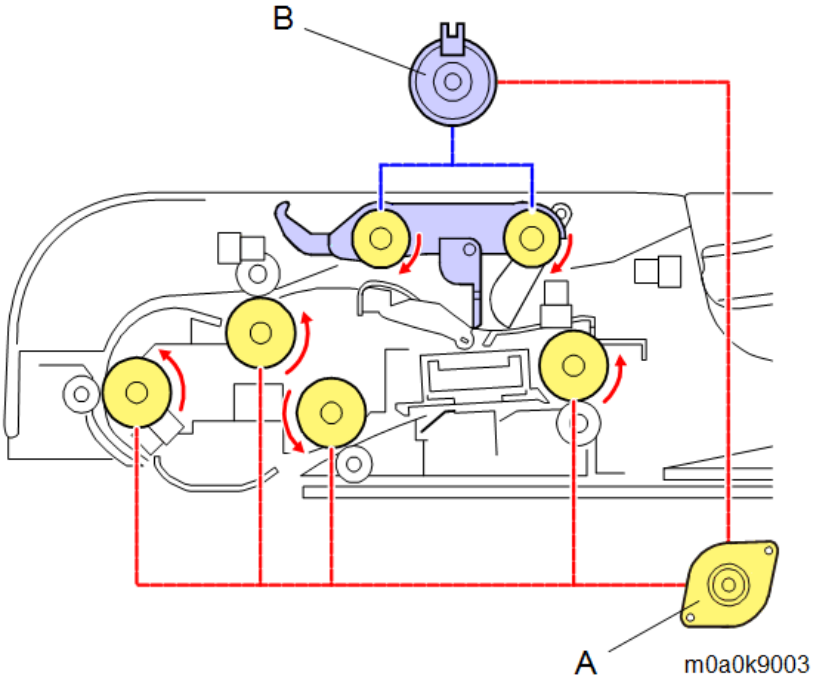


No.	Name	No.	Name
1	ADF feed roller clutch	5	ADF relay board
2	ADF feed sensor	6	ADF drive motor
3	ADF transport sensor	7	Top cover sensor
4	CIS	8	Original set sensor

Original Transport Drive

The ADF drive motor [A] drives all ADF rollers via gears.

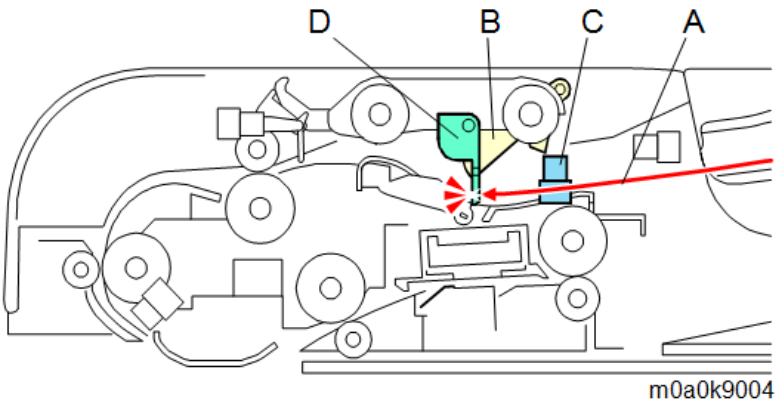
The feed roller clutch [B] controls the mechanism for picking up the original.



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 [C] turns off (not interrupted). The machine judges this state as the placement of an original.

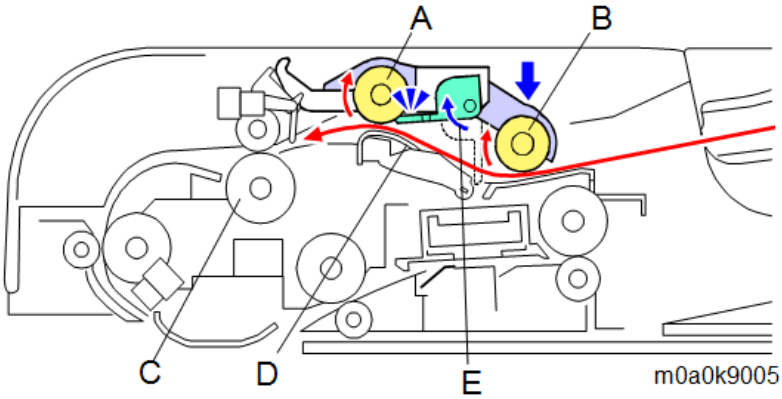
The stopper [D] prevents the user from placing originals too far into the feeder.



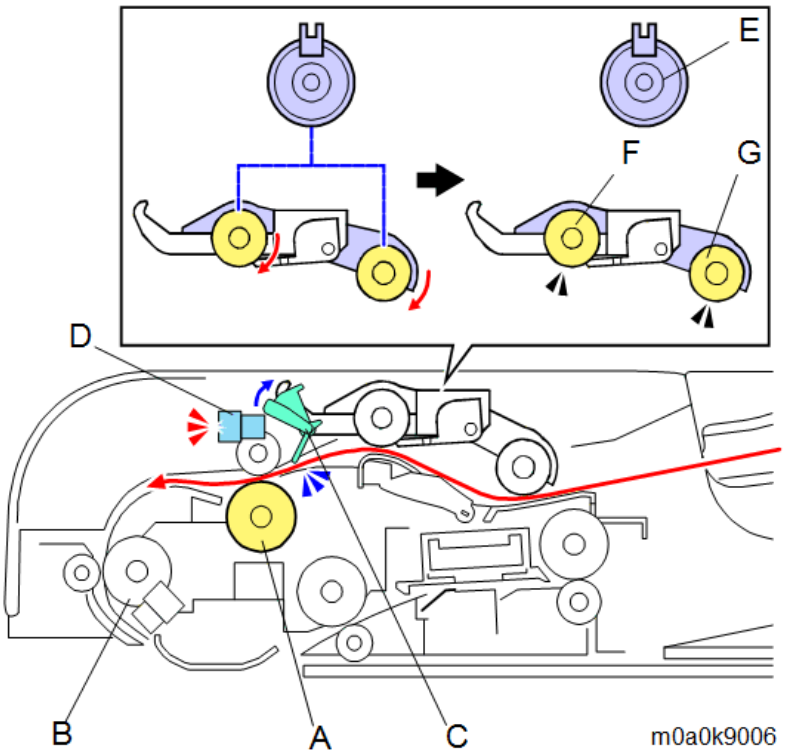
Original Transport Path

When [Start] is pressed, the feed roller clutch 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.



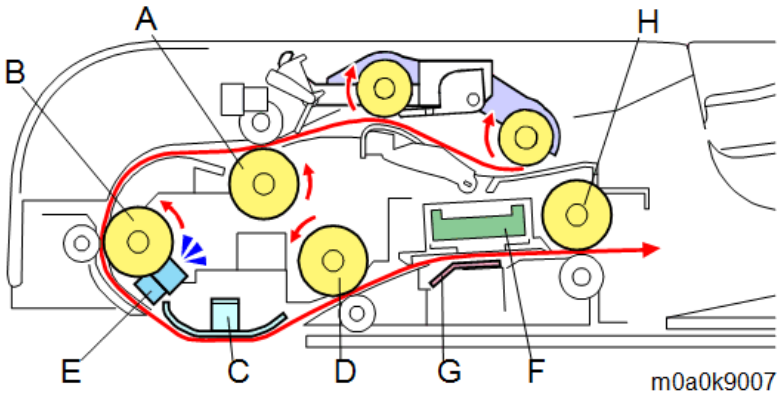
When the original reaches the pre-scanning (front side) roller [B] via the ADF entrance roller, the original moves the feed sensor actuator [C] and the feed sensor [D] is turned ON. Then the feed roller clutch [E] is turned OFF to stop the feed roller [F] and the pick-up roller [G], to prevent the next original from being picked up.



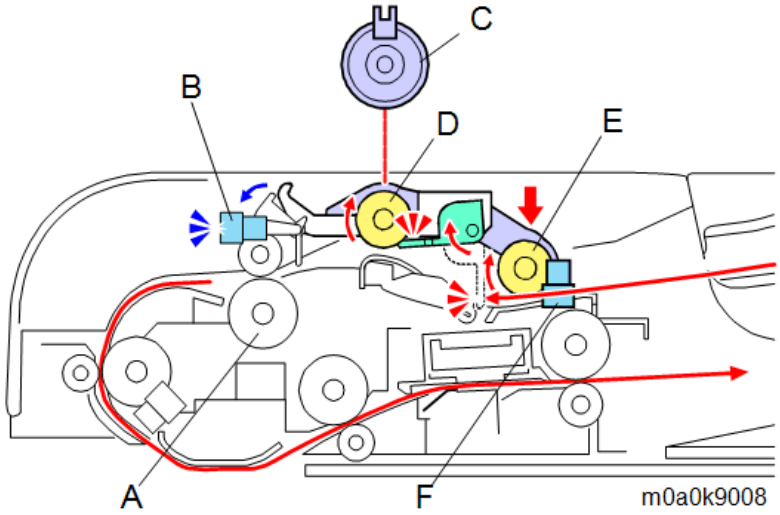
The original is fed by the ADF entrance roller [A] and the pre-scanning (front side) roller [B], scanned on the exposure glass under the scanning guide plate (front side) [C], and then delivered by the pre-scanning (rear side) roller [D].

The feeding of the original is detected by transport sensor [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 ADF CIS [F] on the scanning guide plate (rear side) [G], and then fed out by the exit roller [H].

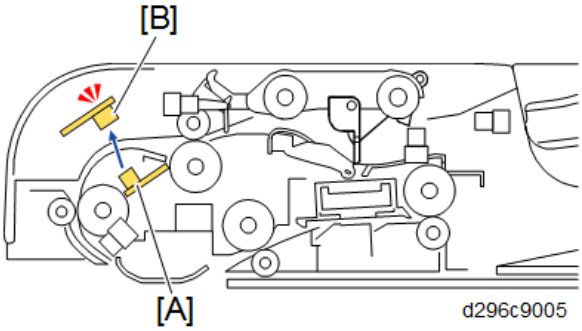


When the original passes through the ADF entrance roller [A], the feed sensor [B] is detected OFF. If the next original is set, the original set sensor [F] detects ON and the feed roller clutch [C] is turned ON. Then, the feed roller [D] and pick-up roller [E] rotate to pick up the next original.

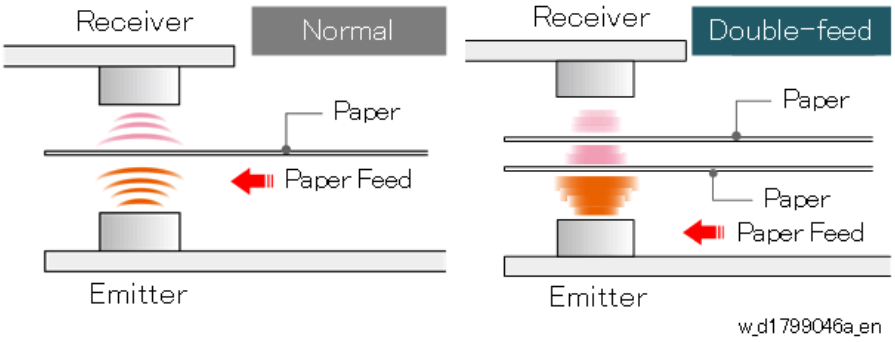


Double-feed Detection (Optional)

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

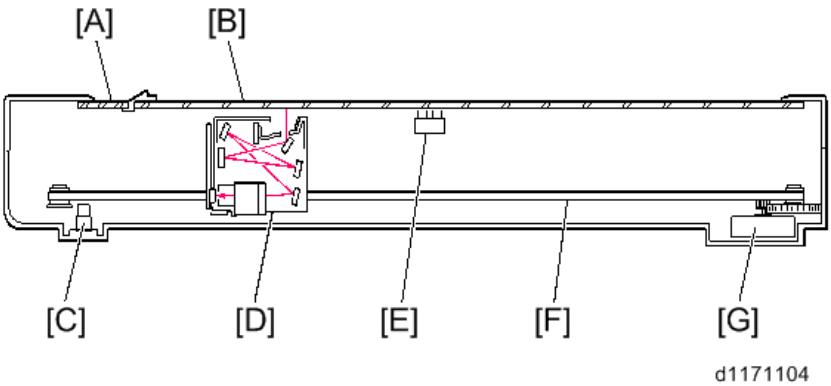
Feeding such originals could cause false detection of double-feeds.

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 set sensor
[B]	Exposure glass (for platen mode)	[F]	Scanner carriage drive belt
[C]	Scanner HP sensor	[G]	Scanner motor
[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.

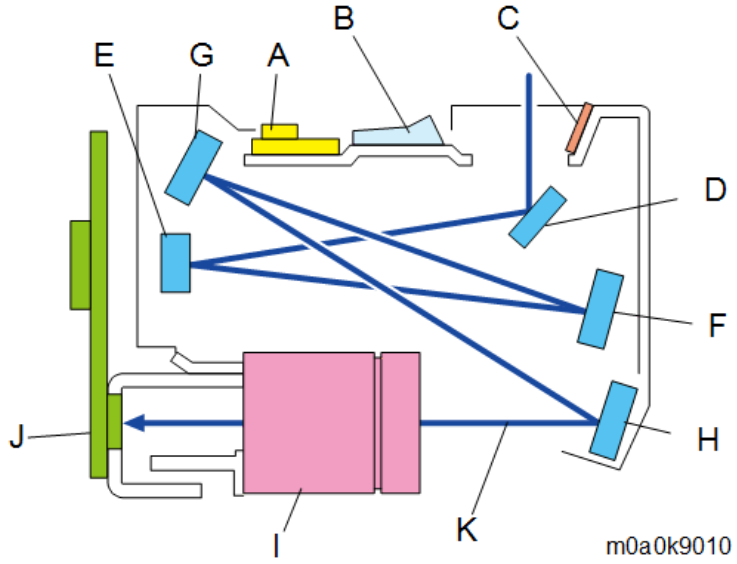
Light Source and Exposure

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.

The elements in the array are more densely spaced at the ends than at the center, to make sure that enough light reaches the left and right edges of the original.

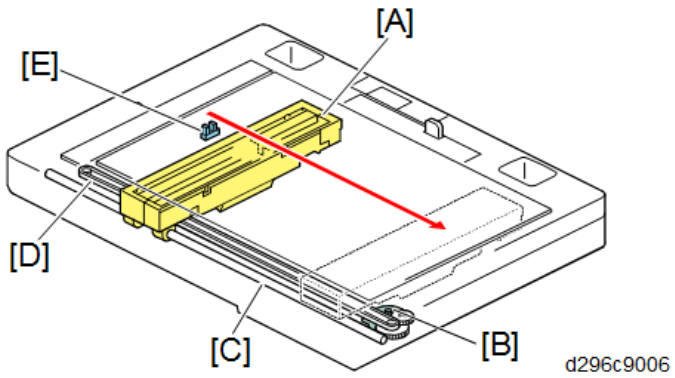
The light reflected from the original travels as follows:

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



Callout		Callout	Item
[A]	Scanner carriage	[D]	Scanner drive belt
[B]	Scanner motor	[E]	Scanner HP sensor
[C]	Guide rod		

The scanner motor [C] drives the drive belt [B] in order to move the scanner carriage [A] along the guide rod [D]. Scanning starts with the scanner carriage [A] at the scanner HP sensor [E]. After scanning, the scanner carriage returns to the scanner HP sensor. The actuator for the scanner HP sensor is on the underside of the carriage.

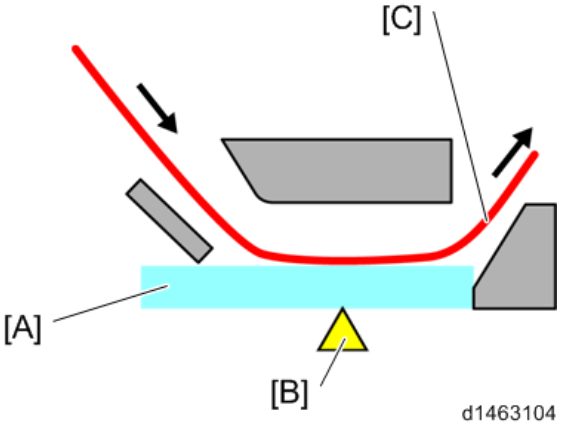
When you wish to move the carriage, use the drive belt. Do not pull the carriage directly.

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

Note

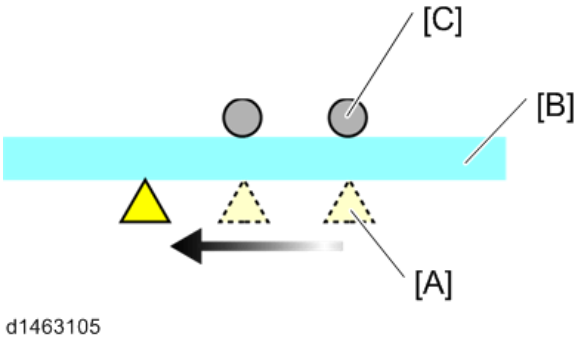
- If black lines due to free dirt particles appear for a short time, such as when users have documents with large amounts of paper dust, you can return to the original configuration.

- Reference (read position correction)

  By changing SP4-020-001 (Dust Check > Dust Detect:On/Off), when dirt is detected at the reading position, the reading 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 clean the exposure glass).

  Image diagram



[A]: Reading position

[B]: Exposure glass

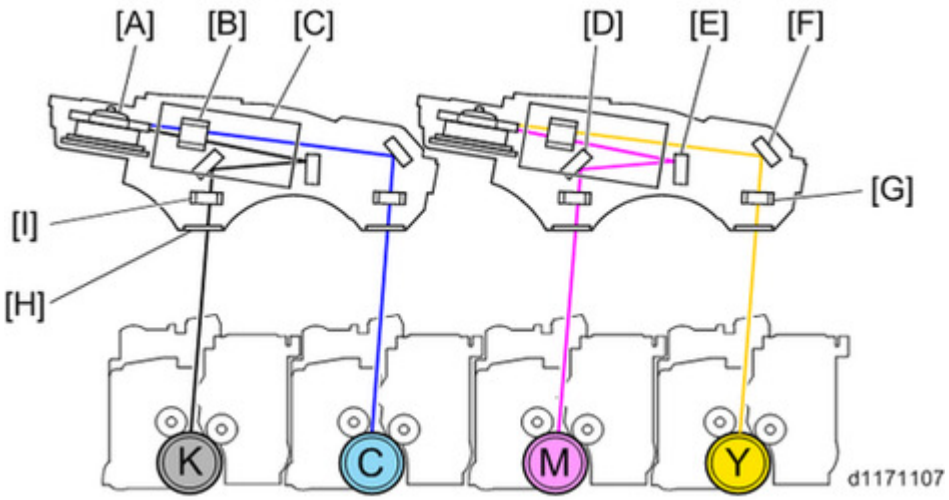
[C]: Dirt

Note

- Dirt is detected when a document passes through, so the alert will not disappear until reading of the next document begins, even after exposure glass cleaning is performed.
- If dirt is detected not on the 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 can be changed using SP4-020-002 (Dust Check > Dust Detect:Lvl). (The larger the value is, the smaller the dirt particles that can be detected.)
- Do not change the setting of SP4-020-003 (Dust Check > Dust Reject:Lvl).

Laser Unit

Overview

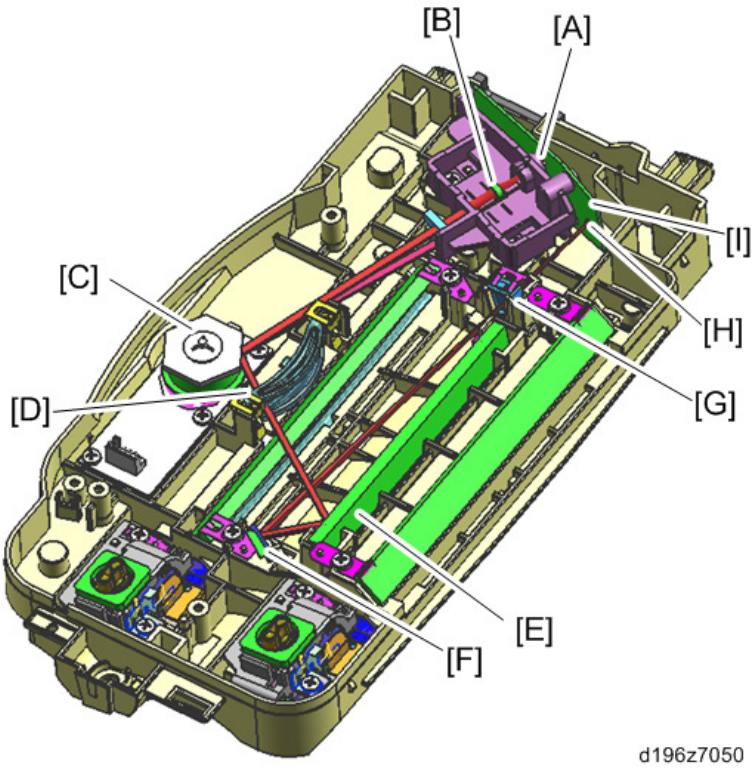


Callout	Item	Callout	Item
[A]	Polygon Motor	[F]	Mirror 3
[B]	Lens (L1)	[G]	Lens (L2)
[C]	LD Board	[H]	Shield Glass
[D]	Mirror 2	[I]	Lens (L2)
[E]	Mirror 1		

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.

Based on each model's line speed, this product uses two different types of LD unit: MP C407 uses two beams per color to achieve higher line speed, while MP C307 uses one beam per color, which is the same as the previous model.

Laser Synchronizing System

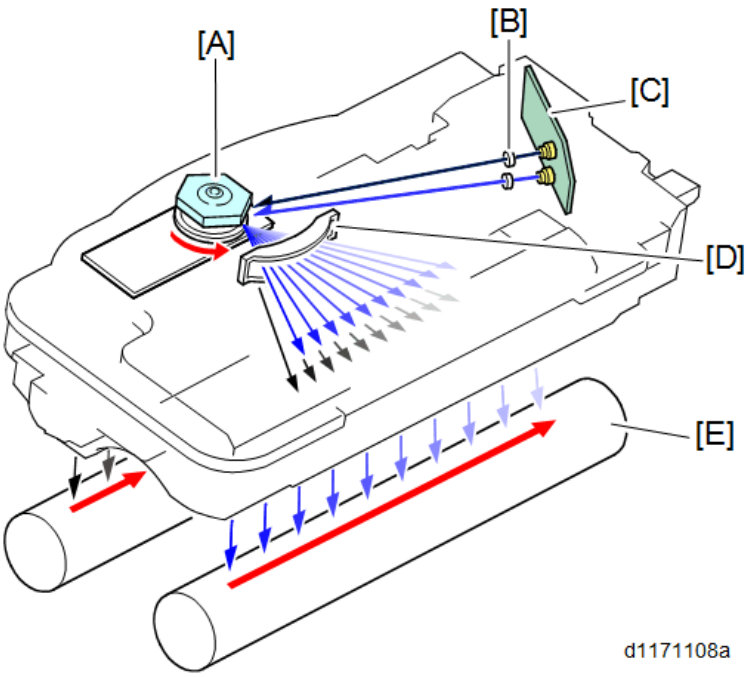


Callout	Item	Callout	Item
[A]	LD Board	[F]	Synchronization Mirror
[B]	Collimating Lens	[G]	Synchronization Lens
[C]	Polygon Motor	[H]	Synchronization Detector
[D]	Lens (L1)	[I]	LD Unit
[E]	Mirror 1		

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 [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] detects the beam reflected.

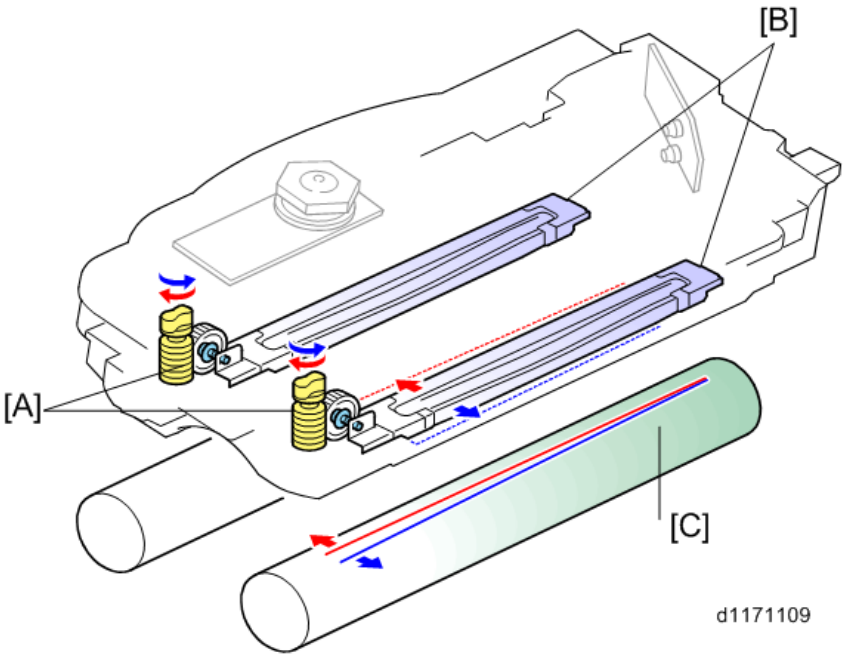
Line Scanning Mechanism



Callout	Item	Callout	Item
[A]	Polygon Motor (With Polygon Mirror)	[D]	Lens (L1)
[B]	Collimating Lens	[E]	OPC Drum
[C]	LD Board		

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 [A] rotates counterclockwise.

Image Skew Adjustment



Callout	Item	Callout	Item
[A]	Adjustor	[C]	OPC Drum
[B]	Lens (L2)		

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.

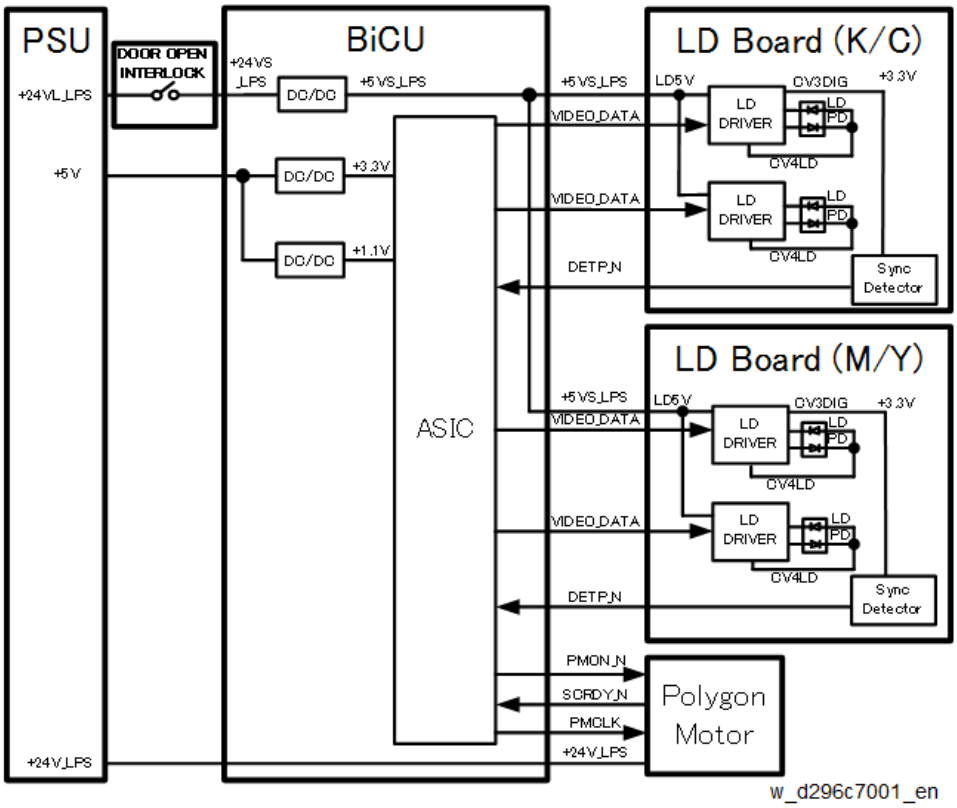
Dust Shield Glass

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.

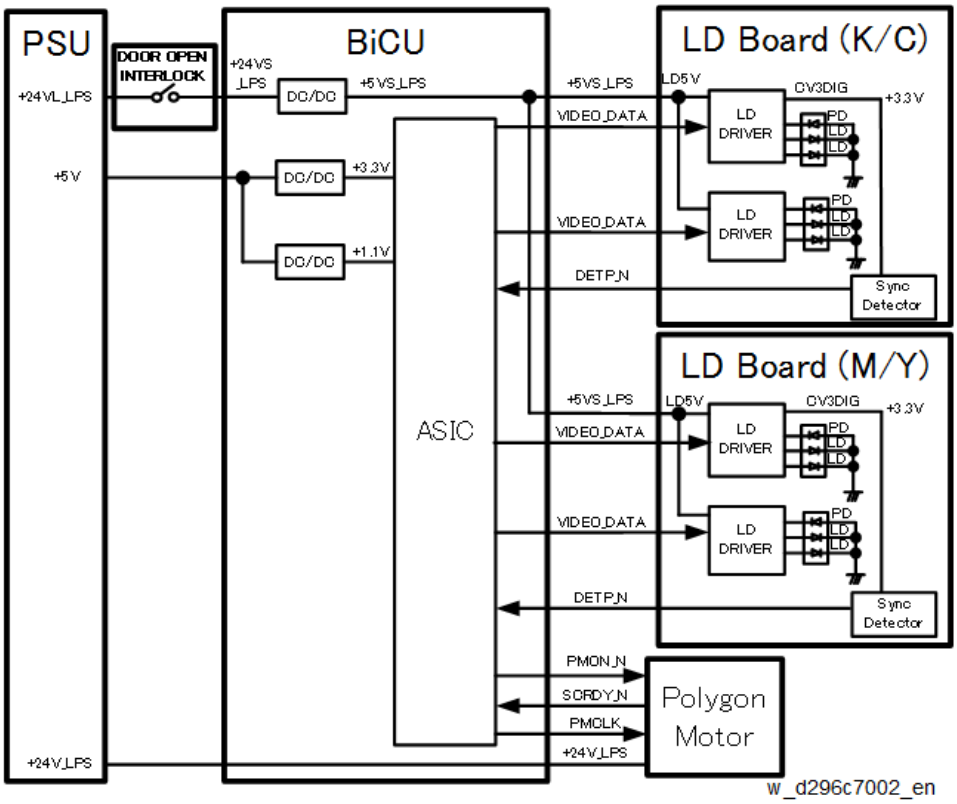
LD Safety Switch

The +24VL_LPS goes through the interlock switch and is converted the +5VS_LPS on the BiCU.
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 is cut off. This system prevents unexpected laser emission, ensures user safety and technician safety.

MP C307 series

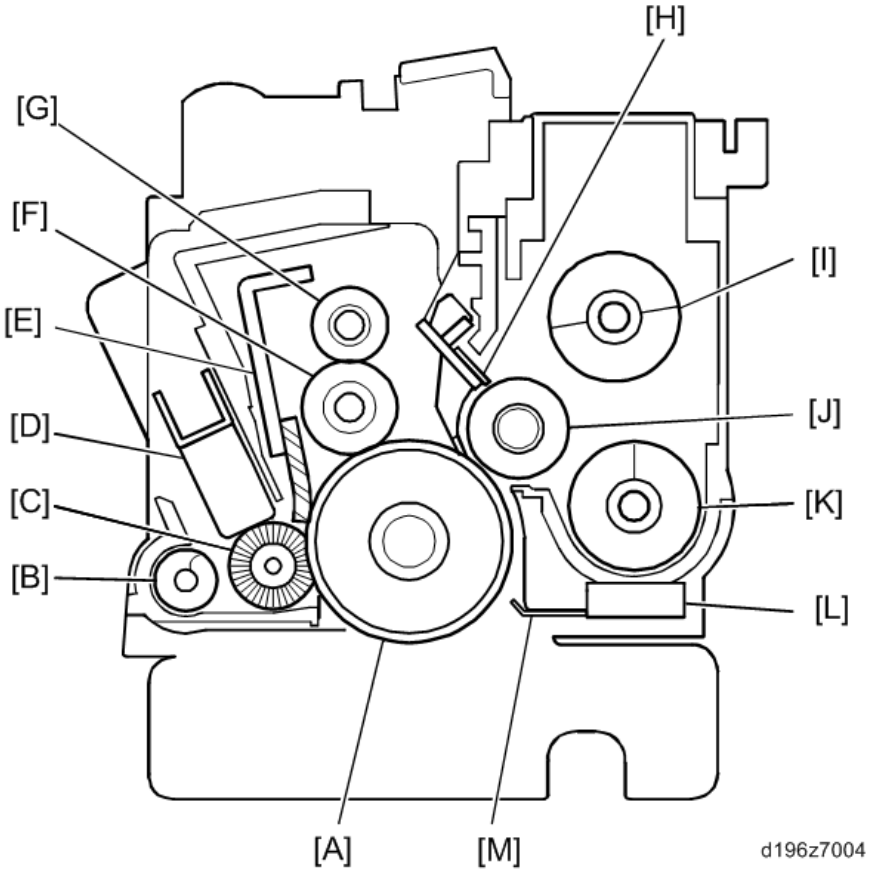


MP C407 series



PCDU

Overview



Drum Section

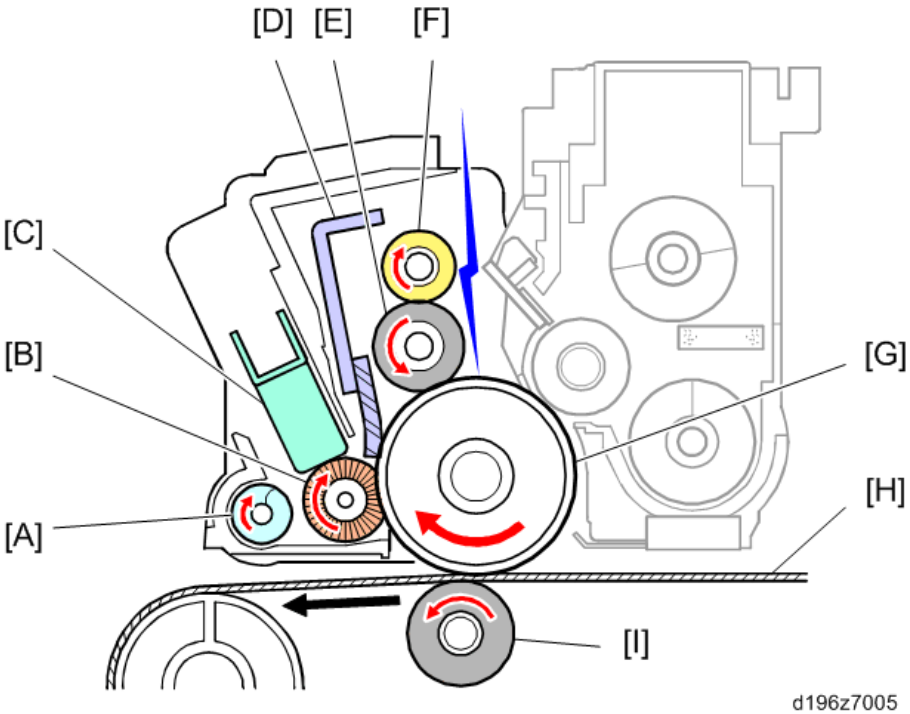
Callout	Item	Callout	Item
[A]	OPC Drum	[E]	Cleaning Blade
[B]	Waste Toner Transport Coil	[F]	Charge Roller
[C]	Lubricant Brush Roller	[G]	Charge Roller Cleaning Roller
[D]	Lubricant		

Development Section

Callout	Item	Callout	Item
[H]	Doctor Blade	[K]	Toner Transport Coil (Lower)
[I]	Toner Transport Coil (Upper)	[L]	Toner Density Sensor (μ sensor)
[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



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].

OPC Drum

This machine uses an organic photo conductor drum (OPC drum) [G] for image creation.

The laser exposes the drum from the machine's front to the rear, and the image developed transfers to the ITB (Image Transfer Belt). Then the ITB transports the created image.

Drum Cleaning Mechanism

The drum cleaning blade [D] cleans the drum (counter rotation method).

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 rotates in the opposite direction to the OPC drum.

Toner and foreign objects are removed from the edges of the blade by rotating the drum counterclockwise when a copy job is done.

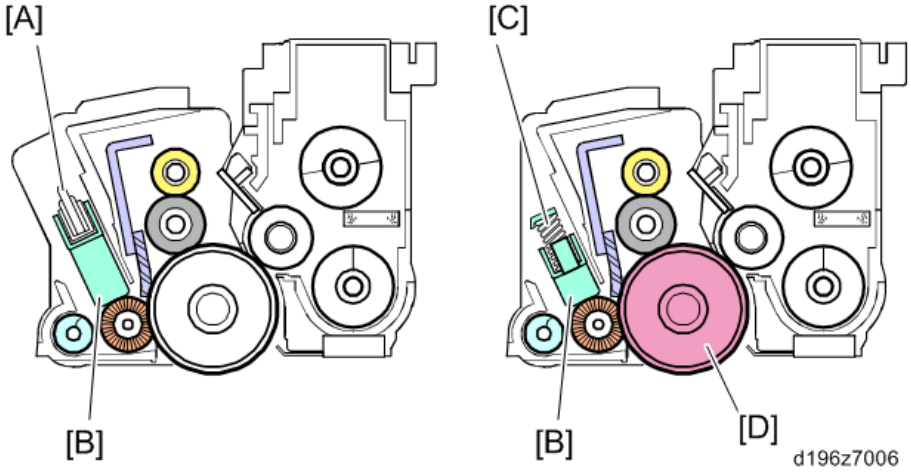
The waste Toner Transport Coil [A] transports the waste toner collected with the drum cleaning blade to the waste

toner bottle via the front of the unit.

Discharge Mechanism

This machine uses spontaneous discharge to remove remaining charge from the drum. A quenching lamp is not used.

Differences between K and CMY



Left: K

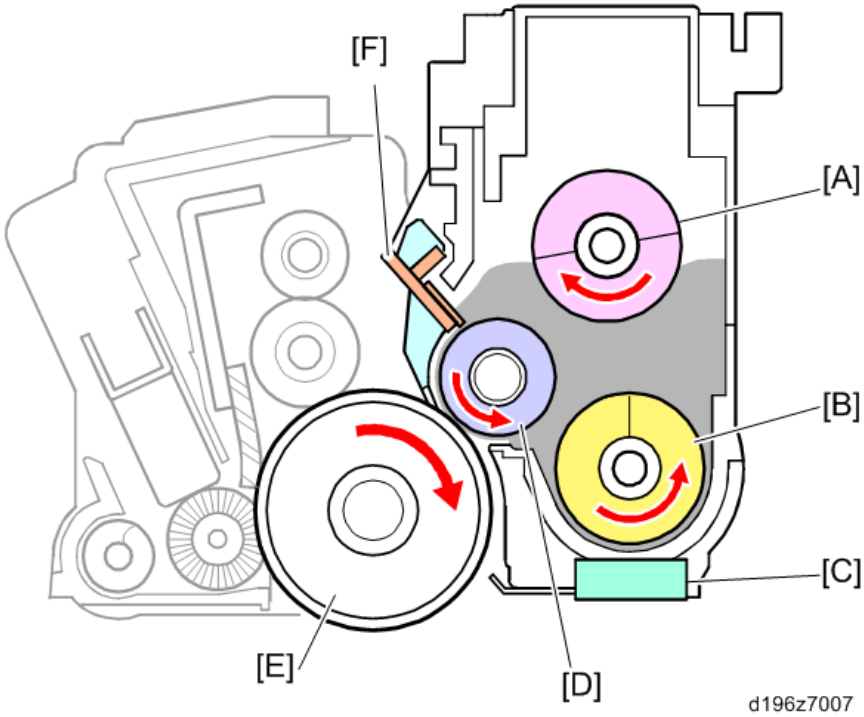
Right: CMY

The following points are the differences between K and CMY.

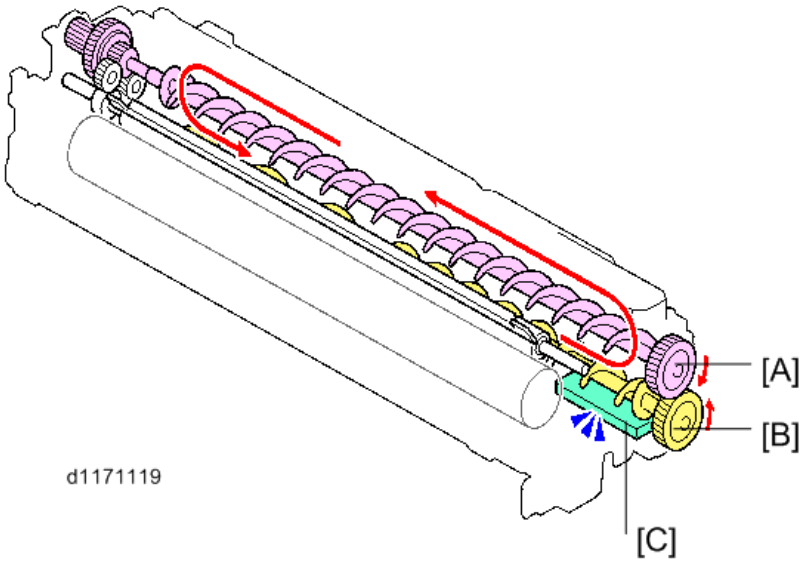
	K	CMY
Lubricant [B] quantity	K > CMY	
Lubricating method	Arm [A]	Pressure spring [C]
Silencer [D]	Available	Available

The silencer [D] is an internal layer of the drum, added to reduce sound during rotation.

Development Unit



Callout	Item	Callout	Item
[A]	Toner Transport Coil (Upper)	[D]	Development Roller (Sleeve Architecture)
[B]	Toner Transport Coil (Lower)	[E]	OPC Drum
[C]	Toner Density Sensor (Sensor)	[F]	Doctor Blade



Callout	Item	Callout	Item
[A]	Toner Transport Coil (Upper)	[C]	Toner Density Sensor (mu (μ) Sensor)
[B]	Toner Transport Coil (Lower)		

- 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, and applied to the development roller.

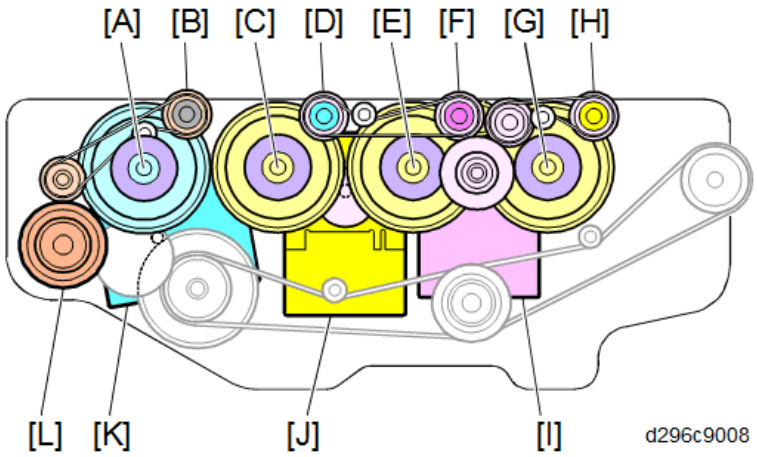
- Toner Density Detection Mechanism

  Toner density sensor [C] detects the toner density. Toner is supplied when the toner density is not sufficient.

- Toner Density Control

  The ID sensor at the lower right of the ITB detects the amount of light reflected from the drum and detects the toner density. Toner is supplied based on the information which the ID sensor detects.

Drum/Development Drive



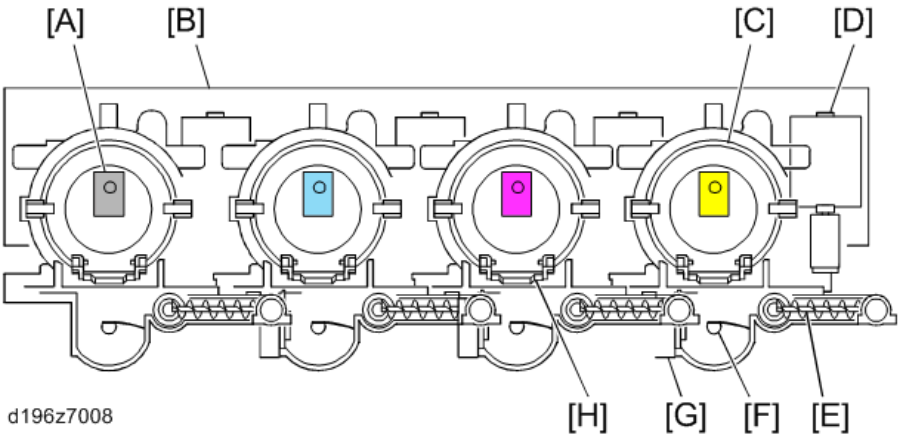
Callout	Item	Callout	Item
[A]	Drum Gear (K)	[G]	Drum Drive Gear (Y)
[B]	Development Drive Gear (K)	[H]	Development Drive Gear (Y)
[C]	Drum Drive Gear (C)	[I]	Development Motor (CMY)
[D]	Development Drive Gear (C)	[J]	Drum Motor (CMY)
[E]	Drum Drive Gear (M)	[K]	Drum Motor (K)
[F]	Development Drive Gear (M)	[L]	Development Clutch (K)

The Drum motor (Bk) [K] drives the drum (K). The Development Clutch [L] drives the Development Unit for K. The Drum motor (CMY) [J] drives the other three drums and the development motor (CMY) [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.

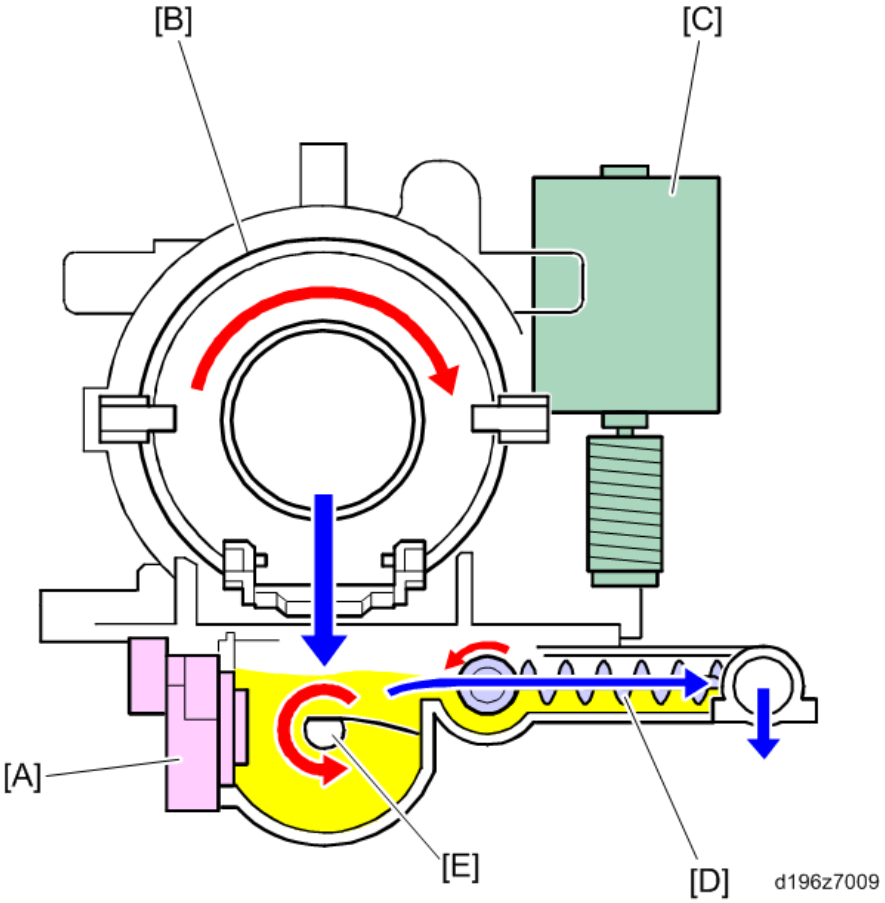
Toner Supply Section

Overview



Callout	Item	Callout	Item
[A]	ID Chip	[E]	Toner Transport Coil
[B]	Bottle ID Chip Contact Board	[F]	Agitator
[C]	Toner Bottle	[G]	Toner End Sensor
[D]	Toner Supply Motor	[H]	Shutter

Toner Supply and Transport Mechanism

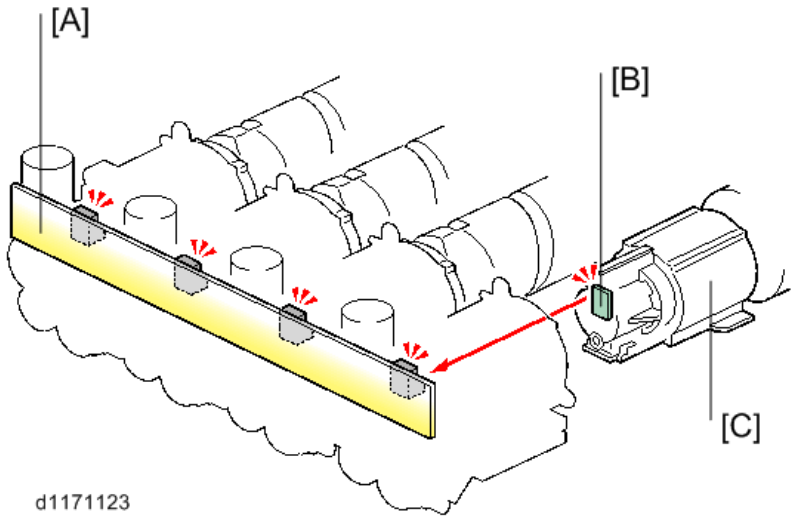


Callout	Item	Callout	Item
[A]	Toner End Sensor (Only for CMY)	[D]	Toner Transport Coil
[B]	Toner Bottle	[E]	Agitator
[C]	Toner Supply Motor		

Rotating the toner bottle [B] transports the toner towards the rear of the machine. Each toner bottle has an ID chip 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 toner transport coil [D] transports the toner to the development unit. Only color hoppers have the toner end sensor [A]. The ID chip manages the remaining amount of black toner.

Toner Bottle Set Sensor Mechanism



Callout	Item	Callout	Item
[A]	Bottle ID Chip Contact Board	[C]	Toner Bottle
[B]	ID Chip (One for Each Color)		

Each toner bottle [C] has an ID chip [B]. When the toner bottle [C] comes in contact with the bottle ID chip contact board [A], the machine detects that the toner bottle is set.

Toner Near End and 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. 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, which is a piezoelectric sensor, detects toner near-end twice, the machine also determines a toner near-end.

Toner End

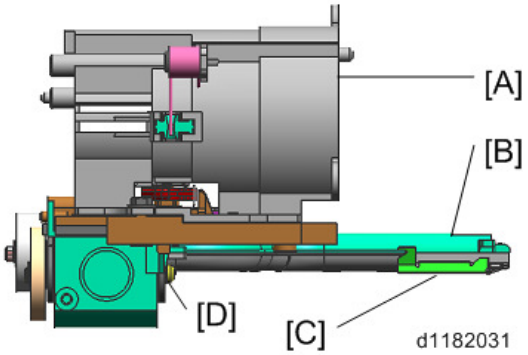
A toner end is detected when the toner end sensor detects the end threshold six times in the toner near-end condition.

The machine also detects a toner end when the difference of 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

Toner Supply Unit

The agitator [G] transports the toner supplied into the sub-hopper by raising it to the toner transport path. The transport path is level to make the machine's height lower.

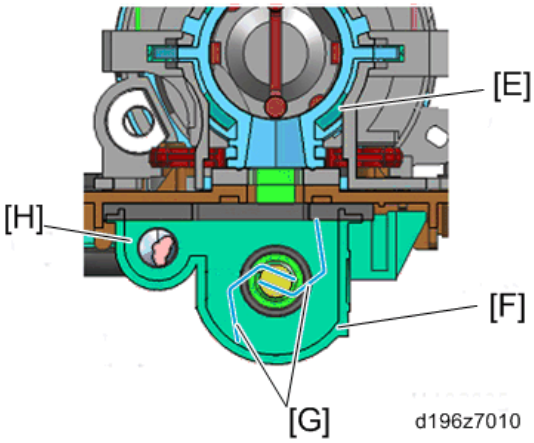


[A] Supply Housing

[B] Toner Transport Path

[C] Shutter

[D] Sub-hopper



[E] Toner Bottle Cap

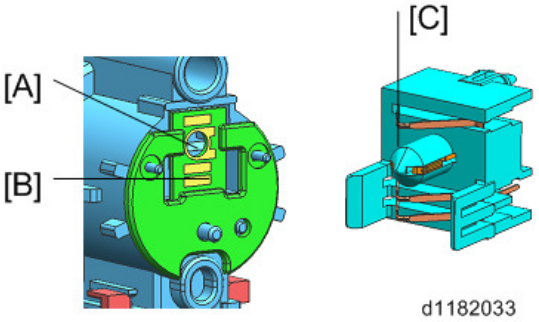
[F] Sub-hopper

[G] Agitator

[H] Toner Transport Path

ID Chip

The ID chip [B] of the toner bottle is set correctly by inserting the positioning hole [A] of the toner bottle over the tapered boss [C] of the mainframe.



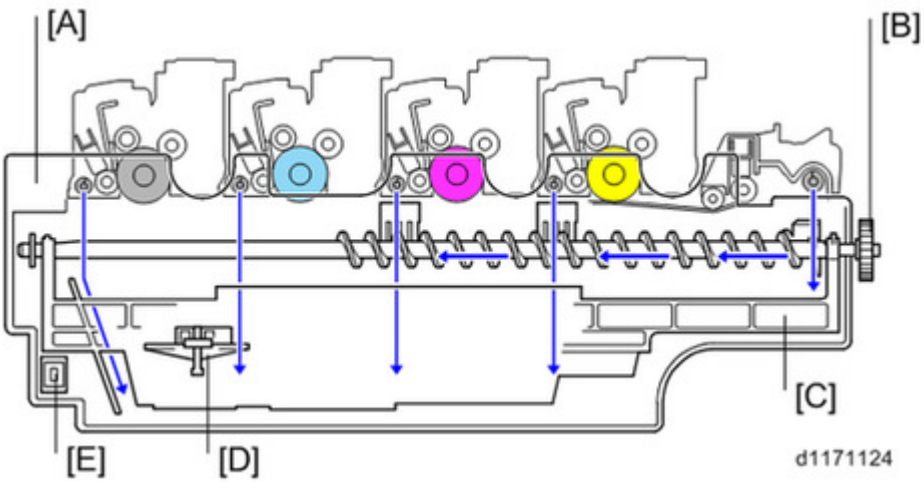
[A] Positioning Hole

[B] ID Chip

[C] Tapered Boss (for Chip Positioning)

Waste Toner Collection

Waste Toner Transport Mechanism



Callout	Item	Callout	Item
[A]	Waste Toner Bottle	[D]	Waste Toner Full Sensor
[B]	Waste Toner Bottle Transport Coil	[E]	Waste Toner Bottle Set Switch
[C]	Waste Toner Agitator		

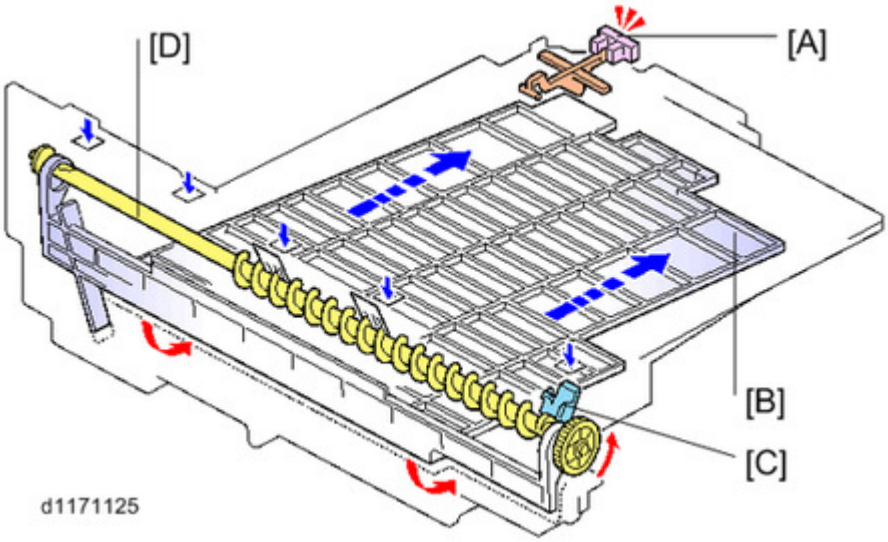
The waste toner collected from the ITB cleaning unit is transported towards the front of the machine and it goes into the waste toner bottle [A].

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 transport coil. The black and cyan waste toner comes from the PCDU 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 switch [E] detects the presence of the waste toner bottle, and there is also a waste toner bottle full sensor [D].

Waste Toner Collection Mechanism



Callout	Item	Callout	Item
[A]	Waste Toner Full Sensor	[C]	Waste Toner Agitator (for ITB Cleaning Unit)
[B]	Waste Toner Agitator	[D]	Waste Toner Bottle Transport Coil

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 [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.

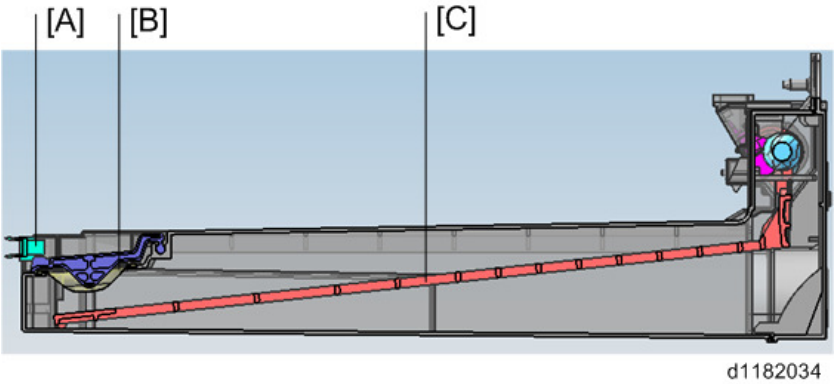
Waste Toner Full Detection

When the waste toner moves the rubber actuator [B] to the highest position, the waste toner full sensor [A] detects that the waste toner bottle is near-full. The machine does not stop at this time.

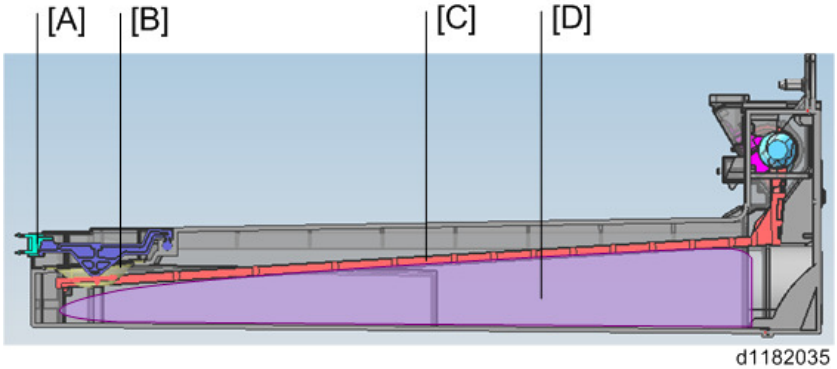
When the quantity of waste toner calculated by the machine reaches 25 g or 3,000 sheets in standard mode, whichever comes first after near-full was detected, the machine detects that the waste toner bottle is full, and stops itself automatically.

Note

- **When the waste toner bottle is empty:**



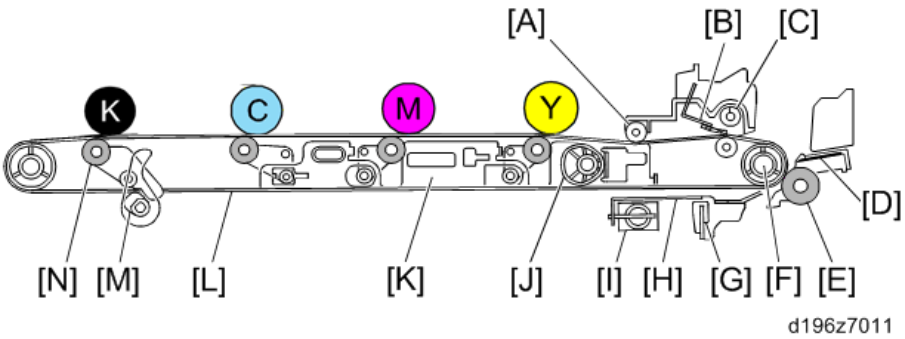
- **When the waste toner bottle is full:**



- [A] Waste Toner Full Sensor
- [B] Rubber Actuator
- [C] Waste toner agitator
- [D] Waste Toner

ITB/ Paper Transfer

Overview

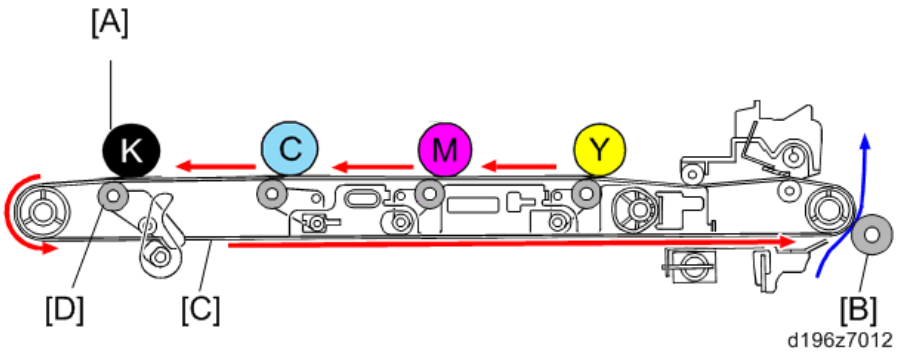


Callout	Item	Callout	Item
[A]	Belt Tension Roller	[H]	ID Sensor Shutter
[B]	ITB Cleaning Blade	[I]	ID Sensor Shutter Solenoid
[C]	Waste Toner Transport Coil	[J]	ITB Contact Cam (CMY)
[D]	Discharge Plate	[K]	ITB Contact Slider
[E]	Paper Transfer Roller	[L]	ITB (Image Transfer Belt)
[F]	ITB Drive Roller	[M]	ITB Contact Cam (K)
[G]	ID Sensor	[N]	Image Transfer Roller

Differences from the Predecessor Models

	C305 (Predecessor model)	C306/C406/C307/C407 (This model)
Image Transfer	Direct Transfer	Indirect transfer
Paper Transfer	Repulsion transfer (Paper transfer bias is applied to the ITB drive roller.)	Attraction transfer (Paper transfer bias is applied to the paper transfer roller.)
	Contact/release mechanism	Constant contact (No release mechanism)
Cleaning Mechanism	Cleaning Blade + Lubricant brush roller	Cleaning Blade

Transfer Movement and Image Transport



Callout	Item	Callout	Item
[A]	OPC Drum	[C]	ITB
[B]	Paper Transfer Roller	[D]	Image Transfer Roller (First Transfer Roller)

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.

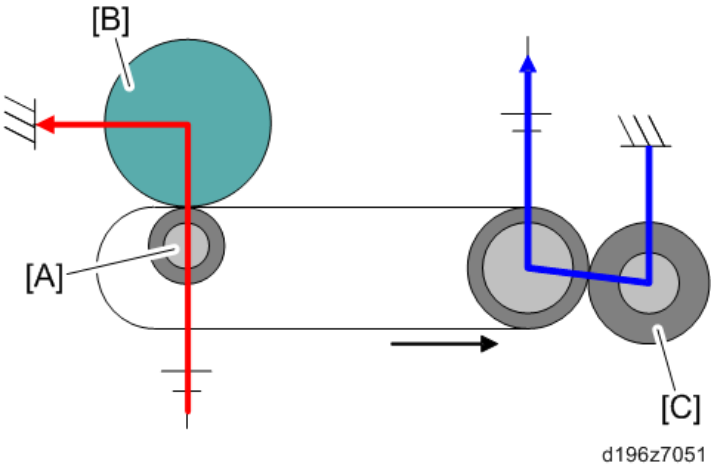
This model uses the indirect transfer method to enhance the quality of transfer.

The indirect transfer method uses the resistance of the ITB to apply the bias to the drum. So, in this model, the position of the image transfer roller is changed and so is its material.

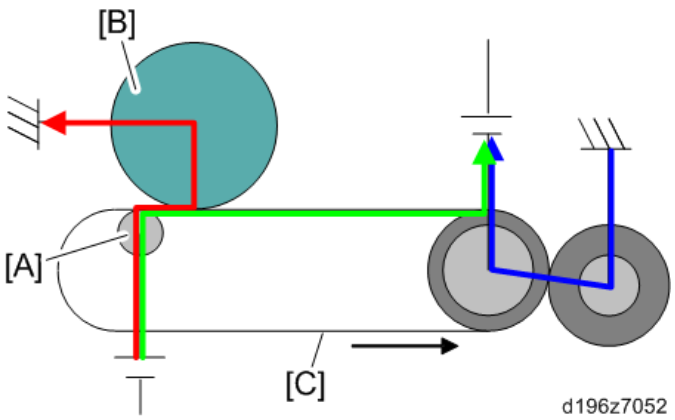
As the image transfer method is changed, the paper transfer method is changed from the repulsion method to the attraction method (the reason is explained below).

Note

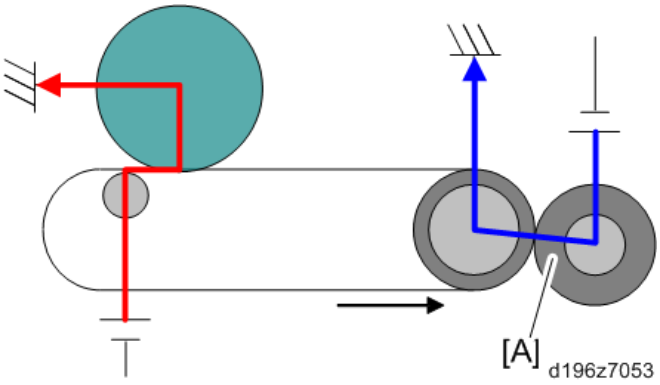
- **Direct Image Transfer + Repulsion Transfer Method (C305):**
  The image transfer roller [A] transfers the image transfer bias to the drum [B]. The paper transfer bias flows into the paper transfer roller [C].



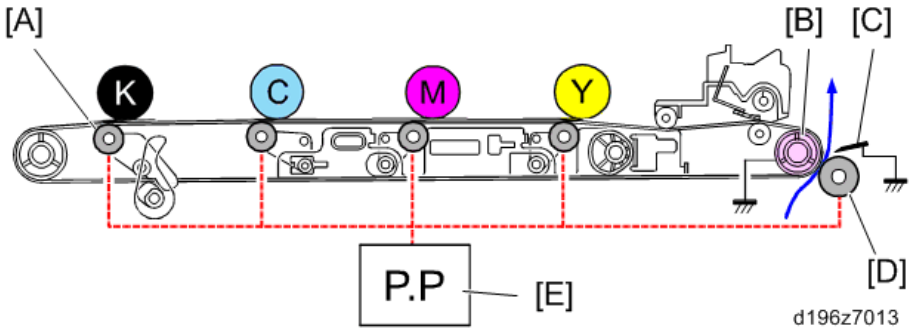
- **Indirect Image Transfer + Repulsion Transfer Method:**
  The image transfer roller [A] transfers the image transfer bias to the drum [B]. However, some of the bias goes to the image transfer belt [C]. This causes harmful interference between the image transfer current and paper transfer current.



- **Indirect Image Transfer + Attraction Transfer Method (C306/C406/C307/C407):**
  To eliminate the interference, applying the opposite bias to the paper transfer roller [A] is required. That is why the attraction transfer method is used in this model.



Transfer Bias

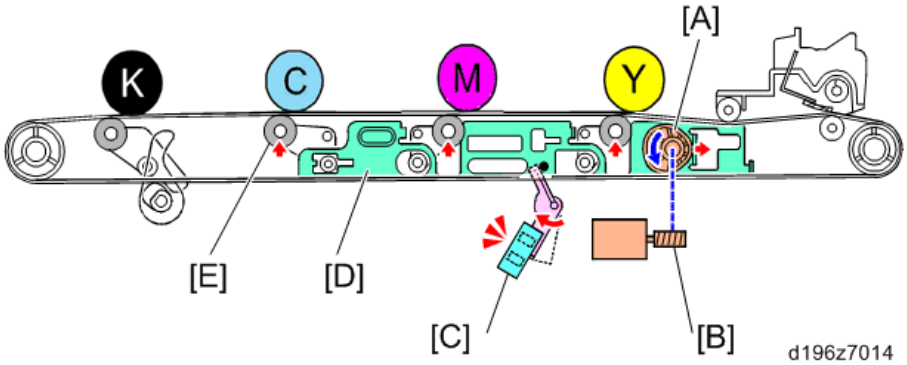


Callout	Item	Callout	Item
[A]	Image Transfer Roller (First Transfer Roller)	[D]	Paper Transfer Roller
[B]	ITB Drive Roller	[E]	Power Pack
[C]	Discharge Plate		

The power pack [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.

ITB Contact

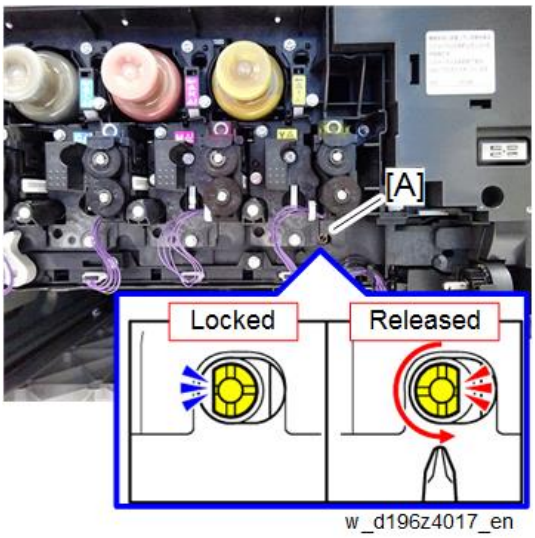


Callout	Item	Callout	Item
[A]	ITB Contact Cam (CMY)	[D]	Contact Slider
[B]	ITB Contact Motor	[E]	Image Transfer Roller (First Transfer Roller)
[C]	ITB Contact Sensor		

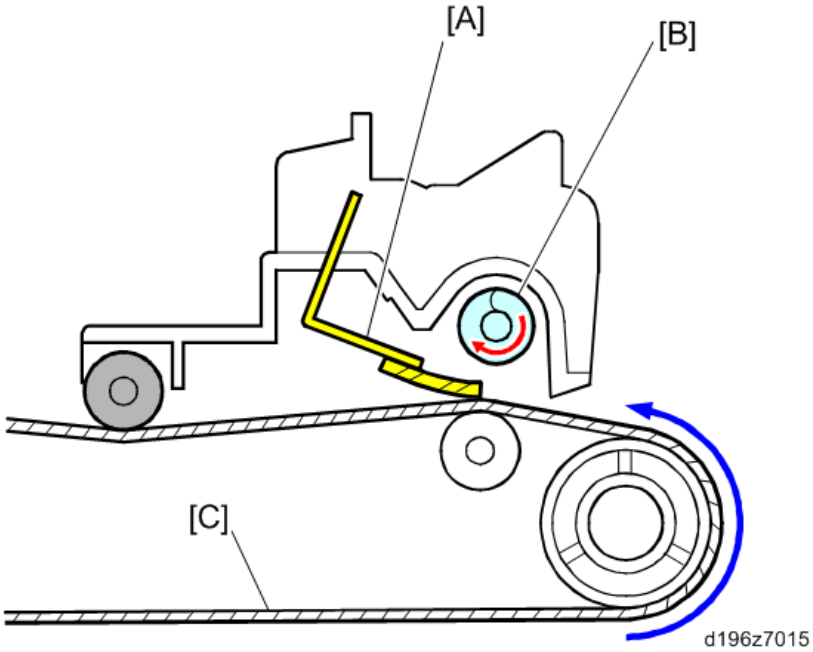
ITB has a contact mechanism to prevent the CMY drums from early deterioration. The color drums are not needed for B/W printing, so this mechanism releases the ITB from the CMY drums.

The ITB contact motor [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 the machine, as follows. The ITB will move away from the CMY drums. To do this, 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.



ITB Cleaning

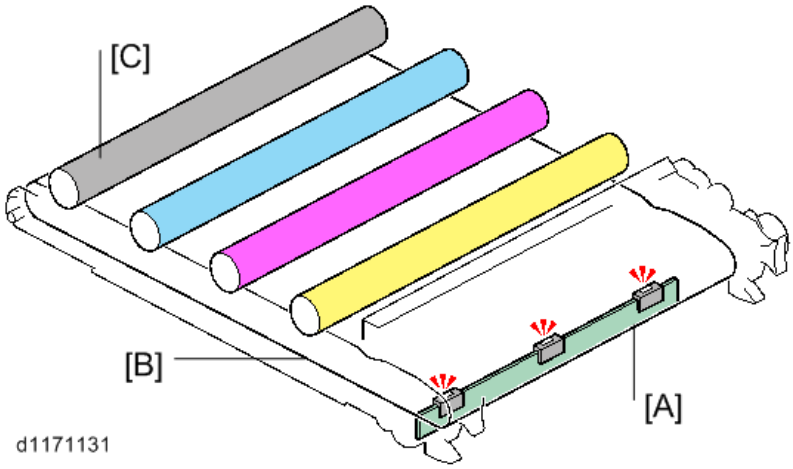


Callout	Item	Callout	Item
[A]	ITB Cleaning Blade	[C]	ITB
[B]	Waste Toner Collection Coil		

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.

This model only uses a cleaning blade for cleaning, whereas the previous model uses a blade and a lubricant brush roller.

Image Position Correction



Callout	Item	Callout	Item
[A]	ID Sensor	[C]	OPC Drum
[B]	ITB		

The image position adjustment is done by the three ID sensors [A].

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.	-
Manual Process	When SP3-011-001 is executed.	-

Trigger	Operative Condition	Notes
Control		
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.

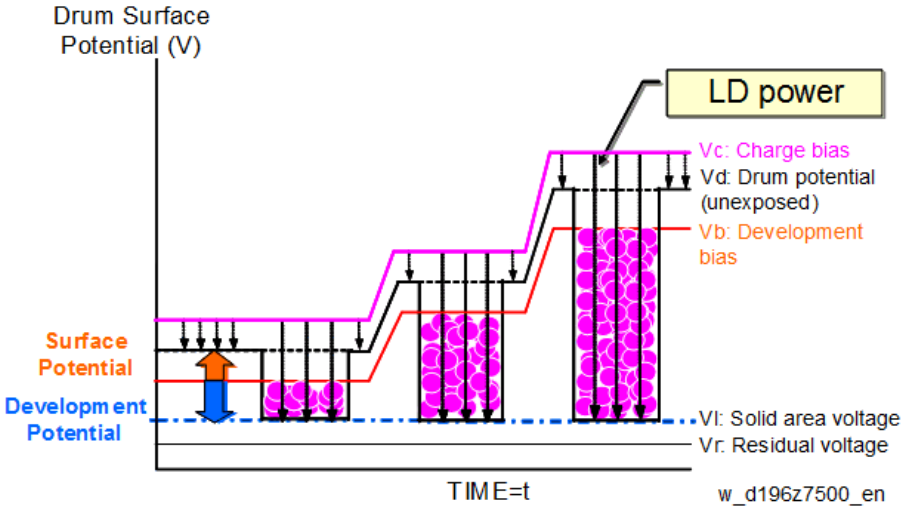
The value of Vc is not equal to Vd.

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.

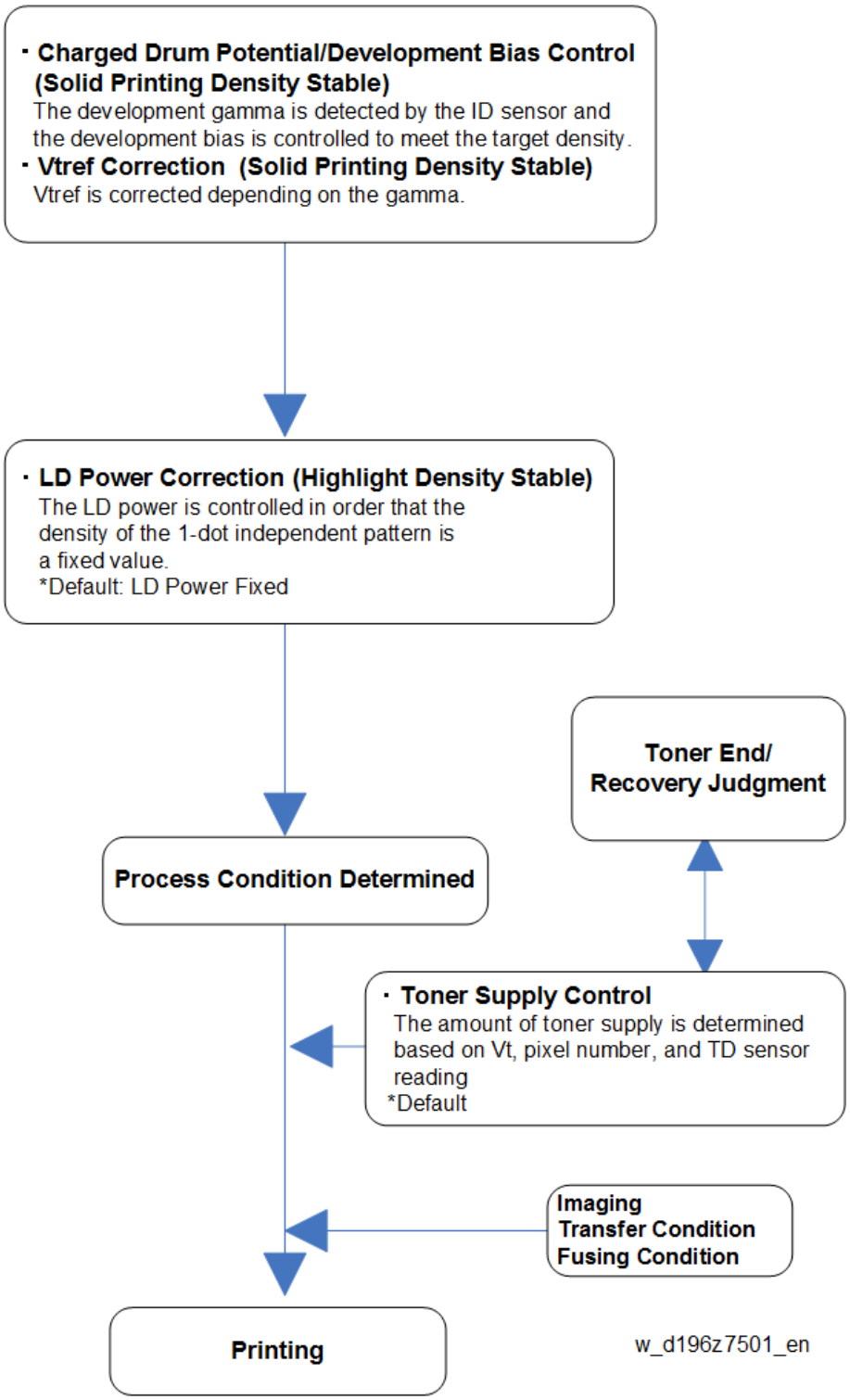


In addition to the development gamma and the potential, the toner density in the developer needs to be controlled.

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 toner density sensor 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 sensor Vsg

This step adjusts ID sensor's LED's light intensity so that Vsg, which is the ID sensor 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.

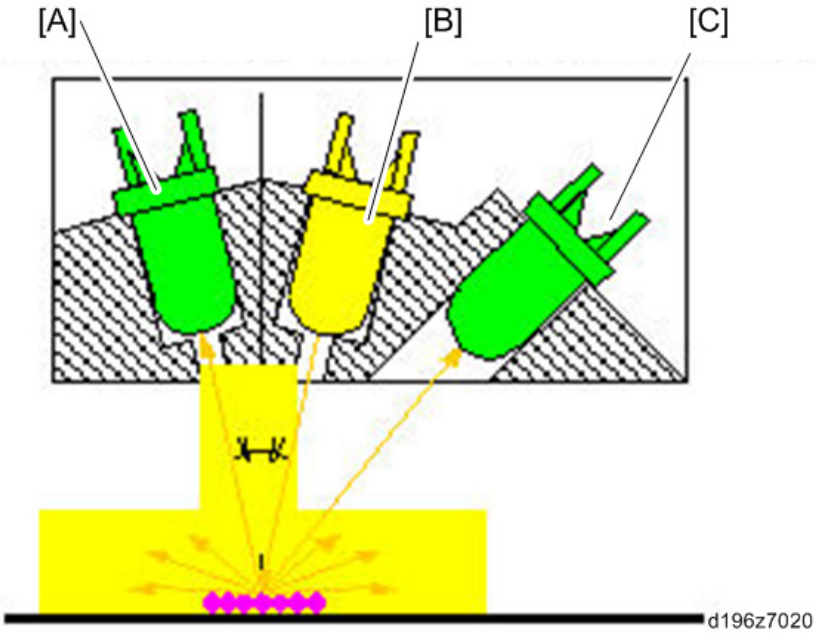
The developer agitation time is determined by the three factors below.

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 detects the created patterns.

The ID sensor 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 and the development gamma determine Vtref, which is the reference value for the TD sensor.

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. 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, 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 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, and turn the main power off and on, the machine detects that a new toner bottle is set. The machine then starts the toner supply to recover from the toner end. After supplying toner, the

machine checks the toner end sensor 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. 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, 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.

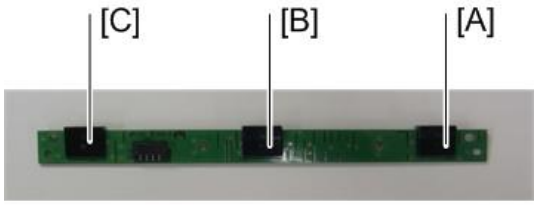
SC360-01 through -04 appears if the results of step 3 are as follows:

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.

ID Sensor



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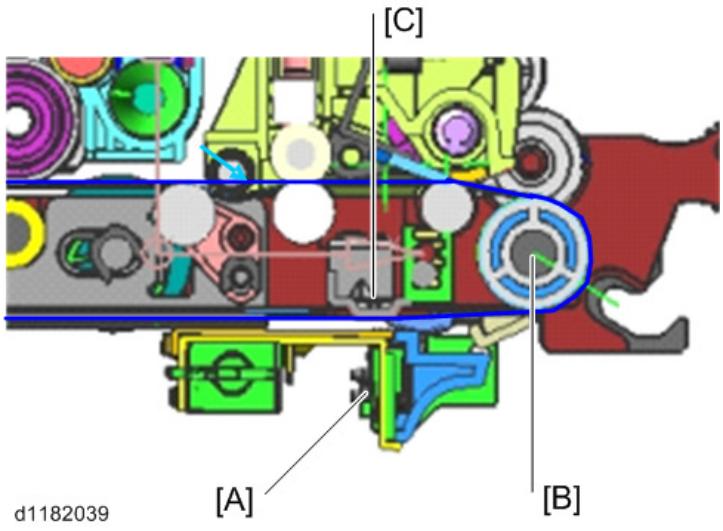
Three ID sensors are on a single board. The center sensor [B] acts as an ID sensor and a MUSIC sensor. The front [A] and rear [C] sensors are used only for MUSIC.



The ID sensors [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

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 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 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, there is an ID chip 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 from the energy save mode.	Executes [Mode b] (*2) or [Mode a] (*1)
2	The machine does a print job.	Executes [Mode b] (*2)
3	Printing is completed.	Executes [Mode b] (*2)

No.	MUSIC performs when:	Notes
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)

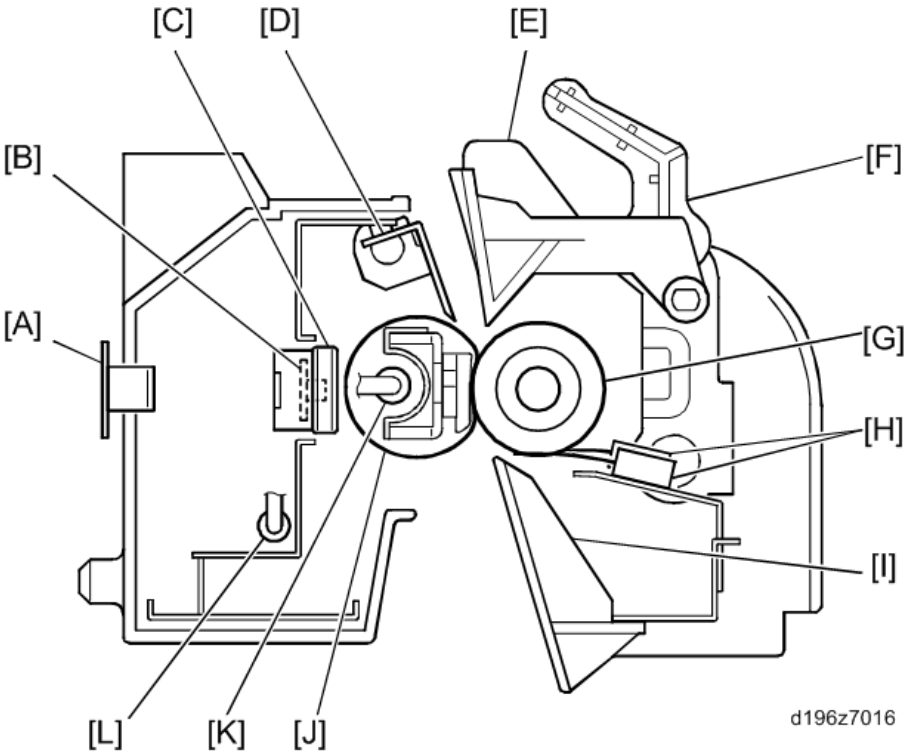
Error Details	Description
0	Not done
1	Completed successfully
2	Cannot detect patterns
3	Insufficient lines for a pattern
4	Out of the adjustment range
5 or 6	TD sensor false detection

Adjustment Overview

1. Performs Vsg adjustment to correct TD sensor 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.

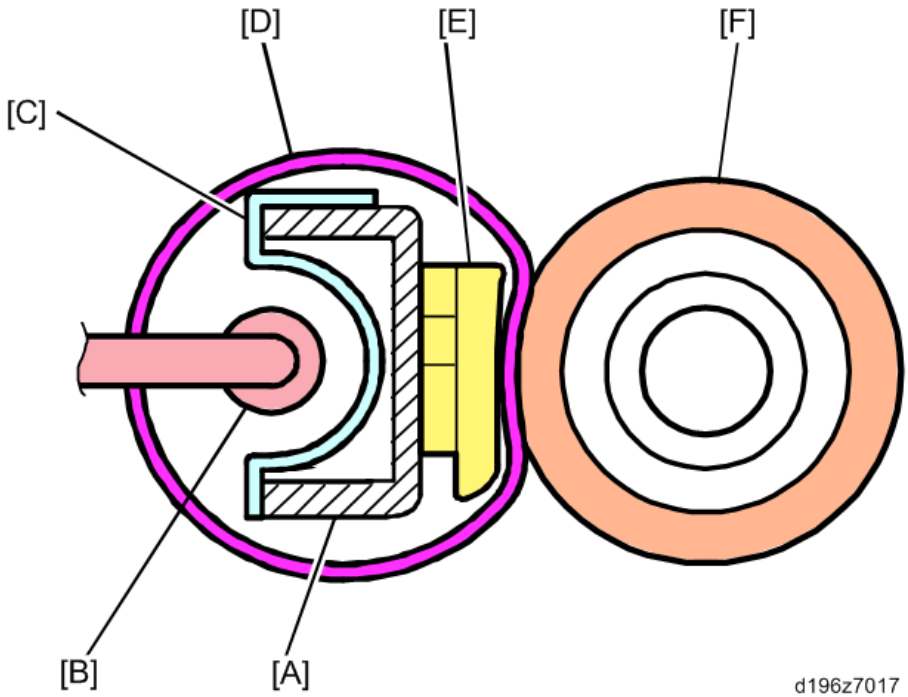
Fusing

Overview



Callout	Item	Callout	Item
[A]	Fusing Thermopile	[G]	Pressure Roller
[B]	Fusing Thermistor (NC Sensor)	[H]	Pressure Roller Thermistors (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]	Fuse for New Unit Detection

Fusing Mechanism



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

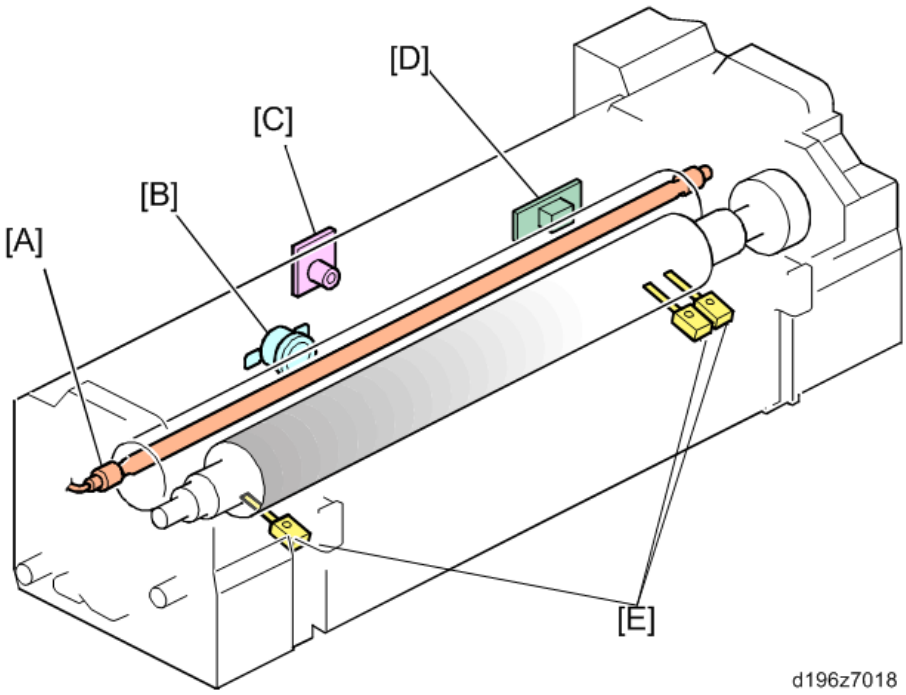
The fusing unit uses the QSU system. (QSU: Quick Start Up).

