

**MP C307/C407**  
**Machine Code: D296/D297/D298/D299**  
**Field Service Manual**  
**Ver 1.0**

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**Initial Release: Nov, 2016**  
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# Important Safety Notices

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## Warnings, Cautions, Notes

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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.

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## General Safety Instructions

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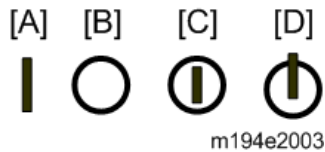
For your safety, please read this manual carefully before you use this product. Keep this manual handy for future reference.

### 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.

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## Safety

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### Prevention of Physical Injury

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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

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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<sup>3</sup>/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

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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

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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

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- 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

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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

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## 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。

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## Laser Safety

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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.

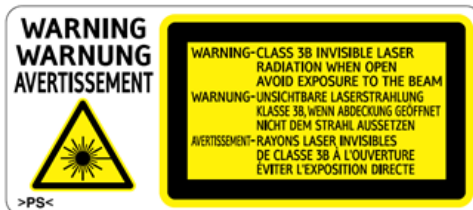
### **⚠ WARNING**

- 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



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## Safety Instructions for the Color Controller

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### Fuse

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

### Batteries

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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

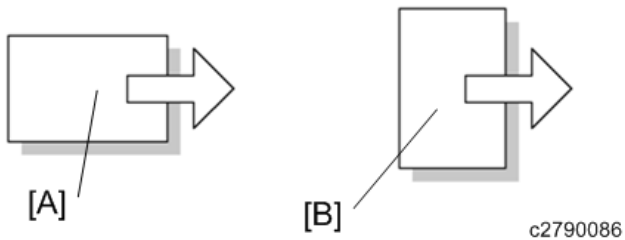
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## Symbols and Abbreviations

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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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# 1. Product Information

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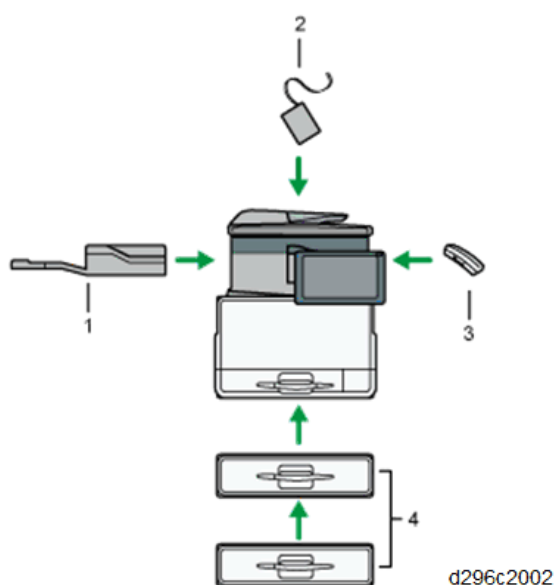
## Specifications

See "Appendices" for the following information:

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

## Machine Configuration

### Main Unit

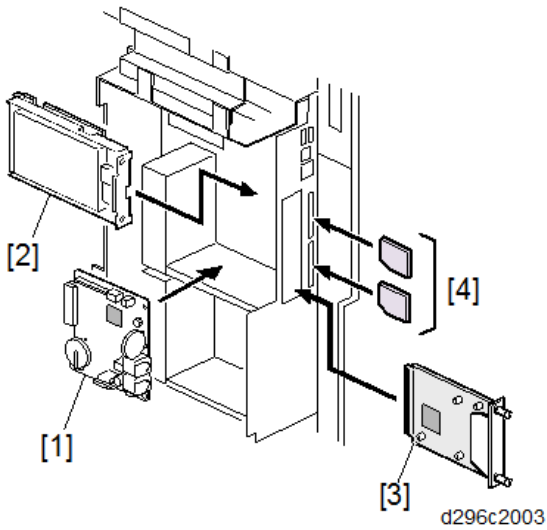


#### Note

- 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<br>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



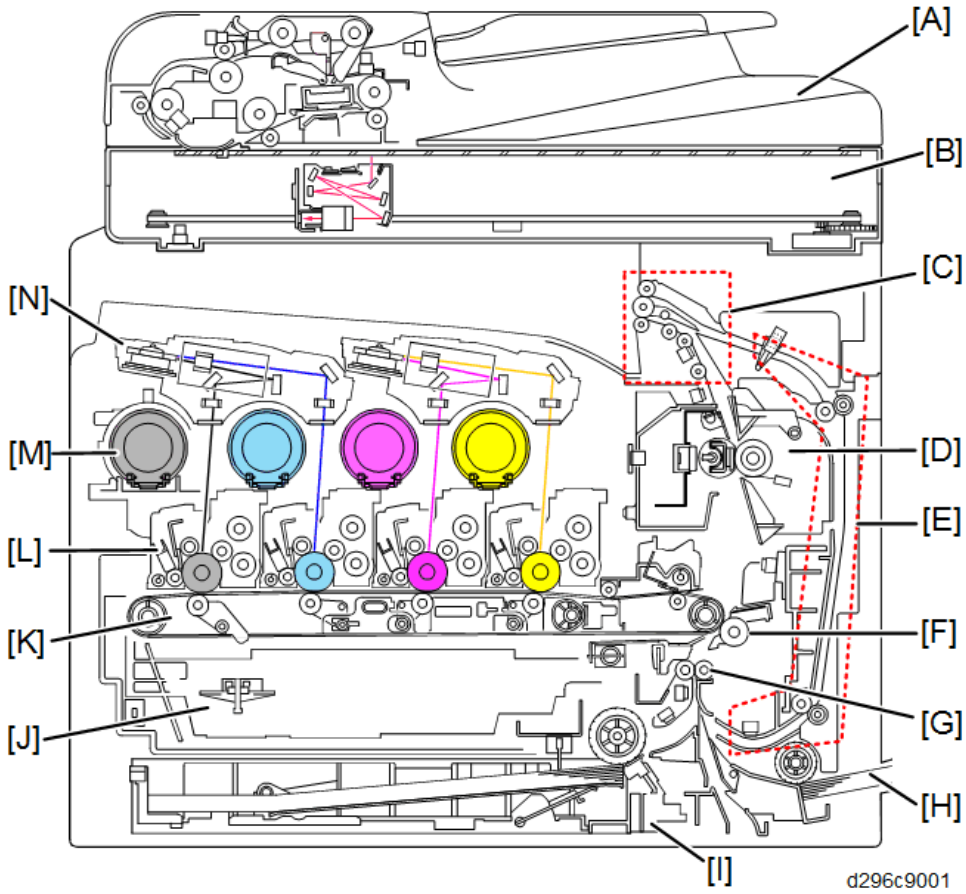
| Item   | Machine Code                           | Remarks   | New Option?  |
|--|--|---|--|
| Fax Option Type M28<br>[1]                   | D3E7-02 (EU, AA, KOR)<br>D3E7-03 (CHN) | Standard: NA, TWN<br>Option: EU, AA, CHN, KOR           | Yes  |
| Fax Connection Unit Type M28                 | D3E7-00                                | 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)<br>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. |
| XPS Direct Print Option                      | D3E6-02 (NA)                           | (SD Card Appli Move)                                    | Yes  |

## 1.Product Information

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

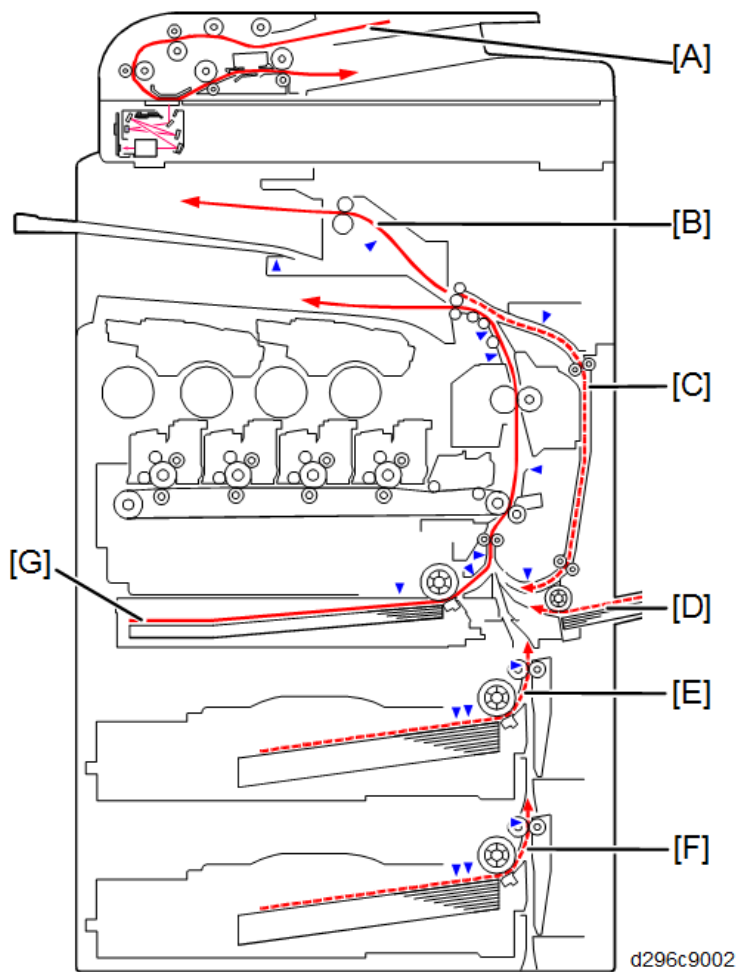
# Machine Overview

## Overview



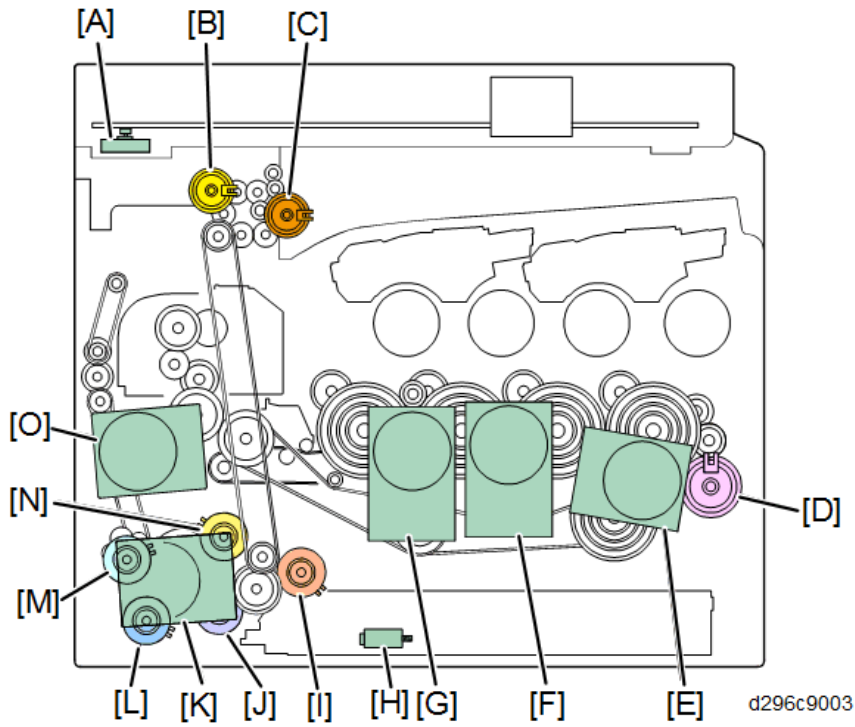
| Callout | Item                  | Callout | Item               |
|---------|-----------------------|---------|--------------------|
| [A]     | ADF                   | [H]     | Bypass feed tray   |
| [B]     | Scanner unit          | [I]     | Paper feed tray    |
| [C]     | Paper exit unit       | [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



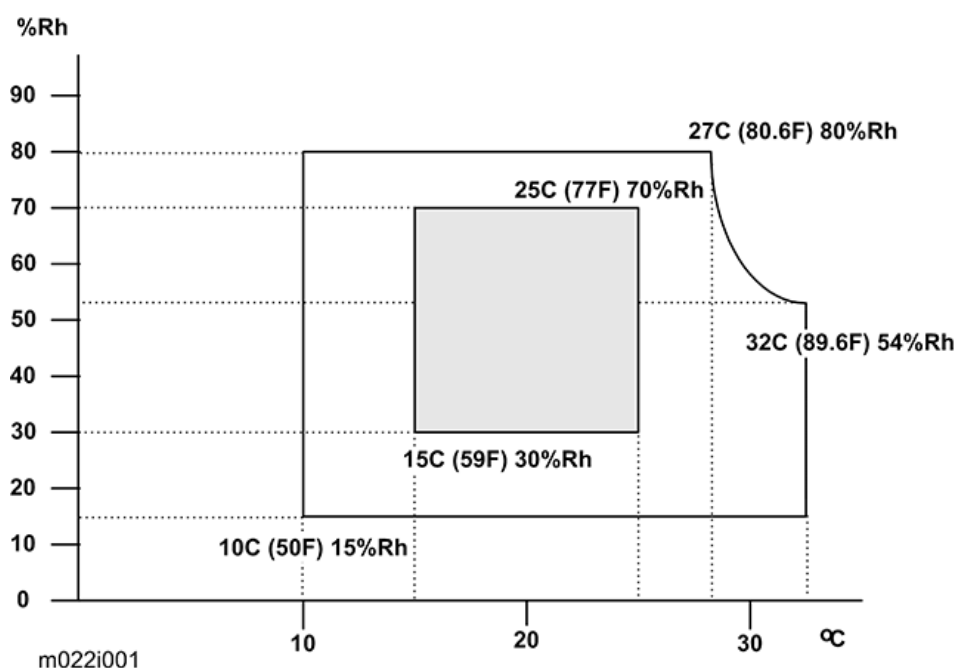
| Callout | Item                    | Callout | Item                |
|---------|-------------------------|---------|---------------------|
| [A]     | Scanner motor           | [I]     | Paper feed clutch   |
| [B]     | Paper exit clutch       | [J]     | Bypass lift clutch  |
| [C]     | Reverse clutch          | [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")

## 2. Installation

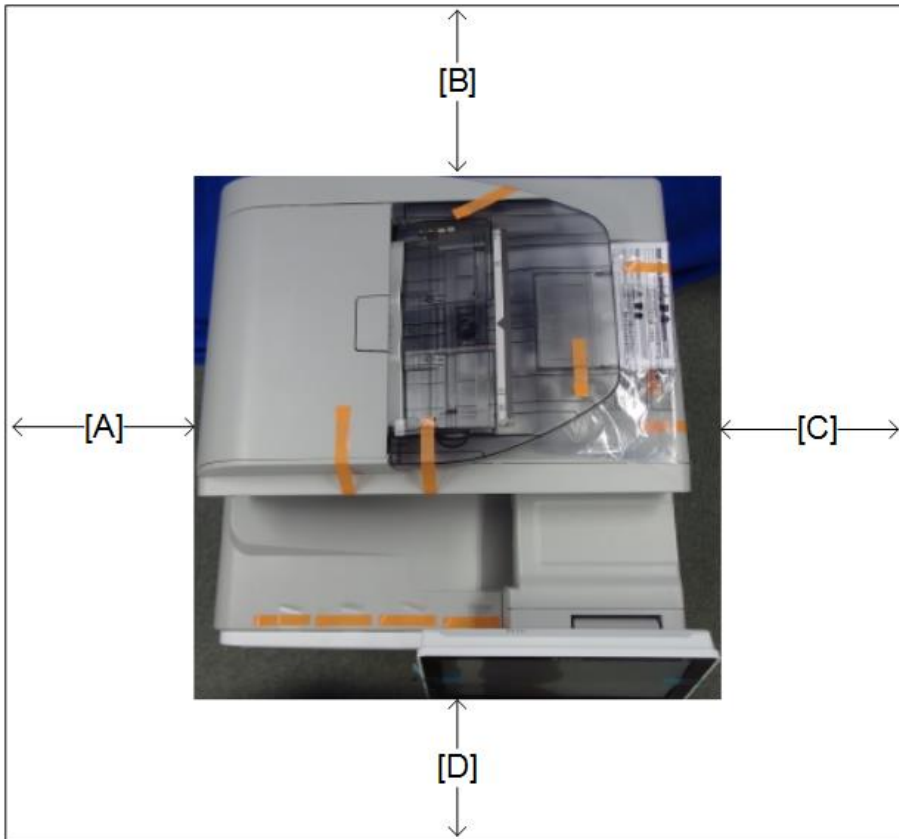
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### Machine Space Requirements

---

#### **⚠ 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.



d196z2355

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")

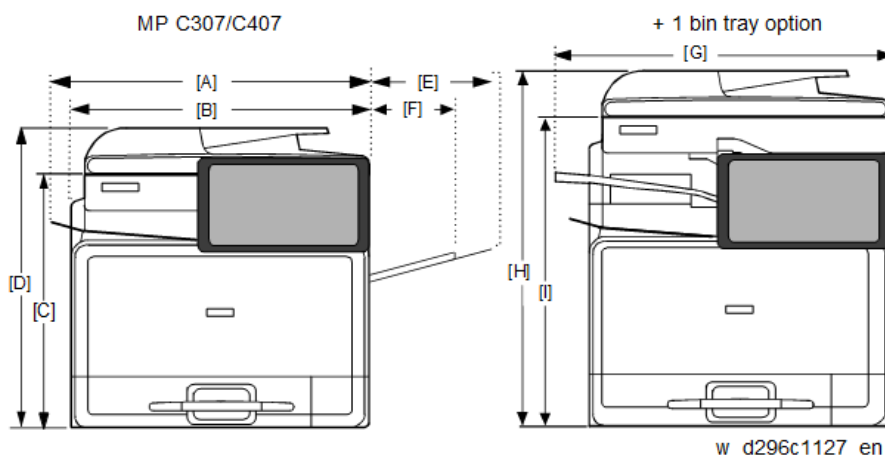
Put the machine near the power source with the clearance shown above.

---

### 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                 |
|------------------|---------|---------------------------|----------------------|
| <p>d196z2061</p> | [A]     | 808 mm<br>(approx. 31.8") | With 1 Bin Tray Unit |
|                  | [B]     | 893 mm<br>(approx. 35.2") | [A] + ADF            |
|                  | [C]     | 149 mm<br>(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:

## 2. Installation

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.

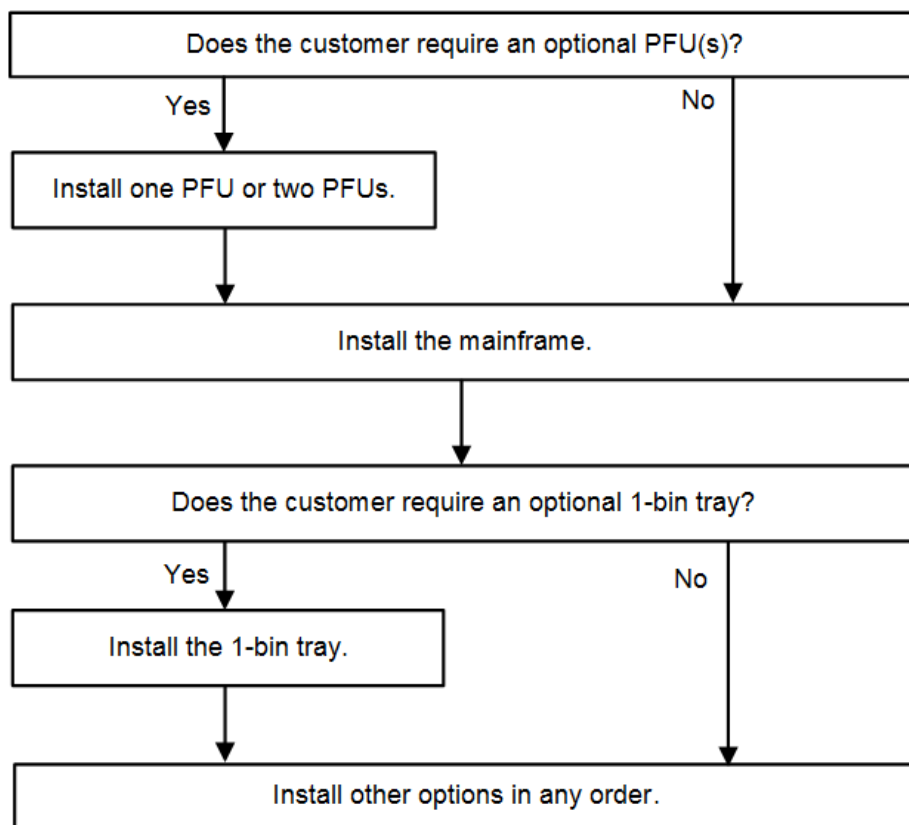
## Mainframe Installation

---

### Installation Flowchart

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This flowchart shows the best procedure for installation.



w\_d296c2000\_en

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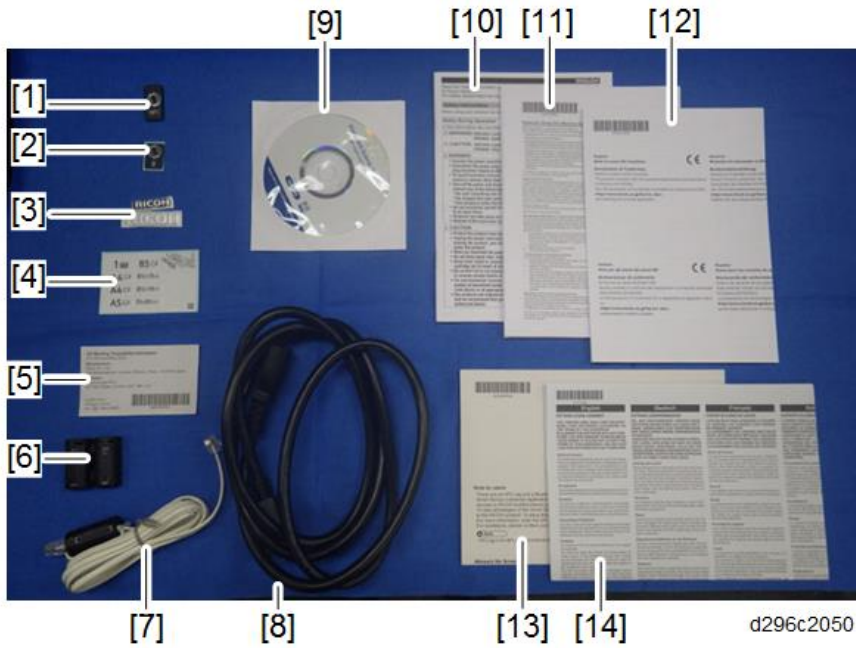
### Accessory Check

---

For D296/D297

Check the quantity and condition of these accessories.

## 2. Installation



### 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   |

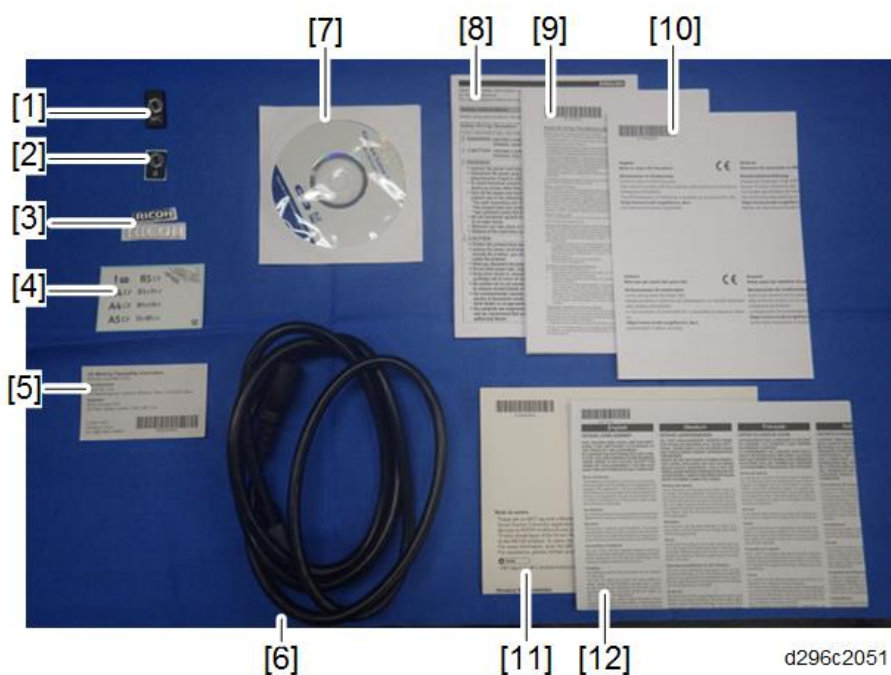
| No. | Description               | Remark                             | Q'ty |    |    |     |
|-----|---------------------------|------------------------------------|------|----|----|-----|
|     |                           |                                    | NA   | EU | AA | TWN |
| -   | Notes 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  | -   |

## 2. Installation

| 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/<br>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<br>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<br>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.

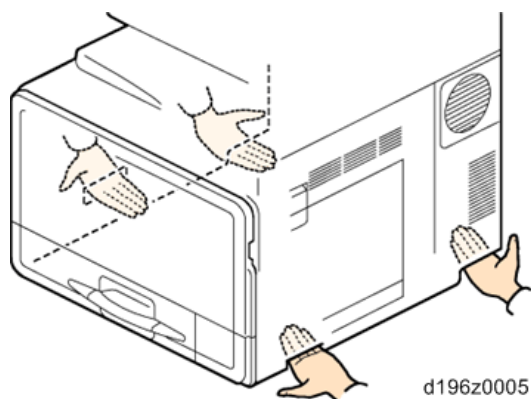
### Note

- 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**

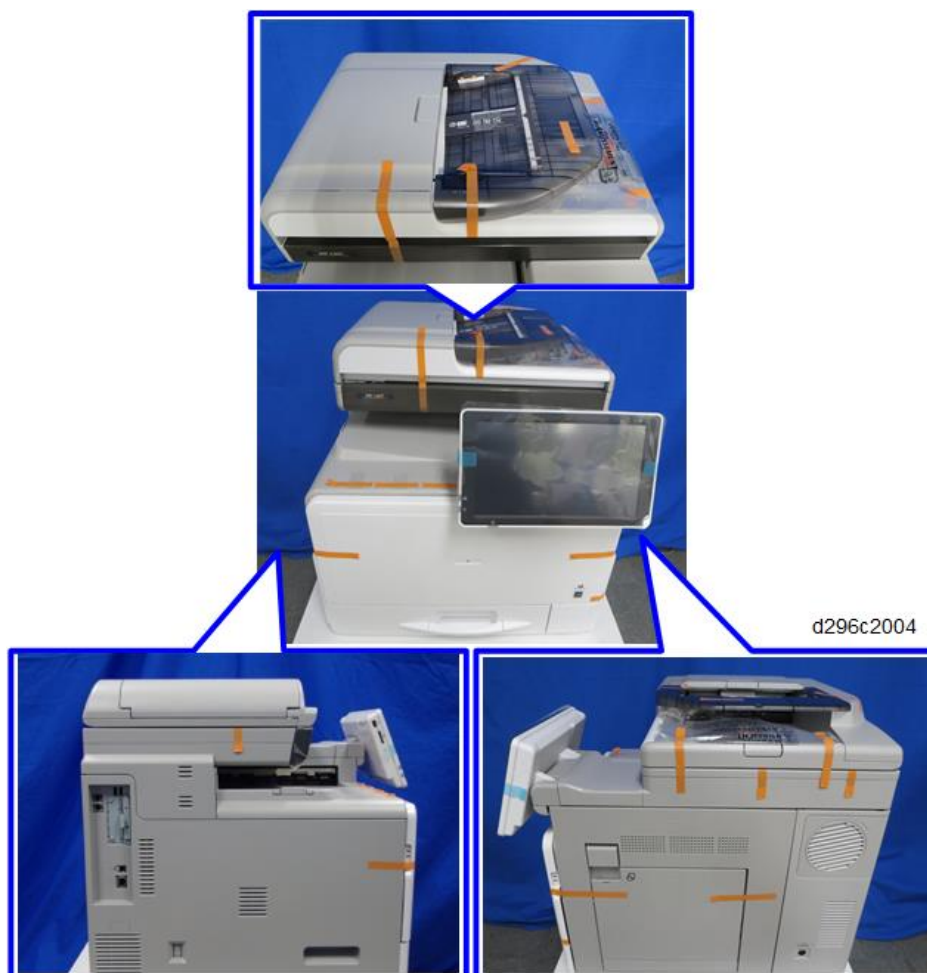
- Hold the specified positions as shown below when lifting the machine up or down.



Tapes, Retainers and Toner Bottles

---

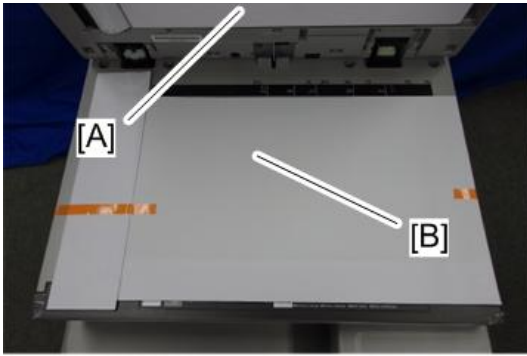
- 1.** Remove the tapes and the retainers from the machine.



- 2.** Do the following steps:
  - Open the ADF cover [A].

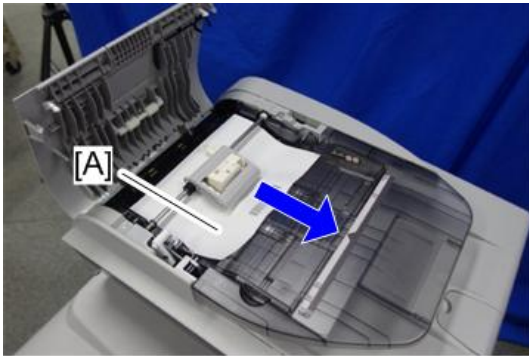
## 2. Installation

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



d196z2003

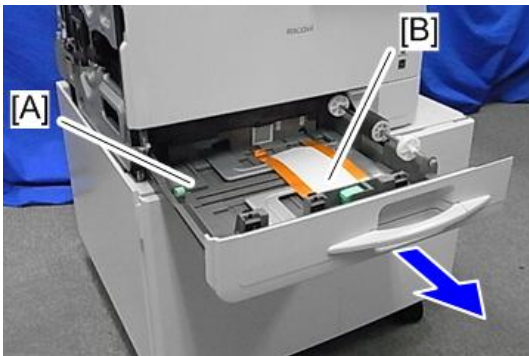
- 3.** Remove the sheet [A] inside the ADF.



d196z2011

- 4.** Remove the following items:

- Paper tray [A]
- Retainer [B]



d196z2006a

5. Open the front door [A].

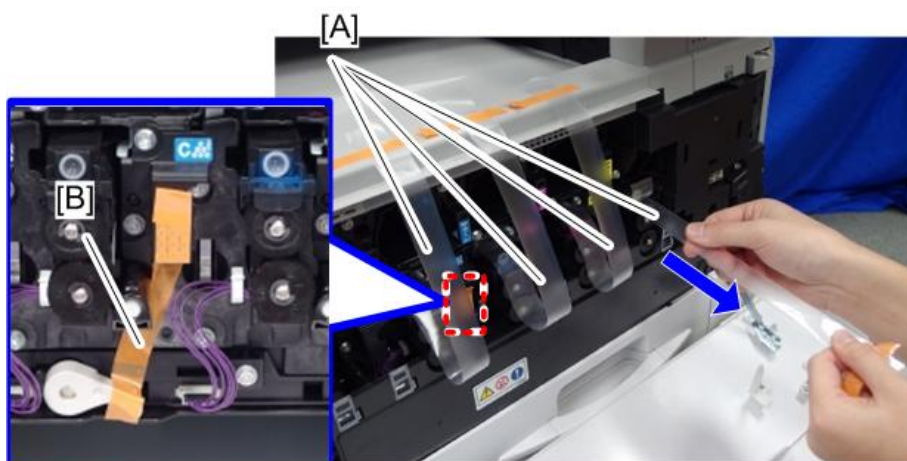


d196z2004

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

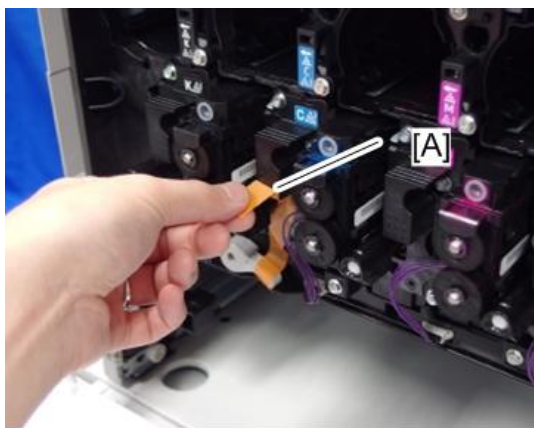
7. Remove the waste toner bottle [A].



d196z2007

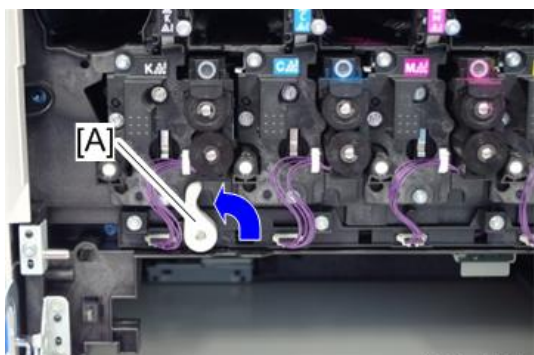
## 2. Installation

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



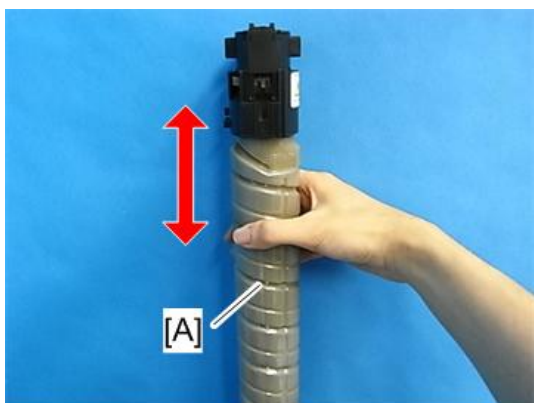
d196z2008

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



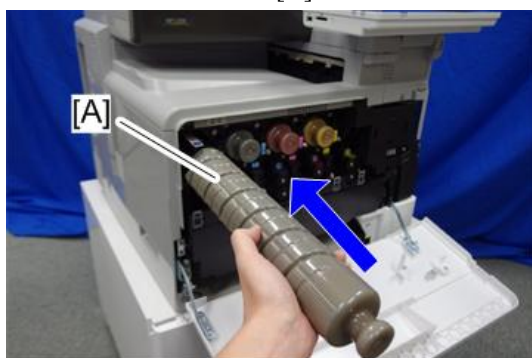
d196z2009

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**

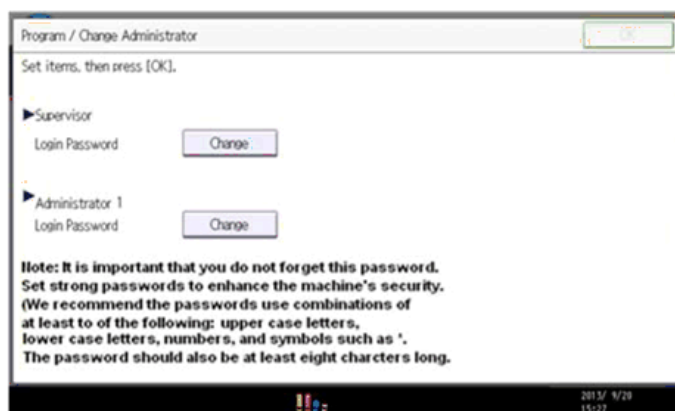
- A message “Turn the main power switch off then on” may appear during the initial settings. However, **DO NOT** switch off the main power until the machine finishes the initial settings and emits a beep sound. It takes about five minutes to finish the initial settings.

### 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.



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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

## 2. Installation

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

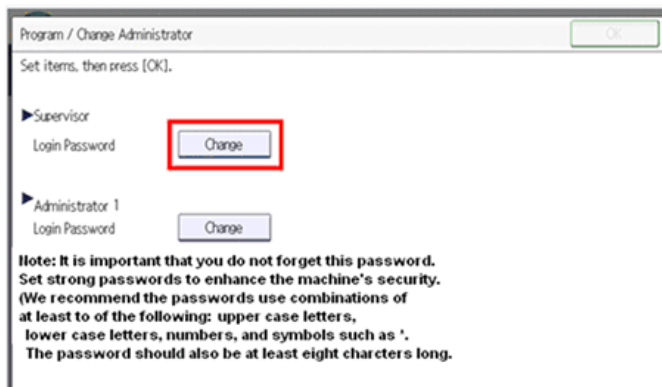
#### Note

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

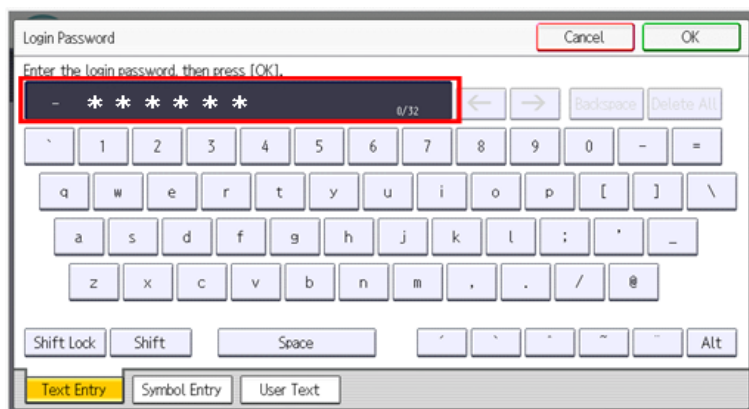
#### CAUTION

- 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.



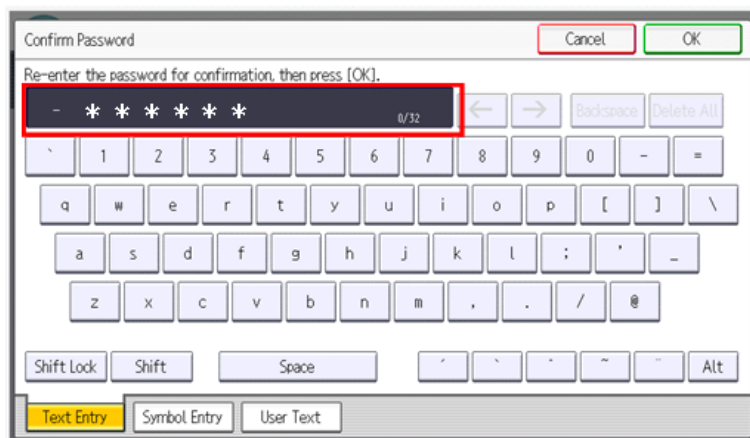
d296c2048

**4.** Enter a password.

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**5.** Press [OK].

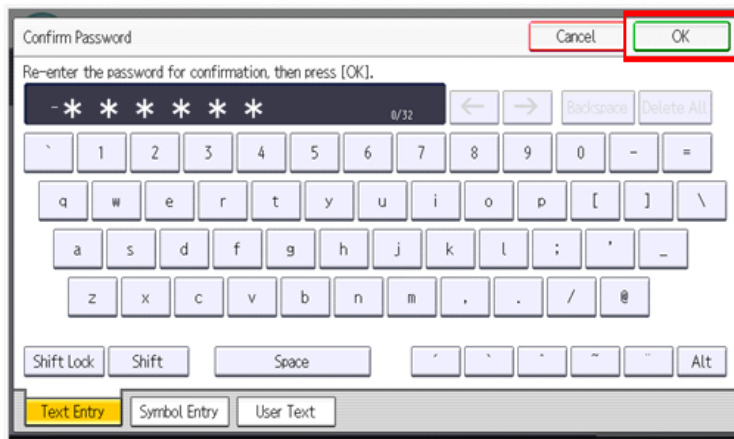
d176f2103

**6.** Confirm the Password.

d176f2104

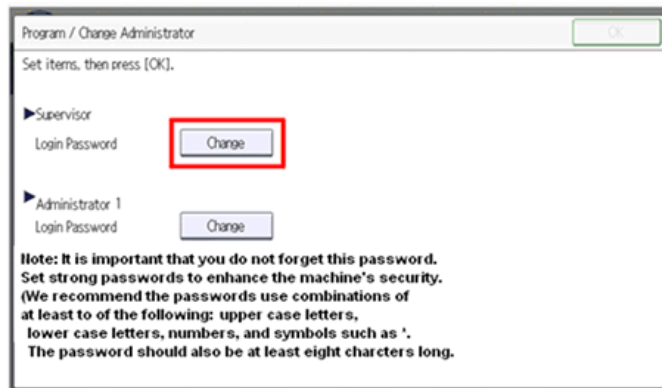
## 2. Installation

### 7. Press [OK].



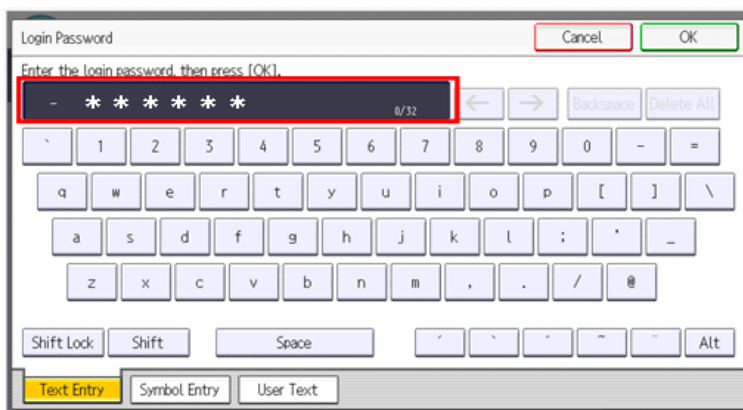
d176f2105

### 8. Change the Administrator 1 login password.



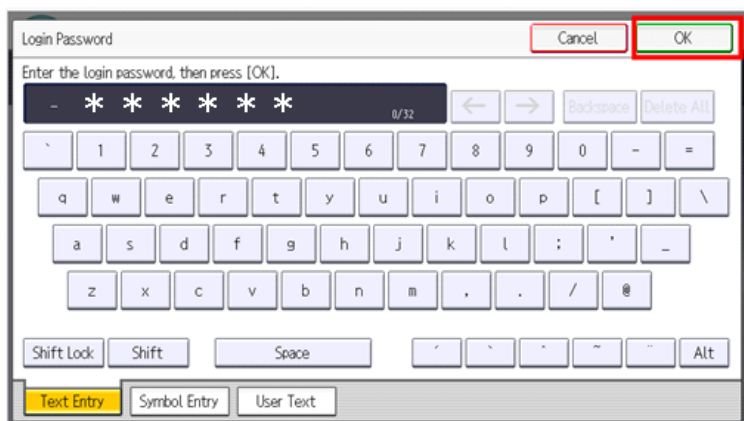
d296c2049

### 9. Enter the password.

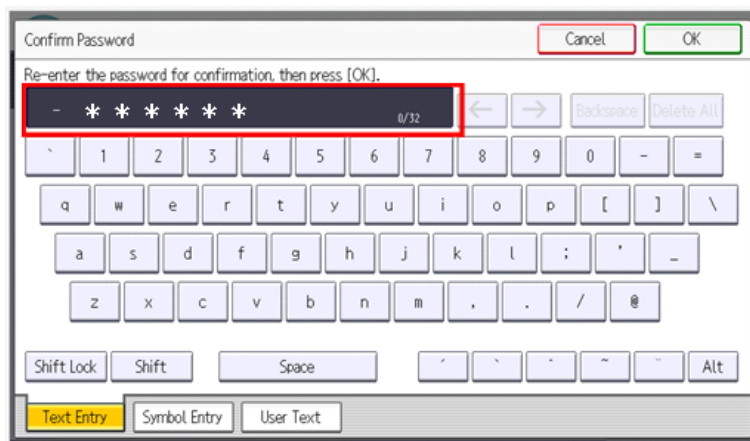


d176f2102

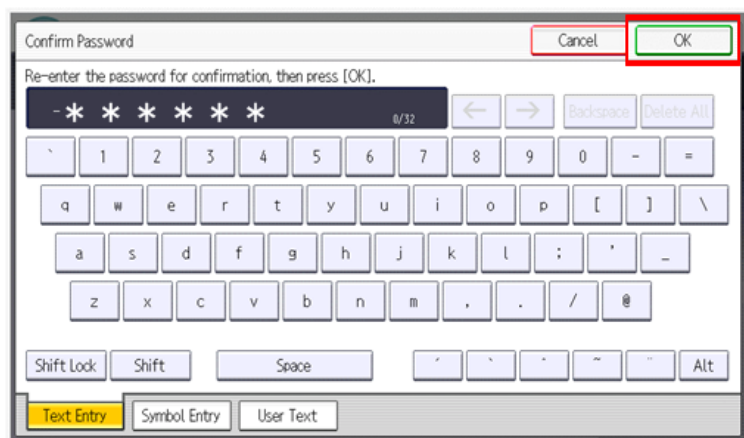


**10.** Press [OK].

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**11.** Confirm the password.

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**12.** Press [OK].

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**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.

## 2. Installation

### 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.



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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  $\pm 5$ . No skew adjustment is required if all SP values are within  $\pm 5$ .

### 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

## 2. Installation

### (1) Enable ARFU

1. Set SP5-886-111 (Auto Update Setting) to "1 (ON)".

1: ON / 0: OFF (Default)

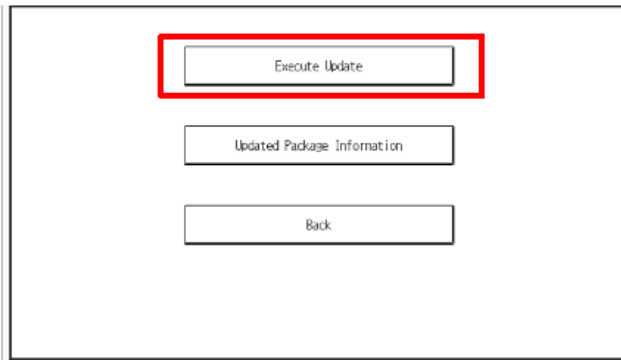
#### Note

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, see [Specifying the Time and Day of the Week to Prohibit Updating via Web Image Monitor](#).

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

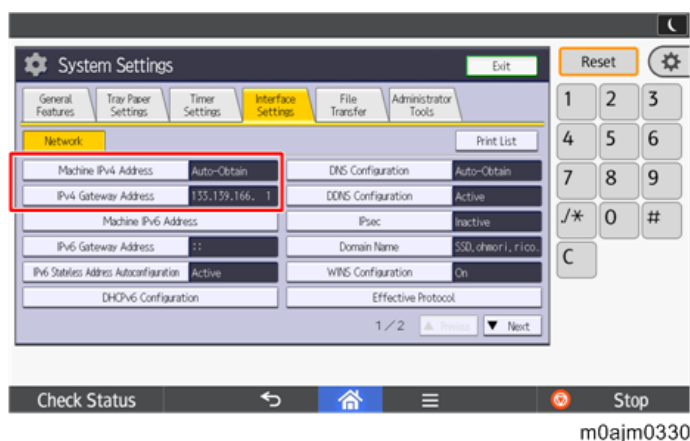
If error code 71: [Network connection error] appears when you click [Firmware update] > [Update] > [Execute update] in SP mode, check the following.

- 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

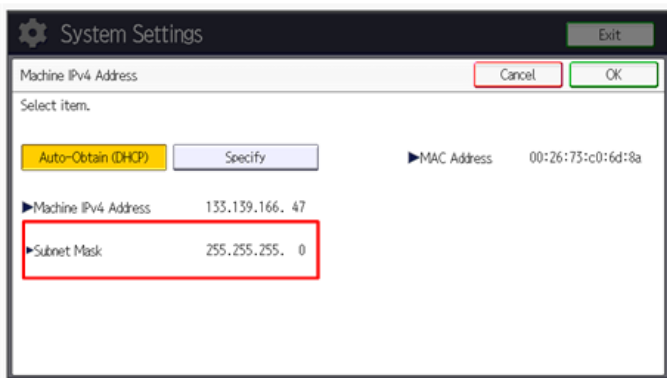
Check the machine's IPv4 address, subnet mask, and gateway IPv4 address.

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



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## 2. Installation

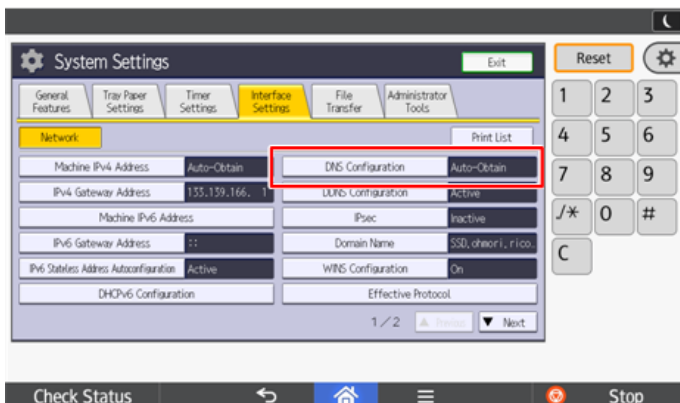


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### 4-2. IPv4 address of the DNS server

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.rioh.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

## 2. Installation

### 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).

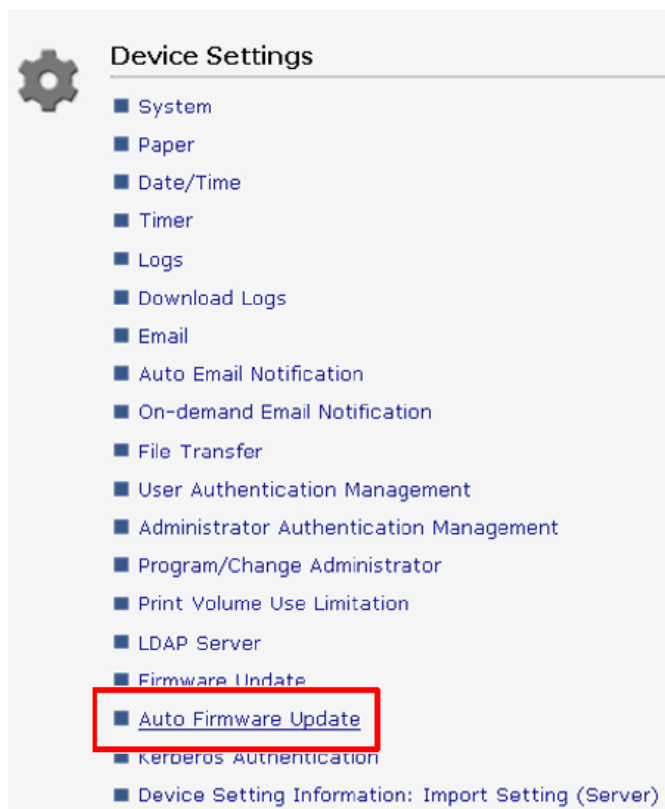
## Specifying the Time and Day of the Week to Prohibit Updating via Web Image Monitor

1. Start Web Image Monitor.
2. Log in as the machine administrator.
3. Point to [Device Management], and then click [Configuration].



4. Click "Auto Firmware Update".





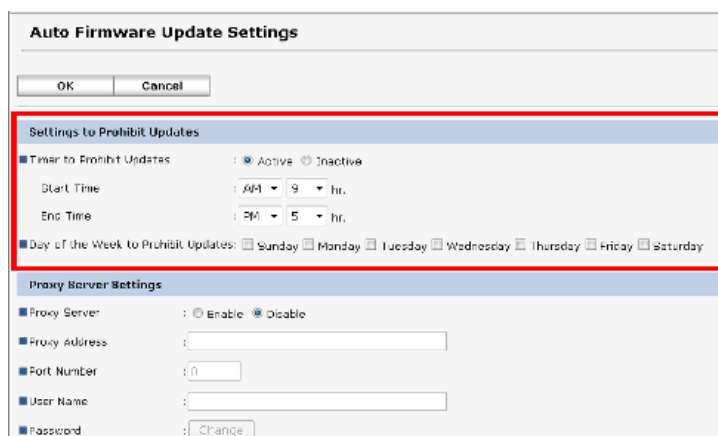
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**Note**

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].

## 2. Installation

**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].

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## Brand Plate, Decals

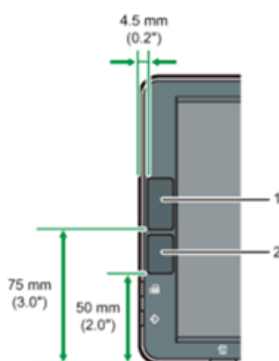
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**1.** Attach the brand plates to the front door and the operation panel, if the brand plates are not attached.



**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.



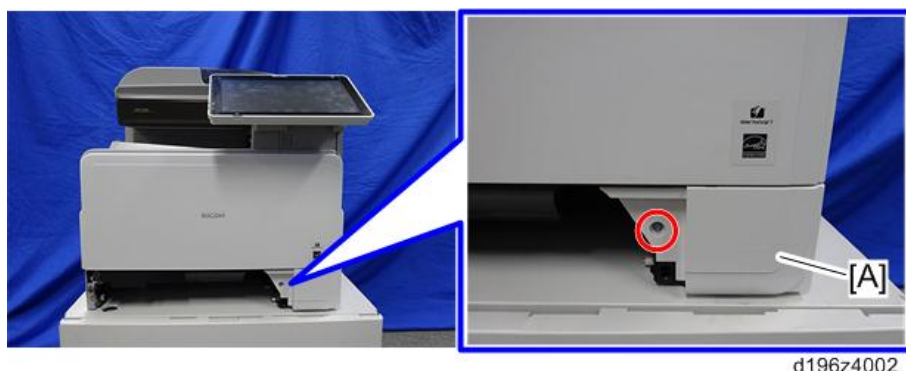
[1]: NFC tag, [2]: Bluetooth decal

### 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:

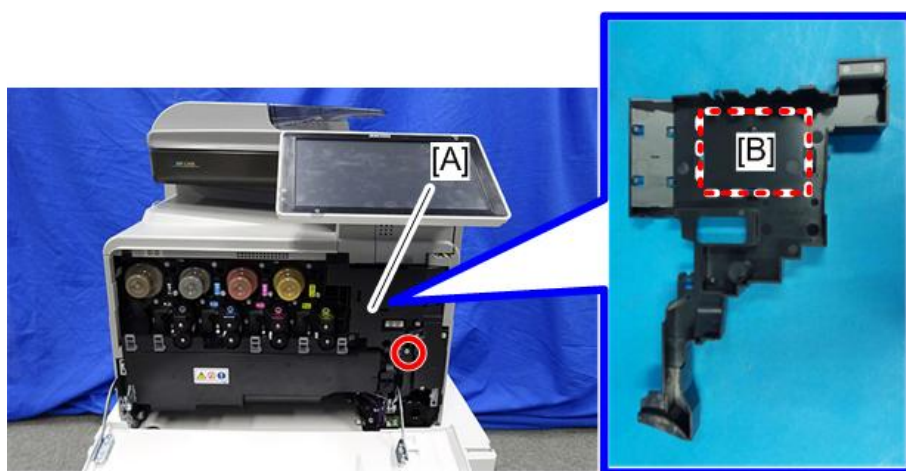
1. Pull out the paper feed tray.
2. Remove the front lower cover [A]. (🔑 × 1)



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3. Open the front cover.

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



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### Settings Relevant to the Service Contract

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

**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.<br><br>NOTE: You can set this one time only. You cannot change the setting after you have set it for the first time. | "1":<br>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   | -              |

## 2. Installation

|             |  |  |
|-------------|--|--|
| 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\_\_\_\_xxx).  
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

## 2. Installation

### Caused by Operation Error, Incorrect Setting

| Code       | Meaning  | Solution/ Workaround  |
|------------|--|---|
| -<br>12002 | Inquiry, registration attempted without acquiring Request No.                            | Obtain a Request Number before attempting the Inquiry or Registration.      |
| -<br>12003 | Attempted registration without execution of a confirmation and no previous registration. | Perform Confirmation before attempting the Registration.                    |
| -<br>12004 | Attempted setting with illegal entries for certification and ID2.                        | Check ID2 of the mainframe.   |
| -<br>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".  |
| -<br>12006 | A confirmation request was made after the confirmation had been already completed.       | Execute registration.   |
| -<br>12007 | The request number used at registration was different from the one used at confirmation. | Check Request No.   |
| -<br>12008 | Update certification failed because mainframe was in use.                                | Check the mainframe condition. If the mainframe is in use, try again later. |
| -<br>12009 | The ID2 in the NVRAM does not match the ID2 in the individual certification.             | Check ID2 of the mainframe.   |
| -<br>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.                             |

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## Transporting the Machine

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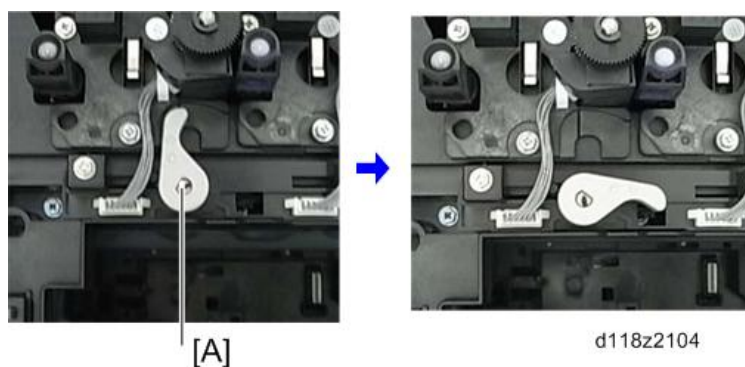
### **⚠ CAUTION**

- **Do not lift the machine together with one or more paper feed unit(s):**

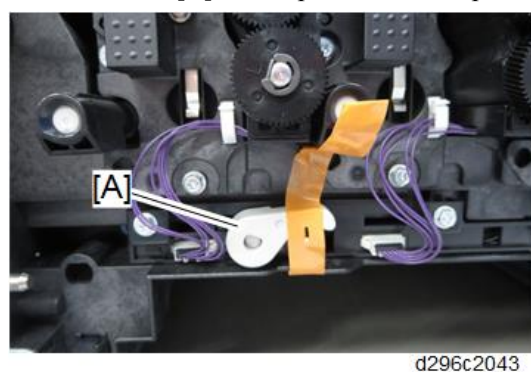
If there is already a machine with one or more optional paper feed unit(s), be sure to disconnect the machine and paper feed unit(s), and lift them up separately when moving/transporting. Otherwise, the handle of the paper feed unit will break due to the machine's weight, and it can cause an injury.

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 PCPU (K).



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

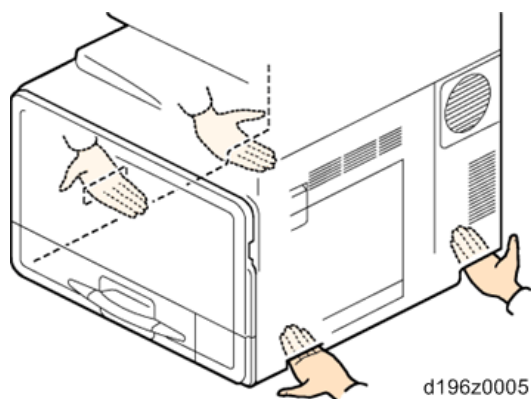


- 3.** Do SP4-806-001 to move the scanner carriage from the home position. This prevents dust from falling into the machine during transportation.
- 4.** Remove the toner bottles. This prevents toner flow into the toner supply tube, which is caused by vibration during transport. This can also cause the 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.

## 2. Installation

### **⚠ CAUTION**

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



---

### Instructions for the Customers

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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.

## 2. Installation

---

### 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]

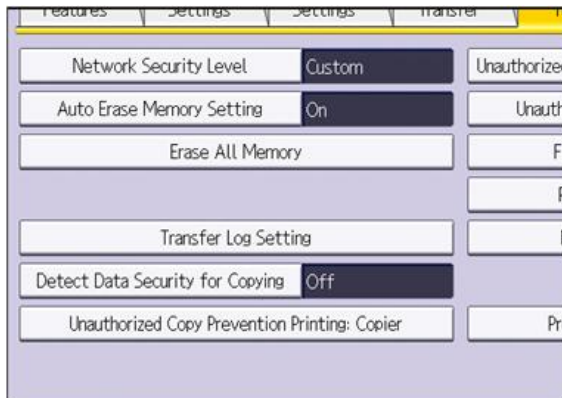
If this setting is disabled (not selected), tell the customer this setting must be enabled (selected) before you do the installation procedure.

#### 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].



w\_d1822517

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<br>[1] | This icon is lit when there is temporary data to be overwritten, and blinks during overwriting. |
|  | Icon<br>[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.

## 2. Installation

### 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

---

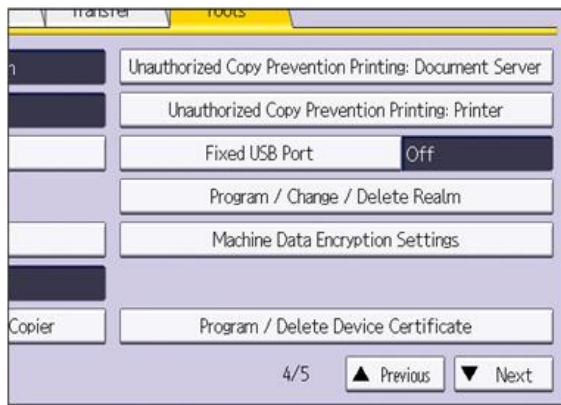
Machine Data Encryption Settings can be enabled by the following procedure.

#### Setting Up Encryption

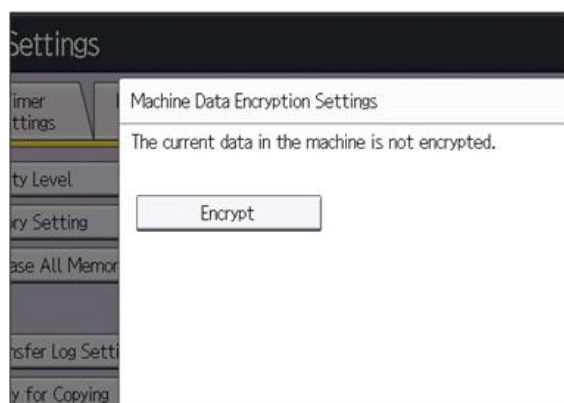
##### ★ Important

- 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.

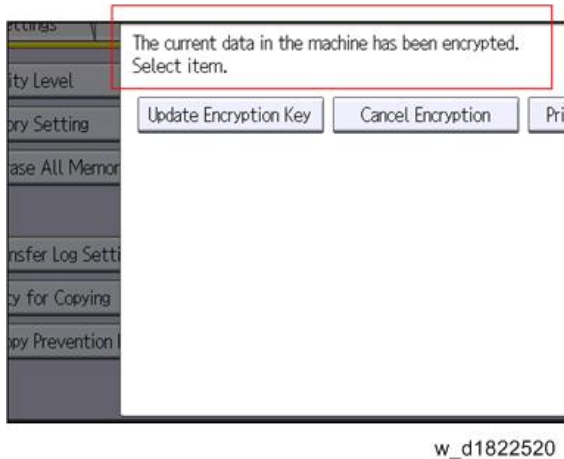
**12.** Press [OK].**13.** Press [Exit].**14.** Press [Exit].**15.** Log out.**16.** Turn OFF the main power, and then turn the main power back ON.

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].

## 2. Installation

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



### Backing Up the Encryption Key

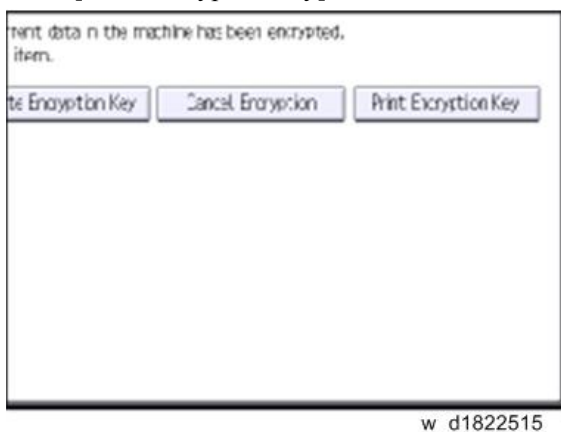
---

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].



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.

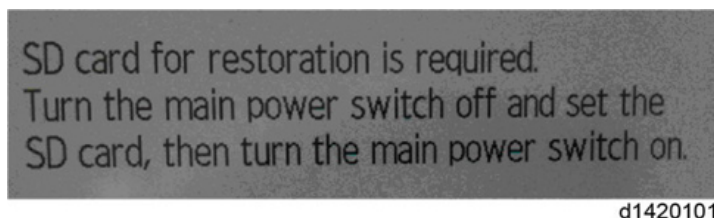
10. Press [Exit].

**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\_xxxxxxxxxx.txt" and save it in the "xxxxxxxxxxx" folder. Write the encryption key in the text file.

/restore\_key/xxxxxxxxxxx/key\_xxxxxxxxxx.txt

**Note**

- Ask an Administrator to enter the encryption key. The key has already been printed out by the user and may have been saved in the "key\_xxxxxxxxxx.txt" file.

- 5.** Turn ON the main power.
- 6.** Confirm that a message is displayed on the LCD telling to insert the SD card that contains the encryption key.
- 7.** Turn OFF the main power.
- 8.** Insert the SD card that contains the encryption key into SD card slot 2 (the lower slot).
- 9.** Turn ON the main power.

**Note**

- The machine will automatically restore the encryption key to the flash memory on the controller board.

- 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.

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### Accessory Check

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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    |

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### Installation Procedure

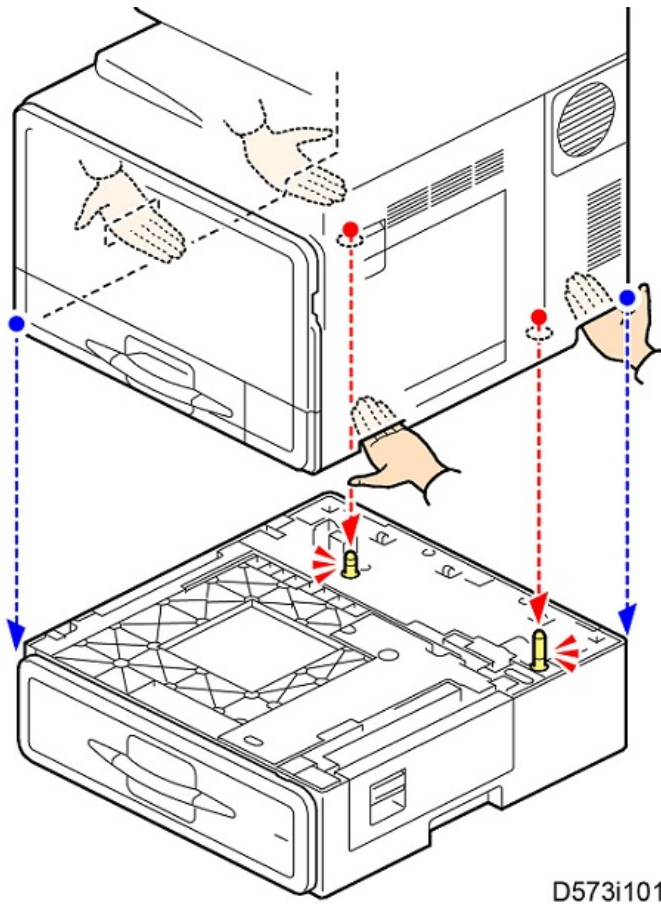
---

#### CAUTION

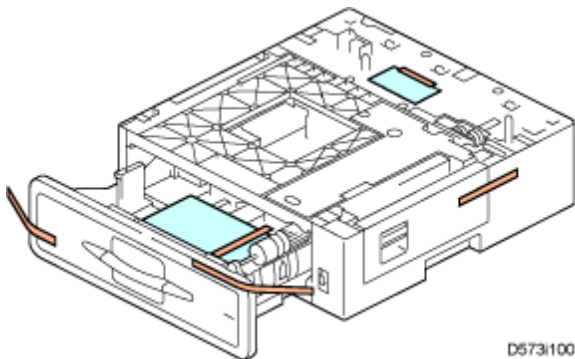
- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.
- You need two or more persons to lift the mainframe. The mainframe is highly unstable when lifted by one person, and may cause injury 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.

## 2. Installation

- 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.



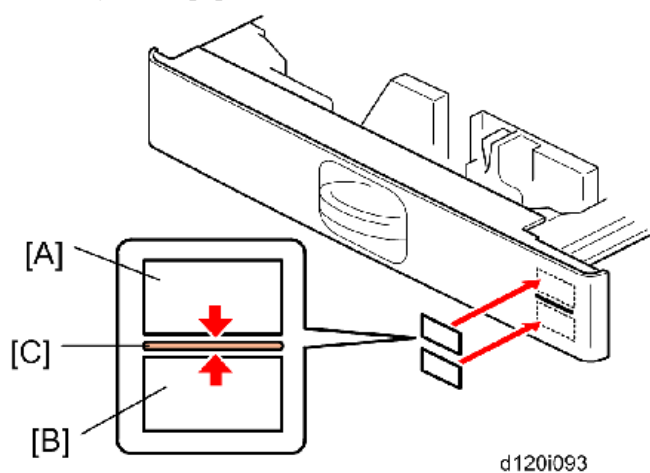
- 2.** Set the copier on the paper feed unit.

### 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.



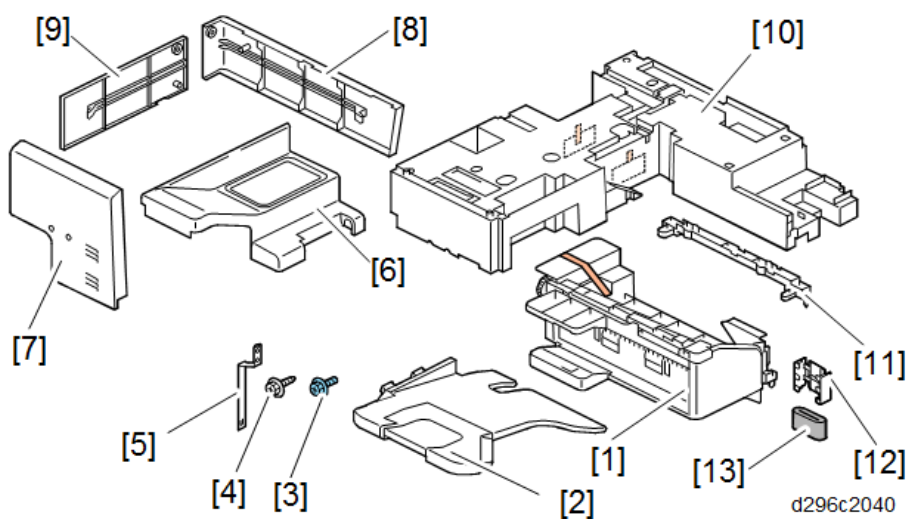
- 4.** Load paper into the paper tray(s) and set the side fences and end fence(s).
- 5.** Adjust the registration for each tray ([Image Adjustment](#)).
  - For tray 2, use SP1002-003
  - For tray 3, use SP1002-004
- 6.** Check the paper feed unit operation and copy quality.

## 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    |



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## Installation Procedure

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### **⚠ 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].

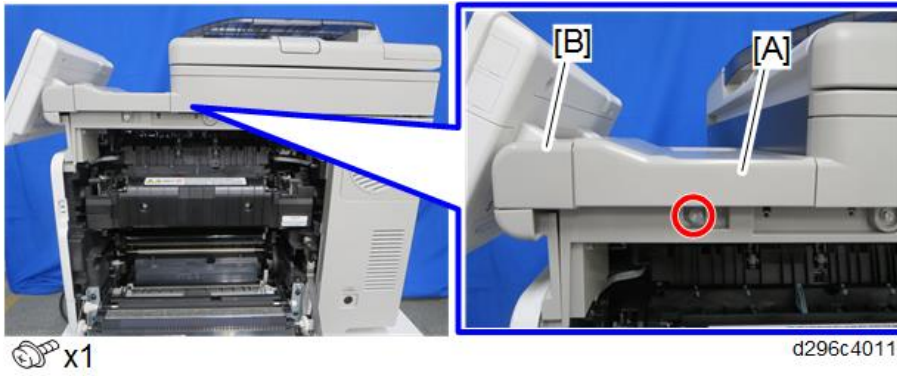


- 3.** Open the right cover, and then remove the right cover [A] (🔩 × 3).

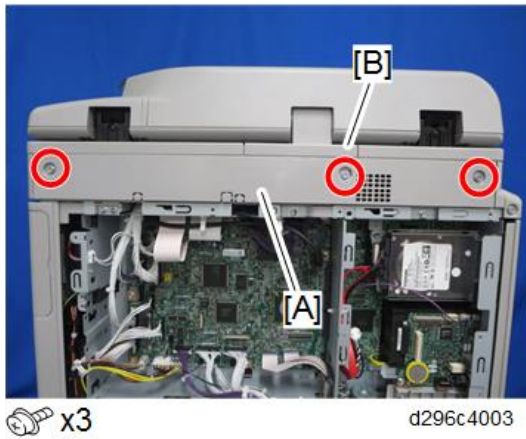


## 2. Installation

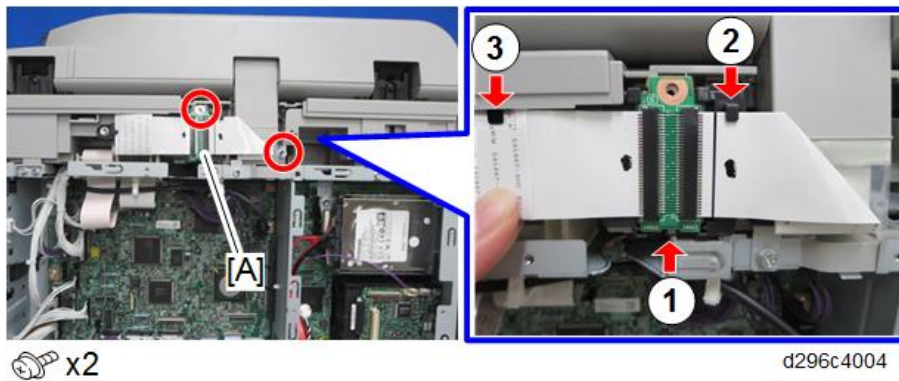
4. Remove the front right cover [A] and the hinge cover [B].



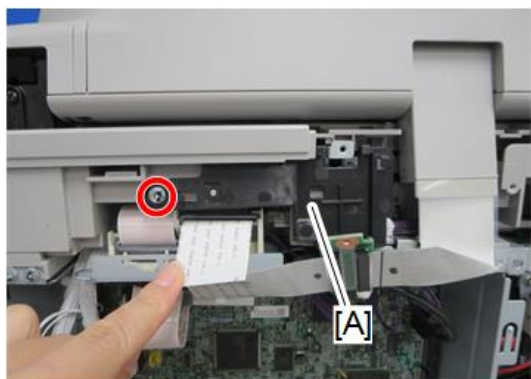
5. Remove the scanner rear cover [A] and scanner rear small cover [B].



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



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

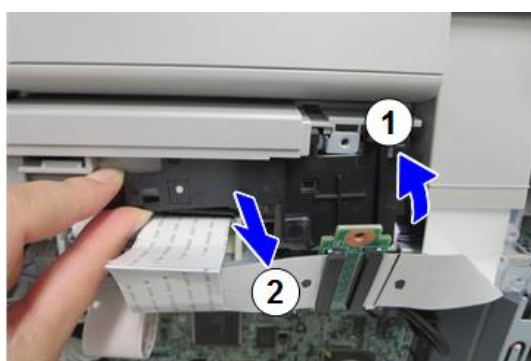


x1

d296c4005

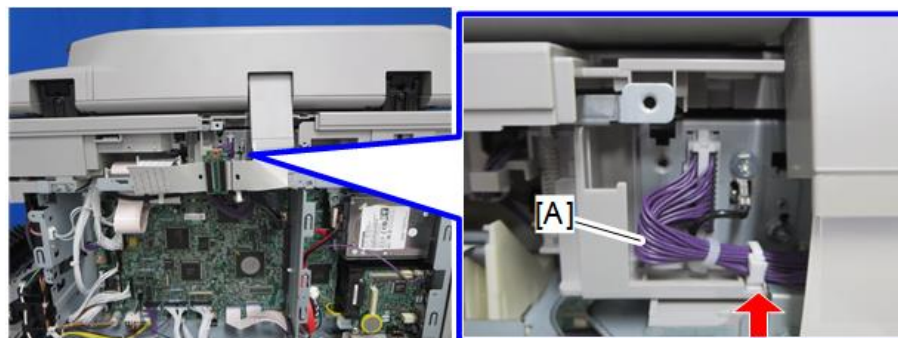
Note

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



d296c4006

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

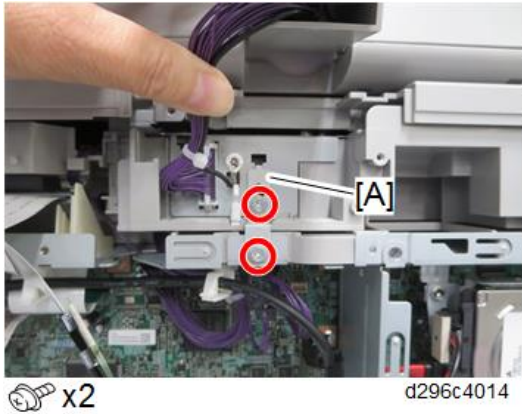


x1

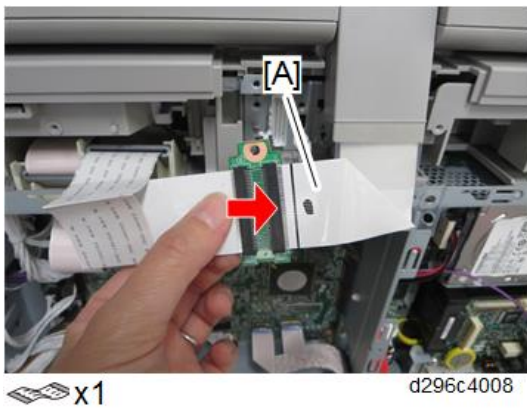
d296c4013

## 2. Installation

- 9.** Remove the grounding plate [A].



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

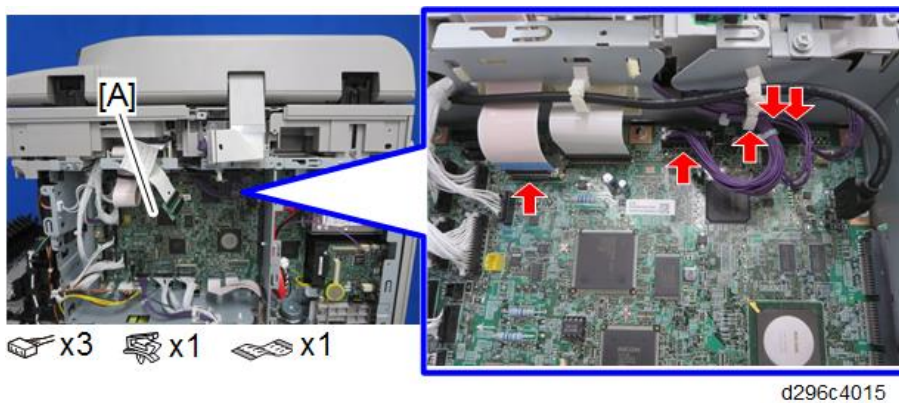


**Note**

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**

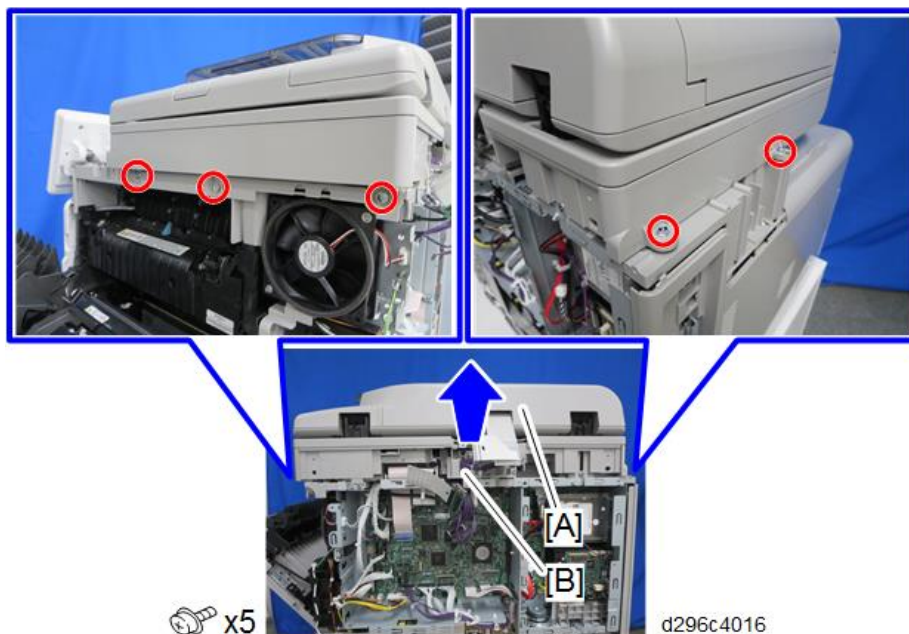
Disconnect the scanner FFC for the BiCU while pressing the lock release button.





d296c4017

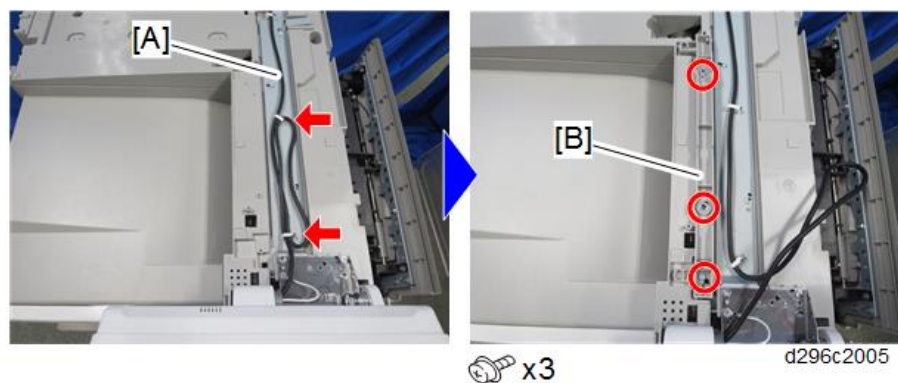
- 12.** Remove the screws, and then remove the scanner unit [B] with the ADF [A].



d296c4016


### Install the 1-bin Tray Unit

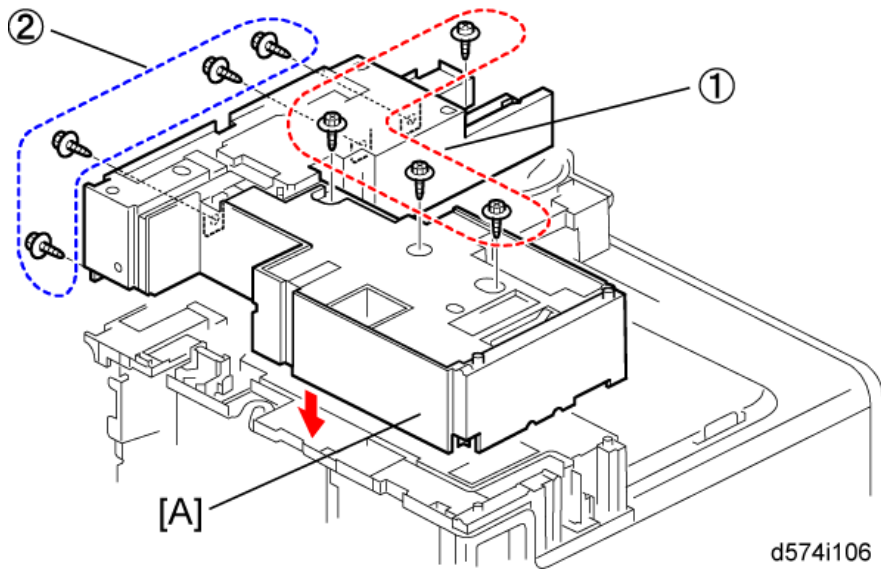
- 1.** Remove the orange tapes on the 1-bin tray unit.
- 2.** Remove the two clamps of the USB cable [A] of the control panel, bundle the excessive cable, and fasten with the clamps again.
- 3.** Attach the small frame [B].



d296c2005

## 2. Installation

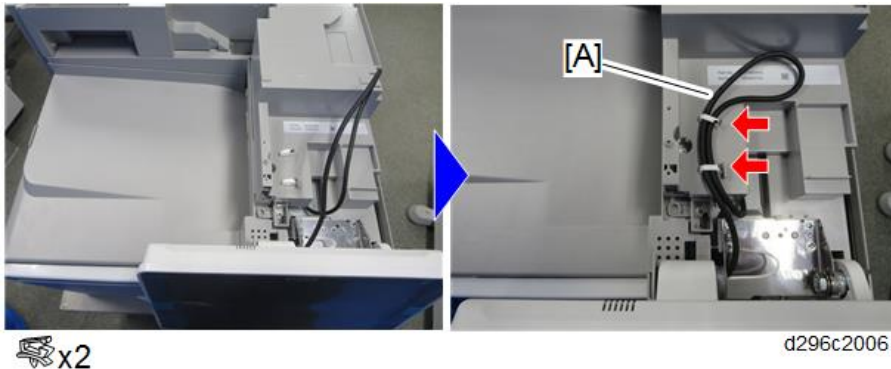
4. Attach the mounting frame [A]. (M3×10:  × 8)



### Note

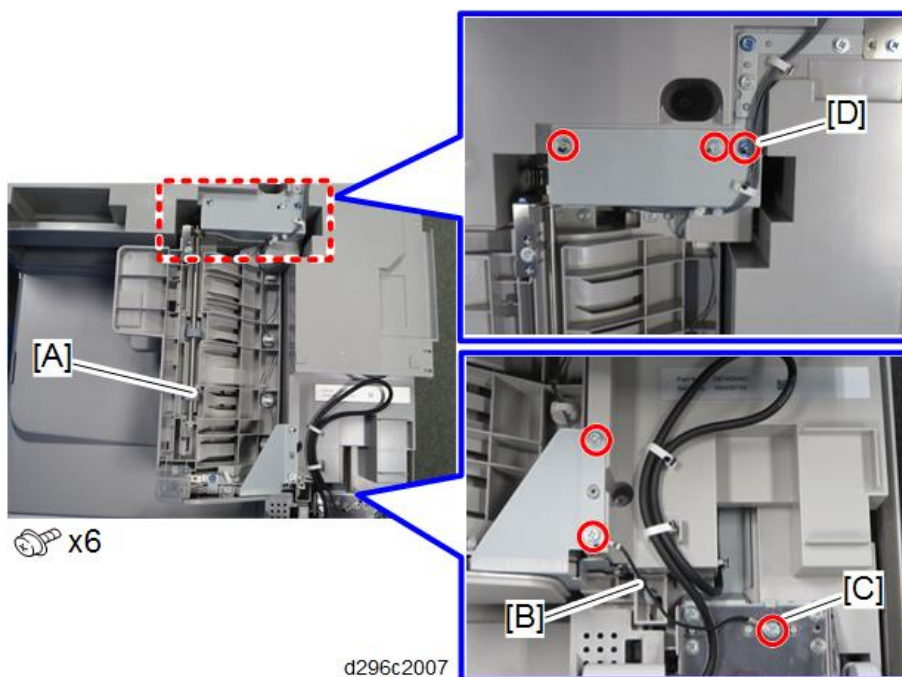
- Install the screws in this order: ① → ②.

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

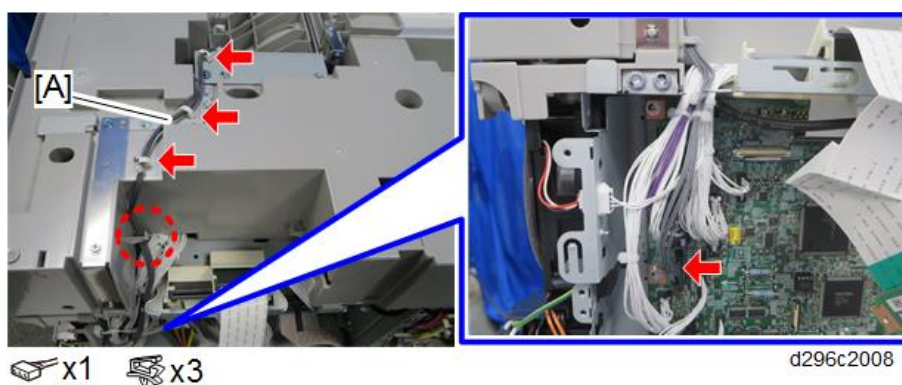


 x2

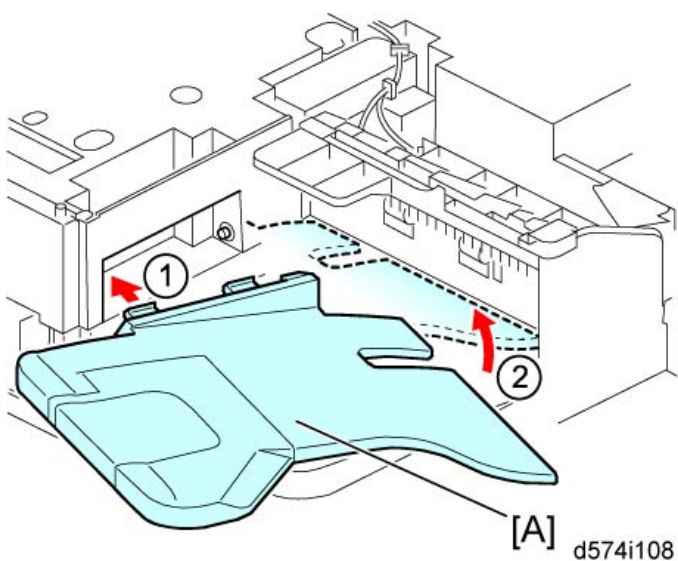
6. Attach the 1-bin tray unit [A]. (M3x10: 4 screw, and blue screw [D])  
Fasten the grounding wire [B] included in this kit with one screw as shown below. Fasten the other end of the grounding wire with the screw [C].



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].



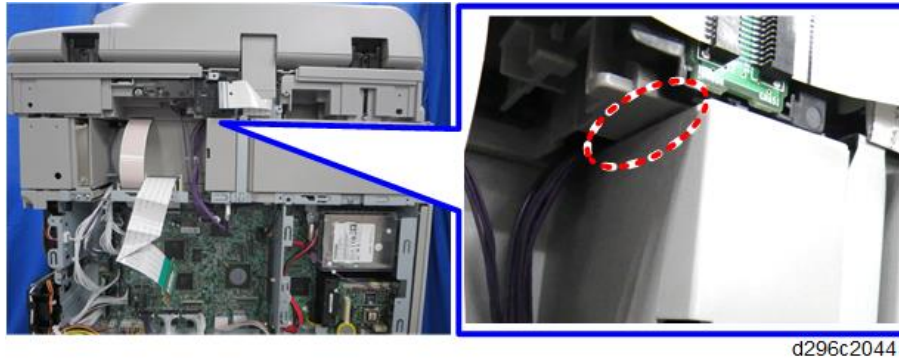
## 2. Installation

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



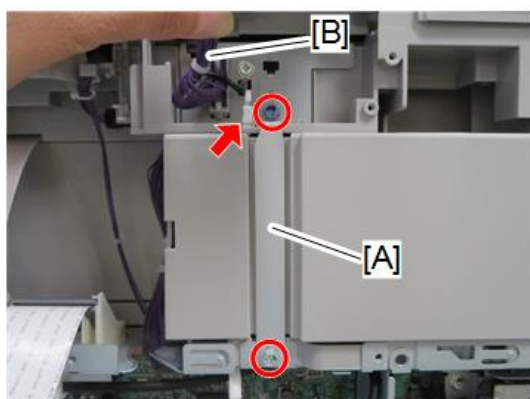
### Note

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: M3×10)

(existing)

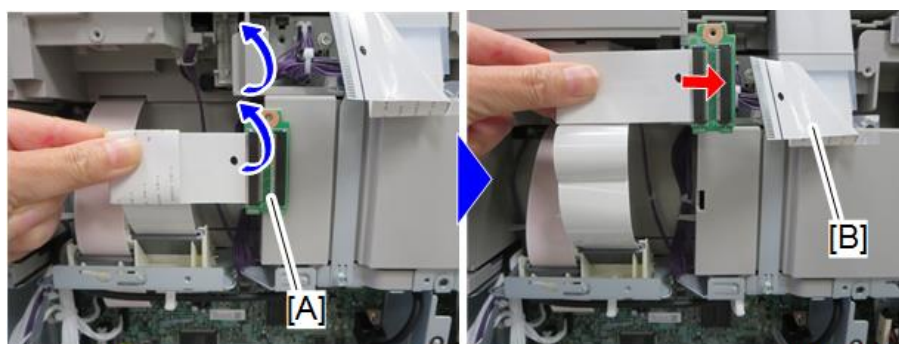


x2 x1

d296c2012

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

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



x1

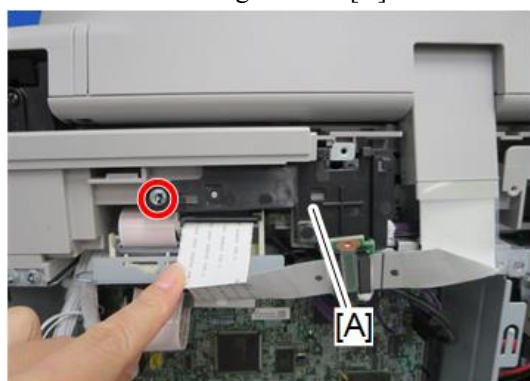
d296c2013

**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].



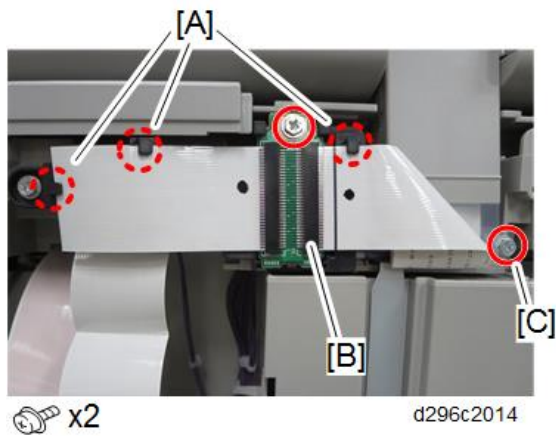
x1

d296c4005

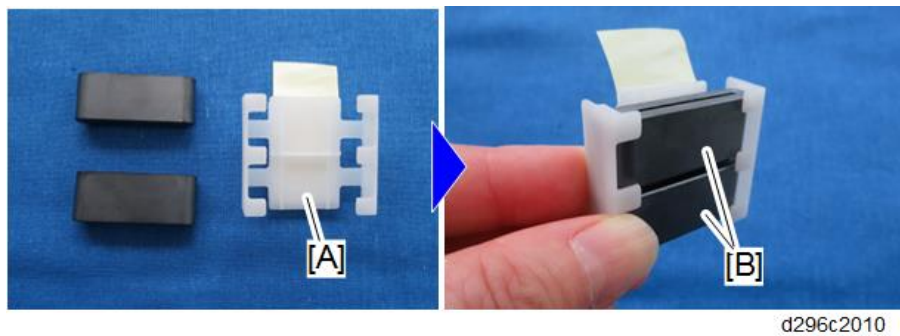
**13.** Attach the relay board [B] with the three hooks [A] on the FFC fixing bracket.

## 2. Installation

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

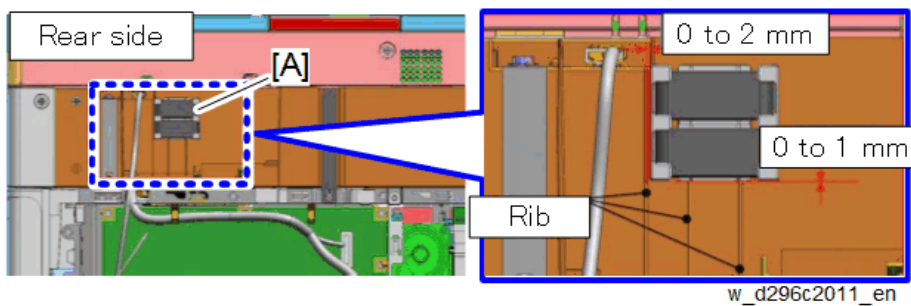


- 15.** Set two ferrite cores [B] in the ferrite core holder [A] included in this kit.

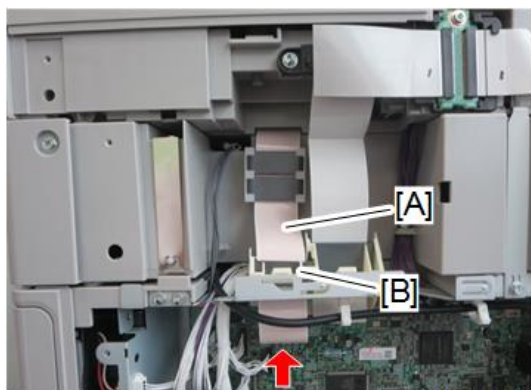


- 16.** Route the FFC of the scanner unit through the two ferrite cores in step 15.

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**

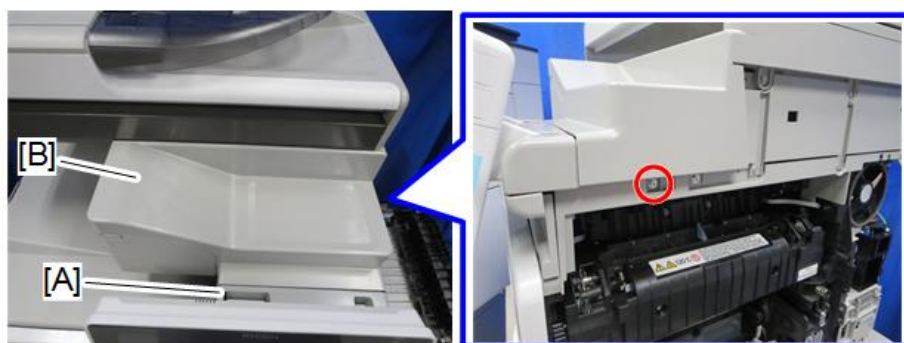
- The FFC should be routed under the USB cable.
- Do not connect the FFC at an angle. Otherwise, the scanner unit may be damaged.
- Connect the scanner FFC for the BiCU while pressing the lock release button.



d296c4017

**19.** Attach the following items:

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



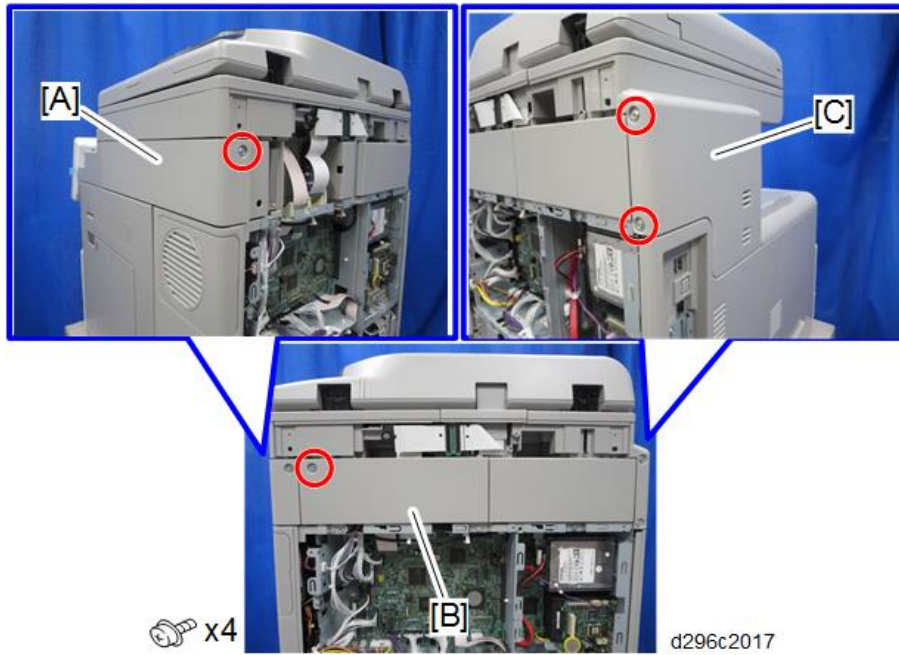
 x1

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)

## 2. Installation



**21.** Attach the following items:

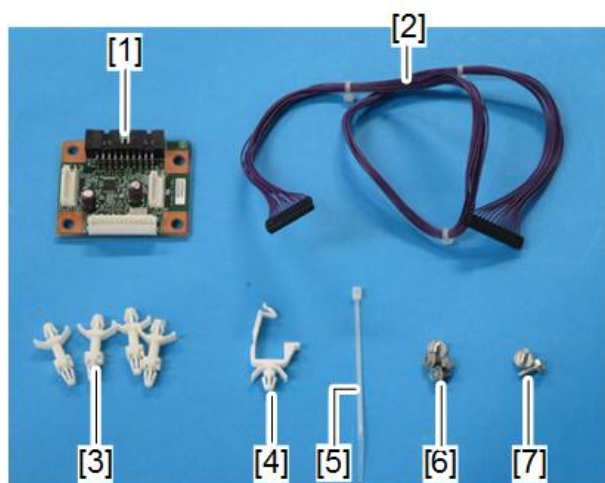
- Scanner rear small cover
- Scanner rear cover
- Right rear cover
- Rear cover

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



## Optional Counter Interface Unit Type M12 (B870-21)

### Accessory Check



d296c2030

| 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

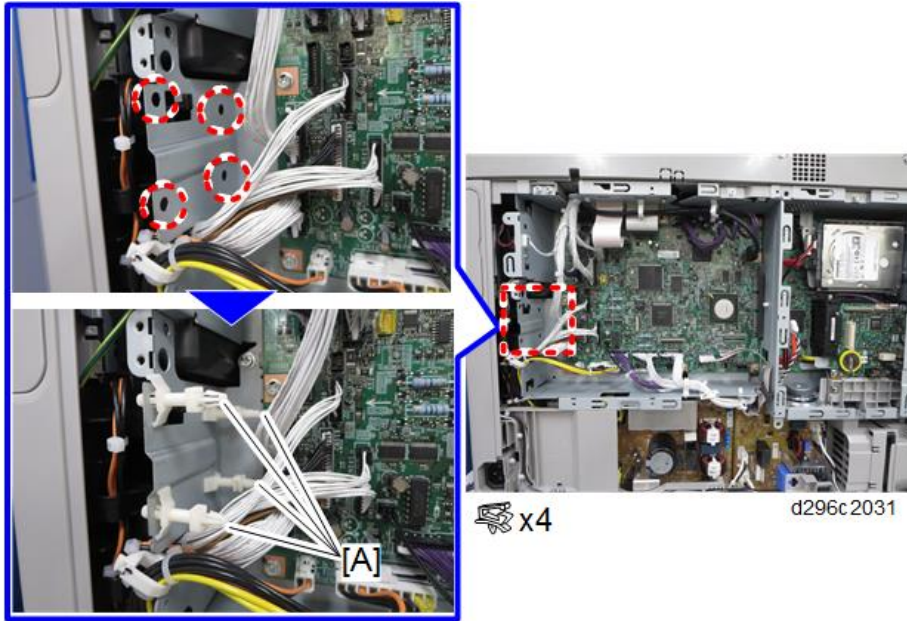
#### **⚠ CAUTION**

- 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.

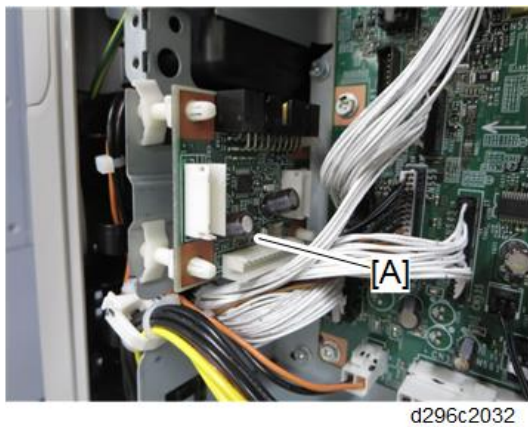
1. Remove the rear cover. ([Rear Cover](#))

## 2. Installation

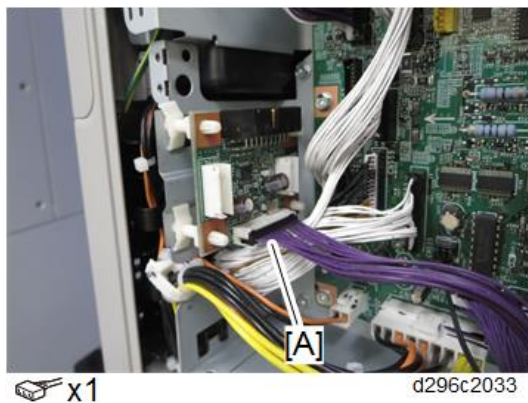
- 2.** Install the four studs [A] in the controller box.



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



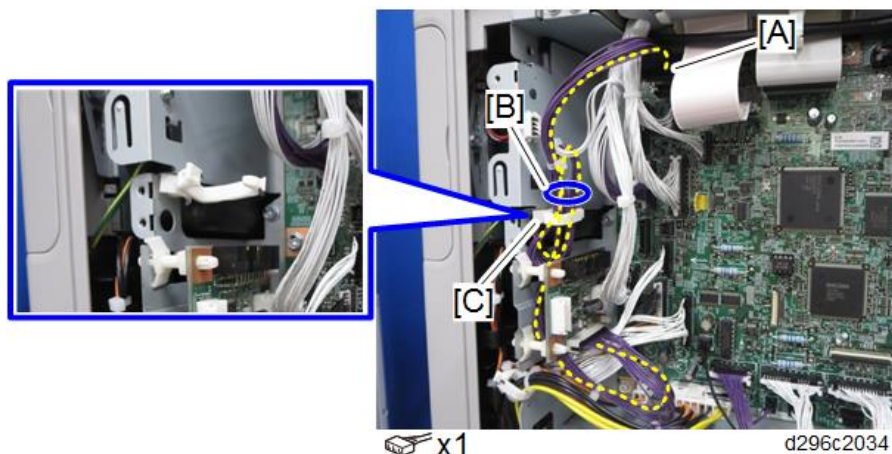
- 4.** Connect the harness included in this kit to the connector [A] on the interface board.



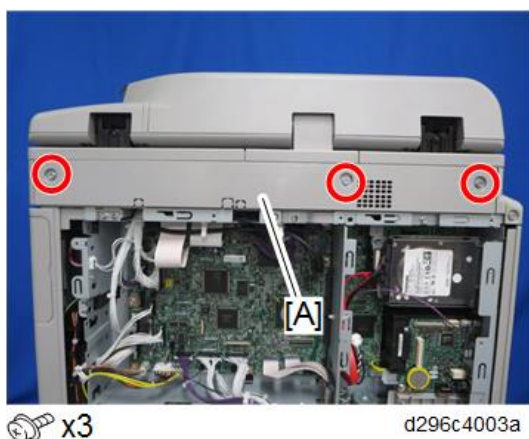
- 5.** Do the following steps:

- 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.

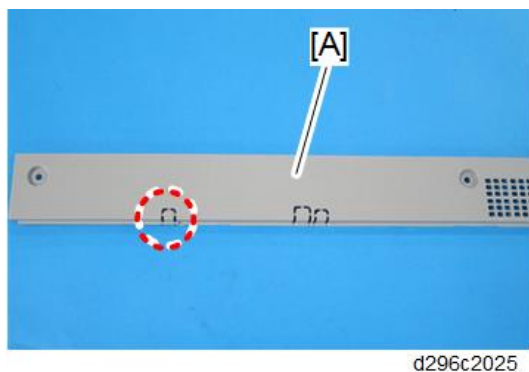
- Insert the clamp included in this kit at [C], and clamp the harness with the clamp to prevent interference with other harnesses.



6. Remove the scanner rear cover [A].

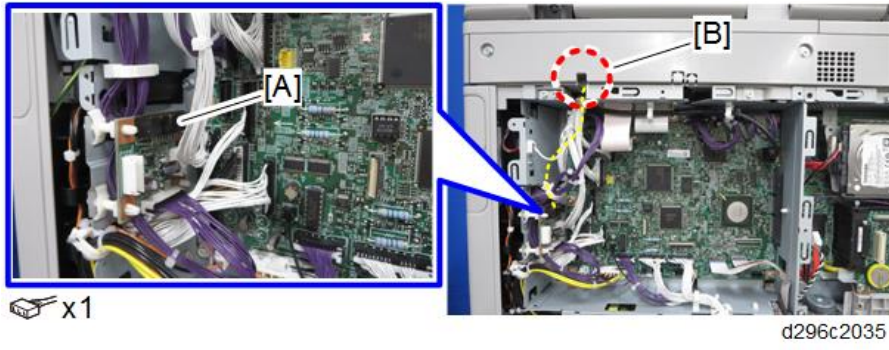


7. Cut out the hole for the counter device cable to pass through the scanner rear cover [A].



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.

## 2. Installation



**11.** Reassemble the machine.

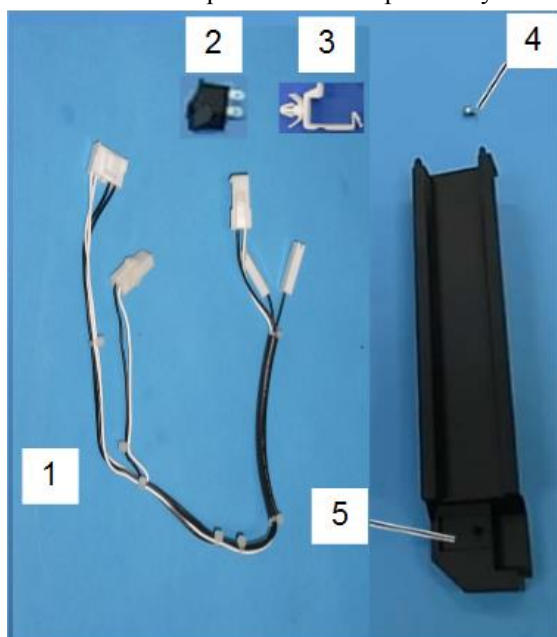
## Anti-condensation Heater (Mainframe)

### 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* <sup>1</sup>                      |
| 2   | Heater Power Switch | 1    | 12042570                                    |
| 3   | Clamp               | 1    | 11050511                                    |
| 4   | Screw               | 1    | 08010231                                    |
| 5   | Heater kit          | 1    | D1175097: EU/AA/KOR/CHN<br>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):**

## 2. Installation

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**

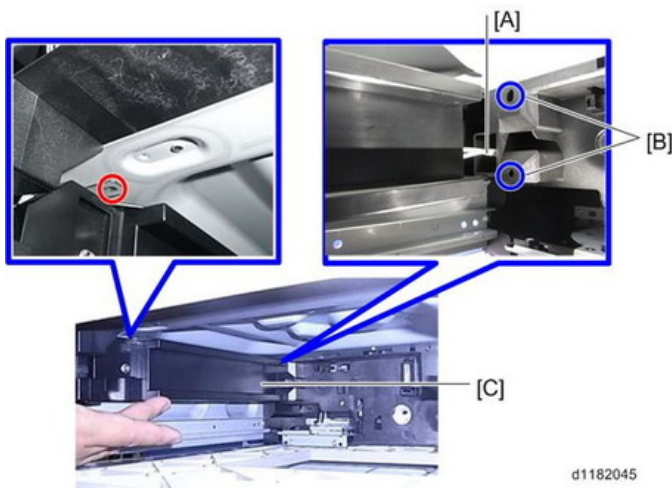
- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

#### **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:

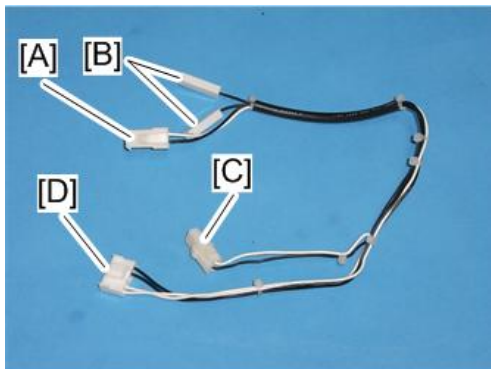
- Insert the heater harness into the hole [A].
- Fit the bosses of the heater into the holes [B] to install the heater [C] (🔩 (M3×6) × 1)



### **Note**

- Use a short screwdriver to secure the screw.

### **Junction harness connections:**



A: To the heater

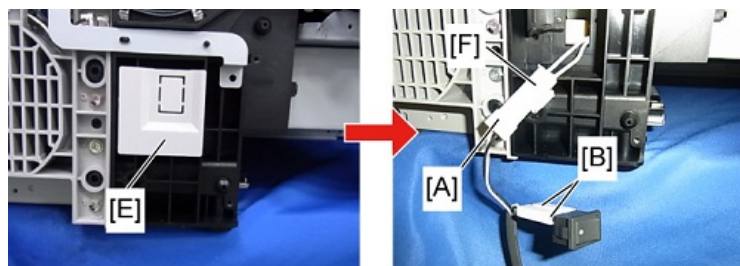
B: To the power switch

C: To the optional PFU heater (if installed)

D: To the PSU

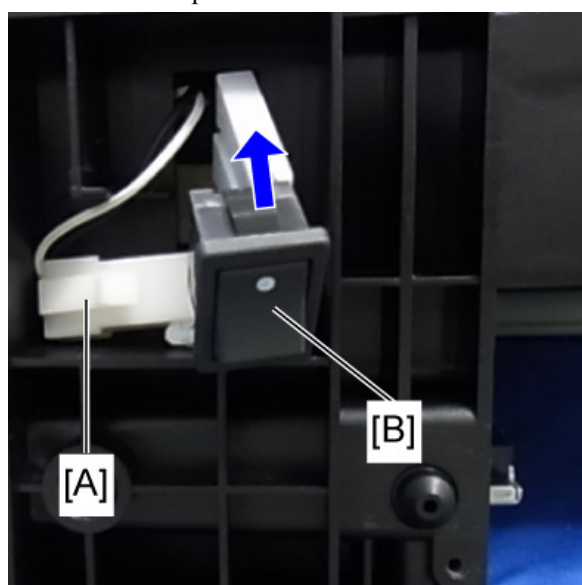
**3.** Do the following steps:

- 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)



d117076

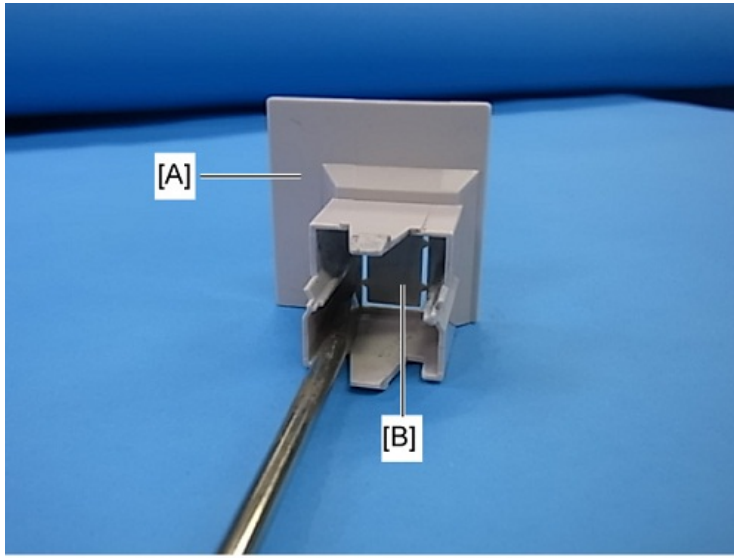
**4.** Store the connector [A] in the connector holder, then push the power switch [B] into the switch hole until you feel it click into place.



d117077

## 2. Installation

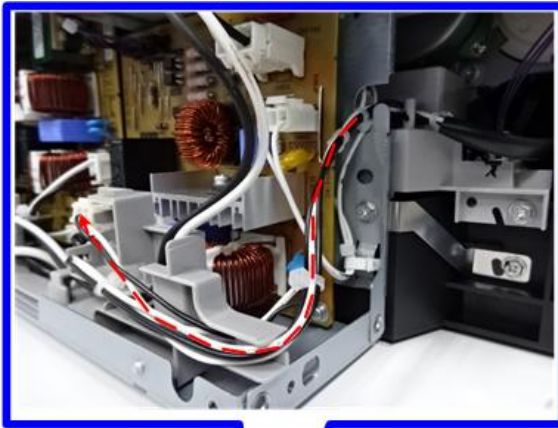
5. Cut out the switch hole [B] in the switch cover, and then attach the cover [A]. (Hooks × 2)



d1170710

6. Route the junction harness as shown below.

- Connect the connector [A] to CN600.

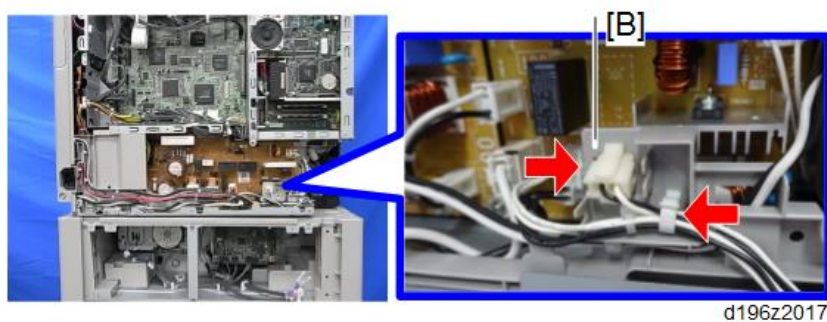


d196z2021

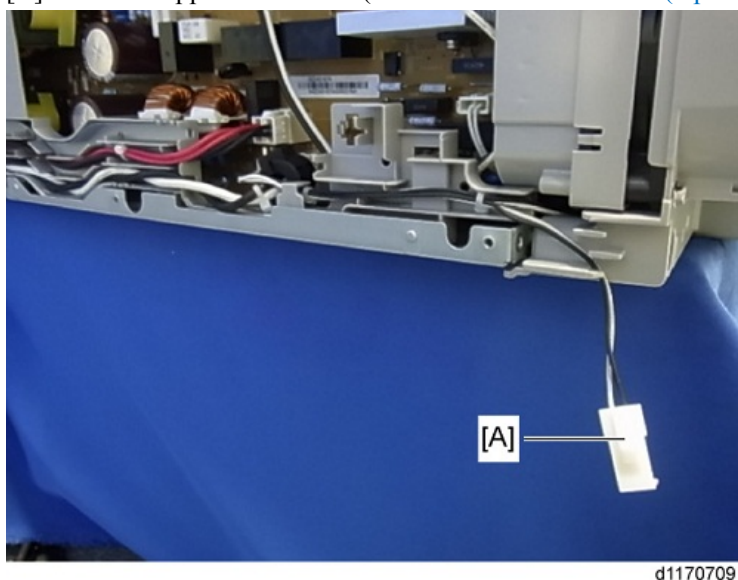
- Attach the clamp and route the harness. (⚙ × 1)
- Only when the heater for optional paper feed tray will not be installed, store the connector [B] in the



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.

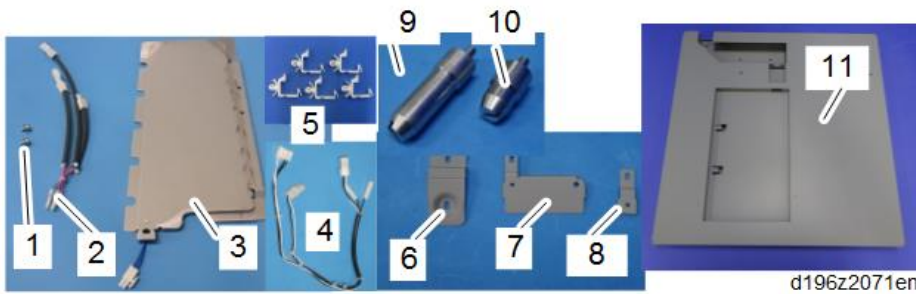
**Note**

- 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.

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 Installation Procedure
 

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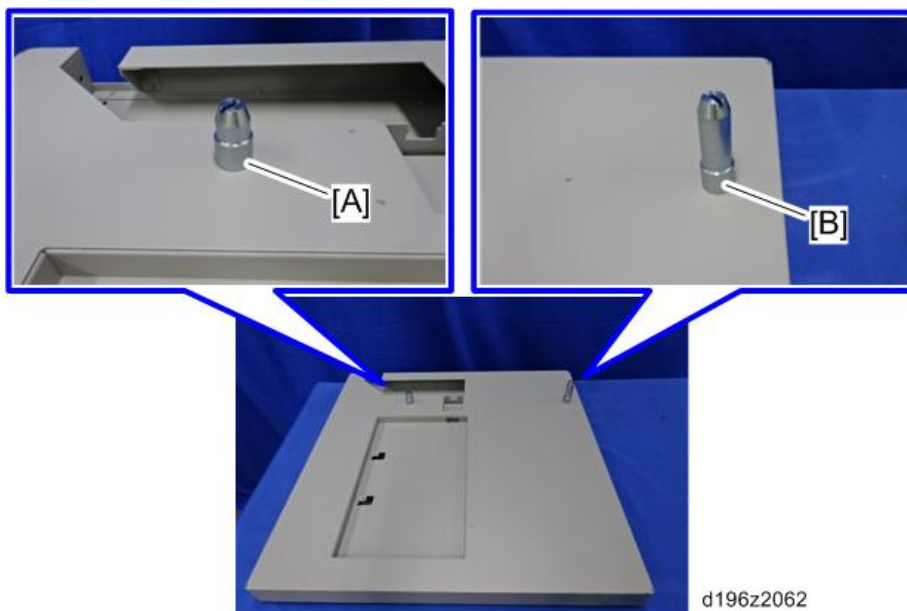
**⚠ CAUTION**

- **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.

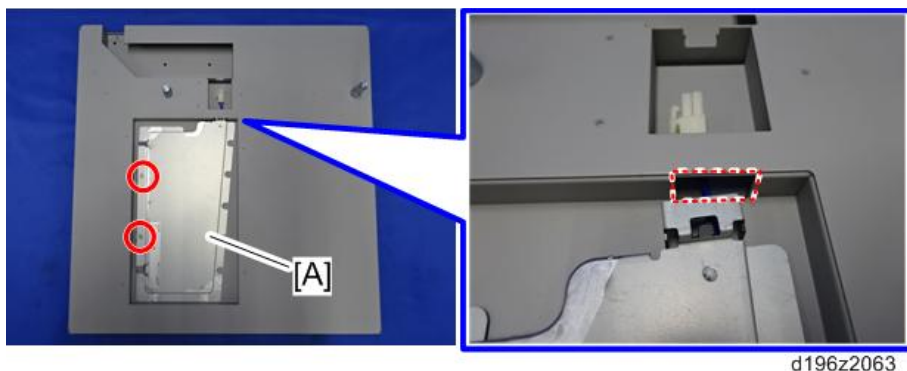
**⚠ CAUTION**

- 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.



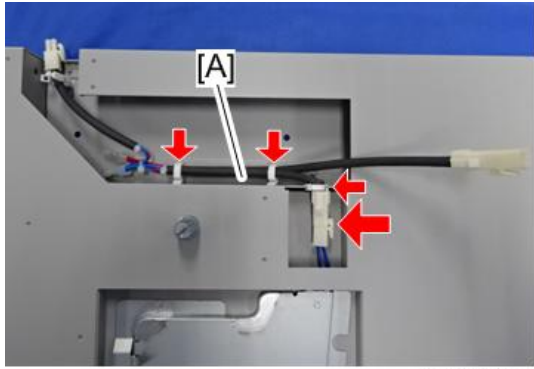
2. Attach the heater bracket [A]. (🔩 × 2)

**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)

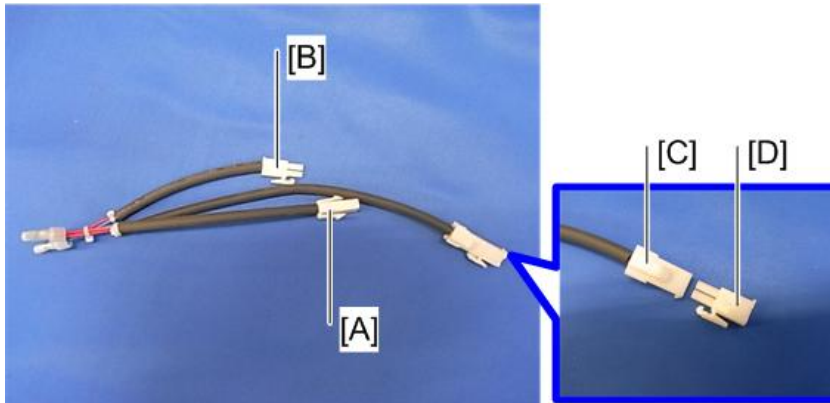
## 2. Installation



d196z2065

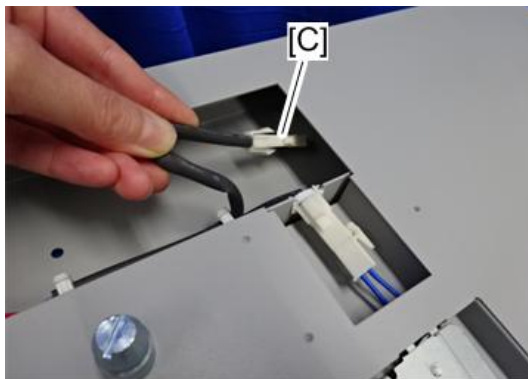
### Note

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



d118z2017

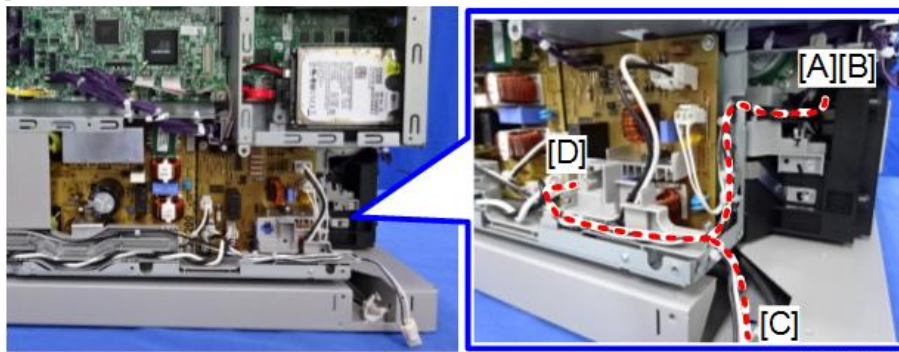
- The connector [C] is not used. Put the connector into the opening.



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

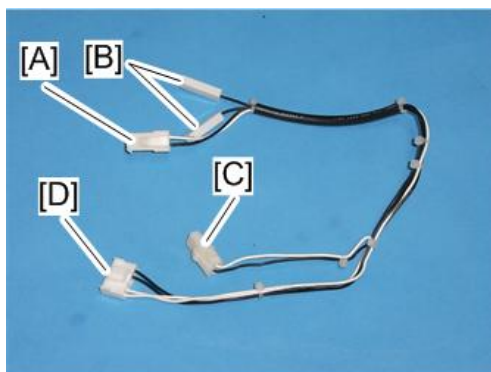
photo. (📷 × 1)



d196z2102

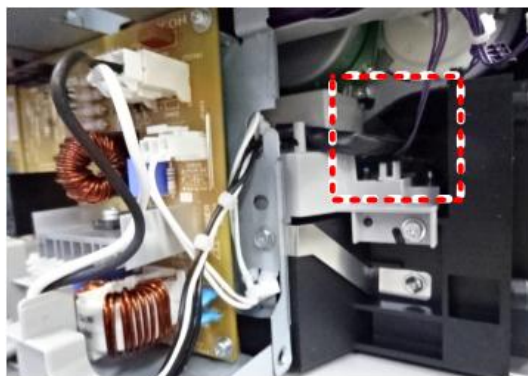
**Note**

- 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

- 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.



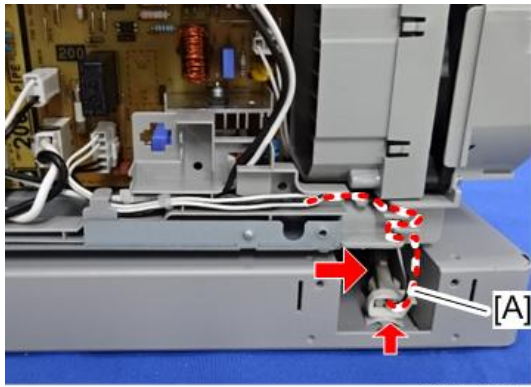
d196z2103

**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

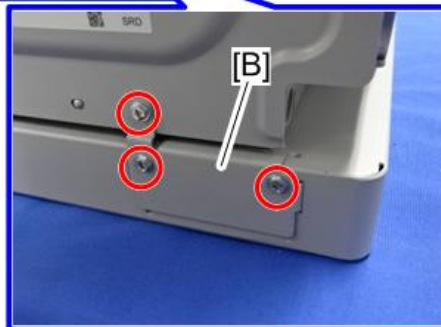
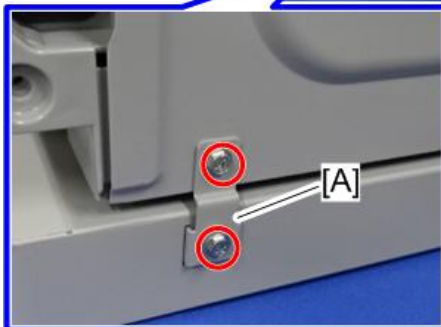
## 2. Installation

in the photo.



**11.** Reattach the rear cover.

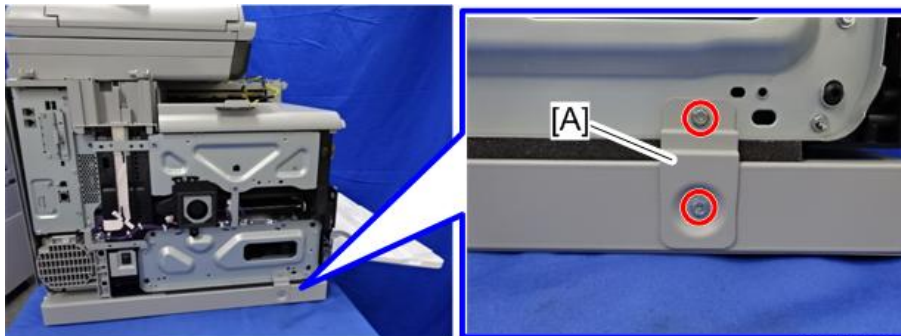
**12.** Attach the two securing brackets [A] [B] at the rear of the machine. (🔩 × 5)



### Note

- Use the screws which are holding the rear cover.

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



**14.** Reattach the left cover.

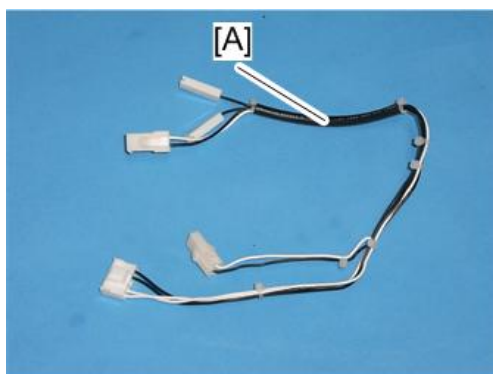
## Anti-condensation Heater (Optional Paper Feed Unit)

### 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.

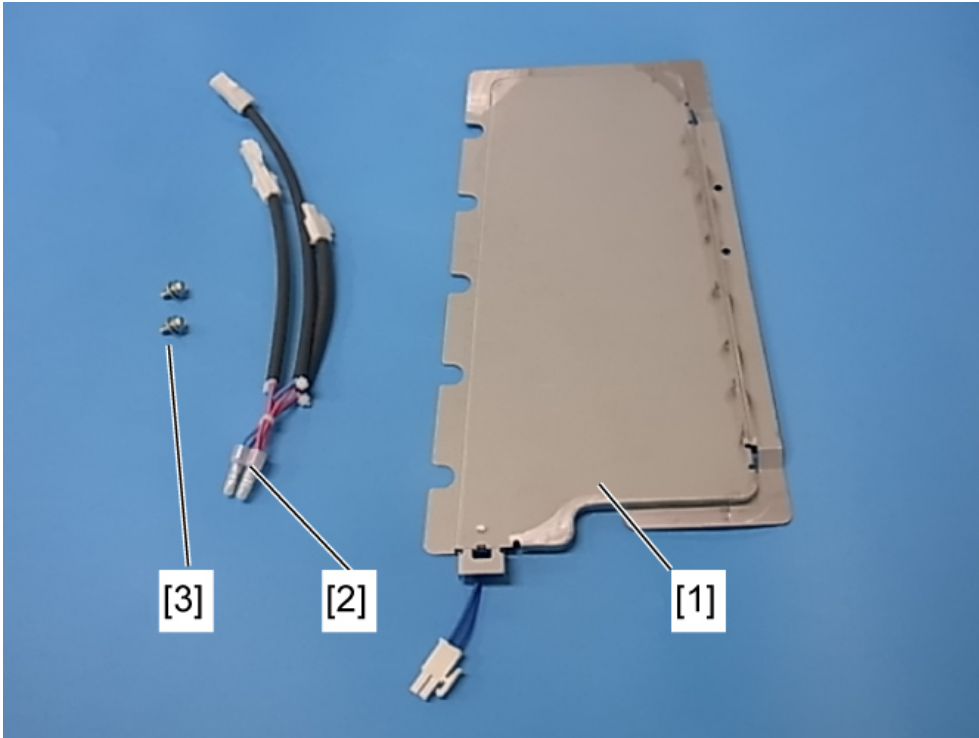


d196z2221

### 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    |        |

## 2. Installation

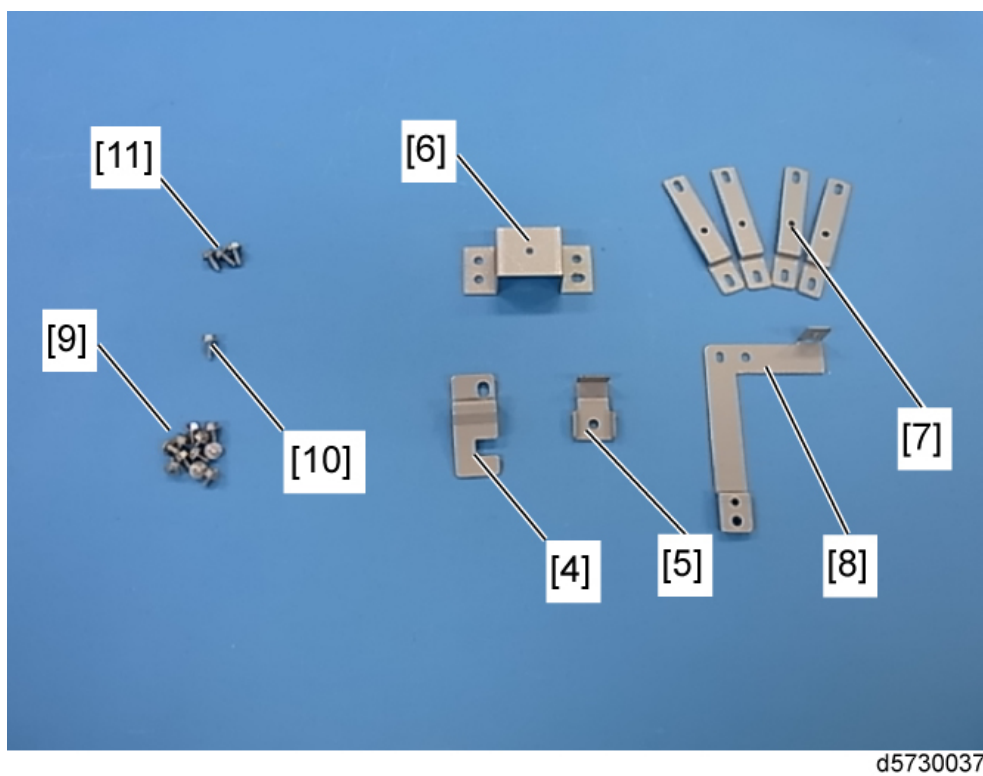


d5730031

### 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    |





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### Installation Procedure

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#### **⚠ CAUTION**

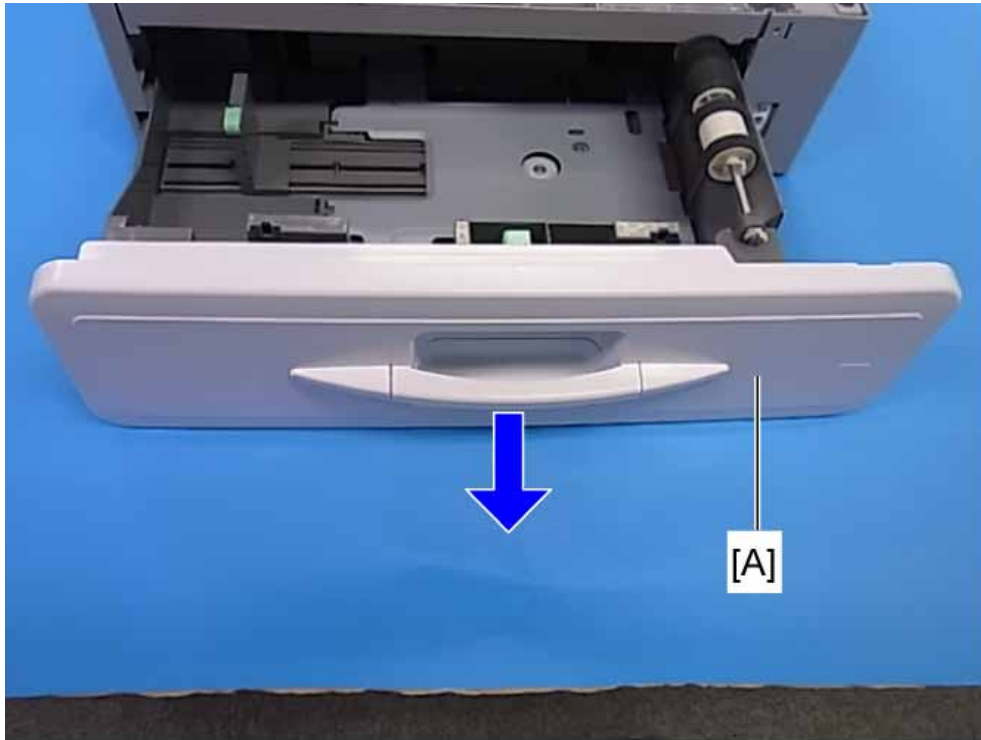
- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.
- Do the following procedure not to damage any harnesses.
- Check that harnesses are not damaged or pinched after installation.

## 2. Installation

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

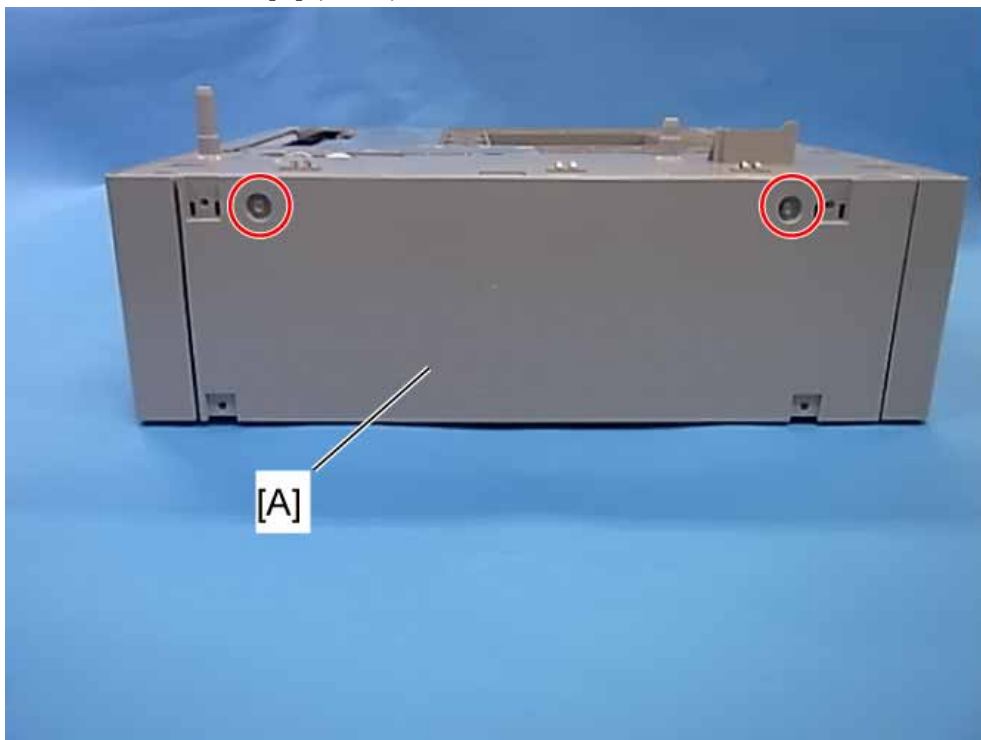
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- 1.** Pull out the tray [A] in the optional paper tray.



d5730002

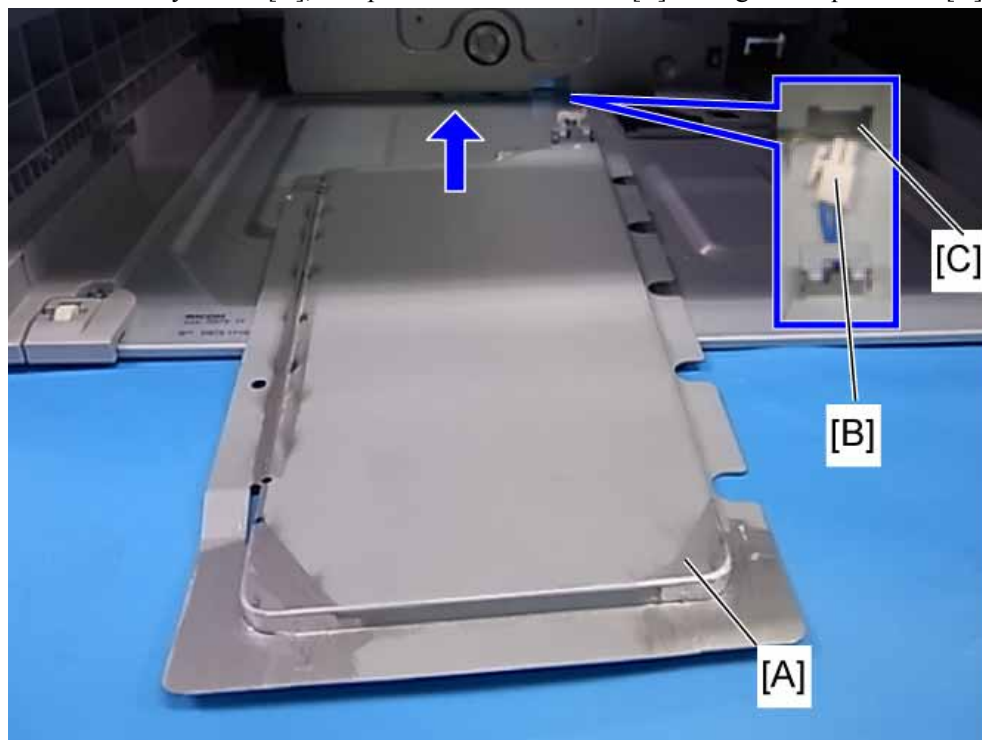
- 2.** Remove the rear cover [A] (🔧 x 2)



d5730001

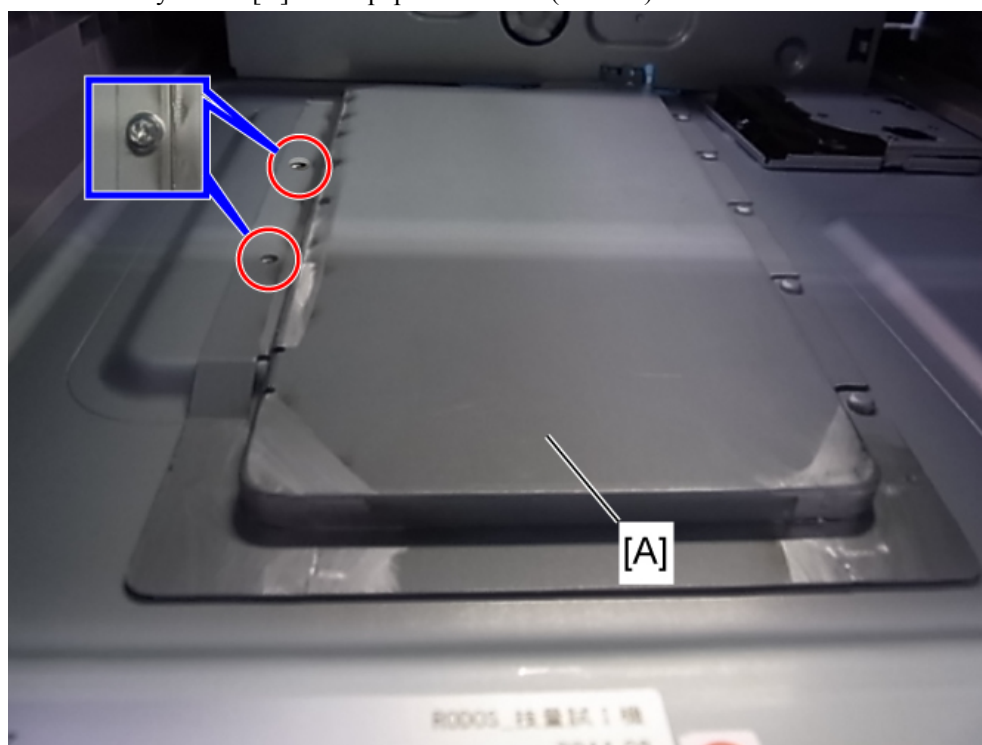
- 3.** Remove the left cover. ([Left Cover](#))

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



d5730032

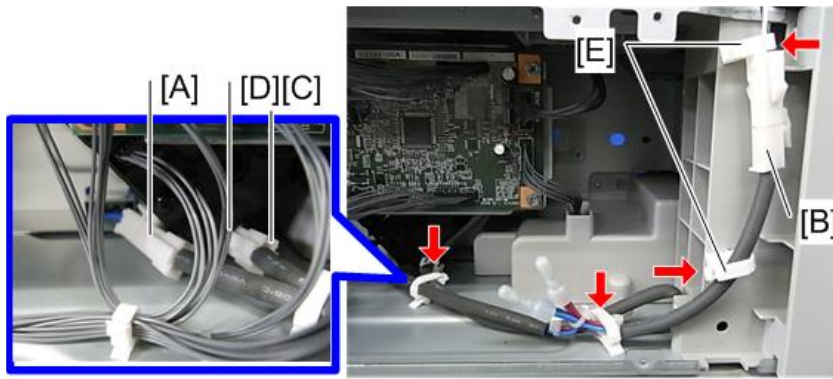
5. Install the tray heater [A] in the paper feed unit. (🔧 × 2)



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)

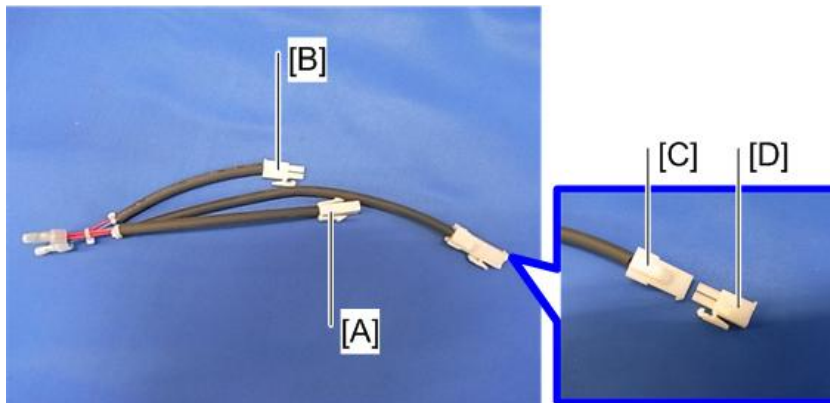
## 2. Installation



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)

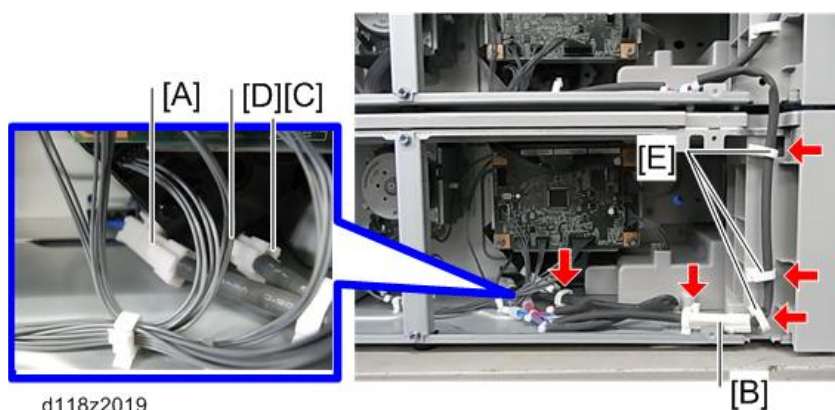


d118z2017

## 7. Reattach all the covers removed.

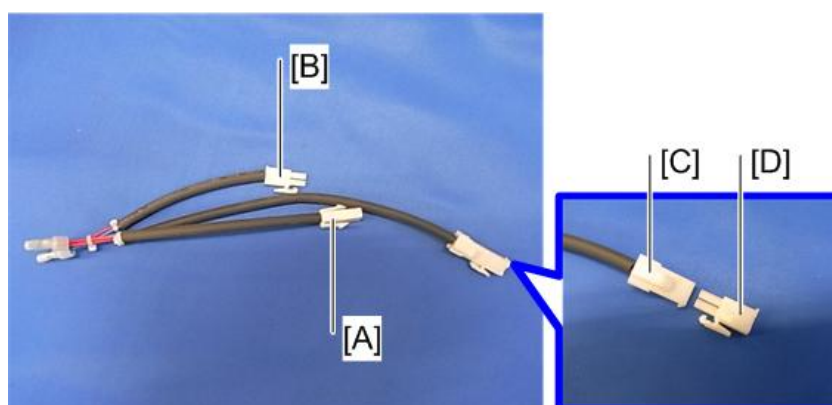
### For Installing the Tray Heater on the 2nd Optional Paper Feed Unit

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



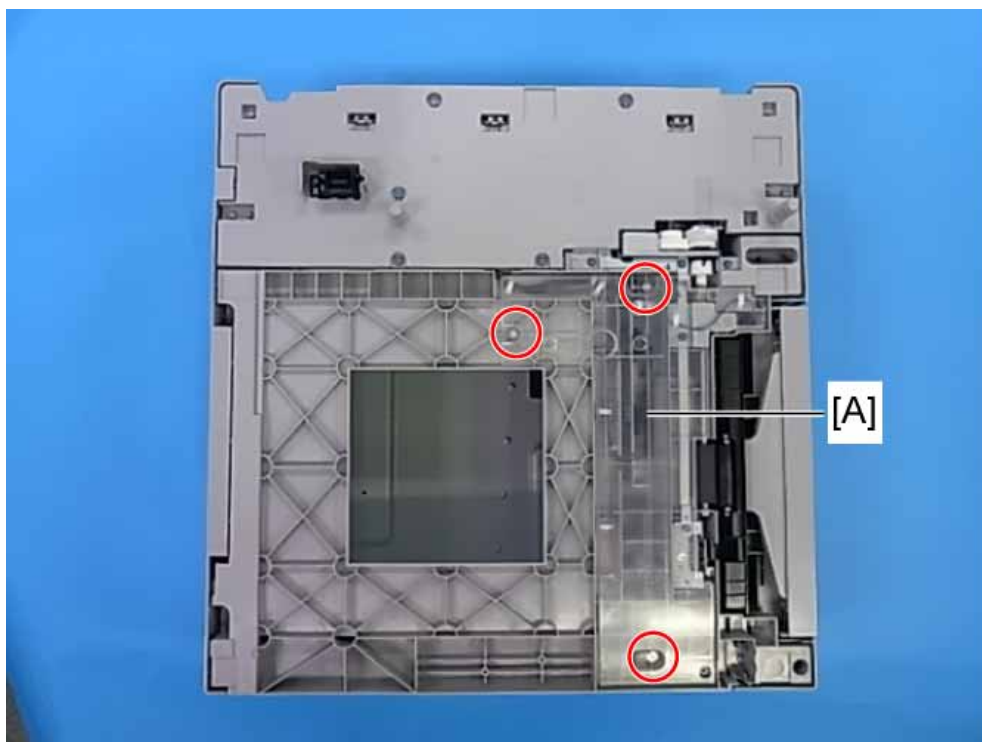
**3.** Reattach all the covers removed.

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.

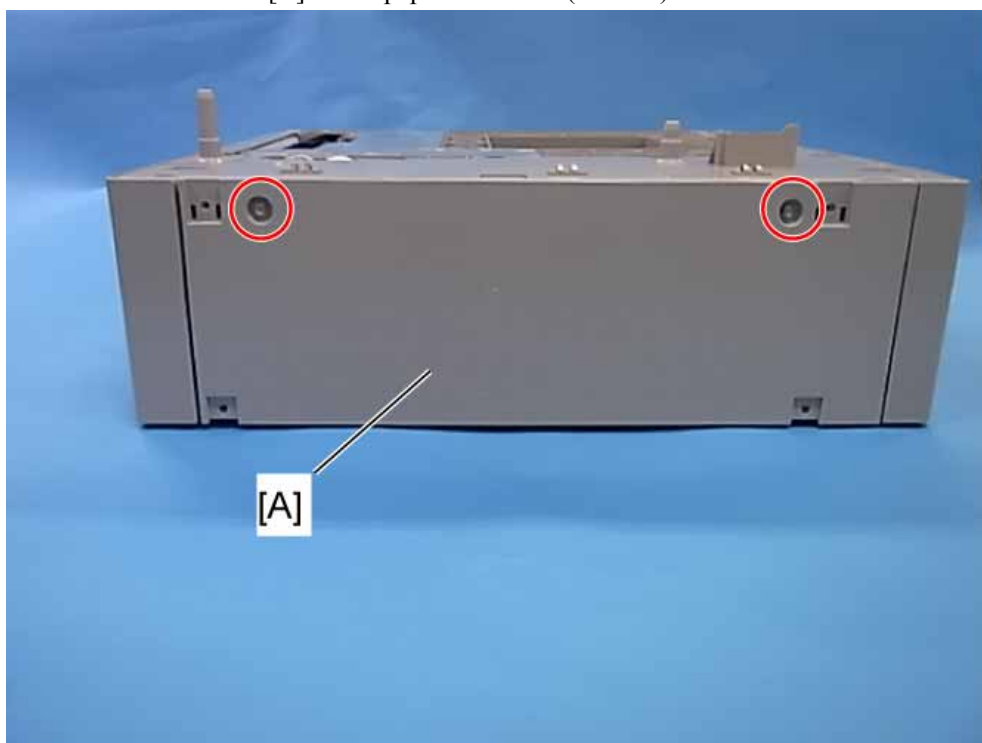
## 2. Installation

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



d5730007

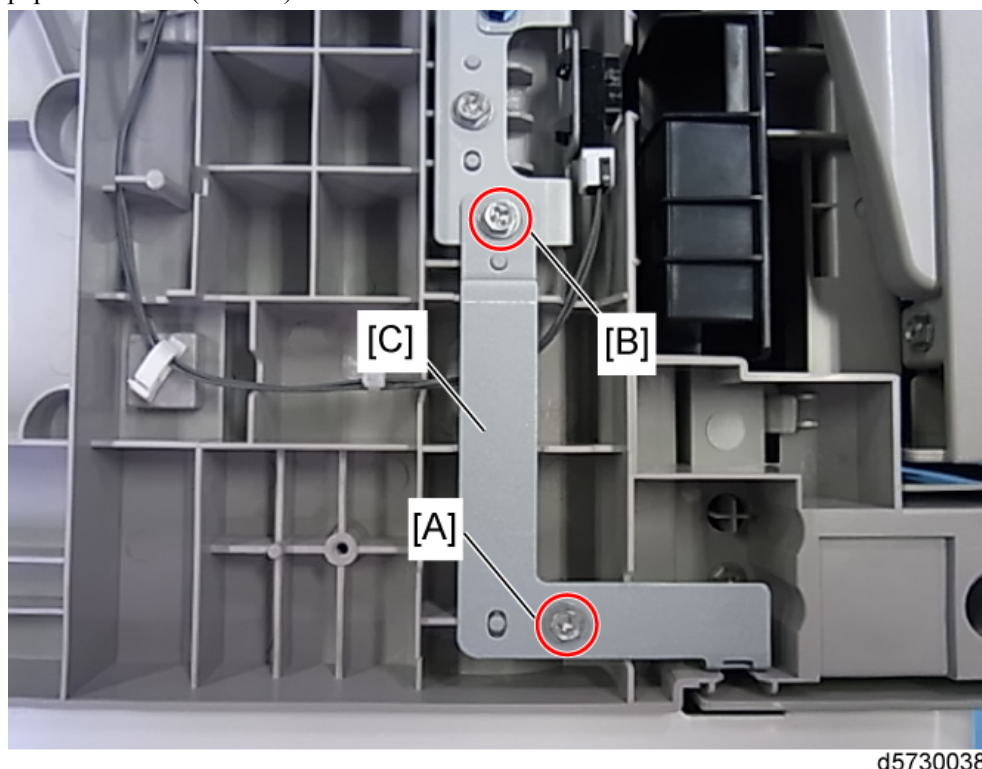
2. Remove the rear cover [A] of the paper feed unit. (🔩 × 2)



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)

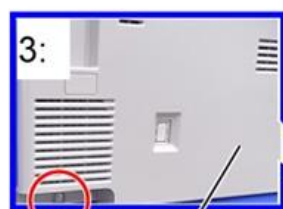


d5730038

**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

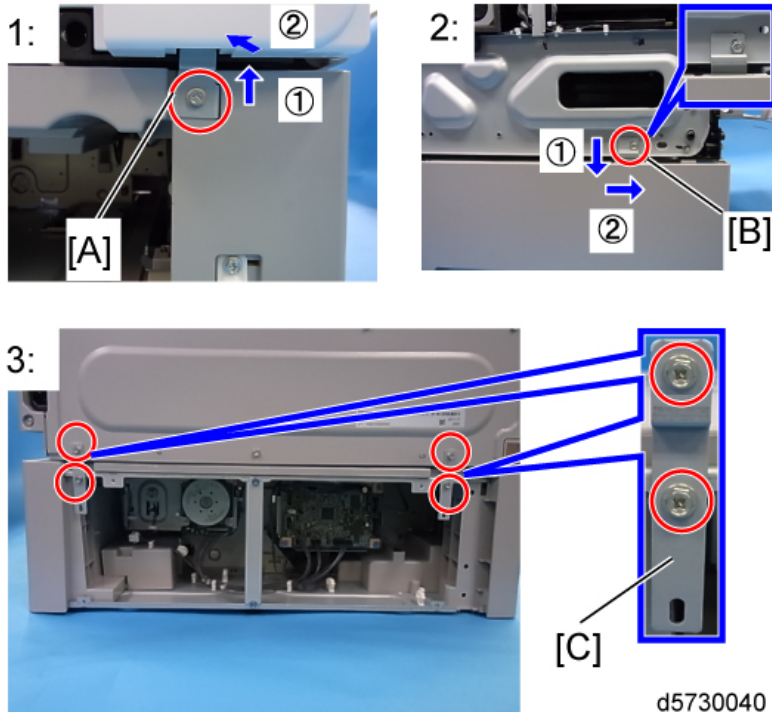
1: Rear

## 2. Installation

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.

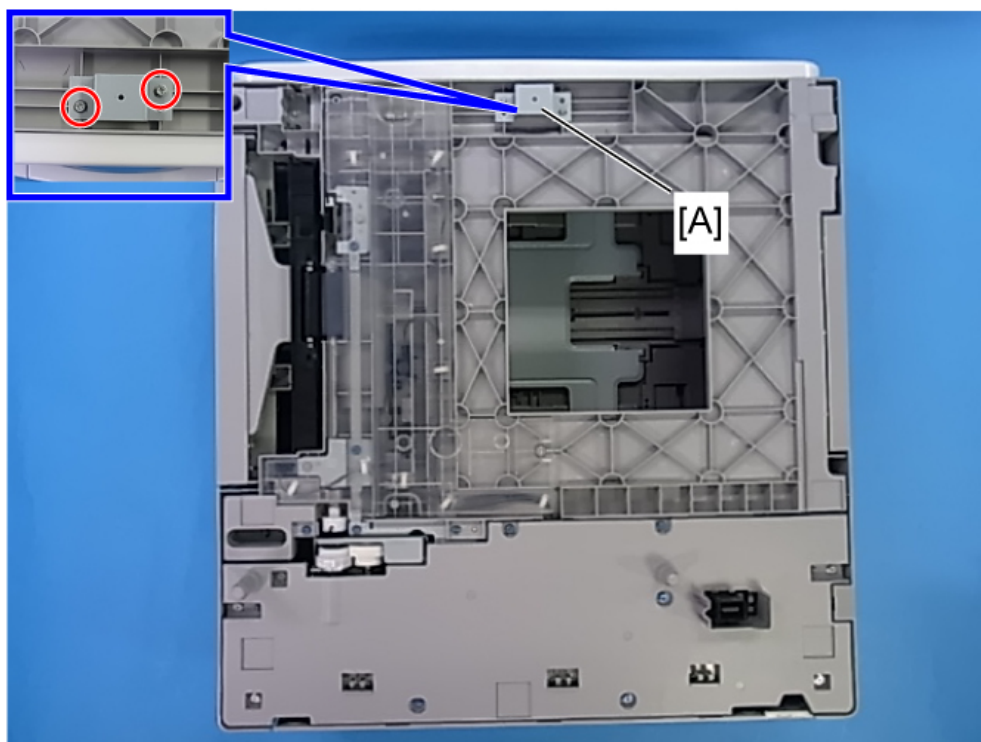
### Joining Two Optional Paper Feed Units

---

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

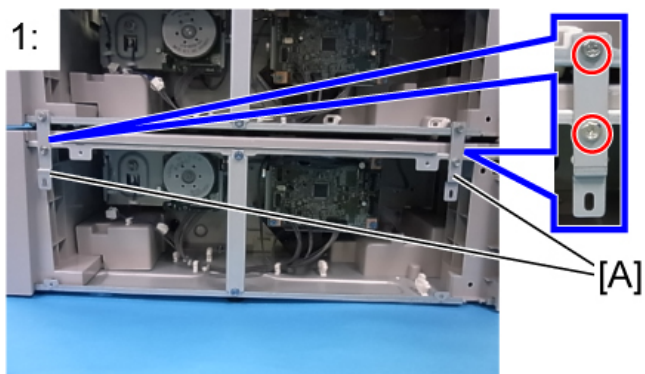


(🔩):Tapping × 2 (included in this kit)



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

## 2. Installation

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    |



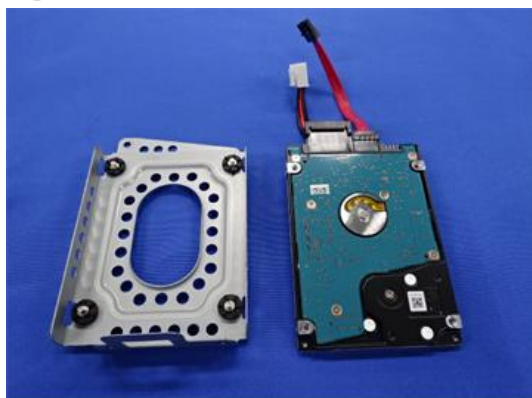
d191b0076

### 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

2. Installation

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



d191b0077

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



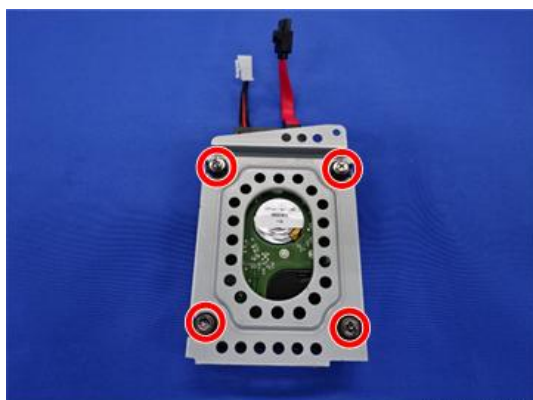
d191b0078

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



d191b0079

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



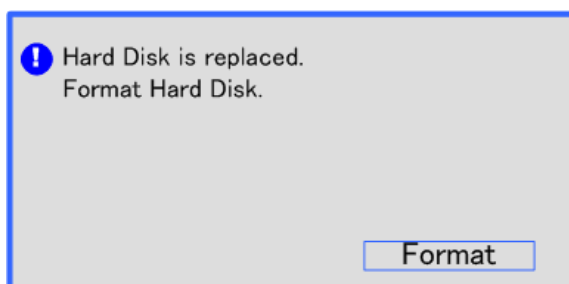
d196z2121

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

#### After Installing the HDD

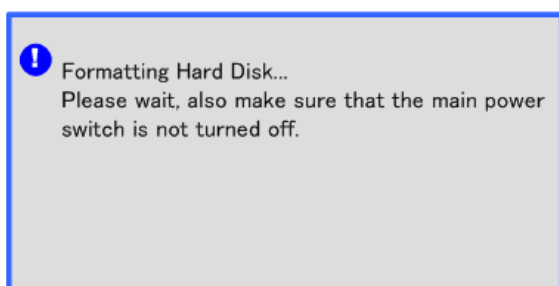
---

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



d191b0081

2. Touch [Format].



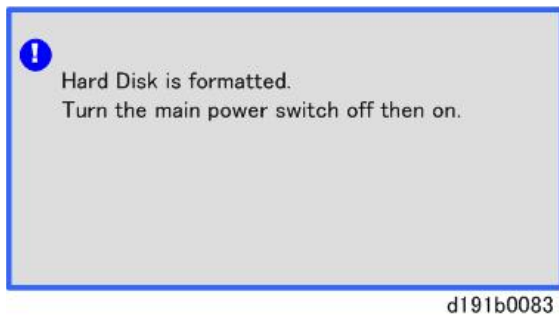
d191b0082

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.

## 2. Installation



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.

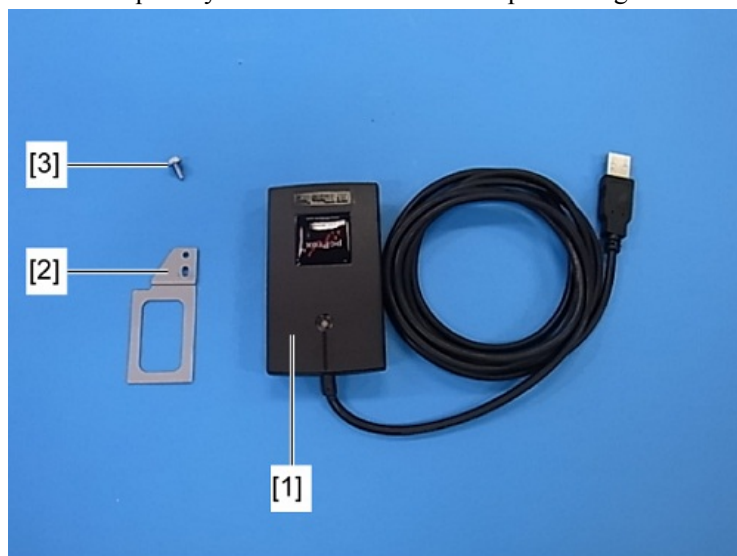
### ★ Important

- 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.



d1170711

| 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

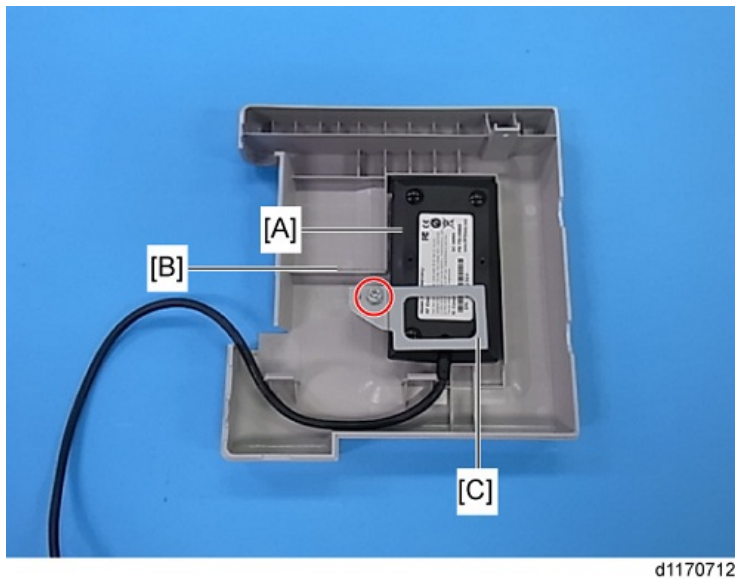
- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

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

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

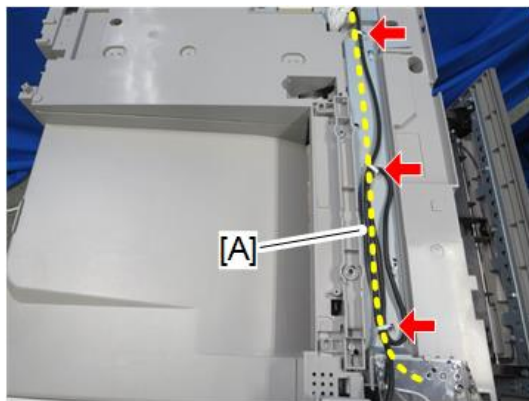
## 2. Installation

this kit)



d1170712

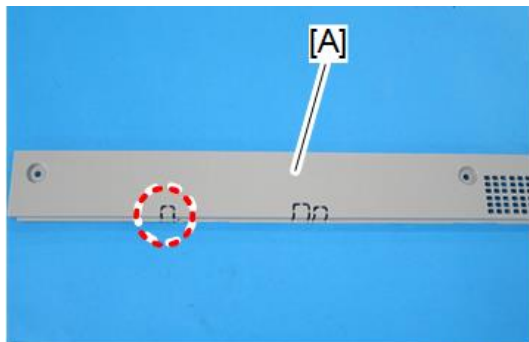
3. Route the USB cable [A] from the IC card reader as shown below, and then pull out the USB cable from the rear of the machine.



x3

d296c2023

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

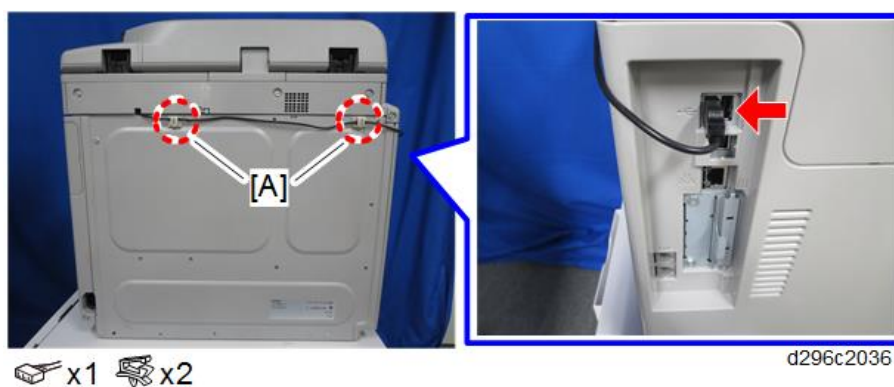


d296c2025

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.



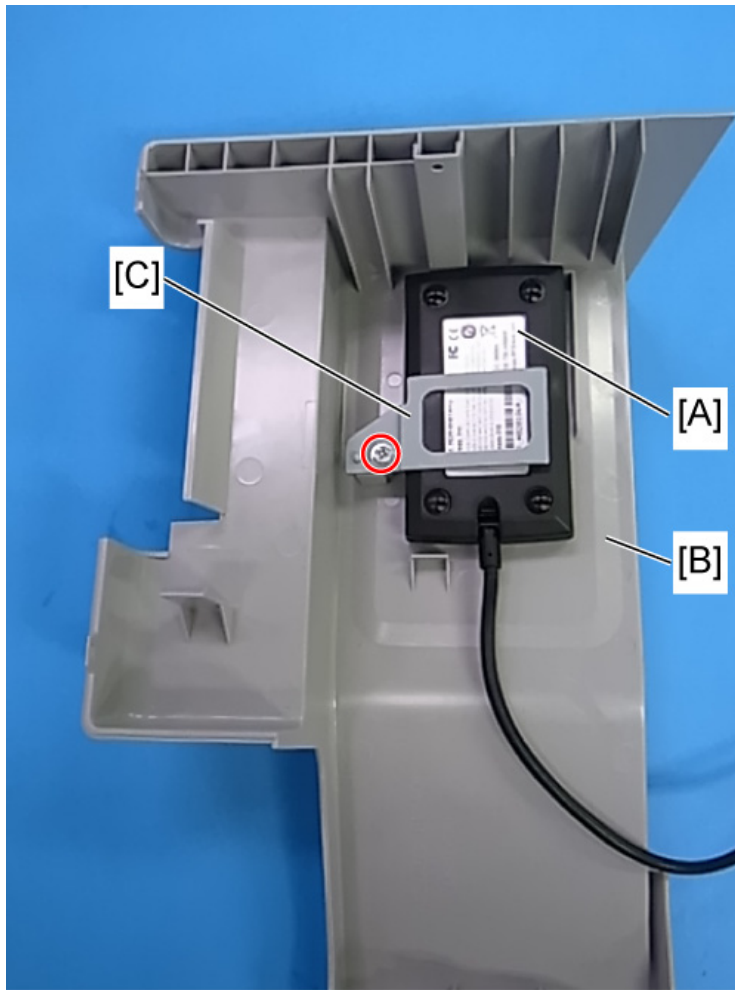
**Note**

- 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)

## 2. Installation

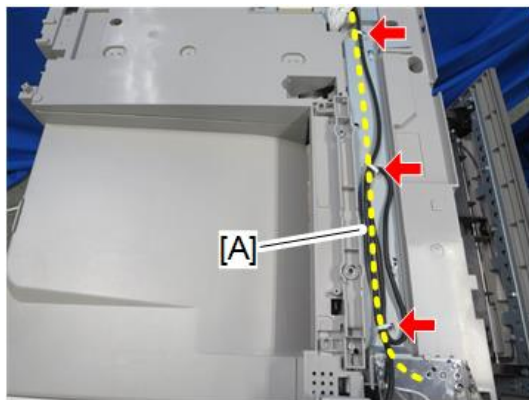


d1170716

### 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.

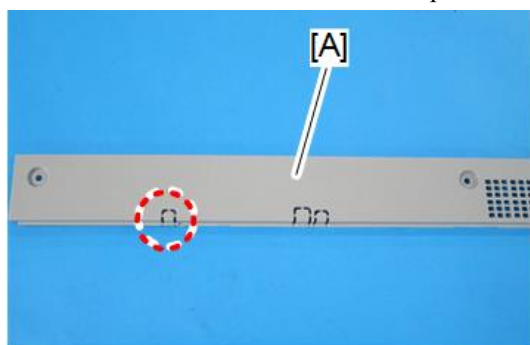
3. Route the USB cable [A] from the IC card reader as shown below, and then pull out the USB cable from the rear of the machine.



x3

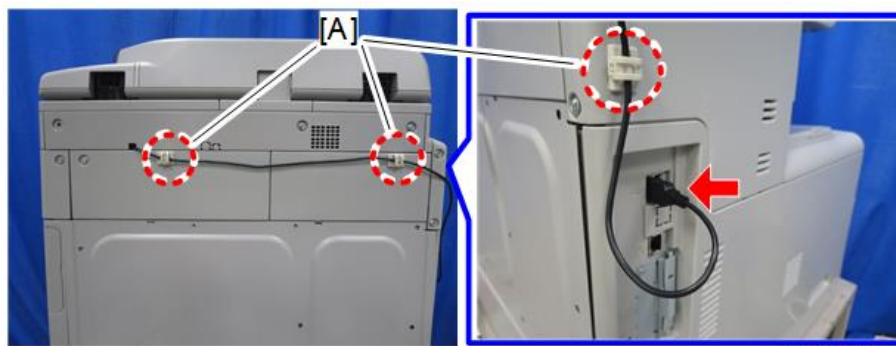
d296c2023

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



d296c2025

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.



d296c2037

 x1  x3

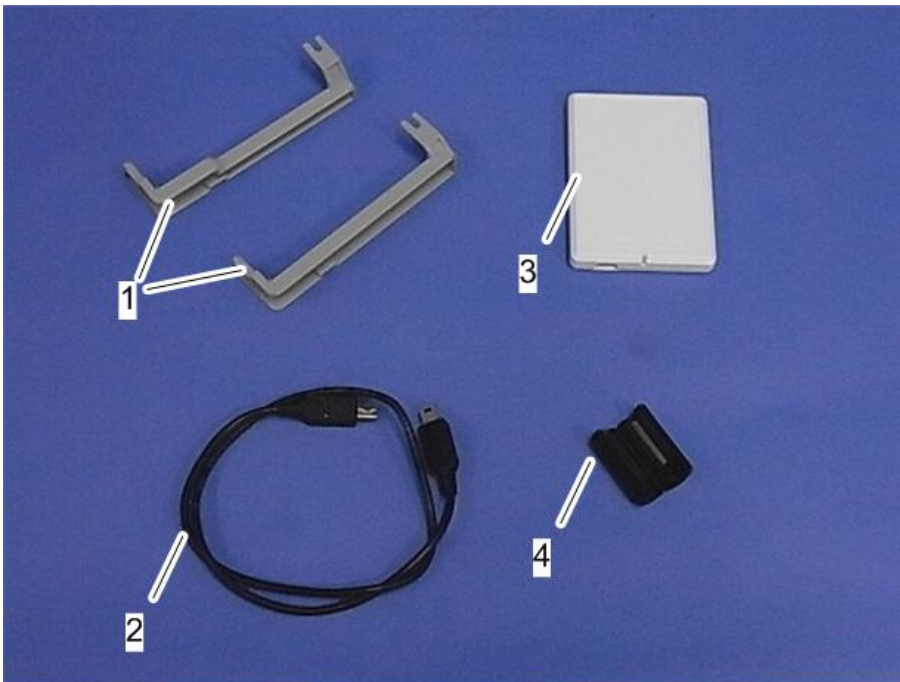
7. Connect the USB cable to the USB connector at the left of the mainframe as shown above. Either connector can be used.

**Note**

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

## NFC Card Reader Type M13 (D3AC-21)

### Accessory Check

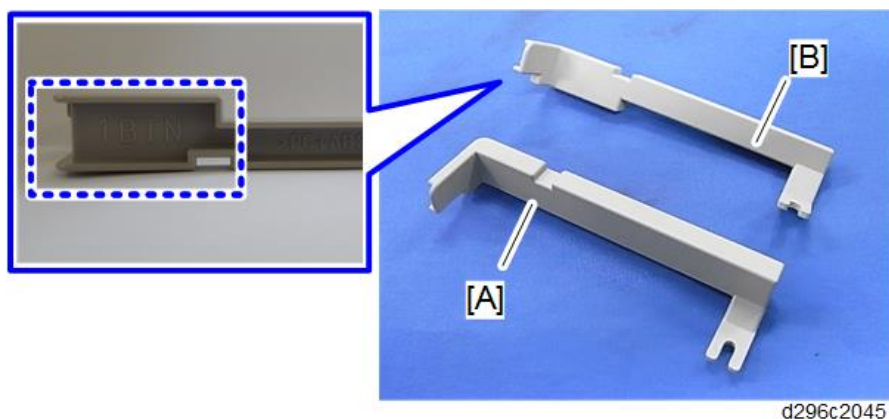


d196z4168

| 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".



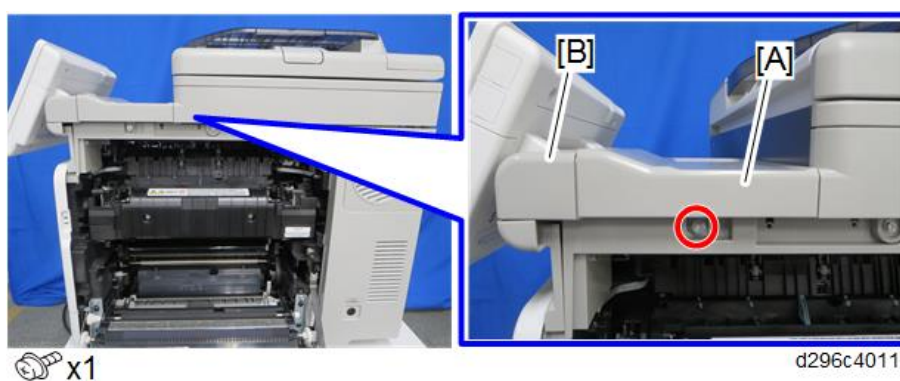
## Installation Procedure

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.

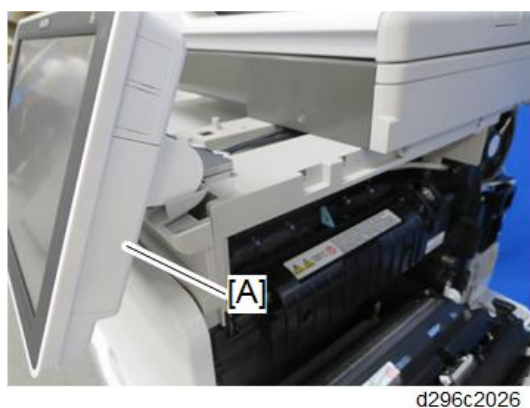
### ⚠ CAUTION

- 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].

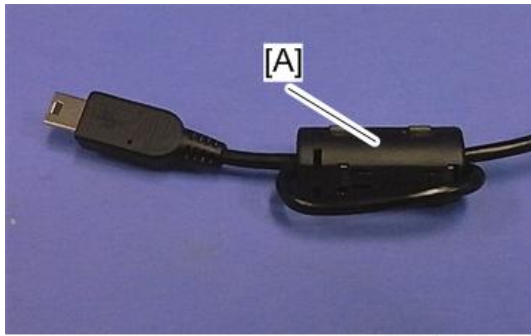


3. Remove the connector cover [A] on the operation panel.



## 2. Installation

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.

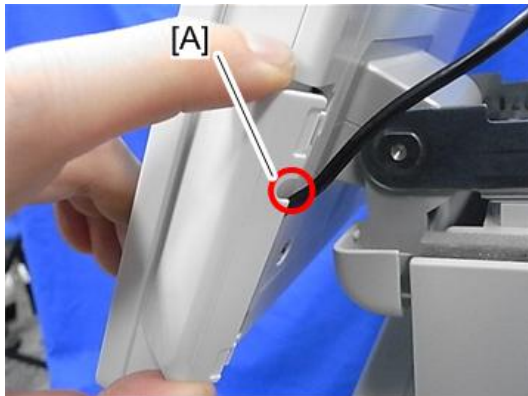


d296c2027

6. Attach the cover removed in step 3.

### Note

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

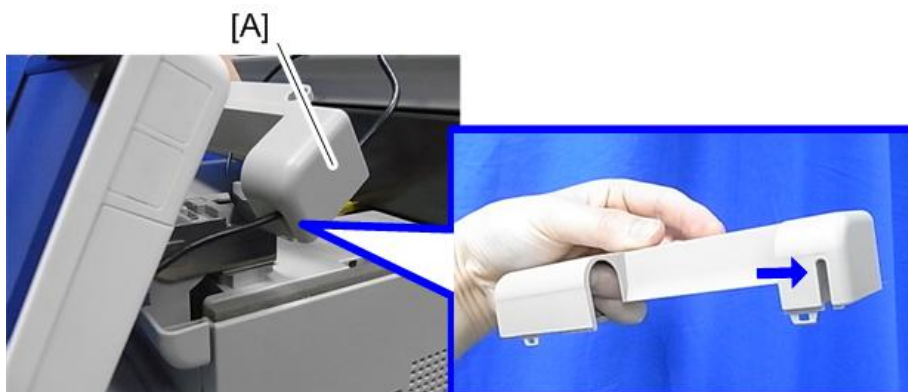


d196z4161

7. Attach the hinge cover [A].

**Note**

- Fit the cable into the slit.



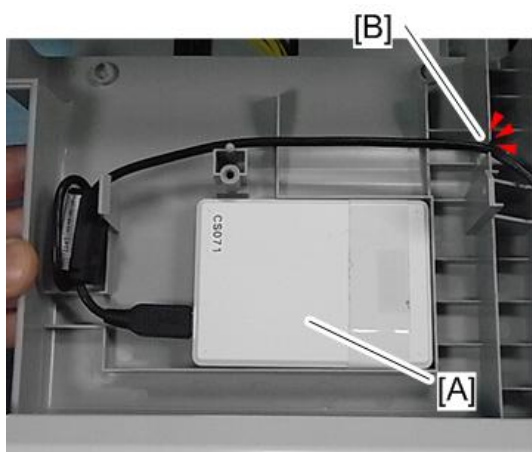
d196z4162

- 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

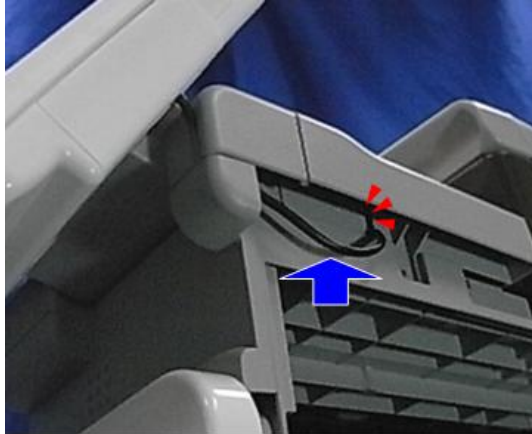
## 2. Installation

### 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.

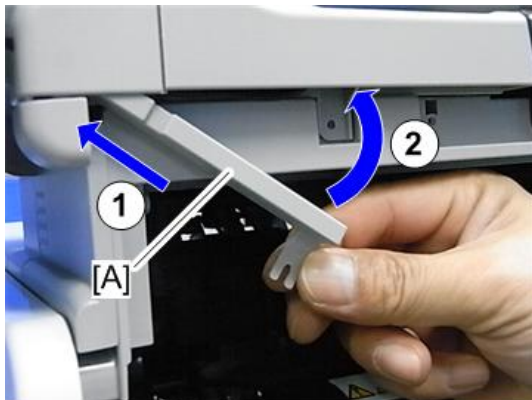


d196z2223

### Note

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

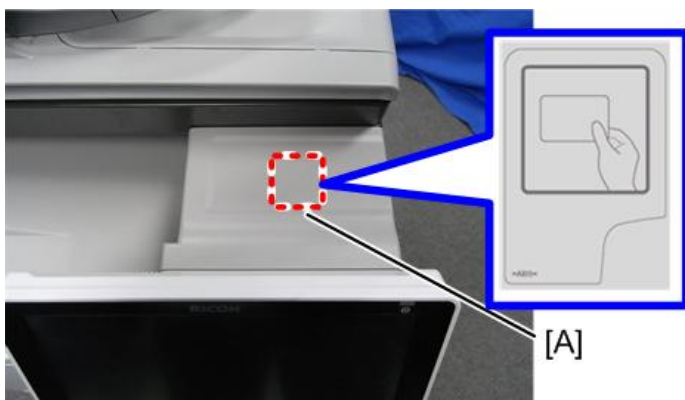
**12.** Slide the cable cover [A] into the front right small cover as shown below.



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

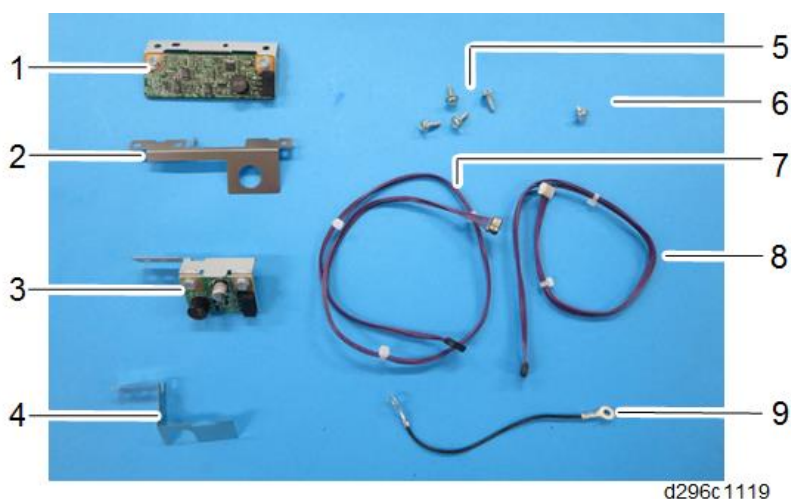


## Page Keeper Type M28 (D3DQ-17)

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    |               |



d296c1119

### Installation Procedure

#### **⚠ CAUTION**

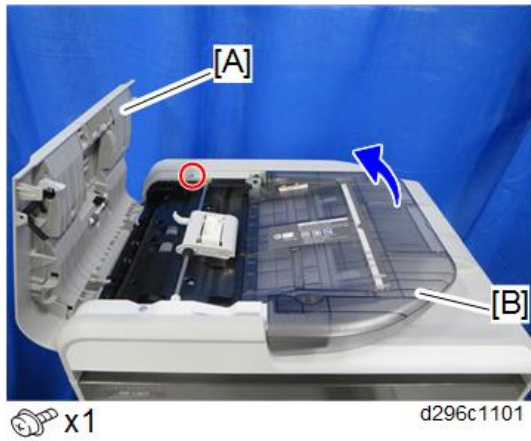
- Turn OFF the main power and unplug the power cord from the wall socket. If installing without turning OFF the main power, an electric shock or a malfunction may occur.

#### **Removing the ADF rear cover**

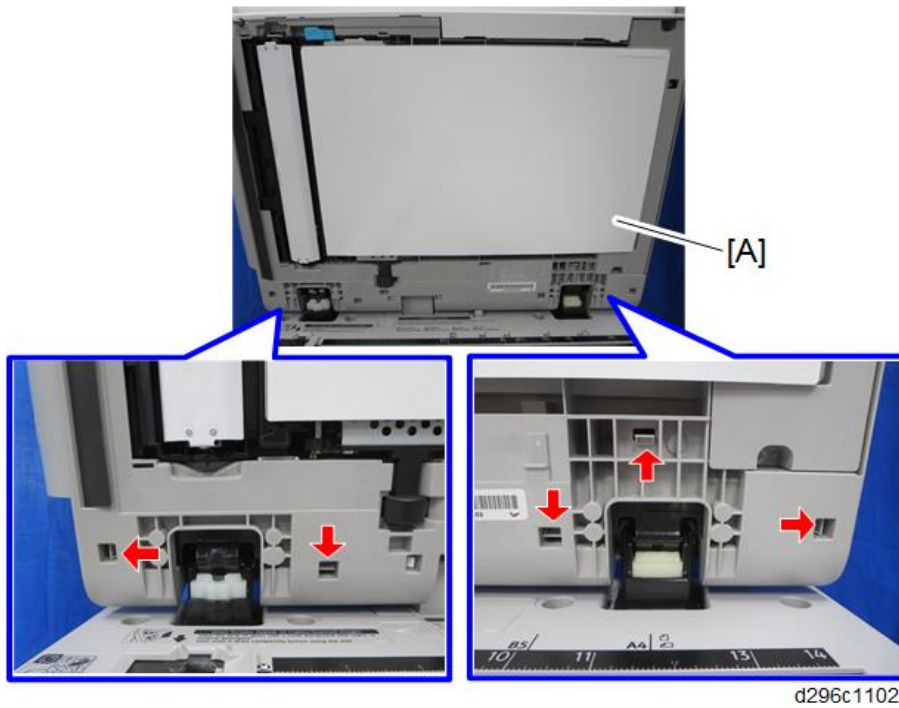
- 1.** Open the ADF top cover [A].

## 2. Installation

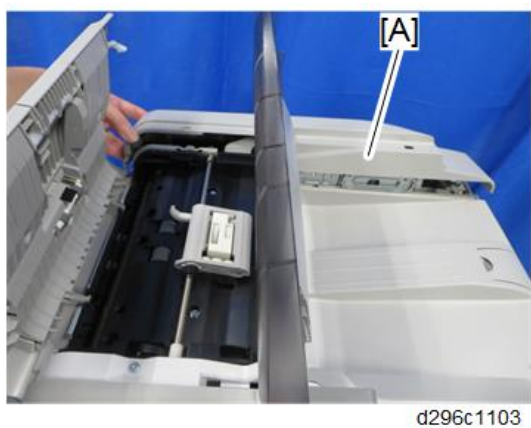
2. Remove the screw, and lift up the original tray [B].



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



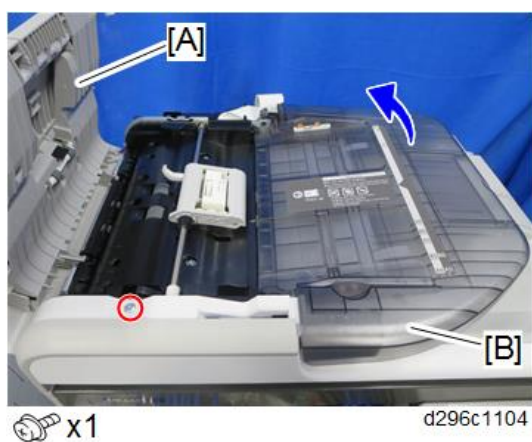
4. Remove the ADF rear cover [A].



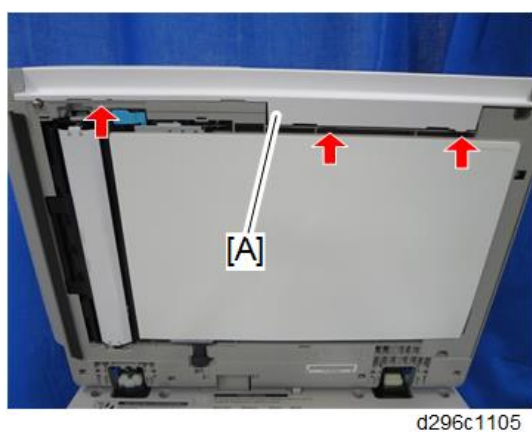
5. Close the ADF.

### 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].



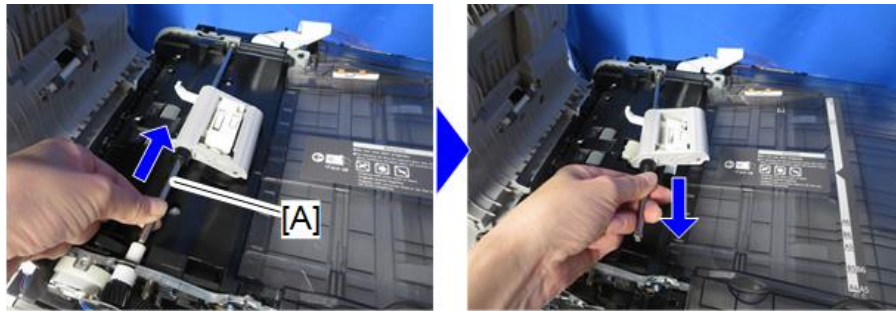
4. Close the ADF slightly, then remove the ADF front cover [A] while releasing the two tabs with a thin screw driver.



## 2. Installation

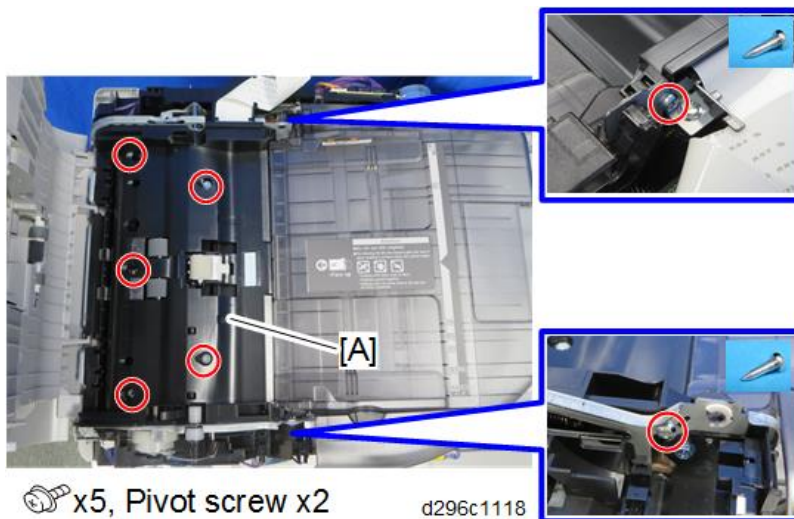
### Installing the double-feed sensor (emitter)

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



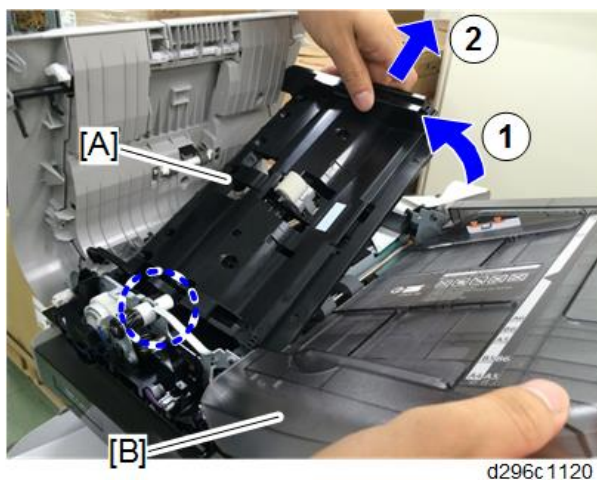
d296c1106

2. Remove the ADF inner cover [A].

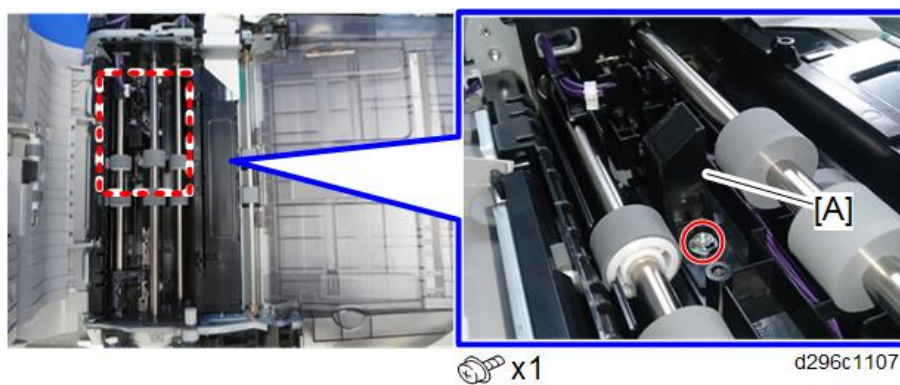


#### Note

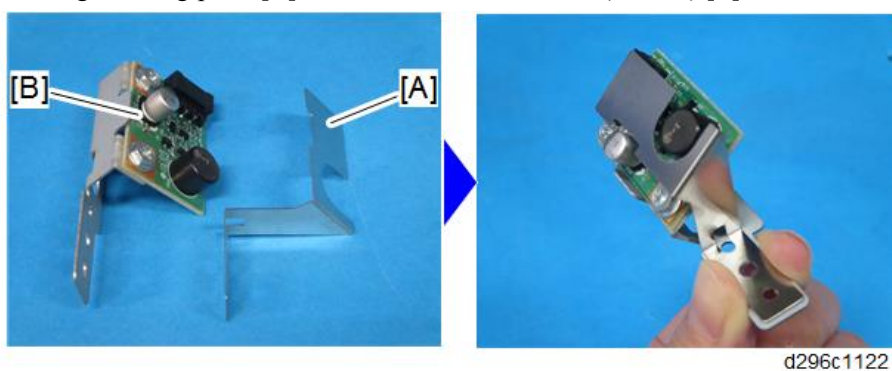
- Lift the back of the ADF inner cover [A] while swinging up the original tray [B], and then slide the ADF inner cover toward the back of the ADF unit.



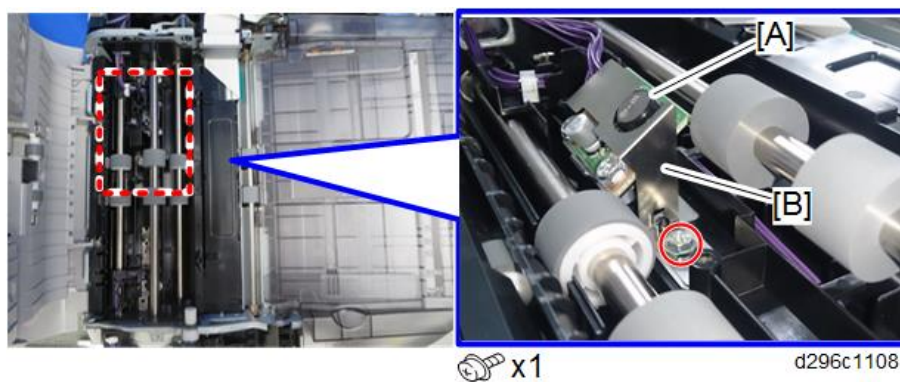
- 3.** Remove the guard [A].



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



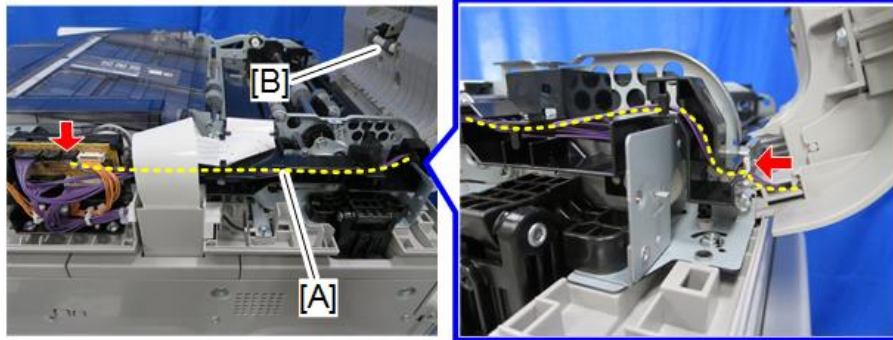
- 5.** Attach the double-feed sensor (emitter) [A] and grounding plate [B] as a set. (Tapping screw: 3x10)





## 2. Installation

### Installing the double-feed sensor (receiver)

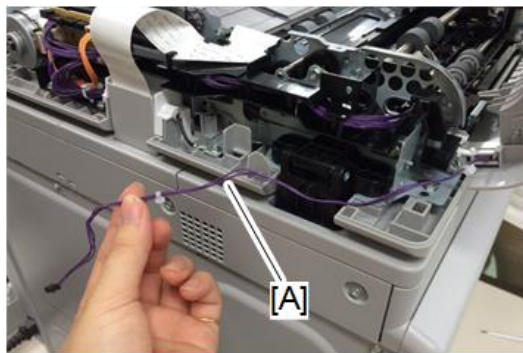
1. Disconnect the harness [A] of the ADF top cover [B] from ADF relay board (CN5), and release the clamp.



 x1  x1

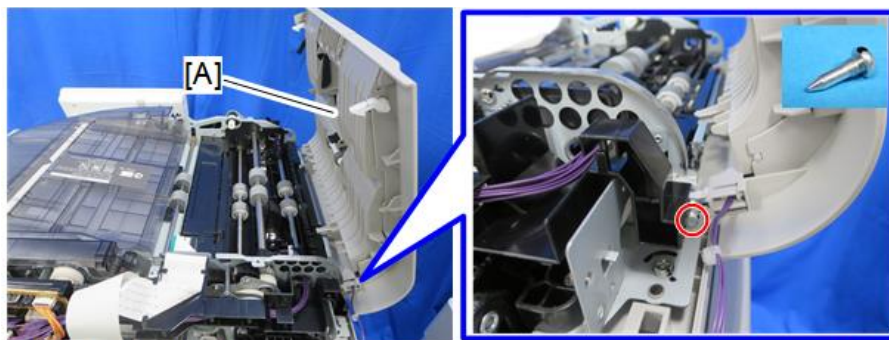
d296c1110

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



d296c1125

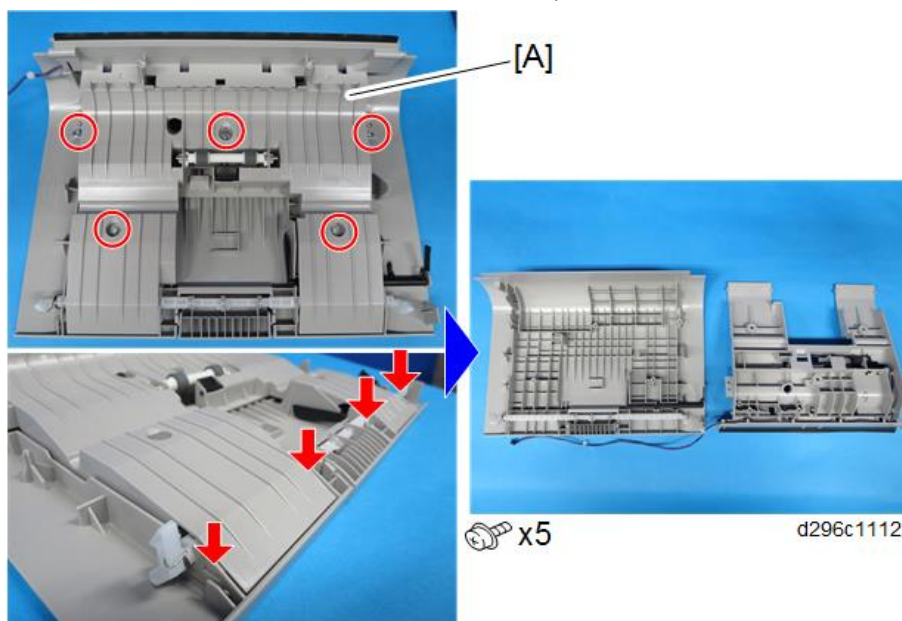
3. Remove the ADF top cover [A].



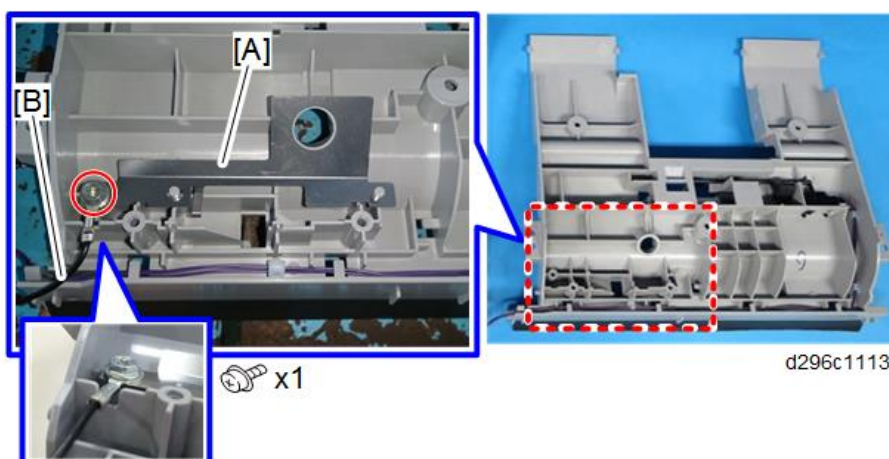
Pivot screw x1

d296c1111

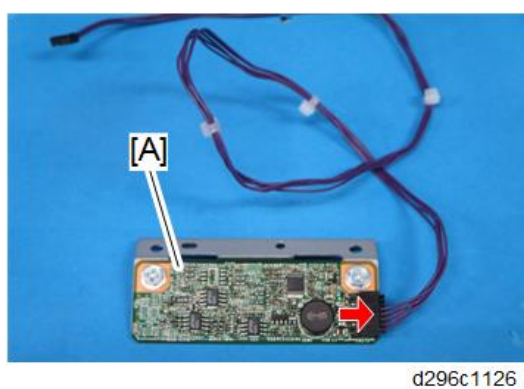
4. Remove the five screws and release the four tabs, and then remove the inner cover [A].



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



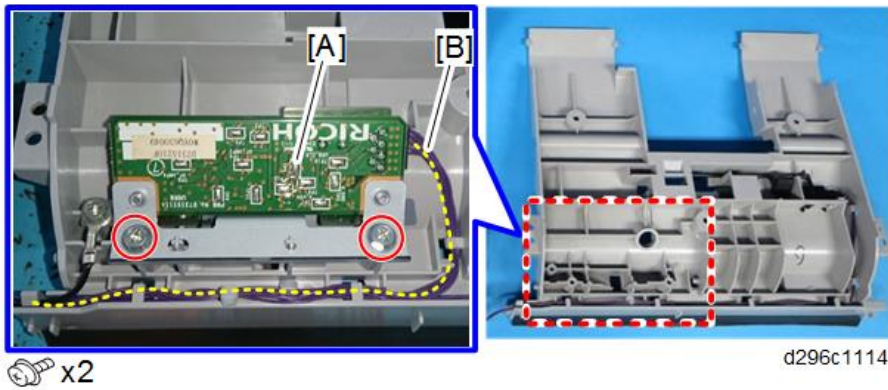
6. Connect the long harness to the double-feed sensor (receiver) [A].



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

## 2. Installation

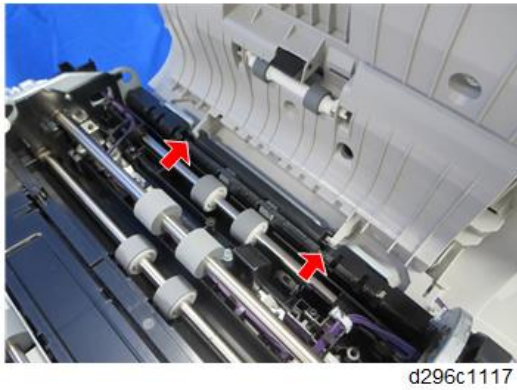
### 8. Route the harnesses [B].



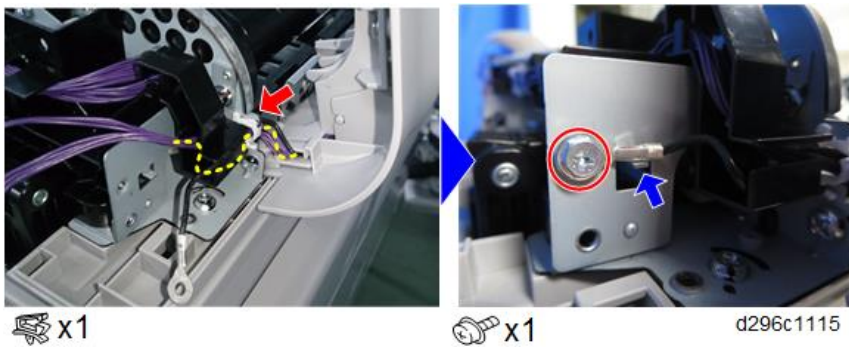
### 9. Reattach the inner cover ( x5), and then reattach the ADF top cover ( x1).

#### Note

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



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



## Connecting the harnesses

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

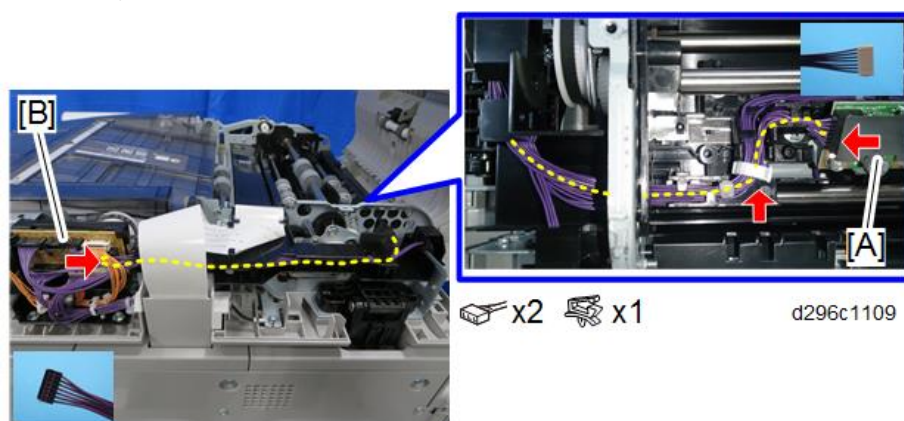
#### Note

Connect with attention to the connector colors.

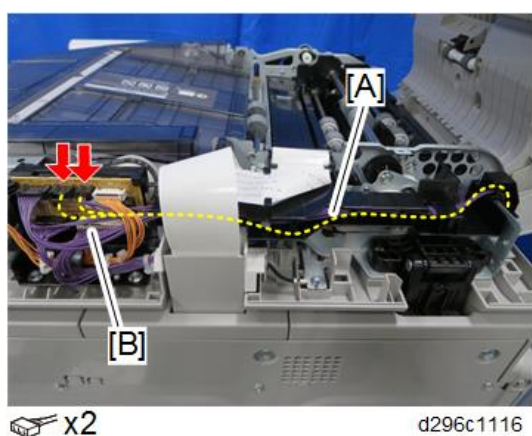
- Double-feed sensor: White connector



- ADF relay board: Black connector



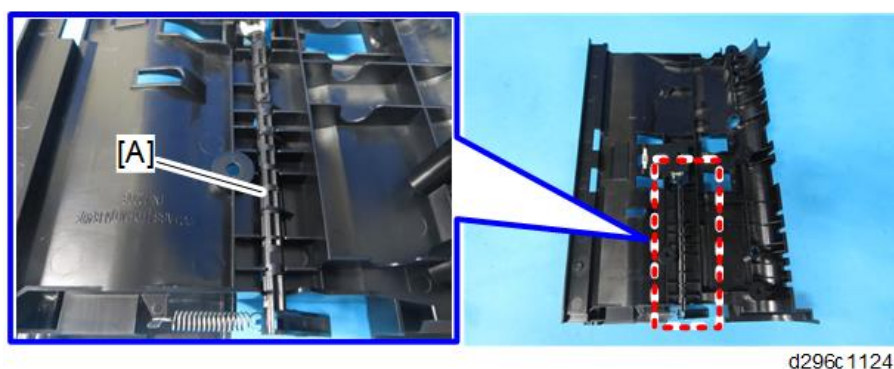
2. Connect the harnesses [A] from the ADF top cover to the connectors of the ADF relay board [B] (CN5, CN6).



3. Reattach the covers and original feed unit.

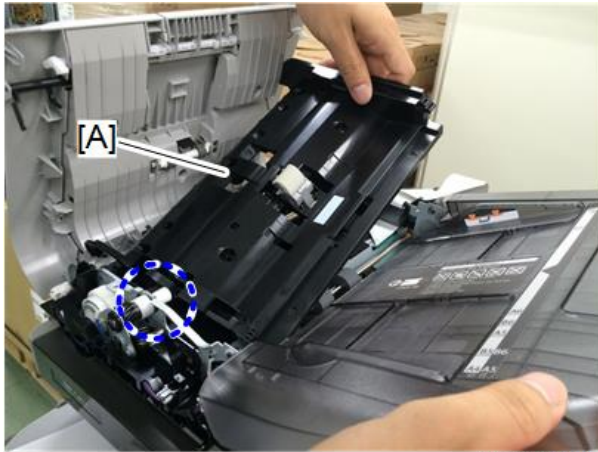
**Note**

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.

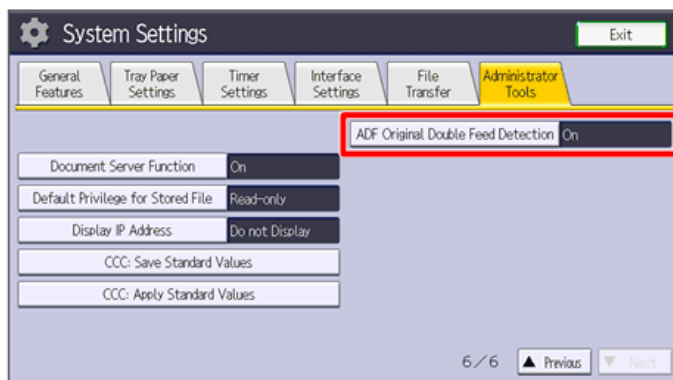
## 2. Installation



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

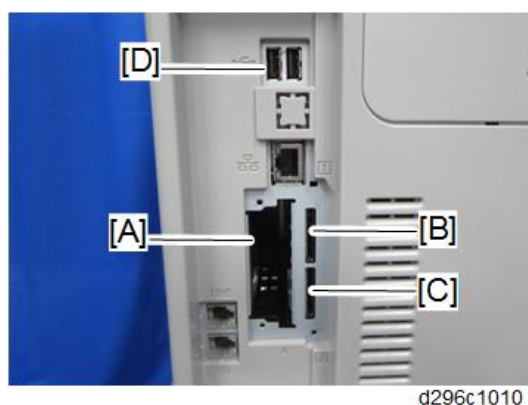
### Overview

#### ★ 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).



| Callout | Slots          | Options   |
|---------|----------------|---|
| [A]     | I/F slot       | This is used for one of the optional I/F connections (only one can be installed):<br>File Format Converter, IEEE 1284 Interface Board, IEEE 802.11a/g/n Interface Unit,<br>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:**

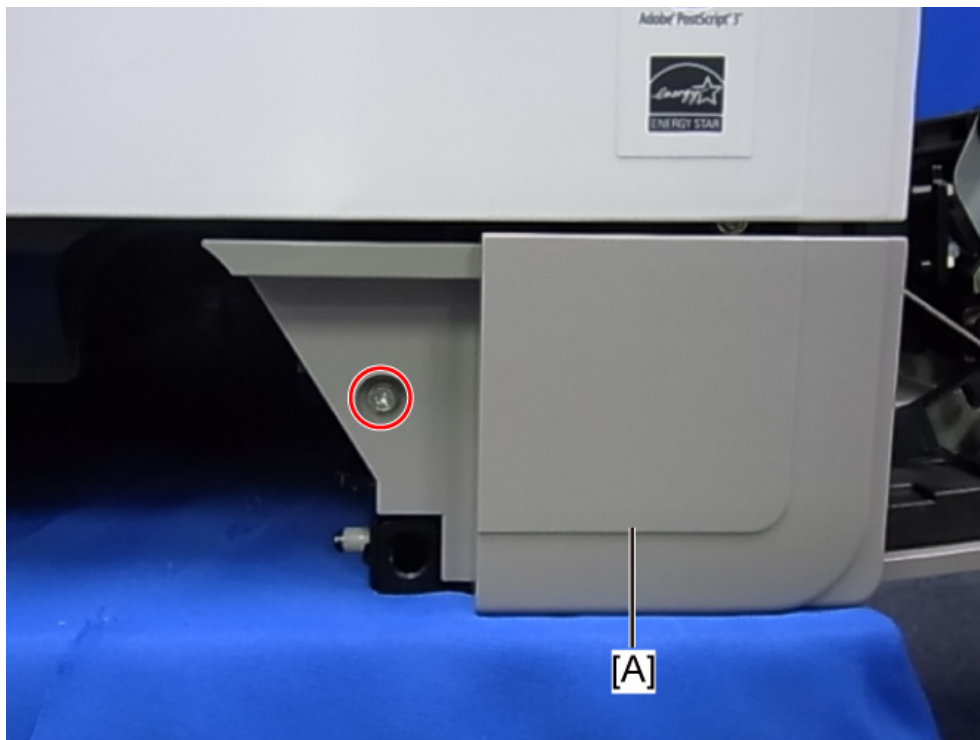
- The data necessary for authentication is transferred with the application program from an SD card to another SD card. Authentication fails if you try to use the SD card after you move the application program from one card to another card.
- Do not use the SD card if it has been used before for other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

## 2. Installation

when such an SD card is used.

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

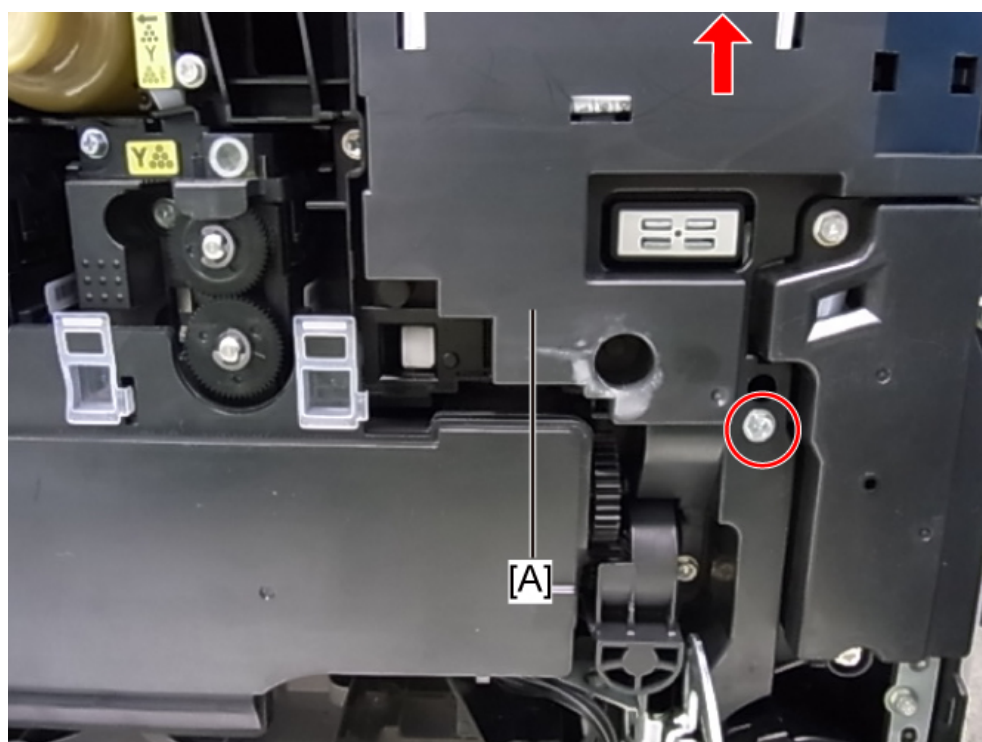
1. Remove the paper tray.
2. Remove the cover [A]. (⊙ × 1)



d1170210

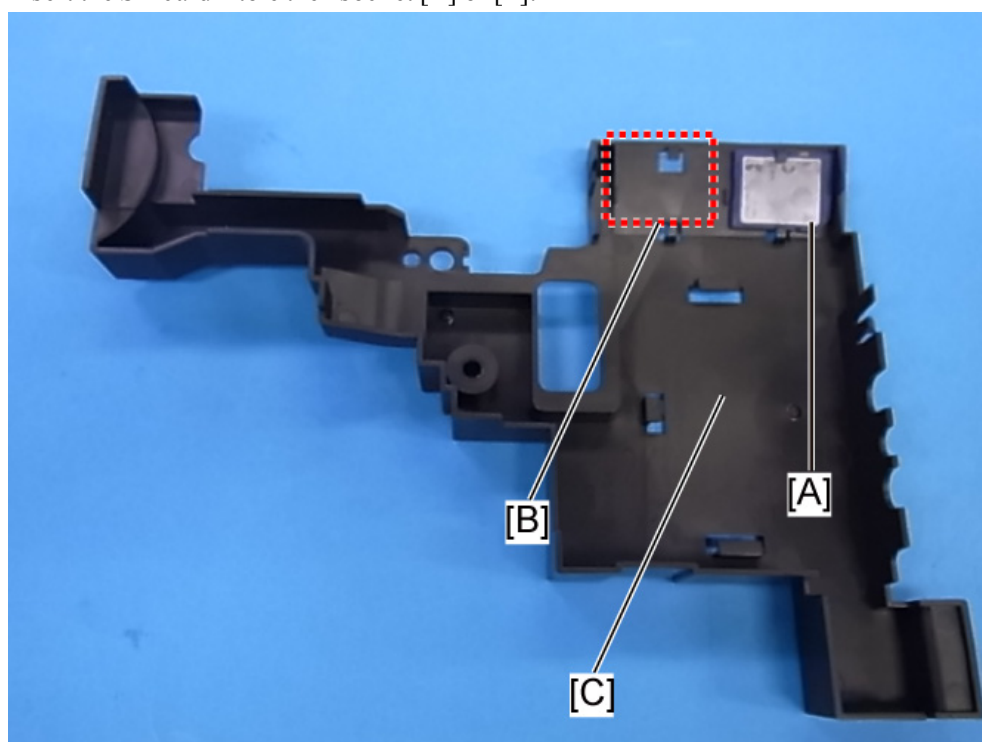
3. Open the front door.

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:

## 2. Installation

- 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

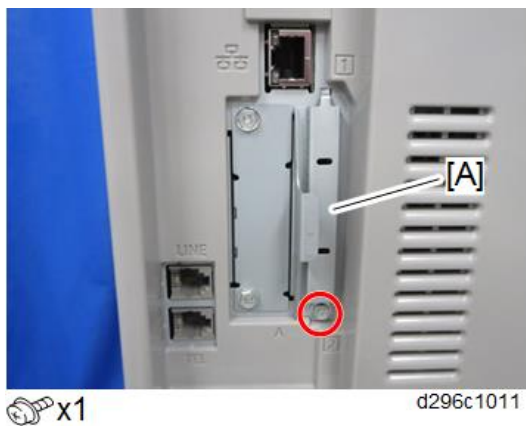
---

"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)**


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**⚠ 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.

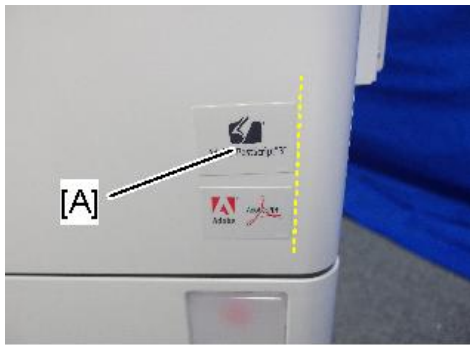
1. Remove the SD card slot cover [A].



2. Insert the SD card 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.

## 2. Installation

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



d238m0643

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.

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## Camera Direct Print Card Type M26 (D3D8-13)

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### 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)



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

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**⚠ 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.



⚙ x1

d296c1011

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.

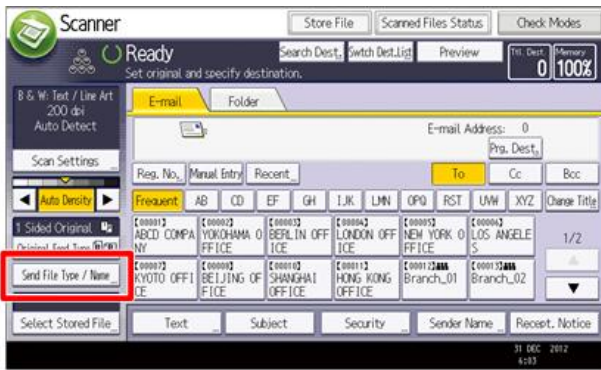
ⓘ Note

- 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.

## 2. Installation

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.

---

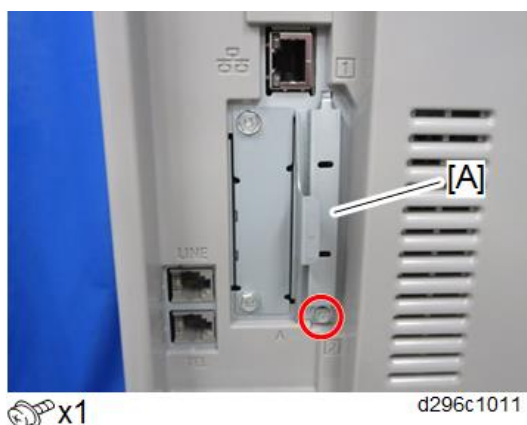
## XPS Direct Print Option Type M28 (D3E6-02, -19, -20)

---

### **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)

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## Data Overwrite Security Unit Type M19 (D3BS-03)

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### 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**".

## 2. Installation

### 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.

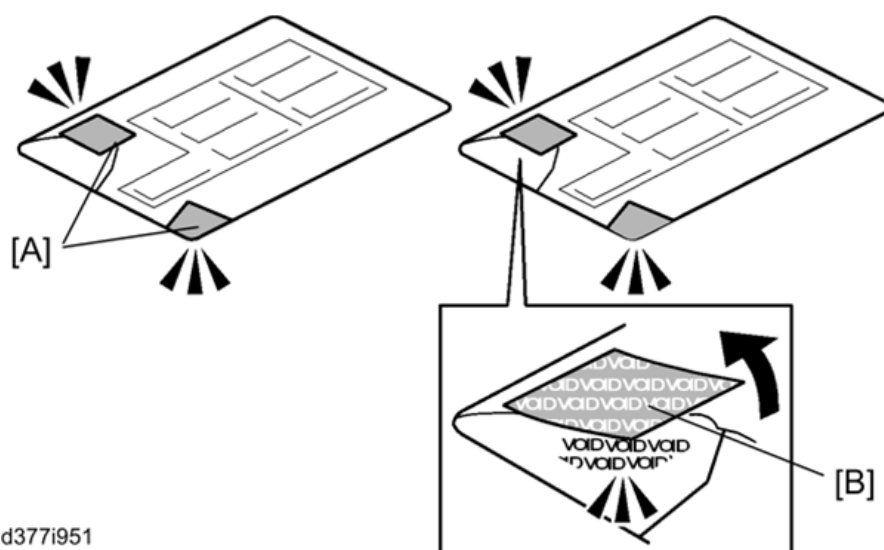
#### 1. Check the box seals [A] on each corner of the box.

- 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.



d377i951

## 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].



🔑 x1

d296c1011

**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))

## 2. Installation

- 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)

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Refer to "[Using Auto Erase Memory.](#)"

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### File Format Converter Type M19 (D3BR-04)

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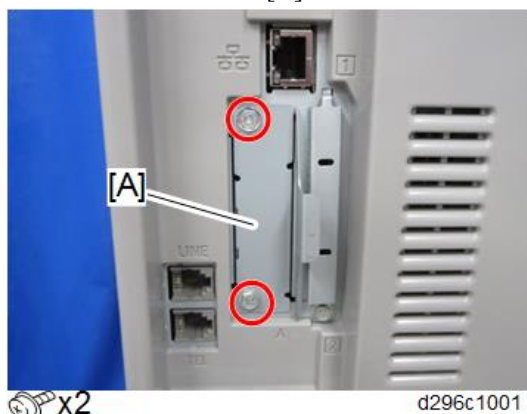
#### CAUTION

- 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.

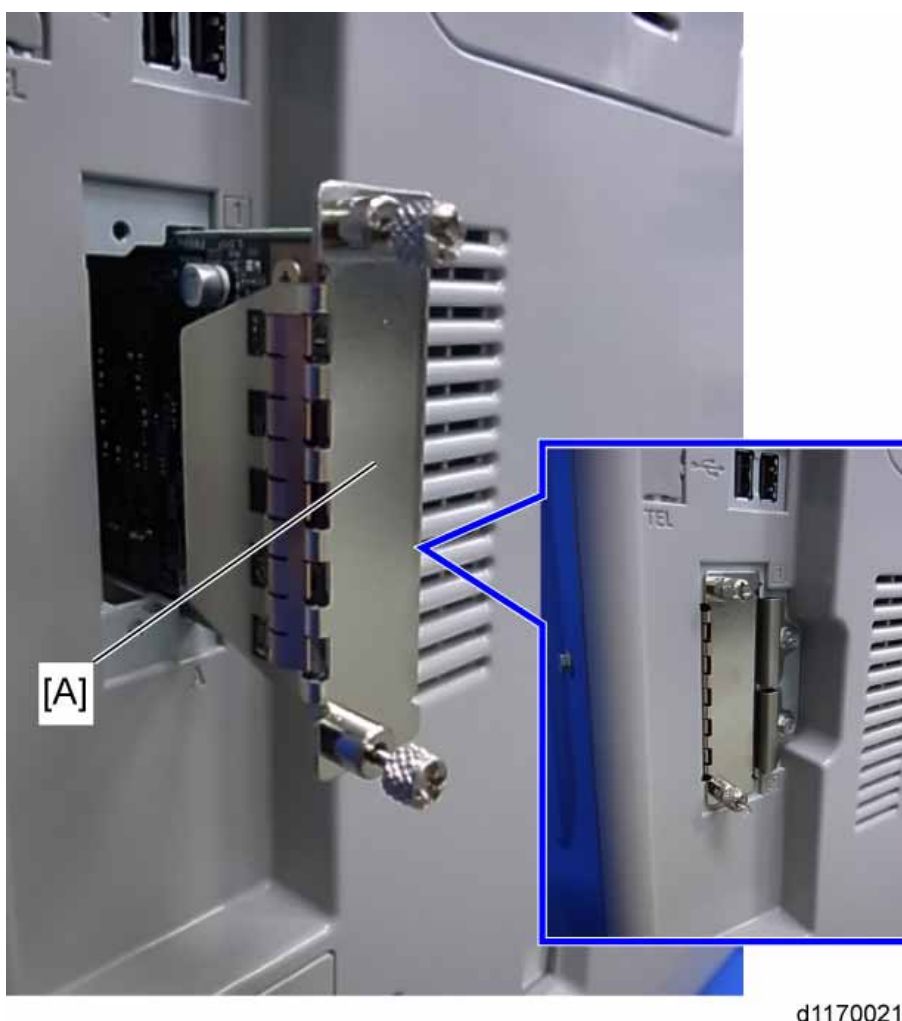
You can only install one of the following network interfaces at a time:

- 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).

## 2. Installation

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### IEEE 1284 Interface Board Type M19 (D3C0-17)

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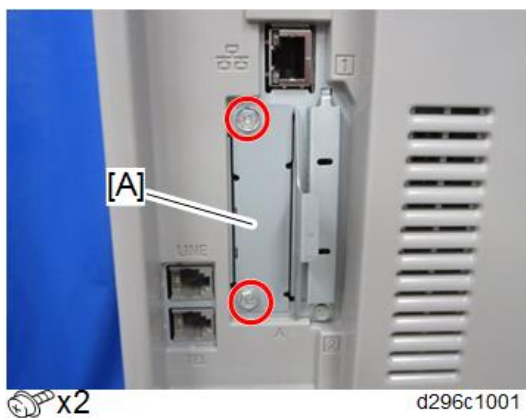
#### **⚠ CAUTION**

- 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.