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 it. The nip pad [E] at the sleeve belt side is pushed against the pressure roller and keeps the nip width on the sleeve belt.

Fusing Temperature Control

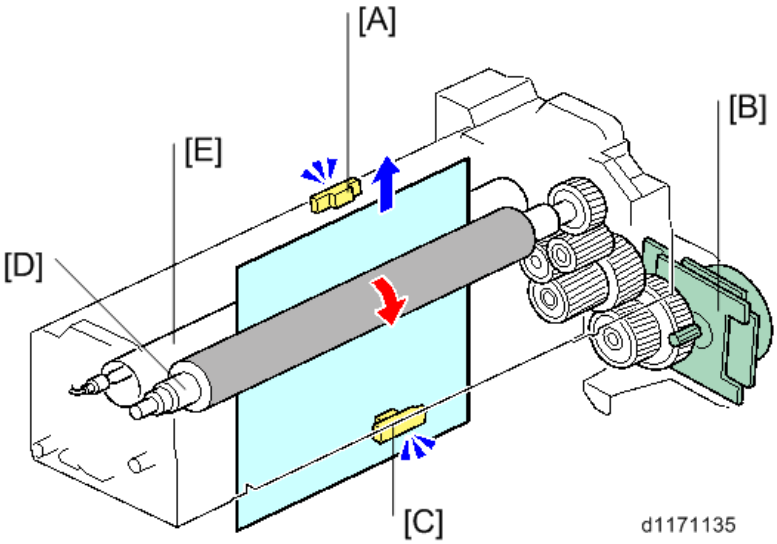


Callout	Item	Callout	Item
[A]	Fusing Lamp	[D]	Fusing Thermistor (NC Sensor)
[B]	Fusing Thermostat	[E]	Pressure Roller Thermistors (Edge: Front, Center, and Edge: Rear)
[C]	Fusing Thermopile		

The fusing temperature is controlled by the fusing thermopile [C].

The thermostat [B] is a safety switch. The fusing unit must be replaced if the thermostat is blown.

Fusing Drive



Callout	Item	Callout	Item
[A]	Fusing Exit Sensor	[D]	Pressure Roller
[B]	Fusing Motor	[E]	Fusing Sleeve Belt
[C]	Fusing Entrance Sensor		

The fusing motor [B] drives the pressure roller [D] through gears.

The pressure roller [D] drives the fusing sleeve belt [E].

The fusing entrance sensor [C] and fusing exit sensor [A] detect paper jams around/in the fusing unit.

Fusing Temperature Control

Warm-up mode

When the main power switch is turned ON, the machine starts the fusing warm-up. The machine drives the fusing motor 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 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. Then the machine keeps the fusing temperature to the standby target temperature (SP1-107-001) by energizing the fusing lamp.

In standby mode, the machine starts the fusing motor 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

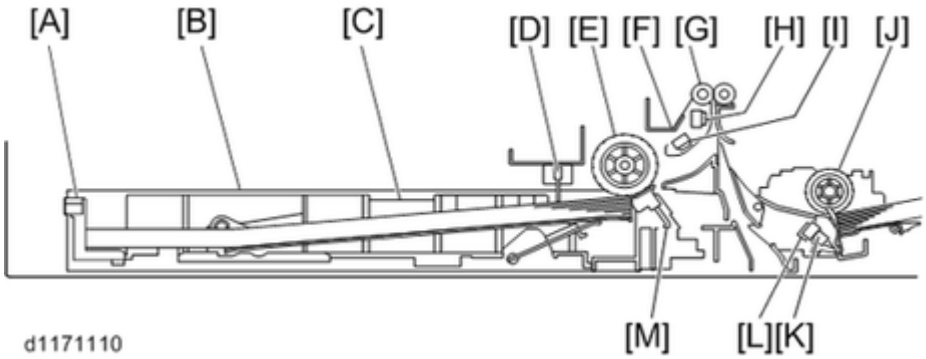
	A5	Postcard	Envelope	Recovery Time
CPM (Standard)	15	15	15	10 mins.
CPM Down Starting Sheet Count	No CPM	13th	4th sheet	

7.Detailed Descriptions

	A5	Postcard	Envelope	Recovery Time
	control	sheet		
CPM (Controlled)		10	6	
Output sheet count after one minute from recovery		14	6	

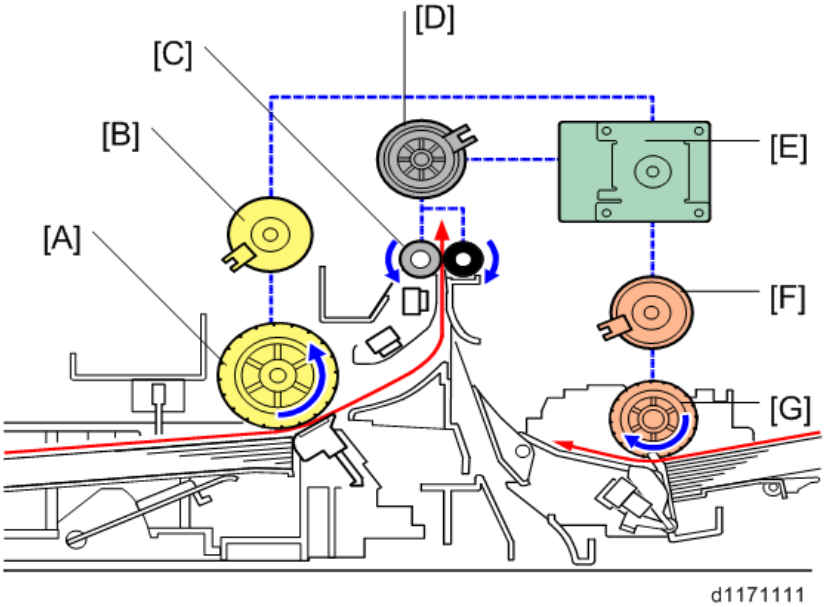
Paper Feed and Registration

Overview



Callout	Item	Callout	Item
[A]	End Fence	[H]	Registration Sensor
[B]	Paper Feed Tray	[I]	Paper Feed Sensor
[C]	Side Fence	[J]	Bypass Feed Roller
[D]	Paper End Sensor	[K]	Bypass Paper Width Sensor
[E]	Paper Feed Roller	[L]	Bypass Paper End Sensor
[F]	Dust Collection Tray	[M]	Friction Pad
[G]	Registration Rollers (Right: Driven, Left: Drive)		

Paper Feed, Registration, and Bypass Feed Drive

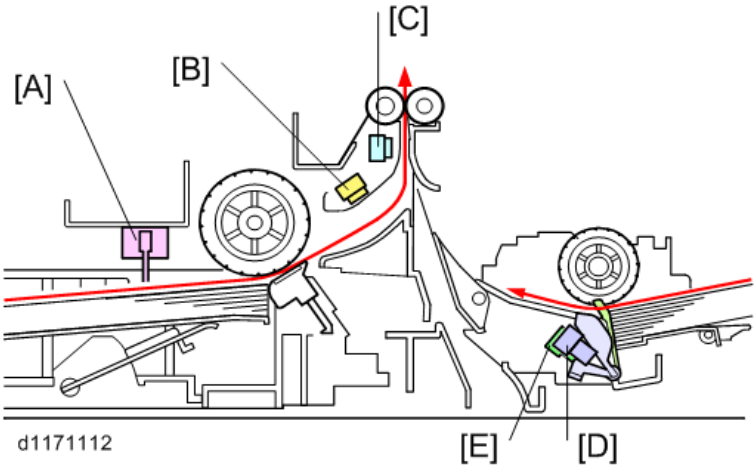


Callout	Item	Callout	Item
[A]	Paper Feed Roller	[E]	Paper Transport Motor
[B]	Paper Feed Clutch	[F]	Bypass Feed Clutch
[C]	Registration Roller	[G]	Bypass Feed Roller

Callout	Item	Callout	Item
[D]	Registration Clutch		

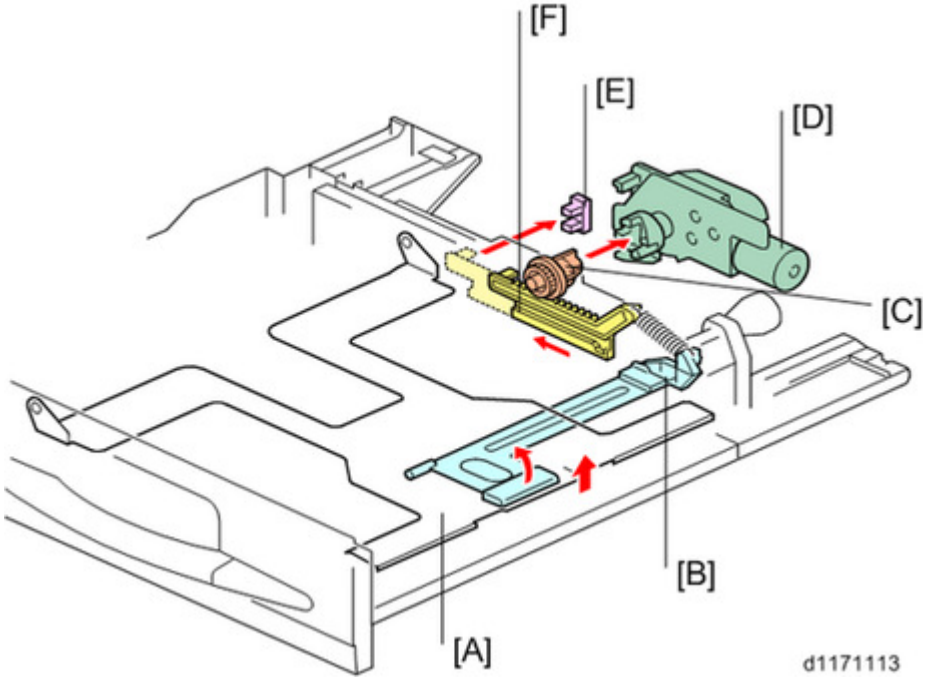
The drive from the paper transport motor is transmitted to each clutch through gears. The paper transport motor controls paper feed/exit, duplex, registration, waste toner transport coil and bypass tray lift.

Sensor Locations in the Paper Feed Path



Callout	Item	Callout	Item
[A]	Paper End Sensor	[D]	Bypass Paper Width Sensor
[B]	Paper Feed Sensor	[E]	Bypass Paper End Sensor
[C]	Registration Sensor		

Tray Lift Mechanism



Callout	Item	Callout	Item
[A]	Bottom Plate	[D]	Tray Lift Motor

Callout	Item	Callout	Item
[B]	Bottom Plate Lift Arm	[E]	Tray Lift Sensor
[C]	Bottom Plate Lift Gear	[F]	Rack and Pinion Mechanism

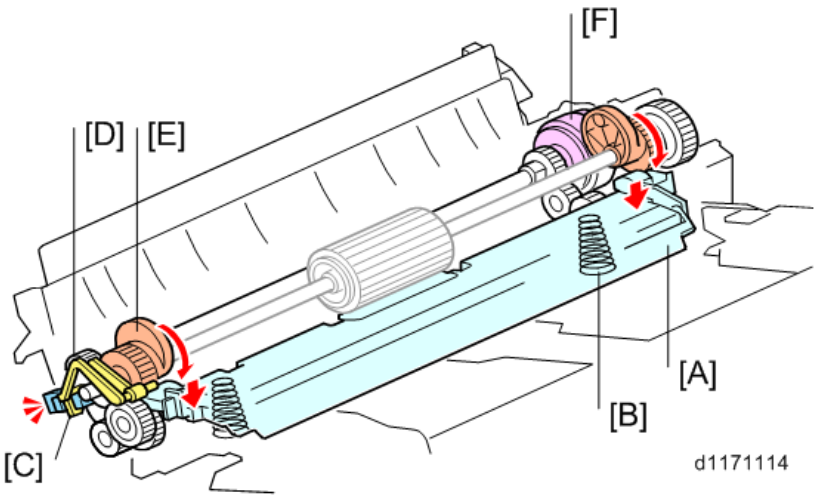
The tray lift motor rotates the gear [C] and the gear makes the rack [F] move.

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 [E]. This machine does not use motor control to detect the bottom plate position.

Bypass Tray Bottom Plate Lift Mechanism

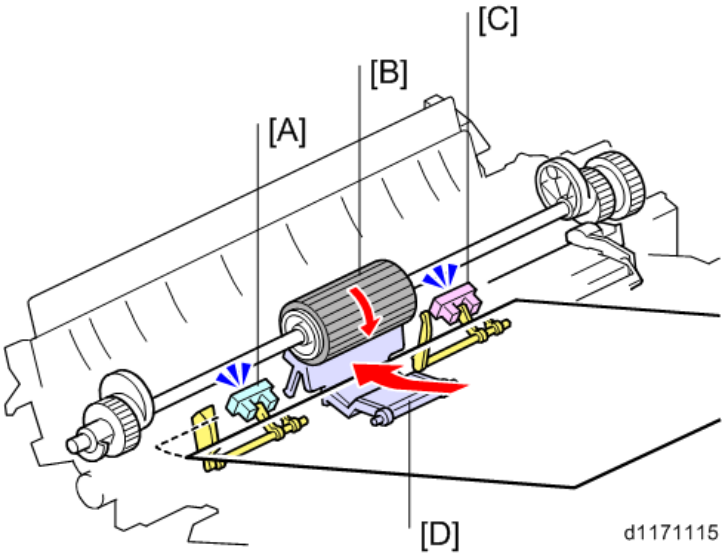


Callout	Item	Callout	Item
[A]	Bypass Tray Bottom Plate	[D]	Actuator
[B]	Pressure Spring	[E]	Bypass Tray Bottom Plate Lifting-up Cam (Front and Rear)
[C]	Bypass Tray Bottom Plate Lift Cam HP Sensor	[F]	Bypass Tray Bottom Plate Lifting-up Cam Clutch

The paper transport motor rotates the bypass tray bottom plate lift cam clutch [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 bottom plate lift cam HP sensor [C].

Paper Size Detection and Paper End Detection



Callout	Item	Callout	Item
[A]	Bypass Paper Size Sensor	[C]	Bypass Feed Paper End Sensor
[B]	Bypass Feed Roller	[D]	Bypass Feed Friction Pad

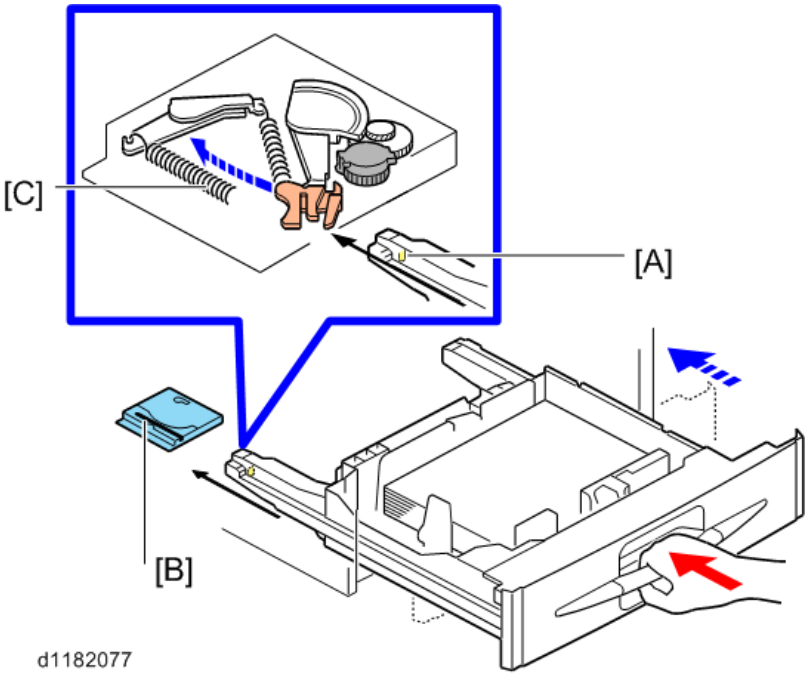
The bypass paper size sensor [A] is not at the side of the tray but at the side of the bypass paper feed unit.

The bypass paper size sensor is a photointerrupter, which detects when B5 paper or wider is placed in the tray.

The bypass feed paper end sensor is activated if there is no paper on the tray.

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.



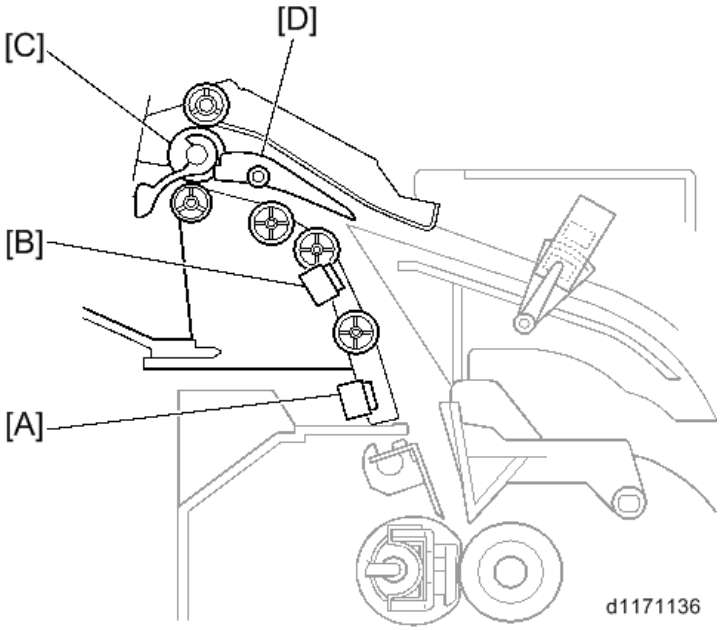
[A]: Pin

[B]: Draw-in Unit

[C]: Spring

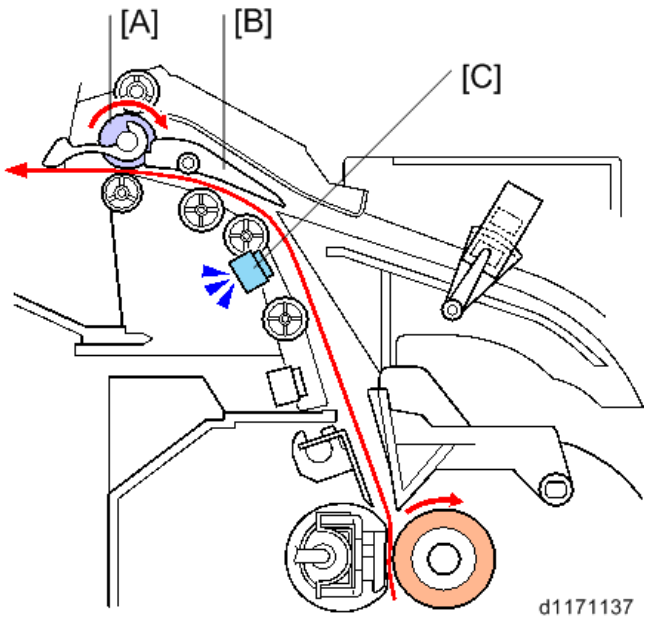
Paper Exit and Inverter

Overview



Callout	Item	Callout	Item
[A]	Fusing exit sensor	[C]	Paper exit/reverse roller
[B]	Paper exit sensor	[D]	Exit junction gate

Paper Exit Operation

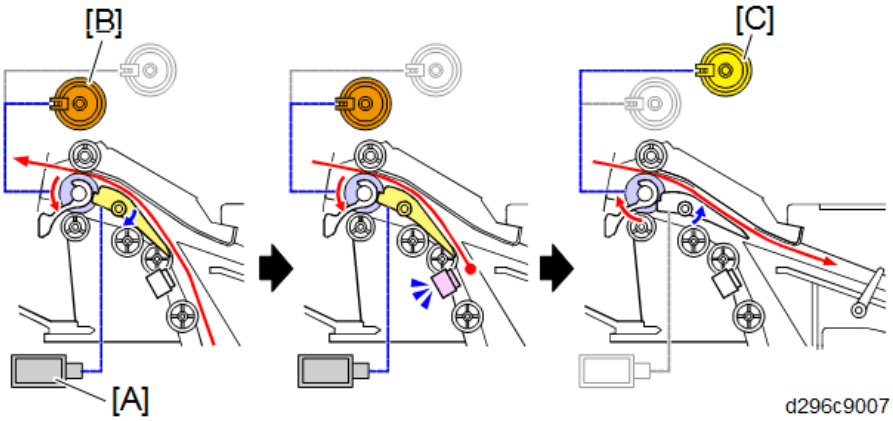


Callout	Item	Callout	Item
[A]	Paper exit/reverse roller	[C]	Paper exit sensor

Callout	Item	Callout	Item
[B]	Exit junction gate		

The paper transport motor rotates the paper exit/reverse roller [A] through a gear. The paper exit sensor [C] detects paper exit jams and the paper inversion timing.

Inverter Operation



Callout	Item	Callout	Item
[A]	Exit junction gate solenoid	[C]	Reverse clutch
[B]	Paper exit clutch		

The exit junction gate solenoid [A], paper exit clutch [B], and reverse clutch [C] control the exit junction gate and paper exit/reverse roller simultaneously.

The paper exit clutch and paper reverse clutch 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 is turned ON, to feed the paper to the paper exit path.

When the reverse clutch 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 turns ON, and the exit junction gate has been switched to direct the paper to the paper exit path.

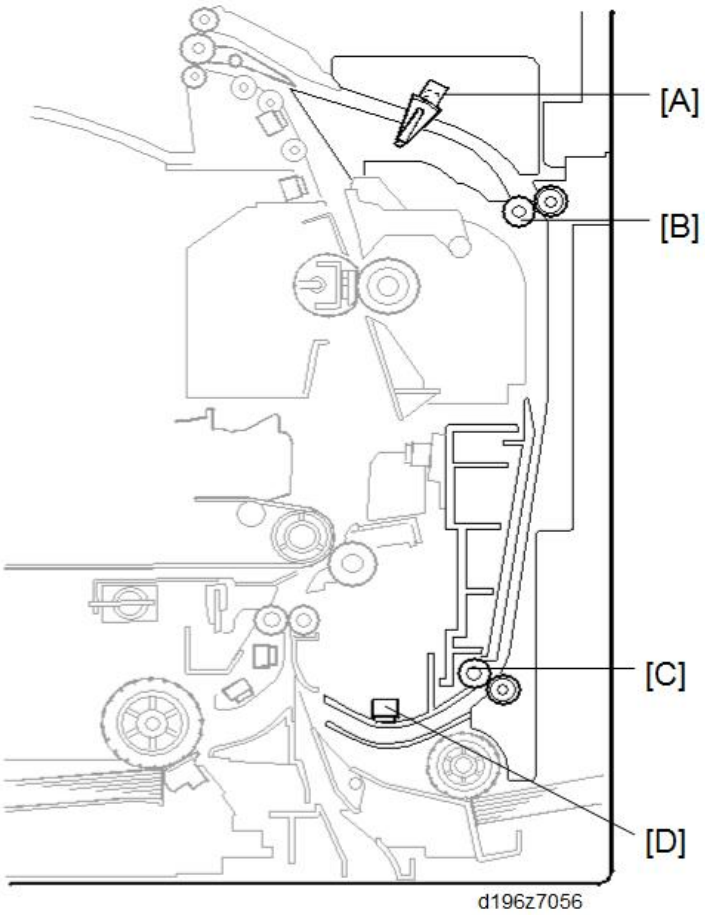
And then, the paper exit clutch turns OFF and the paper reverse clutch turns ON, to rotate the paper exit roller in reverse to feed the paper towards the paper exit (see the left illustration above).

When the trailing edge of the paper passes the paper exit sensor, the machine OFF the inverter junction gate solenoid, turns ON the paper exit clutch, and turns OFF the reverse clutch. It switches the exit junction gate back to the original position before the paper completely goes out of the paper 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.

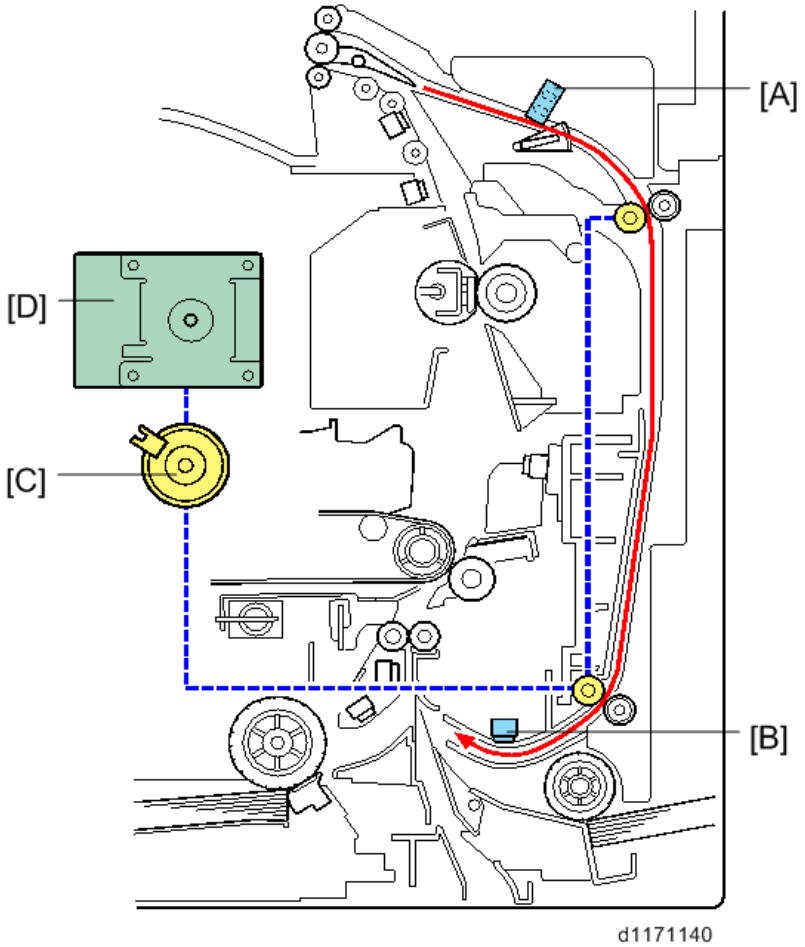
Duplex

Overview



Callout	Item	Callout	Item
[A]	Duplex Entrance Sensor	[C]	Duplex Paper Transport Roller (Lower)
[B]	Duplex Paper Transport Roller (Upper)	[D]	Duplex Exit Sensor

Duplex Mechanism



Callout	Item	Callout	Item
[A]	Duplex Entrance Sensor	[C]	Duplex Clutch
[B]	Duplex Exit Sensor	[D]	Paper Transport Motor

After the inverter mechanism feeds the paper back into the machine, the paper goes to the duplex feed path.

Duplex feed is not possible when the bypass tray is in use.

Duplex Drive

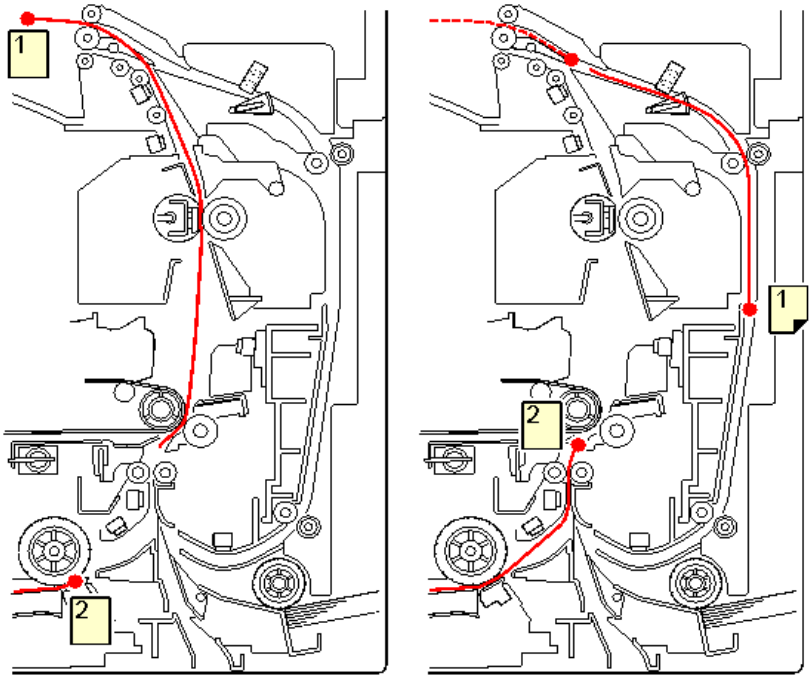
The drive from the paper transport motor [D] is transmitted to the duplex clutch [C] through a gear, and the duplex clutch turns on to drive the duplex rollers.

There are two duplex paper transport rollers (upper and lower). The duplex drive is transmitted from the lower duplex paper transport roller to the upper duplex paper transport roller via a timing belt.

Duplex Transport

There are two paper sensors (upper and lower) in the duplex unit. The upper sensor is the duplex entrance sensor [A]. The lower sensor is the duplex exit sensor [B].

Interleaving



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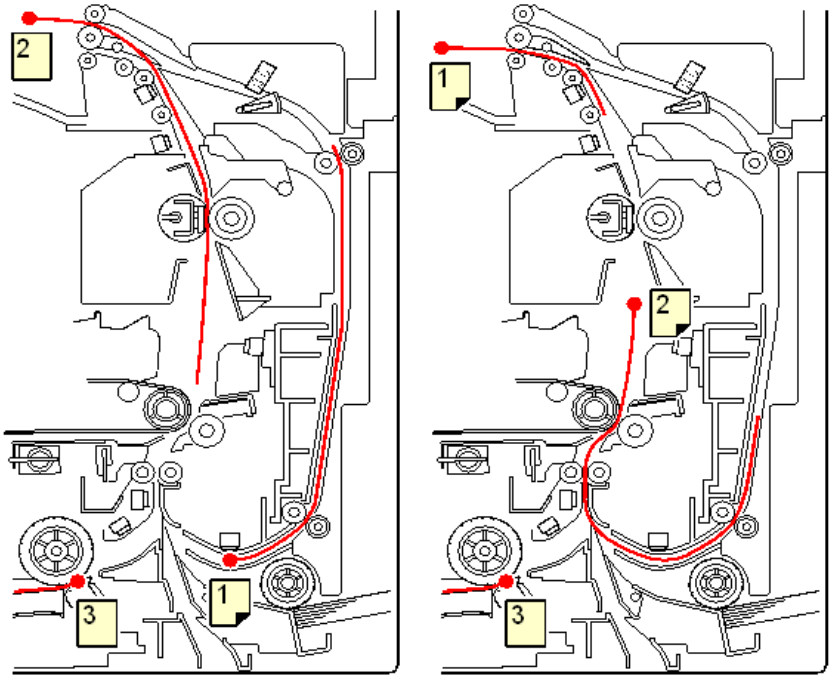


d1171142

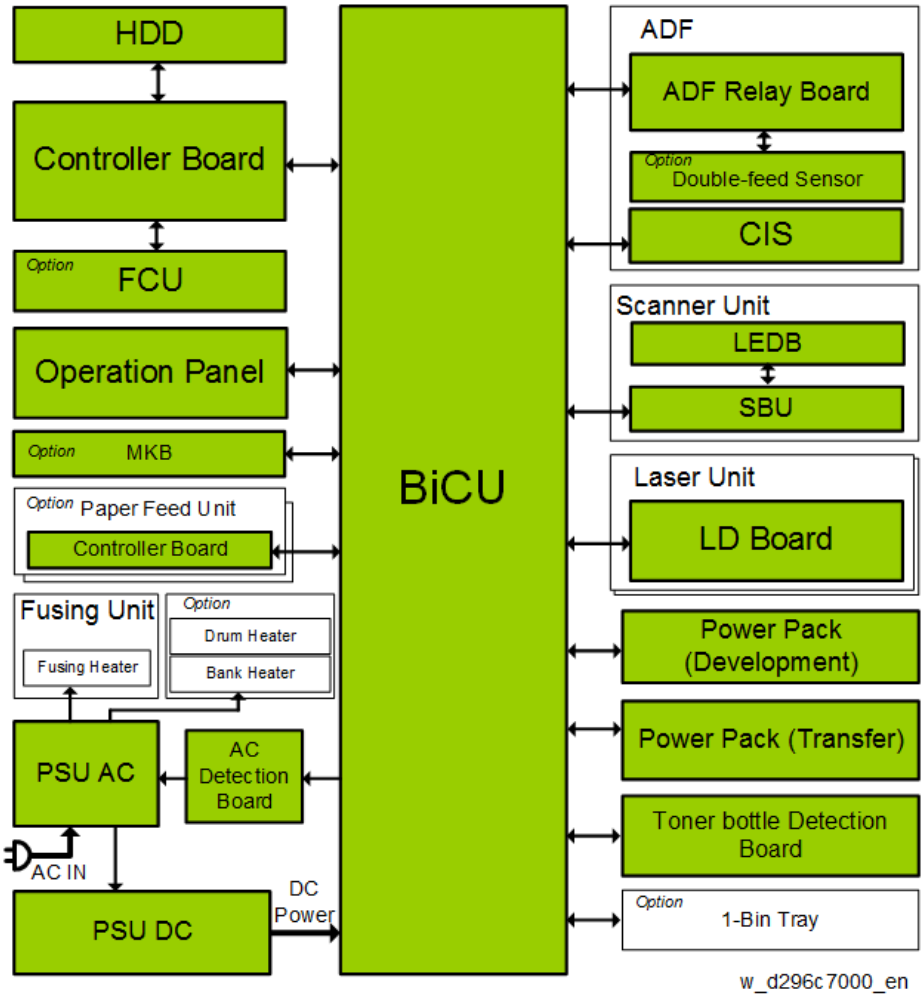
This machine adopts “2 in 1” interleaving.

The interleave operation of this machine is as follows:

1st sheet back -> 2nd sheet back -> first sheet front -> 2nd sheet front -> 3rd sheet back -> 4th sheet back.

Electrical Parts

Block Diagram



Board Outline

Controller Board

Controls the MFP system overall. Contains an x86 CPU, controller ASIC, IO control ASIC, and RAM.

SBU

Scanning control circuit which performs analog signal processing and AD image conversion of the CCD read image.
It also has an interface with the IPU, and controls scanner input and output signals according to CPU commands.

LD Board

LD control circuit which drives the laser diode with a universal driver.

BiCU

Controls the engine, as well as MFP engine sensors, motors and solenoids (The BCU has the IOB functions).

FCU

Controls the fax program.

OPU

Controls the control panel.

Power Packs (HVPS)

Generates high-voltage power required for process control. The power pack consists of two units: T1/T2 for transfer and CB for charging/developing.

PSU

Generates DC power from the mains AC power supply, and supplies it to each control circuit. Contains an A/C drive circuit for controlling the fusing lamp.

AC Detection Board

Detects the voltage of the mains AC supply.

ADF Relay Board

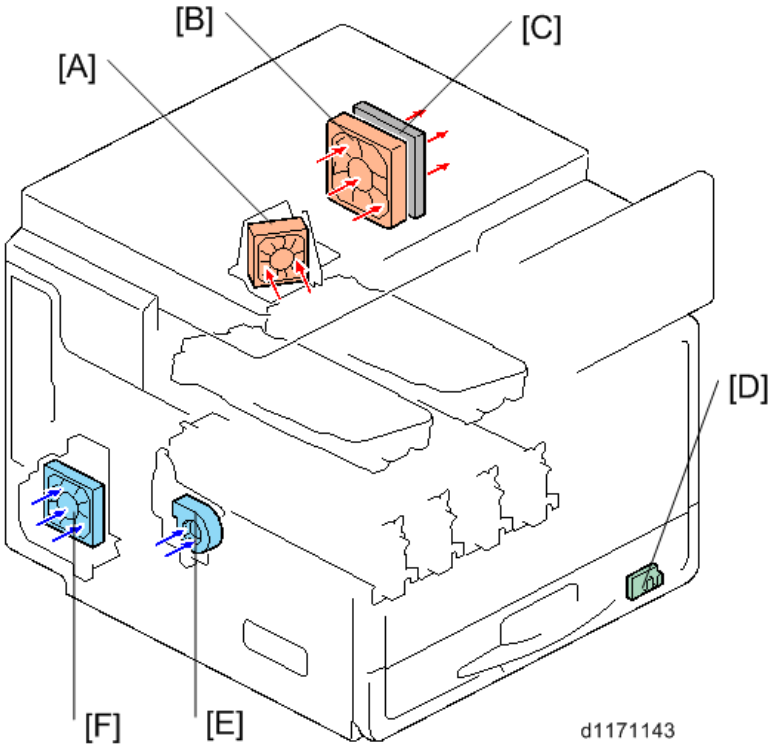
Controls motors, sensors, and solenoids in the ADF.

Fuse

Refer to Fuse Location (Fuse Location).

Machine Ventilation

Overview



Callout	Item	Callout	Item
[A]	LD Unit Fan	[D]	Temperature/Humidity Sensor
[B]	Fusing Fan	[E]	PCDU Cooling Duct Fan
[C]	Ozone Filter	[F]	PSU Fan

The machine has four fans [A] [B] [E] [F] to ventilate the interior of the machine. There is a temperature/humidity sensor [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 fan, which helps make it easier to replace the filter.

Machine Ventilation

The following tables summarize the fan control.

Fan Control Overview

Status	PCDU Cooling Duct Fan	Fusing Fan	PSU Fan	LD Unit Fan
Engine Off	Off			
Power ON –	Stops			

Status	PCDU Cooling Duct Fan	Fusing Fan	PSU Fan	LD Unit Fan
Warm-up				
Standby	Stops	Rotates at low speed	Stops	Stops
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
Lower Power	Stops *4			
Silent				
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 Duct Fan
   002: Fusing Fan
   003: PSU Fan
   004: LD Unit Fan
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 Duct Fan
   002: Fusing Fan
   004: LD Unit Fan
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.

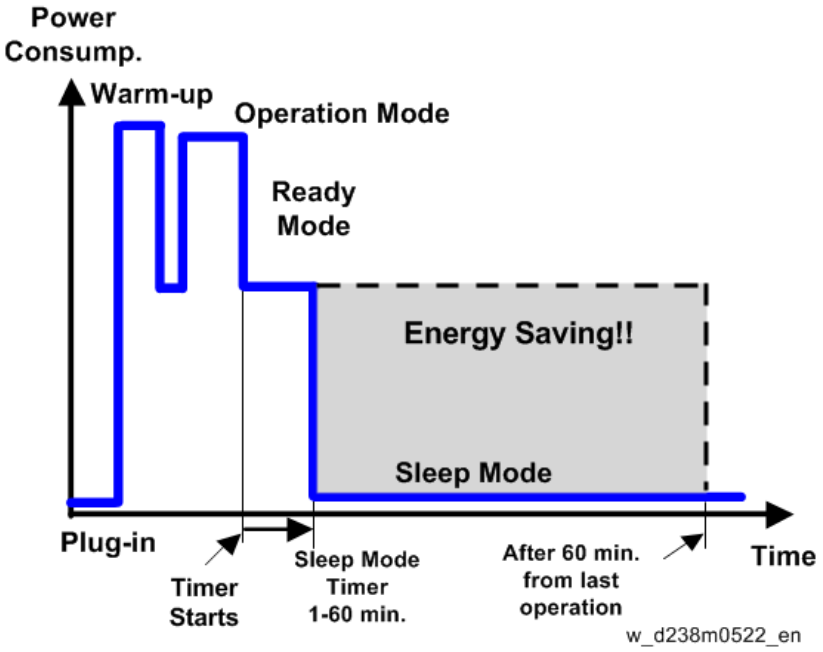
Operation Panel

Refer to “Smart Operation Panel” manual for details.

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 User Tools (Machine Features > System Settings > Timer Settings)

Sleep Mode Timer

User Tools (Machine Features > System Settings > Timer Settings)
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

User Tools (Machine Features > System Settings > Timer Settings)
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: [Off]

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 Recvry. for Business Applicatn.

User Tools (Machine Features > System Settings > General Features)
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

Reduced electrical consumption in Sleep mode*1:

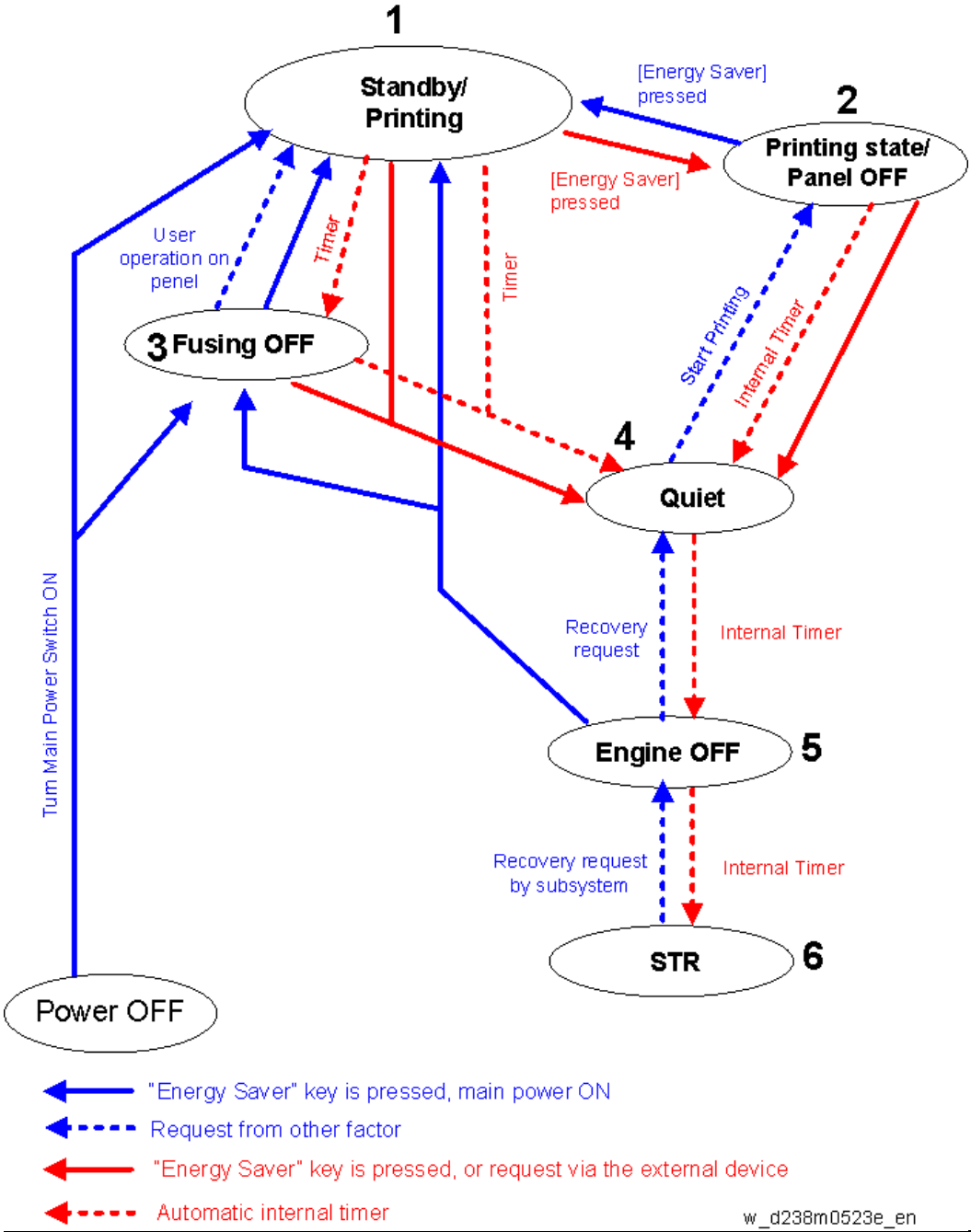
MP C307	MP C407
NA/EU/AA: 1.0 W or less	NA/EU/AA: 1.0 W or less

Recovery time from Sleep mode*1

MP C307	MP C407
10 sec.	10 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 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 Recvry. for Business Applicatn.] 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 Recvry. for Business Applicatn.] 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 Recvry. for Business Applicatn.] 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.
SP8-941-002	Standby Time	Cumulative time of the state in which the engine state is not running.
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)

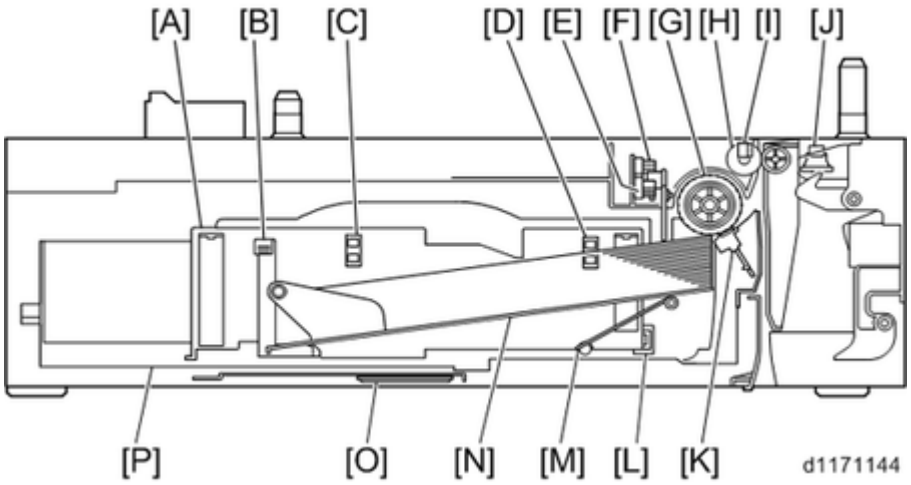
Recommendation

We recommend that the default settings related to energy saving should be kept.

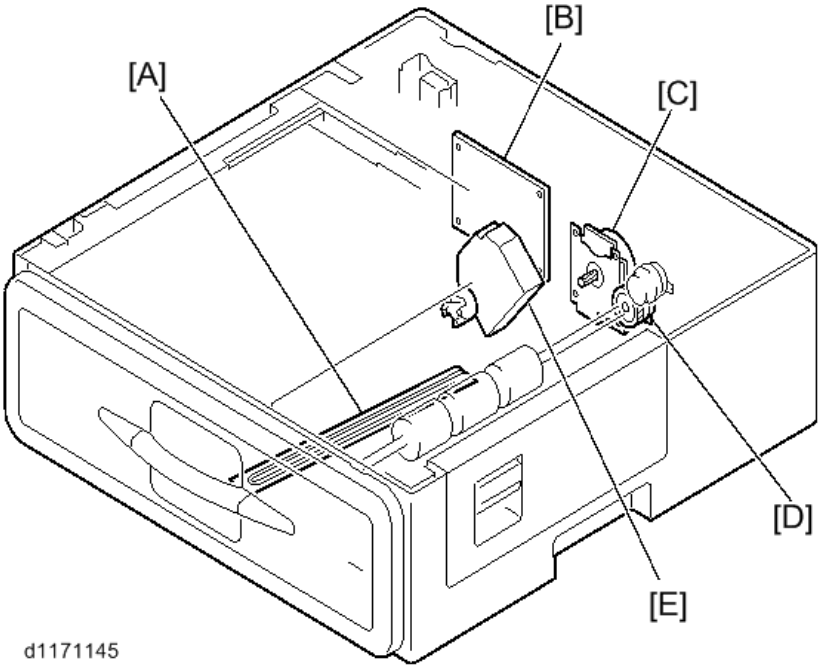
- If the customer requests that these settings should be changed, please explain that their energy costs could increase, and that they should consider the effects on the environment of extra energy use.

Paper Feed Unit PB1080/PB1080TE (Optional)

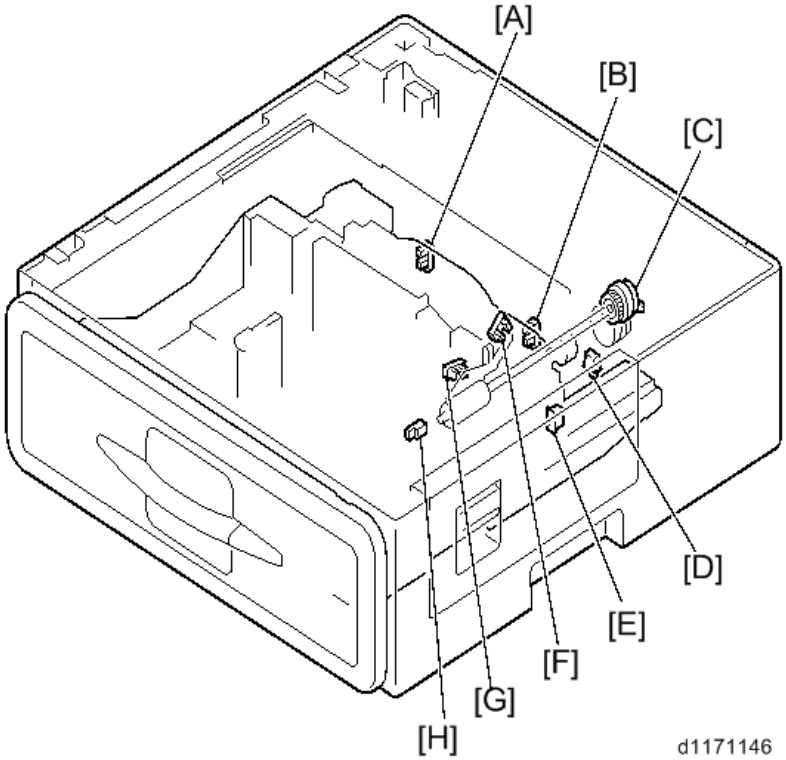
Overview



Callout	Item	Callout	Item
[A]	Side Fence	[I]	Paper Transport Sensor
[B]	End Fence	[J]	Vertical Transport Cover Open/Close Switch
[C]	Tray Bottom Plate Lift Sensor	[K]	Friction Pad
[D]	Tray Bottom Plate HP Sensor	[L]	Tray Set Switch
[E]	Paper End Sensor	[M]	Bottom Plate Lift lever
[F]	Remaining Paper Sensor	[N]	Tray Bottom Plate
[G]	Paper Feed Roller	[O]	Anti-condensation Heater (Option)
[H]	Vertical Transport Roller	[P]	Paper Tray

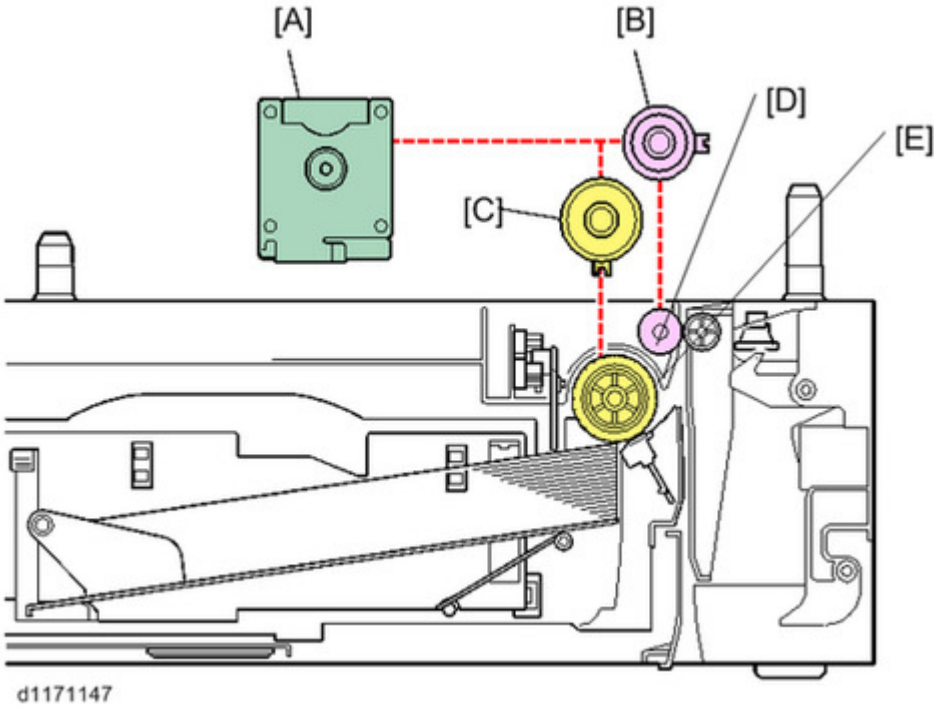


Callout	Item	Callout	Item
[A]	Anti-condensation Heater (Option)	[D]	Paper Feed Clutch
[B]	Controller Board	[E]	Tray Lift Motor
[C]	Paper Feed Motor		



Callout	Item	Callout	Item
[A]	Tray Bottom Plate Lift Sensor	[E]	Tray Set Switch
[B]	Tray Bottom Plate HP Sensor	[F]	Paper End Sensor
[C]	Vertical Transport Clutch	[G]	Remaining Paper Sensor
[D]	Vertical Transport Cover Open/Close Switch	[H]	Vertical Transport Sensor

Paper Transport Drive

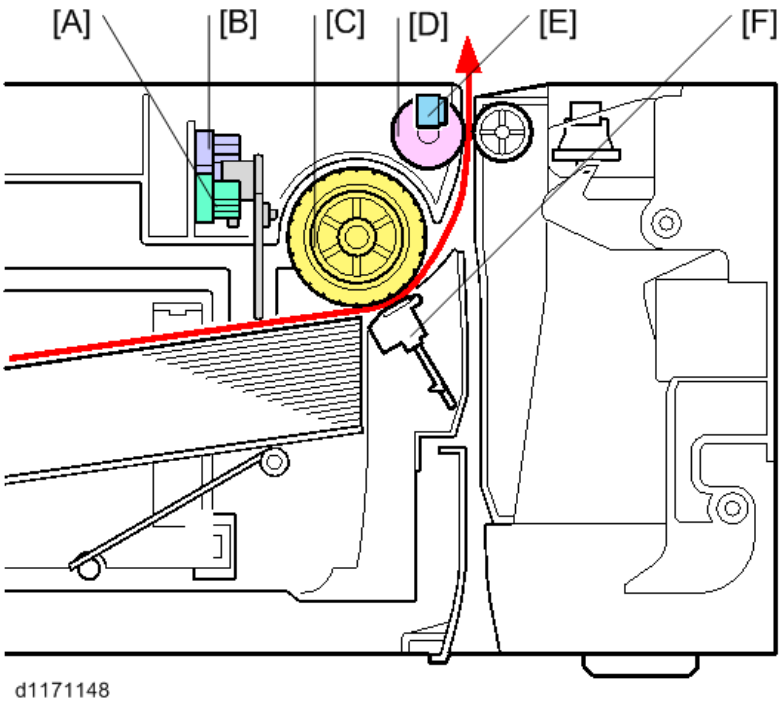


Callout	Item	Callout	Item
[A]	Paper Feed Motor	[D]	Vertical Transport Roller
[B]	Vertical Transport Clutch	[E]	Paper Feed Roller
[C]	Paper Feed Clutch		

The paper feed motor drives the paper feed clutch [C] and the vertical transport clutch [B] through gears. The operation timing of each clutch is as follows.

1. The paper feed clutch [C] is turned on until the vertical transport roller begins to operate.
2. The vertical transport clutch [B] is turned on until the paper reaches the mainframe.

Sensors and Friction Pad



Callout	Item	Callout	Item
[A]	Paper End Sensor	[D]	Vertical Transport Roller
[B]	Remaining Paper Sensor	[E]	Vertical Transport Sensor
[C]	Paper Feed Roller	[F]	Friction Pad

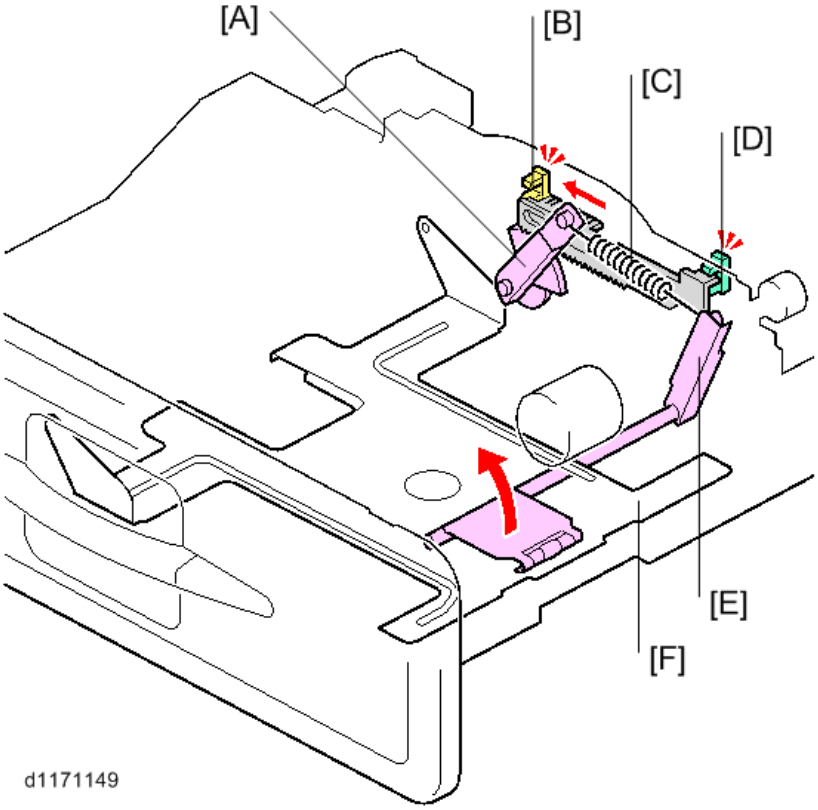
Only one actuator is used for detecting paper end and remaining paper.

The front side of the actuator is for the remaining paper sensor [B], and the rear side of the actuator is for the paper end sensor [A].

The vertical transport sensor [E] acts as a paper feed sensor.

This machine uses the friction pad method (same as the mainframe).

Tray Lifting up Mechanism



Callout	Item	Callout	Item
[A]	Tray Bottom Plate Pressure Lever	[D]	Tray Bottom Plate HP Sensor
[B]	Tray Bottom Plate Lift Sensor	[E]	Tray Bottom Plate Lift Lever
[C]	Lift Lever Encoder	[F]	Tray Bottom Plate

The pressure of the tray bottom plate [F] can be adjusted depending on the amount of paper remaining.

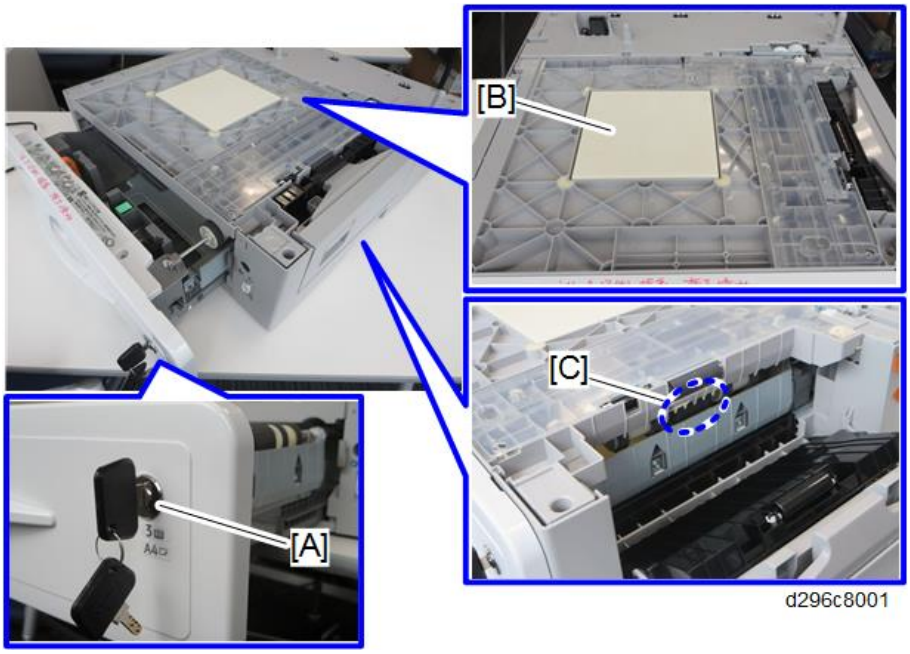
The pulses from the lift lever encoder [C] are detected by the tray bottom plate lift sensor [B]. The tray lift motor is controlled based on the pulses from the encoder.

Preventing Theft of Paper (Only PB1080TE)

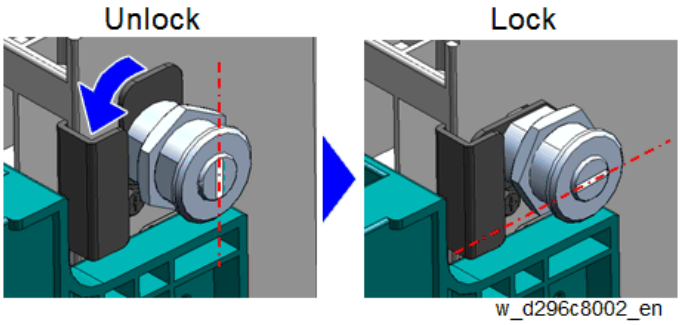
Paper Feed Unit PB1080TE is the optional PFU which can be locked with a key.

The key cylinder [A] is mounted on the front cover of the tray for preventing theft of paper. When the tray is locked with a key, it cannot be pulled out. Even if the machine body is unloaded from the PFU, taking out paper is impossible, because the plate [B] is fixed on top of the PFU.

In addition, in this model, the ribs [C] are added to the vertical transport unit. The ribs prevent from inserting fingers into the tray and rotating the feed roller with hands.



Two keys are shipped including the spare. In either position Lock/Unlock, it is possible to pull out the key. The key will be horizontal in the lock position.

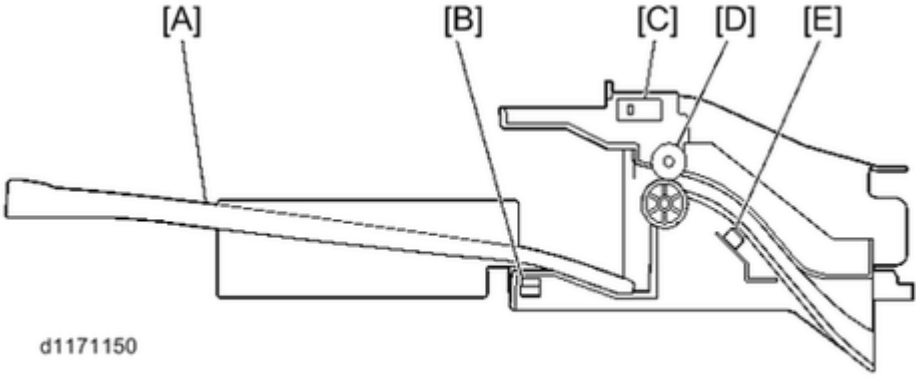


If the key has been lost, arrange new keys registered as service parts (P/N: D1462868, this P/N is as of October, 2016).

RTB 27

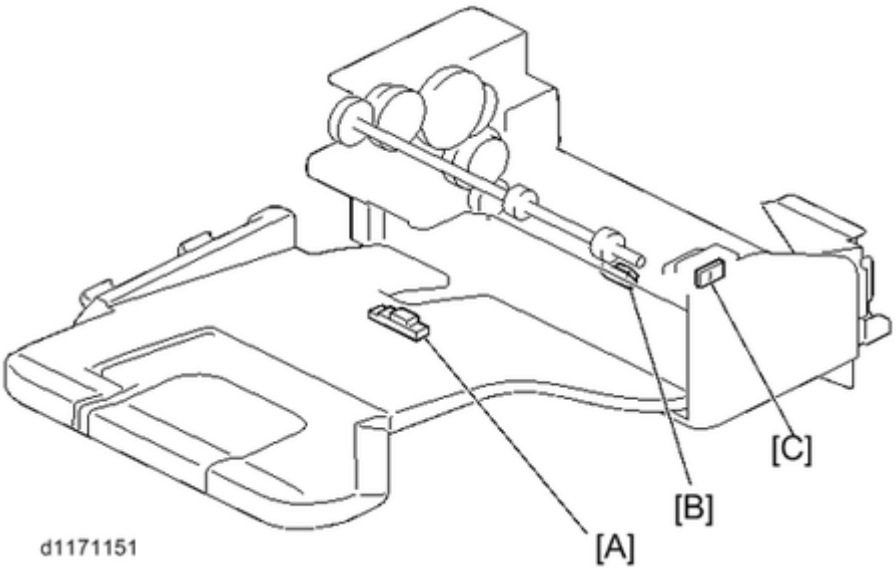
1 Bin Tray BN1030 (Optional)

Overview



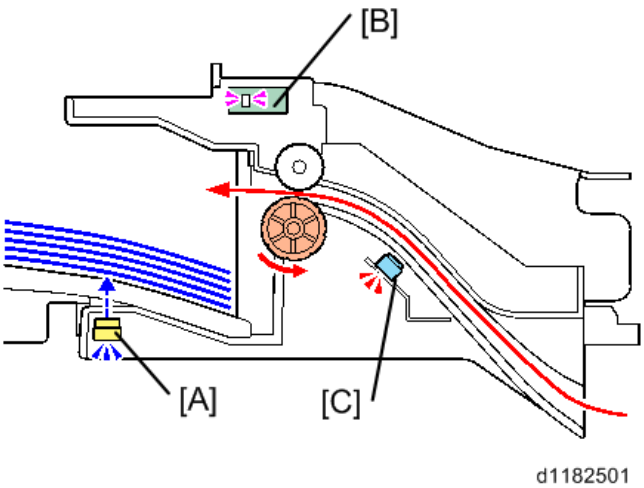
Callout	Item	Callout	Item
[A]	Paper Exit Tray	[D]	Paper Exit Roller
[B]	1-Bin Tray Paper Remaining Sensor	[E]	1-Bin Tray Exit Sensor
[C]	LED Board		

Electrical Components



Callout	Item	Callout	Item
[A]	1-Bin Tray Paper Remaining Sensor	[C]	LED Board
[B]	1-Bin Tray Exit Sensor		

Paper Exit from 1-Bin Tray Unit



Callout	Item	Callout	Item
[A]	1-Bin Tray Paper Remaining Sensor	[C]	1-Bin Tray Exit Sensor
[B]	LED Board		

The paper from the paper exit section is transported to the 1-bin unit.

This uses the same transport path as usual even if duplex is used.

The1-bin tray paper remaining sensor [A] detects the fed out paper, and the LED [B] blinks to inform users that there is paper on the 1-bin tray after the end of the job.

The 1-bin tray exit sensor [C] detects paper jams in the 1-bin tray.

MP C307/C407
Machine Code: D296/D297/D298/D299
Appendices
Ver 1.0

Latest Release: Nov, 2016
Initial Release: Nov, 2016
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1. Specifications

Specifications

Mainframe

Items	MP C307/C407	MP C306/C406
Configuration:	Desktop	
Scanning element:	One-dimensional solid-state scanning through CCD A CIS is also used for scanning the back side of the ADF	One-dimensional solid-state scanning through CCD
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 × 600 dpi • ADF: 600 × 300 dpi (front), 300 × 600 dpi (back) , 600 × 600 dpi **Print:** • 600 × 600 dpi, 1200 × 1200dpi	**Scan:** • Exposure glass: 600 × 600 dpi • ADF: 600 × 300 dpi **Print:** • 600 × 600 dpi
Fusing:	Direct Heating (DH) fusing	
Original type:	Sheets, book, three-dimensional object	
Maximum original size:	216 × 356 mm (8.5" × 14 ")	
Copy speed:	**C307:** • Color: 30 cpm (A4), 31cpm (LT) • Color/1200dpi: 15 cpm (A4), 15cpm (LT) • B&W: 30 cpm (A4), 31cpm (LT) **C407:** • Color: 35 cpm (A4), 36 cpm (LT) • Color/1200dpi: 15 cpm (A4), 15cpm (LT) • B&W: 40 cpm (A4), 42cpm (LT)	**C306:** • Color: 30 cpm (A4), 31cpm (LT) • B&W: 30 cpm (A4), 31cpm (LT) **C406:** • Color: 35 cpm (A4), 36 cpm (LT) • B&W: 40 cpm (A4), 42cpm (LT)
First copy time: (A4/LT, 1st tray)	**C307:** Color: 8.5 seconds or less B&W: 7.1 seconds or less **C407:**	**C306:** Color: 11.0 seconds or less B&W: 7.2 seconds or less **C406:**

Items	MP C307/C407	MP C306/C406
	Color: 7.5 seconds or less B&W: 6.1 seconds or less	Color: 10.5 seconds or less B&W: 6.2 seconds or less
Warm-up time:	48.6 seconds (23°C (73.4°F), rated voltage)	25 seconds (23°C (73.4°F), rated voltage)
Print paper capacity: (80 g/m^2, 20 lb.)	Standard tray: 250 sheets Bypass tray: 100 sheets Optional tray: 500 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:	Std: 100 sheets Max: 200 sheets (with 1 bin tray)	
Continuous copy:	Up to 99 sheets	
Memory:	2GB	
Hard disk:	320GB	
CPU:	Intel® Atom Processor BayTrail-I 1.46GHz	RM7035C-533L
Zoom:	Arbitrary: From 25 to 400% (1% step)	
	Fixed: **North America** 65%, 78%, 93%, 100%, 129%, 155% **Europe/Asia** 50%, 71%, 93%, 100%, 141%, 200%	
Power source:	110 V, 60 Hz: More than 10 A (for Taiwan) 120V -127 V, 60 Hz: More than 10 A (for North America) 220 V - 240 V, 50/60 Hz: More than 5 A (for Europe/Asia)	
Power consumption:	**North America** C307 (with full system): 1,300 W or less C407 (with full system): 1,300 W or less **EU/Asia** C307 (with full system): 1,200 W or less C407 (with full system): 1,200 W or less *The full system consists of the main unit,	**North America** C306 (with full system): 1,300 W or less C406 (with full system): 1,300 W or less **EU/Asia** C306 (with full system): 1,200 W or less C406 (with full system): 1,200 W or less *The full system consists of the main

Items	MP C307/C407	MP C306/C406
	two paper tray units, and 1bin unit.	unit, two paper tray units, and 1bin unit.
Energy saver:	Reduced electrical consumption: C307/C407: 1.0 W or less	Reduced electrical consumption: **North America** C306: 0.71 W or less C406: 0.63 W or less **EU/Asia** C306: 0.66 W or less C406: 0.75 W or less
Noise emission:	**Sound power level with full system** **C307:** • Stand-by: 30.5 dB (A) • Copying: B&W: 66.7 dB (A) Color: 67.8 dB (A) **C407:** • Stand-by: 30.8 dB (A) • Copying: B&W: 69.7 dB (A) Color: 68.6 dB (A) **Sound pressure level with full system** **C307:** • Stand-by: 20.2 dB (A) • Copying: B&W: 59.7 dB (A) Color: 61.1 dB (A) **C407:** • Stand-by: 21.0 dB (A) • Copying: B&W: 62.3 dB (A) Color: 62.2 dB (A) Sound power level and sound pressure level are actual values 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.	**Sound power level with full system** **C306:** • Stand-by: 31.9 dB (A) • Copying: 67.7 dB (A) **C406:** • Stand-by: 31.9 dB (A) • Copying: B&W: 68.3 dB (A) Color: 67.8 dB (A) **Sound pressure level with full system** **C306:** • Stand-by: 19.3 dB (A) • Copying: 55.3 dB (A) **C406:** • Stand-by: 19.8 dB (A) • Copying: B&W: 56.1 dB (A) Color: 54.2 dB (A) Sound power level and sound pressure level are actual values 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, ADF, 1bin unit, and two paper tray units.
Dimensions (W x	498 x 585 x 510 mm (19.6" x 23.0" x 20.1"):	510 x 588 x 505 mm (20.1" x 23.1" x

Items	MP C307/C407	MP C306/C406
D x H):	(including ADF and operation panel)	19.9"): (including ARDF and operation panel)
Weight:	46 kg (101.4 lb.) (including ADF)	Basic model: 40.5 kg (89.3 lb.) ADF model: 45 kg (99.3 lb.)

Printer

Items	MP C307/C407	MP C306/C406
Printer languages:	Standard: PCL 5c/6, PDF, RPCS, PostScript 3 Option: XPS, PictBridge, Adobe PostScript3	Standard: PCL 5c/6, PDF, RPCS, PostScript 3 Option: XPS, PictBridge
Resolution:	200 dpi, 300 dpi, 400 dpi, 600 dpi, 1200 dpi Note: • PCL5c: 600 x 600 dpi (1, 2, 4 bit), 300 x 300 dpi Grayscale • PCXL: 1200 x 1200 dpi (1 bit), 600 x 600 dpi (1, 2, 4 bit) • XPS: 600 x 600 dpi (1, 2, 4 bit)	PCL5c: 600 x 600 dpi (1, 2, 4 bit), 300 x 300 dpi Grayscale PCL6: 1200 x 1200 dpi (1 bit), 600 x 600 dpi (1, 2, 4 bit) PS3: 1200 x 1200 dpi (1 bit), 600 x 600 dpi (1, 2, 4 bit) XPS: 600 x 600 dpi (1, 2, 4 bit)
Resident fonts:	PCL 5c/6: 93 fonts PDF: 136 fonts PostScript 3: 136 fonts	PCL5c/ 6: 45 fonts, 13 International fonts Adobe PostScript 3: 136 fonts
Host interfaces:	**Standard**: Ethernet (10Base-T/100Base-TX/1000Base-T), USB2.0 (Type A), SD card slot **Option:** IEEE1284, Wireless LAN (IEEE802.11a/b/g/n), USB 2.0 (Type B), Ethernet (10Base-T/100Base-TX/1000Base-T)	**Standard**: Ethernet (10Base-T/100Base-TX/1000Base-T), USB2.0[TypeB], USB2.0 Host I/F[TypeA](2 port), SD card slot **Option:** IEEE1284/ECP, Wireless LAN (IEEE802.11a/b/g/n), Bluetooth, Ethernet (RJ-45 network port : 10Base-T/100Base-TX/1000Base-T)
Network protocols:	TCP/IP (IPv4, IPv6)	Standard: TCP/IP (IPv4, IPv6) Optional: IPX/SPX

Scanner

Items	MP C307/C407	MP C306/C406
Scanning method:	Full-color scanner / Flatbed scanning	
Scanning resolution:	**TWAIN Mode:** • Exposure glass: 100 to 1200 dpi • ADF: 100 to 600 dpi **WIA Mode:** • 100 to 1200 dpi **Delivery Mode:** • 100 / 200 / 300 / 400 / 600 dpi (default: 200 x 200 dpi)	
Grayscales:	1 bit or 8 bits/pixel each for RGB	
Scanning Throughput:	**B&W:** Simplex: 40 pages/minute (200 dpi/300 dpi) Duplex: 80 pages/minute (200 dpi/300 dpi) (A4 SEF, Mono 1bit, Text/Line Art, MMR compression with ADF) **Color:** Simplex: 40 pages/minute (200 dpi/300 dpi) Duplex: 80 pages/minute (200 dpi/300 dpi) (A4 SEF, FC Text/Photo / JPEG standard compression with ADF)	**B&W:** Over 30 pages/minute (200dpi / 300dpi) (A4, SEF, Mono 1bit, Text/Line Art, MMR compression with ADF) **Color:** Over 30 pages/minute (200dpi), Over 20 pages/minute (300dpi) (A4, SEF, FC Text/Photo / JPEG standard compression with ADF)
Network interface:	Ethernet (1000BASE-T/100BASE-TX/10BASE-T), Wireless LAN (IEEE 802.11a/b/g/n)	Ethernet (1000BASE-T/100BASE-TX/10BASE-T), Wireless LAN (IEEE 802.11a/b/g)
Compression method:	B&W: TIFF (MH, MR, MMR, JBIG2) Gray Scale, Full Color: JPEG	

ADF

Items	MP C307/C407	MP C306/C406
Original size:	A4 to A5, LG to HLT	Simplex: A4 to A6, LG to HLT Duplex: A4 to A6, LG to HLT
Original weight:	52 to 128 g/m^2 (14 to 34 lb.)	Simplex: 52 to 128 g/m^2 (14 to 34 lb.) Duplex: 64 to 105 g/m^2 (17 to 28 lb.)
Table capacity:	50 sheets (80 g/m^2, 20 lb. Bond or less) 20 sheets (more than 80 g/m^2, 20 lb. Bond)	
Separation:	Friction pad	

Items	MP C307/C407	MP C306/C406
Original transport:	Roller transport	
Original feed order:	From the top original	
Power source:	DC 24V, 5V from the scanner 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

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

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	PCL5c	PCL6	PS3	XPS
Windows Vista	Starter	-	-	-	-
	Home Basic	✓	✓*3	✓*3	✓*1
	Home Premium	✓	✓*3	✓*3	✓*1
	Business	✓	✓*3	✓*3	✓*1
	Ultimate	✓	✓*3	✓*3	✓*1
	Enterprise	✓	✓*3	✓*3	✓*1
Windows 7	Starter	-	-	-	-
	Home Basic	-	-	-	-
	Home Premium	✓	✓	✓	✓
	Professional	✓	✓	✓	✓
	Ultimate	✓	✓	✓	✓
	Enterprise	✓	✓	✓	✓
Windows 8/8.1	Windows 8	✓	✓	✓	✓
	Pro	✓	✓	✓	✓
	Enterprise	✓	✓	✓	✓
	RT	-	-	-	-
Windows Server 2003/ R2	Standard Edition	✓*2	✓*2	✓*2	-
	Enterprise Edition	✓*2	✓*2	✓*2	-
	Datacenter Edition	-	-	-	-
	Web Edition	-	-	-	-
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	-	-	-	-

✓: Supported

-: Not supported

*RPCS driver has been discontinued.

*1:SP1 or later is recommended

*2:SP2 or later is Recommended

*3:SP1 or later is recommended

Mac OS Environment

OS	PS3	Printer Utility for Mac
Mac OS 8.6 or later, Mac OS X classic	-	-
Mac OS X Native: v.10.57 or later	✓	-

✓: Supported

-: Not supported

UNIX Environment

UNIX Platforms	Version
Sun Solaris	9, 10
HP-UX	11.x, 11i v2, 11i v3
Red Hat Linux	Enterprise V4, V5, V6
SCO OpenServer	5.0.7, 6.0
IBM AIX	V 5L, V5.3, V6.1, V7.1

Novell Netware

Netware Server*	Supported Version	Netware 6.5 or later
	Client OS	"Windows Vista/2003/2008/7/8/2012/8.1/2012R2

* Netware option is required.

SAP R/3 Environment (Device Type / Barcode & OCR Package)

Device Type will be provided from SAP itself in SAP Printer Vendor Program.

For the detailed specification, please refer to another announcement to be issued in the future.

Supported Barcode & OCR Fonts	Barcode Fonts	Code 128, Code 39, Code 93, Codabar, 2 of 5 interleaved/Industrial/Matrix, MSI, USPS, UPC/EAN
	OCR Fonts	OCR A, OCR B

Note

- The PS3 drivers are all genuine AdobePS drivers, except for Windows 2000, which uses Microsoft PS.
- A PPD file for each operating system is provided with the driver.

Scanner and LAN Fax drivers

Operating system for TWAIN driver:

Windows Vista/7/8/8.1, Windows Server 2003/2003 R2/2008/2008 R2/2012/2012 R2

(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 WIA driver:

Windows Vista (SP1 or later)/7/8/8.1, Windows Server 2008/2008 R2/2012/2012 R2
(WIA scanner can function under both 32- and 64-bit operating systems.)

Operating system for LAN FAX driver:

Windows Vista, Windows 7,8, 8.1, Windows Server 2003, Windows Server 2008, Windows Server 2012, Windows Server 2008 R2, Windows Server 2012 R2

Note

- The LAN Fax driver lets you fax documents directly form 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
- The Network TWAIN driver is provided on the scanner drivers CD-ROM.

Optional Equipment

Paper Feed Unit (D573)

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 MP C307

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 C307 is different from C407. 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		The fusing units of C307 and C407 are the same.
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 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:

2.Preventive Maintenance Tables

Item	PM/Yield Parts	60k	120k	EM	Remarks
Registration roller				C	Clean with a blower brush.
Registration sensor				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.
Paper feed exit sensor				C	Clean with a blower brush or wipe with a dry cloth.
Bypass feed roller	Y		R	C	Wipe with a damp cloth.
Friction pad	Y		R	C	Wipe with a dry cloth.
Duplex entrance sensor				C	Clean with a blower brush or wipe with a dry cloth.
Duplex exit sensor				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		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			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 MP C407

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.

2.Preventive Maintenance Tables

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 C307 is different from C407. 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 (Y)	P	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	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 sleeve belt assembly	P	R			
Fusing unit	P		R		The fusing units of C307 and C407 are the same.
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		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	EM	Remarks
Registration roller				C	Clean with a blower brush.
Registration sensor				C	Clean with a blower brush or wipe with a dry cloth.
Paper dust case				C	Clean with a blower brush.
Paper feed roller	P		R	C	Wipe with a damp cloth.
Paper feed exit sensor				C	Clean with a blower brush or wipe with a dry cloth.
Bypass feed roller	P		R	C	Wipe with a damp cloth.
Friction pad	P		R	C	Wipe with a dry cloth.
Duplex entrance sensor				C	Clean with a blower brush or wipe with a dry cloth.
Duplex exit sensor				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		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.

2.Preventive Maintenance Tables

Item	PM/Yield Parts	120k	EM	Remarks
Tray Lift Pad			C	Wipe with a damp cloth.
Transport Sensor			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.

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.

2. Enter the key code for SP mode.

For details of the key code to enter the SP mode, ask your supervisor.

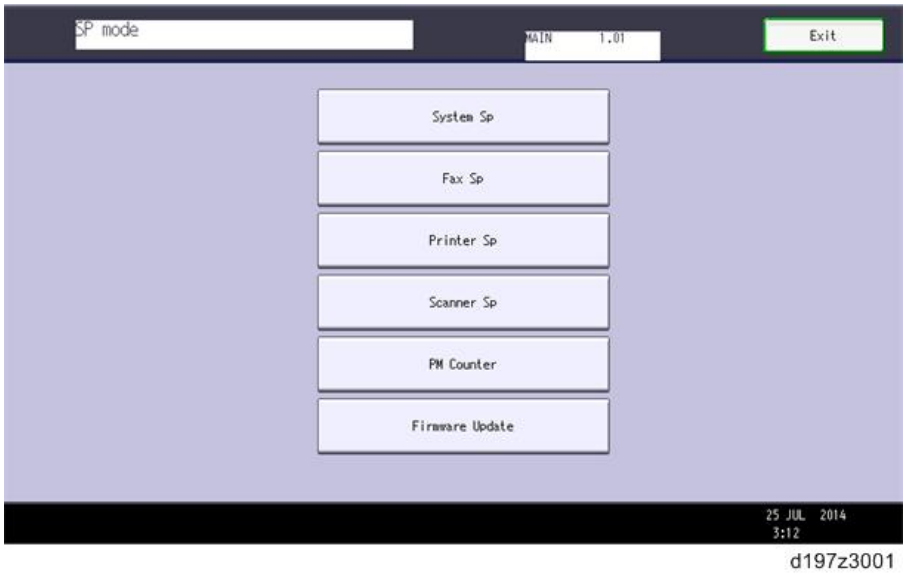
Exiting SP Mode

- Press "Exit" on the LCD twice to return to the copy window.

Types of SP Modes

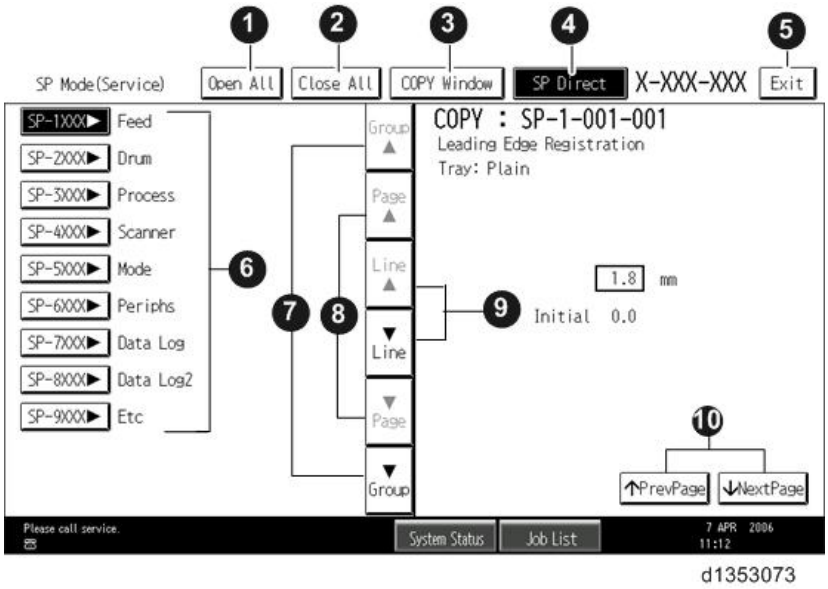
- System SP: SP modes related to the engine functions
- Printer SP: SP modes related to the controller functions
- Scanner SP: SP modes related to the scanner functions
- Fax SP: SP modes related to the fax functions

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

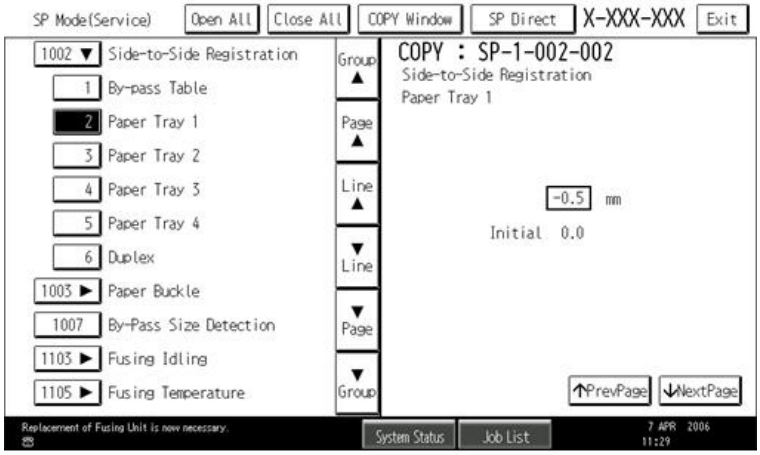
1. In the SP mode, select the test print. Then press "Copy Window".
2. Use the copy window (copier mode), to select the appropriate settings (paper size, etc.) for the test print.
3. Press [Start] key to start the test print.
4. Press SP Mode (highlighted) to return to the SP mode screen and repeat from 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. Plain Paper2: 75-81 g/m^2, 20lb. Middle Thick: 82-105 g/m^2, 20-28lb. Thick Paper1: 106-169 g/m^2, 28lb. Bond-90lb. Thick Paper2: 170-220 g/m^2, 65-80lb. Thick Paper3: 221-256 g/m^2, 80lb. Cover-140lb.
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

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.