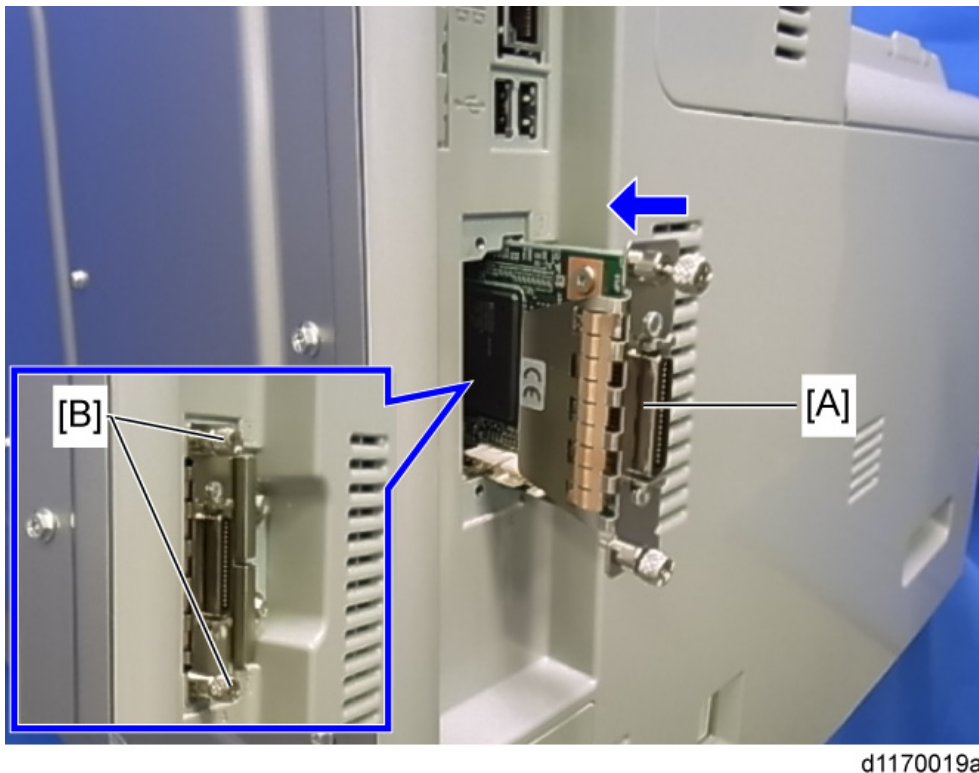
You can only install one of the following network interfaces at a time:

- 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).

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

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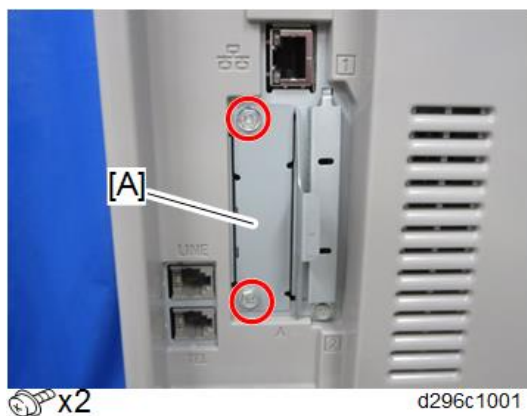
#### **⚠ CAUTION**

- 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:

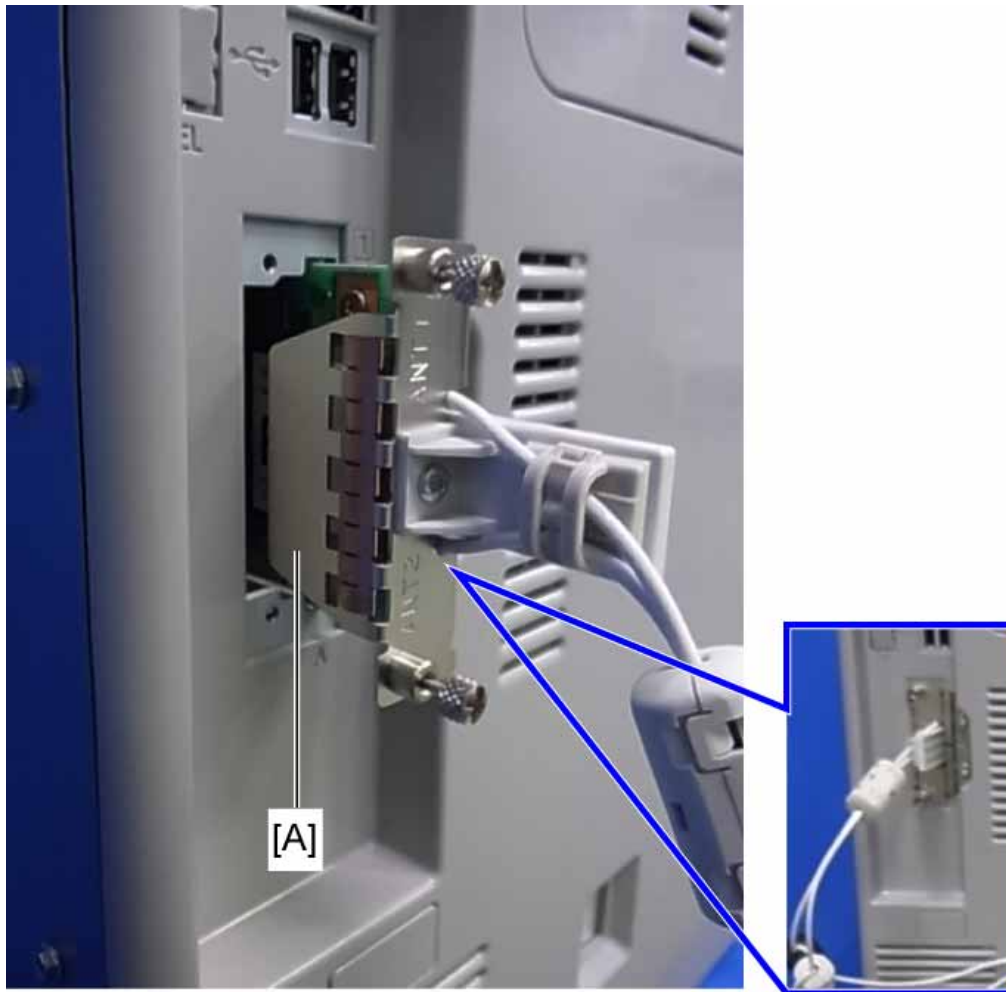
- File Format Converter
- IEEE 1284 Interface Board
- IEEE 802.11a/g/n Interface Unit
- USB Device Server Option
- Extended USB board

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



## 2. Installation

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

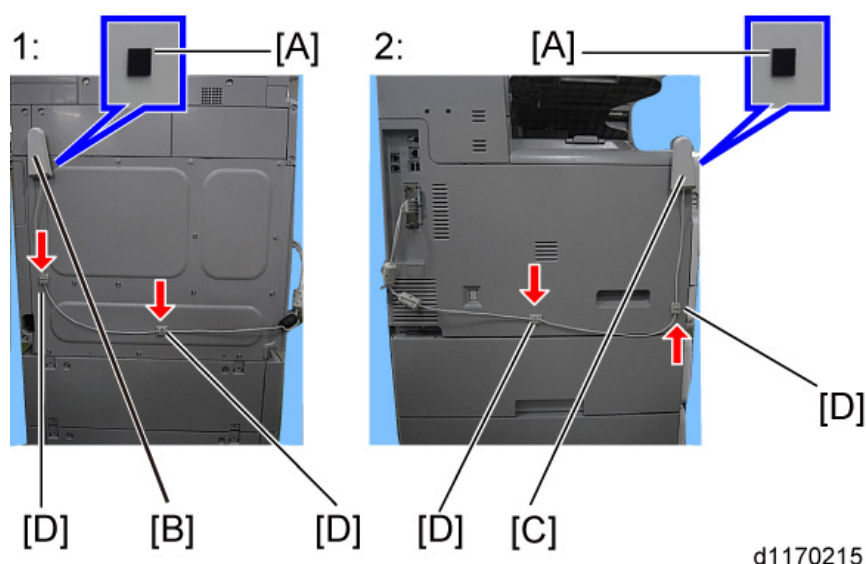


d1170022

- 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)

## 2. Installation

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.



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:

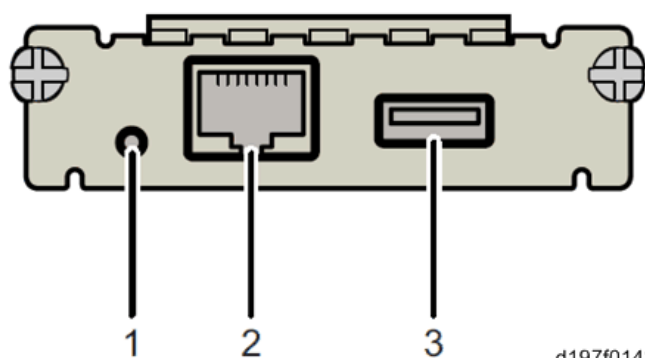
| SP No.      | Name           | Function  |
|-------------|----------------|---|
| SP5-840-011 | WEP Key Select | Used to select the WEP key (Default: 00).   |
| UP mode     | Name           | Function  |
|             | SSID           | Used to confirm the current SSID setting.   |
|             | 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



d197f0142

| 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.<br>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.



d296c1006

---

 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

## 2. Installation

### ★ 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].



d196z4004

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



d196z4005

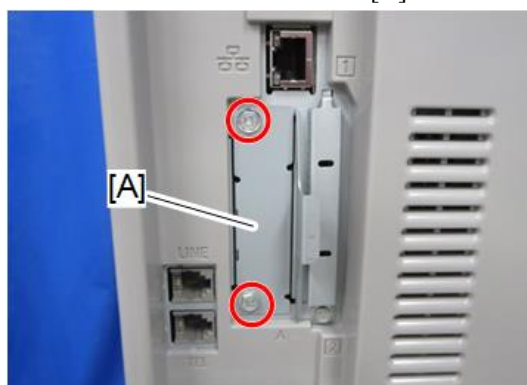
#### 3. Cut off the USB port cover [A] with nippers or other such tool.



d296c1002

4. Reattach the left cover and upper left cover.

5. Remove the interface slot cover [A].



 x2

d296c1001

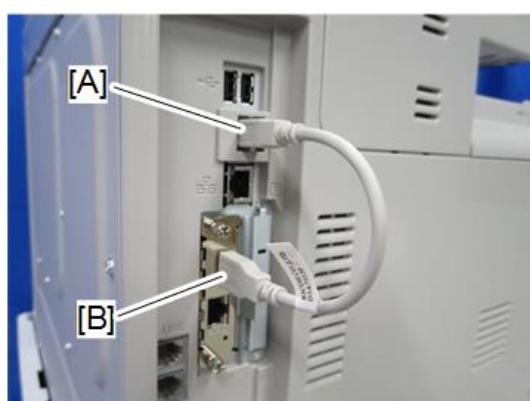
6. Insert the interface board [A] in the interface slot and then fasten it with screws.



 x2

d296c 1003

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.



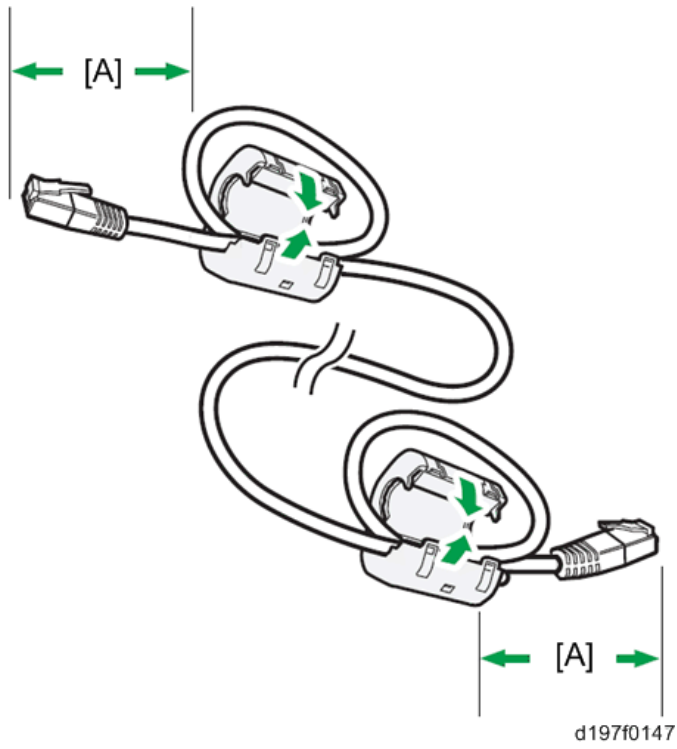
 x2

d296c1004

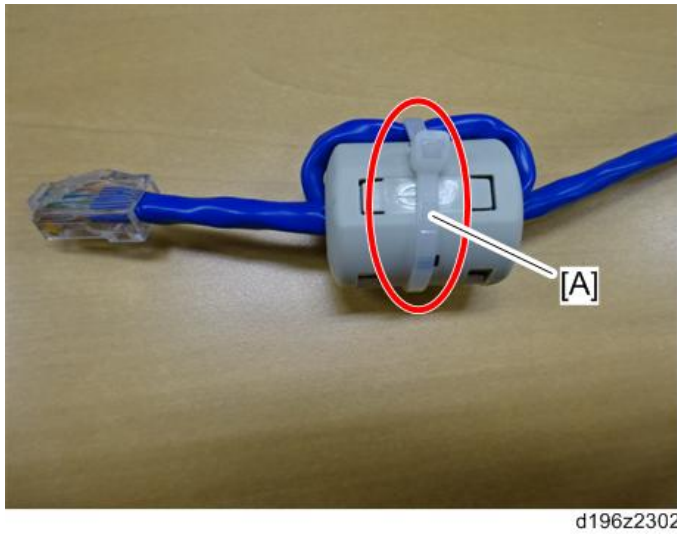
8. Attach the ferrite cores to the Ethernet cable, while looping the cable at 3 cm (approx. 1.2 inch) [A] from the

## 2. Installation

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.



 X1

d296c 1005

- 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.



d196z2350

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

Example: <http://RX0080926A3264>

## 2. Installation



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

```
C:\Users\ >Ping RK0080926A3264

Pinging RK0080926A3264 [192.168.100.100] with 32 bytes of data:
Reply from 192.168.100.100: bytes=32 time=1ms TTL=255
Reply from 192.168.100.100: bytes=32 time<1ms TTL=255
Reply from 192.168.100.100: bytes=32 time<1ms TTL=255
Reply from 192.168.100.100: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.100.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

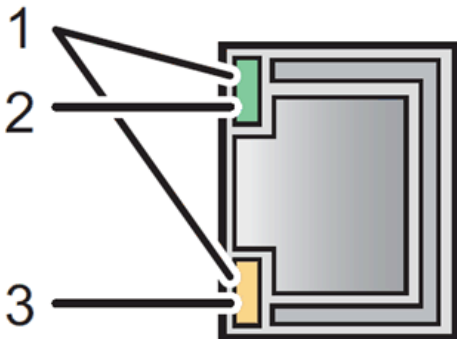
d196z2352

**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.



d197f0149

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

### Notes for Energy Save Mode Setting

If 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.

- Press [Features Settings] on the operation panel.
- Press [Administrator Tools] in [System Settings].
- 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

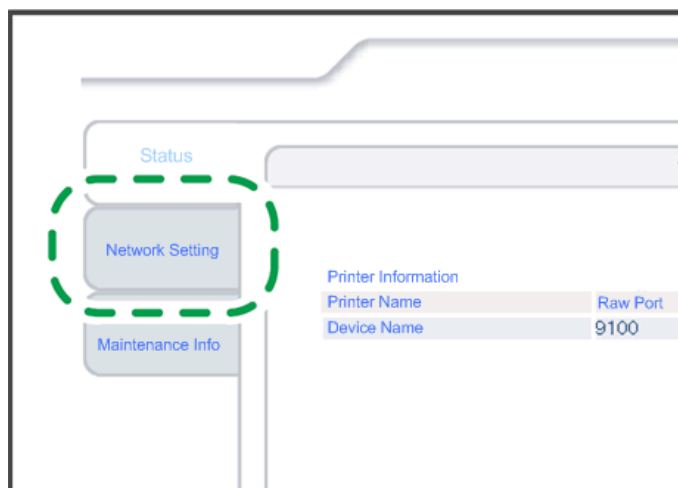
- You cannot change the IP address for this option from the operation panel of the main machine. The setting must be done from a web browser on your PC.
- The network setting of this option is initially assigned as follows:  
IP address: 192.168.100.100 / Subnet mask: 255.255.255.0
- The network setting 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].



d197f0134

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

## 2. Installation

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

| Item            | Value           |
|-----------------|-----------------|
| IPv4            | ENABLE ▾        |
| DHCPv4          | DISABLE ▾       |
| IPv4 address    | 192.168.100.100 |
| Subnet Mask     | 255.255.255.0   |
| Default Gateway | 0.0.0.0         |

d197f0135a

**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.

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### Extended USB Board Type M19 (D3BS-01)

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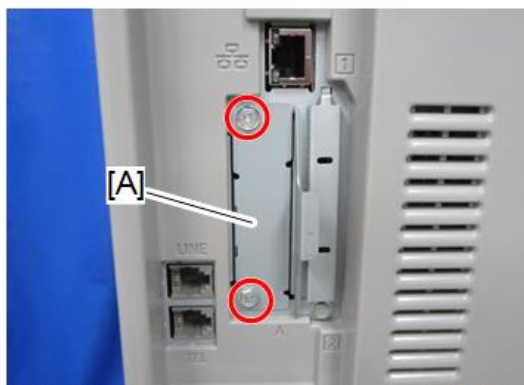
#### **⚠ CAUTION**

- 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.

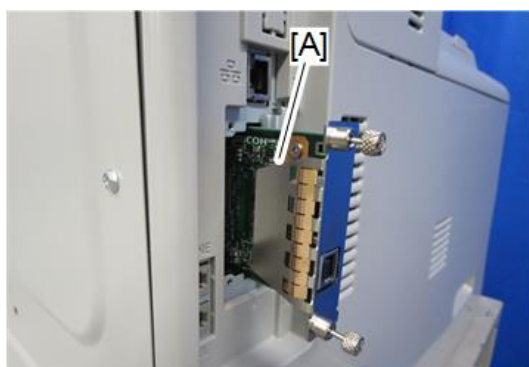
You can only install one of the following network interfaces at a time:

- 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.



d296c2039

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].



d296c3006

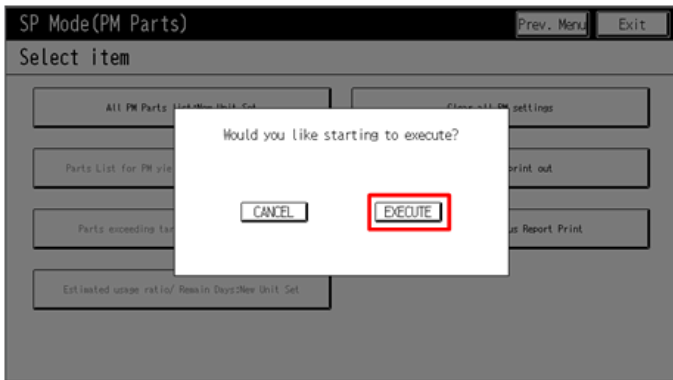
2. Press [Counterlist print out].

3.Preventive Maintenance



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<br>(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<br>Friction pad: SP3-701-148    |
| Bypass feed roller   | SP3-701-169   |
| ADF  | Friction pad: SP3-701-206<br>Pickup roller: SP3-701-207 |



| Item                    | SP   |
|-------------------------|--|
|                         | Feed roller: SP3-701-208   |
| Toner transport section | K: SP3-701-220<br>C: SP3-701-221<br>M: SP3-701-222<br>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].



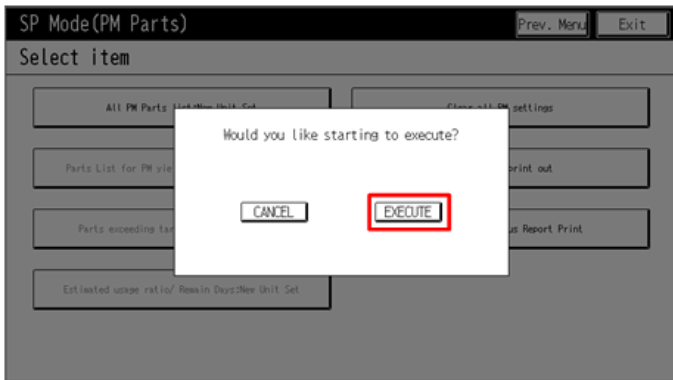
2. Press [Counterlist print out].

### 3.Preventive Maintenance



d296c3007

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



d296c3009

4. Press [Exit].

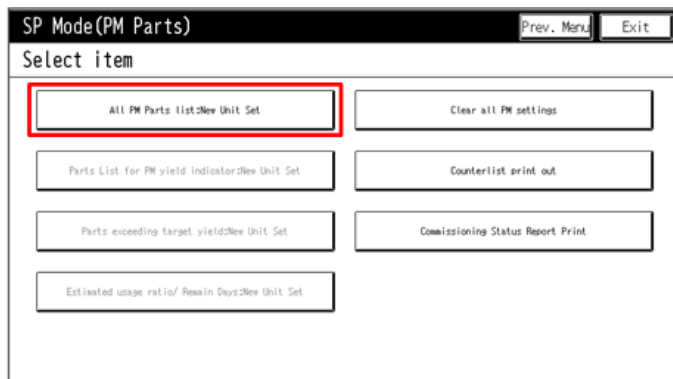
**3.** In the SMC data, check the values of the counters in SP 7-621-002 to 208, to determine what parts should be replaced. (Refer to the SP table in the appendix.)

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



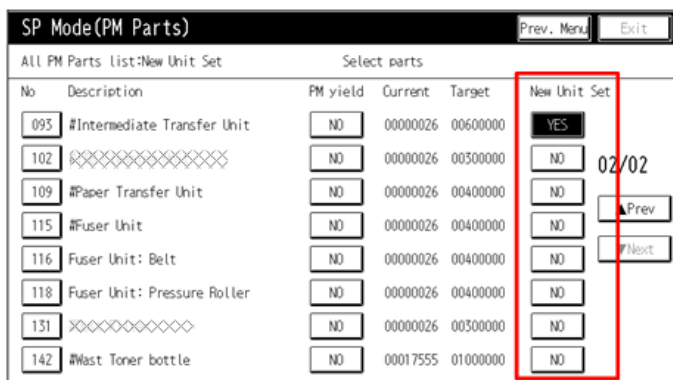
d296c3006

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



d296c3008

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



d296c3010

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

## After Installing the New PM Parts

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

### Note

You can print out the PM counter list as follows.

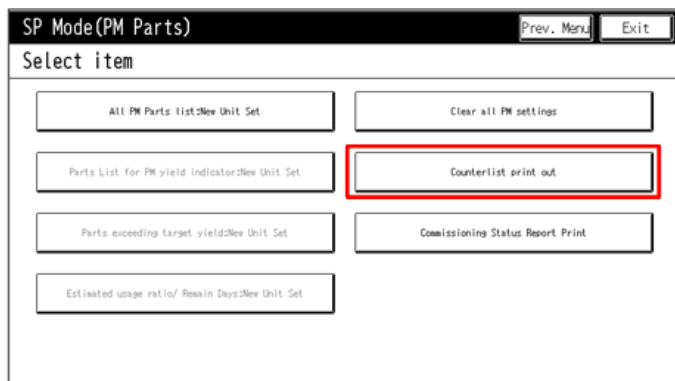
1. Press [PM Counter / New Unit Set].

### 3.Preventive Maintenance



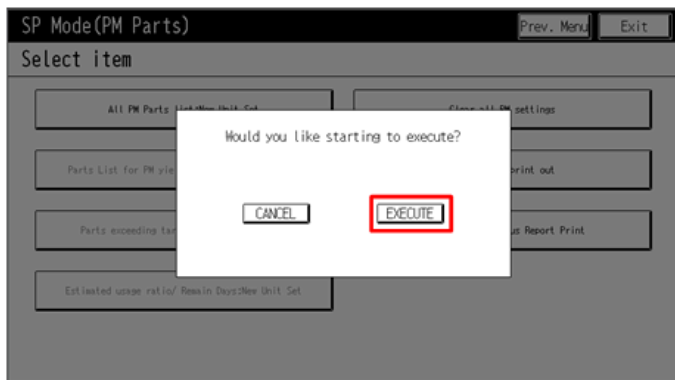
d296c3006

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

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### Notes on the Main Power Switch

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#### 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.

Chart1

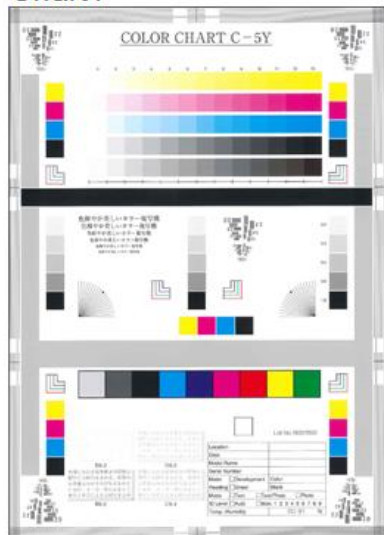


Chart2



d296c4001

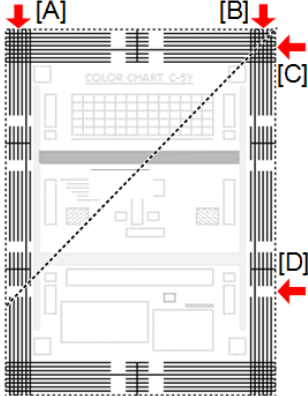
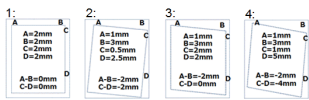
## Image Adjustment

### How to Use the Color Charts

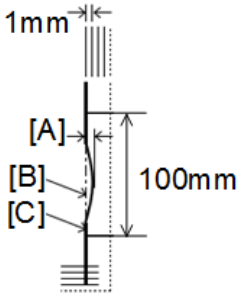
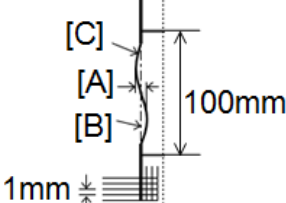
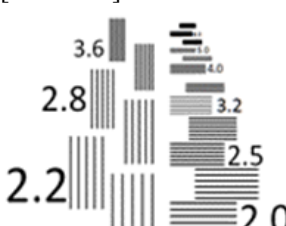
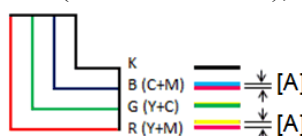
Here is an introduction of how to check the image quality using the color charts.

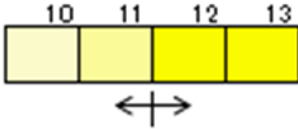
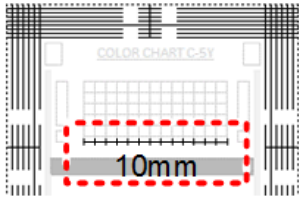
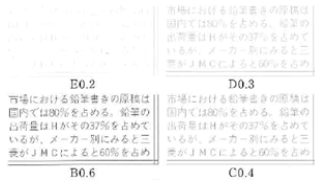


| No. | Check Area | Check Item          | Description   |
|-----|------------|---------------------|---|
| 1   | Frame line | Registration amount | <p>Check the registration amount of the leading edge and trailing edge (sub scan direction). Overlay the chart and the copy, then check that the frame lines of the side [A] and leading edge [B] do not deviate.</p> |
|     |            | Margin length       | <p>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).</p>  |
|     |            | Perpendicularity    | <p>Fold the paper, and check the deviation of the superimposed frame lines. If deviations in the main scan direction and sub scan</p>   |

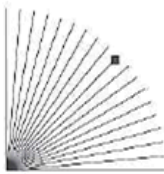
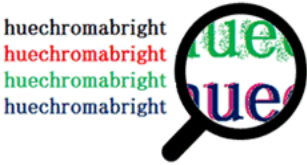
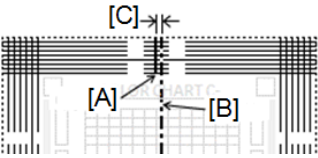
| No. | Check Area | Check Item | Description   |
|-----|------------|------------|---|
|     |            |            | <p>direction are the same, it is a right angle.</p>  <ol style="list-style-type: none"> <li>1. Check the lengths between the leading edge and front end frame line at measuring positions [A] and [B].</li> <li>2. Check the lengths between the side edge and lateral frame line at measuring positions [C] and [D].</li> </ol> <p>At this time, position [D] is equivalent to position [A], when making the fold line as shown in the above figure.</p> <ol style="list-style-type: none"> <li>3. Check the difference between 1 and 2.</li> </ol> <p>If each deviation is different, it is a parallelogram image (non-right angle).</p> <p>If the deviations are the same, it is a right angle. If there are deviations, check the feed mechanism for errors such as skewing.</p> <p><b>Example:</b></p>  <ol style="list-style-type: none"> <li>1: Right angle, correct feeding</li> <li>2: Right angle, incorrect feeding (Oblique feeding)</li> <li>3: Non-right angle, correct feeding (Parallelogram)</li> <li>4: Non-right angle, incorrect feeding (Oblique feeding+Parallelogram)</li> </ol> |
|     |            | Linearity  | <p>Check the linearity with a scale. Check in both the main scan direction and sub scan direction.</p> <p>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</p>  |

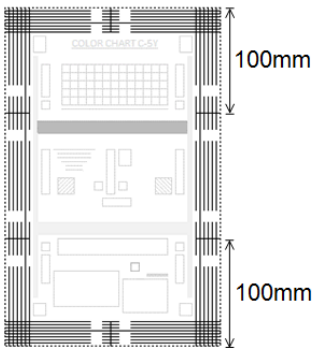
4.Replacement and Adjustment

| No. | Check Area             | Check Item                | Description  |
|-----|------------------------|---------------------------|--|
|     |                        |                           | <p>distortion to the frame line, and measure the deviation length from the baseline with the scale.</p>  <p>A: Measuring length, B: Base line, C:Copy</p> <p>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.</p>  <p>A: Measuring length, B: Base line, C:Copy</p> |
| 2   | Cornfield pattern      | Resolution                | <p>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).</p> <p>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<br/>[lines/mm]</p>    |
| 3   | Colored L-shaped lines | Color registration errors | <p>Check the distances [A] between the colors making up the RGB lines (Y+M/ Y+C/ C+M), using a loupe.</p>   |
| 4   | Solid color patches    | Solid density             | <p>Check the density of each color patch between the chart and the copy .</p>  |

| 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.<br>   |
|     |                         | Equal magnification (main scan direction)                         | Check that the magnification is equal in the chart and the copy using the scale under the gradation patches.<br>The scale is 10mm per row. Check 10 consecutive rows.<br> |
| 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.<br>  |
| 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.  |

#### 4.Replacement and Adjustment

| 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.<br>  |
|     |                  | 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.<br>The following diagram shows examples of errors.<br>  |
| 15  | Horizontal scale | Image position in the main scan direction<br>(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.<br>Trim pattern adjustment for each paper feed tray must be completed before checking.<br><br>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  | <p>Make a copy after setting the document type to photo mode, and check the reproducibility of the photo.</p> <p>Check the reproducibility of the granular state, and tone of color in the skin, hair, and clothes. Also check for overexposure and underexposure.</p> |
| 20  | Landscape photograph | Reproducibility of sky blue   | <p>Make a copy after setting the document type to photo mode, and check the reproducibility of the photo.</p> <p>Check that the color tone of the chart and the copy are the same.</p>   |
| 21  | Notes                | Check the reproducibility (for example, there should be no breaks in frame lines and characters). | <p>Check the reproducibility, such as the presence of breaks in frame lines and characters.</p> <p>There is a place for writing down the output settings when you print the image samples and/or compare adjustments.</p>  |

## Scanning

Check the printing registration/side-to-side adjustment and the blank margin adjustment before you do the following scanner adjustments.

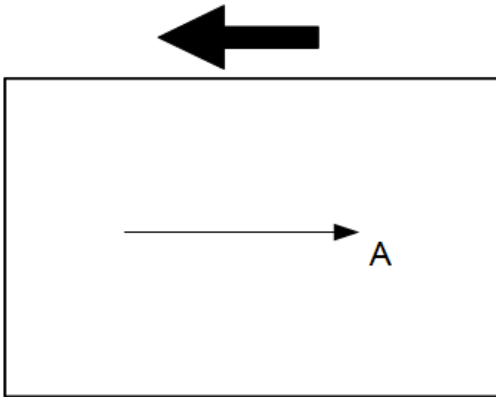
### Note

- Use C-5Y color chart to do the following adjustments.

## 4.Replacement and Adjustment

### Scanner Sub-Scan Magnification

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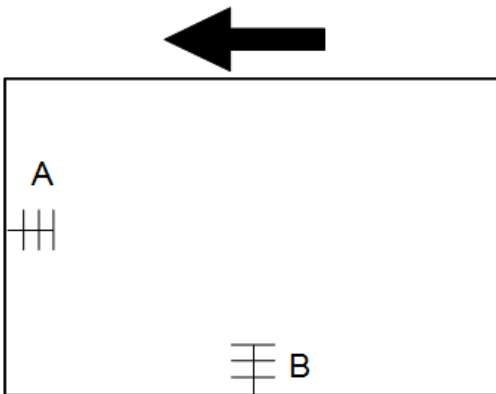


A: Sub-scan magnification

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:  $\pm 1.0\%$ .

### Scanner Leading Edge and Side-to-Side Registration

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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:  $0 \pm 2\text{mm}$  for the leading edge registration,  $0 \pm 2.5\text{mm}$  for the side-to-side registration.

| What It Does              | SP Code     |
|---------------------------|-------------|
| Leading Edge Registration | SP4-010-001 |
| Side-to-Side Registration | SP4-011-001 |

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### ADF Adjustment

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#### ADF Side-to-Side and Leading Edge Registration

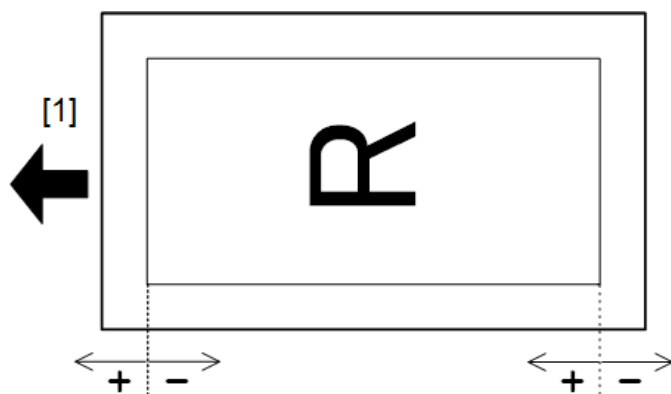
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Use A4/LT paper to make a temporary test chart as shown above.

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:  $4.2 \pm 2.0$  mm for the leading edge registration,  $2.0 \pm 1.0$  mm for the side-to-side registration.  
The following diagram shows how the image is affected when you adjust in the + or - direction.



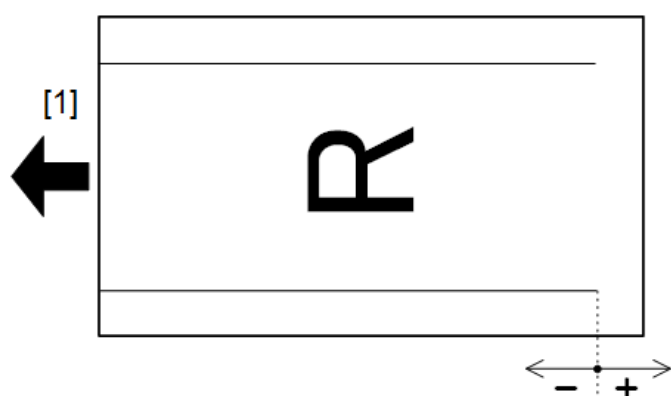
1: Feed direction

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

#### ADF Trailing Edge Erase Width

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

- Put the temporary test chart on the ADF. Then make a copy from one of the feed stations.
- 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 | $\pm 5.0$ mm     |
| SP6-006-015 | Trailing Edge Erase Width (1-Pass):Back | $\pm 5.0$ mm     |

## 4.Replacement and Adjustment

### ADF Sub-scan Magnification

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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:  $\pm 5.0\%$
    - Reduction mode:  $\pm 1.0\%$
    - Enlargement mode:  $\pm 1.0\%$
- 

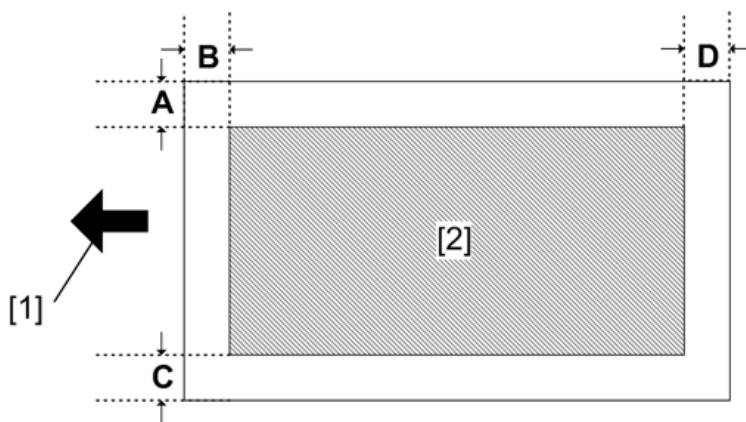
### Registration

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#### Adjustment Standard

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#### 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):  
 $B = 3.25 \pm 2.75 \text{ mm}$
- Trailing edge (sub-scan direction):  
 $D = 3.25 \pm 2.75 \text{ mm}$
- Side to side (main-scan direction):  
 $A = C = 2.25 \pm 1.75 \text{ mm}$

### Registration Standard

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#### 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 | $\pm 4.0 \text{ mm}$ |

| 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 |

## 4.Replacement and Adjustment

### Adjustment Procedure

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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.

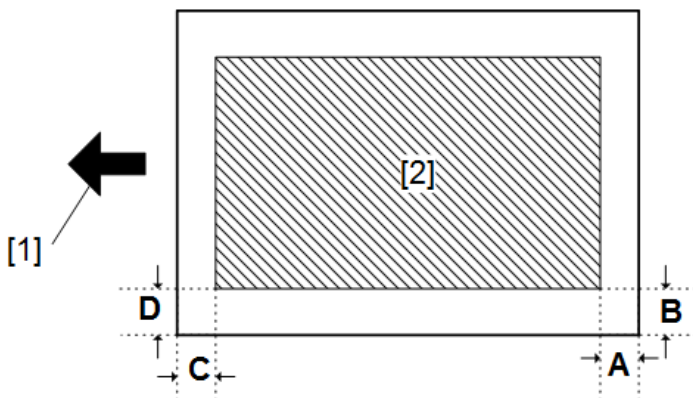
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### Erase Margin Adjustment

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#### 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)

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## Color Registration

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### Line Position Adjustment

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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

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## Printer Gamma Correction

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### 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

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#### - KCMY Color Balance Adjustment -

The adjustment uses only "Offset" values.

### Note

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

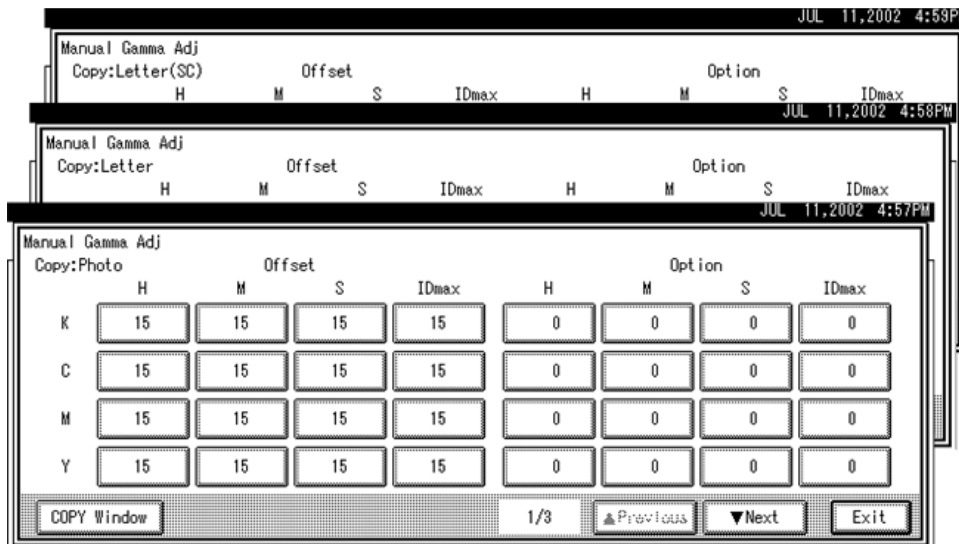
|                |   |
|----------------|---|
| Highlight (Low | Levels 1 through 6 in the C5-Y chart 13-level scale |
|----------------|---|

4.Replacement and Adjustment

|                    |   |
|--------------------|---|
| 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 -**

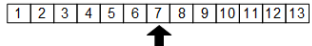
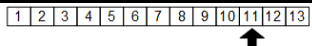
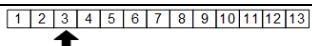
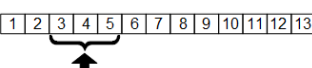
1. Copy the C-5Y chart in the mode that you want to adjust.
2. Enter the SP mode.
3. Select "System SP."
4. Select SP4-918-009.
5. Adjust the offset values until the copy quality conforms to the standard (see the table below).

**Note**

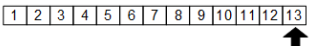
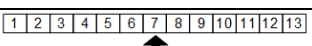
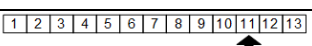
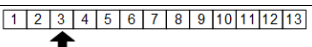
- 1. Never change the "Option" value (the default value is "0").
- 2. Adjust the density in this order: "ID Max", "Middle", "Shadow", "Highlight".

**- Photo Mode, Full Color -**

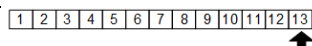
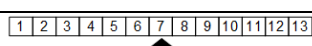
|   | Item to Adjust              | Level on the C-5Y chart            | Adjustment Standard   |
|---|-----------------------------|------------------------------------|---|
| 1 | ID max:<br>(K, C, M, and Y) | 1 2 3 4 5 6 7 8 9 10 11 12 13<br>↑ | Adjust the offset value so that the density of level 13 matches that of level 13 on the C-5Y chart. |

|   |  |   |   |
|---|--|---|---|
| 2 | Middle (Middle ID)<br>(K, C, M, and Y)                           |  | Adjust the offset value so that the density of level 7 matches that of level 7 on the C-5Y chart.   |
| 3 | Shadow (High ID)<br>(K, C, M, and Y)                             |  | Adjust the offset value so that the density of level 11 matches that of level 11 on the C-5Y chart.   |
| 4 | Highlight (Low ID)<br>(K, C, M, and Y)                           |  | Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-5Y chart.   |
| 5 | K Highlight (Low ID)<br>(C,M, and Y)<br><on the full color copy> |  | Adjust the offset value so that the color balance of black scale levels 3 through 5 in the copy is seen as gray (no C, M, or Y should be visible). If the black scale contains C, M, or Y, do steps 1 to 4 again. |

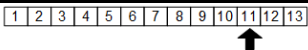
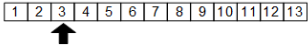
**- Photo Mode, Single Color -**

|   | Item to Adjust            | Level on the C-5Y chart   | Adjustment Standard   |
|---|---------------------------|---|---|
| 1 | ID max: (K)               |  | Adjust the offset value so that the density of level 13 matches that of level 13 on the C-5Y chart.   |
| 2 | Middle (Middle ID)<br>(K) |  | Adjust the offset value so that the density of level 7 matches that of level 7 on the C-5Y chart.   |
| 3 | Shadow (High ID) (K)      |  | Adjust the offset value so that the density of level 11 matches that of level 11 on the C-5Y chart.   |
| 4 | Highlight (Low ID) (K)    |  | Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-5Y chart. |

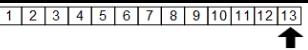
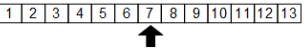
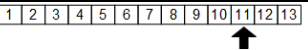
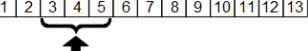
**- Text (Letter) Mode, Full Color -**

|   | Item to Adjust                         | Level on the C-5Y chart (K)   | Adjustment Standard   |
|---|--|---|---|
| 1 | ID max: (K, C, M, and Y)               |  | Adjust the offset value so that the density of level 13 matches that of level 13 on the C-5Y chart. |
| 2 | Middle (Middle ID)<br>(K, C, M, and Y) |  | Adjust the offset value so that the density of level 7 matches that of level 7 on the C-5Y chart.   |

#### 4.Replacement and Adjustment

|   |  |   |   |
|---|--|---|---|
|   | Y)                                     |   |   |
| 3 | Shadow (High ID)<br>(K, C, M, and Y)   |  | Adjust the offset value so that the density of level 11 matches that of level 11 on the C-5Y chart.   |
| 4 | Highlight (Low ID)<br>(K, C, M, and Y) |  | Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-5Y chart. |

#### - Text (Letter) Mode, Single Color -

|   | Item to Adjust         | Level on the C-5Y chart (K)   | Adjustment Standard   |
|---|------------------------|---|---|
| 1 | ID max: (K)            |    | Adjust the offset value so that the density of level 13 matches that of level 13 on the C-5Y chart.   |
| 2 | Middle (Middle ID) (K) |    | Adjust the offset value so that the density of level 7 matches that of level 7 on the C-5Y chart.   |
| 3 | Shadow (High ID) (K)   |  | Adjust the offset value so that the density of level 11 matches that of level 11 on the C-5Y chart.   |
| 4 | Highlight (Low ID) (K) |  | Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-5Y chart. |

#### ↓ Note

- Text parts of the test pattern cannot be printed clearly after you adjust "shadow" as shown above. At this time, check if the 5 line/mm pattern at each corner is printed clearly. If it is not, adjust the offset value of "shadow" again until it is.

#### Printer Mode

There are 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<br>(related to the half tone area) | Level on the C-5Y chart<br>(13 rows scale)  |
|--------------------|---|---|
| Shadow (High ID)   | 12th patch from the lighter density                                       | <b>C,M,Y:</b> 6 to 10, Center is the 8th row<br><b>K:</b> 8 to 12, Center is the 10th row |
| Middle (Middle ID) | 8th patch from the lighter density  | <b>C,M,Y:</b> 3 to 7, Center is the 5th row<br><b>K:</b> 5 to 9, Center is the 7th row    |
| Highlight (Low ID) | 4th patch from the lighter density  | <b>C,M,Y:</b> 1 to 4, Center is the 2nd row<br><b>K:</b> 1 to 5, Center is the 3rd row    |

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

## 4.Replacement and Adjustment

8. Turn the main power OFF and ON.

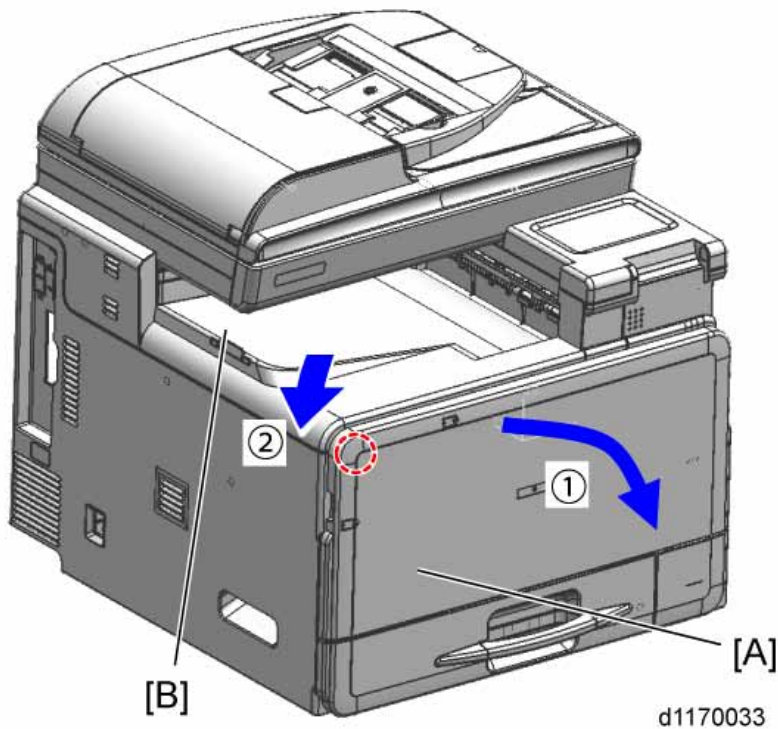
---

### 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.

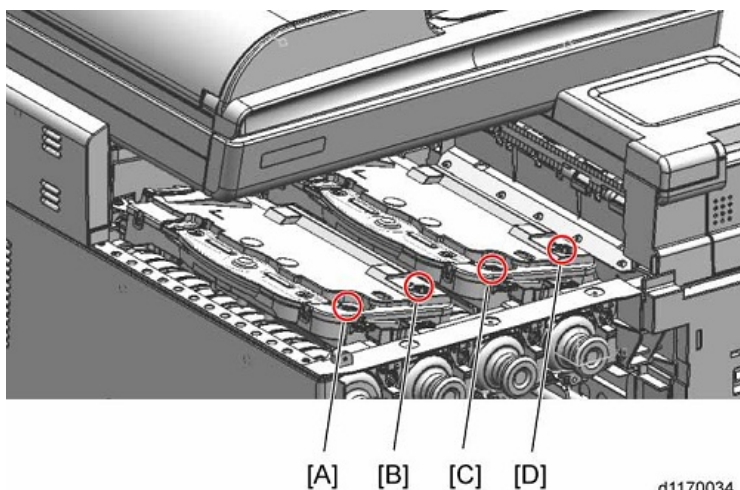
- SP2-117-004 (K)
- SP2-117-002 (C)
- SP2-117-001 (M)
- SP2-117-003 (Y)

**Note**

- If all of the SP values are within  $\pm 5$ , go to Step 5.
- If any of the SP values are not within  $\pm 5$ , 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

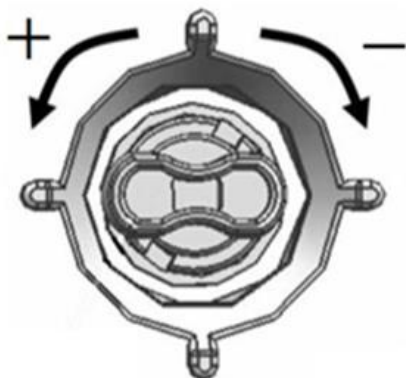
color(s) is within  $\pm 5$  (target: 0).



d1170034

**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.



d196z2356

- 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

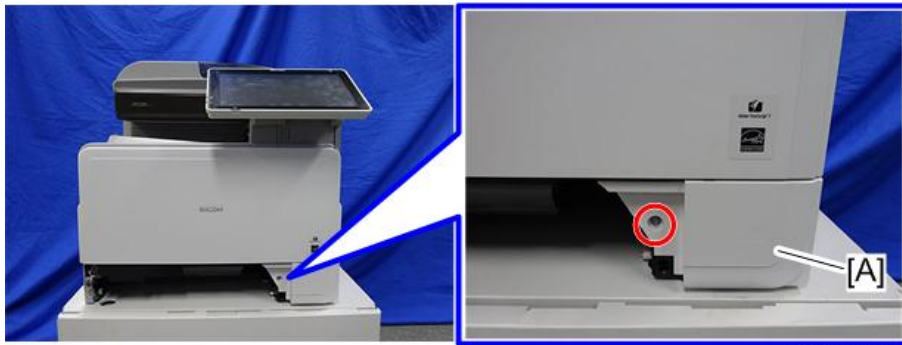
### Front Cover

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)



d196z4004

---

## 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)



d196z4005

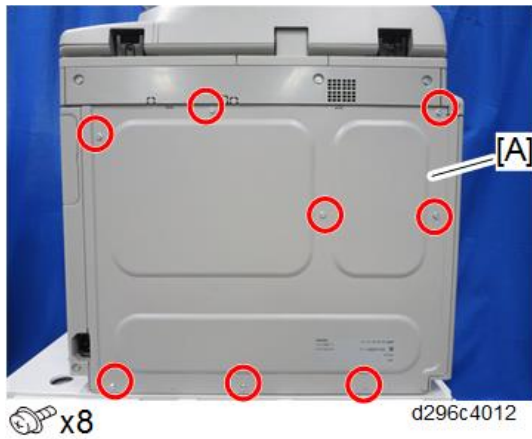
## 4.Replacement and Adjustment

---

### Rear Cover

---

1. Remove the rear cover [A].

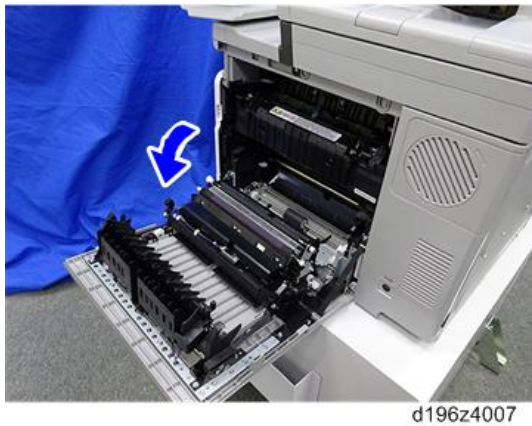


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### Right Rear Cover

---

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)

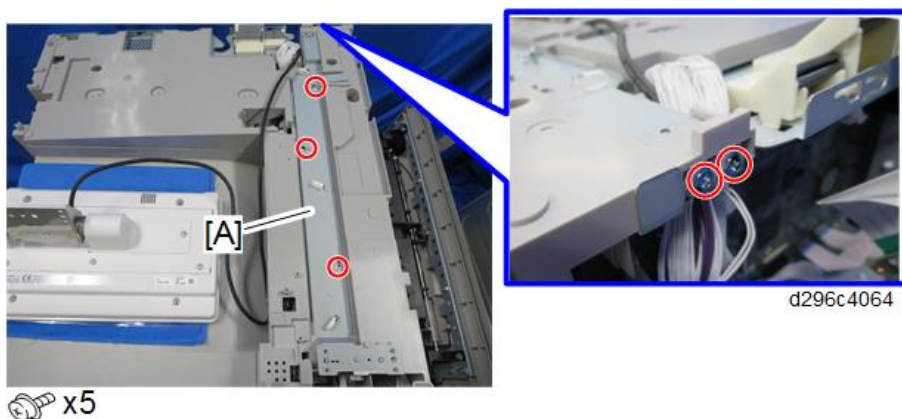


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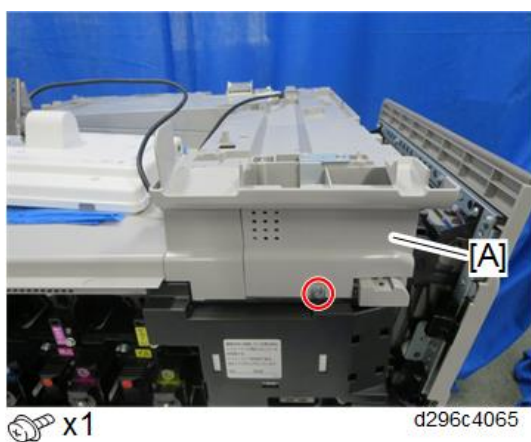
### Scanner Inner Cover

---

1. Remove the ADF and scanner unit (Scanner Unit with the ADF)  
2. Remove the operation panel (Operation Panel)  
3. Remove the bracket [A].

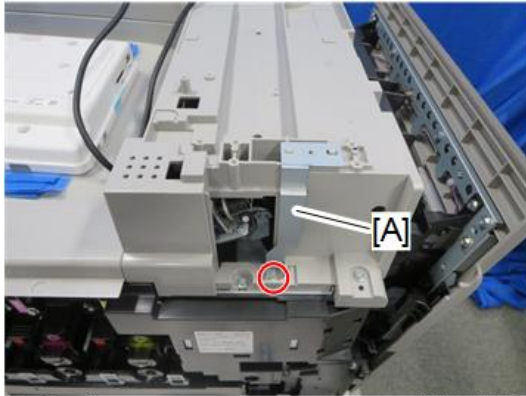


4. Remove the cover [A] under the operation panel.



4.Replacement and Adjustment

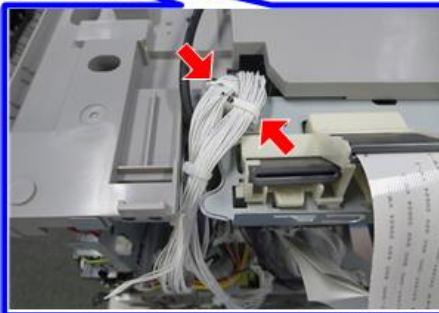
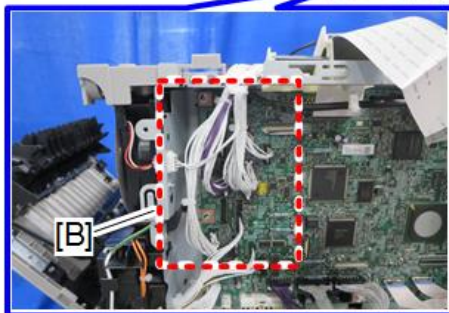
5. Remove the bracket [A].



 x1

d296c4066

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

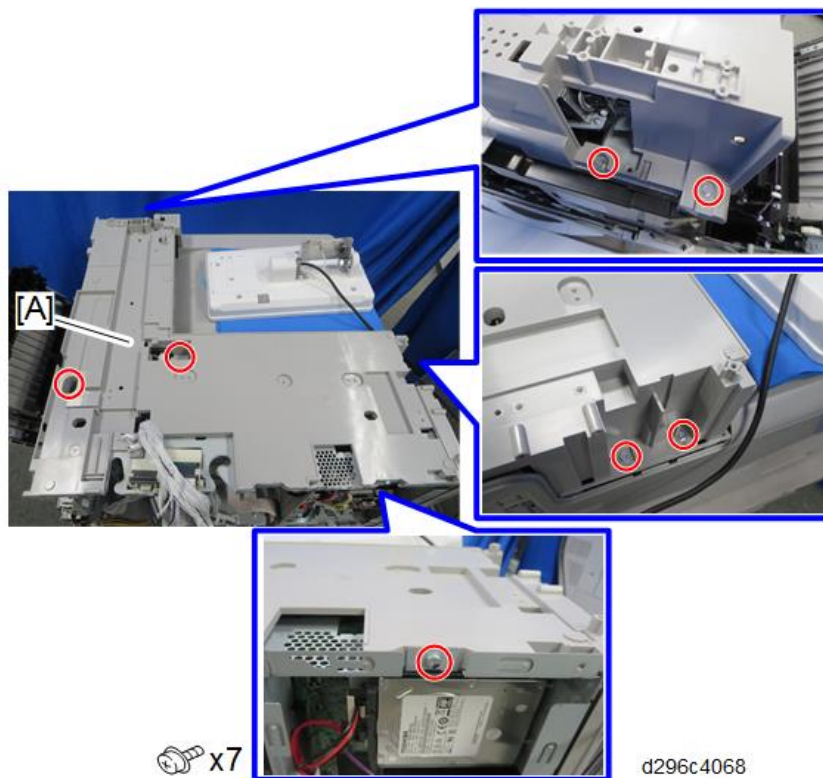


 x7  x2

d296c4067



7. Remove the scanner inner cover [A].



---

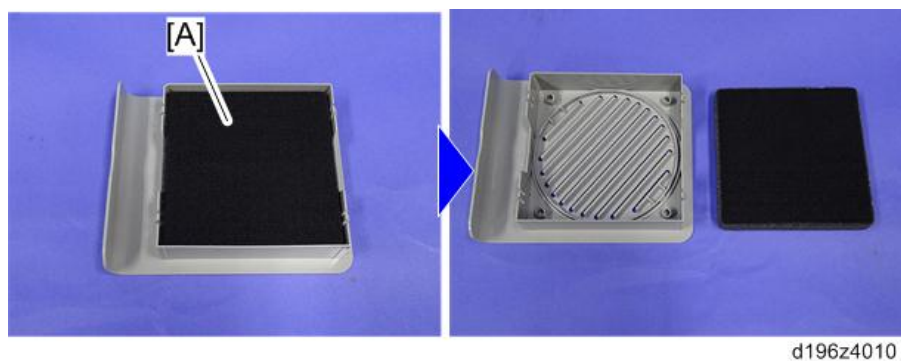
### Ozone Filter

---

1. Remove the filter cover [A].



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



## 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

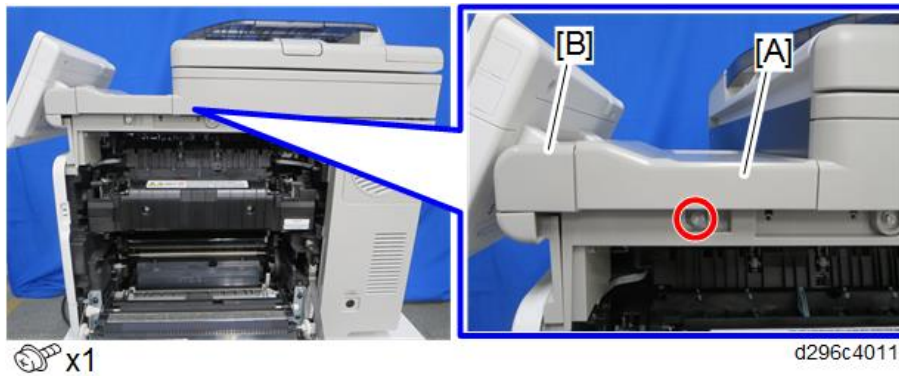
---

1. Open the right cover.



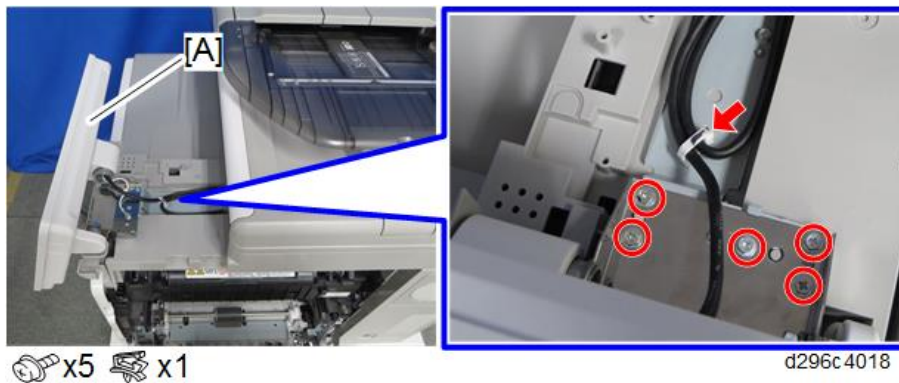
d196z4007

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



d296c4011

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



d296c4018

#### ★ Important

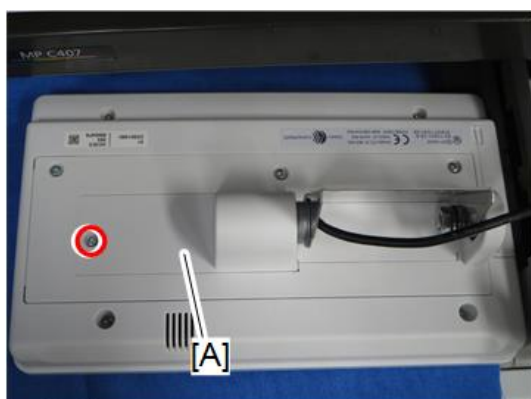
- Spread a cloth or service mat [A] on the paper exit tray to protect the display. Place the operation

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



d196z4103

**4.** Remove the small rear cover [A].



 x1

d296c 4019

**5.** Disconnect the connector [A].

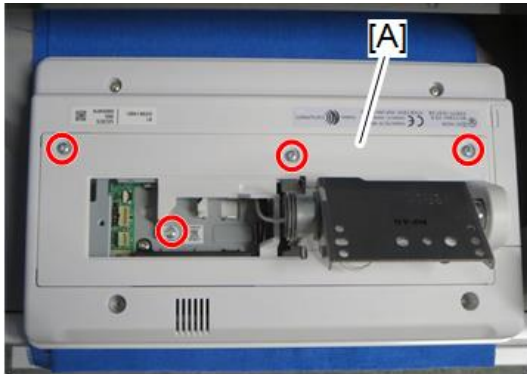


 x1  x1

d296c 4020

#### 4.Replacement and Adjustment

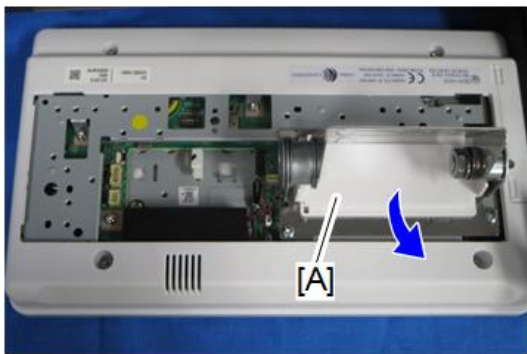
6. Remove the rear cover [A].



 x4

d296c 4021

7. Remove the hinge base cover [A].



d296c 4022

8. Remove the hinge base [A].



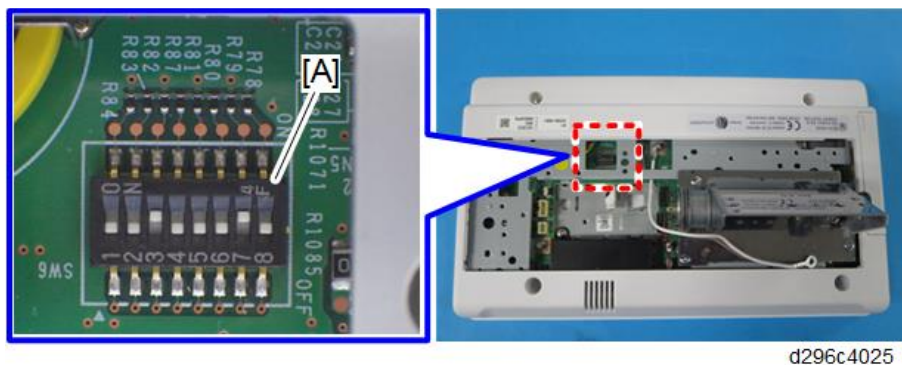
 x4

d296c4023

#### Check before Installing the New Operation Panel

---

There is a DIP switch [A] on the sub board in the operation panel unit.



d296c4025

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.

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### Internal Parts

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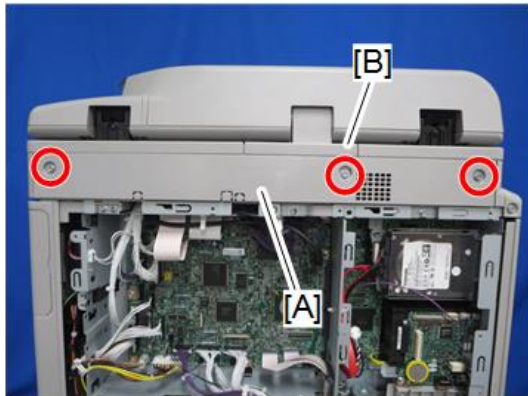
Refer to the FSM for the Smart Operation Panel.

## 4.Replacement and Adjustment

### ADF

#### ADF Unit

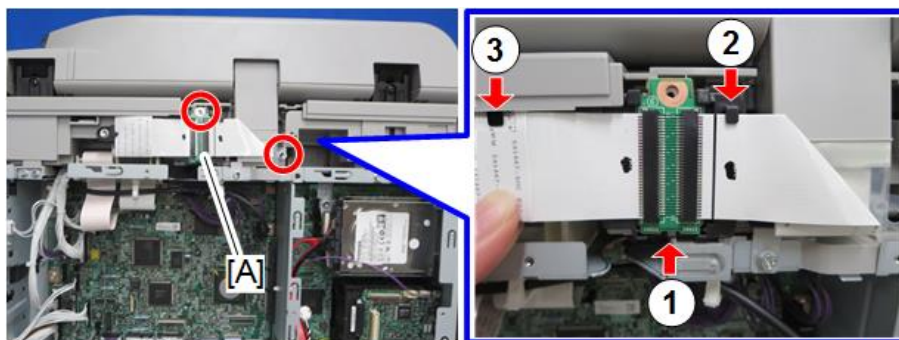
1. Remove the rear cover. ([Rear Cover](#))
2. Remove the scanner rear cover [A] and scanner rear small cover [B].



 x3

d296c4003

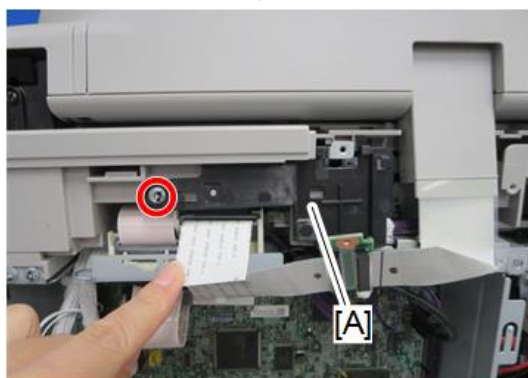
3. Release the two screws and three tabs for attaching the relay board [A] and FFC to release the FFC.



 x2

d296c4004

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

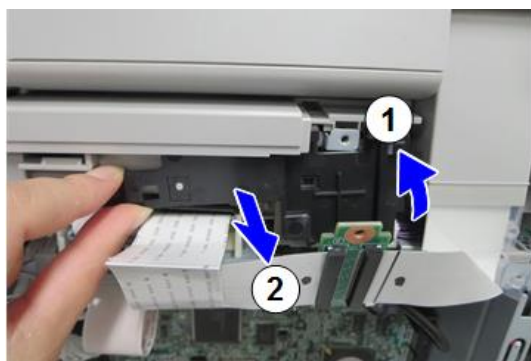


 x1

d296c4005

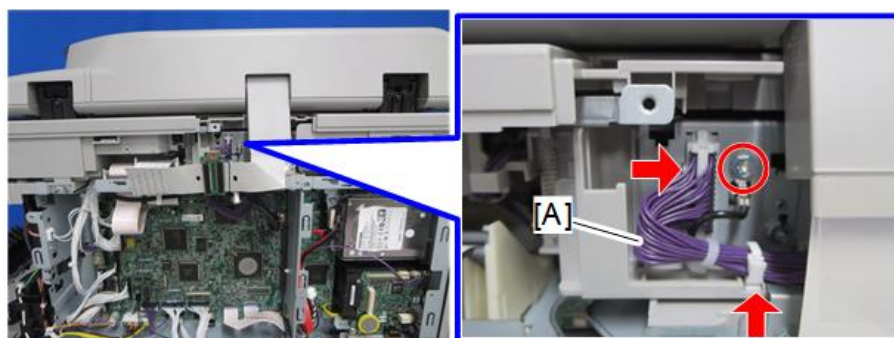
#### Note

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



d296c4006

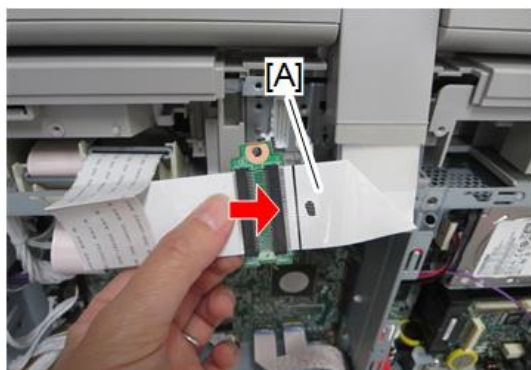
5. Disconnect the harness [A] from the ADF.



🔑 x1 📏 x1 🛠️ x1

d296c4007

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



📏 x1

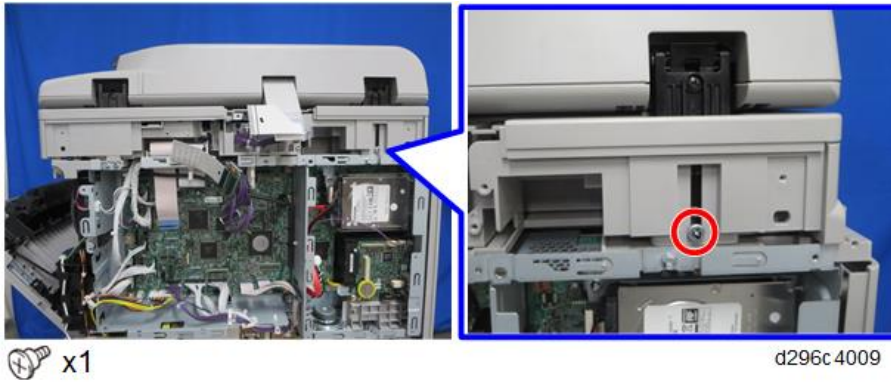
d296c4008

**Note**

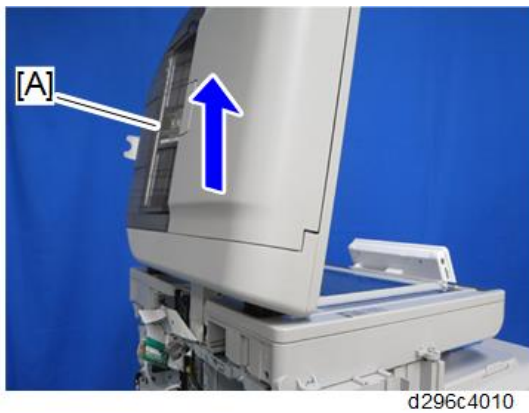
Disconnect the FFC for the relay board by pulling it out straight, because it does not have a lock mechanism. When reassembling, the FFC must be connected straight.

#### 4.Replacement and Adjustment

7. Remove the shoulder screw for fixing the ADF.



8. Remove the ADF unit [A] from the machine.



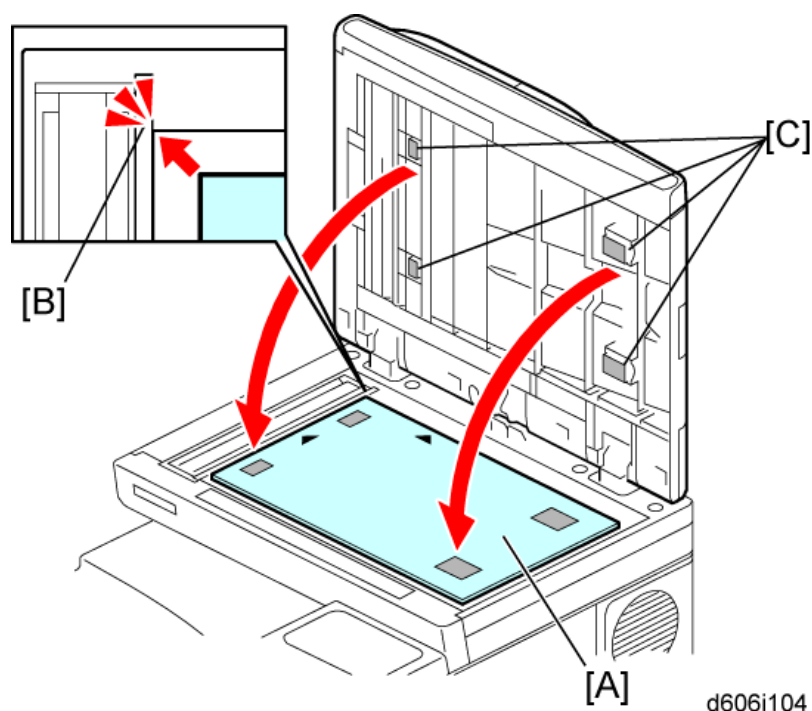
#### When Installing the ADF

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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.



d606i104

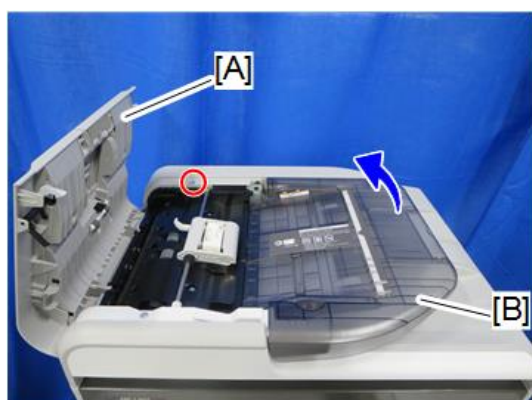
- 3.** Close the ADF.
- 4.** Reopen the ADF.
- 5.** Press the surface of the platen sheet gently to fix it on the ADF firmly.

#### 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].

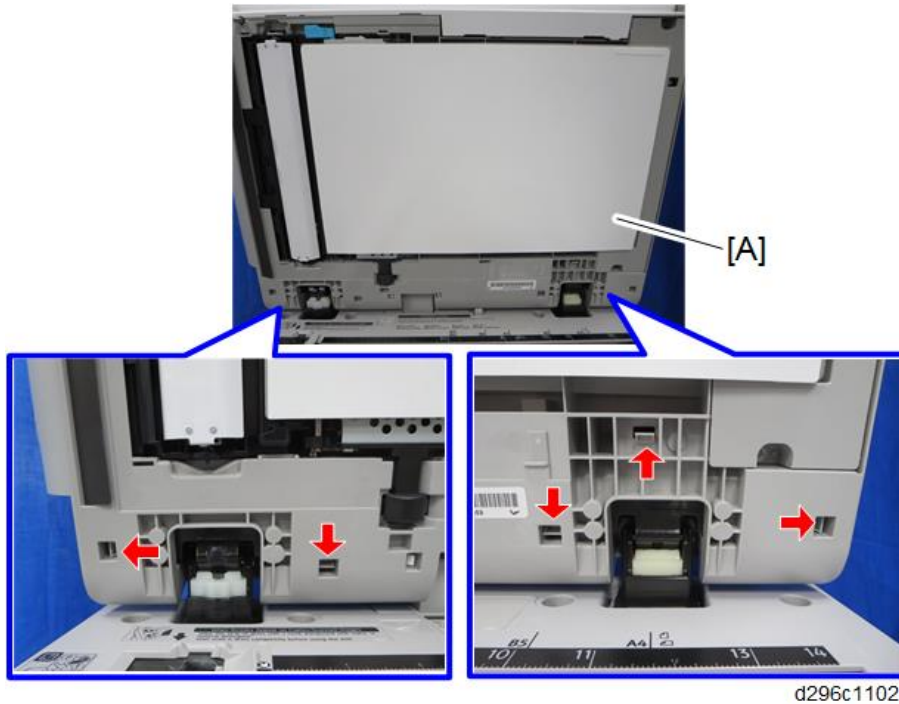


 x1

d296c1101

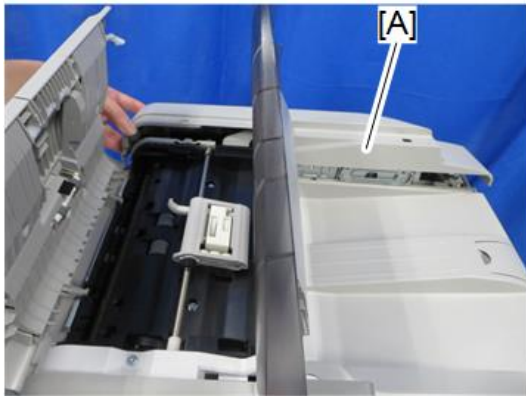
#### 4.Replacement and Adjustment

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



d296c1102

4. Remove the ADF rear cover [A].



d296c1103

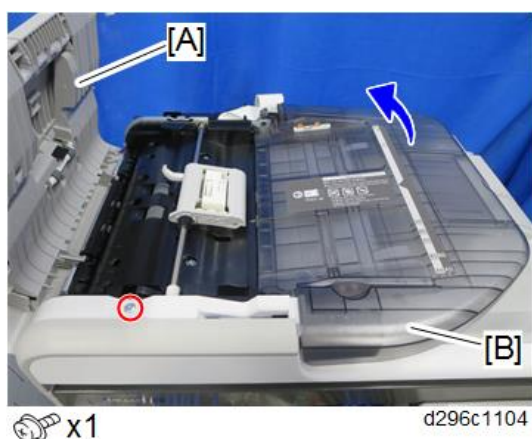
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#### ADF Front Cover

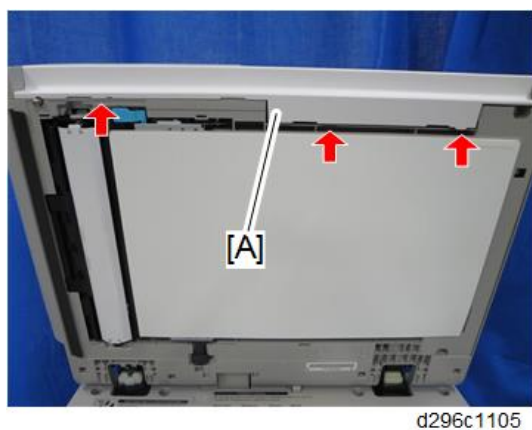
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1. Open the ADF top cover [A].

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 screw driver.



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### Original Feed Unit

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1. Open the ADF top cover.

#### 4.Replacement and Adjustment

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



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#### Pickup Roller, Feed Roller

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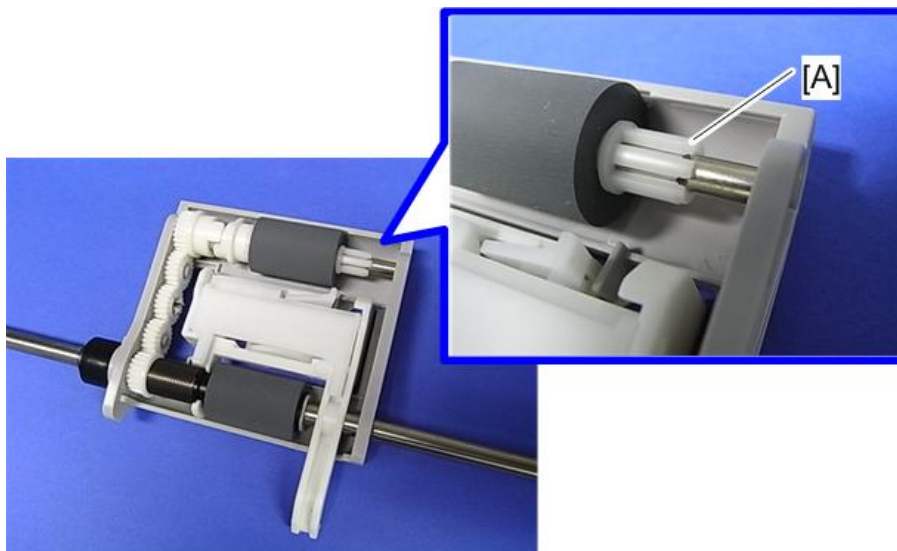
##### Before Replacing the Pickup Roller and Feed Roller

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

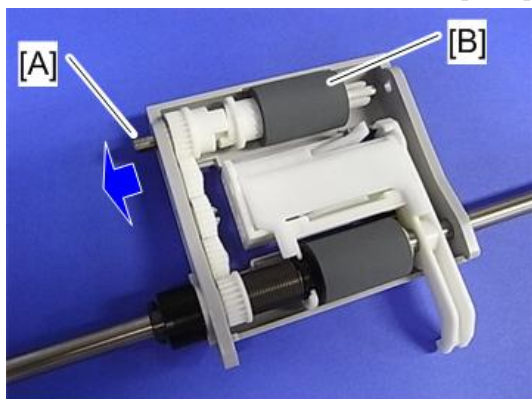
1. Turn the power ON.
2. Reset the PM counter. (Refer to [Replacement Procedure of the PM/Yield Parts](#))
3. Turn the power OFF.

##### Replacing the Pickup Roller

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



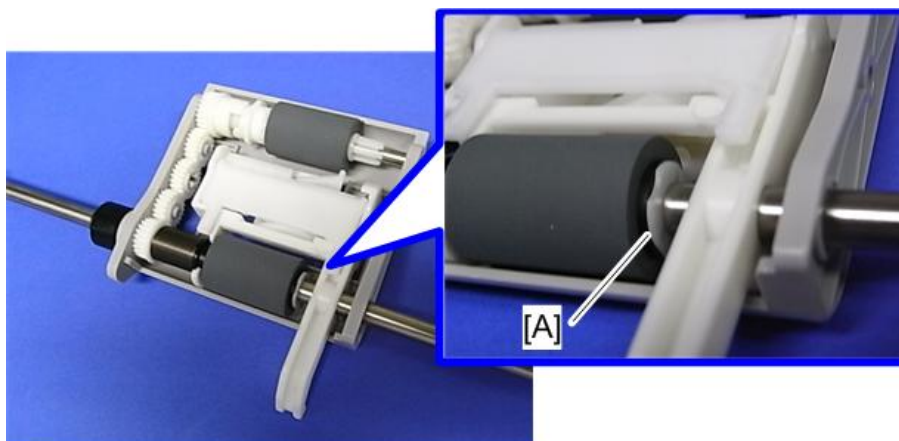
3. Slide the shaft [A], and then remove the pickup roller [B].



d117r821

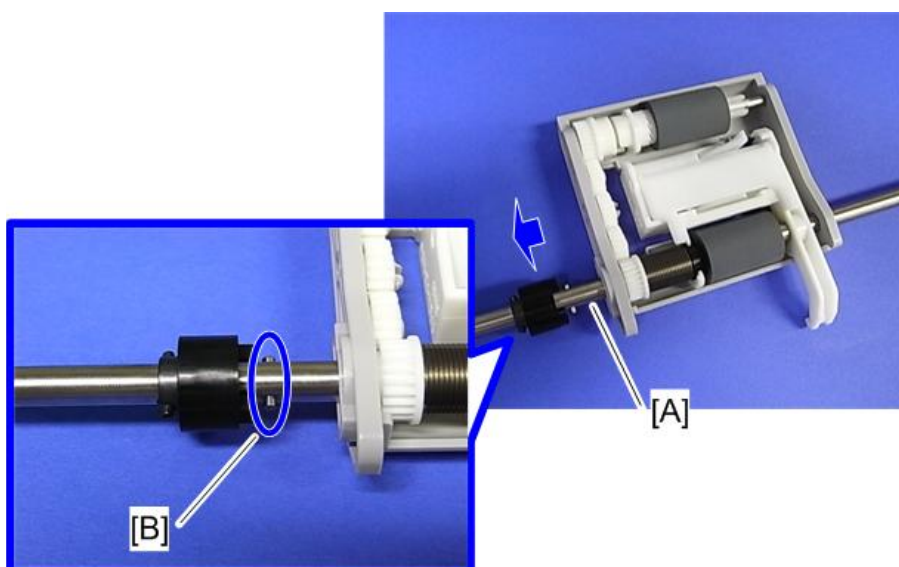
### Replacing the Feed Roller

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



d117r817

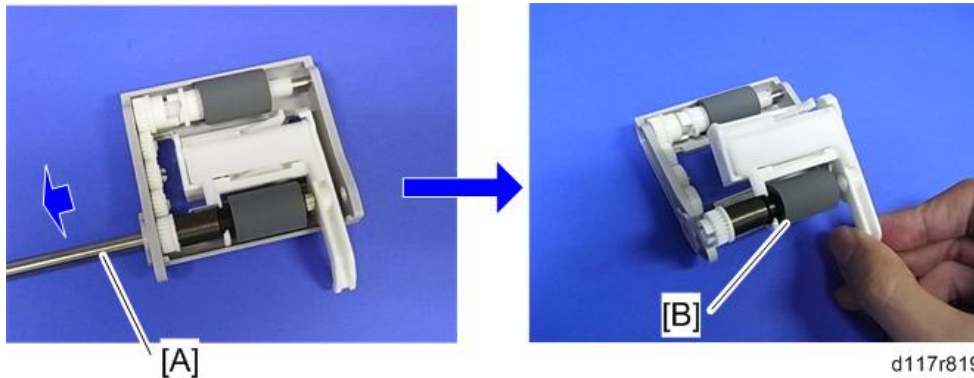
3. Slide the shaft [A], and then remove the pin [B].



d117r818

#### 4.Replacement and Adjustment

4. Slide the shaft [A], and then remove the feed roller [B].



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#### ADF Friction Pad

---

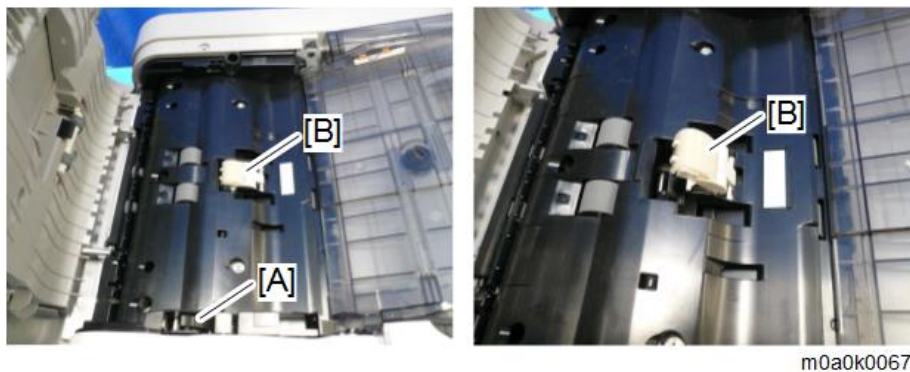
##### Before Replacing the Friction Pad

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].



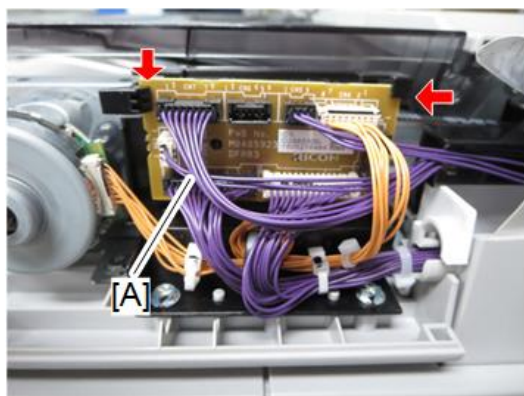
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#### ADF Relay Board

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1. Remove the ADF rear cover. ([ADF Rear Cover](#))

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



 x all

d296c4080

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### Top Cover Set Sensor, Original Set Sensor

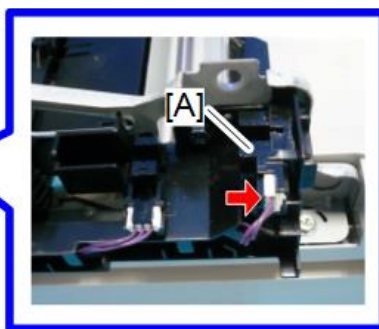
---

1. Remove the ADF front cover (ADF Front Cover)
2. Remove the top cover set sensor [A].



 x1

m0a0k0069

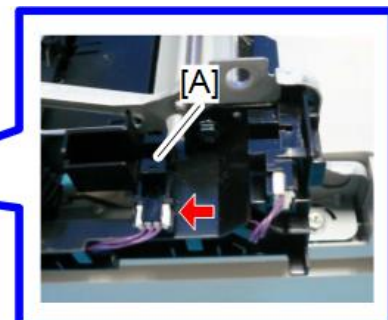


3. Remove the original set sensor [A].



 x1

m0a0k0070



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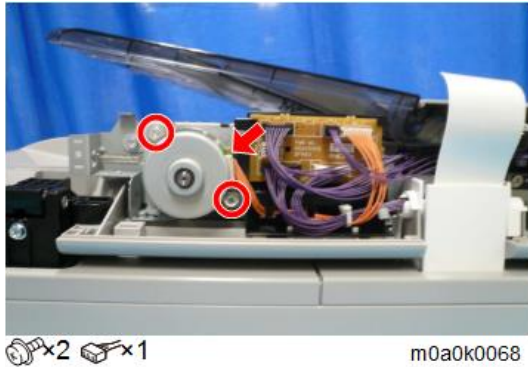
### ADF Drive Motor

---

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

## 4.Replacement and Adjustment

2. Remove the ADF drive motor [A].

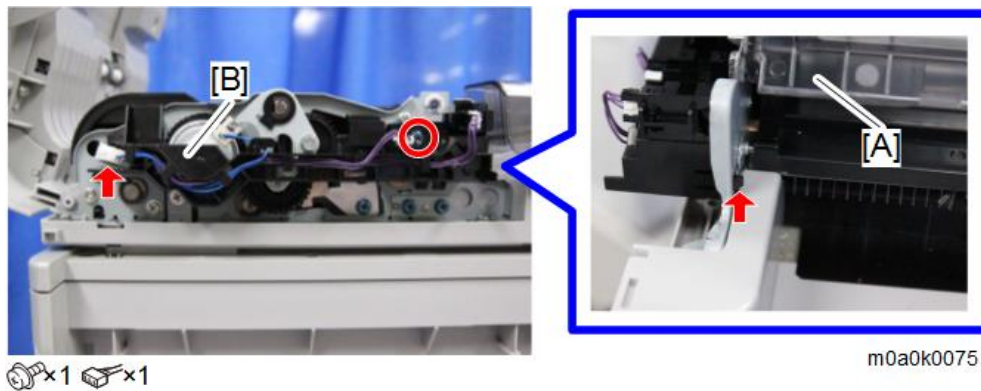


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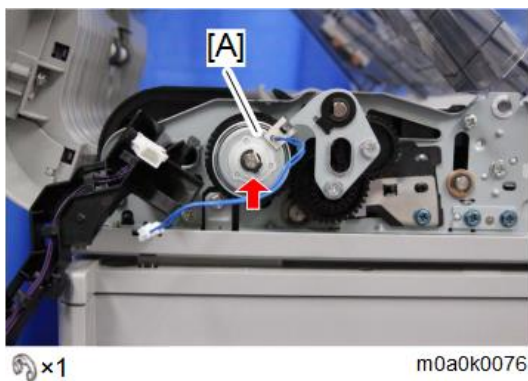
### ADF Feed Clutch

---

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].



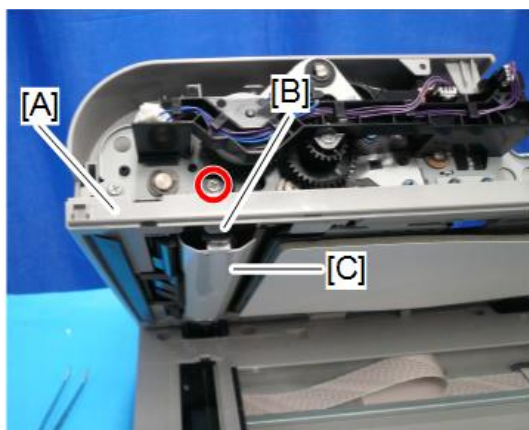
---

### 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].

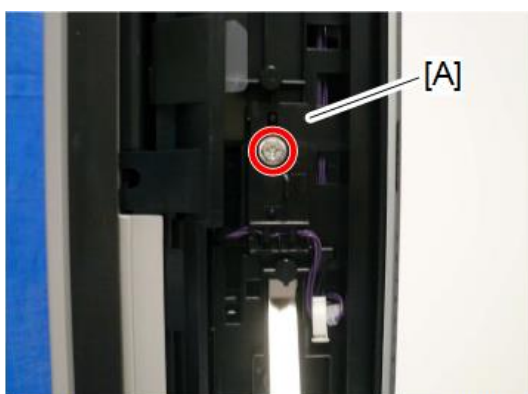




⊗x1

m0a0k0071

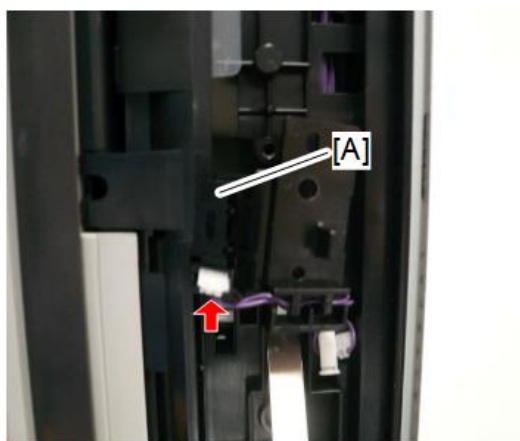
4. Remove the ADF registration sensor holder [A].



⊗x1

m0a0k0072

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



⊗x1

m0a0k0073

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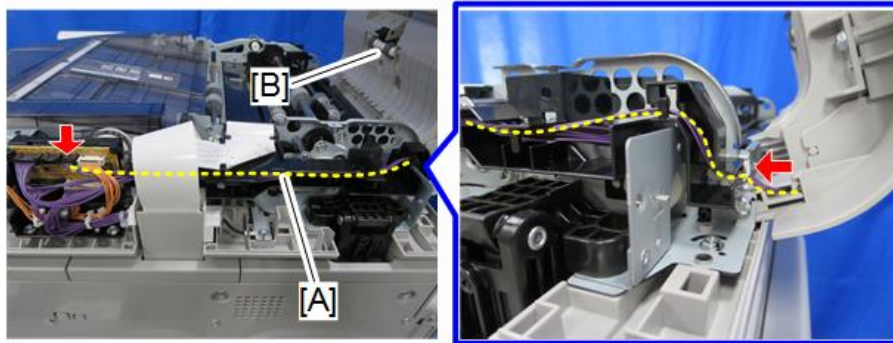
## ADF Feed Sensor



---

1. Remove the ADF rear cover. ([ADF Rear Cover](#))

#### 4.Replacement and Adjustment

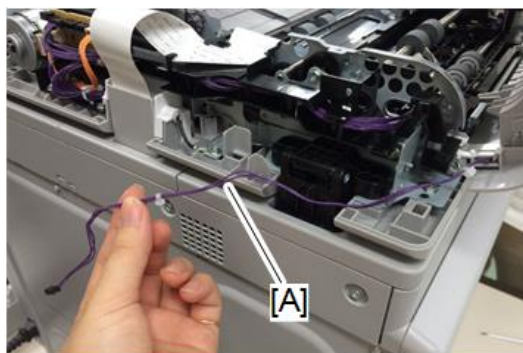
2. Disconnect the harness [A] from the ADF top cover [B], and release the clamp.



 x1  x1

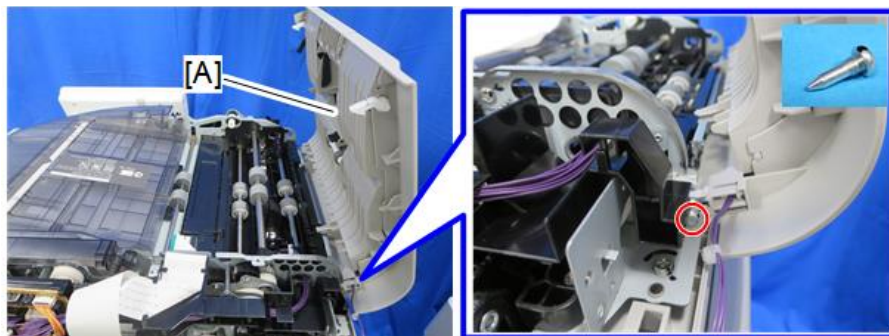
d296c1110

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



d296c1125

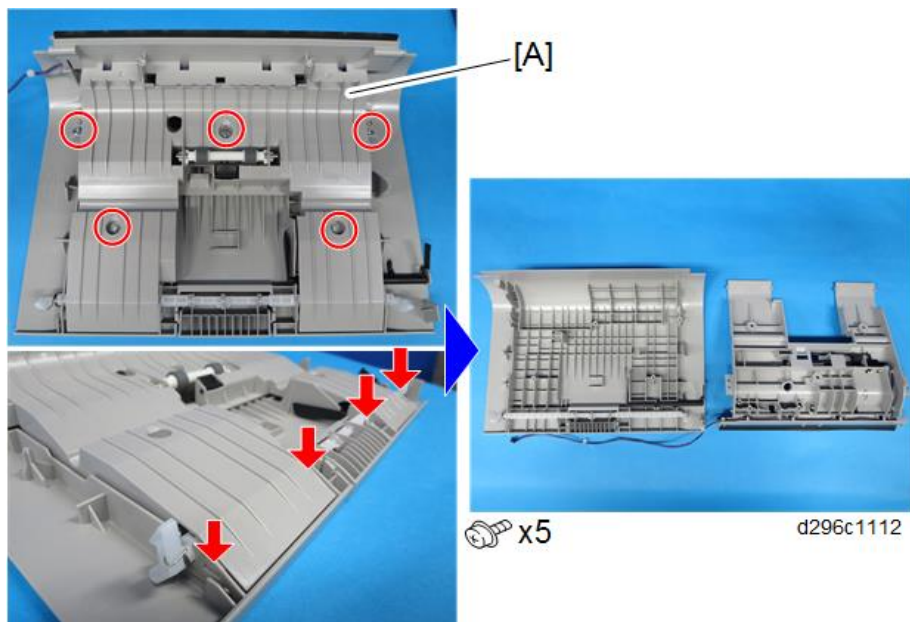
4. Remove the ADF top cover [A].



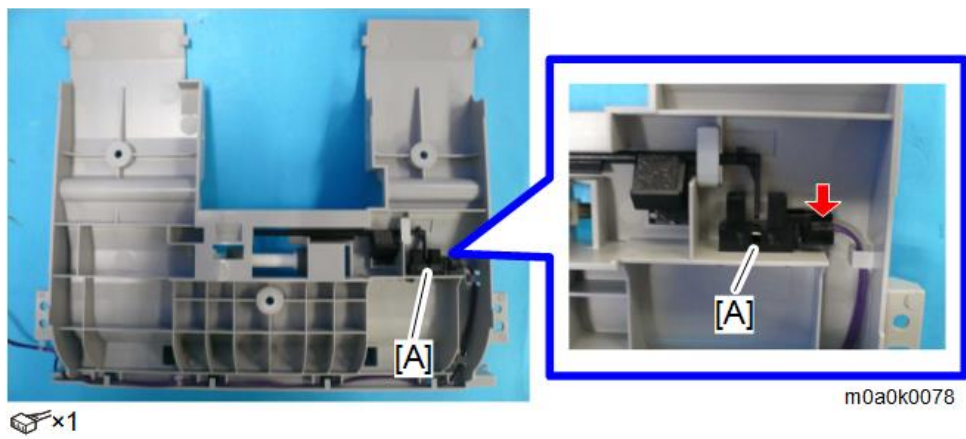
Pivot screw x1

d296c1111

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

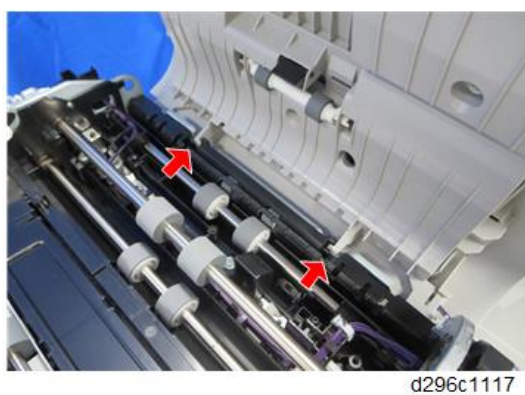


6. Remove the ADF feed sensor [A].



Note

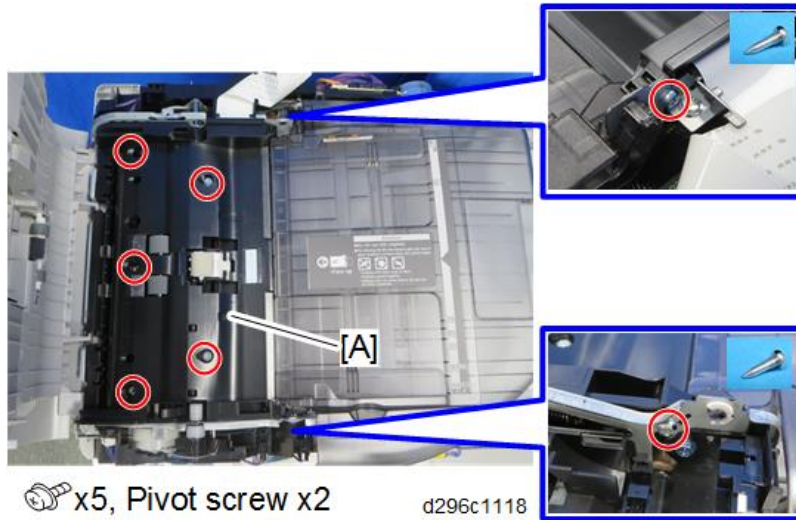