SP Tables - SP1-XXX

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 to 9 / 0 / 0.1mm]
1-001-002	Leading Edge Registration	Tray: Middle Thick	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-003	Leading Edge Registration	Tray: Thick	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-005	Leading Edge Registration	Tray: Plain: 1200	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-006	Leading Edge Registration	Tray: Middle Thick: 1200	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-007	Leading Edge Registration	By-pass: Plain	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-008	Leading Edge Registration	By-pass: Middle Thick	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-009	Leading Edge Registration	By-pass: Thick	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-012	Leading Edge Registration	By-pass: Plain: 1200	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-013	Leading Edge Registration	By-pass: Middle Thick: 1200	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-014	Leading Edge Registration	Duplex: Plain	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-015	Leading Edge Registration	Duplex: Middle Thick	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-016	Leading Edge Registration	Duplex: Thick	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-017	Leading Edge Registration	Tray: Special 1	ENG	[-9 to 9 / 1.1 / 0.1mm]
1-001-018	Leading Edge Registration	By-pass: Special 1	ENG	[-9 to 9 / 1.1 / 0.1mm]
1-001-019	Leading Edge Registration	Duplex: Plain: 1200	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-	Leading Edge	Duplex: Middle Thick: 1200	ENG	[-9 to 9 / 0 / 0.1mm]

020	Registration			
1-001-021	Leading Edge Registration	Duplex: Special 1	ENG	[-9 to 9 / 1.1 / 0.1mm]
1-001-022	Leading Edge Registration	Tray: Special 1: 1200	ENG	[-9 to 9 / 1.1 / 0.1mm]
1-001-023	Leading Edge Registration	By-pass: Special 1: 1200	ENG	[-9 to 9 / 1.1 / 0.1mm]
1-001-024	Leading Edge Registration	Duplex: Special 1: 1200	ENG	[-9 to 9 / 1.1 / 0.1mm]
1-001-026	Leading Edge Registration	Offset: Transfer Separation	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-030	Leading Edge Registration	Auto correct: On/Off	ENG*	[0 or 1 / 0 / 1]
1-001-031	Leading Edge Registration	Std. Measure: On/Off	ENG*	[0 or 1 / 0 / 1]
1-001-032	Leading Edge Registration	Offset	ENG*	[-5 to 5 / 0 / 0.1mm]
1-001-033	Leading Edge Registration	Offset Standard: 1	ENG*	[0 to 999 / 0 / 0.1mm]
1-001-034	Leading Edge Registration	Offset Standard: 2	ENG*	[0 to 999 / 0 / 0.1mm]
1-001-035	Leading Edge Registration	Offset Standard: 3	ENG*	[0 to 999 / 0 / 0.1mm]
1-001-036	Leading Edge Registration	Offset Standard: 4	ENG*	[0 to 999 / 0 / 0.1mm]
1-001-037	Leading Edge Registration	Offset Standard: 5	ENG*	[0 to 999 / 0 / 0.1mm]
1-001-038	Leading Edge Registration	Offset Standard: 6	ENG*	[0 to 999 / 0 / 0.1mm]
1-001-039	Leading Edge Registration	Offset Standard: 7	ENG*	[0 to 999 / 0 / 0.1mm]
1-001-040	Leading Edge Registration	Offset Standard: 8	ENG*	[0 to 999 / 0 / 0.1mm]
1-001-041	Leading Edge Registration	Tray: Plain: Std Speed 2	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-043	Leading Edge Registration	By-pass: Plain: Std Speed 2	ENG	[-9 to 9 / 0 / 0.1mm]
1-001-	Leading Edge	Duplex: Plain: Std Speed 2	ENG	[-9 to 9 / 0 / 0.1mm]

045	Registration			
1-001-047	Leading Edge Registration	Tray: Special1: Std Speed 2	ENG	[-9 to 9 / 1.1 / 0.1mm]
1-001-048	Leading Edge Registration	By-pass: Special1: Std Speed 2	ENG	[-9 to 9 / 1.1 / 0.1mm]
1-001-049	Leading Edge Registration	Duplex: Special1: Std Speed 2	ENG	[-9 to 9 / 1.1 / 0.1mm]
1-002-001	Side-to-Side Registration	By-pass Table	ENG	[-4 to 4 / 0 / 0.1mm]
1-002-002	Side-to-Side Registration	Tray 1	ENG	[-4 to 4 / 0 / 0.1mm]
1-002-003	Side-to-Side Registration	Tray 2	ENG	[-4 to 4 / 0 / 0.1mm]
1-002-004	Side-to-Side Registration	Tray 3	ENG	[-4 to 4 / 0 / 0.1mm]
1-002-005	Side-to-Side Registration	Duplex	ENG	[-4 to 4 / 0 / 0.1mm]
1-003-001	Paper Buckle	Tray1: Plain	ENG	[-5 to 5 / 2 / 1mm]
1-003-002	Paper Buckle	Tray1: Middle Thick	ENG	[-5 to 5 / 0 / 1mm]
1-003-003	Paper Buckle	Tray1: Thick	ENG	[-5 to 5 / 0 / 1mm]
1-003-004	Paper Buckle	Tray2/3: Plain	ENG	[-5 to 5 / 0 / 1mm]
1-003-005	Paper Buckle	Tray2/3: Middle Thick	ENG	[-5 to 5 / 0 / 1mm]
1-003-006	Paper Buckle	Tray2/3: Thick	ENG	[-5 to 5 / 0 / 1mm]
1-003-007	Paper Buckle	By-pass: Plain	ENG	[-5 to 5 / 0 / 1mm]
1-003-008	Paper Buckle	By-pass: Middle Thick	ENG	[-5 to 5 / 0 / 1mm]
1-003-009	Paper Buckle	By-pass: Thick	ENG	[-5 to 5 / 0 / 1mm]
1-003-010	Paper Buckle	Duplex: Plain	ENG	[-5 to 5 / 0 / 1mm]
1-003-	Paper Buckle	Duplex: Middle Thick	ENG	[-5 to 5 / 0 / 1mm]

011				
1-003-012	Paper Buckle	Duplex: Thick	ENG	[-5 to 5 / 0 / 1mm]
1-003-013	Paper Buckle	Tray1: Plain:1200	ENG	[-5 to 5 / 2 / 1mm]
1-003-014	Paper Buckle	Tray1: Mid. Thick:1200	ENG	[-5 to 5 / 0 / 1mm]
1-003-015	Paper Buckle	Tray2/3: Plain:1200	ENG	[-5 to 5 / 0 / 1mm]
1-003-016	Paper Buckle	Tray2/3: Mid. Thick:1200	ENG	[-5 to 5 / 0 / 1mm]
1-003-017	Paper Buckle	By-pass: Plain:1200	ENG	[-5 to 5 / 0 / 1mm]
1-003-018	Paper Buckle	By-pass: Middle Thick:1200	ENG	[-5 to 5 / 0 / 1mm]
1-003-019	Paper Buckle	By-pass: Small size	ENG	[-5 to 5 / -2 / 1mm]
1-003-020	Paper Buckle	Tray1: Plain: Std. Spd. 2	ENG	[-5 to 5 / 2 / 1mm]
1-003-022	Paper Buckle	Tray2/3: Plain: Std. Spd. 2	ENG	[-5 to 5 / 0 / 1mm]
1-003-024	Paper Buckle	By-pass: Plain: Std. Spd. 2	ENG	[-5 to 5 / 0 / 1mm]
1-003-025	Paper Buckle	By-pass: Middle Thick: BW	ENG	[-5 to 5 / 0 / 1mm]
1-003-026	Paper Buckle	Duplex: Plain: Std. Spd. 2	ENG	[-5 to 5 / 0 / 1mm]
1-105-001	Print Target Temperature	Plain1:FC:Center	ENG*	MP C307: [100 to 180 / 143 / 1deg] MP C407: [100 to 200 / 168 / 1deg]
1-105-003	Print Target Temperature	Plain1:BW:Center	ENG*	[100 to 180 / * / 1deg] *MP C307:139 *MP C407:157
1-105-	Print Target	Plain2:FC:Center	ENG*	MP C307:

005	Temperature			[100 to 180 / 154 / 1deg] MP C407: [100 to 200 / 180 / 1deg]
1-105-007	Print Target Temperature	Plain2:BW:Center	ENG*	[100 to 180 / * / 1deg] *MP C307:144 *MP C407:162
1-105-009	Print Target Temperature	Thin:FC:Center	ENG*	[100 to 180 / * / 1deg] *MP C307:153 *MP C407:163
1-105-011	Print Target Temperature	Thin:BW:Center	ENG*	[100 to 180 / * / 1deg] *MP C307:143 *MP C407:147
1-105-013	Print Target Temperature	Middle Thick:FC:Center	ENG*	[100 to 180 / 168 / 1deg]
1-105-015	Print Target Temperature	Middle Thick:BW:Center	ENG*	[100 to 180 / 158 / 1deg]
1-105-017	Print Target Temperature	Thick1:FC:Center	ENG*	[100 to 180 / 143 / 1deg]
1-105-019	Print Target Temperature	Thick1:BW:Center	ENG*	[100 to 180 / 143 / 1deg]
1-105-021	Print Target Temperature	Thick2:FC:Center	ENG*	[100 to 180 / 145 / 1deg]
1-105-023	Print Target Temperature	Thick2:BW:Center	ENG*	[100 to 180 / 145 / 1deg]
1-105-025	Print Target Temperature	Thick3:FC:Center	ENG*	[100 to 180 / 148 / 1deg]
1-105-027	Print Target Temperature	Thick3:BW:Center	ENG*	[100 to 180 / 148 / 1deg]
1-105-029	Print Target Temperature	Special1:FC:Center	ENG*	MP C307: [100 to 180 / 143 / 1deg] MP C407: [100 to 200 / 168 / 1deg]

1-105-031	Print Target Temperature	Special1:BW:Center	ENG*	[100 to 180 / * / 1deg] *MP C307:139 *MP C407:1357
1-105-033	Print Target Temperature	Special2:FC:Center	ENG*	MP C307: [100 to 180 / 154 / 1deg] MP C407: [100 to 200 / 180 / 1deg]
1-105-035	Print Target Temperature	Special2:BW:Center	ENG*	[100 to 180 / * / 1deg] *MP C307:144 *MP C407:162
1-105-037	Print Target Temperature	Special3:FC:Center	ENG*	[100 to 180 / 168 / 1deg]
1-105-039	Print Target Temperature	Special3:BW:Center	ENG*	[100 to 180 / 158 / 1deg]
1-105-041	Print Target Temperature	Envelop: Center	ENG*	[100 to 180 / 146 / 1deg]
1-105-043	Print Target Temperature	OHP: Center	ENG*	[100 to 180 / 160 / 1deg]
1-105-101	Print Target Temperature	Plain1:FC:Center:Low Speed	ENG*	[100 to 180 / 127 / 1deg]
1-105-103	Print Target Temperature	Plain1:BW:Center:Low Speed	ENG*	[100 to 180 / 127 / 1deg]
1-105-105	Print Target Temperature	Plain2:FC:Center:Low Speed	ENG*	[100 to 180 / 129 / 1deg]
1-105-107	Print Target Temperature	Plain2:BW:Center:Low Speed	ENG*	[100 to 180 / 129 / 1deg]
1-105-109	Print Target Temperature	Thin:FC:Center:Low Speed	ENG*	[100 to 180 / 123 / 1deg]
1-105-111	Print Target Temperature	Thin:BW:Center:Low Speed	ENG*	[100 to 180 / 123 / 1deg]
1-105-113	Print Target Temperature	Middle Thick:FC:Center:Low Speed	ENG*	[100 to 180 / 141 / 1deg]
1-105-115	Print Target Temperature	Middle Thick:BW:Center:Low Speed	ENG*	[100 to 180 / 141 / 1deg]

1-105-117	Print Target Temperature	Special 1:FC:Center:Low Speed	ENG*	[100 to 180 / 127 / 1deg]
1-105-119	Print Target Temperature	Special 1:BW:Center:Low Speed	ENG*	[100 to 180 / 127 / 1deg]
1-105-121	Print Target Temperature	Special 2:FC:Center:Low Speed	ENG*	[100 to 180 / 129 / 1deg]
1-105-123	Print Target Temperature	Special 2:BW:Center:Low Speed	ENG*	[100 to 180 / 129 / 1deg]
1-105-125	Print Target Temperature	Special 3:FC:Center:Low Speed	ENG*	[100 to 180 / 141 / 1deg]
1-105-127	Print Target Temperature	Special 3:BW:Center:Low Speed	ENG*	[100 to 180 / 141 / 1deg]
1-105-129	Print Target Temperature	Envelope:Thick1:FC:Center	ENG*	[100 to 180 / 146 / 1deg]
1-105-133	Print Target Temperature	Envelope:Thick2:FC:Center	ENG*	[100 to 180 / 146 / 1deg]
1-105-137	Print Target Temperature	Envelope:Thick3:FC:Center	ENG*	[100 to 180 / 146 / 1deg]
1-105-141	Print Target Temperature	Postcard:Thick1:FC:Center	ENG*	[100 to 180 / 131 / 1deg]
1-105-145	Print Target Temperature	Postcard:Thick2:FC:Center	ENG*	[100 to 180 / 131 / 1deg]
1-105-149	Print Target Temperature	Postcard:Thick3:FC:Center	ENG*	[100 to 180 / 131 / 1deg]
1-105-151	Print Target Temperature	Special 4:FC:Center	ENG*	[100 to 180 / 143 / 1deg]
1-105-153	Print Target Temperature	Special 4:BW:Center	ENG*	[100 to 180 / 143 / 1deg]
1-105-155	Print Target Temperature	Special 5:FC:Center	ENG*	[100 to 180 / 145 / 1deg]
1-105-157	Print Target Temperature	Special 5:BW:Center	ENG*	[100 to 180 / 145 / 1deg]
1-105-159	Print Target Temperature	Special 6:FC:Center	ENG*	[100 to 180 / 148 / 1deg]
1-105-161	Print Target Temperature	Special 6:BW:Center	ENG*	[100 to 180 / 148 / 1deg]
1-106-001	Fusing Temperature Display	Center	ENG	[-50 to 250 / 0 / 1deg]

1-106-002	Fusing Temperature Display	End	ENG	[-20 to 348 / 0 / 1deg]
1-106-003	Fusing Temperature Display	Pressure: Center	ENG	[-20 to 250 / 0 / 1deg]
1-106-005	Fusing Temperature Display	Pressure: End Rear	ENG	[-20 to 250 / 0 / 1deg]
1-106-006	Fusing Temperature Display	Pressure: End Front	ENG	[-20 to 250 / 0 / 1deg]
1-109-001	Rotation Speed Setting	Overshoot Prevent Rotation	ENG*	[0 to 3 / 0 / 1] 0: 89mm/s (C307, C407) 1: 178mm/s (C307, C407) 2: 212mm/s (C407) 3: 252mm/s (C407)
1-109-002	Rotation Speed Setting	After Reload Rotation	ENG*	[0 to 3 / 0 / 1] 0: 89mm/s (C307, C407) 1: 178mm/s (C307, C407) 2: 212mm/s (C407) 3: 252mm/s (C407)
1-109-003	Rotation Speed Setting	Print Ready Rotation	ENG*	[0 to 3 / 0 / 1] 0: 89mm/s (C307, C407) 1: 178mm/s (C307, C407) 2: 212mm/s (C407) 3: 252mm/s (C407)
1-112-002	Image Processing Temp. Correct	Temp.:Plain:Center:Energy Saving	ENG*	[-30 to 20 / * / 1deg] *MP C307:13 *MP C407:17
1-112-004	Image Processing Temp. Correct	Temp.:Plain:Press:Energy Saving	ENG*	[-30 to 20 / 0 / 1deg]
1-113-001	Curl Correction	Execute Pattern	ENG*	[0 or 1 / 0 / 1] 0: OFF 1: ON
1-131-001	Continuous Print Mode Switch	Feed Permit Condition Setting	ENG*	[0 to 2 / 1 / 1] 0: Productivity Mode

				1: Fusing Quality Mode 1 2: Fusing Quality Mode 2
1-132-012	Voltage Detection	Voltage Detection	ENG*	[0 to 650 / 0 / 0.1V]
1-132-014	Voltage Detection	Max	ENG*	[0 to 350 / 0 / 0.1V]
1-132-015	Voltage Detection	Min	ENG*	[0 to 350 / 0 / 0.1V]
1-132-016	Voltage Detection	Latest	ENG*	[0 to 350 / 0 / 0.1V]
1-132-017	Voltage Detection	SC Detection	ENG*	[0 to 350 / 0 / 0.1V]
1-132-018	Voltage Detection	Max(standby)	ENG*	[0 to 350 / 0 / 0.1V]
1-132-019	Voltage Detection	Min(standby)	ENG*	[0 to 350 / 0 / 0.1V]
1-135-001	Inrush Control	Inrush Control	ENG*	[0 or 1 / 0 / 1]
1-136-001	Engy Svg Paper Feed Judg.	Control ON/OFF	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
1-141-001	Fusing SC Issue Time Info	SC Number	ENG*	[0 to 99999 / 0 / 1]
1-141-101	Fusing SC Issue Time Info	Heating Roller Temperature 1:Center	ENG*	[-50 to 260 / 0 / 1deg]
1-141-104	Fusing SC Issue Time Info	Heating Roller Temperature 1:End	ENG*	[-50 to 260 / 0 / 1deg]
1-141-107	Fusing SC Issue Time Info	Press Roller Temperature 1	ENG*	[-50 to 260 / 0 / 1deg]
1-141-108	Fusing SC Issue Time Info	Press Roller: End R Temperature 1	ENG*	[-50 to 260 / 0 / 1deg]
1-141-109	Fusing SC Issue Time Info	Press Roller: End F Temperature 1	ENG*	[-50 to 260 / 0 / 1deg]
1-141-151	Fusing SC Issue Time Info	Heating Roller Temperature 2:Center	ENG*	[-50 to 260 / 0 / 1deg]
1-141-	Fusing SC Issue Time	Heating Roller Temperature 2:End	ENG*	[-50 to 260 / 0 / 1deg]

154	Info			
1-141-157	Fusing SC Issue Time Info	Press Roller Temperature 2	ENG*	[-50 to 260 / 0 / 1deg]
1-141-158	Fusing SC Issue Time Info	Press Roller.End R Temperature 2	ENG*	[-50 to 260 / 0 / 1deg]
1-141-159	Fusing SC Issue Time Info	Press Roller.End F Temperature 2	ENG*	[-50 to 260 / 0 / 1deg]
1-141-201	Fusing SC Issue Time Info	Heating Roller Temperature 3:Center	ENG*	[-50 to 260 / 0 / 1deg]
1-141-204	Fusing SC Issue Time Info	Heating Roller Temperature 3:End	ENG*	[-50 to 260 / 0 / 1deg]
1-141-207	Fusing SC Issue Time Info	Press Roller Temperature 3	ENG*	[-50 to 260 / 0 / 1deg]
1-141-208	Fusing SC Issue Time Info	Press Roller.End R Temperature 3	ENG*	[-50 to 260 / 0 / 1deg]
1-141-209	Fusing SC Issue Time Info	Press Roller.End F Temperature 3	ENG*	[-50 to 260 / 0 / 1deg]
1-142-001	Fusing Jam Detection	SC Display	ENG*	[0 or 1 / 0 / 1] 0: OFF 1: ON
1-152-001	Fusing Nip Band Check	Execute	ENG	[0 or 1 / 0 / 1]
1-158-001	Abnormal Noise Confirmation	Unit: Execute	ENG	[0 or 1 / 0 / 1]
1-158-002	Abnormal Noise Confirmation	No Unit: Execute	ENG	[0 or 1 / 0 / 1]
1-158-003	Abnormal Noise Confirmation	Operation Time	ENG*	[0 to 200 / 20 / 1sec]
1-158-004	Abnormal Noise Confirmation	Operation Line Speed	ENG*	[0 to 3 / 0 / 1] 0: 89mm/s (C307, C407) 1: 178mm/s (C307, C407) 2: 212mm/s (C407) 3: 252mm/s (C407)
1-158-005	Abnormal Noise Confirmation	Heat Center Target Temp	ENG*	[100 to 180 / * / 1deg] *MP C307:154

				*MP C407:180
1-158-007	Abnormal Noise Confirmation	Press Target Temp	ENG*	[0 to 200 / 150 / 1deg]
1-190-001	Flicker Control	Flicker Control	ENG*	[0 or 1 / 0 / 1]
1-201-001	1Bin Duty Control	Control Operating Time	ENG	[5 to 35 / 35 / 15min]
1-801-001	Motor Speed Adjustment	Transport M: Plain1/2	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-002	Motor Speed Adjustment	Transport M: Thin	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-003	Motor Speed Adjustment	Transport M: M-Thick:Std Spd1	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-004	Motor Speed Adjustment	Transport M: Thick1	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-005	Motor Speed Adjustment	Transport M: Thick2	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-006	Motor Speed Adjustment	Transport M: Thick3	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-007	Motor Speed Adjustment	Transport M: Special1	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-008	Motor Speed Adjustment	Transport M: Special2	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-009	Motor Speed Adjustment	Transport M: Special3	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-010	Motor Speed Adjustment	Transport M: Envelope	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-011	Motor Speed Adjustment	Transport M: OHP	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-012	Motor Speed Adjustment	Transport M: Plain1/2:Low Speed	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-013	Motor Speed Adjustment	Transport M: Thin:Low Speed	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-014	Motor Speed Adjustment	Transport M: M-Thick:Low Speed	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-015	Motor Speed Adjustment	Transport M: Special1:Low Speed	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-	Motor Speed	Transport M: Special2:Low Speed	ENG*	[-4 to 4 / 0.43 /

016	Adjustment			0.01%]
1-801-017	Motor Speed Adjustment	Transport M: Special3:Low Speed	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-018	Motor Speed Adjustment	Transport M: Plain1/2: Gloss	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-019	Motor Speed Adjustment	Transport M: M-Thick: Gloss:Std Spd1	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-020	Motor Speed Adjustment	Transport M: Postcard	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-051	Motor Speed Adjustment	Bk Drum/Dev. Mot: Std Speed 1	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-052	Motor Speed Adjustment	Bk Drum/Dev. Mot: Low Speed	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-053	Motor Speed Adjustment	Col Drum/Dev. Mot: Std Speed 1	ENG*	MP C307: [-6 to 6 / 0 / 1STEP] MP C407: [-5 to 5 / 0 / 1STEP]
1-801-054	Motor Speed Adjustment	Col Drum/Dev. Mot: Low Speed	ENG*	[-6 to 6 / 0 / 1STEP]
1-801-055	Motor Speed Adjustment	Offset: Std Speed 1: Color	ENG*	MP C307: [-6 to 6 / 0 / 1STEP] MP C407: [-5 to 5 / 0 / 1STEP]
1-801-056	Motor Speed Adjustment	Offset: Low Speed: Color	ENG*	[-6 to 6 / 0 / 1STEP]
1-801-081	Motor Speed Adjustment	Transport M: Plain1/2: Std Spd 2	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-082	Motor Speed Adjustment	Transport M: Thin:Std Spd2	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-084	Motor Speed Adjustment	Transport M: Special1: Std Spd2	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-085	Motor Speed Adjustment	Transport M: Special2: Std Spd2	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-086	Motor Speed Adjustment	Transport M: Special3:Std Spd2	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-087	Motor Speed Adjustment	Transport M: OHP:Std Spd2	ENG*	[-4 to 4 / 0.43 / 0.01%]
1-801-	Motor Speed	Transport M: Plain1/2:Gloss:Std	ENG*	[-4 to 4 / 0.43 /

088	Adjustment	Spd 2		0.01%]
1-801-130	Motor Speed Adjustment	Drum Motor Adjustment Control	ENG*	[0 or 1 / 1 / 1STEP]
1-801-131	Motor Speed Adjustment	Color Dev. Mot.:Std Speed1	ENG*	[-20 to 20 / 0 / 0.1%]
1-801-132	Motor Speed Adjustment	Color Dev. Mot.:Low Speed	ENG*	[-20 to 20 / 0 / 0.1%]
1-801-133	Motor Speed Adjustment	Bk Drum/Dev. Mot:Std Speed2	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-134	Motor Speed Adjustment	Bk Drum/Dev. Mot:Middle Speed	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-135	Motor Speed Adjustment	Col Drum/Dev. Mot:Middle Speed	ENG*	[-6 to 6 / 0 / 1STEP]
1-801-136	Motor Speed Adjustment	Offset: Middle Speed: Color	ENG*	[-6 to 6 / 0 / 1STEP]
1-801-137	Motor Speed Adjustment	Color Dev M: Middle Speed	ENG*	[-20 to 20 / 0 / 0.1%]
1-801-138	Motor Speed Adjustment	Col Drum Mot: Std Spd 1: Indep.	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-139	Motor Speed Adjustment	Col Drum Mot: Mid Spd: Indep.	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-140	Motor Speed Adjustment	Col Drum Mot: Low Spd: Indep.	ENG*	[-4 to 4 / 0 / 0.01%]
1-902-001	Ladder Pattern Print	Execute	ENG	[0 or 1 / 0 / 1]
1-907-001	Paper Feed Timing Adj.	Tray1 Clutch ON: Plain	ENG	[-10 to 10 / 0 / 1mm]
1-907-002	Paper Feed Timing Adj.	Tray1 Clutch ON: Middle Thick	ENG	[-10 to 10 / 0 / 1mm]
1-907-003	Paper Feed Timing Adj.	Tray1 Clutch ON: Thick	ENG	[-10 to 10 / 0 / 1mm]
1-907-007	Paper Feed Timing Adj.	Tray1 Clutch OFF: Plain	ENG	[-10 to 10 / 0 / 1mm]
1-907-008	Paper Feed Timing Adj.	Tray1 Clutch OFF: Middle Thick	ENG	[-10 to 10 / 0 / 1mm]
1-907-009	Paper Feed Timing Adj.	Tray1 Clutch OFF: Thick	ENG	[-10 to 10 / 0 / 1mm]
1-907-	Paper Feed Timing	Tray1 Paper Exit Sensor: Plain	ENG	[-10 to 10 / 0 / 1mm]

010	Adj.			
1-907-011	Paper Feed Timing Adj.	Tray1 Paper Exit Sensor: Middle Thick	ENG	[-10 to 10 / 0 / 1mm]
1-907-012	Paper Feed Timing Adj.	Tray1 Paper Exit Sensor: Thick	ENG	[-10 to 10 / 0 / 1mm]
1-907-013	Paper Feed Timing Adj.	By-pass Clutch ON: Plain	ENG	[-10 to 10 / 0 / 1mm]
1-907-014	Paper Feed Timing Adj.	By-pass Clutch ON: Middle Thick	ENG	[-10 to 10 / 0 / 1mm]
1-907-015	Paper Feed Timing Adj.	By-pass Clutch ON: Thick	ENG	[-10 to 10 / 0 / 1mm]
1-907-016	Paper Feed Timing Adj.	By-pass Clutch ON: Envelope	ENG	[-10 to 10 / 0 / 1mm]
1-907-017	Paper Feed Timing Adj.	By-pass Clutch OFF: Plain	ENG	[-10 to 10 / -5 / 1mm]
1-907-018	Paper Feed Timing Adj.	By-pass Clutch OFF: Middle Thick	ENG	[-10 to 10 / -5 / 1mm]
1-907-019	Paper Feed Timing Adj.	By-pass Clutch OFF: Thick	ENG	[-10 to 10 / -5 / 1mm]
1-907-020	Paper Feed Timing Adj.	By-pass Clutch OFF: Envelope	ENG	[-10 to 10 / -5 / 1mm]
1-907-021	Paper Feed Timing Adj.	Exit Junction Solenoid: OFF	ENG	[-20 to 20 / 0 / 1mm]
1-907-022	Paper Feed Timing Adj.	Exit Junction Solenoid: ON	ENG	[-20 to 20 / 0 / 1mm]
1-907-025	Paper Feed Timing Adj.	Exit Junction Solenoid: OFF:Low	ENG	[-10 to 10 / 0 / 1mm]
1-907-026	Paper Feed Timing Adj.	Exit Junction Solenoid: ON:Low	ENG	[-10 to 10 / 0 / 1mm]
1-907-029	Paper Feed Timing Adj.	Tray Lift Motor Pressure	ENG*	[-2540 to 2540 / 0 / 20msec]
1-907-032	Paper Feed Timing Adj.	Tray Lift Motor Up	ENG*	[-2540 to 2540 / 0 / 20msec]
1-907-033	Paper Feed Timing Adj.	Tray Lift Motor Down	ENG*	[-2540 to 2540 / 0 / 20msec]
1-907-034	Paper Feed Timing Adj.	Tray Lift Motor Paper End	ENG*	[-2540 to 2540 / 0 / 20msec]
1-907-	Paper Feed Timing	Tray2: Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm]

035	Adj.			
1-907-036	Paper Feed Timing Adj.	Tray2: Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm]
1-907-037	Paper Feed Timing Adj.	Tray2: Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm]
1-907-038	Paper Feed Timing Adj.	Tray3: Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm]
1-907-039	Paper Feed Timing Adj.	Tray3: Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm]
1-907-040	Paper Feed Timing Adj.	Tray3: Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm]
1-907-041	Paper Feed Timing Adj.	Tray2: 1st Leading Edge Pos.: Plain	ENG*	[0 to 10 / 0 / 1mm]
1-907-042	Paper Feed Timing Adj.	Tray2: 1st Leading Edge Pos.: Mid. Thick	ENG*	[0 to 10 / 0 / 1mm]
1-907-043	Paper Feed Timing Adj.	Tray2: 1st Leading Edge Pos.: Thick	ENG*	[0 to 10 / 0 / 1mm]
1-907-044	Paper Feed Timing Adj.	Tray3: 1st Leading Edge Pos.: Plain	ENG*	[0 to 10 / 0 / 1mm]
1-907-045	Paper Feed Timing Adj.	Tray3: 1st Leading Edge Pos.: Mid. Thick	ENG*	[0 to 10 / 0 / 1mm]
1-907-046	Paper Feed Timing Adj.	Tray3: 1st Leading Edge Pos.: Thick	ENG*	[0 to 10 / 0 / 1mm]
1-907-047	Paper Feed Timing Adj.	Tray2: Min. Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm]
1-907-048	Paper Feed Timing Adj.	Tray2: Min. Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm]
1-907-049	Paper Feed Timing Adj.	Tray2: Min. Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm]
1-907-050	Paper Feed Timing Adj.	Tray3: Min. Paper Interval: Plain	ENG*	[-10 to 10 / 0 / 1mm]
1-907-051	Paper Feed Timing Adj.	Tray3: Min. Paper Interval: Mid. Thick	ENG*	[-10 to 10 / 0 / 1mm]
1-907-052	Paper Feed Timing Adj.	Tray3: Min. Paper Interval: Thick	ENG*	[-10 to 10 / 0 / 1mm]
1-907-053	Paper Feed Timing Adj.	Tray1 Clutch ON: Plain: Std Speed 2	ENG	[-10 to 10 / 0 / 1mm]
1-907-	Paper Feed Timing	Tray1 Clutch OFF: Plain: Std Speed	ENG	[-10 to 10 / 0 / 1mm]

055	Adj.	2		
1-907-057	Paper Feed Timing Adj.	Tray1 Paper Exit Sen.: Plain: Std Spd 2	ENG	[-10 to 10 / 0 / 1mm]
1-907-058	Paper Feed Timing Adj.	Tray1 Paper Exit Sen.: Middle Thick: BW	ENG	[-10 to 10 / 0 / 1mm]
1-907-059	Paper Feed Timing Adj.	By-pass Clutch ON: Plain: Std Speed 2	ENG	[-10 to 10 / 0 / 1mm]
1-907-061	Paper Feed Timing Adj.	By-pass Clutch OFF: Plain: Std Speed 2	ENG	[-10 to 10 / -5 / 1mm]
1-907-063	Paper Feed Timing Adj.	Exit Junction SOL:OFF: Std Speed 2	ENG	[-20 to 20 / 0 / 1mm]
1-907-064	Paper Feed Timing Adj.	Exit Junction SOL:ON: Std Speed 2	ENG	[-20 to 20 / 0 / 1mm]
1-907-065	Paper Feed Timing Adj.	Exit Junction SOL:OFF: Mid Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-066	Paper Feed Timing Adj.	Exit Junction SOL:ON: Mid Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-067	Paper Feed Timing Adj.	Exit Clutch OFF: Exit Finish : Plain	ENG	[-10 to 10 / 0 / 1mm]
1-907-068	Paper Feed Timing Adj.	Exit Clutch OFF: Reverse Finish : Plain	ENG	[-10 to 10 / 0 / 1mm]
1-907-069	Paper Feed Timing Adj.	Exit Clutch OFF: Invert Finish : Plain	ENG	[-10 to 10 / 0 / 1mm]
1-907-070	Paper Feed Timing Adj.	Exit Clutch OFF: Exit Finish : Std Speed 2	ENG	[-20 to 20 / 0 / 1mm]
1-907-071	Paper Feed Timing Adj.	Exit Clutch OFF: Invert Finish : Std Speed 2	ENG	[-20 to 20 / 0 / 1mm]
1-907-072	Paper Feed Timing Adj.	Exit Clutch ON: Std Speed 2	ENG	[-20 to 20 / 0 / 1mm]
1-907-073	Paper Feed Timing Adj.	Exit Clutch OFF: Exit Finish : Low	ENG	[-20 to 20 / 0 / 1mm]
1-907-074	Paper Feed Timing Adj.	Exit Clutch OFF: Invert Finish : Low	ENG	[-20 to 20 / 0 / 1mm]
1-907-075	Paper Feed Timing Adj.	Exit Clutch ON: Low Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-076	Paper Feed Timing Adj.	Exit Clutch OFF: Exit Finish : Mid Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-	Paper Feed Timing	Exit Clutch OFF: Invert Finish :	ENG	[-20 to 20 / 0 / 1mm]

077	Adj.	Mid Speed		
1-907-078	Paper Feed Timing Adj.	Exit Clutch ON: Mid Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-079	Paper Feed Timing Adj.	Invert Clutch OFF: Invert : Plain	ENG	[-20 to 20 / 0 / 1mm]
1-907-080	Paper Feed Timing Adj.	Invert Clutch OFF:1bin Exit: Plain	ENG	[-20 to 20 / 0 / 1mm]
1-907-081	Paper Feed Timing Adj.	Invert Clutch ON: Plain	ENG	[-20 to 20 / 0 / 1mm]
1-907-082	Paper Feed Timing Adj.	Invert Clutch OFF: Invert:Std Speed 2	ENG	[-20 to 20 / 0 / 1mm]
1-907-083	Paper Feed Timing Adj.	Invert Clutch OFF:1BIN: Std Speed 2	ENG	[-20 to 20 / 0 / 1mm]
1-907-084	Paper Feed Timing Adj.	Invert Clutch ON: Std Speed 2	ENG	[-20 to 20 / 0 / 1mm]
1-907-085	Paper Feed Timing Adj.	Invert Clutch OFF: Invert: Low Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-086	Paper Feed Timing Adj.	Invert Clutch OFF:1BIN: Low Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-087	Paper Feed Timing Adj.	Invert Clutch ON: Low Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-088	Paper Feed Timing Adj.	Invert Clutch OFF: Invert :Mid Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-089	Paper Feed Timing Adj.	Invert Clutch OFF:1BIN: Mid Speed	ENG	[-20 to 20 / 0 / 1mm]
1-907-090	Paper Feed Timing Adj.	Invert Clutch ON: Mid Speed	ENG	[-20 to 20 / 0 / 1mm]
1-950-001	Fan Cooling Time Set	PCDU Cooling Fan	ENG*	[0 to 600 / 0 / 1sec]
1-950-002	Fan Cooling Time Set	Fusing Fan	ENG*	[0 to 600 / 10 / 1sec]
1-950-003	Fan Cooling Time Set	PSU Fan	ENG*	[0 to 600 / 0 / 1sec]
1-950-004	Fan Cooling Time Set	Laser Unit Fan	ENG*	[0 to 600 / 0 / 1sec]
1-951-001	Fan Start Time Set	PCDU Cooling Fan	ENG*	[0 to 120 / 0 / 1sec]
1-951-	Fan Start Time Set	Fusing Fan	ENG*	[0 to 120 / 0 / 1sec]

002				
1-951-003	Fan Start Time Set	PSU Fan	ENG*	[0 to 120 / 0 / 1sec]
1-951-004	Fan Start Time Set	Laser Unit Fan	ENG*	[0 to 120 / 0 / 1sec]
1-952-001	Fan Control Off Mode Time Set		ENG*	[10 to 60 / 10 / 1min]
1-953-001	Extra Fan Control	Operation Status	ENG*	[0 or 1 / 0 / 1]
1-953-006	Extra Fan Control	Extra Fan Start Temp.	ENG*	[0 to 50 / 5 / 0.1deg]
1-953-007	Extra Fan Control	Extra Fan Stop Temp. Threshold	ENG*	[0 to 50 / 2 / 0.1deg]
1-953-008	Extra Fan Control	Set: Extra Operation ON/OFF	ENG*	[0 or 1 / 1 / 1]
1-955-001	Fan Control	PCDU Fan Operation Sw Temp.	ENG*	[0 to 100 / 38 / 0.1deg]
1-955-002	Fan Control	Fusing Fan Operation Sw Temp.	ENG*	[0 to 100 / 0 / 0.1deg]
1-955-004	Fan Control	Laser Unit Fan Operation Sw Temp.	ENG*	[0 to 100 / 38 / 0.1deg]
1-955-005	Fan Control	Fan Operation Sw Temp. Threshold	ENG*	[0 to 100 / 2 / 0.1deg]
1-955-006	Fan Control	PSU Fan Operation Start Time2	ENG*	[0 to 900 / 0 / 1sec]
1-955-007	Fan Control	PSU Fan Ctrl Off Mode Time2	ENG*	[0 to 60 / 10 / 0.1min.]

SP Tables - SP2-XXX (1)

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]
2-005-002	Charge DC Voltage: Fix	Plain: C	ENG*	[0 to 2000 / 590 / 10-V]
2-005-003	Charge DC Voltage: Fix	Plain: M	ENG*	[0 to 2000 / 590 / 10-V]
2-005-004	Charge DC Voltage: Fix	Plain: Y	ENG*	[0 to 2000 / 590 / 10-V]
2-013-001	Environmental Correction: PCU	Environment Div. FC: Display	ENG*	[0 to 5 / 0 / 1]
2-013-002	Environmental Correction: PCU	Forced Setting	ENG*	[0 to 5 / 0 / 1]
2-016-001	Lubricant Apply Operation	Temperature Threshold: Low	ENG*	[0 to 50 / 15 / 1deg]
2-016-002	Lubricant Apply Operation	Temperature Threshold: High	ENG*	[0 to 50 / 30 / 1deg]
2-016-003	Lubricant Apply Operation	Page Setting 1: Low Speed	ENG*	[0 to 999 / 10 / 1page]
2-016-004	Lubricant Apply Operation	Page Setting 2: Low Temp.	ENG*	[0 to 999 / 20 / 1page]
2-016-005	Lubricant Apply Operation	Page Setting 3: Low Temp. 2	ENG*	[0 to 999 / 0 / 1page]

2-016-006	Lubricant Apply Operation	Page Setting 4: High Temp.	ENG*	[0 to 999 / 20 / 1page]
2-016-007	Lubricant Apply Operation	Coverage Threshold 1: Low Speed	ENG*	[0 to 100 / 10 / 0.01%]
2-016-008	Lubricant Apply Operation	Coverage Threshold 2: Low Temp.	ENG*	[0 to 60 / 20 / 0.01%]
2-016-010	Lubricant Apply Operation	Coverage Threshold 4: High Temp.	ENG*	[0 to 100 / 20 / 0.01%]
2-016-011	Lubricant Apply Operation	Application Time:1	ENG*	[0 to 99 / 10 / 1sec]
2-016-012	Lubricant Apply Operation	Application Time:2	ENG*	[0 to 99 / 10 / 1sec]
2-016-013	Lubricant Apply Operation	Application Time:3	ENG*	[0 to 99 / 10 / 1sec]
2-016-014	Lubricant Apply Operation	Application Time:4	ENG*	[0 to 99 / 5 / 1sec]
2-016-033	Lubricant Apply Operation	Page Setting 5: Low Temp.	ENG*	[0 to 999 / 20 / 1page]
2-016-034	Lubricant Apply Operation	Image Area Threshold 5: Low Temp.	ENG*	[60 to 100 / 60 / 0.01%]
2-016-035	Lubricant Apply Operation	Application Time:5	ENG*	[0 to 99 / 3 / 1sec]
2-016-036	Lubricant Apply Operation	Temperature Threshold: Low 2	ENG*	[0 to 50 / 15 / 1deg]
2-101-001	Registration Adjustment	Color Main Dot: Bk	ENG*	[-512 to 511 / 0 / 1dot]

2-101-002	Registration Correction	Color Main Dot: Ma	ENG*	[-512 to 511 / 0 / 1dot]
2-101-003	Registration Correction	Color Main Dot: Cy	ENG*	[-512 to 511 / 0 / 1dot]
2-101-004	Registration Correction	Color Main Dot: Ye	ENG*	[-512 to 511 / 0 / 1dot]
2-101-005	Registration Correction	Color Sub Line: Bk	ENG*	[-16384 to 16383 / 0 / 1line]
2-101-006	Registration Correction	Color Sub Line: Ma	ENG*	[-16384 to 16383 / 0 / 1line]
2-101-007	Registration Correction	Color Sub Line: Cy	ENG*	[-16384 to 16383 / 0 / 1line]
2-101-008	Registration Correction	Color Sub Line: Ye	ENG*	[-16384 to 16383 / 0 / 1line]
2-102-001	Magnification Adjustment	Main Mag.: Standard Speed: Bk	ENG*	[-1 to 1 / 0.091 / 0.001%]
2-102-002	Magnification Adjustment	Main Mag.: Standard Speed2: Bk	ENG*	[-1 to 1 / 0.091 / 0.001%]
2-102-003	Magnification Adjustment	Main Mag.: Low Speed: Bk	ENG*	[-1 to 1 / 0.091 / 0.001%]
2-102-004	Magnification Adjustment	Main Mag.: Standard Speed: Ma	ENG*	[-1 to 1 / 0.091 / 0.001%]
2-102-006	Magnification Adjustment	Main Mag.: Low Speed: Ma	ENG*	[-1 to 1 / 0.091 / 0.001%]
2-102-007	Magnification Adjustment	Main Mag.: Standard Speed: Cy	ENG*	[-1 to 1 / 0.081 / 0.001%]

2-102-009	Magnification Adjustment	Main Mag.: Low Speed: Cy	ENG*	[-1 to 1 / 0.081 / 0.001%]
2-102-010	Magnification Adjustment	Main Mag.: Standard Speed: Ye	ENG*	[-1 to 1 / 0.081 / 0.001%]
2-102-012	Magnification Adjustment	Main Mag.: Low Speed: Ye	ENG*	[-1 to 1 / 0.081 / 0.001%]
2-102-013	Main Scan Beam Pitch Adj.	Bk	ENG*	[0 to 100 / 11.53 / 0.01dot]
2-102-015	Main Scan Beam Pitch Adj.	Ma	ENG*	[0 to 100 / 11.53 / 0.01dot]
2-102-017	Main Scan Beam Pitch Adj.	Cy	ENG*	[0 to 100 / 11.53 / 0.01dot]
2-102-019	Main Scan Beam Pitch Adj.	Ye	ENG*	[0 to 100 / 11.53 / 0.01dot]
2-102-028	Magnification Adjustment	Color Main Mag.: Standard Speed: Ma	ENG*	[-1 to 1 / 0 / 0.001%]
2-102-031	Magnification Adjustment	Color Main Mag.: Standard Speed: Cy	ENG*	[-1 to 1 / 0 / 0.001%]
2-102-034	Magnification Adjustment	Color Main Mag.: Standard Speed: Ye	ENG*	[-1 to 1 / 0 / 0.001%]
2-103-001	Erase Margin Adjustment	Leading Edge Width	ENG*	[0 to 9.9 / 4.2 / 0.1mm]
2-103-002	Erase Margin Adjustment	Trailing Edge Width	ENG*	[0 to 9.9 / 4.2 / 0.1mm]
2-103-003	Erase Margin Adjustment	Left	ENG*	[0 to 9.9 / 2 / 0.1mm]

2-103-004	Erase Margin Adjustment	Right	ENG*	[0 to 9.9 / 2 / 0.1mm]
2-103-005	Erase Margin Adjustment	Duplex: Trailing Edge	ENG*	[0 to 9.9 / 0 / 0.1mm]
2-103-006	Erase Margin Adjustment	Duplex: Left Edge	ENG*	[0 to 9.9 / 0 / 0.1mm]
2-103-007	Erase Margin Adjustment	Duplex: Right Edge	ENG*	[0 to 9.9 / 0 / 0.1mm]
2-106-001	Polygon Rotation Time	Warming-Up Time Set	ENG*	[0 to 60 / 10 / 1sec]
2-106-002	Polygon Rotation Time	Post Rotating Time Set After Printing	ENG*	[0 to 60 / 0 / 1sec]
2-107-002	Image Parameter	Shading Correction Flag	ENG*	[0 or 1 / 1 / 1]
2-109-003	Test Pattern	Pattern Selection	ENG	[0 to 23 / 0 / 1] 0: None 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

				11: Independent Pattern (1dot) 12: Independent Pattern (2dots) 13: Independent Pattern (4dots) 14: Trimming Area 15: Hound's Tooth Check (Vertical) 16: Hound's Tooth Check (Horizontal) 17: Band (Horizontal) 18: Band (Vertical) 19: Checker Flag Pattern 20: Grayscale (Vertical Margin) 21: Grayscale (Horizontal Margin) 22: Two-Beam Density Pattern 23: Full Dot Pattern
2-109-005	Test Pattern	Color Selection	ENG	[1 to 4 / 1 / 1] 1: All Color 2: Ma 3: Ye 4: Cy
2-109-006	Test Pattern	Density: Bk	ENG	[0 to 15 / 15 / 1]
2-109-007	Test Pattern	Density: Ma	ENG	[0 to 15 / 15 / 1]
2-109-008	Test Pattern	Density: Cy	ENG	[0 to 15 / 15 / 1]
2-109-009	Test Pattern	Density: Ye	ENG	[0 to 15 / 15 / 1]

2-110-001	STOUT	STOUT Selection	ENG*	[0 or 1 / 0 / 1]
2-110-002	LD Driver	Error Bk	ENG	[0x0000 to 0xFFFF / 0x0000 / 1]
2-110-003	LD Driver	Error Ma	ENG	[0x0000 to 0xFFFF / 0x0000 / 1]
2-110-004	LD Driver	Error Cy	ENG	[0x0000 to 0xFFFF / 0x0000 / 1]
2-110-005	LD Driver	Error Ye	ENG	[0x0000 to 0xFFFF / 0x0000 / 1]
2-110-006	LD Driver	Writing Unit Adj. Transfer	ENG	[0 or 1 / 0 / 1]
2-111-001	Forced Line Position Adj.	Mode a	ENG	[0 or 1 / 0 / 1]
2-111-002	Forced Line Position Adj.	Mode b	ENG	[0 or 1 / 0 / 1]
2-111-003	Forced Line Position Adj.	Mode c	ENG	[0 or 1 / 0 / 1]
2-111-004	Forced Line Position Adj.	Mode d	ENG	[0 or 1 / 0 / 1]
2-112-001	TM/ID Sensor Check	Execute	ENG	[0 or 1 / 0 / 1]
2-112-010	TM/ID Sensor Check	Display Result: Front-Center-Rear	ENG*	[0 to 999 / 0 / 1]
2-112-020	TM/ID Sensor Check	Threshold Setting	ENG*	[0 to 5.5 / 1.9 / 0.01V]

2-117-001	Skew Adjustment	Ma:Skew Adjustment	ENG*	[-256 to 256 / 0 / 1click]
2-117-002	Skew Adjustment	Cy:Skew Adjustment	ENG*	[-256 to 256 / 0 / 1click]
2-117-003	Skew Adjustment	Ye:Skew Adjustment	ENG*	[-256 to 256 / 0 / 1click]
2-117-004	Skew Adjustment	Bk:Skew Adjustment	ENG*	[-256 to 256 / 0 / 1click]
2-140-005	TM/ID Sensor Check	PWM: Front	ENG*	[0 to 1024 / 0 / 1]
2-140-006	TM/ID Sensor Check	PWM: Center	ENG*	[0 to 1024 / 0 / 1]
2-140-007	TM/ID Sensor Check	PWM: Rear	ENG*	[0 to 1024 / 0 / 1]
2-141-005	TM/ID Sensor Check	Average: Front	ENG*	[0 to 5.5 / 0 / 0.01V]
2-141-006	TM/ID Sensor Check	Average: Center	ENG*	[0 to 5.5 / 0 / 0.01V]
2-141-007	TM/ID Sensor Check	Average: Rear	ENG*	[0 to 5.5 / 0 / 0.01V]
2-142-005	TM/ID Sensor Check	Maximum: Front	ENG*	[0 to 5.5 / 0 / 0.01V]
2-142-006	TM/ID Sensor Check	Maximum: Center	ENG*	[0 to 5.5 / 0 / 0.01V]
2-142-007	TM/ID Sensor Check	Maximum: Rear	ENG*	[0 to 5.5 / 0 / 0.01V]

2-143-005	TM/ID Sensor Check	Minimum: Front	ENG*	[0 to 5.5 / 0 / 0.01V]
2-143-006	TM/ID Sensor Check	Minimum: Center	ENG*	[0 to 5.5 / 0 / 0.01V]
2-143-007	TM/ID Sensor Check	Minimum: Rear	ENG*	[0 to 5.5 / 0 / 0.01V]
2-146-005	TM-Sensor Check Result	Number of Edge Detection:Front	ENG*	[0 to 16 / 0 / 1]
2-146-006	TM-Sensor Check Result	Number of Edge Detection:Center	ENG*	[0 to 16 / 0 / 1]
2-146-007	TM-Sensor Check Result	Number of Edge Detection:Rear	ENG*	[0 to 16 / 0 / 1]
2-154-002	Shad. Correct Setting	Front End Area: Bk: LD1	ENG*	[50 to 150 / 100 / 0.1%]
2-154-003	Shad. Correct Setting	Front End Area: Bk: LD2	ENG*	[50 to 150 / 100 / 0.1%]
2-154-005	Shad. Correct Setting	Front End Area: Ma: LD1	ENG*	[50 to 150 / 100 / 0.1%]
2-154-006	Shad. Correct Setting	Front End Area: Ma: LD2	ENG*	[50 to 150 / 100 / 0.1%]
2-154-007	Shad. Correct Setting	Front End Area: Cy: LD1	ENG*	[50 to 150 / 100 / 0.1%]
2-154-008	Shad. Correct Setting	Front End Area: Cy: LD2	ENG*	[50 to 150 / 100 / 0.1%]
2-154-009	Shad. Correct Setting	Front End Area: Ye: LD1	ENG*	[50 to 150 / 100 / 0.1%]

2-154-010	Shad. Correct Setting	Front End Area: Ye: LD2	ENG*	[50 to 150 / 100 / 0.1%]
2-160-001	Vertical Line Width	600dpi:Bk	ENG*	[10 to 15 / 14 / 1]
2-160-002	Vertical Line Width	600dpi:Ma	ENG*	[10 to 15 / 14 / 1]
2-160-003	Vertical Line Width	600dpi:Cy	ENG*	[10 to 15 / 14 / 1]
2-160-004	Vertical Line Width	600dpi:Ye	ENG*	[10 to 15 / 14 / 1]
2-160-005	Vertical Line Width	1200dpi:Bk	ENG*	[10 to 15 / 15 / 1]
2-160-006	Vertical Line Width	1200dpi:Ma	ENG*	[10 to 15 / 15 / 1]
2-160-007	Vertical Line Width	1200dpi:Cy	ENG*	[10 to 15 / 15 / 1]
2-160-008	Vertical Line Width	1200dpi:Ye	ENG*	[10 to 15 / 15 / 1]
2-160-009	Vertical Line Width	600dpi:Independent Dot:Bk	ENG*	[10 to 15 / 15 / 1]
2-160-010	Vertical Line Width	1200dpi:Independent Dot:Bk	ENG*	[10 to 15 / 15 / 1]
2-180-001	Line Pos. Adj. Clear	Color Registration	ENG	[0 or 1 / 0 / 1]
2-180-002	Line Pos. Adj. Clear	Main Scan Length Detection	ENG	[0 or 1 / 0 / 1]

2-180-003	Line Pos. Adj. Clear	MUSIC Result	ENG	[0 or 1 / 0 / 1]
2-181-003	Line Position Adj. Result	Skew: M	ENG*	[-5000 to 5000 / 0 / 0.001um]
2-181-011	Line Position Adj. Result	M. Cor.: Dot: M	ENG*	[-512 to 511 / 0 / 1dot]
2-181-012	Line Position Adj. Result	M. Cor.: Subdot: M	ENG*	[-1 to 1 / 0 / 0.01dot]
2-181-015	Line Position Adj. Result	Left Mag.: Subdot: M	ENG*	[-32 to 32 / 0 / 0.01dot]
2-181-016	Line Position Adj. Result	Right Mag.: Subdot: M	ENG*	[-32 to 32 / 0 / 0.01dot]
2-181-017	Line Position Adj. Result	S. Cor.: 600 Line: M	ENG*	[-16384 to 16383 / 0 / 1line]
2-181-018	Line Position Adj. Result	S. Cor.: 600 Sub: M	ENG*	[-1 to 1 / 0 / 0.001line]
2-181-019	Line Position Adj. Result	S. Cor.: 1200 Line: M	ENG*	[-16384 to 16383 / 0 / 1line]
2-181-020	Line Position Adj. Result	S. Cor.: 1200 Sub: M	ENG*	[-1 to 1 / 0 / 0.001line]
2-181-021	Line Position Adj. Result	Skew: C	ENG*	[-5000 to 5000 / 0 / 0.001um]
2-181-029	Line Position Adj. Result	M. Cor.: Dot: C	ENG*	[-512 to 511 / 0 / 1dot]
2-181-030	Line Position Adj. Result	M. Cor.: Subdot: C	ENG*	[-1 to 1 / 0 / 0.01dot]

2-181-033	Line Position Adj. Result	Left Mag.: Subdot: C	ENG*	[-32 to 32 / 0 / 0.01dot]
2-181-034	Line Position Adj. Result	Right Mag.: Subdot: C	ENG*	[-32 to 32 / 0 / 0.01dot]
2-181-035	Line Position Adj. Result	S. Cor.: 600 Line: C	ENG*	[-16384 to 16383 / 0 / 1line]
2-181-036	Line Position Adj. Result	S. Cor.: 600 Sub: C	ENG*	[-1 to 1 / 0 / 0.001line]
2-181-037	Line Position Adj. Result	S. Cor.: 1200 Line: C	ENG*	[-16384 to 16383 / 0 / 1line]
2-181-038	Line Position Adj. Result	S. Cor.: 1200 Sub: C	ENG*	[-1 to 1 / 0 / 0.001line]
2-181-039	Line Position Adj. Result	Skew: Y	ENG*	[-5000 to 5000 / 0 / 0.001um]
2-181-047	Line Position Adj. Result	M. Cor.: Dot: Y	ENG*	[-512 to 511 / 0 / 1dot]
2-181-048	Line Position Adj. Result	M. Cor.: Subdot: Y	ENG*	[-1 to 1 / 0 / 0.01dot]
2-181-051	Line Position Adj. Result	Left Mag.: Subdot: Y	ENG*	[-32 to 32 / 0 / 0.01dot]
2-181-052	Line Position Adj. Result	Right Mag.: Subdot: Y	ENG*	[-32 to 32 / 0 / 0.01dot]
2-181-053	Line Position Adj. Result	S. Cor.: 600 Line: Y	ENG*	[-16384 to 16383 / 0 / 1line]
2-181-054	Line Position Adj. Result	S. Cor.: 600 Sub: Y	ENG*	[-1 to 1 / 0 / 0.001line]

2-181-055	Line Position Adj. Result	S. Cor.: 1200 Line: Y	ENG*	[-16384 to 16383 / 0 / 1line]
2-181-056	Line Position Adj. Result	S. Cor.: 1200 Sub: Y	ENG*	[-1 to 1 / 0 / 0.001line]
2-181-057	Line Position Adj. Result	S. Cor.: 600 Sub	ENG*	[-1 to 1 / 0 / 0.001line]
2-181-059	Line Position Adj. Result	S. Cor.: 1200 Sub	ENG*	[-1 to 1 / 0 / 0.001line]
2-181-061	Line Position Adj. Result	Skew: Bk	ENG*	[-5000 to 5000 / 0 / 0.001um]
2-181-072	Line Position Adj. Result	Line Shift: M	ENG*	[0 to 1 / 0 / 1line]
2-181-074	Line Position Adj. Result	Line Shift: C	ENG*	[0 to 1 / 0 / 1line]
2-181-076	Line Position Adj. Result	Line Shift: Y	ENG*	[0 to 1 / 0 / 1line]
2-182-004	Line Position Offset	M. Scan: Standard: Dot: M	ENG*	[-512 to 511 / 0 / 1dot]
2-182-005	Line Position Offset	M. Scan: Standard: Subdot: M	ENG*	[-1 to 1 / 0 / 0.01dot]
2-182-006	Line Position Offset	M. Scan: Middle: Dot: M	ENG*	[-512 to 511 / 0 / 1dot]
2-182-007	Line Position Offset	M. Scan: Middle: Subdot: M	ENG*	[-1 to 1 / 0 / 0.01dot]
2-182-008	Line Position Offset	M. Scan: Low: Dot: M	ENG*	[-512 to 511 / 0 / 1dot]

2-182-009	Line Position Offset	M. Scan: Low: Subdot: M	ENG*	[-1 to 1 / 0 / 0.01dot]
2-182-010	Line Position Offset	M. Scan: Standard: Dot: C	ENG*	[-512 to 511 / 0 / 1dot]
2-182-011	Line Position Offset	M. Scan: Standard: Subdot: C	ENG*	[-1 to 1 / 0 / 0.01dot]
2-182-012	Line Position Offset	M. Scan: Middle: Dot: C	ENG*	[-512 to 511 / 0 / 1dot]
2-182-013	Line Position Offset	M. Scan: Middle: Subdot: C	ENG*	[-1 to 1 / 0 / 0.01dot]
2-182-014	Line Position Offset	M. Scan: Low: Dot: C	ENG*	[-512 to 511 / 0 / 1dot]
2-182-015	Line Position Offset	M. Scan: Low: Subdot: C	ENG*	[-1 to 1 / 0 / 0.01dot]
2-182-016	Line Position Offset	M. Scan: Standard: Dot: Y	ENG*	[-512 to 511 / 0 / 1dot]
2-182-017	Line Position Offset	M. Scan: Standard: Subdot: Y	ENG*	[-1 to 1 / 0 / 0.01dot]
2-182-018	Line Position Offset	M. Scan: Middle: Dot: Y	ENG*	[-512 to 511 / 0 / 1dot]
2-182-019	Line Position Offset	M. Scan: Middle: Subdot: Y	ENG*	[-1 to 1 / 0 / 0.01dot]
2-182-020	Line Position Offset	M. Scan: Low: Dot: Y	ENG*	[-512 to 511 / 0 / 1dot]
2-182-021	Line Position Offset	M. Scan: Low: Subdot: Y	ENG*	[-1 to 1 / 0 / 0.01dot]

2-182-022	Line Position Offset	S. Scan: Standard: Line: M	ENG*	[-16384 to 16383 / 0 / 1line]
2-182-023	Line Position Offset	S. Scan: Standard: Subline: M	ENG*	[-1 to 1 / 0 / 0.01line]
2-182-024	Line Position Offset	S. Scan: Middle: Line: M	ENG*	[-16384 to 16383 / 0 / 1line]
2-182-025	Line Position Offset	S. Scan: Middle: Subline: M	ENG*	[-1 to 1 / 0 / 0.01line]
2-182-026	Line Position Offset	S. Scan: Low: Line: M	ENG*	[-16384 to 16383 / 0 / 1line]
2-182-027	Line Position Offset	S. Scan: Low: Subline: M	ENG*	[-1 to 1 / 0 / 0.01line]
2-182-028	Line Position Offset	S. Scan: Standard: Line: C	ENG*	[-16384 to 16383 / 0 / 1line]
2-182-029	Line Position Offset	S. Scan: Standard: Subline: C	ENG*	[-1 to 1 / 0 / 0.01line]
2-182-030	Line Position Offset	S. Scan: Middle: Line: C	ENG*	[-16384 to 16383 / 0 / 1line]
2-182-031	Line Position Offset	S. Scan: Middle: Subline: C	ENG*	[-1 to 1 / 0 / 0.01line]
2-182-032	Line Position Offset	S. Scan: Low: Line: C	ENG*	[-16384 to 16383 / 0 / 1line]
2-182-033	Line Position Offset	S. Scan: Low: Subline: C	ENG*	[-1 to 1 / 0 / 0.01line]
2-182-034	Line Position Offset	S. Scan: Standard: Line: Y	ENG*	[-16384 to 16383 / 0 / 1line]

2-182-035	Line Position Offset	S. Scan: Standard: Subline: Y	ENG*	[-1 to 1 / 0 / 0.01line]
2-182-036	Line Position Offset	S. Scan: Middle: Line: Y	ENG*	[-16384 to 16383 / 0 / 1line]
2-182-037	Line Position Offset	S. Scan: Middle: Subline: Y	ENG*	[-1 to 1 / 0 / 0.01line]
2-182-038	Line Position Offset	S. Scan: Low: Line: Y	ENG*	[-16384 to 16383 / 0 / 1line]
2-182-039	Line Position Offset	S. Scan: Low: Subline: Y	ENG*	[-1 to 1 / 0 / 0.01line]
2-190-012	Line Position Adj. Select	Detection Error Level: um	ENG*	[-3500 to 3500 / 0 / 1um]
2-193-002	MUSIC Condition Set	Page: Job End: BW+FC	ENG*	[0 to 999 / 500 / 1page]
2-193-003	MUSIC Condition Set	Page: Job End: FC	ENG*	[0 to 999 / 200 / 1page]
2-193-004	MUSIC Condition Set	Page: Interrupt: BW+FC	ENG*	[0 to 999 / 200 / 1page]
2-193-005	MUSIC Condition Set	Page: Interrupt: FC	ENG*	[0 to 999 / 200 / 1page]
2-193-006	MUSIC Condition Set	Page: Standby: BW	ENG*	[0 to 999 / 100 / 1page]
2-193-007	MUSIC Condition Set	Page: Standby: FC	ENG*	[0 to 999 / 100 / 1page]
2-193-008	MUSIC Condition Set	Temp. Change	ENG*	[0 to 100 / 5 / 1deg]

2-193-011	MUSIC Condition Set	Temp. Change 2	ENG*	[0 to 100 / 10 / 1deg]
2-193-016	MUSIC Condition Set	Page: Power ON:BW+FC	ENG*	[0 to 999 / 200 / 1page]
2-194-001	MUSIC Execution Result	Year	ENG*	[0 to 99 / 0 / 1year]
2-194-002	MUSIC Execution Result	Month	ENG*	[1 to 12 / 1 / 1month]
2-194-003	MUSIC Execution Result	Day	ENG*	[1 to 31 / 1 / 1day]
2-194-004	MUSIC Execution Result	Hour	ENG*	[0 to 23 / 0 / 1hour]
2-194-005	MUSIC Execution Result	Minute	ENG*	[0 to 59 / 0 / 1minute]
2-194-006	MUSIC Execution Result	Temperature	ENG*	[0 to 100 / 0 / 1deg]
2-194-007	MUSIC Execution Result	Execution Result	ENG*	[0 or 1 / 0 / 1]
2-194-008	MUSIC Execution Result	Number of Execution	ENG*	[0 to 999999 / 0 / 1time]
2-194-009	MUSIC Execution Result	Number of Failure	ENG*	[0 to 999999 / 0 / 1time]
2-194-010	MUSIC Execution Result	Error Result: C	ENG*	[0 to 9 / 0 / 1]
2-194-011	MUSIC Execution Result	Error Result: M	ENG*	[0 to 9 / 0 / 1]

2-194-012	MUSIC Execution Result	Error Result: Y	ENG*	[0 to 9 / 0 / 1]
2-194-013	MUSIC Execution Result	Error Result: Bk	ENG*	[0 to 9 / 0 / 1]
2-221-001	LD Power: Fixed: Set	Standard Speed: Bk	ENG*	[0 to 200 / 100 / 1%]
2-221-002	LD Power: Fixed: Set	Standard Speed: C	ENG*	[0 to 200 / 100 / 1%]
2-221-003	LD Power: Fixed: Set	Standard Speed: M	ENG*	[0 to 200 / 100 / 1%]
2-221-004	LD Power: Fixed: Set	Standard Speed: Y	ENG*	[0 to 200 / 100 / 1%]
2-221-011	LD Power: Fixed: Set	Low Speed: M	ENG*	[0 to 200 / 100 / 1%]
2-221-012	LD Power: Fixed: Set	Low Speed: Y	ENG*	[0 to 200 / 100 / 1%]
2-229-001	Develop DC Bias: Fixed	Standard Speed: Bk	ENG*	[0 to 800 / 450 / 1-V]
2-229-002	Develop DC Bias: Fixed	Standard Speed: C	ENG*	[0 to 800 / 450 / 1-V]
2-229-003	Develop DC Bias: Fixed	Standard Speed: M	ENG*	[0 to 800 / 450 / 1-V]
2-229-004	Develop DC Bias: Fixed	Standard Speed: Y	ENG*	[0 to 800 / 450 / 1-V]
2-241-003	PCDU Temperature: Display	Time Interval: Fan Extension Control	ENG*	[1 to 300 / 10 / 1sec]

2-241-004	PCDU Temperature: Display	PCDU Temperature	ENG	[0 to 70 / 0 / 0.1deg]
2-242-001	TS Operation Env. Log	Distance: PCU: Bk: TS<=A-3	ENG	[0 to 99999999 / 0 / 1mm]
2-242-002	TS Operation Env. Log	Distance: PCU: Bk: A-3<TS<=A	ENG	[0 to 99999999 / 0 / 1mm]
2-242-003	TS Operation Env. Log	Distance: PCU: Bk: A<TS<=A+3	ENG	[0 to 99999999 / 0 / 1mm]
2-242-004	TS Operation Env. Log	Distance: PCU: Bk: A+3<TS	ENG	[0 to 99999999 / 0 / 1mm]
2-242-100	TS Operation Env. Log	Log Clear	ENG	[0 or 1 / 0 / 1]
2-302-001	Environmental Correction:Trans	Current Environmental Display	ENG	[0 or 0 / 0 / 0]
2-302-002	Environmental Correction:Trans	Forced Setting	ENG*	[0 or 6 / 0 / 1]
2-302-003	Environmental Correction:Trans	Absolute Humidity:Threshold 1	ENG*	[0 to 100 / 4.5 / 0.01g/m3]
2-302-004	Environmental Correction:Trans	Absolute Humidity:Threshold 2	ENG*	[0 to 100 / 9 / 0.01g/m3]
2-302-005	Environmental Correction:Trans	Absolute Humidity:Threshold 3	ENG*	[0 to 100 / 17.5 / 0.01g/m3]
2-302-006	Environmental Correction:Trans	Absolute Humidity:Threshold 4	ENG*	[0 to 100 / 24 / 0.01g/m3]
2-302-007	Environmental Correction:Trans	Temperature:Threshold	ENG*	[-5 to 30 / 10 / 1deg]

2-303-001	Time-Lapse Correction	Current Div Bk	ENG*	[0 to 3 / 0 / 1]
2-303-002	Time-Lapse Correction	Current Div C	ENG*	[0 to 3 / 0 / 1]
2-303-003	Time-Lapse Correction	Current Div M	ENG*	[0 to 3 / 0 / 1]
2-303-004	Time-Lapse Correction	Current Div Y	ENG*	[0 to 3 / 0 / 1]
2-303-005	Time-Lapse Correction	Correction Threshold 1_Bk	ENG*	[0 to 600000 / 5000 / 10page]
2-303-006	Time-Lapse Correction	Correction Threshold 1_Color	ENG*	[0 to 600000 / 5000 / 10page]
2-303-007	Time-Lapse Correction	Correction Threshold 2_Bk	ENG*	[0 to 600000 / 20000 / 10page]
2-303-008	Time-Lapse Correction	Correction Threshold 2_Color	ENG*	[0 to 600000 / 20000 / 10page]
2-303-009	Time-Lapse Correction	Correction Threshold 3_Bk	ENG*	[0 to 600000 / 50000 / 10page]
2-303-010	Time-Lapse Correction	Correction Threshold 3_Color	ENG*	[0 to 600000 / 50000 / 10page]
2-304-001	Time-Lapse Correction:Transfer	Threshold 1	ENG*	[0 to 999999999 / 0 / 1mm]
2-304-002	Time-Lapse Correction:Transfer	Threshold 2	ENG*	[0 to 999999999 / 0 / 1mm]
2-304-003	Time-Lapse Correction:Transfer	Threshold 3	ENG*	[0 to 999999999 / 0 / 1mm]

2-304-004	Time-Lapse Correction:Transfer	Threshold 4	ENG*	[0 to 999999999 / 0 / 1mm]
2-305-001	Vc Correction	Threshold 1	ENG*	[0 to 2000 / 450 / 10-V]
2-305-002	Vc Correction	Threshold 2	ENG*	[0 to 2000 / 600 / 10-V]
2-305-003	Vc Correction	Threshold 3	ENG*	[0 to 2000 / 750 / 10-V]
2-305-004	Vc Correction	Threshold 4	ENG*	[0 to 2000 / 900 / 10-V]
2-308-001	Paper Size Correction	Threshold 1	ENG*	[0 to 250 / 194 / 1mm]
2-308-002	Paper Size Correction	Threshold 2	ENG*	[0 to 250 / 165 / 1mm]
2-308-003	Paper Size Correction	Threshold 3	ENG*	[0 to 250 / 139 / 1mm]
2-311-001	Non Image Area: Bias	Image Transfer	ENG*	[0 to 2000 / 100 / 10%]
2-311-003	Non Image Area: Bias	Paper Transfer	ENG*	[0 to 2100 / 500 / 10-V]
2-316-001	Power ON: Bias	Image Transfer	ENG*	[0 to 2100 / 1400 / 10V]
2-326-001	Transfer Roller CL: Bias	Neg. Bias: Befor and After JOB	ENG*	[0 to 2100 / 250 / 10-V]
2-326-002	Transfer Roller CL: Bias	Pos. Bias Cor Coef: Befor and After JOB	ENG*	[10 to 995 / 100 / 10%]

2-326-003	Transfer Roller CL: Bias	Neg. Bias: After ProControl	ENG*	[0 to 2100 / 1000 / 10-V]
2-326-004	Transfer Roller CL: Bias	Pos. Bias Corr Coef: After ProCon	ENG*	[10 to 995 / 100 / 10%]
2-326-005	Transfer Roller CL: Bias	Neg. Bias: Dirt Prevention	ENG*	[0 to 2100 / 500 / 10-V]
2-326-011	Transfer Roller CL: Envir	Neg. Bias: Befor and After JOB	ENG*	[1 to 100 / 9 / 1]
2-326-013	Transfer Roller CL: Envir	Neg. Bias: After ProControl	ENG*	[1 to 100 / 2 / 1]
2-326-015	Transfer Roller CL: Envir	Neg. Bias: Dirt Prevention	ENG*	[1 to 100 / 9 / 1]
2-327-001	PTR Cleaning After ProCon	ON/OFF	ENG*	[0 or 1 / 0 / 1] 0: OFF 1: ON
2-351-001	Common: BW: Bias	Image Transfer: Standard Speed	ENG*	[0 to 2100 / 1400 / 10V]
2-351-002	Common: BW: Bias	Image Transfer: Middle Speed	ENG*	[0 to 2100 / 1400 / 10V]
2-351-003	Common: BW: Bias	Image Transfer: Low Speed	ENG*	[0 to 2100 / 1300 / 10V]
2-351-201	Common: BW: Bias	Image Transfer: Std Spd:2	ENG*	[0 to 2100 / 1400 / 10V]
2-357-001	Common: FC: Bias	Image Transfer: Std Spd: Bk	ENG*	[0 to 2100 / 1400 / 10V]
2-357-002	Common: FC: Bias	Image Transfer: Std Spd: C	ENG*	[0 to 2100 / 1400 / 10V]

2-357-003	Common: FC: Bias	Image Transfer: Std Spd: M	ENG*	[0 to 2100 / 1400 / 10V]
2-357-004	Common: FC: Bias	Image Transfer: Std Spd: Y	ENG*	[0 to 2100 / 1400 / 10V]
2-357-005	Common: FC: Bias	Image Transfer: Middle Spd: Bk	ENG*	[0 to 2100 / 1400 / 10V]
2-357-006	Common: FC: Bias	Image Transfer: Middle Spd: C	ENG*	[0 to 2100 / 1400 / 10V]
2-357-007	Common: FC: Bias	Image Transfer: Middle Spd: M	ENG*	[0 to 2100 / 1400 / 10V]
2-357-008	Common: FC: Bias	Image Transfer: Middle Spd: Y	ENG*	[0 to 2100 / 1400 / 10V]
2-357-009	Common: FC: Bias	Image Transfer: Low Spd: Bk	ENG*	[0 to 2100 / 1300 / 10V]
2-357-010	Common: FC: Bias	Image Transfer: Low Spd: C	ENG*	[0 to 2100 / 1300 / 10V]
2-357-011	Common: FC: Bias	Image Transfer: Low Spd: M	ENG*	[0 to 2100 / 1300 / 10V]
2-357-012	Common: FC: Bias	Image Transfer: Low Spd: Y	ENG*	[0 to 2100 / 1300 / 10V]
2-360-001	Common:BW:Env.CorrectionTable	Image Transfer: Standard Spd	ENG*	[1 to 100 / 6 / 1]
2-360-002	Common:BW:Env.CorrectionTable	Image Transfer: Middle Spd	ENG*	[1 to 100 / 6 / 1]
2-360-003	Common:BW:Env.CorrectionTable	Image Transfer: Low Spd	ENG*	[1 to 100 / 6 / 1]

2-360-004	Common:FC:Env.CorrectionTable	ImageTransfer: Std Spd: Bk	ENG*	[1 to 100 / 6 / 1]
2-360-005	Common:FC:Env.CorrectionTable	ImageTransfer: Std Spd: C	ENG*	[1 to 100 / 5 / 1]
2-360-006	Common:FC:Env.CorrectionTable	ImageTransfer: Std Spd: M	ENG*	[1 to 100 / 5 / 1]
2-360-007	Common:FC:Env.CorrectionTable	ImageTransfer: Std Spd: Y	ENG*	[1 to 100 / 5 / 1]
2-360-008	Common:FC:Env.CorrectionTable	ImageTransfer: Middle Spd: Bk	ENG*	[1 to 100 / 6 / 1]
2-360-009	Common:FC:Env.CorrectionTable	ImageTransfer: Middle Spd: C	ENG*	[1 to 100 / 5 / 1]
2-360-010	Common:FC:Env.CorrectionTable	ImageTransfer: Middle Spd: M	ENG*	[1 to 100 / 5 / 1]
2-360-011	Common:FC:Env.CorrectionTable	ImageTransfer: Middle Spd: Y	ENG*	[1 to 100 / 5 / 1]
2-360-012	Common:FC:Env.CorrectionTable	Image Transfer: Low Spd: Bk	ENG*	[1 to 100 / 6 / 1]
2-360-013	Common:FC:Env.CorrectionTable	Image Transfer: Low Spd: C	ENG*	[1 to 100 / 5 / 1]
2-360-014	Common:FC:Env.CorrectionTable	Image Transfer: Low Spd: M	ENG*	[1 to 100 / 5 / 1]
2-360-015	Common:FC:Env.CorrectionTable	Image Transfer: Low Spd: Y	ENG*	[1 to 100 / 5 / 1]
2-361-001	Time-Lapse Correction: Div 1	Standard Speed: Bk	ENG*	[1 to 60 / 1 / 1]

2-361-002	Time-Lapse Correction: Div 1	Middle Speed: Bk	ENG*	[1 to 60 / 1 / 1]
2-361-003	Time-Lapse Correction: Div 1	Low Speed: Bk	ENG*	[1 to 60 / 1 / 1]
2-361-004	Time-Lapse Correction: Div 1	Standard Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1]
2-361-005	Time-Lapse Correction: Div 1	Standard Speed: FC: C	ENG*	[1 to 60 / 1 / 1]
2-361-006	Time-Lapse Correction: Div 1	Standard Speed: FC: M	ENG*	[1 to 60 / 1 / 1]
2-361-007	Time-Lapse Correction: Div 1	Standard Speed: FC: Y	ENG*	[1 to 60 / 1 / 1]
2-361-008	Time-Lapse Correction: Div 1	Middle Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1]
2-361-009	Time-Lapse Correction: Div 1	Middle Speed: FC: C	ENG*	[1 to 60 / 1 / 1]
2-361-010	Time-Lapse Correction: Div 1	Middle Speed: FC: M	ENG*	[1 to 60 / 1 / 1]
2-361-011	Time-Lapse Correction: Div 1	Middle Speed: FC: Y	ENG*	[1 to 60 / 1 / 1]
2-361-012	Time-Lapse Correction: Div 1	Low Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1]
2-361-013	Time-Lapse Correction: Div 1	Low Speed: FC: C	ENG*	[1 to 60 / 1 / 1]
2-361-014	Time-Lapse Correction: Div 1	Low Speed: FC: M	ENG*	[1 to 60 / 1 / 1]

2-361-015	Time-Lapse Correction: Div 1	Low Speed: FC: Y	ENG*	[1 to 60 / 1 / 1]
2-362-001	Time-Lapse Correction: Div 2	Standard Speed: Bk	ENG*	[1 to 60 / 1 / 1]
2-362-002	Time-Lapse Correction: Div 2	Middle Speed: Bk	ENG*	[1 to 60 / 1 / 1]
2-362-003	Time-Lapse Correction: Div 2	Low Speed: Bk	ENG*	[1 to 60 / 1 / 1]
2-362-004	Time-Lapse Correction: Div 2	Standard Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1]
2-362-005	Time-Lapse Correction: Div 2	Standard Speed: FC: C	ENG*	[1 to 60 / 1 / 1]
2-362-006	Time-Lapse Correction: Div 2	Standard Speed: FC: M	ENG*	[1 to 60 / 1 / 1]
2-362-007	Time-Lapse Correction: Div 2	Standard Speed: FC: Y	ENG*	[1 to 60 / 1 / 1]
2-362-008	Time-Lapse Correction: Div 2	Middle Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1]
2-362-009	Time-Lapse Correction: Div 2	Middle Speed: FC: C	ENG*	[1 to 60 / 1 / 1]
2-362-010	Time-Lapse Correction: Div 2	Middle Speed: FC: M	ENG*	[1 to 60 / 1 / 1]
2-362-011	Time-Lapse Correction: Div 2	Middle Speed: FC: Y	ENG*	[1 to 60 / 1 / 1]
2-362-012	Time-Lapse Correction: Div 2	Low Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1]

2-362-013	Time-Lapse Correction: Div 2	Low Speed: FC: C	ENG*	[1 to 60 / 1 / 1]
2-362-014	Time-Lapse Correction: Div 2	Low Speed: FC: M	ENG*	[1 to 60 / 1 / 1]
2-362-015	Time-Lapse Correction: Div 2	Low Speed: FC: Y	ENG*	[1 to 60 / 1 / 1]
2-363-001	Time-Lapse Correction: Div 3	Standard Speed: Bk	ENG*	[1 to 60 / 1 / 1]
2-363-002	Time-Lapse Correction: Div 3	Middle Speed: Bk	ENG*	[1 to 60 / 1 / 1]
2-363-003	Time-Lapse Correction: Div 3	Low Speed: Bk	ENG*	[1 to 60 / 1 / 1]
2-363-004	Time-Lapse Correction: Div 3	Standard Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1]
2-363-005	Time-Lapse Correction: Div 3	Standard Speed: FC: C	ENG*	[1 to 60 / 1 / 1]
2-363-006	Time-Lapse Correction: Div 3	Standard Speed: FC: M	ENG*	[1 to 60 / 1 / 1]
2-363-007	Time-Lapse Correction: Div 3	Standard Speed: FC: Y	ENG*	[1 to 60 / 1 / 1]
2-363-008	Time-Lapse Correction: Div 3	Middle Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1]
2-363-009	Time-Lapse Correction: Div 3	Middle Speed: FC: C	ENG*	[1 to 60 / 1 / 1]
2-363-010	Time-Lapse Correction: Div 3	Middle Speed: FC: M	ENG*	[1 to 60 / 1 / 1]

2-363-011	Time-Lapse Correction: Div 3	Middle Speed: FC: Y	ENG*	[1 to 60 / 1 / 1]
2-363-012	Time-Lapse Correction: Div 3	Low Speed: FC: Bk	ENG*	[1 to 60 / 1 / 1]
2-363-013	Time-Lapse Correction: Div 3	Low Speed: FC: C	ENG*	[1 to 60 / 1 / 1]
2-363-014	Time-Lapse Correction: Div 3	Low Speed: FC: M	ENG*	[1 to 60 / 1 / 1]
2-363-015	Time-Lapse Correction: Div 3	Low Speed: FC: Y	ENG*	[1 to 60 / 1 / 1]
2-371-001	Time-Lapse Correction:Transfer	Standard Speed: Div1	ENG*	[0 to 2000 / 0 / 10V]
2-371-002	Time-Lapse Correction:Transfer	Middle Speed: Div1	ENG*	[0 to 2000 / 0 / 10V]
2-371-003	Time-Lapse Correction:Transfer	Low Speed: Div1	ENG*	[0 to 2000 / 0 / 10V]
2-372-001	Time-Lapse Correction:Transfer	Standard Speed: Div2	ENG*	[0 to 2000 / 0 / 10V]
2-372-002	Time-Lapse Correction:Transfer	Middle Speed: Div2	ENG*	[0 to 2000 / 0 / 10V]
2-372-003	Time-Lapse Correction:Transfer	Low Speed: Div2	ENG*	[0 to 2000 / 0 / 10V]
2-373-001	Time-Lapse Correction:Transfer	Standard Speed: Div3	ENG*	[0 to 2000 / 0 / 10V]
2-373-002	Time-Lapse Correction:Transfer	Middle Speed: Div3	ENG*	[0 to 2000 / 0 / 10V]

2-373-003	Time-Lapse Correction:Transfer	Low Speed: Div3	ENG*	[0 to 2000 / 0 / 10V]
2-374-001	Time-Lapse Correction:Transfer	Standard Speed: Div4	ENG*	[0 to 2000 / 0 / 10V]
2-374-002	Time-Lapse Correction:Transfer	Middle Speed: Div4	ENG*	[0 to 2000 / 0 / 10V]
2-374-003	Time-Lapse Correction:Transfer	Low Speed: Div4	ENG*	[0 to 2000 / 0 / 10V]
2-381-001	Vc Correction	Standard Speed: Div 1	ENG*	[0 to 2000 / 0 / 10-V]
2-381-002	Vc Correction	Middle Speed: Div 1	ENG*	[0 to 2000 / 0 / 10-V]
2-381-003	Vc Correction	Low Speed: Div 1	ENG*	[0 to 2000 / 0 / 10-V]
2-382-001	Vc Correction	Standard Speed: Div2	ENG*	[0 to 2000 / 0 / 10-V]
2-382-002	Vc Correction	Middle Speed: Div 2	ENG*	[0 to 2000 / 0 / 10-V]
2-382-003	Vc Correction	Low Speed: Div2	ENG*	[0 to 2000 / 0 / 10-V]
2-383-001	Vc Correction	Standard Speed: Div3	ENG*	[0 to 2000 / 0 / 10-V]
2-383-002	Vc Correction	Middle Speed: Div3	ENG*	[0 to 2000 / 0 / 10-V]
2-383-003	Vc Correction	Low Speed: Div3	ENG*	[0 to 2000 / 0 / 10-V]

2-384-001	Vc Correction	Standard Speed: Div4	ENG*	[0 to 2000 / 0 / 10-V]
2-384-002	Vc Correction	Middle Speed: Div4	ENG*	[0 to 2000 / 0 / 10-V]
2-384-003	Vc Correction	Low Speed: Div4	ENG*	[0 to 2000 / 0 / 10-V]
2-385-001	Vc Correction	Standard Speed: Div5	ENG*	[0 to 2000 / 0 / 10-V]
2-385-002	Vc Correction	Middle Speed: Div5	ENG*	[0 to 2000 / 0 / 10-V]
2-385-003	Vc Correction	Low Speed: Div5	ENG*	[0 to 2000 / 0 / 10-V]
2-401-001	T1 at low temp and tempolarity	Standard speed:K	ENG*	[0 to 2100 / 1300 / 10V]
2-401-002	T1 at low temp and tempolarity	Standard speed:C	ENG*	[0 to 2100 / 1300 / 10V]
2-401-003	T1 at low temp and tempolarity	Standard speed:M	ENG*	[0 to 2100 / 1300 / 10V]
2-401-004	T1 at low temp and tempolarity	Standard speed:Y	ENG*	[0 to 2100 / 1300 / 10V]
2-403-001	Plain 1: Bias: BW	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 21 *MP C407: 24
2-403-002	Plain 1: Bias: BW	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 16 *MP C407: 18
2-403-003	Plain 1: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 10 / 1uA]

2-403-004	Plain 1: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 8 / 1uA]
2-403-201	Plain 1: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 30 / 1uA]
2-403-202	Plain 1: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / 22 / 1uA]
2-407-001	Plain 1: Bias: FC	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 22 *MP C407: 25
2-407-002	Plain 1: Bias: FC	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 18 *MP C407: 20
2-407-003	Plain 1: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-407-004	Plain 1: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 10 / 1uA]
2-411-001	Plain 1: Size Correction:BW	Paper Transfer: Std Spd:1Sid:S1	ENG*	[100 to 995 / 100 / 5%]
2-411-002	Plain 1: Size Correction:BW	Paper Transfer: Std Spd:2Sid:S1	ENG*	[100 to 995 / 100 / 5%]
2-411-003	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-411-004	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-411-007	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 120 / 5%]
2-411-008	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 175 / 5%]

2-411-011	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 130 / 5%]
2-411-012	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 213 / 5%]
2-411-015	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 140 / 5%]
2-411-016	Plain 1: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 275 / 5%]
2-412-001	Plain 1: Size Correction:FC	Paper Transfer: Std Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-412-002	Plain 1: Size Correction:FC	Paper Transfer: Std Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-412-003	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-412-004	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-412-007	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 118 / 5%]
2-412-008	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 150 / 5%]
2-412-011	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 130 / 5%]
2-412-012	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 180 / 5%]
2-412-015	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 140 / 5%]

2-412-016	Plain 1: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 250 / 5%]
2-413-001	Plain 1: Size-Env.Correct:BW	Paper Transfer: Std Spd: 1Side:S1	ENG*	[1 to 100 / 21 / 1]
2-413-002	Plain 1: Size-Env.Correct:BW	Paper Transfer: Std Spd: 2Side:S1	ENG*	[1 to 100 / 22 / 1]
2-413-003	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 25 / 1]
2-413-004	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 26 / 1]
2-413-007	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 27 / 1]
2-413-008	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 28 / 1]
2-413-011	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 29 / 1]
2-413-012	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 30 / 1]
2-413-015	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 31 / 1]
2-413-016	Plain 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 32 / 1]
2-414-001	Plain 1: Size-Env.Correct:FC	Paper Transfer: Std Spd: 1Side:S1	ENG*	[1 to 100 / 23 / 1]
2-414-002	Plain 1: Size-Env.Correct:FC	Paper Transfer: Std Spd: 2Side:S1	ENG*	[1 to 100 / 24 / 1]

2-414-003	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 25 / 1]
2-414-004	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 26 / 1]
2-414-007	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 27 / 1]
2-414-008	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 28 / 1]
2-414-011	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 29 / 1]
2-414-012	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 30 / 1]
2-414-015	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 31 / 1]
2-414-016	Plain 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 32 / 1]
2-415-001	Plain 1: Leading Edge Correct.	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-415-002	Plain 1: Leading Edge Correct.	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-415-003	Plain 1: Leading Edge Correct.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-415-004	Plain 1: Leading Edge Correct.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-415-005	Plain 1: Leading Edge Correct.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]

2-415-006	Plain 1: Leading Edge Correct.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-415-007	Plain 1: Leading Edge Correct.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-415-008	Plain 1: Leading Edge Correct.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-416-001	Plain 1: SW Timing Lead Edge	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-416-002	Plain 1: SW Timing Lead Edge	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-416-003	Plain 1: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-416-004	Plain 1: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-416-005	Plain 1: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-416-006	Plain 1: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-416-007	Plain 1: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-416-008	Plain 1: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-417-001	Plain 1: Trail Edge Correction	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-417-002	Plain 1: Trail Edge Correction	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]

2-417-003	Plain 1: Trail Edge Correction	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-417-004	Plain 1: Trail Edge Correction	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-417-005	Plain 1: Trail Edge Correction	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-417-006	Plain 1: Trail Edge Correction	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-417-007	Plain 1: Trail Edge Correction	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-417-008	Plain 1: Trail Edge Correction	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-418-001	Plain 1: SW Timing Trail Edge	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-418-002	Plain 1: SW Timing Trail Edge	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-418-003	Plain 1: SW Timing Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-418-004	Plain 1: SW Timing Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-418-005	Plain 1: SW Timing Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-418-006	Plain 1: SW Timing Trail Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-418-007	Plain 1: SW Timing Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]

2-418-008	Plain 1: SW Timing Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-419-013	Plain 1: Envir Correct. Table	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-419-014	Plain 1: Envir Correct. Table	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-419-015	Plain 1: Envir Correct. Table	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-419-016	Plain 1: Envir Correct. Table	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-419-017	Plain 1: Edge Envir Correct.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 50 / 1]
2-419-018	Plain 1: Edge Envir Correct.	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 50 / 1]
2-419-019	Plain 1: Edge Envir Correct.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 50 / 1]
2-419-020	Plain 1: Edge Envir Correct.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 50 / 1]
2-421-001	T1 at low temp and tempolarity	Middle speed:K	ENG*	[0 to 2100 / 1300 / 10V]
2-421-002	T1 at low temp and tempolarity	Middle speed:C	ENG*	[0 to 2100 / 1300 / 10V]
2-421-003	T1 at low temp and tempolarity	Middle speed:M	ENG*	[0 to 2100 / 1300 / 10V]
2-421-004	T1 at low temp and tempolarity	Middle speed:Y	ENG*	[0 to 2100 / 1300 / 10V]

2-423-001	Plain 2: Bias: BW	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 19 *MP C407: 22
2-423-002	Plain 2: Bias: BW	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 16 *MP C407: 18
2-423-003	Plain 2: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-423-004	Plain 2: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 11 / 1uA]
2-423-201	Plain 2: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 26 / 1uA]
2-423-202	Plain 2: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 22 *MP C407: 15
2-427-001	Plain 2: Bias: FC	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 18 *MP C407: 20
2-427-002	Plain 2: Bias: FC	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 200 / 18 / 1uA]
2-427-003	Plain 2: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 13 / 1uA]
2-427-004	Plain 2: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 13 / 1uA]
2-431-001	Plain 2: Size Correction:BW	Paper Transfer: Std Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-431-002	Plain 2: Size Correction:BW	Paper Transfer: Std Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-431-003	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]

2-431-004	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-431-007	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 120 / 5%]
2-431-008	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 175 / 5%]
2-431-011	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 140 / 5%]
2-431-012	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 213 / 5%]
2-431-015	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 150 / 5%]
2-431-016	Plain 2: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 275 / 5%]
2-432-001	Plain 2: Size Correction:FC	Paper Transfer: Std Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-432-002	Plain 2: Size Correction:FC	Paper Transfer: Std Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-432-003	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-432-004	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-432-007	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 118 / 5%]
2-432-008	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 150 / 5%]

2-432-011	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 136 / 5%]
2-432-012	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 180 / 5%]
2-432-015	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 140 / 5%]
2-432-016	Plain 2: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 250 / 5%]
2-433-001	Plain 2: Size-Env.Correct:BW	Paper Transfer: Std Spd: 1Side:S1	ENG*	[1 to 100 / 33 / 1]
2-433-002	Plain 2: Size-Env.Correct:BW	Paper Transfer: Std Spd: 2Side:S1	ENG*	[1 to 100 / 34 / 1]
2-433-003	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 37 / 1]
2-433-004	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 38 / 1]
2-433-007	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 39 / 1]
2-433-008	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 40 / 1]
2-433-011	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 41 / 1]
2-433-012	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 42 / 1]
2-433-015	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 43 / 1]