- When reattaching the ADF top cover, make sure it is set correctly so that the two tabs fit into the holes.



## 4.Replacement and Adjustment

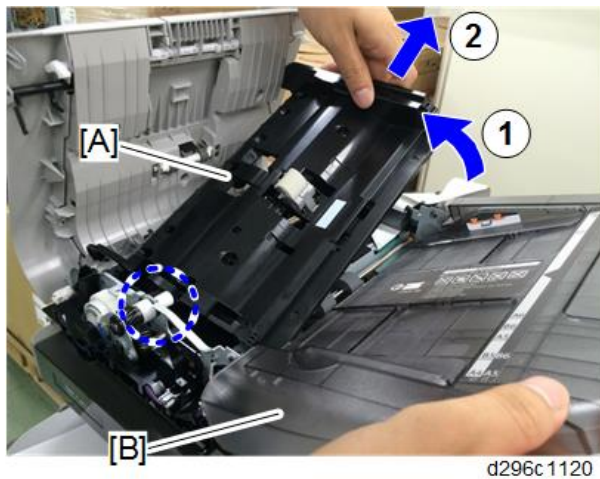
### CIS Unit

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].

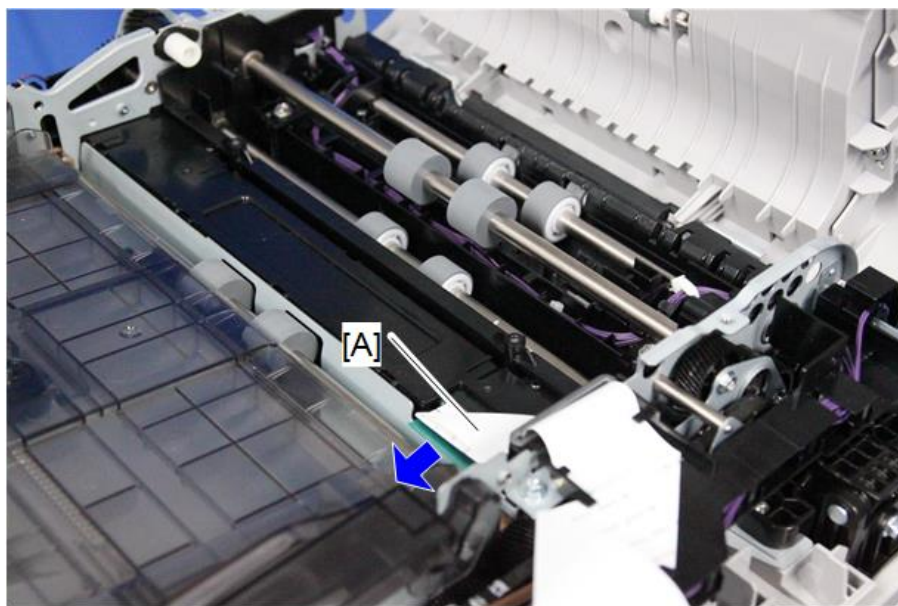


#### Note

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.



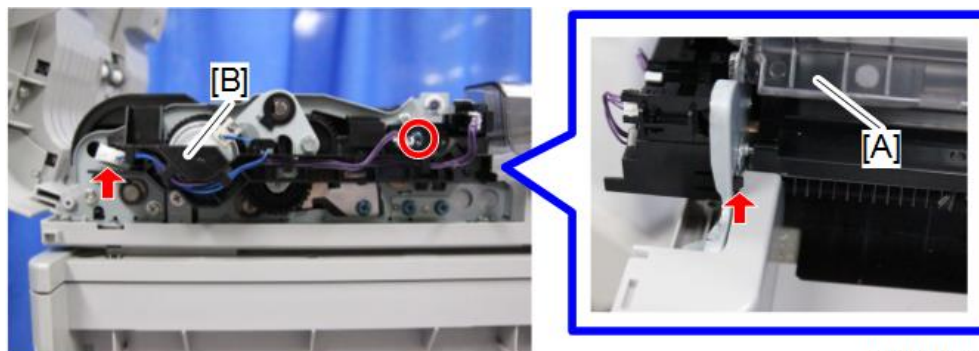
5. Disconnect the FFC [A].



 x1

m0a0k3035

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

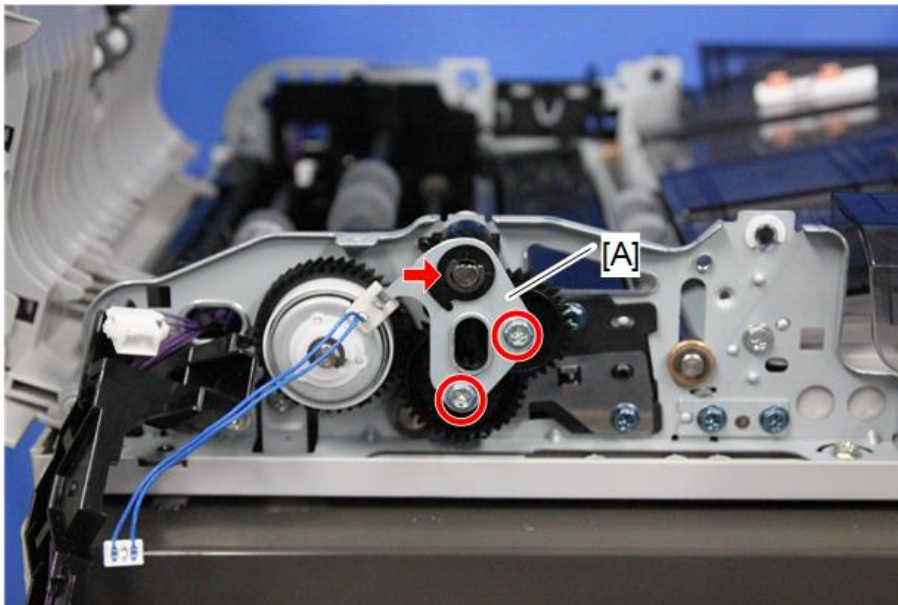


 x1  x1

m0a0k0075

#### 4.Replacement and Adjustment

##### 7. Remove the gear bracket [A].



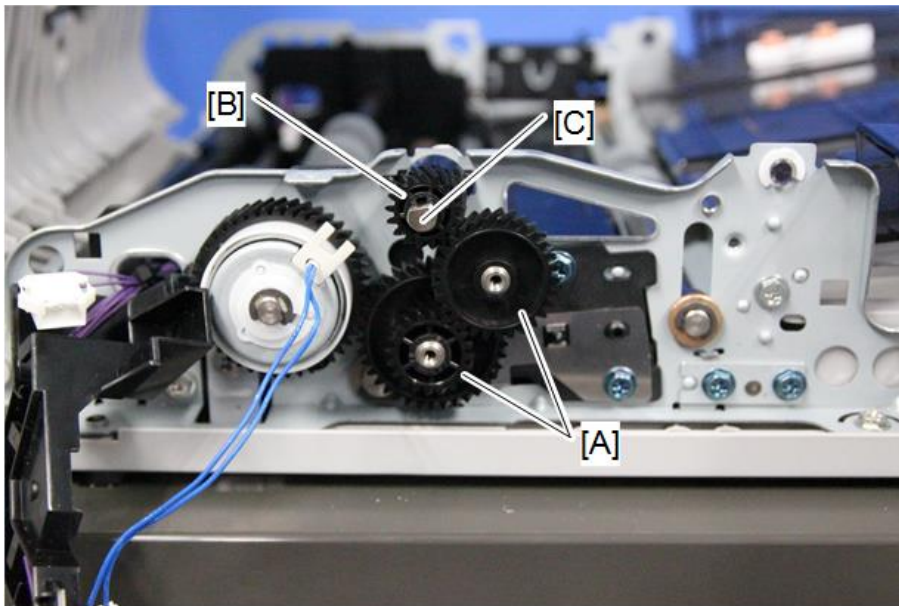
⚙️ x2 🛠️ x1

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.

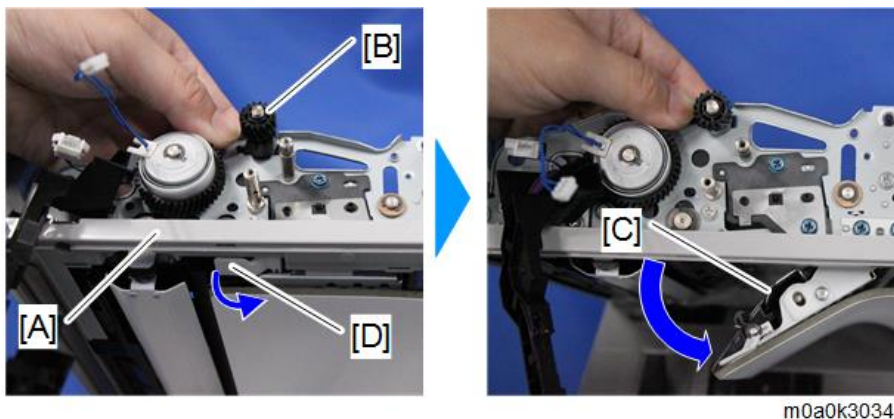


m0a0k3033

##### 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.

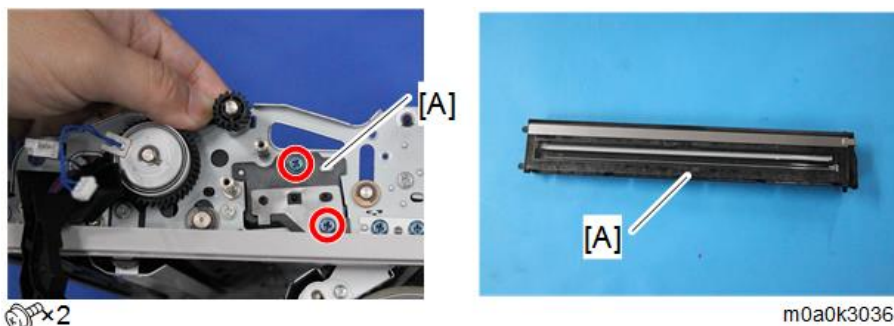


m0a0k3034

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

**Note**

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

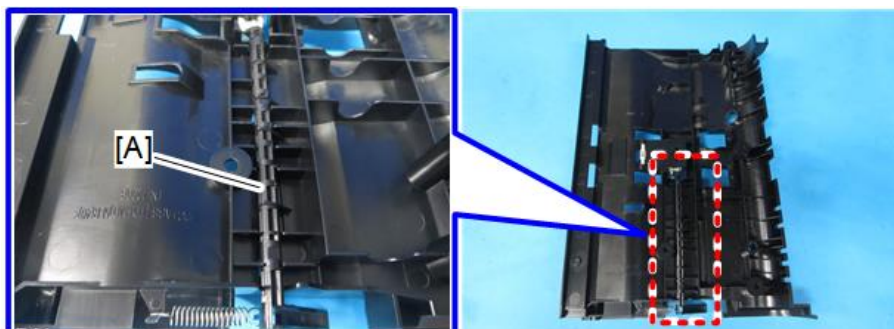


x2

m0a0k3036

**Note**

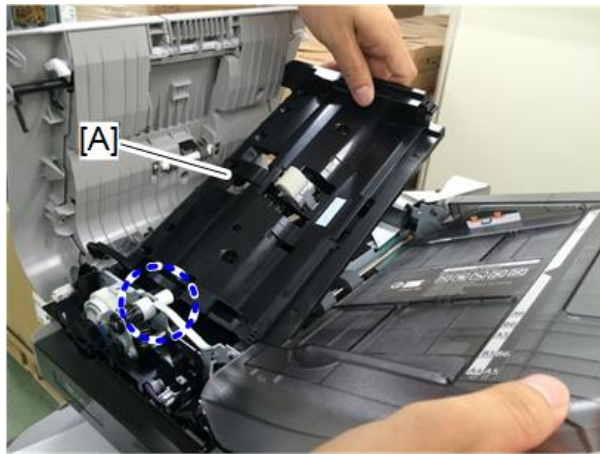
When reattaching the ADF inner cover, make sure that the shaft [A] fits into the groove (this is the shaft of the lock lever for the friction pad on the back side of the cover). If the shaft does not fit, the ADF top cover will not be closed.



d296c 1124

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.

## 4.Replacement and Adjustment



d296c1123

### Adjustment after CIS Unit Replacement

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

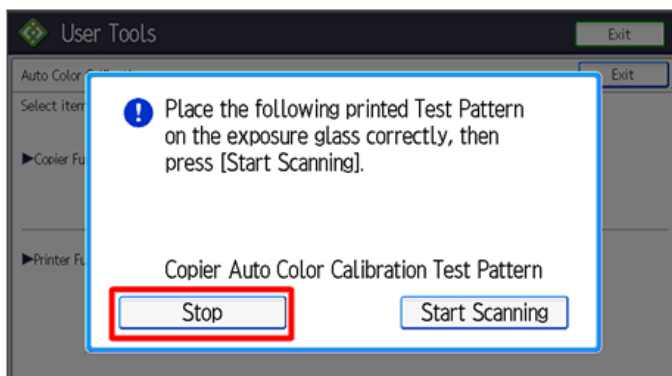
**1.** Perform the registration adjustment of the ADF (back side). ([ADF Side-to-Side and Leading Edge Registration](#))

**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.

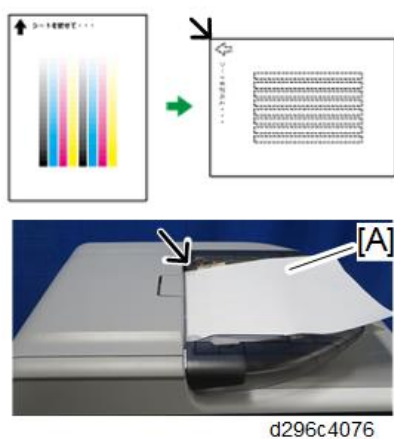


d296c4078

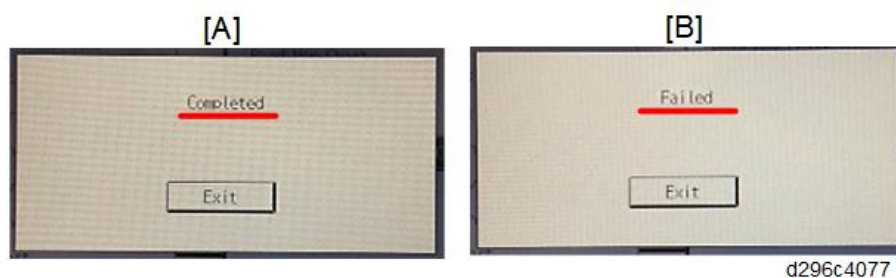
**4.** Turn over the ACC test pattern [A] and set it on the ADF. (Set the arrow position of the test pattern in



accordance with the arrow position of the photograph below.)



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.



**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

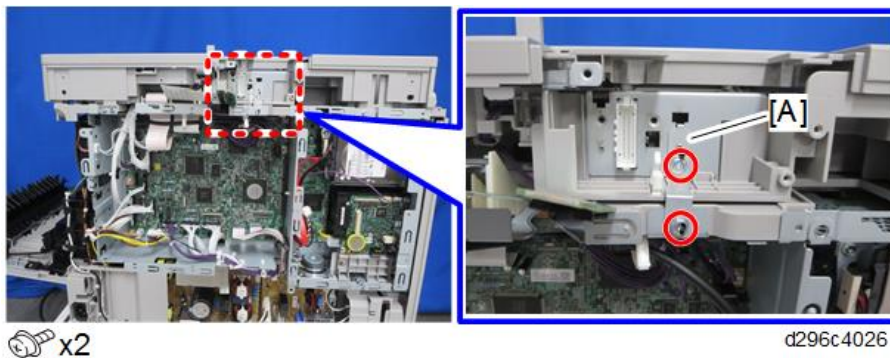
### Scanner Unit

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].

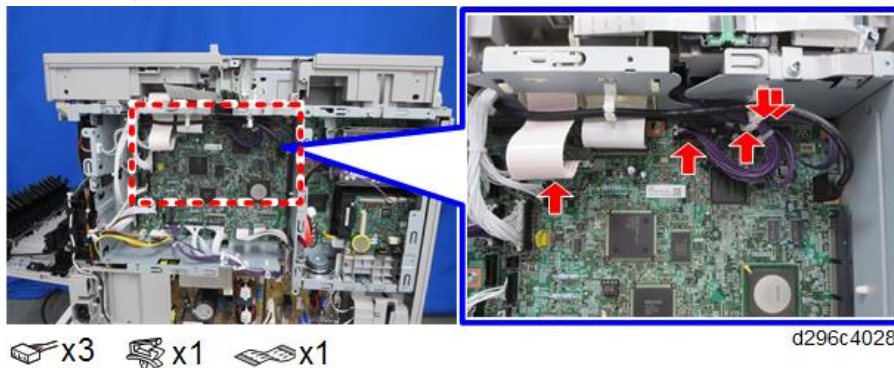




 x2

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**

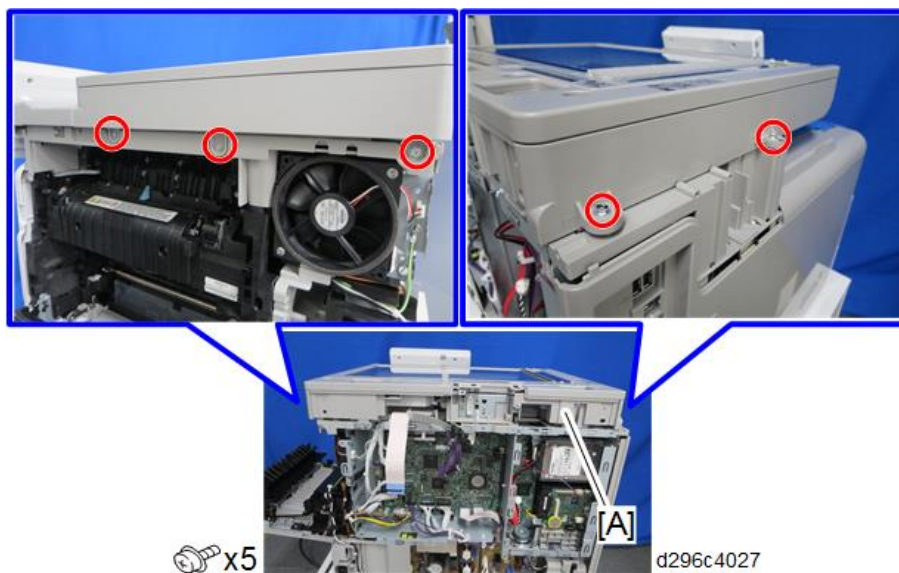
- When disconnecting or connecting the FFC, push the lock button to unlock it as shown below.



d296c4017

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

**7.** Remove the scanner unit [A].



d296c4027

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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](#))

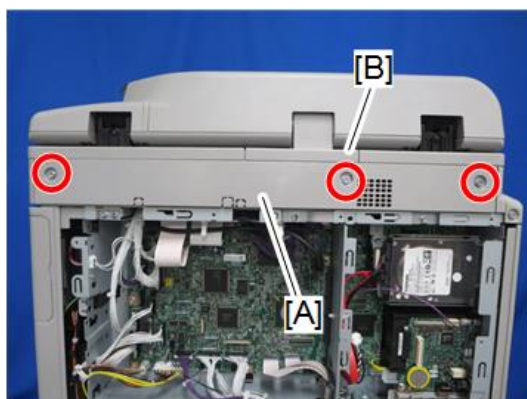
#### 4.Replacement and Adjustment

4. Remove the front right cover [A].



d196z4100

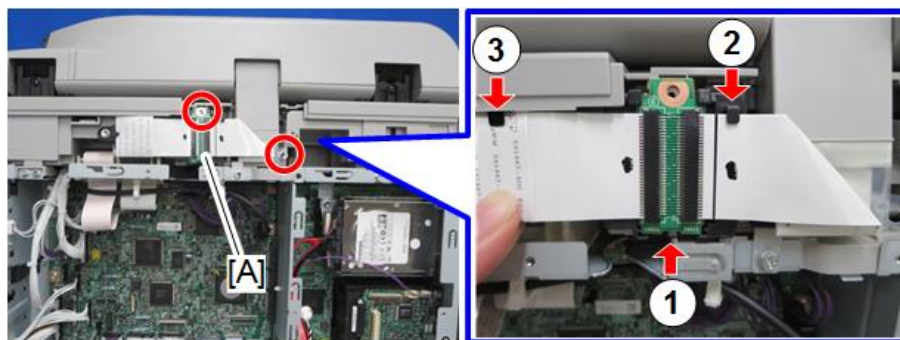
5. Remove the scanner rear cover [A] and scanner rear small cover [B].



 x3

d296c4003

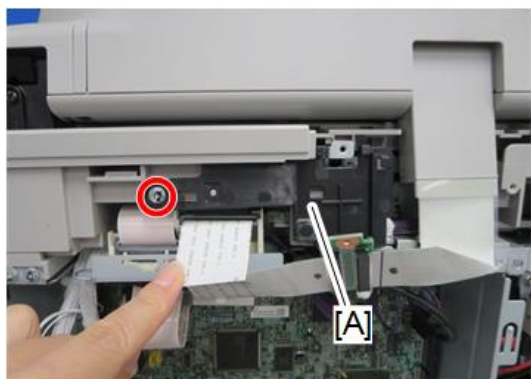
6. Release two screws and three tabs for attaching the relay board [A] and FFC, to release the FFC.



 x2

d296c4004

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

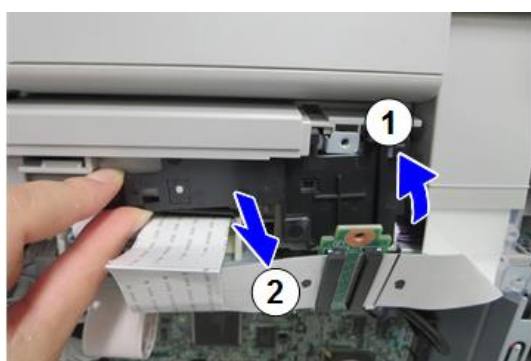


 x1

d296c4005

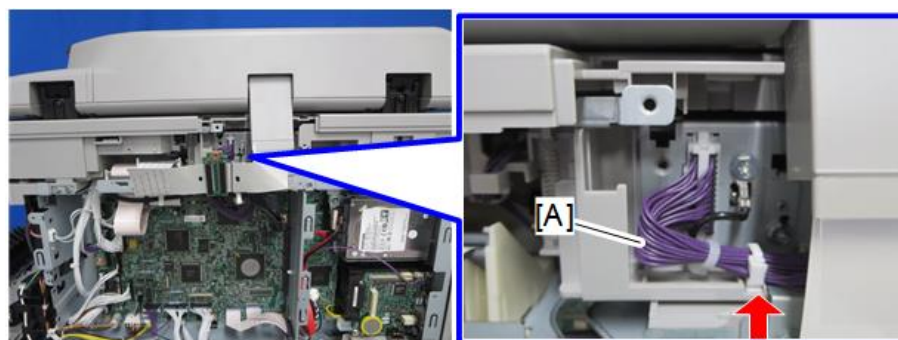
**Note**

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



d296c4006

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

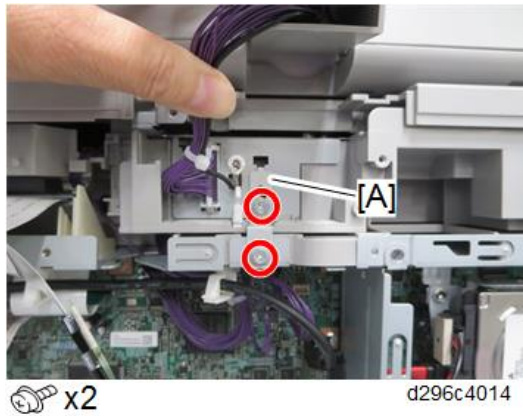


 x1

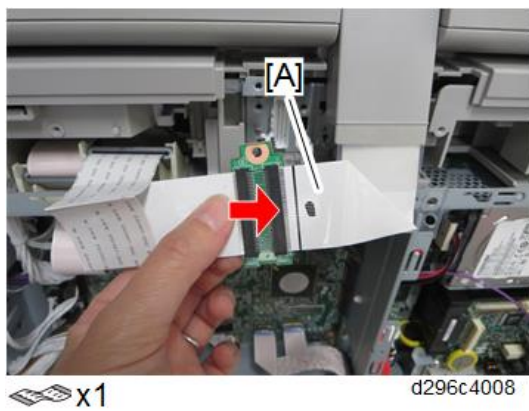
d296c4013

#### 4.Replacement and Adjustment

- 9.** Remove the grounding plate [A].



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

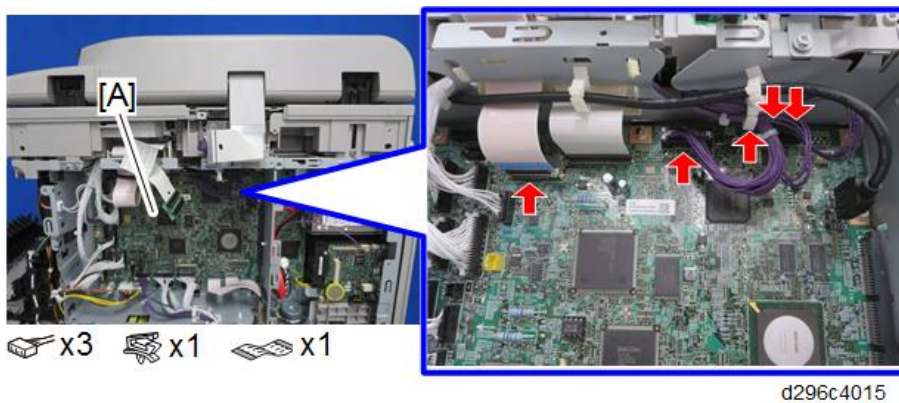


**Note**

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**

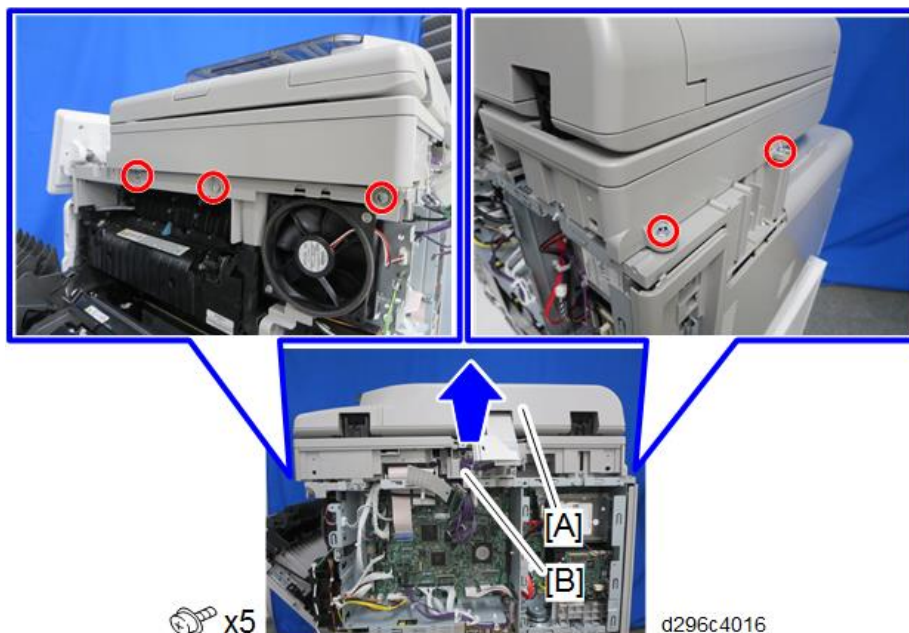
When disconnecting or connecting the FFC, push the lock button to unlock it as shown below.



d296c4017

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

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



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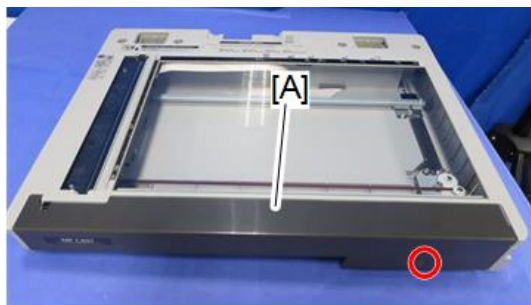
### ADF Set Sensor

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- 1.** Remove the scanner unit. ([Scanner Unit](#))

#### 4.Replacement and Adjustment

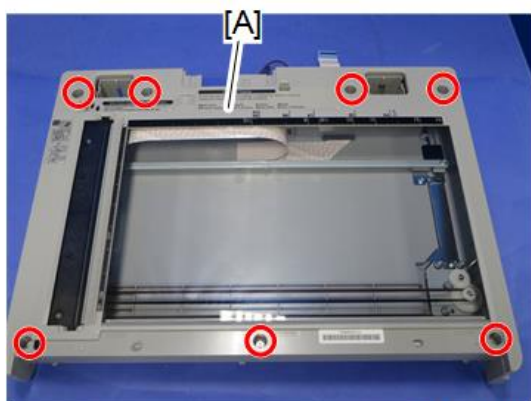
2. Remove the scanner front cover [A].



🔧 x1

d296c4029

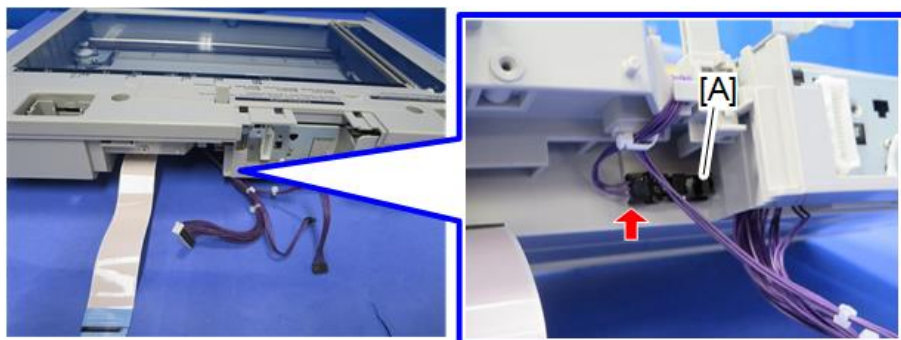
3. Remove the scanner upper cover [A].



🔧 x7

d296c4030

4. Remove the ADF set sensor [A].



🔧 x1

d296c4031



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Scanner Front Cover

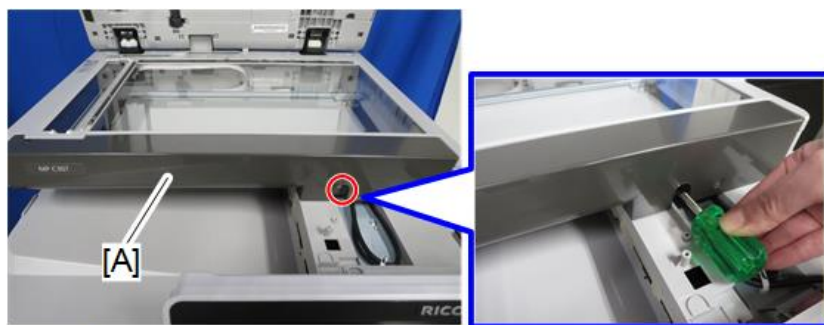
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1. Open the right cover, and then remove the front right cover [A].



d196z4100

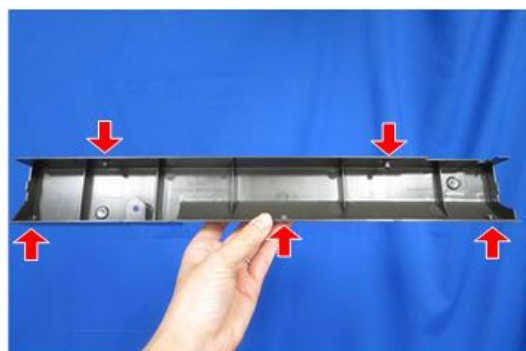
2. Open the ADF.
3. Remove the scanner front cover [A]. Use a short screw driver.


 x1

d296c4069

 **Note**

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



d296c4070

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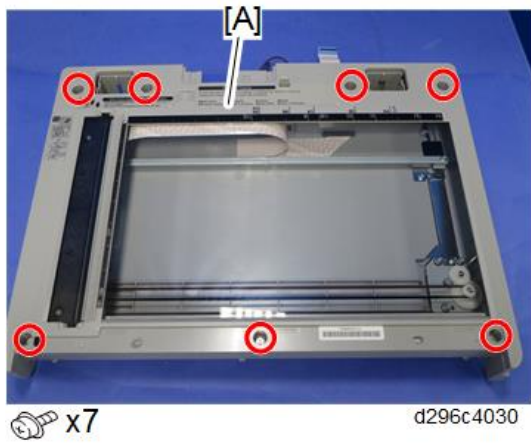
Scanner HP Sensor

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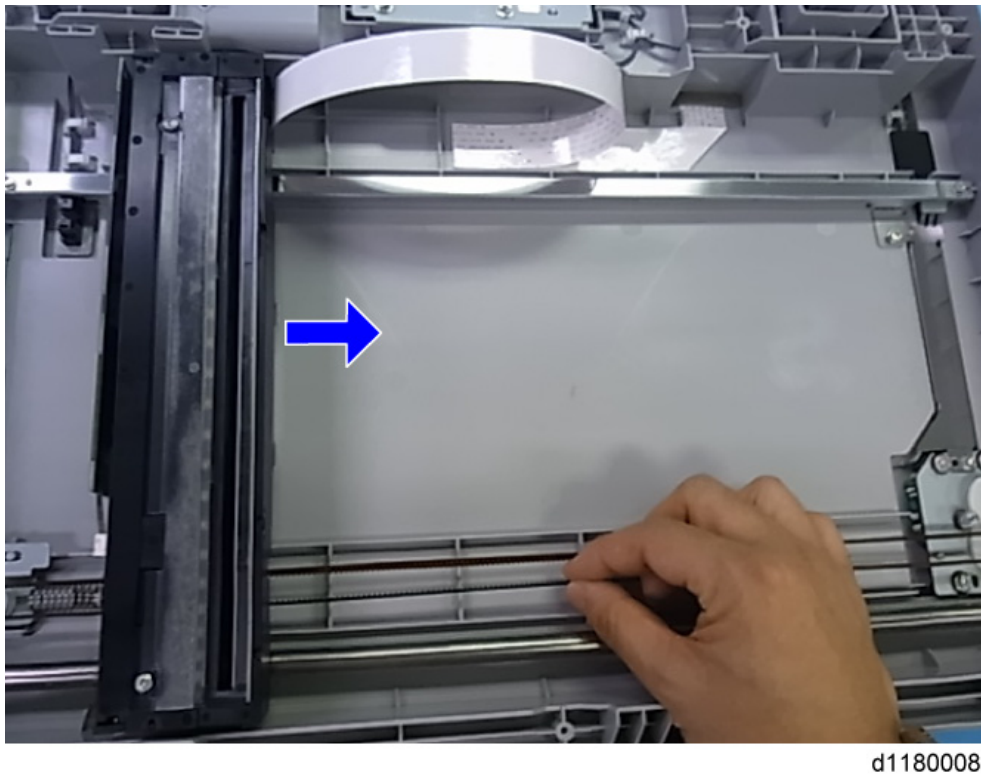
1. Remove the ADF unit. ([ADF Unit](#))
2. Remove the scanner front cover. ([Scanner Front Cover](#))

#### 4.Replacement and Adjustment

3. Remove the scanner upper cover [A].



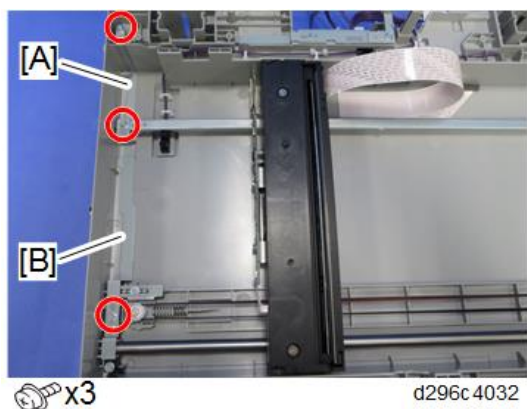
4. Move the scanner carriage to the right.



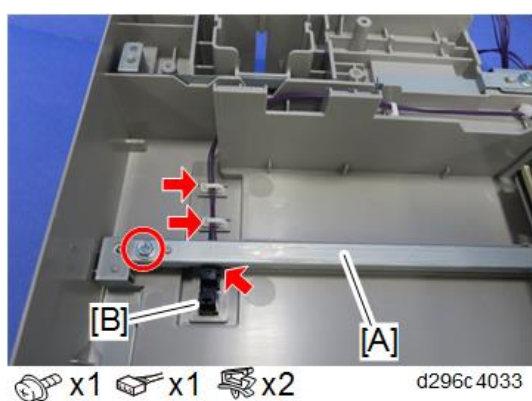
#### ★ Important

- 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.

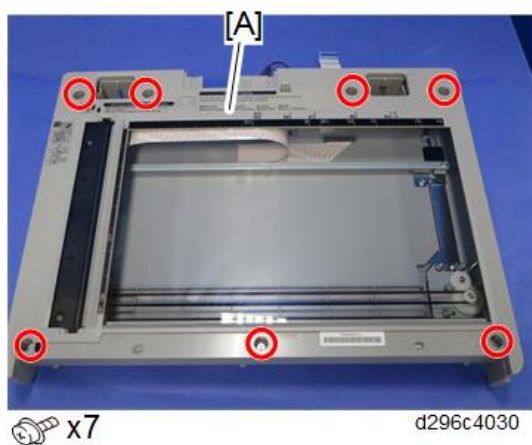


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## Scanner Motor

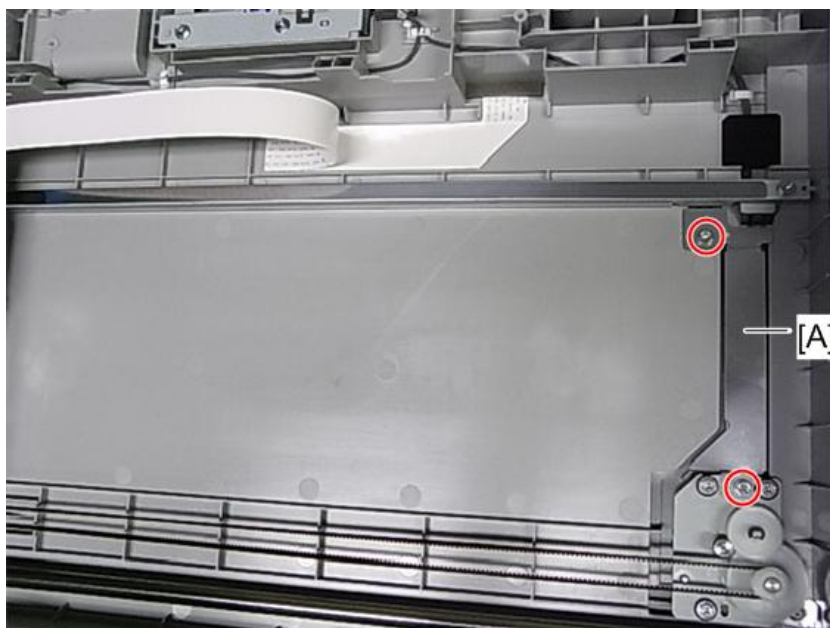
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1. Remove the ADF unit. ([ADF Unit](#))
2. Remove the scanner front cover. ([Scanner Front Cover](#))
3. Remove the scanner upper cover [A].



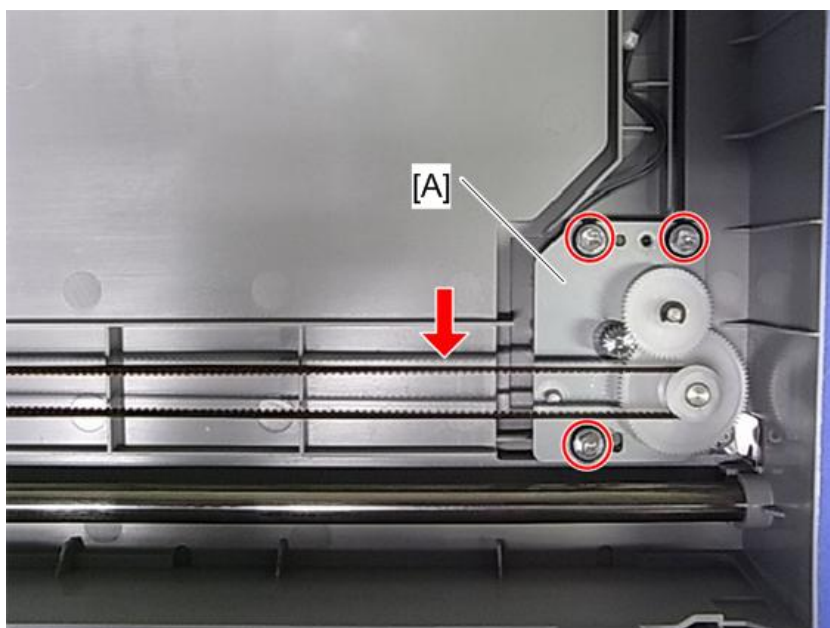
#### 4.Replacement and Adjustment

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



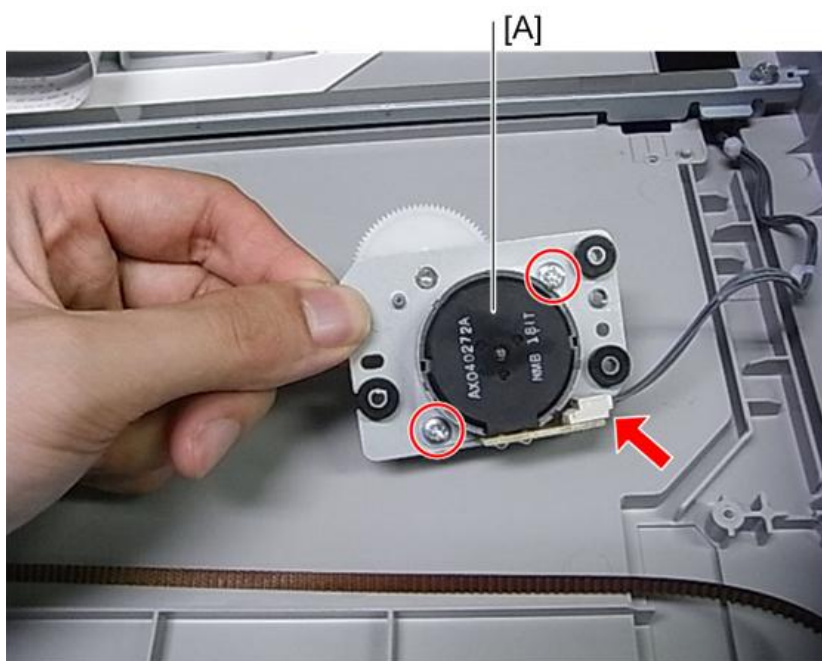
d1180011

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



d1180012

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



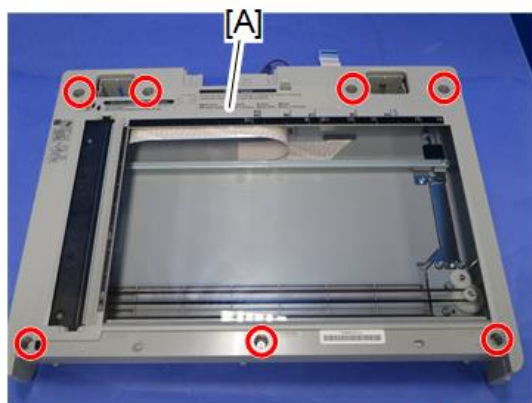
d1180013

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### 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].

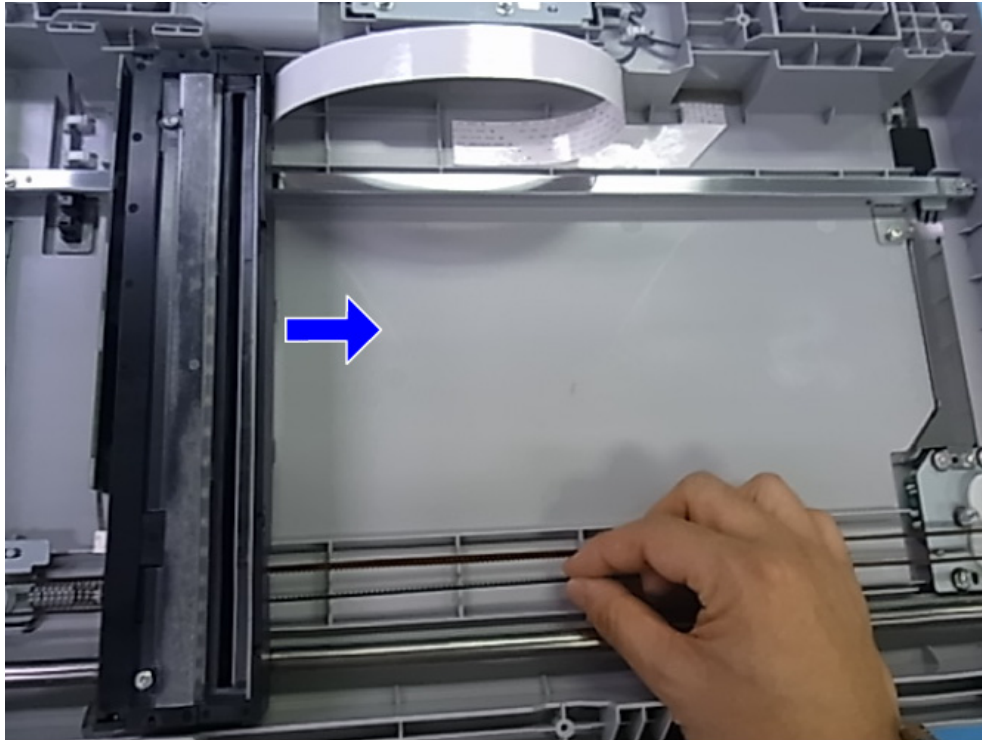


🛠️ x7

d296c4030

4. Move the carriage to the right.

#### 4.Replacement and Adjustment

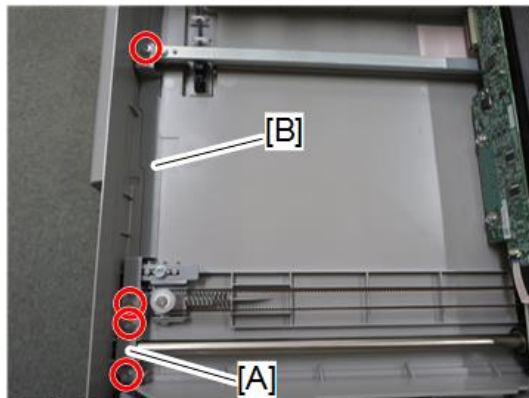


d1180008

#### ★ Important

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

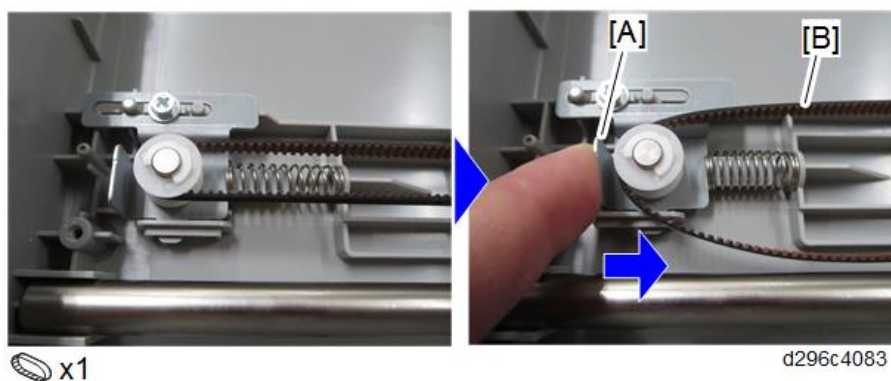
#### 5. Remove the brackets [A][B].




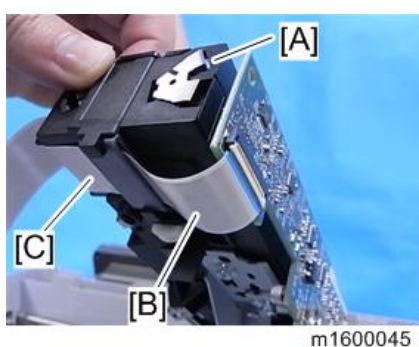
🔧 x4

d296c 4082

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



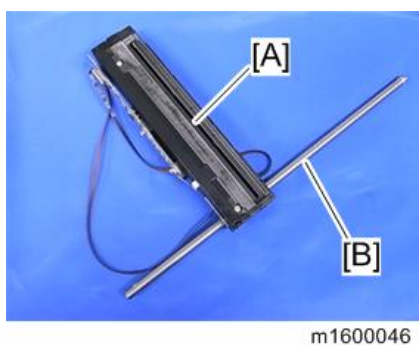
7. Disconnect the FFC [B] while lifting up the scanner carriage [A]. (  x1)



**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].



**Note**

- Never wipe off the grease on the shaft of the scanner carriage.

Reinstalling the Scanner Carriage

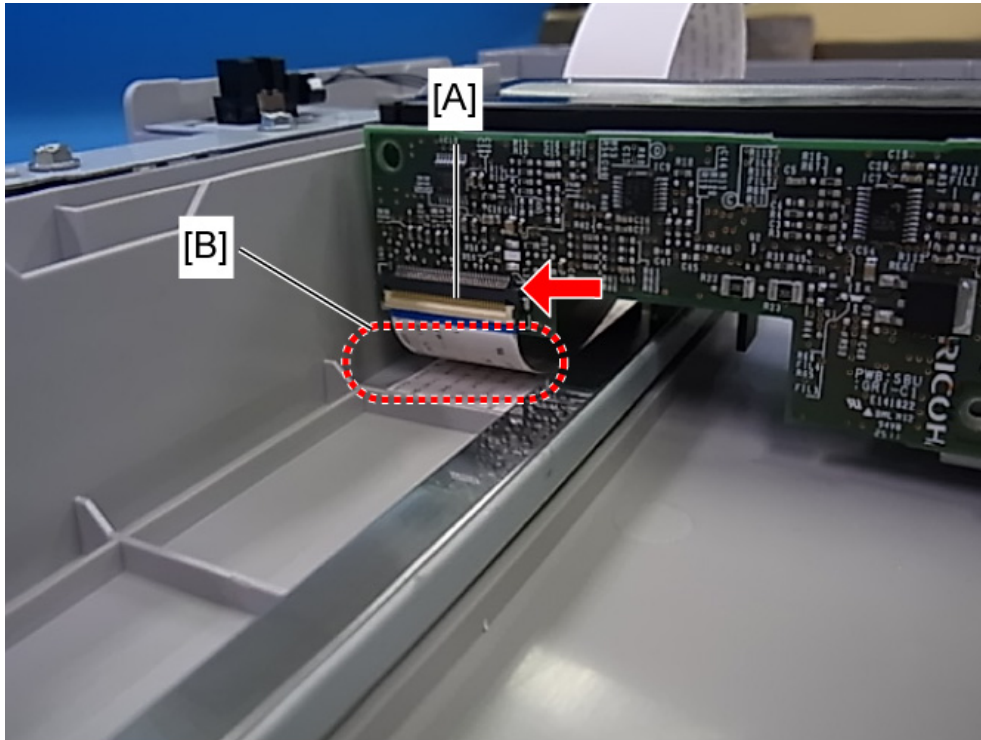
Make sure that the FFC of the carriage is correctly connected and routed referring to the following points.

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

#### 4.Replacement and Adjustment

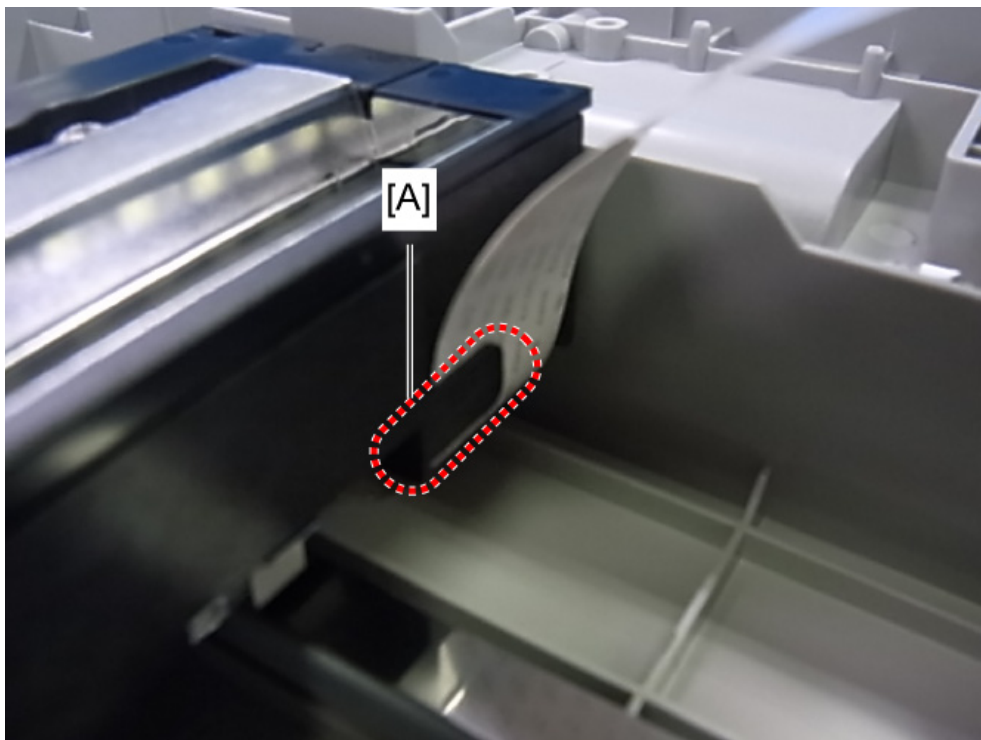
**★ Important**

- 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.

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### Caution Decal Location

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The caution decal is attached as shown below.



d238m1031



d296c0003

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### Laser Units

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#### ⓘ Note

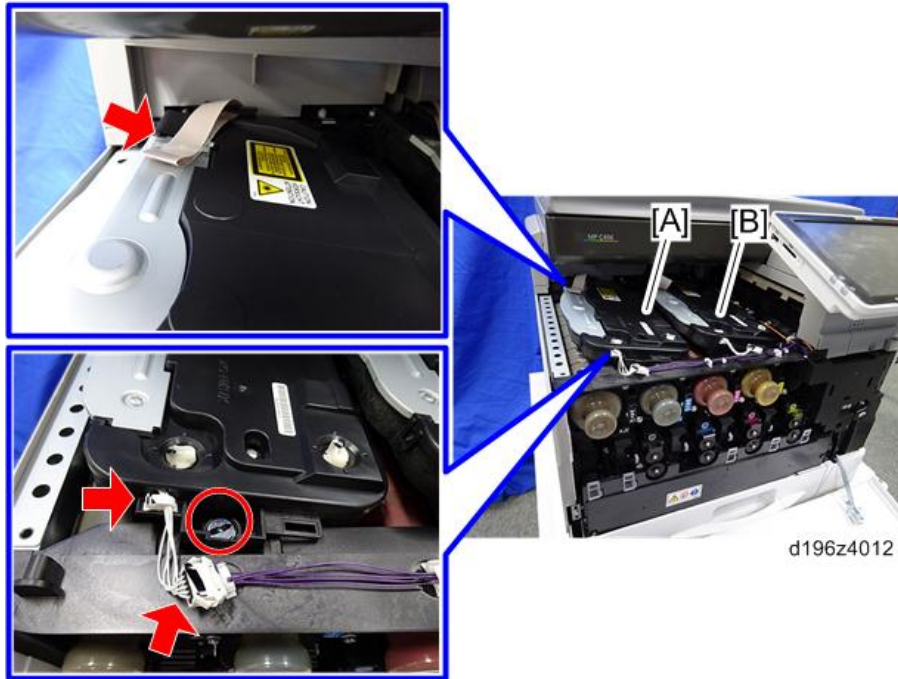
- The machine has two laser units. This procedure describes replacement of laser unit 1. Replacement of laser unit 2 can be done in the same way.

**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)

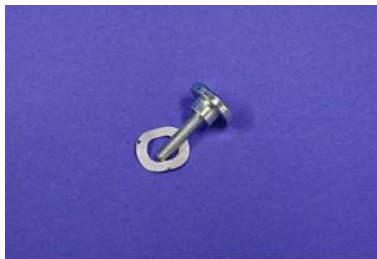
Repeat this procedure with the laser unit 2 [B].

#### 4.Replacement and Adjustment



#### Note

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



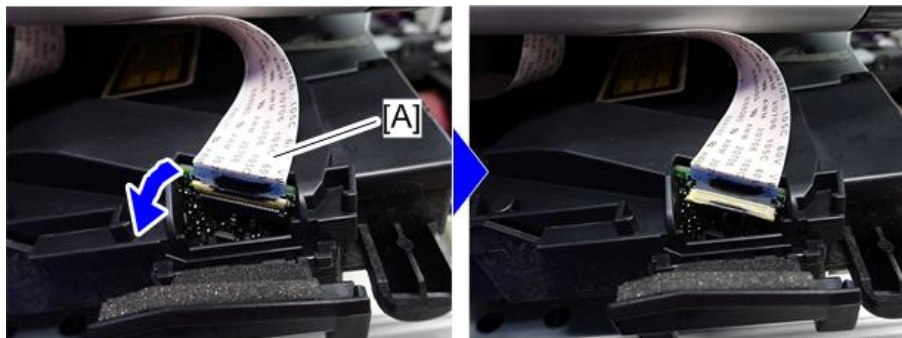
d196z4013

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



**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](#)”

---

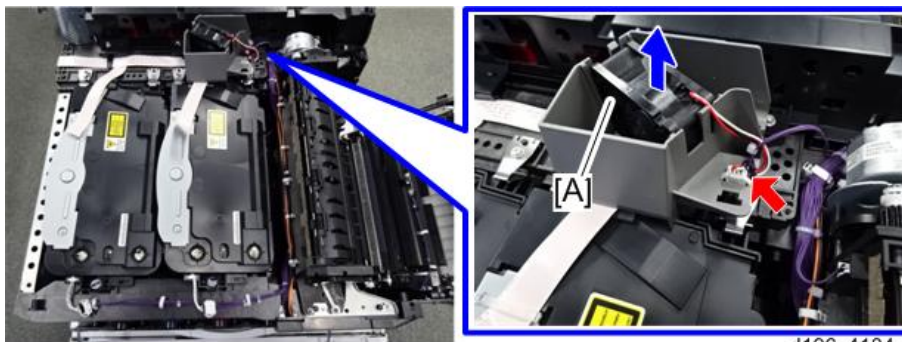
### LD Unit Cooling Fan

---

- 1.** Remove the scanner inner cover. ([Scanner Inner Cover](#))
- 2.** Remove the paper exit tray ([Paper Exit Tray](#))

#### 4.Replacement and Adjustment

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



d196z4134

## 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).

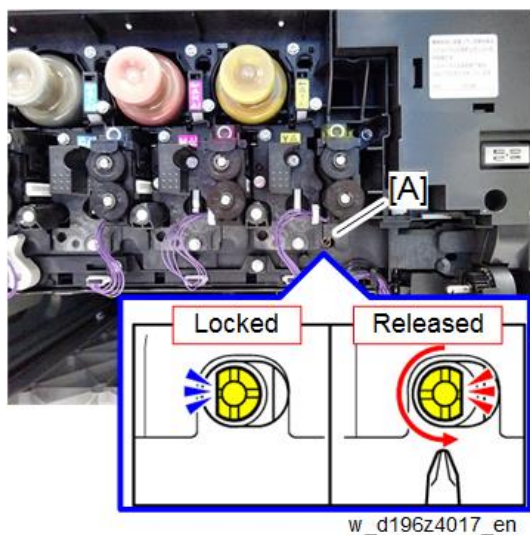
1. Remove the waste toner bottle. ([Waste Toner Bottle](#))
2. Only when removing the PCDU (K), release the ITB contact lever [A].



#### ↓ Note

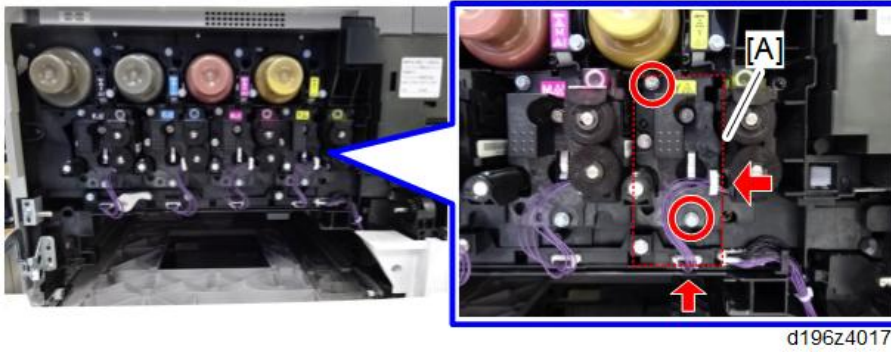
- This step is not required for removing the PCDU (CMY).

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)

#### 4.Replacement and Adjustment



#### **⚠ 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](#)”.

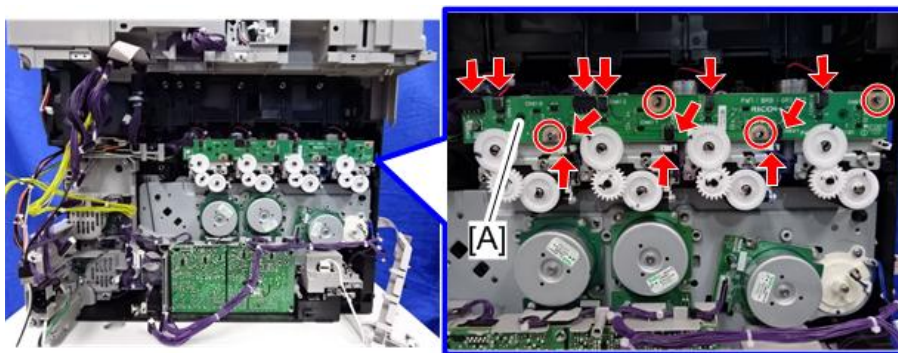
---

#### Toner Bottle Detection Board

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**1.** Remove the power pack (Development). ([Power Pack \(Development\)](#))

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

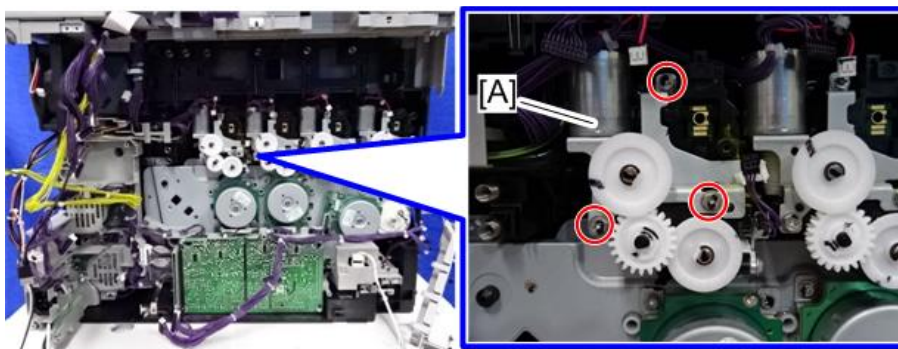


### Toner Supply Motors

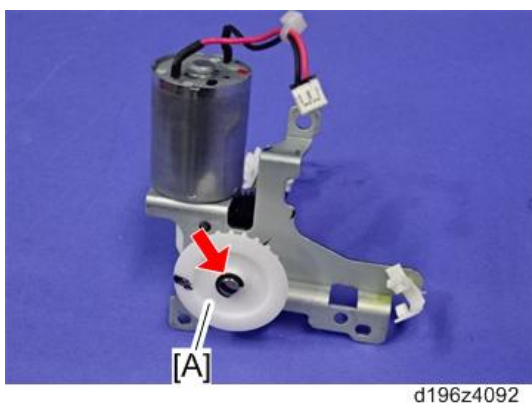
**Note**

- 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)

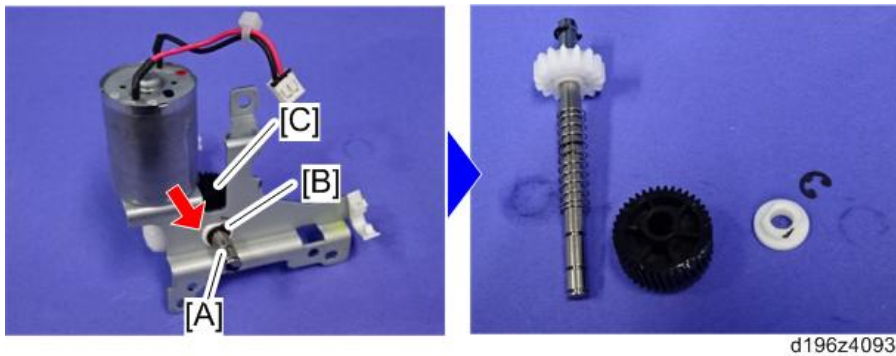


3. Remove the gear [A]. (🔩 × 1 each)

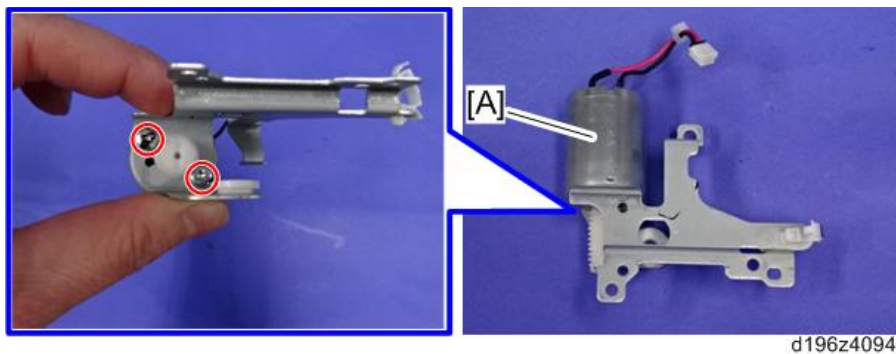


## 4.Replacement and Adjustment

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



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



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## Toner Transport Section

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### 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.

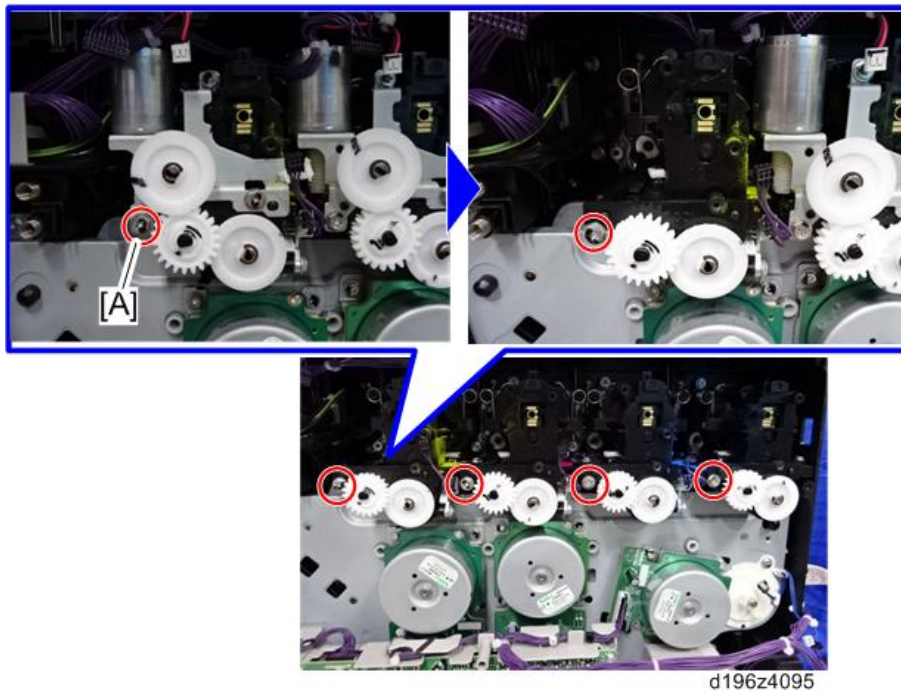


## Replacing the Toner Transport Section

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

#### Note

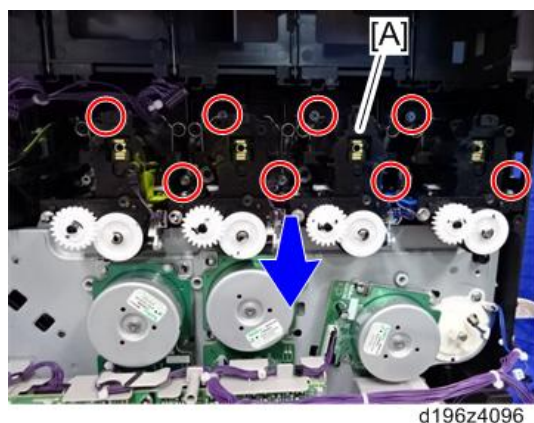
- After removing the toner supply motor, secure four screws [A] on the toner transport section to prevent toner from flying off.



### 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)

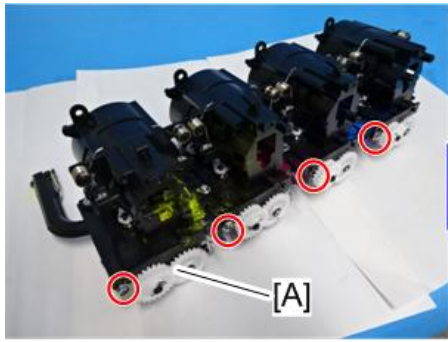


#### Note

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

#### 4.Replacement and Adjustment

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



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## Waste Toner

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### Waste Toner Bottle

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#### Before Replacing the Waste Toner Bottle

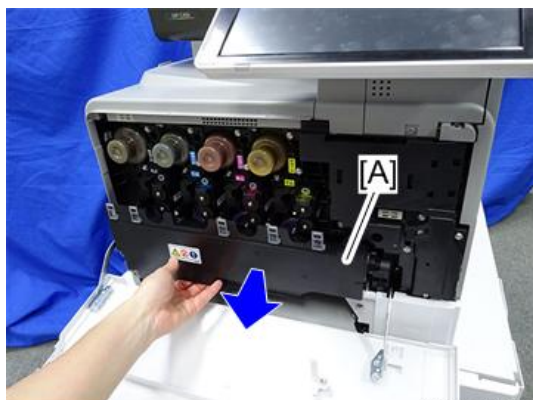
When you replace the waste toner bottle AFTER a waste toner full or near-full message appears on the operation panel, the PM counters are automatically cleared after turning the main power ON.

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

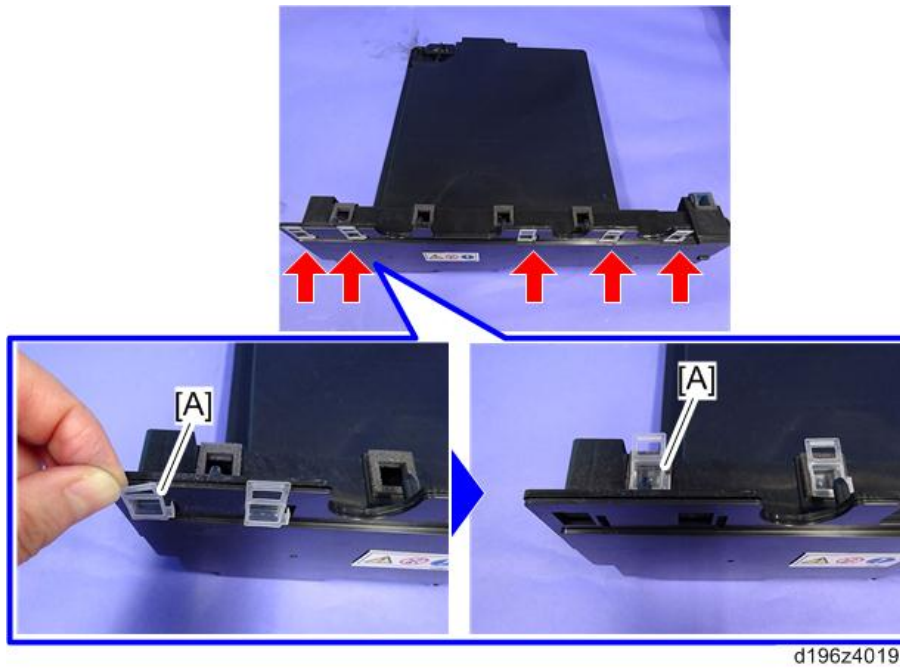
1. Pull out the paper tray.
2. Open the front cover.
3. Pull out the waste toner bottle [A].



d196z4018

#### 4.Replacement and Adjustment

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



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#### Waste Toner Full Sensor

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

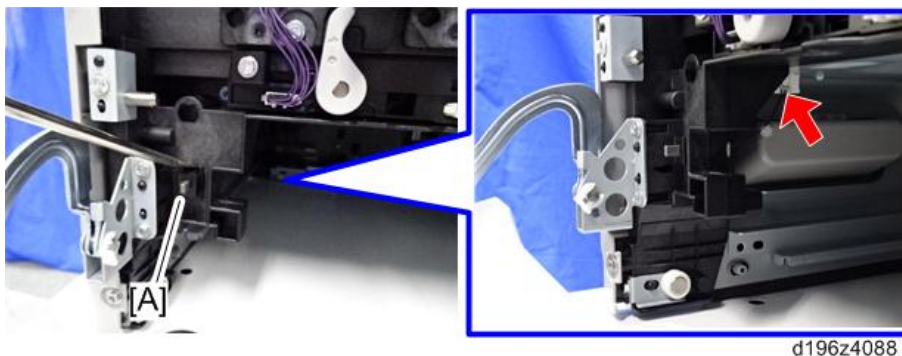


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#### Waste Toner Bottle Set Switch

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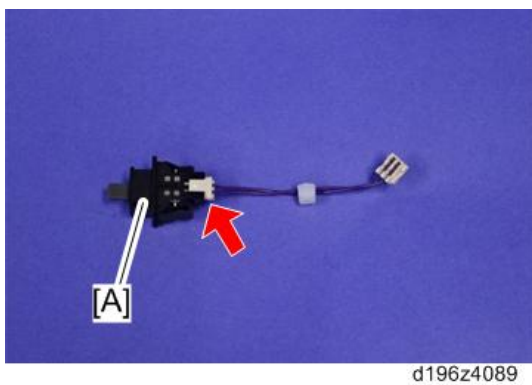
1. Remove the waste toner bottle. ([Waste Toner Bottle](#))
2. Remove the waste toner bottle set switch [A]. (🔧 × 1)



**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

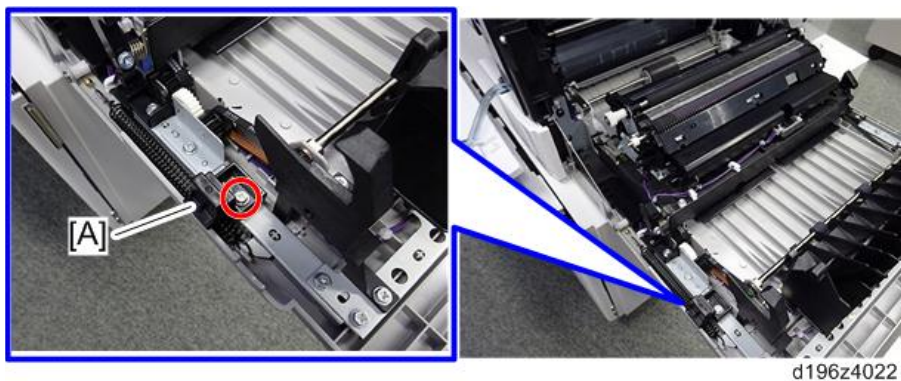
#### Before Replacing the ITB Unit

Before replacing the ITB unit, reset the PM counter.

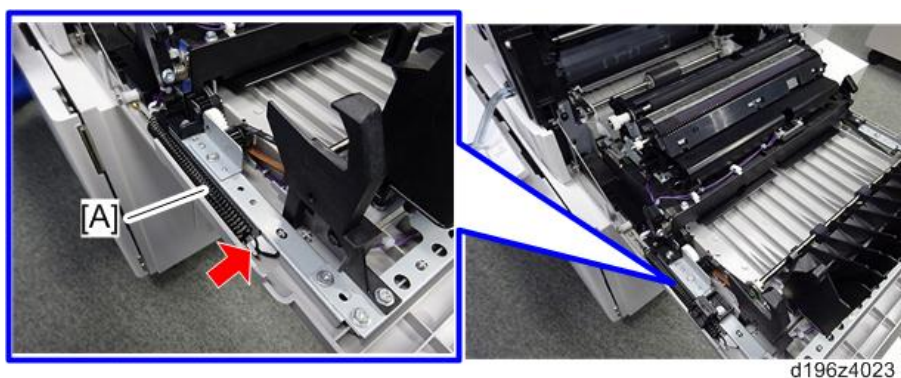
1. Turn the power ON.
2. Reset the PM counter. (Refer to [Replacement Procedure of the PM/Yield Parts](#))
3. Turn the power OFF.

#### Replacing the ITB Unit

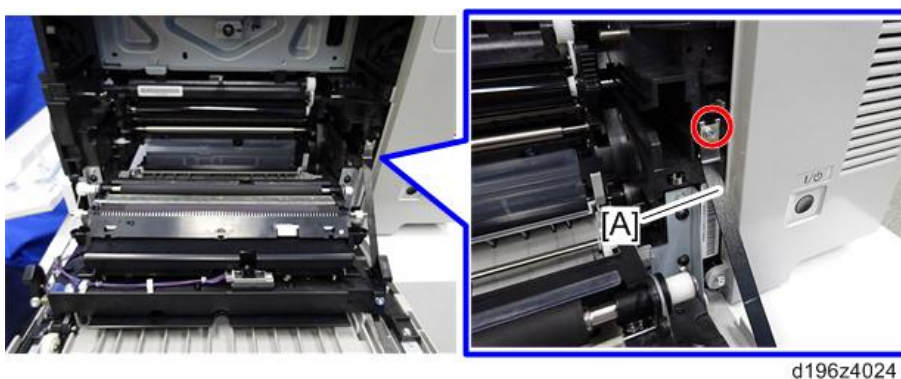
1. Remove all the PCDUs (PCDU (Photo Conductor and Development Unit))
2. Remove the fusing unit. (Fusing Unit)
3. Remove the tension spring cover [A]. (🔩 × 1)



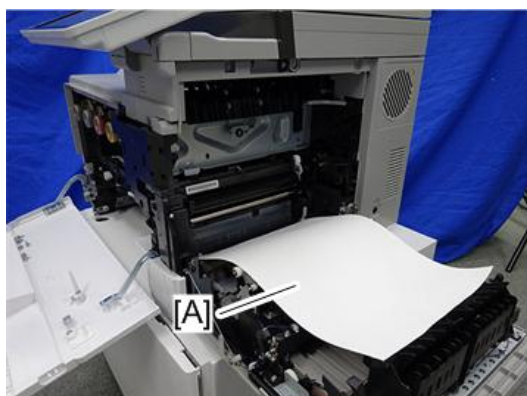
4. Release the tension spring [A]. (🌀 × 1)



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



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

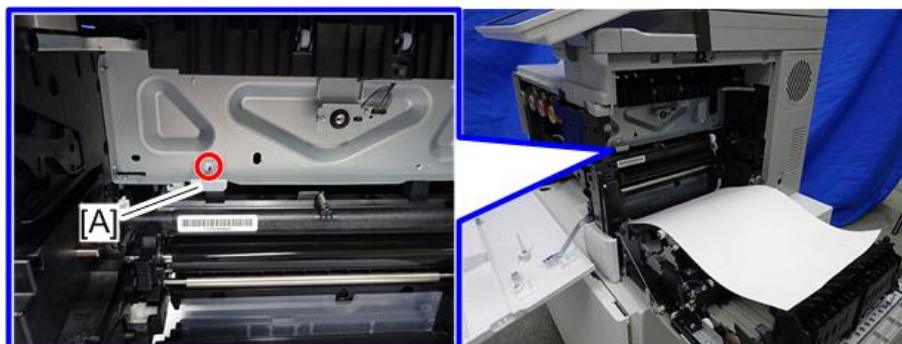


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**Note**

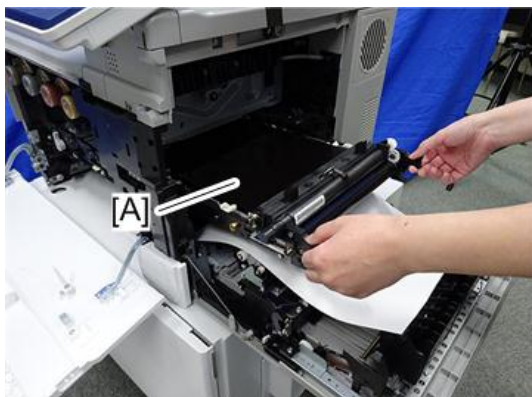
- This is to protect the paper transfer unit from toner when removing the ITB unit.

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.

#### 4.Replacement and Adjustment

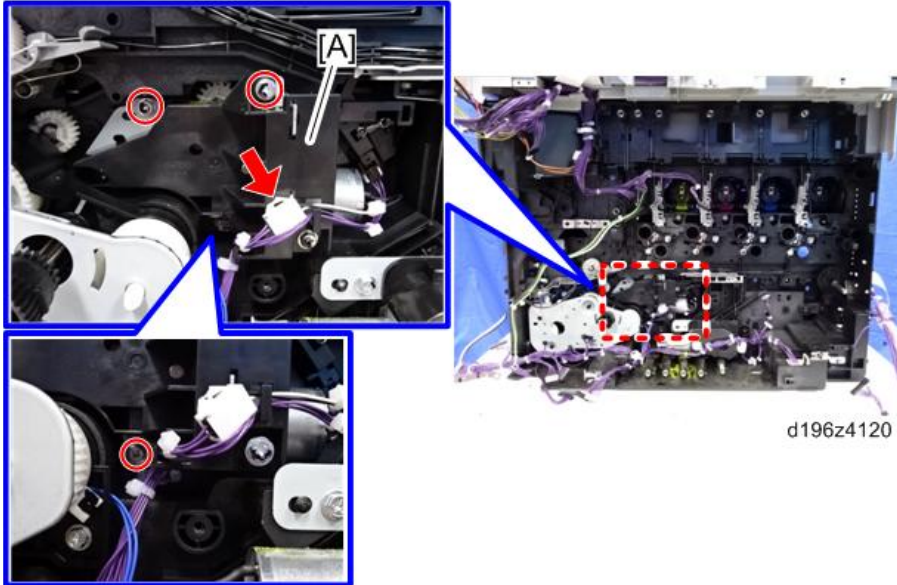
5. Reset SP1-001-031 to “0”.
6. Exit from the SP mode.
7. Turn the main power off and on.

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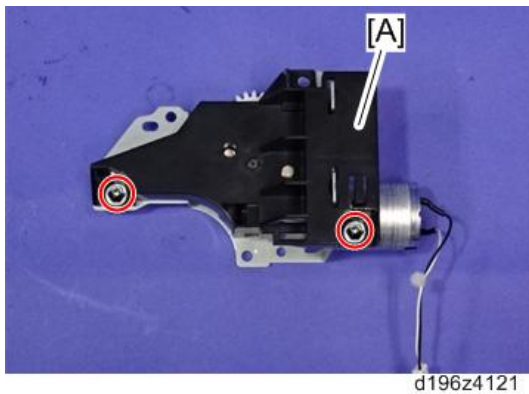
#### ITB Contact Motor

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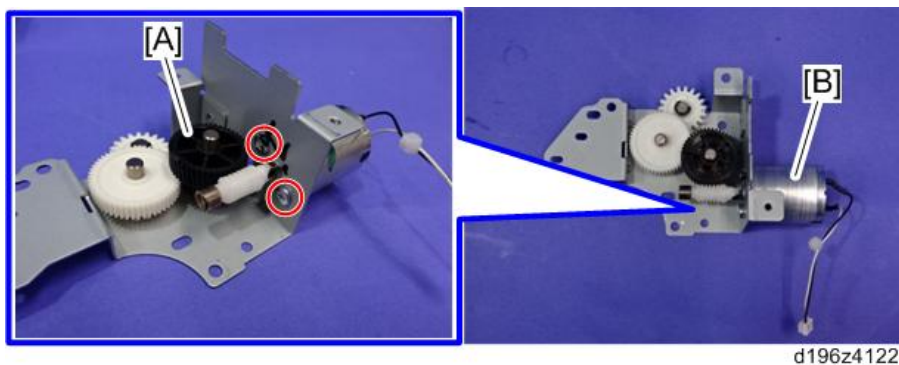
1. Remove the drive unit. ([Drive Unit](#))
2. Remove the ITB contact unit [A]. (⊙ × 3, ⊞ × 1)



3. Remove the cover [A]. (⊙ × 2)



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



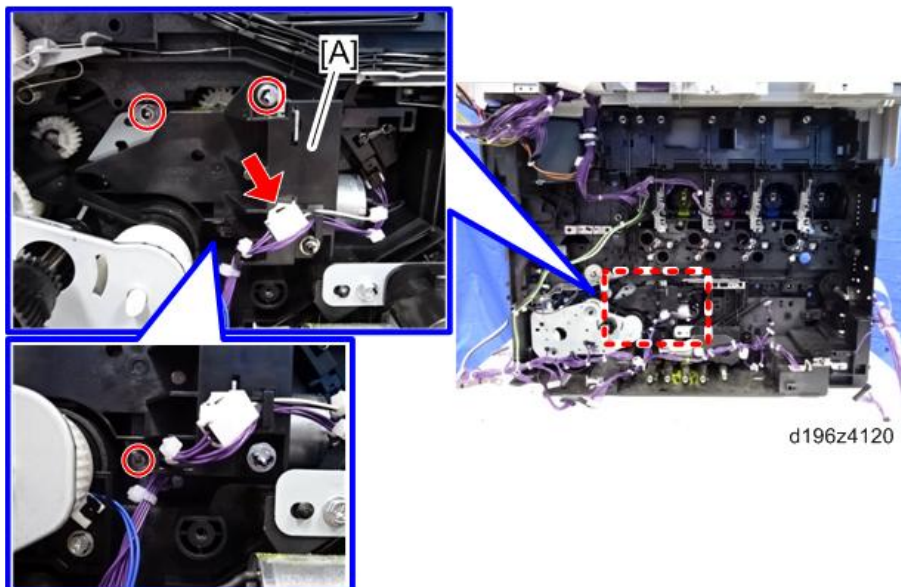


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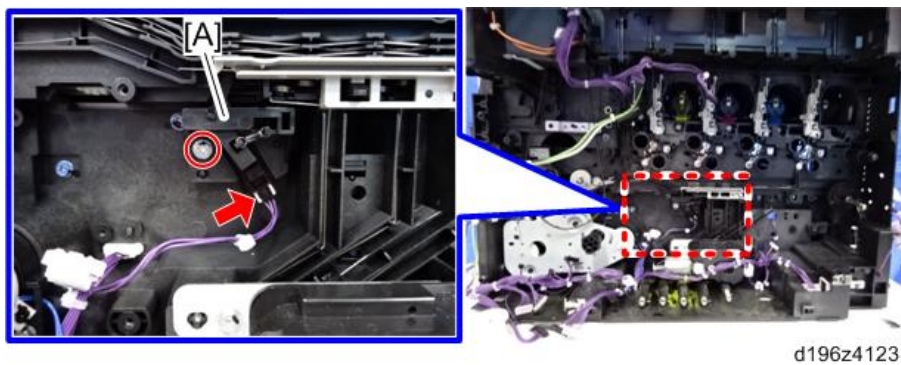
## ITB Contact HP Sensor

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

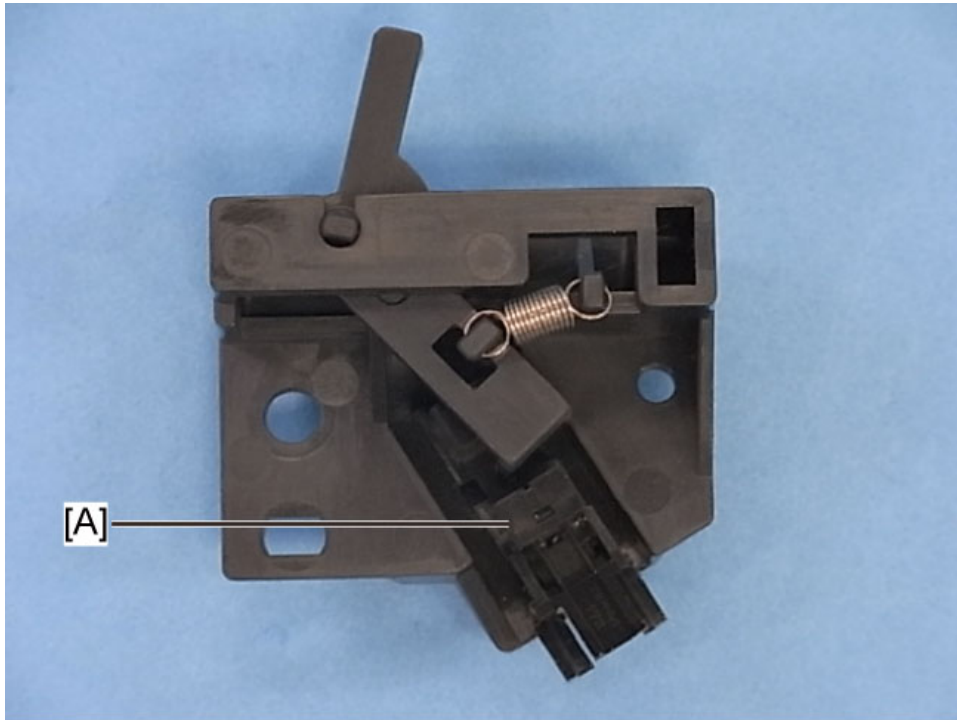


3. Remove the ITB contact HP sensor with the bracket [A]. (🔩 × 1, 📦 × 1)



## 4.Replacement and Adjustment

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



d1170198

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## ID Sensor

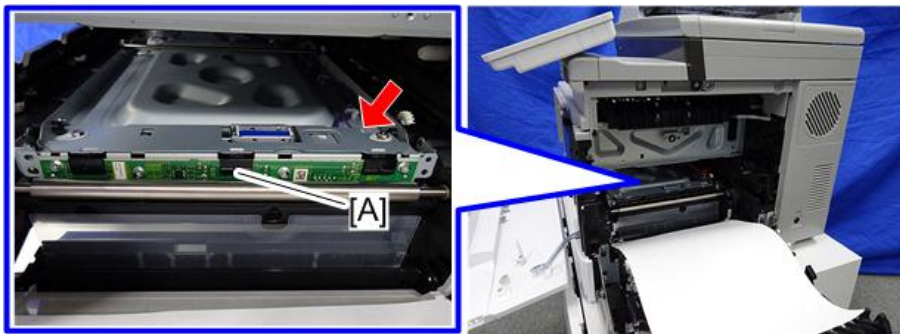
---

1. Remove the ITB unit. (ITB (Image Transfer Belt) Unit)
2. Remove the guide plate [A]. (⊙ × 2)



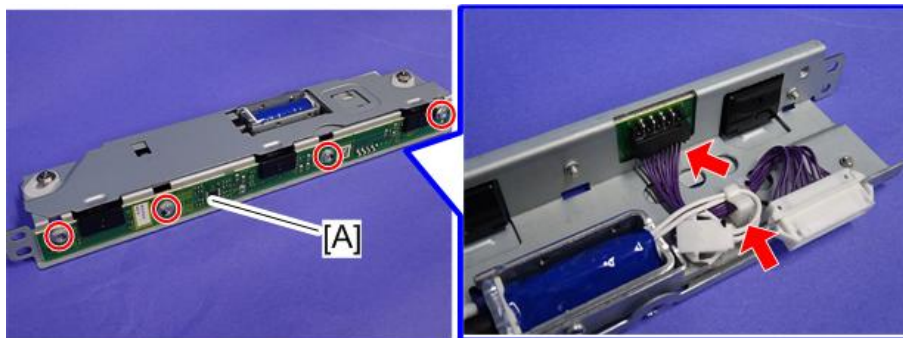
d196z4029

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



d196z4030

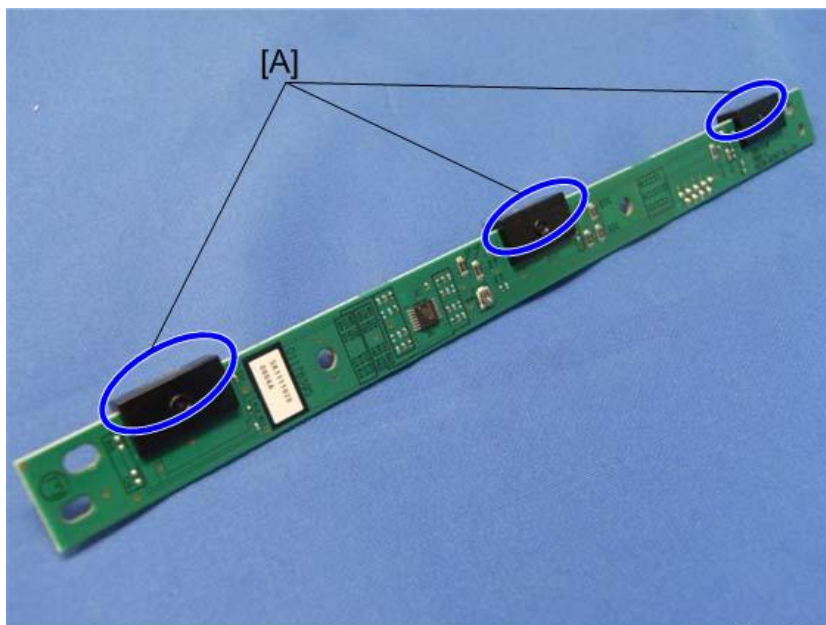
4. Remove the ID sensor [A]. (⊙ × 4, ⊞ × 1, ⊞ × 1)



d196z4031

**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.



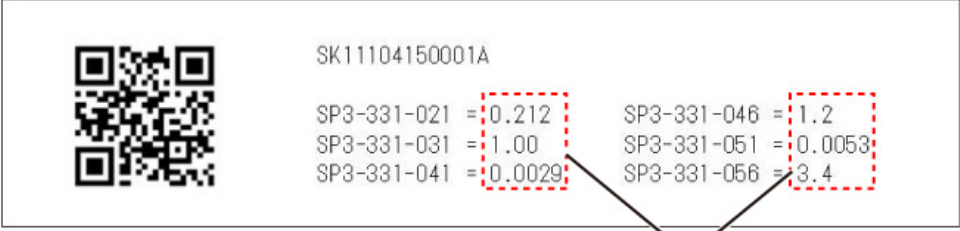
d1182051

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.

## 4.Replacement and Adjustment



SK11104150001A

|                      |                      |
|----------------------|----------------------|
| SP3-331-021 = 0.212  | SP3-331-046 = 1.2    |
| SP3-331-031 = 1.00   | SP3-331-051 = 0.0053 |
| SP3-331-041 = 0.0029 | SP3-331-056 = 3.4    |

[A] d1170736

### Note

- For example, enter “1.2” with SP3-331-046.

4. Exit the SP mode.

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## ID Sensor Shutter Solenoid

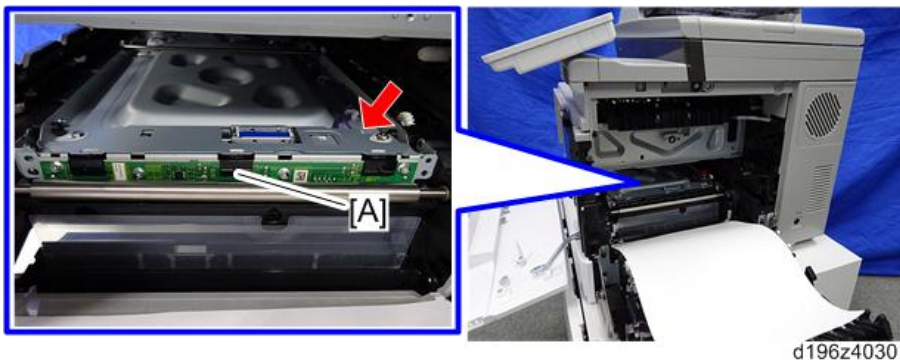
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1. Remove the ITB unit. (ITB (Image Transfer Belt) Unit)

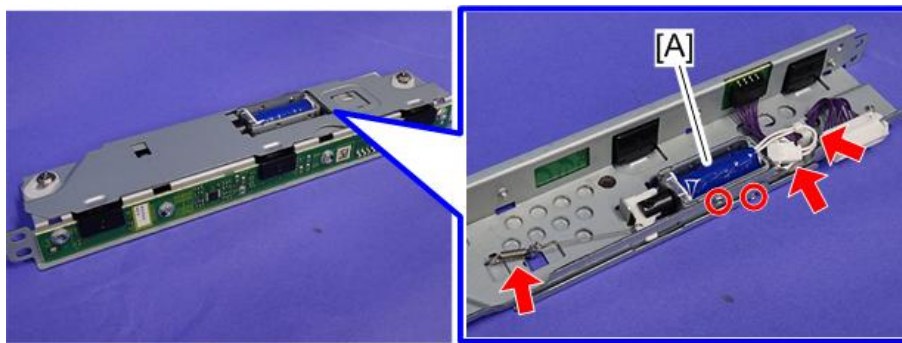
2. Remove the guide plate [A]. (🔩 × 2)



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



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



d196z4109

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## 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.

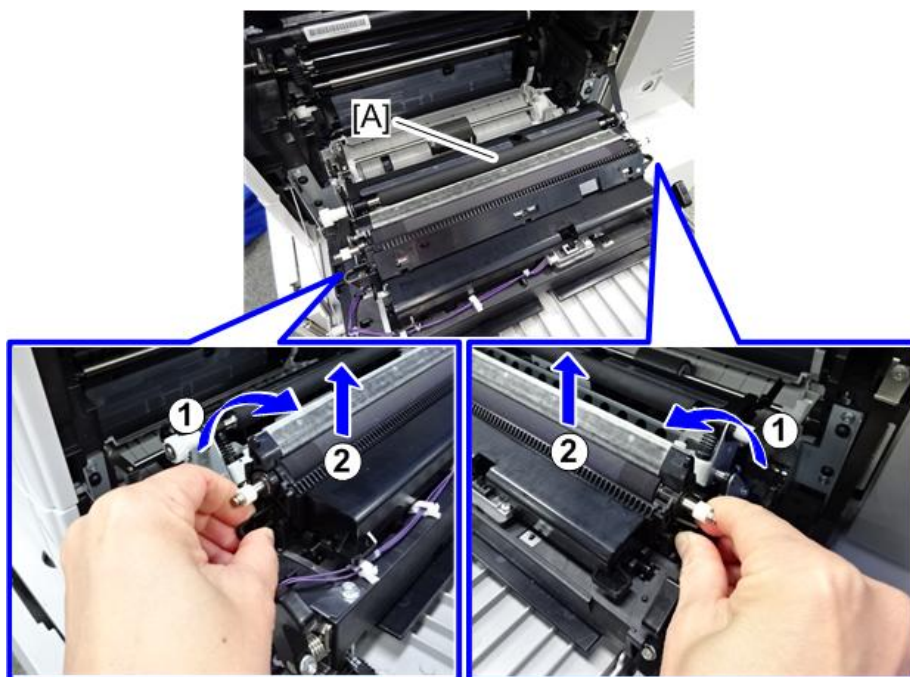


d196z4201

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

#### 4.Replacement and Adjustment

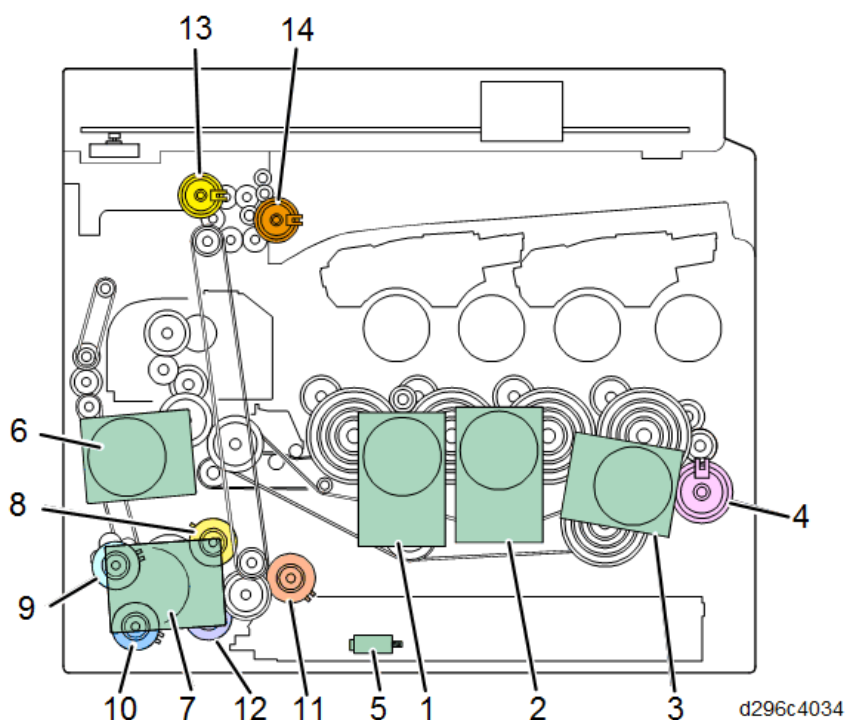
your fingers.



d196z4028

## Drive

### Overview



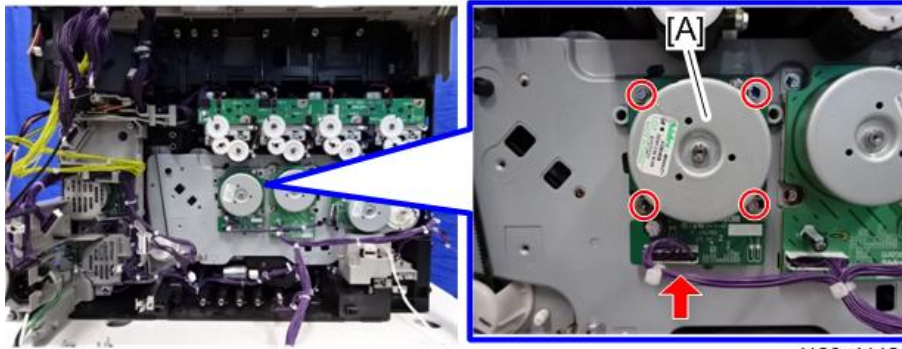
1. Development motor (CMY)
2. Drum motor (CMY)
3. Drum motor (K)
4. Development clutch (K)
5. Tray lift motor
6. Fusing motor
7. Paper transport motor
8. Registration clutch
9. Duplex clutch
10. Bypass feed clutch
11. Paper feed clutch
12. Bypass lift clutch
13. Reverse clutch
14. Paper exit clutch

### Development Motor (CMY)

- 1.** Remove the power pack (Transfer) with the bracket. ([Power Pack \(Transfer\)](#))

## 4.Replacement and Adjustment

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



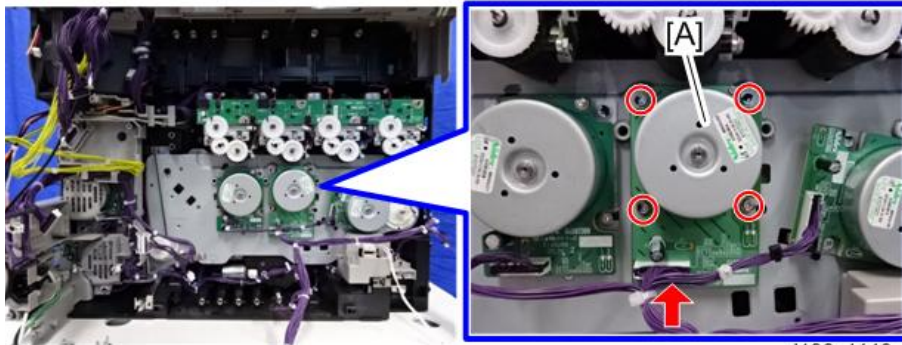
d196z4112

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### Drum Motor (CMY)

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- 1.** Remove the power pack (Transfer) with the bracket. (Power Pack (Transfer))  
**2.** Remove the drum motor (CMY) [A]. (🔩 × 4, 🗝️ × 1)



d196z4113

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### Drum Motor (K)

---

- 1.** Remove the power pack (Transfer) with the bracket. (Power Pack (Transfer))  
**2.** Remove the drum motor (K) [A]. (🔩 × 4, 🗝️ × 1)



d196z4114

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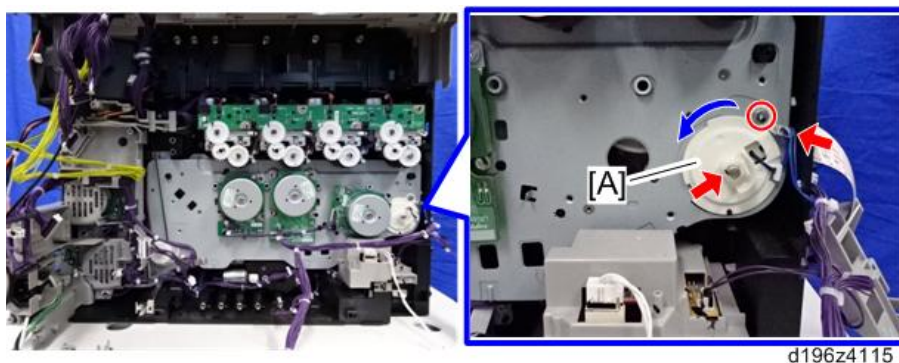
### Development Clutch (K)

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

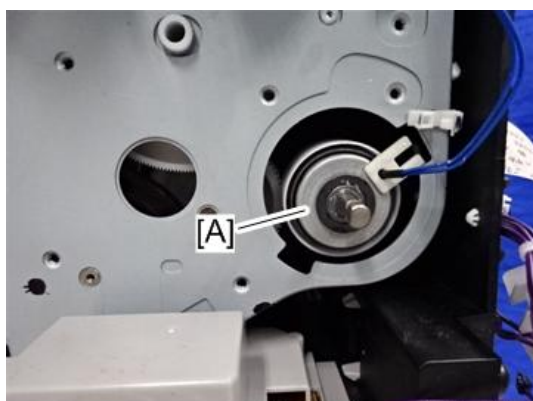


2. Remove the development clutch cover [A] by rotating it counterclockwise. (🔩 × 1, 🛠️ × 1, 🧰 × 1)



d196z4115

3. Remove the development clutch [A].



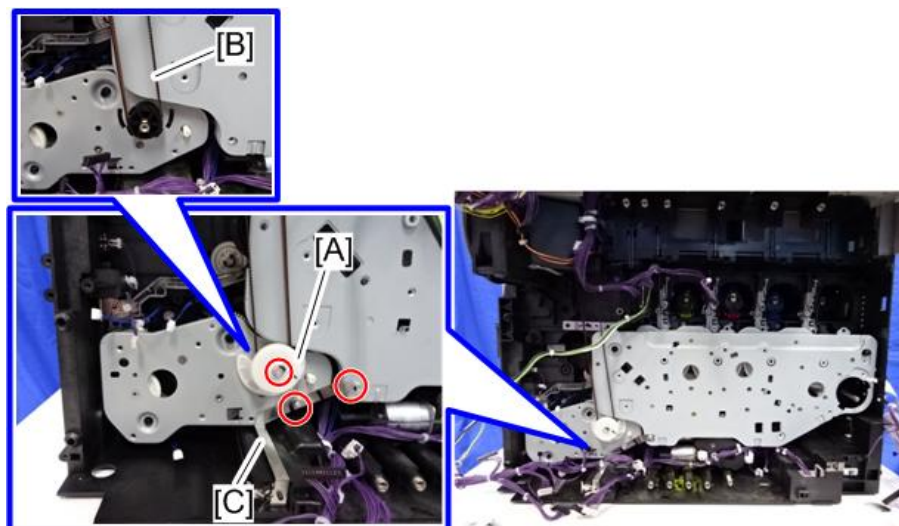
d196z4116

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## Drive Unit

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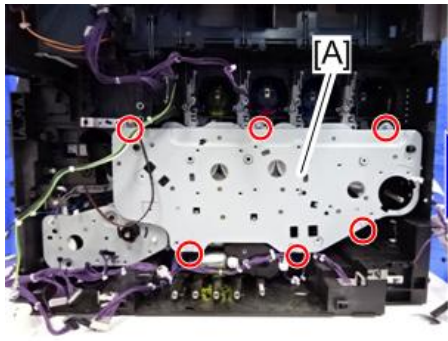
1. Remove the toner transport section. (Toner Transport Section)
2. Remove the development motor (CMY). (Development Motor (CMY))
3. Remove the drum motor (CMY). (Drum Motor (K))
4. Remove the drum motor (K). (Drum Motor (K))
5. Remove the development clutch (K). (Development Clutch (K))
6. Remove the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



d196z4118

#### 4.Replacement and Adjustment

7. Remove the drive unit [A]. (🔩 × 6)



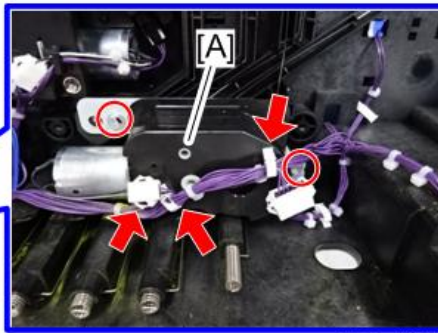
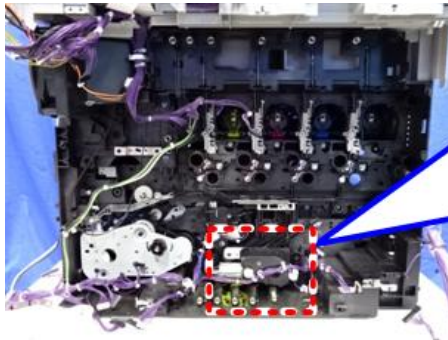
d196z4119

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#### Tray Lift Motor

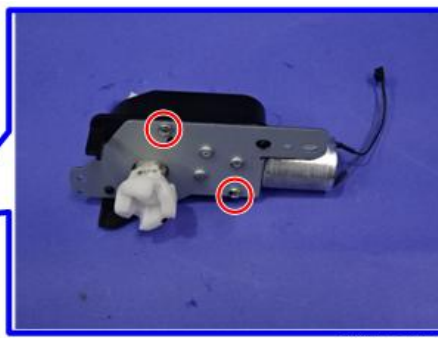
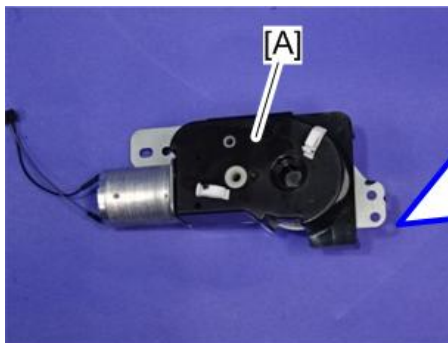
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1. Remove the drive unit. (Drive Unit)  
2. Remove the tray lift motor unit [A]. (🔩 × 2, 🛠️ × 2, 📦 × 1)



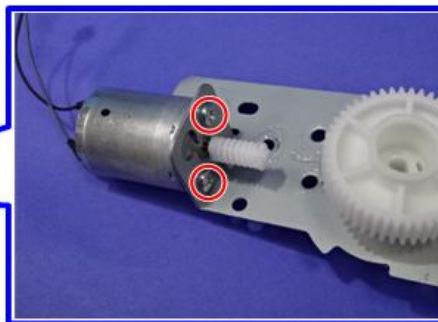
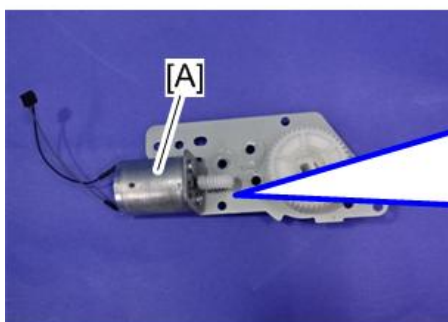
d196z4125

3. Remove the motor cover [A]. (🔩 × 2)



d196z4126

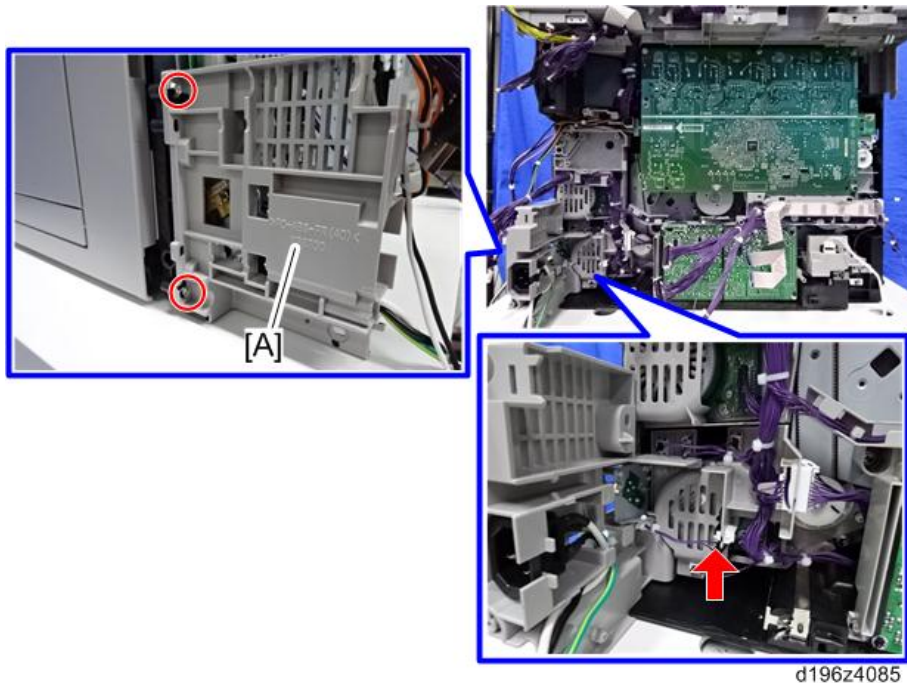
4. Remove the tray lift motor [A]. (🔩 × 2)



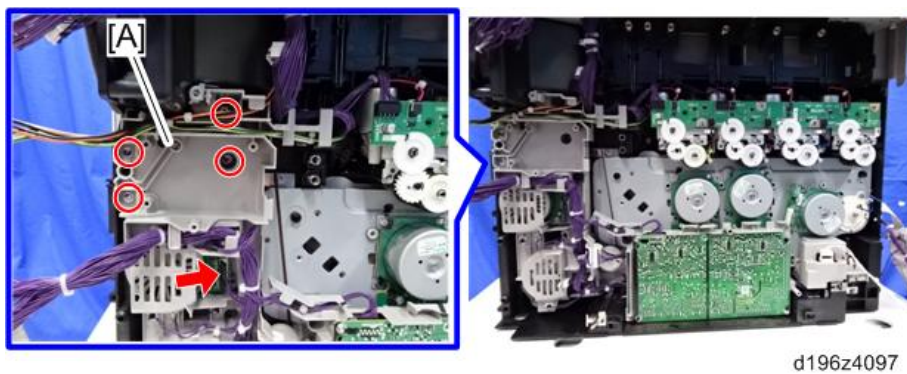
d196z4127

## Fusing Motor

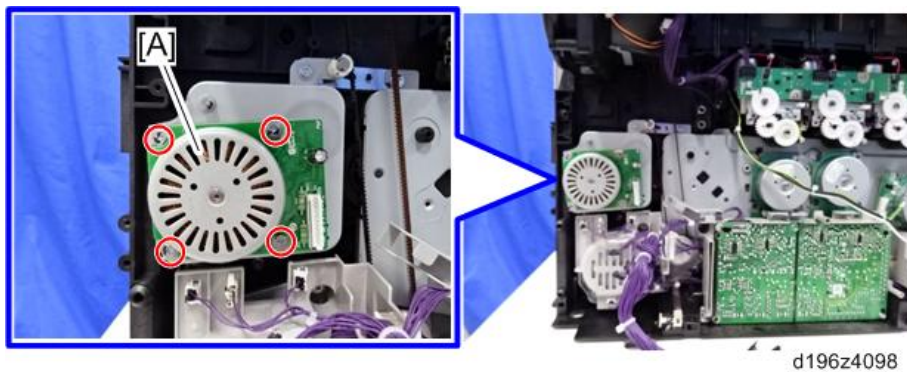
1. Remove the PSUs with the bracket. (PSU (AC), PSU (DC))
2. Remove the DC switch cover [A]. (⊙ × 2, ⊞ × 1)



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)

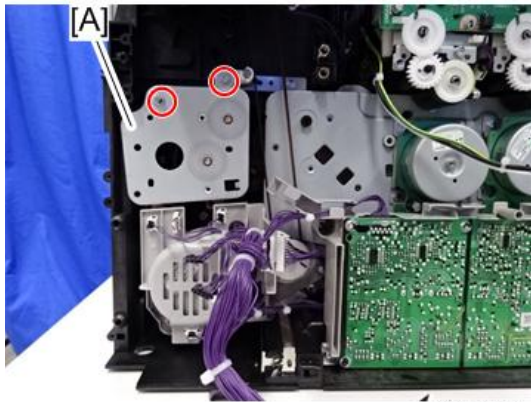


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Paper Transport Motor

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

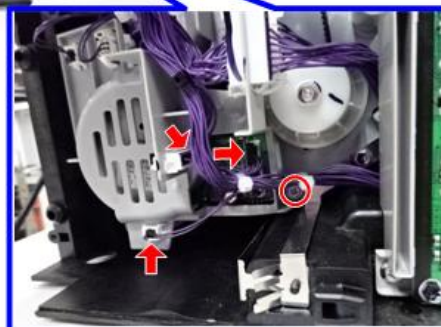
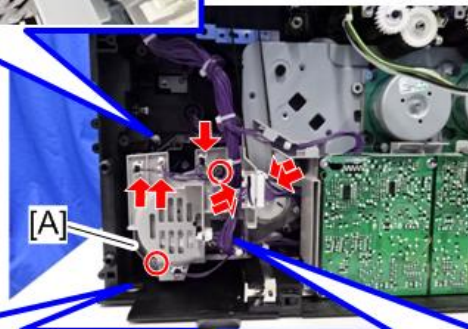
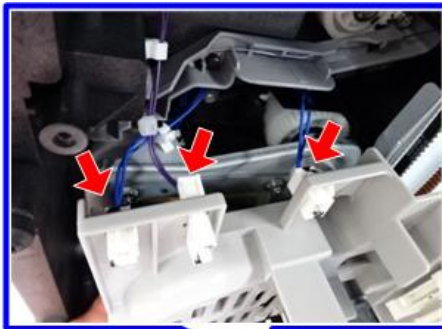


d196z4099

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

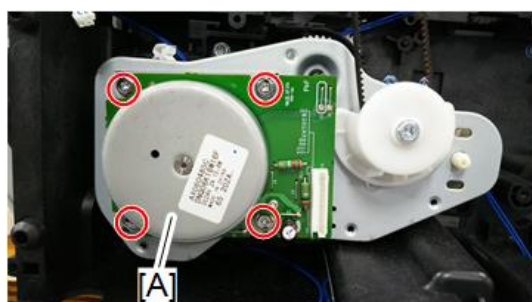
**Note**


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



d196z4110





4. Remove the paper transport motor [A].

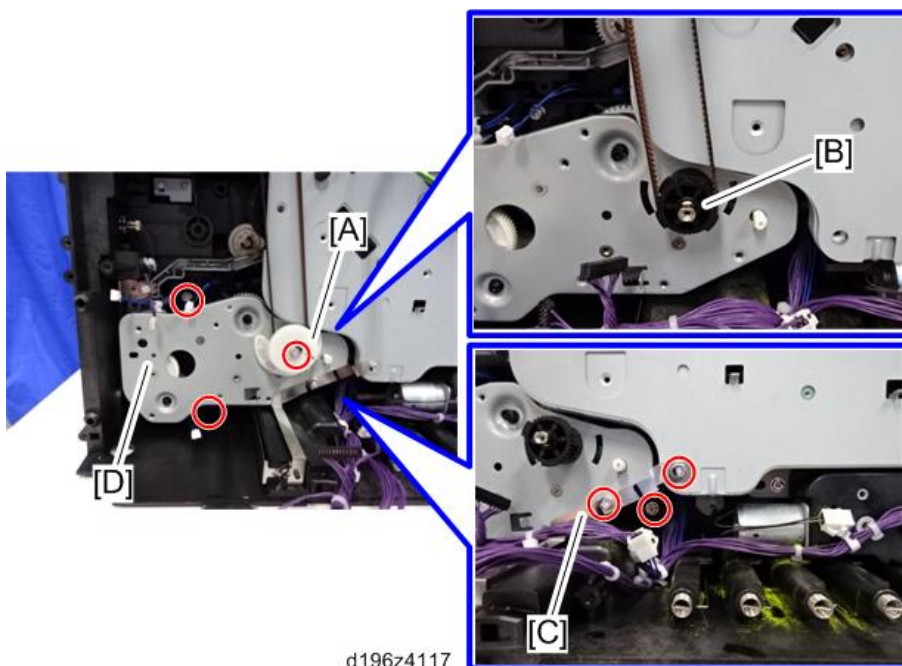


 x4

d296c 4071

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

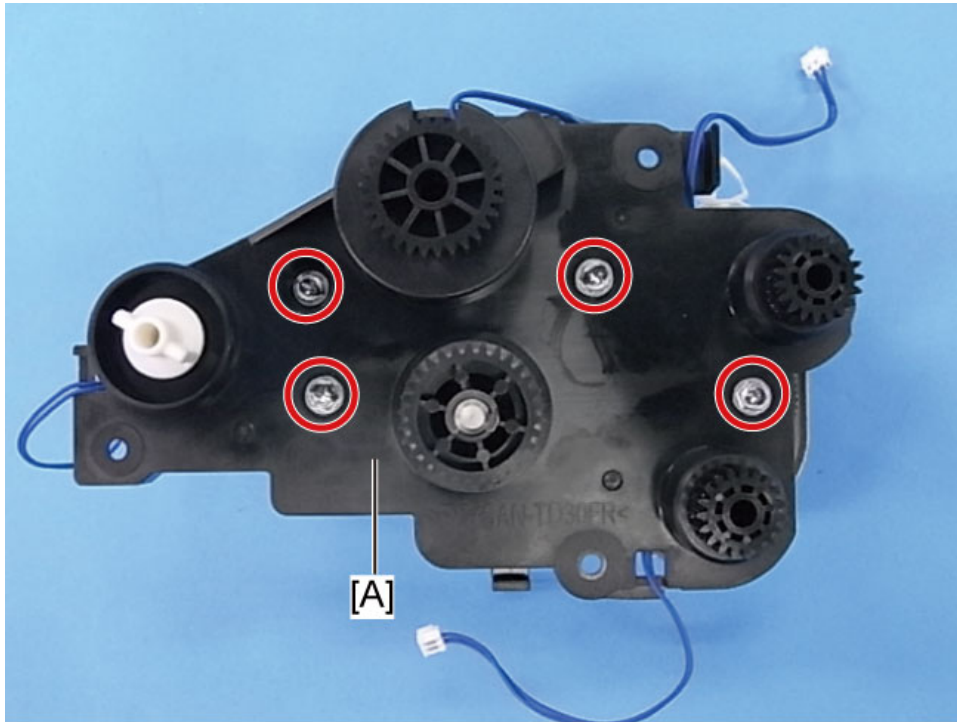
1. Remove the paper transport motor. ([Paper Transport Motor](#))
2. Remove the power pack (Transfer) with the bracket. ([Power Pack \(Transfer\)](#))
3. Remove the gear cover [A] and gear [B]. ( × 1,  × 1)
4. Remove the grounding plate [C]. ( × 2)
5. Remove the paper transport unit [D]. ( × 3)



d196z4117

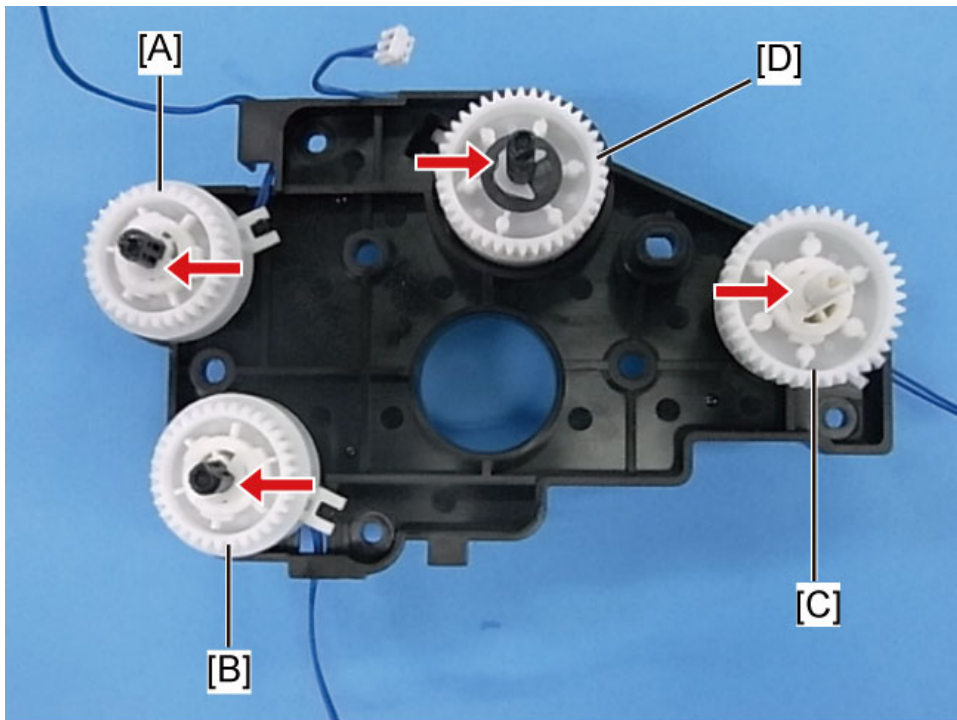
#### 4.Replacement and Adjustment

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



d1170175

7. Remove each clutch. (⚙️ × 1 each)



d1170176

- [A]: Duplex clutch
- [B]: Bypass feed clutch
- [C]: Paper feed clutch
- [D]: Registration clutch

## Fusing

### Fusing Unit

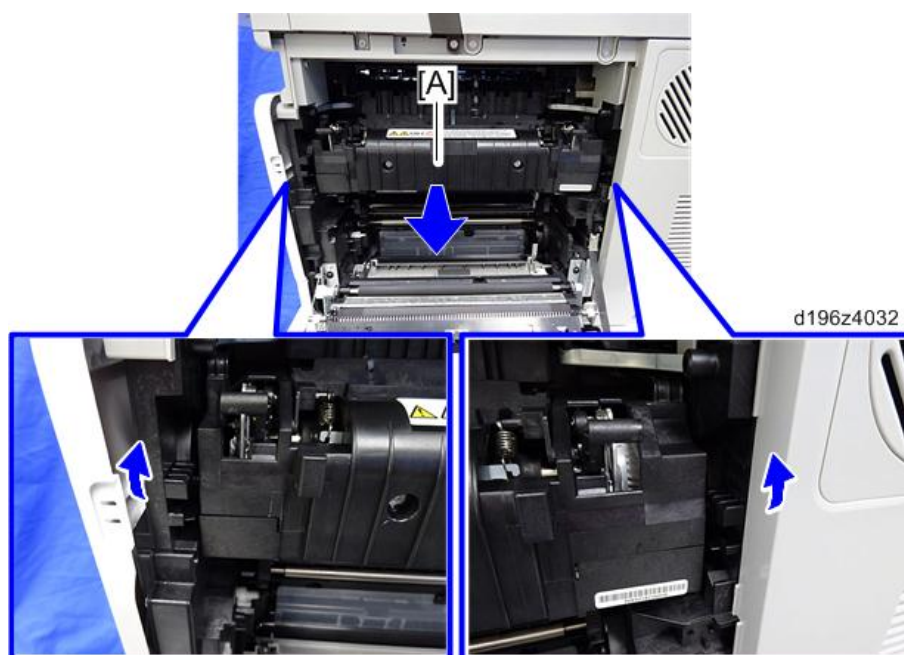
#### ⚠ CAUTION

- 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

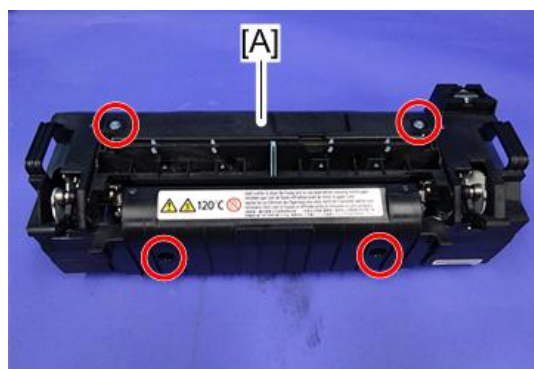
- Basically, the entire fusing unit must be replaced when SC544-00 or SC554-00 occurs.
- In some cases, the fusing unit need not be replaced if SC544-00 or SC554-00 occurs. See “[Actions When SC544-00 or SC554-00 Occurs](#)” for these cases.

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)



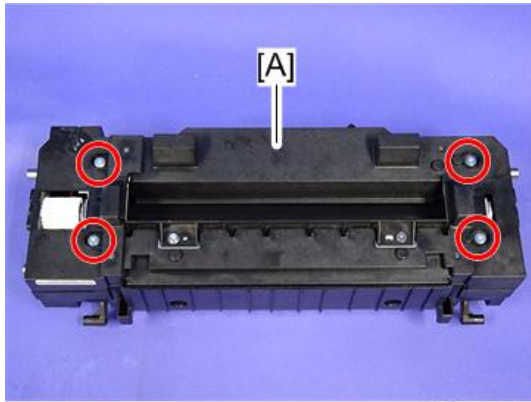
## 4.Replacement and Adjustment

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### Fusing Lower Cover

---

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



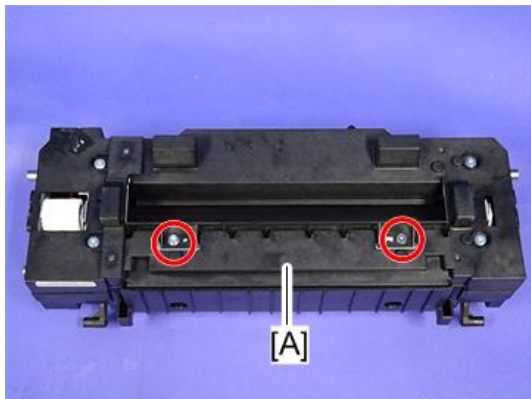
d196z4034

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### Fusing Entrance Guide Plate

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

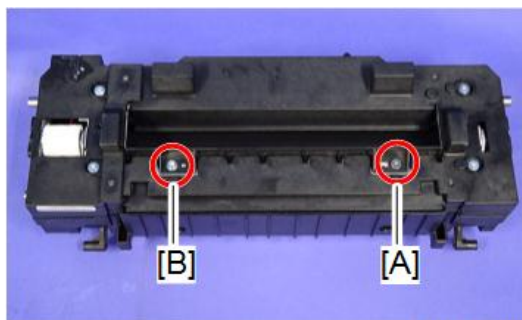


d196z4035

#### Note

- There are two screw holes for each screw on the entrance guide plate. Use the outer holes when tightening the entrance guide plate.
- Different types of screws are used for [A] and [B]:  
[A]: Shoulder screw  
[B]: Double sems screw (a screw with a washer)

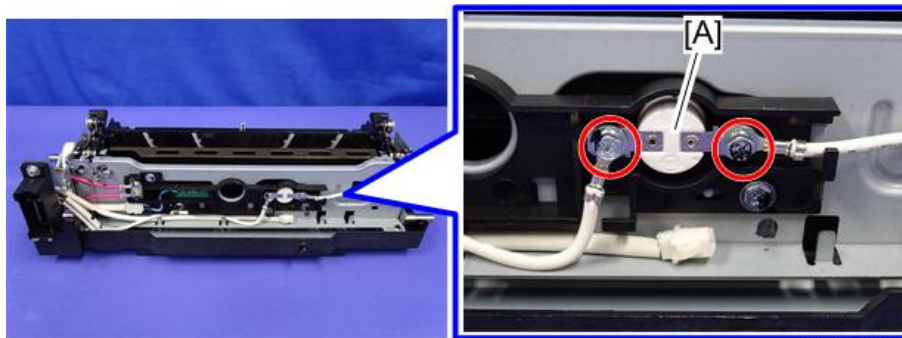




d196z4189

### Fusing Thermostat

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



d196z4036

**Note**

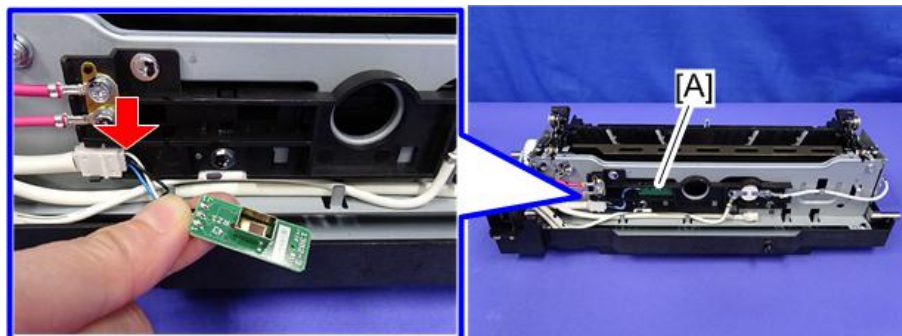
- Never re-use a thermostat that has activated. Use a new thermostat for replacement.

### 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).



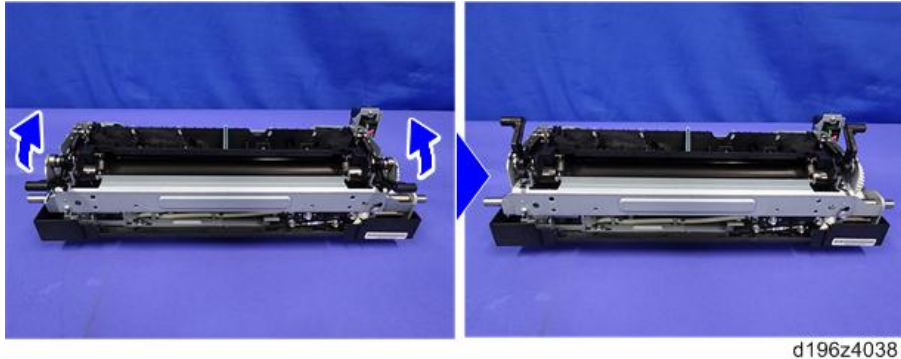
d196z4037

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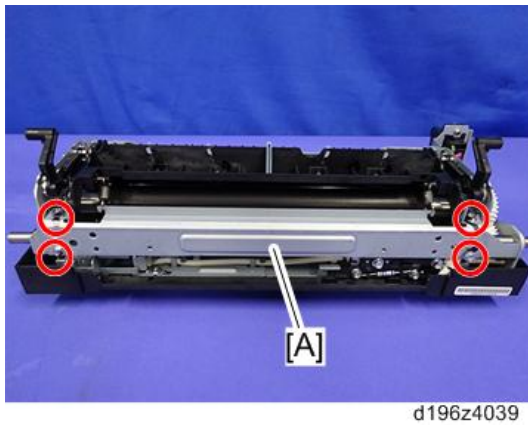
## Fusing Pressure Roller Thermistors

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

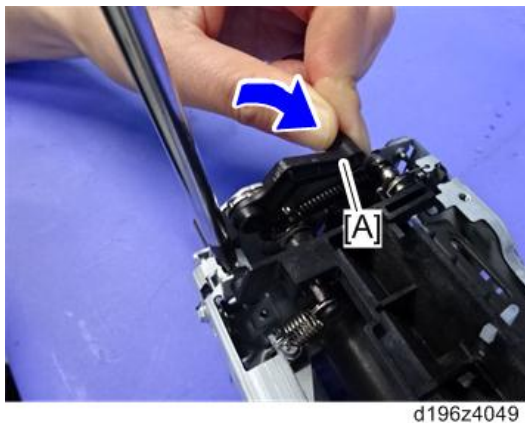


3. Remove the bracket [A]. (⊙ × 4)



**Note**

- Lift the fusing lever while removing the upper screws.

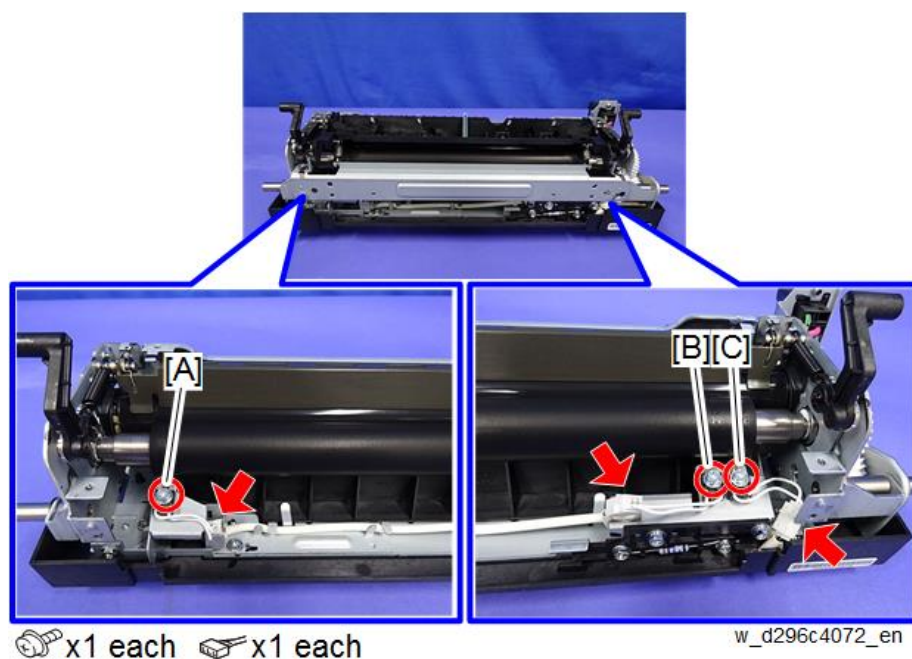


4. Remove the pressure roller thermistors [A], [B] or [C].

A: Pressure roller thermistor (Front)

B: Pressure roller thermistor (Center)

C: Pressure roller thermistor (Rear)




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## Pressure Roller

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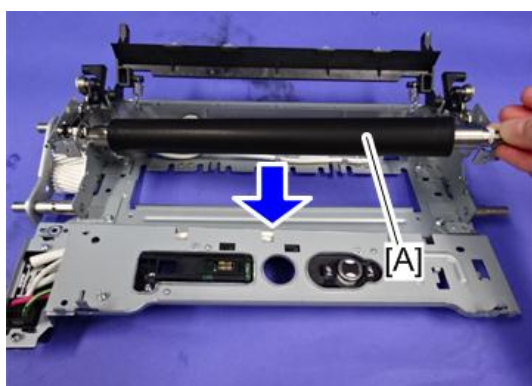
### Before Replacing the Pressure Roller

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].




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## Fusing Sleeve Belt Assembly

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### Before Replacing the Fusing Sleeve Belt Assembly

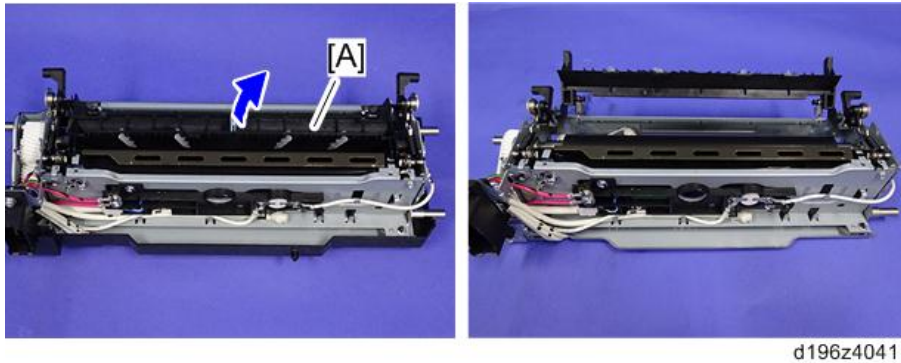
Before replacing the fusing sleeve belt assembly, reset the PM counter.

#### 4.Replacement and Adjustment

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

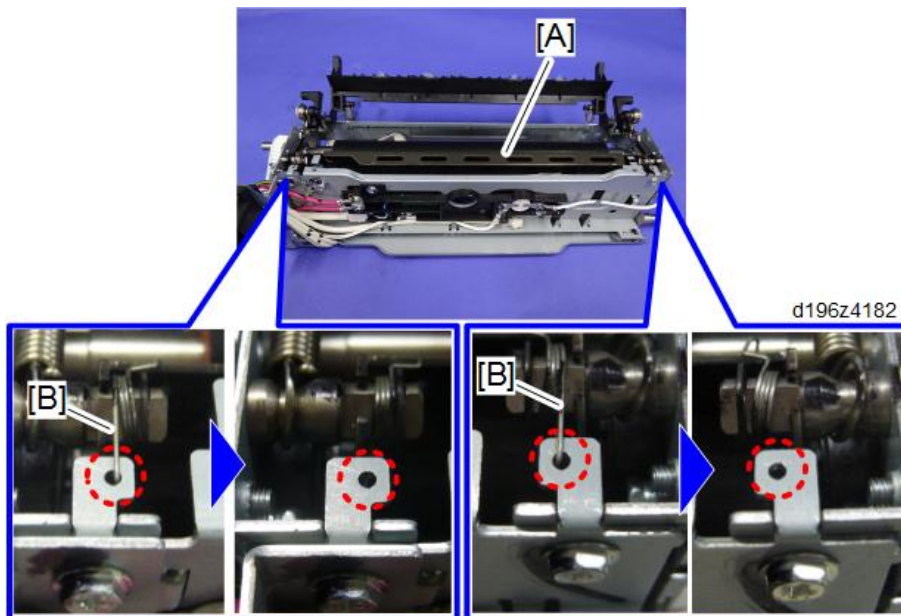
1. Remove the fusing lower cover. ([Fusing Lower Cover](#))
2. Remove the fusing entrance guide plate. ([Fusing Entrance Guide Plate](#))
3. Remove the fusing upper cover. ([Fusing Upper Cover](#))
4. Raise the fusing exit guide plate [A].



#### **⚠ CAUTION**

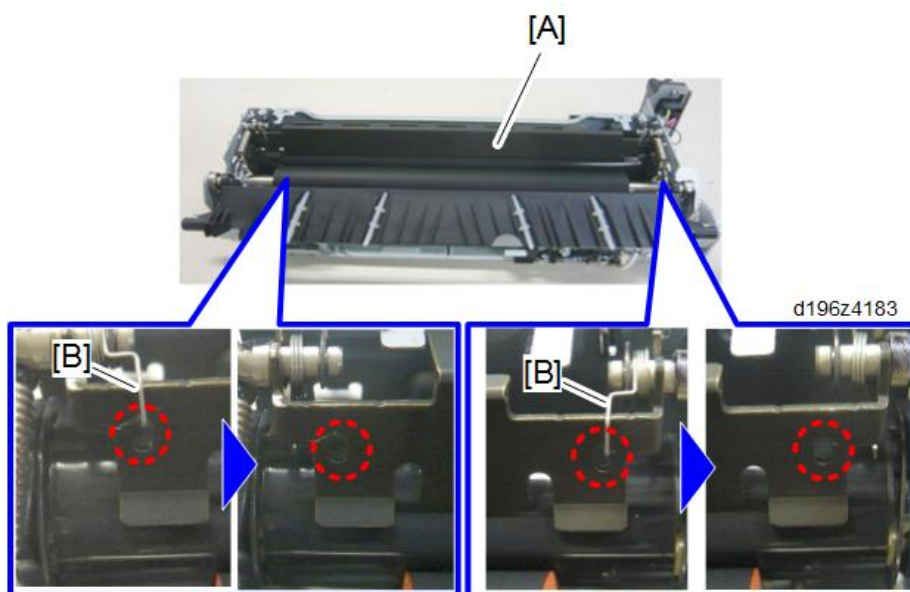
Place a cloth or sheet of paper under the fusing unit when removing the fusing lower cover. Otherwise, the screw(s) and gear(s) exposed after removing the cover will scratch or transfer grease to the work surface.

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

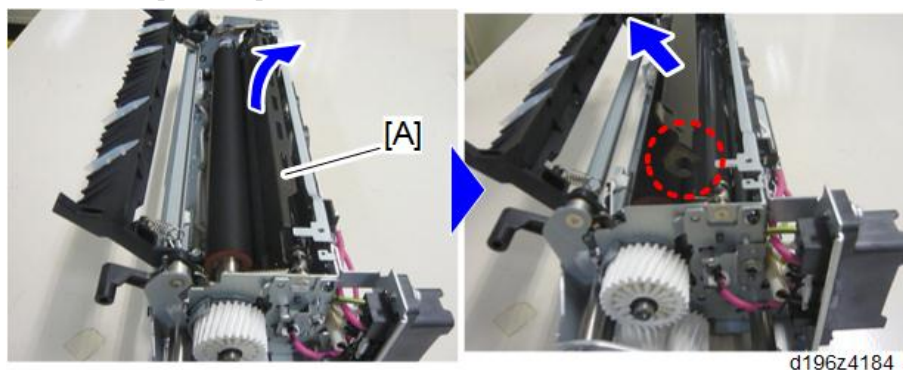


6. Remove the springs [B], which are on both ends of the separation plate [A], from the holes in the separation

plate. (  × 2)




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




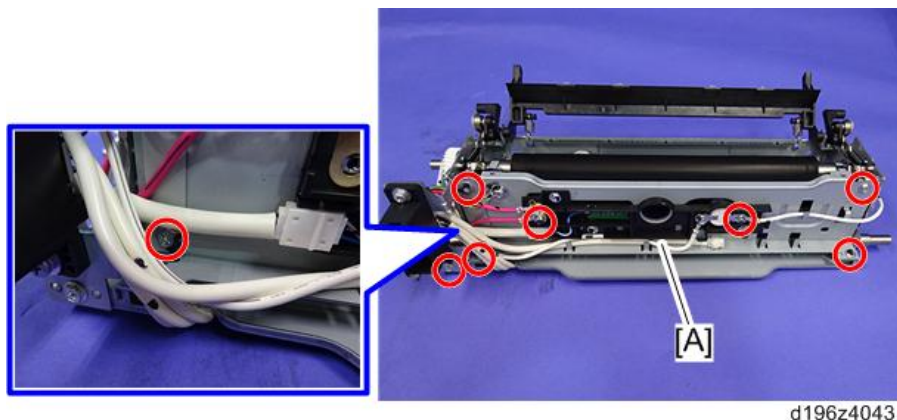
**⚠ CAUTION**

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)

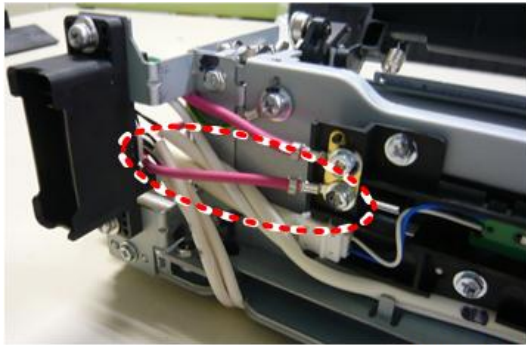
9. Remove the screws on the rear frame [A]. (  × 6)



#### 4.Replacement and Adjustment

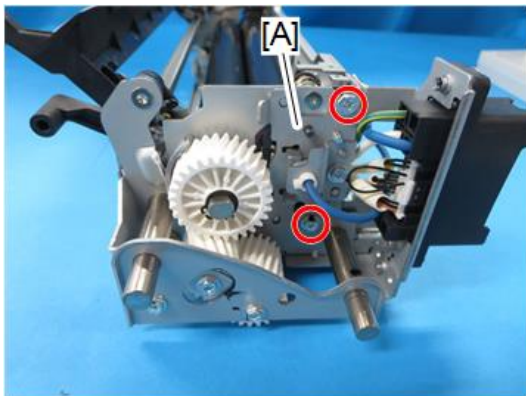
**Note**


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




d196z4188

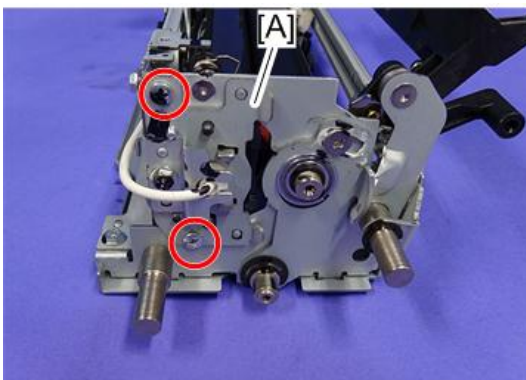
- 10.** Remove the screws of the frame [A] at the right.



 x2

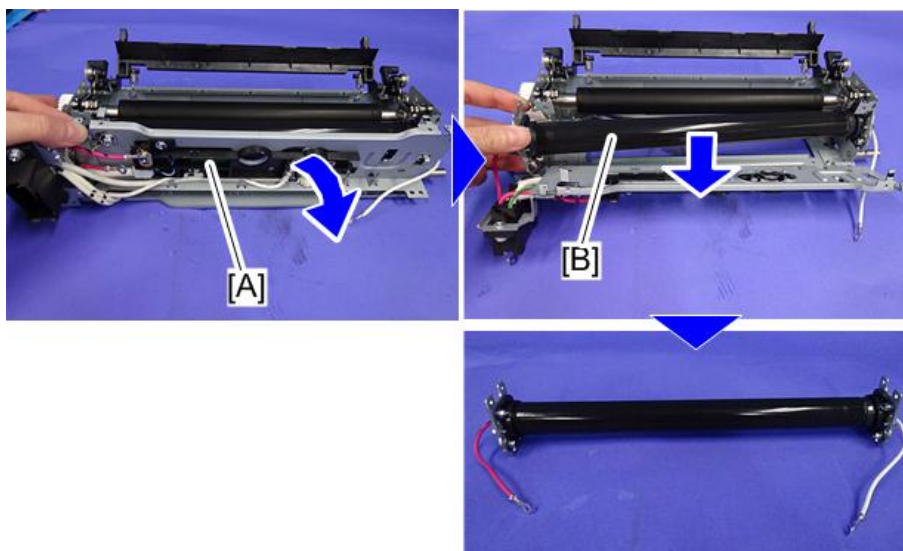
d296c4081

- 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].

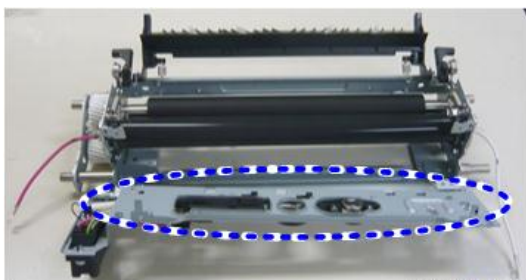


d196z4047

**⚠ CAUTION**

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

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



d196z4187

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

**↓ Note**

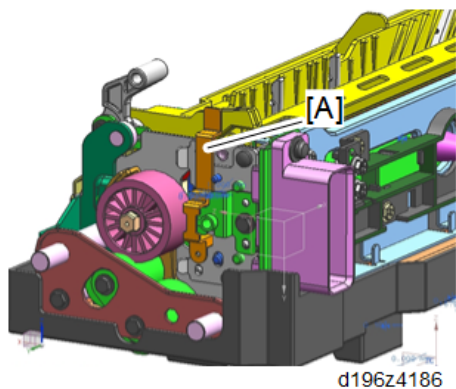
Make sure that both side plates fit right into the locating bosses of the frame before securing the screws.



d196z4185

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.

#### 4.Replacement and Adjustment



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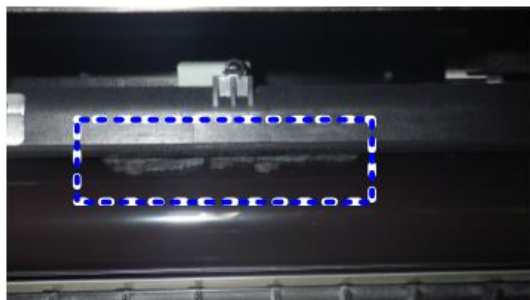
#### Fusing Entrance Sensor

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1. Open the right door.

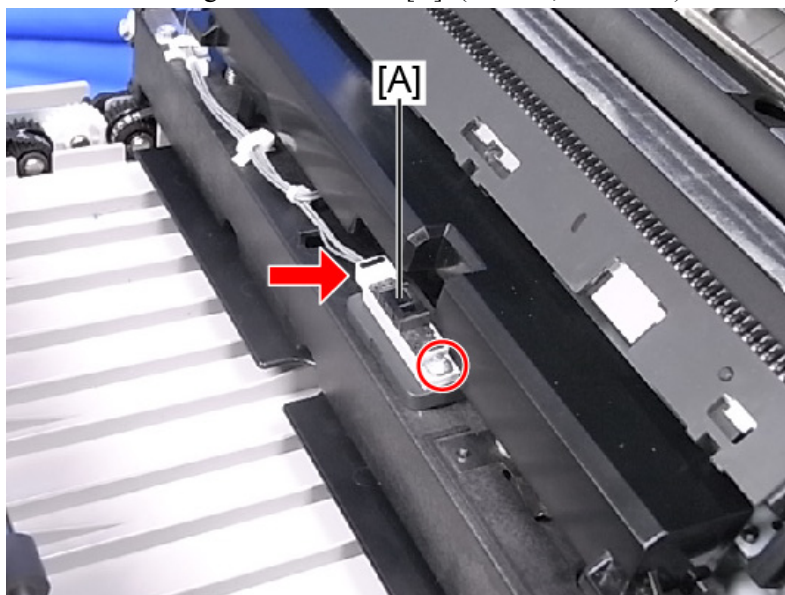
**Note**

- If you find paper dust in the registration section when you open the right door, remove the dust. Otherwise, the dust can cause lines on the image.





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



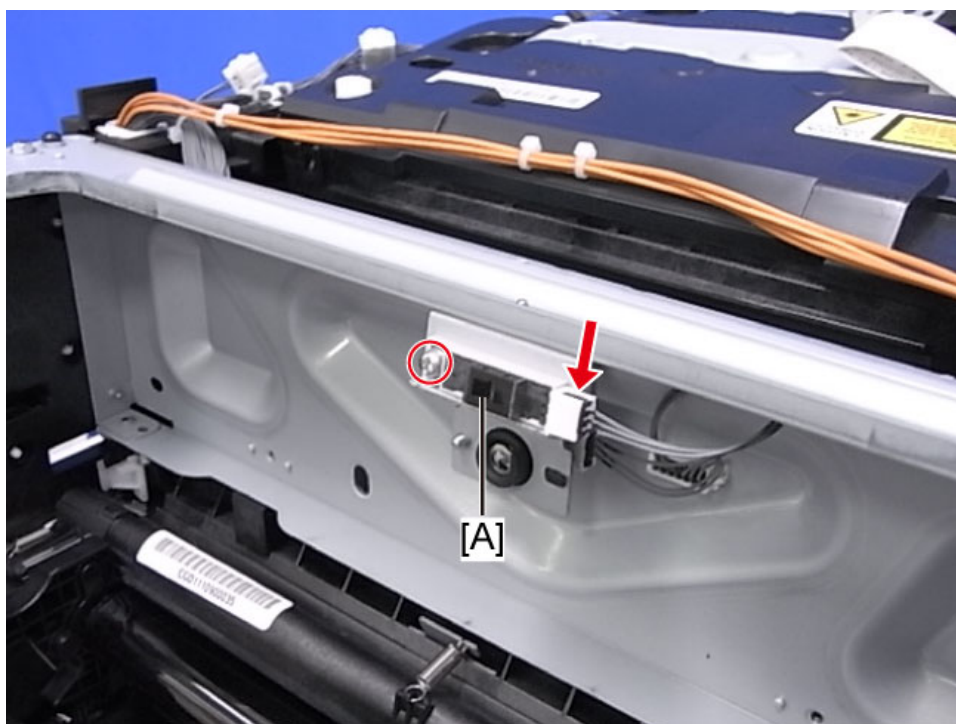
d1180041

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### Fusing Exit Sensor

---

1. Remove the paper exit unit. (Paper Exit Unit)  
2. Remove the fusing exit sensor [A]. (⚙️ × 1, 📡 × 1)



d1170127

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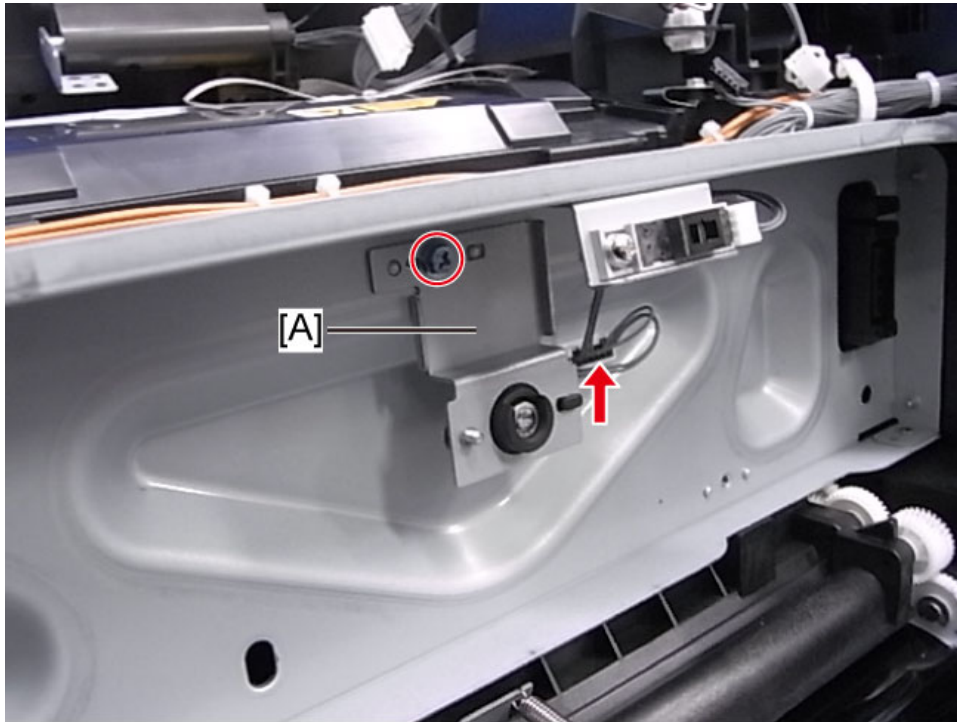
### Fusing Thermopile

---

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

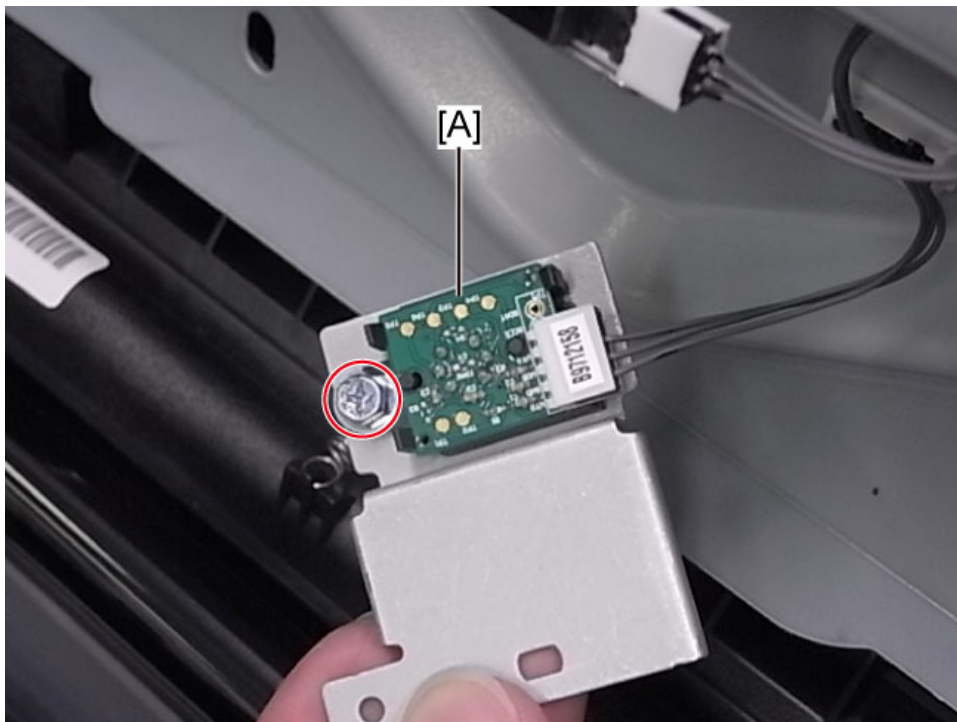
#### 4.Replacement and Adjustment

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



d1170128

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



d1170129

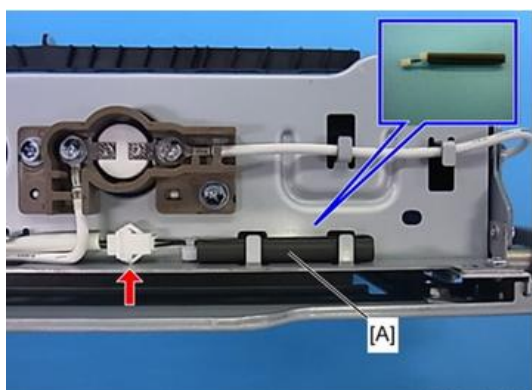
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#### New Fusing Unit Detection Fuse

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- 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](#))

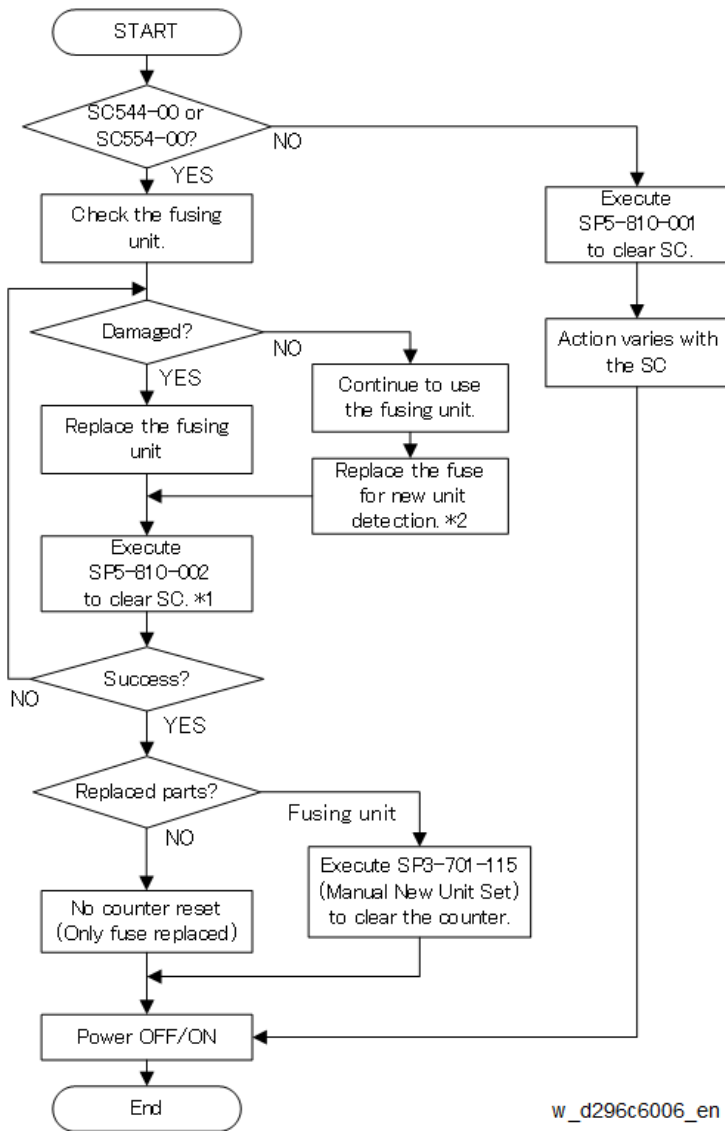
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### Actions When SC544-00 or SC554-00 Occurs

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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.

#### 4.Replacement and Adjustment



w\_d296c6006\_en

\*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.

\*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)

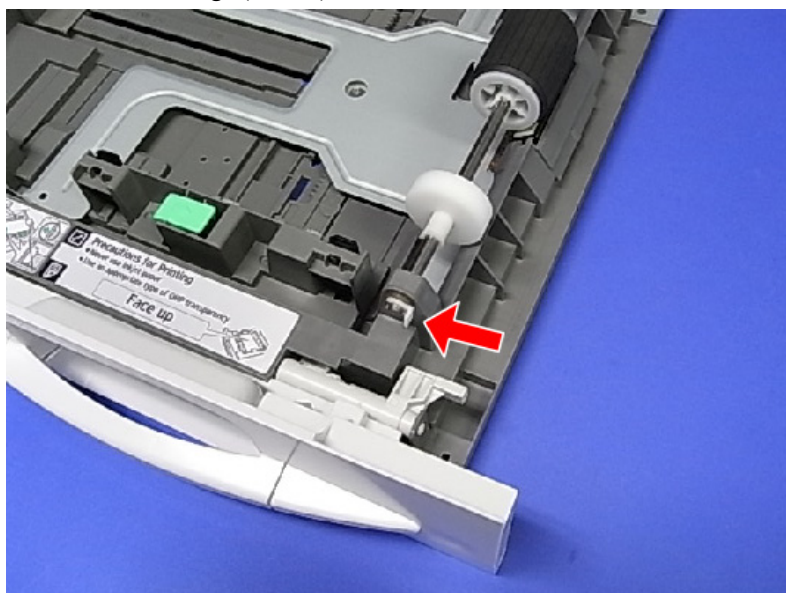
#### Before Replacing the Paper Feed Roller and Friction Pad

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.

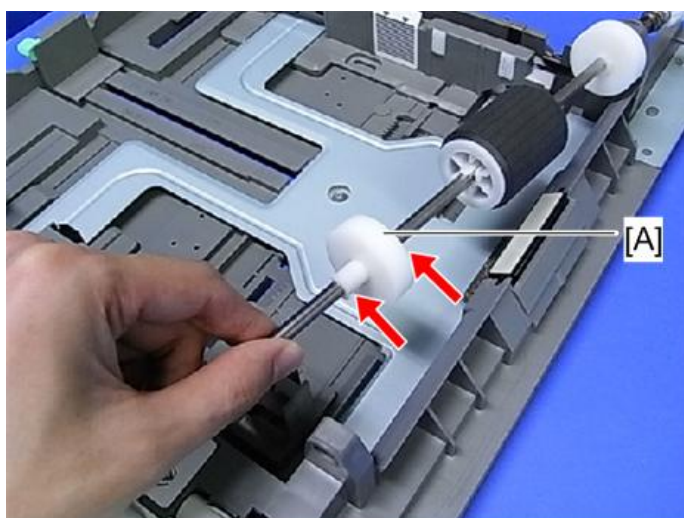
#### Replacing the Paper Feed Roller and Friction Pad

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



d1180042

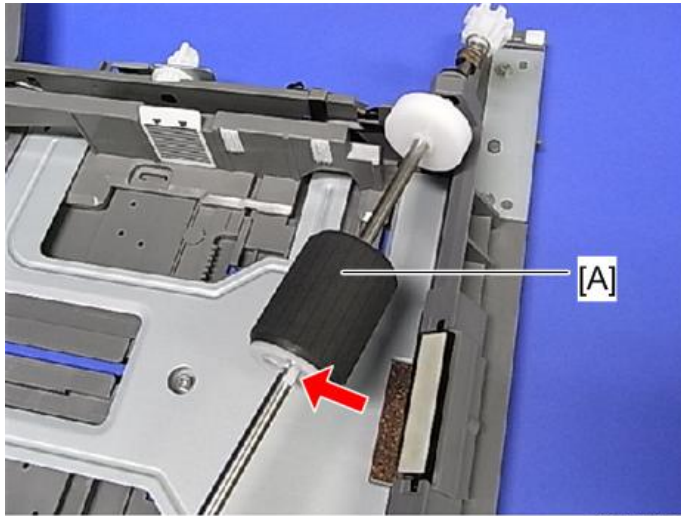
3. Lift up the shaft, then remove the sub paper feed roller [A]. (Ⓞ × 2)



d1180043

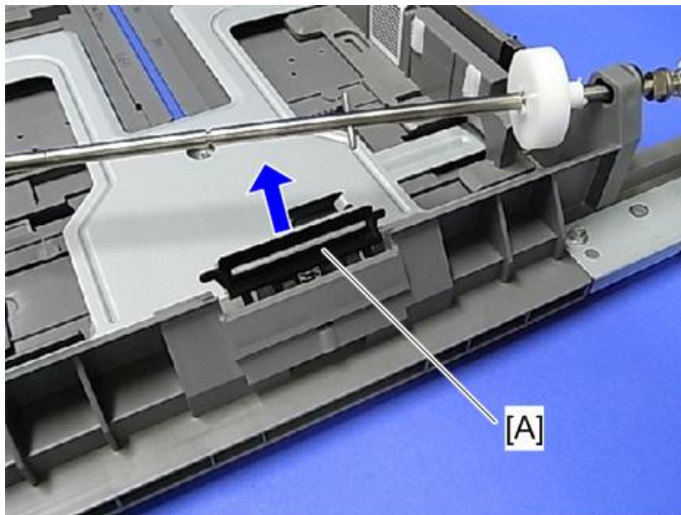
## 4.Replacement and Adjustment

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



d1180044

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



d1180045

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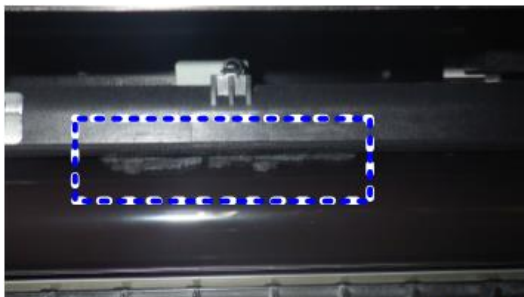
## Registration Sensor, Paper Feed Sensor

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### 1. Open the right door.

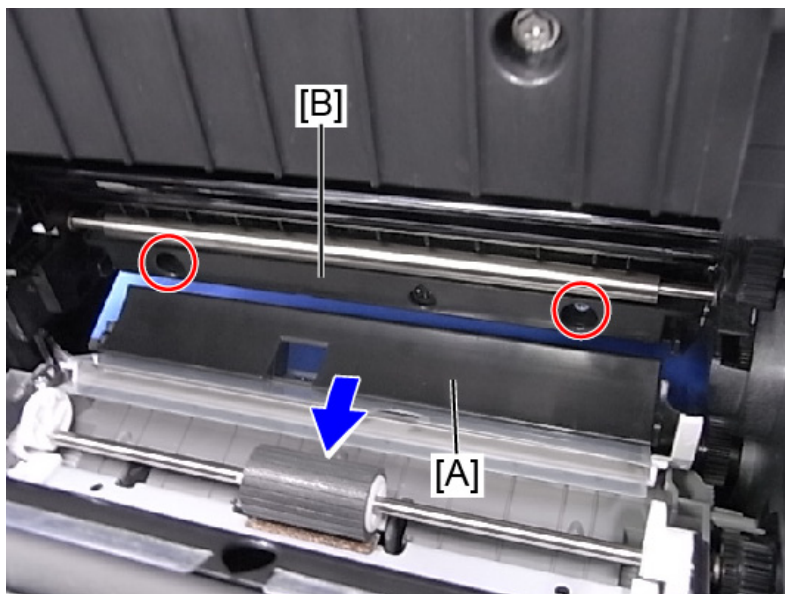
#### ↓ Note

- If you find paper dust in the registration section when you open the duplex unit, remove the dust. Otherwise, the dust can cause lines on the image.



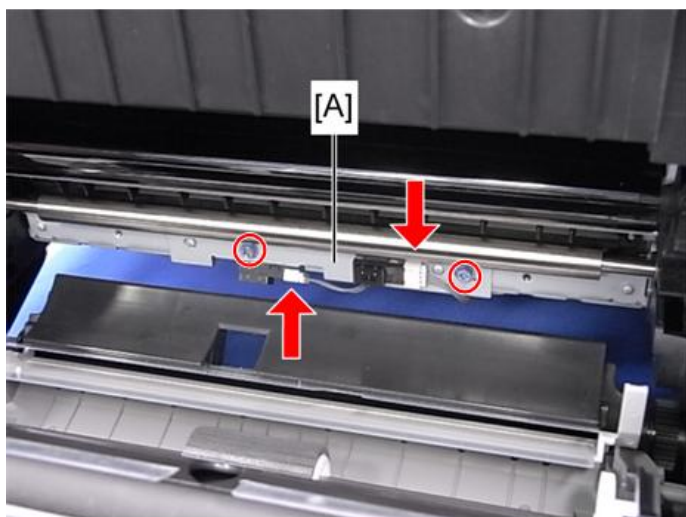
d196z4201

2. Pull down the guide plate [A].
3. Remove the sensor cover [B]. (⚙️ × 2)



d1180047

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

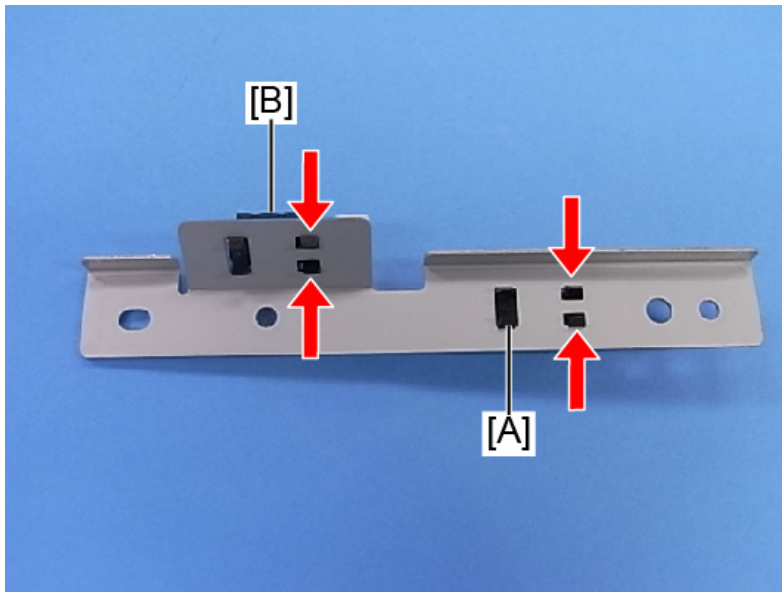


d1180048

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

#### 4.Replacement and Adjustment

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



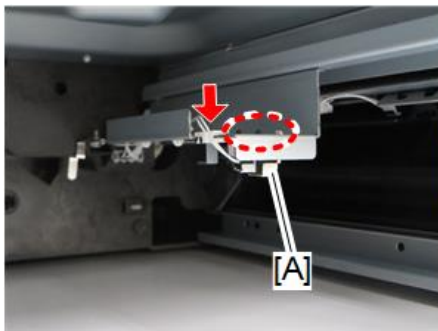
d1180049

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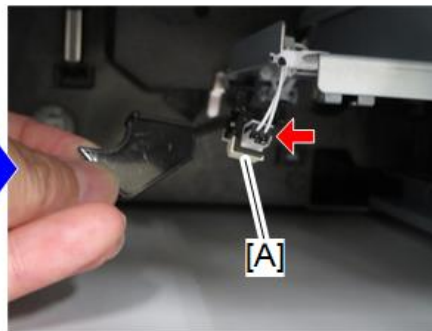
#### Tray Paper End Sensor

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



🔧 x1

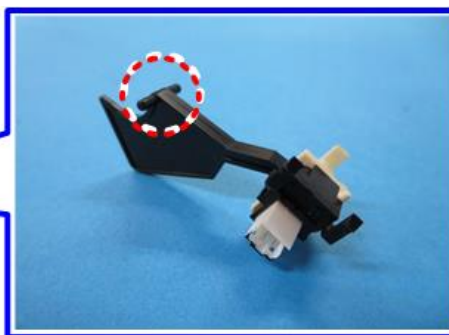
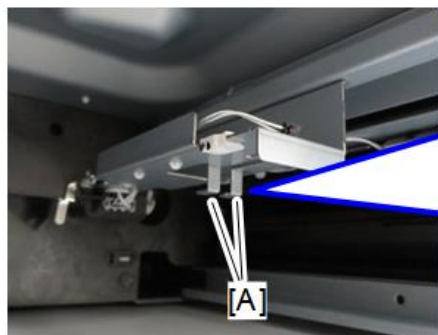


🔧 x1

d296c4074

#### Note

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



d296c4075

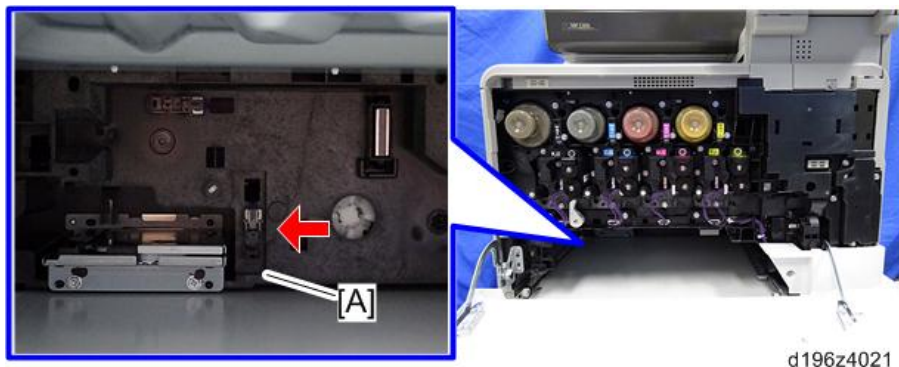


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 Tray Lift Sensor
 

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

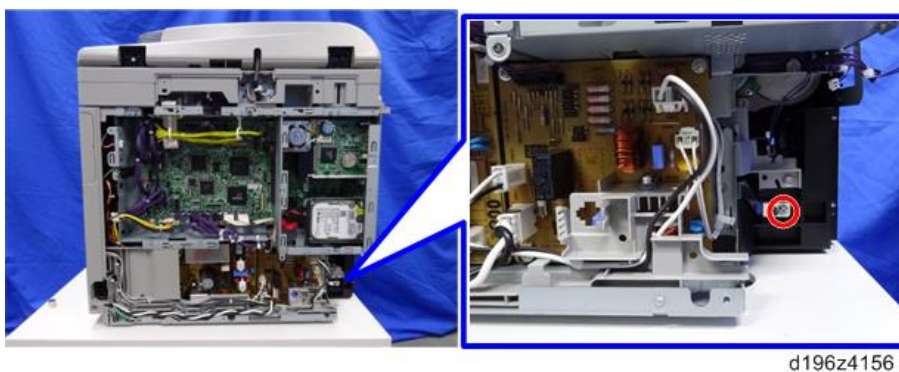



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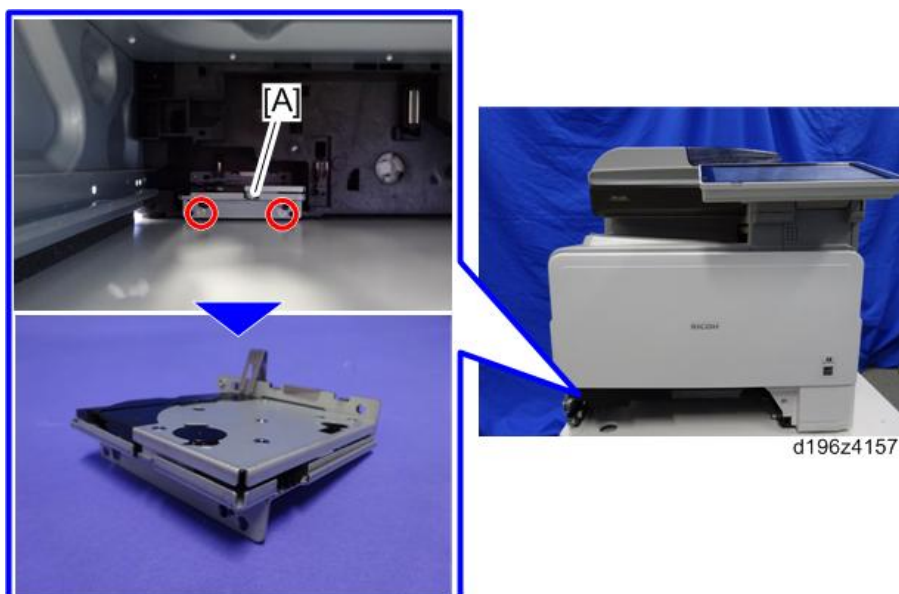
 Draw-in Unit
 

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

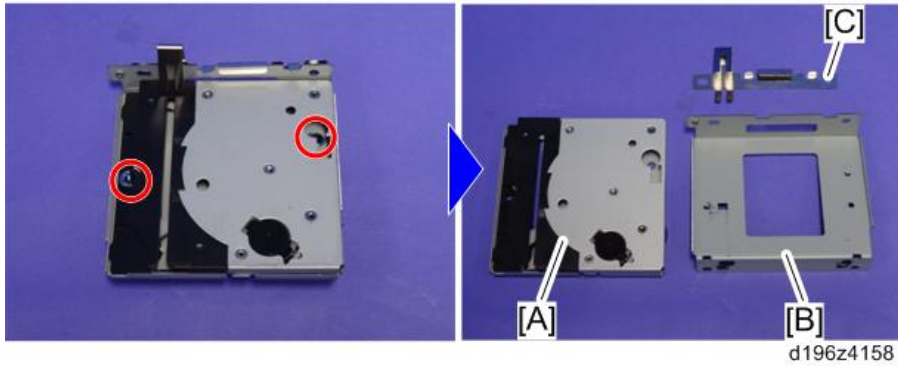


4. Remove the draw-in unit [A] with bracket. (🔧 × 2)