2-433-016	Plain 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 44 / 1]
2-434-001	Plain 2: Size-Env.Correct:FC	Paper Transfer: Std Spd: 1Side:S1	ENG*	[1 to 100 / 35 / 1]
2-434-002	Plain 2: Size-Env.Correct:FC	Paper Transfer: Std Spd: 2Side:S1	ENG*	[1 to 100 / 36 / 1]
2-434-003	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 37 / 1]
2-434-004	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 38 / 1]
2-434-007	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 39 / 1]
2-434-008	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 40 / 1]
2-434-011	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 41 / 1]
2-434-012	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 42 / 1]
2-434-015	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 43 / 1]
2-434-016	Plain 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 44 / 1]
2-435-001	Plain 2: Leading Edge Correct.	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-435-002	Plain 2: Leading Edge Correct.	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]

2-435-003	Plain 2: Leading Edge Correct.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-435-004	Plain 2: Leading Edge Correct.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-435-005	Plain 2: Leading Edge Correct.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-435-006	Plain 2: Leading Edge Correct.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-435-007	Plain 2: Leading Edge Correct.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-435-008	Plain 2: Leading Edge Correct.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-436-001	Plain 2: SW Timing Lead Edge	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-436-002	Plain 2: SW Timing Lead Edge	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-436-003	Plain 2: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-436-004	Plain 2: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-436-005	Plain 2: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-436-006	Plain 2: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-436-007	Plain 2: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]

2-436-008	Plain 2: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-437-001	Plain 2: Trail Edge Correction	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-437-002	Plain 2: Trail Edge Correction	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-437-003	Plain 2: Trail Edge Correction	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-437-004	Plain 2: Trail Edge Correction	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-437-005	Plain 2: Trail Edge Correction	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-437-006	Plain 2: Trail Edge Correction	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-437-007	Plain 2: Trail Edge Correction	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-437-008	Plain 2: Trail Edge Correction	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-438-001	Plain 2: SW Timing Trail Edge	Paper Transfer: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-438-002	Plain 2: SW Timing Trail Edge	Paper Transfer: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-438-003	Plain 2: SW Timing Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-438-004	Plain 2: SW Timing Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]

2-438-005	Plain 2: SW Timing Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-438-006	Plain 2: SW Timing Trail Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-438-007	Plain 2: SW Timing Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-438-008	Plain 2: SW Timing Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-439-013	Plain 2: Envir Correct. Table	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-439-014	Plain 2: Envir Correct. Table	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-439-015	Plain 2: Envir Correct. Table	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-439-016	Plain 2: Envir Correct. Table	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-439-017	Plain 2: Edge Envir Correct.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 50 / 1]
2-439-018	Plain 2: Edge Envir Correct.	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 50 / 1]
2-439-019	Plain 2: Edge Envir Correct.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 50 / 1]
2-439-020	Plain 2: Edge Envir Correct.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 50 / 1]
2-441-001	T1 at low temp and tempolarity	Low speed:K	ENG*	[0 to 2100 / 1300 / 10V]

2-441-002	T1 at low temp and tempolarity	Low speed:C	ENG*	[0 to 2100 / 1300 / 10V]
2-441-003	T1 at low temp and tempolarity	Low speed:M	ENG*	[0 to 2100 / 1300 / 10V]
2-441-004	T1 at low temp and tempolarity	Low speed:Y	ENG*	[0 to 2100 / 1300 / 10V]
2-443-001	M-Thick: Bias: BW	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / 20 / 1uA]
2-443-002	M-Thick: Bias: BW	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / 16 / 1uA]
2-443-003	M-Thick: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 10 / 1uA]
2-443-004	M-Thick: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 8 / 1uA]
2-447-001	M-Thick: Bias: FC	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / 22 / 1uA]
2-447-002	M-Thick: Bias: FC	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / 18 / 1uA]
2-447-003	M-Thick: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-447-004	M-Thick: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 10 / 1uA]
2-451-001	M-Thick: Size Correction:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-451-002	M-Thick: Size Correction:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]

2-451-003	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-451-004	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-451-007	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 130 / 5%]
2-451-008	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 163 / 5%]
2-451-011	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 150 / 5%]
2-451-012	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 250 / 5%]
2-451-015	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 150 / 5%]
2-451-016	M-Thick: Size Correction:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 375 / 5%]
2-452-001	M-Thick: Size Correction:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-452-002	M-Thick: Size Correction:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-452-003	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-452-004	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-452-007	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 136 / 5%]

2-452-008	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 180 / 5%]
2-452-011	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 150 / 5%]
2-452-012	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 250 / 5%]
2-452-015	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 150 / 5%]
2-452-016	M-Thick: Size Correction:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 350 / 5%]
2-453-001	M-Thick: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 21 / 1]
2-453-002	M-Thick: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 22 / 1]
2-453-003	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 47 / 1]
2-453-004	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 48 / 1]
2-453-007	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 49 / 1]
2-453-008	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 50 / 1]
2-453-011	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 51 / 1]
2-453-012	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 52 / 1]

2-453-015	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 53 / 1]
2-453-016	M-Thick: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 54 / 1]
2-454-001	M-Thick: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 45 / 1]
2-454-002	M-Thick: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 46 / 1]
2-454-003	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 47 / 1]
2-454-004	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 48 / 1]
2-454-007	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 49 / 1]
2-454-008	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 50 / 1]
2-454-011	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 51 / 1]
2-454-012	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 52 / 1]
2-454-015	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 53 / 1]
2-454-016	M-Thick: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 54 / 1]
2-455-001	M-Thick: Leading Edge Correct.	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]

2-455-002	M-Thick: Leading Edge Correct.	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-455-003	M-Thick: Leading Edge Correct.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-455-004	M-Thick: Leading Edge Correct.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-455-005	M-Thick: Leading Edge Correct.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-455-006	M-Thick: Leading Edge Correct.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-455-007	M-Thick: Leading Edge Correct.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-455-008	M-Thick: Leading Edge Correct.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-456-001	M-Thick: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-456-002	M-Thick: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-456-003	M-Thick: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-456-004	M-Thick: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-456-005	M-Thick: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-456-006	M-Thick: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]

2-456-007	M-Thick: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-456-008	M-Thick: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-457-001	M-Thick: Trail Edge Correction	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-457-002	M-Thick: Trail Edge Correction	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-457-003	M-Thick: Trail Edge Correction	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-457-004	M-Thick: Trail Edge Correction	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-457-005	M-Thick: Trail Edge Correction	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-457-006	M-Thick: Trail Edge Correction	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-457-007	M-Thick: Trail Edge Correction	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-457-008	M-Thick: Trail Edge Correction	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-458-001	M-Thick: SW Timing Trail Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-458-002	M-Thick: SW Timing Trail Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-458-003	M-Thick: SW Timing Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]

2-458-004	M-Thick: SW Timing Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-458-005	M-Thick: SW Timing Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-458-006	M-Thick: SW Timing Trail Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-458-007	M-Thick: SW Timing Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-458-008	M-Thick: SW Timing Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-459-013	M-Thick: Envir Correct. Table	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-459-014	M-Thick: Envir Correct. Table	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-459-015	M-Thick: Envir Correct. Table	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-459-016	M-Thick: Envir Correct. Table	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-459-017	M-Thick: Edge Envir Correction	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 50 / 1]
2-459-018	M-Thick: Edge Envir Correction	Separation DC: Std Spd: 2Side	ENG*	[1 to 100 / 50 / 1]
2-459-019	M-Thick: Edge Envir Correction	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 50 / 1]
2-459-020	M-Thick: Edge Envir Correction	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 50 / 1]

2-481-003	Thick 1: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 0 / 10-V]
2-481-004	Thick 1: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 0 / 10-V]
2-483-003	Thick 1: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 14 / 1uA]
2-483-004	Thick 1: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 9 / 1uA]
2-487-003	Thick 1: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 15 / 1uA]
2-487-004	Thick 1: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 11 / 1uA]
2-491-003	Thick 1: Size Correction:BW	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-491-004	Thick 1: Size Correction:BW	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-491-007	Thick 1: Size Correction:BW	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 100 / 5%]
2-491-008	Thick 1: Size Correction:BW	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 156 / 5%]
2-491-011	Thick 1: Size Correction:BW	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 100 / 5%]
2-491-012	Thick 1: Size Correction:BW	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 167 / 5%]
2-491-015	Thick 1: Size Correction:BW	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 107 / 5%]

2-491-016	Thick 1: Size Correction:BW	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 278 / 5%]
2-492-003	Thick 1: Size Correction:FC	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-492-004	Thick 1: Size Correction:FC	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-492-007	Thick 1: Size Correction:FC	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 100 / 5%]
2-492-008	Thick 1: Size Correction:FC	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 164 / 5%]
2-492-011	Thick 1: Size Correction:FC	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 120 / 5%]
2-492-012	Thick 1: Size Correction:FC	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 227 / 5%]
2-492-015	Thick 1: Size Correction:FC	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 130 / 5%]
2-492-016	Thick 1: Size Correction:FC	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 364 / 5%]
2-493-003	Thick 1: Size-Env.Correct:BW	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 59 / 1]
2-493-004	Thick 1: Size-Env.Correct:BW	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 60 / 1]
2-493-007	Thick 1: Size-Env.Correct:BW	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 61 / 1]
2-493-008	Thick 1: Size-Env.Correct:BW	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 62 / 1]

2-493-011	Thick 1: Size-Env.Correct:BW	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 55 / 1]
2-493-012	Thick 1: Size-Env.Correct:BW	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 56 / 1]
2-493-015	Thick 1: Size-Env.Correct:BW	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 57 / 1]
2-493-016	Thick 1: Size-Env.Correct:BW	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 58 / 1]
2-494-003	Thick 1: Size-Env.Correct:FC	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 59 / 1]
2-494-004	Thick 1: Size-Env.Correct:FC	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 60 / 1]
2-494-007	Thick 1: Size-Env.Correct:FC	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 61 / 1]
2-494-008	Thick 1: Size-Env.Correct:FC	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 62 / 1]
2-494-011	Thick 1: Size-Env.Correct:FC	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 63 / 1]
2-494-012	Thick 1: Size-Env.Correct:FC	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 64 / 1]
2-494-015	Thick 1: Size-Env.Correct:FC	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 65 / 1]
2-494-016	Thick 1: Size-Env.Correct:FC	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 66 / 1]
2-495-003	Thick 1: Leading Edge Correct.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]

2-495-004	Thick 1: Leading Edge Correct.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-495-007	Thick 1: Leading Edge Correct.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-495-008	Thick 1: Leading Edge Correct.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-496-003	Thick 1: SW Timing Lead Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-496-004	Thick 1: SW Timing Lead Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-496-007	Thick 1: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-496-008	Thick 1: SW Timing Lead Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-497-003	Thick 1: Trail Edge Correction	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-497-004	Thick 1: Trail Edge Correction	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-497-007	Thick 1: Trail Edge Correction	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-497-008	Thick 1: Trail Edge Correction	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-498-003	Thick 1: SW Timing Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-498-004	Thick 1: SW Timing Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]

2-498-007	Thick 1: SW Timing Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-498-008	Thick 1: SW Timing Trail Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-499-015	Thick 1: Envir Correct. Table	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-499-016	Thick 1: Envir Correct. Table	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-499-019	Thick 1: Edge Envir Correct.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-499-020	Thick 1: Edge Envir Correct.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-501-003	Thick 2: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 0 / 10-V]
2-501-004	Thick 2: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 0 / 10-V]
2-503-003	Thick 2: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-503-004	Thick 2: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 8 / 1uA]
2-507-003	Thick 2: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 12 / 1uA]
2-507-004	Thick 2: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 9 / 1uA]
2-511-003	Thick 2: Size Correction:BW	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]

2-511-004	Thick 2: Size Correction:BW	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-511-007	Thick 2: Size Correction:BW	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 100 / 5%]
2-511-008	Thick 2: Size Correction:BW	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 163 / 5%]
2-511-011	Thick 2: Size Correction:BW	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 136 / 5%]
2-511-012	Thick 2: Size Correction:BW	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 250 / 5%]
2-511-015	Thick 2: Size Correction:BW	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 164 / 5%]
2-511-016	Thick 2: Size Correction:BW	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 313 / 5%]
2-512-003	Thick 2: Size Correction:FC	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-512-004	Thick 2: Size Correction:FC	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-512-007	Thick 2: Size Correction:FC	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 100 / 5%]
2-512-008	Thick 2: Size Correction:FC	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 200 / 5%]
2-512-011	Thick 2: Size Correction:FC	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 138 / 5%]
2-512-012	Thick 2: Size Correction:FC	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 278 / 5%]

2-512-015	Thick 2: Size Correction:FC	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 154 / 5%]
2-512-016	Thick 2: Size Correction:FC	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 389 / 5%]
2-513-003	Thick 2: Size-Env.Correct:BW	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 67 / 1]
2-513-004	Thick 2: Size-Env.Correct:BW	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 68 / 1]
2-513-007	Thick 2: Size-Env.Correct:BW	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 69 / 1]
2-513-008	Thick 2: Size-Env.Correct:BW	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 70 / 1]
2-513-011	Thick 2: Size-Env.Correct:BW	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 71 / 1]
2-513-012	Thick 2: Size-Env.Correct:BW	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 72 / 1]
2-513-015	Thick 2: Size-Env.Correct:BW	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 73 / 1]
2-513-016	Thick 2: Size-Env.Correct:BW	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 74 / 1]
2-514-003	Thick 2: Size-Env.Correct:FC	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 67 / 1]
2-514-004	Thick 2: Size-Env.Correct:FC	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 68 / 1]
2-514-007	Thick 2: Size-Env.Correct:FC	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 69 / 1]

2-514-008	Thick 2: Size-Env.Correct:FC	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 70 / 1]
2-514-011	Thick 2: Size-Env.Correct:FC	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 71 / 1]
2-514-012	Thick 2: Size-Env.Correct:FC	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 72 / 1]
2-514-015	Thick 2: Size-Env.Correct:FC	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 73 / 1]
2-514-016	Thick 2: Size-Env.Correct:FC	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 74 / 1]
2-515-003	Thick 2: Leading Edge Correct.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-515-004	Thick 2: Leading Edge Correct.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-515-007	Thick 2: Leading Edge Correct.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-515-008	Thick 2: Leading Edge Correct.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-516-003	Thick 2: SW Timing Lead Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-516-004	Thick 2: SW Timing Lead Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-516-007	Thick 2: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-516-008	Thick 2: SW Timing Lead Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]

2-517-003	Thick 2: Trail Edge Correction	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-517-004	Thick 2: Trail Edge Correction	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-517-007	Thick 2: Trail Edge Correction	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-517-008	Thick 2: Trail Edge Correction	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-518-003	Thick 2: SW Timing Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-518-004	Thick 2: SW Timing Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-518-007	Thick 2: SW Timing Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-518-008	Thick 2: SW Timing Trail Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-519-015	Thick 2: Envir Correct. Table	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-519-016	Thick 2: Envir Correct. Table	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-519-019	Thick 2: Edge Envir Correct.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-519-020	Thick 2: Edge Envir Correct.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-521-003	Thick 3: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 0 / 10-V]

2-521-004	Thick 3: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 0 / 10-V]
2-523-003	Thick 3: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 9 / 1uA]
2-523-004	Thick 3: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 7 / 1uA]
2-527-003	Thick 3: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-527-004	Thick 3: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 9 / 1uA]
2-531-003	Thick 3: Size Correction:BW	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-531-004	Thick 3: Size Correction:BW	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-531-007	Thick 3: Size Correction:BW	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 122 / 5%]
2-531-008	Thick 3: Size Correction:BW	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 186 / 5%]
2-531-011	Thick 3: Size Correction:BW	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 156 / 5%]
2-531-012	Thick 3: Size Correction:BW	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 271 / 5%]
2-531-015	Thick 3: Size Correction:BW	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 170 / 5%]
2-531-016	Thick 3: Size Correction:BW	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 357 / 5%]

2-532-003	Thick 3: Size Correction:FC	Paper Transfer: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-532-004	Thick 3: Size Correction:FC	Paper Transfer: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-532-007	Thick 3: Size Correction:FC	Paper Transfer: 1Side:S2	ENG*	[100 to 995 / 118 / 5%]
2-532-008	Thick 3: Size Correction:FC	Paper Transfer: 2Side:S2	ENG*	[100 to 995 / 200 / 5%]
2-532-011	Thick 3: Size Correction:FC	Paper Transfer: 1Side:S3	ENG*	[100 to 995 / 140 / 5%]
2-532-012	Thick 3: Size Correction:FC	Paper Transfer: 2Side:S3	ENG*	[100 to 995 / 278 / 5%]
2-532-015	Thick 3: Size Correction:FC	Paper Transfer: 1Side:S4	ENG*	[100 to 995 / 150 / 5%]
2-532-016	Thick 3: Size Correction:FC	Paper Transfer: 2Side:S4	ENG*	[100 to 995 / 389 / 5%]
2-533-003	Thick 3: Size-Env.Correct:BW	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 75 / 1]
2-533-004	Thick 3: Size-Env.Correct:BW	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 76 / 1]
2-533-007	Thick 3: Size-Env.Correct:BW	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 77 / 1]
2-533-008	Thick 3: Size-Env.Correct:BW	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 78 / 1]
2-533-011	Thick 3: Size-Env.Correct:BW	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 79 / 1]

2-533-012	Thick 3: Size-Env.Correct:BW	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 80 / 1]
2-533-015	Thick 3: Size-Env.Correct:BW	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 81 / 1]
2-533-016	Thick 3: Size-Env.Correct:BW	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 82 / 1]
2-534-003	Thick 3: Size-Env.Correct:FC	Paper Transfer: 1Side:S1	ENG*	[1 to 100 / 75 / 1]
2-534-004	Thick 3: Size-Env.Correct:FC	Paper Transfer: 2Side:S1	ENG*	[1 to 100 / 76 / 1]
2-534-007	Thick 3: Size-Env.Correct:FC	Paper Transfer: 1Side:S2	ENG*	[1 to 100 / 77 / 1]
2-534-008	Thick 3: Size-Env.Correct:FC	Paper Transfer: 2Side:S2	ENG*	[1 to 100 / 78 / 1]
2-534-011	Thick 3: Size-Env.Correct:FC	Paper Transfer: 1Side:S3	ENG*	[1 to 100 / 79 / 1]
2-534-012	Thick 3: Size-Env.Correct:FC	Paper Transfer: 2Side:S3	ENG*	[1 to 100 / 80 / 1]
2-534-015	Thick 3: Size-Env.Correct:FC	Paper Transfer: 1Side:S4	ENG*	[1 to 100 / 81 / 1]
2-534-016	Thick 3: Size-Env.Correct:FC	Paper Transfer: 2Side:S4	ENG*	[1 to 100 / 82 / 1]
2-535-003	Thick 3: Leading Edge Correct.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-535-004	Thick 3: Leading Edge Correct.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]

2-535-007	Thick 3: Leading Edge Correct.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-535-008	Thick 3: Leading Edge Correct.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-536-003	Thick 3: SW Timing Lead Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-536-004	Thick 3: SW Timing Lead Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-536-007	Thick 3: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-536-008	Thick 3: SW Timing Lead Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-537-003	Thick 3: Trail Edge Correction	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-537-004	Thick 3: Trail Edge Correction	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-537-007	Thick 3: Trail Edge Correction	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-537-008	Thick 3: Trail Edge Correction	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-538-003	Thick 3: SW Timing Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-538-004	Thick 3: SW Timing Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-538-007	Thick 3: SW Timing Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]

2-538-008	Thick 3: SW Timing Trail Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-539-015	Thick 3: Envir Correct. Table	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-539-016	Thick 3: Envir Correct. Table	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-539-019	Thick 3: Edge Envir Correct.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-539-020	Thick 3: Edge Envir Correct.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]

SP Tables - SP2-XXX (2)

SP2-XXX (Drum) -2

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
2-541-003	OHP: Bias	Separation DC	ENG*	[0 to 4000 / 0 / 10-V]
2-543-003	OHP: Bias: BW	Paper Transfer	ENG*	[0 to 200 / 9 / 1uA]
2-547-003	OHP: Bias: FC	Paper Transfer	ENG*	[0 to 200 / 10 / 1uA]
2-551-003	OHP: Size Correction:BW	PaperTransfer:S1	ENG*	[100 to 995 / 100 / 5%]
2-551-007	OHP: Size Correction:BW	PaperTransfer:S2	ENG*	[100 to 995 / 122 / 5%]
2-551-011	OHP: Size Correction:BW	PaperTransfer:S3	ENG*	[100 to 995 / 156 / 5%]
2-551-015	OHP: Size Correction:BW	PaperTransfer:S4	ENG*	[100 to 995 / 189 / 5%]
2-552-003	OHP: Size Correction:FC	PaperTransfer:S1	ENG*	[100 to 995 / 100 / 5%]
2-552-007	OHP: Size Correction:FC	PaperTransfer:S2	ENG*	[100 to 995 / 118 / 5%]
2-552-011	OHP: Size Correction:FC	PaperTransfer:S3	ENG*	[100 to 995 / 164 / 5%]
2-552-015	OHP: Size Correction:FC	PaperTransfer:S4	ENG*	[100 to 995 / 182 / 5%]
2-553-003	OHP: Size-Env.Correct:BW	PaperTransfer:S1	ENG*	[1 to 100 / 83 / 1]
2-553-007	OHP: Size-Env.Correct:BW	PaperTransfer:S2	ENG*	[1 to 100 / 84 / 1]
2-553-011	OHP: Size-Env.Correct:BW	PaperTransfer:S3	ENG*	[1 to 100 / 85 / 1]
2-553-015	OHP: Size-Env.Correct:BW	PaperTransfer:S4	ENG*	[1 to 100 / 86 / 1]
2-554-003	OHP: Size-Env.Correct:FC	PaperTransfer:S1	ENG*	[1 to 100 / 83 / 1]
2-554-	OHP: Size-Env.Correct:FC	PaperTransfer:S2	ENG*	[1 to 100 / 84 / 1]

007				
2-554-011	OHP: Size-Env.Correct:FC	PaperTransfer:S3	ENG*	[1 to 100 / 85 / 1]
2-554-015	OHP: Size-Env.Correct:FC	PaperTransfer:S4	ENG*	[1 to 100 / 86 / 1]
2-555-003	OHP: Leading Edge Correction	Paper Transfer	ENG*	[0 to 995 / 100 / 5%]
2-555-007	OHP: Leading Edge Correction	Separation DC	ENG*	[0 to 995 / 100 / 5%]
2-556-003	OHP: Switch Timing Lead Edge	Paper Transfer	ENG*	[0 to 50 / 0 / 2mm]
2-556-007	OHP: Switch Timing Lead Edge	Separation DC	ENG*	[0 to 50 / 0 / 2mm]
2-557-003	OHP: Trail Edge Correction	Paper Transfer	ENG*	[0 to 995 / 100 / 5%]
2-557-007	OHP: Trail Edge Correction	Separation DC	ENG*	[0 to 995 / 100 / 5%]
2-558-003	OHP: Switch Timing Trail Edge	Paper Transfer	ENG*	[0 to 50 / 0 / 2mm]
2-558-007	OHP: Switch Timing Trail Edge	Separation DC	ENG*	[0 to 50 / 0 / 2mm]
2-559-015	OHP: Environment Correct Table	Separation DC	ENG*	[1 to 100 / 30 / 1]
2-559-019	OHP: Edge Environment Correc.	Separation DC	ENG*	[1 to 100 / 30 / 1]
2-561-001	Special 1: Bias	Separation DC: Std Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-561-002	Special 1: Bias	Separation DC: Std Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-561-003	Special 1: Bias	Separation DC: Low Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-561-004	Special 1: Bias	Separation DC: Low Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-563-001	Special 1: Bias: BW	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 21 *MP C407: 24
2-563-002	Special 1: Bias: BW	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 16

				*MP C407: 18
2-563-003	Special 1: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 10 / 1uA]
2-563-004	Special 1: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 8 / 1uA]
2-563-201	Special 1: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 30 / 1uA]
2-563-202	Special 1: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / 22 / 1uA]
2-567-001	Special 1: Bias: FC	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 22 *MP C407: 25
2-567-002	Special 1: Bias: FC	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 18 *MP C407: 20
2-567-003	Special 1: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-567-004	Special 1: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 10 / 1uA]
2-571-001	Special 1: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-571-002	Special 1: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-571-003	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-571-004	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-571-007	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 120 / 5%]
2-571-008	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 175 / 5%]
2-571-011	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 130 / 5%]
2-571-012	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 213 / 5%]
2-571-015	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 140 / 5%]
2-571-	Special 1: SizeCorrection:BW	Paper Transfer: Low Spd:	ENG*	[100 to 995 / 275 /

016		2Side:S4		5%]
2-572-001	Special 1: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-572-002	Special 1: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-572-003	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-572-004	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-572-007	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 118 / 5%]
2-572-008	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 150 / 5%]
2-572-011	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 130 / 5%]
2-572-012	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 180 / 5%]
2-572-015	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 140 / 5%]
2-572-016	Special 1: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 250 / 5%]
2-573-001	Special 1: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 21 / 1]
2-573-002	Special 1: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 22 / 1]
2-573-003	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 25 / 1]
2-573-004	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 26 / 1]
2-573-007	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 27 / 1]
2-573-008	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 28 / 1]
2-573-011	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 29 / 1]
2-573-012	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 30 / 1]
2-573-	Special 1: Size-	Paper Transfer: Low Spd:	ENG*	[1 to 100 / 31 / 1]

015	Env.Correct:BW	1Side:S4		
2-573-016	Special 1: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 32 / 1]
2-574-001	Special 1: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 23 / 1]
2-574-002	Special 1: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 24 / 1]
2-574-003	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 25 / 1]
2-574-004	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 26 / 1]
2-574-007	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 27 / 1]
2-574-008	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 28 / 1]
2-574-011	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 29 / 1]
2-574-012	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 30 / 1]
2-574-015	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 31 / 1]
2-574-016	Special 1: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 32 / 1]
2-575-001	Special 1: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-575-002	Special 1: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-575-003	Special 1: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-575-004	Special 1: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-575-005	Special 1: LeadingEdgeCorrect.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-575-006	Special 1: LeadingEdgeCorrect.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-575-007	Special 1: LeadingEdgeCorrect.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-575-	Special 1:	Separation DC: Low Spd:	ENG*	[0 to 995 / 100 / 5%]

008	LeadingEdgeCorrect.	2Side		
2-576-001	Special 1: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-576-002	Special 1: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-576-003	Special 1: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-576-004	Special 1: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-576-005	Special 1: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-576-006	Special 1: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-576-007	Special 1: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-576-008	Special 1: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-577-001	Special 1: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-577-002	Special 1: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-577-003	Special 1: TrailEdgeCorrection	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-577-004	Special 1: TrailEdgeCorrection	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-577-005	Special 1: TrailEdgeCorrection	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-577-006	Special 1: TrailEdgeCorrection	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-577-007	Special 1: TrailEdgeCorrection	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-577-008	Special 1: TrailEdgeCorrection	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-578-001	Special 1: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-578-002	Special 1: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-578-	Special 1: SWTiming Trail	Paper Transfer: Low Spd:	ENG*	[0 to 50 / 0 / 2mm]

003	Edge	1Side		
2-578-004	Special 1: SWTiming Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-578-005	Special 1: SWTiming Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-578-006	Special 1: SWTiming Trail Edge	Separation DC: Std Spd: 2side	ENG*	[0 to 50 / 0 / 2mm]
2-578-007	Special 1: SWTiming Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-578-008	Special 1: SWTiming Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-579-013	Special 1: EnvCorrectionTable	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-579-014	Special 1: EnvCorrectionTable	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1]
2-579-015	Special 1: EnvCorrectionTable	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-579-016	Special 1: EnvCorrectionTable	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-579-017	Special 1: Edge Envir Correc.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 50 / 1]
2-579-018	Special 1: Edge Envir Correc.	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 50 / 1]
2-579-019	Special 1: Edge Envir Correc.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 50 / 1]
2-579-020	Special 1: Edge Envir Correc.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 50 / 1]
2-581-001	Special 2: Bias	Separation DC: Std Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-581-002	Special 2: Bias	Separation DC: Std Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-581-003	Special 2: Bias	Separation DC: Low Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-581-004	Special 2: Bias	Separation DC: Low Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-583-001	Special 2: Bias: BW	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 19 *MP C407: 22

2-583-002	Special 2: Bias: BW	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 16 *MP C407: 18
2-583-003	Special 2: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-583-004	Special 2: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 11 / 1uA]
2-583-201	Special 2: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 26 / 1uA]
2-583-202	Special 2: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / 22 / 1uA]
2-587-001	Special 2: Bias: FC	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 22 *MP C407: 25
2-587-002	Special 2: Bias: FC	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / * / 1uA] *MP C307: 18 *MP C407: 20
2-587-003	Special 2: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 13 / 1uA]
2-587-004	Special 2: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 13 / 1uA]
2-591-001	Special 2: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-591-002	Special 2: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-591-003	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-591-004	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-591-007	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 120 / 5%]
2-591-008	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 175 / 5%]
2-591-011	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 140 / 5%]
2-591-012	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 213 / 5%]
2-591-	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd:	ENG*	[100 to 995 / 150 /

015		1Side:S4		5%]
2-591-016	Special 2: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 275 / 5%]
2-592-001	Special 2: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-592-002	Special 2: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-592-003	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-592-004	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-592-007	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 118 / 5%]
2-592-008	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 150 / 5%]
2-592-011	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 136 / 5%]
2-592-012	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 154 / 5%]
2-592-015	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 140 / 5%]
2-592-016	Special 2: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 250 / 5%]
2-593-001	Special 2: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 33 / 1]
2-593-002	Special 2: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 34 / 1]
2-593-003	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 37 / 1]
2-593-004	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 38 / 1]
2-593-007	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 39 / 1]
2-593-008	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 40 / 1]
2-593-011	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 41 / 1]
2-593-	Special 2: Size-	Paper Transfer: Low Spd:	ENG*	[1 to 100 / 42 / 1]

012	Env.Correct:BW	2Side:S3		
2-593-015	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 43 / 1]
2-593-016	Special 2: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 44 / 1]
2-594-001	Special 2: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 35 / 1]
2-594-002	Special 2: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 36 / 1]
2-594-003	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 37 / 1]
2-594-004	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 38 / 1]
2-594-007	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 39 / 1]
2-594-008	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 40 / 1]
2-594-011	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 41 / 1]
2-594-012	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 42 / 1]
2-594-015	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 43 / 1]
2-594-016	Special 2: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 44 / 1]
2-595-001	Special 2: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-595-002	Special 2: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-595-003	Special 2: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-595-004	Special 2: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-595-005	Special 2: LeadingEdgeCorrect.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-595-006	Special 2: LeadingEdgeCorrect.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-595-	Special 2:	Separation DC: Low Spd:	ENG*	[0 to 995 / 100 / 5%]

007	LeadingEdgeCorrect.	1Side		
2-595-008	Special 2: LeadingEdgeCorrect.	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-596-001	Special 2: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-596-002	Special 2: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-596-003	Special 2: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-596-004	Special 2: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-596-005	Special 2: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-596-006	Special 2: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-596-007	Special 2: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-596-008	Special 2: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-597-001	Special 2: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-597-002	Special 2: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-597-003	Special 2: TrailEdgeCorrection	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-597-004	Special 2: TrailEdgeCorrection	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-597-005	Special 2: TrailEdgeCorrection	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-597-006	Special 2: TrailEdgeCorrection	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-597-007	Special 2: TrailEdgeCorrection	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-597-008	Special 2: TrailEdgeCorrection	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-598-001	Special 2: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-598-	Special 2: SWTiming Trail	Paper Transfer: Std/Mid Spd:	ENG*	[0 to 50 / 0 / 2mm]

002	Edge	2Side		
2-598-003	Special 2: SWTiming Trail Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-598-004	Special 2: SWTiming Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-598-005	Special 2: SWTiming Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-598-006	Special 2: SWTiming Trail Edge	Separation DC: Std Spd: 2side	ENG*	[0 to 50 / 0 / 2mm]
2-598-007	Special 2: SWTiming Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-598-008	Special 2: SWTiming Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-599-013	Special 2: EnvCorrectionTable	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-599-014	Special 2: EnvCorrectionTable	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1]
2-599-015	Special 2: EnvCorrectionTable	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-599-016	Special 2: EnvCorrectionTable	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-599-017	Special 2: Edge Envir Correc.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-599-018	Special 2: Edge Envir Correc.	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1]
2-599-019	Special 2: Edge Envir Correc.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-599-020	Special 2: Edge Envir Correc.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-601-001	Special 3: Bias	Separation DC: Std Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-601-002	Special 3: Bias	Separation DC: Std Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-601-003	Special 3: Bias	Separation DC: Low Spd: 1Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-601-004	Special 3: Bias	Separation DC: Low Spd: 2Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-603-	Special 3: Bias: BW	Paper Transfer: Std/Mid Spd:	ENG*	[0 to 200 / 20 / 1uA]

001		1Side		
2-603-002	Special 3: Bias: BW	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / 16 / 1uA]
2-603-003	Special 3: Bias: BW	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 10 / 1uA]
2-603-004	Special 3: Bias: BW	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 8 / 1uA]
2-603-201	Special 3: Bias: BW	Paper Transfer: Std Spd 2: 1Side	ENG*	[0 to 200 / 26 / 1uA]
2-603-202	Special 3: Bias: BW	Paper Transfer: Std Spd 2: 2Side	ENG*	[0 to 200 / 22 / 1uA]
2-607-001	Special 3: Bias: FC	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 200 / 22 / 1uA]
2-607-002	Special 3: Bias: FC	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 200 / 18 / 1uA]
2-607-003	Special 3: Bias: FC	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-607-004	Special 3: Bias: FC	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 200 / 10 / 1uA]
2-611-001	Special 3: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-611-002	Special 3: SizeCorrection:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-611-003	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-611-004	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-611-007	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 130 / 5%]
2-611-008	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 163 / 5%]
2-611-011	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 150 / 5%]
2-611-012	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 250 / 5%]
2-611-015	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 150 / 5%]
2-611-	Special 3: SizeCorrection:BW	Paper Transfer: Low Spd:	ENG*	[100 to 995 / 375 /

016		2Side:S4		5%]
2-612-001	Special 3: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-612-002	Special 3: SizeCorrection:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-612-003	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-612-004	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[100 to 995 / 100 / 5%]
2-612-007	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[100 to 995 / 136 / 5%]
2-612-008	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[100 to 995 / 180 / 5%]
2-612-011	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[100 to 995 / 150 / 5%]
2-612-012	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[100 to 995 / 250 / 5%]
2-612-015	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[100 to 995 / 150 / 5%]
2-612-016	Special 3: SizeCorrection:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[100 to 995 / 350 / 5%]
2-613-001	Special 3: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 21 / 1]
2-613-002	Special 3: Size-Env.Correct:BW	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 22 / 1]
2-613-003	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 47 / 1]
2-613-004	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 48 / 1]
2-613-007	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 49 / 1]
2-613-008	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 50 / 1]
2-613-011	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 51 / 1]
2-613-012	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 52 / 1]
2-613-	Special 3: Size-	Paper Transfer: Low Spd:	ENG*	[1 to 100 / 53 / 1]

015	Env.Correct:BW	1Side:S4		
2-613-016	Special 3: Size-Env.Correct:BW	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 54 / 1]
2-614-001	Special 3: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 1Side:S1	ENG*	[1 to 100 / 45 / 1]
2-614-002	Special 3: Size-Env.Correct:FC	Paper Transfer: Std/Mid Spd: 2Side:S1	ENG*	[1 to 100 / 46 / 1]
2-614-003	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S1	ENG*	[1 to 100 / 47 / 1]
2-614-004	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S1	ENG*	[1 to 100 / 48 / 1]
2-614-007	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S2	ENG*	[1 to 100 / 49 / 1]
2-614-008	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S2	ENG*	[1 to 100 / 50 / 1]
2-614-011	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S3	ENG*	[1 to 100 / 51 / 1]
2-614-012	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S3	ENG*	[1 to 100 / 52 / 1]
2-614-015	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 1Side:S4	ENG*	[1 to 100 / 53 / 1]
2-614-016	Special 3: Size-Env.Correct:FC	Paper Transfer: Low Spd: 2Side:S4	ENG*	[1 to 100 / 54 / 1]
2-615-001	Special 3: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-615-002	Special 3: LeadingEdgeCorrect.	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-615-003	Special 3: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-615-004	Special 3: LeadingEdgeCorrect.	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-615-005	Special 3: LeadingEdgeCorrect.	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-615-006	Special 3: LeadingEdgeCorrect.	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-615-007	Special 3: LeadingEdgeCorrect.	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-615-	Special 3:	Separation DC: Low Spd:	ENG*	[0 to 995 / 100 / 5%]

008	LeadingEdgeCorrect.	2Side		
2-616-001	Special 3: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-616-002	Special 3: SW Timing Lead Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-616-003	Special 3: SW Timing Lead Edge	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-616-004	Special 3: SW Timing Lead Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-616-005	Special 3: SW Timing Lead Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-616-006	Special 3: SW Timing Lead Edge	Separation DC: Std Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-616-007	Special 3: SW Timing Lead Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-616-008	Special 3: SW Timing Lead Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-617-001	Special 3: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-617-002	Special 3: TrailEdgeCorrection	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-617-003	Special 3: TrailEdgeCorrection	Paper Transfer: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-617-004	Special 3: TrailEdgeCorrection	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-617-005	Special 3: TrailEdgeCorrection	Separation DC: Std Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-617-006	Special 3: TrailEdgeCorrection	Separation DC: Std Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-617-007	Special 3: TrailEdgeCorrection	Separation DC: Low Spd: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-617-008	Special 3: TrailEdgeCorrection	Separation DC: Low Spd: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-618-001	Special 3: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-618-002	Special 3: SWTiming Trail Edge	Paper Transfer: Std/Mid Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-618-	Special 3: SWTiming Trail	Paper Transfer: Low Spd:	ENG*	[0 to 50 / 0 / 2mm]

003	Edge	1Side		
2-618-004	Special 3: SWTiming Trail Edge	Paper Transfer: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-618-005	Special 3: SWTiming Trail Edge	Separation DC: Std Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-618-006	Special 3: SWTiming Trail Edge	Separation DC: Std Spd: 2side	ENG*	[0 to 50 / 0 / 2mm]
2-618-007	Special 3: SWTiming Trail Edge	Separation DC: Low Spd: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-618-008	Special 3: SWTiming Trail Edge	Separation DC: Low Spd: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-619-013	Special 3: EnvCorrectionTable	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-619-014	Special 3: EnvCorrectionTable	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1]
2-619-015	Special 3: EnvCorrectionTable	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-619-016	Special 3: EnvCorrectionTable	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-619-017	Special 3: Edge Envir Correc.	Separation DC: Std Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-619-018	Special 3: Edge Envir Correc.	Separation DC: Std Spd: 2side	ENG*	[1 to 100 / 30 / 1]
2-619-019	Special 3: Edge Envir Correc.	Separation DC: Low Spd: 1Side	ENG*	[1 to 100 / 30 / 1]
2-619-020	Special 3: Edge Envir Correc.	Separation DC: Low Spd: 2Side	ENG*	[1 to 100 / 30 / 1]
2-621-003	Special 4: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-621-004	Special 4: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-623-003	Special 4: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 14 / 1uA]
2-623-004	Special 4: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 9 / 1uA]
2-627-003	Special 4: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 15 / 1uA]
2-627-	Special 4: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 11 / 1uA]

004				
2-631-003	Special 4: SizeCorrection:BW	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-631-004	Special 4: SizeCorrection:BW	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-631-007	Special 4: SizeCorrection:BW	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 100 / 5%]
2-631-008	Special 4: SizeCorrection:BW	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 156 / 5%]
2-631-011	Special 4: SizeCorrection:BW	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 107 / 5%]
2-631-012	Special 4: SizeCorrection:BW	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 167 / 5%]
2-631-015	Special 4: SizeCorrection:BW	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 100 / 5%]
2-631-016	Special 4: SizeCorrection:BW	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 278 / 5%]
2-632-003	Special 4: SizeCorrection:FC	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-632-004	Special 4: SizeCorrection:FC	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-632-007	Special 4: SizeCorrection:FC	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 100 / 5%]
2-632-008	Special 4: SizeCorrection:FC	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 164 / 5%]
2-632-011	Special 4: SizeCorrection:FC	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 120 / 5%]
2-632-012	Special 4: SizeCorrection:FC	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 227 / 5%]
2-632-015	Special 4: SizeCorrection:FC	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 130 / 5%]
2-632-016	Special 4: SizeCorrection:FC	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 364 / 5%]
2-633-003	Special 4: Size-Env.Correct:BW	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 59 / 1]
2-633-004	Special 4: Size-Env.Correct:BW	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 60 / 1]
2-633-	Special 4: Size-	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 61 / 1]

007	Env.Correct:BW			
2-633-008	Special 4: Size-Env.Correct:BW	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 62 / 1]
2-633-011	Special 4: Size-Env.Correct:BW	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 55 / 1]
2-633-012	Special 4: Size-Env.Correct:BW	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 56 / 1]
2-633-015	Special 4: Size-Env.Correct:BW	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 57 / 1]
2-633-016	Special 4: Size-Env.Correct:BW	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 58 / 1]
2-634-003	Special 4: Size-Env.Correct:FC	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 59 / 1]
2-634-004	Special 4: Size-Env.Correct:FC	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 60 / 1]
2-634-007	Special 4: Size-Env.Correct:FC	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 61 / 1]
2-634-008	Special 4: Size-Env.Correct:FC	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 62 / 1]
2-634-011	Special 4: Size-Env.Correct:FC	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 63 / 1]
2-634-012	Special 4: Size-Env.Correct:FC	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 64 / 1]
2-634-015	Special 4: Size-Env.Correct:FC	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 65 / 1]
2-634-016	Special 4: Size-Env.Correct:FC	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 66 / 1]
2-635-003	Special 4: LeadingEdgeCorrect.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-635-004	Special 4: LeadingEdgeCorrect.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-635-007	Special 4: LeadingEdgeCorrect.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-635-008	Special 4: LeadingEdgeCorrect.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-636-003	Special 4: SW Timing Lead Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-636-	Special 4: SW Timing Lead	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]

004	Edge			
2-636-007	Special 4: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-636-008	Special 4: SW Timing Lead Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-637-003	Special 4: TrailEdgeCorrection	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-637-004	Special 4: TrailEdgeCorrection	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-637-007	Special 4: TrailEdgeCorrection	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-637-008	Special 4: TrailEdgeCorrection	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-638-003	Special 4: SWTiming Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-638-004	Special 4: SWTiming Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-638-007	Special 4: SWTiming Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-638-008	Special 4: SWTiming Trail Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-639-015	Special 4: EnvCorrectionTable	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-639-016	Special 4: EnvCorrectionTable	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-639-019	Special 4: Edge Envir Correc.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-639-020	Special 4: Edge Envir Correc.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-641-003	Special 5: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-641-004	Special 5: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-643-003	Special 5: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-643-004	Special 5: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 8 / 1uA]
2-647-	Special 5: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 12 / 1uA]

003				
2-647-004	Special 5: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 9 / 1uA]
2-651-003	Special 5: SizeCorrection:BW	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-651-004	Special 5: SizeCorrection:BW	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-651-007	Special 5: SizeCorrection:BW	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 100 / 5%]
2-651-008	Special 5: SizeCorrection:BW	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 163 / 5%]
2-651-011	Special 5: SizeCorrection:BW	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 136 / 5%]
2-651-012	Special 5: SizeCorrection:BW	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 250 / 5%]
2-651-015	Special 5: SizeCorrection:BW	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 164 / 5%]
2-651-016	Special 5: SizeCorrection:BW	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 313 / 5%]
2-652-003	Special 5: SizeCorrection:FC	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-652-004	Special 5: SizeCorrection:FC	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-652-007	Special 5: SizeCorrection:FC	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 100 / 5%]
2-652-008	Special 5: SizeCorrection:FC	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 200 / 5%]
2-652-011	Special 5: SizeCorrection:FC	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 138 / 5%]
2-652-012	Special 5: SizeCorrection:FC	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 278 / 5%]
2-652-015	Special 5: SizeCorrection:FC	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 154 / 5%]
2-652-016	Special 5: SizeCorrection:FC	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 389 / 5%]
2-653-003	Special 5: Size-Env.Correct:BW	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 67 / 1]
2-653-	Special 5: Size-	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 68 / 1]

004	Env.Correct:BW			
2-653-007	Special 5: Size-Env.Correct:BW	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 69 / 1]
2-653-008	Special 5: Size-Env.Correct:BW	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 70 / 1]
2-653-011	Special 5: Size-Env.Correct:BW	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 71 / 1]
2-653-012	Special 5: Size-Env.Correct:BW	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 72 / 1]
2-653-015	Special 5: Size-Env.Correct:BW	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 73 / 1]
2-653-016	Special 5: Size-Env.Correct:BW	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 74 / 1]
2-654-003	Special 5: Size-Env.Correct:FC	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 67 / 1]
2-654-004	Special 5: Size-Env.Correct:FC	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 68 / 1]
2-654-007	Special 5: Size-Env.Correct:FC	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 69 / 1]
2-654-008	Special 5: Size-Env.Correct:FC	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 70 / 1]
2-654-011	Special 5: Size-Env.Correct:FC	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 71 / 1]
2-654-012	Special 5: Size-Env.Correct:FC	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 72 / 1]
2-654-015	Special 5: Size-Env.Correct:FC	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 73 / 1]
2-654-016	Special 5: Size-Env.Correct:FC	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 74 / 1]
2-655-003	Special 5: LeadingEdgeCorrect.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-655-004	Special 5: LeadingEdgeCorrect.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-655-007	Special 5: LeadingEdgeCorrect.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-655-008	Special 5: LeadingEdgeCorrect.	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-656-	Special 5: SW Timing Lead	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]

003	Edge			
2-656-004	Special 5: SW Timing Lead Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-656-007	Special 5: SW Timing Lead Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-656-008	Special 5: SW Timing Lead Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-657-003	Special 5: TrailEdgeCorrection	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-657-004	Special 5: TrailEdgeCorrection	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-657-007	Special 5: TrailEdgeCorrection	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-657-008	Special 5: TrailEdgeCorrection	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-658-003	Special 5: SWTiming Trail Edge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-658-004	Special 5: SWTiming Trail Edge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-658-007	Special 5: SWTiming Trail Edge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-658-008	Special 5: SWTiming Trail Edge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-659-015	Special 5: EnvCorrectionTable	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-659-016	Special 5: EnvCorrectionTable	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-659-019	Special 5: Edge Envir Correc.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-659-020	Special 5: Edge Envir Correc.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-661-003	Special 6: Bias	Separation DC: 1Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-661-004	Special 6: Bias	Separation DC: 2Side	ENG*	[0 to 4000 / 2000 / 10-V]
2-663-003	Special 6: Bias: BW	Paper Transfer: 1Side	ENG*	[0 to 200 / 9 / 1uA]
2-663-	Special 6: Bias: BW	Paper Transfer: 2Side	ENG*	[0 to 200 / 7 / 1uA]

004				
2-667-003	Special 6: Bias: FC	Paper Transfer: 1Side	ENG*	[0 to 200 / 11 / 1uA]
2-667-004	Special 6: Bias: FC	Paper Transfer: 2Side	ENG*	[0 to 200 / 9 / 1uA]
2-671-003	Special 6: SizeCorrection:BW	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-671-004	Special 6: SizeCorrection:BW	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-671-007	Special 6: SizeCorrection:BW	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 122 / 5%]
2-671-008	Special 6: SizeCorrection:BW	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 186 / 5%]
2-671-011	Special 6: SizeCorrection:BW	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 156 / 5%]
2-671-012	Special 6: SizeCorrection:BW	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 271 / 5%]
2-671-015	Special 6: SizeCorrection:BW	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 170 / 5%]
2-671-016	Special 6: SizeCorrection:BW	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 357 / 5%]
2-672-003	Special 6: SizeCorrection:FC	Paper Transfer: 1Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-672-004	Special 6: SizeCorrection:FC	Paper Transfer: 2Side: S1	ENG*	[100 to 995 / 100 / 5%]
2-672-007	Special 6: SizeCorrection:FC	Paper Transfer: 1Side: S2	ENG*	[100 to 995 / 118 / 5%]
2-672-008	Special 6: SizeCorrection:FC	Paper Transfer: 2Side: S2	ENG*	[100 to 995 / 200 / 5%]
2-672-011	Special 6: SizeCorrection:FC	Paper Transfer: 1Side: S3	ENG*	[100 to 995 / 140 / 5%]
2-672-012	Special 6: SizeCorrection:FC	Paper Transfer: 2Side: S3	ENG*	[100 to 995 / 278 / 5%]
2-672-015	Special 6: SizeCorrection:FC	Paper Transfer: 1Side: S4	ENG*	[100 to 995 / 150 / 5%]
2-672-016	Special 6: SizeCorrection:FC	Paper Transfer: 2Side: S4	ENG*	[100 to 995 / 389 / 5%]
2-673-	Special 6: Size-	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 75 / 1]

003	Env.Correct:BW			
2-673-004	Special 6: Size-Env.Correct:BW	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 76 / 1]
2-673-007	Special 6: Size-Env.Correct:BW	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 77 / 1]
2-673-008	Special 6: Size-Env.Correct:BW	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 78 / 1]
2-673-011	Special 6: Size-Env.Correct:BW	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 79 / 1]
2-673-012	Special 6: Size-Env.Correct:BW	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 80 / 1]
2-673-015	Special 6: Size-Env.Correct:BW	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 81 / 1]
2-673-016	Special 6: Size-Env.Correct:BW	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 82 / 1]
2-674-003	Special 6: Size-Env.Correct:FC	Paper Transfer: 1Side: S1	ENG*	[1 to 100 / 75 / 1]
2-674-004	Special 6: Size-Env.Correct:FC	Paper Transfer: 2Side: S1	ENG*	[1 to 100 / 76 / 1]
2-674-007	Special 6: Size-Env.Correct:FC	Paper Transfer: 1Side: S2	ENG*	[1 to 100 / 77 / 1]
2-674-008	Special 6: Size-Env.Correct:FC	Paper Transfer: 2Side: S2	ENG*	[1 to 100 / 78 / 1]
2-674-011	Special 6: Size-Env.Correct:FC	Paper Transfer: 1Side: S3	ENG*	[1 to 100 / 79 / 1]
2-674-012	Special 6: Size-Env.Correct:FC	Paper Transfer: 2Side: S3	ENG*	[1 to 100 / 80 / 1]
2-674-015	Special 6: Size-Env.Correct:FC	Paper Transfer: 1Side: S4	ENG*	[1 to 100 / 81 / 1]
2-674-016	Special 6: Size-Env.Correct:FC	Paper Transfer: 2Side: S4	ENG*	[1 to 100 / 82 / 1]
2-675-003	Special 6: LeadingEdgeCorrect.	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-675-004	Special 6: LeadingEdgeCorrect.	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-675-007	Special 6: LeadingEdgeCorrect.	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-675-	Special 6:	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]

008	LeadingEdgeCorrect.			
2-676-003	Special 6: SWTimingLeadEdge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-676-004	Special 6: SWTimingLeadEdge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-676-007	Special 6: SWTimingLeadEdge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-676-008	Special 6: SWTimingLeadEdge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-677-003	Special 6: TrailEdgeCorrection	Paper Transfer: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-677-004	Special 6: TrailEdgeCorrection	Paper Transfer: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-677-007	Special 6: TrailEdgeCorrection	Separation DC: 1Side	ENG*	[0 to 995 / 100 / 5%]
2-677-008	Special 6: TrailEdgeCorrection	Separation DC: 2Side	ENG*	[0 to 995 / 100 / 5%]
2-678-003	Special 6: SWTimingTrailEdge	Paper Transfer: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-678-004	Special 6: SWTimingTrailEdge	Paper Transfer: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-678-007	Special 6: SWTimingTrailEdge	Separation DC: 1Side	ENG*	[0 to 50 / 0 / 2mm]
2-678-008	Special 6: SWTimingTrailEdge	Separation DC: 2Side	ENG*	[0 to 50 / 0 / 2mm]
2-679-015	Special 6: EnvCorrectionTable	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-679-016	Special 6: EnvCorrectionTable	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-679-019	Special 6: Edge Envir Correc.	Separation DC: 1Side	ENG*	[1 to 100 / 30 / 1]
2-679-020	Special 6: Edge Envir Correc.	Separation DC: 2Side	ENG*	[1 to 100 / 30 / 1]
2-690-001	ITB Contact Setting	Thick 1	ENG*	[0 or 1 / 0 / 1]
2-690-002	ITB Contact Setting	Thick 2	ENG*	[0 or 1 / 0 / 1]
2-690-	ITB Contact Setting	Thick 3	ENG*	[0 or 1 / 0 / 1]

003				
2-690-014	ITB Contact Setting	Special 4	ENG*	[0 or 1 / 0 / 1]
2-690-015	ITB Contact Setting	Special 5	ENG*	[0 or 1 / 0 / 1]
2-690-016	ITB Contact Setting	Special 6	ENG*	[0 or 1 / 0 / 1]
2-900-001	Job End: Drum Idling Time	Standard Speed	ENG*	[0 to 30 / 0 / 1s]
2-900-002	Job End: Drum Idling Time	Middle Speed	ENG*	[0 to 30 / 0 / 1s]
2-900-003	Job End: Drum Idling Time	Low Speed	ENG*	[0 to 30 / 0 / 1s]
2-901-001	Fus. Reload:DrumIdleTimeOffset	Coverage: 0-6%	ENG*	[-60 to 300 / 0 / 1sec]
2-901-002	Fus. Reload:DrumIdleTimeOffset	Coverage: 6-10%	ENG*	[-60 to 300 / -11 / 1sec]
2-901-003	Fus. Reload:DrumIdleTimeOffset	Coverage: 10-20%	ENG*	[-60 to 300 / -26 / 1sec]
2-901-004	Fus. Reload:DrumIdleTimeOffset	Coverage: 20-40%	ENG*	[-60 to 300 / -21 / 1sec]
2-901-005	Fus. Reload:DrumIdleTimeOffset	Coverage: 40% over	ENG*	[-60 to 300 / -21 / 1sec]
2-905-003	Dev Rvs Time	Bk	ENG*	[0 to 200 / 80 / 10msec]
2-905-004	Dev Rvs Time	Color	ENG*	[0 to 200 / 80 / 10msec]
2-905-005	Dev Rvs Threshold	ALL	ENG*	[0 to 400000 / 18430 / 10mm]
2-905-006	Dev Rvs Counter	Bk	ENG*	[0 to 999999999 / 0 / 1mm]
2-905-007	Dev Rvs Counter	Color	ENG*	[0 to 999999999 / 0 / 1mm]
2-905-010	Dev pre-drive : ON/OFF	ON/OFF	ENG*	[0 or 1 / 0 / 1] 0: OFF 1: ON
2-907-001	ACS Setting (FC)	Continuous Bk Pages	ENG*	[0 to 10 / 0 / 1sheet]

2-915-001	Gain Set: Bk OPC Drum	Standard Speed1	ENG*	[0 or 1 / 0 / 1STEP]
2-915-002	Gain Set: Bk OPC Drum	Low Speed	ENG*	[0 or 1 / 1 / 1STEP]
2-915-003	Gain Set: Bk OPC Drum	Standard Speed2	ENG*	[0 or 1 / 0 / 1STEP]
2-915-004	Gain Set: Bk OPC Drum	Middle Speed	ENG*	[0 or 1 / 0 / 1STEP]
2-916-001	Gain Set: Color OPC Drum	Standard Speed1	ENG*	[0 or 1 / 0 / 1STEP]
2-916-002	Gain Set: Color OPC Drum	Low Speed	ENG*	[0 or 1 / 1 / 1STEP]
2-916-003	Gain Set: Color OPC Drum	Middle Speed	ENG*	[0 or 1 / 0 / 1STEP]
2-930-001	Paper Transfer: Bias Limiter	Bias	ENG*	[0 to 7000 / 6000 / 10V]
2-960-001	Process Down Interval	Additional Time	ENG*	[0 to 10 / 0 / 1sec]
2-990-001	Print Duty Control	Duty Control Status	ENG*	[0 or 1 / 0 / 1]
2-990-002	Print Duty Control	Exec Interval: Duty Control	ENG*	[30 to 3600 / 30 / 1sec]
2-990-004	Print Duty Control	Forced Process Down Thresh: No Duty Control	ENG*	[0 to 5000 / 0 / 1page]
2-990-005	Print Duty Control	Down-time BW: No Duty Control	ENG*	[0 to 120 / 0 / 1sec]
2-990-006	Print Duty Control	Down-time FC: No Duty Control	ENG*	[0 to 120 / 0 / 1sec]
2-990-007	Print Duty Control	Forced Process Down Thresh: Duty Control	ENG*	[0 to 5000 / 3 / 1page]
2-990-008	Print Duty Control	Down-time BW: Duty Control	ENG*	[0 to 120 / 0 / 1sec]
2-990-009	Print Duty Control	Down-time FC: Duty Control	ENG*	[0 to 120 / 64 / 1sec]
2-990-010	Print Duty Control	Correction Coefficient	ENG*	[-1 to 1 / -0.5 / 0.1]
2-990-011	Print Duty Control	Execution Temperature	ENG*	[20 to 70 / 42 / 0.1deg]

2-990-012	Print Duty Control	Cancellation Temp. Threshold	ENG*	[0 to 20 / 1 / 0.1deg]
2-990-013	Print Duty Control	ON/OFF Setting	ENG*	[0 or 1 / 1 / 1]
2-990-014	Print Duty Control	Duty Control: Down-time_BW	ENG*	[0 to 120 / 0 / 1sec]
2-990-015	Print Duty Control	Duty Control: Down-time_FC	ENG*	[0 to 120 / 0 / 1sec]
2-990-016	Print Duty Control	Execution Temp. Upper Threshold	ENG*	[0 to 99 / 42 / 0.1deg]
2-990-017	Print Duty Control	Execution Temp. Lower Threshold	ENG*	[0 to 99 / 38 / 0.1deg]

SP Tables - SP3-XXX

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 or 1 / 0 / 1]
3-011-002	Manual ProCon :Exe	Toner Density Adjustment	ENG	[0 or 1 / 0 / 1]
3-011-003	Manual ProCon :Exe	ACC RunTime ProCon	ENG	[0 or 1 / 0 / 1]
3-011-004	Manual ProCon :Exe	Full MUSIC	ENG	[0 or 1 / 0 / 1]
3-011-005	Manual ProCon :Exe	Normal MUSIC	ENG	[0 or 1 / 0 / 1]
3-011-011	Manual ProCon :Exe	Normal ProCon BW	ENG	[0 or 1 / 0 / 1]
3-012-001	ProCon Execute Result: Display	History: Last	ENG*	[0 to 99999999 / 0 / 1]
3-012-002	ProCon Execute Result: Display	History: Last 2	ENG*	[0 to 99999999 / 0 / 1]
3-012-003	ProCon Execute Result: Display	History: Last 3	ENG*	[0 to 99999999 / 0 / 1]
3-012-004	ProCon Execute Result: Display	History: Last 4	ENG*	[0 to 99999999 / 0 / 1]
3-012-005	ProCon Execute Result: Display	History: Last 5	ENG*	[0 to 99999999 / 0 / 1]
3-012-006	ProCon Execute Result: Display	History: Last 6	ENG*	[0 to 99999999 / 0 / 1]
3-012-007	ProCon Execute Result: Display	History: Last 7	ENG*	[0 to 99999999 / 0 / 1]
3-012-008	ProCon Execute Result: Display	History: Last 8	ENG*	[0 to 99999999 / 0 / 1]
3-012-009	ProCon Execute Result: Display	History: Last 9	ENG*	[0 to 99999999 / 0 / 1]
3-012-010	ProCon Execute Result: Display	History: Last 10	ENG*	[0 to 99999999 / 0 / 1]
3-030-	TD Sensor Initial Set:	Execute: ALL	ENG	[0 or 1 / 0 / 1]

001	Execute			
3-030-002	TD Sensor Initial Set: Execute	Execute: Color	ENG	[0 or 1 / 0 / 1]
3-030-003	TD Sensor Initial Set: Execute	Execute: Bk	ENG	[0 or 1 / 0 / 1]
3-030-004	TD Sensor Initial Set: Execute	Execute: C	ENG	[0 or 1 / 0 / 1]
3-030-005	TD Sensor Initial Set: Execute	Execute: M	ENG	[0 or 1 / 0 / 1]
3-030-006	TD Sensor Initial Set: Execute	Execute: Y	ENG	[0 or 1 / 0 / 1]
3-031-001	TD Sen. Ini. Set: Result: Disp	From Left:Y,M,C,Bk	ENG*	[0 to 9999 / 0 / 1]
3-050-001	Forced Toner Supply: Exe	Execute: ALL	ENG	[0 or 1 / 0 / 1]
3-050-002	Forced Toner Supply: Exe	Execute: Color	ENG	[0 or 1 / 0 / 1]
3-050-003	Forced Toner Supply: Exe	Execute: Bk	ENG	[0 or 1 / 0 / 1]
3-050-004	Forced Toner Supply: Exe	Execute: C	ENG	[0 or 1 / 0 / 1]
3-050-005	Forced Toner Supply: Exe	Execute: M	ENG	[0 or 1 / 0 / 1]
3-050-006	Forced Toner Supply: Exe	Execute: Y	ENG	[0 or 1 / 0 / 1]
3-050-021	Forced Toner Supply: Exe	Supply Quantity: Bk	ENG*	[0 to 5 / 0.5 / 0.1wt%]
3-050-022	Forced Toner Supply: Exe	Supply Quantity: C	ENG*	[0 to 5 / 0.5 / 0.1wt%]
3-050-023	Forced Toner Supply: Exe	Supply Quantity: M	ENG*	[0 to 5 / 0.5 / 0.1wt%]
3-050-024	Forced Toner Supply: Exe	Supply Quantity: Y	ENG*	[0 to 5 / 0.5 / 0.1wt%]
3-050-033	Forced Toner Supply: Exe	Repeat Count	ENG*	[0 to 255 / 8 / 1times]
3-072-001	TD Sensor Check	Exe All Colors	ENG	[0 or 1 / 0 / 1]
3-073-	TD Sensor Check: Display	mu Count:Bk	ENG*	[0 to 65535 / 0 / 1]

001				
3-073-002	TD Sensor Check: Display	mu Count:C	ENG*	[0 to 65535 / 0 / 1]
3-073-003	TD Sensor Check: Display	mu Count:M	ENG*	[0 to 65535 / 0 / 1]
3-073-004	TD Sensor Check: Display	mu Count:Y	ENG*	[0 to 65535 / 0 / 1]
3-074-001	ID Sensor Check: Exe	All Sensors	ENG	[0 or 1 / 0 / 1]
3-075-001	ID Sensor Check: Display	Vsg reg(front)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-075-002	ID Sensor Check: Display	Vsg reg(center)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-075-003	ID Sensor Check: Display	Vsg reg(rear)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-075-011	ID Sensor Check: Display	Voffset(front)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-075-012	ID Sensor Check: Display	Voffset(center)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-075-013	ID Sensor Check: Display	Voffset(rear)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-100-001	Toner End Detection: Set	ON/OFF	ENG*	[0 or 1 / 0 / 1] 0: Detect 1: Not Detect
3-100-002	Toner End Detection: Set	NE Detection Select	ENG*	[0 or 1 / 0 / 1] 0: ALL 1: TE Sensor
3-101-001	Toner Status: Display	Bk	ENG*	[0 to 2 / 2 / 1]
3-101-002	Toner Status: Display	C	ENG*	[0 to 2 / 2 / 1]
3-101-003	Toner Status: Display	M	ENG*	[0 to 2 / 2 / 1]
3-101-004	Toner Status: Display	Y	ENG*	[0 to 2 / 2 / 1]
3-102-001	Toner Remaining: Display	Toner Supply Motor Drive Time: Bk	ENG*	[0 to 500 / 0 / 0.001g]
3-102-	Toner Remaining: Display	Toner Supply Motor Drive	ENG*	[0 to 500 / 0 / 0.001g]

002		Time: C		
3-102-003	Toner Remaining: Display	Toner Supply Motor Drive Time: M	ENG*	[0 to 500 / 0 / 0.001g]
3-102-004	Toner Remaining: Display	Toner Supply Motor Drive Time: Y	ENG*	[0 to 500 / 0 / 0.001g]
3-102-011	Toner Remaining: Display	Pixel: Bk	ENG*	[0 to 500 / 0 / 0.001g]
3-102-012	Toner Remaining: Display	Pixel: C	ENG*	[0 to 500 / 0 / 0.001g]
3-102-013	Toner Remaining: Display	Pixel: M	ENG*	[0 to 500 / 0 / 0.001g]
3-102-014	Toner Remaining: Display	Pixel: Y	ENG*	[0 to 500 / 0 / 0.001g]
3-102-021	Toner Remaining: Display	Replenishment Amount: Bk	ENG*	[0 to 500 / 0 / 1g]
3-102-022	Toner Remaining: Display	Replenishment Amount: C	ENG*	[0 to 500 / 0 / 1g]
3-102-023	Toner Remaining: Display	Replenishment Amount: M	ENG*	[0 to 500 / 0 / 1g]
3-102-024	Toner Remaining: Display	Replenishment Amount: Y	ENG*	[0 to 500 / 0 / 1g]
3-110-001	NE Detect: Toner Remain Thresh	Bk	ENG*	[0 to 500 / 23 / 1g]
3-110-002	NE Detect: Toner Remain Thresh	C	ENG*	[0 to 500 / 10 / 1g]
3-110-003	NE Detect: Toner Remain Thresh	M	ENG*	[0 to 500 / 10 / 1g]
3-110-004	NE Detect: Toner Remain Thresh	Y	ENG*	[0 to 500 / 10 / 1g]
3-121-001	TE Counter: Display	Bk	ENG*	[0 to 99 / 0 / 1time]
3-121-002	TE Counter: Display	C	ENG*	[0 to 99 / 0 / 1time]
3-121-003	TE Counter: Display	M	ENG*	[0 to 99 / 0 / 1time]
3-121-004	TE Counter: Display	Y	ENG*	[0 to 99 / 0 / 1time]
3-123-	Toner End Sen Status:	Latest Output: Bk	ENG	[0 or 1 / 0 / 1]

021	Display			
3-123-022	Toner End Sen Status: Display	Latest Output: C	ENG	[0 or 1 / 0 / 1]
3-123-023	Toner End Sen Status: Display	Latest Output: M	ENG	[0 or 1 / 0 / 1]
3-123-024	Toner End Sen Status: Display	Latest Output: Y	ENG	[0 or 1 / 0 / 1]
3-131-001	Vt TE Thresh	Delta Vt Thresh	ENG*	[0 to 5 / 0.5 / 0.01V]
3-131-002	Vt TE Thresh	Delta Vt Sum Thresh	ENG*	[0 to 99 / 10 / 1V]
3-131-011	Vt TE Thresh	Delta Vt Thresh Before NE	ENG*	[0 to 5 / 0.5 / 0.01V]
3-131-012	Vt TE Thresh	Delta Vt Sum Thresh Before NE	ENG*	[0 to 99 / 10 / 1V]
3-131-021	Vt TE Thresh	High TC Delta Vt Thresh	ENG*	[0 to 5 / 0.3 / 0.01V]
3-131-022	Vt TE Thresh	High TC Delta Vt Sum Thresh	ENG*	[0 to 99 / 3 / 1V]
3-131-023	Vt TE Thresh	High TC Delta Vt Thresh Before NE	ENG*	[0 to 5 / 0.7 / 0.01V]
3-131-024	Vt TE Thresh	High TC Delta Vt Sum Thresh Before NE	ENG*	[0 to 99 / 10 / 1V]
3-131-031	Vt TE Thresh	Low TC Delta Vt Thresh	ENG*	[0 to 5 / 0.3 / 0.01V]
3-131-032	Vt TE Thresh	Low TC Delta Vt Sum Thresh	ENG*	[0 to 99 / 3 / 1V]
3-131-033	Vt TE Thresh	Low TC Delta Vt Thresh Before NE	ENG*	[0 to 5 / 0.7 / 0.01V]
3-131-034	Vt TE Thresh	Low TC Delta Vt Sum Thresh Before NE	ENG*	[0 to 99 / 10 / 1V]
3-131-041	Vt TE Thresh	TC Thresh	ENG*	[0 to 25.5 / 4 / 0.1wt%]
3-132-001	Delta Vt Sum: Display	Bk	ENG*	[0 to 99 / 0 / 0.01V]
3-132-002	Delta Vt Sum: Display	C	ENG*	[0 to 99 / 0 / 0.01V]
3-132-	Delta Vt Sum: Display	M	ENG*	[0 to 99 / 0 / 0.01V]

003				
3-132-004	Delta Vt Sum: Display	Y	ENG*	[0 to 99 / 0 / 0.01V]
3-200-001	Toner Density: Display	Bk	ENG*	[0 to 25.5 / 0 / 0.1wt%]
3-200-002	Toner Density: Display	C	ENG*	[0 to 25.5 / 0 / 0.1wt%]
3-200-003	Toner Density: Display	M	ENG*	[0 to 25.5 / 0 / 0.1wt%]
3-200-004	Toner Density: Display	Y	ENG*	[0 to 25.5 / 0 / 0.1wt%]
3-201-001	Toner Density Limits: Set	Upper TC	ENG*	[1 to 15 / 8.5 / 0.1wt%]
3-201-002	Toner Density Limits: Set	Lower TC	ENG*	[1 to 15 / 1 / 0.1wt%]
3-206-001	TD Sensor Bulk Corr.: Set	Abs. Humidity Cnver. Coef.: Bk	ENG*	[0 to 6.5535 / 0.4945 / 0.0001g/cm3/g/m3]
3-206-002	TD Sensor Bulk Corr.: Set	Abs. Humidity Cnver. Coef.: C	ENG*	[0 to 6.5535 / 0.4945 / 0.0001g/cm3/g/m3]
3-206-003	TD Sensor Bulk Corr.: Set	Abs. Humidity Cnver. Coef.: M	ENG*	[0 to 6.5535 / 0.4945 / 0.0001g/cm3/g/m3]
3-206-004	TD Sensor Bulk Corr.: Set	Abs. Humidity Cnver. Coef.: Y	ENG*	[0 to 6.5535 / 0.4945 / 0.0001g/cm3/g/m3]
3-206-011	TD Sensor Bulk Corr.: Set	Color Conversion Coef.: Bk	ENG*	[0 to 200 / 100 / 1%]
3-206-012	TD Sensor Bulk Corr.: Set	Color Conversion Coef.: C	ENG*	[0 to 200 / 100 / 1%]
3-206-013	TD Sensor Bulk Corr.: Set	Color Conversion Coef.: M	ENG*	[0 to 200 / 100 / 1%]
3-206-014	TD Sensor Bulk Corr.: Set	Color Conversion Coef.: Y	ENG*	[0 to 200 / 100 / 1%]
3-206-021	TD Sensor Bulk Corr.: Set	Weight Coefficient	ENG*	[0 to 200 / 100 / 1%]
3-206-031	TD Sensor Bulk Corr.: Set	Offset: Bk	ENG*	[-2 to 2 / 0 / 0.0001g/cm3]
3-206-032	TD Sensor Bulk Corr.: Set	Offset: C	ENG*	[-2 to 2 / 0 / 0.0001g/cm3]
3-206-	TD Sensor Bulk Corr.: Set	Offset: M	ENG*	[-2 to 2 / 0 / 0.0001g/cm3]

033				
3-206-034	TD Sensor Bulk Corr.: Set	Offset: Y	ENG*	[-2 to 2 / 0 / 0.0001g/cm3]
3-206-041	TD Sensor Bulk Corr.: Set	Conversion Coeff. Beta: Bk	ENG*	[-999 to 0 / -1 / 0.1count/g/cm3]
3-206-042	TD Sensor Bulk Corr.: Set	Conversion Coeff. Beta: C	ENG*	[-999 to 0 / -1 / 0.1count/g/cm3]
3-206-043	TD Sensor Bulk Corr.: Set	Conversion Coeff. Beta: M	ENG*	[-999 to 0 / -1 / 0.1count/g/cm3]
3-206-044	TD Sensor Bulk Corr.: Set	Conversion Coeff. Beta: Y	ENG*	[-999 to 0 / -1 / 0.1count/g/cm3]
3-210-001	TD Sensor: Vt: Display	Current: Bk	ENG*	[0 to 5.5 / 0 / 0.01V]
3-210-002	TD Sensor: Vt: Display	Current: C	ENG*	[0 to 5.5 / 0 / 0.01V]
3-210-003	TD Sensor: Vt: Display	Current: M	ENG*	[0 to 5.5 / 0 / 0.01V]
3-210-004	TD Sensor: Vt: Display	Current: Y	ENG*	[0 to 5.5 / 0 / 0.01V]
3-212-101	Vt Shift: Set	TC Cor.(ON/OFF)	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-213-001	Vt Shift: Set	TC Cor.(ON/OFF)	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-213-021	Vt Shift: Set	Low Speed TC Correction: Bk	ENG*	[-0.5 to 0.5 / 0 / 0.01V]
3-213-022	Vt Shift: Set	Low Speed TC Correction: C	ENG*	[-0.5 to 0.5 / 0 / 0.01V]
3-213-023	Vt Shift: Set	Low Speed TC Correction: M	ENG*	[-0.5 to 0.5 / 0 / 0.01V]
3-213-024	Vt Shift: Set	Low Speed: TC Correction: Y	ENG*	[-0.5 to 0.5 / 0 / 0.01V]
3-213-031	Vt Shift: Set	Std Speed 2 TC Correction: Bk	ENG*	[-0.5 to 0.5 / 0 / 0.01V]
3-214-001	Vt Save: Set	Dot Coverage Thresh	ENG*	[0 to 100 / 20 / 1%]
3-230-	Vtref: Display/Set	Current: Bk	ENG*	[0 to 5 / 1.5 / 0.01V]

001				
3-230-002	Vtref: Display/Set	Current: C	ENG*	[0 to 5 / 1.5 / 0.01V]
3-230-003	Vtref: Display/Set	Current: M	ENG*	[0 to 5 / 1.5 / 0.01V]
3-230-004	Vtref: Display/Set	Current: Y	ENG*	[0 to 5 / 1.5 / 0.01V]
3-232-001	Vtref Correct: Pixel: Set	ON/OFF	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-232-011	Vtref Correct: Pixel: Set	Low Coverage Coefficient: Bk	ENG*	[0 to 5 / 0.3 / 0.1]
3-232-012	Vtref Correct: Pixel: Set	Low Coverage Coefficient: C	ENG*	[0 to 5 / 0.3 / 0.1]
3-232-013	Vtref Correct: Pixel: Set	Low Coverage Coefficient: M	ENG*	[0 to 5 / 0.3 / 0.1]
3-232-014	Vtref Correct: Pixel: Set	Low Coverage Coefficient: Y	ENG*	[0 to 5 / 0.3 / 0.1]
3-232-021	Vtref Correct: Pixel: Set	High Coverage Coefficient: Bk	ENG*	[0 to 5 / 0.4 / 0.1]
3-232-022	Vtref Correct: Pixel: Set	High Coverage Coefficient: C	ENG*	[0 to 5 / 0.4 / 0.1]
3-232-023	Vtref Correct: Pixel: Set	High Coverage Coefficient: M	ENG*	[0 to 5 / 0.4 / 0.1]
3-232-024	Vtref Correct: Pixel: Set	High Coverage Coefficient: Y	ENG*	[0 to 5 / 0.4 / 0.1]
3-232-040	Vtref Correct: Pixel: Set	Initial ProCon Interval	ENG*	[0 to 255 / 6 / 1time]
3-232-041	Vtref Correct: Pixel: Set	High Coverage Thresh	ENG*	[0 to 100 / 60 / 1%]
3-232-050	Vtref Correct: Pixel: Set	ProCon Interval	ENG*	[0 to 255 / 14 / 1time]
3-232-060	Vtref Correct: Pixel: Set	Low Coverage Thresh	ENG*	[0 to 20 / 3 / 0.1%]
3-232-070	Vtref Correct: Pixel: Set	TC Upper Limit Correction	ENG*	[0 to 5 / 0.5 / 0.1wt%]
3-232-071	Vtref Correct: Pixel: Set	TC Upper Limit: Display: Bk	ENG*	[1 to 15 / 8.5 / 0.1wt%]

3-232-072	Vtref Correct: Pixel: Set	TC Upper Limit: Display: C	ENG*	[1 to 15 / 8.5 / 0.1wt%]
3-232-073	Vtref Correct: Pixel: Set	TC Upper Limit: Display: M	ENG*	[1 to 15 / 8.5 / 0.1wt%]
3-232-074	Vtref Correct: Pixel: Set	TC Upper Limit: Display: Y	ENG*	[1 to 15 / 8.5 / 0.1wt%]
3-234-001	Vtref Correction.: Set	ON/OFF	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-234-011	Vtref Correction.: Set	Correction Amount (+): Bk	ENG*	[0 to 1 / 0.05 / 0.01V]
3-234-012	Vtref Correction.: Set	Correction Amount (+): C	ENG*	[0 to 1 / 0.05 / 0.01V]
3-234-013	Vtref Correction.: Set	Correction Amount (+): M	ENG*	[0 to 1 / 0.05 / 0.01V]
3-234-014	Vtref Correction.: Set	Correction Amount (+): Y	ENG*	[0 to 1 / 0.05 / 0.01V]
3-234-021	Vtref Correction.: Set	Correction Amount (-): Bk	ENG*	[0 to 1 / 0.05 / 0.01V]
3-234-022	Vtref Correction.: Set	Correction Amount (-): C	ENG*	[0 to 1 / 0.05 / 0.01V]
3-234-023	Vtref Correction.: Set	Correction Amount (-): M	ENG*	[0 to 1 / 0.05 / 0.01V]
3-234-024	Vtref Correction.: Set	Correction Amount (-): Y	ENG*	[0 to 1 / 0.05 / 0.01V]
3-234-031	Vtref Correction.: Set	P Rank 1 Threshold	ENG*	[0 to 2 / 0.15 / 0.01]
3-234-032	Vtref Correction.: Set	P Rank 2 Threshold	ENG*	[0 to 2 / 0.05 / 0.01]
3-234-033	Vtref Correction.: Set	P Rank 3 Threshold	ENG*	[-2 to 0 / -0.05 / 0.01]
3-234-034	Vtref Correction.: Set	P Rank 4 Threshold	ENG*	[-2 to 0 / -0.15 / 0.01]
3-234-041	Vtref Correction.: Set	T Rank 1 Threshold	ENG*	[-1 to 0 / -0.2 / 0.01V]
3-234-042	Vtref Correction.: Set	T Rank 2 Threshold	ENG*	[0 to 1 / 0.2 / 0.01V]
3-234-	Vtref Correction.: Set	Correction Coefficient	ENG*	[1 to 5 / 2 / 0.1]

050				
3-250-001	Image Area: Display	Latest: Bk	ENG*	[0 to 9999 / 0 / 1cm2]
3-250-002	Image Area: Display	Latest: C	ENG*	[0 to 9999 / 0 / 1cm2]
3-250-003	Image Area: Display	Latest: M	ENG*	[0 to 9999 / 0 / 1cm2]
3-250-004	Image Area: Display	Latest: Y	ENG*	[0 to 9999 / 0 / 1cm2]
3-251-001	Dot Coverage: Display	Latest: Bk	ENG*	[0 to 100 / 0 / 0.01%]
3-251-002	Dot Coverage: Display	Latest: C	ENG*	[0 to 100 / 0 / 0.01%]
3-251-003	Dot Coverage: Display	Latest: M	ENG*	[0 to 100 / 0 / 0.01%]
3-251-004	Dot Coverage: Display	Latest: Y	ENG*	[0 to 100 / 0 / 0.01%]
3-251-011	Dot Coverage: Display	Accumulate: Average: S: Bk	ENG*	[0 to 100 / 5 / 0.01%]
3-251-012	Dot Coverage: Display	Accumulate: Average: S: C	ENG*	[0 to 100 / 5 / 0.01%]
3-251-013	Dot Coverage: Display	Accumulate: Average: S: M	ENG*	[0 to 100 / 5 / 0.01%]
3-251-014	Dot Coverage: Display	Accumulate: Average: S: Y	ENG*	[0 to 100 / 5 / 0.01%]
3-251-021	Dot Coverage: Display	Accumulate: Average: M: Bk	ENG*	[0 to 100 / 5 / 0.01%]
3-251-022	Dot Coverage: Display	Accumulate: Average: M: C	ENG*	[0 to 100 / 5 / 0.01%]
3-251-023	Dot Coverage: Display	Accumulate: Average: M: M	ENG*	[0 to 100 / 5 / 0.01%]
3-251-024	Dot Coverage: Display	Accumulate: Average: M: Y	ENG*	[0 to 100 / 5 / 0.01%]
3-251-031	Dot Coverage: Display	Accumulate: Average: L: Bk	ENG*	[0 to 100 / 5 / 0.01%]
3-251-032	Dot Coverage: Display	Accumulate: Average: L: C	ENG*	[0 to 100 / 5 / 0.01%]
3-251-	Dot Coverage: Display	Accumulate: Average: L:	ENG*	[0 to 100 / 5 / 0.01%]

033		M		
3-251-034	Dot Coverage: Display	Accumulate: Average: L: Y	ENG*	[0 to 100 / 5 / 0.01%]
3-251-041	Dot Coverage: Display	Accumulate Page: Set: S	ENG*	[1 to 255 / 5 / 1sheet]
3-251-042	Dot Coverage: Display	Accumulate Page: Set: M	ENG*	[1 to 500 / 10 / 1sheet]
3-251-043	Dot Coverage: Display	Accumulate Page: Set: L	ENG*	[1 to 999 / 50 / 1sheet]
3-251-051	Dot Coverage: Display	Accumulate Page: Set: S2	ENG*	[1 to 255 / 40 / 1sheet]
3-251-052	Dot Coverage: Display	Accumulate Page: Set: M2	ENG*	[1 to 500 / 10 / 1sheet]
3-251-053	Dot Coverage: Display	Accumulate Page: Set: L2	ENG*	[1 to 999 / 50 / 1sheet]
3-251-151	Dot Coverage: Display	Accumulate: Average: Bk	ENG*	[0 to 100 / 0 / 0.01%]
3-251-152	Dot Coverage: Display	Accumulate: Average: C	ENG*	[0 to 100 / 0 / 0.01%]
3-251-153	Dot Coverage: Display	Accumulate: Average: M	ENG*	[0 to 100 / 0 / 0.01%]
3-251-154	Dot Coverage: Display	Accumulate: Average: Y	ENG*	[0 to 100 / 0 / 0.01%]
3-252-001	Accumulate Image Area: Display	Latest: Bk	ENG*	[0 to 65535 / 0 / 1cm2]
3-252-002	Accumulate Image Area: Display	Latest: C	ENG*	[0 to 65535 / 0 / 1cm2]
3-252-003	Accumulate Image Area: Display	Latest: M	ENG*	[0 to 65535 / 0 / 1cm2]
3-252-004	Accumulate Image Area: Display	Latest: Y	ENG*	[0 to 65535 / 0 / 1cm2]
3-252-011	Accumulate Image Area: Display	Developer: Bk	ENG*	[0 to 4294967295 / 0 / 1cm2]
3-252-012	Accumulate Image Area: Display	Developer: C	ENG*	[0 to 4294967295 / 0 / 1cm2]
3-252-013	Accumulate Image Area: Display	Developer: M	ENG*	[0 to 4294967295 / 0 / 1cm2]
3-252-	Accumulate Image Area:	Developer: Y	ENG*	[0 to 4294967295 / 0 /

014	Display			1cm2]
3-260-001	Temperature/Humidity: Display	Temperature: Display	ENG	[-5 to 45 / 0 / 0.1deg]
3-260-002	Temperature/Humidity: Display	Relative Humidity: Display	ENG	[0 to 100 / 0 / 0.1%RH]
3-260-003	Temperature/Humidity: Display	Absolute Humidity: Display	ENG	[0 to 100 / 0 / 0.01g/m3]
3-310-001	ID.Sen. Detection: Voffset	Voffset reg	ENG*	[0 to 5.5 / 0 / 0.01V]
3-310-011	ID.Sen. Detection: Voffset	Voffset dif	ENG*	[0 to 5.5 / 0 / 0.01V]
3-310-021	ID.Sen. Detection: Voffset	Voffset TM (Front)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-310-022	ID.Sen. Detection: Voffset	Voffset TM (Center)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-310-023	ID.Sen. Detection: Voffset	Voffset TM (Rear)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-311-001	ID.Sen. Detection :Vmin	Vmin_K	ENG*	[0 to 5 / 0 / 0.001V]
3-312-001	ID.Sen. Detection: Vct	Vct_reg	ENG*	[0 to 5 / 0 / 0.001V]
3-312-011	ID.Sen. Detection: Vct	Vct_dif	ENG*	[0 to 5 / 0 / 0.001V]
3-320-001	Vsg Adj.: Execute	ID/TM Sensor	ENG	[0 or 1 / 0 / 1]
3-321-001	Vsg Adj. Result: Vsg	Vsg reg	ENG*	[0 to 5.5 / 4 / 0.01V]
3-321-011	Vsg Adj. Result: Vsg	Vsg dif	ENG*	[0 to 5.5 / 0 / 0.01V]
3-321-021	Vsg Adj. Result: Vsg	Vsg reg (BW)	ENG*	[0 to 5.5 / 4 / 0.01V]
3-321-031	Vsg Adj. Result: Vsg	Vsg dif (BW)	ENG*	[0 to 5.5 / 0 / 0.01V]
3-321-041	Vsg Adj. Result: Vsg	Vsg TM (Front)	ENG*	[0 to 5.5 / 4 / 0.01V]
3-321-042	Vsg Adj. Result: Vsg	Vsg TM (Center)	ENG*	[0 to 5.5 / 4 / 0.01V]
3-321-	Vsg Adj. Result: Vsg	Vsg TM (Rear)	ENG*	[0 to 5.5 / 4 / 0.01V]

043				
3-322-001	Vsg Adj. Result: Ifsg	Ifsg	ENG*	[0 to 50 / 27 / 0.001mA]
3-322-011	Vsg Adj. Result: Ifsg	Ifsg (minimum)	ENG*	[0 to 50 / 27 / 0.001mA]
3-322-021	Vsg Adj. Result: Ifsg	Ifsg: TM (Front)	ENG*	[0 to 50 / 27 / 0.001mA]
3-322-022	Vsg Adj. Result: Ifsg	Ifsg: TM (Center)	ENG*	[0 to 50 / 27 / 0.001mA]
3-322-023	Vsg Adj. Result: Ifsg	Ifsg: TM (Rear)	ENG*	[0 to 50 / 27 / 0.001mA]
3-323-001	Vsg Adj. Result: Display	Latest	ENG*	[0 to 999 / 0 / 1]
3-323-002	Vsg Adj. Result: Display	Latest 1	ENG*	[0 to 999 / 0 / 1]
3-323-003	Vsg Adj. Result: Display	Latest 2	ENG*	[0 to 999 / 0 / 1]
3-323-004	Vsg Adj. Result: Display	Latest 3	ENG*	[0 to 999 / 0 / 1]
3-323-005	Vsg Adj. Result: Display	Latest 4	ENG*	[0 to 999 / 0 / 1]
3-323-006	Vsg Adj. Result: Display	Latest 5	ENG*	[0 to 999 / 0 / 1]
3-323-007	Vsg Adj. Result: Display	Latest 6	ENG*	[0 to 999 / 0 / 1]
3-323-008	Vsg Adj. Result: Display	Latest 7	ENG*	[0 to 999 / 0 / 1]
3-323-009	Vsg Adj. Result: Display	Latest 8	ENG*	[0 to 999 / 0 / 1]
3-323-010	Vsg Adj. Result: Display	Latest 9	ENG*	[0 to 999 / 0 / 1]
3-330-001	ID Sen. Sensitivity Coef.: Set	K2(Latest)	ENG*	[0 to 5 / 0.528 / 0.0001]
3-330-011	ID Sen. Sensitivity Coef.: Set	K5(Latest)	ENG*	[0 to 10 / 2 / 0.0001]
3-331-021	ID Sen. Sensitivity Coef.: Set	K2: Check	ENG*	[0 to 1 / 0.528 / 0.001]
3-331-	ID Sen. Sensitivity Coef.:	Diffuse Ratio Correction	ENG*	[0.75 to 1.35 / 1 / 0.01]

031	Set	Coef.		
3-331-041	ID Sen. Sensitivity Coef.: Set	Vct_reg Check:Slope	ENG*	[0 to 1 / 0 / 0.0001V/mA]
3-331-046	ID Sen. Sensitivity Coef.: Set	Vct_reg Check:Xint	ENG*	[0 to 25.5 / 0 / 0.1mA]
3-331-051	ID Sen. Sensitivity Coef.: Set	Vct_dif Check:Slope	ENG*	[0 to 1 / 0 / 0.0001V/mA]
3-331-056	ID Sen. Sensitivity Coef.: Set	Vct_dif Check:Xint	ENG*	[0 to 25.5 / 0 / 0.1mA]
3-400-001	Toner Supply Type Select	Bk	ENG*	[0 to 4 / 4 / 1] 0: FIXED 2: PID 4: DANC
3-400-002	Toner Supply Type Select	C	ENG*	[0 to 4 / 4 / 1] 0: FIXED 2: PID 4: DANC
3-400-003	Toner Supply Type Select	M	ENG*	[0 to 4 / 4 / 1] 0: FIXED 2: PID 4: DANC
3-400-004	Toner Supply Type Select	Y	ENG*	[0 to 4 / 4 / 1] 0: FIXED 2: PID 4: DANC
3-411-001	Toner Supply Qty: Display	Bk	ENG	[0 to 40000 / 0 / 0.1mg]
3-411-002	Toner Supply Qty: Display	C	ENG	[0 to 40000 / 0 / 0.1mg]
3-411-003	Toner Supply Qty: Display	M	ENG	[0 to 40000 / 0 / 0.1mg]
3-411-004	Toner Supply Qty: Display	Y	ENG	[0 to 40000 / 0 / 0.1mg]
3-420-001	Developer Weight: Set	Developer Weight: Bk	ENG*	[50 to 2000 / 120 / 1g]
3-421-001	Toner Supply Ability: Set	Bk	ENG*	[0.001 to 2 / 0.469 / 0.001g/sec]
3-421-	Toner Supply Ability: Set	C	ENG*	[0.001 to 2 / 0.469 /

002				0.001g/sec]
3-421-003	Toner Supply Ability: Set	M	ENG*	[0.001 to 2 / 0.469 / 0.001g/sec]
3-421-004	Toner Supply Ability: Set	Y	ENG*	[0.001 to 2 / 0.469 / 0.001g/sec]
3-421-011	Toner Supply Ability: Set	Coefficient 1	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-012	Toner Supply Ability: Set	Coefficient 2	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-013	Toner Supply Ability: Set	Coefficient 3	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-014	Toner Supply Ability: Set	Coefficient 4	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-015	Toner Supply Ability: Set	Coefficient 5	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-016	Toner Supply Ability: Set	Coefficient 6	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-017	Toner Supply Ability: Set	Coefficient 7	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-018	Toner Supply Ability: Set	Coefficient 8	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-019	Toner Supply Ability: Set	Coefficient 9	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-020	Toner Supply Ability: Set	Coefficient 10	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-021	Toner Supply Ability: Set	Unit Time	ENG*	[0 to 60000 / 3000 / 1msec]
3-421-031	Toner Supply Ability: Set	Environment Threshold: 1	ENG*	[0 to 65 / 17 / 0.1g/m3]
3-421-032	Toner Supply Ability: Set	Environment Threshold: 2	ENG*	[0 to 65 / 29 / 0.1g/m3]
3-421-033	Toner Supply Ability: Set	Environment Threshold: 3	ENG*	[0 to 65 / 34 / 0.1g/m3]
3-421-041	Toner Supply Ability: Set	Environment Coefficient 1	ENG*	[0.5 to 2 / 1.04 / 0.01]
3-421-042	Toner Supply Ability: Set	Environment Coefficient 2	ENG*	[0.5 to 2 / 1 / 0.01]
3-421-	Toner Supply Ability: Set	Environment Coefficient 3	ENG*	[0.5 to 2 / 1 / 0.01]

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3-421-044	Toner Supply Ability: Set	Environment Coefficient 4	ENG*	[0.5 to 2 / 0.96 / 0.01]
3-422-001	Toner Supply Limits: Set	Max Supply Rate: Bk	ENG*	[0 to 255 / 100 / 1%]
3-422-002	Toner Supply Limits: Set	Max Supply Rate: C	ENG*	[0 to 255 / 100 / 1%]
3-422-003	Toner Supply Limits: Set	Max Supply Rate: M	ENG*	[0 to 255 / 100 / 1%]
3-422-004	Toner Supply Limits: Set	Max Supply Rate: Y	ENG*	[0 to 255 / 100 / 1%]
3-422-011	Toner Supply Limits: Set	Min Supply Time: Bk	ENG*	[0 to 255 / 100 / 1msec]
3-422-012	Toner Supply Limits: Set	Min Supply Time: C	ENG*	[0 to 255 / 100 / 1msec]
3-422-013	Toner Supply Limits: Set	Min Supply Time: M	ENG*	[0 to 255 / 100 / 1msec]
3-422-014	Toner Supply Limits: Set	Min Supply Time: Y	ENG*	[0 to 255 / 100 / 1msec]
3-432-001	Supply Drive Time: Setting	Drive Time (Maximum)	ENG*	[0 to 1500 / 800 / 1msec]
3-440-001	Fixed Supply Mode	Fixed Rate: Bk	ENG*	[0 to 100 / 10 / 1%]
3-440-002	Fixed Supply Mode	Fixed Rate: C	ENG*	[0 to 100 / 10 / 1%]
3-440-003	Fixed Supply Mode	Fixed Rate: M	ENG*	[0 to 100 / 10 / 1%]
3-440-004	Fixed Supply Mode	Fixed Rate: Y	ENG*	[0 to 100 / 10 / 1%]
3-450-001	Toner Supply PID: Setting	Vt Proportion Coef.: Bk	ENG*	[0 to 2550 / 40 / 1]
3-450-002	Toner Supply PID: Setting	Vt Proportion Coef.: C	ENG*	[0 to 2550 / 40 / 1]
3-450-003	Toner Supply PID: Setting	Vt Proportion Coef.: M	ENG*	[0 to 2550 / 40 / 1]
3-450-004	Toner Supply PID: Setting	Vt Proportion Coef.: Y	ENG*	[0 to 2550 / 40 / 1]
3-450-	Toner Supply PID: Setting	Pixel Proportion Coef. 1:	ENG*	[0 to 2.55 / 0.6 / 0.01]

011		Bk		
3-450-012	Toner Supply PID: Setting	Pixel Proportion Coef. 1: C	ENG*	[0 to 2.55 / 0.6 / 0.01]
3-450-013	Toner Supply PID: Setting	Pixel Proportion Coef. 1: M	ENG*	[0 to 2.55 / 0.6 / 0.01]
3-450-014	Toner Supply PID: Setting	Pixel Proportion Coef. 1: Y	ENG*	[0 to 2.55 / 0.6 / 0.01]
3-450-021	Toner Supply PID: Setting	Pixel Proportion Coef. 2: Bk	ENG*	[0 to 2.55 / 1 / 0.01]
3-450-022	Toner Supply PID: Setting	Pixel Proportion Coef. 2: C	ENG*	[0 to 2.55 / 1 / 0.01]
3-450-023	Toner Supply PID: Setting	Pixel Proportion Coef. 2: M	ENG*	[0 to 2.55 / 1 / 0.01]
3-450-024	Toner Supply PID: Setting	Pixel Proportion Coef. 2: Y	ENG*	[0 to 2.55 / 1 / 0.01]
3-450-031	Toner Supply PID: Setting	Correction Coefficient: 1	ENG*	[0 to 2.55 / 1 / 0.01]
3-450-032	Toner Supply PID: Setting	Correction Coefficient: 2	ENG*	[0 to 2.55 / 0.5 / 0.01]
3-450-033	Toner Supply PID: Setting	Correction Coefficient: 3	ENG*	[0 to 2.55 / 0 / 0.01]
3-450-034	Toner Supply PID: Setting	Correction Coefficient: 4	ENG*	[0 to 2.55 / 0.25 / 0.01]
3-450-035	Toner Supply PID: Setting	Correction Coefficient: 5	ENG*	[0 to 2.55 / 0.5 / 0.01]
3-450-041	Toner Supply PID: Setting	Pixel Proportion Coef. 3: Bk	ENG*	[0.7 to 1.3 / 1 / 0.01]
3-450-042	Toner Supply PID: Setting	Pixel Proportion Coef. 3: C	ENG*	[0.7 to 1.3 / 1 / 0.01]
3-450-043	Toner Supply PID: Setting	Pixel Proportion Coef. 3: M	ENG*	[0.7 to 1.3 / 1 / 0.01]
3-450-044	Toner Supply PID: Setting	Pixel Proportion Coef. 3: Y	ENG*	[0.7 to 1.3 / 1 / 0.01]
3-450-051	Toner Supply PID: Setting	Correction Value 1	ENG*	[-0.1 to 0 / -0.01 / 0.01]
3-450-052	Toner Supply PID: Setting	Correction Value 2	ENG*	[0 to 0.1 / 0.01 / 0.01]
3-450-	Toner Supply PID: Setting	Pixel Proportion Coef. Err	ENG*	[0 to 1 / 0.35 / 0.01]

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3-450-071	Toner Supply PID: Setting	I_Vt_Coef: Bk	ENG*	[0 to 2550 / 500 / 1]
3-450-072	Toner Supply PID: Setting	I_Vt_Coef: C	ENG*	[0 to 2550 / 500 / 1]
3-450-073	Toner Supply PID: Setting	I_Vt_Coef: M	ENG*	[0 to 2550 / 500 / 1]
3-450-074	Toner Supply PID: Setting	I_Vt_Coef: Y	ENG*	[0 to 2550 / 500 / 1]
3-450-081	Toner Supply PID: Setting	Si:Bk	ENG*	[-255 to 255 / 0 / 0.01]
3-450-082	Toner Supply PID: Setting	Si:C	ENG*	[-255 to 255 / 0 / 0.01]
3-450-083	Toner Supply PID: Setting	Si:M	ENG*	[-255 to 255 / 0 / 0.01]
3-450-084	Toner Supply PID: Setting	Si:Y	ENG*	[-255 to 255 / 0 / 0.01]
3-450-091	Toner Supply PID: Setting	Vt Sum Times: Bk	ENG*	[1 to 255 / 20 / 1times]
3-450-092	Toner Supply PID: Setting	Vt Sum Times: C	ENG*	[1 to 255 / 20 / 1times]
3-450-093	Toner Supply PID: Setting	Vt Sum Times: M	ENG*	[1 to 255 / 20 / 1times]
3-450-094	Toner Supply PID: Setting	Vt Sum Times: Y	ENG*	[1 to 255 / 20 / 1times]
3-460-011	Toner Supply Ctrl: DANC: Set	Minimum Supply Time	ENG*	[0 to 250 / 100 / 1msec]
3-460-012	Toner Supply Ctrl: DANC: Set	Maximum Supply Time	ENG*	[0 to 1000 / 200 / 1msec]
3-460-022	Toner Supply Ctrl: DANC: Set	SMITH: Supply Amount: Bk	ENG*	[1 to 500 / 129 / 1mg]
3-460-111	Toner Supply Ctrl: DANC: Set	Transfer Rate: Bk	ENG*	[1 to 1.5 / 1 / 0.01]
3-460-112	Toner Supply Ctrl: DANC: Set	Transfer Rate: C	ENG*	[1 to 1.5 / 1 / 0.01]
3-460-113	Toner Supply Ctrl: DANC: Set	Transfer Rate: M	ENG*	[1 to 1.5 / 1 / 0.01]
3-460-	Toner Supply Ctrl: DANC:	Transfer Rate: Y	ENG*	[1 to 1.5 / 1 / 0.01]

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3-461-001	Toner Supply Ctrl: DANC: Set	PI Rate	ENG*	[5 to 200 / 100 / 1%]
3-461-011	Toner Supply Ctrl: DANC: Set	PI: P Gain: Bk	ENG*	[0 to 1 / 0.01 / 0.0001]
3-461-012	Toner Supply Ctrl: DANC: Set	P Limits: Ratio: Up: Bk	ENG*	[0 to 1 / 0.05 / 0.01]
3-461-013	Toner Supply Ctrl: DANC: Set	P Limits: Ratio: Low: Bk	ENG*	[0 to 1 / 0.2 / 0.01]
3-461-021	Toner Supply Ctrl: DANC: Set	PI: I Gain: Bk	ENG*	[0 to 0.1 / 0.01 / 0.0001]
3-461-022	Toner Supply Ctrl: DANC: Set	I Limits: Ratio: Up: Bk	ENG*	[0 to 1 / 0.05 / 0.01]
3-461-023	Toner Supply Ctrl: DANC: Set	I Limits: Ratio: Low: Bk	ENG*	[0 to 1 / 0.3 / 0.01]
3-461-052	Toner Supply Ctrl: DANC: Set	AW:AWIpni:Bk	ENG*	[0 to 2000 / 100 / 1]
3-461-102	Toner Supply Ctrl: DANC: Set	PI: Line Spd Corr.: StdSpd1: Bk	ENG*	[0.05 to 1 / * / 0.01] *MP C307: 1 *MP C407: 0.84
3-461-103	Toner Supply Ctrl: DANC: Set	PI: Line Spd Corr.: StdSpd2: Bk	ENG*	[0.05 to 1 / * / 0.01] *MP C307: 1 *MP C407: 0.71
3-461-104	Toner Supply Ctrl: DANC: Set	PI: Line Spd Corr.: LowSpd: Bk	ENG*	[0.05 to 1 / * / 0.01] *MP C307: 0.5 *MP C407: 0.35
3-461-121	Toner Supply Ctrl: DANC: Set	SMITH: Gain: Bk	ENG*	[0 to 2 / 1 / 0.01]
3-461-122	Toner Supply Ctrl: DANC: Set	SMITH: Ratio: Std Speed 1: Bk	ENG*	[0 to 1 / 1 / 0.01]
3-461-123	Toner Supply Ctrl: DANC: Set	SMITH: Ratio: Std Speed 2: Bk	ENG*	[0 to 1 / 1 / 0.01]
3-461-124	Toner Supply Ctrl: DANC: Set	SMITH: Ratio: Low Speed: Bk	ENG*	[0 to 1 / 1 / 0.01]
3-462-001	Toner Supply Ctrl: DANC: Set	ANC: Rate	ENG*	[0 to 200 / 100 / 1%]
3-462-101	Toner Supply Ctrl: DANC: Set	ANC: Gain: Bk	ENG*	[0 to 2 / 1 / 0.01]

3-462-102	Toner Supply Ctrl: DANC: Set	ANC: Ratio: Std Speed 1: Bk	ENG*	[0.05 to 1 / 1 / 0.01]
3-462-103	Toner Supply Ctrl: DANC: Set	ANC: Ratio: Std Speed 2: Bk	ENG*	[0.05 to 1 / 1 / 0.01]
3-462-104	Toner Supply Ctrl: DANC: Set	ANC: Ratio: Low Speed: Bk	ENG*	[0.05 to 1 / 1 / 0.01]
3-463-101	Toner Supply Ctrl: DANC: Set	Integral: I: Save: Bk	ENG*	[-1000 to 1000 / 0 / 0.0001]
3-463-102	Toner Supply Ctrl: DANC: Set	Integral: I: Save: C	ENG*	[-1000 to 1000 / 0 / 0.0001]
3-463-103	Toner Supply Ctrl: DANC: Set	Integral: I: Save: M	ENG*	[-1000 to 1000 / 0 / 0.0001]
3-463-104	Toner Supply Ctrl: DANC: Set	Integral: I: Save: Y	ENG*	[-1000 to 1000 / 0 / 0.0001]
3-463-111	Toner Supply Ctrl: DANC: Set	ANC:Ref Save: Bk	ENG*	[-1000 to 1000 / 0 / 0.0001]
3-463-112	Toner Supply Ctrl: DANC: Set	ANC:Ref Save: C	ENG*	[-1000 to 1000 / 0 / 0.0001]
3-463-113	Toner Supply Ctrl: DANC: Set	ANC:Ref Save: M	ENG*	[-1000 to 1000 / 0 / 0.0001]
3-463-114	Toner Supply Ctrl: DANC: Set	ANC:Ref Save: Y	ENG*	[-1000 to 1000 / 0 / 0.0001]
3-463-201	Toner Supply Ctrl: DANC: Set	Save_DANC: Bk	ENG*	[0 to 9999 / 0 / 1cm2]
3-463-202	Toner Supply Ctrl: DANC: Set	Save_DANC: C	ENG*	[0 to 9999 / 0 / 1cm2]
3-463-203	Toner Supply Ctrl: DANC: Set	Save_DANC: M	ENG*	[0 to 9999 / 0 / 1cm2]
3-463-204	Toner Supply Ctrl: DANC: Set	Save_DANC: Y	ENG*	[0 to 9999 / 0 / 1cm2]
3-500-001	Image Quality Adj.: ON/OFF	ALL	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-500-002	Image Quality Adj.: ON/OFF	Process Control	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-500-003	Image Quality Adj.: ON/OFF	MUSIC	ENG*	[0 or 1 / 1 / 1]

3-500-004	Image Quality Adj.: ON/OFF	TD Sensor Initial Set	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-501-001	Toner End Prohibition Setting	Process Control	ENG*	[0 or 1 / 1 / 1] 0: Permit 1: Forbid
3-501-002	Toner End Prohibition Setting	MUSIC	ENG*	[0 or 1 / 1 / 1] 0: Permit 1: Forbid
3-501-003	Toner End Prohibition Setting	TC Adjustment	ENG*	[0 or 1 / 1 / 1] 0: Permit 1: Forbid
3-509-011	ImgQltyAdj :ModeSelect	FC/BW Mode Priority Setting	ENG*	[0 or 1 / 0 / 1] 0: FC Priority 1: BW Priority
3-510-024	Image Quality Adj.: Exec Flag	MUSIC	ENG*	[0 to 2 / 0 / 1]
3-510-031	Image Quality Adj.: Exec Flag	Init Toner Replenishment: Bk	ENG*	[0 to 1 / 0 / 1]
3-510-032	Image Quality Adj.: Exec Flag	Init Toner Replenishment: C	ENG*	[0 to 1 / 0 / 1]
3-510-033	Image Quality Adj.: Exec Flag	Init Toner Replenishment: M	ENG*	[0 to 1 / 0 / 1]
3-510-034	Image Quality Adj.: Exec Flag	Init Toner Replenishment: Y	ENG*	[0 to 1 / 0 / 1]
3-520-001	Image Quality Adj.: Interval	During Job	ENG*	[0 to 100 / 5 / 1pages]
3-520-002	Image Quality Adj.: Interval	During Stand-by	ENG*	[0 to 100 / 10 / 1minute]
3-521-001	Drum Stop: Time: Display	Year	ENG*	[0 to 99 / 0 / 1year]
3-521-002	Drum Stop: Time: Display	Month	ENG*	[1 to 12 / 1 / 1month]
3-521-003	Drum Stop: Time: Display	Day	ENG*	[1 to 31 / 1 / 1day]
3-521-004	Drum Stop: Time: Display	Hour	ENG*	[0 to 23 / 0 / 1hour]
3-521-	Drum Stop: Time: Display	Minute	ENG*	[0 to 59 / 0 / 1minute]

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3-521-011	Drum Stop Time :Disp	Year:Col	ENG*	[0 to 99 / 0 / 1year]
3-521-012	Drum Stop Time :Disp	Month:Col	ENG*	[1 to 12 / 1 / 1month]
3-521-013	Drum Stop Time :Disp	Day:Col	ENG*	[1 to 31 / 1 / 1day]
3-521-014	Drum Stop Time :Disp	Hour:Col	ENG*	[0 to 23 / 0 / 1hour]
3-521-015	Drum Stop Time :Disp	Minute:Col	ENG*	[0 to 59 / 0 / 1minute]
3-522-001	Drum Stop:Environment:Display	Temperature	ENG*	[-1280 to 1270 / 0 / 0.1deg]
3-522-002	Drum Stop:Environment:Display	Relative Humidity	ENG*	[0 to 1000 / 0 / 0.1%RH]
3-522-003	Drum Stop:Environment:Display	Absolute Humidity	ENG*	[0 to 1000 / 0 / 0.1g/m3]
3-522-011	Drum Stop Environ :Disp	Temperature:Col	ENG*	[-1280 to 1270 / 0 / 0.1deg]
3-522-012	Drum Stop Environ :Disp	Rel Humidity:Col	ENG*	[0 to 1000 / 0 / 0.1%RH]
3-522-013	Drum Stop Environ :Disp	Abs Humidity:Col	ENG*	[0 to 1000 / 0 / 0.1g/m3]
3-522-100	Rapi_timer	Time Setting	ENG*	[0 to 255 / 30 / 1sec]
3-529-001	ProCon Auto Exe Interval: Set	Development Gamma Correction	ENG*	[0 to 1 / 1 / 1] 0: OFF 1: ON
3-529-002	ProCon Auto Exe Interval: Set	Environment Correction	ENG*	[0 to 1 / 1 / 1] 0: OFF 1: ON
3-529-003	ProCon Auto Exe Interval: Set	Absolute Humidity Threshold	ENG*	[0 to 99 / 4.3 / 0.1g/m3]
3-529-004	ProCon Auto Exe Interval: Set	Maximum Correction Times	ENG*	[0 to 99 / 4 / 1counts]
3-529-005	ProCon Auto Exe Interval: Set	Execution Counter	ENG	[0 to 255 / 0 / 1counts]
3-529-	ProCon Auto Exe Interval:	Page Counter: BW	ENG*	[0 to 5000 / 0 / 1sheet]

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3-529-007	ProCon Auto Exe Interval: Set	Page Counter: FC	ENG*	[0 to 5000 / 0 / 1sheet]
3-530-001	Power ON ProCon: Set	Non-use Time Setting	ENG*	[0 to 1440 / 360 / 1minute]
3-530-002	Power ON ProCon: Set	Temperature Range Threshold	ENG*	[0 to 99 / 10 / 1deg]
3-530-003	Power ON ProCon: Set	Relative Humidity Range Thresh	ENG*	[0 to 99 / 50 / 1%RH]
3-530-004	Power ON ProCon: Set	Absolute Humidity Range Thresh	ENG*	[0 to 99 / 6 / 1g/m3]
3-530-005	Power ON ProCon: Set	Interval: BW	ENG*	[0 to 5000 / 250 / 1sheet]
3-530-006	Power ON ProCon: Set	Interval: FC	ENG*	[0 to 5000 / 100 / 1sheet]
3-530-007	Power ON ProCon: Set	Page Counter: BW	ENG*	[0 to 5000 / 0 / 1sheet]
3-530-008	Power ON ProCon: Set	Page Counter: FC	ENG*	[0 to 5000 / 0 / 1sheet]
3-530-009	Power ON ProCon: Set	Non-use Time Setting (Long)	ENG*	[0 to 65535 / 2880 / 1min]
3-531-001	Non-useTime Procon: Set	Non-use Time Setting	ENG*	[0 to 1440 / 360 / 1minute]
3-531-002	Non-useTime Procon: Set	Temperature Range Threshold	ENG*	[0 to 99 / 10 / 1deg]
3-531-003	Non-useTime Procon: Set	Relative Humidity Range Thresh	ENG*	[0 to 99 / 50 / 1%RH]
3-531-004	Non-useTime Procon: Set	Absolute Humidity Range Thresh	ENG*	[0 to 99 / 6 / 1g/m3]
3-531-005	Non-useTime Procon: Set	Maximum Execution Times	ENG*	[0 to 99 / 14 / 1times]
3-533-001	Interrupt ProCon: Set	Interval: Set: BW	ENG*	[0 to 5000 / 500 / 1sheet]
3-533-002	Interrupt ProCon: Set	Interval: Display: BW	ENG*	[0 to 5000 / 500 / 1sheet]
3-533-003	Interrupt ProCon: Set	Correction (Short): BW	ENG*	[0 to 1 / 0.1 / 0.01]
3-533-	Interrupt ProCon: Set	Correction (Mid.): BW	ENG*	[0 to 1 / 1 / 0.01]

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3-533-011	Interrupt ProCon: Set	Interval: Set: FC	ENG*	[0 to 5000 / 200 / 1sheet]
3-533-012	Interrupt ProCon: Set	Interval: Display: FC	ENG*	[0 to 5000 / 200 / 1sheet]
3-533-013	Interrupt ProCon: Set	Correction (Short): FC	ENG*	[0 to 1 / 0.25 / 0.01]
3-533-014	Interrupt ProCon: Set	Correction (Mid.): FC	ENG*	[0 to 1 / 1 / 0.01]
3-534-001	JobEnd ProCon: Set	Interval: Set: BW	ENG*	[0 to 5000 / 250 / 1sheet]
3-534-002	JobEnd ProCon: Set	Interval: Display: BW	ENG*	[0 to 5000 / 250 / 1sheet]
3-534-003	JobEnd ProCon: Set	Correction (Short): BW	ENG*	[0 to 1 / 0.2 / 0.01]
3-534-004	JobEnd ProCon: Set	Correction (Mid.): BW	ENG*	[0 to 1 / 1 / 0.01]
3-534-011	JobEnd ProCon: Set	Interval: Set: FC	ENG*	[0 to 1000 / 100 / 1sheet]
3-534-012	JobEnd ProCon: Set	Interval: Display: FC	ENG*	[0 to 5000 / 100 / 1sheet]
3-534-013	JobEnd ProCon: Set	Correction (Short): FC	ENG*	[0 to 1 / 0.5 / 0.01]
3-534-014	JobEnd ProCon: Set	Correction (Mid.): FC	ENG*	[0 to 1 / 1 / 0.01]
3-539-001	Dev Agitating Time: Set	Agitating Time	ENG*	[0 to 3000 / 10 / 1sec]
3-539-010	Dev Agitating Time: Set	ON/OFF(Abs Humidity Reference)	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-539-011	Dev Agitating Time: Set	Absolute Humidity Reference: 1	ENG*	[0 to 3000 / 0 / 1sec]
3-539-012	Dev Agitating Time: Set	Absolute Humidity Reference: 2	ENG*	[0 to 3000 / 0 / 1sec]
3-539-013	Dev Agitating Time: Set	Absolute Humidity Reference: 3	ENG*	[0 to 3000 / 5 / 1sec]
3-539-014	Dev Agitating Time: Set	Absolute Humidity Reference: 4	ENG*	[0 to 3000 / 5 / 1sec]

3-539-015	Dev Agitating Time: Set	Absolute Humidity Reference: 5	ENG*	[0 to 3000 / 5 / 1sec]
3-539-016	Dev Agitating Time: Set	Absolute Humidity Reference: 6	ENG*	[0 to 3000 / 5 / 1sec]
3-539-021	Dev Agitating Time: Set	Absolute Humidity Threshold: 1	ENG*	[0 to 65 / 4 / 0.1g/m3]
3-539-022	Dev Agitating Time: Set	Absolute Humidity Threshold: 2	ENG*	[0 to 65 / 8 / 0.1g/m3]
3-539-023	Dev Agitating Time: Set	Absolute Humidity Threshold: 3	ENG*	[0 to 65 / 12 / 0.1g/m3]
3-539-024	Dev Agitating Time: Set	Absolute Humidity Threshold: 4	ENG*	[0 to 65 / 16 / 0.1g/m3]
3-539-025	Dev Agitating Time: Set	Absolute Humidity Threshold: 5	ENG*	[0 to 65 / 24 / 0.1g/m3]
3-539-030	Dev Agitating Time: Set	ON/OFF(Non-use Time Reference)	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-539-031	Dev Agitating Time: Set	Non-use Time Reference: 1	ENG*	[0 to 3000 / 0 / 1sec]
3-539-032	Dev Agitating Time: Set	Non-use Time Reference: 2	ENG*	[0 to 3000 / 0 / 1sec]
3-539-033	Dev Agitating Time: Set	Non-use Time Reference: 3	ENG*	[0 to 3000 / 0 / 1sec]
3-539-034	Dev Agitating Time: Set	Non-use Time Reference: 4	ENG*	[0 to 3000 / 0 / 1sec]
3-539-035	Dev Agitating Time: Set	Non-use Time Reference: 5	ENG*	[0 to 3000 / 0 / 1sec]
3-539-036	Dev Agitating Time: Set	Non-use Time Reference: 6	ENG*	[0 to 3000 / 0 / 1sec]
3-539-037	Dev Agitating Time: Set	Non-use Time Reference: 7	ENG*	[0 to 3000 / 0 / 1sec]
3-539-038	Dev Agitating Time: Set	Non-use Time Reference: 8	ENG*	[0 to 3000 / 0 / 1sec]
3-539-039	Dev Agitating Time: Set	Non-use Time Reference: 9	ENG*	[0 to 3000 / 5 / 1sec]
3-539-040	Dev Agitating Time: Set	Non-use Time Reference: 10	ENG*	[0 to 3000 / 10 / 1sec]
3-539-	Dev Agitating Time: Set	Non-use Time Threshold:	ENG*	[0 to 30000 / 15 / 1min]

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3-539-042	Dev Agitating Time: Set	Non-use Time Threshold: 2	ENG*	[0 to 30000 / 30 / 1min]
3-539-043	Dev Agitating Time: Set	Non-use Time Threshold: 3	ENG*	[0 to 30000 / 60 / 1min]
3-539-044	Dev Agitating Time: Set	Non-use Time Threshold: 4	ENG*	[0 to 30000 / 120 / 1min]
3-539-045	Dev Agitating Time: Set	Non-use Time Threshold: 5	ENG*	[0 to 30000 / 240 / 1min]
3-539-046	Dev Agitating Time: Set	Non-use Time Threshold: 6	ENG*	[0 to 30000 / 360 / 1min]
3-539-047	Dev Agitating Time: Set	Non-use Time Threshold: 7	ENG*	[0 to 30000 / 720 / 1min]
3-539-048	Dev Agitating Time: Set	Non-use Time Threshold: 8	ENG*	[0 to 30000 / 1440 / 1min]
3-539-049	Dev Agitating Time: Set	Non-use Time Threshold: 9	ENG*	[0 to 30000 / 2880 / 1min]
3-539-050	Dev Agitating Time: Set	ON/OFF(Dot Coverage Reference)	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON
3-539-051	Dev Agitating Time: Set	Dot Coverage Reference: 1	ENG*	[0 to 3000 / 0 / 1sec]
3-539-052	Dev Agitating Time: Set	Dot Coverage Reference: 2	ENG*	[0 to 3000 / 0 / 1sec]
3-539-053	Dev Agitating Time: Set	Dot Coverage Reference: 3	ENG*	[0 to 3000 / 5 / 1sec]
3-539-054	Dev Agitating Time: Set	Dot Coverage Reference: 4	ENG*	[0 to 3000 / 5 / 1sec]
3-539-055	Dev Agitating Time: Set	Dot Coverage Reference: 5	ENG*	[0 to 3000 / 10 / 1sec]
3-539-056	Dev Agitating Time: Set	Dot Coverage Reference: 6	ENG*	[0 to 3000 / 10 / 1sec]
3-539-061	Dev Agitating Time: Set	Dot Coverage Threshold: 1	ENG*	[0 to 100 / 10 / 1%]
3-539-062	Dev Agitating Time: Set	Dot Coverage Threshold: 2	ENG*	[0 to 100 / 20 / 1%]
3-539-063	Dev Agitating Time: Set	Dot Coverage Threshold: 3	ENG*	[0 to 100 / 40 / 1%]

3-539-064	Dev Agitating Time: Set	Dot Coverage Threshold: 4	ENG*	[0 to 100 / 60 / 1%]
3-539-065	Dev Agitating Time: Set	Dot Coverage Threshold: 5	ENG*	[0 to 100 / 80 / 1%]
3-539-099	Dev Agitating Time: Set	Upper Limit	ENG*	[0 to 3600 / 30 / 1sec]
3-541-001	Music Interval :Set	Page Counter: BW	ENG*	[0 to 5000 / 0 / 1sheet]
3-541-002	Music Interval :Set	Page Counter: FC	ENG*	[0 to 5000 / 0 / 1sheet]
3-550-001	Refresh Mode	Required Area: Bk	ENG*	[0 to 65535 / 0 / 1cm2]
3-550-002	Refresh Mode	Required Area: C	ENG*	[0 to 65535 / 0 / 1cm2]
3-550-003	Refresh Mode	Required Area: M	ENG*	[0 to 65535 / 0 / 1cm2]
3-550-004	Refresh Mode	Required Area: Y	ENG*	[0 to 65535 / 0 / 1cm2]
3-550-011	Refresh Mode	Dev. Motor Rotation: Display: Bk	ENG*	[0 to 1000 / 0 / 0.1m]
3-550-012	Refresh Mode	Dev. Motor Rotation: Display: C	ENG*	[0 to 1000 / 0 / 0.1m]
3-550-013	Refresh Mode	Dev. Motor Rotation: Display: M	ENG*	[0 to 1000 / 0 / 0.1m]
3-550-014	Refresh Mode	Dev. Motor Rotation: Display: Y	ENG*	[0 to 1000 / 0 / 0.1m]
3-550-021	Refresh Mode	Rotation Threshold	ENG*	[0 to 1000 / 0.1 / 0.1m]
3-550-031	Refresh Mode	Refresh Threshold: Bk	ENG*	[0 to 255 / 25 / 1cm2/m]
3-550-032	Refresh Mode	Refresh Threshold: C	ENG*	[0 to 255 / 25 / 1cm2/m]
3-550-033	Refresh Mode	Refresh Threshold: M	ENG*	[0 to 255 / 25 / 1cm2/m]
3-550-034	Refresh Mode	Refresh Threshold: Y	ENG*	[0 to 255 / 25 / 1cm2/m]
3-550-041	Refresh Mode	Job End Area Coefficient	ENG*	[0.1 to 25.5 / 1 / 0.1]

3-550-042	Refresh Mode	Job End Vb Coefficient	ENG*	[0 to 100 / 34 / 1%]
3-550-043	Refresh Mode	Job End Length	ENG*	[0 to 99 / 77 / 1mm]
3-550-044	Refresh Mode	Job End Supply	ENG*	[0 to 1 / 0.45 / 0.001mg/cm2]
3-550-081	Refresh Mode	Consumption Counts (Max)	ENG*	[0 to 50 / 0 / 1]
3-550-121	Refresh Mode	Refresh Page Threshold: Bk	ENG*	[0 to 200 / 100 / 1page]
3-550-122	Refresh Mode	Refresh Page Threshold: Col	ENG*	[0 to 200 / 100 / 1page]
3-550-131	Refresh Mode	Refresh Page Counter Bk	ENG*	[0 to 999999 / 0 / 1page]
3-550-132	Refresh Mode	Refresh Page Counter C	ENG*	[0 to 999999 / 0 / 1page]
3-550-133	Refresh Mode	Refresh Page Counter M	ENG*	[0 to 999999 / 0 / 1page]
3-550-134	Refresh Mode	Refresh Page Counter Y	ENG*	[0 to 999999 / 0 / 1page]
3-553-001	Transfer Belt Cleaning	Transfer Idle Time Temp.: H	ENG*	[0 to 3 / 0 / 0.1revolution]
3-553-002	Transfer Belt Cleaning	Transfer Idle Time Temp.: M	ENG*	[0 to 3 / 0 / 0.1revolution]
3-553-003	Transfer Belt Cleaning	Transfer Idle Time Temp.: L	ENG*	[0 to 3 / 0 / 0.1revolution]
3-553-004	Transfer Belt Cleaning	Transfer Idle Time Temp.: L: ON	ENG*	[0 to 3 / 0 / 0.1revolution]
3-553-005	Transfer Belt Cleaning	Temperature Threshold:T2	ENG*	[20 to 30 / 25 / 1deg]
3-553-006	Transfer Belt Cleaning	Temperature Threshold:T1	ENG*	[0 to 15 / 15 / 1deg]
3-553-007	Transfer Belt Cleaning	Temperature Threshold:T3	ENG*	[0 to 30 / 18 / 1deg]
3-555-001	Execution Interval: Set	Charge AC Control Counter: FC	ENG*	[0 to 2000 / 500 / 1page]
3-555-002	Execution Interval: Set	Charge AC Control Counter: Bk	ENG*	[0 to 2000 / 500 / 1page]

3-600-001	Select ProCon	Potential Control	ENG*	[0 or 1 / 1 / 1] 0: FIXED 1: CONTROL
3-600-002	Select ProCon	LD Control	ENG*	[0 to 3 / 1 / 1] 0: OFF 1: ON
3-600-003	Select ProCon	TC Adj. Mode	ENG*	[0 to 3 / 3 / 1] 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] 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] 0: OFF 1: All Time 2: Non-use Time (Long)
3-610-001	Charging AC Control: Display	Standard Speed: Bk	ENG*	[0 to 3 / 2.1 / 0.01kV]
3-610-002	Charging AC Control: Display	Standard Speed: C	ENG*	[0 to 3 / 2.1 / 0.01kV]
3-610-003	Charging AC Control: Display	Standard Speed: M	ENG*	[0 to 3 / 2.1 / 0.01kV]
3-610-004	Charging AC Control: Display	Standard Speed: Y	ENG*	[0 to 3 / 2.1 / 0.01kV]
3-611-001	Charging DC Control: Display	Standard Speed: Bk	ENG*	[300 to 1000 / 700 / 1-V]
3-611-002	Charging DC Control: Display	Standard Speed: C	ENG*	[300 to 1000 / 690 / 1-V]
3-611-003	Charging DC Control: Display	Standard Speed: M	ENG*	[300 to 1000 / 690 / 1-V]
3-611-004	Charging DC Control: Display	Standard Speed: Y	ENG*	[300 to 1000 / 690 / 1-V]
3-611-011	Charging DC Control: Display	Mid Speed: Bk	ENG*	[300 to 1000 / 700 / 1-V]
3-611-	Charging DC Control:	Mid Speed: C	ENG*	[300 to 1000 / 690 / 1-V]

012	Display			
3-611-013	Charging DC Control: Display	Mid Speed: M	ENG*	[300 to 1000 / 690 / 1-V]
3-611-014	Charging DC Control: Display	Mid Speed: Y	ENG*	[300 to 1000 / 690 / 1-V]
3-611-021	Charging DC Control: Display	Low Speed: Bk	ENG*	[300 to 1000 / 700 / 1-V]
3-611-022	Charging DC Control: Display	Low Speed: C	ENG*	[300 to 1000 / 690 / 1-V]
3-611-023	Charging DC Control: Display	Low Speed: M	ENG*	[300 to 1000 / 690 / 1-V]
3-611-024	Charging DC Control: Display	Low Speed: Y	ENG*	[300 to 1000 / 690 / 1-V]
3-611-051	Charging DC Control: Display	Std Speed: BW	ENG*	[300 to 1000 / 700 / 1-V]
3-611-061	Charging DC Control: Display	Mid Speed: BW	ENG*	[300 to 1000 / 700 / 1-V]
3-611-071	Charging DC Control: Display	Low Speed: BW	ENG*	[300 to 1000 / 700 / 1-V]
3-611-081	Charging DC Control: Display	Std Speed2: BW	ENG*	[300 to 1000 / 700 / 1-V]
3-612-001	Dev DC Control: Display	Std Speed: Bk	ENG*	[200 to 800 / 550 / 1-V]
3-612-002	Dev DC Control: Display	Std Speed: C	ENG*	[200 to 800 / 550 / 1-V]
3-612-003	Dev DC Control: Display	Std Speed: M	ENG*	[200 to 800 / 550 / 1-V]
3-612-004	Dev DC Control: Display	Std Speed: Y	ENG*	[200 to 800 / 550 / 1-V]
3-612-011	Dev DC Control: Display	Mid Speed: Bk	ENG*	[200 to 800 / 550 / 1-V]
3-612-012	Dev DC Control: Display	Mid Speed: C	ENG*	[200 to 800 / 550 / 1-V]
3-612-013	Dev DC Control: Display	Mid Speed: M	ENG*	[200 to 800 / 550 / 1-V]
3-612-014	Dev DC Control: Display	Mid Speed: Y	ENG*	[200 to 800 / 550 / 1-V]
3-612-	Dev DC Control: Display	Low Speed: Bk	ENG*	[200 to 800 / 550 / 1-V]

021				
3-612-022	Dev DC Control: Display	Low Speed: C	ENG*	[200 to 800 / 550 / 1-V]
3-612-023	Dev DC Control: Display	Low Speed: M	ENG*	[200 to 800 / 550 / 1-V]
3-612-024	Dev DC Control: Display	Low Speed: Y	ENG*	[200 to 800 / 550 / 1-V]
3-612-041	Dev DC Control: Display	Vb Limit	ENG*	[0 to 500 / 50 / 1V]
3-612-051	Dev DC Control: Display	Std Speed: BW	ENG*	[200 to 800 / 550 / 1-V]
3-612-061	Dev DC Control: Display	Mid Speed: BW	ENG*	[200 to 800 / 550 / 1-V]
3-612-071	Dev DC Control: Display	Low Speed: BW	ENG*	[200 to 800 / 550 / 1-V]
3-612-081	Dev DC Control: Display	Std Speed2: BW	ENG*	[200 to 800 / 550 / 1-V]
3-612-124	Dev DC Control: Display	Set:PCU Distance Thresh:K	ENG*	[0 to 999999999 / 23968496 / 1mm]
3-612-125	Dev DC Control: Display	Set:PCU Distance Thresh:Col	ENG*	[0 to 999999999 / 17451292 / 1mm]
3-612-126	Dev DC Control: Display	Set:Temperature Thresh	ENG*	[0 to 100 / 15 / 1deg]
3-612-131	Dev DC Control: Display	Set:Upper Vb Current:K	ENG*	[0 to 800 / 560 / 1V]
3-612-132	Dev DC Control: Display	Set:Upper Vb Current:C	ENG*	[0 to 800 / 560 / 1V]
3-612-133	Dev DC Control: Display	Set:Upper Vb Current:M	ENG*	[0 to 800 / 560 / 1V]
3-612-134	Dev DC Control: Display	Set:Upper Vb Current:Y	ENG*	[0 to 800 / 560 / 1V]
3-613-001	LD Power Control: Display	Std Speed: Bk	ENG*	[0 to 200 / 100 / 1%]
3-613-002	LD Power Control: Display	Std Speed: C	ENG*	[0 to 200 / 100 / 1%]
3-613-003	LD Power Control: Display	Std Speed: M	ENG*	[0 to 200 / 100 / 1%]
3-613-	LD Power Control: Display	Std Speed: Y	ENG*	[0 to 200 / 100 / 1%]

004				
3-613-011	LD Power Control: Display	Mid Speed: Bk	ENG*	[0 to 200 / 100 / 1%]
3-613-012	LD Power Control: Display	Mid Speed: C	ENG*	[0 to 200 / 100 / 1%]
3-613-013	LD Power Control: Display	Mid Speed: M	ENG*	[0 to 200 / 100 / 1%]
3-613-014	LD Power Control: Display	Mid Speed: Y	ENG*	[0 to 200 / 100 / 1%]
3-613-021	LD Power Control: Display	Low Speed: Bk	ENG*	[0 to 200 / 100 / 1%]
3-613-022	LD Power Control: Display	Low Speed: C	ENG*	[0 to 200 / 100 / 1%]
3-613-023	LD Power Control: Display	Low Speed: M	ENG*	[0 to 200 / 100 / 1%]
3-613-024	LD Power Control: Display	Low Speed: Y	ENG*	[0 to 200 / 100 / 1%]
3-613-051	LD Power Control: Display	Std Speed: BW	ENG*	[0 to 200 / 100 / 1%]
3-613-061	LD Power Control: Display	Mid Speed: BW	ENG*	[0 to 200 / 100 / 1%]
3-613-071	LD Power Control: Display	Low Speed: BW	ENG*	[0 to 200 / 100 / 1%]
3-613-081	LD Power Control: Display	Std Speed2: BW	ENG*	[0 to 200 / 100 / 1%]
3-613-101	LD Power Control: Display	ProCon Corr: Bk	ENG*	[0 to 200 / 160 / 1%]
3-613-102	LD Power Control: Display	ProCon Corr: C	ENG*	[0 to 200 / 160 / 1%]
3-613-103	LD Power Control: Display	ProCon Corr: M	ENG*	[0 to 200 / 160 / 1%]
3-613-104	LD Power Control: Display	ProCon Corr: Y	ENG*	[0 to 200 / 160 / 1%]
3-619-001	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed: Bk	ENG*	[0 to 2.55 / * / 0.01] *MP C307: 0.65 *MP C407: 0.52
3-619-002	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed: C	ENG*	[0 to 2.55 / 1 / 0.01]

3-619-003	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed: M	ENG*	[0 to 2.55 / 1 / 0.01]
3-619-004	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed: Y	ENG*	[0 to 2.55 / 1 / 0.01]
3-619-005	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: Bk	ENG*	[0 to 2.55 / * / 0.01] *MP C307: 0.41 *MP C407: 0.48
3-619-006	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: C	ENG*	[0 to 2.55 / 1 / 0.01]
3-619-007	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: M	ENG*	[0 to 2.55 / 1 / 0.01]
3-619-008	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: Y	ENG*	[0 to 2.55 / 1 / 0.01]
3-619-011	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed: Bk	ENG*	[-1000 to 1000 / * / 1V] *MP C307: 163 *MP C407: 264
3-619-012	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed: C	ENG*	[-1000 to 1000 / * / 1V] *MP C307: 44 *MP C407: 45
3-619-013	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed: M	ENG*	[-1000 to 1000 / * / 1V] *MP C307: 44 *MP C407: 45
3-619-014	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed: Y	ENG*	[-1000 to 1000 / * / 1V] *MP C307: 44 *MP C407: 45
3-619-015	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: Bk	ENG*	[-1000 to 1000 / * / 1V] *MP C307: 215 *MP C407: 200
3-619-016	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: C	ENG*	[-1000 to 1000 / * / 1V] *MP C307: -37 *MP C407: -44
3-619-017	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: M	ENG*	[-1000 to 1000 / * / 1V] *MP C307: -37 *MP C407: -44
3-619-018	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: Y	ENG*	[-1000 to 1000 / * / 1V] *MP C307: -37 *MP C407: -44
3-619-	Img Bias: Line Spd Corr: Set	Vb Coef: Standard Speed	ENG*	[0 to 2.55 / 0.51 / 0.01]

021		2: Bk		
3-619-024	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: Std Speed 2	ENG*	[0 to 2.55 / 0.69 / 0.01]
3-619-025	Img Bias: Line Spd Corr: Set	Vb Coef: Low Speed: Std Speed 2	ENG*	[0 to 2.55 / 0.55 / 0.01]
3-619-026	Img Bias: Line Spd Corr: Set	Vb Coef: Std Speed 2: Std Speed 2	ENG*	[0 to 2.55 / 0.85 / 0.01]
3-619-031	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed 2: Bk	ENG*	[-1000 to 1000 / 234 / 1V]
3-619-034	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: Std Speed 2	ENG*	[-1000 to 1000 / 112 / 1V]
3-619-035	Img Bias: Line Spd Corr: Set	Vb Offset: Low Speed: Std Speed 2	ENG*	[-1000 to 1000 / 107 / 1V]
3-619-036	Img Bias: Line Spd Corr: Set	Vb Offset: Std Speed 2: Std Speed 2	ENG*	[-1000 to 1000 / 68 / 1V]
3-619-041	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: Bk	ENG*	[0 to 2.55 / 0.47 / 0.01]
3-619-042	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: C	ENG*	[0 to 2.55 / 1 / 0.01]
3-619-043	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: M	ENG*	[0 to 2.55 / 1 / 0.01]
3-619-044	Img Bias: Line Spd Corr: Set	Vb Coef: Mid Speed: Y	ENG*	[0 to 2.55 / 1 / 0.01]
3-619-045	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: Bk	ENG*	[-1000 to 1000 / 265 / 1V]
3-619-046	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: C	ENG*	[-1000 to 1000 / 15 / 1V]
3-619-047	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: M	ENG*	[-1000 to 1000 / 15 / 1V]
3-619-048	Img Bias: Line Spd Corr: Set	Vb Offset: Mid Speed: Y	ENG*	[-1000 to 1000 / 15 / 1V]
3-620-001	ProCon Target M/A	Maximum M/A: Bk	ENG*	[0.25 to 0.75 / 0.436 / 0.001mg/cm2]
3-620-002	ProCon Target M/A	Maximum M/A: C	ENG*	[0.25 to 0.75 / 0.412 / 0.001mg/cm2]
3-620-003	ProCon Target M/A	Maximum M/A: M	ENG*	[0.25 to 0.75 / 0.471 / 0.001mg/cm2]
3-620-	ProCon Target M/A	Maximum M/A: Y	ENG*	[0.25 to 0.75 / 0.464 /

004				0.001mg/cm2]
3-620-051	ProCon Target M/A	Maximum M/A: BW	ENG*	[0.25 to 0.75 / 0.383 / 0.001mg/cm2]
3-622-001	Development Potential: Display	Bk	ENG*	[0 to 800 / 0 / 1V]
3-622-002	Development Potential: Display	C	ENG*	[0 to 800 / 0 / 1V]
3-622-003	Development Potential: Display	M	ENG*	[0 to 800 / 0 / 1V]
3-622-004	Development Potential: Display	Y	ENG*	[0 to 800 / 0 / 1V]
3-622-021	Development Potential: Display	Bk: BW	ENG*	[0 to 800 / 0 / 1V]
3-622-051	Development Potential: Display	Upper Limit: Bk	ENG*	[400 to 800 / 738 / 1V]
3-622-052	Development Potential: Display	Upper Limit: C	ENG*	[400 to 800 / 650 / 1V]
3-622-053	Development Potential: Display	Upper Limit: M	ENG*	[400 to 800 / 650 / 1V]
3-622-054	Development Potential: Display	Upper Limit: Y	ENG*	[400 to 800 / 650 / 1V]
3-622-061	Development Potential: Display	Lower Limit: Bk	ENG*	[0 to 400 / 250 / 1V]
3-622-062	Development Potential: Display	Lower Limit: C	ENG*	[0 to 400 / 300 / 1V]
3-622-063	Development Potential: Display	Lower Limit: M	ENG*	[0 to 400 / 300 / 1V]
3-622-064	Development Potential: Display	Lower Limit: Y	ENG*	[0 to 400 / 300 / 1V]
3-623-001	LD Power: Set	Standard Speed Slope: Bk	ENG*	[-1000 to 1000 / * / 1V] *MP C307: 186 *MP C407: 228
3-623-002	LD Power: Set	Standard Speed Slope: C	ENG*	[-1000 to 1000 / * / 1V] *MP C307: 186 *MP C407: 228
3-623-003	LD Power: Set	Standard Speed Slope: M	ENG*	[-1000 to 1000 / * / 1V] *MP C307: 186 *MP C407: 228

3-623-004	LD Power: Set	Standard Speed Slope: Y	ENG*	[-1000 to 1000 / * / 1V] *MP C307: 186 *MP C407: 228
3-623-011	LD Power: Set	Standard Speed Offset: Bk	ENG*	[-1000 to 1000 / * / 1] *MP C307: 6 *MP C407: -8
3-623-012	LD Power: Set	Standard Speed Offset: C	ENG*	[-1000 to 1000 / * / 1] *MP C307: 8 *MP C407: -8
3-623-013	LD Power: Set	Standard Speed Offset: M	ENG*	[-1000 to 1000 / * / 1] *MP C307: 8 *MP C407: -8
3-623-014	LD Power: Set	Standard Speed Offset: Y	ENG*	[-1000 to 1000 / * / 1] *MP C307: 8 *MP C407: -8
3-623-021	LD Power: Set	Mid. Speed Slope: Bk	ENG*	[-1000 to 1000 / 231 / 1]
3-623-022	LD Power: Set	Mid. Speed Slope: C	ENG*	[-1000 to 1000 / 231 / 1]
3-623-023	LD Power: Set	Mid. Speed Slope: M	ENG*	[-1000 to 1000 / 231 / 1]
3-623-024	LD Power: Set	Mid. Speed Slope: Y	ENG*	[-1000 to 1000 / 231 / 1]
3-623-031	LD Power: Set	Mid. Speed Offset: Bk	ENG*	[-1000 to 1000 / -14 / 1]
3-623-032	LD Power: Set	Mid. Speed Offset: C	ENG*	[-1000 to 1000 / -14 / 1]
3-623-033	LD Power: Set	Mid. Speed Offset: M	ENG*	[-1000 to 1000 / -14 / 1]
3-623-034	LD Power: Set	Mid. Speed Offset: Y	ENG*	[-1000 to 1000 / -14 / 1]
3-623-041	LD Power: Set	Low Speed Slope: Bk	ENG*	[-1000 to 1000 / * / 1] *MP C307: 144 *MP C407: 154
3-623-042	LD Power: Set	Low Speed Slope: C	ENG*	[-1000 to 1000 / * / 1] *MP C307: 144 *MP C407: 154
3-623-	LD Power: Set	Low Speed Slope: M	ENG*	[-1000 to 1000 / * / 1]

043				*MP C307: 144 *MP C407: 154
3-623-044	LD Power: Set	Low Speed Slope: Y	ENG*	[-1000 to 1000 / * / 1] *MP C307: 144 *MP C407: 154
3-623-051	LD Power: Set	Low Speed Offset: Bk	ENG*	[-1000 to 1000 / * / 1] *MP C307: 26 *MP C407: 12
3-623-052	LD Power: Set	Low Speed Offset: C	ENG*	[-1000 to 1000 / * / 1] *MP C307: 28 *MP C407: 12
3-623-053	LD Power: Set	Low Speed Offset: M	ENG*	[-1000 to 1000 / * / 1] *MP C307: 28 *MP C407: 12
3-623-054	LD Power: Set	Low Speed Offset: Y	ENG*	[-1000 to 1000 / * / 1] *MP C307: 28 *MP C407: 12
3-623-061	LD Power: Set	Standard Speed 2 Slope: Bk	ENG*	[-1000 to 1000 / 249 / 1]
3-623-071	LD Power: Set	Standard Speed 2 Offset: Bk	ENG*	[-1000 to 1000 / -22 / 1]
3-624-001	TC Adj. Mode: Set	Target (Upper Limit)	ENG*	[0 to 1 / 0.15 / 0.01mg/cm2/-kV]
3-624-002	TC Adj. Mode: Set	Target (Lower Limit)	ENG*	[-1 to 0 / -0.15 / 0.01mg/cm2/-kV]
3-624-021	TC Adj. Mode: Set	Consump Pattern Duty:Bk	ENG*	[0 to 15 / 15 / 1]
3-624-022	TC Adj. Mode: Set	Consump Pattern Duty:C	ENG*	[0 to 15 / 15 / 1]
3-624-023	TC Adj. Mode: Set	Consump Pattern Duty:M	ENG*	[0 to 15 / 15 / 1]
3-624-024	TC Adj. Mode: Set	Consump Pattern Duty:Y	ENG*	[0 to 15 / 15 / 1]
3-624-031	TC Adj. Mode: Set	Max Adj. Counts:PowerON	ENG*	[0 to 10 / 1 / 1]
3-624-032	TC Adj. Mode	Max Counts:Job In	ENG*	[0 to 10 / 0 / 1]
3-624-	TC Adj. Mode	Max Counts:Printing	ENG*	[0 to 10 / 0 / 1]

033				
3-624-034	TC Adj. Mode: Set	Max Adj. Counts:Jobend	ENG*	[0 to 10 / 0 / 1]
3-624-035	TC Adj. Mode: Set	Max Adj. Counts:ACC	ENG*	[0 to 10 / 3 / 1]
3-624-036	TC Adj. Mode: Set	Max Adj. Counts:Initialized	ENG*	[0 to 10 / 3 / 1]
3-624-040	TC Adj. Mode: Set	Max Adj. Counts:TE Check	ENG*	[0 to 10 / 1 / 1]
3-624-051	TC Adj. Mode: Set	Supply Gain(Bk)	ENG*	[0 to 1 / 0.5 / 0.1]
3-624-052	TC Adj. Mode: Set	Supply Gain(C)	ENG*	[0 to 1 / 0.5 / 0.1]
3-624-053	TC Adj. Mode: Set	Supply Gain(M)	ENG*	[0 to 1 / 0.5 / 0.1]
3-624-054	TC Adj. Mode: Set	Supply Gain(Y)	ENG*	[0 to 1 / 0.5 / 0.1]
3-624-061	TC Adj. Mode: Set	Consump Gain(Bk)	ENG*	[0 to 1 / 0.5 / 0.1]
3-624-062	TC Adj. Mode: Set	Consump Gain(C)	ENG*	[0 to 1 / 0.5 / 0.1]
3-624-063	TC Adj. Mode: Set	Consump Gain(M)	ENG*	[0 to 1 / 0.5 / 0.1]
3-624-064	TC Adj. Mode: Set	Consump Gain(Y)	ENG*	[0 to 1 / 0.5 / 0.1]
3-627-001	ID Pattern Extraction: Set	Edge Detection Threshold: Bk	ENG*	[0 to 5 / 2.5 / 0.1V]
3-627-002	ID Pattern Extraction: Set	Edge Detection Threshold: C	ENG*	[0 to 5 / 2.5 / 0.1V]
3-627-003	ID Pattern Extraction: Set	Edge Detection Threshold: M	ENG*	[0 to 5 / 2.5 / 0.1V]
3-627-004	ID Pattern Extraction: Set	Edge Detection Threshold: Y	ENG*	[0 to 5 / 2.5 / 0.1V]
3-627-011	ID Pattern Extraction: Set	Edge Upper Limit	ENG*	[0 to 255 / * / 1point] *MP C307: 34 *MP C407: 28
3-627-012	ID Pattern Extraction: Set	Edge Upper Limit: Std Speed 2	ENG*	[0 to 255 / 24 / 1point]

3-627-021	ID Pattern Extraction: Set	Edge Lower Limit	ENG*	[0 to 255 / * / 1point] *MP C307: 14 *MP C407: 12
3-627-022	ID Pattern Extraction: Set	Edge Lower Limit: Std Speed 2	ENG*	[0 to 255 / 10 / 1point]
3-627-031	ID Pattern Extraction: Set	Vsg Upper Threshold	ENG*	[0 to 5 / 4.8 / 0.001V]
3-627-041	ID Pattern Extraction: Set	Vsg Lower Threshold	ENG*	[0 to 5 / 3 / 0.001V]
3-628-001	ID Pattern Timing: Set	Scan: YMCK	ENG*	[-500 to 500 / 0 / 0.1mm]
3-628-002	ID Pattern Timing: Set	Detection Delay Time	ENG*	[0 to 2500 / 0 / 1msec]
3-628-003	ID Pattern Timing: Set	Delay Time	ENG*	[0 to 2500 / * / 1msec] *MP C307: 701 *MP C407: 641
3-628-004	ID Pattern Timing: Set	MUSIC Delay Time	ENG*	[-2500 to 2500 / 150 / 1msec]
3-628-005	ID Pattern Timing: Set	Delay Time: Std Speed 2	ENG*	[0 to 2500 / 592 / 1msec]
3-630-001	Dev gamma: Disp/Set	Current:Bk	ENG*	[0.1 to 6 / 0.9 / 0.01mg/cm2/-kV]
3-630-002	Dev gamma: Disp/Set	Current:C	ENG*	[0.1 to 6 / 0.9 / 0.01mg/cm2/-kV]
3-630-003	Dev gamma: Disp/Set	Current:M	ENG*	[0.1 to 6 / 0.9 / 0.01mg/cm2/-kV]
3-630-004	Dev gamma: Disp/Set	Current:Y	ENG*	[0.1 to 6 / 0.9 / 0.01mg/cm2/-kV]
3-630-011	Dev gamma: Disp/Set	Target:Bk	ENG*	[0.5 to 2.55 / 0.9 / 0.01mg/cm2/-kV]
3-630-012	Dev gamma: Disp/Set	Target:C	ENG*	[0.5 to 2.55 / 0.9 / 0.01mg/cm2/-kV]
3-630-013	Dev gamma: Disp/Set	Target:M	ENG*	[0.5 to 2.55 / 0.9 / 0.01mg/cm2/-kV]
3-630-014	Dev gamma: Disp/Set	Target:Y	ENG*	[0.5 to 2.55 / 0.9 / 0.01mg/cm2/-kV]
3-630-061	Dev gamma: Disp/Set	Toner Density: Bk	ENG*	[0 to 25.5 / 0 / 0.1wt%]

3-630-062	Dev gamma: Disp/Set	Toner Density: C	ENG*	[0 to 25.5 / 0 / 0.1wt%]
3-630-063	Dev gamma: Disp/Set	Toner Density: M	ENG*	[0 to 25.5 / 0 / 0.1wt%]
3-630-064	Dev gamma: Disp/Set	Toner Density: Y	ENG*	[0 to 25.5 / 0 / 0.1wt%]
3-631-001	Development Start Vk :Display	Bk	ENG*	[-300 to 300 / 0 / 1-V]
3-631-002	Development Start Vk :Display	C	ENG*	[-300 to 300 / 0 / 1-V]
3-631-003	Development Start Vk :Display	M	ENG*	[-300 to 300 / 0 / 1-V]
3-631-004	Development Start Vk :Display	Y	ENG*	[-300 to 300 / 0 / 1-V]
3-700-001	New Unit Detection	ON/OFF Setting	ENG*	[0 or 1 / 1 / 1]
3-701-002	Manual New Unit Set	# PCU:Bk	ENG*	[0 or 1 / 0 / 1]
3-701-003	Manual New Unit Set	# Dev Unit:Bk	ENG*	[0 or 1 / 0 / 1]
3-701-025	Manual New Unit Set	# PCU:C	ENG*	[0 or 1 / 0 / 1]
3-701-026	Manual New Unit Set	# Dev Unit:C	ENG*	[0 or 1 / 0 / 1]
3-701-048	Manual New Unit Set	# PCU:M	ENG*	[0 or 1 / 0 / 1]
3-701-049	Manual New Unit Set	# Dev Unit:M	ENG*	[0 or 1 / 0 / 1]
3-701-071	Manual New Unit Set	# PCU:Y	ENG*	[0 or 1 / 0 / 1]
3-701-072	Manual New Unit Set	# Dev Unit:Y	ENG*	[0 or 1 / 0 / 1]
3-701-093	Manual New Unit Set	# ITB Unit	ENG*	[0 or 1 / 0 / 1]
3-701-102	Manual New Unit Set	# ITB Cleaning Unit	ENG*	[0 or 1 / 0 / 1]
3-701-109	Manual New Unit Set	# PTR Unit	ENG*	[0 or 1 / 0 / 1]

3-701-115	Manual New Unit Set	# Fusing Unit	ENG*	[0 or 1 / 0 / 1]
3-701-116	Manual New Unit Set	Fusing Sleeve	ENG*	[0 or 1 / 0 / 1]
3-701-118	Manual New Unit Set	Pressure Roller	ENG*	[0 or 1 / 0 / 1]
3-701-142	Manual New Unit Set	#Waste Toner Bottle	ENG*	[0 or 1 / 0 / 1]
3-701-145	Manual New Unit Set	Tray1 Roller Assembly	ENG*	[0 or 1 / 0 / 1]
3-701-147	Manual New Unit Set	#Paper Feed Roller:Tray1	ENG*	[0 or 1 / 0 / 1]
3-701-148	Manual New Unit Set	#Friction Pad:Tray1	ENG*	[0 or 1 / 0 / 1]
3-701-169	Manual New Unit Set	#Feed Roller:Bypass	ENG*	[0 or 1 / 0 / 1]
3-701-206	Manual New Unit Set	DF Friction Pad	ENG*	[0 or 1 / 0 / 1]
3-701-207	Manual New Unit Set	DF Pickup Roller	ENG*	[0 or 1 / 0 / 1]
3-701-208	Manual New Unit Set	DF Feed Roller	ENG*	[0 or 1 / 0 / 1]
3-701-220	Manual New Unit Set	Toner Sub Hopper:Bk	ENG*	[0 or 1 / 0 / 1]
3-701-221	Manual New Unit Set	Toner Sub Hopper:C	ENG*	[0 or 1 / 0 / 1]
3-701-222	Manual New Unit Set	Toner Sub Hopper:M	ENG*	[0 or 1 / 0 / 1]
3-701-223	Manual New Unit Set	Toner Sub Hopper:Y	ENG*	[0 or 1 / 0 / 1]
3-710-001	mu Concentration Control: Set	Control Method: Selection	ENG*	[0 or 1 / 1 / 1] 0: Not Use 1: Use
3-800-001	Waste Toner Full Detection	Condition	ENG*	[0 to 4 / 0 / 1]
3-800-002	Waste Toner Full Detection	Print Page After Near Full	ENG*	[0 to 10000 / 0 / 1sheet]
3-800-	Waste Toner Full Detection	Volume Count 1 After	ENG*	[0 to 100000 / 0 / 0.1]

003		Near Full		
3-800-005	Waste Toner Full Detection	Volume Count 2 After Near Full	ENG*	[0 to 1000000 / 0 / 0.1]
3-800-007	Waste Toner Full Detection	Volume Count After Replacement	ENG*	[0 to 1000000 / 0 / 0.1]
3-800-012	Waste Toner Full Detection	Remaining days Threshold	ENG*	[0 to 255 / 15 / 1]
3-800-020	Waste Toner Full Detection	Mechanical Full Detection Date	ENG*	[- / - / -]
3-810-001	Paper Interval Ext.: Low Spd	Formula: Slope	ENG*	[0 to 100 / 10 / 1%]
3-810-002	Paper Interval Ext.: Low Spd	Formula: Intercept	ENG*	[-2000 to 2000 / 0 / 1%]
3-810-003	Paper Interval Ext.: Low Spd	Formula: Upper Limit	ENG*	[100 to 2000 / 100 / 1%]

SP Tables - SP4-XXX

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 to 1 / 0 / 0.1%]
4-010-001	Sub Scan Registration Adj.		ENG*	[-1 to 1 / 0 / 0.1mm]
4-011-001	Main Scan Registration Adj.		ENG*	[-2 to 2 / 0 / 0.1mm]
4-012-001	Scanner Erase Margin: Scale	Book: Sub Scan Leading Edge (Left)	ENG*	[0 to 3 / 1 / 0.1mm]
4-012-002	Scanner Erase Margin: Scale	Book: Sub Scan Trailing Edge (Right)	ENG*	[0 to 3 / 1 / 0.1mm]
4-012-003	Scanner Erase Margin: Scale	Book: Main Scan Leading Edge (Rear)	ENG*	[0 to 3 / 1 / 0.1mm]
4-012-004	Scanner Erase Margin: Scale	Book: Main Scan Trailing Edge (Front)	ENG*	[0 to 3 / 1 / 0.1mm]
4-013-001	Scanner Free Run	Lamp OFF	ENG	[0 or 1 / 0 / 1]
4-013-002	Scanner Free Run	Lamp ON	ENG	[0 or 1 / 0 / 1]
4-014-001	Scan	HP Detection Enable	ENG	[0 or 1 / 0 / 1]
4-014-002	Scan	HP Detection Disable	ENG	[0 or 1 / 0 / 1]
4-014-003	Scan	HP Detec. On (FC 600dpi LG)	ENG	[0 or 1 / 0 / 1]
4-014-004	Scan	HP Detec. On (BW 600dpi LG)	ENG	[0 or 1 / 0 / 1]
4-014-005	Scan	HP Detec. On (FC 1200dpi LG)	ENG	[0 or 1 / 0 / 1]
4-016-001	DF Scan	FC 600 x 300dpi Duplex Mode	ENG	[0 or 1 / 0 / 1STEP]
4-016-002	DF Scan	Bk 600 x 300dpi Duplex Mode	ENG	[0 or 1 / 0 / 1STEP]
4-016-	DF Scan	FC 600 x 600dpi Duplex Mode	ENG	[0 or 1 / 0 / 1STEP]

003				
4-016-004	DF Scan	Bk 600 x 600dpi Duplex Mode	ENG	[0 or 1 / 0 / 1STEP]
4-016-005	DF Scan	Bk 600 x 200dpi Duplex Mode	ENG	[0 or 1 / 0 / 1STEP]
4-016-006	DF Scan	FC 600 x 300dpi Simplex Mode	ENG	[0 or 1 / 0 / 1STEP]
4-016-007	DF Scan	Bk 600 x 300dpi Simplex Mode	ENG	[0 or 1 / 0 / 1STEP]
4-016-008	DF Scan	FC 600 x 600dpi Simplex Mode	ENG	[0 or 1 / 0 / 1STEP]
4-016-009	DF Scan	Bk 600 x 600dpi Simplex Mode	ENG	[0 or 1 / 0 / 1STEP]
4-016-010	DF Scan	Bk 600 x 200dpi Simplex Mode	ENG	[0 or 1 / 0 / 1STEP]
4-020-001	Dust Check	Dust Detect:On/Off	ENG	[0 or 1 / 0 / 1]
4-020-002	Dust Check	Dust Detect:Lvl	ENG	[0 to 8 / 4 / 1]
4-020-003	Dust Check Lvl	Dust Reject:Lvl	ENG	[0 to 4 / 0 / 1]
4-020-011	DF Dust Check	Dust Detect Level:Rear	ENG	[0 or 1 / 0 / 1]
4-020-012	DF Dust Check	Correction Level:Rear	ENG	[0 to 8 / 4 / 1]
4-400-001	Scanner Erase Margin	Book: Sub Scan Leading Edge (Left)	ENG*	[0 to 3 / 1 / 0.1mm]
4-400-002	Scanner Erase Margin	Book: Sub Scan Leading Edge (Right)	ENG*	[0 to 3 / 1 / 0.1mm]
4-400-003	Scanner Erase Margin	Book: Main Scan Leading Edge (Rear)	ENG*	[0 to 3 / 1 / 0.1mm]
4-400-004	Scanner Erase Margin	Book: Main Scan Trailing Edge (Front)	ENG*	[0 to 3 / 1 / 0.1mm]
4-400-005	Original Erase Margin	ADF:Sub:L-Edge	ENG*	[0 to 3 / 1.6 / 0.1mm]
4-400-007	Original Erase Margin	ADF:Main:Edge	ENG*	[0 to 3 / 1.6 / 0.1mm]
4-400-	Original Erase Margin	ADF:Main:T-Edge	ENG*	[0 to 3 / 1.6 / 0.1mm]

008				
4-417-001	IPU Test Pattern	Test Pattern	ENG	[0 to 8 / 0 / 1] 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
4-429-001	Select Copy Data Security	Copying	ENG	[0 to 3 / 3 / 1]
4-429-002	Select Copy Data Security	Scanning	ENG	[0 to 3 / 3 / 1]
4-429-003	Select Copy Data Security	Fax Operation	ENG	[0 to 3 / 3 / 1]
4-460-001	Digital AE	Low Limit Value	ENG	[0 to 1023 / 364 / 1]
4-460-002	Digital AE	Background level	ENG*	[512 to 1535 / 932 / 1]
4-501-001	ACC Target Den	Copy:K:Text	ENG*	[0 to 10 / 5 / 1]
4-501-002	ACC Target Den	Copy:C:Text	ENG*	[0 to 10 / 5 / 1]
4-501-003	ACC Target Den	Copy:M:Text	ENG*	[0 to 10 / 5 / 1]
4-501-004	ACC Target Den	Copy:Y:Text	ENG*	[0 to 10 / 5 / 1]
4-501-005	ACC Target Den	Copy:K:Photo	ENG*	[0 to 10 / 5 / 1]
4-501-006	ACC Target Den	Copy:C:Photo	ENG*	[0 to 10 / 5 / 1]
4-501-007	ACC Target Den	Copy:M:Photo	ENG*	[0 to 10 / 5 / 1]

4-501-008	ACC Target Den	Copy:Y:Photo	ENG*	[0 to 10 / 5 / 1]
4-505-001	ACC Cor:Bright	Master:K	ENG*	[-128 to 127 / 0 / 1]
4-505-002	ACC Cor:Bright	Master:C	ENG*	[-128 to 127 / 0 / 1]
4-505-003	ACC Cor:Bright	Master:M	ENG*	[-128 to 127 / 0 / 1]
4-505-004	ACC Cor:Bright	Master:Y	ENG*	[-128 to 127 / 0 / 1]
4-505-005	ACC Cor:Bright	Slave:K	ENG*	[-128 to 127 / 0 / 1]
4-505-006	ACC Cor:Bright	Slave:C	ENG*	[-128 to 127 / 0 / 1]
4-505-007	ACC Cor:Bright	Slave:M	ENG*	[-128 to 127 / 0 / 1]
4-505-008	ACC Cor:Bright	Slave:Y	ENG*	[-128 to 127 / 0 / 1]
4-506-001	ACC Cor:Dark	Master:K	ENG*	[-128 to 127 / 0 / 1]
4-506-002	ACC Cor:Dark	Master:C	ENG*	[-128 to 127 / 0 / 1]
4-506-003	ACC Cor:Dark	Master:M	ENG*	[-128 to 127 / 0 / 1]
4-506-004	ACC Cor:Dark	Master:Y	ENG*	[-128 to 127 / 0 / 1]
4-506-005	ACC Cor:Dark	Slave:K	ENG*	[-128 to 127 / 0 / 1]
4-506-006	ACC Cor:Dark	Slave:C	ENG*	[-128 to 127 / 0 / 1]
4-506-007	ACC Cor:Dark	Slave:M	ENG*	[-128 to 127 / 0 / 1]
4-506-008	ACC Cor:Dark	Slave:Y	ENG*	[-128 to 127 / 0 / 1]
4-540-001	Print Coverage	RY Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-002	Print Coverage	RY Phase: R	ENG	[-256 to 255 / 0 / 1]

4-540-003	Print Coverage	RY Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-004	Print Coverage	RY Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-005	Print Coverage	YR Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-006	Print Coverage	YR Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-007	Print Coverage	YR Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-008	Print Coverage	YR Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-009	Print Coverage	YG Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-010	Print Coverage	YG Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-011	Print Coverage	YG Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-012	Print Coverage	YG Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-013	Print Coverage	GY Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-014	Print Coverage	GY Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-015	Print Coverage	GY Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-016	Print Coverage	GY Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-017	Print Coverage	GC Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-018	Print Coverage	GC Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-019	Print Coverage	GC Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-020	Print Coverage	GC Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-021	Print Coverage	CG Phase: Option	ENG	[0 to 255 / 0 / 1]

4-540-022	Print Coverage	CG Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-023	Print Coverage	CG Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-024	Print Coverage	CG Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-025	Print Coverage	CB Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-026	Print Coverage	CB Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-027	Print Coverage	CB Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-028	Print Coverage	CB Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-029	Print Coverage	BC Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-030	Print Coverage	BC Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-031	Print Coverage	BC Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-032	Print Coverage	BC Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-033	Print Coverage	BM Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-034	Print Coverage	BM Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-035	Print Coverage	BM Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-036	Print Coverage	BM Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-037	Print Coverage	MB Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-038	Print Coverage	MB Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-039	Print Coverage	MB Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-040	Print Coverage	MB Phase: B	ENG	[-256 to 255 / 0 / 1]

4-540-041	Print Coverage	MR Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-042	Print Coverage	MR Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-043	Print Coverage	MR Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-044	Print Coverage	MR Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-045	Print Coverage	RM Phase: Option	ENG	[0 to 255 / 0 / 1]
4-540-046	Print Coverage	RM Phase: R	ENG	[-256 to 255 / 0 / 1]
4-540-047	Print Coverage	RM Phase: G	ENG	[-256 to 255 / 0 / 1]
4-540-048	Print Coverage	RM Phase: B	ENG	[-256 to 255 / 0 / 1]
4-540-049	Print Coverage	WHITE: Option	ENG	[0 to 255 / 0 / 1]
4-540-050	Print Coverage	WHITE:R	ENG	[-256 to 255 / 0 / 1]
4-540-051	Print Coverage	WHITE:G	ENG	[-256 to 255 / 0 / 1]
4-540-052	Print Coverage	WHITE:B	ENG	[-256 to 255 / 0 / 1]
4-540-053	Print Coverage	BLACK: Option	ENG	[0 to 255 / 0 / 1]
4-540-054	Print Coverage	BLACK:R	ENG	[-256 to 255 / 0 / 1]
4-540-055	Print Coverage	BLACK:G	ENG	[-256 to 255 / 0 / 1]
4-540-056	Print Coverage	BLACK:B	ENG	[-256 to 255 / 0 / 1]
4-541-001	Photo Correction	Copied Photo	ENG*	[0 or 1 / 0 / 1]
4-550-005	Scan Apli:Txt/Print	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-550-006	Scan Apli:Txt/Print	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]

4-550-007	Scan Apli:Txt/Print	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-550-008	Scan Apli:Txt/Print	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-550-009	Scan Apli:Txt/Print	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-551-005	Scan Apli:Txt	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-551-006	Scan Apli:Txt	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-551-007	Scan Apli:Txt	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-551-008	Scan Apli:Txt	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-551-009	Scan Apli:Txt	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-552-005	Scan Apli:Txt Dropout	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-552-006	Scan Apli:Txt Dropout	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-552-007	Scan Apli:Txt Dropout	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-552-008	Scan Apli:Txt Dropout	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-552-009	Scan Apli:Txt Dropout	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-553-005	Scan Apli:Txt/Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-553-006	Scan Apli:Txt/Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-553-007	Scan Apli:Txt/Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-553-008	Scan Apli:Txt/Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-553-009	Scan Apli:Txt/Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-554-005	Scan Apli:Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]

4-554-006	Scan Apli:Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-554-007	Scan Apli:Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-554-008	Scan Apli:Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-554-009	Scan Apli:Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-565-005	Scan Apli:GrayScale	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-565-006	Scan Apli:GrayScale	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-565-007	Scan Apli:GrayScale	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-565-008	Scan Apli:GrayScale	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-565-009	Scan Apli:GrayScale	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-570-005	Scan Apli:Col Txt/Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-570-006	Scan Apli:Col Txt/Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-570-007	Scan Apli:Col Txt/Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-570-008	Scan Apli:Col Txt/Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-570-009	Scan Apli:Col Txt/Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-571-005	Scan Apli:Col Gloss Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-571-006	Scan Apli:Col Gloss Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-571-007	Scan Apli:Col Gloss Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-571-008	Scan Apli:Col Gloss Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-571-009	Scan Apli:Col Gloss Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]

4-572-005	Scan Apli:AutoCol	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-572-006	Scan Apli:AutoCol	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-572-007	Scan Apli:AutoCol	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-572-008	Scan Apli:AutoCol	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-572-009	Scan Apli:AutoCol	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-580-005	Fax Apli:Txt/Chart	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-580-006	Fax Apli:Txt/Chart	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-580-007	Fax Apli:Txt/Chart	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-580-008	Fax Apli:Txt/Chart	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-580-009	Fax Apli:Txt/Chart	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-580-010	Fax Apli:Txt/Chart	Texture Erase: 0	ENG	[0 to 2 / 0 / 1]
4-581-005	Fax Apli:Txt	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-581-006	Fax Apli:Txt	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-581-007	Fax Apli:Txt	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-581-008	Fax Apli:Txt	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-581-009	Fax Apli:Txt	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-582-005	Fax Apli:Txt/Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-582-006	Fax Apli:Txt/Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-582-007	Fax Apli:Txt/Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]

4-582-008	Fax Apli:Txt/Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-582-009	Fax Apli:Txt/Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-582-010	Fax Apli:Txt/Photo	Texture Erase: 0	ENG	[0 to 2 / 0 / 1]
4-583-005	Fax Apli:Photo	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-583-006	Fax Apli:Photo	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-583-007	Fax Apli:Photo	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-583-008	Fax Apli:Photo	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-583-009	Fax Apli:Photo	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-583-010	Fax Apli:Photo	Texture Erase: 0	ENG	[0 to 2 / 0 / 1]
4-584-005	Fax Apli:Original 1	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-584-006	Fax Apli:Original 1	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-584-007	Fax Apli:Original 1	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-584-008	Fax Apli:Original 1	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-584-009	Fax Apli:Original 1	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG	[0 to 7 / 0 / 1]
4-585-005	Fax Apli:Original 2	MTF: 0(Off) 1-15 (Weak-Strong)	ENG	[0 to 15 / 8 / 1]
4-585-006	Fax Apli:Original 2	Smoothing: 0(x1) 1-7 (Weak-Strong)	ENG	[0 to 7 / 4 / 1]
4-585-007	Fax Apli:Original 2	Brightness: 1-255	ENG	[1 to 255 / 128 / 1]
4-585-008	Fax Apli:Original 2	Contrast: 1-255	ENG	[1 to 255 / 128 / 1]
4-585-009	Fax Apli:Original 2	Independent Dot Erase (0)/ 1-7 (Strong)	ENG	[0 to 7 / 0 / 1]

4-600-001	SCN Version Display	SCN ID	ENG	[0x00 to 0xFF / 0 / 1]
4-609-001	Gray Balance Set: R	Book Scan	ENG*	[-384 to 255 / -100 / 1digit]
4-609-002	Gray Balance Set: R	DF Scan	ENG*	[-384 to 255 / -100 / 1digit]
4-610-001	Gray Balance Set: G	Book Scan	ENG*	[-384 to 255 / -100 / 1digit]
4-610-002	Gray Balance Set: G	DF Scan	ENG*	[-384 to 255 / -100 / 1digit]
4-611-001	Gray Balance Set: B	Book Scan	ENG*	[-384 to 255 / -100 / 1digit]
4-611-002	Gray Balance Set: B	DF Scan	ENG*	[-384 to 255 / -100 / 1digit]
4-646-001	Scan Adjust Error	White level	ENG*	[0 to 65535 / 0 / 1]
4-646-002	Scan Adjust Error	Black level	ENG*	[0 to 65535 / 0 / 1]
4-647-001	Scanner Hard Error	Power-ON	ENG	[0 to 65535 / 0 / 1]
4-688-001	DF Density Adjustment	ARDF	ENG*	[80 to 120 / 100 / 1%]
4-688-002	DF Density Adjustment	1-Pass	ENG*	[80 to 120 / 100 / 1%]
4-703-001	Scan Mode Selection	Copying	ENG	[0 or 1 / 0 / 1]
4-703-002	Scan Mode Selection	Scanning	ENG	[0 or 1 / 0 / 1]
4-712-001	CIS GB Adj. Value: R		ENG*	[-384 to 255 / -89 / 1digit]
4-713-001	CIS GB Adj. Value: G		ENG*	[-384 to 255 / -76 / 1digit]
4-714-001	CIS GB Adj. Value: B		ENG*	[-384 to 255 / -85 / 1digit]
4-723-001	OUTPUT Check	Scanner Lamp: Color	ENG	[0 or 1 / 0 / 1]
4-745-001	CIS Scan Adjust Error	White level	ENG	[0 to 65535 / 0 / 1]

4-745-002	CIS Scan Adjust Error	Black level	ENG	[0 to 65535 / 0 / 1]
4-746-001	CIS GB Adj Error Flag		ENG	[0 to 7 / 0 / 1]
4-747-001	CIS Scanner Hard Error	Power-ON	ENG	[0 to 65535 / 0 / 1]
4-785-001	CIS White Level Peak Target	Color	ENG*	[0 to 1024 / 707 / 1digit]
4-796-001	Low Density Color Correction	Front Side	ENG*	[0 to 3 / 0 / 1] 0: OFF 1: WEAK 2: MEDIUM 3: STRONG
4-796-002	Low Density Color Correction	Rear Side	ENG*	[0 to 3 / 0 / 1] 0: OFF 1: WEAK 2: MEDIUM 3: STRONG
4-797-001	Rear Side: Digital AE	Low Limit Setting	ENG	[0 to 1023 / 364 / 1]
4-797-002	Rear Side: Digital AE	Background Erase Level	ENG*	[512 to 1535 / 932 / 1]
4-799-001	CIS Test Pattern Change		ENG	[0 to 255 / 0 / 1]
4-802-001	DF Shading FreeRun	Lamp OFF	ENG	[0 or 1 / 0 / 1]
4-802-002	DF Shading FreeRun	Lamp ON	ENG	[0 or 1 / 0 / 1]
4-803-001	Home Position Adj.		ENG*	[-1.5 to 1 / 0 / 0.1mm]
4-804-001	Home Position Operation		ENG	[0 or 1 / 0 / 1]
4-806-001	Carriage Retract Operation		ENG	[0 or 1 / 0 / 1]
4-902-001	Disp ACC Data	R_DATA1	ENG*	[0 to 255 / 0 / 1]
4-902-002	Disp ACC Data	G_DATA1	ENG*	[0 to 255 / 0 / 1]

4-902-003	Disp ACC Data	B_DATA1	ENG*	[0 to 255 / 0 / 1]
4-902-004	Disp ACC Data	R_DATA2	ENG*	[0 to 255 / 0 / 1]
4-902-005	Disp ACC Data	G_DATA2	ENG*	[0 to 255 / 0 / 1]
4-902-006	Disp ACC Data	B_DATA2	ENG*	[0 to 255 / 0 / 1]
4-903-001	Filter Setting	Ind Dot Erase: Text	ENG*	[0 to 7 / 0 / 1]
4-903-002	Filter Setting	Ind Dot Erase: Generation Copy	ENG*	[0 to 7 / 0 / 1]
4-905-001	Select Gradation Level		ENG*	[0 to 255 / 0 / 1]
4-907-001	Gamma Correction	Stamp Entry	ENG	[0 to 2 / 1 / 1]
4-918-009	Man Gamma Adj		ENG	[0 to 0 / 0 / 0]
4-930-001	Coverage Ctrl: Text	Copy: Full Color 1	ENG	[0 to 400 / 200 / 1]
4-930-002	Coverage Ctrl: Text	Copy: Full Color 2	ENG	[0 to 400 / 200 / 1]
4-930-003	Coverage Ctrl: Text	Copy: Single Color	ENG	[0 to 400 / 100 / 1]
4-930-004	Coverage Ctrl: Text	Copy: Color Conversion	ENG	[0 to 400 / 180 / 1]
4-930-005	Coverage Ctrl: Text	Coverage Ctrl OFF	ENG	[0 to 400 / 400 / 1]
4-931-001	Coverage Ctrl: Photo	Copy: Full Color 1	ENG	[0 to 400 / 240 / 1]
4-931-002	Coverage Ctrl: Photo	Copy: Full Color 2	ENG	[0 to 400 / 260 / 1]
4-931-003	Coverage Ctrl: Photo	Copy: Single Color	ENG	[0 to 400 / 100 / 1]
4-931-004	Coverage Ctrl: Photo	Copy: Color Conversion	ENG	[0 to 400 / 200 / 1]
4-931-005	Coverage Ctrl: Photo	Coverage Ctrl OFF	ENG	[0 to 400 / 400 / 1]

4-938-001	ACS:Edge Mask	Copy:Sub LEdge	ENG*	[0 to 31 / 10 / 1mm]
4-938-002	ACS:Edge Mask	Copy:Sub TEdge	ENG*	[0 to 31 / 10 / 1mm]
4-938-003	ACS:Edge Mask	Copy:Main LEdge	ENG*	[0 to 31 / 10 / 1mm]
4-938-004	ACS:Edge Mask	Copy:Main TEdge	ENG*	[0 to 31 / 10 / 1mm]
4-938-005	ACS:Edge Mask	Scan:Sub LEdge	ENG*	[0 to 31 / 15 / 1mm]
4-938-006	ACS:Edge Mask	Scan:Sub TEdge	ENG*	[0 to 31 / 15 / 1mm]
4-938-007	ACS:Edge Mask	Scan:Main LEdge	ENG*	[0 to 31 / 15 / 1mm]
4-938-008	ACS:Edge Mask	Scan:Main TEdge	ENG*	[0 to 31 / 15 / 1mm]
4-939-001	ACS:Color Range		ENG*	[-2 to 2 / 0 / 1]
4-954-005	Restore Test Chart	Chromaticity Rank	ENG*	[0 to 255 / 0 / 1]
4-958-001	Read/Restore Std: Rear	Read New Chart	ENG	[0 or 1 / 0 / 1]
4-958-002	Read/Restore Std: Rear	Recall Prev Chart	ENG	[0 or 1 / 0 / 1]
4-958-004	Read/Restore Std: Rear	Set Std Chart	ENG	[0 or 1 / 0 / 1]
4-958-005	Restore Test Chart: Rear	Chromaticity Rank	ENG*	[0 to 255 / 0 / 1]
4-993-001	High Light Correction	Sensitivity Selection	ENG	[0 to 9 / 4 / 1]
4-993-002	High Light Correction	Range Selection	ENG	[0 to 9 / 4 / 1]
4-994-001	Adj Txt/Photo Recog Level	High Compression PDF	ENG	[0 to 2 / 1 / 1]
4-996-001	White Paper Detection Level		ENG	[0 to 6 / 3 / 1]

SP Tables - SP5-XXX

SP5-XXX (Engine: Mode)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-131-001	Paper Size Type Selection		ENG*	[0 to 2 / * / 1] *NA: 1 *EU, AA, CHN, TWN, KOR: 2 0: JP 1: NA 2: EU/ASIA
5-186-001	RK4 Pulling		ENG*	[0 or 1 / 0 / 1]
5-610-004	Base Gamma Ctrl Pt:Execute	Get Factory Default	ENG	[0 or 1 / 0 / 1]
5-610-005	Base Gamma Ctrl Pt:Execute	Set Factory Default	ENG	[0 or 1 / 0 / 1]
5-610-006	Base Gamma Ctrl Pt:Execute	Restore Orginal Value	ENG	[0 or 1 / 0 / 1]
5-611-001	Toner Color in 2C	B-C	ENG	[0 to 128 / 100 / 1]
5-611-002	Toner Color in 2C	B-M	ENG	[0 to 128 / 100 / 1]
5-611-003	Toner Color in 2C	G-C	ENG	[0 to 128 / 100 / 1]
5-611-004	Toner Color in 2C	G-Y	ENG	[0 to 128 / 100 / 1]
5-611-005	Toner Color in 2C	R-M	ENG	[0 to 128 / 100 / 1]
5-611-006	Tonner Color in 2C	R-Y	ENG	[0 to 128 / 100 / 1]
5-801-002	Memory Clear	Engine	ENG	[0 or 1 / 0 / 1]
5-807-001	Area Selection		ENG*	[1 to 7 / 2 / 1] 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 or 1 / 0 / 1]
5-810-002	Fusing SC Reset	Hard High Temp. Detection	ENG	[0 or 1 / 0 / 1]
5-811-002	Machine Serial	Display	ENG*	[0 to 255 / 0 / 1]
5-894-001	External Counter Option Set	Counter Mode Switch Setting	ENG*	[0 to 2 / 0 / 1]
5-900-001	Engine Log Upload	Pattern	ENG*	[0 to 4 / 0 / 1]
5-900-002	Engine Log Upload	Trigger	ENG*	[0 to 3 / 0 / 1]
5-987-001	Mech. Counter Protection	0:OFF / 1:ON	ENG*	[0 or 1 / 0 / 1]
5-998-001	Fusing Precedence Warm Up	On/Off	ENG*	[0 or 1 / 1 / 1] 0: OFF 1: ON

SP5-XXX (Controller: 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]
5-009-202	Add display language	9-16	CTL*	[0 to 255 / 0 / 1]
5-009-203	Add display language	17-24	CTL*	[0 to 255 / 0 / 1]
5-009-204	Add display language	25-32	CTL*	[0 to 255 / 0 / 1]

5-009-205	Add display language	33-40	CTL*	[0 to 255 / 0 / 1]
5-009-206	Add display language	41-48	CTL*	[0 to 255 / 0 / 1]
5-009-207	Add display language	49-56	CTL*	[0 to 255 / 0 / 1]
5-024-001	mm/inch Display Selection	0:mm 1:inch	CTL*	[0 to 1 / * / 1] *NA: 1 *Others: 0
5-045-001	Accounting counter	Counter Method	CTL*	[0 to 7 / 0 / 1] 0: Developments 1: Prints 2: Coverage 7: Coverage (YMC)
5-047-001	Paper Display	Backing Paper	CTL*	[0 to 1 / 0 / 1] 0: OFF, 1:ON
5-051-001	TonerRefillDetectionDisplay		CTL*	[0 to 1 / 0 / 1]
5-055-001	Display IP address		CTL*	[0 to 1 / 0 / 1]
5-062-002	Part Replacement Alert Display	#PCU:Bk	CTL*	[0 to 1 / 0 / 1]
5-062-025	Part Replacement Alert Display	#PCU:C	CTL*	[0 to 1 / 0 / 1]
5-062-048	Part Replacement Alert Display	#PCU:M	CTL*	[0 to 1 / 0 / 1]
5-062-071	Part Replacement Alert Display	#PCU:Y	CTL*	[0 to 1 / 0 / 1]
5-200	Part Replacement Alert	#Image Transfer Belt Unit	CTL*	[0 to 1 / 0 / 1]