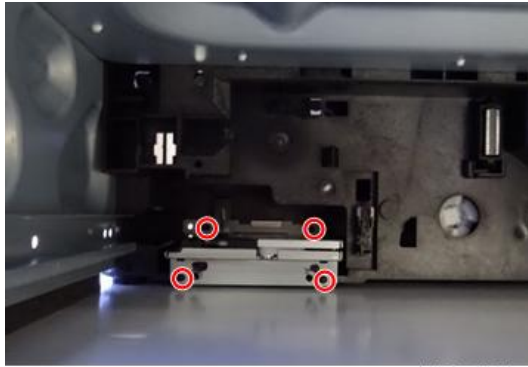
#### 4.Replacement and Adjustment

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

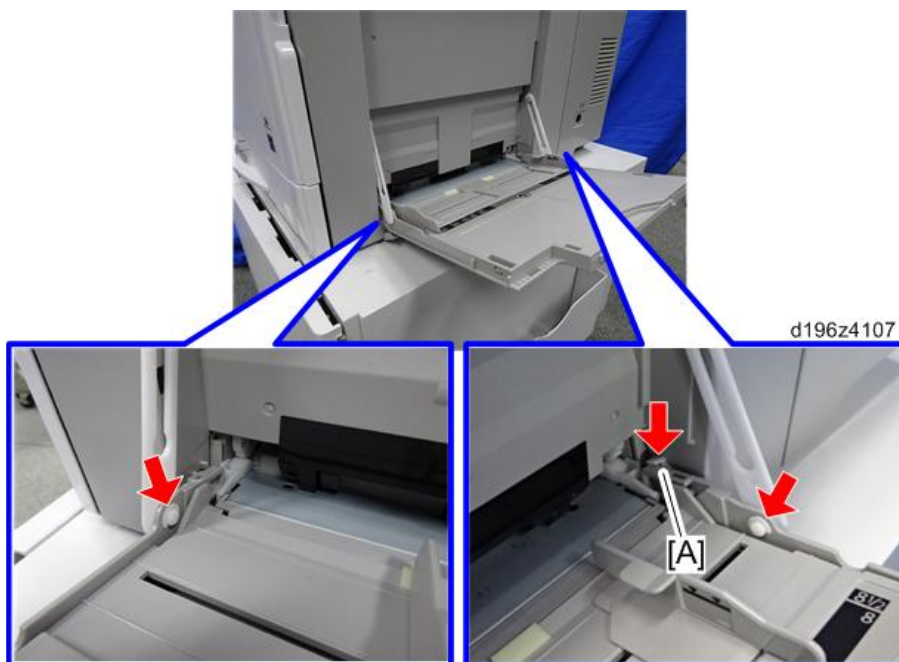
### Bypass Tray

1. Open the bypass tray [A].



d1170089

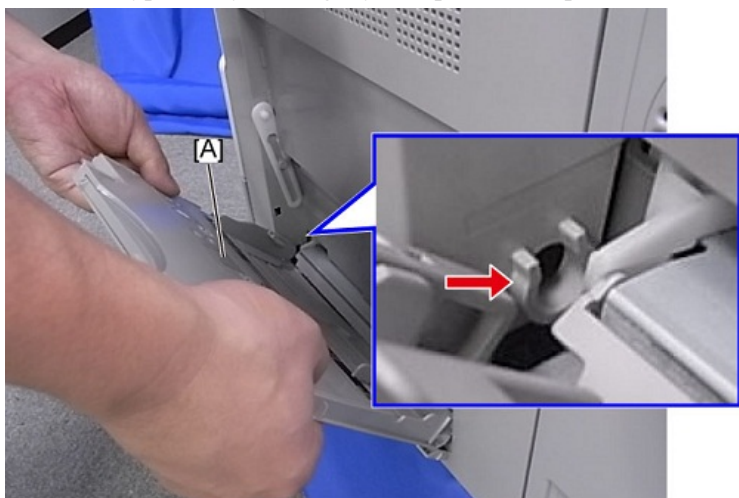
2. Remove the stopper [A], and E-rings. (E × 2, Stopper × 1)



d196z4107

#### 4.Replacement and Adjustment

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



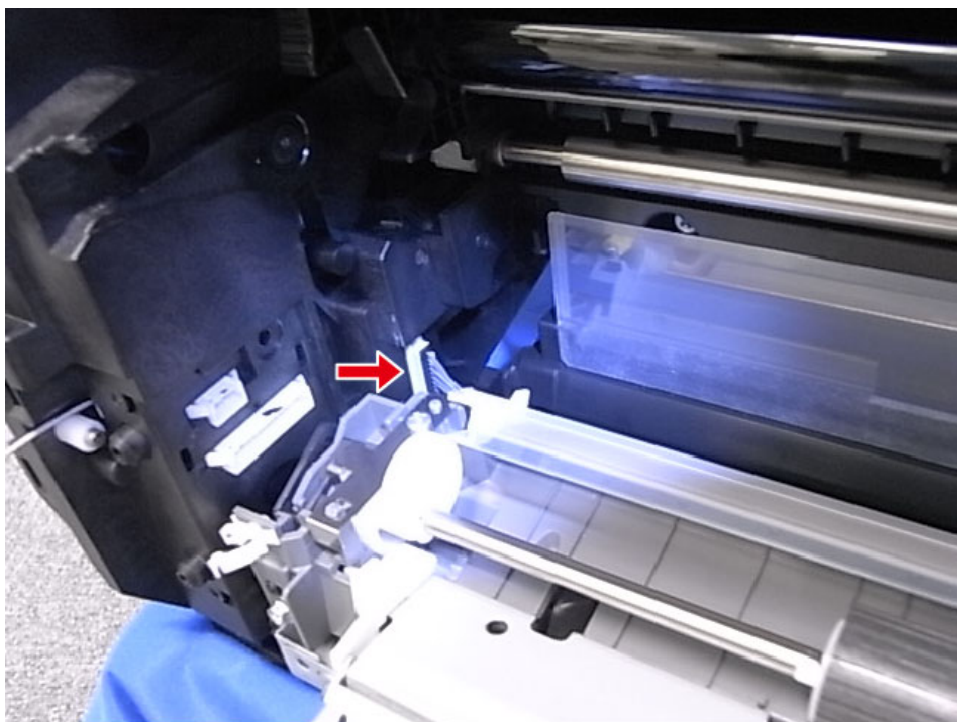
d1170091

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#### Bypass Feed Unit

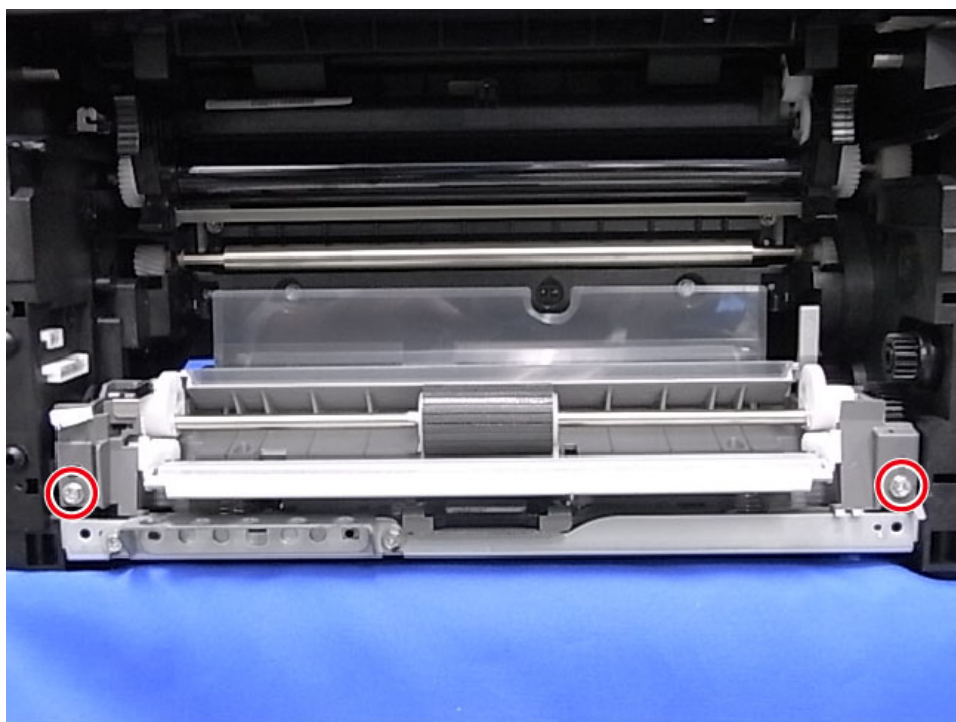
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1. Remove the duplex unit. ([Duplex Unit](#))
2. Disconnect the connector. (🔌 × 1)



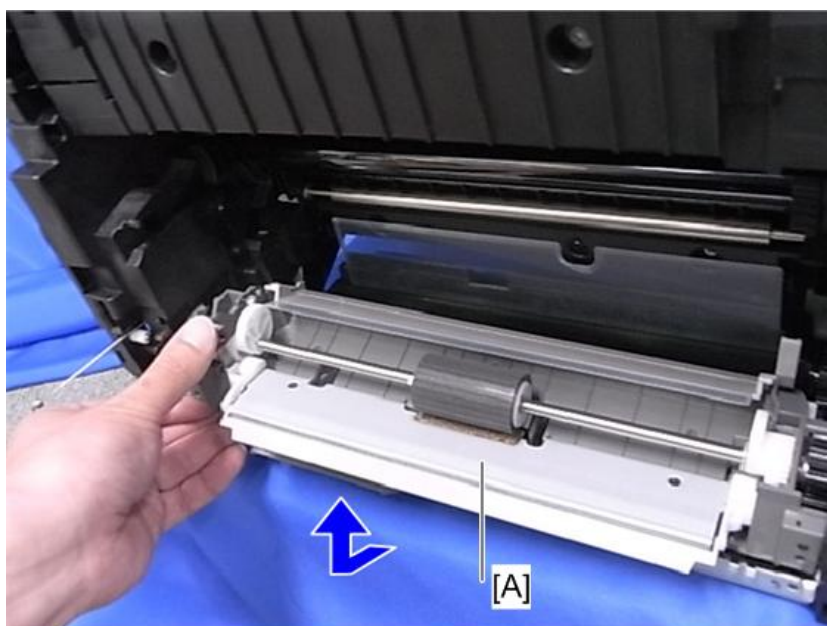
d1170086

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.

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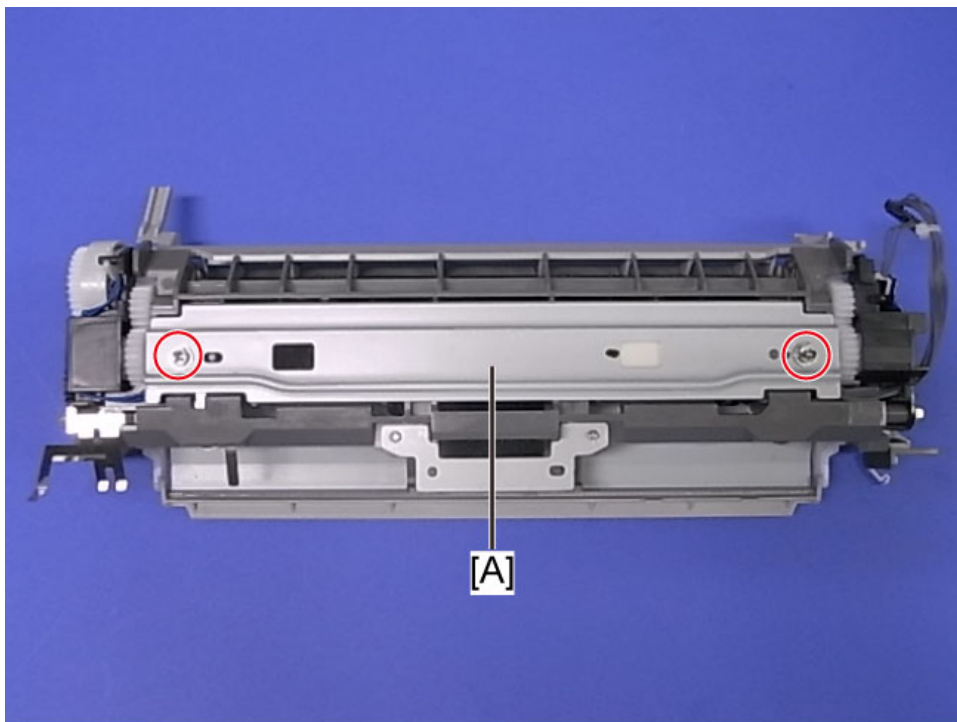
### Bypass Paper End Sensor

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

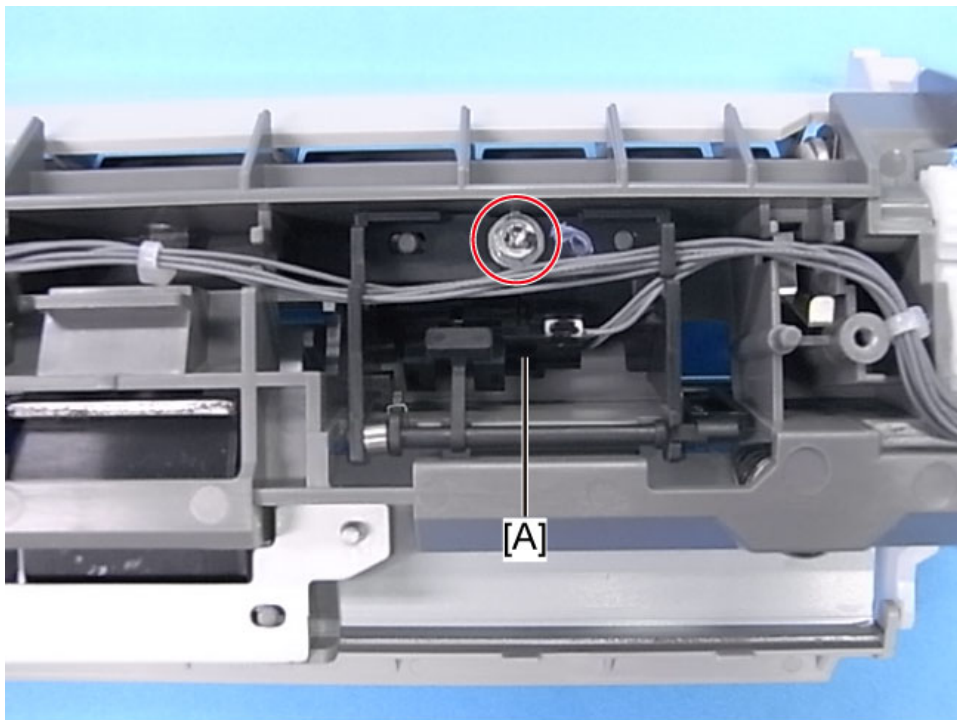
#### 4.Replacement and Adjustment

- 2.** Remove the bracket [A]. (⚙️ × 2)



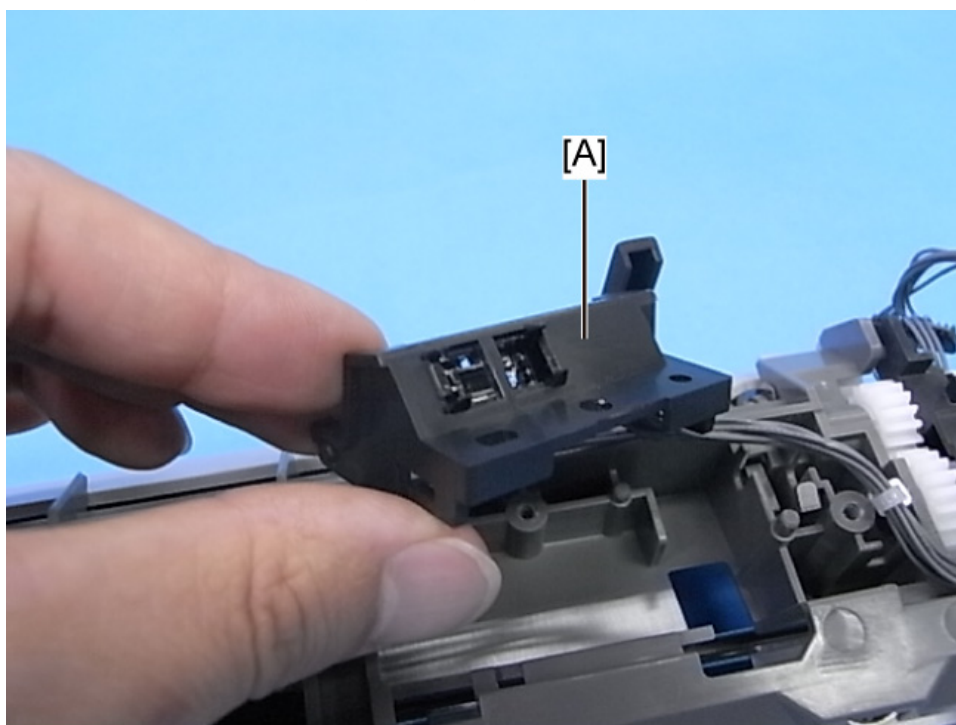
d1170116

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



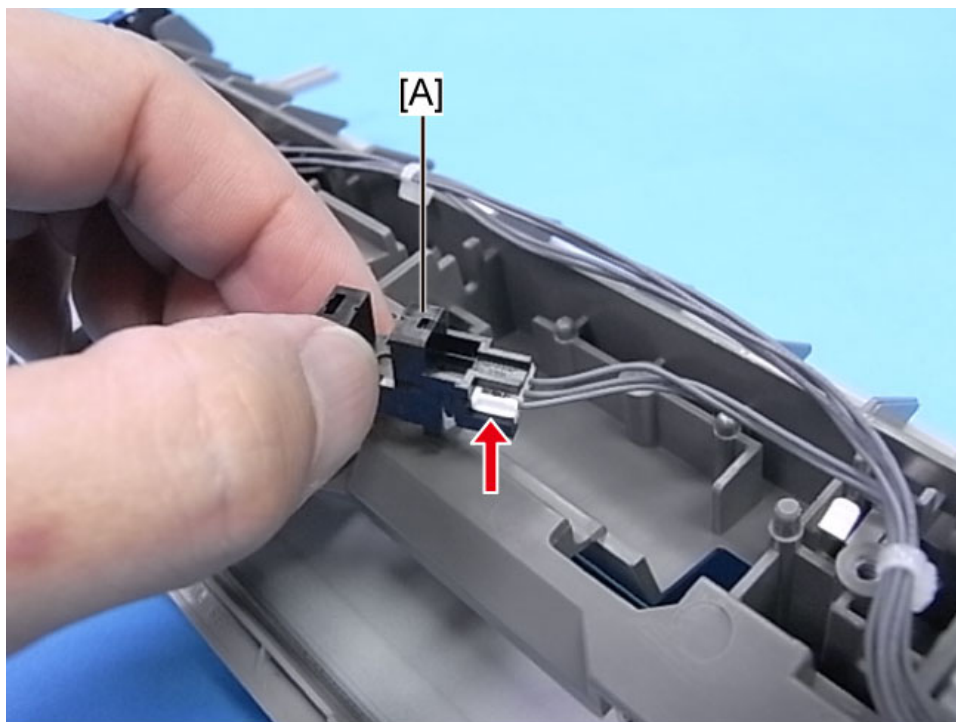
d1170117

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



d1170118

- 5.** Remove the bypass paper end sensor [A]. (🔧 × 1)



d1170119

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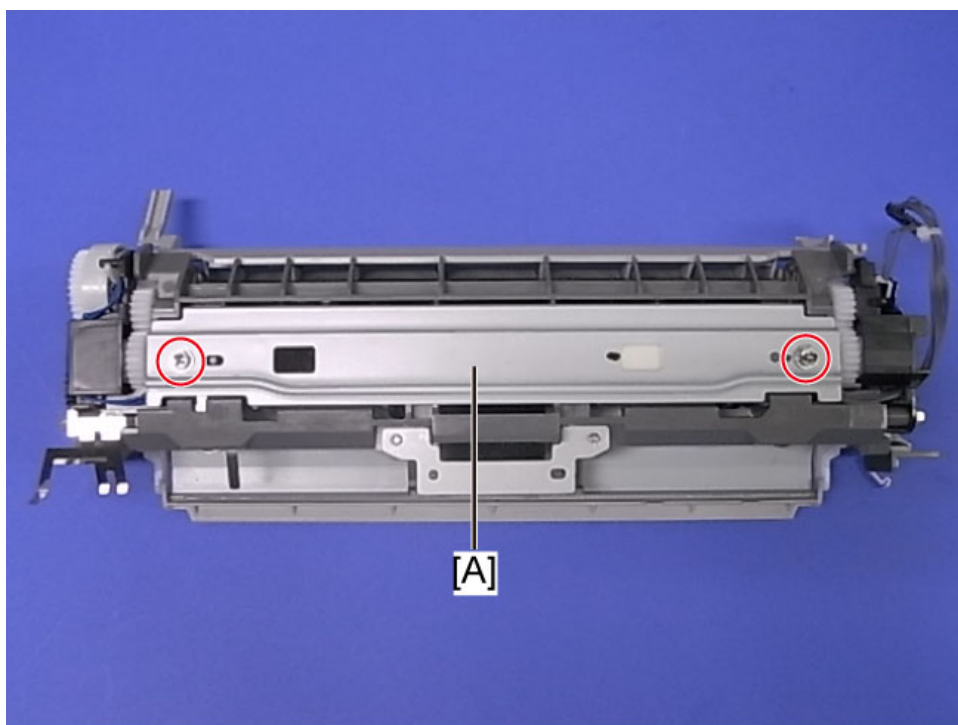
### Bypass Paper Width Sensor

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

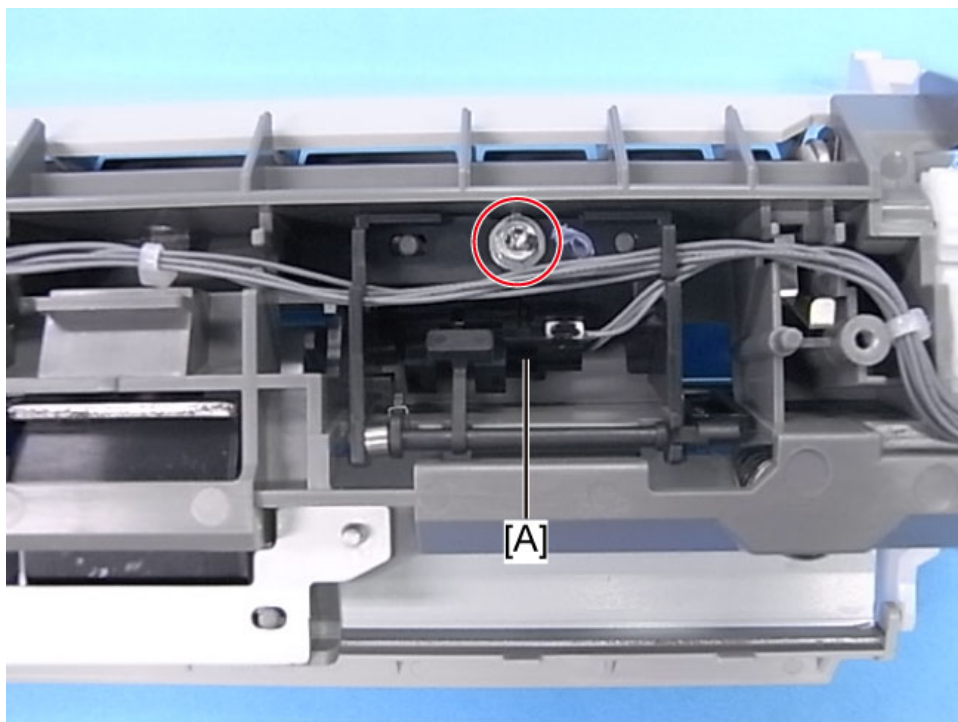
#### 4.Replacement and Adjustment

- 2.** Remove the bracket [A]. (🔩 × 2)



d1170122

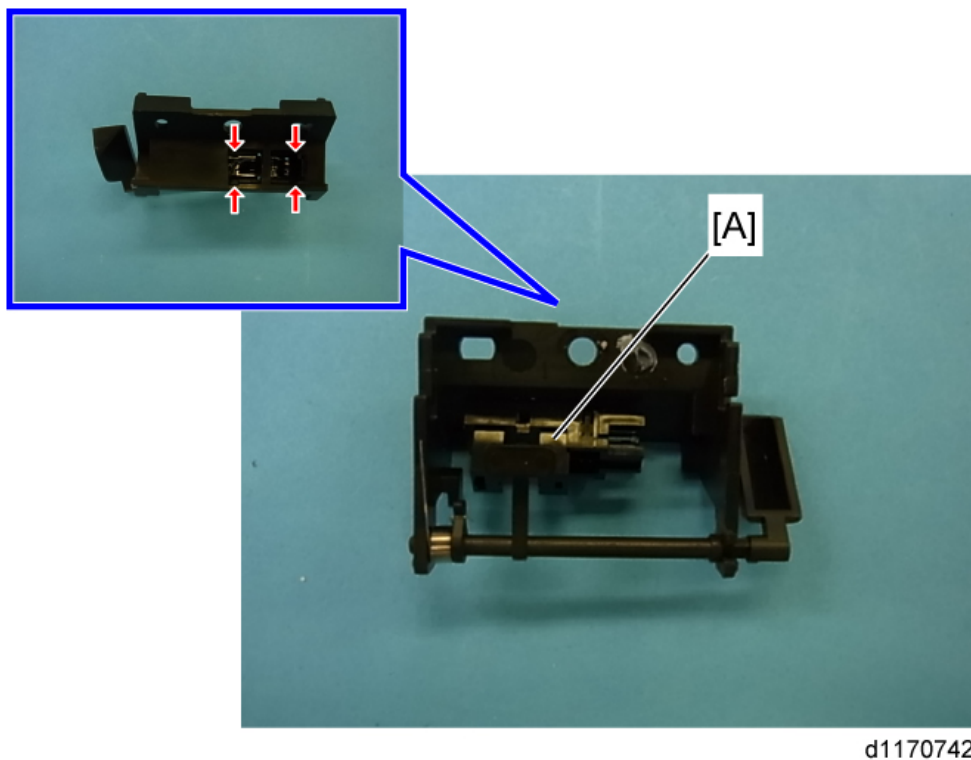
- 3.** Remove the bypass paper width sensor with the holder [A]. (🔩 × 1)



d1170117



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



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## Bypass Feed Roller

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### **Before Replacing the Bypass Feed Roller**

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

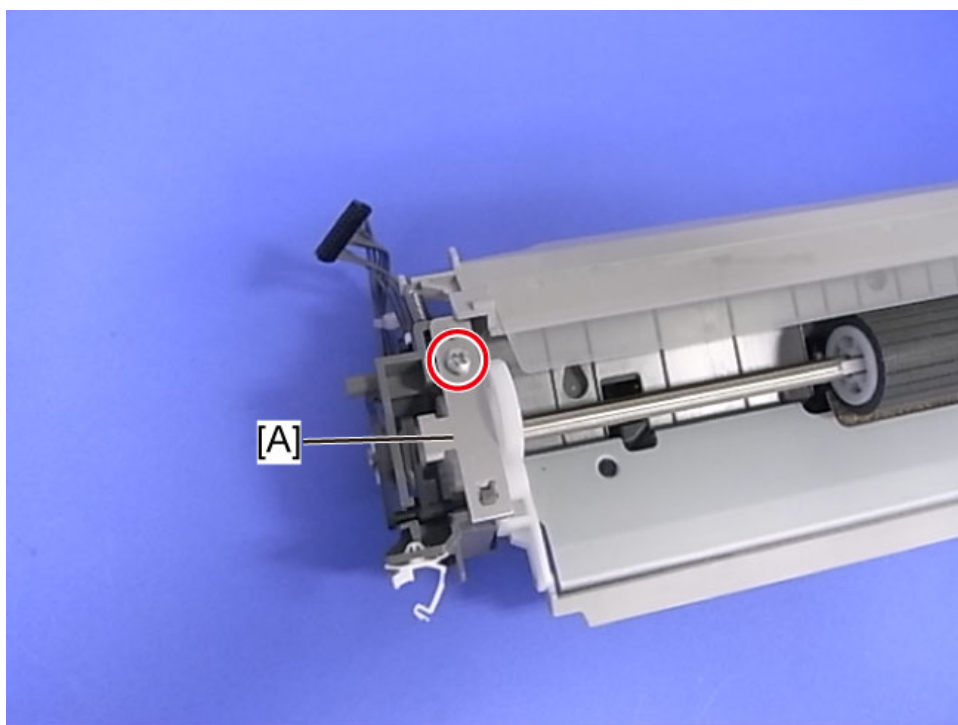
- 1.** Turn the power ON.
- 2.** Reset the PM counter. (Refer to [Replacement Procedure of the PM/Yield Parts](#))
- 3.** Turn the power OFF.

### **Replacing the Bypass Feed Roller**

- 1.** Remove the bypass feed unit. ([Bypass Feed Unit](#))

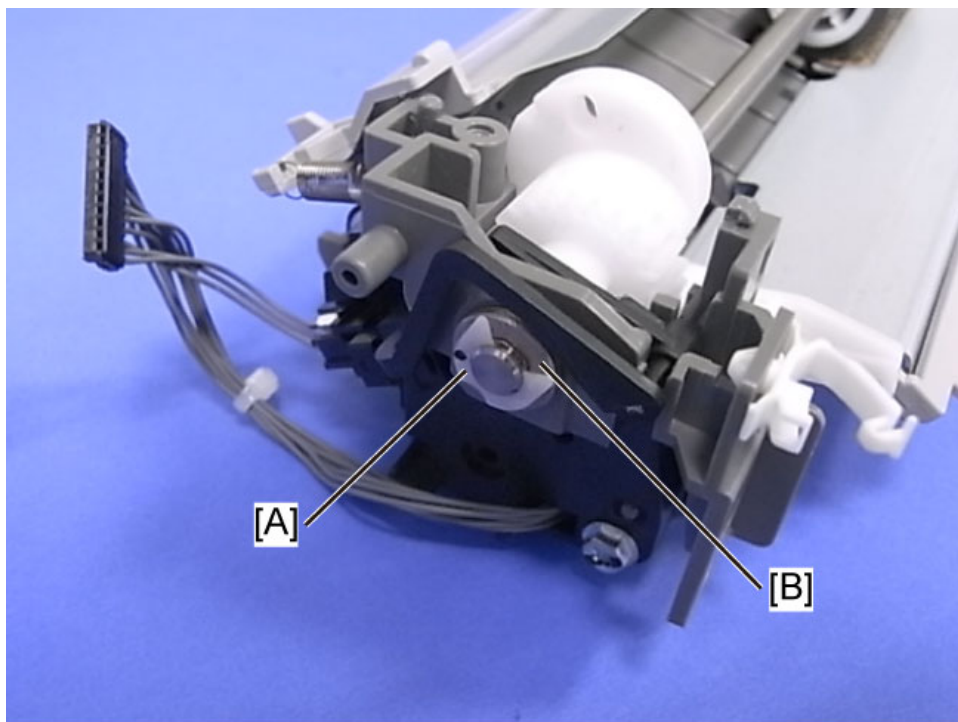
#### 4.Replacement and Adjustment

- 2.** Remove the bracket [A]. (⊙ × 1)



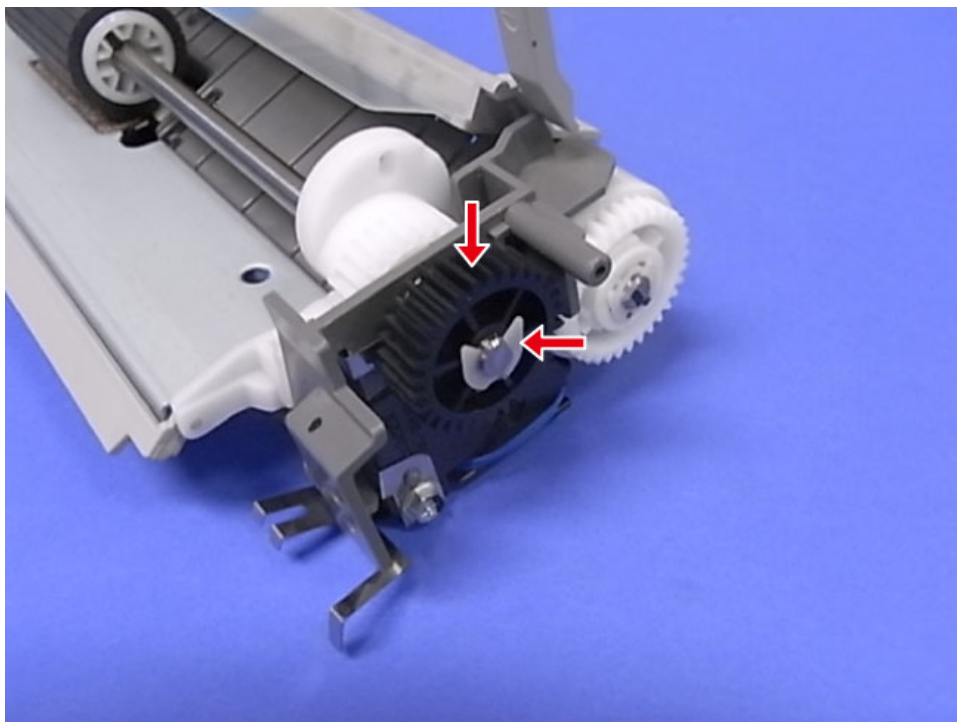
d1170067

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



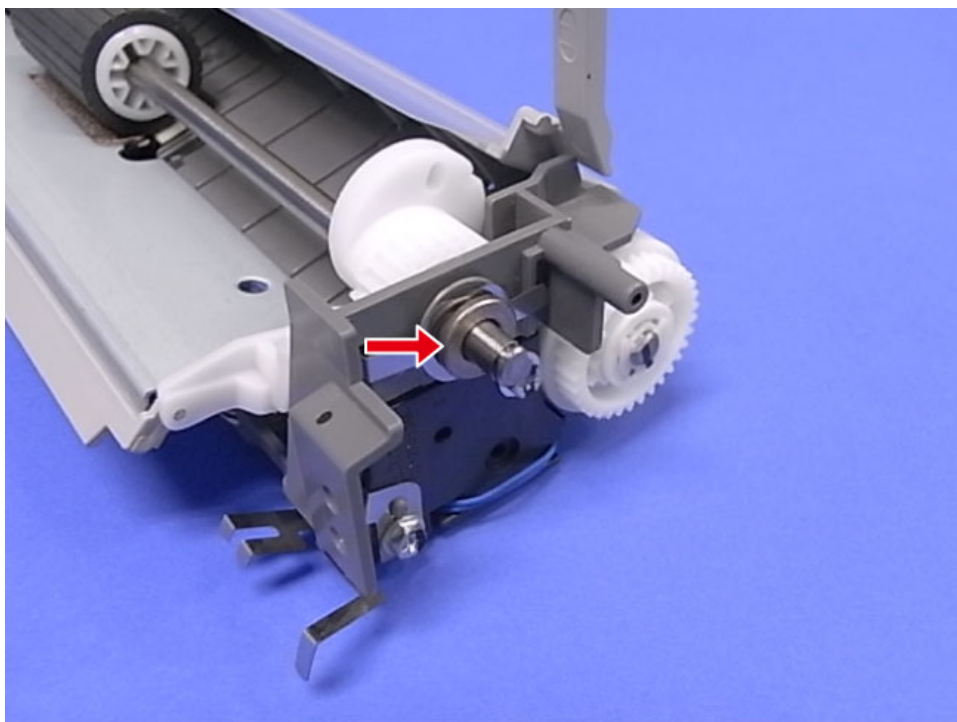
d1170068

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



d1170069

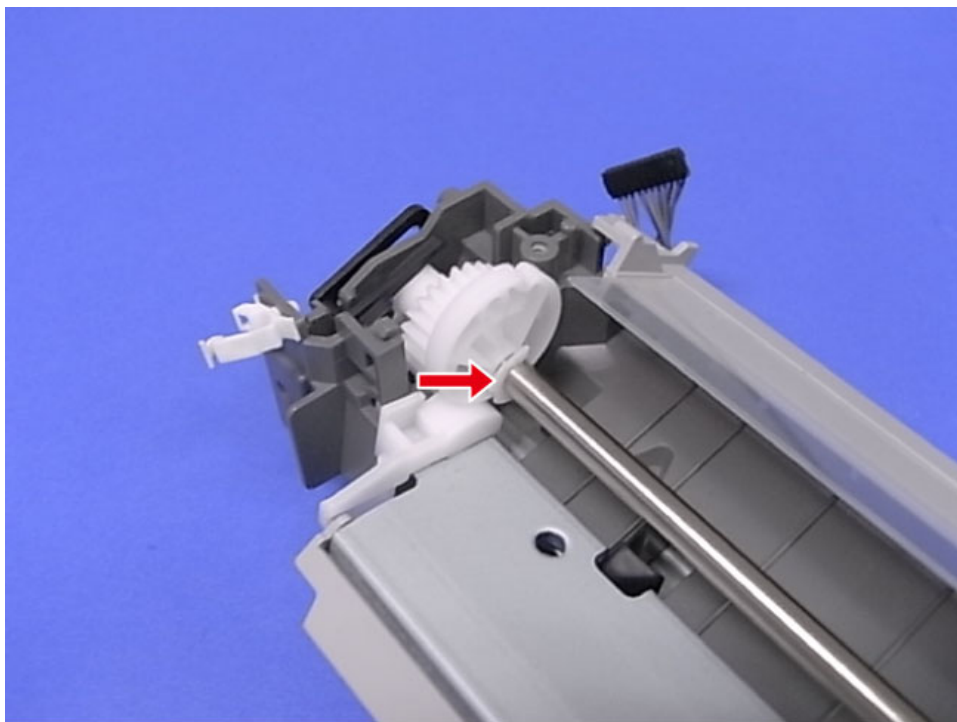
5. Bearing (bearing × 1)



d1170070

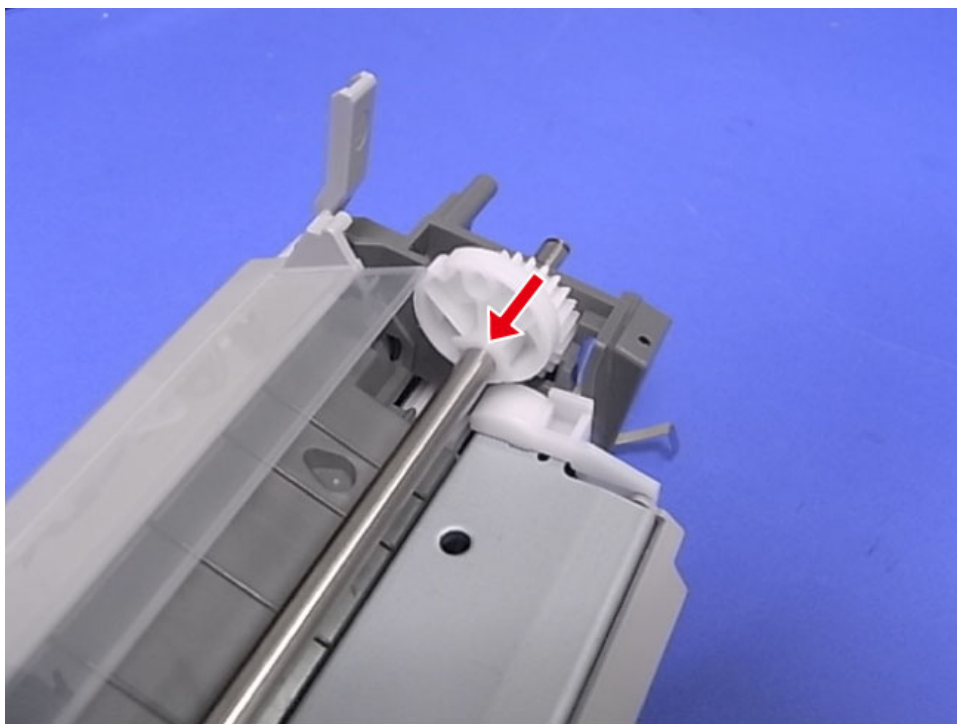
#### 4.Replacement and Adjustment

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



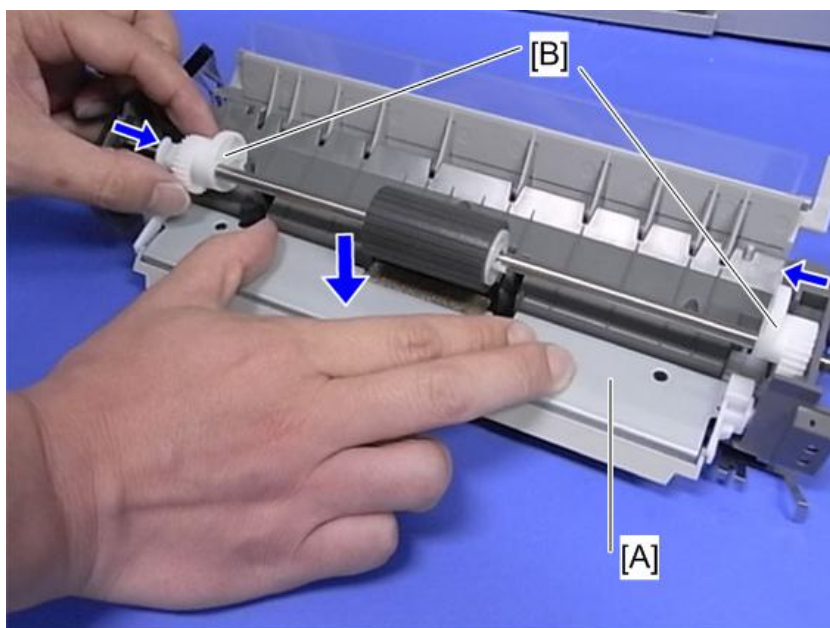
d1170071

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



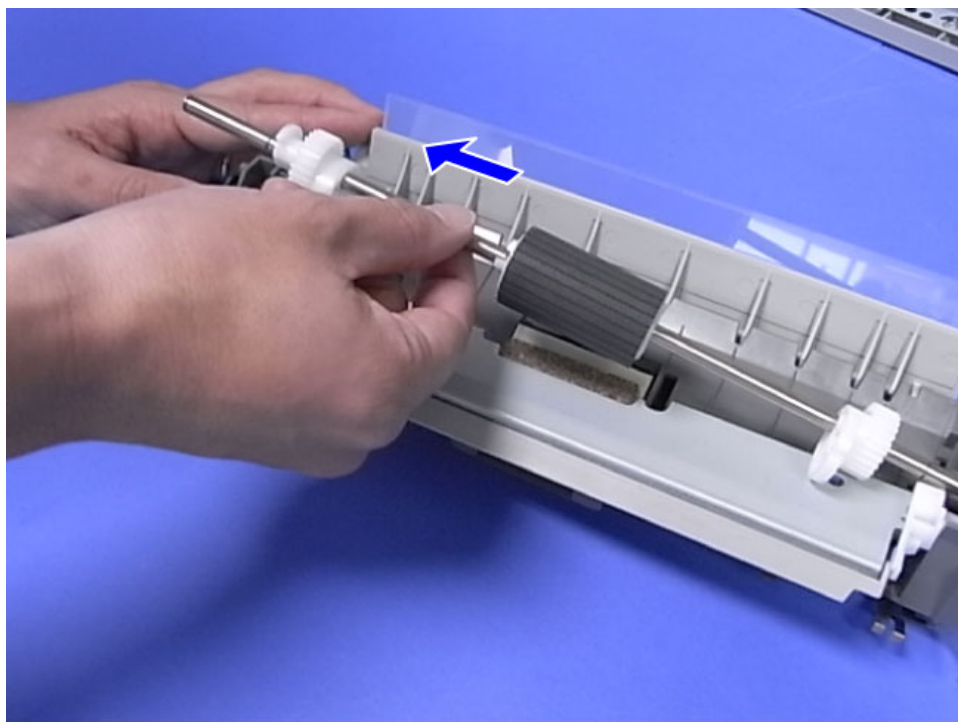
d1170072

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



d1170073

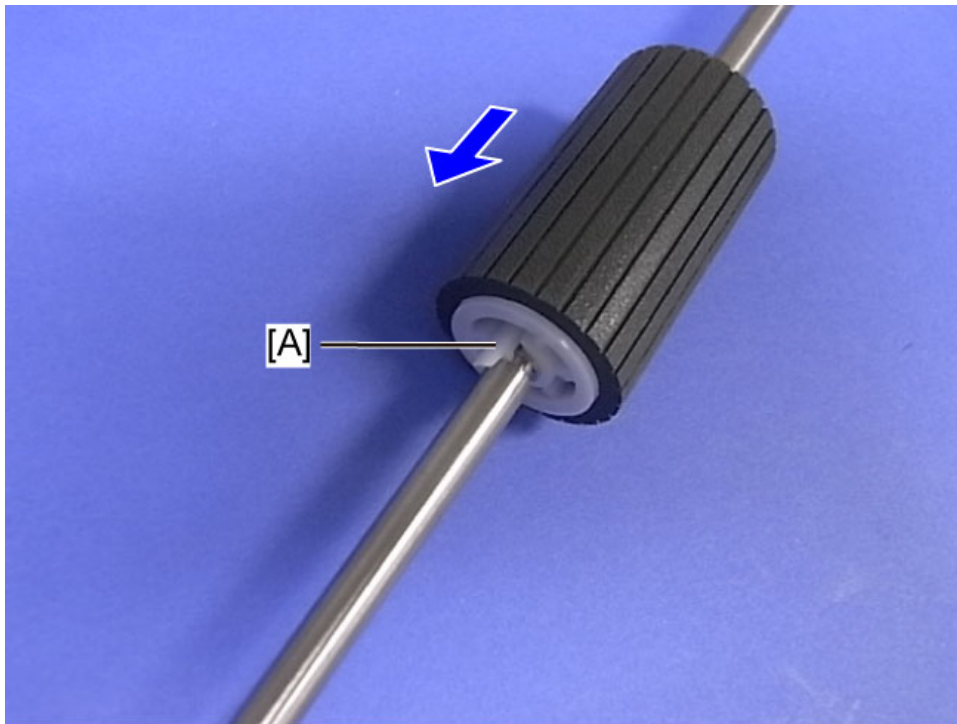
- 9.** Remove the bypass feed roller with the shaft from the front side.



d1170074

#### 4.Replacement and Adjustment

##### 10. Bypass feed roller [A] (Hook × 1)



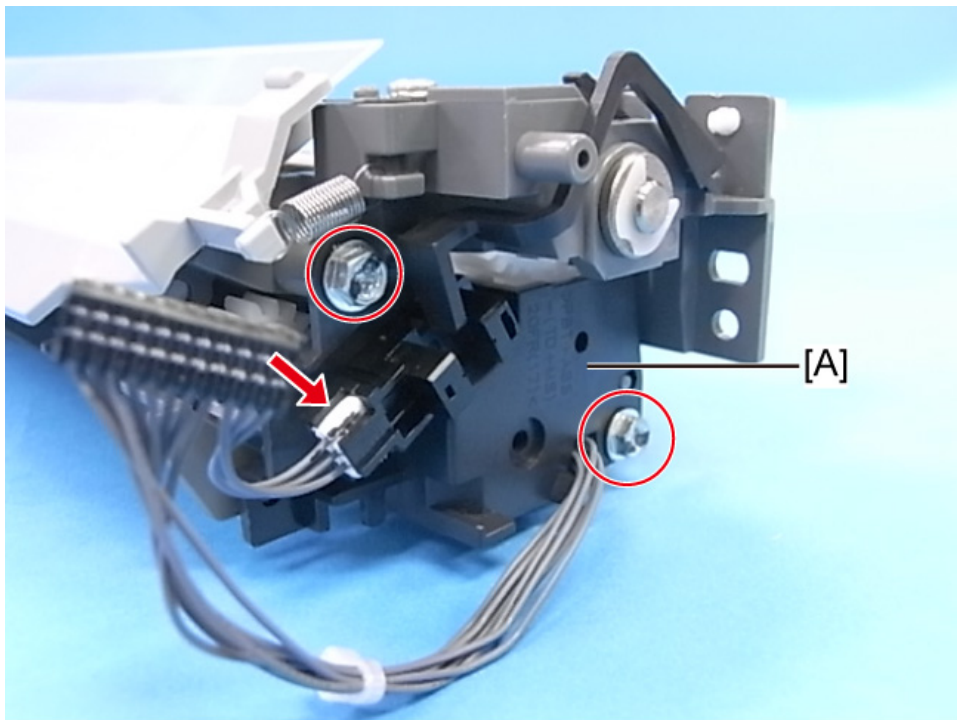
d1170075

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#### Bypass Lift Sensor

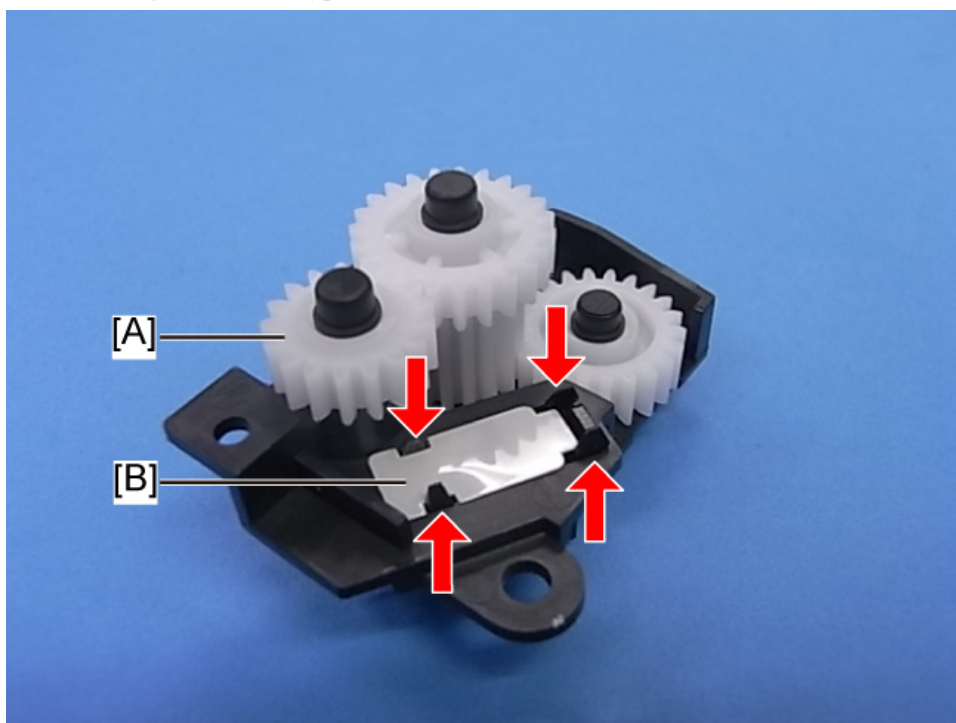
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1. Remove the bypass feed unit. (Bypass Feed Unit)
2. Remove the sensor holder [A]. (⚙ × 2, 🗝 × 1)



d1170120

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



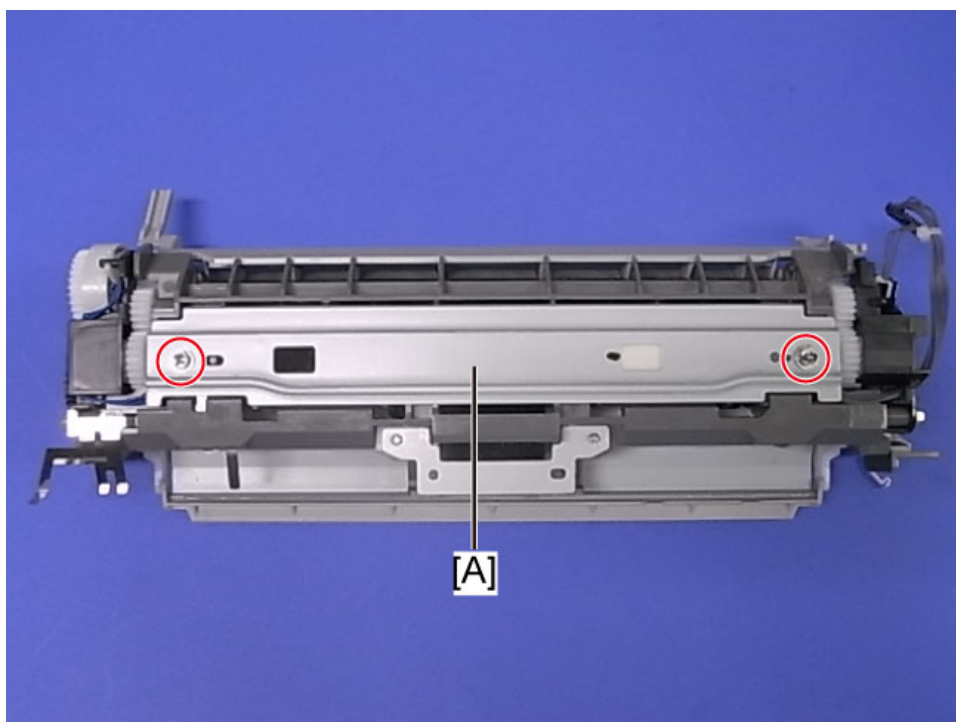
d1170121

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### Bypass Lift Clutch

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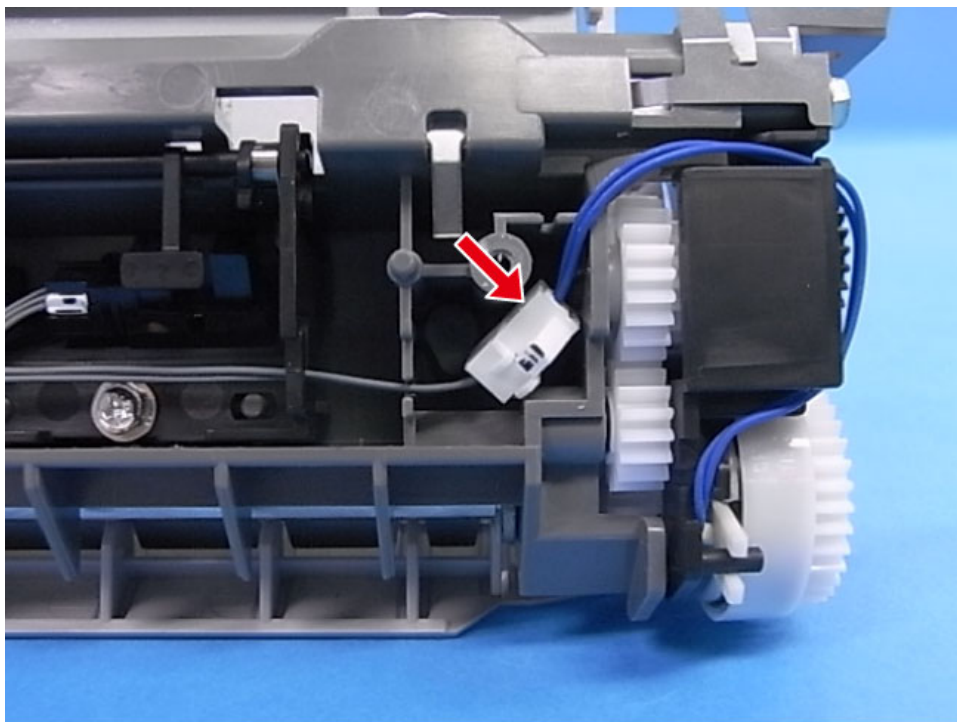
- 1.** Remove the bypass feed unit. (Bypass Feed Unit)  
**2.** Remove the bracket [A]. (Ⓜ × 2)



d1170122

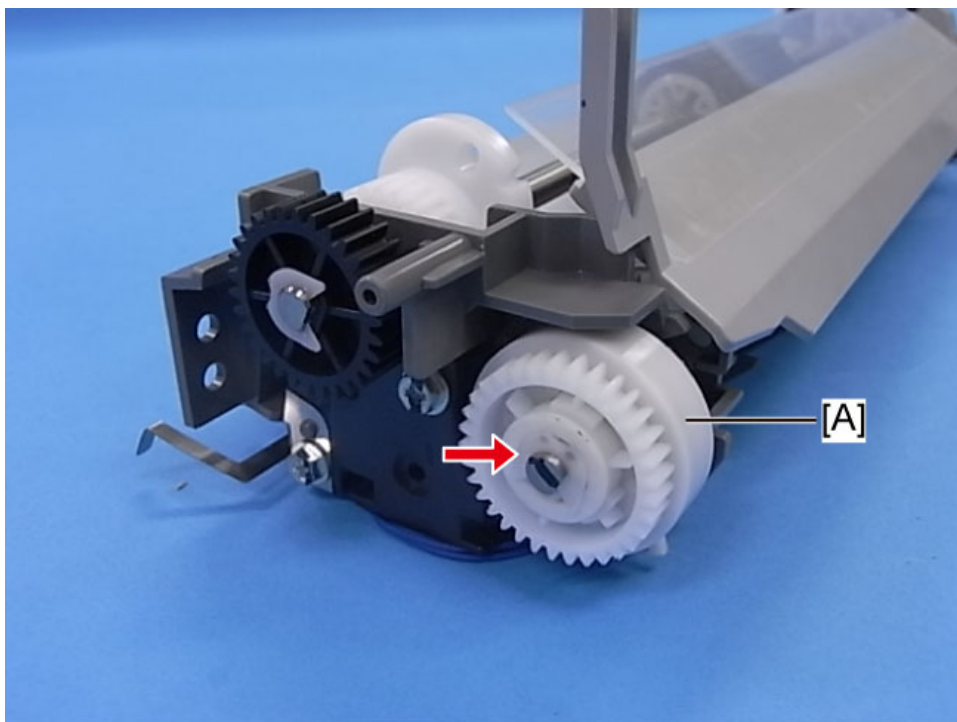
#### 4.Replacement and Adjustment

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



d1170123

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



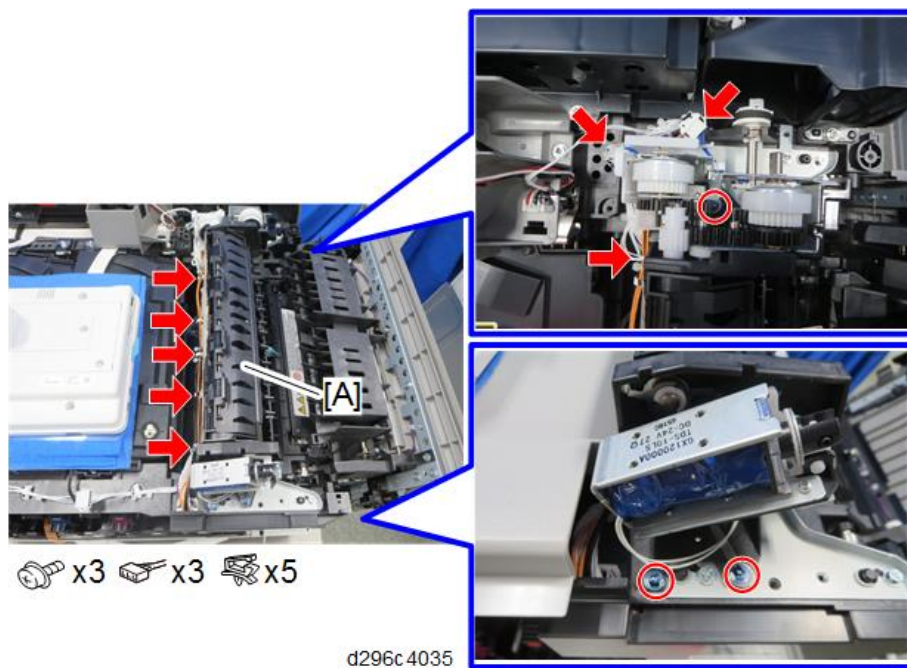
d1170124



## Paper Exit

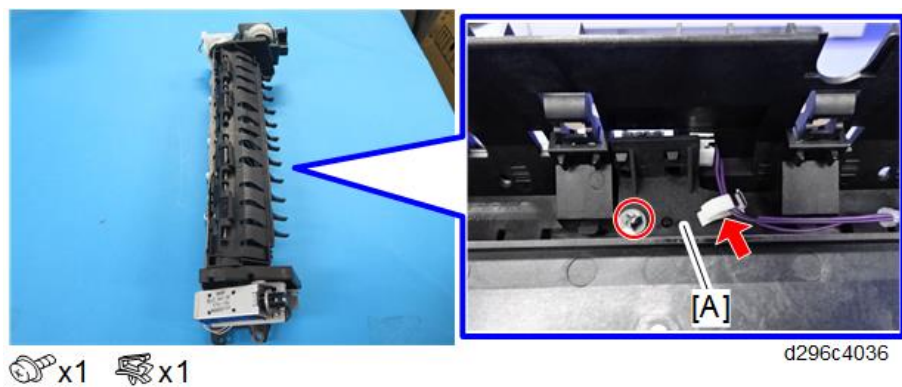
### Paper Exit Unit

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



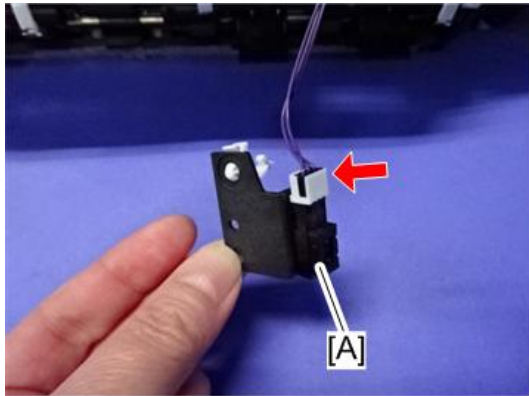
### Paper Exit Sensor

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



#### 4.Replacement and Adjustment

- 3.** Remove the paper exit sensor [A]. (🔩 × 1)



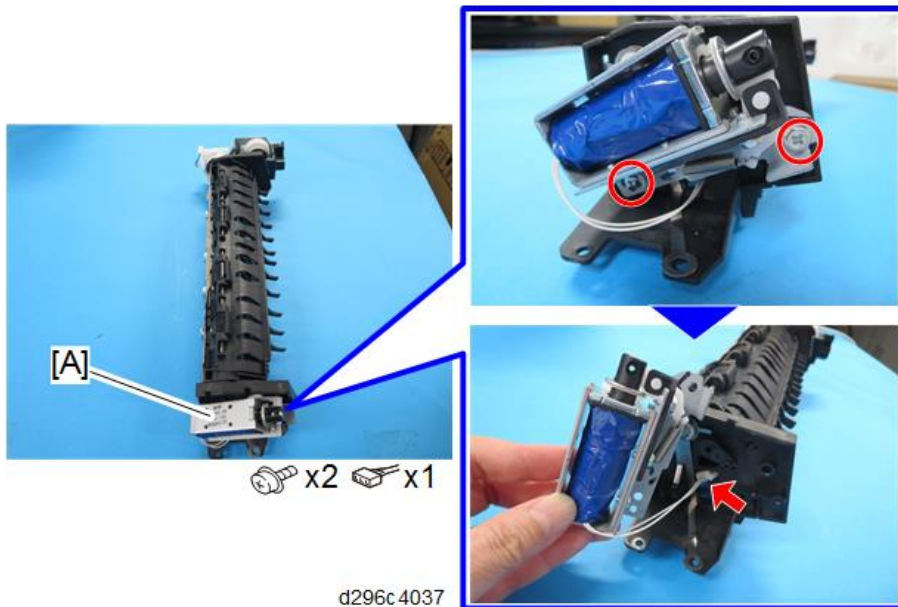
d196z4138

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#### Exit Junction Gate Solenoid

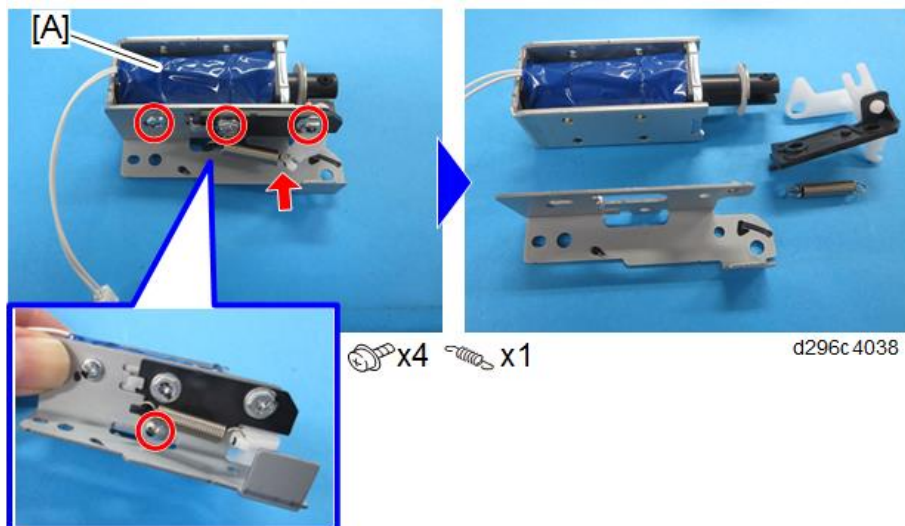
---

- 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.



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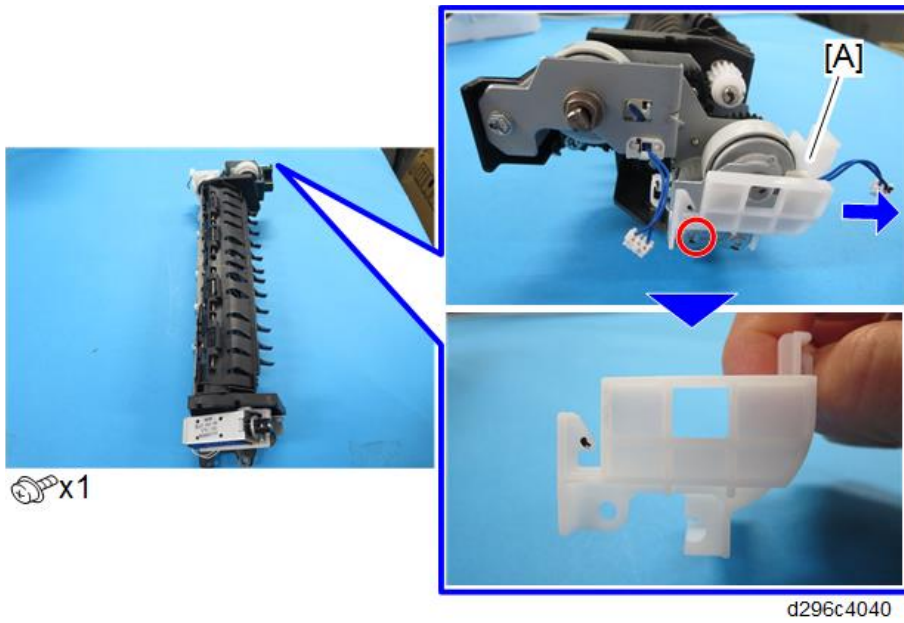
Paper Exit Clutch, Reverse Clutch

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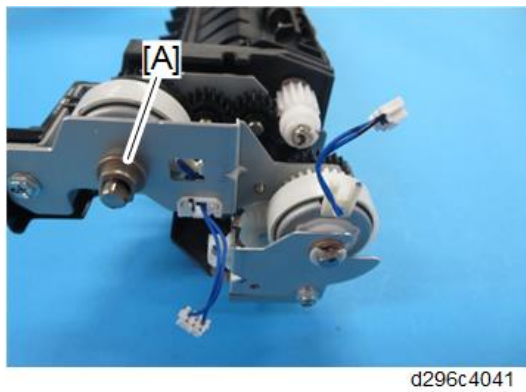
1. Remove the paper exit unit. ([Paper Exit Unit](#))

#### 4.Replacement and Adjustment

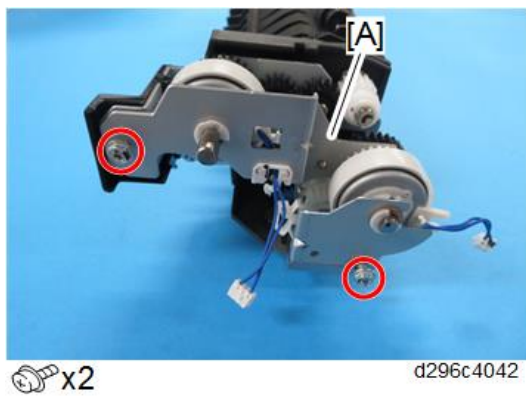
2. Remove the cover [A].



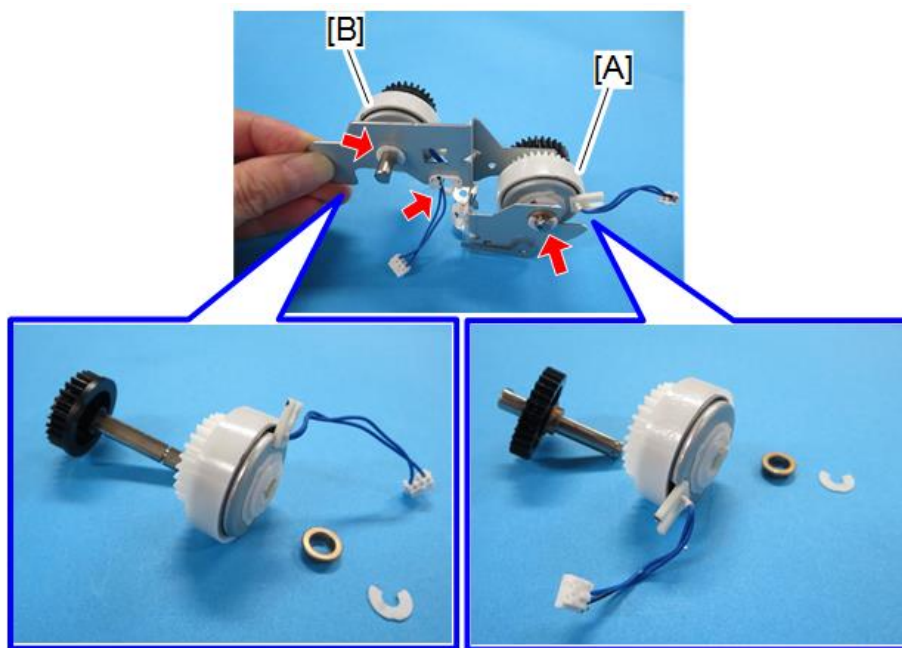
3. Pull out the bearing [A].



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



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



 x2  x1

d296c4043

## Duplex

### Duplex Unit

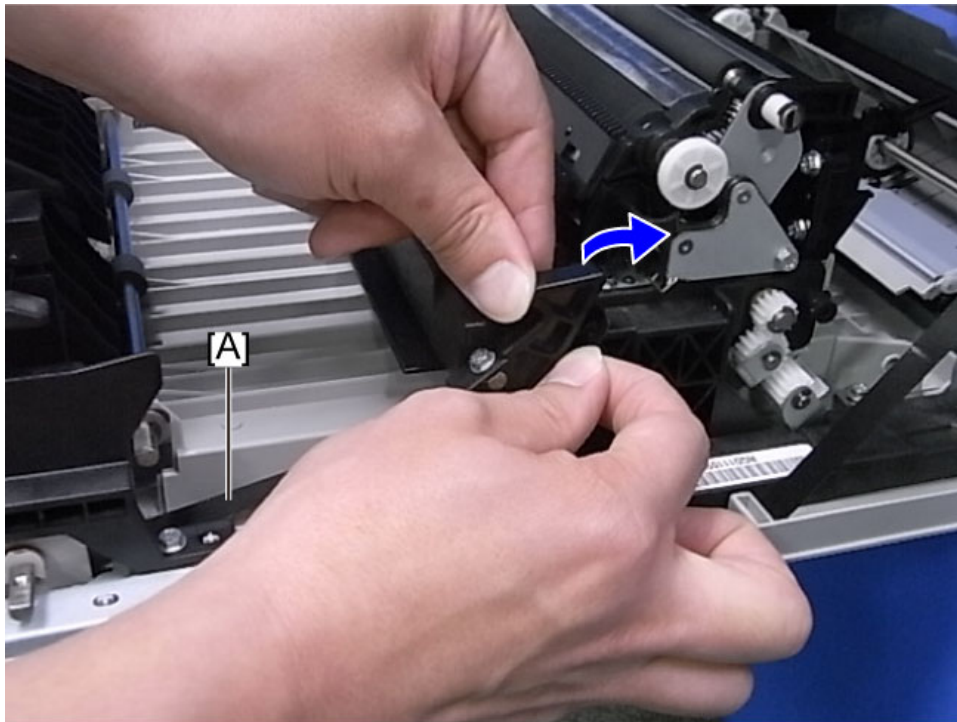
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1. Open the right door.



d196z4007

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

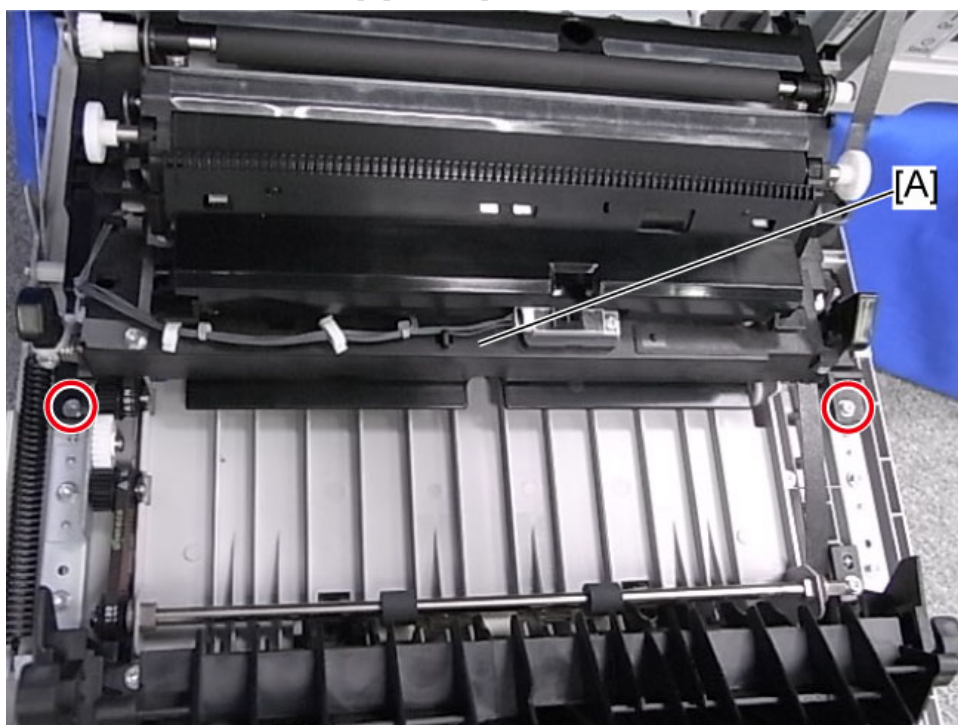


d1170077

#### **⚠ 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 \\_JP](#).

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



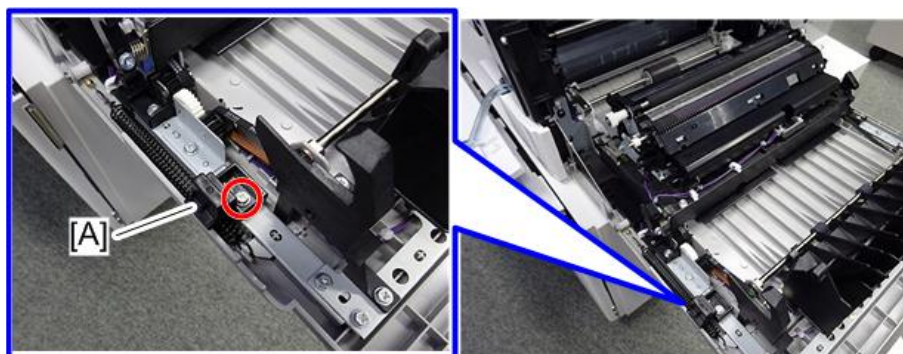
d1170078

4. Lift the paper transport unit [A].



d1170082a

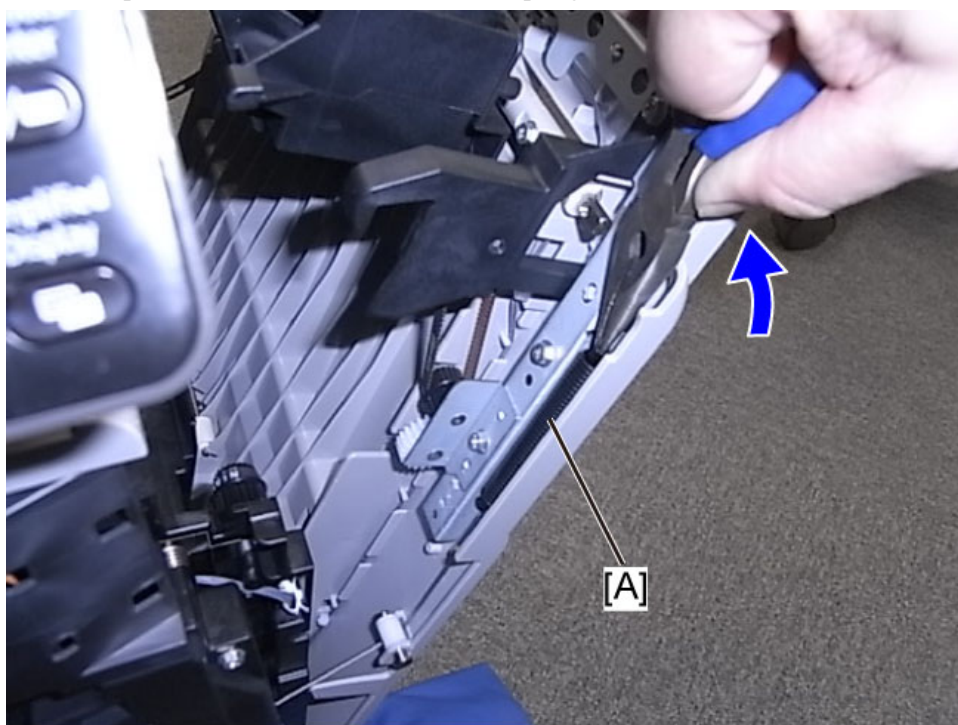
5. Remove the tension spring cover [A]. (🔩 × 1)



d196z4022

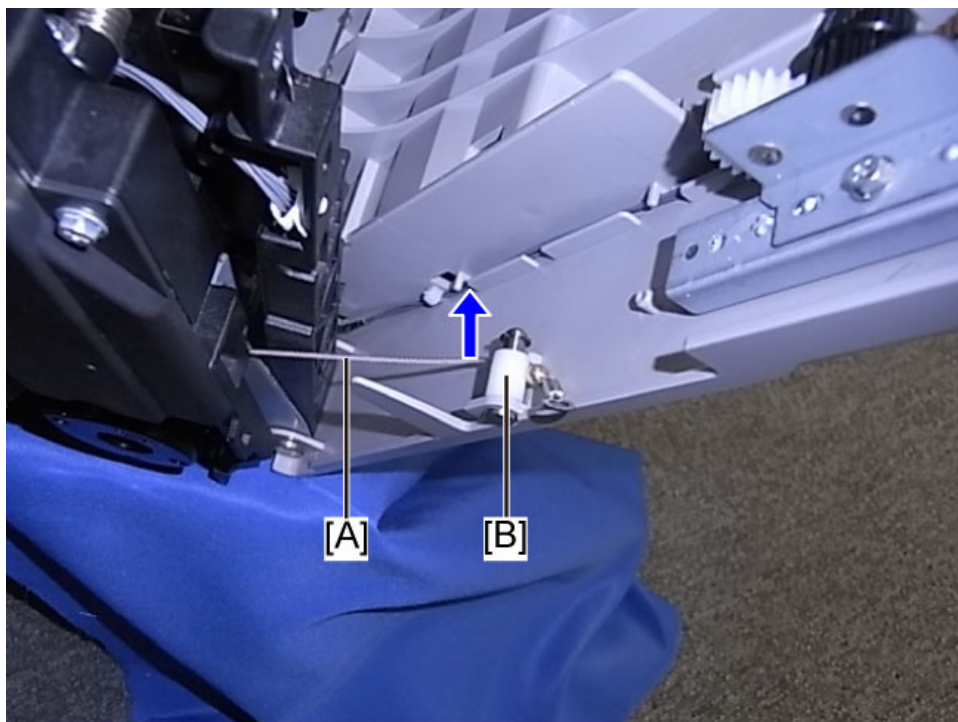
#### 4.Replacement and Adjustment

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



d1170080

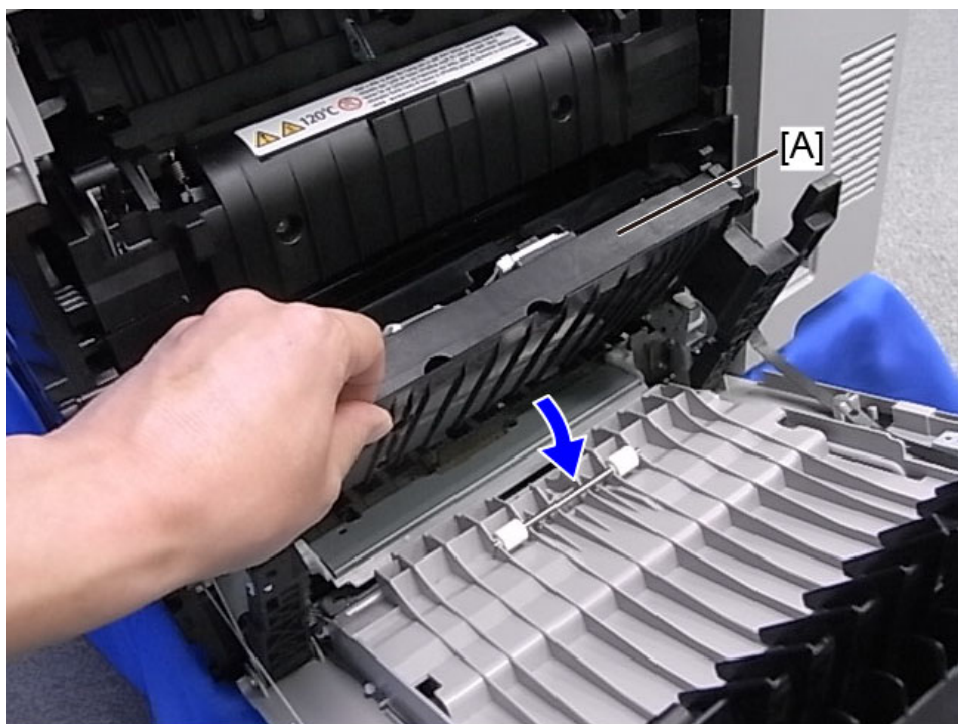
7. Release the tension wire [A] from the roller [B].



d1170081

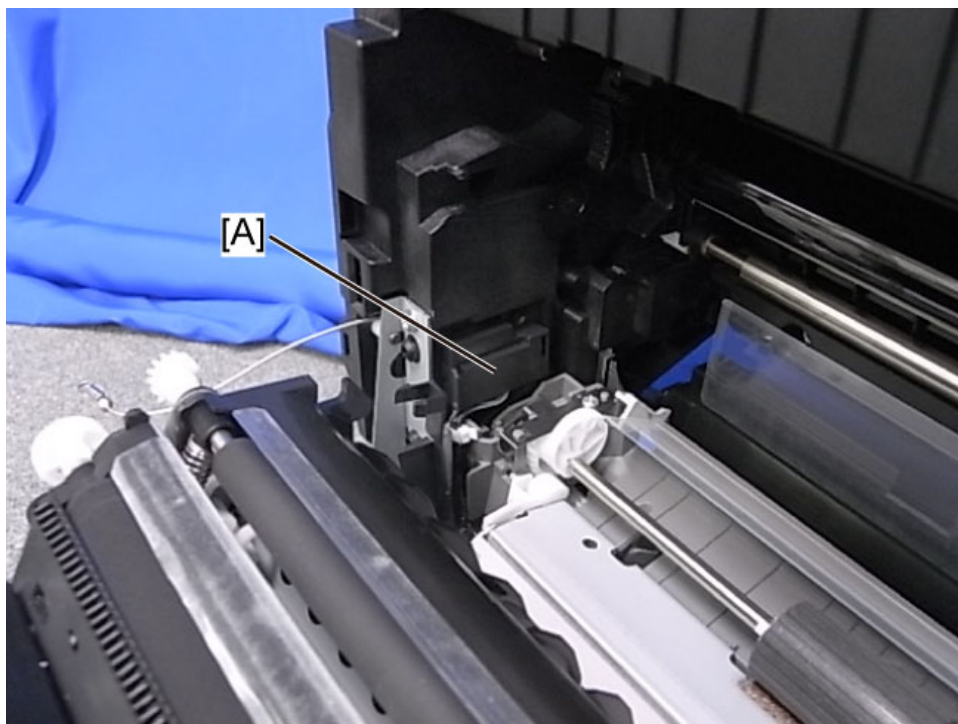


**8.** Restore the paper transport unit [A].





d1170082

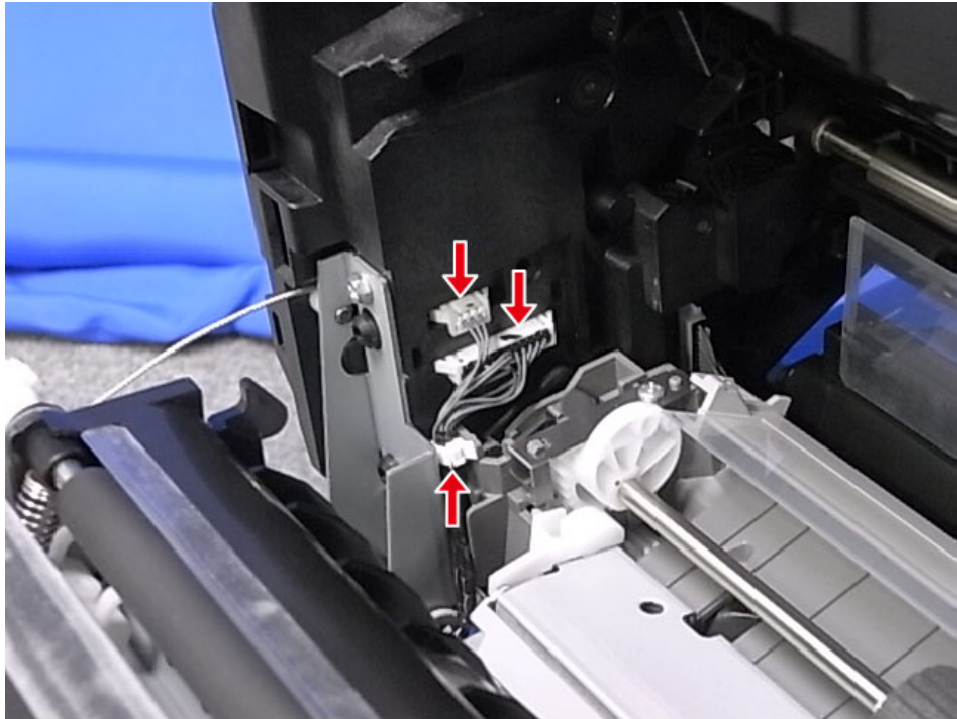
**9.** Remove the connector cover [A].



d1170083



#### 4.Replacement and Adjustment

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



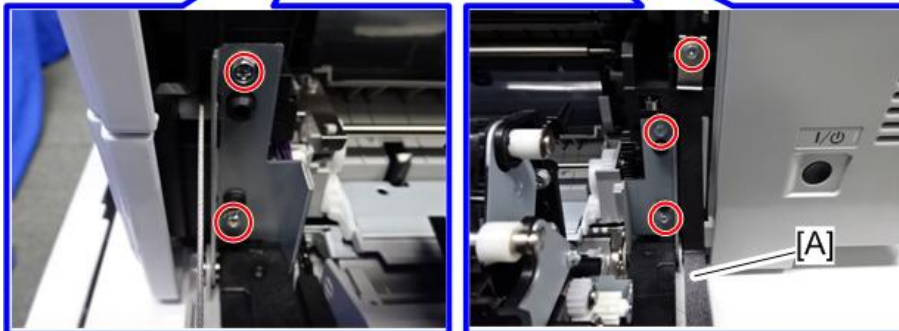
d1170084

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

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



d196z4147



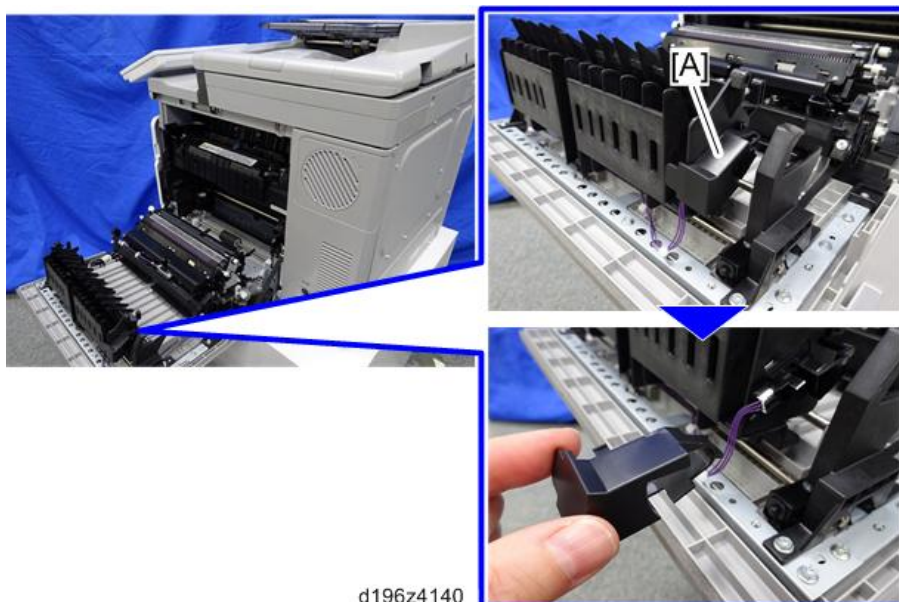
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#### Duplex Entrance Sensor

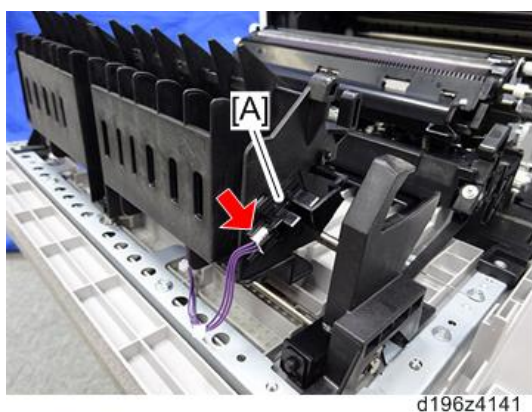
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**1.** Open the right door.

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



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

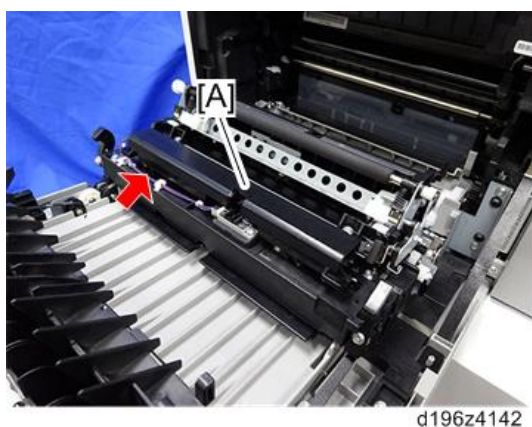


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### Duplex Exit Sensor

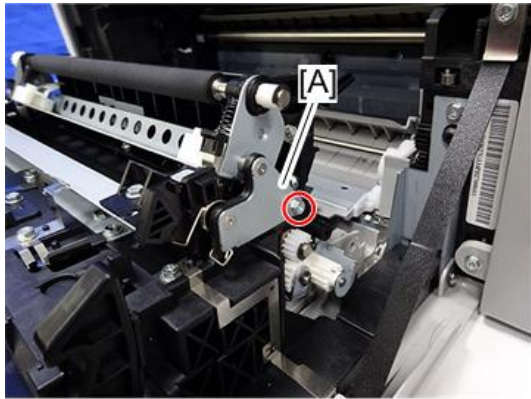
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- 1.** Remove the paper transfer roller unit. (Paper Transfer Roller Unit)  
**2.** Remove the cover [A]. (Hook × 1)



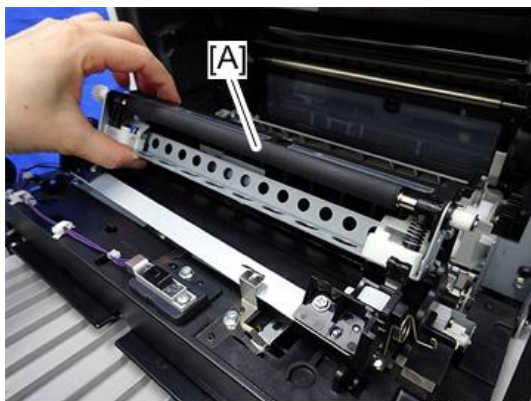
#### 4.Replacement and Adjustment

3. Remove the bracket [A]. (🔩 × 1)



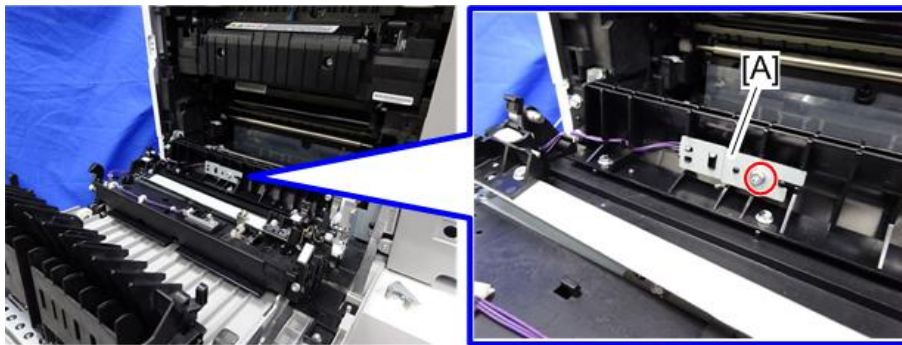
d196z4143

4. Remove the registration roller unit [A].



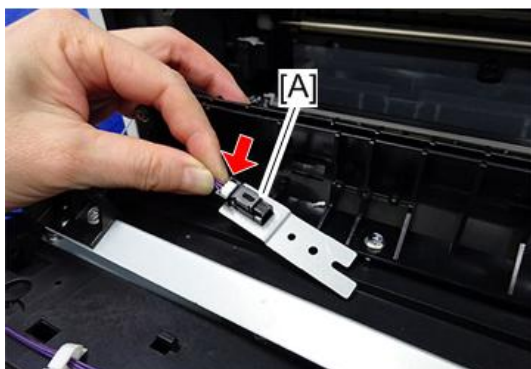
d196z4144

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



d196z4145

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



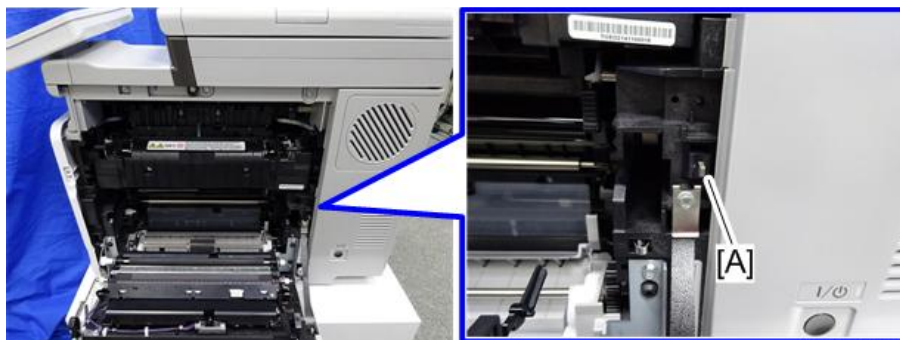
d196z4146

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## Right Cover Switch

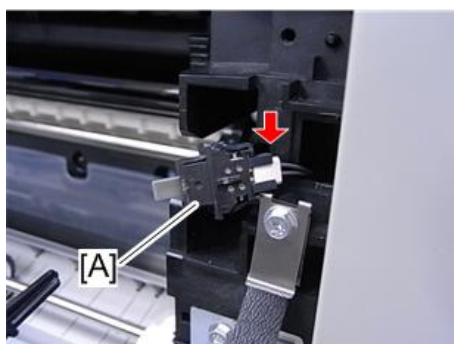
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1. Open the right door.
2. Release the tab of the right cover switch [A] with a jeweler's screwdriver.



d196z4139

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

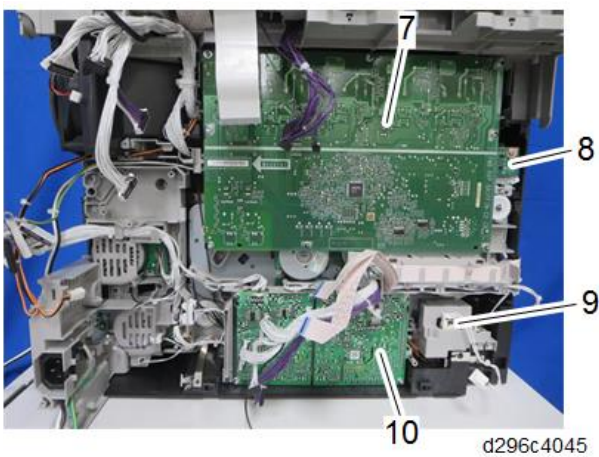
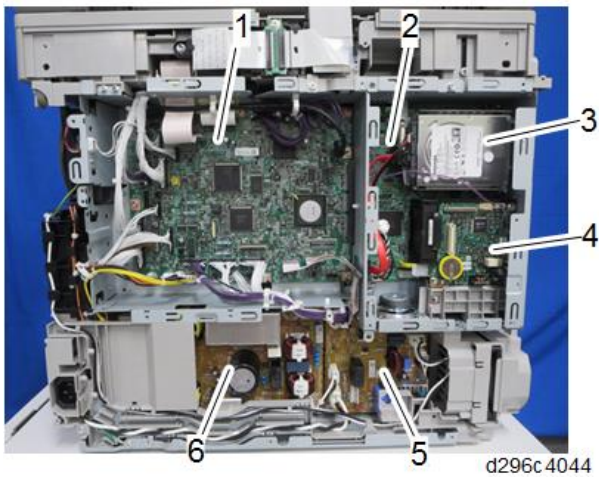


d1182511

## Electrical Components

### Electrical Components Overview

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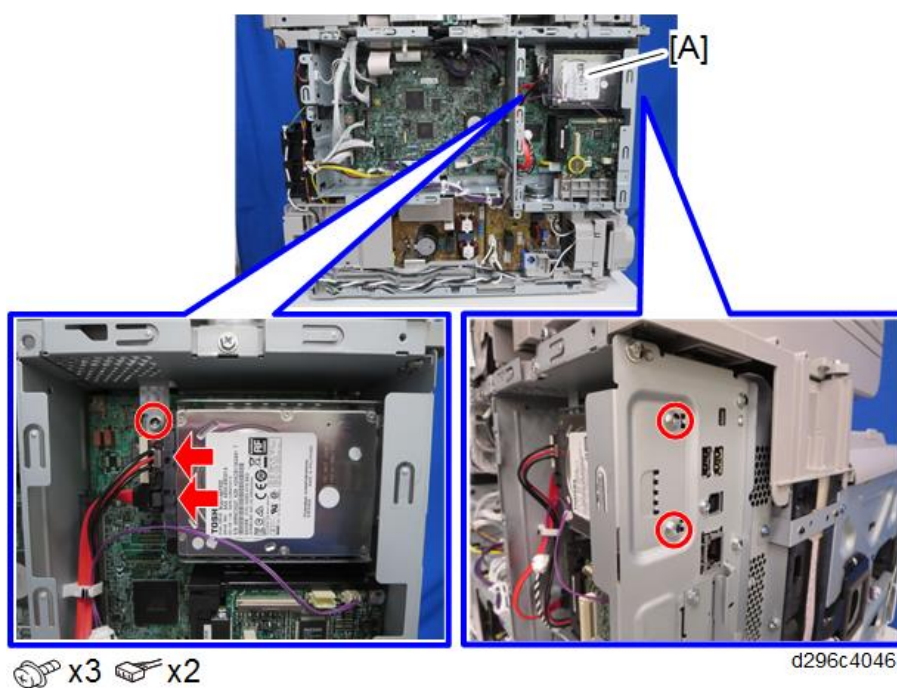
1. BiCU
2. Controller Board
3. HDD
4. FCU (if the machine has the fax unit)
5. PSU (AC)
6. PSU (DC)
7. Power Pack (Development)
8. Toner Bottle Detection Board
9. AC Detection Board
10. Power Pack (Transfer)

## HDD

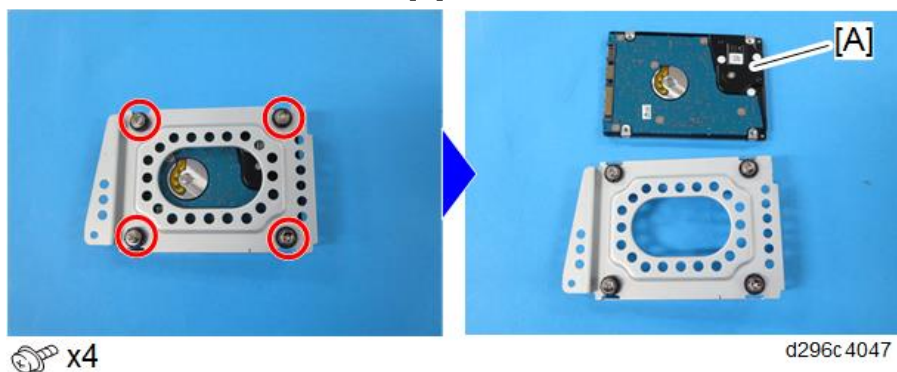
 Note

- 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.

#### 4.Replacement and Adjustment

### 3. Cycle the power Off/On.

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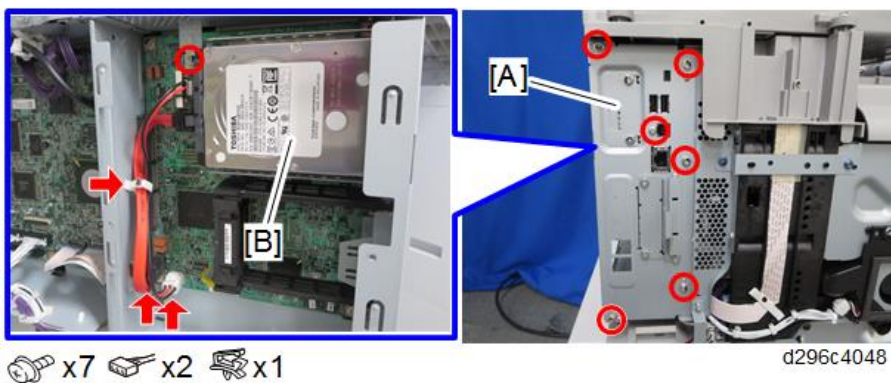
## Controller Board

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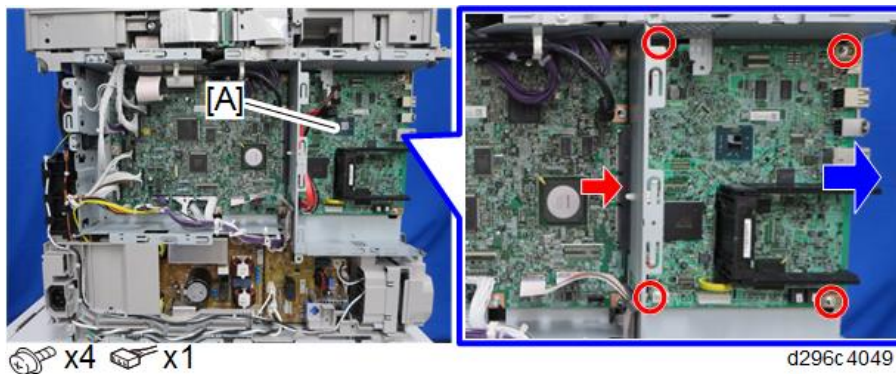
### Note

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

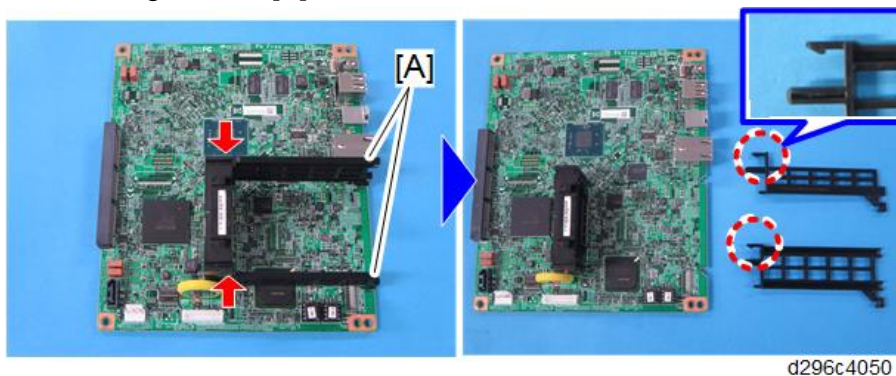
1. Remove the rear cover. ([Rear Cover](#))
2. Remove the left cover. ([Left Cover](#))
3. Remove the FCU (if the machine has the fax unit) (Refer to the FSM for Fax Option)
4. Remove the controller box cover [A] with the HDD [B].



5. Pull out the controller board [A].

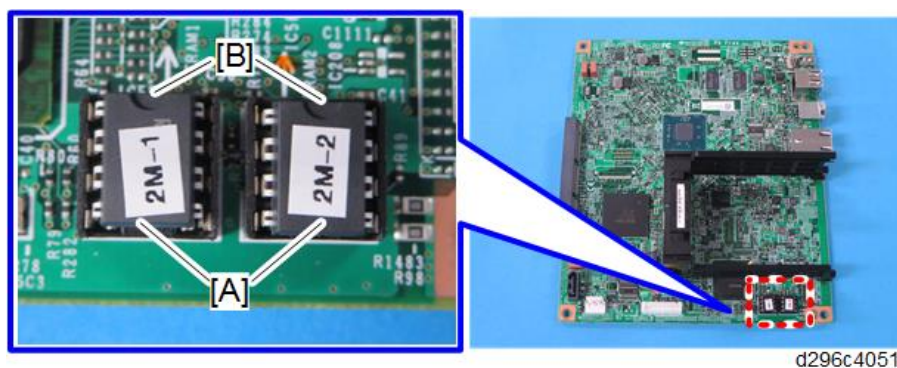


6. Remove the guide rails [A] from the old controller board, and install them on the new controller board.



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.

#### 4.Replacement and Adjustment

- [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.

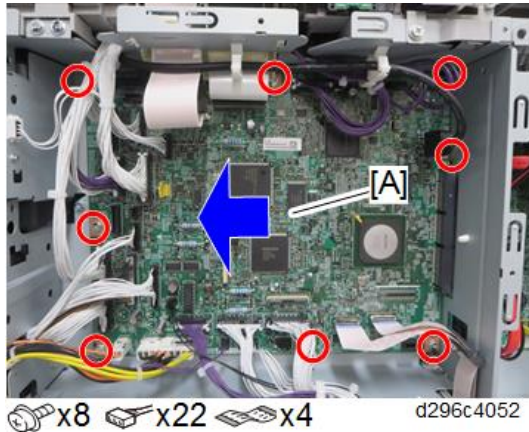
## 4.Replacement and Adjustment

### 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.



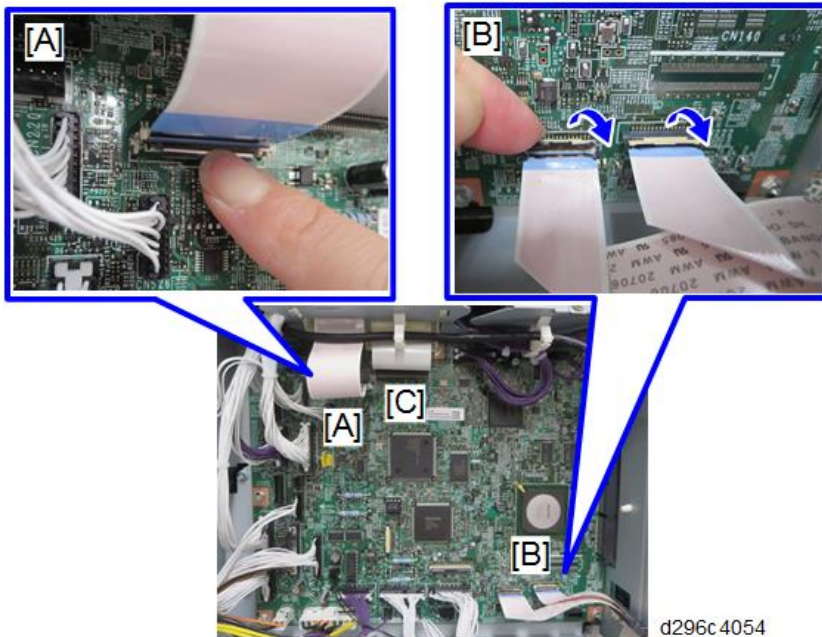
### Note

There are three kinds of FFC connectors.

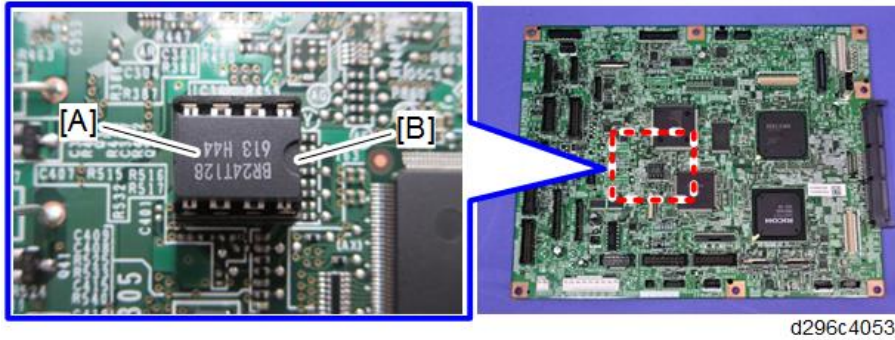
A: Disconnect the FFC while pushing the lock lever.

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

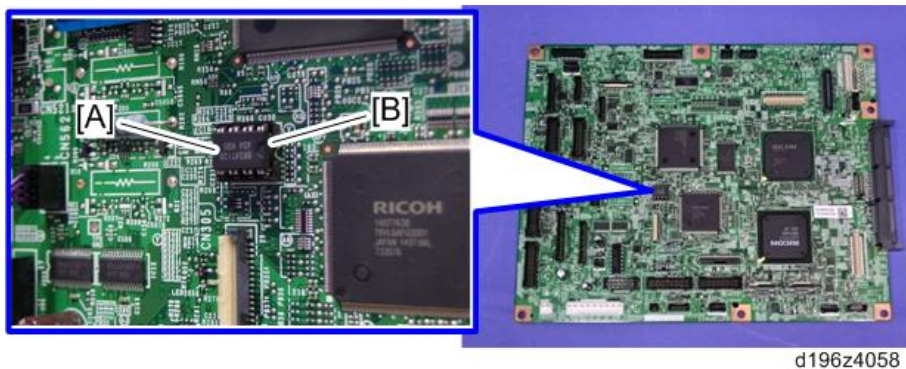
**Note**

- 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.

## 4.Replacement and Adjustment

**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).

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## Controller Box

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**↓ Note**

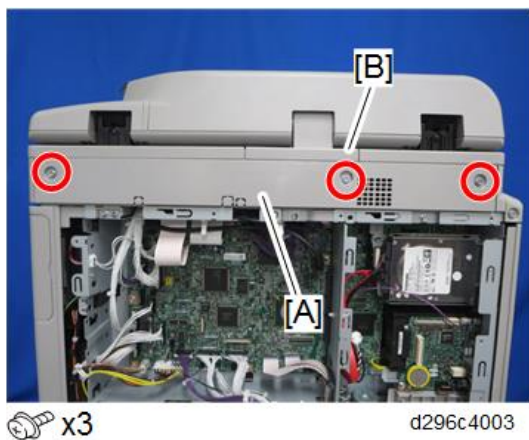
- If the optional counter interface unit is installed, remove the optional counter interface unit before removing the controller box.

**1.** Remove the rear cover. ([Rear Cover](#))

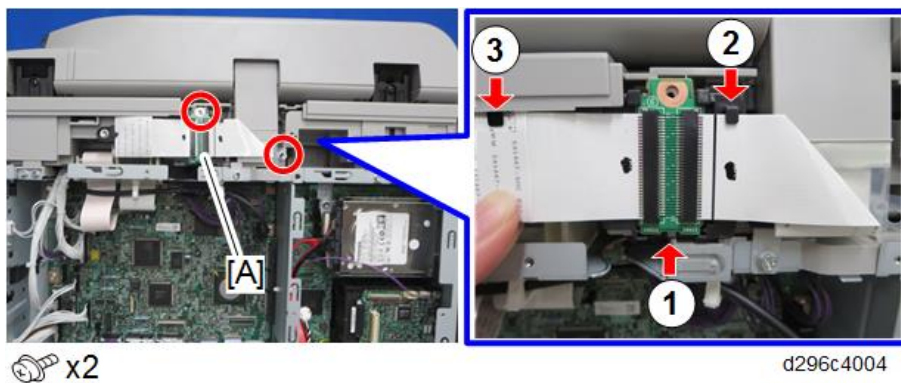
**2.** Remove the left cover. ([Left Cover](#))

**3.** Remove the right rear cover. ([Right Rear Cover](#))

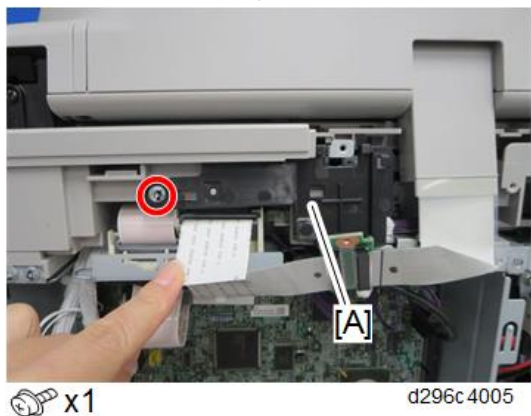
**4.** Remove the scanner rear cover [A] and scanner rear small cover [B].



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

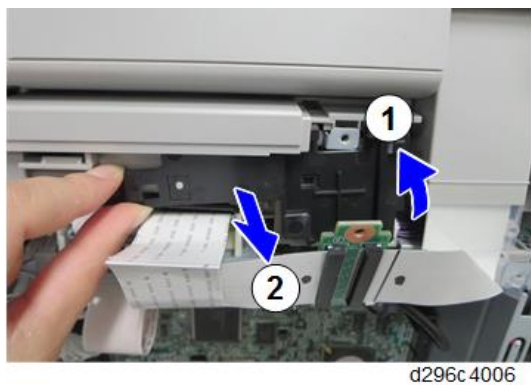


6. Remove the FFC fixing bracket [A] on the back side of the FFC.



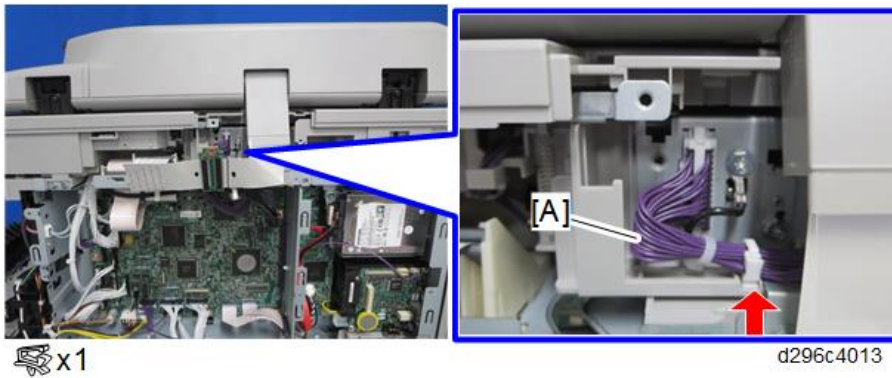
**Note**

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

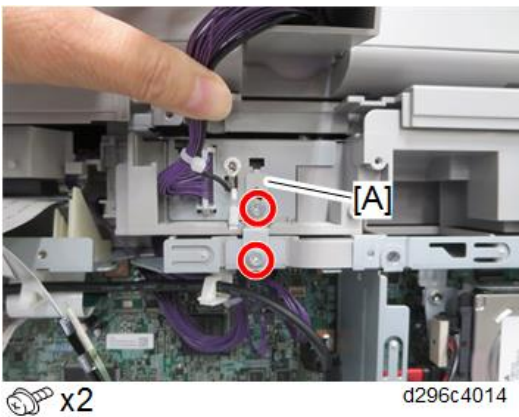


#### 4.Replacement and Adjustment

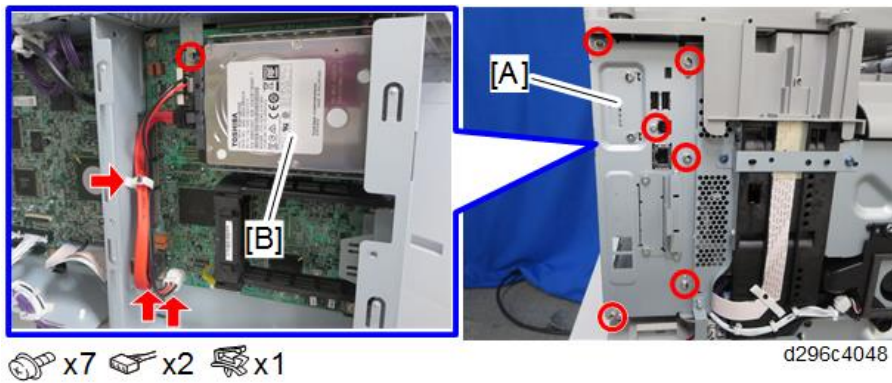
- 7.** Release the clamp of the harness to the ADF [A].



- 8.** Remove the grounding plate [A].



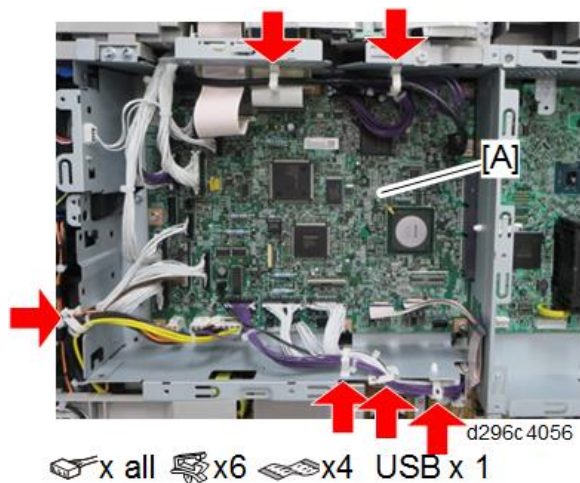
- 9.** Remove the controller box cover [A] with the HDD [B].



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

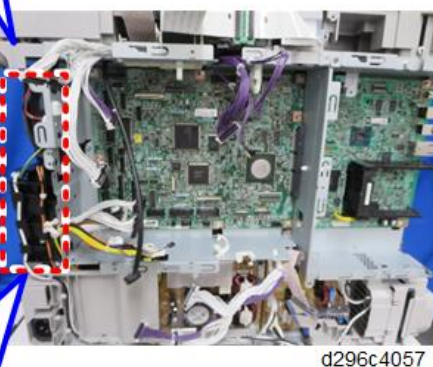
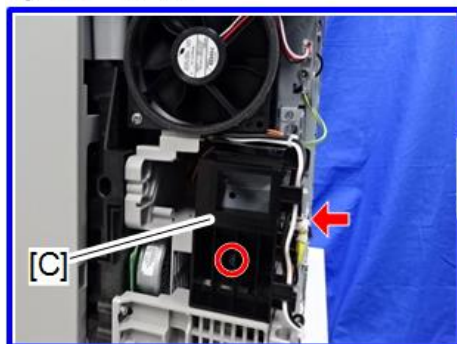
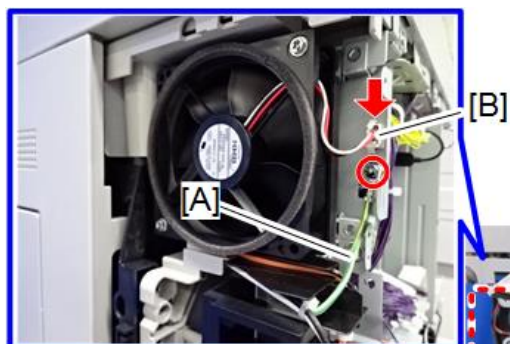
Remove the clamps to make room for removal of the BiCU [A].





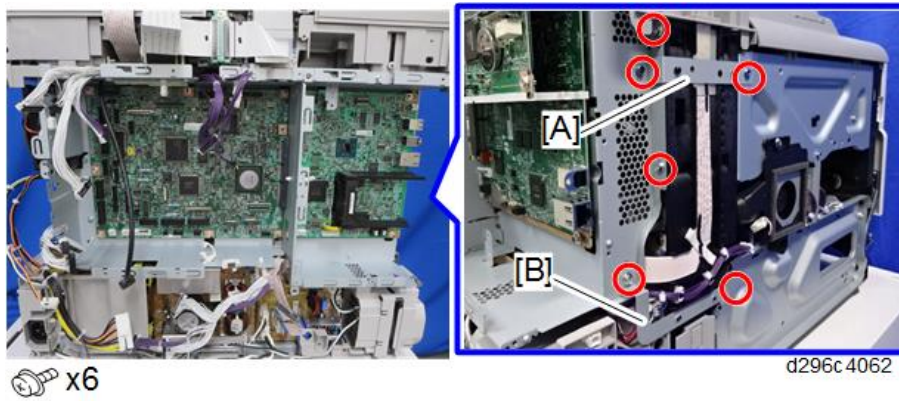
**11.** Do the following steps:

- 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.

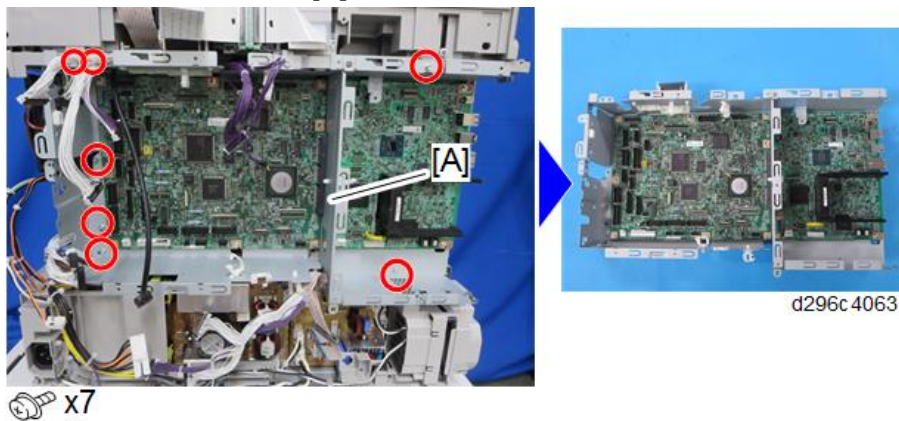


#### 4.Replacement and Adjustment

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



**13.** Remove the controller box [A].



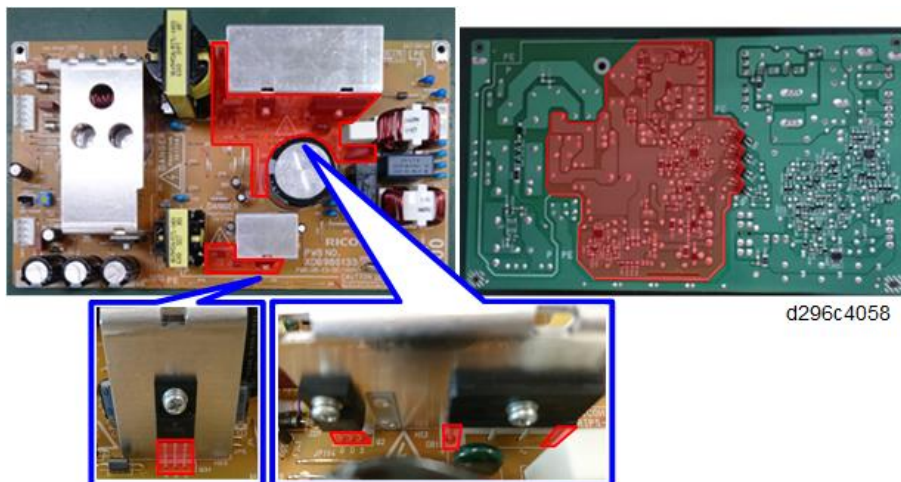
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#### PSU (AC), PSU (DC)

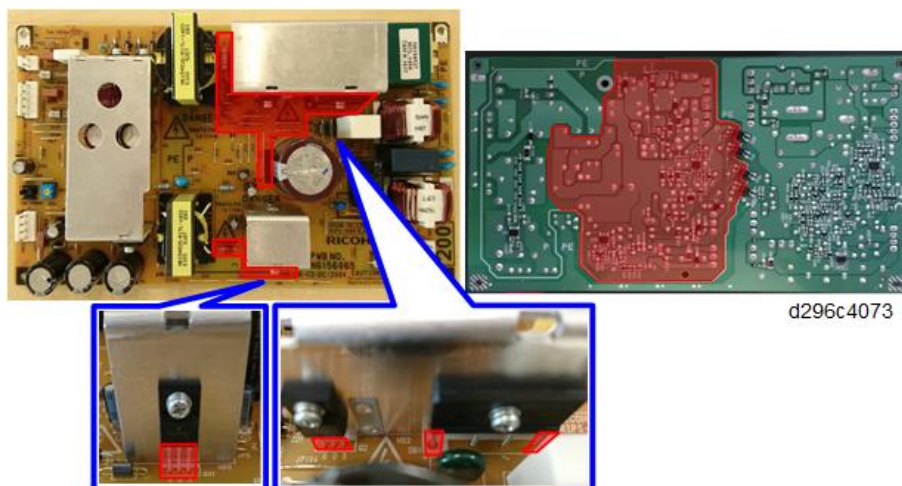
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##### **⚠ CAUTION**

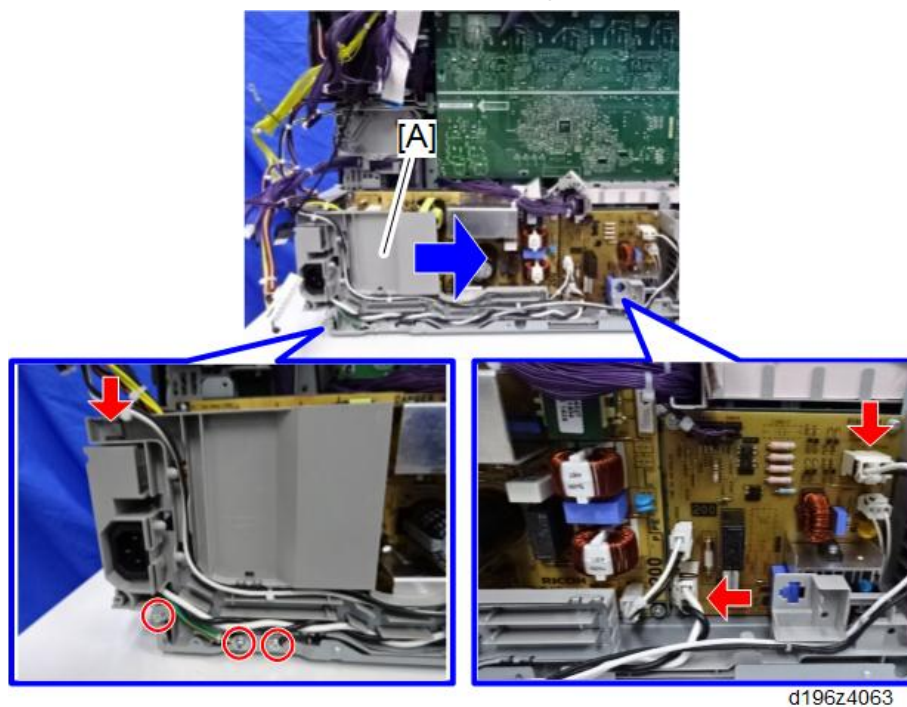
- Do not touch the areas outlined in red in the following diagrams when replacing the PSU. Residual charge on the board may cause electric shock.
- For 100V:



- For 200V:



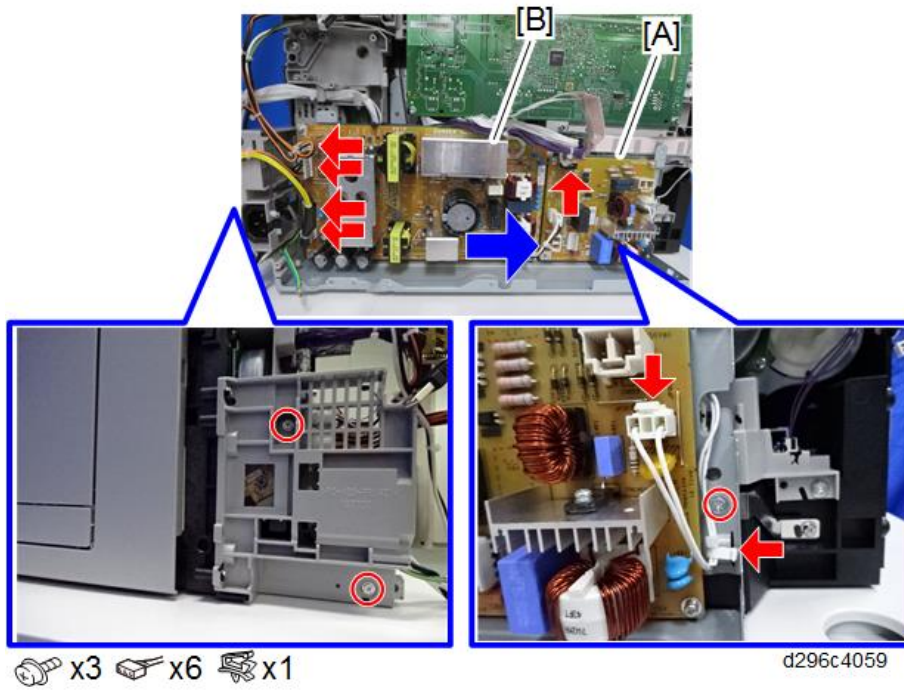
1. Remove the controller box. (Controller Box)
2. Remove the PSU fan. (PSU Fan)
3. Disconnect the harness and remove the harness guide [A]. (⚙️ ×3, 📌 ×2, Hook ×1)



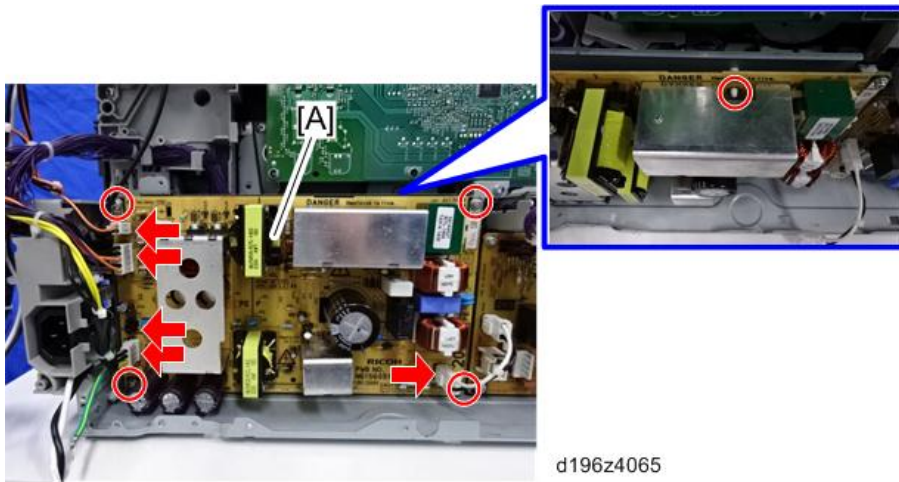
4. The next step varies according to the parts that you want to remove.
  - **For removing the PSUs with the bracket**, disconnect the connectors on the PSU (AC) [A] and PSU

#### 4.Replacement and Adjustment

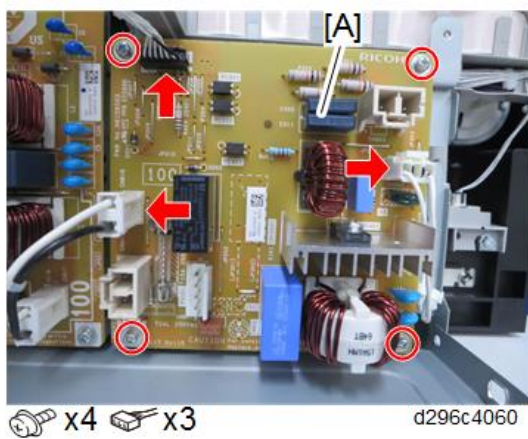
(DC) [B].



- For removing the PSU (DC) alone, remove the PSU (DC) [A]. (Screw x4, Connector x5, Locking wire saddle x1)



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

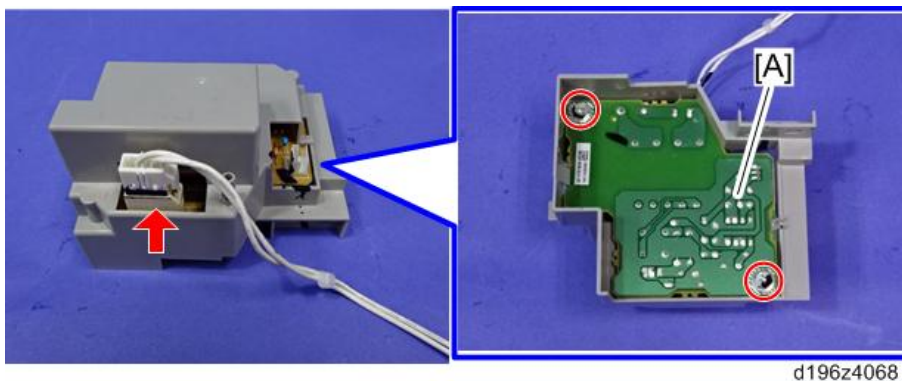


AC Detection Board

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

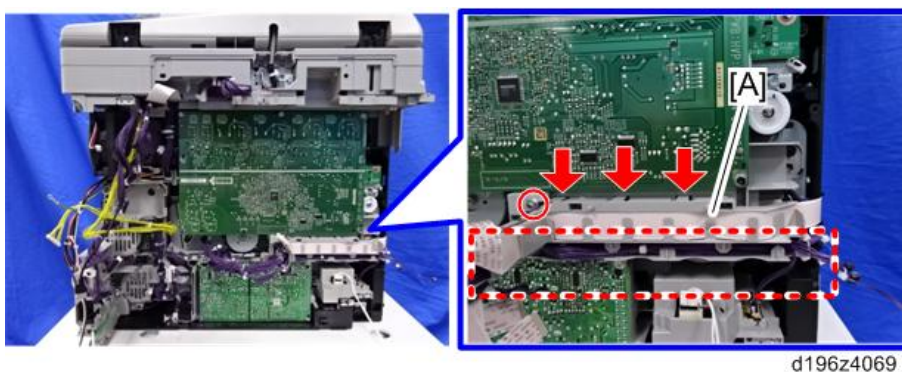


3. Remove the AC detection board [A]. (⚙️ × 2, 📡 × 1)



Power Pack (Development)

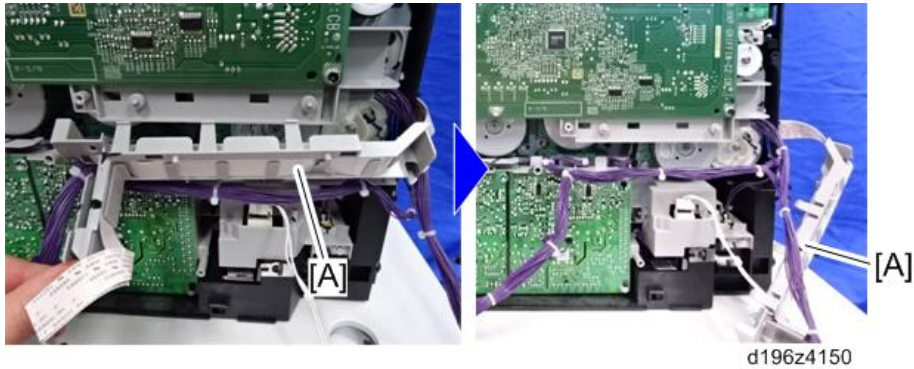
1. Remove the PSU with the bracket. (PSU (AC), PSU (DC))
2. Disconnect the harness and remove the harness guide [A]. (⚙️ × 1, hook × 3)



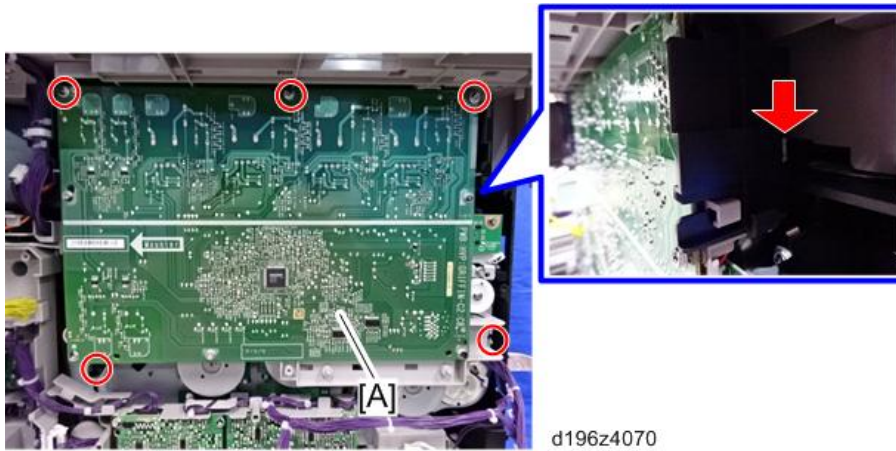
## 4.Replacement and Adjustment

### Note

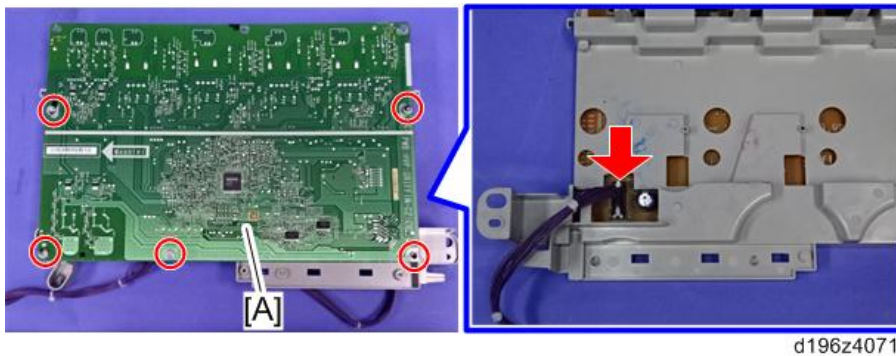
- Release the harness guide [A] as shown below.



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



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



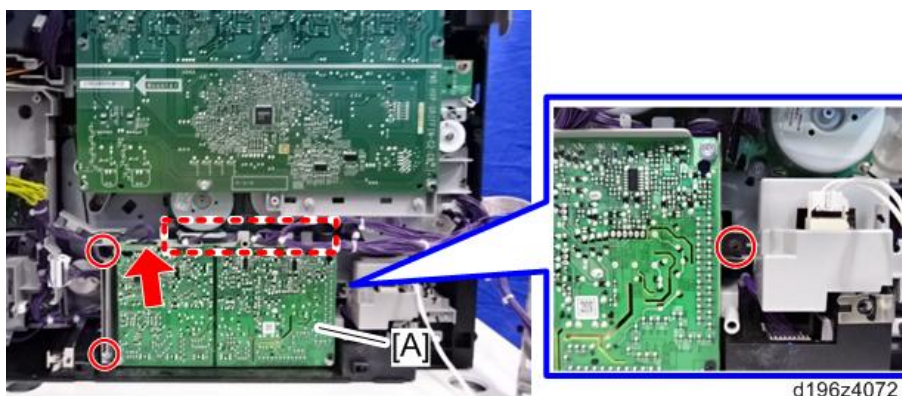
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## Power Pack (Transfer)

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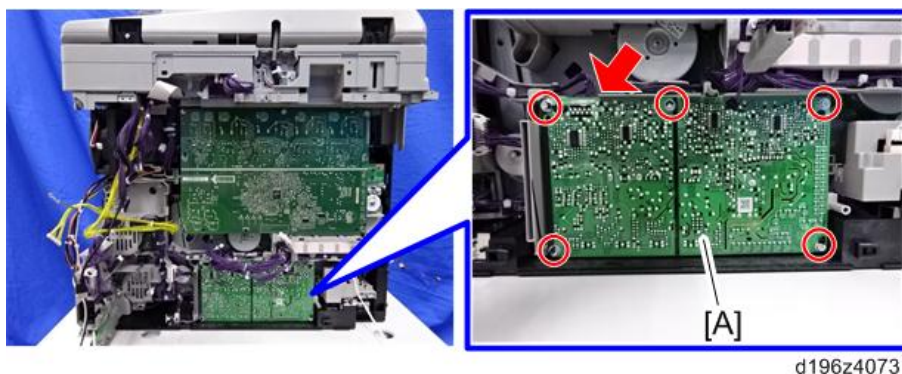
- Remove the PSU with the bracket. (PSU (AC), PSU (DC))
- Disconnect the harness attached to the power pack's bracket, and then remove the power pack [A] with the

bracket. (🔩 × 3, 📏 × 1)



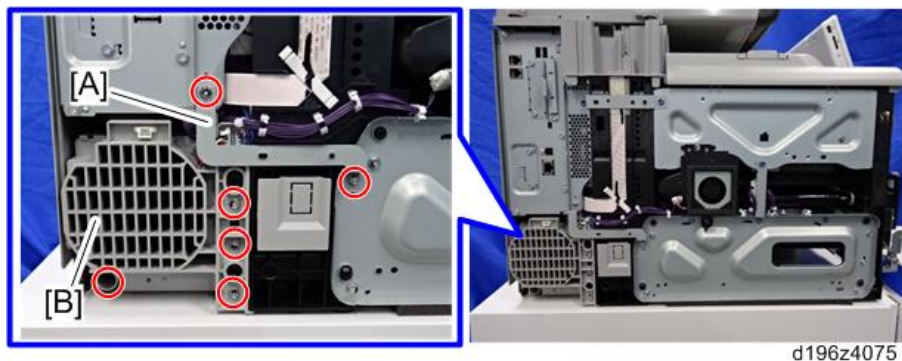
### Removing the Power Pack (Transfer) Alone

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



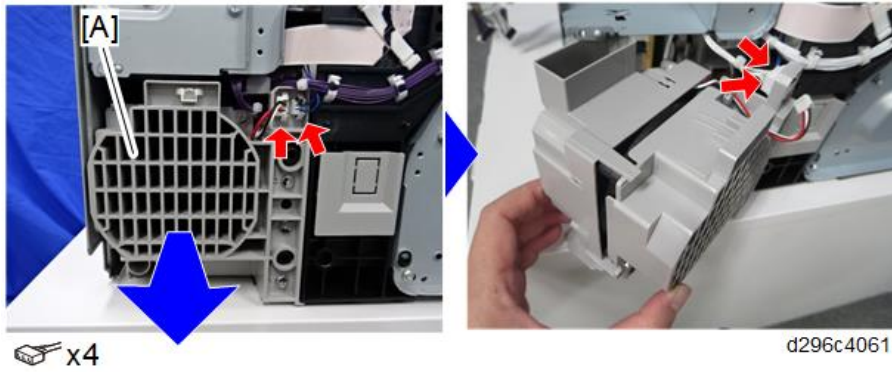
### PSU Fan

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

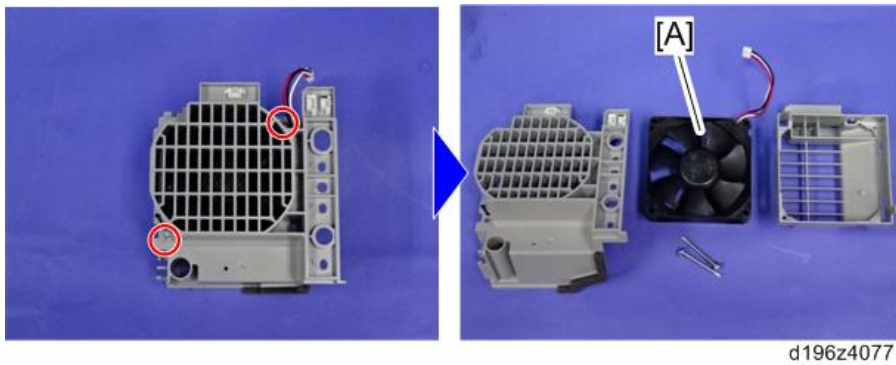


#### 4.Replacement and Adjustment

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

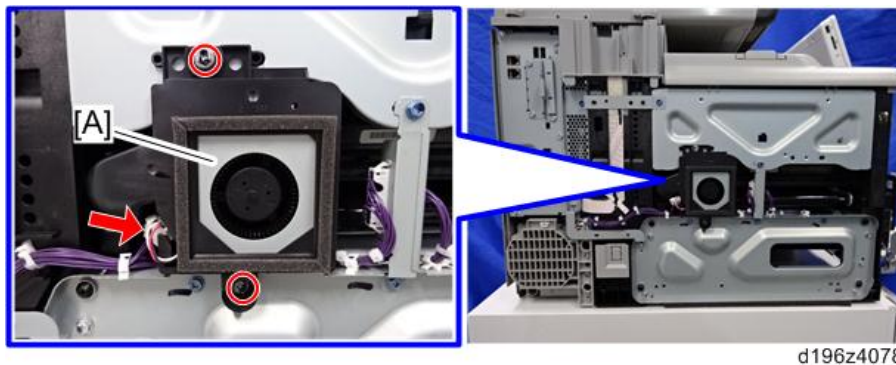
- Install the PSU fan with its label facing the inside of the machine.

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#### PCDU Cooling Fan

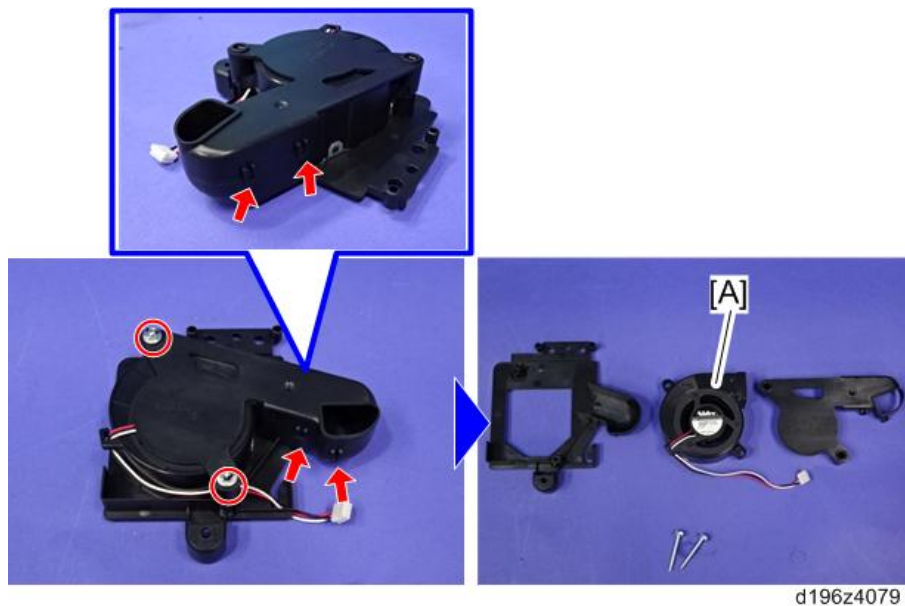
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1. Remove the left cover. (Left Cover)
2. Remove the PCDU cooling fan [A] with the duct. (⊙ × 2, ⊞ × 1)



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



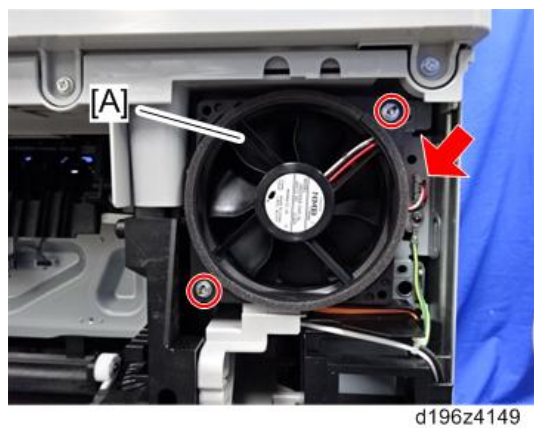


**Note**

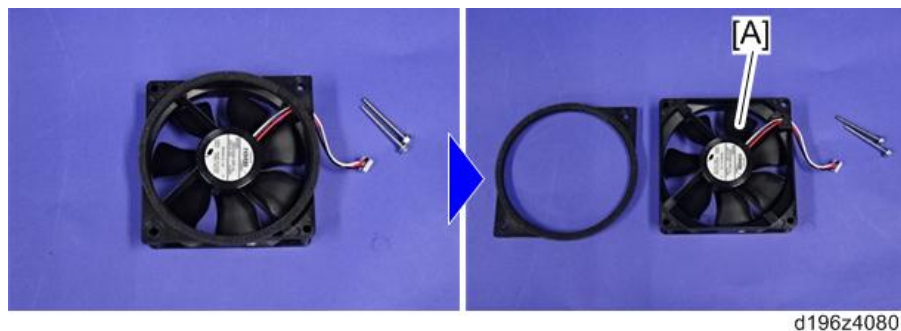
- Install the PCDU cooling fan with its label facing the inside of the machine.

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.

## 4.Replacement and Adjustment

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### Temperature/Humidity Sensor

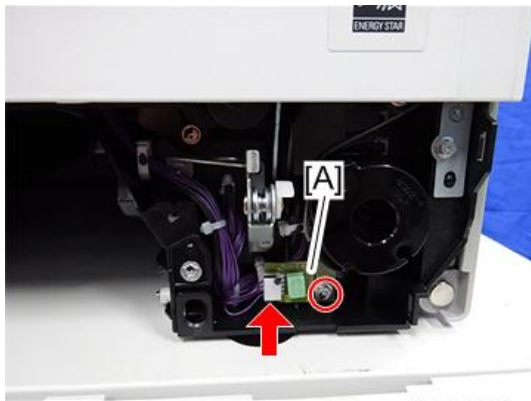
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1. Pull out the paper tray.
2. Remove the front lower cover [A]. (⊙ × 1)



d196z4002

3. Remove the temperature/humidity sensor [A]. (⊙ × 1, ⊞ × 1)



d196z4081

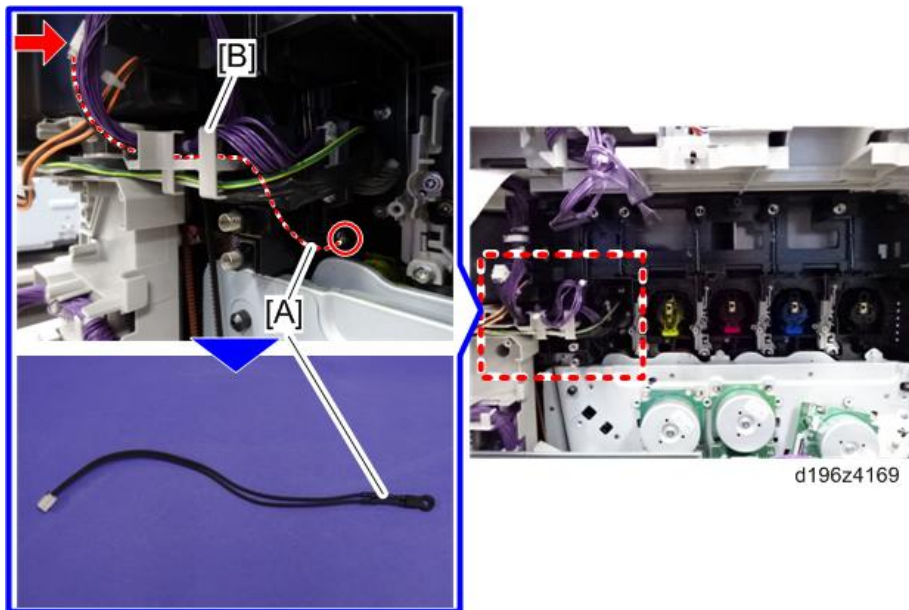
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### Image Creation Temperature Sensor

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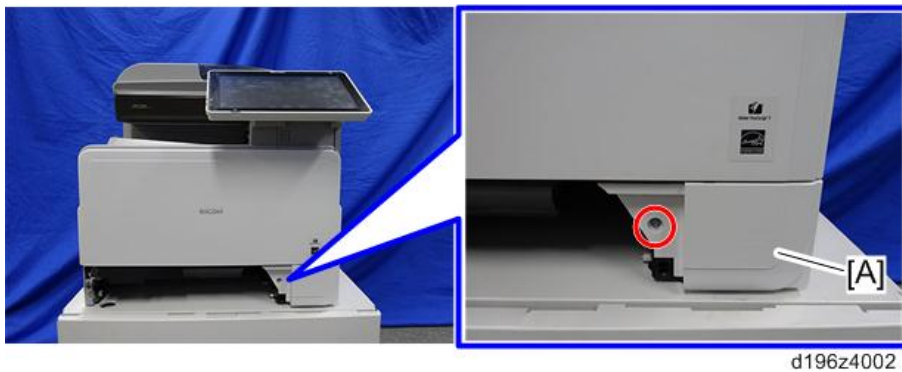
1. Remove the toner transport section. ([Toner Transport Section](#))
2. Remove the image creation temperature sensor [A] while releasing the harness of the image creation

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.Replacement and Adjustment

4. Remove the interlock switch cover [A]. (🔩 × 3)



d196z4083

5. Remove the Interlock switches [A]. (🔧 × each 2)



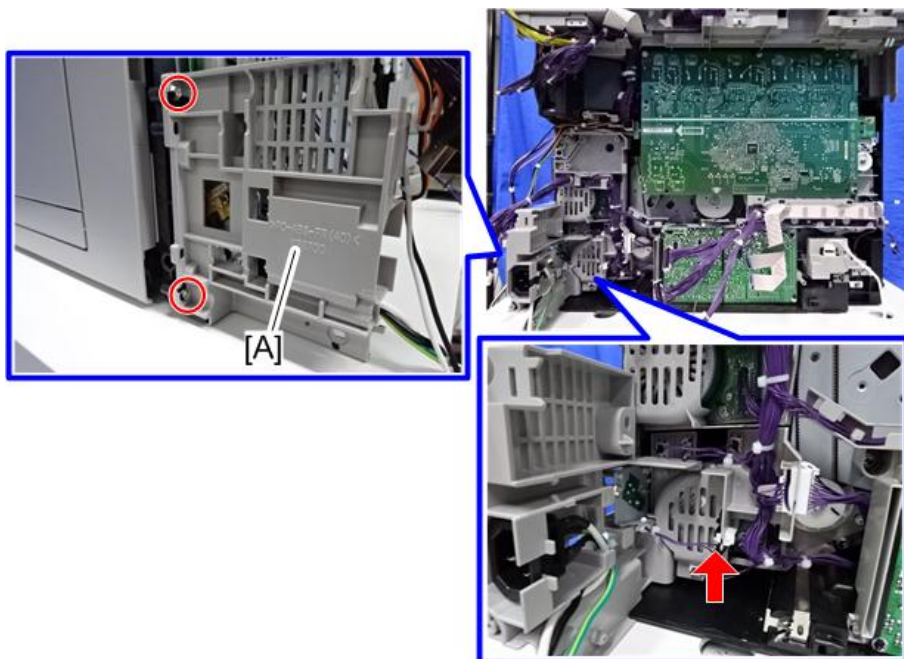
d196z4084

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#### DC Switch

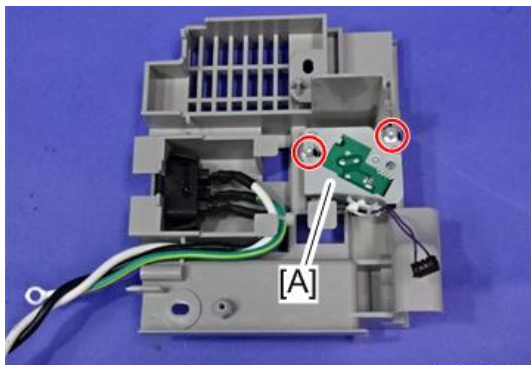
---

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



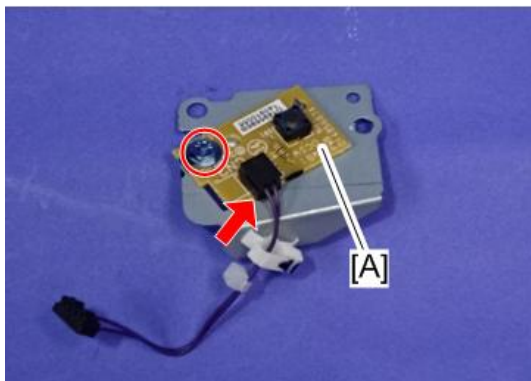
d196z4085

3. Remove the DC switch [A] with the bracket. (🔩 × 2)



d196z4086

4. Remove the DC switch [A]. (🔩 × 1, 📏 × 1)



d196z4087

# 5. System Maintenance

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## Service Program Mode

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### SP Tables

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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                  |

## 5. System Maintenance

| 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)   |



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## Procedure

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### ★ 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

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- 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].

## 5. System Maintenance



### Note

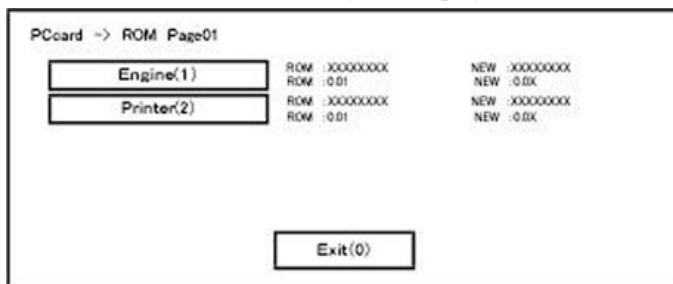
- Check whether the card is properly in the SD card slot. When a SD card is inserted, a click is heard, and it is locked.
- To remove the card, release by pressing once.

**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:

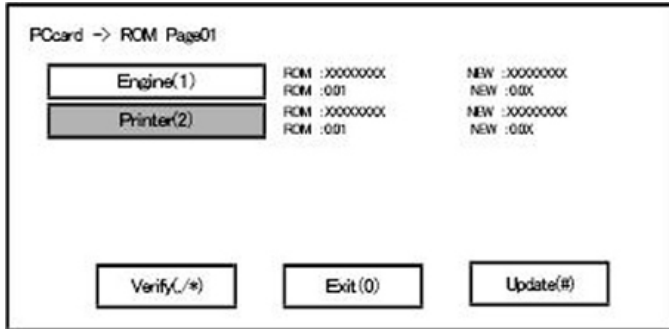
| Display | Contents   |
|---------|--|
| ROM:    | Display installed module number / version information.   |
| NEW:    | Display module number / version information in the card. |

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**

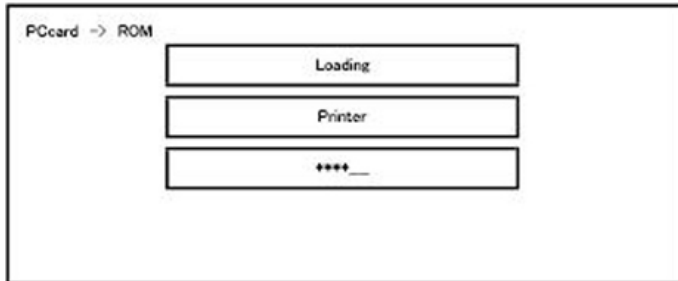
- Depending on the combination of modules to update, it may not be possible to select all of them simultaneously.



<<Key or button operations>>

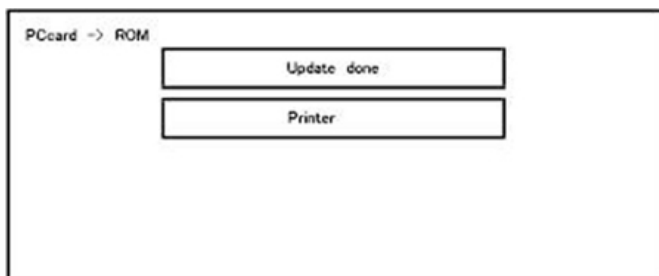
| Keys or buttons to press     | Contents                                     |
|------------------------------|--|
| [Update] or [#] key          | Update the ROM of the selected module.       |
| [Verify] button or [./*] key | Perform verification of the selected module. |

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.)

## 5. System Maintenance

- 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

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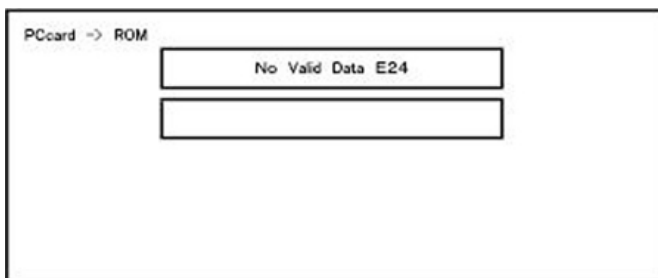
- If the SD card is blank, copy the entire "romdata" folder onto the SD card.
- If the card already contains the "romdata" folder, copy the "D296" folder onto the card.
- If the card already contains folders up to "D296", copy the necessary firmware files (e.g. D296xxxx.fwu) into this folder.

### ↓ Note

- Do not put multiple machine firmware programs on the same SD card. Copy the only model firmware you want.

## Error Screens During Updating

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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.   | <ul style="list-style-type: none"> <li>• Switch the main power supply off and on to try again.</li> <li>• Re-insert the SD card to reboot it.</li> <li>• Replace the controller board if the above solutions do not solve the problem.</li> </ul>   |
| 21   | Insufficient memory for the download  | <ul style="list-style-type: none"> <li>• Switch the main power supply off and on to try again.</li> <li>• Replace the controller board if the updating cannot be done by switching the power off and on.</li> </ul>   |
| 22   | Decompression of compressed data failed.  | <ul style="list-style-type: none"> <li>• Switch the main power supply off and on to try again.</li> <li>• Replace the SD card used for the update.</li> <li>• Replace the controller board if the above solutions do not solve the problem.</li> </ul>  |
| 24   | SD card access error  | <ul style="list-style-type: none"> <li>• Re-insert the SD card.</li> <li>• Switch the main power supply off and on to try again.</li> <li>• Replace the SD card used for the update.</li> <li>• Replace the controller board if the above solutions do not solve the problem.</li> </ul>  |
| 32   | <p>The SD card used after download suspension is incorrect.</p> <p>SD cards are different between the one which was inserted before power interruption and the one which was inserted after power interruption.</p> | <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• Replace the controller board if the above solutions do not solve the problem.</li> </ul> <p>Replace all relevant boards if the update is done for the BiCU and FCU.</p> <p>Replace the operation panel unit if the update is done for the operation panel.</p> |
| 33   | <p>Card version error.</p> <p>The wrong card version is downloaded.</p>   | <ul style="list-style-type: none"> <li>• Install the correct ROM update data for each version in the SD card.</li> </ul>  |
| 34   | <p>Destination error.</p> <p>A card for the wrong destination is inserted.</p>  | <ul style="list-style-type: none"> <li>• Install the correct ROM update data for each destination (JPN/ EXP/ OEM) in the SD card.</li> </ul>  |

## 5. System Maintenance

| Code | Contents   | Solutions  |
|------|--|--|
| 35   | Model error.<br>A card for the wrong model is inserted.  | <ul style="list-style-type: none"> <li>Install the correct ROM update data for each model in the SD card.</li> </ul>   |
| 36   | Module error.<br>The program to be downloaded does not exist on the main unit.<br>The download destination specified by the card does not match up to the destination for the main unit's program. | <ul style="list-style-type: none"> <li>Install the program to be updated in advance.</li> <li>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.</li> <li>The SD card is incorrect if the program to be updated has been correctly installed. In this case, insert the correct SD card.</li> </ul> |
| 38   | The version of the downloaded program has not been authorized for the update.  | <ul style="list-style-type: none"> <li>Make sure that the program to be overwritten is the specified version.</li> </ul>   |
| 40   | Engine download fails.   | <ul style="list-style-type: none"> <li>Switch the main power supply off and on to try again.</li> <li>If the download fails again, replace the controller board and the BiCU.</li> </ul>   |
| 41   | Fax download fails.  | <ul style="list-style-type: none"> <li>Switch the main power supply off and on to try again.</li> <li>If the download fails again, replace the controller board and the FCU board.</li> </ul>  |
| 42   | Control panel / language download fails.   | <ul style="list-style-type: none"> <li>Switch the main power supply off and on to try again.</li> <li>If the download fails again, replace the controller board and the operation panel unit.</li> </ul>   |
| 43   | Printing download fails.   | <ul style="list-style-type: none"> <li>Switch the main power supply off and on to try again.</li> <li>The SD card media is damaged if the update fails again. Replace the SD card media.</li> </ul>  |
| 44   | The data to be overwritten cannot be accessed when controller-related programs are downloaded.   | <ul style="list-style-type: none"> <li>Switch the main power supply off and on to try again.</li> <li>Install the correct ROM update data in the SD card.</li> <li>Replace the controller board if the data to be overwritten is contained on the controller board.</li> </ul>   |
| 49   | Firmware updates are currently prohibited.   | <ul style="list-style-type: none"> <li>The setting of Update Firmware in the Administrator Tools has been set to [Prohibit] by an administrator. Amend the setting to [Do not Prohibit] and try again.</li> </ul>  |

| Code | Contents   | Solutions  |
|------|--|--|
| 50   | The results of the electronic authorization check have rejected the update data.   | <ul style="list-style-type: none"> <li>• Install the correct ROM update data in the SD card.</li> </ul>                          |
| 57   | @Remote is not connected at the date/time reserved for receiving the package firmware update from the network.                                 | <ul style="list-style-type: none"> <li>• Check the @Remote connection.</li> </ul>  |
| 58   | Update cannot be done due to a reception route problem.  | <ul style="list-style-type: none"> <li>• Check the @Remote connection.</li> </ul>  |
| 59   | HDD is not mounted.  | <ul style="list-style-type: none"> <li>• Check the HDD connection.</li> </ul>  |
| 60   | HDD could not be used during the package firmware update.  | <ul style="list-style-type: none"> <li>• Try again.</li> <li>• Replace the HDD if the download fails again.</li> </ul>           |
| 61   | The module ID for the package firmware update is incorrect.  | <ul style="list-style-type: none"> <li>• Prepare the correct package files.</li> </ul>   |
| 62   | The configuration of the package firmware update files is incorrect.   | <ul style="list-style-type: none"> <li>• Prepare the correct package files.</li> </ul>   |
| 63   | Reception fails due to the power off at the reserved date/time of the remote firmware update from the network.                                 | <ul style="list-style-type: none"> <li>• Update is to be done automatically when the next reception time has elapsed.</li> </ul> |
| 64   | Reception fails due to the power off at the reserved date/time of the package firmware update from the network.                                | <ul style="list-style-type: none"> <li>• Reset the reservation date/time for the remote update.</li> </ul>                       |
| 65   | Reception fails due to the status error of the machine at the reserved date/time of the remote firmware update from the network.               | <ul style="list-style-type: none"> <li>• Update is to be done automatically when the next reception time has elapsed.</li> </ul> |
| 66   | Reception failed due to the status error of the machine at the reserved date/time of the package firmware update from the network.             | <ul style="list-style-type: none"> <li>• Reset the reservation date/time for the remote update.</li> </ul>                       |
| 67   | Acquisition of the latest version information from the Gateway fails at the reserved date/time of the remote firmware update from the network. | <ul style="list-style-type: none"> <li>• Check that the network is connected correctly.</li> </ul>                               |
| 68   | Acquisition of the latest version information from the Gateway fails.  | <ul style="list-style-type: none"> <li>• Check that the network is connected correctly.</li> </ul>                               |
| 69   | Download fails at the reserved date/time of the remote firmware update from the network.   | <ul style="list-style-type: none"> <li>• Check that the network is connected correctly.</li> </ul>                               |
| 70   | Package firmware download from the network fails.  | <ul style="list-style-type: none"> <li>• Check that the network is connected correctly.</li> </ul>                               |

## 5. System Maintenance

| Code | Contents   | Solutions   |
|------|--|---|
| 71   | Network communication error occurs at the reserved date/time of the package firmware update from the network.                                  | <ul style="list-style-type: none"> <li>Check that the network is connected correctly.</li> </ul>                                      |
| 72   | The setting of @Remote is invalid at the reserved date/time of the package firmware update from the network.                                   | <ul style="list-style-type: none"> <li>Set the setting of @Remote Service in the Administrator Tools to [Do not Prohibit].</li> </ul> |
| 57   | @Remote is not connected at the date/time reserved for receiving the package firmware update from the network.                                 | <ul style="list-style-type: none"> <li>Check the @Remote connection.</li> </ul>   |
| 58   | Update cannot be done due to a reception route problem.  | <ul style="list-style-type: none"> <li>Check the @Remote connection.</li> </ul>   |
| 59   | HDD is not mounted.  | <ul style="list-style-type: none"> <li>Check the HDD connection.</li> </ul>   |
| 60   | HDD could not be used during the package firmware update.  | <ul style="list-style-type: none"> <li>Try again.</li> <li>Replace the HDD if the download fails again.</li> </ul>                    |
| 61   | The module ID for the package firmware update is incorrect.  | <ul style="list-style-type: none"> <li>Prepare the correct package files.</li> </ul>  |
| 62   | The configuration of the package firmware update files is incorrect.   | <ul style="list-style-type: none"> <li>Prepare the correct package files.</li> </ul>  |