062-093	Display			
5-062-109	Part Replacement Alert Display	#Paper Transfer Roller Unit	CTL*	[0 to 1 / 0 / 1]
5-062-115	Part Replacement Alert Display	#Fusing Unit	CTL*	[0 to 1 / 0 / 1]
5-062-116	Part Replacement Alert Display	Fusing Sleeve	CTL*	[0 to 1 / 0 / 1]
5-062-118	Part Replacement Alert Display	Pressure Roller	CTL*	[0 to 1 / 0 / 1]
5-062-142	Part Replacement Alert Display	#Wast Toner bottle	CTL*	[0 to 1 / 0 / 1]
5-062-147	Part Replacement Alert Display	#Paper Feed Roller:Tray1	CTL*	[0 to 1 / 0 / 1]
5-062-148	Part Replacement Alert Display	#Friction Pad:Tray1	CTL*	[0 to 1 / 0 / 1]
5-062-169	Part Replacement Alert Display	#Feed Roller:Bypass	CTL*	[0 to 1 / 0 / 1]
5-066-001	PM Parts Display		CTL*	[0 to 1 / 0 / 1]
5-067-002	Part Replacement Operation Type	#PCU:Bk	CTL*	[0 to 1 / 0 / 1]
5-067-025	Part Replacement Operation Type	#PCU:C	CTL*	[0 to 1 / 0 / 1]
5-067-048	Part Replacement Operation Type	#PCU:M	CTL*	[0 to 1 / 0 / 1]

5-067-071	Part Replacement Operation Type	#PCU:Y	CTL*	[0 to 1 / 0 / 1]
5-067-093	Part Replacement Operation Type	#Image Transfer Belt Unit	CTL*	[0 to 1 / 0 / 1]
5-067-109	Part Replacement Operation Type	#Paper Transfer Roller Unit	CTL*	[0 to 1 / 0 / 1]
5-067-115	Part Replacement Operation Type	#Fusing Unit	CTL*	[0 to 1 / 0 / 1]
5-067-116	Part Replacement Operation Type	Fusing Sleeve	CTL*	[0 to 1 / 0 / 1]
5-067-118	Part Replacement Operation Type	Pressure Roller	CTL*	[0 to 1 / 0 / 1]
5-067-142	Part Replacement Operation Type	#Wast Toner bottle	CTL*	[0 to 1 / 0 / 1]
5-067-147	Part Replacement Operation Type	#Paper Feed Roller:Tray1	CTL*	[0 to 1 / 0 / 1]
5-067-148	Part Replacement Operation Type	#Friction Pad:Tray1	CTL*	[0 to 1 / 0 / 1]
5-067-169	Part Replacement Operation Type	#Feed Roller:Bypass	CTL*	[0 to 1 / 0 / 1]
5-071-001	Set Bypass Paper Size Display		CTL*	[0 to 1 / 0 / 1] 0: Disable, 1: Enable
5-074-002	Home Key Customization	Login Setting	CTL*	[0 to 255 / 0 / 1]
5-074-050	Home Key Customization	Show Home Edit Menu	CTL*	[0 to 2 / 0 / 1]

5-074-091	Home Key Customization	Function Setting	CTL*	[0 to 2 / 0 / 1]
5-074-092	Home Key Customization	Product ID	CTL*	[0 to 0xffffffff / 0 / 1]
5-074-093	Home Key Customization	Application Screen ID	CTL*	[0 to 255 / 0 / 1]
5-075-003	USB Keyboard	Display setting	CTL*	[0 to 1 / 0 / 1]
5-076-001	Copy:LT/LG Mixed Sizes Setting	0:OFF 1:ON	CTL*	[0 to 1 / * / 1] *NA: 1 *Others: 0
5-081-001	ServiceSP Entry Code Setting		CTL*	[0 to 0 / 0 / 0] **DFU**
5-083-001	LED Light Switch Setting	Toner Near End	CTL*	[0 to 1 / 0 / 1]
5-083-002	LED Light Switch Setting	Waste Toner Near End	CTL*	[0 to 1 / 0 / 1]
5-101-202	Copy Auto Clear Setting	Auto Clear Timer Setting (0:ON 1:OFF)	CTL*	[0 to 1 / 0 / 1]
5-113-001	Optional Counter Type	Default Optional Counter Type	CTL*	[0 to 8 / 0 / 1] 0: None, 1: Key card (RK 3, 4) 2: Key card (down), 3: Prepaid card 4: Coin lock, 5: MF key card 8: Key counter + Vendor 9: Bar-code Printer
5-113-002	Optional Counter Type	External Optional Counter Type	CTL*	[0 to 3 / 0 / 1] 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] 0: Not installed / 1: Installed (scanning accounting)
5-118-001	Disable Copying		CTL*	[0 to 1 / 0 / 1] 0: Enabled, 1: Disabled
5-120-001	Mode Clear Opt. Counter Removal	0:Yes 1:StandBy 2:No	CTL*	[0 to 2 / 0 / 1]
5-121-001	Counter Up Timing	0:Feed 1:Exit	CTL*	[0 to 1 / 0 / 1]
5-127-001	APS OFF Mode		CTL*	[0 to 1 / 0 / 1] 0: Not disabled 1: Disabled
5-128-001	Code Mode With Key/Card Option		CTL*	[0 to 1 / 0 / 1] 0: not used in combination 1: used in combination
5-167-001	Fax Printing Mode at Optional Counter Off		CTL*	[0 to 1 / 0 / 1] 0: Automatic printing 1: No automatic printing
5-169-001	CE Login		CTL*	[0 to 1 / 0 / 1] 0: Disabled 1: Enabled
5-188-001	Copy Nv Version		CTL*	[0 to 0 / 0 / 0]
5-191-001	Mode Set	Power Str Set	CTL*	[0 to 1 / 1 / 1]
5-195-001	Limitless SW		CTL*	[0 to 1 / 0 / 1] 0: Productivity Precede 1: Use paper up
5-212-	Page Numbering	Duplex Printout Left/Right Position of Left/Right Facing	CTL*	[-10 to 10 / 0 / 0.01mm]

003				
5-212-004	Page Numbering	Duplex Printout Top/Bottom Position of Left/Right Facing	CTL*	[-10 to 10 / 0 / 0.01mm]
5-212-018	Page Numbering	Duplex Printout Left/Right Position of Top/Bottom Facing	CTL*	[-10 to 10 / 0 / 0.01mm]
5-212-019	Page Numbering	Duplex Printout Top/Bottom Position of Top/Bottom Facing	CTL*	[-10 to 10 / 0 / 0.01mm]
5-227-201	Page Numbering	Allow Page No. Entry	CTL*	[2 to 9 / 9 / 1]
5-227-202	Page Numbering	Zero Surplus Setting	CTL*	[0 to 1 / 0 / 1]
5-302-002	Set Time	Time Difference	CTL*	[-1440 to 1440 / * / 1] *NA: -300 *EU: 60 *AA, CHN, TWN: 480
5-305-101	Auto Off Set	Auto Off Limit Set	CTL*	[0 to 1 / 0 / 1]
5-307-001	Daylight Saving Time	Setting	CTL*	[0 to 1 / * / 1] *NA, EU: 1 *AA, CHN, TWN: 0
5-307-003	Daylight Saving Time	Rule Set(Start)	CTL*	[0 to 0xffffffff / * / 1] *NA: 0x03200210 *EU: 0x03500010 *AA: 0x10500010 *CHN, TWN: 0
5-307-004	Daylight Saving Time	Rule Set(End)	CTL*	[0 to 0xffffffff / 0 / 1] *NA: 0x11100200 *EU: 0x10500100 *AA: 0x03100000 *CHN, TWN: 0
5-401-103	Access Control	Default Document ACL	CTL*	[0 to 3 / 0 / 1]

5-401-104	Access Control	Authentication Time	CTL*	[0 to 255 / 0 / 1sec]
5-401-162	Access Control	Extend Certification Detail	CTL*	[0 to 0xff / 0 / 1]
5-401-200	Access Control	SDK1 UniqueID	CTL*	[0 to 0xFFFFFFFF / 0 / 1]
5-401-201	Access Control	SDK1 Certification Method	CTL*	[0 to 0xFF / 0 / 1]
5-401-210	Access Control	SDK2 UniqueID	CTL*	[0 to 0xFFFFFFFF / 0 / 1]
5-401-211	Access Control	SDK2 Certification Method	CTL*	[0 to 0xFF / 0 / 1]
5-401-220	Access Control	SDK3 UniqueID	CTL*	[0 to 0xFFFFFFFF / 0 / 1]
5-401-221	Access Control	SDK3 Certification Method	CTL*	[0 to 0xFF / 0 / 1]
5-401-230	Access Control	SDK Certification Device	CTL*	[0 to 0xff / 0 / 1]
5-401-240	Access Control	Detail Option	CTL*	[0 to 0xff / 0 / 1]
5-402-101	Access Control	SDKJ1 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-102	Access Control	SDKJ2 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-103	Access Control	SDKJ3 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]

5-402-104	Access Control	SDKJ4 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-105	Access Control	SDKJ5 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-106	Access Control	SDKJ6 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-107	Access Control	SDKJ7 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-108	Access Control	SDKJ8 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-109	Access Control	SDKJ9 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-110	Access Control	SDKJ10 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-111	Access Control	SDKJ11 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-112	Access Control	SDKJ12 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-113	Access Control	SDKJ13 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-114	Access Control	SDKJ14 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-115	Access Control	SDKJ15 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-116	Access Control	SDKJ16 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]

5-402-117	Access Control	SDKJ17 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-118	Access Control	SDKJ18 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-119	Access Control	SDKJ19 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-120	Access Control	SDKJ20 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-121	Access Control	SDKJ21 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-122	Access Control	SDKJ22 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-123	Access Control	SDKJ23 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-124	Access Control	SDKJ24 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-125	Access Control	SDKJ25 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-126	Access Control	SDKJ26 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-127	Access Control	SDKJ27 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-128	Access Control	SDKJ28 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-129	Access Control	SDKJ29 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]

5-402-130	Access Control	SDKJ30 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-141	Access Control	SDKJ1 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-142	Access Control	SDKJ2 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-143	Access Control	SDKJ3 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-144	Access Control	SDKJ4 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-145	Access Control	SDKJ5 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-146	Access Control	SDKJ6 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-147	Access Control	SDKJ7 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-148	Access Control	SDKJ8 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-149	Access Control	SDKJ9 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-150	Access Control	SDKJ10 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-151	Access Control	SDKJ11 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-152	Access Control	SDKJ12 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]

5-402-153	Access Control	SDKJ13 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-154	Access Control	SDKJ14 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-155	Access Control	SDKJ15 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-156	Access Control	SDKJ16 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-157	Access Control	SDKJ17 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-158	Access Control	SDKJ18 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-159	Access Control	SDKJ19 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-160	Access Control	SDKJ20 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-161	Access Control	SDKJ21 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-162	Access Control	SDKJ22 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-163	Access Control	SDKJ23 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-164	Access Control	SDKJ24 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-165	Access Control	SDKJ25 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]

5-402-166	Access Control	SDKJ26 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-167	Access Control	SDKJ27 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-168	Access Control	SDKJ28 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-169	Access Control	SDKJ29 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-170	Access Control	SDKJ30 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-404-001	User Code Count Clear	User Code Count Clear	CTL*	[0 to 0 / 0 / 0]
5-404-101	User Code Count Clear	User Code Count Clear Permit Setting	CTL*	[0 to 1 / 0 / 1]
5-411-004	LDAP-Certification	Simplified Authentication	CTL*	[0 to 1 / 1 / 1] 1: On, 0: Off
5-411-005	LDAP-Certification	Password Null Not Permit	CTL*	[0 to 1 / 1 / 1] 0: Password NULL not permitted. 1: Password NULL permitted.
5-411-006	LDAP-Certification	Detail Option	CTL*	[0 to 0xff / 0 / 1]
5-412-100	Krb-Certification	Encrypt Mode	CTL*	[0 to 0xFF / 0x1F / 1]
5-413-001	Lockout Setting	Lockout On/Off	CTL*	[0 to 1 / 0 / 1] 0: Off, 1: On
5-	Lockout Setting	Lockout Threshold	CTL*	[1 to 10 / 5 / 1]

413-002				
5-413-003	Lockout Setting	Cancelation On/Off	CTL*	[0 to 1 / 0 / 1] 0: Off, 1: On
5-413-004	Lockout Setting	Cancelation Time	CTL*	[1 to 9999 / 60 / 1min]
5-414-001	Access Mitigation	Mitigation On/Off	CTL*	[0 to 1 / 0 / 1] 0: Off, 1: On
5-414-002	Access Mitigation	Mitigation Time	CTL*	[0 to 60 / 15 / 1min]
5-415-001	Password Attack	Permissible Number	CTL*	[0 to 100 / 30 / 1]
5-415-002	Password Attack	Detect Time	CTL*	[1 to 10 / 5 / 1]
5-416-001	Access Information	Access User Max Num	CTL*	[50 to 200 / 200 / 1]
5-416-002	Access Information	Access Password Max Num	CTL*	[50 to 200 / 200 / 1]
5-416-003	Access Information	Monitor Interval	CTL*	[1 to 10 / 3 / 1]
5-417-001	Access Attack	Access Permissible Number	CTL*	[0 to 500 / 100 / 1]
5-417-002	Access Attack	Attack Detect Time	CTL*	[10 to 30 / 10 / 1sec]
5-417-003	Access Attack	Productivity Fall Waite	CTL*	[0 to 9 / 3 / 1sec]

5-417-004	Access Attack	Attack Max Num	CTL*	[50 to 200 / 200 / 1]
5-420-001	User Authentication	Copy	CTL*	[0 to 1 / 0 / 1] 0: On, 1: Off
5-420-002	User Authentication	Color Security Setting	CTL*	[0 to 255 / 0 / 1]
5-420-011	User Authentication	DocumentServer	CTL*	[0 to 1 / 0 / 1] 0: On, 1: Off
5-420-021	User Authentication	Fax	CTL*	[0 to 1 / 0 / 1] 0: On, 1: Off
5-420-031	User Authentication	Scanner	CTL*	[0 to 1 / 0 / 1] 0: On, 1: Off
5-420-041	User Authentication	Printer	CTL*	[0 to 1 / 0 / 1] 0: On, 1: Off
5-420-051	User Authentication	SDK1	CTL*	[0 to 1 / 0 / 1] 0: On, 1: Off
5-420-061	User Authentication	SDK2	CTL*	[0 to 1 / 0 / 1] 0: On, 1: Off
5-420-071	User Authentication	SDK3	CTL*	[0 to 1 / 0 / 1] 0: On, 1: Off
5-420-081	User Authentication	Browser	CTL*	[0 to 1 / 0 / 1]
5-430-001	Auth Dialog Message Change	Message Change On/Off	CTL*	[0 to 1 / 0 / 1] 0: Off, 1: On
5-430-002	Auth Dialog Message Change	Message Text Download	CTL	[0 to 0 / 0 / 0]

5-430-003	Auth Dialog Message Change	Message Text ID	CTL	[0 to 0 / 0 / 0]
5-431-010	External Auth User Preset	Tag	CTL*	[0 to 1 / 1 / 1]
5-431-011	External Auth User Preset	Entry	CTL*	[0 to 1 / 1 / 1]
5-431-012	External Auth User Preset	Group	CTL*	[0 to 1 / 1 / 1]
5-431-020	External Auth User Preset	Mail	CTL*	[0 to 1 / 1 / 1]
5-431-030	External Auth User Preset	Fax	CTL*	[0 to 1 / 1 / 1]
5-431-031	External Auth User Preset	FaxSub	CTL*	[0 to 1 / 1 / 1]
5-431-032	External Auth User Preset	Folder	CTL*	[0 to 1 / 1 / 1]
5-431-033	External Auth User Preset	ProtectCode	CTL*	[0 to 1 / 1 / 1]
5-431-034	External Auth User Preset	SmtpAuth	CTL*	[0 to 1 / 1 / 1]
5-431-035	External Auth User Preset	LdapAuth	CTL*	[0 to 1 / 1 / 1]
5-431-036	External Auth User Preset	Smb Ftp Fldr Auth	CTL*	[0 to 1 / 1 / 1]
5-431-037	External Auth User Preset	AcntAcl	CTL*	[0 to 1 / 1 / 1]

5-431-038	External Auth User Preset	DocumentAcl	CTL*	[0 to 1 / 1 / 1]
5-431-040	External Auth User Preset	CertCrypt	CTL*	[0 to 1 / 0 / 1]
5-431-050	External Auth User Preset	UserLimitCount	CTL*	[0 to 1 / 1 / 1]
5-481-001	Authentication Error Code	System Log Disp	CTL*	[0 to 1 / 0 / 1] 0: Off, 1: On
5-481-002	Authentication Error Code	Panel Disp	CTL*	[0 to 1 / 1 / 1] 1: On, 0: Off
5-490-001	MF KeyCard	Job Permit Setting	CTL*	[0 to 1 / 0 / 1] 0: Disabled 1: Enabled
5-490-002	MF KeyCard	Count Mode Setting	CTL*	[0 to 1 / 0 / 1]
5-491-001	Optional Counter	Detail Option	CTL*	[0 to 0xff / 0 / 1]
5-501-001	PM Alarm	PM Alarm Level	CTL*	[0 to 9999 / 0 / 1]
5-501-002	PM Alarm	Original Count Alarm	CTL*	[0 to 1 / 0 / 1]
5-504-001	Jam Alarm		CTL*	[0 to 3 / 3 / 1] 0: Zero (Off) 1: Low (2.5K jams) 2: Medium (3K jams) 3: High (6K jams)
5-504-002	Jam Alarm	Threshold	CTL*	[1 to 99 / 10 / 1]
5-	Error Alarm		CTL*	[0 to 255 / 19 / 1]

505-001				
5-505-002	Error Alarm	Threshold	CTL*	[1 to 99 / 5 / 1]
5-507-001	Supply/CC Alarm	Paper Supply Alarm	CTL*	[0 to 1 / 0 / 1] 0: Off, 1: On
5-507-003	Supply/CC Alarm	Toner Supply Alarm	CTL*	[0 to 1 / 1 / 1] 0: Off, 1: On
5-507-080	Supply/CC Alarm	Toner Call Timing	CTL*	[0 to 1 / 0 / 1] 0: At replacement 1: AtLessThanThresh
5-507-081	Supply/CC Alarm	Toner Call Threshold	CTL*	[10 to 90 / 10 / 10%]
5-507-128	Supply/CC Alarm	Interval: Others	CTL*	[250 to 10000 / 1000 / 1]
5-507-133	Supply/CC Alarm	Interval: A4	CTL*	[250 to 10000 / 1000 / 1]
5-507-134	Supply/CC Alarm	Interval: A5	CTL*	[250 to 10000 / 1000 / 1]
5-507-142	Supply/CC Alarm	Interval: B5	CTL*	[250 to 10000 / 1000 / 1]
5-507-164	Supply/CC Alarm	Interval: LG	CTL*	[250 to 10000 / 1000 / 1]
5-507-166	Supply/CC Alarm	Interval: LT	CTL*	[250 to 10000 / 1000 / 1]
5-507-172	Supply/CC Alarm	Interval: HLT	CTL*	[250 to 10000 / 1000 / 1]

5-508-001	CC Call	Jam Remains	CTL*	[0 to 1 / 1 / 1] 0: Disable, 1: Enable
5-508-002	CC Call	Continuous Jams	CTL*	[0 to 1 / 1 / 1] 0: Disable, 1: Enable
5-508-003	CC Call	Continuous Door Open	CTL*	[0 to 1 / 1 / 1] 0: Disable, 1: Enable
5-508-011	CC Call	Jam Detection: Time Length	CTL*	[3 to 30 / 10 / 1]
5-508-012	CC Call	Jam Detection: Continuous Count	CTL*	[2 to 10 / 5 / 1]
5-508-013	CC Call	Door Open: Time Length	CTL*	[3 to 30 / 10 / 1]
5-515-001	SC/Alarm Setting	SC Call	CTL*	[0 to 1 / 1 / 1] 0: Off, 1: On
5-515-002	SC/Alarm Setting	Service Parts Near End Call	CTL*	[0 to 1 / 1 / 1]
5-515-003	SC/Alarm Setting	Service Parts End Call	CTL*	[0 to 1 / 1 / 1]
5-515-004	SC/Alarm Setting	User Call	CTL*	[0 to 1 / 1 / 1]
5-515-006	SC/Alarm Setting	Communication Test Call	CTL*	[0 to 1 / 1 / 1]
5-515-007	SC/Alarm Setting	Machine Information Notice	CTL*	[0 to 1 / 1 / 1]
5-515-008	SC/Alarm Setting	Alarm Notice	CTL*	[0 to 1 / 1 / 1]

5-515-009	SC/Alarm Setting	Non Genuine Tonner Ararm	CTL*	[0 to 1 / 1 / 1]
5-515-010	SC/Alarm Setting	Supply Automatic Ordering Call	CTL*	[0 to 1 / 1 / 1]
5-515-011	SC/Alarm Setting	Supply Management Report Call	CTL*	[0 to 1 / 1 / 1]
5-515-012	SC/Alarm Setting	Jam/Door Open Call	CTL*	[0 to 1 / 1 / 1]
5-515-050	SC/Alarm Setting	Timeout:Manual Call	CTL*	[1 to 255 / 5 / 1min]
5-515-051	SC/Alarm Setting	Timeout:Other Call	CTL*	[1 to 255 / 10 / 1min]
5-517-061	Get Machine Information	AutoDiscovery Execution Setting	CTL*	[0 to 1 / 0 / 1]
5-517-062	Get Machine Information	AutoDiscovery Execution Interval	CTL*	[0 to 1 / 0 / 1]
5-517-063	Get Machine Information	AutoDiscovery Execution Weekday	CTL*	[0 to 6 / 0 / 1]
5-517-064	Get Machine Information	AutoDiscovery Execution Hour	CTL*	[0 to 23 / 0 / 1]
5-517-065	Get Machine Information	AutoDiscovery Execution Minute	CTL*	[0 to 59 / 0 / 1]
5-517-066	Get Machine Information	AutoDiscovery SNMP Community Name	CTL*	[0 to 0 / 0 / 0]
5-618-001	Color Mode Display Selection		CTL*	[0 to 1 / 1 / 1]

5-728-001	Network Setting	NAT Machine Port1	CTL*	[1 to 65535 / 49101 / 1]
5-728-002	Network Setting	NAT UI Port1	CTL*	[1 to 65535 / 55101 / 1]
5-728-003	Network Setting	NAT Machine Port2	CTL*	[1 to 65535 / 49102 / 1]
5-728-004	Network Setting	NAT UI Port2	CTL*	[1 to 65535 / 55102 / 1]
5-728-005	Network Setting	NAT Machine Port3	CTL*	[1 to 65535 / 49103 / 1]
5-728-006	Network Setting	NAT UI Port3	CTL*	[1 to 65535 / 55103 / 1]
5-728-007	Network Setting	NAT Machine Port4	CTL*	[1 to 65535 / 49104 / 1]
5-728-008	Network Setting	NAT UI Port4	CTL*	[1 to 65535 / 55104 / 1]
5-728-009	Network Setting	NAT Machine Port5	CTL*	[1 to 65535 / 49105 / 1]
5-728-010	Network Setting	NAT UI Port5	CTL*	[1 to 65535 / 55105 / 1]
5-728-011	Network Setting	NAT Machine Port6	CTL*	[1 to 65535 / 49106 / 1]
5-728-012	Network Setting	NAT UI Port6	CTL*	[1 to 65535 / 55106 / 1]
5-728-013	Network Setting	NAT Machine Port7	CTL*	[1 to 65535 / 49107 / 1]

5-728-014	Network Setting	NAT UI Port7	CTL*	[1 to 65535 / 55107 / 1]
5-728-015	Network Setting	NAT Machine Port8	CTL*	[1 to 65535 / 49108 / 1]
5-728-016	Network Setting	NAT UI Port8	CTL*	[1 to 65535 / 55108 / 1]
5-728-017	Network Setting	NAT Machine Port9	CTL*	[1 to 65535 / 49109 / 1]
5-728-018	Network Setting	NAT UI Port9	CTL*	[1 to 65535 / 55109 / 1]
5-728-019	Network Setting	NAT Machine Port10	CTL*	[1 to 65535 / 49110 / 1]
5-728-020	Network Setting	NAT UI Port10	CTL*	[1 to 65535 / 55110 / 1]
5-728-101	Network Setting	PacketCapture	CTL	[0 to 1 / 0 / 1]
5-728-102	Network Setting	PacketCapture:mode	CTL	[0 to 1 / 0 / 1]
5-728-103	Network Setting	PacketCapture:interface	CTL	[0 to 3 / 0 / 1]
5-728-104	Network Setting	PacketCapture:length	CTL	[54 to 65535 / 128 / 1]
5-728-105	Network Setting	PacketCapture:broadcast	CTL	[0 to 1 / 0 / 1]
5-728-106	Network Setting	PacketCapture:specify port	CTL	[0 to 1 / 0 / 1]

5-728-107	Network Setting	PacketCapture:portnumber	CTL	[0 to 65535 / 0 / 1]
5-728-108	Network Setting	PacketCapture:time	CTL	[0 to 0xffffffff / 0 / 1]
5-730-001	Extended Function Setting	JavaTM Platform setting	CTL*	[0 to 1 / 1 / 1] 0: Disable 1: Enable
5-730-010	Extended Function Setting	Expiration Prior Alarm Set	CTL*	[0 to 999 / 20 / 1days]
5-731-001	Counter Effect	Change Mk1 Cnt(Paper->Combine)	CTL*	[0 to 1 / 0 / 1] 0: Disable 1: Enable
5-734-001	PDF Setting	PDF/A Fixed	CTL*	[0 to 1 / 0 / 1]
5-741-001	Node Authentication Timuout		CTL*	[1 to 255 / 60 / 1sec]
5-745-211	DeemedPowerConsumption	Controller Standby	CTL*	[0 to 9999 / 0 / 1]
5-745-212	DeemedPowerConsumption	STR	CTL*	[0 to 9999 / 0 / 1]
5-745-213	DeemedPowerConsumption	Main Power Off	CTL*	[0 to 9999 / 0 / 1]
5-745-214	DeemedPowerConsumption	Scanning and Printing	CTL*	[0 to 9999 / 0 / 1]
5-745-215	DeemedPowerConsumption	Printing	CTL*	[0 to 9999 / 0 / 1]
5-745-216	DeemedPowerConsumption	Scanning	CTL*	[0 to 9999 / 0 / 1]

5-745-217	DeemedPowerConsumption	Engine Standby	CTL*	[0 to 9999 / 0 / 1]
5-745-218	DeemedPowerConsumption	Low Power Consumption	CTL*	[0 to 9999 / 0 / 1]
5-745-219	DeemedPowerConsumption	Silent condition	CTL*	[0 to 9999 / 0 / 1]
5-745-220	DeemedPowerConsumption	Heater Off	CTL*	[0 to 9999 / 0 / 1]
5-748-101	OpePanel Setting	Op Type Action Setting	CTL*	[0 to 255 / 0 / 1]
5-748-201	OpePanel Setting	Cheetah Panel Connect Setting	CTL*	[0 to 1 / 0 / 1]
5-749-001	Import/Export	Export	CTL	[0 to 0 / 0 / 0]
5-749-101	Import/Export	Import	CTL	[0 to 0 / 0 / 0]
5-751-001	Key Event Encryption Setting	Password	CTL*	[0 to 255 / 0 / 1]
5-752-001	Copy:WebAPI Setting	Copy:FlairAPI Setting	CTL*	[0 to 255 / 0 / 1]
5-755-001	Display Setting	Disp Administrator Password Change Scrn	CTL	[0 to 0 / 0 / 0]
5-755-002	Display Setting	Hide Administrator Password Change Scrn	CTL	[0 to 0 / 0 / 0]
5-758-001	RemoteUI Setting	Authentication	CTL*	[0 to 1 / 0 / 1]

RTB 21
5-759
Not used

5-759-001	Machine Limit Count	Machine Limit Count Setting	CTL*	[0 to 1 / 0 / 1]
5-759-061	Machine Limit Count	Full Color Limit Count	CTL*	[0 to 99999999 / 0 / 1]
5-759-062	Machine Limit Count	Mono Color Limit Count	CTL*	[0 to 99999999 / 0 / 1]
5-761-001	SmartOperationPanel Setting	Restore the default Home screen	CTL*	[0 to 255 / 0 / 1]
5-801-001	Memory Clear	All Clear	CTL	[0 to 0 / 0 / 0]
5-801-003	Memory Clear	SCS	CTL	[0 to 0 / 0 / 0]
5-801-004	Memory Clear	IMH Memory Clr	CTL	[0 to 0 / 0 / 0]
5-801-005	Memory Clear	MCS	CTL	[0 to 0 / 0 / 0]
5-801-006	Memory Clear	Copier application	CTL	[0 to 0 / 0 / 0]
5-801-007	Memory Clear	Fax Application	CTL	[0 to 0 / 0 / 0]
5-801-008	Memory Clear	Printer Application	CTL	[0 to 0 / 0 / 0]
5-801-009	Memory Clear	Scanner Application	CTL	[0 to 0 / 0 / 0]
5-801-010	Memory Clear	Web Service	CTL	[0 to 0 / 0 / 0]

5-801-011	Memory Clear	NCS	CTL	[0 to 0 / 0 / 0]
5-801-012	Memory Clear	R-FAX	CTL	[0 to 0 / 0 / 0]
5-801-014	Memory Clear	Clear DCS Setting	CTL	[0 to 0 / 0 / 0]
5-801-015	Memory Clear	Clear UCS Setting	CTL	[0 to 0 / 0 / 0]
5-801-016	Memory Clear	MIRS Setting	CTL	[0 to 0 / 0 / 0]
5-801-017	Memory Clear	CCS	CTL	[0 to 0 / 0 / 0]
5-801-018	Memory Clear	SRM Memory Clr	CTL	[0 to 0 / 0 / 0]
5-801-019	Memory Clear	LCS	CTL	[0 to 0 / 0 / 0]
5-801-020	Cleae Memory	Web Uapli	CTL	[0 to 0 / 0 / 0]
5-801-021	Memory Clear	ECS	CTL	[0 to 0 / 0 / 0]
5-801-023	Memory Clear	AICS	CTL	[0 to 0 / 0 / 0]
5-801-025	Cleae Memory	websys	CTL	[0 to 0 / 0 / 0]
5-801-026	Memory Clear	PLN	CTL	[0 to 0 / 0 / 0]

5-801-027	Memory Clear	SAS	CTL	[0 to 0 / 0 / 0]
5-801-028	Memory Clear	Rest WebService	CTL	[0 to 0 / 0 / 0]
5-812-001	Service Tel. No. Setting	Service	CTL*	[0 to 0 / 0 / 0]
5-812-002	Service Tel. No. Setting	Facsimile	CTL*	[0 to 0 / 0 / 0]
5-812-003	Service Tel. No. Setting	Supply	CTL*	[0 to 0 / 0 / 0]
5-812-004	Service Tel. No. Setting	Operation	CTL*	[0 to 0 / 0 / 0]
5-816-001	Remote Service	I/F Setting	CTL*	[0 to 2 / 2 / 1]
5-816-002	Remote Service	CE Call	CTL*	[0 to 1 / 0 / 1]
5-816-003	Remote Service	Function Flag	CTL*	[0 to 1 / 0 / 1]
5-816-007	Remote Service	SSL Disable	CTL*	[0 to 1 / 0 / 1]
5-816-008	Remote Service	RCG Connect Timeout	CTL*	[1 to 90 / 30 / 1sec]
5-816-009	Remote Service	RCG Write Timeout	CTL*	[0 to 100 / 60 / 1sec]
5-816-010	Remote Service	RCG Read Timeout	CTL*	[0 to 100 / 60 / 1sec]

5-816-011	Remote Service	Port 80 Enable	CTL*	[0 to 1 / 0 / 1]
5-816-013	Remote Service	RFU Timing	CTL*	[0 to 1 / 1 / 1]
5-816-014	Remote Service	RCG Error Cause	CTL*	[0 to 2 / 0 / 1]
5-816-021	Remote Service	RCG-C Registed	CTL*	[0 to 1 / 0 / 1]
5-816-023	Remote Service	Connect Type(N/M/3G)	CTL*	[0 to 2 / 0 / 1]
5-816-061	Remote Service	Cert Expire Timing	CTL*	[0 to 0 / 0 / 1]
5-816-062	Remote Service	Use Proxy	CTL*	[0 to 1 / 0 / 1]
5-816-063	Remote Service	Proxy Host	CTL*	[0 to 0 / 0 / 0]
5-816-064	Remote Service	Proxy PortNumber	CTL*	[0 to 0xffff / 0 / 1]
5-816-065	Remote Service	Proxy User Name	CTL*	[0 to 0 / 0 / 0]
5-816-066	Remote Service	Proxy Password	CTL*	[0 to 0 / 0 / 0]
5-816-067	Remote Service	CERT:Up State	CTL*	[0 to 255 / 0 / 1]
5-816-068	Remote Service	CERT:Error	CTL*	[0 to 255 / 0 / 1]

5-816-069	Remote Service	CERT:Up ID	CTL*	[0 to 0 / 0 / 0]
5-816-083	Remote Service	Firm Up Status	CTL*	[0 to 1 / 0 / 1]
5-816-085	Remote Service	Firm Up User Check	CTL*	[0 to 1 / 0 / 1]
5-816-086	Remote Service	Firmware Size	CTL*	[0 to 0xffffffff / 0 / 1]
5-816-087	Remote Service	CERT:Macro Ver.	CTL	[0 to 0 / 0 / 0]
5-816-088	Remote Service	CERT:PAC Ver.	CTL	[0 to 0 / 0 / 0]
5-816-089	Remote Service	CERT:ID2Code	CTL	[0 to 0 / 0 / 0]
5-816-090	Remote Service	CERT:Subject	CTL	[0 to 0 / 0 / 0]
5-816-091	Remote Service	CERT:SerialNo.	CTL	[0 to 0 / 0 / 0]
5-816-092	Remote Service	CERT:Issuer	CTL	[0 to 0 / 0 / 0]
5-816-093	Remote Service	CERT:Valid Start	CTL	[0 to 0 / 0 / 0]
5-816-094	Remote Service	CERT:Valid End	CTL	[0 to 0 / 0 / 0]
5-816-102	Remote Service	CERT:Encrypt Level	CTL*	[1 to 2 / 1 / 1] 1: 512 bit 2: 2048 bit

5-816-103	Remote Service	Client Communication Method	CTL*	[0 to 3 / 0 / 1] 1: IPv4 2: IPv6 3: Hostname
5-816-104	Remote Service	Client Communication Limit	CTL*	[1 to 7 / 7 / 1]
5-816-115	Remote Service	Network Information Waiting timer	CTL*	[5 to 255 / 5 / 1sec]
5-816-150	Remote Service	Selection Country	CTL*	[0 to 10 / * / 1] *NA: 1 *EU: 3 *AA, CHN, TWN, KOR: 0
5-816-151	Remote Service	Line Type Automatic Judgement	CTL	[0 to 1 / 0 / 1]
5-816-152	Remote Service	Line Type Judgement Result	CTL	[0 to 0 / 0 / 0]
5-816-153	Remote Service	Selection Dial / Push	CTL*	NA, EU: [0 to 1 / 0 / 0] AA, CHN, TWN, KOR: [0 to 2 / 0 / 0]
5-816-154	Remote Service	Outside Line Outgoing Number	CTL*	[0 to 0 / 0 / 0]
5-816-156	Remote Service	Dial Up User Name	CTL*	[0 to 0 / 0 / 0]
5-816-157	Remote Service	Dial Up Password	CTL*	[0 to 0 / 0 / 0]
5-816-161	Remote Service	Local Phone Number	CTL*	[0 to 0 / 0 / 0]
5-816-	Remote Service	Connection Timing Adjustment Incoming	CTL*	[0 to 24 / 1 / 1]

162				
5-816-163	Remote Service	Access Point	CTL*	[0 to 0 / 0 / 0]
5-816-164	Remote Service	Line Connecting	CTL*	[0 to 1 / 0 / 1]
5-816-173	Remote Service	Modem Serial No.	CTL*	[0 to 0 / 0 / 0]
5-816-174	Remote Service	Retransmission Limit	CTL	[0 to 1 / 0 / 1]
5-816-187	Remote Service	FAX TX Priority	CTL*	[0 to 1 / 0 / 1] 0: Disable, 1: Enable
5-816-190	Remote Service	3G DongleID	CTL*	[0 to 0 / 0 / 0]
5-816-199	Remote Service	ppp Connect Timer	CTL*	[15 to 30 / 15 / 1min]
5-816-200	Remote Service	Manual Polling	CTL	[0 to 1 / 0 / 1]
5-816-201	Remote Service	Regist Status	CTL	[0 to 255 / 0 / 1]
5-816-202	Remote Service	Letter Number	CTL*	[0 to 0 / 0 / 0]
5-816-203	Remote Service	Confirm Execute	CTL	[0 to 1 / 0 / 1]
5-816-204	Remote Service	Confirm Result	CTL	[0 to 255 / 0 / 1]
5-	Remote Service	Confirm Place	CTL	[0 to 1 / 0 / 1]

816-205				
5-816-206	Remote Service	Register Execute	CTL	[0 to 1 / 0 / 1]
5-816-207	Remote Service	Register Result	CTL	[0 to 255 / 0 / 1]
5-816-208	Remote Service	Error Code	CTL	[0 to 0 / 0 / 0]
5-816-209	Remote Service	Instl Clear	CTL	[0 to 1 / 0 / 1]
5-816-240	Remote Service	CommErrorTime	CTL*	[0 to 0 / 0 / 1]
5-816-241	Remote Service	CommErrorCode 1	CTL*	[0 to 0xffffffff / 0x00000000 / 1]
5-816-242	Remote Service	CommErrorCode 2	CTL*	[0 to 0xffffffff / 0x00000000 / 1]
5-816-243	Remote Service	CommErrorCode 3	CTL*	[0 to 0xffffffff / 0x00000000 / 1]
5-816-244	Remote Service	CommErrorState 1	CTL*	[0 to 0xffff / 0x0000 / 1]
5-816-245	Remote Service	CommErrorState 2	CTL*	[0 to 0xffff / 0x0000 / 1]
5-816-246	Remote Service	CommErrorState 3	CTL*	[0 to 0xffff / 0x0000 / 1]
5-816-247	Remote Service	SSL Error Count	CTL*	[0 to 255 / 0 / 1]

5-816-248	Remote Service	Other Err Count	CTL*	[0 to 255 / 0 / 1]
5-816-250	Remote Service	CommLog Print	CTL	[0 to 0 / 0 / 0]
5-821-002	Remote Service RCG Setting	RCG IPv4 Address	CTL*	[0 to 0xffffffff / 0 / 1]
5-821-003	Remote Service RCG Setting	RCG Port	CTL*	[0 to 65535 / 443 / 1]
5-821-004	Remote Service RCG Setting	RCG IPv4 URL Path	CTL*	[0 to 0 / 0 / 0]
5-821-005	Remote Service RCG Setting	RCG IPv6 Address	CTL*	[0 to 0 / 0 / 0]
5-821-006	Remote Service RCG Setting	RCG IPv6 URL Path	CTL*	[0 to 0 / 0 / 0]
5-821-007	Remote Service RCG Setting	RCG Host Name	CTL*	[0 to 0 / 0 / 0]
5-821-008	Remote Service RCG Setting	RCG Host URL Path	CTL*	[0 to 0 / 0 / 0]
5-824-001	NV-RAM Data Upload		CTL	[0 to 0 / 0 / 0]
5-825-001	NV-RAM Data Download		CTL	[0 to 0 / 0 / 0]
5-828-039	Network Setting	User Class	CTL*	[0 to 0 / 0 / 0]
5-828-040	Network Setting	Class Id	CTL*	[0 to 0 / 0 / 0]

5-828-050	Network Setting	1284 Compatiblity (Centro)	CTL*	[0 to 1 / 1 / 1]
5-828-052	Network Setting	ECP (Centro)	CTL*	[0 to 1 / 1 / 1]
5-828-065	Network Setting	Job Spooling	CTL*	[0 to 1 / 0 / 1] 0: Disabled, 1: Enabled
5-828-066	Network Setting	Job Spooling Clear: Start Time	CTL*	[0 to 1 / 1 / 1] 0: ON (Data is cleared), 1: OFF (Automatically printed)
5-828-069	Network Setting	Job Spooling (Protocol)	CTL*	[0x00 to 0xff / 0x7f / 0]
5-828-087	Network Setting	Protocol usage	CTL*	[0x00000000 to 0xffffffff / 0x00000000 / 1]
5-828-090	Network Setting	TELNET(0:OFF 1:ON)	CTL*	[0 to 1 / 1 / 1]
5-828-091	Network Setting	Web(0:OFF 1:ON)	CTL*	[0 to 1 / 1 / 1]
5-828-145	Network Setting	Active IPv6 Link Local Address	CTL	[0 to 0 / 0 / 0]
5-828-147	Network Setting	Active IPv6 Stateless Address 1	CTL	[0 to 0 / 0 / 0]
5-828-149	Network Setting	Active IPv6 Stateless Address 2	CTL	[0 to 0 / 0 / 0]
5-828-151	Network Setting	Active IPv6 Stateless Address 3	CTL	[0 to 0 / 0 / 0]
5-828-	Network Setting	Active IPv6 Stateless Address 4	CTL	[0 to 0 / 0 / 0]

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5-828-155	Network Setting	Active IPv6 Stateless Address 5	CTL	[0 to 0 / 0 / 0]
5-828-156	Network Setting	IPv6 Manual Address	CTL*	[0 to 0 / 0 / 0]
5-828-158	Network Setting	IPv6 Gateway Address	CTL*	[0 to 0 / 0 / 0]
5-828-161	Network Setting	IPv6 Stateless Auto Setting	CTL*	[0 to 1 / 1 / 1]
5-828-219	Network Setting	IPsec Aggressive Mode Setting	CTL	[0 to 1 / 0 / 1]
5-828-236	Network Setting	Web Item visible	CTL*	[0x0000 to 0xffff / 0xffff / 1]
5-828-237	Network Setting	Web shopping link visible	CTL*	[0 to 1 / 1 / 1]
5-828-238	Network Setting	Web Supplies Link visible	CTL*	[0 to 1 / 1 / 1]
5-828-239	Network Setting	Web Link1 Name	CTL*	[0 to 0 / 0 / 0]
5-828-240	Network Setting	Web Link1 URL	CTL*	[0 to 0 / 0 / 0]
5-828-241	Network Setting	Web Link1 visible	CTL*	[0 to 1 / 1 / 1]
5-828-242	Network Setting	Web Link2 Name	CTL*	[0 to 0 / 0 / 0]
5-	Network Setting	Web Link2 URL	CTL*	[0 to 0 / 0 / 0]

828-243				
5-828-244	Network Setting	Web Link2 visible	CTL*	[0 to 1 / 1 / 1]
5-828-249	Network Setting	DHCPv6 DUID	CTL*	[0 to 0 / 0 / 0]
5-832-001	HDD	HDD Formatting (ALL)	CTL	[0 to 0 / 0 / 0]
5-832-002	HDD	HDD Formatting (IMH)	CTL	[0 to 0 / 0 / 0]
5-832-003	HDD	HDD Formatting (Thumbnail/OCR)	CTL	[0 to 0 / 0 / 0]
5-832-004	HDD	HDD Formatting (Job Log)	CTL	[0 to 0 / 0 / 0]
5-832-005	HDD	HDD Formatting (Printer Fonts)	CTL	[0 to 0 / 0 / 0]
5-832-006	HDD	HDD Formatting (User Info)	CTL	[0 to 0 / 0 / 0]
5-832-007	HDD	Mail RX Data	CTL	[0 to 0 / 0 / 0]
5-832-008	HDD	Mail TX Data	CTL	[0 to 0 / 0 / 0]
5-832-009	HDD	HDD Formatting (Data for a Design)	CTL	[0 to 0 / 0 / 0]
5-832-010	HDD	HDD Formatting (Log)	CTL	[0 to 0 / 0 / 0]

5-832-011	HDD	HDD Formatting (Ridoc I/F)	CTL	[0 to 0 / 0 / 0]
5-832-012	HDD	HDD Formatting (Thumbnail)	CTL	[0 to 0 / 0 / 0]
5-836-001	Capture Setting	Capture Function (0:Off 1:On)	CTL*	[0 to 1 / 0 / 1]
5-836-011	Capture Setting	Capture Setting: Copy	CTL*	[0 to 1 / 0 / 1]
5-836-012	Capture Setting	Capture Setting: Doc. Svr.	CTL*	[0 to 1 / 0 / 1]
5-836-013	Capture Setting	Capture Setting: Fax RX Printer	CTL*	[0 to 1 / 0 / 1]
5-836-014	Capture Setting	Capture Setting: Fax TX	CTL*	[0 to 1 / 0 / 1]
5-836-015	Capture Setting	Capture Setting: Printer	CTL*	[0 to 1 / 0 / 1]
5-836-016	Capture Setting	Capture Setting: Scanner	CTL*	[0 to 1 / 0 / 1]
5-836-017	Capture Setting	Capture Setting: SDK	CTL*	[0 to 1 / 0 / 1]
5-836-061	Capture Setting	Captured File Resend (0:Off 1:On)	CTL*	[0 to 1 / 1 / 1]
5-836-071	Capture Setting	Reduction for Copy Color	CTL*	[0 to 3 / 2 / 1] 0: 1to-1, 1: 1/2, 2: 1/3, 3: 1/4
5-836-072	Capture Setting	Reduction for Copy B&W Text	CTL*	[0 to 6 / 0 / 1] 0: 1to-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] 0: 1to-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] 0: 1to-1, 1: 1/2, 2: 1/3, 3: 1/4
5-836-075	Capture Setting	Reduction for Printer B&W	CTL*	[0 to 6 / 0 / 1] 0: 1to-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] 1: 1/2, 3: 1/4, 4: 1/6, 5: 1/8, 6: 2/3
5-836-078	Capture Setting	Reduction for Printer B&W 1200dpi	CTL*	[1 to 5 / 1 / 1] 1: 1/2, 3: 1/4, 4: 1/6, 5: 1/8, 6: 2/3
5-836-081	Capture Setting	Format for Copy Color	CTL*	[0 to 0 / 0 / 1]
5-836-082	Capture Setting	Format for Copy B&W Text	CTL*	[0 to 3 / 1 / 1] 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
5-836-083	Capture Setting	Format for Copy B&W Other	CTL*	[0 to 3 / 1 / 1] 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
5-836-084	Capture Setting	Format for Printer Color	CTL*	[0 to 0 / 0 / 1]
5-836-085	Capture Setting	Format for Printer B&W	CTL*	[0 to 3 / 1 / 1] 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
5-836-091	Capture Setting	Default for JPEG	CTL*	[5 to 95 / 50 / 1]
5-836-101	Capture Setting	Primary srv IP address	CTL*	[0 to 0xffffffff / 0x00 / 0]

5-836-102	Capture Setting	Primary srv scheme	CTL*	[0 to 0 / 0 / 0]
5-836-103	Capture Setting	Primary srv port number	CTL*	[1 to 65535 / 80 / 1]
5-836-104	Capture Setting	Primary srv URL path	CTL*	[0 to 0 / 0 / 0]
5-836-111	Capture Setting	Secondary srv IP address	CTL*	[0 to 0xffffffff / 0x00 / 0]
5-836-112	Capture Setting	Secondary srv scheme	CTL*	[0 to 0 / 0 / 0]
5-836-113	Capture Setting	Secondary srv port number	CTL*	[1 to 65535 / 80 / 1]
5-836-114	Capture Setting	Secondary srv URL path	CTL*	[0 to 0 / 0 / 0]
5-836-120	Capture Setting	Default Reso Rate Switch	CTL*	[0 to 1 / 0 / 1]
5-836-121	Capture Setting	Reso: Copy(Color)	CTL*	[0 to 255 / 2 / 1] 0: 600dpi/ 1: 300dpi/ 2: 150dpi/ 3: 75dpi
5-836-122	Capture Setting	Reso: Copy(Mono)	CTL*	[0 to 255 / 3 / 1] 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi
5-836-123	Capture Setting	Reso: Print(Color)	CTL*	[0 to 255 / 2 / 1] 0: 600dpi/ 1: 300dpi/ 2: 150dpi/ 3: 75dpi
5-836-124	Capture Setting	Reso: Print(Mono)	CTL*	[0 to 255 / 3 / 1] 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi
5-	Capture Setting	Reso: Fax(Color)	CTL*	[0 to 255 / 4 / 1]

836-125				
5-836-126	Capture Setting	Reso: Fax(Mono)	CTL*	[0 to 255 / 3 / 1] 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi
5-836-127	Capture Setting	Reso: Scan(Color)	CTL*	[0 to 255 / 4 / 1] 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi
5-836-128	Capture Setting	Reso: Scan(Mono)	CTL*	[0 to 255 / 3 / 1] 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi
5-836-129	Capture Setting	Reso: SDK(Color)	CTL*	[0 to 255 / 4 / 1]
5-836-130	Capture Setting	Reso: SDK(Mono)	CTL*	[0 to 255 / 3 / 1]
5-836-141	Capture Setting	All Addr Info Switch	CTL*	[0 to 1 / 1 / 1]
5-836-142	Capture Setting	Stand-by Doc Max Number	CTL*	[10 to 10000 / 2000 / 1]
5-836-143	Capture Setting	ClearLightPDF Switch	CTL*	[0 to 1 / 0 / 1]
5-840-006	IEEE 802.11	Channel MAX	CTL*	[1 to 14 / 14 / 1]
5-840-007	IEEE 802.11	Channel MIN	CTL*	[1 to 14 / 1 / 1]
5-	IEEE 802.11	WEP Key Select	CTL*	[0x00 to 0x11 / 0x00 /

840-011				0]
5-840-045	IEEE 802.11	WPA Debug Lvl	CTL*	[1 to 3 / 3 / 1] 1: Info, 2: warning, 3: error
5-840-046	IEEE 802.11	11w	CTL*	[0 to 2 / 0 / 1]
5-840-047	IEEE 802.11	PSK Set Type	CTL*	[0 to 1 / 0 / 1]
5-841-001	Supply Name Setting	Toner Name Setting: Black	CTL*	[0 to 0 / 0 / 0]
5-841-002	Supply Name Setting	Toner Name Setting: Cyan	CTL*	[0 to 0 / 0 / 0]
5-841-003	Supply Name Setting	Toner Name Setting: Yellow	CTL*	[0 to 0 / 0 / 0]
5-841-004	Supply Name Setting	Toner Name Setting: Magenta	CTL*	[0 to 0 / 0 / 0]
5-842-001	GWWS Analysis	Setting 1	CTL*	[0x00 to 0xFF / 0 / 1]
5-842-002	GWWS Analysis	Setting 2	CTL*	[0x00 to 0xFF / 0 / 1]
5-844-001	USB	Transfer Rate	CTL*	[1 to 4 / 4 / 0] 0001: Full speed, 0004: Auto Change
5-844-002	USB	Vendor ID	CTL*	[0x0000 to 0xffff / 0x05ca / 0]
5-844-003	USB	Product ID	CTL*	[0x0000 to 0xffff / 0x0403 / 0]

5-844-004	USB	Device Release Number	CTL*	[0 to 9999 / 100 / 1]
5-844-005	USB	Fixed USB Port	CTL*	[0 to 2 / 0 / 1]
5-844-006	USB	PnP Model Name	CTL*	[0 to 0 / 0 / 0]
5-844-007	USB	PnP Serial Number	CTL*	[0 to 0 / 0 / 0]
5-844-008	USB	Mac Supply Level	CTL*	[0 to 1 / 1 / 1]
5-844-009	USB	USB Toggle Clear Mode	CTL*	[0 to 1 / 0 / 1]
5-844-100	USB	Notify Unsupport	CTL*	[0 to 1 / 1 / 1]
5-845-001	Delivery Server Setting	FTP Port No.	CTL*	[1 to 65535 / 3670 / 1]
5-845-002	Delivery Server Setting	IP Address (Primary)	CTL*	[0 to 0xffffffff / 0x00 / 0]
5-845-006	Delivery Server Setting	Delivery Error Display Time	CTL*	[0 to 999 / 300 / 1sec]
5-845-008	Delivery Server Setting	IP Address (Secondary)	CTL*	[0 to 0xffffffff / 0x00 / 0]
5-845-009	Delivery Server Setting	Delivery Server Model	CTL*	[0 to 4 / 0 / 1] 0: Unknown 1: SG1 Provided 2: SG1 Package 3: SG2 Provided 4: SG2 Package

5-845-010	Delivery Server Setting	Delivery Svr. Capability	CTL*	[0 to 255 / 0 / 1]
5-845-011	Delivery Server Setting	Delivery Svr. Capability (Ext)	CTL*	[0 to 255 / 0 / 1]
5-845-013	Delivery Server Setting	Server Scheme(Primary)	CTL*	[0 to 0 / 0 / 0]
5-845-014	Delivery Server Setting	Server Port Number(Primary)	CTL*	[1 to 65535 / 80 / 1]
5-845-015	Delivery Server Setting	Server URL Path(Primary)	CTL*	[0 to 0 / 0 / 0]
5-845-016	Delivery Server Setting	Server Scheme(Secondary)	CTL*	[0 to 0 / 0 / 0]
5-845-017	Delivery Server Setting	Server Port Number(Secondary)	CTL*	[1 to 65535 / 80 / 1]
5-845-018	Delivery Server Setting	Server URL Path(Secondary)	CTL*	[0 to 0 / 0 / 0]
5-845-022	Delivery Server Setting	Rapid Sending Control	CTL*	[0 to 1 / 1 / 1] 0: Disable, 1: Enable
5-846-001	UCS Setting	Machine ID (for Delivery Server)	CTL*	[0 to 0 / 0 / 0]
5-846-002	UCS Setting	Machine ID Clear (for Delivery Server)	CTL*	[0 to 0 / 0 / 0]
5-846-003	UCS Setting	Maximum Entries	CTL*	[2000 to 20000 / 2000 / 1]
5-846-006	UCS Setting	Delivery Server Retry Timer	CTL*	[0 to 255 / 0 / 1]

5-846-007	UCS Setting	Delivery Server Retry Times	CTL*	[0 to 255 / 0 / 1]
5-846-008	UCS Setting	Delivery Server Maximum Entries	CTL*	[2000 to 20000 / 2000 / 1]
5-846-010	UCS Setting	LDAP Search Timeout	CTL*	[1 to 255 / 60 / 1]
5-846-020	UCS Setting	WSD Maximum Entries	CTL*	[50 to 250 / 250 / 1]
5-846-021	UCS Setting	Folder Auth Change	CTL*	[0 to 1 / 0 / 1]
5-846-040	UCS Setting	Addr Book Migration(USB->HDD)	CTL	[0 to 0 / 0 / 0]
5-846-041	UCS Setting	Fill Addr Acl Info	CTL	[0 to 0 / 0 / 0]
5-846-043	UCS Setting	Addr Book Media	CTL*	[0 to 30 / 0 / 1] 0: Unconfirmed 1: SD Slot 1 2: SD Slot 2 4: USB Flash ROM 10: SD Slot 10 20: HDD 30: Nothing
5-846-047	UCS Setting	Initialize Local Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-048	UCS Setting	Initialize Delivery Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-049	UCS Setting	Initialize LDAP Addr Book	CTL	[0 to 0 / 0 / 0]
5-	UCS Setting	Initialize All Addr Book	CTL	[0 to 0 / 0 / 0]

846-050				
5-846-051	UCS Setting	Backup All Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-052	UCS Setting	Restore All Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-053	UCS Setting	Clear Backup Info	CTL	[0 to 0 / 0 / 0]
5-846-060	UCS Setting	Search option	CTL*	[0x00 to 0xff / 0x0f / 1]
5-846-062	UCS Setting	Complexity option 1	CTL*	[0 to 32 / 0 / 1]
5-846-063	UCS Setting	Complexity option 2	CTL*	[0 to 32 / 0 / 1]
5-846-064	UCS Setting	Complexity option 3	CTL*	[0 to 32 / 0 / 1]
5-846-065	UCS Setting	Complexity option 4	CTL*	[0 to 32 / 0 / 1]
5-846-091	UCS Setting	FTP Auth Port Setting	CTL*	[0 to 65535 / 3671 / 1]
5-846-094	UCS Setting	Encryption Stat	CTL*	[0 to 255 / 0 / 0]
5-847-001	Rep Resolution Reduction	Rate for Copy Color	CTL*	[0 to 5 / 2 / 1] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x
5-847-002	Rep Resolution Reduction	Rate for Copy B&W Text	CTL*	[0 to 6 / 0 / 1] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4:

				1/6x 5: 1/8x 6: 2/3x
5-847-003	Rep Resolution Reduction	Rate for Copy B&W Other	CTL*	[0 to 6 / 0 / 1] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x 6: 2/3x
5-847-004	Rep Resolution Reduction	Rate for Printer Color	CTL*	[0 to 5 / 2 / 1] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x
5-847-005	Rep Resolution Reduction	Rate for Printer B&W	CTL*	[0 to 6 / 0 / 1] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x 6: 2/3x
5-847-006	Rep Resolution Reduction	Rate for Printer Color 1200dpi	CTL*	[0 to 5 / 4 / 1] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x
5-847-007	Rep Resolution Reduction	Rate for Printer B&W 1200dpi	CTL*	[0 to 6 / 1 / 1] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x 6: 2/3x
5-847-021	Rep Resolution Reduction	Network Quality Default for JPEG	CTL*	[5 to 95 / 50 / 1]
5-848-002	Web Service	Access Ctrl: Repository(onlyLower4bits)	CTL*	[0x00 to 0xFF / 0x02 / 0]
5-848-003	Web Service	Access Ctrl: Doc.Svr.Print (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-848-004	Web Service	Access Ctrl: udirectory (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-848-007	Web Service	Access Ctrl: Comm. Log Fax(Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-848-009	Web Service	Access Ctrl: Job Ctrl (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0]

5-848-011	Web Service	Access Ctrl: Devicemanagement(Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-848-021	Web Service	Access Ctrl: Delivery (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-848-022	Web Service	Access Ctrl: uadministration (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-848-024	Web Service	Access Ctrl: Log Service (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-848-025	Web Service	Access Ctrl: Rest WebService (Lower 4bits)	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-848-099	Web Service	Repository: Download Image Setting	CTL*	[0x00 to 0xFF / 0x00 / 1]
5-848-100	Web Service	Repository: Download Image Max. Size	CTL*	[1 to 2048 / 2048 / 1]
5-848-150	Web Service	Log Operation Mode	CTL*	[0 to 9 / 0 / 1]
5-848-217	LogTrans	Setting: Timing	CTL*	[0 to 2 / 0 / 1]
5-849-001	Installation Date	Display	CTL*	[0 to 0 / 0 / 0]
5-849-002	Installation Date	Switch to Print	CTL*	[0 to 1 / 1 / 1] 0: OFF, 1: ON
5-849-003	Installation Date	Total Counter	CTL*	[0 to 99999999 / 0 / 1]
5-851-001	Bluetooth	Mode	CTL*	[0x00 to 0x01 / 0x00 / 1]

5-853-001	Stamp Data Download		CTL*	[0 to 0 / 0 / 0]
5-856-002	Remote ROM Update	Local Port	CTL	[0 to 1 / 0 / 1] 0: Disable, 1: Enable
5-858-001	Collect Machine Info	0:OFF 1:ON	CTL*	[0 to 1 / 1 / 1]
5-858-002	Collect Machine Info	Save To (0:HDD 1:SD)	CTL*	[0 to 1 / 0 / 1]
5-858-003	Collect Machine Info	Make Log Trace Dir	CTL*	[0 to 1 / 0 / 0]
5-858-101	Collect Machine Info	Failure Occuring Date	CTL*	[0 to 20371212 / 0 / 1]
5-858-102	Collect Machine Info	Tracing Days	CTL*	[1 to 180 / 2 / 1day]
5-858-103	Collect Machine Info	Acquire Fax Address(0:OFF 1:ON)	CTL*	[0 to 1 / 0 / 1]
5-858-111	Collect Machine Info	Acquire All Info & Logs	CTL*	[0 to 1 / 0 / 0]
5-858-121	Collect Machine Info	Acquire Configuration Page	CTL*	[0 to 1 / 0 / 0]
5-858-122	Collect Machine Info	Acquire Font Page	CTL*	[0 to 1 / 0 / 0]
5-858-123	Collect Machine Info	Acquire Print Setting List	CTL*	[0 to 1 / 0 / 0]
5-858-124	Collect Machine Info	Acquire Error Log	CTL*	[0 to 1 / 0 / 0]

5-858-131	Collect Machine Info	Acquire Fax Info	CTL*	[0 to 1 / 0 / 0]
5-858-141	Collect Machine Info	Acquire All Debug Logs	CTL*	[0 to 1 / 0 / 0]
5-858-142	Collect Machine Info	Acquire Controller Debug Logs Only	CTL*	[0 to 1 / 0 / 0]
5-858-143	Collect Machine Info	Acquire Engine Debug Logs Only	CTL*	[0 to 1 / 0 / 0]
5-858-144	Collect Machine Info	Acquire Opepanel Debug Logs Only	CTL*	[0 to 1 / 0 / 0]
5-858-145	Collect Machine Info	Acquire FCU Debug Logs Only	CTL*	[0 to 1 / 0 / 0]
5-858-146	Collect Machine Info	Acquire Only Network Packets	CTL*	[0 to 1 / 0 / 0]
5-860-020	SMTP/POP3/IMAP4	Partial Mail Receive Timeout	CTL*	[1 to 168 / 72 / 1hour]
5-860-021	SMTP/POP3/IMAP4	MDN Response RFC2298 Compliance	CTL*	[0 to 1 / 1 / 1] 0: No, 1: Yes
5-860-022	SMTP/POP3/IMAP4	SMTP Auth. From Field Replacement	CTL*	[0 to 1 / 0 / 1] 0: No, 1: Yes
5-860-025	SMTP/POP3/IMAP4	SMTP Auth. Direct Setting	CTL*	[0 to 0xff / 0x0 / 1]
5-860-026	SMTP/POP3/IMAP4	S/MIME:MIME Header Setting	CTL*	[0 to 2 / 0 / 1] 0: Microsoft Outlook Express standard 1: Internet Draft standard 2: RFC standard
5-	SMTP/POP3/IMAP4	S/MIME: Authentication Check	CTL*	[0 to 1 / 0 / 1]

860-028				0: Check, 1: No check
5-866-001	E-Mail Report	Report Validity	CTL	[0 to 1 / 0 / 1]
5-866-005	E-Mail Report	Add Date Field	CTL	[0 to 1 / 0 / 1]
5-866-110	E-Mail Report	CounterE-Mail:Validity	CTL	[0 to 1 / 0 / 1]
5-866-111	E-Mail Report	CounterE-Mail:Destination Registration	CTL	[0 to 0 / 0 / 0]
5-866-112	E-Mail Report	CounterE-Mail:Send Test	CTL	[0 to 0 / 0 / 0]
5-866-113	E-Mail Report	CounterE-Mail:Next Send Date	CTL	[0 to 0 / 0 / 0]
5-866-114	E-Mail Report	CounterE-Mail:Send Date Setting	CTL	[0 to 31 / 0 / 1]
5-866-115	E-Mail Report	CounterE-Mail:Send Time Setting	CTL	[0 to 2359 / 0 / 1]
5-866-121	E-Mail Report	CounterE-Mail:Destination1	CTL	[0 to 0 / 0 / 0]
5-866-122	E-Mail Report	CounterE-Mail:Destination2	CTL	[0 to 0 / 0 / 0]
5-866-123	E-Mail Report	CounterE-Mail:Destination3	CTL	[0 to 0 / 0 / 0]
5-870-001	Common KeyInfo Writing	Writing	CTL	[0 to 1 / 0 / 1]

5-870-003	Common KeyInfo Writing	Initialize	CTL	[0 to 1 / 0 / 1]
5-870-004	Common Key Info Writing	Writing: 2048bit	CTL	[0 to 1 / 0 / 1]
5-873-001	SDCardAppliMove	MoveExec	CTL	[0 to 0 / 0 / 1]
5-873-002	SDCardAppliMove	UndoExec	CTL	[0 to 0 / 0 / 1]
5-875-001	SC Auto Reboot	Reboot Setting	CTL*	[0 to 1 / 0 / 1]
5-875-002	SC Auto Reboot	Reboot Type	CTL*	[0 to 1 / 0 / 1] 0: Manual reboot, 1: Automatic reboot
5-878-001	Option Setup	Data Overwrite Security	CTL	[0 to 0 / 0 / 0]
5-878-002	Option Setup	HDD Encryption	CTL	[0 to 0 / 0 / 0]
5-878-004	Option Setup	OCR Dictionary	CTL	[0 to 0 / 0 / 0]
5-881-001	Fixed Phrase Block Erasing		CTL	[0 to 0 / 0 / 0]
5-885-020	Set WIM Function	DocSvr Acc Ctrl	CTL	[0x00 to 0xFF / 0x00 / 0]
5-885-050	Set WIM Function	DocSvr Format	CTL	[0 to 2 / 0 / 1]
5-885-051	Set WIM Function	DocSvr Trans	CTL*	[5 to 20 / 10 / 1]

5-885-100	Set WIM Function	Set Signature	CTL*	[0 to 2 / 0 / 1]
5-885-101	Set WIM Function	Set Encrypsion	CTL*	[0 to 1 / 0 / 1]
5-885-200	Set WIM Function	Detect Mem Leak	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-885-201	Set WIM Function	DocSvr Timeout	CTL*	[1 to 30 / 30 / 1]
5-886-100	Farm Update Setting	Skip Version Check	CTL*	[0 to 1 / 0 / 1]
5-886-101	Farm Update Setting	Skip LR Check	CTL*	[0 to 1 / 0 / 1]
5-886-111	Farm Update Setting	Auto Update Setting	CTL*	[0 to 1 / 0 / 1]
5-886-112	Farm Update Setting	Auto Update Prohibit Term Setting	CTL*	[0 to 1 / 1 / 1]
5-886-113	Farm Update Setting	Auto Update Prohibit Start hour	CTL*	[0 to 23 / 9 / 1hour]
5-886-114	Farm Update Setting	Auto Update Prohibit End hour	CTL*	[0 to 23 / 17 / 1hour]
5-886-115	Farm Update Setting	SFU Auto Download Setting	CTL*	[0 to 1 / 0 / 1]
5-886-116	Farm Update Setting	Auto Update Next Date	CTL*	[0 to 0 / 0 / 0]
5-886-117	Farm Update Setting	Auto Update Retry Interval Hour	CTL*	[1 to 24 / 1 / 1hour]

5-886-119	Farm Update Setting	Auto Update @Remote Using Setting	CTL*	[0 to 1 / 0 / 1]
5-886-120	Farm Update Setting	Auto Update Prohibit Day of Week Setting	CTL*	[0 to 255 / 0 / 1]
5-886-201	Farm Update Setting	Restore Date	CTL*	[0 to 0 / 0 / 0]
5-886-202	Farm Update Setting	Save Old Version List	CTL*	[0 to 0 / 0 / 0]
5-887-001	SD GetCounter		CTL	[0 to 0 / 0 / 0]
5-888-001	Personal Information Protect		CTL*	[0 to 1 / 0 / 1]
5-893-001	SDK Application Counter	SDK-1	CTL	[0 to 0 / 0 / 0]
5-893-002	SDK Application Counter	SDK-2	CTL	[0 to 0 / 0 / 0]
5-893-003	SDK Application Counter	SDK-3	CTL	[0 to 0 / 0 / 0]
5-893-004	SDK Application Counter	SDK-4	CTL	[0 to 0 / 0 / 0]
5-893-005	SDK Application Counter	SDK-5	CTL	[0 to 0 / 0 / 0]
5-893-006	SDK Application Counter	SDK-6	CTL	[0 to 0 / 0 / 0]
5-893-007	SDK Application Counter	SDK-7	CTL	[0 to 0 / 0 / 0]

5-893-008	SDK Application Counter	SDK-8	CTL	[0 to 0 / 0 / 0]
5-893-009	SDK Application Counter	SDK-9	CTL	[0 to 0 / 0 / 0]
5-893-010	SDK Application Counter	SDK-10	CTL	[0 to 0 / 0 / 0]
5-893-011	SDK Application Counter	SDK-11	CTL	[0 to 0 / 0 / 0]
5-893-012	SDK Application Counter	SDK-12	CTL	[0 to 0 / 0 / 0]
5-895-001	Application invalidation	Printer	CTL*	[0 to 1 / 0 / 0]
5-895-002	Application invalidation	Scanner	CTL*	[0 to 1 / 0 / 0]
5-907-001	Plug & Play Maker/Model Name		CTL*	[0 to 255 / 0 / 1]
5-913-002	Switchover Permission Time	Print Application Timer	CTL*	[0 to 30 / 3 / 1]
5-967-001	Copy Server : Set Function	(0:ON 1:OFF)	CTL*	[0 to 1 / 0 / 1]
5-973-101	User Stamp Registration	Frame deletion setting	CTL*	[0 to 3 / 0 / 1]
5-985-001	Device Setting	On Board NIC	CTL	[0 to 2 / 0 / 1]
5-985-002	Device Setting	On Board USB	CTL	[0 to 1 / 0 / 1]

5-990-001	SP Print Mode	All (Data List)	CTL	[0 to 255 / 0 / 0]
5-990-002	SP Print Mode	SP (Mode Data List)	CTL	[0 to 255 / 0 / 0]
5-990-003	SP Print Mode	User Program	CTL	[0 to 255 / 0 / 0]
5-990-004	SP Print Mode	Logging Data	CTL	[0 to 255 / 0 / 0]
5-990-005	SP Print Mode	Diagnostic Report	CTL	[0 to 255 / 0 / 0]
5-990-006	SP Print Mode	Non-Default	CTL	[0 to 255 / 0 / 0]
5-990-007	SP Print Mode	NIB Summary	CTL	[0 to 0 / 0 / 0]
5-990-008	SP Print Mode	Capture Log	CTL	[0 to 255 / 0 / 1]
5-990-021	SMC Print	Copier User Program	CTL	[0 to 0 / 0 / 0]
5-990-022	SP Print Mode	Scanner SP	CTL	[0 to 255 / 0 / 0]
5-990-023	SP Print Mode	Scanner User Program	CTL	[0 to 255 / 0 / 0]
5-990-024	SP Print Mode	SDK/J Summary	CTL	[0 to 0 / 0 / 0]
5-990-025	SP Print Mode	SDK/J Application Info	CTL	[0 to 0 / 0 / 0]

5-990-026	SP Print Mode	Printer SP	CTL	[0 to 255 / 0 / 0]
5-990-027	SP Print Mode	SmartOperationPanel SP	CTL	[0 to 255 / 0 / 0]
5-990-028	SP Print Mode	SmartOperationPanel UP	CTL	[0 to 255 / 0 / 0]
5-992-001	SP Text Mode	All (Data List)	CTL	[0 to 0 / 0 / 0]
5-992-002	SP Text Mode	SP (Mode Data List)	CTL	[0 to 0 / 0 / 0]
5-992-003	SP Text Mode	User Program	CTL	[0 to 0 / 0 / 0]
5-992-004	SP Text Mode	Logging Data	CTL	[0 to 0 / 0 / 0]
5-992-005	SP Text Mode	Diagnostic Report	CTL	[0 to 0 / 0 / 0]
5-992-006	SP Text Mode	Non-Default	CTL	[0 to 0 / 0 / 0]
5-992-007	SP Text Mode	NIB Summary	CTL	[0 to 0 / 0 / 0]
5-992-008	SP Text Mode	Capture Log	CTL	[0 to 255 / 0 / 1]
5-992-021	SP Text Mode	Copier User Program	CTL	[0 to 0 / 0 / 0]
5-992-022	SP Text Mode	Scanner SP	CTL	[0 to 0 / 0 / 0]

5-992-023	SP Text Mode	Scanner User Program	CTL	[0 to 0 / 0 / 0]
5-992-024	SP Text Mode	SDK/J Summary	CTL	[0 to 0 / 0 / 0]
5-992-025	SP Text Mode	SDK/J Application Info	CTL	[0 to 0 / 0 / 0]
5-992-026	SP Text Mode	Printer SP	CTL	[0 to 255 / 0 / 0]
5-992-027	SP Text Mode	SmartOperationPanel SP	CTL	[0 to 255 / 0 / 0]
5-992-028	SP Text Mode	SmartOperationPanel UP	CTL	[0 to 255 / 0 / 0]

SP Tables - SP6-XXX

SP6-XXX (Peripherals)

Engine

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 to 3 / 0 / 0.1mm]
6-006-002	ADF Adjustment	Side-to-Side Regist (1-Pass):Back	ENG*	[-2 to 2 / 0 / 0.1mm]
6-006-003	ADF Adjustment	L-Edge Regist (ARDF):Face	ENG*	[-5 to 5 / 0 / 0.1mm]
6-006-004	ADF Adjustment	L-Edge Regist (ARDF):Back	ENG*	[-5 to 5 / 0 / 0.1mm]
6-006-005	ADF Adjustment	Side-to-Side Regist (ARDF):Back	ENG*	[-3 to 3 / 0 / 0.1mm]
6-006-007	ADF Adjustment	T-Edge Erase (ARDF)	ENG*	[-5 to 5 / -1.6 / 0.1mm]
6-006-010	ADF Adjustment	L-Edge Regist (1-Pass):Face	ENG*	[-5 to 5 / 0 / 0.1mm]
6-006-011	ADF Adjustment	L-Edge Regist (1-Pass):Back	ENG*	[-5 to 5 / 0 / 0.1mm]
6-006-014	ADF Adjustment	T-Edge Erase Width (1-Pass):Face	ENG*	[-5 to 5 / -1.6 / 0.1mm]
6-006-015	ADF Adjustment	T-Edge Erase Width (1-Pass):Back	ENG*	[-5 to 5 / -1.6 / 0.1mm]
6-009-001	ADF Free Run	Simplex Mode	ENG	[0 or 1 / 0 / 1STEP]
6-009-002	ADF Free Run	Duplex Mode	ENG	[0 or 1 / 0 / 1STEP]
6-017-001	ADF Adjustment L-Edge Mag		ENG*	[-5 to 5 / 0 / 0.1%]
6-021-001	ARDF Motor	Gain Selection	ENG*	[0 to 2 / 0 / 1]
6-040-001	Page Keeper	Mount Select	ENG*	[0 or 1 / 0 / 1]
6-040-005	Page Keeper	Clear Select	ENG*	[0 or 1 / 1 / 1]

Controller

6800	**[Sheet Conversion (Thick Paper)]**		
	Not used		
6-800-001	1 to 3 (Initial: 3 Sheets)	CTL	[1 to 3 / **3** / 1/step]

6810	**[Ring Bind Sheet Conversion (Thick Paper)]**		
	Not used		
6-810-001	-	CTL	[1 to 3 / **3** / 1/step]

6830	**[Extra]**		
	Not used		
6-830-001	Staples 0 to 50 (Initial: 0)	*CTL	[0 to 50 / **0** / 1/step]
6-830-002	Saddles 0 to 50 (Initial: 0)	*CTL	[0 to 50 / **0** / 1/step]
6-830-003	Half-Fold 0 to 50 (Initial: 0)	*CTL	[0 to 50 / **0** / 1/step]
6-830-004	Ring Binding 0 to 50 (Initial: 0)	*CTL	[0 to 50 / **0** / 1/step]

6890	**[Function Enabled]**		
	Not used		
6-890-001	Z-Fold 0: No Punch 1: Punching OK	*CTL	[0 or 1 / **1** / 1/step]
6-890-002	Staple 0: No Shift 1: Shift OK	*CTL	[0 or 1 / **0** / 1/step]

SP Tables - SP7-XXX

SP7-XXX (Engine: Data Log)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-621-002	PM Counter Display: Pages	# PCU:Bk	ENG	[0 to 99999999 / 0 / 1page]
7-621-003	PM Counter Display: Pages	# Dev Unit:Bk	ENG*	[0 to 99999999 / 0 / 1page]
7-621-025	PM Counter Display: Pages	# PCU:C	ENG	[0 to 99999999 / 0 / 1page]
7-621-026	PM Counter Display: Pages	# Dev Unit:C	ENG*	[0 to 99999999 / 0 / 1page]
7-621-048	PM Counter Display: Pages	# PCU:M	ENG	[0 to 99999999 / 0 / 1page]
7-621-049	PM Counter Display: Pages	# Dev Unit:M	ENG*	[0 to 99999999 / 0 / 1page]
7-621-071	PM Counter Display: Pages	# PCU:Y	ENG	[0 to 99999999 / 0 / 1page]
7-621-072	PM Counter Display: Pages	# Dev Unit:Y	ENG*	[0 to 99999999 / 0 / 1page]
7-621-093	PM Counter Display: Pages	# ITB Unit	ENG	[0 to 99999999 / 0 / 1page]
7-621-102	PM Counter Display: Pages	# ITB Cleaning Unit	ENG	[0 to 99999999 / 0 / 1page]
7-621-109	PM Counter Display: Pages	# PTR Unit	ENG	[0 to 99999999 / 0 / 1page]
7-621-115	PM Counter Display: Pages	# Fusing Unit	ENG	[0 to 99999999 / 0 / 1page]
7-621-116	PM Counter Display: Pages	Fusing Sleeve	ENG	[0 to 99999999 / 0 / 1page]
7-621-118	PM Counter Display: Pages	Pressure Roller	ENG	[0 to 99999999 / 0 / 1page]
7-621-142	PM Counter Display: Pages	#Waste Toner bottle	ENG	[0 to 999999999 / 0 / 1mg]
7-621-145	PM Counter Display: Pages	Tray1 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page]
7-621-	PM Counter Display:	#Paper Feed Roller:Tray1	ENG	[0 to 99999999 / 0 /

147	Pages			1page]
7-621-148	PM Counter Display: Pages	#Friction Pad:Tray1	ENG	[0 to 99999999 / 0 / 1page]
7-621-169	PM Counter Display: Pages	#Feed Roller:Bypass	ENG	[0 to 99999999 / 0 / 1page]
7-621-206	PM Counter Display: Pages	DF Friction Pad	ENG	[0 to 99999999 / 0 / 1page]
7-621-207	PM Counter Display: Pages	DF Pickup Roller	ENG	[0 to 99999999 / 0 / 1page]
7-621-208	PM Counter Display: Pages	DF Feed Roller	ENG	[0 to 99999999 / 0 / 1page]
7-622-002	PM Counter Clear	# PCU:Bk	ENG	[0 or 1 / 0 / 1]
7-622-003	PM Counter Clear	# Dev Unit:Bk	ENG	[0 or 1 / 0 / 1]
7-622-025	PM Counter Clear	# PCU:C	ENG	[0 or 1 / 0 / 1]
7-622-026	PM Counter Clear	# Dev Unit:C	ENG	[0 or 1 / 0 / 1]
7-622-048	PM Counter Clear	# PCU:M	ENG	[0 or 1 / 0 / 1]
7-622-049	PM Counter Clear	# Dev Unit:M	ENG	[0 or 1 / 0 / 1]
7-622-071	PM Counter Clear	# PCU:Y	ENG	[0 or 1 / 0 / 1]
7-622-072	PM Counter Clear	# Dev Unit:Y	ENG	[0 or 1 / 0 / 1]
7-622-093	PM Counter Clear	# ITB Unit	ENG	[0 or 1 / 0 / 1]
7-622-102	PM Counter Clear	# ITB Cleaning Unit	ENG	[0 or 1 / 0 / 1]
7-622-109	PM Counter Clear	# PTR Unit	ENG	[0 or 1 / 0 / 1]
7-622-115	PM Counter Clear	# Fusing Unit	ENG	[0 or 1 / 0 / 1]
7-622-116	PM Counter Clear	Fusing Sleeve	ENG	[0 or 1 / 0 / 1]
7-622-	PM Counter Clear	Pressure Roller	ENG	[0 or 1 / 0 / 1]

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7-622-145	PM Counter Clear	Tray1 Roller Assembly	ENG	[0 or 1 / 0 / 1]
7-622-147	PM Counter Clear	#Paper Feed Roller:Tray1	ENG	[0 or 1 / 0 / 1]
7-622-148	PM Counter Clear	#Friction Pad:Tray1	ENG	[0 or 1 / 0 / 1]
7-622-169	PM Counter Clear	#Feed Roller:Bypass	ENG	[0 or 1 / 0 / 1]
7-622-206	PM Counter Clear	DF Friction Pad	ENG	[0 or 1 / 0 / 1]
7-622-207	PM Counter Clear	DF Pickup Roller	ENG	[0 or 1 / 0 / 1]
7-622-208	PM Counter Clear	DF Feed Roller	ENG	[0 or 1 / 0 / 1]
7-622-220	PM Counter Clear	Toner Sub Hopper:Bk	ENG	[0 or 1 / 0 / 1]
7-622-221	PM Counter Clear	Toner Sub Hopper:C	ENG	[0 or 1 / 0 / 1]
7-622-222	PM Counter Clear	Toner Sub Hopper:M	ENG	[0 or 1 / 0 / 1]
7-622-223	PM Counter Clear	Toner Sub Hopper:Y	ENG	[0 or 1 / 0 / 1]
7-622-245	PM Counter Clear	PCU:All Colors	ENG	[0 or 1 / 0 / 1]
7-622-246	PM Counter Clear	Development Unit:All Colors	ENG	[0 or 1 / 0 / 1]
7-622-249	PM Counter Clear	Toner Sub Hopper:All Colors	ENG	[0 or 1 / 0 / 1]
7-622-250	PM Counter Clear	All Clear	ENG	[0 or 1 / 0 / 1]
7-623-002	PM Value Setting: Life Pages	# PCU:Bk	ENG	[0 to 99999999 / 0 / 1page]
7-623-003	PM Value Setting: Life Pages	# Dev Unit:Bk	ENG	[0 to 99999999 / 0 / 1page]
7-623-025	PM Value Setting: Life Pages	# PCU:C	ENG	[0 to 99999999 / 0 / 1page]
7-623-	PM Value Setting: Life	# Dev Unit:C	ENG	[0 to 99999999 / 0 /

026	Pages			1page]
7-623-048	PM Value Setting: Life Pages	# PCU:M	ENG	[0 to 99999999 / 0 / 1page]
7-623-049	PM Value Setting: Life Pages	# Dev Unit:M	ENG	[0 to 99999999 / 0 / 1page]
7-623-071	PM Value Setting: Life Pages	# PCU:Y	ENG	[0 to 99999999 / 0 / 1page]
7-623-072	PM Value Setting: Life Pages	# Dev Unit:Y	ENG	[0 to 99999999 / 0 / 1page]
7-623-093	PM Value Setting: Life Pages	# ITB Unit	ENG	[0 to 99999999 / 120000 / 1page]
7-623-102	PM Value Setting: Life Pages	# ITB Cleaning Unit	ENG	[0 to 99999999 / 120000 / 1page]
7-623-109	PM Value Setting: Life Pages	# PTR Unit	ENG	[0 to 99999999 / 120000 / 1page]
7-623-115	PM Value Setting: Life Pages	# Fusing Unit	ENG	[0 to 99999999 / 120000 / 1page]
7-623-116	PM Value Setting: Life Pages	Fusing Sleeve	ENG	[0 to 99999999 / 120000 / 1page]
7-623-118	PM Value Setting: Life Pages	Pressure Roller	ENG	[0 to 99999999 / 120000 / 1page]
7-623-142	PM Value Setting: Life Pages	#Waste Toner bottle	ENG	[0 to 999999999 / 800000 / 1mg]
7-623-145	PM Value Setting Life Pages	Tray1 Roller Assembly	ENG	[0 to 99999999 / 120000 / 1page]
7-623-147	PM Value Setting Life Pages	#Paper Feed Roller:Tray1	ENG	[0 to 99999999 / 120000 / 1page]
7-623-148	PM Value Setting Life Pages	#Friction Pad:Tray1	ENG	[0 to 99999999 / 120000 / 1page]
7-623-169	PM Value Setting Life Pages	#Feed Roller:Bypass	ENG	[0 to 99999999 / 120000 / 1page]
7-625-002	Previous Unit Counter: Pages	# PCU:Bk	ENG	[0 to 99999999 / 0 / 1page]
7-625-003	Previous Unit Counter: Pages	# Dev Unit:Bk	ENG	[0 to 99999999 / 0 / 1page]
7-625-025	Previous Unit Counter: Pages	# PCU:C	ENG	[0 to 99999999 / 0 / 1page]
7-625-	Previous Unit Counter:	# Dev Unit:C	ENG	[0 to 99999999 / 0 /

026	Pages			1page]
7-625-048	Previous Unit Counter: Pages	# PCU:M	ENG	[0 to 99999999 / 0 / 1page]
7-625-049	Previous Unit Counter: Pages	# Dev Unit:M	ENG	[0 to 99999999 / 0 / 1page]
7-625-071	Previous Unit Counter: Pages	# PCU:Y	ENG	[0 to 99999999 / 0 / 1page]
7-625-072	Previous Unit Counter: Pages	# Dev Unit:Y	ENG	[0 to 99999999 / 0 / 1page]
7-625-093	Previous Unit Counter: Pages	# ITB Unit	ENG	[0 to 99999999 / 0 / 1page]
7-625-102	Previous Unit Counter: Pages	# ITB Cleaning Unit	ENG	[0 to 99999999 / 0 / 1page]
7-625-109	Previous Unit Counter: Pages	# PTR Unit	ENG	[0 to 99999999 / 0 / 1page]
7-625-115	Previous Unit Counter: Pages	# Fusing Unit	ENG	[0 to 99999999 / 0 / 1page]
7-625-116	Previous Unit Counter: Pages	Fusing Sleeve	ENG	[0 to 99999999 / 0 / 1page]
7-625-118	Previous Unit Counter: Pages	Pressure Roller	ENG	[0 to 99999999 / 0 / 1page]
7-625-142	Previous Unit Counter: Pages	#Waste Toner bottle	ENG	[0 to 999999999 / 0 / 1mg]
7-625-145	Previous Unit Counter: Pages	Tray1 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page]
7-625-147	Previous Unit Counter: Pages	#Paper Feed Roller:Tray1	ENG	[0 to 99999999 / 0 / 1page]
7-625-148	Previous Unit Counter: Pages	#Friction Pad:Tray1	ENG	[0 to 99999999 / 0 / 1page]
7-625-169	Previous Unit Counter: Pages	#Feed Roller:Bypass	ENG	[0 to 99999999 / 0 / 1page]
7-625-206	Previous Unit Counter: Pages	DF Friction Pad	ENG	[0 to 99999999 / 0 / 1page]
7-625-207	Previous Unit Counter: Pages	DF Pickup Roller	ENG	[0 to 99999999 / 0 / 1page]
7-625-208	Previous Unit Counter: Pages	DF Feed Roller	ENG	[0 to 99999999 / 0 / 1page]
7-626-	Previous Unit Counter2:	# PCU:Bk	ENG	[0 to 99999999 / 0 /

002	Pages			1page]
7-626-003	Previous Unit Counter2: Pages	# Dev Unit:Bk	ENG	[0 to 99999999 / 0 / 1page]
7-626-025	Previous Unit Counter2: Pages	# PCU:C	ENG	[0 to 99999999 / 0 / 1page]
7-626-026	Previous Unit Counter2: Pages	# Dev Unit:C	ENG	[0 to 99999999 / 0 / 1page]
7-626-048	Previous Unit Counter2: Pages	# PCU:M	ENG	[0 to 99999999 / 0 / 1page]
7-626-049	Previous Unit Counter2: Pages	# Dev Unit:M	ENG	[0 to 99999999 / 0 / 1page]
7-626-071	Previous Unit Counter2: Pages	# PCU:Y	ENG	[0 to 99999999 / 0 / 1page]
7-626-072	Previous Unit Counter2: Pages	# Dev Unit:Y	ENG	[0 to 99999999 / 0 / 1page]
7-626-093	Previous Unit Counter2: Pages	# ITB Unit	ENG	[0 to 99999999 / 0 / 1page]
7-626-102	Previous Unit Counter2: Pages	# ITB Cleaning Unit	ENG	[0 to 99999999 / 0 / 1page]
7-626-109	Previous Unit Counter2: Pages	# PTR Unit	ENG	[0 to 99999999 / 0 / 1page]
7-626-115	Previous Unit Counter2: Pages	# Fusing Unit	ENG	[0 to 99999999 / 0 / 1page]
7-626-116	Previous Unit Counter2: Pages	Fusing Sleeve	ENG	[0 to 99999999 / 0 / 1page]
7-626-118	Previous Unit Counter2: Pages	Pressure Roller	ENG	[0 to 99999999 / 0 / 1page]
7-626-142	Previous Unit Counter2: Pages	#Waste Toner bottle	ENG	[0 to 999999999 / 0 / 1mg]
7-626-145	Previous Unit Counter2: Pages	Tray1 Roller Assembly	ENG	[0 to 99999999 / 0 / 1page]
7-626-147	Previous Unit Counter2: Pages	#Paper Feed Roller:Tray1	ENG	[0 to 99999999 / 0 / 1page]
7-626-148	Previous Unit Counter2: Pages	#Friction Pad:Tray1	ENG	[0 to 99999999 / 0 / 1page]
7-626-169	Previous Unit Counter2: Pages	#Feed Roller:Bypass	ENG	[0 to 99999999 / 0 / 1page]
7-628-	PM Counter Clear	All Clear	ENG	[0 or 1 / 0 / 1]