| 63   | Reception fails due to the power off at the reserved date/time of the remote firmware update from the network.                                 | <ul style="list-style-type: none"> <li>Update is to be done automatically when the next reception time has elapsed.</li> </ul>        |
| 64   | Reception fails due to the power off at the reserved date/time of the package firmware update from the network.                                | <ul style="list-style-type: none"> <li>Reset the reservation date/time for the remote update.</li> </ul>                              |
| 65   | Reception fails due to the status error of the machine at the reserved date/time of the remote firmware update from the network.               | <ul style="list-style-type: none"> <li>Update is to be done automatically when the next reception time has elapsed.</li> </ul>        |
| 66   | Reception failed due to the status error of the machine at the reserved date/time of the package firmware update from the network.             | <ul style="list-style-type: none"> <li>Reset the reservation date/time for the remote update.</li> </ul>                              |
| 67   | Acquisition of the latest version information from the Gateway fails at the reserved date/time of the remote firmware update from the network. | <ul style="list-style-type: none"> <li>Check that the network is connected correctly.</li> </ul>                                      |
| 68   | Acquisition of the latest version information from the Gateway fails.  | <ul style="list-style-type: none"> <li>Check that the network is connected correctly.</li> </ul>                                      |
| 69   | Download fails at the reserved date/time of  | <ul style="list-style-type: none"> <li>Check that the network is connected correctly.</li> </ul>                                      |



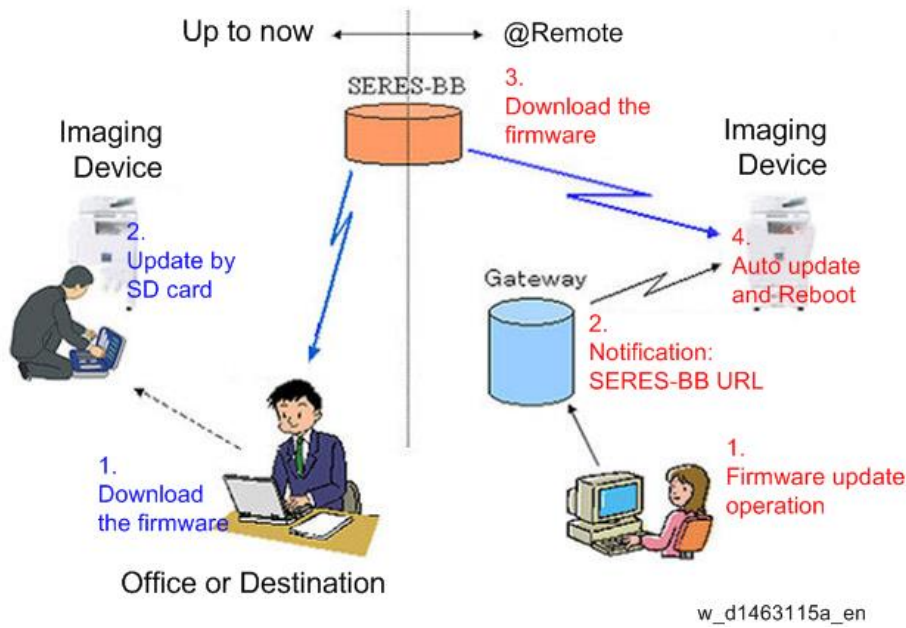
| Code | Contents  | Solutions   |
|------|---|---|
|      | the remote firmware update from the network.  |   |
| 70   | Package firmware download from the network fails.   | <ul style="list-style-type: none"> <li>• Check that the network is connected correctly.</li> </ul>                                      |
| 71   | Network communication error occurs at the reserved date/time of the package firmware update from the network. | <ul style="list-style-type: none"> <li>• Check that the network is connected correctly.</li> </ul>                                      |
| 72   | The setting of @Remote is invalid at the reserved date/time of the package firmware update from the network.  | <ul style="list-style-type: none"> <li>• Set the setting of @Remote Service in the Administrator Tools to [Do not Prohibit].</li> </ul> |

 **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.

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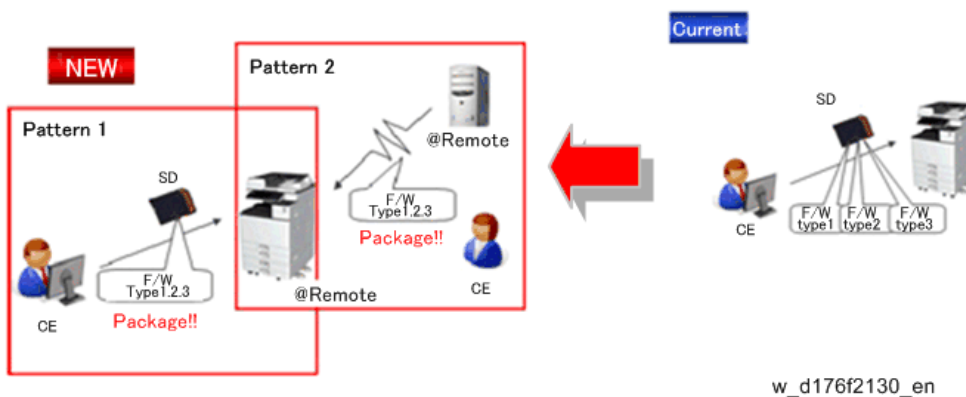
### Overview

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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 |

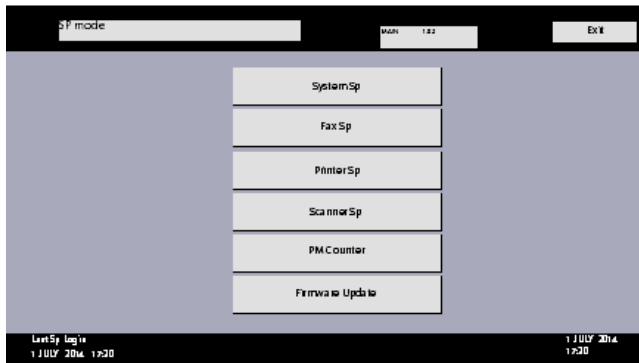
**Immediate Update**

Enter the [Firmware Update] menu in the SP mode and update the package firmware.

**Note**

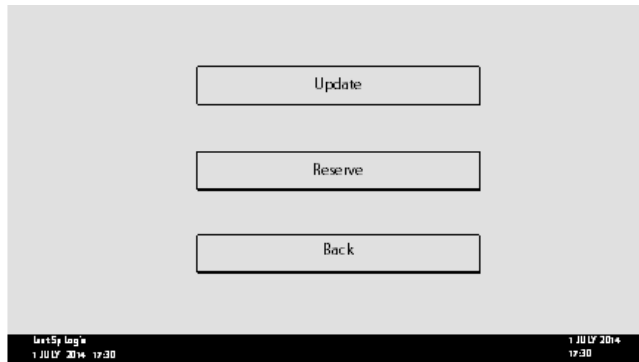
- The [Firmware Update] button will appear even when a machine is connected to @Remote with a device which does not have an embedded @Remote communicating function.
- If an error code is displayed, refer to Error Screens During Updating ([Error Screens During Updating](#)).

1. Enter the SP mode.
2. Touch [Firmware Update].



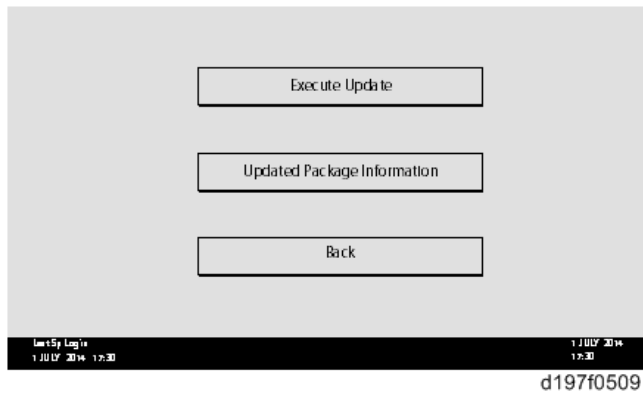
d197f0507

3. Touch [Update].

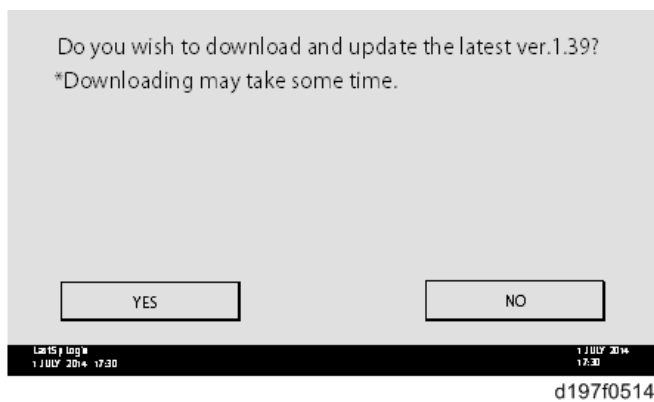


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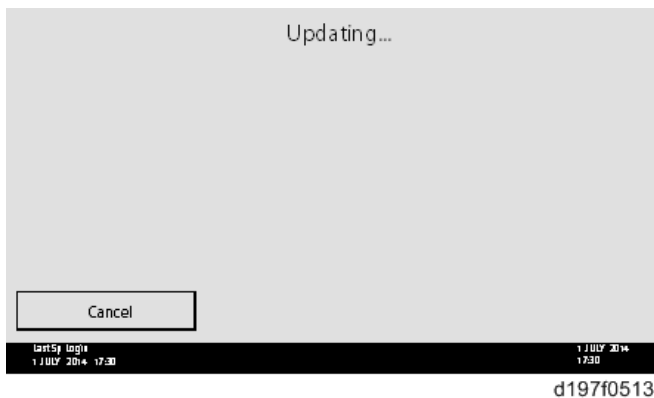
## 4. Touch [Execute Update].



## 5. Touch [YES].



## 6. The following display will be displayed.

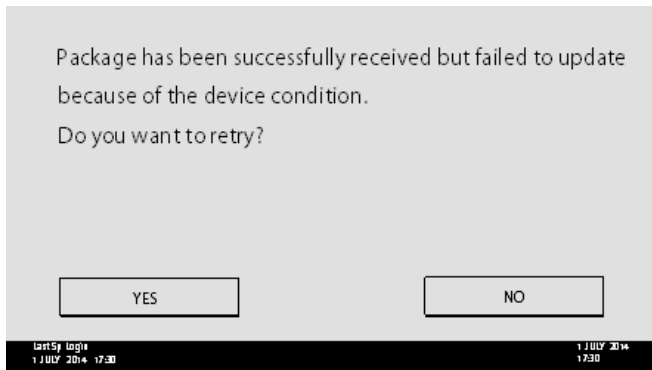


**Note**

- 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

## 5. System Maintenance

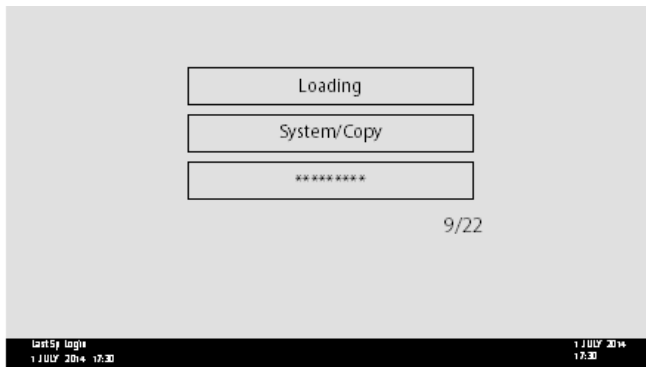
picture to restart updating.



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### 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.

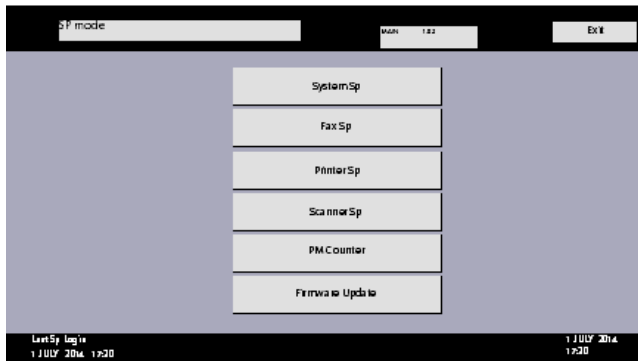
## How to Set the Machine to Download Firmware Later (RESERVE)

Enter the [Firmware Update] menu in the SP mode and update the package firmware.

### Note

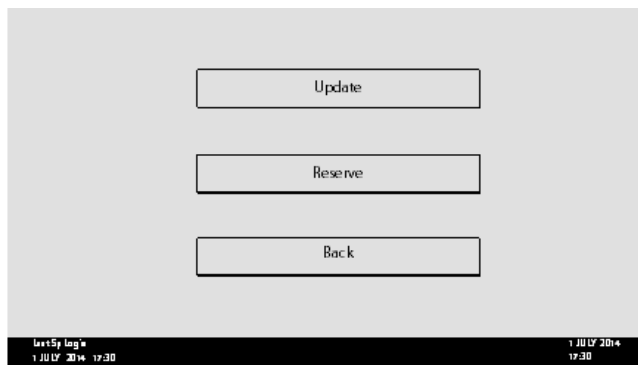
- The [Firmware Update] button will appear even when a machine is connected to @Remote with a device which does not have an embedded @Remote communicating function. If an error code is displayed, refer to Error Screens During Updating ([Error Screens During Updating](#)).

1. Enter the SP mode.
2. Touch [Firmware Update].



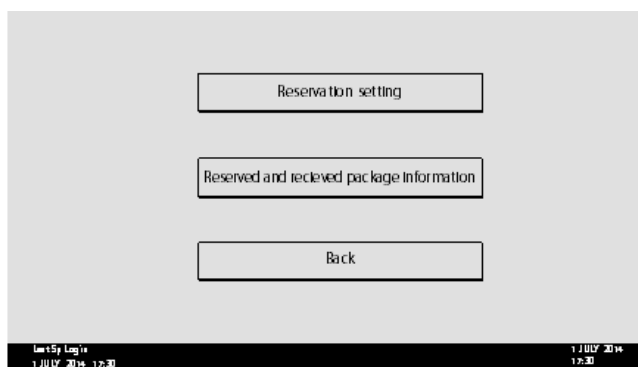
d197f0507

3. Touch [Reserve].



d197f0508

4. Touch [Reservation setting].



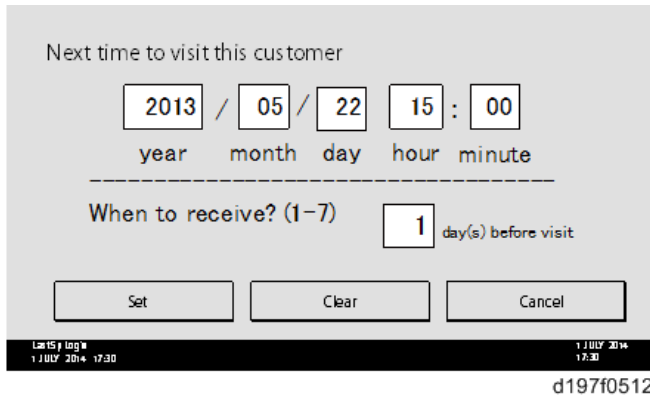
d197f0510

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

## 5. System Maintenance

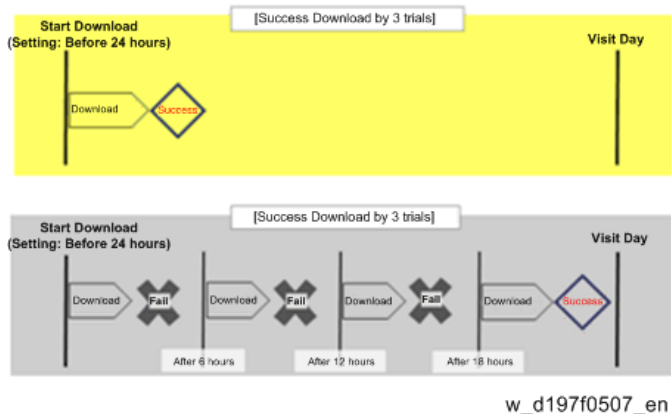
time/date.

- "When to receive? (1-7)": The download of the package firmware will begin this number of days before the next visit.



### 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.

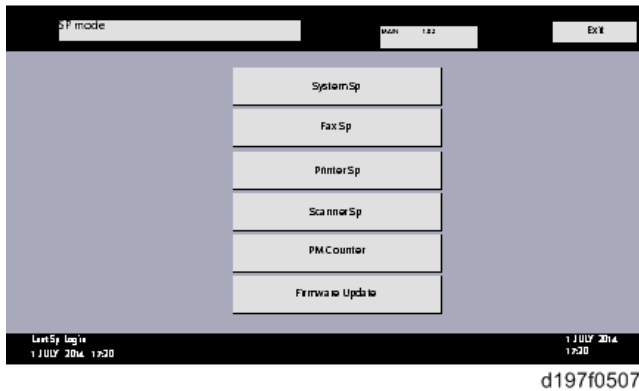


- If the firmware download fails or cannot be completed due to the network settings/condition, no power to the machine, or other reason, the machine will continue retrying every six hours until the scheduled deadline (up to a maximum of four tries). For example, if the download is set for the day before 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.

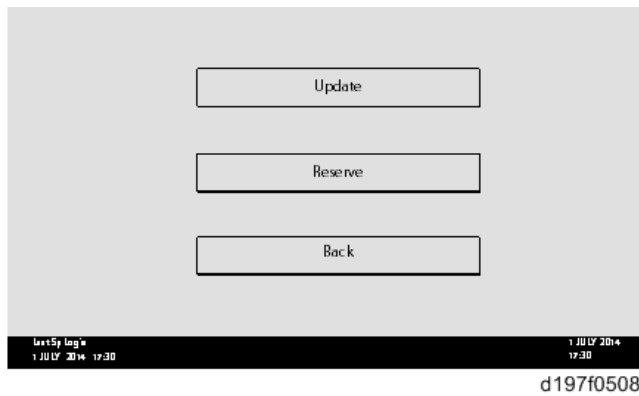


## How to Check if the Firmware Downloaded with RESERVE

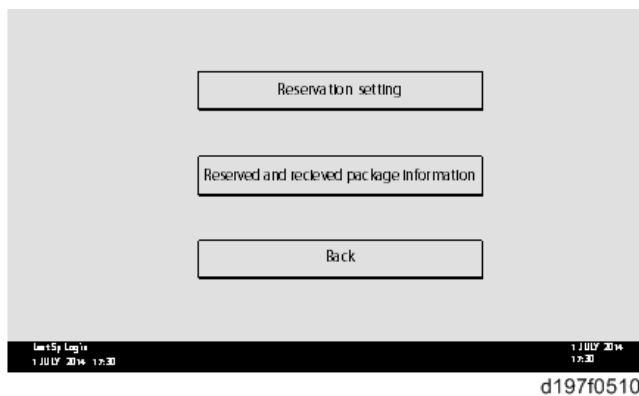
1. Enter the SP mode.
2. Touch [Firmware Update].



3. Touch [Reserve].



4. Touch [Reserve and received package information].



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.

## 5. System Maintenance

|   |            |
|---|------------|
| Reservation reception result                                      | Success    |
| Part number of reserved and received package                      | D1234567   |
| Version of reserved and received package                          | 1.35       |
| Package received date   | 2014/05/22 |
| Reservation reception has succeeded.<br>You may start the update. |            |
| Back  |            |

Last log in 1 JULY 2014 17:30 1 JULY 2014 17:30

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].

SP mode MAIN 1.22 Exit

|                 |
|-----------------|
| System Sp       |
| Fax Sp          |
| Printer Sp      |
| Scanner Sp      |
| PM Counter      |
| Firmware Update |

Last log in 1 JULY 2014 17:20 1 JULY 2014 17:20

d197f0507

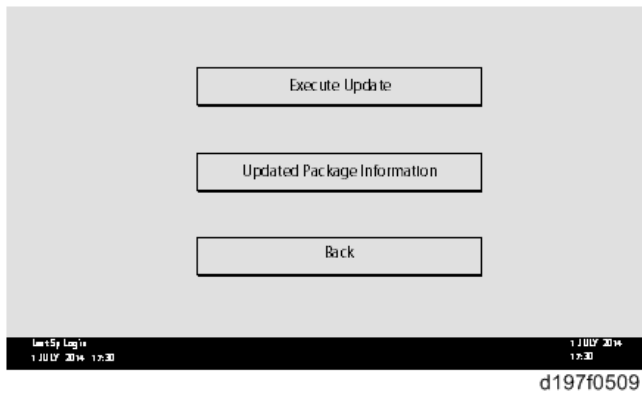
3. Touch [Update].

|         |
|---------|
| Update  |
| Reserve |
| Back    |

Last log in 1 JULY 2014 17:30 1 JULY 2014 17:30

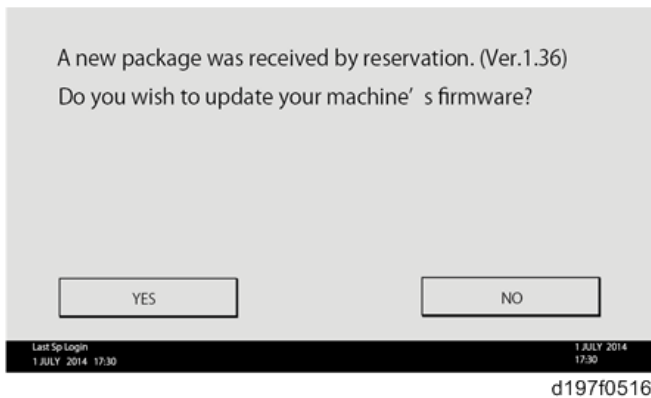
d197f0508

4. Touch [Execute Update].



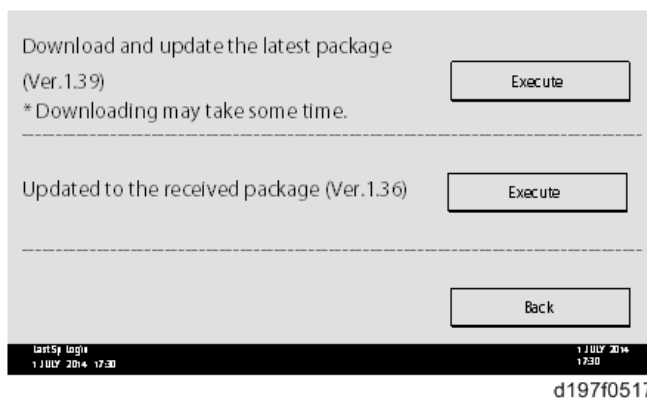
5. Check the version of the received package firmware, and then touch [YES].

- Update is started.



**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.

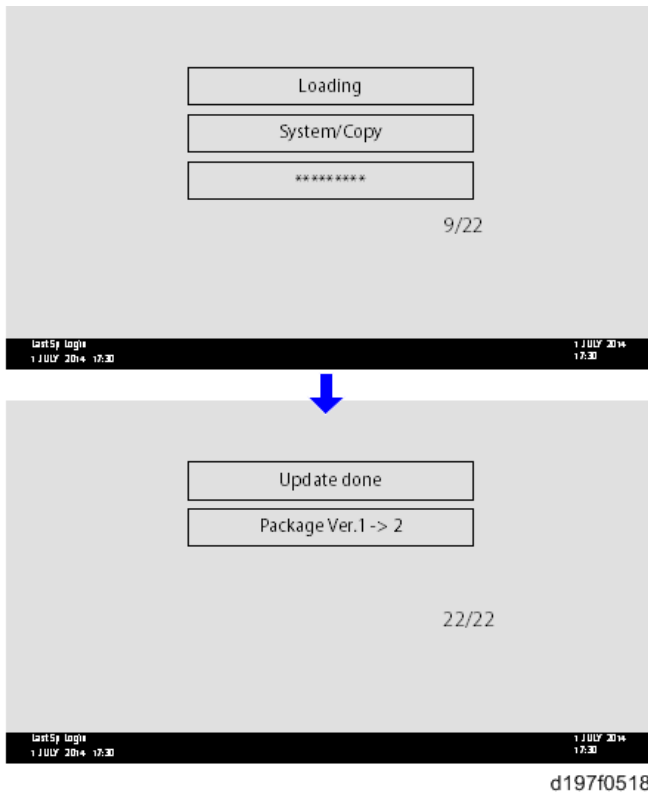


- If you wish to download the latest version, touch [Execute] beside the message “Download and update the latest package.” Then update of the package firmware will be started.
- If you wish to update using the firmware in the HDD (old version), touch [Execute] beside the message “Update to the received package.”

6. [Update done] message is displayed.

## 5. System Maintenance

- The machine will automatically reboot itself.



### Note

- The figures at the lower right of the display indicate “Number of updated items/ All items to be updated”.

---

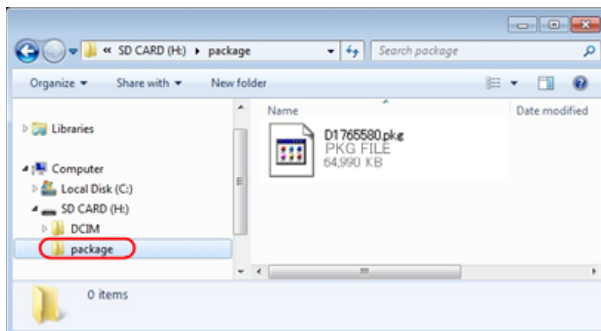
## Update via SD card

---

**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 (xxxxxxx.pkg) to this folder.

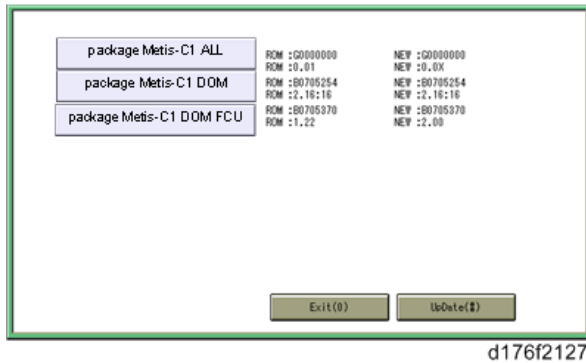


### Important

- If you copy the package firmware into the conventional “romdata” folder, the update will not work.

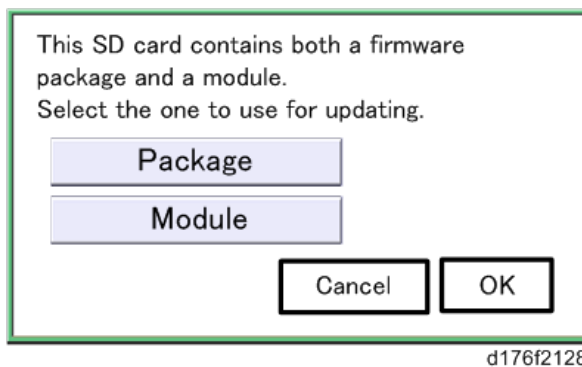
- Only one version of the package firmware should be copied into the folder. If you copy multiple versions of package firmware to the SD card, the machine will select only one version of the firmware randomly.

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].



**Note**

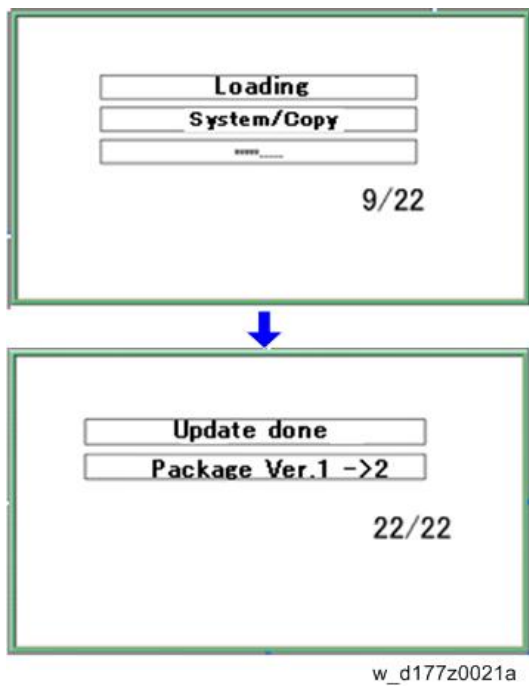
- When the SD card contains both a firmware package and one or more modules, the following display may show up. Select [Package] and touch [OK] to move to step 4 above.



6. Update is started automatically after the package firmware download to the HDD has been completed.

## 5. System Maintenance

7. When update is completed, “Update done” is displayed.



### 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)

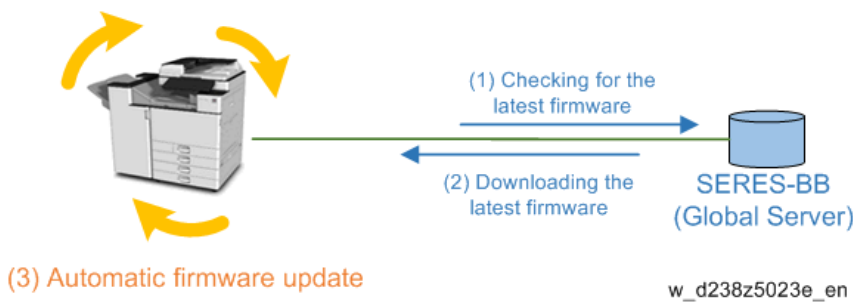
### Note

- 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    |

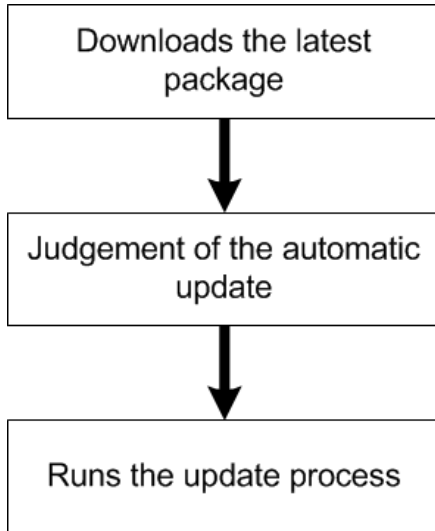
## 5. System Maintenance

| Included | Firmware       |
|----------|----------------|
| ✓        | GWFCU3.8-9(WW) |

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### Downloading and Updating Process

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w\_d238z5024e\_en

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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 resolution 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.

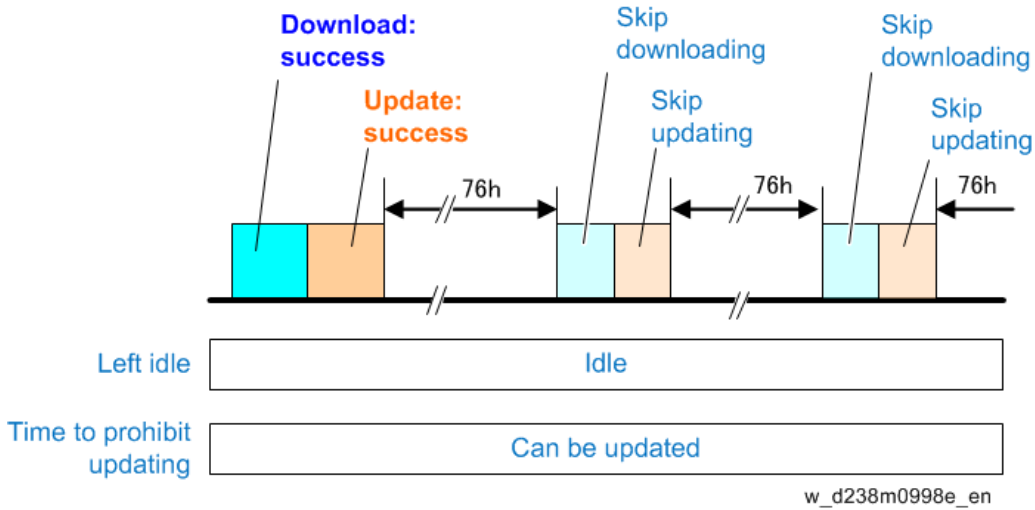
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#### Judgement of ARFU

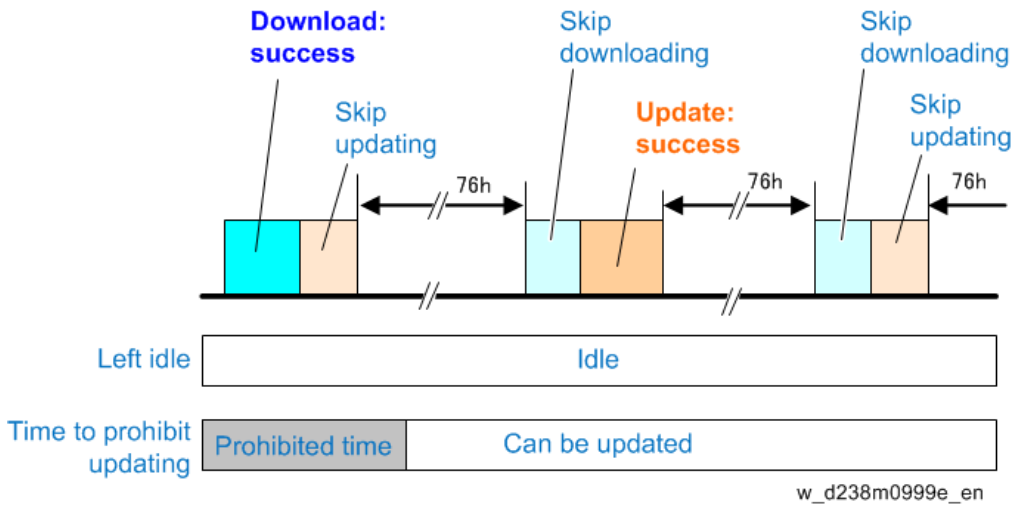
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Update judgement is done when the latest update package is successfully downloaded, or the package has already been downloaded.

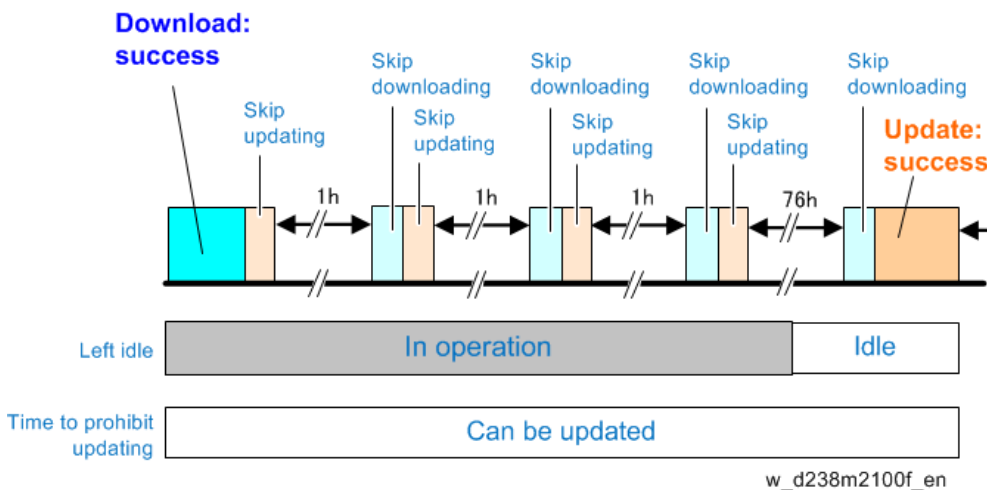




If the judgement timing is in the range of the update prohibited time or day set with SP or WIM, the machine will retry the update after 76 hours.



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.

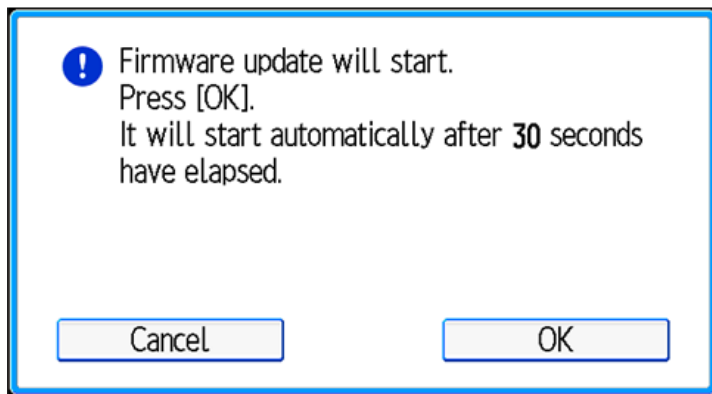


**Situations judged as machine in use**

| 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<br>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.

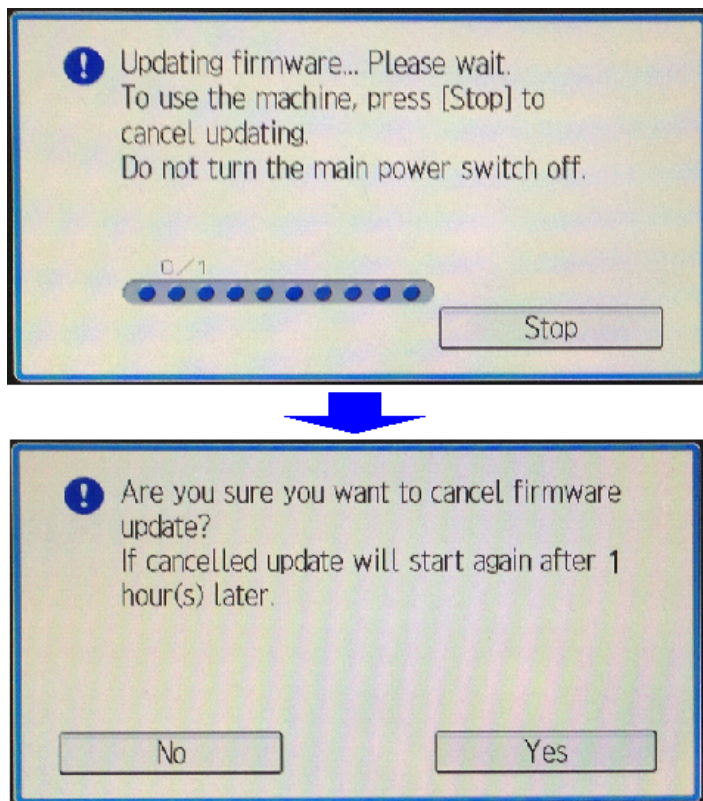
When the device update and three retries in recovery mode both fail, it is determined as a device defect and will display an SC for the defective device. If such an SC appears, replace the indicated board. In the case of SC845, the SC cannot be reported to the call center.

### 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

## 5. System Maintenance

### 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.

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### Checking the ARFU Result

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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 data.  
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.)

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### 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."

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### Related SP

---

| SP Number   | Selection<br>Def. | Overview  |
|-------------|-------------------|---|
| SP5-886-111 | 0: OFF<br>1: ON   | Sets auto update by ARFU ON/OFF .   |
| SP5-886-112 | 0: OFF<br>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.   |
| SP5-886-113 | 0 to 23<br>9      | <ul style="list-style-type: none"><li>• Start time &lt; End time: Prohibited time is from the start time to the end time on the same day.</li></ul>   |
| SP5-886-114 | 0 to 23<br>17     | <ul style="list-style-type: none"><li>• Start time &gt; End time: Prohibited time is from the start time to the end time on the next day.</li><li>• Start time == End time: Prohibited time setting is disabled. (Update will</li></ul> |

| SP Number             | Selection<br>Def.      | Overview   |
|-----------------------|------------------------|--|
|                       |                        | not be prohibited.)  |
| SP5-886-115           | <b>0: OFF</b><br>1: ON | Even when the update function is disabled, downloading the package is allowed.<br>The downloaded package can be used with SFU.   |
| SP5-886-116           | Display<br>only        | Displays when the latest package check will run.   |
| SP5-886-117           | 1 to 24<br><b>1</b>    | Set time for the next version check after retry.   |
| SP5-886-120           | <b>0x00</b>            | Update will not run if the corresponding bit for each day below is set to 1. <ul style="list-style-type: none"> <li>• Prohibited at all times: bit 7</li> <li>• Monday: bit 6</li> <li>• Tuesday: bit 5</li> <li>• Wednesday: bit 4</li> <li>• Thursday: bit 3</li> <li>• Friday: bit 2</li> <li>• Saturday: bit 1</li> <li>• Sunday: bit 0</li> </ul> This setting is not changed by the prohibited time setting.<br>e.g.) Prohibited on Mon., Fri., Sat., and Sun. : 0x47 (01000111) |
| SP7-520-011 to<br>015 | Display<br>only        | History of dates and times when update has started.<br>The five most recent are recorded, the lowest number being most recent.<br>If the last update failed, this is not recorded.   |
| SP7-520-021<br>to 025 | Display<br>only        | History of dates and times when update has finished.<br>The five most recent are recorded, the lowest number being most recent.<br>The record is created when the update has successfully finished.<br>When the update is cancelled, no record is created.   |
| SP7-520-031<br>to 035 | Display<br>only        | History of the package numbers (including suffix) for which update has completed.<br>The five most recent are recorded, the lowest number being most recent.<br>The record is created when the update has successfully finished.<br>When the update is cancelled, no record is created.  |
| SP7-520-041<br>to 045 | Display<br>only        | History of the package versions for which update has completed.<br>The five most recent are recorded, the lowest number being most recent.<br>The record is created when the update has successfully finished.<br>When the update is cancelled, no record is created.  |
| SP7-520-051<br>to 060 | Display<br>only        | History of the results of the download and the update.<br>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. <ul style="list-style-type: none"> <li>• The machine is in use by a user (the panel was used within 30 seconds)</li> <li>• Machine offline for other reasons</li> <li>• Operation prohibited</li> <li>• Displaying SP/UP menu</li> <li>• Firmware update is running with another method</li> <li>• Configuration change prohibited</li> <li>• Verifying the operation panel (smart panel)</li> </ul> |
| 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: <ul style="list-style-type: none"> <li>• A newer update has been released and received.</li> <li>• When retrying ARFU, the update has already been completed by another method.</li> </ul>   |
| 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.<br>However, this does not apply to the case where the update was cancelled after the process was initiated because a user selected "Cancel".<br>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 Java VM

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### Creating an SD Card for Updating

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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/bootscrip<br>2012/08/22 17:57:47 start<br>2012/08/22 17:59:47 end SUCCESS            | Boot script path<br>Boot scripts processing start time<br>End time boot script processing, the results                                      |
| Failure | script file = /mnt/sd0/sdk/update/bootscrip<br>2012/08/22 17:57:47 start<br>XXXX Error<br>2012/08/22 17:57:57 end FAIL | Boot script path<br>Boot scripts processing start time<br>Error message (Possibly multiple)<br>End time boot script processing, the results |

| Error Message   | Cause   | Remedy  |
|---|---|---|
| PIECEMARK<br>Error,machine=XXXXXX   | 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<br>Put Error!  | Inadequacy with the SD card for updating<br>(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.<br>Copy Error!   | Inadequacy SD card for updating<br>(Files in the updating tool are missing)           | Inadequacy SD card for updating<br>(Files in the updating tool are missing)   |
| [file name: XX] error,No space left on device<br>pasePut() - error : The destination directory cannot be made.<br>pasePut() - error : fileCopy Error.<br>Put Error! | Writing destination is full. (The NAND flash memory on the controller board is full.) | Uninstall the unnecessary SDK applications.<br>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<br>paseCopy() - error : The destination directory cannot be made.<br>paseCopy() - error : fileCopy Error.             | Writing destination is full. (The NAND flash memory on the controller board is full.) | Uninstall the unnecessary SDK applications.<br>If you can not uninstall it, implement escalation stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file."  |

## 5. System Maintenance

| 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."<br><br>*1<br><br>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 | <ul style="list-style-type: none"> <li>• Saved at all times</li> </ul>   | HDD (4 GB) or SD card connected to the service slot.<br>When the data gets over 4.0 GB, the older data is deleted. |
| Engine device log                             | <ul style="list-style-type: none"> <li>• When an engine SC occurs</li> <li>• When paper feeding/output stop because of a jam</li> <li>• When the machine doors are opened during normal operation</li> </ul>       | HDD or SD card connected to the service slot (Up to 300 times)   |
| FCU device log                                | <ul style="list-style-type: none"> <li>• 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.</li> </ul> | HDD or SD card connected to the service slot   |
| Operation panel log                           | <ul style="list-style-type: none"> <li>• When an error related to the operation panel occurs.</li> </ul>   | 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

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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/](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.

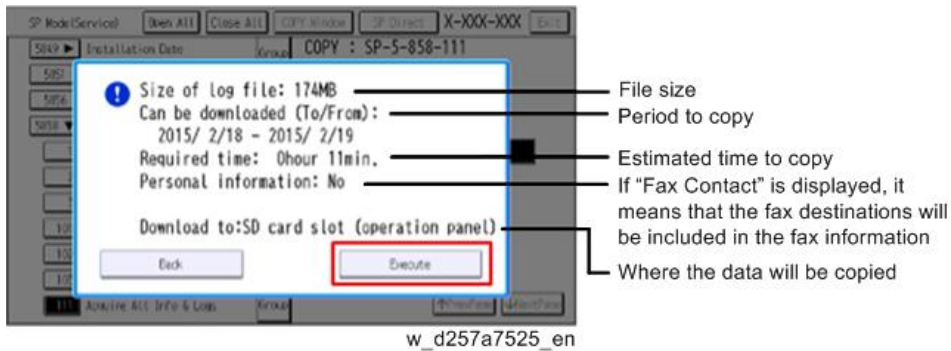
It is possible to obtain the logs separately by the following SPs.

| 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.  |

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| 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"

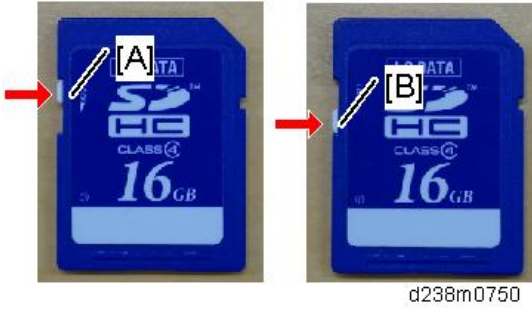


Note

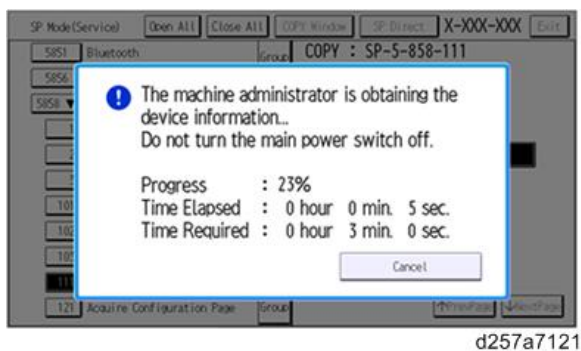
- The approximate time it takes to transfer the debug log is as follows. Transfer time may be affected by the type or format of the SD card.  
 Controller device log (GW device log): 2 - 20 minutes  
 Engine device log: 2 minutes  
 Operation panel device log: 2 - 20 minutes

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   |
|------------|---|
|            |  <p>[A]: Unlocked, [B]: Locked</p> |

8. Wait for the information and/or logs to be copied to the SD card.



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](http://[IP address or host name]/web/entry/df/websys/direct/getSysInfo.cgi)

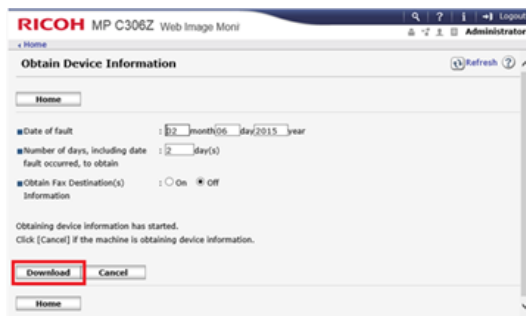
## 5. System Maintenance



The image shows the login page for the RICOH Web Image Monitor. It features the RICOH logo at the top left, followed by the title "Web Image Monitor". Below the title are two input fields: "Login User Name" and "Login Password". A "Login" button is positioned to the right of the password field. At the bottom left, there is a "Cancel" button.

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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".



The image shows the "Obtain Device Information" screen in the RICOH Web Image Monitor. The page title is "RICOH MP C306Z Web Image Moni" and the user is logged in as "Administrator". The screen has a "Home" button at the top left. The main content area includes:

- A "Date of fault" field set to "02 month 06 May 2015 year".
- A "Number of days, including date fault occurred, to obtain" field set to "2 day(s)".
- An "Obtain Fax Destination(s) Information" section with radio buttons for "On" and "Off", where "Off" is selected.

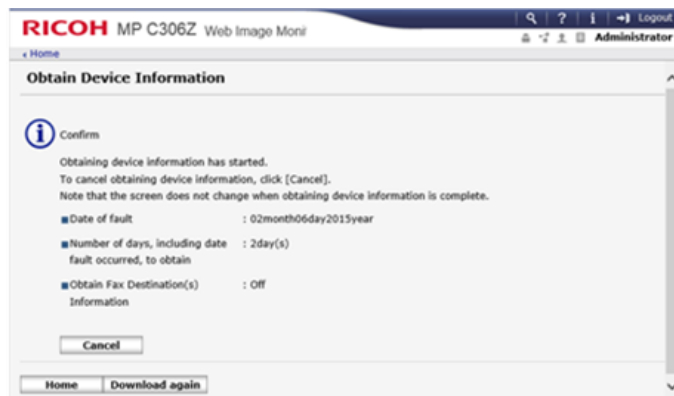
Below these settings, there is a message: "Obtaining device information has started. Click [Cancel] if the machine is obtaining device information." At the bottom, there are "Download" and "Cancel" buttons, with "Download" highlighted by a red box.

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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.



The image shows the confirmation screen for the "Obtain Device Information" process. The page title is "RICOH MP C306Z Web Image Moni" and the user is logged in as "Administrator". The screen has a "Home" button at the top left. The main content area includes:

- An information icon (i) followed by the text "Confirm".
- A message: "Obtaining device information has started. To cancel obtaining device information, click [Cancel]. Note that the screen does not change when obtaining device information is complete."
- The same settings as the previous screen: "Date of fault" (02 month 06 day 2015 year), "Number of days, including date fault occurred, to obtain" (2 day(s)), and "Obtain Fax Destination(s) Information" (Off).

At the bottom, there is a "Cancel" button and a "Download again" button.

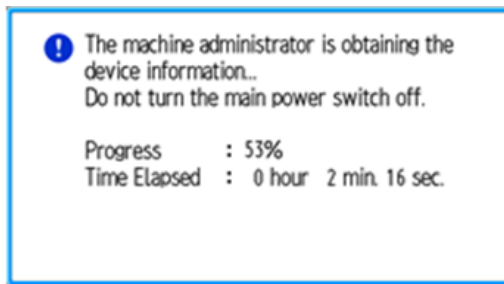
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### Note

- To cancel downloading, click "Cancel".
- To reconfigure some settings, click "Download again".



- Operation panel when downloading the logs:



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4. After a while, the open-or-save dialog will appear. Specify where to download and save the file.



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**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 (mmsg) | /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/ConfigurationPage/ConfigurationPage_[yyyymmdd_hhmmss].csv  |
| Font page             | <ul style="list-style-type: none"> <li>• /LogTrace/[the model number]/gps/FontPage/FontPage_PCL_[the page number]_[yyyymmdd_hhmmss].jpg</li> <li>• /LogTrace/[the model number]/gps/FontPage/FontPage_PDF_[the page number]_[yyyymmdd_hhmmss].jpg</li> <li>• /LogTrace/[the model number]/gps/FontPage/FontPage_PS_[the page number]_[yyyymmdd_hhmmss].jpg</li> </ul> |
| Print settings list   | <ul style="list-style-type: none"> <li>• /LogTrace/[the model number]/gps/PrintSettingList/PrintSettingList_RPGL_[yyyymmdd_hhmmss].txt</li> <li>• /LogTrace/[the model number]/gps/PrintSettingList/PrintSettingList_RTIFFF_[yyyymmdd_hhmmss].csv</li> </ul>  |
| Error log             | /LogTrace/[the model number]/gps/ErrorLog/[yyyymmdd_hhmmss].csv   |

## 5. System Maintenance

|                 |  |
|-----------------|--|
| Fax information | /LogTrace/[the model number]/faxreport/[yyyymmdd_hhmmss].csv |
| FCU debug log   | /LogTrace/[Machine Serial]/fcuolog/[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].



🔧 x1

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**4.** Insert the SD card into SD card slot 2 (lower) [A].



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**5.** Turn ON the power.

**6.** Do SP5-824-001 (NVRAM Data Upload) and then press [Execute].

**7.** The following files are copied 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":

## 5. System Maintenance

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.

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### 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  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Registration No.</li> <li>• User Code</li> <li>• E-mail</li> <li>• Protection Code</li> <li>• Fax Destination</li> <li>• Fax Option</li> <li>• Group Name</li> <li>• Key Display</li> </ul> | <ul style="list-style-type: none"> <li>• Select Title</li> <li>• Folder</li> <li>• Local Authentication</li> <li>• Folder Authentication</li> <li>• Account ACL</li> <li>• New Document Initial ACL</li> <li>• LDAP Authentication</li> </ul> |

### 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.



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## 5. System Maintenance

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 from 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

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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 from 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

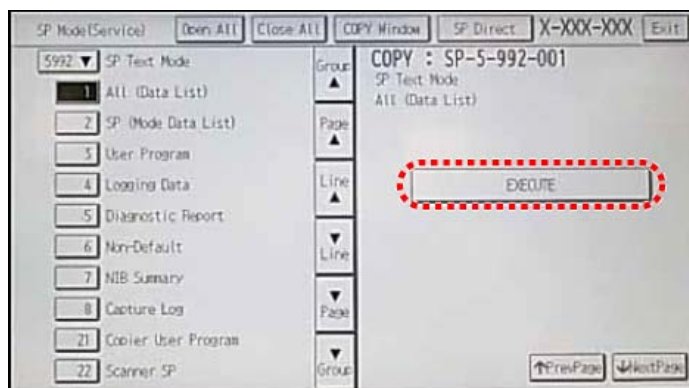
The SMC List Card Save (SP Text Mode) function is used to save the SMC list as CSV files to the SD card inserted into the operation panel SD card slot.

#### ★ 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.

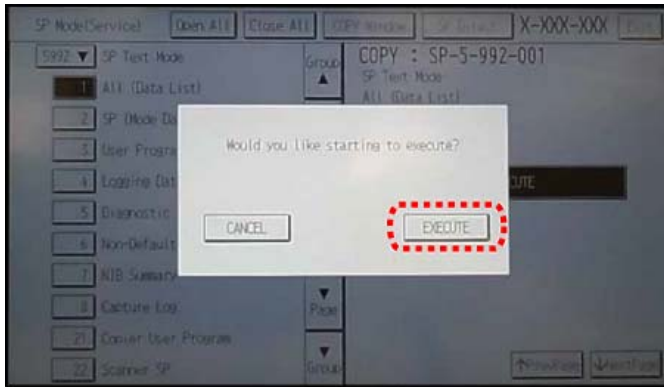
SP5-992-xxx (SP Text Mode)

| 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   |

5. System Maintenance

| 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].



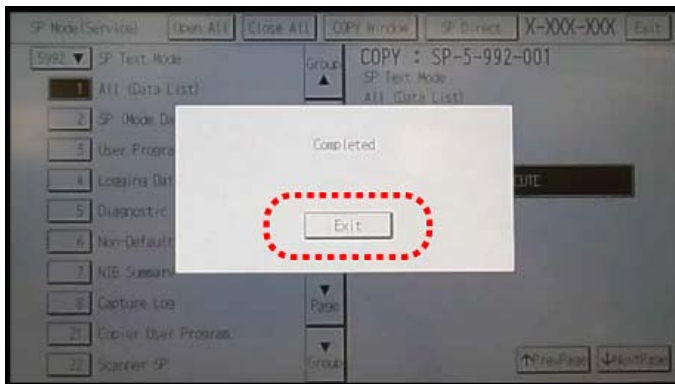
d1440128

8. Press [EXECUTE] again to start. Press [CANCEL] to cancel the saving.



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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

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The SMC list data saved on the SD card will be named automatically. The file naming rules are as follows.

Example:

W801P999017\_59921\_20111011\_53954.csv

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
|     |     |     |     |     |
|     |     |     |     |     |
| [A] | [B] | [C] | [D] | [E] |

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**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

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SMC List Card Save error message:

- **Failed:**

FACTOR: Read-only file system, No space left on device.

## 5. System Maintenance

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

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### 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

---

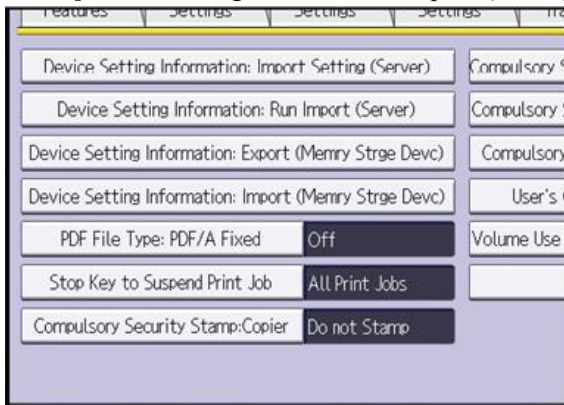
This can be exported / imported by an administrator with all privileges.

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.

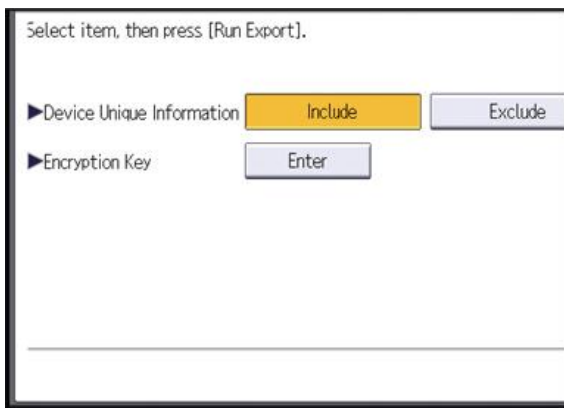
## 5. System Maintenance

3. Press [User Tools] icon > [Machine Features] > [System Settings].
4. Press [Administrator Tools].
5. Press [Device Setting Information: Export (Memory Storage Device)].



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6. Set the export conditions.



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- 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

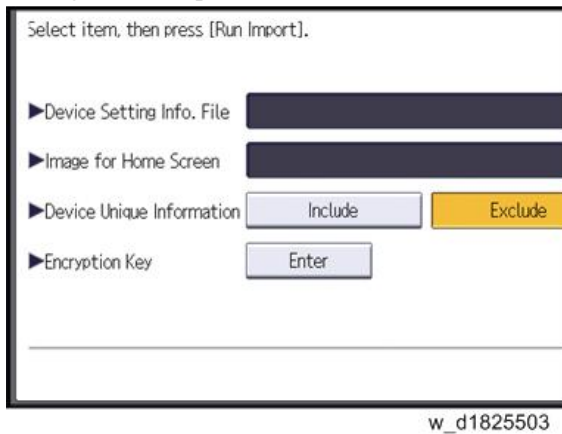
---

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 (Memory Storage Device)].
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.

5. System Maintenance

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. | <p><b>Unique information that can be updated</b></p> <p>#1. Items that are to be used to identify the machine.<br/>Example: Network Information/ Host name / Information related to fax number /Mail address assigned to the machine</p> <p>#2. Items for specifying the options equipped on the machine.<br/>Example: Lot number for developer</p> <p><b>Unique information that cannot be updated</b></p> <p>#1. Items that may cause a problem if imported<br/>Example: Serial number / Information related to @Remote</p> <p>#2. Items for managing the history of the machine<br/>Example: Time and date / Counter information / Installation date</p> <p>#3. Setting values for the Engine</p> |
| Secret | Secret information is exported if you select "Secret" setting.                                     | <p><b>Secret information</b></p> <p>#1. Data that cannot be exported without being encrypted.<br/>(Exported data is encrypted.)<br/>Example: Password / Encryption key / PIN code</p> <p>#2. Confidential information for the customer<br/>Example: User name / User ID / Department code / Mail address / <b>Phone number</b></p> <p>#3. Personal information<br/>Example: Document name / Image data</p> <p>#4. Sensitive information for the customer<br/>Example: MAC address / Network parameters</p>   |

\* The IP address is exported when both 'Unique' and 'Secret' are selected.

6. Select “Crpt config” setting (Encryption).

|            |   |  |
|------------|---|--|
| Encryption | <p>Select whether to encrypt or not when exporting.</p> <p>If you push the "Encryption" key, you can export secret information.</p> | <p>If the encryption function is used, setting of an encryption key is required by direct input.</p> <ul style="list-style-type: none"> <li>• Type the arbitrary password using the soft keyboard</li> </ul> |
|------------|---|--|

|  |  |                                 |
|--|--|---------------------------------|
|  |  | • 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

## 5. System Maintenance