002				
7-700-001	Accum Cvrg 1 img Process.:Disp	Bk	ENG*	[0 to 400000000 / 0 / 0.1%]
7-700-002	Accum Cvrg 1 img Process.:Disp	C	ENG*	[0 to 400000000 / 0 / 0.1%]
7-700-003	Accum Cvrg 1 img Process.:Disp	M	ENG*	[0 to 400000000 / 0 / 0.1%]
7-700-004	Accum Cvrg 1 img Process.:Disp	Y	ENG*	[0 to 400000000 / 0 / 0.1%]
7-701-001	Accum Cvrg 2 img Process.:Disp	Bk	ENG*	[0 to 400000000 / 0 / 0.1%]
7-701-002	Accum Cvrg 2 img Process.:Disp	C	ENG*	[0 to 400000000 / 0 / 0.1%]
7-701-003	Accum Cvrg 2 img Process.:Disp	M	ENG*	[0 to 400000000 / 0 / 0.1%]
7-701-004	Accum Cvrg 2 img Process.:Disp	Y	ENG*	[0 to 400000000 / 0 / 0.1%]
7-710-001	Print Pages: Display	Bk	ENG*	[0 to 99999999 / 0 / 1page]
7-710-002	Print Pages: Display	C	ENG*	[0 to 99999999 / 0 / 1page]
7-710-003	Print Pages: Display	M	ENG*	[0 to 99999999 / 0 / 1page]
7-710-004	Print Pages: Display	Y	ENG*	[0 to 99999999 / 0 / 1page]
7-720-001	Avg. Cvrg for img.: Display	Bk	ENG*	[0 to 100 / 0 / 0.01%]
7-720-002	Avg. Cvrg for img.: Display	C	ENG*	[0 to 100 / 0 / 0.01%]
7-720-003	Avg. Cvrg for img.: Display	M	ENG*	[0 to 100 / 0 / 0.01%]
7-720-004	Avg. Cvrg for img.: Display	Y	ENG*	[0 to 100 / 0 / 0.01%]
7-801-002	ROM No.	Engine	ENG	[- / - / -]
7-801-009	ROM No.	PFU	ENG	[- / - / -]
7-801-	ROM No.	PFU2	ENG	[- / - / -]

019				
7-801-102	Firmware Version	Engine	ENG	[- / - / -]
7-801-109	Firmware Version	PFU	ENG	[- / - / -]
7-801-119	Firmware Version	PFU2	ENG	[- / - / -]
7-852-001	DF Glass Dust Check	Dust Detection Counter	ENG*	[0 to 65535 / 0 / 1]
7-852-002	DF Glass Dust Check	Dust Detection Clear Counter	ENG*	[0 to 65535 / 0 / 1]
7-852-003	DF Glass Dust Check	(1-Pass) Dust Detection Counter: Back	ENG*	[0 to 65535 / 0 / 1]
7-853-002	Replace Counter	# PCU:Bk	ENG	[0 to 255 / 0 / 1]
7-853-003	Replace Counter	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1]
7-853-025	Replace Counter	# PCU:C	ENG	[0 to 255 / 0 / 1]
7-853-026	Replace Counter	# Dev Unit:C	ENG	[0 to 255 / 0 / 1]
7-853-048	Replace Counter	# PCU:M	ENG	[0 to 255 / 0 / 1]
7-853-049	Replace Counter	# Dev Unit:M	ENG	[0 to 255 / 0 / 1]
7-853-071	Replace Counter	# PCU:Y	ENG	[0 to 255 / 0 / 1]
7-853-072	Replace Counter	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1]
7-853-093	Replace Counter	# ITB Unit	ENG	[0 to 255 / 0 / 1]
7-853-102	Replace Counter	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1]
7-853-109	Replace Counter	# PTR Unit	ENG	[0 to 255 / 0 / 1]
7-853-115	Replace Counter	# Fusing Unit	ENG	[0 to 255 / 0 / 1]
7-853-	Replace Counter	Fusing Sleeve	ENG	[0 to 255 / 0 / 1]

116				
7-853-118	Replace Counter	Pressure Roller	ENG	[0 to 255 / 0 / 1]
7-853-142	Replace Counter	#Waste Toner bottle	ENG	[0 to 255 / 0 / 1]
7-906-002	Previous Unit Counter:Distance	# PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-003	Previous Unit Counter:Distance	# Dev Unit:Bk	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-025	Previous Unit Counter:Distance	# PCU:C	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-026	Previous Unit Counter:Distance	# Dev Unit:C	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-048	Previous Unit Counter:Distance	# PCU:M	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-049	Previous Unit Counter:Distance	# Dev Unit:M	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-071	Previous Unit Counter:Distance	# PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-072	Previous Unit Counter:Distance	# Dev Unit:Y	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-093	Previous Unit Counter:Distance	# ITB Unit	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-102	Previous Unit Counter:Distance	# ITB Cleaning Unit	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-109	Previous Unit Counter:Distance	# PTR Unit	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-115	Previous Unit Counter:Distance	# Fusing Unit	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-116	Previous Unit Counter:Distance	Fusing Sleeve	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-118	Previous Unit Counter:Distance	Pressure Roller	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-220	Previous Unit Counter:Distance	Toner Sub Hopper:Bk	ENG	[0 to 999999999 / 0 / 1]
7-906-221	Previous Unit Counter:Distance	Toner Sub Hopper:C	ENG	[0 to 999999999 / 0 / 1]
7-906-	Previous Unit	Toner Sub Hopper:M	ENG	[0 to 999999999 / 0 / 1]

222	Counter:Distance			
7-906-223	Previous Unit Counter:Distance	Toner Sub Hopper:Y	ENG	[0 to 999999999 / 0 / 1]
7-906-230	Previous Unit Counter:Distance	Low Speed: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-231	Previous Unit Counter:Distance	Low Speed: # PCU:C	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-232	Previous Unit Counter:Distance	Low Speed: # PCU:M	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-233	Previous Unit Counter:Distance	Low Speed: # PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-234	Previous Unit Counter:Distance	Middle Speed: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-235	Previous Unit Counter:Distance	Middle Speed: # PCU:C	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-236	Previous Unit Counter:Distance	Middle Speed: # PCU:M	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-237	Previous Unit Counter:Distance	Middle Speed: # PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm]
7-906-238	Previous Unit Counter:Distance	Standard Speed2: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm]
7-907-002	Previous Unit Cntr:Distance(%)	# PCU:Bk	ENG	[0 to 255 / 0 / 1%]
7-907-003	Previous Unit Cntr:Distance(%)	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1%]
7-907-025	Previous Unit Cntr:Distance(%)	# PCU:C	ENG	[0 to 255 / 0 / 1%]
7-907-026	Previous Unit Cntr:Distance(%)	# Dev Unit:C	ENG	[0 to 255 / 0 / 1%]
7-907-048	Previous Unit Cntr:Distance(%)	# PCU:M	ENG	[0 to 255 / 0 / 1%]
7-907-049	Previous Unit Cntr:Distance(%)	# Dev Unit:M	ENG	[0 to 255 / 0 / 1%]
7-907-071	Previous Unit Cntr:Distance(%)	# PCU:Y	ENG	[0 to 255 / 0 / 1%]
7-907-072	Previous Unit Cntr:Distance(%)	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1%]
7-907-	Previous Unit	# ITB Unit	ENG	[0 to 255 / 0 / 1%]

093	Cntr:Distance(%)			
7-907-102	Previous Unit Cntr:Distance(%)	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1%]
7-907-109	Previous Unit Cntr:Distance(%)	# PTR Unit	ENG	[0 to 255 / 0 / 1%]
7-907-115	Previous Unit Cntr:Distance(%)	# Fusing Unit	ENG	[0 to 255 / 0 / 1%]
7-907-116	Previous Unit Cntr:Distance(%)	Fusing Sleeve	ENG	[0 to 255 / 0 / 1%]
7-907-118	Previous Unit Cntr:Distance(%)	Pressure Roller	ENG	[0 to 255 / 0 / 1%]
7-908-002	Previous Unit Counter:Pages(%)	# PCU:Bk	ENG	[0 to 255 / 0 / 1%]
7-908-003	Previous Unit Counter:Pages(%)	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1%]
7-908-025	Previous Unit Counter:Pages(%)	# PCU:C	ENG	[0 to 255 / 0 / 1%]
7-908-026	Previous Unit Counter:Pages(%)	# Dev Unit:C	ENG	[0 to 255 / 0 / 1%]
7-908-048	Previous Unit Counter:Pages(%)	# PCU:M	ENG	[0 to 255 / 0 / 1%]
7-908-049	Previous Unit Counter:Pages(%)	# Dev Unit:M	ENG	[0 to 255 / 0 / 1%]
7-908-071	Previous Unit Counter:Pages(%)	# PCU:Y	ENG	[0 to 255 / 0 / 1%]
7-908-072	Previous Unit Counter:Pages(%)	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1%]
7-908-093	Previous Unit Counter:Pages(%)	# ITB Unit	ENG	[0 to 255 / 0 / 1%]
7-908-102	Previous Unit Counter:Pages(%)	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1%]
7-908-109	Previous Unit Counter:Pages(%)	# PTR Unit	ENG	[0 to 255 / 0 / 1%]
7-908-115	Previous Unit Counter:Pages(%)	# Fusing Unit	ENG	[0 to 255 / 0 / 1%]
7-908-116	Previous Unit Counter:Pages(%)	Fusing Sleeve	ENG	[0 to 255 / 0 / 1%]
7-908-	Previous Unit	Pressure Roller	ENG	[0 to 255 / 0 / 1%]

118	Counter:Pages(%)			
7-908-142	Previous Unit Counter:Pages(%)	#Waste Toner bottle	ENG	[0 to 255 / 0 / 1%]
7-908-145	Previous Unit Counter:Pages(%)	Tray1 Roller Assembly	ENG	[0 to 255 / 0 / 1%]
7-908-147	Previous Unit Counter:Pages(%)	#Paper Feed Roller:Tray1	ENG	[0 to 255 / 0 / 1%]
7-908-148	Previous Unit Counter:Pages(%)	#Friction Pad:Tray1	ENG	[0 to 255 / 0 / 1%]
7-908-169	Previous Unit Counter:Pages(%)	#Feed Roller:Bypass	ENG	[0 to 255 / 0 / 1%]
7-931-001	Toner Bottle Bk	Machine Serial ID	ENG*	[0 to 255 / 0 / 1]
7-931-002	Toner Bottle Bk	Cartridge Ver	ENG*	[0 to 255 / 0 / 1]
7-931-003	Toner Bottle Bk	Brand ID	ENG*	[0 to 255 / 0 / 1]
7-931-004	Toner Bottle Bk	Area ID	ENG*	[0 to 255 / 0 / 1]
7-931-005	Toner Bottle Bk	Product ID	ENG*	[0 to 255 / 0 / 1]
7-931-006	Toner Bottle Bk	Color ID	ENG*	[0 to 255 / 0 / 1]
7-931-007	Toner Bottle Bk	Maintenance ID	ENG*	[0 to 255 / 0 / 1]
7-931-008	Toner Bottle Bk	New Product Information	ENG*	[0 to 255 / 0 / 1]
7-931-009	Toner Bottle Bk	Recycle Counter	ENG*	[0 to 255 / 0 / 1]
7-931-010	Toner Bottle Bk	Date	ENG*	[- / - / -]
7-931-011	Toner Bottle Bk	SerialNo.	ENG*	[- / - / -]
7-931-012	Toner Bottle Bk	Toner Remaining	ENG*	[0 to 100 / 100 / 1%]
7-931-013	Toner Bottle Bk	EDP Code	ENG*	[- / - / -]
7-931-	Toner Bottle Bk	End History	ENG*	[- / - / -]

014				
7-931-015	Toner Bottle Bk	Refill Information	ENG*	[- / - / -]
7-931-016	Toner Bottle Bk	Attachment: Total Counter	ENG*	[0 to 99999999 / 0 / 1]
7-931-017	Toner Bottle Bk	Attachment: Color Counter	ENG*	[0 to 99999999 / 0 / 1]
7-931-018	Toner Bottle Bk	End: Total Counter	ENG*	[0 to 99999999 / 0 / 1]
7-931-019	Toner Bottle Bk	End: Color Counter	ENG*	[0 to 99999999 / 0 / 1]
7-931-020	Toner Bottle Bk	Attachment Date	ENG*	[- / - / -]
7-931-021	Toner Bottle Bk	End Date	ENG*	[- / - / -]
7-932-001	Toner Bottle M	Machine Serial ID	ENG*	[0 to 255 / 0 / 1]
7-932-002	Toner Bottle M	Cartridge Ver	ENG*	[0 to 255 / 0 / 1]
7-932-003	Toner Bottle M	Brand ID	ENG*	[0 to 255 / 0 / 1]
7-932-004	Toner Bottle M	Area ID	ENG*	[0 to 255 / 0 / 1]
7-932-005	Toner Bottle M	Product ID	ENG*	[0 to 255 / 0 / 1]
7-932-006	Toner Bottle M	Color ID	ENG*	[0 to 255 / 0 / 1]
7-932-007	Toner Bottle M	Maintenance ID	ENG*	[0 to 255 / 0 / 1]
7-932-008	Toner Bottle M	New Product Information	ENG*	[0 to 255 / 0 / 1]
7-932-009	Toner Bottle M	Recycle Counter	ENG*	[0 to 255 / 0 / 1]
7-932-010	Toner Bottle M	Date	ENG*	[- / - / -]
7-932-011	Toner Bottle M	SerialNo.	ENG*	[- / - / -]
7-932-	Toner Bottle M	Toner Remaining	ENG*	[0 to 100 / 100 / 1%]

012				
7-932-013	Toner Bottle M	EDP Code	ENG*	[- / - / -]
7-932-014	Toner Bottle M	End History	ENG*	[- / - / -]
7-932-015	Toner Bottle M	Refill Information	ENG*	[- / - / -]
7-932-016	Toner Bottle M	Attachment: Total Counter	ENG*	[0 to 99999999 / 0 / 1]
7-932-017	Toner Bottle M	Attachment: Color Counter	ENG*	[0 to 99999999 / 0 / 1]
7-932-018	Toner Bottle M	End: Total Counter	ENG*	[0 to 99999999 / 0 / 1]
7-932-019	Toner Bottle M	End: Color Counter	ENG*	[0 to 99999999 / 0 / 1]
7-932-020	Toner Bottle M	Attachment Date	ENG*	[- / - / -]
7-932-021	Toner Bottle M	End Date	ENG*	[- / - / -]
7-933-001	Toner Bottle C	Machine Serial ID	ENG*	[0 to 255 / 0 / 1]
7-933-002	Toner Bottle C	Cartridge Ver	ENG*	[0 to 255 / 0 / 1]
7-933-003	Toner Bottle C	Brand ID	ENG*	[0 to 255 / 0 / 1]
7-933-004	Toner Bottle C	Area ID	ENG*	[0 to 255 / 0 / 1]
7-933-005	Toner Bottle C	Product ID	ENG*	[0 to 255 / 0 / 1]
7-933-006	Toner Bottle C	Color ID	ENG*	[0 to 255 / 0 / 1]
7-933-007	Toner Bottle C	Maintenance ID	ENG*	[0 to 255 / 0 / 1]
7-933-008	Toner Bottle C	New Product Information	ENG*	[0 to 255 / 0 / 1]
7-933-009	Toner Bottle C	Recycle Counter	ENG*	[0 to 255 / 0 / 1]
7-933-	Toner Bottle C	Date	ENG*	[- / - / -]

010				
7-933-011	Toner Bottle C	SerialNo.	ENG*	[- / - / -]
7-933-012	Toner Bottle C	Toner Remaining	ENG*	[0 to 100 / 100 / 1%]
7-933-013	Toner Bottle C	EDP Code	ENG*	[- / - / -]
7-933-014	Toner Bottle C	End History	ENG*	[- / - / -]
7-933-015	Toner Bottle C	Refill Information	ENG*	[- / - / -]
7-933-016	Toner Bottle C	Attachment: Total Counter	ENG*	[0 to 99999999 / 0 / 1]
7-933-017	Toner Bottle C	Attachment: Color Counter	ENG*	[0 to 99999999 / 0 / 1]
7-933-018	Toner Bottle C	End: Total Counter	ENG*	[0 to 99999999 / 0 / 1]
7-933-019	Toner Bottle C	End: Color Counter	ENG*	[0 to 99999999 / 0 / 1]
7-933-020	Toner Bottle C	Attachment Date	ENG*	[- / - / -]
7-933-021	Toner Bottle C	End Date	ENG*	[- / - / -]
7-934-001	Toner Bottle Y	Machine Serial ID	ENG*	[0 to 255 / 0 / 1]
7-934-002	Toner Bottle Y	Cartridge Ver	ENG*	[0 to 255 / 0 / 1]
7-934-003	Toner Bottle Y	Brand ID	ENG*	[0 to 255 / 0 / 1]
7-934-004	Toner Bottle Y	Area ID	ENG*	[0 to 255 / 0 / 1]
7-934-005	Toner Bottle Y	Product ID	ENG*	[0 to 255 / 0 / 1]
7-934-006	Toner Bottle Y	Color ID	ENG*	[0 to 255 / 0 / 1]
7-934-007	Toner Bottle Y	Maintenance ID	ENG*	[0 to 255 / 0 / 1]
7-934-	Toner Bottle Y	New Product Information	ENG*	[0 to 255 / 0 / 1]

008				
7-934-009	Toner Bottle Y	Recycle Counter	ENG*	[0 to 255 / 0 / 1]
7-934-010	Toner Bottle Y	Date	ENG*	[- / - / -]
7-934-011	Toner Bottle Y	SerialNo.	ENG*	[- / - / -]
7-934-012	Toner Bottle Y	Toner Remaining	ENG*	[0 to 100 / 100 / 1%]
7-934-013	Toner Bottle Y	EDP Code	ENG*	[- / - / -]
7-934-014	Toner Bottle Y	End History	ENG*	[- / - / -]
7-934-015	Toner Bottle Y	Refill Information	ENG*	[- / - / -]
7-934-016	Toner Bottle Y	Attachment: Total Counter	ENG*	[0 to 99999999 / 0 / 1]
7-934-017	Toner Bottle Y	Attachment: Color Counter	ENG*	[0 to 99999999 / 0 / 1]
7-934-018	Toner Bottle Y	End: Total Counter	ENG*	[0 to 99999999 / 0 / 1]
7-934-019	Toner Bottle Y	End: Color Counter	ENG*	[0 to 99999999 / 0 / 1]
7-934-020	Toner Bottle Y	Attachment Date	ENG*	[- / - / -]
7-934-021	Toner Bottle Y	End Date	ENG*	[- / - / -]
7-935-001	Toner Bottle Log 1: Bk	SerialNo.	ENG	[- / - / -]
7-935-002	Toner Bottle Log 1: Bk	Attachment Date	ENG	[- / - / -]
7-935-003	Toner Bottle Log 1: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-935-004	Toner Bottle Log 1: Bk	Refill Information	ENG*	[- / - / -]
7-935-011	Toner Bottle Log 2: Bk	SerialNo.	ENG	[- / - / -]
7-935-	Toner Bottle Log 2: Bk	Attachment Date	ENG	[- / - / -]

012				
7-935-013	Toner Bottle Log 2: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-935-014	Toner Bottle Log 2: Bk	Refill Information	ENG*	[- / - / -]
7-935-021	Toner Bottle Log 3: Bk	SerialNo.	ENG	[- / - / -]
7-935-022	Toner Bottle Log 3: Bk	Attachment Date	ENG	[- / - / -]
7-935-023	Toner Bottle Log 3: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-935-024	Toner Bottle Log 3: Bk	Refill Information	ENG*	[- / - / -]
7-935-031	Toner Bottle Log 4: Bk	SerialNo.	ENG	[- / - / -]
7-935-032	Toner Bottle Log 4: Bk	Attachment Date	ENG	[- / - / -]
7-935-033	Toner Bottle Log 4: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-935-034	Toner Bottle Log 4: Bk	Refill Information	ENG*	[- / - / -]
7-935-041	Toner Bottle Log 5: Bk	SerialNo.	ENG	[- / - / -]
7-935-042	Toner Bottle Log 5: Bk	Attachment Date	ENG	[- / - / -]
7-935-043	Toner Bottle Log 5: Bk	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-935-044	Toner Bottle Log 5: Bk	Refill Information	ENG*	[- / - / -]
7-936-001	Toner Bottle Log 1: M	SerialNo.	ENG	[- / - / -]
7-936-002	Toner Bottle Log 1: M	Attachment Date	ENG	[- / - / -]
7-936-003	Toner Bottle Log 1: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-936-004	Toner Bottle Log 1: M	Refill Information	ENG*	[- / - / -]
7-936-	Toner Bottle Log 2: M	SerialNo.	ENG	[- / - / -]

011				
7-936-012	Toner Bottle Log 2: M	Attachment Date	ENG	[- / - / -]
7-936-013	Toner Bottle Log 2: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-936-014	Toner Bottle Log 2: M	Refill Information	ENG*	[- / - / -]
7-936-021	Toner Bottle Log 3: M	SerialNo.	ENG	[- / - / -]
7-936-022	Toner Bottle Log 3: M	Attachment Date	ENG	[- / - / -]
7-936-023	Toner Bottle Log 3: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-936-024	Toner Bottle Log 3: M	Refill Information	ENG*	[- / - / -]
7-936-031	Toner Bottle Log 4: M	SerialNo.	ENG	[- / - / -]
7-936-032	Toner Bottle Log 4: M	Attachment Date	ENG	[- / - / -]
7-936-033	Toner Bottle Log 4: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-936-034	Toner Bottle Log 4: M	Refill Information	ENG*	[- / - / -]
7-936-041	Toner Bottle Log 5: M	SerialNo.	ENG	[- / - / -]
7-936-042	Toner Bottle Log 5: M	Attachment Date	ENG	[- / - / -]
7-936-043	Toner Bottle Log 5: M	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-936-044	Toner Bottle Log 5: M	Refill Information	ENG*	[- / - / -]
7-937-001	Toner Bottle Log 1: C	SerialNo.	ENG	[- / - / -]
7-937-002	Toner Bottle Log 1: C	Attachment Date	ENG	[- / - / -]
7-937-003	Toner Bottle Log 1: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-937-	Toner Bottle Log 1: C	Refill Information	ENG*	[- / - / -]

004				
7-937-011	Toner Bottle Log 2: C	SerialNo.	ENG	[- / - / -]
7-937-012	Toner Bottle Log 2: C	Attachment Date	ENG	[- / - / -]
7-937-013	Toner Bottle Log 2: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-937-014	Toner Bottle Log 2: C	Refill Information	ENG*	[- / - / -]
7-937-021	Toner Bottle Log 3: C	SerialNo.	ENG	[- / - / -]
7-937-022	Toner Bottle Log 3: C	Attachment Date	ENG	[- / - / -]
7-937-023	Toner Bottle Log 3: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-937-024	Toner Bottle Log 3: C	Refill Information	ENG*	[- / - / -]
7-937-031	Toner Bottle Log 4: C	SerialNo.	ENG	[- / - / -]
7-937-032	Toner Bottle Log 4: C	Attachment Date	ENG	[- / - / -]
7-937-033	Toner Bottle Log 4: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-937-034	Toner Bottle Log 4: C	Refill Information	ENG*	[- / - / -]
7-937-041	Toner Bottle Log 5: C	SerialNo.	ENG	[- / - / -]
7-937-042	Toner Bottle Log 5: C	Attachment Date	ENG	[- / - / -]
7-937-043	Toner Bottle Log 5: C	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-937-044	Toner Bottle Log 5: C	Refill Information	ENG*	[- / - / -]
7-938-001	Toner Bottle Log 1: Y	SerialNo.	ENG	[- / - / -]
7-938-002	Toner Bottle Log 1: Y	Attachment Date	ENG	[- / - / -]
7-938-	Toner Bottle Log 1: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]

003				
7-938-004	Toner Bottle Log 1: Y	Refill Information	ENG*	[- / - / -]
7-938-011	Toner Bottle Log 2: Y	SerialNo.	ENG	[- / - / -]
7-938-012	Toner Bottle Log 2: Y	Attachment Date	ENG	[- / - / -]
7-938-013	Toner Bottle Log 2: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-938-014	Toner Bottle Log 2: Y	Refill Information	ENG*	[- / - / -]
7-938-021	Toner Bottle Log 3: Y	SerialNo.	ENG	[- / - / -]
7-938-022	Toner Bottle Log 3: Y	Attachment Date	ENG	[- / - / -]
7-938-023	Toner Bottle Log 3: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-938-024	Toner Bottle Log 3: Y	Refill Information	ENG*	[- / - / -]
7-938-031	Toner Bottle Log 4: Y	SerialNo.	ENG	[- / - / -]
7-938-032	Toner Bottle Log 4: Y	Attachment Date	ENG	[- / - / -]
7-938-033	Toner Bottle Log 4: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-938-034	Toner Bottle Log 4: Y	Refill Information	ENG*	[- / - / -]
7-938-041	Toner Bottle Log 5: Y	SerialNo.	ENG	[- / - / -]
7-938-042	Toner Bottle Log 5: Y	Attachment Date	ENG	[- / - / -]
7-938-043	Toner Bottle Log 5: Y	Attachment: Total Counter	ENG	[0 to 99999999 / 0 / 1]
7-938-044	Toner Bottle Log 5: Y	Refill Information	ENG*	[- / - / -]
7-940-002	PM Value Setting:Life Distance	# PCU:Bk	ENG	[0 to 999999999 / 0 / 1mm]
7-940-	PM Value Setting:Life	# Dev Unit:Bk	ENG	[0 to 999999999 / 0 /

003	Distance			1mm]
7-940-025	PM Value Setting:Life Distance	# PCU:C	ENG	[0 to 999999999 / 0 / 1mm]
7-940-026	PM Value Setting:Life Distance	# Dev Unit:C	ENG	[0 to 999999999 / 0 / 1mm]
7-940-048	PM Value Setting:Life Distance	# PCU:M	ENG	[0 to 999999999 / 0 / 1mm]
7-940-049	PM Value Setting:Life Distance	# Dev Unit:M	ENG	[0 to 999999999 / 0 / 1mm]
7-940-071	PM Value Setting:Life Distance	# PCU:Y	ENG	[0 to 999999999 / 0 / 1mm]
7-940-072	PM Value Setting:Life Distance	# Dev Unit:Y	ENG	[0 to 999999999 / 0 / 1mm]
7-940-093	PM Value Setting:Life Distance	# ITB Unit	ENG	[0 to 999999999 / 95873985 / 1mm]
7-940-102	PM Value Setting:Life Distance	# ITB Cleaning Unit	ENG	[0 to 999999999 / 95873985 / 1mm]
7-940-109	PM Value Setting:Life Distance	# PTR Unit	ENG	[0 to 999999999 / 95873985 / 1mm]
7-940-115	PM Value Setting:Life Distance	# Fusing Unit	ENG	[0 to 999999999 / 168978600 / 1mm]
7-940-116	PM Value Setting:Life Distance	Fusing Sleeve	ENG	[0 to 999999999 / 168978600 / 1mm]
7-940-118	PM Value Setting:Life Distance	Pressure Roller	ENG	[0 to 999999999 / 168978600 / 1mm]
7-942-002	PM Counter Display:Distance(%)	# PCU:Bk	ENG	[0 to 255 / 0 / 1%]
7-942-003	PM Counter Display:Distance(%)	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1%]
7-942-025	PM Counter Display:Distance(%)	# PCU:C	ENG	[0 to 255 / 0 / 1%]
7-942-026	PM Counter Display:Distance(%)	# Dev Unit:C	ENG	[0 to 255 / 0 / 1%]
7-942-048	PM Counter Display:Distance(%)	# PCU:M	ENG	[0 to 255 / 0 / 1%]
7-942-049	PM Counter Display:Distance(%)	# Dev Unit:M	ENG	[0 to 255 / 0 / 1%]
7-942-	PM Counter	# PCU:Y	ENG	[0 to 255 / 0 / 1%]

071	Display:Distance(%)			
7-942-072	PM Counter Display:Distance(%)	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1%]
7-942-093	PM Counter Display:Distance(%)	# ITB Unit	ENG	[0 to 255 / 0 / 1%]
7-942-102	PM Counter Display:Distance(%)	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1%]
7-942-109	PM Counter Display:Distance(%)	# PTR Unit	ENG	[0 to 255 / 0 / 1%]
7-942-115	PM Counter Display:Distance(%)	# Fusing Unit	ENG	[0 to 255 / 0 / 1%]
7-942-116	PM Counter Display:Distance(%)	Fusing Sleeve	ENG	[0 to 255 / 0 / 1%]
7-942-118	PM Counter Display:Distance(%)	Pressure Roller	ENG	[0 to 255 / 0 / 1%]
7-944-002	PM Counter Display: Distance	# PCU:Bk	ENG*	[0 to 4294967295 / 0 / 1mm]
7-944-003	PM Counter Display: Distance	# Dev Unit:Bk	ENG*	[0 to 4294967295 / 0 / 1mm]
7-944-025	PM Counter Display: Distance	# PCU:C	ENG*	[0 to 4294967295 / 0 / 1mm]
7-944-026	PM Counter Display: Distance	# Dev Unit:C	ENG*	[0 to 4294967295 / 0 / 1mm]
7-944-048	PM Counter Display: Distance	# PCU:M	ENG*	[0 to 4294967295 / 0 / 1mm]
7-944-049	PM Counter Display: Distance	# Dev Unit:M	ENG*	[0 to 4294967295 / 0 / 1mm]
7-944-071	PM Counter Display: Distance	# PCU:Y	ENG*	[0 to 4294967295 / 0 / 1mm]
7-944-072	PM Counter Display: Distance	# Dev Unit:Y	ENG*	[0 to 4294967295 / 0 / 1mm]
7-944-093	PM Counter Display: Distance	# ITB Unit	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-102	PM Counter Display: Distance	# ITB Cleaning Unit	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-109	PM Counter Display: Distance	# PTR Unit	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-	PM Counter Display:	# Fusing Unit	ENG	[0 to 4294967295 / 0 /

115	Distance			1mm]
7-944-116	PM Counter Display: Distance	Fusing Sleeve	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-118	PM Counter Display: Distance	Pressure Roller	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-220	PM Counter Display: Distance	Toner Sub Hopper:Bk	ENG	[0 to 999999999 / 0 / 1]
7-944-221	PM Counter Display: Distance	Toner Sub Hopper:C	ENG	[0 to 999999999 / 0 / 1]
7-944-222	PM Counter Display: Distance	Toner Sub Hopper:M	ENG	[0 to 999999999 / 0 / 1]
7-944-223	PM Counter Display: Distance	Toner Sub Hopper:Y	ENG	[0 to 999999999 / 0 / 1]
7-944-230	PM Counter Display: Distance	Low Speed: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-231	PM Counter Display: Distance	Low Speed: # PCU:C	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-232	PM Counter Display: Distance	Low Speed: # PCU:M	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-233	PM Counter Display: Distance	Low Speed: # PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-234	PM Counter Display: Distance	Middle Speed: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-235	PM Counter Display: Distance	Middle Speed: # PCU:C	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-236	PM Counter Display: Distance	Middle Speed: # PCU:M	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-237	PM Counter Display: Distance	Middle Speed: # PCU:Y	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-238	PM Counter Display: Distance	Standard Speed2: # PCU:Bk	ENG	[0 to 4294967295 / 0 / 1mm]
7-944-240	PM Counter Display: Distance	ITB Unit:FC	ENG	[0 to 4294967295 / 0 / 1mm]
7-950-002	Unit Replacement Date	# PCU:Bk	ENG*	[- / - / -]
7-950-003	Unit Replacement Date	# Dev Unit:Bk	ENG*	[- / - / -]
7-950-	Unit Replacement Date	# PCU:C	ENG*	[- / - / -]

025				
7-950-026	Unit Replacement Date	# Dev Unit:C	ENG*	[- / - / -]
7-950-048	Unit Replacement Date	# PCU:M	ENG*	[- / - / -]
7-950-049	Unit Replacement Date	# Dev Unit:M	ENG*	[- / - / -]
7-950-071	Unit Replacement Date	# PCU:Y	ENG*	[- / - / -]
7-950-072	Unit Replacement Date	# Dev Unit:Y	ENG*	[- / - / -]
7-950-093	Unit Replacement Date	# ITB Unit	ENG*	[- / - / -]
7-950-102	Unit Replacement Date	# ITB Cleaning Unit	ENG*	[- / - / -]
7-950-109	Unit Replacement Date	# PTR Unit	ENG*	[- / - / -]
7-950-115	Unit Replacement Date	# Fusing Unit	ENG*	[- / - / -]
7-950-116	Unit Replacement Date	Fusing Sleeve	ENG*	[- / - / -]
7-950-118	Unit Replacement Date	Pressure Roller	ENG*	[- / - / -]
7-950-142	Unit Replacement Date	#Waste Toner bottle	ENG*	[- / - / -]
7-950-145	Unit Replacement Date	Tray1 Roller Assembly	ENG	[- / - / -]
7-950-147	Unit Replacement Date	#Paper Feed Roller:Tray1	ENG	[- / - / -]
7-950-148	Unit Replacement Date	#Friction Pad:Tray1	ENG	[- / - / -]
7-950-169	Unit Replacement Date	#Feed Roller:Bypass	ENG	[- / - / -]
7-951-002	Remain Day Counter: Pages	# PCU:Bk	ENG	[0 to 255 / 255 / 1day]
7-951-003	Remain Day Counter: Pages	# Dev Unit:Bk	ENG	[0 to 255 / 255 / 1day]
7-951-	Remain Day Counter:	# PCU:C	ENG	[0 to 255 / 255 / 1day]

025	Pages			
7-951-026	Remain Day Counter: Pages	# Dev Unit:C	ENG	[0 to 255 / 255 / 1day]
7-951-048	Remain Day Counter: Pages	# PCU:M	ENG	[0 to 255 / 255 / 1day]
7-951-049	Remain Day Counter: Pages	# Dev Unit:M	ENG	[0 to 255 / 255 / 1day]
7-951-071	Remain Day Counter: Pages	# PCU:Y	ENG	[0 to 255 / 255 / 1day]
7-951-072	Remain Day Counter: Pages	# Dev Unit:Y	ENG	[0 to 255 / 255 / 1day]
7-951-093	Remain Day Counter: Pages	# ITB Unit	ENG	[0 to 255 / 255 / 1day]
7-951-102	Remain Day Counter: Pages	# ITB Cleaning Unit	ENG	[0 to 255 / 255 / 1day]
7-951-109	Remain Day Counter: Pages	# PTR Unit	ENG	[0 to 255 / 255 / 1day]
7-951-115	Remain Day Counter: Pages	# Fusing Unit	ENG	[0 to 255 / 255 / 1day]
7-951-116	Remain Day Counter: Pages	Fusing Sleeve	ENG	[0 to 255 / 255 / 1day]
7-951-118	Remain Day Counter: Pages	Pressure Roller	ENG	[0 to 255 / 255 / 1day]
7-951-142	Remain Day Counter: Pages	#Waste Toner bottle	ENG	[0 to 255 / 255 / 1day]
7-951-145	Remain Day Counter: Pages	Tray1 Roller Assembly	ENG	[0 to 255 / 255 / 1day]
7-951-147	Remain Day Counter: Pages	#Paper Feed Roller:Tray1	ENG	[0 to 255 / 255 / 1day]
7-951-148	Remain Day Counter: Pages	#Friction Pad:Tray1	ENG	[0 to 255 / 255 / 1day]
7-951-169	Remain Day Counter: Pages	#Feed Roller:Bypass	ENG	[0 to 255 / 255 / 1day]
7-952-002	Remain Day Counter: Distance	# PCU:Bk	ENG	[0 to 255 / 255 / 1day]
7-952-003	Remain Day Counter: Distance	# Dev Unit:Bk	ENG	[0 to 255 / 255 / 1day]
7-952-	Remain Day Counter:	# PCU:C	ENG	[0 to 255 / 255 / 1day]

025	Distance			
7-952-026	Remain Day Counter: Distance	# Dev Unit:C	ENG	[0 to 255 / 255 / 1day]
7-952-048	Remain Day Counter: Distance	# PCU:M	ENG	[0 to 255 / 255 / 1day]
7-952-049	Remain Day Counter: Distance	# Dev Unit:M	ENG	[0 to 255 / 255 / 1day]
7-952-071	Remain Day Counter: Distance	# PCU:Y	ENG	[0 to 255 / 255 / 1day]
7-952-072	Remain Day Counter: Distance	# Dev Unit:Y	ENG	[0 to 255 / 255 / 1day]
7-952-093	Remain Day Counter: Distance	# ITB Unit	ENG	[0 to 255 / 255 / 1day]
7-952-102	Remain Day Counter: Distance	# ITB Cleaning Unit	ENG	[0 to 255 / 255 / 1day]
7-952-109	Remain Day Counter: Distance	# PTR Unit	ENG	[0 to 255 / 255 / 1day]
7-952-115	Remain Day Counter: Distance	# Fusing Unit	ENG	[0 to 255 / 255 / 1day]
7-952-116	Remain Day Counter: Distance	Fusing Sleeve	ENG	[0 to 255 / 255 / 1day]
7-952-118	Remain Day Counter: Distance	Pressure Roller	ENG	[0 to 255 / 255 / 1day]
7-953-001	Operation Env. Log: PCU: Bk	T<=0	ENG	[0 to 99999999 / 0 / 1mm]
7-953-002	Operation Env. Log: PCU: Bk	0<T<=5:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm]
7-953-003	Operation Env. Log: PCU: Bk	0<T<=5:30<=H<70	ENG	[0 to 99999999 / 0 / 1mm]
7-953-004	Operation Env. Log: PCU: Bk	0<T<=5:70<=H<=100	ENG	[0 to 99999999 / 0 / 1mm]
7-953-005	Operation Env. Log: PCU: Bk	5<T<15:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm]
7-953-006	Operation Env. Log: PCU: Bk	5<T<15:30<=H<55	ENG	[0 to 99999999 / 0 / 1mm]
7-953-007	Operation Env. Log: PCU: Bk	5<T<15:55<=H<80	ENG	[0 to 99999999 / 0 / 1mm]
7-953-	Operation Env. Log: PCU:	5<T<15:80<=H<=100	ENG	[0 to 99999999 / 0 /

008	Bk			1mm]
7-953-009	Operation Env. Log: PCU: Bk	15<=T<25:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm]
7-953-010	Operation Env. Log: PCU: Bk	15<=T<25:30<=H<55	ENG	[0 to 99999999 / 0 / 1mm]
7-953-011	Operation Env. Log: PCU: Bk	15<=T<25:55<=H<80	ENG	[0 to 99999999 / 0 / 1mm]
7-953-012	Operation Env. Log: PCU: Bk	15<=T<25:80<=H<=100	ENG	[0 to 99999999 / 0 / 1mm]
7-953-013	Operation Env. Log: PCU: Bk	25<=T<30:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm]
7-953-014	Operation Env. Log: PCU: Bk	25<=T<30:30<=H<55	ENG	[0 to 99999999 / 0 / 1mm]
7-953-015	Operation Env. Log: PCU: Bk	25<=T<30:55<=H<80	ENG	[0 to 99999999 / 0 / 1mm]
7-953-016	Operation Env. Log: PCU: Bk	25<=T<30:80<=H<=100	ENG	[0 to 99999999 / 0 / 1mm]
7-953-017	Operation Env. Log: PCU: Bk	30<=T<35:0<=H<30	ENG	[0 to 99999999 / 0 / 1mm]
7-953-018	Operation Env. Log: PCU: Bk	30<=T<35:30<=H<55	ENG	[0 to 99999999 / 0 / 1mm]
7-953-019	Operation Env. Log: PCU: Bk	30<=T<35:55<=H<80	ENG	[0 to 99999999 / 0 / 1mm]
7-953-020	Operation Env. Log: PCU: Bk	30<=T<35:80<=H<=100	ENG	[0 to 99999999 / 0 / 1mm]
7-953-021	Operation Env. Log: PCU: Bk	35<=T	ENG	[0 to 99999999 / 0 / 1mm]
7-953-100	Operation Env. Log Clear		ENG	[0 or 1 / 0 / 1]
7-954-002	PM Counter Display: Pages (%)	# PCU:Bk	ENG	[0 to 255 / 0 / 1%]
7-954-003	PM Counter Display: Pages (%)	# Dev Unit:Bk	ENG	[0 to 255 / 0 / 1%]
7-954-025	PM Counter Display: Pages (%)	# PCU:C	ENG	[0 to 255 / 0 / 1%]
7-954-026	PM Counter Display: Pages (%)	# Dev Unit:C	ENG	[0 to 255 / 0 / 1%]
7-954-	PM Counter Display:	# PCU:M	ENG	[0 to 255 / 0 / 1%]

048	Pages (%)			
7-954-049	PM Counter Display: Pages (%)	# Dev Unit:M	ENG	[0 to 255 / 0 / 1%]
7-954-071	PM Counter Display: Pages (%)	# PCU:Y	ENG	[0 to 255 / 0 / 1%]
7-954-072	PM Counter Display: Pages (%)	# Dev Unit:Y	ENG	[0 to 255 / 0 / 1%]
7-954-093	PM Counter Display: Pages (%)	# ITB Unit	ENG	[0 to 255 / 0 / 1%]
7-954-102	PM Counter Display: Pages (%)	# ITB Cleaning Unit	ENG	[0 to 255 / 0 / 1%]
7-954-109	PM Counter Display: Pages (%)	# PTR Unit	ENG	[0 to 255 / 0 / 1%]
7-954-115	PM Counter Display: Pages (%)	# Fusing Unit	ENG	[0 to 255 / 0 / 1%]
7-954-116	PM Counter Display: Pages (%)	Fusing Sleeve	ENG	[0 to 255 / 0 / 1%]
7-954-118	PM Counter Display: Pages (%)	Pressure Roller	ENG	[0 to 255 / 0 / 1%]
7-954-142	PM Counter Display: Pages (%)	#Waste Toner bottle	ENG	[0 to 255 / 0 / 1%]
7-954-145	PM Counter Display: Pages (%)	Tray1 Roller Assembly	ENG	[0 to 255 / 0 / 1%]
7-954-147	PM Counter Display: Pages (%)	#Paper Feed Roller:Tray1	ENG	[0 to 255 / 0 / 1%]
7-954-148	PM Counter Display: Pages (%)	#Friction Pad:Tray1	ENG	[0 to 255 / 0 / 1%]
7-954-169	PM Counter Display: Pages (%)	#Feed Roller:Bypass	ENG	[0 to 255 / 0 / 1%]
7-958-002	PM Value Setting:DaysThreshold	# PCU:Bk	ENG	[1 to 30 / 15 / 1day]
7-958-003	PM Value Setting:DaysThreshold	# Dev Unit:Bk	ENG	[1 to 30 / 15 / 1day]
7-958-025	PM Value Setting:DaysThreshold	# PCU:C	ENG	[1 to 30 / 15 / 1day]
7-958-026	PM Value Setting:DaysThreshold	# Dev Unit:C	ENG	[1 to 30 / 15 / 1day]
7-958-	PM Value	# PCU:M	ENG	[1 to 30 / 15 / 1day]

048	Setting:DaysThreshold			
7-958-049	PM Value Setting:DaysThreshold	# Dev Unit:M	ENG	[1 to 30 / 15 / 1day]
7-958-071	PM Value Setting:DaysThreshold	# PCU:Y	ENG	[1 to 30 / 15 / 1day]
7-958-072	PM Value Setting:DaysThreshold	# Dev Unit:Y	ENG	[1 to 30 / 15 / 1day]
7-958-093	PM Value Setting:DaysThreshold	# ITB Unit	ENG	[1 to 30 / 15 / 1day]
7-958-102	PM Value Setting:DaysThreshold	# ITB Cleaning Unit	ENG	[1 to 30 / 15 / 1day]
7-958-109	PM Value Setting:DaysThreshold	# PTR Unit	ENG	[1 to 30 / 15 / 1day]
7-958-115	PM Value Setting:DaysThreshold	# Fusing Unit	ENG	[1 to 30 / 15 / 1day]
7-958-116	PM Value Setting:DaysThreshold	Fusing Sleeve	ENG	[1 to 30 / 15 / 1day]
7-958-118	PM Value Setting:DaysThreshold	Pressure Roller	ENG	[1 to 30 / 15 / 1day]
7-958-142	PM Value Setting:DaysThreshold	#Waste Toner bottle	ENG	[1 to 30 / 15 / 1day]
7-958-145	PM Value Setting:DaysThreshold	Tray1 Roller Assembly	ENG	[1 to 30 / 15 / 1day]
7-958-147	PM Value Setting:DaysThreshold	#Paper Feed Roller:Tray1	ENG	[1 to 30 / 15 / 1day]
7-958-148	PM Value Setting:DaysThreshold	#Friction Pad:Tray1	ENG	[1 to 30 / 15 / 1day]
7-958-169	PM Value Setting:DaysThreshold	#Feed Roller:Bypass	ENG	[1 to 30 / 15 / 1day]
7-979-001	CPU Reset Log	Data1	ENG*	[0x00 to 0xFF / 0x00 / 1]
7-979-002	CPU Reset Log	Data2	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-003	CPU Reset Log	Data3	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-004	CPU Reset Log	Data4	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-	CPU Reset Log	Data5	ENG*	[0x0000 to 0xFFFF /

005				0x0000 / 1]
7-979-006	CPU Reset Log	Data6	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-007	CPU Reset Log	Data7	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-008	CPU Reset Log	Data8	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-009	CPU Reset Log	Data9	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-010	CPU Reset Log	Data10	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-011	CPU Reset Log	Data11	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-012	CPU Reset Log	Data12	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-013	CPU Reset Log	Data13	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-014	CPU Reset Log	Data14	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-015	CPU Reset Log	Data15	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-016	CPU Reset Log	Data16	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-017	CPU Reset Log	Data17	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-018	CPU Reset Log	Data18	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-019	CPU Reset Log	Data19	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-020	CPU Reset Log	Data20	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-021	CPU Reset Log	Data21	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]

SP7-XXX (Controller: Data Log)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
7-401-001	Total SC	SC Counter	CTL*	[0 to 65535 / 0 / 0]
7-401-002	Total SC	Total SC Counter	CTL*	[0 to 65535 / 0 / 0]
7-403-001	SC History	Latest	CTL*	[0 to 0 / 0 / 0]
7-403-002	SC History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-403-003	SC History	Latest 2	CTL*	[0 to 0 / 0 / 0]
7-403-004	SC History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-403-005	SC History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-403-006	SC History	Latest 5	CTL*	[0 to 0 / 0 / 0]
7-403-007	SC History	Latest 6	CTL*	[0 to 0 / 0 / 0]
7-403-008	SC History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-403-009	SC History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-403-010	SC History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-404-001	Software Error History	Latest	CTL*	[0 to 0 / 0 / 0]
7-404-002	Software Error History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-404-003	Software Error History	Latest 2	CTL*	[0 to 0 / 0 / 0]
7-404-004	Software Error History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-404-005	Software Error History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-404-	Software Error History	Latest 5	CTL*	[0 to 0 / 0 / 0]

006				
7-404-007	Software Error History	Latest 6	CTL*	[0 to 0 / 0 / 0]
7-404-008	Software Error History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-404-009	Software Error History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-404-010	Software Error History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-502-001	Total Paper Jam	Jam Counter	CTL*	[0 to 65535 / 0 / 0]
7-502-002	Total Paper Jam	Total Jam Counter	CTL*	[0 to 65535 / 0 / 0]
7-503-001	Total Original Jam	Original Jam Counter	CTL*	[0 to 65535 / 0 / 0]
7-503-002	Total Original Jam	Total Original Jam Counter	CTL*	[0 to 65535 / 0 / 0]
7-504-001	Paper Jam Location	At Power On	CTL*	[0 to 65535 / 0 / 0]
7-504-003	Paper Jam Location	Tray1: On	CTL*	[0 to 65535 / 0 / 0]
7-504-004	Paper Jam Location	Tray2: On	CTL*	[0 to 65535 / 0 / 0]
7-504-005	Paper Jam Location	Tray3: On	CTL*	[0 to 65535 / 0 / 0]
7-504-008	Paper Jam Location	Registration: On(Bypass)	CTL*	[0 to 65535 / 0 / 0]
7-504-009	Paper Jam Location	Registration: On(Duplex)	CTL*	[0 to 65535 / 0 / 0]
7-504-012	Paper Jam Location	Bank Transport Sn 1: On	CTL*	[0 to 65535 / 0 / 0]
7-504-017	Paper Jam Location	Registration Sn: On(Tray)	CTL*	[0 to 65535 / 0 / 0]
7-504-018	Paper Jam Location	Fusing Entrance: On	CTL*	[0 to 65535 / 0 / 0]
7-504-019	Paper Jam Location	Fusing Exit: On	CTL*	[0 to 65535 / 0 / 0]
7-504-	Paper Jam Location	Paper Exit: On	CTL*	[0 to 65535 / 0 / 0]

020				
7-504-021	Paper Jam Location	1bin: Exit Sensor: On	CTL*	[0 to 65535 / 0 / 0]
7-504-025	Paper Jam Location	Duplex Exit : On	CTL*	[0 to 65535 / 0 / 0]
7-504-026	Paper Jam Location	Duplex Entrance: On	CTL*	[0 to 65535 / 0 / 0]
7-504-052	Paper Jam Location	Bank Transport1: Off	CTL*	[0 to 65535 / 0 / 0]
7-504-053	Paper Jam Location	Bank Transport2: Off	CTL*	[0 to 65535 / 0 / 0]
7-504-057	Paper Jam Location	Registration Sensor: Off	CTL*	[0 to 65535 / 0 / 0]
7-504-060	Paper Jam Location	Paper Exit: Off	CTL*	[0 to 65535 / 0 / 0]
7-504-061	Paper Jam Location	1bin: Exit Sensor: Off	CTL*	[0 to 65535 / 0 / 0]
7-504-065	Paper Jam Location	Duplex Exit: Off	CTL*	[0 to 65535 / 0 / 0]
7-504-066	Paper Jam Location	Duplex Entrance: Off	CTL*	[0 to 65535 / 0 / 0]
7-505-001	Original Jam Detection	At Power On	CTL*	[0 to 65535 / 0 / 0]
7-505-004	Original Jam Detection	Registration Sensor: On	CTL*	[0 to 65535 / 0 / 0]
7-505-013	Original Jam Detection	DF Feed Sensor: On	CTL*	[0 to 65535 / 0 / 0]
7-505-054	Original Jam Detection	Registration Sensor: Off	CTL*	[0 to 65535 / 0 / 0]
7-505-063	Original Jam Detection	DF Feed Sensor: Off	CTL*	[0 to 65535 / 0 / 0]
7-505-100	Original Jam Detection	Motor Error	CTL*	[0 to 65535 / 0 / 0]
7-506-006	Jam Count by Paper Size	A5 LEF	CTL*	[0 to 65535 / 0 / 0]
7-506-044	Jam Count by Paper Size	HLT LEF	CTL*	[0 to 65535 / 0 / 0]
7-506-	Jam Count by Paper Size	A4 SEF	CTL*	[0 to 65535 / 0 / 0]

133				
7-506-134	Jam Count by Paper Size	A5 SEF	CTL*	[0 to 65535 / 0 / 0]
7-506-142	Jam Count by Paper Size	B5 SEF	CTL*	[0 to 65535 / 0 / 0]
7-506-164	Jam Count by Paper Size	LG SEF	CTL*	[0 to 65535 / 0 / 0]
7-506-166	Jam Count by Paper Size	LT SEF	CTL*	[0 to 65535 / 0 / 0]
7-506-172	Jam Count by Paper Size	HLT SEF	CTL*	[0 to 65535 / 0 / 0]
7-506-255	Jam Count by Paper Size	Others	CTL*	[0 to 65535 / 0 / 0]
7-507-001	Plotter Jam History	Latest	CTL*	[0 to 0 / 0 / 0]
7-507-002	Plotter Jam History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-507-003	Plotter Jam History	Latest 2	CTL*	[0 to 0 / 0 / 0]
7-507-004	Plotter Jam History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-507-005	Plotter Jam History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-507-006	Plotter Jam History	Latest 5	CTL*	[0 to 0 / 0 / 0]
7-507-007	Plotter Jam History	Latest 6	CTL*	[0 to 0 / 0 / 0]
7-507-008	Plotter Jam History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-507-009	Plotter Jam History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-507-010	Plotter Jam History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-508-001	Original Jam History	Latest	CTL*	[0 to 0 / 0 / 0]
7-508-002	Original Jam History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-508-	Original Jam History	Latest 2	CTL*	[0 to 0 / 0 / 0]

003				
7-508-004	Original Jam History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-508-005	Original Jam History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-508-006	Original Jam History	Latest 5	CTL*	[0 to 0 / 0 / 0]
7-508-007	Original Jam History	Latest 6	CTL*	[0 to 0 / 0 / 0]
7-508-008	Original Jam History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-508-009	Original Jam History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-508-010	Original Jam History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-514-001	Paper Jam Count by Location	At Power On	CTL*	[0 to 65535 / 0 / 0]
7-514-003	Paper Jam Count by Location	Tray1: On	CTL*	[0 to 65535 / 0 / 0]
7-514-004	Paper Jam Count by Location	Tray2: On	CTL*	[0 to 65535 / 0 / 0]
7-514-005	Paper Jam Count by Location	Tray3: On	CTL*	[0 to 65535 / 0 / 0]
7-514-008	Paper Jam Count by Location	Registration: On(Bypass)	CTL*	[0 to 65535 / 0 / 0]
7-514-009	Paper Jam Count by Location	Registration: On(Duplex)	CTL*	[0 to 65535 / 0 / 0]
7-514-012	Paper Jam Count by Location	Bank Transport Sn 1: On	CTL*	[0 to 65535 / 0 / 0]
7-514-017	Paper Jam Count by Location	Registration Sn: On(Tray)	CTL*	[0 to 65535 / 0 / 0]
7-514-018	Paper Jam Count by Location	Fusing Entrance: On	CTL*	[0 to 65535 / 0 / 0]
7-514-019	Paper Jam Count by Location	Fusing Exit: On	CTL*	[0 to 65535 / 0 / 0]
7-514-020	Paper Jam Count by Location	Paper Exit: On	CTL*	[0 to 65535 / 0 / 0]
7-514-	Paper Jam Count by Location	1bin: Exit Sensor: On	CTL*	[0 to 65535 / 0 / 0]

021				
7-514-025	Paper Jam Count by Location	Duplex Exit : On	CTL*	[0 to 65535 / 0 / 0]
7-514-026	Paper Jam Count by Location	Duplex Entrance: On	CTL*	[0 to 65535 / 0 / 0]
7-514-052	Paper Jam Count by Location	Bank Transport1: Off	CTL*	[0 to 65535 / 0 / 0]
7-514-053	Paper Jam Count by Location	Bank Transport2: Off	CTL*	[0 to 65535 / 0 / 0]
7-514-057	Paper Jam Count by Location	Registration Sensor: Off	CTL*	[0 to 65535 / 0 / 0]
7-514-060	Paper Jam Count by Location	Paper Exit: Off	CTL*	[0 to 65535 / 0 / 0]
7-514-061	Paper Jam Count by Location	1bin: Exit Sensor: Off	CTL*	[0 to 65535 / 0 / 0]
7-514-065	Paper Jam Count by Location	Duplex Exit: Off	CTL*	[0 to 65535 / 0 / 0]
7-514-066	Paper Jam Count by Location	Duplex Entrance: Off	CTL*	[0 to 65535 / 0 / 0]
7-515-001	Original Jam Count by Detection	At Power On	CTL*	[0 to 65535 / 0 / 0]
7-515-004	Original Jam Count by Detection	Registration Sensor: On	CTL*	[0 to 65535 / 0 / 0]
7-515-013	Original Jam Count by Detection	DF Feed Sensor: On	CTL*	[0 to 65535 / 0 / 0]
7-515-054	Original Jam Count by Detection	Registration Sensor: Off	CTL*	[0 to 65535 / 0 / 0]
7-515-063	Original Jam Count by Detection	DF Feed Sensor: Off	CTL*	[0 to 65535 / 0 / 0]
7-515-100	Original Jam Count by Detection	Motor Error	CTL*	[0 to 65535 / 0 / 0]
7-516-006	Paper Size Jam Count	A5 LEF	CTL*	[0 to 65535 / 0 / 0]
7-516-044	Paper Size Jam Count	HLT LEF	CTL*	[0 to 65535 / 0 / 0]
7-516-133	Paper Size Jam Count	A4 SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-	Paper Size Jam Count	A5 SEF	CTL*	[0 to 65535 / 0 / 0]

134				
7-516-142	Paper Size Jam Count	B5 SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-164	Paper Size Jam Count	LG SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-166	Paper Size Jam Count	LT SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-172	Paper Size Jam Count	HLT SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-255	Paper Size Jam Count	Others	CTL*	[0 to 65535 / 0 / 0]
7-520-001	Update Log	ErrorRecord1	CTL*	[0 to 255 / 0 / 1]
7-520-002	Update Log	ErrorRecord2	CTL*	[0 to 255 / 0 / 1]
7-520-003	Update Log	ErrorRecord3	CTL*	[0 to 255 / 0 / 1]
7-520-004	Update Log	ErrorRecord4	CTL*	[0 to 255 / 0 / 1]
7-520-005	Update Log	ErrorRecord5	CTL*	[0 to 255 / 0 / 1]
7-520-006	Update Log	ErrorRecord6	CTL*	[0 to 255 / 0 / 1]
7-520-007	Update Log	ErrorRecord7	CTL*	[0 to 255 / 0 / 1]
7-520-008	Update Log	ErrorRecord8	CTL*	[0 to 255 / 0 / 1]
7-520-009	Update Log	ErrorRecord9	CTL*	[0 to 255 / 0 / 1]
7-520-010	Update Log	ErrorRecord10	CTL*	[0 to 255 / 0 / 1]
7-520-011	Update Log	Auto:StartDate1	CTL*	[0 to 0 / 0 / 0]
7-520-012	Update Log	Auto:StartDate2	CTL*	[0 to 0 / 0 / 0]
7-520-013	Update Log	Auto:StartDate3	CTL*	[0 to 0 / 0 / 0]
7-520-	Update Log	Auto:StartDate4	CTL*	[0 to 0 / 0 / 0]

014				
7-520-015	Update Log	Auto:StartDate5	CTL*	[0 to 0 / 0 / 0]
7-520-021	Update Log	Auto:EndDate1	CTL*	[0 to 0 / 0 / 0]
7-520-022	Update Log	Auto:EndDate2	CTL*	[0 to 0 / 0 / 0]
7-520-023	Update Log	Auto:EndDate3	CTL*	[0 to 0 / 0 / 0]
7-520-024	Update Log	Auto:EndDate4	CTL*	[0 to 0 / 0 / 0]
7-520-025	Update Log	Auto:EndDate5	CTL*	[0 to 0 / 0 / 0]
7-520-031	Update Log	Auto:Piecemark1	CTL*	[0 to 0 / 0 / 0]
7-520-032	Update Log	Auto:Piecemark2	CTL*	[0 to 0 / 0 / 0]
7-520-033	Update Log	Auto:Piecemark3	CTL*	[0 to 0 / 0 / 0]
7-520-034	Update Log	Auto:Piecemark4	CTL*	[0 to 0 / 0 / 0]
7-520-035	Update Log	Auto:Piecemark5	CTL*	[0 to 0 / 0 / 0]
7-520-041	Update Log	Auto:Version1	CTL*	[0 to 0 / 0 / 0]
7-520-042	Update Log	Auto:Version2	CTL*	[0 to 0 / 0 / 0]
7-520-043	Update Log	Auto:Version3	CTL*	[0 to 0 / 0 / 0]
7-520-044	Update Log	Auto:Version4	CTL*	[0 to 0 / 0 / 0]
7-520-045	Update Log	Auto:Version5	CTL*	[0 to 0 / 0 / 0]
7-520-051	Update Log	Auto:Result1	CTL*	[0 to 255 / 0 / 1]
7-520-052	Update Log	Auto:Result2	CTL*	[0 to 255 / 0 / 1]
7-520-	Update Log	Auto:Result3	CTL*	[0 to 255 / 0 / 1]

053				
7-520-054	Update Log	Auto:Result4	CTL*	[0 to 255 / 0 / 1]
7-520-055	Update Log	Auto:Result5	CTL*	[0 to 255 / 0 / 1]
7-520-056	Update Log	Auto:Result6	CTL*	[0 to 255 / 0 / 1]
7-520-057	Update Log	Auto:Result7	CTL*	[0 to 255 / 0 / 1]
7-520-058	Update Log	Auto:Result8	CTL*	[0 to 255 / 0 / 1]
7-520-059	Update Log	Auto:Result9	CTL*	[0 to 255 / 0 / 1]
7-520-060	Update Log	Auto:Result10	CTL*	[0 to 255 / 0 / 1]
7-617-001	PM Parts Counter Display	Normal	CTL*	[0 to 9999999 / 0 / 0]
7-617-002	PM Parts Counter Display	Df	CTL*	[0 to 9999999 / 0 / 0]
7-618-001	PM Parts Counter Reset	Normal	CTL*	[0 to 0 / 0 / 0]
7-618-002	PM Parts Counter Reset	Df	CTL*	[0 to 0 / 0 / 0]
7-624-002	Part Replacement Operation ON/OFF	#PCU:Bk	CTL*	[0 to 1 / 1 / 1]
7-624-025	Part Replacement Operation ON/OFF	#PCU:C	CTL*	[0 to 1 / 1 / 1]
7-624-048	Part Replacement Operation ON/OFF	#PCU:M	CTL*	[0 to 1 / 1 / 1]
7-624-071	Part Replacement Operation ON/OFF	#PCU:Y	CTL*	[0 to 1 / 1 / 1]
7-624-093	Part Replacement Operation ON/OFF	#Image Transfer Belt Unit	CTL*	[0 to 1 / 1 / 1]
7-624-109	Part Replacement Operation ON/OFF	#Paper Transfer Roller Unit	CTL*	[0 to 1 / 1 / 1]
7-624-115	Part Replacement Operation ON/OFF	#Fusing Unit	CTL*	[0 to 1 / 1 / 1]
7-624-	Part Replacement Operation	Fusing Sleeve	CTL*	[0 to 1 / 1 / 1]

116	ON/OFF			
7-624-118	Part Replacement Operation ON/OFF	Pressure Roller	CTL*	[0 to 1 / 1 / 1]
7-624-142	Part Replacement Operation ON/OFF	#Wast Toner bottle	CTL*	[0 to 1 / 1 / 1]
7-624-147	Part Replacement Operation ON/OFF	#Paper Feed Roller:Tray1	CTL*	[0 to 1 / 1 / 1]
7-624-148	Part Replacement Operation ON/OFF	#Friction Pad:Tray1	CTL*	[0 to 1 / 1 / 1]
7-624-169	Part Replacement Operation ON/OFF	#Feed Roller:Bypass	CTL*	[0 to 1 / 1 / 1]
7-801-255	ROM No./ Firmware Version		CTL*	[0 to 0 / 0 / 0]
7-803-001	PM Counter Display	Paper	CTL*	[0 to 9999999 / 0 / 0]
7-804-001	PM Counter Reset	Paper	CTL*	[0 to 0 / 0 / 0]
7-807-001	SC/Jam Counter Reset		CTL*	[0 to 0 / 0 / 0]
7-826-001	MF Error Counter	Error Total	CTL*	[0 to 9999999 / 0 / 0]
7-826-002	MF Error Counter	Error Staple	CTL*	[0 to 9999999 / 0 / 0]
7-827-001	MF Error Counter Clear		CTL*	[0 to 0 / 0 / 0]
7-832-001	Self-Diagnose Result Display		CTL*	[0 to 0 / 0 / 0]
7-835-001	ACC Counter	Copy ACC	CTL*	[0 to 0 / 0 / 0]
7-835-002	ACC Counter	Printer ACC	CTL*	[0 to 0 / 0 / 0]
7-836-001	Total Memory Size		CTL*	[0 to 0xffffffff / 0 / 0MB]
7-840-001	ServiceSP Entry Code Chg Hist	Change Time :Latest	CTL*	[0 to 0 / 0 / 0]
7-840-002	ServiceSP Entry Code Chg Hist	Change Time :Last1	CTL*	[0 to 0 / 0 / 0]
7-840-	ServiceSP Entry Code Chg	Initialize Time :Latest	CTL*	[0 to 0 / 0 / 0]

101	Hist			
7-840-102	ServiceSP Entry Code Chg Hist	Initialize Time :Last1	CTL*	[0 to 0 / 0 / 0]
7-855-001	Coverage Range	Coverage Range 1	CTL*	[1 to 200 / 5 / 1%]
7-855-002	Coverage Range	Coverage Range 2	CTL*	[1 to 200 / 20 / 1%]
7-901-001	Assert Info.	File Name	CTL*	[0 to 0 / 0 / 0]
7-901-002	Assert Info.	Number of Lines	CTL*	[0 to 0 / 0 / 0]
7-901-003	Assert Info.	Location	CTL*	[0 to 0 / 0 / 0]
7-910-001	ROM No	System/Copy	CTL*	[0 to 0 / 0 / 0]
7-910-002	ROM No	Engine	CTL*	[0 to 0 / 0 / 0]
7-910-009	ROM No	Bank	CTL*	[0 to 0 / 0 / 0]
7-910-012	ROM No	FCU	CTL*	[0 to 0 / 0 / 0]
7-910-018	ROM No	NetworkSupport	CTL*	[0 to 0 / 0 / 0]
7-910-019	ROM No	Bank2	CTL*	[0 to 0 / 0 / 0]
7-910-022	ROM No	BIOS	CTL*	[0 to 0 / 0 / 0]
7-910-023	ROM No	HDD Format Option	CTL*	[0 to 0 / 0 / 0]
7-910-150	ROM No	RPCS	CTL*	[0 to 0 / 0 / 0]
7-910-151	ROM No	PS	CTL*	[0 to 0 / 0 / 0]
7-910-152	ROM No	RPDL	CTL*	[0 to 0 / 0 / 0]
7-910-153	ROM No	R98	CTL*	[0 to 0 / 0 / 0]
7-910-	ROM No	R16	CTL*	[0 to 0 / 0 / 0]

154				
7-910-156	ROM No	R55	CTL*	[0 to 0 / 0 / 0]
7-910-157	ROM No	RTIFF	CTL*	[0 to 0 / 0 / 0]
7-910-158	ROM No	PCL	CTL*	[0 to 0 / 0 / 0]
7-910-159	ROM No	PCLXL	CTL*	[0 to 0 / 0 / 0]
7-910-160	ROM No	MSIS	CTL*	[0 to 0 / 0 / 0]
7-910-162	ROM No	PDF	CTL*	[0 to 0 / 0 / 0]
7-910-164	ROM No	PictBridge	CTL*	[0 to 0 / 0 / 0]
7-910-165	ROM No	PJL	CTL*	[0 to 0 / 0 / 0]
7-910-167	ROM No	MediaPrint:JPEG	CTL*	[0 to 0 / 0 / 0]
7-910-168	ROM No	MediaPrint:TIFF	CTL*	[0 to 0 / 0 / 0]
7-910-169	ROM No	XPS	CTL*	[0 to 0 / 0 / 0]
7-910-180	ROM No	FONT	CTL*	[0 to 0 / 0 / 0]
7-910-181	ROM No	FONT1	CTL*	[0 to 0 / 0 / 0]
7-910-182	ROM No	FONT2	CTL*	[0 to 0 / 0 / 0]
7-910-183	ROM No	FONT3	CTL*	[0 to 0 / 0 / 0]
7-910-184	ROM No	FONT4	CTL*	[0 to 0 / 0 / 0]
7-910-185	ROM No	FONT5	CTL*	[0 to 0 / 0 / 0]
7-910-186	ROM No	FONT6	CTL*	[0 to 0 / 0 / 0]
7-910-	ROM No	FONT7	CTL*	[0 to 0 / 0 / 0]

187				
7-910-200	ROM No	Factory	CTL*	[0 to 0 / 0 / 0]
7-910-201	ROM No	Copy	CTL*	[0 to 0 / 0 / 0]
7-910-202	ROM No	NetworkDocBox	CTL*	[0 to 0 / 0 / 0]
7-910-203	ROM No	Fax	CTL*	[0 to 0 / 0 / 0]
7-910-204	ROM No	Printer	CTL*	[0 to 0 / 0 / 0]
7-910-205	ROM No	Scanner	CTL*	[0 to 0 / 0 / 0]
7-910-206	ROM No	RFax	CTL*	[0 to 0 / 0 / 0]
7-910-210	ROM No	MIB	CTL*	[0 to 0 / 0 / 0]
7-910-211	ROM No	Websupport	CTL*	[0 to 0 / 0 / 0]
7-910-212	ROM No	WebUapl	CTL*	[0 to 0 / 0 / 0]
7-910-213	ROM No	SDK1	CTL*	[0 to 0 / 0 / 0]
7-910-214	ROM No	SDK2	CTL*	[0 to 0 / 0 / 0]
7-910-215	ROM No	SDK3	CTL*	[0 to 0 / 0 / 0]
7-910-250	ROM No	Package	CTL*	[0 to 0 / 0 / 0]
7-911-001	Firmware Version	System/Copy	CTL*	[0 to 0 / 0 / 0]
7-911-002	Firmware Version	Engine	CTL*	[0 to 0 / 0 / 0]
7-911-009	Firmware Version	Bank	CTL*	[0 to 0 / 0 / 0]
7-911-012	Firmware Version	FCU	CTL*	[0 to 0 / 0 / 0]
7-911-	Firmware Version	NetworkSupport	CTL*	[0 to 0 / 0 / 0]

018				
7-911-019	Firmware Version	Bank2	CTL*	[0 to 0 / 0 / 0]
7-911-022	Firmware Version	BIOS	CTL*	[0 to 0 / 0 / 0]
7-911-023	Firmware Version	HDD Format Option	CTL*	[0 to 0 / 0 / 0]
7-911-150	Firmware Version	RPCS	CTL*	[0 to 0 / 0 / 0]
7-911-151	Firmware Version	PS	CTL*	[0 to 0 / 0 / 0]
7-911-152	Firmware Version	RPDL	CTL*	[0 to 0 / 0 / 0]
7-911-153	Firmware Version	R98	CTL*	[0 to 0 / 0 / 0]
7-911-154	Firmware Version	R16	CTL*	[0 to 0 / 0 / 0]
7-911-156	Firmware Version	R55	CTL*	[0 to 0 / 0 / 0]
7-911-157	Firmware Version	RTIFF	CTL*	[0 to 0 / 0 / 0]
7-911-158	Firmware Version	PCL	CTL*	[0 to 0 / 0 / 0]
7-911-159	Firmware Version	PCLXL	CTL*	[0 to 0 / 0 / 0]
7-911-160	Firmware Version	MSIS	CTL*	[0 to 0 / 0 / 0]
7-911-162	Firmware Version	PDF	CTL*	[0 to 0 / 0 / 0]
7-911-164	Firmware Version	PictBridge	CTL*	[0 to 0 / 0 / 0]
7-911-165	Firmware Version	PJL	CTL*	[0 to 0 / 0 / 0]
7-911-167	Firmware Version	MediaPrint:JPEG	CTL*	[0 to 0 / 0 / 0]
7-911-168	Firmware Version	MediaPrint:TIFF	CTL*	[0 to 0 / 0 / 0]
7-911-	Firmware Version	XPS	CTL*	[0 to 0 / 0 / 0]

169				
7-911-180	Firmware Version	FONT	CTL*	[0 to 0 / 0 / 0]
7-911-181	Firmware Version	FONT1	CTL*	[0 to 0 / 0 / 0]
7-911-182	Firmware Version	FONT2	CTL*	[0 to 0 / 0 / 0]
7-911-183	Firmware Version	FONT3	CTL*	[0 to 0 / 0 / 0]
7-911-184	Firmware Version	FONT4	CTL*	[0 to 0 / 0 / 0]
7-911-185	Firmware Version	FONT5	CTL*	[0 to 0 / 0 / 0]
7-911-186	Firmware Version	FONT6	CTL*	[0 to 0 / 0 / 0]
7-911-187	Firmware Version	FONT7	CTL*	[0 to 0 / 0 / 0]
7-911-200	Firmware Version	Factory	CTL*	[0 to 0 / 0 / 0]
7-911-201	Firmware Version	Copy	CTL*	[0 to 0 / 0 / 0]
7-911-202	Firmware Version	NetworkDocBox	CTL*	[0 to 0 / 0 / 0]
7-911-203	Firmware Version	Fax	CTL*	[0 to 0 / 0 / 0]
7-911-204	Firmware Version	Printer	CTL*	[0 to 0 / 0 / 0]
7-911-205	Firmware Version	Scanner	CTL*	[0 to 0 / 0 / 0]
7-911-206	Firmware Version	RFax	CTL*	[0 to 0 / 0 / 0]
7-911-210	Firmware Version	MIB	CTL*	[0 to 0 / 0 / 0]
7-911-211	Firmware Version	Websupport	CTL*	[0 to 0 / 0 / 0]
7-911-212	Firmware Version	WebUapl	CTL*	[0 to 0 / 0 / 0]
7-911-	Firmware Version	SDK1	CTL*	[0 to 0 / 0 / 0]

213				
7-911-214	Firmware Version	SDK2	CTL*	[0 to 0 / 0 / 0]
7-911-215	Firmware Version	SDK3	CTL*	[0 to 0 / 0 / 0]
7-911-250	Firmware Version	Package	CTL*	[0 to 0 / 0 / 0]

SP Tables - SP8-XXX (1)

Remarks

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.

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.
SP Numbers	What They Do

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

/	"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
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
Abbreviation	What it means

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]
8-002-001	C:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-003-001	F:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-004-001	P:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-005-001	S:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-006-001	L:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]

8-011-001	T:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-012-001	C:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-013-001	F:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-014-001	P:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-015-001	S:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-016-001	L:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-017-001	O:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-021-001	T:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-022-001	C:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-023-001	F:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-024-001	P:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-025-001	S:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-026-001	L:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-027-001	O:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-031-001	T:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-032-001	C:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-033-001	F:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-034-001	P:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-035-001	S:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-036-001	L:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-037-001	O:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-041-001	T:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-042-001	C:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-043-001	F:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-044-001	P:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-045-001	S:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-046-001	L:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-047-001	O:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-051-001	T:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-052-001	C:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-053-001	F:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-054-001	P:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-055-001	S:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-056-001	L:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-057-001	O:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-061-001	T:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-061-002	T:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-061-003	T:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]

8-061-004	T:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-061-005	T:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-006	T:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-061-007	T:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-061-008	T:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-009	T:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-010	T:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-011	T:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-012	T:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-013	T:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-061-014	T:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-061-015	T:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-061-016	T:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-062-001	C:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-062-002	C:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-062-003	C:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-062-004	C:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-062-005	C:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-006	C:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-062-007	C:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-062-008	C:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-009	C:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-010	C:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-011	C:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-012	C:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-013	C:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-062-014	C:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-062-015	C:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-062-016	C:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-063-001	F:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-063-002	F:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-063-003	F:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-063-004	F:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-063-005	F:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-006	F:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-063-007	F:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-063-008	F:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-009	F:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]

8-063-010	F:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-011	F:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-012	F:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-013	F:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-063-014	F:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-063-015	F:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-063-016	F:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-064-001	P:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-064-002	P:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-064-003	P:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-064-004	P:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-064-005	P:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-006	P:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-064-007	P:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-064-008	P:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-009	P:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-010	P:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-011	P:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-012	P:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-013	P:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-064-014	P:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-064-015	P:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-064-016	P:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-065-001	S:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-065-002	S:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-065-003	S:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-065-004	S:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-065-005	S:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-006	S:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-065-007	S:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-065-008	S:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-009	S:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-010	S:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-011	S:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-012	S:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-013	S:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-065-014	S:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-065-015	S:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]

8-065-016	S:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-066-001	L:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-066-002	L:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-066-003	L:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-066-004	L:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-066-005	L:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-006	L:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-066-007	L:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-066-008	L:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-009	L:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-010	L:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-011	L:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-012	L:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-013	L:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-066-014	L:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-066-015	L:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-066-016	L:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-067-001	O:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-067-002	O:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-067-003	O:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-067-004	O:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-067-005	O:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-006	O:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-067-007	O:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-067-008	O:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-009	O:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-010	O:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-011	O:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-012	O:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-013	O:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-067-014	O:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-067-015	O:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-067-016	O:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-071-001	T:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-071-002	T:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-003	T:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-004	T:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-005	T:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]

8-071-006	T:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-007	T:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-008	T:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-009	T:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-010	T:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-011	T:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-012	T:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-013	T:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-014	T:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-001	C:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-072-002	C:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-003	C:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-004	C:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-005	C:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-006	C:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-007	C:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-008	C:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-009	C:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-010	C:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-011	C:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-012	C:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-013	C:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-014	C:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-001	F:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-073-002	F:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-003	F:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-004	F:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-005	F:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-006	F:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-007	F:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-008	F:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-009	F:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-010	F:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-011	F:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-012	F:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-013	F:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-014	F:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-001	P:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]

8-074-002	P:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-003	P:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-004	P:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-005	P:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-006	P:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-007	P:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-008	P:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-009	P:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-010	P:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-011	P:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-012	P:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-013	P:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-014	P:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-001	S:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-075-002	S:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-003	S:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-004	S:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-005	S:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-006	S:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-007	S:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-008	S:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-009	S:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-010	S:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-011	S:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-012	S:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-013	S:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-014	S:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-001	L:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-076-002	L:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-003	L:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-004	L:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-005	L:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-006	L:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-007	L:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-008	L:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-009	L:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-010	L:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-011	L:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]

8-076-012	L:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-013	L:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-014	L:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-001	O:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-077-002	O:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-003	O:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-004	O:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-005	O:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-006	O:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-007	O:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-008	O:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-009	O:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-010	O:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-011	O:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-012	O:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-013	O:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-014	O:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-081-001	T:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-082-001	C:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-083-001	F:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-084-001	P:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-085-001	S:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-111-001	T:FAX TX Jobs	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-111-002	T:FAX TX Jobs	Color(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-111-101	T:FAX TX Jobs	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-111-102	T:FAX TX Jobs	Color(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-113-001	F:FAX TX Jobs	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-113-002	F:FAX TX Jobs	Color(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-113-101	F:FAX TX Jobs	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-113-102	F:FAX TX Jobs	Color(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-121-001	T:IFAX TX Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-121-002	T:IFAX TX Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-123-001	F:IFAX TX Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-123-002	F:IFAX TX Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-131-001	T:S-to-Email Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-131-002	T:S-to-Email Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-131-003	T:S-to-Email Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-135-001	S:S-to-Email Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]

8-135-002	S:S-to-Email Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-135-003	S:S-to-Email Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-141-001	T:Deliv Jobs/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-141-002	T:Deliv Jobs/Svr	Color	CTL*	[0 to 99999999 / 0 / 1]
8-141-003	T:Deliv Jobs/Svr	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-145-001	S:Deliv Jobs/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-145-002	S:Deliv Jobs/Svr	Color	CTL*	[0 to 99999999 / 0 / 1]
8-145-003	S:Deliv Jobs/Svr	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-151-001	T:Deliv Jobs/PC	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-151-002	T:Deliv Jobs/PC	Color	CTL*	[0 to 99999999 / 0 / 1]
8-151-003	T:Deliv Jobs/PC	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-155-001	S:Deliv Jobs/PC	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-155-002	S:Deliv Jobs/PC	Color	CTL*	[0 to 99999999 / 0 / 1]
8-155-003	S:Deliv Jobs/PC	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-161-001	T:PCFAX TX Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-163-001	F:PCFAX TX Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-171-001	T:Deliv Jobs/WSD/DSM	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-171-002	T:Deliv Jobs/WSD/DSM	Color	CTL*	[0 to 99999999 / 0 / 1]
8-171-003	T:Deliv Jobs/WSD/DSM	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-175-001	S:Deliv Jobs/WSD/DSM	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-175-002	S:Deliv Jobs/WSD/DSM	Color	CTL*	[0 to 99999999 / 0 / 1]
8-175-003	S:Deliv Jobs/WSD/DSM	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-181-001	T:Scan to Media Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-181-002	T:Scan to Media Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-181-003	T:Scan to Media Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-185-001	S:Scan to Media Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-185-002	S:Scan to Media Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-185-003	S:Scan to Media Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-191-001	T:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-192-001	C:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-193-001	F:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-195-001	S:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-196-001	L:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-201-001	T:LSize Scan PGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1]
8-203-001	F:LSize Scan PGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1]
8-205-001	S:LSize Scan PGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1]
8-211-001	T:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-212-001	C:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]

8-213-001	F:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-215-001	S:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-216-001	L:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-221-001	ADF Org Feeds	Front	CTL*	[0 to 99999999 / 0 / 1]
8-221-002	ADF Org Feeds	Back	CTL*	[0 to 99999999 / 0 / 1]
8-231-001	Scan PGS/Mode	Large Volume	CTL*	[0 to 99999999 / 0 / 1]
8-231-002	Scan PGS/Mode	SADF	CTL*	[0 to 99999999 / 0 / 1]
8-231-003	Scan PGS/Mode	Mixed Size	CTL*	[0 to 99999999 / 0 / 1]
8-231-004	Scan PGS/Mode	Custom Size	CTL*	[0 to 99999999 / 0 / 1]
8-231-005	Scan PGS/Mode	Platen	CTL*	[0 to 99999999 / 0 / 1]
8-231-006	Scan PGS/Mode	Mixed 1side/2side	CTL*	[0 to 99999999 / 0 / 1]
8-241-001	T:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]
8-241-002	T:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-241-003	T:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-241-004	T:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1]
8-241-005	T:Scan PGS/Org	Map	CTL*	[0 to 99999999 / 0 / 1]
8-241-006	T:Scan PGS/Org	Normal/Detail	CTL*	[0 to 99999999 / 0 / 1]
8-241-007	T:Scan PGS/Org	Fine/Super Fine	CTL*	[0 to 99999999 / 0 / 1]
8-241-008	T:Scan PGS/Org	Binary	CTL*	[0 to 99999999 / 0 / 1]
8-241-009	T:Scan PGS/Org	Grayscale	CTL*	[0 to 99999999 / 0 / 1]
8-241-010	T:Scan PGS/Org	Color	CTL*	[0 to 99999999 / 0 / 1]
8-241-011	T:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1]
8-242-001	C:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]
8-242-002	C:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-242-003	C:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-242-004	C:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1]
8-242-005	C:Scan PGS/Org	Map	CTL*	[0 to 99999999 / 0 / 1]
8-242-011	C:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1]
8-243-001	F:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]
8-243-002	F:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-243-003	F:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-243-006	F:Scan PGS/Org	Normal/Detail	CTL*	[0 to 99999999 / 0 / 1]
8-243-007	F:Scan PGS/Org	Fine/Super Fine	CTL*	[0 to 99999999 / 0 / 1]
8-243-011	F:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1]
8-245-001	S:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]
8-245-002	S:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-245-003	S:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-245-004	S:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1]

8-245-008	S:Scan PGS/Org	Binary	CTL*	[0 to 99999999 / 0 / 1]
8-245-009	S:Scan PGS/Org	Grayscale	CTL*	[0 to 99999999 / 0 / 1]
8-245-010	S:Scan PGS/Org	Color	CTL*	[0 to 99999999 / 0 / 1]
8-245-011	S:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1]
8-246-001	L:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]
8-246-002	L:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-246-003	L:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-246-004	L:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1]
8-246-005	L:Scan PGS/Org	Map	CTL*	[0 to 99999999 / 0 / 1]
8-246-011	L:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1]
8-251-001	T:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-252-001	C:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-255-001	S:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-256-001	L:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-257-001	O:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-261-001	T:Scn PGS/ColCr	Color Conversion	CTL*	[0 to 99999999 / 0 / 1]
8-261-002	T:Scn PGS/ColCr	Color Erase	CTL*	[0 to 99999999 / 0 / 1]
8-261-003	T:Scn PGS/ColCr	Background	CTL*	[0 to 99999999 / 0 / 1]
8-261-004	T:Scn PGS/ColCr	Other	CTL*	[0 to 99999999 / 0 / 1]
8-262-001	C:Scn PGS/ColCr	Color Conversion	CTL*	[0 to 99999999 / 0 / 1]
8-262-002	C:Scn PGS/ColCr	Color Erase	CTL*	[0 to 99999999 / 0 / 1]
8-262-003	C:Scn PGS/ColCr	Background	CTL*	[0 to 99999999 / 0 / 1]
8-262-004	C:Scn PGS/ColCr	Other	CTL*	[0 to 99999999 / 0 / 1]
8-265-001	S:Scn PGS/ColCr	Color Conversion	CTL*	[0 to 99999999 / 0 / 1]
8-265-002	S:Scn PGS/ColCr	Color Erase	CTL*	[0 to 99999999 / 0 / 1]
8-265-003	S:Scn PGS/ColCr	Background	CTL*	[0 to 99999999 / 0 / 1]
8-265-004	S:Scn PGS/ColCr	Other	CTL*	[0 to 99999999 / 0 / 1]
8-266-001	L:Scn PGS/ColCr	Color Conversion	CTL*	[0 to 99999999 / 0 / 1]
8-266-002	L:Scn PGS/ColCr	Color Erase	CTL*	[0 to 99999999 / 0 / 1]
8-266-003	L:Scn PGS/ColCr	Background	CTL*	[0 to 99999999 / 0 / 1]
8-266-004	L:Scn PGS/ColCr	Other	CTL*	[0 to 99999999 / 0 / 1]
8-281-001	T:Scan PGS/TWAIN		CTL*	[0 to 99999999 / 0 / 1]
8-285-001	S:Scan PGS/TWAIN		CTL*	[0 to 99999999 / 0 / 1]
8-291-001	T:Scan PGS/Stamp		CTL*	[0 to 99999999 / 0 / 1]
8-293-001	F:Scan PGS/Stamp		CTL*	[0 to 99999999 / 0 / 1]
8-295-001	S:Scan PGS/Stamp		CTL*	[0 to 99999999 / 0 / 1]
8-301-001	T:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-301-002	T:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]

8-301-003	T:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-301-004	T:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-301-005	T:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-301-006	T:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-301-007	T:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-301-008	T:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-301-009	T:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-301-010	T:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-301-254	T:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-301-255	T:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-302-001	C:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-302-002	C:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-302-003	C:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-302-004	C:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-302-005	C:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-302-006	C:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-302-007	C:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-302-008	C:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-302-009	C:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-302-010	C:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-302-254	C:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-302-255	C:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-303-001	F:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-303-002	F:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-303-003	F:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-303-004	F:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-303-005	F:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-303-006	F:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-303-007	F:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-303-008	F:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-303-009	F:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-303-010	F:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-303-254	F:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-303-255	F:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-305-001	S:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-305-002	S:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-305-003	S:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-305-004	S:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]

8-305-005	S:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-305-006	S:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-305-007	S:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-305-008	S:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-305-009	S:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-305-010	S:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-305-254	S:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-305-255	S:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-306-001	L:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-306-002	L:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-306-003	L:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-306-004	L:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-306-005	L:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-306-006	L:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-306-007	L:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-306-008	L:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-306-009	L:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-306-010	L:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-306-254	L:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-306-255	L:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-311-001	T:Scan PGS/Rez	1200dpi ~	CTL*	[0 to 99999999 / 0 / 1]
8-311-002	T:Scan PGS/Rez	600dpi~1199dpi	CTL*	[0 to 99999999 / 0 / 1]
8-311-003	T:Scan PGS/Rez	400dpi~599dpi	CTL*	[0 to 99999999 / 0 / 1]
8-311-004	T:Scan PGS/Rez	200dpi~399dpi	CTL*	[0 to 99999999 / 0 / 1]
8-311-005	T:Scan PGS/Rez	~199dpi	CTL*	[0 to 99999999 / 0 / 1]
8-315-001	S:Scan PGS/Rez	1200dpi ~	CTL*	[0 to 99999999 / 0 / 1]
8-315-002	S:Scan PGS/Rez	600dpi~1199dpi	CTL*	[0 to 99999999 / 0 / 1]
8-315-003	S:Scan PGS/Rez	400dpi~599dpi	CTL*	[0 to 99999999 / 0 / 1]
8-315-004	S:Scan PGS/Rez	200dpi~399dpi	CTL*	[0 to 99999999 / 0 / 1]
8-315-005	S:Scan PGS/Rez	~199dpi	CTL*	[0 to 99999999 / 0 / 1]
8-321-001	T:Sacn Poster	2 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-321-002	T:Sacn Poster	4 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-321-003	T:Sacn Poster	9 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-322-001	C:Sacn Poster	2 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-322-002	C:Sacn Poster	4 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-322-003	C:Sacn Poster	9 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-326-001	L:Sacn Poster	2 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-326-002	L:Sacn Poster	4 Sheet	CTL*	[0 to 99999999 / 0 / 1]

8-326-003	L:Sacn Poster	9 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-381-001	T:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-382-001	C:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-383-001	F:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-384-001	P:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-385-001	S:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-386-001	L:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-387-001	O:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-391-001	LSize PrtPGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1]
8-391-003	LSize PrtPGS	BannerPaper	CTL*	[0 to 99999999 / 0 / 1]
8-401-001	T:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-402-001	C:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-403-001	F:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-404-001	P:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-405-001	S:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-406-001	L:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-411-001	Prints/Duplex		CTL*	[0 to 99999999 / 0 / 1]
8-421-001	T:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-421-002	T:PrtPGS/Dup Comb	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-421-003	T:PrtPGS/Dup Comb	Book> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-421-004	T:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-421-005	T:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-421-006	T:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-007	T:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-008	T:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-009	T:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-010	T:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-011	T:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-012	T:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-013	T:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-014	T:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-015	T:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-016	T:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-017	T:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-018	T:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-019	T:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-020	T:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-021	T:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]

8-421-022	T:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-023	T:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-024	T:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-422-001	C:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-422-002	C:PrtPGS/Dup Comb	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-422-003	C:PrtPGS/Dup Comb	Book> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-422-004	C:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-422-005	C:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-422-006	C:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-422-007	C:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-422-009	C:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-422-012	C:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-422-013	C:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-422-014	C:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-422-015	C:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-422-017	C:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-422-019	C:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-422-020	C:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-422-022	C:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-423-001	F:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-423-004	F:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-423-005	F:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-423-006	F:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-423-007	F:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-423-009	F:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-423-011	F:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-423-012	F:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-423-013	F:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-423-014	F:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-423-015	F:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-423-017	F:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-423-019	F:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-423-020	F:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-423-022	F:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-423-024	F:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-001	P:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-424-004	P:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-424-005	P:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]

8-424-006	P:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-007	P:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-008	P:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-009	P:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-010	P:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-011	P:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-012	P:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-013	P:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-014	P:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-015	P:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-016	P:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-017	P:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-018	P:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-019	P:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-020	P:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-021	P:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-022	P:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-023	P:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-024	P:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-001	S:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-425-004	S:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-425-005	S:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-425-006	S:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-007	S:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-009	S:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-010	S:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-011	S:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-012	S:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-013	S:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-014	S:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-015	S:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-017	S:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-018	S:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-019	S:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-020	S:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-022	S:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-023	S:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-024	S:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]

8-426-001	L:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-426-004	L:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-426-005	L:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-426-006	L:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-426-007	L:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-426-009	L:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-426-011	L:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-426-012	L:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-426-013	L:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-426-014	L:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-426-015	L:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-426-017	L:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-426-019	L:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-426-020	L:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-426-022	L:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-426-024	L:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-001	O:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-427-002	O:PrtPGS/Dup Comb	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-427-003	O:PrtPGS/Dup Comb	Book> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-427-004	O:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-427-005	O:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-427-006	O:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-007	O:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-008	O:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-009	O:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-010	O:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-011	O:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-012	O:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-013	O:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-014	O:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-015	O:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-016	O:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-017	O:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-018	O:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-019	O:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-020	O:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-021	O:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-022	O:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]

8-427-023	O:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-024	O:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-431-001	T:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-431-002	T:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]
8-431-003	T:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-432-001	C:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-432-002	C:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]
8-432-003	C:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-434-001	P:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-434-002	P:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]
8-434-003	P:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-436-001	L:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-436-002	L:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]
8-436-003	L:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-437-001	O:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-437-002	O:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]
8-437-003	O:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-441-001	T:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-441-002	T:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-441-003	T:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-441-004	T:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-441-005	T:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-441-006	T:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-441-007	T:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-441-008	T:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-441-009	T:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-441-010	T:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-441-254	T:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-441-255	T:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-442-001	C:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-442-002	C:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-442-003	C:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-442-004	C:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-442-005	C:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-442-006	C:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-442-007	C:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-442-008	C:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-442-009	C:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]

8-442-010	C:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-442-254	C:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-442-255	C:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-443-001	F:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-443-002	F:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-443-003	F:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-443-004	F:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-443-005	F:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-443-006	F:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-443-007	F:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-443-008	F:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-443-009	F:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-443-010	F:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-443-254	F:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-443-255	F:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-444-001	P:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-444-002	P:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-444-003	P:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-444-004	P:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-444-005	P:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-444-006	P:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-444-007	P:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-444-008	P:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-444-009	P:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-444-010	P:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-444-254	P:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-444-255	P:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-445-001	S:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-445-002	S:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-445-003	S:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-445-004	S:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-445-005	S:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-445-006	S:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-445-007	S:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-445-008	S:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-445-009	S:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-445-010	S:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-445-254	S:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]

8-445-255	S:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-446-001	L:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-446-002	L:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-446-003	L:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-446-004	L:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-446-005	L:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-446-006	L:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-446-007	L:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-446-008	L:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-446-009	L:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-446-010	L:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-446-254	L:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-446-255	L:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-447-001	O:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-447-002	O:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-447-003	O:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-447-004	O:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-447-005	O:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-447-006	O:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-447-007	O:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-447-008	O:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-447-009	O:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-447-010	O:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-447-254	O:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-447-255	O:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-451-001	PrtPGS/Ppr Tray	Bypass Tray	CTL*	[0 to 99999999 / 0 / 1]
8-451-002	PrtPGS/Ppr Tray	Tray 1	CTL*	[0 to 99999999 / 0 / 1]
8-451-003	PrtPGS/Ppr Tray	Tray 2	CTL*	[0 to 99999999 / 0 / 1]
8-451-004	PrtPGS/Ppr Tray	Tray 3	CTL*	[0 to 99999999 / 0 / 1]
8-451-005	PrtPGS/Ppr Tray	Tray 4	CTL*	[0 to 99999999 / 0 / 1]
8-451-006	PrtPGS/Ppr Tray	Tray 5	CTL*	[0 to 99999999 / 0 / 1]
8-451-007	PrtPGS/Ppr Tray	Tray 6	CTL*	[0 to 99999999 / 0 / 1]
8-451-008	PrtPGS/Ppr Tray	Tray 7	CTL*	[0 to 99999999 / 0 / 1]
8-451-009	PrtPGS/Ppr Tray	Tray 8	CTL*	[0 to 99999999 / 0 / 1]
8-451-010	PrtPGS/Ppr Tray	Tray 9	CTL*	[0 to 99999999 / 0 / 1]
8-451-011	PrtPGS/Ppr Tray	Tray 10	CTL*	[0 to 99999999 / 0 / 1]
8-451-012	PrtPGS/Ppr Tray	Tray 11	CTL*	[0 to 99999999 / 0 / 1]
8-451-013	PrtPGS/Ppr Tray	Tray 12	CTL*	[0 to 99999999 / 0 / 1]

8-451-014	PrtPGS/Ppr Tray	Tray 13	CTL*	[0 to 99999999 / 0 / 1]
8-451-015	PrtPGS/Ppr Tray	Tray 14	CTL*	[0 to 99999999 / 0 / 1]
8-451-016	PrtPGS/Ppr Tray	Tray 15	CTL*	[0 to 99999999 / 0 / 1]
8-451-101	PrtPGS/Ppr Tray	LC Inserter	CTL*	[0 to 99999999 / 0 / 1]
8-451-102	PrtPGS/Ppr Tray	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-461-001	T:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-461-002	T:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-461-003	T:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-461-004	T:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-461-005	T:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-461-006	T:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-461-007	T:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-461-008	T:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-462-001	C:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-462-002	C:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-462-003	C:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-462-004	C:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-462-005	C:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-462-006	C:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-462-007	C:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-462-008	C:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-463-001	F:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-463-002	F:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-463-003	F:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-463-004	F:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-463-005	F:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-463-006	F:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-463-007	F:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-463-008	F:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-464-001	P:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-464-002	P:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-464-003	P:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-464-004	P:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-464-005	P:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-464-006	P:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-464-007	P:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-464-008	P:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-466-001	L:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]

8-466-002	L:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-466-003	L:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-466-004	L:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-466-005	L:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-466-006	L:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-466-007	L:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-466-008	L:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-471-001	PrtPGS/Mag	~49%	CTL*	[0 to 99999999 / 0 / 1]
8-471-002	PrtPGS/Mag	50%~99%	CTL*	[0 to 99999999 / 0 / 1]
8-471-003	PrtPGS/Mag	100%	CTL*	[0 to 99999999 / 0 / 1]
8-471-004	PrtPGS/Mag	101%~200%	CTL*	[0 to 99999999 / 0 / 1]
8-471-005	PrtPGS/Mag	201% ~	CTL*	[0 to 99999999 / 0 / 1]
8-481-001	T:PrtPGS/TonSave		CTL*	[0 to 99999999 / 0 / 1]
8-484-001	P:PrtPGS/TonSave		CTL*	[0 to 99999999 / 0 / 1]
8-491-001	T:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-491-002	T:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-491-003	T:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-491-004	T:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-491-051	T:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-491-052	T:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-491-053	T:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-491-054	T:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-492-001	C:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-492-002	C:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-492-003	C:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-492-004	C:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-492-051	C:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-492-052	C:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-492-053	C:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-492-054	C:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-493-001	F:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-493-002	F:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-493-003	F:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-493-004	F:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-493-051	F:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-493-052	F:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-493-053	F:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-493-054	F:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]

8-496-001	L:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-496-002	L:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-496-003	L:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-496-004	L:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-496-051	L:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-496-052	L:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-496-053	L:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-496-054	L:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-497-001	O:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-497-002	O:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-497-003	O:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-497-004	O:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-497-051	O:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-497-052	O:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-497-053	O:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-497-054	O:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-501-001	T:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-501-002	T:PrtPGS/Col Mode	Mono Color	CTL*	[0 to 99999999 / 0 / 1]
8-501-003	T:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-501-004	T:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-501-005	T:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-501-051	T:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-501-052	T:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-501-053	T:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-501-054	T:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-504-001	P:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-504-002	P:PrtPGS/Col Mode	Mono Color	CTL*	[0 to 99999999 / 0 / 1]
8-504-003	P:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-504-004	P:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-504-005	P:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-504-051	P:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-504-052	P:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-504-053	P:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-504-054	P:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-507-001	O:PrtPGS/Col Mode	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-507-002	O:PrtPGS/Col Mode	Mono Color	CTL*	[0 to 99999999 / 0 / 1]
8-507-003	O:PrtPGS/Col Mode	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-507-004	O:PrtPGS/Col Mode	Single Color	CTL*	[0 to 99999999 / 0 / 1]

8-507-005	O:PrtPGS/Col Mode	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-507-051	O:PrtPGS/Col Mode	B/W(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-507-052	O:PrtPGS/Col Mode	Full Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-507-053	O:PrtPGS/Col Mode	Single Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-507-054	O:PrtPGS/Col Mode	Two Color(Banner)	CTL*	[0 to 99999999 / 0 / 1]
8-511-001	T:PrtPGS/Emul	RPCS	CTL*	[0 to 99999999 / 0 / 1]
8-511-002	T:PrtPGS/Emul	RPDL	CTL*	[0 to 99999999 / 0 / 1]
8-511-003	T:PrtPGS/Emul	PS3	CTL*	[0 to 99999999 / 0 / 1]
8-511-004	T:PrtPGS/Emul	R98	CTL*	[0 to 99999999 / 0 / 1]
8-511-005	T:PrtPGS/Emul	R16	CTL*	[0 to 99999999 / 0 / 1]
8-511-006	T:PrtPGS/Emul	GL/GL2	CTL*	[0 to 99999999 / 0 / 1]
8-511-007	T:PrtPGS/Emul	R55	CTL*	[0 to 99999999 / 0 / 1]
8-511-008	T:PrtPGS/Emul	RTIFF	CTL*	[0 to 99999999 / 0 / 1]
8-511-009	T:PrtPGS/Emul	PDF	CTL*	[0 to 99999999 / 0 / 1]
8-511-010	T:PrtPGS/Emul	PCL5e/5c	CTL*	[0 to 99999999 / 0 / 1]
8-511-011	T:PrtPGS/Emul	PCL XL	CTL*	[0 to 99999999 / 0 / 1]
8-511-012	T:PrtPGS/Emul	IPDL-C	CTL*	[0 to 99999999 / 0 / 1]
8-511-013	T:PrtPGS/Emul	BM-Links	CTL*	[0 to 99999999 / 0 / 1]
8-511-014	T:PrtPGS/Emul	Other	CTL*	[0 to 99999999 / 0 / 1]
8-511-015	T:PrtPGS/Emul	IPDS	CTL*	[0 to 99999999 / 0 / 1]
8-511-016	T:PrtPGS/Emul	XPS	CTL*	[0 to 99999999 / 0 / 1]
8-514-001	P:PrtPGS/Emul	RPCS	CTL*	[0 to 99999999 / 0 / 1]
8-514-002	P:PrtPGS/Emul	RPDL	CTL*	[0 to 99999999 / 0 / 1]
8-514-003	P:PrtPGS/Emul	PS3	CTL*	[0 to 99999999 / 0 / 1]
8-514-004	P:PrtPGS/Emul	R98	CTL*	[0 to 99999999 / 0 / 1]
8-514-005	P:PrtPGS/Emul	R16	CTL*	[0 to 99999999 / 0 / 1]
8-514-006	P:PrtPGS/Emul	GL/GL2	CTL*	[0 to 99999999 / 0 / 1]
8-514-007	P:PrtPGS/Emul	R55	CTL*	[0 to 99999999 / 0 / 1]
8-514-008	P:PrtPGS/Emul	RTIFF	CTL*	[0 to 99999999 / 0 / 1]
8-514-009	P:PrtPGS/Emul	PDF	CTL*	[0 to 99999999 / 0 / 1]
8-514-010	P:PrtPGS/Emul	PCL5e/5c	CTL*	[0 to 99999999 / 0 / 1]
8-514-011	P:PrtPGS/Emul	PCL XL	CTL*	[0 to 99999999 / 0 / 1]
8-514-012	P:PrtPGS/Emul	IPDL-C	CTL*	[0 to 99999999 / 0 / 1]
8-514-013	P:PrtPGS/Emul	BM-Links	CTL*	[0 to 99999999 / 0 / 1]
8-514-014	P:PrtPGS/Emul	Other	CTL*	[0 to 99999999 / 0 / 1]
8-514-015	P:PrtPGS/Emul	IPDS	CTL*	[0 to 99999999 / 0 / 1]
8-514-016	P:PrtPGS/Emul	XPS	CTL*	[0 to 99999999 / 0 / 1]
8-521-001	T:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]

8-521-002	T:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-521-003	T:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-521-004	T:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-521-005	T:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-006	T:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-521-007	T:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-521-008	T:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-009	T:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-010	T:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-011	T:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-012	T:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-013	T:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-521-014	T:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-521-015	T:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-521-016	T:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-522-001	C:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-522-002	C:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-522-003	C:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-522-004	C:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-522-005	C:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-522-006	C:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-522-007	C:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-522-008	C:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-522-009	C:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-522-010	C:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-522-011	C:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-522-012	C:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-522-013	C:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-522-014	C:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-522-015	C:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-522-016	C:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-523-001	F:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-523-002	F:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-523-003	F:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-523-004	F:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-523-005	F:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-523-006	F:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-523-007	F:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]

8-523-008	F:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-523-009	F:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-523-010	F:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-523-011	F:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-523-012	F:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-523-013	F:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-523-014	F:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-523-015	F:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-523-016	F:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-524-001	P:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-524-002	P:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-524-003	P:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-524-004	P:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-524-005	P:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-006	P:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-524-007	P:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-524-008	P:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-009	P:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-010	P:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-011	P:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-012	P:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-013	P:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-524-014	P:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-524-015	P:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-524-016	P:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-525-001	S:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-525-002	S:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-525-003	S:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-525-004	S:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-525-005	S:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-006	S:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-525-007	S:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-525-008	S:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-009	S:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-010	S:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-011	S:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-012	S:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-013	S:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]

8-525-014	S:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-525-015	S:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-525-016	S:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-526-001	L:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-526-002	L:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-526-003	L:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-526-004	L:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-526-005	L:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-006	L:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-526-007	L:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-526-008	L:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-009	L:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-010	L:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-011	L:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-012	L:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-013	L:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-526-014	L:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-526-015	L:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-526-016	L:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-531-001	Staple	Staples	CTL*	[0 to 99999999 / 0 / 1]
8-531-002	Staple	Stapless	CTL*	[0 to 99999999 / 0 / 1]
8-551-001	T:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-551-002	T:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-551-003	T:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-552-001	C:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-552-002	C:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-552-003	C:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-554-001	P:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-554-002	P:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-554-003	P:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-556-001	L:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-556-002	L:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-556-003	L:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]

SP Tables - SP8-XXX (2)

SP8-XXX (Data Log2) -2

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
8-561-001	T:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-561-002	T:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-561-003	T:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-561-004	T:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-562-001	C:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-562-002	C:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-562-003	C:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-562-004	C:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-563-001	F:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-563-002	F:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-563-003	F:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-563-004	F:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-564-001	P:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-564-002	P:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-564-003	P:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-564-004	P:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-566-	L:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]

001				
8-566-002	L:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-566-003	L:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-566-004	L:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-567-001	O:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-567-002	O:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-567-003	O:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-567-004	O:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-581-001	T:Counter	Total	CTL*	[0 to 99999999 / 0 / 1]
8-581-002	T:Counter	Total: Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-581-003	T:Counter	B&W/Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-581-004	T:Counter	Development: CMY	CTL*	[0 to 99999999 / 0 / 1]
8-581-005	T:Counter	Development: K	CTL*	[0 to 99999999 / 0 / 1]
8-581-006	T:Counter	Copy: Color	CTL*	[0 to 99999999 / 0 / 1]
8-581-007	T:Counter	Copy: B/W	CTL*	[0 to 99999999 / 0 / 1]
8-581-008	T:Counter	Print: Color	CTL*	[0 to 99999999 / 0 / 1]
8-581-009	T:Counter	Print: B/W	CTL*	[0 to 99999999 / 0 / 1]
8-581-010	T:Counter	Total: Color	CTL*	[0 to 99999999 / 0 / 1]
8-581-011	T:Counter	Total: B/W	CTL*	[0 to 99999999 / 0 / 1]
8-581-	T:Counter	Full Color: A3	CTL*	[0 to 99999999 / 0 / 1]

012				
8-581-013	T:Counter	Full Color: B4 JIS or Smaller	CTL*	[0 to 99999999 / 0 / 1]
8-581-014	T:Counter	Full Color Print	CTL*	[0 to 99999999 / 0 / 1]
8-581-015	T:Counter	Mono Color Print	CTL*	[0 to 99999999 / 0 / 1]
8-581-016	T:Counter	Full Color GPC	CTL*	[0 to 99999999 / 0 / 1]
8-581-017	T:Counter	Twin Color Mode Print	CTL*	[0 to 99999999 / 0 / 1]
8-581-018	T:Counter	Full Color Print(Twin)	CTL*	[0 to 99999999 / 0 / 1]
8-581-019	T:Counter	Mono Color Print(Twin)	CTL*	[0 to 99999999 / 0 / 1]
8-581-020	T:Counter	Full Color Total(CV)	CTL*	[0 to 99999999 / 0 / 1]
8-581-021	T:Counter	Mono Color Total(CV)	CTL*	[0 to 99999999 / 0 / 1]
8-581-022	T:Counter	Full Color Print(CV)	CTL*	[0 to 99999999 / 0 / 1]
8-581-028	T:Counter	Development: CMY(A3)	CTL*	[0 to 99999999 / 0 / 1]
8-581-029	T:Counter	Development: K(A3)	CTL*	[0 to 99999999 / 0 / 1]
8-581-030	T:Counter	Total: Color(A3)	CTL*	[0 to 99999999 / 0 / 1]
8-581-031	T:Counter	Total: B/W(A3)	CTL*	[0 to 99999999 / 0 / 1]
8-582-001	C:Counter	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-582-002	C:Counter	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-582-003	C:Counter	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-582-004	C:Counter	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-583-	F:Counter	B/W	CTL*	[0 to 99999999 / 0 / 1]

001				
8-583-002	F:Counter	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-584-001	P:Counter	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-584-002	P:Counter	Mono Color	CTL*	[0 to 99999999 / 0 / 1]
8-584-003	P:Counter	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-584-004	P:Counter	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-584-005	P:Counter	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-586-001	L:Counter	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-586-002	L:Counter	Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-586-003	L:Counter	Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-586-004	L:Counter	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-591-001	O:Counter	A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-591-002	O:Counter	Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-591-005	O:Counter	Banner	CTL*	[0 to 99999999 / 0 / 1]
8-601-001	T:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]
8-601-002	T:Coverage Counter	Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-601-011	T:Coverage Counter	B/W Printing Pages	CTL*	[0 to 99999999 / 0 / 1]
8-601-012	T:Coverage Counter	Color Printing Pages	CTL*	[0 to 99999999 / 0 / 1]
8-601-021	T:Coverage Counter	Coverage Counter 1	CTL*	[0 to 99999999 / 0 / 1]
8-601-	T:Coverage Counter	Coverage Counter 2	CTL*	[0 to 99999999 / 0 / 1]

022				
8-601-023	T:Coverage Counter	Coverage Counter 3	CTL*	[0 to 99999999 / 0 / 1]
8-601-031	Coverage Counter	Coverage Counter 1 (YMC)	CTL*	[0 to 99999999 / 0 / 1]
8-601-032	Coverage Counter	Coverage Counter 2 (YMC)	CTL*	[0 to 99999999 / 0 / 1]
8-601-033	Coverage Counter	Coverage Counter 3 (YMC)	CTL*	[0 to 99999999 / 0 / 1]
8-602-001	C:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]
8-602-002	C:Coverage Counter	Single Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-602-003	C:Coverage Counter	Two Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-602-004	C:Coverage Counter	Full Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-603-001	F:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]
8-603-002	F:Coverage Counter	Single Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-604-001	P:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]
8-604-002	P:Coverage Counter	Single Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-604-003	P:Coverage Counter	Two Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-604-004	P:Coverage Counter	Full Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-606-001	L:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]
8-606-002	L:Coverage Counter	Single Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-606-003	L:Coverage Counter	Two Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-606-004	L:Coverage Counter	Full Color	CTL*	[0 to 2147483647 / 0 / 1%]
8-617-	SDK Apli Counter	SDK-1	CTL*	[0 to 99999999 / 0 / 1]

001				
8-617-002	SDK Apli Counter	SDK-2	CTL*	[0 to 99999999 / 0 / 1]
8-617-003	SDK Apli Counter	SDK-3	CTL*	[0 to 99999999 / 0 / 1]
8-617-004	SDK Apli Counter	SDK-4	CTL*	[0 to 99999999 / 0 / 1]
8-617-005	SDK Apli Counter	SDK-5	CTL*	[0 to 99999999 / 0 / 1]
8-617-006	SDK Apli Counter	SDK-6	CTL*	[0 to 99999999 / 0 / 1]
8-617-007	SDK Apli Counter	SDK-7	CTL*	[0 to 99999999 / 0 / 1]
8-617-008	SDK Apli Counter	SDK-8	CTL*	[0 to 99999999 / 0 / 1]
8-617-009	SDK Apli Counter	SDK-9	CTL*	[0 to 99999999 / 0 / 1]
8-617-010	SDK Apli Counter	SDK-10	CTL*	[0 to 99999999 / 0 / 1]
8-617-011	SDK Apli Counter	SDK-11	CTL*	[0 to 99999999 / 0 / 1]
8-617-012	SDK Apli Counter	SDK-12	CTL*	[0 to 99999999 / 0 / 1]
8-621-001	Func Use Counter	Function-001	CTL*	[0 to 99999999 / 0 / 1]
8-621-002	Func Use Counter	Function-002	CTL*	[0 to 99999999 / 0 / 1]
8-621-003	Func Use Counter	Function-003	CTL*	[0 to 99999999 / 0 / 1]
8-621-004	Func Use Counter	Function-004	CTL*	[0 to 99999999 / 0 / 1]
8-621-005	Func Use Counter	Function-005	CTL*	[0 to 99999999 / 0 / 1]
8-621-006	Func Use Counter	Function-006	CTL*	[0 to 99999999 / 0 / 1]
8-621-007	Func Use Counter	Function-007	CTL*	[0 to 99999999 / 0 / 1]
8-621-	Func Use Counter	Function-008	CTL*	[0 to 99999999 / 0 / 1]

008				
8-621-009	Func Use Counter	Function-009	CTL*	[0 to 99999999 / 0 / 1]
8-621-010	Func Use Counter	Function-010	CTL*	[0 to 99999999 / 0 / 1]
8-621-011	Func Use Counter	Function-011	CTL*	[0 to 99999999 / 0 / 1]
8-621-012	Func Use Counter	Function-012	CTL*	[0 to 99999999 / 0 / 1]
8-621-013	Func Use Counter	Function-013	CTL*	[0 to 99999999 / 0 / 1]
8-621-014	Func Use Counter	Function-014	CTL*	[0 to 99999999 / 0 / 1]
8-621-015	Func Use Counter	Function-015	CTL*	[0 to 99999999 / 0 / 1]
8-621-016	Func Use Counter	Function-016	CTL*	[0 to 99999999 / 0 / 1]
8-621-017	Func Use Counter	Function-017	CTL*	[0 to 99999999 / 0 / 1]
8-621-018	Func Use Counter	Function-018	CTL*	[0 to 99999999 / 0 / 1]
8-621-019	Func Use Counter	Function-019	CTL*	[0 to 99999999 / 0 / 1]
8-621-020	Func Use Counter	Function-020	CTL*	[0 to 99999999 / 0 / 1]
8-621-021	Func Use Counter	Function-021	CTL*	[0 to 99999999 / 0 / 1]
8-621-022	Func Use Counter	Function-022	CTL*	[0 to 99999999 / 0 / 1]
8-621-023	Func Use Counter	Function-023	CTL*	[0 to 99999999 / 0 / 1]
8-621-024	Func Use Counter	Function-024	CTL*	[0 to 99999999 / 0 / 1]
8-621-025	Func Use Counter	Function-025	CTL*	[0 to 99999999 / 0 / 1]
8-621-026	Func Use Counter	Function-026	CTL*	[0 to 99999999 / 0 / 1]
8-621-	Func Use Counter	Function-027	CTL*	[0 to 99999999 / 0 / 1]

027				
8-621-028	Func Use Counter	Function-028	CTL*	[0 to 99999999 / 0 / 1]
8-621-029	Func Use Counter	Function-029	CTL*	[0 to 99999999 / 0 / 1]
8-621-030	Func Use Counter	Function-030	CTL*	[0 to 99999999 / 0 / 1]
8-621-031	Func Use Counter	Function-031	CTL*	[0 to 99999999 / 0 / 1]
8-621-032	Func Use Counter	Function-032	CTL*	[0 to 99999999 / 0 / 1]
8-621-033	Func Use Counter	Function-033	CTL*	[0 to 99999999 / 0 / 1]
8-621-034	Func Use Counter	Function-034	CTL*	[0 to 99999999 / 0 / 1]
8-621-035	Func Use Counter	Function-035	CTL*	[0 to 99999999 / 0 / 1]
8-621-036	Func Use Counter	Function-036	CTL*	[0 to 99999999 / 0 / 1]
8-621-037	Func Use Counter	Function-037	CTL*	[0 to 99999999 / 0 / 1]
8-621-038	Func Use Counter	Function-038	CTL*	[0 to 99999999 / 0 / 1]
8-621-039	Func Use Counter	Function-039	CTL*	[0 to 99999999 / 0 / 1]
8-621-040	Func Use Counter	Function-040	CTL*	[0 to 99999999 / 0 / 1]
8-621-041	Func Use Counter	Function-041	CTL*	[0 to 99999999 / 0 / 1]
8-621-042	Func Use Counter	Function-042	CTL*	[0 to 99999999 / 0 / 1]
8-621-043	Func Use Counter	Function-043	CTL*	[0 to 99999999 / 0 / 1]
8-621-044	Func Use Counter	Function-044	CTL*	[0 to 99999999 / 0 / 1]
8-621-045	Func Use Counter	Function-045	CTL*	[0 to 99999999 / 0 / 1]
8-621-	Func Use Counter	Function-046	CTL*	[0 to 99999999 / 0 / 1]

046				
8-621-047	Func Use Counter	Function-047	CTL*	[0 to 99999999 / 0 / 1]
8-621-048	Func Use Counter	Function-048	CTL*	[0 to 99999999 / 0 / 1]
8-621-049	Func Use Counter	Function-049	CTL*	[0 to 99999999 / 0 / 1]
8-621-050	Func Use Counter	Function-050	CTL*	[0 to 99999999 / 0 / 1]
8-621-051	Func Use Counter	Function-051	CTL*	[0 to 99999999 / 0 / 1]
8-621-052	Func Use Counter	Function-052	CTL*	[0 to 99999999 / 0 / 1]
8-621-053	Func Use Counter	Function-053	CTL*	[0 to 99999999 / 0 / 1]
8-621-054	Func Use Counter	Function-054	CTL*	[0 to 99999999 / 0 / 1]
8-621-055	Func Use Counter	Function-055	CTL*	[0 to 99999999 / 0 / 1]
8-621-056	Func Use Counter	Function-056	CTL*	[0 to 99999999 / 0 / 1]
8-621-057	Func Use Counter	Function-057	CTL*	[0 to 99999999 / 0 / 1]
8-621-058	Func Use Counter	Function-058	CTL*	[0 to 99999999 / 0 / 1]
8-621-059	Func Use Counter	Function-059	CTL*	[0 to 99999999 / 0 / 1]
8-621-060	Func Use Counter	Function-060	CTL*	[0 to 99999999 / 0 / 1]
8-621-061	Func Use Counter	Function-061	CTL*	[0 to 99999999 / 0 / 1]
8-621-062	Func Use Counter	Function-062	CTL*	[0 to 99999999 / 0 / 1]
8-621-063	Func Use Counter	Function-063	CTL*	[0 to 99999999 / 0 / 1]
8-621-064	Func Use Counter	Function-064	CTL*	[0 to 99999999 / 0 / 1]
8-631-	T:FAX TX PGS	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1]

001				
8-631-002	T:FAX TX PGS	Color(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-631-101	T:FAX TX PGS	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-631-102	T:FAX TX PGS	Color(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-633-001	F:FAX TX PGS	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-633-002	F:FAX TX PGS	Color(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-633-101	F:FAX TX PGS	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-633-102	F:FAX TX PGS	Color(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-641-001	T:IFAX TX PGS	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-641-002	T:IFAX TX PGS	Color	CTL*	[0 to 99999999 / 0 / 1]
8-643-001	F:IFAX TX PGS	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-643-002	F:IFAX TX PGS	Color	CTL*	[0 to 99999999 / 0 / 1]
8-651-001	T:S-to-Email PGS	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-651-002	T:S-to-Email PGS	Color	CTL*	[0 to 99999999 / 0 / 1]
8-655-001	S:S-to-Email PGS	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-655-002	S:S-to-Email PGS	Color	CTL*	[0 to 99999999 / 0 / 1]
8-661-001	T:Deliv PGS/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-661-002	T:Deliv PGS/Svr	Color	CTL*	[0 to 99999999 / 0 / 1]
8-665-001	S:Deliv PGS/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-665-	S:Deliv PGS/Svr	Color	CTL*	[0 to 99999999 / 0 / 1]

002				
8-671-001	T:Deliv PGS/PC	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-671-002	T:Deliv PGS/PC	Color	CTL*	[0 to 99999999 / 0 / 1]
8-675-001	S:Deliv PGS/PC	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-675-002	S:Deliv PGS/PC	Color	CTL*	[0 to 99999999 / 0 / 1]
8-681-001	T:PCFAX TXPGS		CTL*	[0 to 99999999 / 0 / 1]
8-683-001	F:PCFAX TXPGS		CTL*	[0 to 99999999 / 0 / 1]
8-691-001	T:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-692-001	C:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-693-001	F:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-694-001	P:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-695-001	S:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-696-001	L:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-701-001	TX PGS/Port	PSTN-1	CTL*	[0 to 99999999 / 0 / 1]
8-701-002	TX PGS/Port	PSTN-2	CTL*	[0 to 99999999 / 0 / 1]
8-701-003	TX PGS/Port	PSTN-3	CTL*	[0 to 99999999 / 0 / 1]
8-701-004	TX PGS/Port	ISDN(G3,G4)	CTL*	[0 to 99999999 / 0 / 1]
8-701-005	TX PGS/Port	Network	CTL*	[0 to 99999999 / 0 / 1]
8-711-001	T:Scan PGS/Comp	JPEG/JPEG2000	CTL*	[0 to 99999999 / 0 / 1]
8-711-	T:Scan PGS/Comp	TIFF(Multi/Single)	CTL*	[0 to 99999999 / 0 / 1]

002				
8-711-003	T:Scan PGS/Comp	PDF	CTL*	[0 to 99999999 / 0 / 1]
8-711-004	T:Scan PGS/Comp	Other	CTL*	[0 to 99999999 / 0 / 1]
8-711-005	T:Scan PGS/Comp	PDF/Comp	CTL*	[0 to 99999999 / 0 / 1]
8-711-006	T:Scan PGS/Comp	PDF/A	CTL*	[0 to 99999999 / 0 / 1]
8-711-007	T:Scan PGS/Comp	PDF(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-711-008	T:Scan PGS/Comp	PDF/Comp(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-711-009	T:Scan PGS/Comp	PDF/A(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-715-001	S:Scan PGS/Comp	JPEG/JPEG2000	CTL*	[0 to 99999999 / 0 / 1]
8-715-002	S:Scan PGS/Comp	TIFF(Multi/Single)	CTL*	[0 to 99999999 / 0 / 1]
8-715-003	S:Scan PGS/Comp	PDF	CTL*	[0 to 99999999 / 0 / 1]
8-715-004	S:Scan PGS/Comp	Other	CTL*	[0 to 99999999 / 0 / 1]
8-715-005	S:Scan PGS/Comp	PDF/Comp	CTL*	[0 to 99999999 / 0 / 1]
8-715-006	S:Scan PGS/Comp	PDF/A	CTL*	[0 to 99999999 / 0 / 1]
8-715-007	S:Scan PGS/Comp	PDF(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-715-008	S:Scan PGS/Comp	PDF/Comp(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-715-009	S:Scan PGS/Comp	PDF/A(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-721-001	T:Deliv PGS/WSD/DSM	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-721-002	T:Deliv PGS/WSD/DSM	Color	CTL*	[0 to 99999999 / 0 / 1]
8-725-	S:Deliv	B/W	CTL*	[0 to 99999999 / 0 / 1]

001	PGS/WSD/DSM			
8-725-002	S:Deliv PGS/WSD/DSM	Color	CTL*	[0 to 99999999 / 0 / 1]
8-731-001	T:Scan PGS/Media	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-731-002	T:Scan PGS/Media	Color	CTL*	[0 to 99999999 / 0 / 1]
8-735-001	S:Scan PGS/Media	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-735-002	S:Scan PGS/Media	Color	CTL*	[0 to 99999999 / 0 / 1]
8-741-001	RX PGS/Port	PSTN-1	CTL*	[0 to 99999999 / 0 / 1]
8-741-002	RX PGS/Port	PSTN-2	CTL*	[0 to 99999999 / 0 / 1]
8-741-003	RX PGS/Port	PSTN-3	CTL*	[0 to 99999999 / 0 / 1]
8-741-004	RX PGS/Port	ISDN(G3,G4)	CTL*	[0 to 99999999 / 0 / 1]
8-741-005	RX PGS/Port	Network	CTL*	[0 to 99999999 / 0 / 1]
8-771-001	Dev Counter	Total	CTL*	[0 to 99999999 / 0 / 1]
8-771-002	Dev Counter	K	CTL*	[0 to 99999999 / 0 / 1]
8-771-003	Dev Counter	Y	CTL*	[0 to 99999999 / 0 / 1]
8-771-004	Dev Counter	M	CTL*	[0 to 99999999 / 0 / 1]
8-771-005	Dev Counter	C	CTL*	[0 to 99999999 / 0 / 1]
8-781-001	Toner_Botol_Info.	BK	CTL*	[0 to 99999999 / 0 / 1]
8-781-002	Toner_Botol_Info.	Y	CTL*	[0 to 99999999 / 0 / 1]
8-781-003	Toner_Botol_Info.	M	CTL*	[0 to 99999999 / 0 / 1]
8-781-	Toner_Botol_Info.	C	CTL*	[0 to 99999999 / 0 / 1]

004				
8-791-001	LS Memory Remain		CTL*	[0 to 100 / 0 / 1%]
8-801-001	Toner Remain	K	CTL*	[0 to 100 / 0 / 1%]
8-801-002	Toner Remain	Y	CTL*	[0 to 100 / 0 / 1%]
8-801-003	Toner Remain	M	CTL*	[0 to 100 / 0 / 1%]
8-801-004	Toner Remain	C	CTL*	[0 to 100 / 0 / 1%]
8-811-001	Eco Counter	Eco Total	CTL*	[0 to 99999999 / 0 / 1]
8-811-002	Eco Counter	Color	CTL*	[0 to 99999999 / 0 / 1]
8-811-003	Eco Counter	Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-811-004	Eco Counter	Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-811-005	Eco Counter	Combine	CTL*	[0 to 99999999 / 0 / 1]
8-811-006	Eco Counter	Color(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-007	Eco Counter	Full Color(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-008	Eco Counter	Duplex(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-009	Eco Counter	Combine(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-010	Eco Counter	Paper Cut(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-051	Eco Counter	Sync Eco Total	CTL*	[0 to 99999999 / 0 / 1]
8-811-052	Eco Counter	Sync Color	CTL*	[0 to 99999999 / 0 / 1]
8-811-053	Eco Counter	Sync Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-811-	Eco Counter	Sync Duplex	CTL*	[0 to 99999999 / 0 / 1]

054				
8-811-055	Eco Counter	Sync Combine	CTL*	[0 to 99999999 / 0 / 1]
8-811-056	Eco Counter	Sync Color(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-057	Eco Counter	Sync Full Color(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-058	Eco Counter	Sync Duplex(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-059	Eco Counter	Sync Combine(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-060	Eco Counter	Sync Paper Cut(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-101	Eco Counter	Eco Totalr:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-102	Eco Counter	Color:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-103	Eco Counter	Full Color:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-104	Eco Counter	Duplex:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-105	Eco Counter	Combine:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-106	Eco Counter	Color(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-107	Eco Counter	Full Color(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-108	Eco Counter	Duplex(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-109	Eco Counter	Combine(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-110	Eco Counter	Paper Cut(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-151	Eco Counter	Sync Eco Totalr:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-152	Eco Counter	Sync Color:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-	Eco Counter	Sync Full Color:Last	CTL*	[0 to 99999999 / 0 / 1]

153				
8-811-154	Eco Counter	Sync Duplex:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-155	Eco Counter	Sync Combine:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-156	Eco Counter	Sync Color(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-157	Eco Counter	Sync Full Color(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-158	Eco Counter	Sync Duplex(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-159	Eco Counter	Sync Combine(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-160	Eco Counter	Sync Paper Cut(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-851-011	Cvr Cnt:0-10%	0~2%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-012	Cvr Cnt:0-10%	0~2%:Y	CTL*	[0 to 99999999 / 0 / 1]
8-851-013	Cvr Cnt:0-10%	0~2%:M	CTL*	[0 to 99999999 / 0 / 1]
8-851-014	Cvr Cnt:0-10%	0~2%:C	CTL*	[0 to 99999999 / 0 / 1]
8-851-021	Cvr Cnt:0-10%	3~4%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-022	Cvr Cnt:0-10%	3~4%:Y	CTL*	[0 to 99999999 / 0 / 1]
8-851-023	Cvr Cnt:0-10%	3~4%:M	CTL*	[0 to 99999999 / 0 / 1]
8-851-024	Cvr Cnt:0-10%	3~4%:C	CTL*	[0 to 99999999 / 0 / 1]
8-851-031	Cvr Cnt:0-10%	5~7%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-032	Cvr Cnt:0-10%	5~7%:Y	CTL*	[0 to 99999999 / 0 / 1]
8-851-033	Cvr Cnt:0-10%	5~7%:M	CTL*	[0 to 99999999 / 0 / 1]
8-851-	Cvr Cnt:0-10%	5~7%:C	CTL*	[0 to 99999999 / 0 / 1]

034				
8-851-041	Cvr Cnt:0-10%	8~10%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-042	Cvr Cnt:0-10%	8~10%:Y	CTL*	[0 to 99999999 / 0 / 1]
8-851-043	Cvr Cnt:0-10%	8~10%:M	CTL*	[0 to 99999999 / 0 / 1]
8-851-044	Cvr Cnt:0-10%	8~10%:C	CTL*	[0 to 99999999 / 0 / 1]
8-861-001	Cvr Cnt:11-20%	BK	CTL*	[0 to 99999999 / 0 / 1]
8-861-002	Cvr Cnt:11-20%	Y	CTL*	[0 to 99999999 / 0 / 1]
8-861-003	Cvr Cnt:11-20%	M	CTL*	[0 to 99999999 / 0 / 1]
8-861-004	Cvr Cnt:11-20%	C	CTL*	[0 to 99999999 / 0 / 1]
8-871-001	Cvr Cnt:21-30%	BK	CTL*	[0 to 99999999 / 0 / 1]
8-871-002	Cvr Cnt:21-30%	Y	CTL*	[0 to 99999999 / 0 / 1]
8-871-003	Cvr Cnt:21-30%	M	CTL*	[0 to 99999999 / 0 / 1]
8-871-004	Cvr Cnt:21-30%	C	CTL*	[0 to 99999999 / 0 / 1]
8-881-001	Cvr Cnt:31%-	BK	CTL*	[0 to 99999999 / 0 / 1]
8-881-002	Cvr Cnt:31%-	Y	CTL*	[0 to 99999999 / 0 / 1]
8-881-003	Cvr Cnt:31%-	M	CTL*	[0 to 99999999 / 0 / 1]
8-881-004	Cvr Cnt:31%-	C	CTL*	[0 to 99999999 / 0 / 1]
8-891-001	Page/Toner Bottle	BK	CTL*	[0 to 99999999 / 0 / 1]
8-891-002	Page/Toner Bottle	Y	CTL*	[0 to 99999999 / 0 / 1]
8-891-	Page/Toner Bottle	M	CTL*	[0 to 99999999 / 0 / 1]

003				
8-891-004	Page/Toner Bottle	C	CTL*	[0 to 99999999 / 0 / 1]
8-901-001	Page/Toner_Prev1	BK	CTL*	[0 to 99999999 / 0 / 1]
8-901-002	Page/Toner_Prev1	Y	CTL*	[0 to 99999999 / 0 / 1]
8-901-003	Page/Toner_Prev1	M	CTL*	[0 to 99999999 / 0 / 1]
8-901-004	Page/Toner_Prev1	C	CTL*	[0 to 99999999 / 0 / 1]
8-911-001	Page/Toner_Prev2	BK	CTL*	[0 to 99999999 / 0 / 1]
8-911-002	Page/Toner_Prev2	Y	CTL*	[0 to 99999999 / 0 / 1]
8-911-003	Page/Toner_Prev2	M	CTL*	[0 to 99999999 / 0 / 1]
8-911-004	Page/Toner_Prev2	C	CTL*	[0 to 99999999 / 0 / 1]
8-921-001	Cvr Cnt/Total	Coverage(%):BK	CTL*	[0 to 2147483647 / 0 / 1%]
8-921-002	Cvr Cnt/Total	Coverage(%):Y	CTL*	[0 to 2147483647 / 0 / 1%]
8-921-003	Cvr Cnt/Total	Coverage(%):M	CTL*	[0 to 2147483647 / 0 / 1%]
8-921-004	Cvr Cnt/Total	Coverage(%):C	CTL*	[0 to 2147483647 / 0 / 1%]
8-921-011	Cvr Cnt/Total	Coverage/P:BK	CTL*	[0 to 99999999 / 0 / 1]
8-921-012	Cvr Cnt/Total	Coverage/P:Y	CTL*	[0 to 99999999 / 0 / 1]
8-921-013	Cvr Cnt/Total	Coverage/P:M	CTL*	[0 to 99999999 / 0 / 1]
8-921-014	Cvr Cnt/Total	Coverage/P:C	CTL*	[0 to 99999999 / 0 / 1]
8-941-001	Machine Status	Operation Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-	Machine Status	Standby Time	CTL*	[0 to 99999999 / 0 / 1]

002				
8-941-003	Machine Status	Energy Save Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-004	Machine Status	Low Power Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-005	Machine Status	Off Mode Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-006	Machine Status	SC	CTL*	[0 to 99999999 / 0 / 1]
8-941-007	Machine Status	PrtJam	CTL*	[0 to 99999999 / 0 / 1]
8-941-008	Machine Status	OrgJam	CTL*	[0 to 99999999 / 0 / 1]
8-941-009	Machine Status	Supply PM Unit End	CTL*	[0 to 99999999 / 0 / 1]
8-951-001	AddBook Register	User Code /User ID	CTL*	[0 to 99999 / 0 / 1]
8-951-002	AddBook Register	Mail Address	CTL*	[0 to 99999 / 0 / 1]
8-951-003	AddBook Register	Fax Destination	CTL*	[0 to 99999 / 0 / 1]
8-951-004	AddBook Register	Group	CTL*	[0 to 99999 / 0 / 1]
8-951-005	AddBook Register	Transfer Request	CTL*	[0 to 99999 / 0 / 1]
8-951-006	AddBook Register	F-Code	CTL*	[0 to 99999 / 0 / 1]
8-951-007	AddBook Register	Copy Program	CTL*	[0 to 255 / 0 / 1]
8-951-008	AddBook Register	Fax Program	CTL*	[0 to 255 / 0 / 1]
8-951-009	AddBook Register	Printer Program	CTL*	[0 to 255 / 0 / 1]
8-951-010	AddBook Register	Scanner Program	CTL*	[0 to 255 / 0 / 1]
8-961-001	Electricity Status	Ctrl Standby Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-	Electricity Status	STR Time	CTL*	[0 to 99999999 / 0 / 1]

002				
8-961-003	Electricity Status	Main Power Off Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-004	Electricity Status	Reading and Printing Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-005	Electricity Status	Printing Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-006	Electricity Status	Reading Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-007	Electricity Status	Eng Waiting Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-008	Electricity Status	Low Pawer State Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-009	Electricity Status	Silent State Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-010	Electricity Status	Heater Off State Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-011	Electricity Status	LCD on Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-101	Electricity Status	Silent Print	CTL*	[0 to 99999999 / 0 / 1]
8-971-001	Unit Control	Engine Off Recovery Count	CTL*	[0 to 99999999 / 0 / 1]
8-971-002	Unit Control	Power Off Count	CTL*	[0 to 99999999 / 0 / 1]
8-971-003	Unit Control	Force Power Off Count	CTL*	[0 to 99999999 / 0 / 1]
8-999-001	Admin. Counter List	Total	CTL*	[0 to 99999999 / 0 / 1]
8-999-002	Admin. Counter List	Copy: Full Color	CTL*	[0 to 99999999 / 0 / 1]
8-999-003	Admin. Counter List	Copy: BW	CTL*	[0 to 99999999 / 0 / 1]
8-999-004	Admin. Counter List	Copy: Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-999-005	Admin. Counter List	Copy: Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-999-	Admin. Counter List	Printer: Full Color	CTL*	[0 to 99999999 / 0 / 1]

006				
8-999-007	Admin. Counter List	Printer: BW	CTL*	[0 to 99999999 / 0 / 1]
8-999-008	Admin. Counter List	Printer: Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-999-009	Admin. Counter List	Printer: Two Color	CTL*	[0 to 99999999 / 0 / 1]
8-999-010	Admin. Counter List	Fax Print: BW	CTL*	[0 to 99999999 / 0 / 1]
8-999-011	Admin. Counter List	Fax Print: Single Color	CTL*	[0 to 99999999 / 0 / 1]
8-999-013	Admin. Counter List	Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-999-022	Admin. Counter List	Copy: Full Color(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-023	Admin. Counter List	Copy: BW(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-024	Admin. Counter List	Copy: Single Color(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-025	Admin. Counter List	Copy: Two Color(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-026	Admin. Counter List	Printer: Full Color(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-027	Admin. Counter List	Printer: BW(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-028	Admin. Counter List	Printer: Single Color(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-029	Admin. Counter List	Printer: Two Color(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-030	Admin. Counter List	Fax Print: BW(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-031	Admin. Counter List	Fax Print: Single Color(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-101	Admin. Counter List	Transmission Total: Color	CTL*	[0 to 99999999 / 0 / 1]
8-999-102	Admin. Counter List	Transmission Total: BW	CTL*	[0 to 99999999 / 0 / 1]
8-999-	Admin. Counter List	FAX Transmission	CTL*	[0 to 99999999 / 0 / 1]

103				
8-999-104	Admin. Counter List	Scanner Transmission: Color	CTL*	[0 to 99999999 / 0 / 1]
8-999-105	Admin. Counter List	Scanner Transmission: BW	CTL*	[0 to 99999999 / 0 / 1]

Printer Service Mode

1001	Bit Switch			
001	Bit Switch 1		0	1
	bit 0	**DFU**	-	-
	bit 1	**Responding with the hostname as the sysName**	Model name (PnP name)	Hostname
		This BitSwitch can change the value of the sysName. 0 (default): Model name (PnP name) such as "MP C401SP" 1: Host name		
	bit 2	**DFU**	-	-
	bit 3	**No I/O Timeout**	Disabled	Enabled
		Enables/Disables MFP I/O Timeouts. If enabled, the MFP I/O Timeout setting will have no affect. I/O Timeouts will never occur.		
	bit 4	**SD Card Save Mode**	Disabled	Enabled
		If this bit switch is enabled, print jobs will be saved to the GW SD slot and not output to paper.		
	bit 5	**[PS and PDF] Paper size error margin**	±5pt	±10pt
		When a PS job is printed by using a custom paper size, the job might not be printed because of a paper size mismatch caused by a calculation error. By default, the error margin for matching to a paper size is ±5 points. By enabling this BitSwitch, the error margin for matching to a paper size can be extended to ±10 points.		
	bit 6	**Color balance switching**	Disabled	Enabled
		This BitSwitch can be used to restore the color balance to match that of previous models. If this BitSwitch is set to "1" (Enabled), the color balance that is equivalent to Fuji-Xerox printers will be used.		
	bit 7	**DFU**	-	-

1001	Bit Switch			
002	Bit Switch 2		0	1
	bit 0	**Color balance switching**	Disabled	Enabled
		This BitSwitch can be used to restore the color balance to match that of previous models. If this BitSwitch is set to "1" (Enabled), the color balance from 09S and earlier models will be used.		
	bit 1	**DFU**	-	-
	bit 2	**DFU**	-	-

1001	Bit Switch			
	bit 3	**[PCL5e/c.PS]: PDL Auto Switching**	Enable	Disable
		Enables/disable the MFPs ability to change the PDL processor mid-job. Some host systems submit jobs that contain both PS and PCL5e/c. If Auto PDL switching is disabled, these jobs will not be printed properly.		
	bit 4	**Color balance switching**	Disabled	Enabled
		This BitSwitch can be used to restore the color balance to match that of previous models. If this BitSwitch is set to "1" (Enabled), the color balance from 09A and Extended 09A models will be used.		
	bit 5	**DFU**	-	-
	bit 6	**DFU**	-	-
	bit 7	**DFU**	-	-

1001	Bit Switch			
003	Bit Switch 3		0	1
	bit 0	**DFU**	-	-
	bit 1	**DFU**	-	-
	bit 2	**[PCL5e/c]: Legacy HP compatibility**	Disabled	Enabled
		Uses the same left margin as older HP models such as HP4000/HP8000. In other words, the left margin defined in the job (usually "<ESC>*r0A") will be changed to "<ESC>*r1A".		
	bit 3 to 7	**DFU**	-	-

1001	Bit Switch			
004	Bit Switch 4		0	1
	bit 0 to 7	**DFU**	-	-

1001	Bit Switch			
005	Bit Switch 5		0	1
	bit 0	**Show "Collate Type", "Staple Type" and "Punch Type" buttons on the operation panel.**	Disabled	Enabled
		If enabled, users will be able to configure a Collate Type, Staple Type, and Punch Type from the operation panel. The available Types will depend on the device and configured options. After enabling this BitSwitch, the settings will appear under:		

1001	Bit Switch			
		User Tools > Printer Features > System		
	bit 1	**Multiple copies if a paper size or type mismatch occurs**	Disabled (Single copy)	Enabled (Multiple copy)
		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	**Prevent SDK applications from altering the contents of a job.**	Disabled	Enabled
		Enable: SDK applications will not be able to alter print data. This is achieved by preventing SDK applications from accessing a module called the "GPS Filter". **Note:** The main purpose of this bit switch is for troubleshooting the effects of SDK applications on data.		
	bit 3	**[PS] PS Criteria**	Pattern3	Pattern1
		Change the number of PS criterion used by the PS interpereter to determine whether a job is PS data or not. Pattern3: The larger the pattern number, the greater the number of criterion used. Pattern1: A small number of PS tags and headers		
	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.		
	bit 5	**DFU**	-	-
	bit 6	**Method for determining the image rotation for the edge to bind on.**	Disabled	Enabled
		Enable: The image rotation will be performed as they were in the specifications of older models for the binding of pages of mixed orientation jobs. The old models are below: - PCL: Pre-04A models - PS/PDF/RPCS: Pre-05S models		
	bit 7	**Letterhead mode printing**	Disabled	Enabled (Duplex)
		Routes all pages through the duplex unit. If this is disabled, simplex pages or the last page of an odd-paged duplex job are not routed through the duplex unit. This could result in problems with letterhead/pre-printed pages. Only affects pages specified as Letterhead paper.		

1001	Bit Switch		
006	Bit Switch 6	0	1

1001	Bit Switch			
	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.		
	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	**[PCL.PS]: Allow BW jobs to print without requiring User Code**	Disabled	Enabled (allow BW jobs to print without a user code)
		BW jobs submitted without a user code will be printed even if usercode authentication is enabled. **Note:** Color jobs will not be printed without a valid user code.		
	bit 4 to 5	**DFU**	-	-
	bit 6	**PCL, RPCS, PS: Forced BW print**	Enabled	Disabled
		Switches whether to ignore PDL color command.		
	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	**DFU**	-	-

1001	Bit Switch			
	1			
	bit 2	**Job Cancel**	Disabled (Not cancelled)	Enabled (Cancelled)
		Enable: All jobs will be cancelled after a jam occurs. **Note:** If this bit switch is enabled, printing under the following conditions might result in problems: - Job submission via USB or parallel port - Spool printing (WIM > Configuration > Device Settings > System)		
	bit 3	**DFU**	-	-
	bit 4	**Timing of the PJL Status ReadBack (JOB END) when printing multiple collated copies.**	Disabled	Enabled
		This bit switch determines the timing of the PJL USTATUS JOB END sent when multiple collated copies are being printed. Disable (=0 (default)): 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. Enable (=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.		

1001	Bit Switch			
009	Bit Switch 9		0	1
	bit 5	**Display UTF-8 text in the operation panel**	Enabled	Disabled
		Enable (=0): Text composed of UTF-8 characters can be displayed in the operation panel. Disable (=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 bit switch is enabled (=0).		
	bit 6	**Disable super option**	Disabled	Enabled
		Switches super option disable on / off. It this is On, multiple jobs are grouped at LPR port. PJL settings are enabled even jobs that are specified queue names are sent.		
	bit 7	**Enable/Disable Print from USB/SD's Preview function**	Enabled	Disabled
		Determines whether print from USB/SD will have the Preview function. Enabled (=0): Print from USB/SD will have the Preview function.		

1001	Bit Switch	
		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**	-	-
	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 Errored 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	**Switch for enabling or disabling Limitless Paper Feeding for the Bypass Tray**	Enable	Disable
		When the Bypass Tray is the target of the Auto Tray Select and Any Size/Type is configured for		

1001	Bit Switch			
		the Tray Setting Priority setting of the Bypass Tray, this BitSwitch can switch the behavior whether or not Limitless Paper Feeding is applied to the Bypass Tray.* The default is Enabled (=0). *Limitless Paper Feeding will try a matching tray of the next highest priority if a job specified to Auto Tray Select as the tray setting is submitted and the tray runs out of paper. 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. 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 BitSwitch is set to "1": - The "Paper Tray Priority: Printer" setting must be configured to a tray other than the Bypass Tray. - Jobs that contain more than one paper size cannot be printed.		
	bit 3	**DFU**	-	-
	bit 4	**Add "Apply Auto Paper Select" is the condition that decides if the device's paper size or paper type should be overwritten.**	Enabled	Enabled
		If this BitSwitch is set to "1" (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 overwritten by the job's commands when "Tray Setting Priority" is set to "Driver/Command" or "Any Type". - Apply Auto Paper Select = OFF: Overwritten (priority is given to the job’s commands) - Apply Auto Paper Select = ON: Not overwritten (priority is given to the device settings)		
	bit 5 to 7	**Not Used**	-	-

1001	Bit Switch			
012	Bit Switch C		0	1
	bit 0	**DFU**	-	-
	bit 1 to 4	**Not Used**	-	-
	bit 5	**Change the user ID type displayed on the operation panel**	Disabled	Enabled

1001	Bit Switch			
		As of 15S models, the Login User Name can be displayed on the operation panel. The user ID type displayed on the operation panel can be changed by configuring BitSwitch #12-5 as follows: - 0 (Default): Login User Name - 1: User ID. If this is enabled, User ID will be displayed, which is equivalent to the behavior exhibited in 14A and earlier models.		
	bit 6	**Ai r Print**	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	**Not Used**		

1003	**[Clear Setting]**	
001	Initialize System	Initializes settings in the System menu of the user mode.
003	Delete Program	**DFU**

1004	**[Print Summary]**	
001	Service Summary	Prints the service summary sheet (a summary of all the controller settings).

1005	**[Display Version]**	
002	Printer Version	Displays the version of the controller firmware.

RTB 22

1006	**[Sample/Locked Print]**	
001	0:Link with Doc. Srv 1:Enable	-

1101	**[ToneCtlSet]**	
001	Tone (Factory)	-
	Recalls a set of gamma settings. This can be either a) the factory setting, b) the previous setting, or c) the current setting.	

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	[0 to 99 / **0** / 1/step]

1103	**[PrnColorSheet]**	
1103-001	ToneCtlSheet	Prints the test page to check the color balance before and after the gamma adjustment.
1103-002	ColorChart	

1104	**[ToneCtlValue]**	
	Adjusts the printer gamma for the mode selected in the Mode Selection menu.	
1104-001	Black: Highlight	[0 to 30 / **0** / 1/step]
1104-021	Cyan: Highlight	
1104-041	Magenta: Highlight	
1104-061	Yellow: Highlight	
1104-002	Black: Shadow	[0 to 30 / **0** / 1/step]
1104-022	Cyan: Shadow	
1104-042	Magenta: Shadow	
1104-062	Yellow: Shadow	
1104-003	Black: Middle	[0 to 30 / **0** / 1/step]
1104-023	Cyan: Middle	
1104-043	Magenta: Middle	
1104-063	Yellow: Middle	
1104-004	Black: IDmax	[0 to 30 / **0** / 1/step]
1104-024	Cyan: IDmax	
1104-044	Magenta: IDmax	
1104-064	Yellow: IDmax	

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	[EXECUTE]

1106	**[Toner Limit]**	
	Adjusts the maximum toner amount for image development.	
1106-001	Toner Limit Value	[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	[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	[0 or 1 / **1** / 1/step]

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:desable	*CTL	[0 or 1 / **0** / - /step]
	Enable or disable remote scan.		

1010	**[Non Display ClearLight PDF]**		
1-010-001	0:Display 1:Nondisplay	*CTL	[0 or 1 / **0** / - /step]
	Display or nondislay ClearLight PDF function.		

1011	**[Org Count Disp]**		
1-011-001	0:ON 1:OFF	*CTL	[0 or 1 / **0** / - /step]
	Display or nondislay 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** / - /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** / - /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** / - /step]
	Sets enable or disable the password setting when make a Scan to Folder job.		

1040	**[Scan: LT/LG Mixed Sized Sizes Setting]**		
1-040-001	0:OFF 1:ON	*CTL	[0 or 1/ **1** / -/step]
	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 machine	**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 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	-	-	-

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]

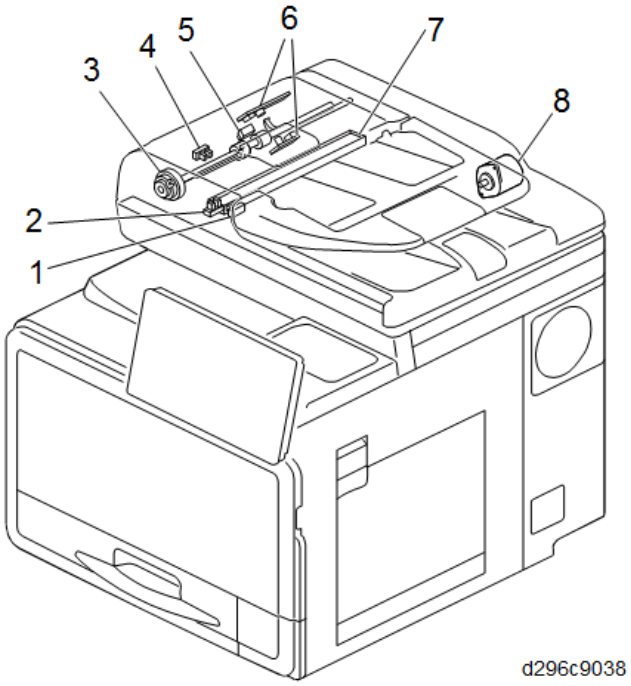
2024	**[Compression ratio of ClearLightPDF]**		
	Selects the compression ratio for clearlight PDF for the two settings that can be selected at the operation panel.		
2-024-001	Compression Ratio(Normal)	*CTL	[5 to 95 / **25** / 1 /step]
2-024-002	Compression Ratio(High)	*CTL	[5 to 95 / **20** / 1 /step]

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 / **20** / 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]

Input and Output Check

ADF Unit



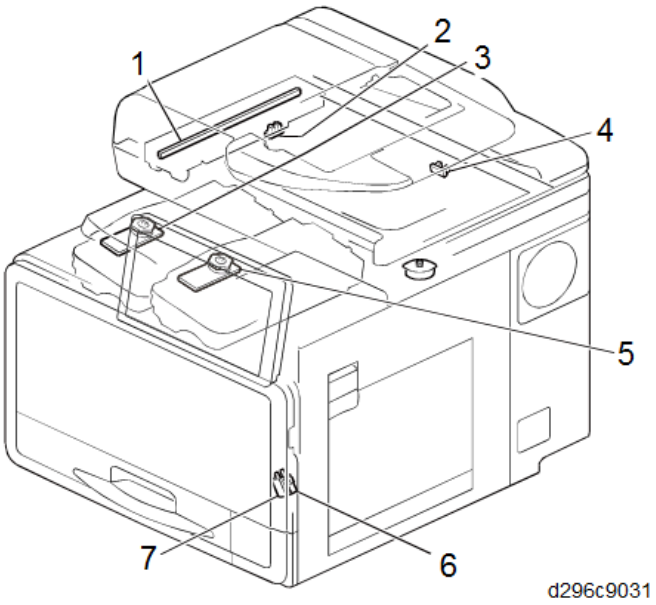
Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
1	Top cover set sensor	Feed Cover Sensor	6-011-015	Close	Open
2	Original set sensor	Original Detection	6-011-009	Not set	Set
4	ADF feed sensor	DF Feed Sensor	6-011-010	Paper detected	Paper not detected
5	ADF registration sensor	Registration Sensor	6-011-013	Paper detected	Paper not detected
6	Double-feed sensor	Page Keeper Sensor	6-011-024	Double feed not detected	Double feed detected

Output check

No.	Part Name	SP Name	SP No.	Remark
3	ADF feed clutch	Feed Clutch	6-012-014	
7	CIS unit: scanner lamp	Scanner Lamp: Color	4-723-001	
9	ADF drive motor	Motor Forward	6-012-003	
		Motor Reverse	6-012-004	

Scanner Unit/ Laser Unit



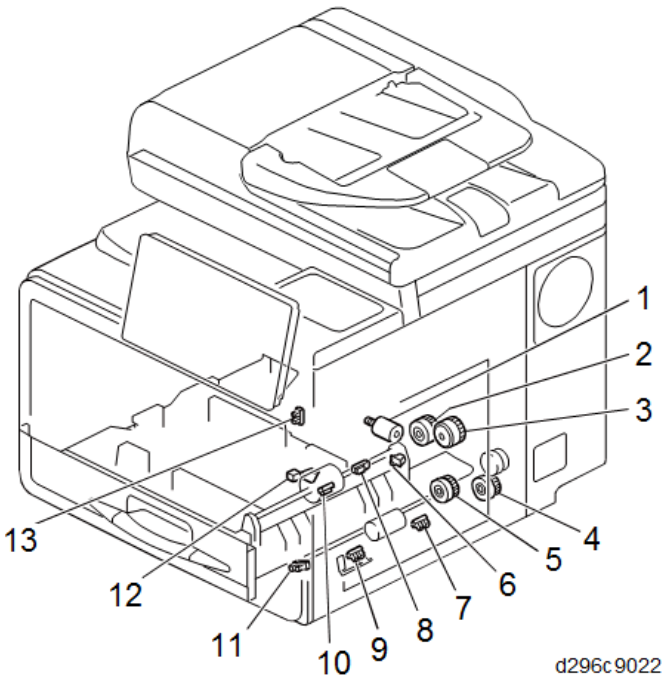
Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
2	Scanner HP sensor	Scanner HP Sensor	5-803-200	Not HP	HP
4	ADF set sensor	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 motor (K/C)	Polygon Motor1: Standard2	5-804-103	
		Polygon Moter1: Standard	5-804-104	
		Polygon Motor1: Low	5-804-105	
5	Polygon motor (M/Y)	Polygon Motor2: Standard2	5-804-107	
		Polygon Moter2: Standard	5-804-108	
		Polygon Motor2: Low	5-804-109	
3, 5	Polygon motor (K/C), (M/Y)	Polygon Motor1,2: Standard2	5-804-111	
		Polygon Moter1,2: Standard	5-804-112	
		Polygon Motor1,2: Low	5-804-113	

Paper Feed



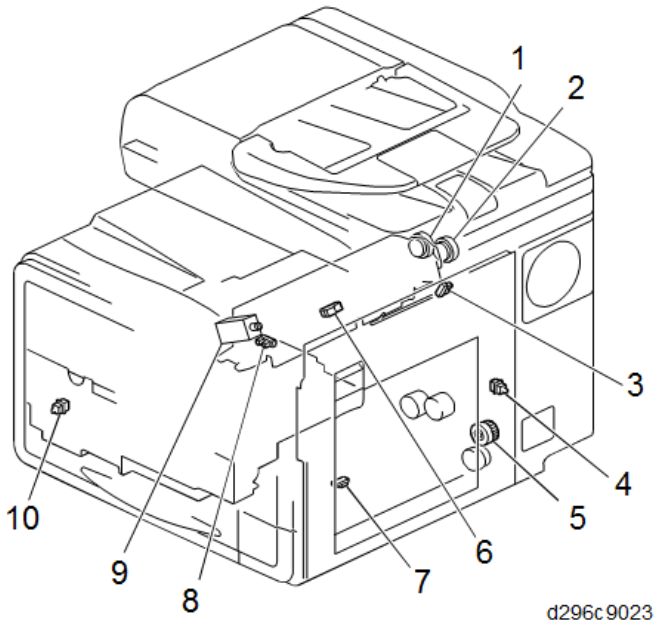
Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
6	Scanner HP sensor	Tray Set Detection	5-803-054	Set	Not set
7	Bypass paper end sensor	Bypass Paper End Detection Sensor	5-803-003	Paper detected	Paper not detected
8	Registration sensor	Registration Sensor	5-803-001	Paper detected	Paper not detected
9	Bypass paper width sensor	Bypass Paper Width Detection Sensor	5-803-004	Paper detected	Paper not detected
10	Paper feed sensor	Tray Exit Sensor	5-803-011	Paper detected	Paper not detected
11	Bypass lift sensor	By-pass Lift Position Sensor	5-803-010	Down	Up
12	Tray paper end sensor	Tray Paper End Detection Sensor	5-803-002	Paper detected	Paper not detected
13	Tray lift sensor	Tray Lift Sensor	5-803-053	Down	Up

Output Check

No.	Part Name	SP Name	SP No.	Remark
1	Tray lift motor	Tray Lift Motor	5-804-007	Do not execute this SP when the paper feed tray is set. If keeps the tray lift motor switched ON, the bottom plate can lift up overmuch because the tray lift sensor does not work. This will cause the sensor to damage.
2	Paper feed clutch	Paper Feed Clutch	5-804-002	
3	Registration clutch	Registration Clutch	5-804-001	
4	Bypass feed clutch	Bypass Feed Clutch	5-804-004	
5	Bypass lift clutch	Bypass Lift Clutch	5-804-005	

Paper Exit/ Duplex, Waste Toner Bottle



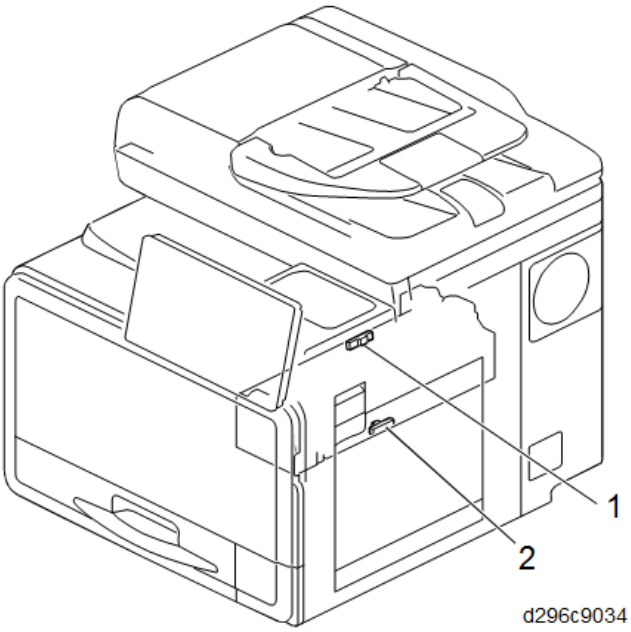
Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
3	Duplex entrance sensor	Duplex Entrance Sensor	5-803-008	Paper detected	Paper not detected
4	Right cover switch	Right Cover Sensor	5-803-014	Door close	Door open
6	Paper exit sensor	Exit Sensor	5-803-007	Paper detected	Paper not detected
7	Duplex exit sensor	Duplex Exit Sensor	5-803-006	Paper detected	Paper not detected
8	Waste toner full sensor	Toner Collection Full Sensor	5-803-019	Not full	Full
10	Waste toner bottle set switch	Toner Collection Bottle Set Detection	5-803-020	Set	Not set

Output Check

No.	Part Name	SP Name	SP No.	Remark
1	Paper exit clutch	Exit Clutch	5-804-088	
2	Reverse clutch	Reverse Clutch	5-804-089	
5	Duplex clutch	Duplex Clutch	5-804-003	
9	Exit junction gate solenoid	Paper Exit Rotary Solenoid	5-804-008	

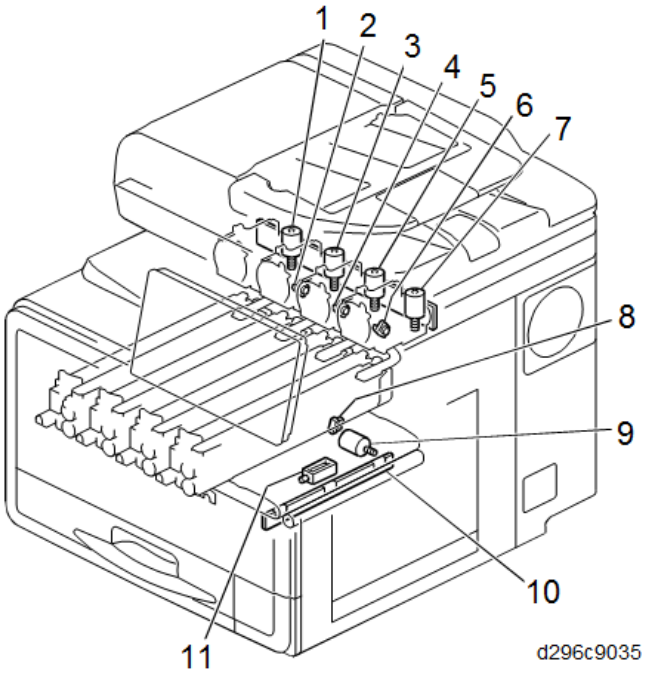
Fusing



Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
1	Fusing entrance sensor	Fusing Entrance Sensor	5-803-026	Paper detected	Paper not detected
2	Fusing exit sensor	Fusing Exit Sensor	5-803-027	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



Input Check

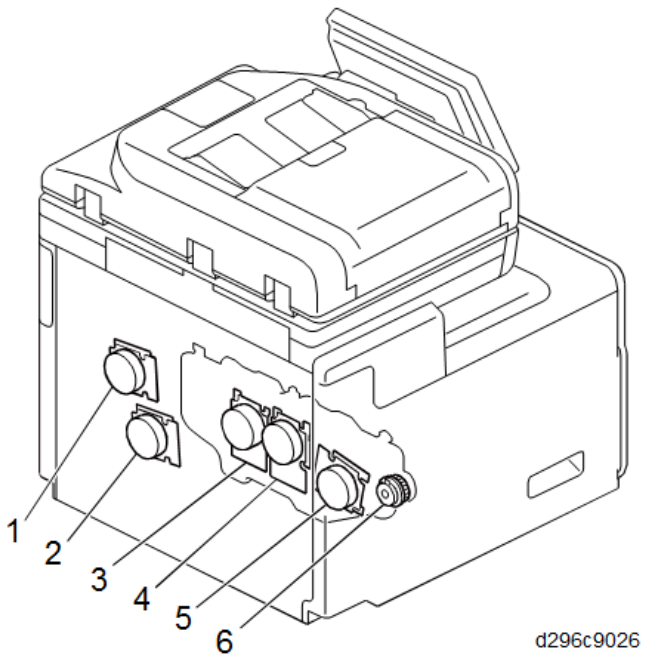
No.	Part Name	SP Name	SP No.	Reading	
				0	1
2	Toner end sensor (C)	Toner End Sensor: C	5-803-024	Not end	End
4	Toner end sensor (M)	Toner End Sensor: M	5-803-023	Not end	End
6	Toner end sensor (Y)	Toner End Sensor: Y	5-803-022	Not end	End
8	ITB contact HP sensor	Image Transfer Contact HP Sensor	5-803-016	Contact	Not contact

Output Check

No.	Part Name	SP Name	SP No.	Remark
1	Toner supply motor (K)	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.
3	Toner supply motor (C)	Toner Supply Motor: C	5-804-037	
5	Toner supply motor (M)	Toner Supply Motor: M	5-804-036	
7	Toner supply motor (Y)	Toner Supply Motor: Y	5-804-	

No.	Part Name	SP Name	SP No.	Remark
			035	• Toner can scatter inside and outside the machine from the supply unit.
9	ITB Contact Motor	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	TM/ID Sensor: Front	5-804-071	
		TM/ID Sensor: Center	5-804-072	
		TM/ID Sensor: Rear	5-804-073	
11	ID Sensor Shutter Solenoid	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



Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
1	Fusing motor	Fusing Motor: Lock	5-803-041	Lock	Normal
2	Paper transport motor	Transport Motor: Lock	5-803-042	Lock	Normal
3	Development motor (CMY)	FC Dev Motor: Lock	5-803-039	Lock	Normal
4	Drum motor (CMY)	FC Drum Motor: Lock	5-803-040	Lock	Normal
5	Drum motor (K)	Bk Drum Motor: Lock	5-803-038	Lock	Normal

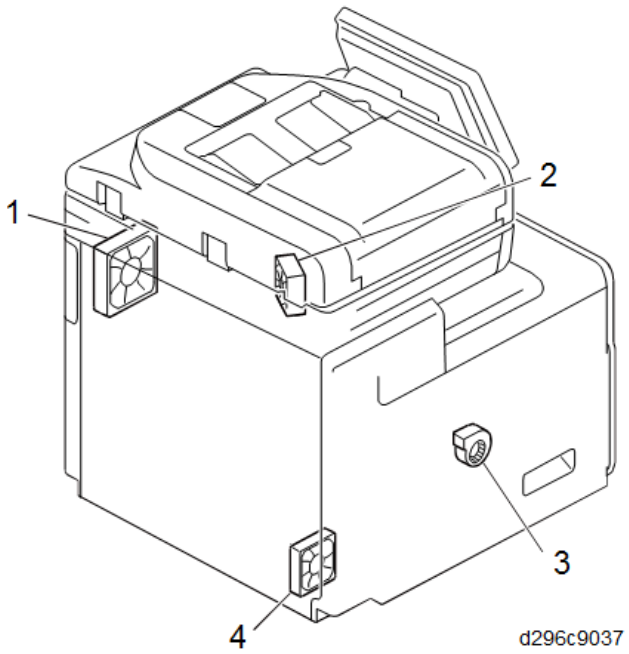
Output Check

No.	Part Name	SP Name	SP No.	Remark
1	Fusing motor	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	

No.	Part Name	SP Name	SP No.	Remark
		Fusing Motor: Middle Speed	5-804-096	
2	Paper transport motor	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 motor (CMY)	FC Dev Motor: Std Speed 1	5-804-024	
		FC Dev Motor: Low Speed	5-804-025	
		FC Dev Motor: Middle Speed	5-804-094	
4	Drum motor (CMY)	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) 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 (K)	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

No.	Part Name	SP Name	SP No.	Remark
		Bk Drum Motor: Low Speed	5-804-023	abnormal stop, for example JAM, if the drum motor (K) 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 keeps 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: Standard Speed 2	5-804-090	
		Bk Drum Motor: Middle Speed	5-804-093	
6	Development Clutch (K)	Development Clutch: Bk	5-804-026	

Fan/ Board



Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
1	Duplex entrance sensor	Fusing Fan: Lock	5-803-032	Lock	Normal
2	Right cover switch	Laser Unit Fan: Lock	5-803-033	Lock	Normal
3	Paper exit sensor	PSU Fan: Lock	5-803-035	Lock	Normal
4	Duplex exit sensor	PCDU Cooling Fan: Lock	5-803-034	Lock	Normal

No.	Part Name	SP Name	SP No.	Reading	
				0	1
-	-	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

Output Check

No.	Part Name	SP Name	SP No.	Remark
1	Fusing fan	Fusing Fan: High Speed	5-804-009	
		Fusing Fan: Low Speed	5-804-010	
2	LD unit fan	Laser Unit Fan: High Speed	5-804-011	
		Laser Unit Fan: Low Speed	5-804-012	
3	PCDU cooling duct fan	PCDU Cooling Fan: High Speed	5-804-015	
		PCDU Cooling Fan: Low Speed	5-804-016	
4	PSU fan	PSU Fan: High Speed	5-804-013	
		PSU Fan: Low Speed	5-804-014	
-	-	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

No.	Part Name	SP Name	SP No.	Remark
-	-	PP:Charge DC:M	5-804-045	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:C	5-804-046	
-	-	PP:Charge DC:Bk	5-804-047	
-	-	PP:Development: Y	5-804-048	
-	-	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	
-	-	PP: Paper Transfer: -	5-804-058	
-	-	PP:Charge AC:Y	5-804-059	Do not use these SPs, otherwise SC312 will occur.

No.	Part Name	SP Name	SP No.	Remark
-	-	PP:Charge AC:M	5-804-061	
-	-	PP:Charge AC:C	5-804-063	
-	-	PP:Charge AC:Bk	5-804-065	

Paper Feed Unit (Optional)

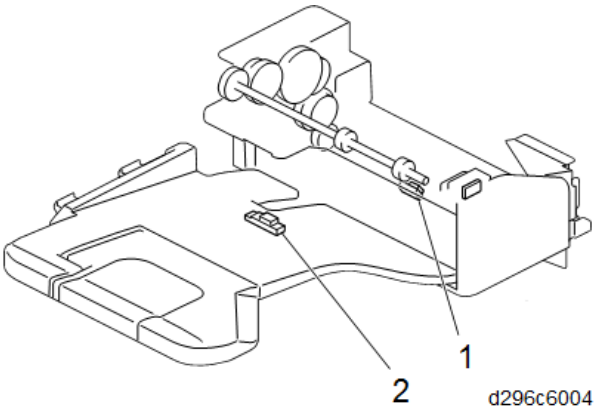
Input Check

No.	Part Name	SP Name	SP No.	Reading	
				0	1
2	PFU door switch 1	PFU Door Sensor 1	5-803-062	Close	Open
	PFU door switch 2	PFU Door Sensor 2	5-803-063	Close	Open
3	Vertical transport sensor 1	PFU Vertical Transport Sen. 1	5-803-060	Paper not detected	Paper detected
	Vertical transport sensor 2	PFU Vertical Transport Sen. 2	5-803-061	Paper not detected	Paper detected

Output check

No.	Part Name	SP Name	SP No.	Remark
1	Vertical transport clutch 1	PFU Vertical Transport CL1	5-804-086	
	Vertical transport clutch 2	PFU Vertical Transport CL2	5-804-087	
4	PFU transport motor 1	PFU Transport Motor 1: High	5-804-080	
		PFU Transport Motor 1: Low	5-804-081	
	PFU transport motor 2	PFU Transport Motor 2: High	5-804-082	
		PFU Transport Motor 2: Low	5-804-083	
5	PFU paper feed clutch 1	PFU Paper Feed CL1	5-804-084	
	PFU paper feed clutch 2	PFU Paper Feed CL2	5-804-085	

1 Bin Tray Unit (Optional)



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.

~~How to Use Locked Print When the Document Server Is Disabled~~

1. ~~Enter 'Printer' SP mode.~~
2. ~~Set SP1-006-001 to 1.~~

~~0: Link with Doc. Srv (default)~~ RTB 22

~~Locked print will only be enabled if the document server is enabled.~~

~~1: Enable~~

~~Enable Locked~~

~~Print will be enabled no matter the status of the document server.~~

3. ~~Turn OFF then ON the main power.~~

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:**

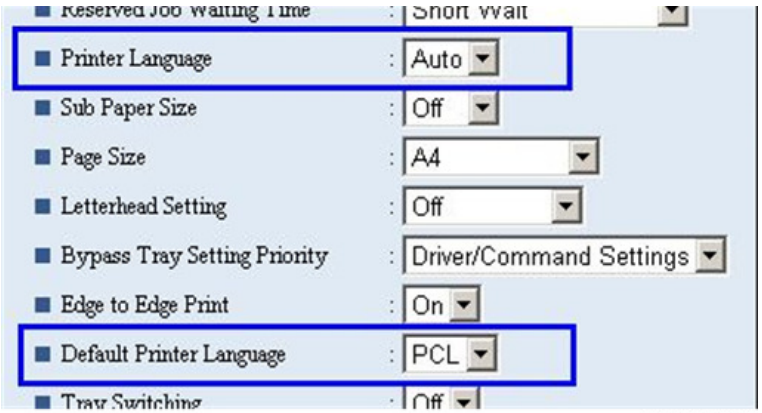
Uses a set of triggers unique to PCL5, PS or PDF. Up to 2KB from the start of the job can be searched for triggers.

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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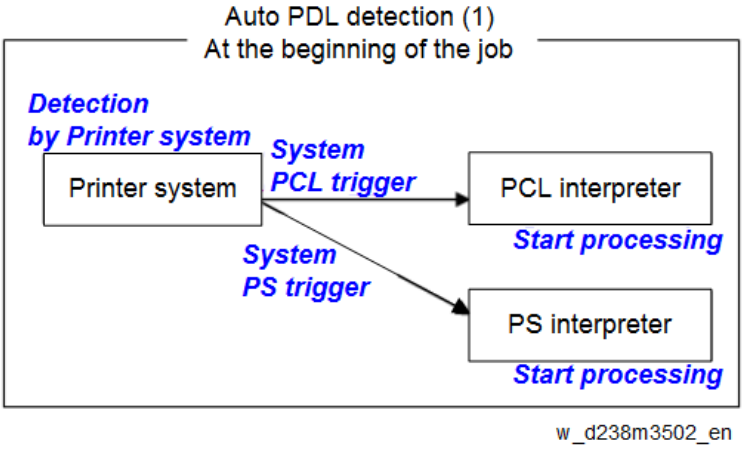
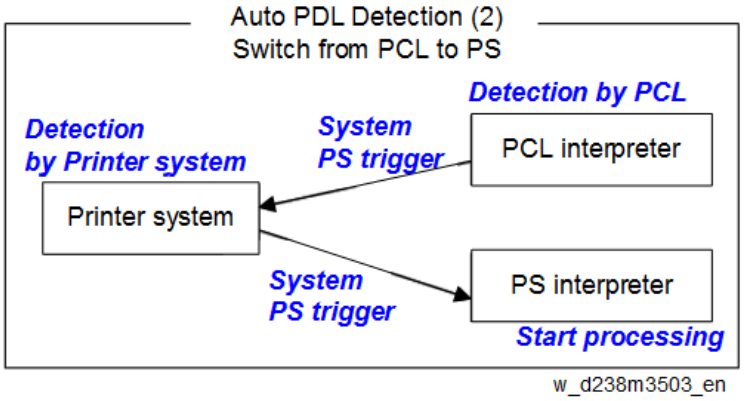
PDL selection and switching

3 types of PDL selection/switching are performed:

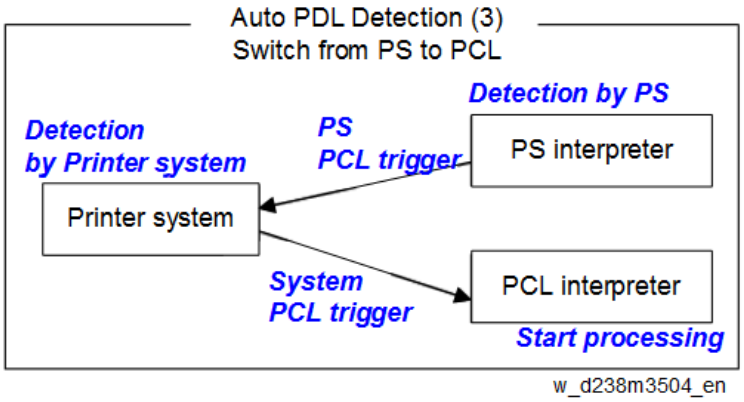
1. PDL selection (PCL5 or PS (including PDF)) at the beginning of the job: performed by the printer system



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 change 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:

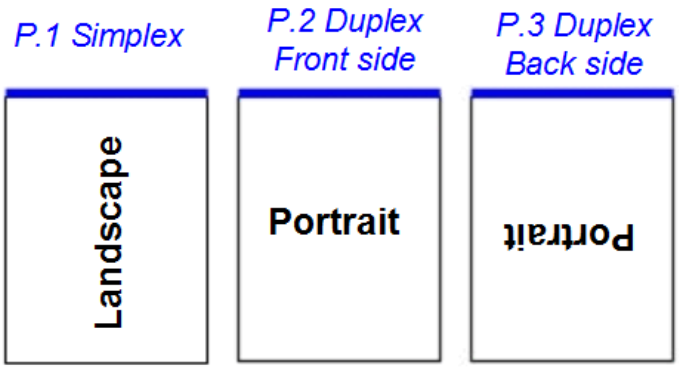
A uniform binding edge (short or long edge) will only be applied if the job is stapled, punched, or Z-folded. Otherwise, the bound edge might differ from page to page.

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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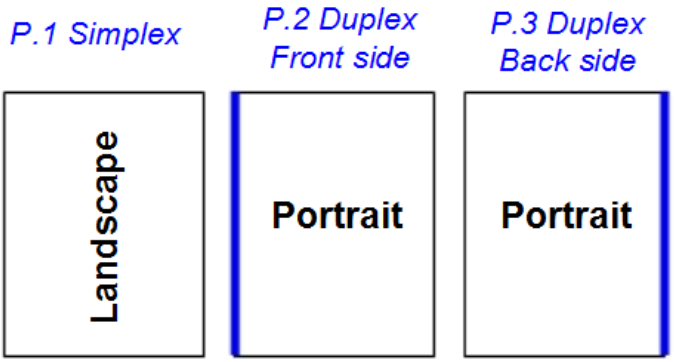
Bit Switch #5-6=1:



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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 email address will appear in the email's "From" field. The email address of the user who sent the email 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.

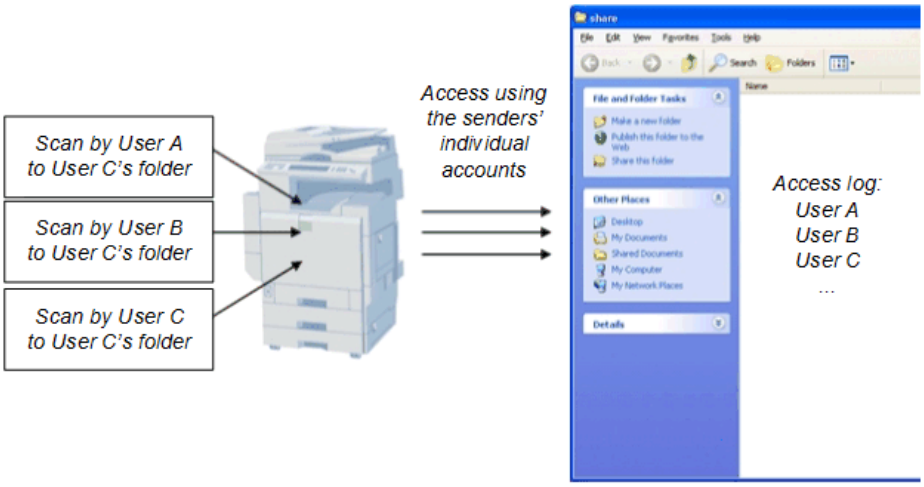
Cases:

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.

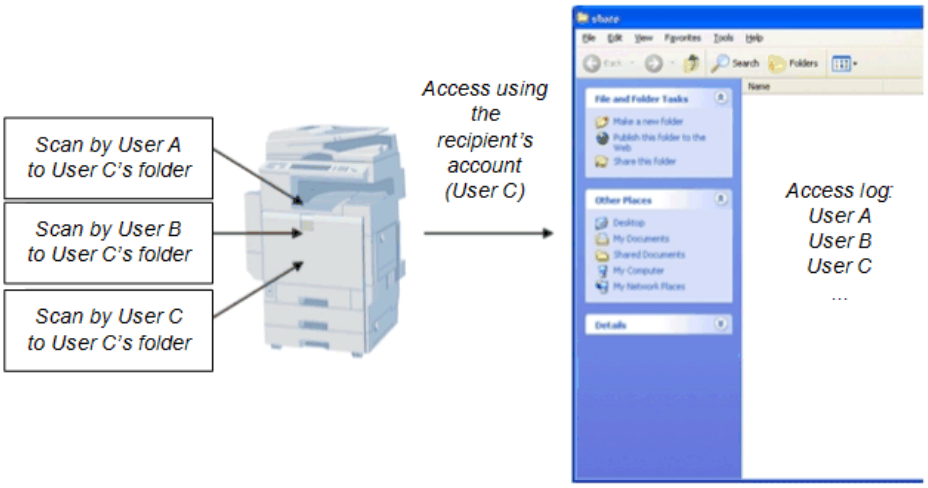
The destination's access logs:

Case A or Case C with SP=0: The access logs can be used to determine which user sent the scan.



w_d238m3511_en

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

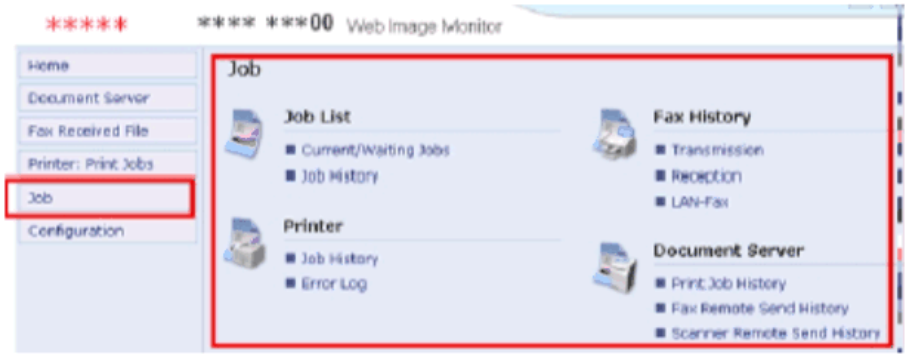
1. Enter 'Printer' SP mode.
2. Set SP5-888-001

   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 ~~and Printer SP1-006-001.~~ RTB 22
- 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.