```
*1.0.0*
*ExecType*,*Date*,*SerialNo*,*PnP*,*Model*,*Destination*,*IP*,*Host*,*Storage*,*FileName*
*FileID*,*TotalItem*,*NumOfOkItem*,*ResultCode*,*ResultName*,*Identifier*
*IMPORT*
*2012-07-05T15:29:16+09:00*
*3C35-7M0014*
*Brand Name*
*Product Name*
*0*
*10*
*10.250.155.125*
*RNP00267332582D*
*SD*
*201207051519563C35-710220.csv*
*201207051519563C35-710220*
* 0*
* 2*
*INVALID REQUEST*
*TargetID*,*ModuleID*,*PrefID*,*Item*,*NgCode*,*NgName*
```

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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.<br><b>Reason for the Error (Ng-Name)</b><br>2. INVALID VALUE<br>The specified value exceeds the allowable range.<br>3. PERMISSION ERROR<br>The permission to edit the setting is missing.<br>4. NOT EXIST |



| Result Code       | Cause   | Solutions   |
|-------------------|---|---|
|                   |   | <p>The setting does not exist in the system.</p> <p>5. INTERLOCK ERROR</p> <p>The setting cannot be changed because of the system status or interlocking with other specified settings.</p> <p>6. OTHER ERROR</p> <p>The setting cannot be changed for some other reason.</p> |
| 21 (INVALID FILE) | Failed to import the file because it is in the wrong format in the external medium. | <p>Check whether the file format is correct.</p> <p>The import file should be a CSV file.</p>   |
| 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.

- Enter the SP mode and select **SP2-109-003**.
- Enter the number for the test pattern that you want to print and press [#].
- 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).
- 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.
- When you are prompted to confirm your selection, touch "Yes" to select the test pattern for printing.
  - 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.
- Press the "Start" key to start the test print.
  - After checking the test pattern, touch "SP Mode" on the LCD to return to the SP mode display.
  - Reset all settings to the default values.
  - 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:

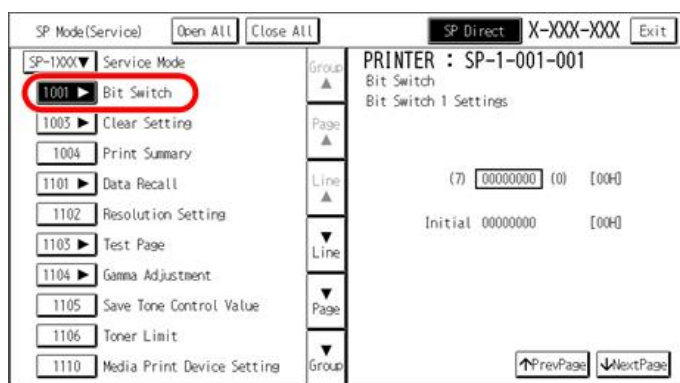
- The Card Save function is used to save print jobs received by the printer on an SD card with no print output. Card Save mode is toggled using printer Bit Switch #1 bit number 4. Card Save will remain enabled until the SD card becomes full, or until all file names have been used.
- Captures are stored 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).

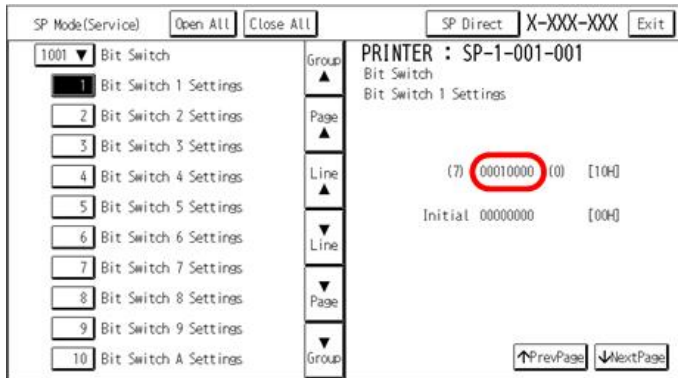


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6. Select "Bit Switch 1 Settings" and use the numeric keypad to turn bit 4 ON and then press the "#" button to register the change. The result should look like: 00010000. By doing this, Card Save option will appear in the

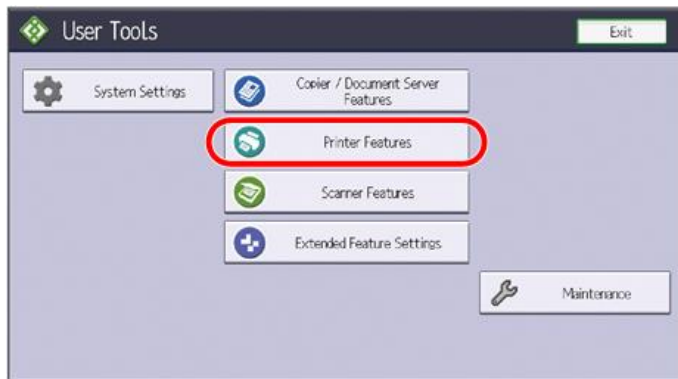
## 5. System Maintenance

"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].



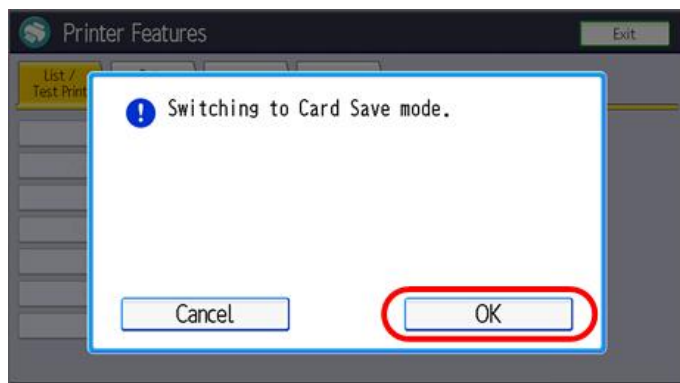
d257a7530

10. Card Save (Add) and Card Save (New) should be displayed on the screen. Select Card Save (Add) or Card Save (New).



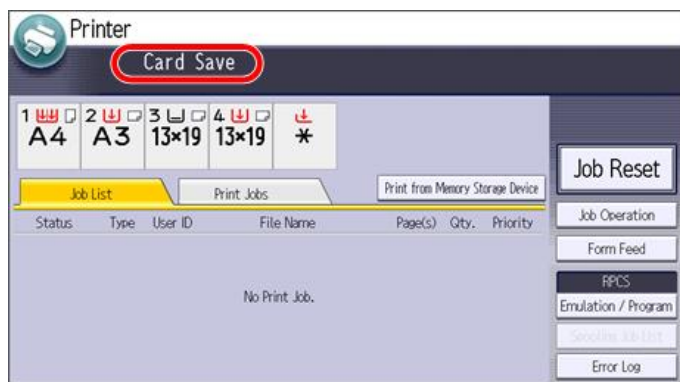
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- 11.** Press [OK] and then exit the "User Tools" menu.



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- 12.** Press [Printer (Classic)] icon.  
**13.** "Card Save" is 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.<br>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.<br><b>⚠ CAUTION</b> <ul style="list-style-type: none"> <li>When canceling a fusing unit SC, (SC544-00/SC554-00/SC564-00/SC574-00), perform part replacement in accordance with the above procedure.</li> </ul> | Occurrence & alarm count<br>↓<br>Immediate alarm   |
| B    | When a function is selected, the SC is displayed on the operation panel.<br>The machine cannot be used (down-time mitigation).  | Turn the operation switch OFF and ON.  | Occurrence & alarm count<br>↓<br>Power OFF and ON<br>↓<br>Alarm count and alarm only if recurrence |
| C    | No display on the operation panel.<br>The machine operates as usual.  | The machine operates as usual.<br>Only the SC history is updated.  | Occurrence<br>↓<br>Logging count & alarm count   |
| D    | The SC is displayed on the operation panel.<br>The machine cannot be used (machine-error SC).   | Turn the power OFF and ON.   | Occurrence & alarm count ↓<br>Power OFF and ON<br>↓<br>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

□ □ □ □ □ □ □ □ □ □

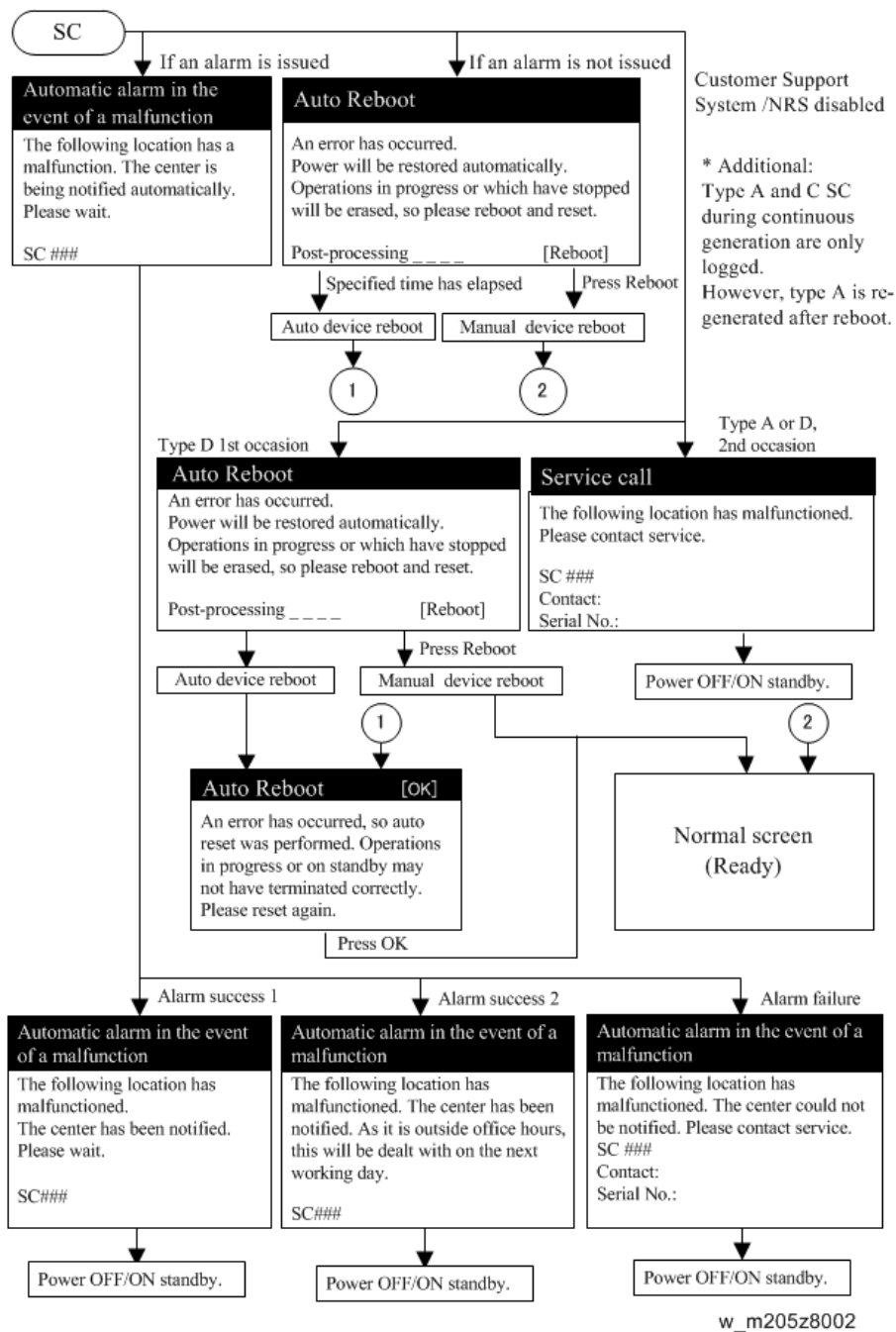
## 6. Troubleshooting

- 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.

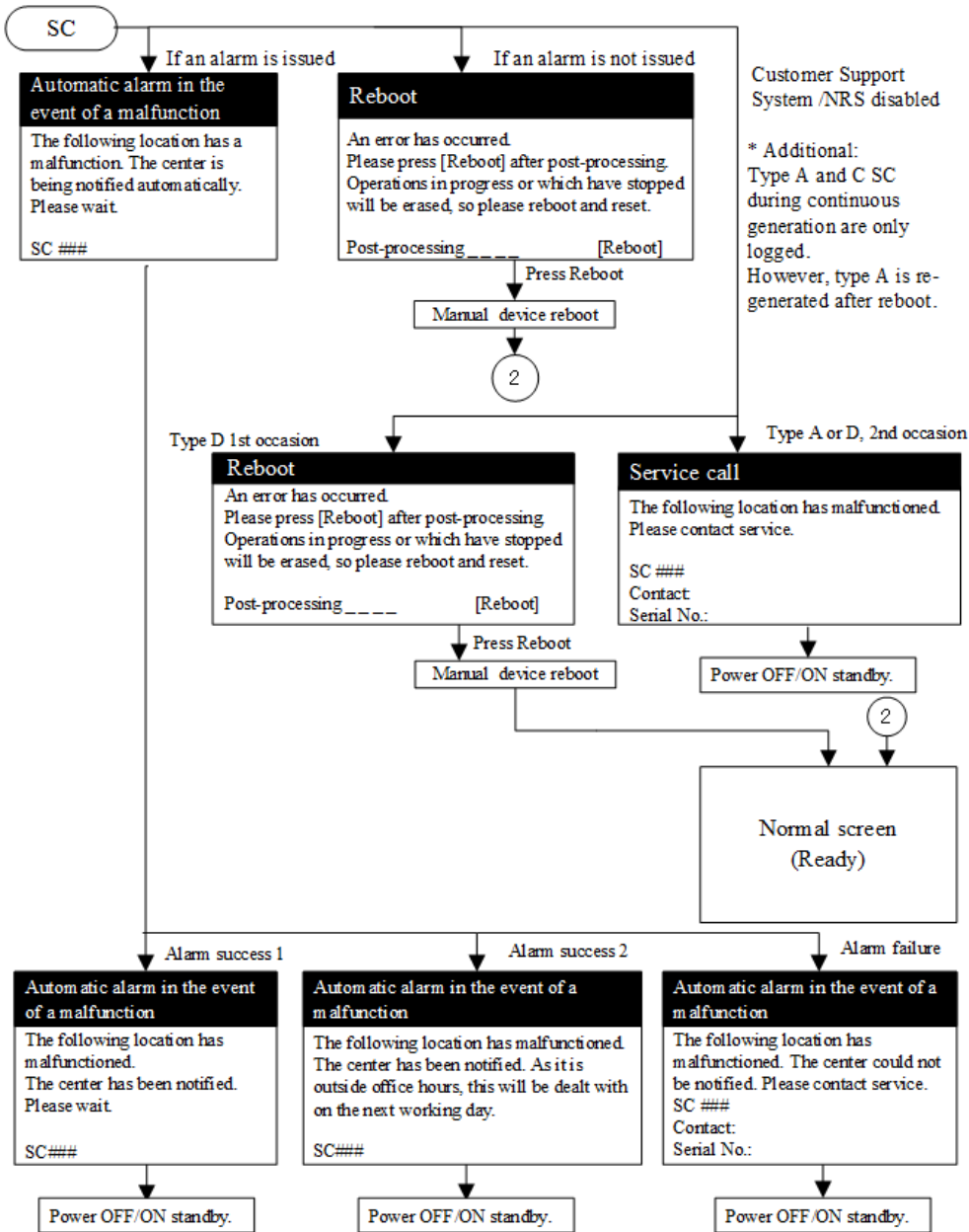




## SC Manual Reboot

When the automatic reboot is disabled in SP5-875-001 (SC automatic reboot setting), user reboot the machine manually. See the flowchart below.

## 6. Troubleshooting



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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.<br>This SC is detected when the machine adjusts the LED's light intensity or before just scanning.  |
|          |      | <ul style="list-style-type: none"> <li>• Loose connector</li> <li>• Defective scanner carriage</li> <li>• Defective BiCU</li> <li>• Damaged harness (FFC)</li> <li>• Dirty or incorrect white plate</li> </ul>  |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Reconnect the following connectors:<br/>SBU-BiCU harness (FFC) connector<br/>SBU-LEDB (scanner lamp board) harness (FFC) connector (SBU)</li> <li>2. Check the white plate (Exposure glass).<br/>Clean or replace the white plate if damaged.</li> <li>3. Replace the scanner carriage</li> <li>4. Replace the BiCU.</li> <li>5. Replace the harness (FFC).</li> </ol> |

| 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.<br>This SC is detected when the machine adjusts the LED's light intensity.  |
|          |      | <ul style="list-style-type: none"> <li>• Defective LED</li> <li>• LED driver error</li> <li>• Disconnected connectors or damaged harness (power/signal)</li> </ul>  |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Reconnect the connectors (power/signal).</li> <li>2. Replace the scanner carriage</li> <li>3. Replace the harness (power/signal).</li> </ol> |

| No.    | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures) |
|--------|------|---|
| SC102- | D    | LED intensity adjustment error                                |

6.Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
| 00  |      | The peak white level cannot be in the prescribed value even though adjusting several times.<br>This SC is detected when the machine adjusts the LED's light intensity.   |
|     |      | <ul style="list-style-type: none"> <li>• Loose connector</li> <li>• Defective scanner carriage</li> <li>• Defective BiCU</li> <li>• Damaged harness (FFC)</li> </ul>   |
|     |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Reconnect the following connectors:<br/>SBU-BiCU harness (FFC) connector<br/>SBU-LEDB (scanner lamp board) harness (FFC) connector (SBU)</li> <li>2. Check the white plate (Exposure glass).<br/>Clean the white plate and/or replace the exposure glass.</li> <li>3. Replace the scanner carriage.</li> <li>4. Replace the BiCU.</li> <li>5. Replace the harness (FFC).</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Loose connector</li> <li>• Defective CIS</li> <li>• Damaged harness</li> <li>• Dirty or incorrect white plate</li> <li>• Defective BiCU</li> </ul>  |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Clean or replace the ADF's white plate (rear side).</li> <li>2. Reconnect the connectors (FFC) between the CIS and BiCU.</li> <li>3. Replace the CIS.</li> <li>4. Replace the harness (FFC).</li> <li>5. Replace the BiCU.</li> </ol> |

| 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)  |
|--------|------|--|
|        |      | <ul style="list-style-type: none"> <li>• Loose connector</li> <li>• Defective CIS.</li> <li>• Damaged harness</li> <li>• Dirty or incorrect white plate</li> <li>• Defective BiCU</li> </ul>   |
|        |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Clean or replace the ADF's white plate (rear side).</li> <li>2. Reconnect the connectors (FFC) between the CIS and BiCU.</li> <li>3. Replace the CIS.</li> <li>4. Replace the harness (FFC).</li> <li>5. Replace the BiCU.</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC120-00 | D    | Scanner home position (HP) error 1   |
|          |      | <p>The scanner HP sensor did not go OFF :</p> <ul style="list-style-type: none"> <li>• During homing operation (power ON, leaving low power mode)</li> <li>• During auto adjustment (power ON, leaving low power mode)</li> <li>• During document, book scanning</li> </ul>  |
|          |      | <ul style="list-style-type: none"> <li>• Motor driver error</li> <li>• Defective motor</li> <li>• Defective HP Sensor</li> <li>• Disconnected connectors or damaged harness</li> <li>• Timing belt, pulley, wires or scanner carriage failure</li> </ul>   |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Replace the scanner HP sensor.</li> <li>2. Replace the scanner motor.</li> <li>3. Replace the harness.</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC121-00 | D    | Scanner home position (HP) error 2   |
|          |      | <p>The scanner HP sensor did not go ON :</p> <ul style="list-style-type: none"> <li>• During homing operation</li> <li>• During auto adjustment</li> <li>• During document, book scanning</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Motor driver error</li> </ul>   |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <ul style="list-style-type: none"> <li>• Defective motor</li> <li>• Defective HP Sensor</li> <li>• Disconnected connectors or damaged harness</li> <li>• Timing belt, pulley, wires or carriage failure</li> </ul>   |
|     |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Replace the scanner HP sensor.</li> <li>2. Replace the scanner motor.</li> <li>3. Replace the harness.</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC141-00 | D    | <p>Black level detection error</p> <p>Black level is not less than the prescribed value.</p> <p>This SC is detected when: the scanner power is turned on and the machine returns from the energy saver mode.</p>  |
|          |      | <ul style="list-style-type: none"> <li>• Loose connector</li> <li>• Defective scanner carriage</li> <li>• Defective BiCU</li> <li>• Damaged harness (FFC)</li> </ul>  |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Reconnect the connector between the SBU and BiCU (FFC).</li> <li>2. Replace the scanner carriage.</li> <li>3. Replace the BiCU.</li> <li>4. Replace the harness (FFC)</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC142-00 | D    | <p>White level detection error</p> <p>The white peak level cannot be in the prescribed value when adjusting the scanner gain.</p> <p>This SC is detected when the scanner power is turned on and the machine returns from the energy saver mode.</p> |
|          |      | <ul style="list-style-type: none"> <li>• Defective SBU</li> <li>• Defective LED</li> <li>• Defective BiCU</li> <li>• Loose connector</li> <li>• Damaged harness (FFC)</li> <li>• Defective scanner motor</li> </ul>                                  |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <ul style="list-style-type: none"> <li>• Dirty or incorrect mirror and/or lens</li> <li>• Dirty or incorrect white plate</li> </ul>   |
|     |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Reconnect the following connectors:<br/>SBU-BiCU harness (FFC) connector<br/>SBU-LEDB (scanner lamp board) harness (FFC) connector (SBU)</li> <li>2. Check the white plate (Exposure glass)<br/>Clean the white plate and/or replace the exposure glass.</li> <li>3. Replace the scanner carriage.</li> <li>4. Replace the BiCU.</li> <li>5. Replace the harness (FFC).</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC144-00 | D    | SBU communication error   |
|          |      | The machine cannot detect that the SBU is connected.  |
|          |      | <ul style="list-style-type: none"> <li>• Defective scanner carriage</li> <li>• Defective BiCU</li> <li>• Loose connector or damaged harness</li> </ul>  |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Reconnect the connector between the scanner carriage and BiCU (FFC).</li> <li>2. Replace the scanner carriage.</li> <li>3. Replace the BiCU.</li> <li>4. Replace the harness (FFC).</li> </ol> |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Loose connector</li> <li>• Defective CIS</li> <li>• Defective BiCU</li> <li>• Damaged harness (FFC)</li> </ul>  |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Reconnect the connectors between the CIS and BiCU (FFC).</li> </ol> |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <ol style="list-style-type: none"> <li>2. Replace the CIS.</li> <li>3. Replace the BiCU.</li> <li>4. Replace the harness (FFC).</li> </ol> |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Defective CIS</li> <li>• Defective BiCU</li> <li>• Loose connector</li> <li>• Damaged harness (FFC)</li> <li>• Dirty or incorrect white plate (rear side)</li> </ul>  |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Clean or replace the white plate (rear side).</li> <li>2. Reconnect the connectors between the CIS and BiCU (FFC).</li> <li>3. Replace the CIS.</li> <li>4. Replace the BiCU.</li> <li>5. Replace the harness (FFC).</li> </ol> |

| 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.<br>This SC is detected when: the main power is turned on and the machine returns from the energy saver mode.   |
|          |      | <ul style="list-style-type: none"> <li>• Defective CIS</li> <li>• Defective BiCU</li> <li>• Loose connector</li> <li>• Damaged harness</li> </ul>   |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Reconnect the connector between the CIS and BiCU (FFC).</li> <li>2. Replace the CIS.</li> <li>3. Replace the BiCU.</li> <li>4. Replace the harness between the CIS and BiCU (power/signal).</li> </ol> |



| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC161-20 | D    | BiCU error (DRAM initialization failure)  |
|          |      | The DRAM initialization flow is not completed successfully.<br>This SC is detected when: the main power is turned on and the machine returns from the energy saver mode.  |
|          |      | <ul style="list-style-type: none"> <li>• Defective BiCU</li> <li>• Defective DRAM device</li> </ul>   |
|          |      | <p>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.</p> <ol style="list-style-type: none"> <li>1. Reconnect all the connectors on the BiCU board if disconnected, or loose.</li> <li>2. Replace the BiCU.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Disconnected connectors or damaged harness</li> <li>• Sensors abnormal output</li> <li>• Defective double-feed sensors</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>1. Check the double-feed sensor and harnesses.</li> <li>2. Replace the harnesses for double-feed sensors.</li> <li>3. Replace the double-feed sensors.</li> <li>4. Replace the ADF relay board.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• EEPROM defective</li> <li>• BiCU replaced without original EEPROM</li> </ul>   |
|          |      | <ol style="list-style-type: none"> <li>1. Check the serial number with SP5-811-002.</li> <li>2. If the stored serial number is incorrect, contact your supervisor.</li> </ol> |

### 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  |
|          |      | <p>Polygon mirror motor cannot rotate correctly.<br/>This SC is detected when the polygon mirror motor starts rotating, or its rotating speed is changed.</p> <ul style="list-style-type: none"> <li>• Polygon mirror motor failure</li> <li>• Motor driver error</li> <li>• Polygon mirror motor harness is defective, disconnected, or short-circuited</li> <li>• BiCU failure (Incorrect polygon motor control signal, damaged Laser ASIC)</li> <li>• Defective PSU or power supply part for polygon motor</li> <li>• Fuse blown out</li> <li>• Incorrect AC voltage</li> </ul> <ol style="list-style-type: none"> <li>1. Cycle the power OFF/ON.</li> <li>2. Check the harness between LD unit and BiCU.</li> <li>3. Check CN300 (a connector with five pins) for the polygon mirror motor from the PSU.<br/>There is no problem if your multimeter indicates <math>24\pm 2V</math>.</li> <li>4. Replace the LD unit (Polygon mirror motor).</li> <li>5. Replace the harness between the LD unit and BiCU.</li> <li>6. Replace the BiCU.</li> <li>7. Replace the fuse.</li> <li>8. Replace the PSU.</li> </ol> |

| 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  |
|          |      | <p>Polygon mirror motor cannot stop correctly.<br/>This SC is detected when the polygon mirror motor is deactivated.</p> <ul style="list-style-type: none"> <li>• Polygon mirror motor failure</li> <li>• Motor driver error</li> <li>• Polygon mirror motor harness is defective, disconnected, or short-circuited</li> <li>• BiCU failure (Incorrect polygon motor control signal, damaged Laser ASIC)</li> </ul> |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <ul style="list-style-type: none"> <li>• Defective PSU or power supply part for polygon motor</li> <li>• Fuse blown out</li> <li>• Incorrect AC voltage</li> </ul>  |
|     |      | <ol style="list-style-type: none"> <li>1. Cycle the power OFF/ON.</li> <li>2. Check the harness between LD unit and BiCU.</li> <li>3. Check CN300 (a connector with five pins) for the polygon mirror motor from the PSU.<br/>There is no problem if your multimeter indicates <math>24\pm 2V</math>.</li> <li>4. Replace the LD unit (Polygon mirror motor).</li> <li>5. Replace the harness between the LD unit and BiCU.</li> <li>6. Replace the BiCU.</li> <li>7. Replace the fuse.</li> <li>8. Replace the PSU.</li> </ol> |

| 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   |
|          |      | <p>Polygon mirror motor cannot rotate correctly.<br/>This SC is detected when the polygon mirror motor is deactivated.</p> <ul style="list-style-type: none"> <li>• Polygon mirror motor failure</li> <li>• Motor driver error</li> <li>• Polygon mirror motor harness is defective, disconnected, or short-circuited</li> <li>• BiCU failure (Incorrect polygon motor control signal, damaged Laser ASIC)</li> <li>• Defective PSU or power supply part for polygon motor</li> <li>• Fuse blown out</li> </ul>                  |
|          |      | <ol style="list-style-type: none"> <li>1. Cycle the power OFF/ON.</li> <li>2. Check the harness between LD unit and BiCU.</li> <li>3. Check CN300 (a connector with five pins) for the polygon mirror motor from the PSU.<br/>There is no problem if your multi meter indicates <math>24\pm 2V</math>.</li> <li>4. Replace the LD unit (Polygon mirror motor).</li> <li>5. Replace the harness between the LD unit and BiCU.</li> <li>6. Replace the BiCU.</li> <li>7. Replace the fuse.</li> <li>8. Replace the PSU.</li> </ol> |

## 6.Troubleshooting

| 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   |
|          |      | <p>Synchronizing detection signal cannot be received.</p> <p>This SC is detected when:</p> <ul style="list-style-type: none"> <li>• The machine starts up.</li> <li>• The machine is copying.</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>• Defective LD unit (Synchronizing mechanism or LDB failure)</li> <li>• BiCU failure (Damaged laser ASIC)</li> <li>• Disconnected LDB harness</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>1. Cycle the power off/on.</li> <li>2. Check for condensation on the LDB.</li> <li>3. Check the harness between LDB (Synchronizing mechanism) and BiCU.</li> <li>4. Replace the LD unit.</li> <li>5. Replace the BiCU.</li> <li>6. Replace the harness between LDB and BiCU.</li> </ol> |

| 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   |
|          |      | <p>FGATE signal cannot be received even when the laser is ready to emit.</p> <p>This SC is detected when the machine is copying.</p>                                     |
|          |      | <ul style="list-style-type: none"> <li>• Connection error between BiCU and Controller</li> <li>• BiCU failure (Damaged laser ASIC)</li> </ul>                            |
|          |      | <ol style="list-style-type: none"> <li>1. Cycle the power off/on.</li> <li>2. Check the connection between BiCU and Controller.</li> <li>3. Replace the BiCU.</li> </ol> |

| 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   |
|          |      | <p>FGATE signal is not OFF even when the laser is ready to end.</p> <p>This SC is detected when the machine is copying.</p> |
|          |      | <ul style="list-style-type: none"> <li>• Connection error between BiCU and Controller</li> </ul>                            |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <ul style="list-style-type: none"> <li>• BiCU failure (Damaged laser ASIC)</li> </ul>   |
|     |      | <ol style="list-style-type: none"> <li>1. Cycle the power off/on.</li> <li>2. Check the connection between IPU and Controller.</li> <li>3. Replace the BiCU.</li> </ol> |

| 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  |
|          |      | <ul style="list-style-type: none"> <li>• The LD current is more than the prescribed current during emitting light.</li> <li>• LD driver cannot be initialized correctly.</li> <li>• Disconnected LDB harness.</li> </ul> <p>This SC is detected when:</p> <ul style="list-style-type: none"> <li>• The machine starts up.</li> <li>• The machine is copying.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• LDB harness connection error</li> <li>• Deteriorated LD (LD broken)</li> <li>• LDB (LD driver) failure</li> <li>• LDB harness failure</li> </ul>   |
|          |      | <ol style="list-style-type: none"> <li>1. Cycle the power off/on.</li> <li>2. Check the harness between LDB and IPU.</li> <li>3. Replace the LD unit.</li> <li>4. Replace the harness between LDB and BiCU.</li> </ol>  |

| 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  |
|          |      | <p>Power source for LD driver is incorrect.</p> <p>This SC is detected when:</p> <ul style="list-style-type: none"> <li>• The machine starts up.</li> <li>• The machine returns from energy saver mode.</li> <li>• Covers are closed.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• BiCU failure (LD5V Power error)</li> <li>• LDB failure (LD drive error)</li> </ul>  |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <ul style="list-style-type: none"> <li>• LDB harness failure</li> <li>• Interlock switch failure</li> </ul>   |
|     |      | <ol style="list-style-type: none"> <li>1. Cycle the power off/on.</li> <li>2. Check the harness between LDB and BiCU.</li> <li>3. Replace the BiCU.</li> <li>4. Replace the LD unit.</li> <li>5. Replace the harness between LDB and BiCU.</li> <li>6. Replace the interlock switch.</li> </ol> |

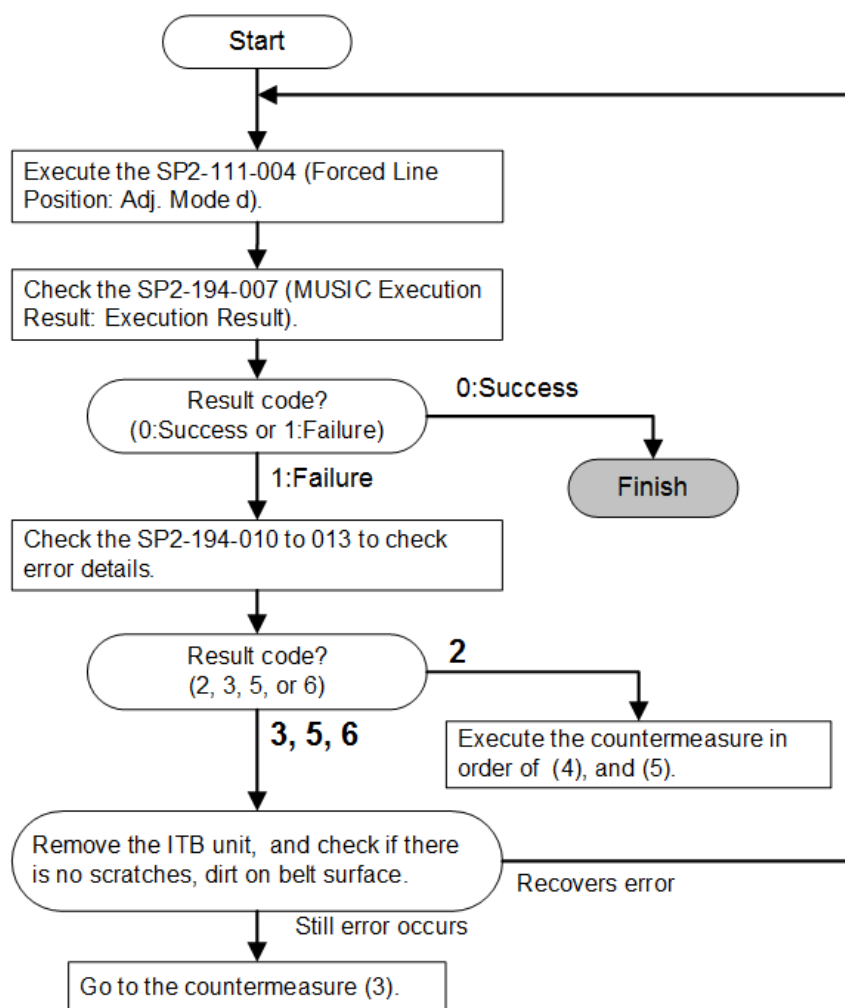
| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)         |
|----------|------|---|
| SC285-00 | C    | MUSIC error   |
|          |      | The results of MUSIC pattern reading failed 4 times.                  |
|          |      | The ID sensor cannot detect the MUSIC pattern                         |
|          |      | Color registration error is larger than the specified value           |
|          |      | Refer to " <a href="#">When SC285-00 (MUSIC error) Is Displayed</a> " |

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### When SC285-00 (MUSIC error) Is Displayed

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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).

## 6. Troubleshooting

- 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  |
|          |      | <p>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.</p> <ul style="list-style-type: none"> <li>• Disconnected/incorrect harness for the power pack</li> <li>• Damaged/incorrect PCU</li> <li>• Power pack failure</li> <li>• Disconnected harness/connector</li> </ul> <p><b>Troubleshooting procedure:</b></p> <ol style="list-style-type: none"> <li>1. <b>Check the drum condition:</b><br/>Check the terminal to see if there is dust, damage, or deformation. Check the continuity as well.<br/>If not good, replace the PCDU. If the SC reoccurs, go to the next step.</li> <li>2. <b>Check all the related connectors are firmly connected:</b><br/>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.</li> <li>3. <b>Check the mainframe condition:</b><br/>Check if there is dust on the terminal for charging, or any damage/deformation. Check the continuity between the power packs and charging terminal.<br/>If the SC reoccurs, go to the next step.</li> <li>4. <b>Check the power pack:</b><br/>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.</li> <li>5. <b>Replace the BiCU.</b></li> </ol> |

| 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. |

6.Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <ul style="list-style-type: none"> <li>PCDU overload</li> <li>Defective the motor</li> </ul>                      |
|     |      | <ul style="list-style-type: none"> <li>Replace the PCDU.</li> <li>Replace the development motor (CMY).</li> </ul> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>Defective development motor (CMY)</li> <li>Disconnected harness for the motor</li> <li>Defective BiCU</li> </ul>                         |
|          |      | <ul style="list-style-type: none"> <li>Replace the development motor (CMY).</li> <li>Replace the harness for the development motor (CMY).</li> <li>Replace the BiCU.</li> </ul> |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>PCDU overload</li> <li>Drum motor (K) failure (SC396)</li> <li>Drum motor (CMY) failure (SC397)</li> </ul>             |
|          |      | <ul style="list-style-type: none"> <li>Replace the PCDU.</li> <li>Replace the drum motor (K) (SC396)</li> <li>Replace the drum motor (CMY) (SC397)</li> </ul> |

| 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)  |
|-----|------|--|
|     |      | <ul style="list-style-type: none"> <li>• Drum motor (K) failure (SC396)</li> <li>• Drum motor (CMY) failure (SC397)</li> <li>• Disconnected harness for the drum motor</li> <li>• Defective BiCU</li> <li>• PCDU torque increased</li> </ul>   |
|     |      | <ul style="list-style-type: none"> <li>• Replace the drum motor (K) (SC396)</li> <li>• Replace the drum motor (CMY) (SC397)</li> <li>• Reconnect the connector for the drum motor.</li> <li>• Replace the harness for the drum motor.</li> <li>• Replace the BiCU.</li> <li>• Replace the PCDU.</li> </ul> |

### 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   |
|          |      | <ul style="list-style-type: none"> <li>• <math>\mu</math> count is higher than the threshold which detects no developer</li> <li>• <math>\mu</math> count is lower than the upper/lower target thresholds three consecutive times.</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>• TD sensor (mu sensor, <math>\mu</math> sensor) failure</li> <li>• Harness loose or disconnected</li> <li>• An old PCDU may be installed</li> </ul>   |
|          |      | <p><b>Troubleshooting procedure:</b></p> <ol style="list-style-type: none"> <li>1. <b>Check all the related connectors are connected.</b><br/>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.</li> <li>2. <b>Check the development unit (e.g. Gear/harness disconnected? Heat protection seal removed? Using an old PCDU?).</b><br/>If not good, replace the development unit. If the SC reoccurs, go to the next step.</li> <li>3. <b>Check whether the TD sensor is deformed, scratched, damaged or has dust sticking to it.</b><br/>If not good, replace the PCDU. If the SC reoccurs, go to the next step.</li> <li>4. <b>Check the TD sensor harnesses, and the harness between the mainframe and</b></li> </ol> |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <p><b>PCDU.</b></p> <p>If not good, replace the harness. If the SC reoccurs, go to the next step.</p> <p>5. <b>Replace the BiCU.</b></p> |


| 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  |
|          |      | <p>The machine detects that Vt (TD sensor output, SP3-210-001) is higher than the upper limit threshold for the specified consecutive times.</p> <ul style="list-style-type: none"> <li>• TD sensor connector is disconnected</li> </ul> <p><b>To check if the issue is resolved:</b></p> <ol style="list-style-type: none"> <li>1. Cycle the power off/on.</li> <li>2. Feed one sheet of paper.</li> <li>3. Check Vt with SP3-210-001 through -004.</li> <li>4. Check if Vt is higher than the upper threshold (specified in SP3-211-002).<br/>Incorrect: Vt is higher than the upper threshold<br/>Correct: Vt is equal to or lower than the upper threshold</li> </ol> <p><b>Troubleshooting procedure:</b></p> <ol style="list-style-type: none"> <li>1. <b>Check all the connectors are firmly connected.</b><br/>If not, reconnect the connectors. Check if the SC reoccurs by cycling the power off/on.<br/>If the SC reoccurs, go to the next step.</li> <li>2. <b>Check the development unit (e.g. Gear/harness disconnected? Heat protection seal removed? Using an old PCDU?).</b><br/>If not good, replace the PCDU. If the SC reoccurs, go to the next step.</li> <li>3. <b>Check the TD sensor.</b><br/>If not good, replace the TD sensor. If the SC reoccurs, go to the next step.</li> <li>4. <b>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).</b><br/>If not good, replace the PCDU and initialize the developer. This corrects the TD sensor settings.</li> <li>5. <b>Check the toner supply unit, especially if the image density is too low.</b><br/>If the toner bottle is empty, the toner supply route is clogged, and/or the toner supply</li> </ol> |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <p>motor operates incorrectly, then correct the problem. If the SC reoccurs, go to the next step.</p> <p>6. <b>Check the harness connection.</b><br/>If not good, replace the harness between BiCU and PCDU.</p> <p>7. <b>Replace the BiCU.</b></p> |

| 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  |
|          |      | <p>The value of Vt (SP3-210-003) is lower than the threshold for times specified.</p> <ul style="list-style-type: none"> <li>TD sensor connector is disconnected.</li> <li>Check the connection of the TD sensor connector.</li> <li>Check if the TD sensor harness is connected firmly.</li> <li>Replace the TD sensor if any abnormality is found.</li> </ul> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC370-00 | D    | <p>ID sensor calibration error</p> <p>The reflection light output voltage of the ID sensor (Vsg_reg) is not adjusted within the target range.<br/>Upper limit: Default: 4.5 V<br/>Lower limit: Default: 3.5 V</p> <ul style="list-style-type: none"> <li>Disconnected ID sensor connectors</li> <li>Dirty or defective ID sensor</li> <li>Defective image transfer belt</li> </ul> <p><b>To check if the issue is resolved:</b></p> <ul style="list-style-type: none"> <li>Do Vsg adjustment (SP3-320).</li> <li>Check the result in SP3-323-001.<br/>Correct: The result is "1"<br/>Incorrect: The result is not "1"</li> </ul> <p><b>Troubleshooting procedure:</b></p> <ol style="list-style-type: none"> <li><b>Check all the connectors are firmly connected.</b><br/>If not, reconnect the connectors. Check if the SC reoccurs by cycling the power off/on.<br/>If the SC reoccurs, go to the next step.</li> <li><b>Clean the detecting part of the ID sensor</b></li> </ol> |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <p>  <b>Note</b> </p> <ul style="list-style-type: none"> <li> <span style="display: inline-block; width: 1em; margin-left: -1em;">•</span> Do not wipe with a dry cloth.           </li> </ul> <p>If the SC reoccurs, go to the next step.</p> <p>3. <b>Check the ID sensor shutter.</b></p> <p>If the shutter does not move correctly, replace the shutter solenoid. If the SC reoccurs, go to the next step.</p> <p>4. <b>Replace the drum and/or ITB if the following is found:</b></p> <p>Scratches, toner filming, wavy belt, or insufficient cleaning</p> <p>5. <b>Replace the ID sensor.</b></p> <p>If the SC reoccurs, go to the next step.</p> <p>6. <b>Check and connect the related harness if it is disconnected.</b></p> <p>7. <b>Replace the BiCU.</b></p> |

## 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. <ul style="list-style-type: none"> <li>Contact/Release: 5 sec.</li> <li>Homing: 10 sec.</li> <li>Sampling interval: 0.01 sec.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>Broken harness or defective connectors</li> <li>Disconnected connector of ITB contact sensor or motor</li> <li>Defective ITB contact motor</li> <li>Image transfer belt unit not installed</li> </ul>                              |
|          |      | <ol style="list-style-type: none"> <li>Set the ITB unit firmly.</li> <li>Replace the ITB unit.</li> <li>Clean the ITB contact HP sensor.</li> <li>Check the harnesses.</li> <li>Replace the ITB contact HP sensor.</li> <li>Replace the ITB contact motor.</li> </ol>     |

| 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.   |
|          |      | <p><b>Hardware related causes:</b></p> <ul style="list-style-type: none"> <li>Contact failure</li> <li>Loose connector (Controller side)</li> <li>Grounding, open-circuit in the high voltage route</li> <li>Arc discharge due to lack of space</li> <li>Shorted harness (Controller side)</li> <li>BiCU malfunction (Signal error)</li> <li>Power pack (Development/Transfer) failure</li> </ul> <p><b>Load related causes:</b></p> <ul style="list-style-type: none"> <li>Short-circuit</li> <li>Arc discharge due to lack of space</li> <li>Deteriorated drum (overcurrent)</li> <li>Condensated drum (overcurrent)</li> <li>Incorrect gap between drum and charge roller (incorrect PCDU)</li> <li>PCDU not installed firmly</li> </ul> |
|          |      | First, cycle the main power off/on to check if this SC occurs again.  |

6.Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <p>If this SC reoccurs, do the following:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. Replace the PCDU and cycle the main power off/on to check if this SC occurs again.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>7. Replace the power pack (charge/development) and cycle the main power off/on to check if the SC occurs again.</li> <li>8. Replace the BiCU and cycle the main power off/on to check if the SC occurs again.</li> <li>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.</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC492-00 | C    | <p>High voltage power: Transfer bias output error</p> <p>Incorrect PWM signal is detected for 0.2 sec.</p> <p><b>Hardware related causes:</b></p> <ul style="list-style-type: none"> <li>• Contact failure</li> <li>• Loose connector (Controller side)</li> <li>• Grounding, open-circuit in the high voltage route</li> <li>• Shorted harness (Controller side)</li> <li>• BiCU malfunction (Signal error)</li> <li>• Power pack (Transfer) failure</li> </ul> <p><b>Load related causes:</b></p> <ul style="list-style-type: none"> <li>• Increased impedance in the paper transfer roller</li> <li>• Increased impedance in the ITB</li> <li>• Open-circuit</li> <li>• Transfer unit not installed firmly</li> </ul> |



| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)                                |
|-----|------|--|
|     |      | <ul style="list-style-type: none"> <li>This is a logging SC (No action required).</li> </ul> |

| 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).   |
|          |      | <ul style="list-style-type: none"> <li>Damaged or loose connector</li> <li>Defective Image creation temperature sensor</li> </ul>  |
|          |      | <p>Cycle the main power off/on to check if this SC occurs again.</p> <p>If this SC reoccurs, do the following:</p> <ol style="list-style-type: none"> <li>Reconnect all the related connectors, and cycle the main power off/on to check if the SC reoccurs.</li> <li>Replace the image creation temperature sensor, and cycle the main power off/on to check if the SC reoccurs.</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC498-00 | C    | Temperature/humidity sensor error  |
|          |      | <ul style="list-style-type: none"> <li>The thermistor output of the temperature sensor is not within the prescribed range (more than 3.0V to less than 0.5V.</li> <li>The thermistor output of the humidity sensor is not within the prescribed range (2.4V or more).</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>Damaged or loose connector</li> <li>Defective temperature/humidity sensor</li> </ul>  |
|          |      | <p>Cycle the main power off/on to check if this SC occurs again.</p> <p>If this SC reoccurs, do the following:</p> <ol style="list-style-type: none"> <li>Reconnect all the related connectors, and cycle the main power off/on to check if the SC reoccurs.</li> <li>Replace the temperature/humidity sensor, and cycle the main power off/on to check if the SC reoccurs.</li> </ol> |

## 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Incorrect/disconnected tray lift motor connector</li> <li>• Loose, disconnected or damaged tray lift sensor connector</li> <li>• An obstruction such as jammed paper scraps blocks the motor operation</li> </ul> |
|          |      | <ol style="list-style-type: none"> <li>1. Replace the transport motor.</li> <li>2. Reconnect the connector.</li> <li>3. Replace the harness.</li> <li>4. Replace the BiCU.</li> </ol>  |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• PFU tray lift motor disconnection or loose harness</li> <li>• PFU tray lift sensor disconnection or loose harness</li> <li>• PFU Tray bottom plate HP sensor disconnection or loose harness</li> <li>• Other defective mechanical parts</li> </ul>   |
|          |      | Do the following steps. Cycle the power off/on after doing each step to check if the SC occurs.   |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connector of the PFU tray bottom plate HP sensor.</li> <li>2. Reconnect the connector of the PFU tray lift sensor.</li> <li>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.</li> <li>4. Replace the PFU tray lift motor.</li> <li>5. Replace the harness.</li> <li>6. Replace the board in the tray.</li> </ol> |

| 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.  |
|     |      | <ul style="list-style-type: none"> <li>• Disconnected or defective connectors of the bypass lift clutch</li> <li>• Disconnected or defective bypass lift sensor</li> <li>• Defective bypass bottom plate detection filler</li> </ul> |
|     |      | <ol style="list-style-type: none"> <li>1. Check or replace the connectors of the bypass lift clutch.</li> <li>2. Check or replace the bypass lift sensor.</li> </ol>   |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Paper transport unit overload</li> <li>• Defective transport motor</li> </ul>          |
|          |      | <ol style="list-style-type: none"> <li>1. Replace the paper transport unit.</li> <li>2. Replace the transport motor.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Defective transport motor</li> <li>• Disconnected harness for the motor</li> <li>• Defective BiCU</li> </ul>                |
|          |      | <ol style="list-style-type: none"> <li>1. Replace the transport motor.</li> <li>2. Replace the harness for transport motor.</li> <li>3. Replace the BiCU.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Motor overload</li> <li>• Defective motor</li> <li>• Disconnected connectors</li> <li>• Damaged harness</li> </ul> |
|          |      | Do the following steps. Check if the SC reoccurs by cycling the power after each step.  |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connector.</li> <li>2. Replace the harness.</li> </ol>  |

## 6. Troubleshooting

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Defective fan motor</li> <li>• Disconnected harness</li> <li>• Defective BiCU</li> </ul>          |
|          |      | <ol style="list-style-type: none"> <li>1. Replace the fan motor.</li> <li>2. Replace the harness.</li> <li>3. Replace the BiCU.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Defective fan motor</li> <li>• Disconnected or defective harness</li> <li>• Defective BiCU</li> </ul>      |
|          |      | <ol style="list-style-type: none"> <li>1. Replace the fan motor.</li> <li>2. Check or replace the harness.</li> <li>3. Replace the BiCU.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Defective motor</li> <li>• Disconnected or defective harness</li> <li>• Defective BiCU</li> <li>• Fusing unit torque increased</li> </ul>          |
|          |      | <ol style="list-style-type: none"> <li>1. Replace the fusing motor.</li> <li>2. Check or replace the harness.</li> <li>3. Replace the BiCU.</li> <li>4. Replace the fusing unit.</li> </ol> |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Defective motor</li> <li>• Defective harness</li> <li>• Defective BiCU</li> </ul>                    |
|          |      | <ol style="list-style-type: none"> <li>1. Replace the fusing motor.</li> <li>2. Replace the harness.</li> <li>3. Replace the BiCU.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Broken thermopile</li> <li>• Connector contact failure</li> </ul>   |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connector between the fusing unit and the BiCU.</li> <li>2. Replace the fusing thermopile</li> <li>3. Replace the harness between the fusing unit and the BiCU.</li> <li>4. Replace the BiCU.</li> <li>5. Replace the PSU (AC).</li> </ol> |

## 6. Troubleshooting

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC542-02 | A    | Fusing thermopile reload error   |
|          |      | <p>Fusing temperature failed to reach a temperature of 80 degrees C after passing seven seconds when:</p> <ul style="list-style-type: none"> <li>• The machine starts warming up.</li> <li>• The machine returns from energy saver mode.</li> <li>• The fusing lamp is activated.</li> </ul>   |
| SC542-03 | A    | Fusing thermopile reload error   |
|          |      | <p>Fusing temperature failed to reach the reload permit temperature after passing eight seconds when:</p> <ul style="list-style-type: none"> <li>• The machine starts warming up.</li> <li>• The machine returns from energy saver mode.</li> <li>• The fusing lamp is activated.</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>• Dirty or deformed thermopile lenses</li> <li>• Input voltage out of specification (out of warranty)</li> <li>• Fuse blown out</li> </ul> <ol style="list-style-type: none"> <li>1. Check the power supply voltage (Reconnect the power cord).</li> <li>2. Check and clean the thermopile lenses or replace the fusing thermopile.</li> <li>3. Replace the fusing unit.</li> <li>4. Replace the BiCU.</li> <li>5. Replace the PSU (AC).</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC542-12 | D    | Fusing thermopile cannot reload (low power)  |
|          |      | <p>Fusing temperature failed to reach a temperature of 80 degrees C after passing seven seconds when:</p> <ul style="list-style-type: none"> <li>• The machine starts warming up.</li> <li>• The machine returns from energy saver mode.</li> <li>• The fusing lamp is activated.</li> </ul> |
| SC542-13 | D    | Fusing thermopile cannot reload (low power)  |
|          |      | <p>Fusing temperature failed to reach the reload permit temperature after passing eight seconds when:</p> <ul style="list-style-type: none"> <li>• The machine starts warming up.</li> <li>• The machine returns from energy saver mode.</li> <li>• The fusing lamp is activated.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Dirty or defective thermopile lenses</li> <li>• Thermopile modification/float</li> <li>• Input voltage out of specification (out of warranty)</li> </ul>  |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <ul style="list-style-type: none"> <li>• Thermostat blown out.</li> </ul>  |
|     |      | <ol style="list-style-type: none"> <li>1. Check the power supply voltage (Reconnect the power cord).</li> <li>2. Check and clean the thermopile lenses or replace the fusing thermopile.</li> <li>3. Replace the fusing unit.</li> <li>4. Replace the BiCU.</li> <li>5. Replace the PSU (AC).</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Triac short</li> <li>• Defective BiCU</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connector between the fusing unit and BiCU.</li> <li>2. Replace the fusing thermopile.</li> <li>3. Replace the harness between the fusing unit and BiCU.</li> <li>4. Replace the BiCU.</li> <li>5. Replace the PSU (AC).</li> <li>6. Replace the fusing unit (if the problem cannot be resolved).</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Triac short</li> <li>• Defective BiCU</li> <li>• Defective fusing control system</li> </ul>   |
|          |      | <p>Basically, the entire fusing unit must be replaced when SC544-00 occurs. For details, refer to "<a href="#">Actions When SC544-00 or SC554-00 Occurs.</a>"</p> <p><b>Do the following steps:</b></p> <ol style="list-style-type: none"> <li>1. Inspect the fusing sleeve belt unit, and replace if damaged.</li> <li>2. Reconnect the connector between the fusing unit and BiCU.</li> <li>3. Replace the fusing thermopile.</li> <li>4. Replace the harness between the fusing unit and BiCU.</li> <li>5. Replace the BiCU.</li> <li>6. Replace the PSU (AC).</li> </ol> |

## 6. Troubleshooting

| 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   |
|          |      | <ul style="list-style-type: none"> <li>• Defective thermistor</li> <li>• Broken fusing lamp</li> <li>• Thermostat blown out.</li> </ul>   |
|          |      | <ol style="list-style-type: none"> <li>1. Check there is paper remaining in the fusing unit.</li> <li>2. Check the power supply voltage (Reconnect the power cord).</li> <li>3. Replace the fusing lamp.</li> <li>4. Replace the fusing thermopile.</li> <li>5. Replace the BiCU.</li> <li>6. Replace the PSU (AC)</li> </ol> |

| 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:  |
|          |      | <ul style="list-style-type: none"> <li>• The main power is turned on.</li> <li>• The machine returns from the engine-off mode.</li> <li>• The interlock switch is deactivated.</li> </ul>          |
|          |      | <ul style="list-style-type: none"> <li>• Damaged fusing relay</li> <li>• Fusing relay drive circuit failure</li> </ul>   |
|          |      | <ol style="list-style-type: none"> <li>1. Make sure that the harness between the PSC (AC) and BiCU is firmly connected.</li> <li>2. Replace the PSU (AC).</li> <li>3. Replace the BiCU.</li> </ol> |
| 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:  |
|          |      | <ul style="list-style-type: none"> <li>• The main power is turned on.</li> <li>• The machine returns from the engine-off mode.</li> <li>• The interlock switch is turned off or on.</li> </ul>     |
|          |      | <ul style="list-style-type: none"> <li>• Broken fusing relay (open circuit)</li> <li>• Fusing relay circuit failure</li> <li>• PSU fuse (24VS) worn out</li> </ul>                                 |
|          |      | <ol style="list-style-type: none"> <li>1. Make sure that the harness between the PSU (AC) and BiCU is firmly connected.</li> <li>2. Replace the PSU (AC).</li> <li>3. Replace the BiCU.</li> </ol> |



| 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.<br>This SC is detected when the main power is ON.   |
|          |      | <ul style="list-style-type: none"> <li>Unstable frequency</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>Check the frequency is 45Hz or more.<br/>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.</li> <li>Replace the PSU (AC).</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>Fusing lamp disconnection during paper passing</li> <li>Loose connector</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>Check the input voltage and reconnect the power cord.</li> <li>Replace the fusing lamp.</li> <li>Replace the fusing thermopile</li> <li>Replace the BiCU.</li> <li>Replace the PSU (AC).</li> </ol> |

| 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..   |
|          |      | <ul style="list-style-type: none"> <li>Shorted triac</li> <li>Defective BiCU</li> <li>Defective fusing control system</li> </ul>   |
|          |      | <p>Basically, the entire fusing unit must be replaced when SC554-00 occurs. For details, refer to "<a href="#">Actions When SC544-00 or SC554-00 Occurs.</a>"</p> <p><b>Do the following steps:</b></p> <ol style="list-style-type: none"> <li>Inspect the fusing sleeve belt unit, and replace if damaged.</li> <li>Reconnect the connector between the fusing unit and the BiCU.</li> <li>Replace the fusing thermistor.</li> <li>Replace the harness between the fusing unit and the BiCU.</li> <li>Replace the BiCU.</li> <li>Replace the PSU (AC).</li> </ol> |

## 6. Troubleshooting

| 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. |
|          |      | <ul style="list-style-type: none"> <li>Noise (High frequency)</li> <li>Defective PSU</li> </ul>                |
|          |      | 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).  |
|          |      | <ul style="list-style-type: none"> <li>Paper jam in the fusing unit.</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>Replace the separation plate.</li> <li>Replace the gear (fusing unit).</li> <li>Replace the fusing unit.</li> <li>Replace the fusing motor.</li> <li>Replace the gear (mainframe), if damaged.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>Thermistor disconnection</li> <li>Loose connector</li> </ul>   |
|          |      | <ol style="list-style-type: none"> <li>Reconnect the connectors between the fusing drawer connector, the BiCU, and the pressure roller thermistor.</li> <li>Replace the thermistor.</li> <li>Replace the fusing unit.</li> <li>Replace the harnesses between the BiCU and the fusing unit.</li> <li>Replace the BiCU.</li> <li>Replace the PSU (AC).</li> </ol> |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Dirty or deformed thermistor</li> <li>• Input voltage out of specification (out of warranty)</li> <li>• Thermostat blown out</li> </ul>   |
|          |      | <ol style="list-style-type: none"> <li>1. Check the input voltage and reconnect the power cord.</li> <li>2. Replace the fusing thermostat.</li> <li>3. Replace the fusing lamp.</li> <li>4. Replace the thermistor.</li> <li>5. Replace the BiCU.</li> <li>6. Replace the PSU (AC).</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Shorted triac</li> <li>• Defective BiCU</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connectors between the fusing drawer connector, BiCU, and the pressure roller thermistor.</li> <li>2. Replace the thermistor.</li> <li>3. Replace the harnesses between the BiCU and pressure roller thermistor.</li> <li>4. Replace the BiCU.</li> <li>5. Replace the fusing unit if all the above steps cannot resolve the issue.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Shorted triac</li> <li>• Defective BiCU</li> <li>• Defective fusing control system</li> </ul>                       |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connectors between the fusing drawer connector, BiCU, and the pressure roller thermistor.</li> </ol> |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <ol style="list-style-type: none"> <li>2. Replace the thermistor.</li> <li>3. Replace the harnesses between the BiCU and pressure roller thermistor.</li> <li>4. Replace the BiCU.</li> <li>5. Replace the fusing unit if all the above steps cannot resolve the issue.</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC571-01 | A    | Pressure roller thermistor (rear) disconnection  |
| SC571-11 | A    | <p>Pressure roller thermistor (rear) disconnection (low power)</p> <p>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.</p> <ul style="list-style-type: none"> <li>• Thermistor disconnection</li> <li>• Loose connector</li> </ul> <ol style="list-style-type: none"> <li>1. Check the input voltage and reconnect the power cord.</li> <li>2. Reconnect the connectors between the fusing drawer connector, the BiCU, and the pressure roller thermistor.</li> <li>3. Replace the thermistor.</li> <li>4. Replace the fusing unit.</li> <li>5. Replace the harnesses between the BiCU and the fusing unit.</li> <li>6. Replace the BiCU.</li> <li>7. Replace the PSU (AC).</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC572-02 | A    | Pressure roller thermistor (rear) cannot be reloaded   |
| SC572-12 | D    | <p>Pressure roller thermistor (rear) cannot be reloaded (low power)</p> <p>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.</p> <ul style="list-style-type: none"> <li>• Dirty or deformed thermistor</li> <li>• Input voltage out of specification (out of warranty)</li> <li>• Thermostat blown out</li> </ul> <ol style="list-style-type: none"> <li>1. Check the input voltage and reconnect the power cord.</li> <li>2. Replace the fusing thermostat.</li> <li>3. Replace the fusing lamp.</li> <li>4. Replace the thermistor.</li> </ol> |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures) |
|-----|------|---|
|     |      | 5. Replace the BiCU.<br>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.   |
|          |      | <ul style="list-style-type: none"> <li>• Shorted triac</li> <li>• Defective BiCU</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connectors between the fusing drawer connector, the BiCU, and the pressure roller thermistor.</li> <li>2. Replace the thermistor.</li> <li>3. Replace the harnesses between the BiCU and the pressure roller thermistor.</li> <li>4. Replace the BiCU.</li> </ol> <ul style="list-style-type: none"> <li>• Replace the fusing unit if all the above steps cannot resolve the issue.</li> </ul> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Shorted triac</li> <li>• Defective BiCU</li> <li>• Defective fusing control system</li> </ul>   |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connectors between the fusing drawer connector, the BiCU, and the pressure roller thermistor.</li> <li>2. Replace the thermistor.</li> <li>3. Replace the harnesses between the BiCU and the pressure roller thermistor.</li> <li>4. Replace the BiCU.</li> </ol> <ul style="list-style-type: none"> <li>• Replace the fusing unit if all the above steps cannot resolve the issue.</li> </ul> |

| 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)                         |

## 6. Troubleshooting

| 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   |
|     |      | <ul style="list-style-type: none"> <li>• Thermopile disconnection (SC581-01)</li> <li>• Shorted fusing thermistor (SC581-02)</li> <li>• Loose connector</li> </ul>   |
|     |      | <ol style="list-style-type: none"> <li>1. Check the input voltage and replace the power plug (SC581-11/-12).</li> <li>2. Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU.</li> <li>3. Replace the fusing thermistor.</li> <li>4. Replace the fusing unit.</li> <li>5. Replace the harnesses between the BiCU and the fusing drawer connector.</li> <li>6. Replace the BiCU.</li> <li>7. Replace the PSU (AC).</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Thermistor disconnection</li> <li>• Loose connector</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU.</li> <li>2. Replace the thermistor.</li> <li>3. Replace the fusing unit.</li> <li>4. Replace the harnesses between the BiCU and the fusing drawer connector.</li> <li>5. Replace the BiCU.</li> <li>6. Replace the PSU (AC).</li> </ol> |

| 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.  |
|     |      | <ul style="list-style-type: none"> <li>• Dirty or deformed thermistor</li> <li>• Input voltage out of specification (out of warranty)</li> <li>• Thermostat blown out</li> </ul>  |
|     |      | <ol style="list-style-type: none"> <li>1. Check the input voltage and replace the power plug.</li> <li>2. Replace the fusing thermostat</li> <li>3. Replace the fusing lamp.</li> <li>4. Replace the thermistor.</li> <li>5. Replace the BiCU.</li> <li>6. Replace the PSU (AC).</li> </ol> |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Shorted triac</li> <li>• Defective BiCU</li> </ul>   |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU.</li> <li>2. Replace the thermistor.</li> <li>3. Replace the harnesses between the BiCU and the fusing drawer connector.</li> <li>4. Replace the BiCU.</li> </ol> |
|          |      | 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Shorted triac</li> <li>• Defective BiCU</li> <li>• Defective fusing control system</li> </ul>  |
|          |      | <ol style="list-style-type: none"> <li>1. Reconnect the connectors between the fusing unit, fusing drawer connector, and BiCU.</li> <li>2. Replace the thermistor.</li> <li>3. Replace the harnesses between the BiCU and the fusing drawer connector.</li> <li>4. Replace the BiCU.</li> </ol> |
|          |      | 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. <ul style="list-style-type: none"> <li>The BiCU receives the break signal which is generated by the peripherals only just after the main power is turned on.</li> <li>When the BiCU does not receive an OK signal from a PFU 100ms after sending a command to it.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>Defective the PFU controller board</li> <li>Defective the BiCU</li> <li>Loose or disconnected connector</li> </ul>  |
|          |      | <ul style="list-style-type: none"> <li>Replace the PFU controller board (1st paper tray).</li> <li>Replace the BiCU.</li> <li>Set the 1st paper tray again.</li> </ul>   |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC623-00 | D    | 2nd paper tray communication error  |
|          |      | This SC is not issued for this machine.<br>When a communication error signal between the 1st paper tray and 2nd paper tray is received.   |
|          |      | <ul style="list-style-type: none"> <li>Loose or disconnected connector</li> <li>Defective PFU controller board</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>Replace the PFU controller board (2nd paper tray).</li> <li>Replace the PFU controller board (1st paper tray).</li> <li>Set the 1st and 2nd paper tray again.</li> </ul> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>Tracking SDK application error</li> <li>Internal notification error</li> </ul> |



| 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. <ul style="list-style-type: none"> <li>• Network error</li> <li>• tracking management server error</li> <li>• Tracking SDK application error</li> </ul> |
|          |      | 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Controller Board soft error</li> <li>• BiCU soft error</li> <li>• BiCU and controller board connection error</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• Check the connection between the BiCU and the controller board.</li> </ul>  |

## SC645-01-04

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC650-01 | C    | Remote service modem communication error (Dialup authentication failure)  |
|          |      | <ul style="list-style-type: none"> <li>• 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.</li> <li>• Displayed only when an error is detected while RC Gate is operating.</li> <li>• SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• SP settings invalid</li> <li>• Modem connector disconnected</li> <li>• Modem board disconnected</li> <li>• Wireless LAN card disconnected</li> </ul>   |
|          |      | Check the following SPs. <ul style="list-style-type: none"> <li>• SP5-816-156 (Remote Service: Dial Up User Name)</li> <li>• SP5-816-157 (Remote Service: Dial Up Password)</li> </ul>  |

6.Troubleshooting

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC650-04 | C    | Remote Service Modem Communication Error (dialup failing because of incorrect modem configuration)  |
|          |      | <ul style="list-style-type: none"> <li>• 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.</li> <li>• Displayed only when an error is detected while RC Gate is operating.</li> <li>• SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• SP settings invalid</li> <li>• Modem connector disconnected</li> <li>• Modem board disconnected</li> <li>• Wireless LAN card disconnected</li> </ul>   |
|          |      | Software bug.   |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC650-05 | C    | Remote Service Modem Communication Error (insufficient current or connection fault)   |
|          |      | <ul style="list-style-type: none"> <li>• 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.</li> <li>• Displayed only when an error is detected while RC Gate is operating.</li> <li>• SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• SP settings invalid</li> <li>• Modem connector disconnected</li> <li>• Modem board disconnected</li> <li>• Wireless LAN card disconnected</li> </ul>   |
|          |      | 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))   |
|          |      | <ul style="list-style-type: none"> <li>• 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.</li> <li>• Displayed only when an error is detected while RC Gate is operating.</li> <li>• SC is not issued if an error occurs during RC Gate installation (because this error can be referred by using SP).</li> </ul> |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <ul style="list-style-type: none"> <li>• SP settings invalid</li> <li>• Modem connector disconnected</li> <li>• Modem board disconnected</li> <li>• Wireless LAN card disconnected</li> </ul>   |
|     |      | <ul style="list-style-type: none"> <li>• If a modem board is not installed, install it.</li> <li>• Check again if the modem driver configurations (SP5-816-160, SP5-816-165 to 171, and SP5-816-165 to 171) are correct.</li> <li>• If the problem is not solved, replace the modem.</li> </ul> |

| 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)   |
|          |      | <ul style="list-style-type: none"> <li>• 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.</li> <li>• Displayed only when an error is detected while RC Gate is operating.</li> <li>• SC is not issued if an error occurs during RC Gate installation (because this error can be referred by using SP).</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• SP settings invalid</li> <li>• Modem connector disconnected</li> <li>• Modem board disconnected</li> <li>• Wireless LAN card disconnected</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>• If a modem board is attached, remove it.</li> <li>• Check if wired/wireless LAN works.</li> </ul>  |

| 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.   |

## 6. Troubleshooting

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>Used controller board installed</li> <li>Used NVRAM installed (such action is not allowed.)</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>If this occurs during RC Gate installation:<br/>Check the validity of the certificate and the NVRAM, check the machine serial number, write the common certificate, and then begin installation again.</li> <li>If this occurs after RC Gate installation:<br/>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.</li> </ul> |

| 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. <ul style="list-style-type: none"> <li>Number of characters is not 17.</li> <li>Includes a character that cannot be printed.</li> <li>All spaces</li> <li>NULL</li> </ul> |
|          |      | 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  |
|          |      | <ul style="list-style-type: none"> <li>When the machine starts or returns from the energy saver mode, a connection error signal between ASIC and SRAM device is detected.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>Defective BiCU</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>Cycle the main power off/on.</li> <li>Replace the BiCU.</li> </ul>  |

| 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.<br>SC665-11 through -031: When the machine starts or returns from the energy saver mode, a connection error between CPU and ASIC is detected. |
|          |      | <ol style="list-style-type: none"> <li>1. Incorrect FFC connection</li> <li>2. Damaged FFC (disconnection or dust)</li> <li>3. BiCU failure (Deteriorated board, sticking dust, or damaged parts)</li> </ol>   |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off/on.</li> <li>• Replace the BiCU.</li> </ul>  |

| 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.                             |
|          |      | <ul style="list-style-type: none"> <li>• BiCU failure</li> <li>• Cycle the power off/on.</li> <li>• Replace the BiCU.</li> </ul> |
| SC667-10 | D    | Slave 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.                       |
|          |      | <ul style="list-style-type: none"> <li>• BiCU failure</li> <li>• Cycle the power off/on.</li> <li>• Replace the BiCU.</li> </ul> |
| SC667-40 | D    | ASIC operation mode setting error  |
|          |      | -  |
|          |      | <ul style="list-style-type: none"> <li>• BiCU failure</li> <li>• Cycle the power off/on.</li> <li>• Replace the BiCU.</li> </ul> |

| 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. |
|          |      | <ul style="list-style-type: none"> <li>• Corrupted data due to noise</li> </ul>              |

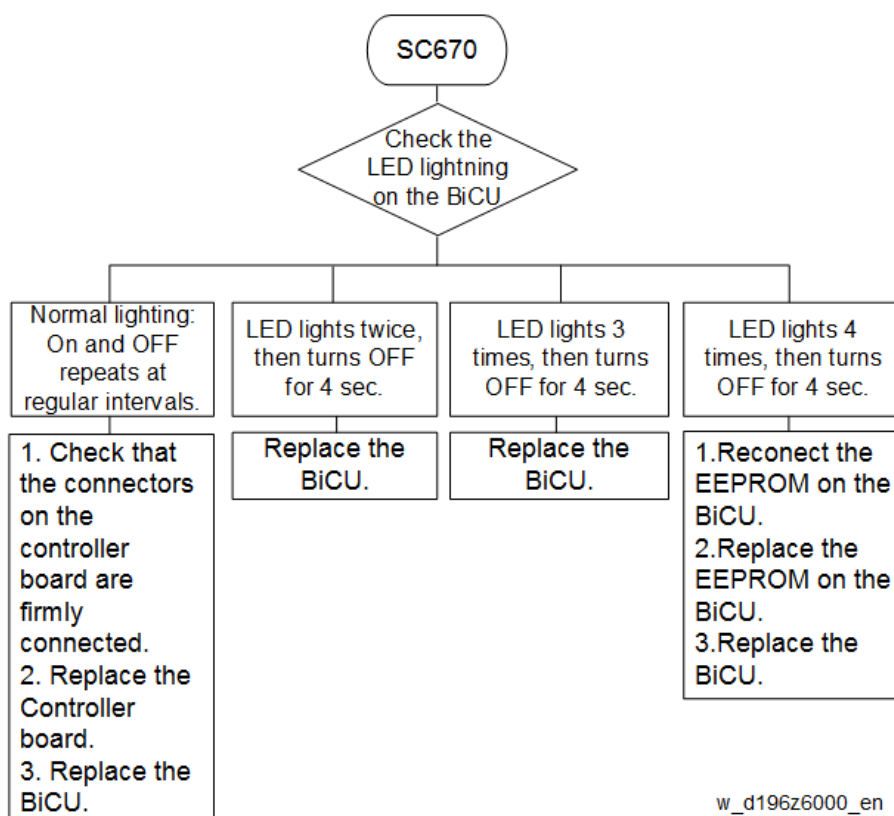
6.Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <ul style="list-style-type: none"> <li>• Incorrect EEPROM installation</li> <li>• Defective EEPROM</li> <li>• Defective BiCU</li> </ul>  |
|     |      | <ol style="list-style-type: none"> <li>1. Cycle the main power off/on.</li> <li>2. Turn the main power off and re-insert the EEPROM, then turn the main power on.</li> <li>3. Turn the main power off and replace the EEPROM, then turn the main power on.</li> <li>4. Turn the main power off and replace the BiCU, then turn the main power on.</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC670-01 | D    | <p>Engine start up error when main power switch on (* Refer to “When SC670 Is Displayed” below)</p> <ul style="list-style-type: none"> <li>• /ENGRDY signal was not asserted when the machine was turned on or returned from energy saver mode.</li> <li>• EC response was not received within specified time from power on.</li> <li>• PC response was not received within specified time from power on.</li> <li>• SC response was not received within specified time from power on.</li> <li>• Writing to Rapi driver failed (the other party not found through PCI).</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Engine board does not start up.</li> </ul>   |
|          |      | <p>Check the connection between the engine board and the controller board.</p> <ul style="list-style-type: none"> <li>• If it is always reproduced, replace the engine board. If the problem persists, consider replacing the controller board or other boards between them.</li> <li>• If reproducibility is low, multiple causes are to be considered, such as software, engine board, controller board, and PSU.</li> </ul>  |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC670-02 | D    | <p>Engine is down when machine starts up (SC reboot can not be performed) (* See “When SC670 Is Displayed” below)</p>  |
|          |      | <p>Machine-down was detected after the /ENGRDY signal was not asserted.</p>  |
|          |      | <p>The engine board was reset at an unexpected time</p>  |
|          |      | <p>Check the connection between the engine board and the controller board.</p> <ul style="list-style-type: none"> <li>• If it is always reproduced, replace the engine board. If the problem persists, consider replacing the controller board or other boards between them.</li> <li>• If reproducibility is low, multiple causes are to be considered, such as software, engine board, controller board, and PSU.</li> </ul> |

**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.  |
|          |      | <ul style="list-style-type: none"> <li>Controller stalled</li> <li>Board installed incorrectly</li> <li>Controller board defective</li> <li>Operation panel connector loose, broken or defective</li> <li>Controller late</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>Cycle the main power off and on.</li> <li>Check the connection of the controller board.</li> <li>Replace the controller board.</li> <li>Check the control panel harness.</li> </ul>           |

| 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 |

6.Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | panel was not established, or communication with controller was interrupted after a normal startup.   |
|     |      | <ul style="list-style-type: none"> <li>• Controller stalled</li> <li>• Board installed incorrectly</li> <li>• Controller board defective</li> <li>• Operation panel connector loose, broken or defective</li> <li>• Controller late</li> <li>• Incorrect Dip Switch Setting on Smart Operation Panel</li> </ul> |
|     |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• Check the connection of the controller board.</li> <li>• Replace the controller board.</li> <li>• Check the control panel harness.</li> <li>• Make sure that the DIP switch numbers 3 and 7 are ON.</li> </ul>             |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC672-12 | D    | Controller start up error  |
|          |      | Communication with controller was interrupted after a normal startup.  |
|          |      | <ul style="list-style-type: none"> <li>• Controller stalled</li> <li>• Board installed incorrectly</li> <li>• Controller board defective</li> <li>• Operation panel connector loose, broken or defective</li> <li>• Controller late</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• Check the connection of the controller board.</li> <li>• Replace the controller board.</li> <li>• Check the control panel harness.</li> </ul>             |


| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Controller stalled</li> <li>• Board installed incorrectly</li> <li>• Controller board defective</li> <li>• Operation panel connector loose, broken or defective</li> <li>• Controller late</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> </ul>   |



| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <ul style="list-style-type: none"> <li>• Check the connection of the controller board.</li> <li>• Replace the controller board.</li> <li>• Check the control panel harness.</li> </ul> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC672-99 | D    | Controller start up error  |
|          |      | The operation panel software ended abnormally.   |
|          |      | <ul style="list-style-type: none"> <li>• Controller stalled</li> <li>• Board installed incorrectly</li> <li>• Controller board defective</li> <li>• Operation panel connector loose, broken or defective</li> <li>• Controller late</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> </ul>   |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Communication between Smart Operation Panel and main machine (this is called “Flair communication”) is not sent to Smart Operation Panel.</li> <li>• SP setting (SP5-748-201) for Smart Operation Panel is not activated.</li> </ul> |
|          |      | The CATS module (controller) did not see the response to notification of monitoring service module (operation panel)  |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• Set SP5-748-201 to “1: Connect” if the value is “0: Not connect”</li> </ul>  |


| No.          | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|--------------|------|---|
| SC681-<br>** | D    | Toner bottle: ID chip communication error   |
|              |      | <ul style="list-style-type: none"> <li>• Corrupted ID data</li> <li>• Disconnected ID chip</li> <li>• No ID chip</li> <li>• Noise</li> </ul> <p>Check the SC’s branch number (-**) part) and do the above steps for the corresponding color.</p> <p> <b>Note</b></p> <p><b>If the last digit of the SC’s branch number (-**) is:</b></p> <p>1 or 6, then do the above steps for K</p> <p>2 or 7, then do the above steps for M</p> |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <p>3 or 8, then do the above steps for C</p> <p>4 or 9, then do the above steps for Y</p> <ul style="list-style-type: none"> <li>• Clean the ID chip.</li> <li>• Check the toner bottle detection board, and replace if damaged.</li> <li>• Reconnect the connectors between the BiCU and toner bottle detection board.</li> <li>• Set the toner bottle again.</li> <li>• Replace the harness between the BiCU and toner bottle detection board.</li> <li>• Replace the BiCU.</li> </ul> |

### 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-<br>** | D    | <p>TD sensor communication error</p> <p>TD sensor cannot be recovered after retrying three times for an ID chip communication error.</p> <ul style="list-style-type: none"> <li>• Corrupted ID data</li> <li>• Disconnected ID chip</li> <li>• No ID chip</li> <li>• Noise</li> </ul> <ol style="list-style-type: none"> <li>1. Remove the PCU and check the connector condition.</li> <li>2. Re-insert the harness (BiCU side) between the BiCU and the TD sensor.</li> <li>3. Replace the PCDU (if the TD sensor works incorrectly)</li> <li>4. Replace the harness between the BiCU and the TD sensor.</li> <li>5. Replace the BiCU.</li> </ol> <p>Check the SC's branch number (-**) part and do the above steps for the corresponding color.</p> <p> <b>Note</b></p> <ul style="list-style-type: none"> <li>• <b>If the last digit of the SC's branch number (-**) is:</b></li> </ul> |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | 1 or 6, then do the above steps for K<br>2 or 7, then do the above steps for M<br>3 or 8, then do the above steps for C<br>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 <ul style="list-style-type: none"> <li>• Unable to receive the PER command of the I/F commands from the controller.</li> <li>• Unable to prepare the image data with the controller.</li> <li>• Communication error</li> <li>• Inside of the controller defective</li> </ul> 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".  |
|          |      | <ul style="list-style-type: none"> <li>• Number of paper tray units is more than the machine specification.</li> </ul>       |
|          |      | <ol style="list-style-type: none"> <li>1. Reduce the number of paper tray units within the machine specification.</li> </ol> |

**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<br>to 12 | D        | Sysarch (LPUX_GET_PORT_INFO) error   |
| SC816-13          | D        | open() error   |
| SC816-14          | D        | Memory address error   |
| SC816-15<br>to 18 | D        | open() error   |
| SC816-19          | D        | Double open() error  |
| SC816-20          | D        | open() error   |
| SC816-22          | D        | Parameter error  |
| SC816-23,<br>24   | D        | read() error   |
| SC816-25          | D        | write () error   |
| SC816-26<br>to 28 | D        | write() communication retry error  |
| SC816-29,<br>30   | D        | read() communication retry error   |
| SC816-35          | D        | read() error   |
| SC816-36<br>to 96 | D        | Subsystem error  |
|                   |          | <p>Energy save I/O subsystem detected some abnormality.</p> <ul style="list-style-type: none"> <li>• Energy save I/O subsystem defective</li> <li>• Energy save I/O subsystem detected a controller board error (non-response).</li> <li>• Error was detected during preparation for transition to STR.</li> <li>• C816-99 occurs as a subsystem error except any error from -06 to 96.</li> </ul> <p>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.</p> <ol style="list-style-type: none"> <li>1. Update the "System/Copy" firmware and the other system firmware to the latest</li> </ol> |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <p>version.</p> <ol style="list-style-type: none"> <li>2. Disable the STR shift function with SP5-191-001 (Power Str Set).</li> <li>3. Replace the controller board.</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC817-00 | B    | Monitor error: File detection / Digital signature error   |
|          |      | <ul style="list-style-type: none"> <li>• Bootloader cannot read any of diagnostic module, kernel, or root filesystem.</li> <li>• In a bootloader SD card, the digital signature checking for any of diagnostic module, kernel, or root filesystem is failed.</li> </ul>                             |
|          |      | <ul style="list-style-type: none"> <li>• Any of the following items does not exist or is broken OS Flash ROM, Diagnostic module in SD card, Kernel, Root filesystem</li> <li>• Any of the following items is revised fraudulently: Diagnostic module in SD card, Kernel, Root filesystem</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• ROM update for controller system</li> <li>• Use another booting SD card having a valid digital signature</li> </ul>  |

| 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.                  |
|          |      | <ul style="list-style-type: none"> <li>• System program defective</li> <li>• Controller board defective</li> <li>• Optional board defective</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• Replace the controller board.</li> </ul>                          |

| No.      | Type     | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|----------|---|
| SC819-00 | D        | Kernel halt error   |
|          |          | [xxxx]: Detailed error code   |
|          | [0x5032] | HAIC-P2 error   |
|          |          | <p>HAIC-P2 decompression error (An error occurred in the ASIC compression/decompression module.)</p> <ul style="list-style-type: none"> <li>• The code data saved in the HDD was broken for an unexpected reason. (HDD device defective)</li> <li>• The code data saved to memory was broken for an unexpected reason. (Memory</li> </ul> |

| No. | Type           | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|----------------|---|
|     |                | <p>device defective)</p> <ul style="list-style-type: none"> <li>ASIC defective</li> <li>Data other than code data was unzipped due to a software malfunction.</li> </ul>                                  |
|     |                | <ul style="list-style-type: none"> <li>Cycle the main power off and on.</li> <li>Replace the HDD.</li> <li>Replace the memory</li> <li>Replace the controller board.</li> <li>Fix the software</li> </ul> |
|     | [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.<br>This SC may occur when turning on the machine for the first time with a new HDD.<br>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)<br>"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   |
|     |                | <ul style="list-style-type: none"> <li>Software defective</li> <li>Insufficient memory</li> <li>Hardware driver defective (RAM, flash memory)</li> </ul>  |
|     |                | <ul style="list-style-type: none"> <li>Replace with a larger capacity RAM, or flash memory.</li> <li>Replace the controller board.</li> </ul>   |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures) |
|----------|--------|---|
| SC820-00 | C      | Self-diagnostics error: CPU<br>[XXXX]: Detailed error code    |
|          | [0001] | TLB change (store) exception error                            |

6.Troubleshooting

| 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  |
|     |        | <ul style="list-style-type: none"> <li>• CPU device error</li> <li>• The boot monitor program or self-diagnostic program is broken.</li> <li>• Replace the controller board</li> <li>• Reinstall the controller system software.</li> </ul> |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|--------|---|
| SC820-00 | C      | Self-diagnostics error: CPU<br>[XXXX]: Detailed error code  |
|          | [00FF] | Uninitialized interrupt error   |
|          |        | Cache error (such as a parity error) occurred.  |
|          |        | <ul style="list-style-type: none"> <li>• CPU device error</li> <li>• Local bus defective</li> <li>• Cycle the main power off and on.</li> <li>• Reinstall the controller system software.</li> <li>• Replace the controller board</li> <li>• Replace the connected controller option with a new one.</li> </ul> |



| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)     |
|----------|--------|---|
| SC820-00 | C      | Self-diagnostics error: CPU<br>[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<br>Replace the controller board                  |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|--------|--|
| SC820-00 | C      | Self-diagnostics error: CPU<br>[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.<br><ul style="list-style-type: none"> <li>• CPU device error</li> <li>• ASIC device error</li> </ul> Replace the controller board. |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)             |
|----------|--------|---|
| SC820-00 | C      | Self-diagnostics error: CPU<br>[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<br>Replace the controller board                          |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures) |
|----------|--------|---|
| SC820-00 | C      | Self-diagnostics error: CPU<br>[XXXX]: Detailed error code    |
|          | [0612] | ASIC interrupt error  |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | Interrupt occurs in an ASIC.   |
|     |      | <ul style="list-style-type: none"> <li>ASIC device error</li> <li>Peripherals device error</li> </ul>  |
|     |      | <ul style="list-style-type: none"> <li>Replace the controller board</li> <li>Replace the connected controller option with a new one</li> </ul> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC820-00 | C    | Self-diagnostics error: CPU<br>[XXXX]: Detailed error code   |
|          |      | [06FF] CPU master clock error<br>Pipeline clock frequency ratio of CPU is different from specified value.                    |
|          |      | <ul style="list-style-type: none"> <li>CPU device error</li> <li>Module bit that initializes the CPU is defective</li> </ul> |
|          |      | Replace the controller board.  |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC820-00 | D    | Self-diagnostics error: CPU<br>[XXXX]: Detailed error code  |
|          |      | [0701] Instruction cache capacity error<br>The CPU cannot read the instruction cache stored in the primary cache. |
|          |      | -   |
|          |      | -   |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC820-00 | D    | Self-diagnostics error: CPU<br>[XXXX]: Detailed error code  |
|          |      | [0702] Instruction cache error<br>The program executed in the instruction cache result was different from expected. |
|          |      | <ul style="list-style-type: none"> <li>CPU cache defective</li> <li>Memory too slow</li> </ul>                      |
|          |      | <ul style="list-style-type: none"> <li>Replace the controller board</li> <li>Replace the memory device.</li> </ul>  |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures) |
|----------|------|---|
| SC820-00 | D    | Self-diagnostics error: CPU<br>[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 |
|     |        | -  |
|     |        | -  |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|--------|--|
| SC820-00 | D      | Self-diagnostics error: CPU<br>[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<br>[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   |
|          |        | <ul style="list-style-type: none"> <li>• Replace the controller board</li> <li>• Replace the memory device.</li> </ul> |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures) |
|----------|--------|---|
| SC820-00 | D      | Self-diagnostics error: CPU<br>[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  |

## 6. Troubleshooting

| 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<br>[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<br>[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   |
|          |      |   | <ul style="list-style-type: none"> <li>Defective ASIC</li> <li>Defective North Bridge and PCII/F</li> </ul>  |
|          |      |   | 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.                               |
|          |      |   | <ul style="list-style-type: none"> <li>Defective ASIC timer device</li> <li>Defective CPU device</li> </ul>  |
|          |      |   | Replace the controller board.  |
|          |      | [50A1]  | Video bridge device detection error  |
|          |      |   | Video bridge device is not detected.   |
|          |      |   | <ul style="list-style-type: none"> <li>Video bridge device ASIC (HARP or KLAVIER) defective.</li> <li>Connection error between PCI I / F of the controller ASIC and video bridge device</li> </ul> |
|          |      |   |  |

| 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<br>[xxxx]: Detailed error code  |
|          | [3003] | HDD timeout  |
|          |        | Check performed only when HDD is installed:  |
|          |        | <ul style="list-style-type: none"> <li>• HDD device busy for over 31sec.</li> <li>• After a diagnostic command is set for the HDD, but the device remains busy for over 6sec.</li> </ul> |
|          |        | <ul style="list-style-type: none"> <li>• HDD defective</li> <li>• HDD harness disconnected, defective</li> <li>• Controller board defective</li> </ul>                                   |
|          |        | <ul style="list-style-type: none"> <li>• Replace the HDD.</li> <li>• Replace the HDD connector.</li> <li>• Replace the controller board.</li> </ul>                                      |
|          | [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.   |
|          |        | <ul style="list-style-type: none"> <li>• Defective HDD device</li> <li>• Defective HDD connector</li> <li>• Defective ASIC device</li> </ul>   |
|          |        | <ul style="list-style-type: none"> <li>• Replace or remove the HDD device.</li> <li>• Replace the HDD connector</li> <li>• Replace the controller board</li> </ul>                       |
|          | [3014] | Diagnostics command error (First machine)  |

## 6. Troubleshooting

| 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<br>[XXXX]: Detailed error code   |
|          |        | [6101] MAC address check sum error<br>The result of the MAC address check sum does not match the check sum stored in ROM.<br><ul style="list-style-type: none"> <li>Defective SEEP ROM</li> <li>Defective I2C bus (connection)</li> </ul> Replace the controller board.  |
|          | [6104] | PHY IC error<br>The PHY IC on the controller cannot be correctly recognized.<br><ul style="list-style-type: none"> <li>Defective PHY chip</li> <li>Defective ASIC MII I/F</li> </ul> Replace the controller board.   |
|          |        | [6105] PHY IC loop-back error<br>An error occurred during the loop-back test for the PHY IC on the controller.<br><ul style="list-style-type: none"> <li>PHY chip</li> <li>Defective MAC of ASIC (SIMAC/COMIC/CELLO)</li> <li>Defective I/F with the PHY board</li> <li>Defective solder on the PHY board</li> </ul> Replace the controller board. |
|          |        |  |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC824-00 | C    | Self-diagnostics error: NVRAM (resident)<br>[XXXX]: Detailed error code  |
|          |      | [1401] NVRAM verify error<br>NVRAM device is missing or NVRAM device is damaged.<br><ul style="list-style-type: none"> <li>The NVRAM device is missing.</li> <li>The NVRAM device is damaged.</li> <li>NVRAM backup battery exhausted</li> <li>NVRAM socket damaged</li> </ul> Replace the NVRAM device. |
|          |      |  |
|          |      |  |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|--------|--|
| SC827-00 | D      | Self-diagnostic error: RAM<br>[XXXX]: Detailed error code  |
|          |        | [0201]   |
|          | [0202] | Resident memory structure error<br>The SPD values in all RAM DIMM are incorrect or unreadable.<br><ul style="list-style-type: none"> <li>Defective RAM DIMM</li> <li>Defective SPD ROM on RAM DIMM</li> <li>Defective 12C bus</li> </ul> Replace the controller board. |
|          |        |  |
|          |        |  |
|          |        |  |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures) |
|----------|------|---|
| SC828-00 | D    | Self-diagnostic error: ROM<br>[xxxx]: Detailed error code     |
|          |      | [0101]  |
|          |      |   |
|          |      |   |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|--------|--|
| SC829-00 | D      | Self-diagnostic error: Optional RAM<br>[XXXX]: Detailed error code   |
|          |        | [0401]   |
|          | [0402] | Optional RAM1: structure error<br>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.<br>- |
|          |        |  |
|          |        |  |
|          |        |  |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures) |
|-----|------|---|
|     |      | -   |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)                                      |
|----------|--|--|
| SC833-00 | D  | Self-diagnostic error: Engine I/F ASIC<br>[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.   |
|          |  | <ul style="list-style-type: none"> <li>Defective connection bus</li> <li>Defective SSCG</li> </ul> |
|          |  | Replace the Engine I/F board (mother board).   |
|          |  | [50B2]   |
|          | Video device: clock generator verify error   |  |
|          | Value of the SSCG register is incorrect.   |  |
|          | <ul style="list-style-type: none"> <li>Defective connection bus</li> <li>Defective SSCG</li> </ul> |  |
|          | 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<br>[xxxx]: Detailed error code   |
|          |        | [1102]   |
|          |        | Verify error   |
|          |        | The loopback connector is connected but check results is an error.   |
|          |        | <ul style="list-style-type: none"> <li>IEEE1284 connector error</li> <li>Centronic loopback connector defective</li> </ul> |
|          |        | 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.  |
|     |        | <ul style="list-style-type: none"> <li>• ASIC device error</li> <li>• IEEE1284 connector error</li> <li>• Centronic loopback connector is defective</li> </ul>                                    |
|     |        | Replace the controller board.   |
|     | [1120] | Loopback connector not detected   |
|     |        | Centronic loopback connector is not connected for detailed self-diagnostic test.  |
|     |        | <ul style="list-style-type: none"> <li>• Centronic loopback connector not connected correctly</li> <li>• Centronic loopback connector is defective</li> <li>• ASIC device is defective</li> </ul> |
|     |        | <ul style="list-style-type: none"> <li>• Connect the centronic loopback connector</li> <li>• Replace the centronic loopback connector</li> <li>• Replace the controller board.</li> </ul>         |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|--------|---|
| SC838-00 | C      | Self-diagnostic Error: Clock Generator<br>[xxxx]: Detailed error code   |
|          | [2701] | Verify error  |
|          |        | A verify error occurred when setting data was read from the clock generator via the I2C bus.  |
|          |        | <ul style="list-style-type: none"> <li>• Defective clock generator</li> <li>• Defective I2C bus</li> <li>• Defective I2C port on the CPU</li> </ul> |
|          |        | Replace the controller board.   |

| No.      | Type   | Details (Symptom, Possible Cause, Troubleshooting Procedures)      |
|----------|--------|--|
| SC839-00 | D      | Self-diagnostic Error: Serial Flash<br>[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   |
|          |      | <ul style="list-style-type: none"> <li>• During the I/O processing, a reading error occurred. The 3rd reading failure causes this SC code.</li> </ul> |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <ul style="list-style-type: none"> <li>During the I/O processing, a writing error occurred.</li> </ul> |
|     |      | <ul style="list-style-type: none"> <li>Defective EEPROM</li> </ul>                                     |
|     |      | -  |

| 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-<br>** |      | 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)  |
|          |      | <ul style="list-style-type: none"> <li>• Defective wireless LAN board</li> <li>• Loose connection</li> </ul>               |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• Replace wireless LAN board</li> </ul> |

| 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)  |
|          |      | <ul style="list-style-type: none"> <li>• Defective wireless LAN board</li> <li>• Loose connection</li> </ul>               |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• Replace wireless LAN board</li> </ul> |

## 6. Troubleshooting

| 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.) |
|          |      | <ul style="list-style-type: none"> <li>• Check the USB connection.</li> <li>• Replace the controller board.</li> </ul>    |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• USB Flash, other data, corrupted</li> <li>• Communication error caused by electrostatic noise</li> <li>• Controller board defective</li> </ul> |
|          |      | 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.  |
|          |      | <ul style="list-style-type: none"> <li>• USB Flash, other data, corrupted</li> <li>• Communication error caused by electrostatic noise</li> <li>• Controller board defective</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on</li> <li>• If the error persists, replace the controller board.</li> </ul>                                     |

| 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   |
|          |      | <ul style="list-style-type: none"> <li>• Replace the NVRAM.</li> <li>• Replace the controller board.</li> </ul> |

| 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)  |
|-----|------|--|
|     |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• If the error persists, replace the controller board.</li> </ul> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• HDD conversion was set with the data encryption key update function, but the HDD was removed.</li> <li>• Machine lost power during data encryption key update</li> <li>• Electrostatic noise, or an HDD error occurred, during data encryption key update, and data was not encrypted.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Check the HDD connection.</li> <li>• Format the HDD (SP5-832: HDD formatting).</li> <li>• If there is a problem with the HDD, it has to be replaced.</li> </ul>   |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• HDD conversion was set with the data encryption key update function, but the HDD was removed.</li> <li>• Machine lost power during data encryption key update</li> <li>• Electrostatic noise, or an HDD error occurred, during data encryption key update, and data was not encrypted.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Check the HDD connection.</li> <li>• Format the HDD (SP5-832: HDD formatting).</li> <li>• If there is a problem with the HDD, it has to be replaced.</li> </ul>   |

## 6. Troubleshooting

| 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:<br>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:<br>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.   |
|          |      | <ul style="list-style-type: none"> <li>• Check the HDD connection.</li> <li>• Format the HDD (SP5-832: HDD formatting).</li> <li>• If there is a problem with the HDD, it has to be replaced.</li> </ul> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC860-00 | B    | HDD startup error at main power on (HDD error)   |
|          |      | <ul style="list-style-type: none"> <li>• The HDD is connected but the driver detected the following errors.</li> <li>• SS_NO.T_READY/* (-2)HDD does not become READY*/</li> <li>• SS_BAD_LABEL/* (-4)Wrong partition type*/</li> <li>• SS_READ_ERROR/* (-5)Error occurred while reading or checking the label*/</li> <li>• SS_WRITE_ERROR/* (-6)Error occurred while writing or checking the label*/</li> <li>• SS_FS_ERROR/* (-7)Failed to repair the filesystem*/</li> <li>• SS_MOUNT_ERROR/* (-8)Failed to mount the filesystem*/</li> <li>• SS_COMMAND_ERROR/* (-9)Drive not responding to command*/</li> <li>• SS_KERNEL_ERROR/* (-10)Internal kernel error*/</li> <li>• SS_SIZE_ERROR/* (-11)Drive size too small*/</li> </ul> |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <ul style="list-style-type: none"> <li>SS_NO._PARTITION:/* (-12)The specified partition does not exist*/</li> <li>SS_NO._FILE:/* (-13)Device file does not exist*/</li> <li>Attempted to acquire HDD status through the driver but there has been no response for 30 seconds or more.</li> </ul> |
|     |      | <ul style="list-style-type: none"> <li>Unformatted HDD</li> <li>Label data corrupted</li> <li>HDD defective</li> </ul>   |
|     |      | 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.                                   |
|          |      | <ul style="list-style-type: none"> <li>Format the HDD (SP5-832: HDD formatting).</li> <li>Replace the HDD.</li> </ul> |

| 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.<br>(An error occurred in an area that does not belong to a partition, such as the disk label area.)   |
|          |      | <p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> <li>When SC863 has occurred ten times or more <ul style="list-style-type: none"> <li>The interval is short.</li> <li>Repeatedly occurs in the same situation (At power-on, etc.).</li> <li>Startup takes a long time when the main power is turned on.</li> </ul> </li> <li>It takes a long time after main power on for the operation panel to become ready.<br/>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.</li> </ol> |

| 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.                  |

6.Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | (An error occurred in partition "a" (SC863-02) to partition "v" (SC863-23)).   |
|     |      | <p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> <li>When SC863 has occurred ten times or more <ul style="list-style-type: none"> <li>The interval is short.</li> <li>Repeatedly occurs in the same situation (At power-on, etc.).</li> <li>Startup takes a long time when the main power is turned on.</li> </ul> </li> <li>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.</li> </ol> |

| 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.<br>(An error occurred in an area that does not belong to a partition, such as the disk label area.)   |
|          |      | <ul style="list-style-type: none"> <li>Format the HDD.</li> <li>Replace the HDD.</li> </ul>  |

| 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.<br>(An error occurred in partition "a" (SC864-02) to partition "v" (SC864-23)).                       |
|                |      | <ul style="list-style-type: none"> <li>Format the HDD (SP5-832: HDD formatting).</li> <li>Replace the HDD.</li> </ul>                              |



| 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).<br>(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).<br>(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.   |
|                |      | <ul style="list-style-type: none"> <li>• Check the harness connections between the controller board and HDD.</li> <li>• Replace the HDD.</li> </ul> |

| 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.                                       |

## 6. Troubleshooting

| 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-<br>** |      | 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)  |
|              |      | <ul style="list-style-type: none"> <li>• SD card defective</li> <li>• SD controller defective</li> </ul> <p>Slot number is displayed on the sub code.</p> <p>Detail code is described in SMC print can confirm the details of the error.</p> <ul style="list-style-type: none"> <li>• -13 to -3: File system check error</li> <li>• Otherwise (no code, -2) : Device access error</li> </ul> <p><b>SD card that starts an application</b></p> <ol style="list-style-type: none"> <li><b>1.</b> Turn the main power off and check the SD card insertion status.</li> <li><b>2.</b> If no problem is found, insert the SD card and turn the main power on.</li> </ol> |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <p><b>3.</b> If an error occurs, replace the SD card.</p> <p><b>4.</b> If the error persists even after replacing the SD card, replace the controller board.</p> <p><b>SD card for users</b></p> <p><b>1.</b> In the case of a file system error, reformat the SD card (using the "SD Formatter" made by Panasonic).*</p> <p><b>In the case of a device access error</b></p> <p><b>1.</b> Turn the main power off and check the SD card insertion status.</p> <p><b>2.</b> If no problem is found, insert the SD card and turn the main power on.</p> <p><b>3.</b> If an error occurs, use another SD card.</p> <p><b>4.</b> If the error persists even after replacing the SD card, replace the controller board.</p> |

\* 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.)   |

## 6. Troubleshooting

| 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).)   |
|          |      | <p>When an error related to the Address Book is detected during startup or operation.</p> <ul style="list-style-type: none"> <li>• Software bug</li> <li>• Inconsistency of Address Book source location (machine/delivery server/LDAP server)</li> <li>• Inconsistency of Address Book encryption setting or encryption key (NVRAM or HDD was replaced individually without formatting the Address Book)</li> <li>• Address Book storage device (SD/HDD) was temporarily removed or hardware configuration does not match the application configuration.</li> <li>• Address Book data corruption was detected.</li> </ul> <p>Install the device that contains address book information properly, and turn the main power off/on. If SC occurs again, do the following steps.</p> <ol style="list-style-type: none"> <li>1. After installing the HDD, or SD/USB ROM, execute SP5-846-046.</li> <li>2. Wait more than 3 seconds, then execute SP5-832.</li> <li>3. Cycle the main power off and on.</li> </ol> <p><b>Procedure after SC870 is cleared</b></p> <ol style="list-style-type: none"> <li>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.)</li> </ol> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC871-00 | D    | FCU error   |
|          |      | An error occurred when FCS detects FCU defective.   |
|          |      | <ul style="list-style-type: none"> <li>• Time-out error</li> <li>• Abnormal Parameter</li> </ul>  |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• Update the firmware if more recent firmware was released.</li> </ul> |

## 6. Troubleshooting

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• HDD defective</li> <li>• Power was turned off while the machine used the HDD.</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>• Format the HDD (SP5-832-007).</li> <li>• Replace the HDD.</li> </ul> <p>When you do the above, the following information will be initialized.</p> <ul style="list-style-type: none"> <li>• Partly received partial mail messages.</li> <li>• Already-read statuses of POP3-received messages (All messages on the mail server are handled as new messages).</li> </ul> |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• HDD defective</li> <li>• Power was turned off while the machine used the HDD.</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>• Format the HDD (SP5-832-007).</li> <li>• Replace the HDD.</li> </ul> <p>When you do the above, the following information will be initialized.</p> <ul style="list-style-type: none"> <li>• Sender's mail text</li> <li>• Default sender name/password (SMB/FTP/NCP)</li> <li>• Administrator mail address</li> <li>• Scanner delivery history</li> </ul> |

| 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  |
|          |      | <p>An error occurred while data was being erased on HDD or NVRAM.</p> <ul style="list-style-type: none"> <li>• Error detected in HDD data delete program</li> <li>• Error detected in NVRAM data delete program</li> <li>• The "Delete All" option was not set</li> </ul> <ul style="list-style-type: none"> <li>• 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.)</li> <li>• If the "Delete All" option is not installed when this error occurs, install the option.</li> </ul> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC875-01 | D    | Delete all error (HDD erasure) (hddcheck -i error)   |
| SC875-02 | D    | Delete all error (HDD erasure) (Data deletion failure)   |
|          |      | <p>An error was detected before HDD/data erasure starts. (Failed to erase data/failed to logically format HDD)</p> <ul style="list-style-type: none"> <li>• HDD logical formatting failed.</li> <li>• The modules failed to erase data.</li> </ul> <p>Cycle the main power off and on.</p> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC876-00 | D    | <p>Log Data Error</p> <p>An error was detected in the handling of the log data at power on or during machine operation.</p> <ul style="list-style-type: none"> <li>• Damaged log data file.</li> <li>• Log encryption is enabled but encryption module is not installed.</li> <li>• Inconsistency of encryption key between NV-RAM and HDD.</li> <li>• Software bug.</li> </ul> <p>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):</p> |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|-----|------|--|
|     |      | <ol style="list-style-type: none"> <li>1. Disconnect the HDD and turn on the main power.</li> <li>2. Execute SP5-801-019.</li> <li>3. Turn off the main power.</li> <li>4. Connect the HDD and turn on the main power.</li> <li>5. Execute SP5-832-004.</li> <li>6. Turn off the main power.</li> </ol> <p>The following step is to configure the logging/encryption setting again.</p> <ol style="list-style-type: none"> <li>7. Turn on the main power.</li> <li>8. Set SP9-730-002 through -004 to 1.</li> <li>9. Cycle the main power off and on.</li> </ol> |

| 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Replace or set again the encryption module.</li> <li>• Disable the log encryption setting.</li> </ul> |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Disable the log encryption setting.</li> <li>• Initialize LCS memory (SP5801-019).</li> <li>• Initialize the HDD (SP5-832-004).</li> </ul> |

| 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.  |
|     |      | <ul style="list-style-type: none"> <li>Log encryption key is disabled but the log data file is encrypted. (NVRAM data corruption)</li> <li>Log encryption key is enabled but the log data file is not encrypted. (NVRAM data corruption)</li> </ul> |
|     |      | 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.  |
|          |      | <ul style="list-style-type: none"> <li>Only the NV-RAM has been replaced with one previously used in another machine.</li> <li>Only the HDD has been replaced with one previously used in another machine.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>Attach the original NV-RAM.</li> <li>Attach the original HDD.</li> <li>With the configuration that caused the SC, initialize the HDD (SP5-832-004).</li> </ul>                 |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>Data Overwrite Security option SD card is broken.</li> <li>Data Overwrite Security option SD card has been removed.</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>If the SD card is broken, prepare a new Data Overwrite Security option SD card and replace the NVRAM.</li> <li>If the SD card has been removed, turn the main power off and reinstall a working Data Overwrite Security option SD card.</li> </ul> |

## 6. Troubleshooting

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC878-00 | D    | TPM authentication error  |
|          |      | TPM electronic recognition failure  |
|          |      | <ul style="list-style-type: none"> <li>Update of system module attempted without correct update path</li> <li>USB flash memory not operating correctly</li> </ul> |
|          |      | 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    | TCS D error   |
|          |      | An error occurred in the TPM software stack.  |
|          |      | <ul style="list-style-type: none"> <li>TPM, TPM software cannot start</li> <li>A file required by TPM is missing</li> </ul> |
|          |      | 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  |
|          |      | <ul style="list-style-type: none"> <li>Turn the main power OFF/ON.</li> <li>Replace the controller board if the SC occurs again.</li> </ul> |

| 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   |
|          |      | <ul style="list-style-type: none"> <li>• Turn the main power OFF/ON.</li> <li>• Replace the controller board.</li> </ul> |

| 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   |
|          |      | <ul style="list-style-type: none"> <li>• Replace the MLB.</li> <li>• Remove the MLB.</li> </ul> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC881-01 | D    | Management area error  |
|          |      | <ul style="list-style-type: none"> <li>• A problem was detected in the software</li> <li>• This error may even occur is an IC card option is not installed.</li> </ul>   |
|          |      | <ul style="list-style-type: none"> <li>• This is caused by accumulation of abnormal authentication information in the software. (User operation will not directly cause it.)</li> <li>• At login<br/>Example: When a job is sent to the printer/when logged on from the operation panel/when logged on from a Web browser</li> </ul> |
|          |      | 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  |
|  |      | <ul style="list-style-type: none"> <li>• Replace the hardware.</li> </ul> |
| In the case of a software error  |      |   |
| <ul style="list-style-type: none"> <li>• Cycle the main power off and on.</li> <li>• Try updating the firmware.</li> </ul> |      |   |

**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.  |
|          |      | <ul style="list-style-type: none"> <li>• NVRAM incorrect type</li> <li>• NVRAM defective or corrupted</li> <li>• Unexpected error from external source</li> <li>• When PRT received signals at SRM, the requested count did not complete.</li> </ul> |
|          |      | 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.  |
|          |      | <ul style="list-style-type: none"> <li>• Software bug</li> <li>• Unexpected hardware configuration (such as insufficient memory)</li> <li>• Cycle the main power off and on.</li> <li>• Increase the memory storage capacity.</li> </ul> |

| 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  |
|          |      | <p>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.</p> <p>HDD status codes are displayed below the SC code:</p> |

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <ul style="list-style-type: none"> <li>• HDD defective</li> <li>• Power loss while data was writing to HDD</li> <li>• Software bug</li> </ul> |
|     |      | 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.

## 6. Troubleshooting

### 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   |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power OFF/ON.</li> <li>• If the problem cannot be solved, replace the BiCU.</li> </ul>                     |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)  |
|----------|------|--|
| SC990-00 | D    | Software operation error   |
|          |      | Software attempted an unexpected operation.  |
|          |      | <ul style="list-style-type: none"> <li>• Parameter error</li> <li>• Internal parameter error</li> <li>• Insufficient work memory</li> <li>• Operation error caused by abnormalities that are normally undetectable.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>• Cycle the main power OFF/ON.</li> <li>• Reinstall the software of the controller and BiCU.</li> </ul>   |
|          |      |  |

| 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.   |
|          |      | <ul style="list-style-type: none"> <li>• Parameter error</li> <li>• Internal parameter error</li> <li>• Insufficient work memory</li> <li>• Operation error caused by abnormalities that are normally undetectable.</li> </ul> |
|          |      | Logging only   |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC992-00 | D    | Undefined SC issued   |
|          |      | An SC, that is not controlled by the system, occurred.  |
|          |      | <ul style="list-style-type: none"> <li>An SC for the previous model was used mistakenly, etc.</li> <li>Basically a software bug.</li> </ul> |
|          |      | 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  |
|          |      | <ul style="list-style-type: none"> <li>The application has not responded to the set command created by SCS within a certain period of time.</li> <li>The application selected ended abnormally.</li> </ul>  |
|          |      | Software bug  |
|          |      | <ul style="list-style-type: none"> <li>Check whether an option required by the application (RAM, DIMM, board) is installed properly.</li> <li>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.)</li> </ul> |

| No.      | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|----------|------|---|
| SC998-00 | D    | Application start error   |
|          |      | <ul style="list-style-type: none"> <li>After power on, no application program is registered to the system within a predetermined period of time. (no application starts or ends normally.)</li> <li>Even if they are started, all applications have become unable to be rendered due to an unknown defect.</li> </ul> |
|          |      | <ul style="list-style-type: none"> <li>Software bug</li> <li>An option required by the application (RAM, DIMM, board) is not installed properly</li> </ul>  |
|          |      | <ul style="list-style-type: none"> <li>Turn the main power switch off and on.</li> <li>Check whether an option required by the application (RAM, DIMM, board) is installed properly.</li> </ul>   |

## 6. Troubleshooting

| No. | Type | Details (Symptom, Possible Cause, Troubleshooting Procedures)   |
|-----|------|---|
|     |      | <ul style="list-style-type: none"><li>• Check whether downloaded applications are correctly configured.</li><li>• Replace the Controller Board.</li></ul> |



## 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.   | <ul style="list-style-type: none"> <li>• A cover was opened or the main switch was turned off during the initialization.</li> </ul> <ol style="list-style-type: none"> <li>1. Do the developer initialization again when done in SP mode. Reinstall the engine main firmware if the result is the same.</li> <li>2. Cycle the main power off and on when done at unit replacement.</li> </ol> |
| 6   | Vt error               | Vt is more than 0.7V when Vcnt is 4.3V.   | <ol style="list-style-type: none"> <li>1. Make sure that the heat seal on the development unit is not removed.</li> <li>2. Defective TD sensor</li> </ol>   |
| 7   | Vcnt error 1           | Vcnt is less than 4.7V when Vcnt is Vt target $\pm 0.2V$ .  | <ol style="list-style-type: none"> <li>1. Defective TD sensor</li> <li>2. Vt target settings are not correct.</li> <li>3. Toner density error</li> </ol>  |
| 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 $\pm 0.2V$ . | <ol style="list-style-type: none"> <li>1. Make sure that the heat seal on the development unit is not removed.</li> <li>2. Defective TD sensor</li> </ol>   |
| 9   | Vcnt error 3           | Vcnt is less than 4.7V.   | <ol style="list-style-type: none"> <li>1. Make sure that the heat seal on the development unit is not removed.</li> <li>2. Defective TD sensor</li> <li>3. Vt target settings are not correct.</li> <li>4. Toner density error</li> </ol>   |

#### 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

6.Troubleshooting

**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.  | <ul style="list-style-type: none"> <li>• Defective development unit</li> </ul> Vt maximum error and an image is faint: <ol style="list-style-type: none"> <li>1. Replace the toner supply pump unit.</li> </ol> Vt maximum error and an image is O.K: <ol style="list-style-type: none"> <li>1. Replace the development unit.</li> <li>2. Replace the BICU board.</li> </ol> Vt minimum error: <ol style="list-style-type: none"> <li>1. Replace the development unit.</li> <li>2. Replace the BICU board.</li> </ol>  |
| 53  | ID sensor coefficient (K5) detection error        | Not enough data can be sampled.   | <ul style="list-style-type: none"> <li>• Solid image is not sufficient density:               <ol style="list-style-type: none"> <li>1. Retry the process control.</li> <li>2. Replace the ID sensors.</li> <li>3. Replace the BICU board.</li> </ol> </li> <li>• Solid image is O.K.               <ol style="list-style-type: none"> <li>1. Replace the ID sensors.</li> <li>2. Replace the BICU board.</li> </ol> </li> <li>• ID sensor is dirty:               <ol style="list-style-type: none"> <li>1. Clean the ID sensors.</li> <li>2. Retry the process control.</li> </ol> </li> </ul> |
| 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. | <ul style="list-style-type: none"> <li>• ID sensor pattern density is too high or low.</li> <li>• ID sensor or shutter is defective.</li> </ul> Same as 53   |
| 55  | Gamma error: Maximum                              | Gamma is out of range. $5.0 < \text{Gamma}$   | <ul style="list-style-type: none"> <li>• ID sensor pattern density is too high.</li> <li>• Hardware defective.</li> </ul> Same as 53   |
| 56  | Gamma error:                                      | Gamma is out of range.  | <ul style="list-style-type: none"> <li>• ID sensor pattern density is</li> </ul>   |

| No. | Result                                      | Description   | Possible Causes/Action  |
|-----|---|---|---|
|     | Minimum                                     | $\text{Gamma} < 0.15$                                       | <p>too low.</p> <ul style="list-style-type: none"> <li>Hardware defective.</li> </ul> <ol style="list-style-type: none"> <li>Same as 53</li> <li>Replace the toner supply pump unit.</li> </ol> |
| 57  | Vk error: Maximum                           | Vk is out of range.<br>$150 < \text{Vk}$                    | <ul style="list-style-type: none"> <li>ID sensor pattern density is too low.</li> <li>Hardware defective.</li> </ul> <p>Same as 53</p>  |
| 58  | Vk error: Minimum                           | Vk is out of range.<br>$\text{Vk} < -150$                   | <ul style="list-style-type: none"> <li>ID sensor pattern density is too high.</li> <li>Background dirty</li> <li>Hardware defective</li> </ul> <p>Same as 53</p>                                |
| 59  | Sampling data error during gamma correction | Not enough data can be sampled during the gamma correction. | <ul style="list-style-type: none"> <li>ID sensor pattern density is too high or low.</li> <li>Hardware defective</li> </ul> <p>Same as 53</p>   |
| 99  | Unexpected error                            | Process control fails.                                      | <ul style="list-style-type: none"> <li>Power Failure</li> </ul> <p>Check the power source.</p>  |

## 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 $4.0 \pm 0.5\text{V}$ . | <ul style="list-style-type: none"> <li>Dirty ID sensor (toner, dust, or foreign material)</li> <li>Dirty transfer belt</li> <li>Scratched image transfer belt</li> <li>Defective ID sensor</li> <li>Poor connection</li> <li>Defective BICU</li> </ul> <ol style="list-style-type: none"> <li>Clean the ID sensor.</li> <li>Check the belt cleaning. Clean or replace the transfer belt.</li> <li>Replace the image transfer belt.</li> <li>Replace the ID sensor.</li> </ol> |

## 6. Troubleshooting

| No. | Result                 | Description   | Possible Causes/Action   |
|-----|------------------------|---|--|
|     |                        |   | <ol style="list-style-type: none"> <li>5. Check the connection.</li> <li>6. Replace the BICU board.</li> </ol>   |
| 3   | ID sensor output error | ID sensor output is more than "Voffset Threshold" (SP3-324-004) | <ul style="list-style-type: none"> <li>• Defective ID sensor</li> <li>• Poor connection</li> <li>• Defective BICU</li> </ul> <ol style="list-style-type: none"> <li>1. Replace the ID sensor.</li> <li>2. Check the connection.</li> <li>3. Replace the BICU board.</li> </ol> |
| 9   | Vsg Adjustment error   | Vsg adjustment has not been completed.                          | <ul style="list-style-type: none"> <li>• Other cases</li> </ul> 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         | <ul style="list-style-type: none"> <li>• Defective image processing unit</li> <li>• Low density of test pattern</li> <li>• Defective BiCU</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>1. Replace the high voltage power supply unit.</li> <li>2. Do the forced process control (SP3-011-001) or supply some toner (SP3-030-xxx).</li> <li>3. Replace the BiCU.</li> </ol> |
| Normal image, but with color registration errors | <ul style="list-style-type: none"> <li>• Defective ID sensor shutter</li> <li>• Defective ID sensor</li> <li>• Defective BiCU</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>1. Replace the ID sensor shutter solenoid.</li> <li>2. Replace the ID sensor.</li> <li>3. Replace the BiCU.</li> </ol>  |

After Executing SP2-111-003

## 6.Troubleshooting

- 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 $\pm 15$ .  | <ul style="list-style-type: none"> <li>• Defective laser unit</li> <li>• Defective BiCU</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>1. Perform the color skew adjustment (Image Adjustment).</li> <li>2. Replace the laser unit.</li> <li>3. Replace the BiCU.</li> </ol>   |
| The sub scan registrations of M, C, Y, K are shifted by more than $\pm 20$ .   | <ul style="list-style-type: none"> <li>• Defective image transfer belt</li> <li>• Defective drive units</li> <li>• Defective BiCU</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>1. Replace the image transfer belt.</li> <li>2. Replace the drum motor.</li> <li>3. Replace the BiCU.</li> </ol>  |
| The main scan registration is shifted by more than $\pm 0.66$ mm, but only at the central area of the image on the output. | <ul style="list-style-type: none"> <li>• Defective ID sensor at center</li> <li>• Deformed center area on the image transfer belt</li> <li>• Defective BiCU</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>1. Replace the ID sensor.</li> <li>2. Replace the image transfer belt.</li> <li>3. Replace the BiCU.</li> </ol>   |
| The skew for M, C, Y, K is more than $\pm 0.75$ mm.  | <ul style="list-style-type: none"> <li>• Defective PCDU</li> <li>• Defective laser optics housing unit</li> <li>• Defective BiCU</li> </ul>  |
|  | <ol style="list-style-type: none"> <li>1. Perform the color skew adjustment (Image Adjustment).</li> <li>2. Reinstall or replace the PCDU.</li> <li>3. Replace the laser optics housing unit.</li> <li>4. Replace the BiCU.</li> </ol> |
| Others   | <ul style="list-style-type: none"> <li>• Skew correction upper limit error</li> <li>• Defective BiCU</li> <li>• Defective laser optics housing unit</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>1. Perform the color skew adjustment (Image Adjustment).</li> <li>2. Replace the BiCU.</li> <li>3. Replace the laser optics housing unit.</li> </ol>  |

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,<br>Low density         | <ul style="list-style-type: none"> <li>• Defective laser optics housing unit shutter</li> <li>• Defective image processing unit</li> <li>• Low density of test pattern</li> <li>• Defective BiCU</li> </ul>   |
|   | <ol style="list-style-type: none"> <li>1. Replace the shutter motor.</li> <li>2. Replace the high voltage power supply unit.</li> <li>3. Do the forced process control (SP3-011-001) or supply some toner (SP3-030-xxx).</li> <li>4. Replace the BiCU.</li> </ol> |
| Normal image, but with color<br>registration errors | <ul style="list-style-type: none"> <li>• Defective ID sensor shutter</li> <li>• Defective ID sensor</li> <li>• Defective BiCU</li> </ul>  |
|   | <ol style="list-style-type: none"> <li>1. Replace the ID sensor shutter solenoid.</li> <li>2. Replace the ID sensor.</li> <li>3. Replace the BiCU.</li> </ol>   |

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  | <ul style="list-style-type: none"> <li>• Low pattern density</li> </ul>   |
|  | 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 $\pm 1.4$ .                                   | <ul style="list-style-type: none"> <li>• No defective component</li> <li>• Defective laser optics housing unit</li> <li>• Defective BiCU</li> </ul>         |
|  | <ol style="list-style-type: none"> <li>1. Do SP2-111-003 again.</li> <li>2. Replace the laser optics housing unit.</li> <li>3. Replace the BiCU.</li> </ol> |
| The sub scan registrations of M, C, Y are shifted by more than $\pm 1.4$ mm from the sub scan registration of K. | <ul style="list-style-type: none"> <li>• No defective component</li> <li>• Defective image transfer belt</li> <li>• Defective drive units</li> </ul>        |

## 6. Troubleshooting

| Test pattern check   | Possible cause/Countermeasure  |
|--|--|
|  | <ul style="list-style-type: none"> <li>Defective BiCU</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>Do SP2-111-003 again.</li> <li>Replace the image transfer belt.</li> <li>Replace the drum motor.</li> <li>Replace the BiCU.</li> </ol>  |
| The main scan registration is shifted by more than $\pm 0.66$ mm, but only at the central area of the image on the output. | <ul style="list-style-type: none"> <li>Defective ID sensor at center</li> <li>Deformed center area on the image transfer belt</li> <li>Defective BiCU</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>Replace the ID sensor.</li> <li>Replace the image transfer belt.</li> <li>Replace the BiCU.</li> </ol>  |
| The skew for M, C, Y, K is more than $\pm 0.75$ mm at the end of the scan line?  | <ul style="list-style-type: none"> <li>Defective PCDU</li> <li>Defective laser optics housing unit</li> <li>Defective BiCU</li> </ul>  |
|  | <ol style="list-style-type: none"> <li>Perform the color skew adjustment (Image Adjustment).</li> <li>Reinstall or replace the PCDU.</li> <li>Replace the laser optics housing unit.</li> <li>Replace the BiCU.</li> </ol> |
| Others   | <ul style="list-style-type: none"> <li>Skew correction upper limit error</li> <li>Defective BiCU</li> <li>Defective laser optics housing unit</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>Replace the BiCU.</li> <li>Perform the color skew adjustment (Image Adjustment).</li> <li>Replace the laser optics housing unit.</li> </ol>   |

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   | <ul style="list-style-type: none"> <li>Low pattern density</li> </ul>  |
|   | Do the forced process control (SP3-011-001) or supply some toner (SP3-030-xxx).  |
| The main scan registration is shifted, but only at the central area of the image on the output. | <ul style="list-style-type: none"> <li>Defective ID sensor at center</li> <li>Deformed center area on the image transfer belt</li> <li>Defective BiCU</li> </ul> |



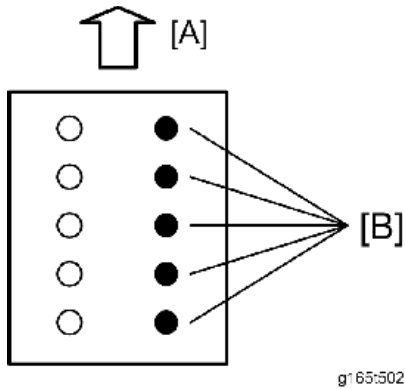
| Test pattern check   | Possible cause/Countermeasure   |
|--|---|
|  | <ol style="list-style-type: none"> <li>1. Replace the ID sensor.</li> <li>2. Replace the image transfer belt.</li> <li>3. Replace the BiCU.</li> </ol>  |
| The main scan registrations of M, C, Y, K are shifted.           | <ul style="list-style-type: none"> <li>• Defective laser optics housing unit</li> <li>• Defective ID sensor</li> <li>• Defective BiCU</li> <li>• Incorrect SP value</li> </ul>  |
|  | <ol style="list-style-type: none"> <li>1. Perform the color skew adjustment (Image Adjustment).</li> <li>2. Replace the laser optics housing unit.</li> <li>3. Replace the ID sensor.</li> <li>4. Replace the BiCU.</li> <li>5. Adjust the value with SP2-182-004 to -021.</li> </ol> |
| The sub scan registrations of M, C, Y, K are shifted.            | <ul style="list-style-type: none"> <li>• Defective image transfer belt</li> <li>• Defective drive units</li> <li>• Defective ID sensor</li> <li>• Defective BiCU</li> <li>• Incorrect SP value</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>1. Replace the image transfer belt.</li> <li>2. Replace the ID sensor.</li> <li>3. Replace the drum motor.</li> <li>4. Replace the BiCU.</li> <li>5. Adjust the value with SP2-182-022 to -039.</li> </ol>                                     |
| The skew of M, C, Y, K is different.                             | <ul style="list-style-type: none"> <li>• Defective PCDU</li> <li>• Defective laser optics housing unit</li> <li>• Defective BiCU</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>1. Reinstall or replace the PCDU.</li> <li>2. Perform the color skew adjustment (Image Adjustment).</li> <li>3. Replace the laser optics housing unit.</li> <li>4. Replace the BiCU.</li> </ol>  |
| The sub scan lines are shifted. Shifted lines appear cyclically. | <ul style="list-style-type: none"> <li>• Defective PCDU</li> <li>• Defective drive unit</li> <li>• Drum phase adjustment error</li> </ul>   |
|  | <ol style="list-style-type: none"> <li>1. Reinstall or replace the PCDU.</li> <li>2. Check or replace the drive unit.</li> </ol>  |

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**Problem at Regular Intervals**

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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

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**Blank Print**

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| 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.                              |

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**All-Black Print**

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| 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.           |

| Symptom | Possible cause       | Necessary actions       |
|---------|----------------------|-------------------------|
|         | 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.                           |
| 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                 | Replace the image transfer                  |

## 6. Troubleshooting

| Interval | Possible cause  | Necessary actions |
|----------|-----------------|-------------------|
|          | transfer roller | roller.           |

### Dark Vertical Line on Prints

| Symptom  | Possible cause                     | Necessary actions                     |
|--|------------------------------------|---------------------------------------|
| A dark line in one CMY color appears. The line is parallel to the paper feed direction.              | Defective PCDU                     | Replace the PCDU.                     |
| A dark line in any color (not C, M, or Y) appears. The line is parallel to the paper feed direction. | Dust in the laser beam path        | Clean the laser beam path.            |
|  | Defective image transfer belt unit | Replace the image transfer belt unit. |
|  | Defective fusing unit              | Replace the fusing unit.              |

### White Horizontal Lines or Bands

| Symptom                                | Possible cause                     | Necessary actions                     |
|--|------------------------------------|---------------------------------------|
| White lines or bands appear in images. | Defective PCDU                     | Replace the PCDU.                     |
|  | Defective image transfer belt unit | Replace the image transfer belt unit. |
|  | Defective paper transfer roller    | Replace the paper transfer roller.    |

### Missing Parts of Images

| Symptom                           | Possible cause                     | Necessary actions                     |
|-----------------------------------|------------------------------------|---------------------------------------|
| Some parts of images are missing. | Defective PCDU                     | Replace the PCDU.                     |
|                                   | Defective image transfer belt unit | Replace the image transfer belt unit. |
|                                   | Defective paper transfer roller    | Replace the paper transfer roller.    |
|                                   | Defective fusing unit              | Replace the fusing unit.              |

### Dirty Background

| Symptom  | Possible cause | Necessary actions |
|--|----------------|-------------------|
| Backgrounds of one CMYK color are too dense.           | Defective PCDU | Replace the PCDU. |
| Backgrounds of more than one CMYK color are too dense. | Defective HVPS | Replace the HVPS. |

### Partial CMY Color Dots

| Symptom  | Possible cause           | Necessary actions          |
|--|--------------------------|----------------------------|
| Unexpected dots of the same color appear at irregular intervals. | Defective PCDU           | Replace the PCDU.          |
|  | Defective image transfer | Replace the image transfer |

| Symptom | Possible cause        | Necessary actions        |
|---------|-----------------------|--------------------------|
|         | belt unit             | 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.<br> <b>Note</b> <ul style="list-style-type: none"> <li>When adjusting the paper width, use the right side guide</li> </ul> |

## 6. Troubleshooting

| Symptom | Possible cause                            | Necessary actions  |
|---------|---|--|
|         |   | 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 center. | Incorrect installation of paper      | Install the paper correctly.                        |
|                                   | Incorrect paper guide position       | Adjust the paper guide correctly.                   |
|                                   | Incorrect margin setting             | Adjust the margin setting.                          |
|                                   | Defective BiCU                       | Replace the BiCU.                                   |
|                                   | Incorrect installation of paper tray | Uninstall the paper tray units and re-install them. |

## Jam Detection

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### Paper Jam History

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#### 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.

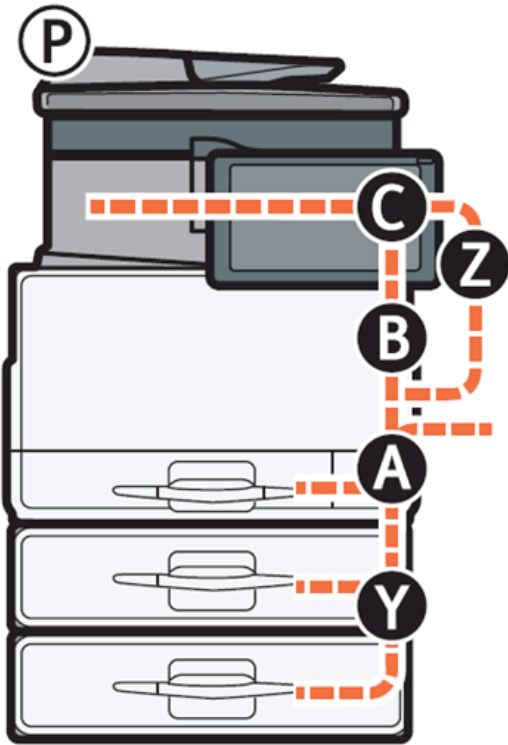
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### Jam Codes and Display Codes

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If a paper jam occurs, the machine displays the location where the jam occurs on the operation panel.

6.Troubleshooting



d196z6011

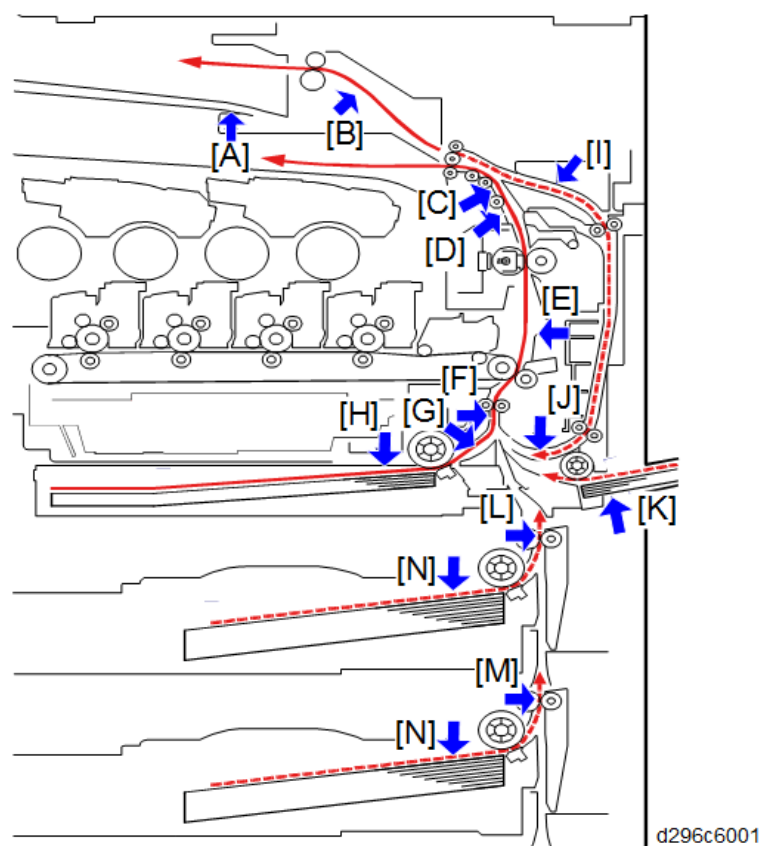
SP7-504 and SP7-505 (for ADF) show how many jams occurred at each location.

| Jam Code | Description  | SP No.                          | Indication on the operation panel |
|----------|--|---------------------------------|-----------------------------------|
| 001      | Initial jam at power on  | 7-504-001<br>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 |

## 6. Troubleshooting

| 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/<br>Sensor Board Name      | Active | CN No./<br>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 ( $\mu$ )<br>Sensor) (K) | A      | CN539/8            | Open      | PCU setting Error occurs.                                    |
|     |  |        |                    | Shorted   |  |
| S10 | TD Sensor (Mu ( $\mu$ )<br>Sensor) (C) | A      | CN540/8            | Open      | PCU setting Error occurs.                                    |
|     |  |        |                    | Shorted   |  |
| S11 | TD Sensor (Mu ( $\mu$ )<br>Sensor) (M) | A      | CN540/16           | Open      | PCU setting Error occurs.                                    |
|     |  |        |                    | Shorted   |  |
| S12 | TD Sensor (Mu ( $\mu$ )<br>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                               |

## 6.Troubleshooting

| No. | Sensor Name/<br>Sensor Board Name | Active | CN No./<br>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      | <ul style="list-style-type: none"> <li>• Printed image is wrong, such as rough image, dirty background or weak image.</li> <li>• SC498</li> </ul> |
|     |                                   |        |                    | Shorted   |   |
| 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      | Top cover open cannot be detected.  |
|     |                                   |        |                    | Shorted   |   |
| 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/<br>Sensor Board Name          | Active | CN No./<br>Pin No. | Condition | Symptom  |
|-----|--|--------|--------------------|-----------|--|
|     |  |        |                    | Shorted   |  |
| TH1 | Pressure Roller Thermistor<br>(Edge:Rear)  | A      | CN525/23           | Open      | SC571  |
|     |  |        |                    | Shorted   |  |
| TH2 | Pressure Roller Thermistor<br>(Center)     | A      | CN525/21           | Open      | SC561  |
|     |  |        |                    | Shorted   |  |
| TH3 | Pressure Roller Thermistor<br>(Edge:Front) | A      | CN525/25           | Open      | SC591  |
|     |  |        |                    | Shorted   |  |
| TH4 | Image Creation<br>Temperature Sensor       | A      | CN526/4            | Open      | SC497  |
|     |  |        |                    | Shorted   |  |
| TH5 | Fusing Thermistor (NC<br>sensor)           | A      | CN525/27           | Open      | SC581  |
|     |  |        |                    | Shorted   |  |
| SW4 | Right Cover Switch                         | L      | CN559/19           | Open      | “Cover closed” cannot be<br>detected.  |
|     |  |        |                    | Shorted   | “Open Cover” cannot be<br>detected.  |
| SW5 | Tray Set Switch                            | L      | CN543/15           | Open      | Paper tray cannot be detected.   |
|     |  |        |                    | Shorted   | Paper tray is detected when the<br>paper tray is not set.                    |
| SW6 | Waste Toner Bottle Set<br>Switch           | L      | CN535/1            | Open      | Waste toner bottle cannot be<br>detected.                                    |
|     |  |        |                    | Shorted   | Waste toner bottle is detected<br>when the waste toner bottle is<br>not set. |

---

### Fuse Location

---

#### 100V (Mainly NA)

| Fuse<br>Name | Connector (Out)    | Capacity | Voltage | Part No. | Part Name              | Replaceable |
|--------------|--------------------|----------|---------|----------|------------------------|-------------|
| FU1          | CN611-1 (24V)      | 10A      | 250V    | 11071393 | 51MS(P)-100H<br>GF-009 | No          |
| FU2          | CN610-1 (24VL)     | 10A      | 250V    | 11071393 | 51MS(P)-100H<br>GF-009 | No          |
| FU3          | CN610-2 (24VL_LPS) | 4A       | 250V    | 11071360 | SCT4A                  | No          |
| FU4          | CN611-3 (24V_LPS)  | 4A       | 250V    | 11071393 | 51MS(P)-100H<br>GF-009 | No          |

## 6. Troubleshooting

| 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<br>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<br>GF-009 | No          |
| FU2       | CN610-1 (24VL)  | 10A      | 250V    | 11071393 | 51MS(P)-100H<br>GF-009 | No          |
| FU3       | CN610-2 (24VL_LPS)  | 4A       | 250V    | 11071360 | SCT4A                  | No          |
| FU4       | CN611-3 (24V_LPS)   | 4A       | 250V    | 11071393 | 51MS(P)-100H<br>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<br>8A(EM)8A03 | No          |
| FU101     | N/A (Protecting the fusing circuit in the PSU)            | 8A       | 250V    | 11071366 | FIH 250V<br>8A(EM)8A03 | No          |
| FU103     | CN600-4,5 (Anti-condensation Heater)                      | 1A       | 250V    | 11071367 | SCT1A                  | No          |

## Other Troubleshooting

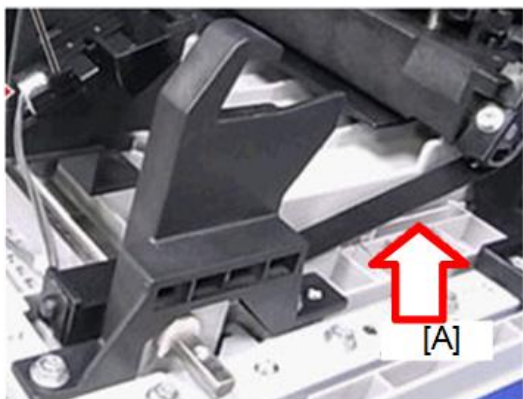
### When You Cannot Open the Right Door

#### 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.)



d296c6007

#### Solutions:

Release the hook, and then attach the belt.

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



d196z4002

## 6. Troubleshooting

3. Remove the cover [A]. (🔩 × 1)



d196z4082

4. Remove the interlock switch cover [A]. (🔩 × 3)



d196z4083

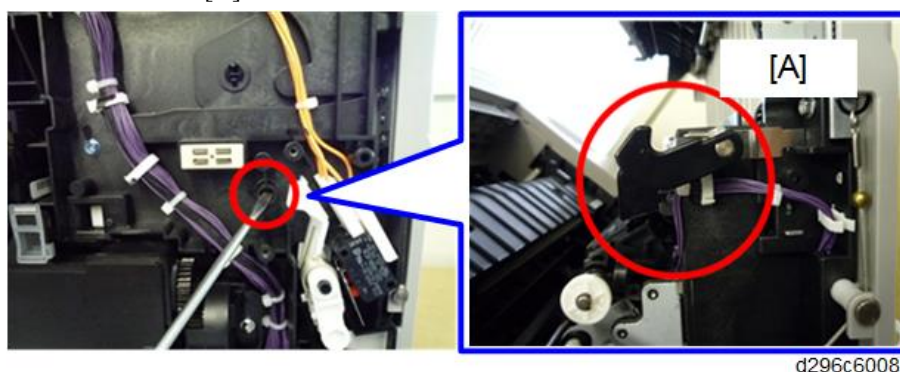
5. Remove the bracket. (🔩 × 1)



d196z6018



6. Release the hook [A] from the hole where the bracket was removed.



d296c6008

### When Fluorescent or LED Lamps Flicker

**Problem:**

Under the usage environment of this machine, at the placement location, fluorescent and/or LED lamps flicker.

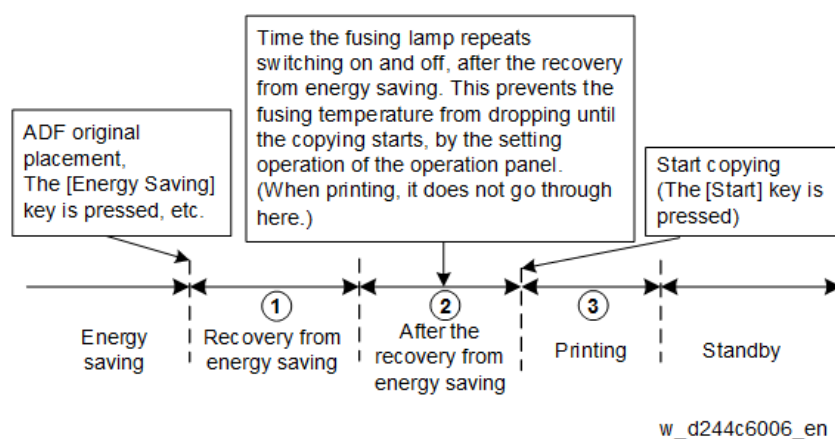
**Causes:**

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:**



w\_d244c6006\_en

| 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.   |
| ② After the recovery from energy saving | Set SP1-135-001 (Inrush Control) to "1 (ON)."<br>Set SP1-190-001 (Flicker Control) to "1 (ON)." | <ul style="list-style-type: none"> <li>Recovery time from energy saving becomes slower approx. 0.4 sec..</li> <li>If the adhesion amount of an image is large, an offset may occur.</li> </ul> |

## 6. Troubleshooting

| Timing     | Solutions                                      | Side Effect  |
|------------|--|--|
|            |  | <ul style="list-style-type: none"> <li>If a fusing offset occurs, in the related SP to fusing offsets, setting values must be changed</li> </ul>   |
| ③ Printing | Set SP1-190-001 (Flicker Control) to "1 (ON)". | <ul style="list-style-type: none"> <li>If the adhesion amount of an image is large, an offset may occur.</li> <li>If a fusing offset occurs, in the related SP to fusing offsets, setting values must be changed.</li> </ul> |

### 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

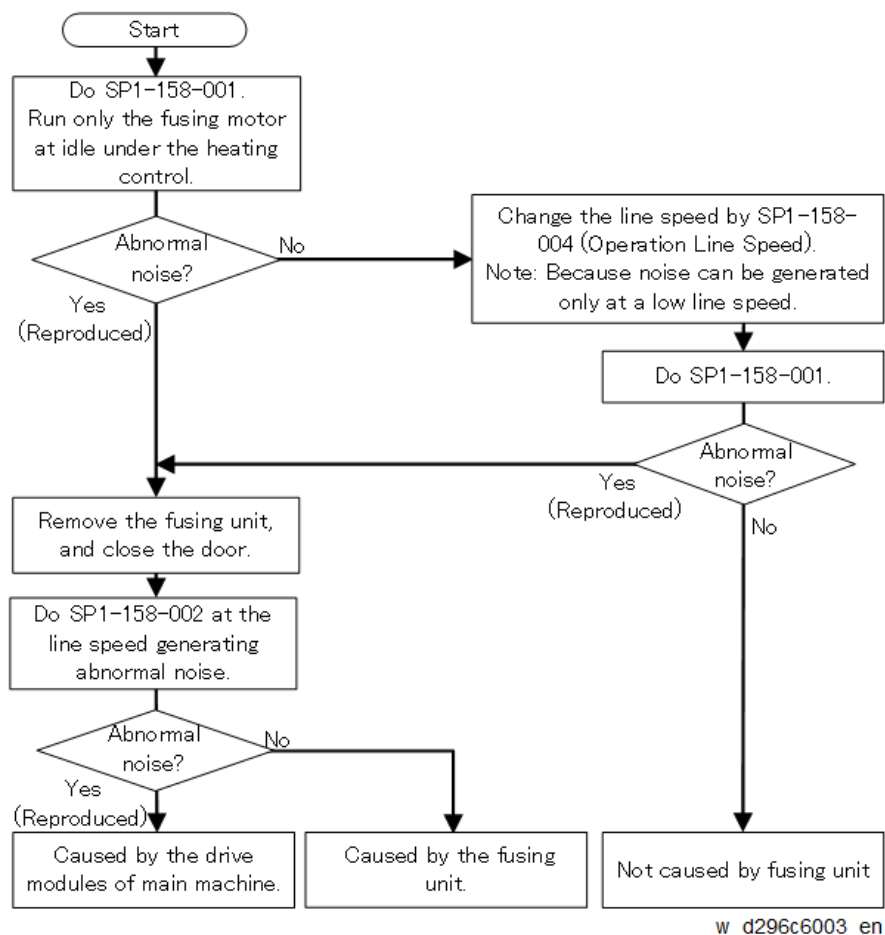
Because damaged or dirty parts can lead to secondary failure, always follow the procedure.

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:<br>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:<br>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:<br>Operation Time       | Rotates during this time.<br>Initial value: 20 sec.   | -  |
| SP1-158-004 | Abnormal Noise Confirmation:<br>Operation Line Speed | Line speed at the time of rotation<br>0: 89 mm/s<br>1: 178 mm/s<br>2: 212 mm/s *<br>3: 252 mm/s * | * : Only for MP C407   |

## 6. Troubleshooting

| SP No.      | SP Name   | Function  | Description   |
|-------------|---|---|---------------|
| SP1-158-005 | Abnormal Noise Confirmation:<br>Heat Center Target Temp | Temperature setting for SP1-153-001 (Unit: Execute) | Do not change |
| SP1-158-007 | Abnormal Noise Confirmation:<br>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  |
|------------------------------------|--|--|---|
| <b>Mainframe</b>                   |  |  |   |
| 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<br>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.      |   |
| <b>Options</b>                     |  |  |   |
| Platen cover                       | Not available<br>(SPDF is installed as a standard feature for all models.)                               | Available by option                          |   |
| ADF                                | SPDF (Standard)<br>The CIS of back reading has been added.<br>This requires adjustment when replacing of | ARDF (ARDF DF1040)<br>Adjustment is          |   |

7.Detailed Descriptions

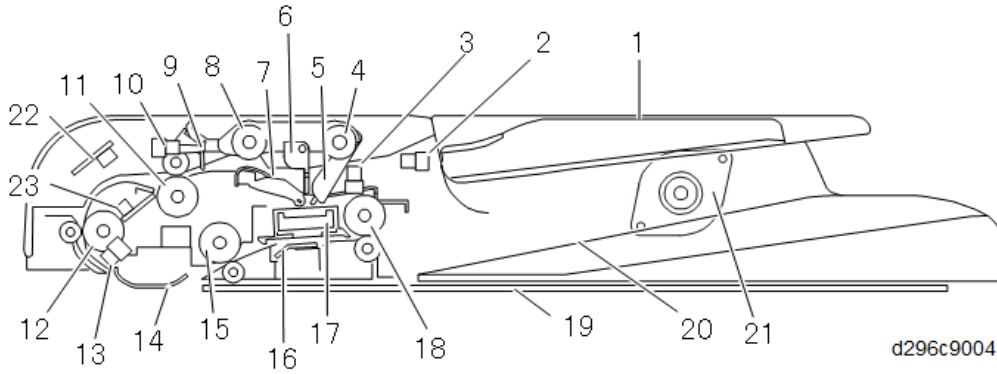
| Items                           | MP C307/C407   | MP C306/C406                  | Note   |
|---------------------------------|--|-------------------------------|--|
|                                 | the CIS unit or SPDF.  | not required after replacing. |  |
| Paper Feed Unit                 | <ul style="list-style-type: none"> <li>PB1080</li> <li>PB1080TE (Only for NA)</li> </ul> | 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<br>(Common with MP C6004/C5504/C4504/C3504/C3004)                               | Type M2                       | Only for NA/EU/AA  |
| IEEE 1284 Interface Board       | Type M19<br>(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<br>(Common with MP C6004/C5504/C4504/C3504/C3004)                               | Type M12                      | Only for NA/EU/AA/KOR  |
| Extended USB Board              | Type M19<br>(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                        |  |

## 7.Detailed Descriptions

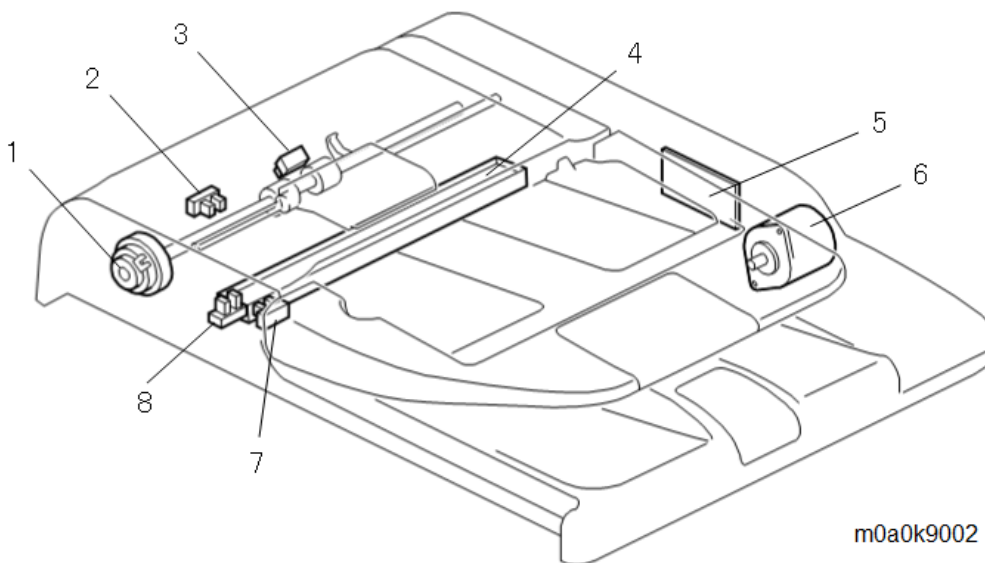
| Items                         | MP C307/C407  | MP<br>C306/C406 | Note |
|-------------------------------|---|-----------------|------|
| Converter                     | (Common with MP<br>C6004/C5504/C4504/C3504/C3004)             |                 |      |
| Data<br>Overwrite<br>Security | Type M19<br>(Common with MP<br>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 |

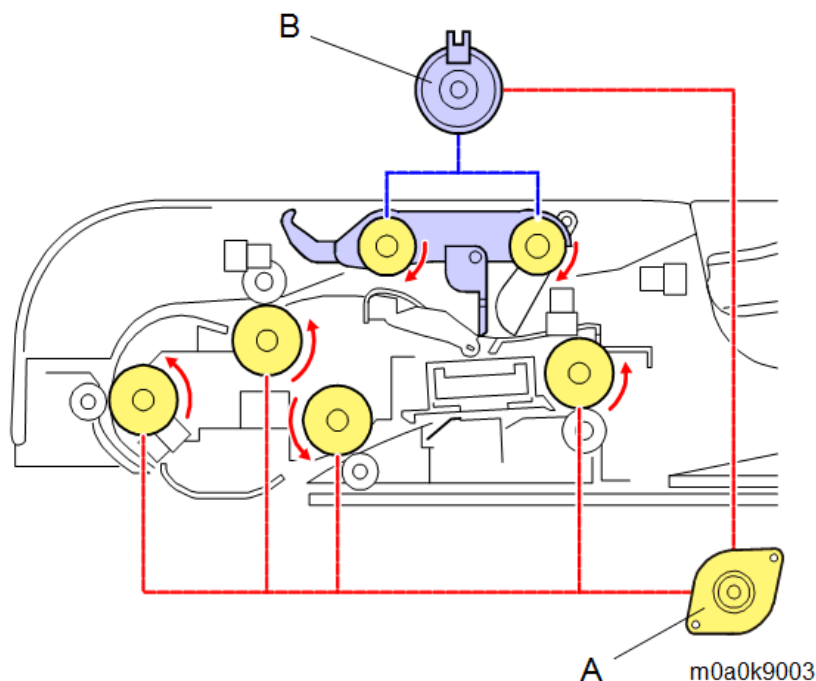
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### Original Transport Drive

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The ADF drive motor [A] drives all ADF rollers via gears.

The feed roller clutch [B] controls the mechanism for picking up the original.




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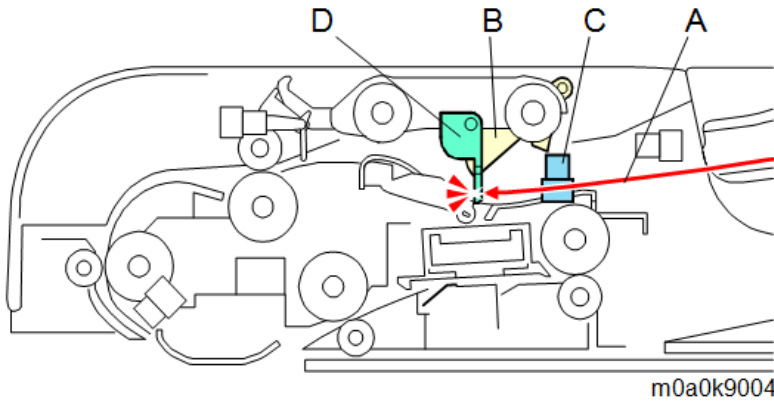
### Original Set Detection

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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.

## 7.Detailed Descriptions



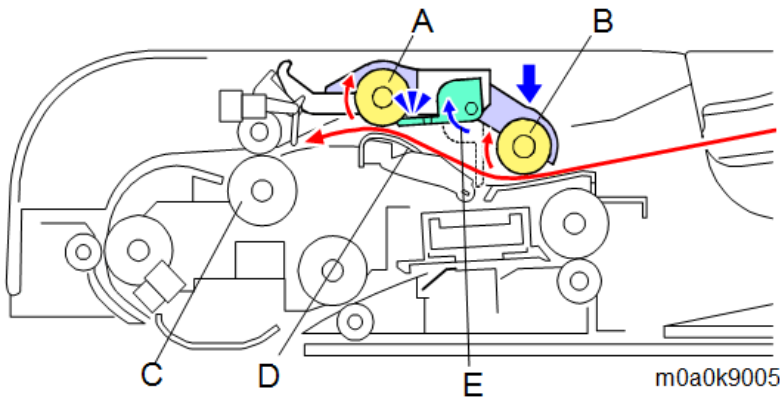
---

### Original Transport Path

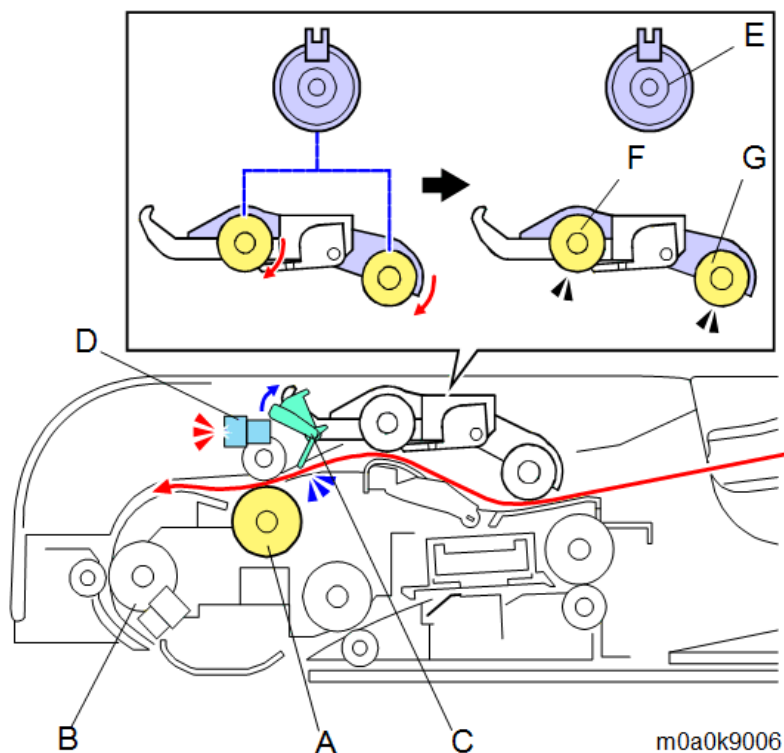
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When [Start] is pressed, the feed roller clutch is turned ON. Then the feed roller [A] rotates to drop the pick-up roller [B] onto the top original of the stack. This moves the stopper [E] out of the way, and the original can be fed from the feed roller [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.



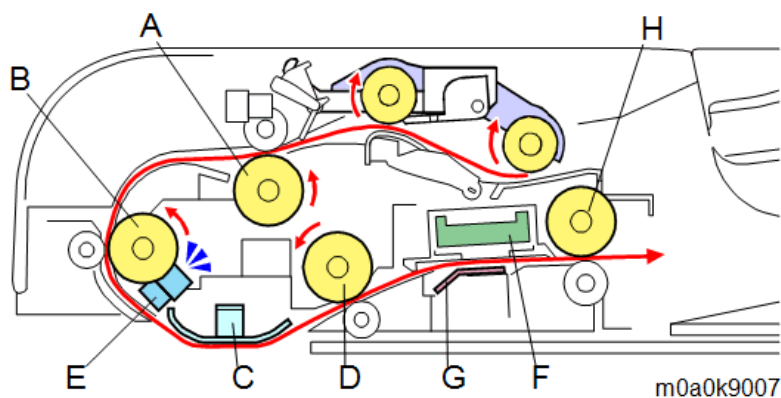
When the original reaches the pre-scanning (front side) roller [B] via the ADF entrance roller, the original moves the feed sensor actuator [C] and the feed sensor [D] is turned ON. Then the feed roller clutch [E] is turned OFF to stop the feed roller [F] and the pick-up roller [G], to prevent the next original from being picked up.



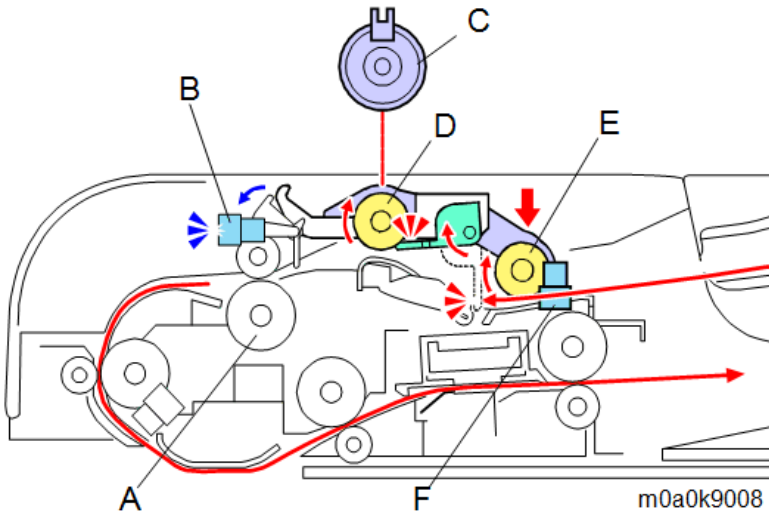
The original is fed by the ADF entrance roller [A] and the pre-scanning (front side) roller [B], scanned on the exposure glass under the scanning guide plate (front side) [C], and then delivered by the pre-scanning (rear side) roller [D].

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].

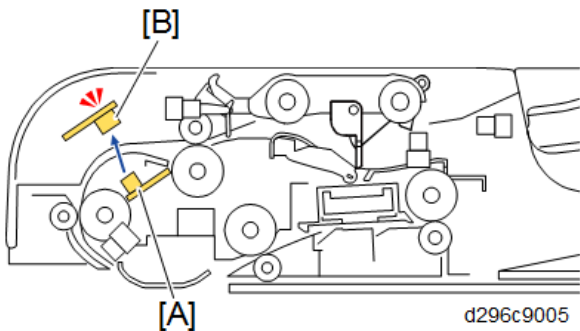


When the original passes through the ADF entrance roller [A], the feed sensor [B] is detected OFF. If the next original is set, the original set sensor [F] detects ON and the feed roller clutch [C] is turned ON. Then, the feed roller [D] and pick-up roller [E] rotate to pick up the next original.

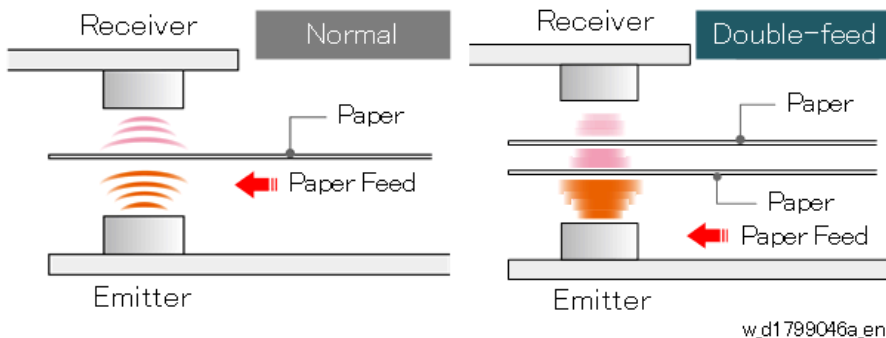


Double-feed Detection (Optional)

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

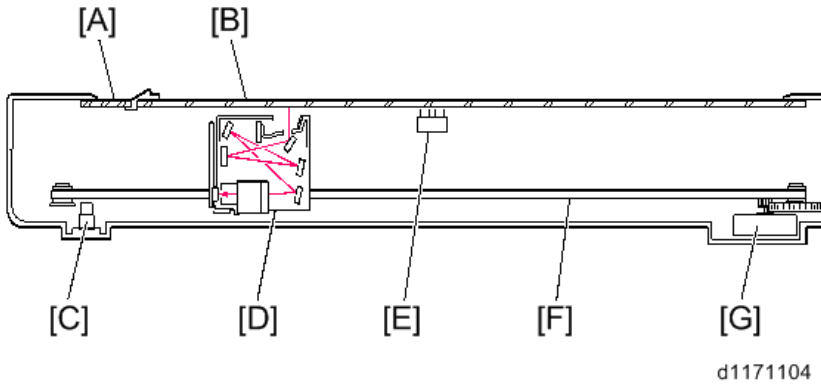
Feeding such originals could cause false detection of double-feeds.

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.

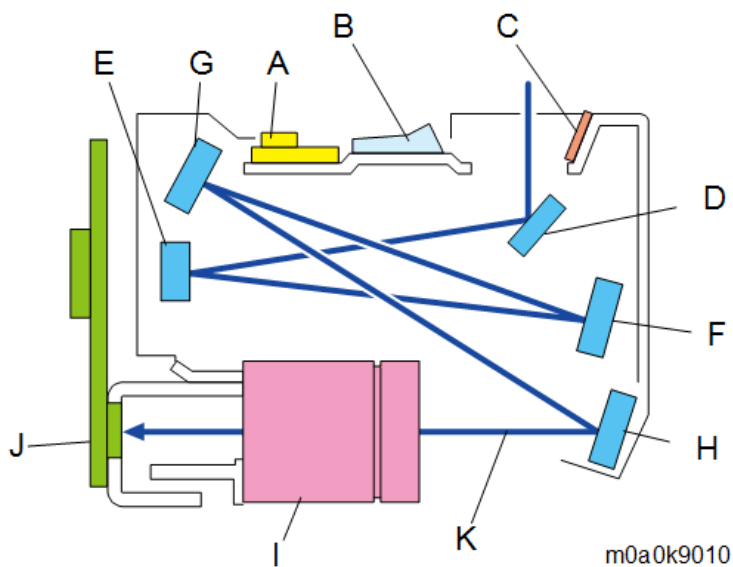
### Light Source and Exposure

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.

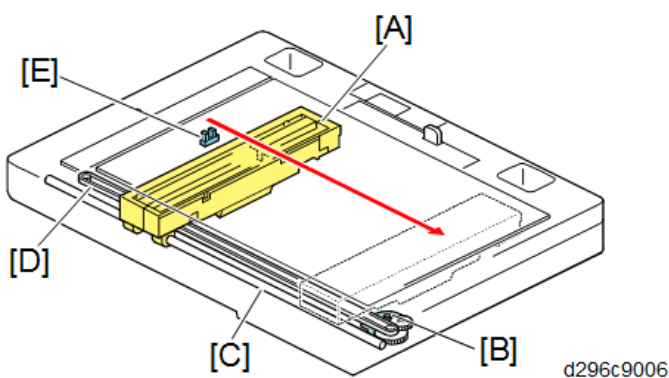
The light reflected from the original travels as follows:

LED exposure -> 1<sup>st</sup> mirror [D] -> 2<sup>nd</sup> mirror [E] -> 3<sup>rd</sup> mirror [F] -> 4<sup>th</sup> mirror [G] -> 5<sup>th</sup> 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 | Item             | 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.**

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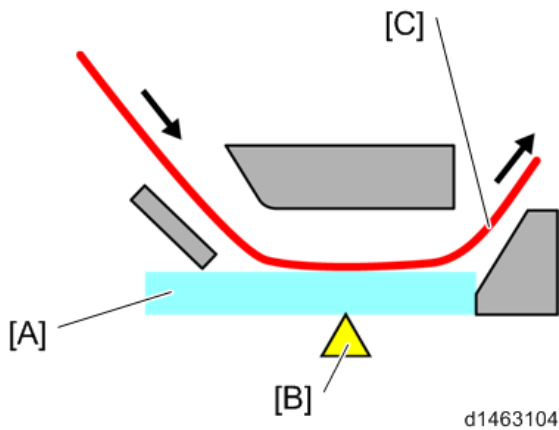
**Improved Tolerance to Black Lines When Paper Passes through ADF**

---

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

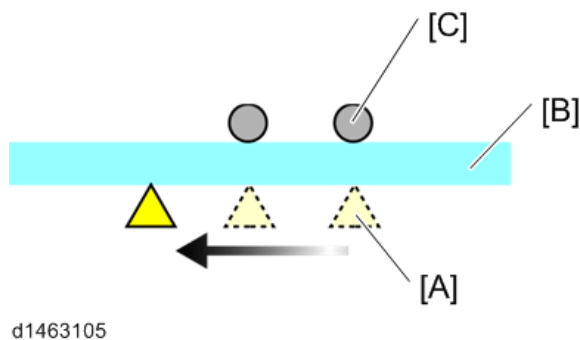
**Note**

- 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**



d1463105

[A]: Reading position



[B]: Exposure glass

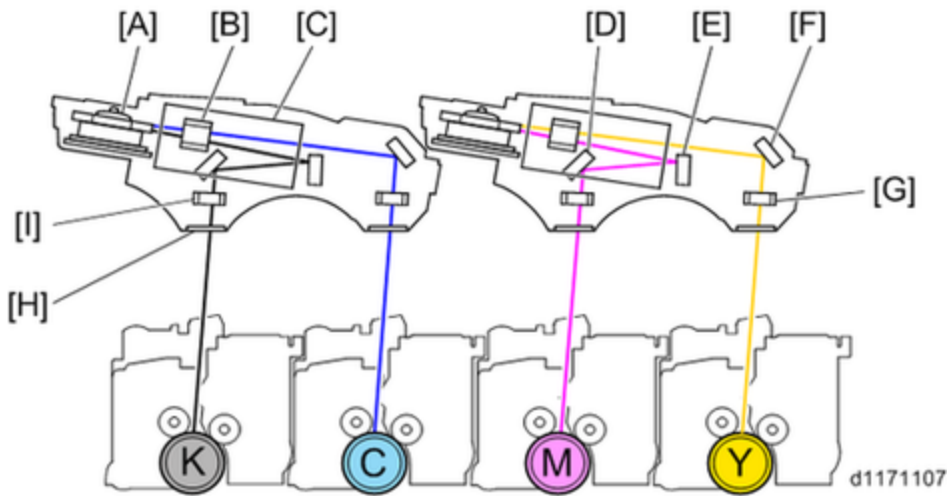
[C]: Dirt

 **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

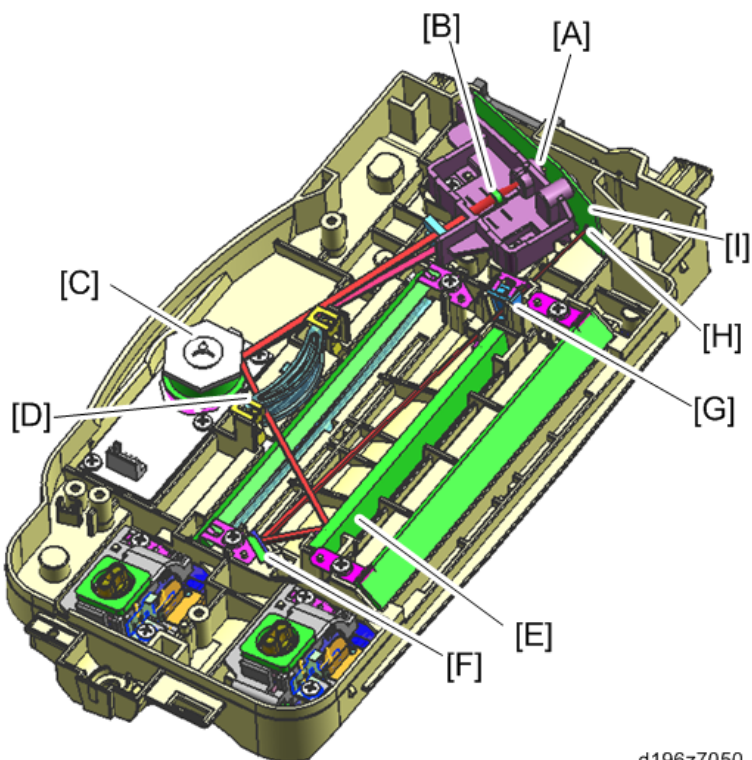


| Callout | Item          | Callout | Item         |
|---------|---------------|---------|--------------|
| [A]     | Polygon Motor | [F]     | Mirror 3     |
| [B]     | Lens (L1)     | [G]     | Lens (L2)    |
| [C]     | LD Board      | [H]     | Shield Glass |
| [D]     | Mirror 2      | [I]     | 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



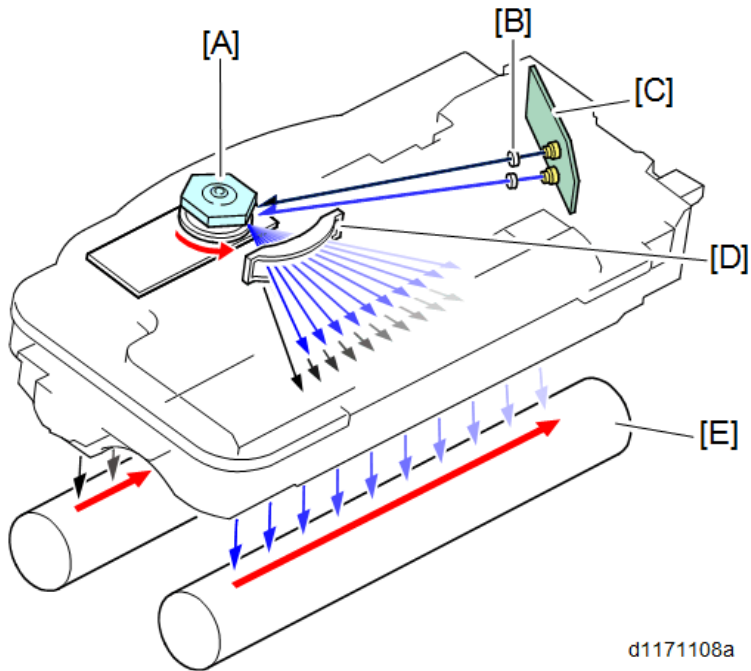
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| Callout | Item             | Callout | Item                     |
|---------|------------------|---------|--------------------------|
| [A]     | LD Board         | [F]     | Synchronization Mirror   |
| [B]     | Collimating Lens | [G]     | Synchronization 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

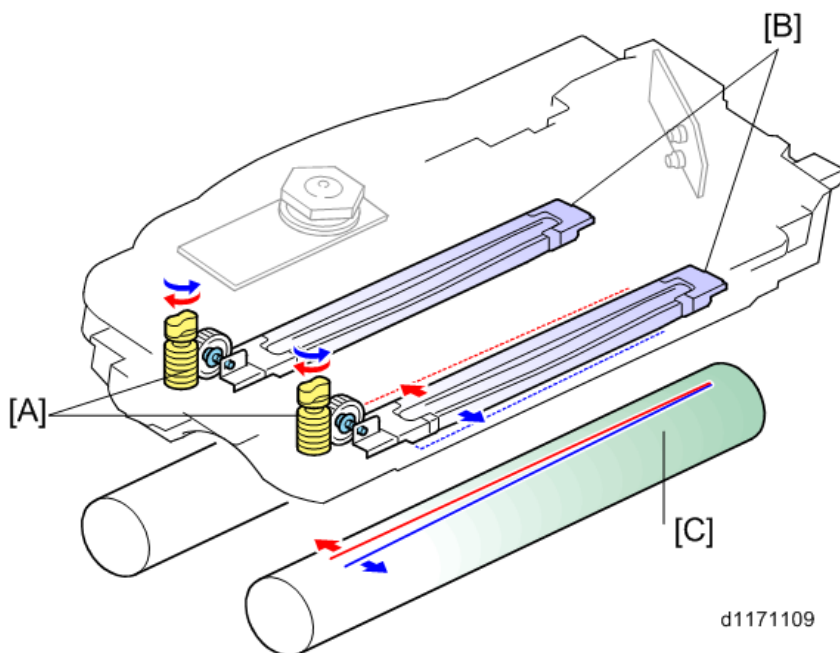


d1171108a

| 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



d1171109

| 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

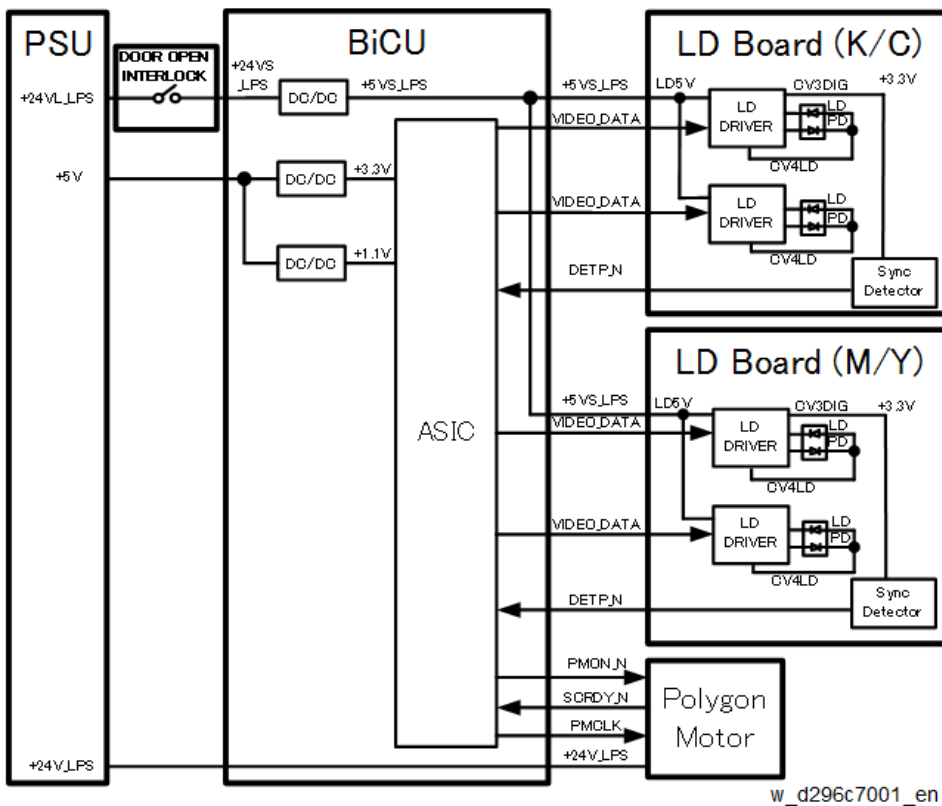
The laser unit is located between the upper side of toner bottle and PCDU. The LD unit emits a laser beam to above the OPC drum. This mechanism keeps the shield glass free from toner dropping and thus requires no cleaning tool.

### LD Safety Switch

The +24VL\_LPS goes through the interlock switch and is converted the +5VS\_LPS on the BiCU.

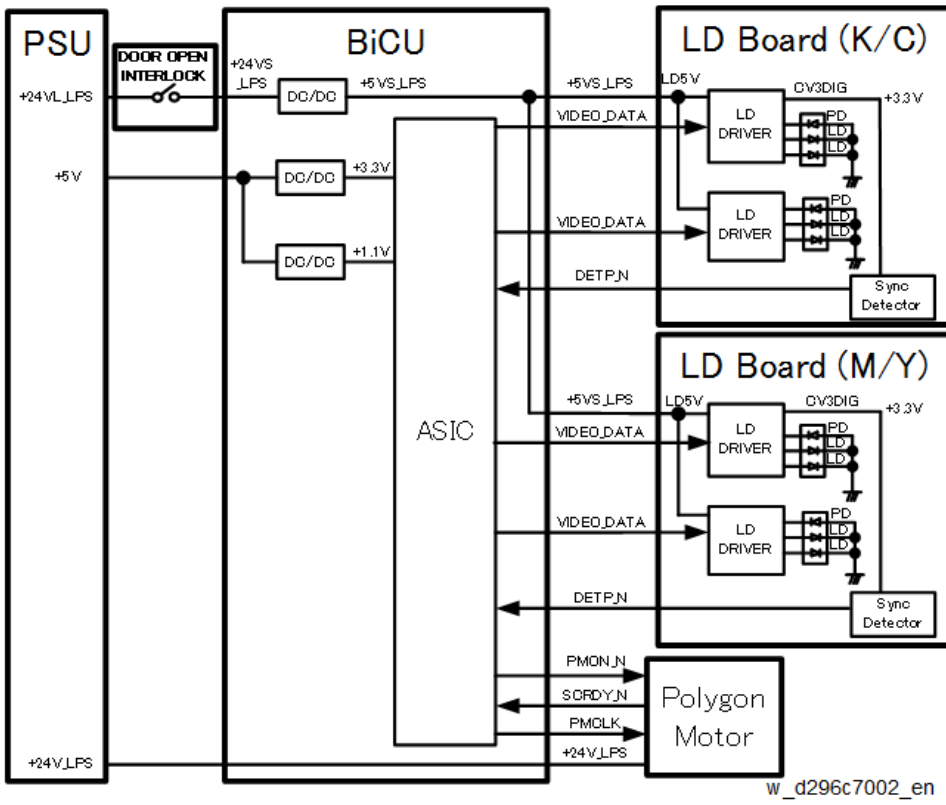
The +5VS\_LPS are supplied to the two LD boards respectively. A safety switch turns off when the front cover or the right door is opened. As a result, the power supply (+24VL\_LPS) to the BiCU is cut off. This system prevents unexpected laser emission, ensures user safety and technician safety.

### MPC307 series



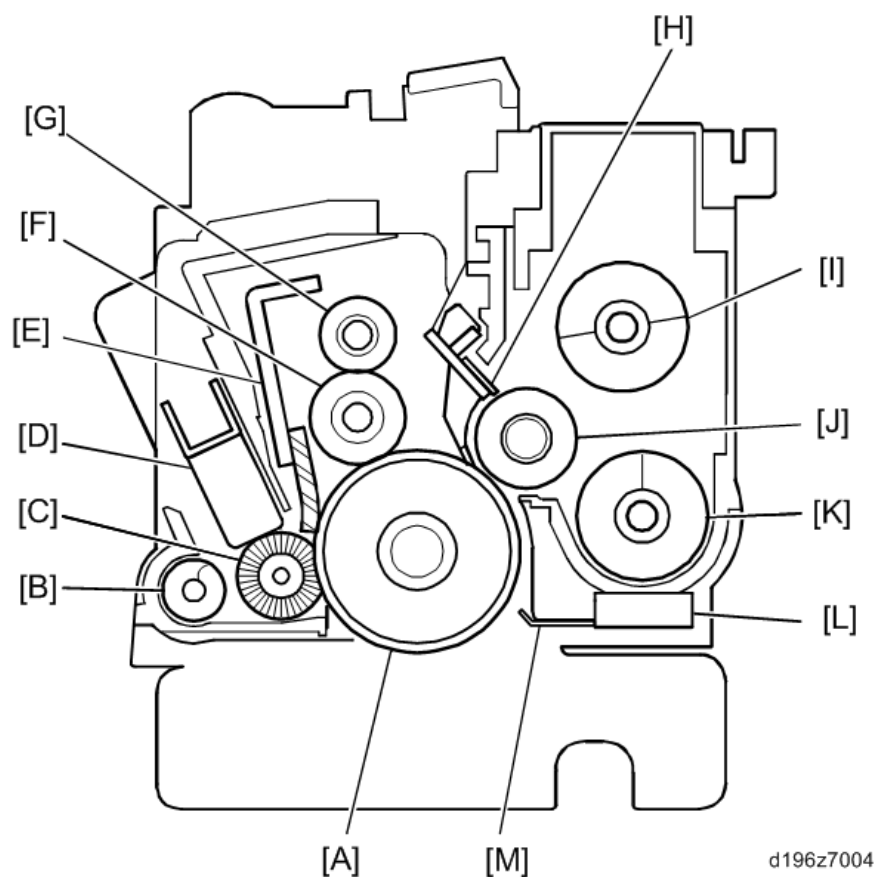
7.Detailed Descriptions

MPC407 series



## PCDU

### Overview



#### Drum Section

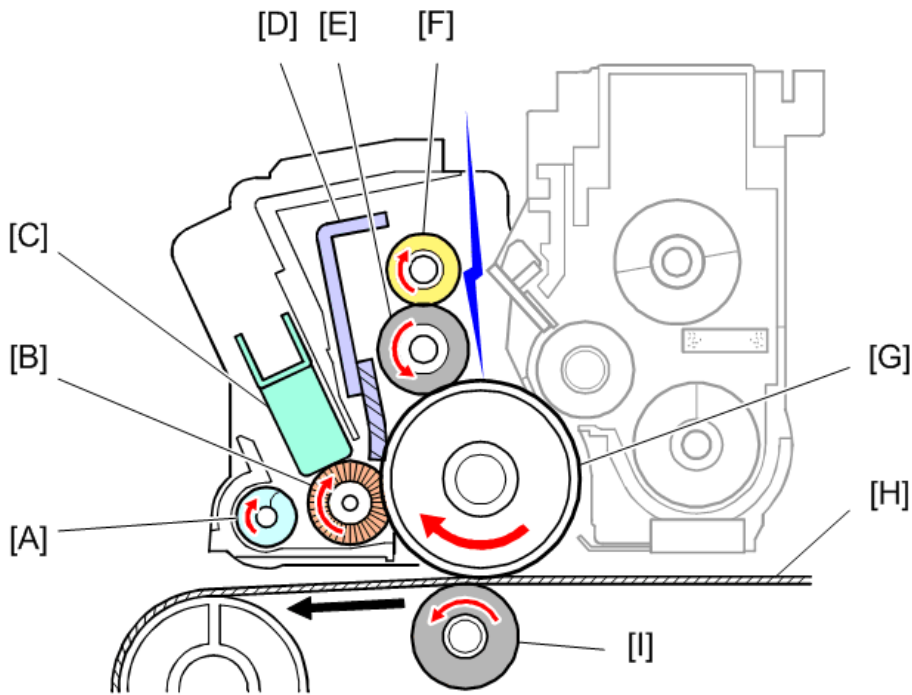
| Callout | Item                       | Callout | Item                          |
|---------|----------------------------|---------|-------------------------------|
| [A]     | OPC Drum                   | [E]     | Cleaning Blade                |
| [B]     | Waste Toner Transport Coil | [F]     | Charge 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 ( $\mu$ 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



d196z7005

| 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



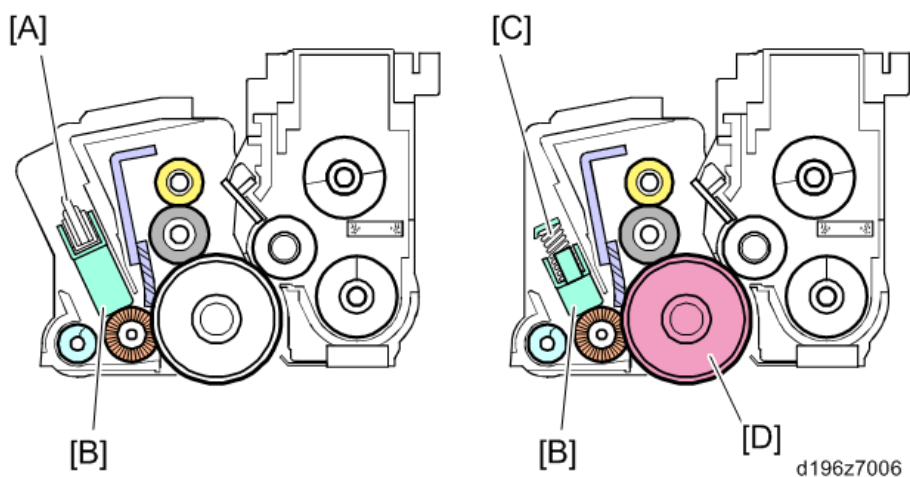
toner bottle via the front of the unit.

### 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

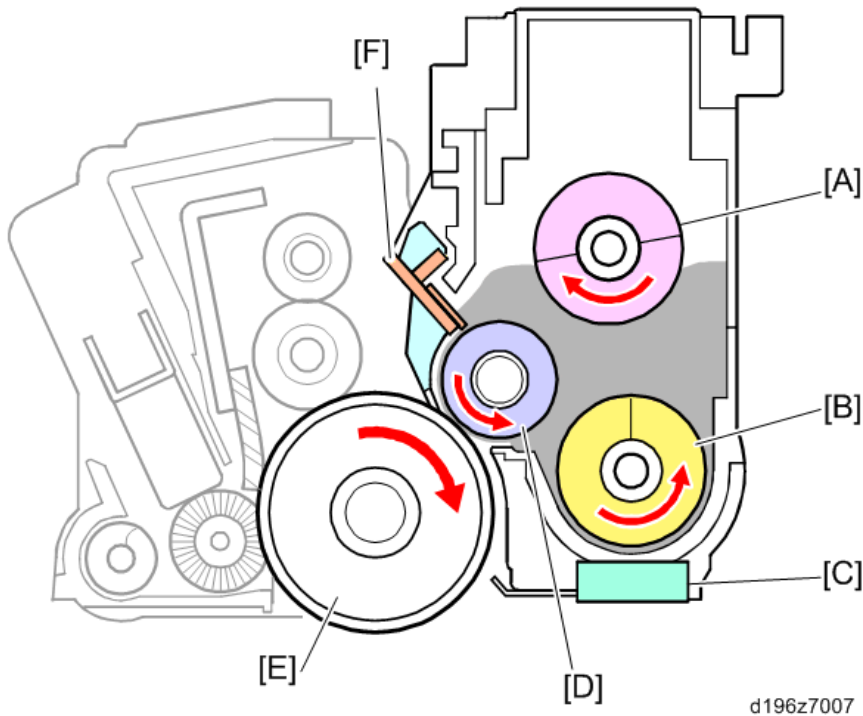
Right: CMY

The following points are the differences between K and CMY.

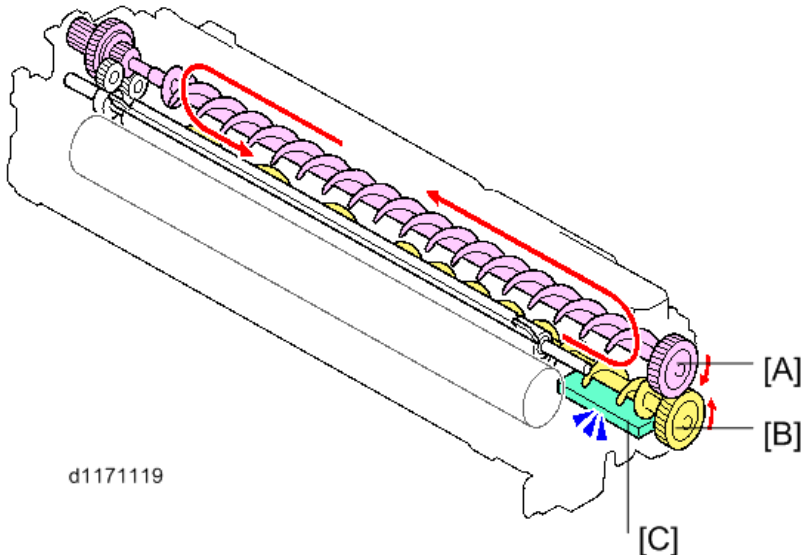
|                        | K         | CMY                 |
|------------------------|-----------|---------------------|
| Lubricant [B] quantity | K > CMY   |                     |
| Lubricating method     | Arm [A]   | Pressure spring [C] |
| Silencer [D]           | Available | Available           |

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.

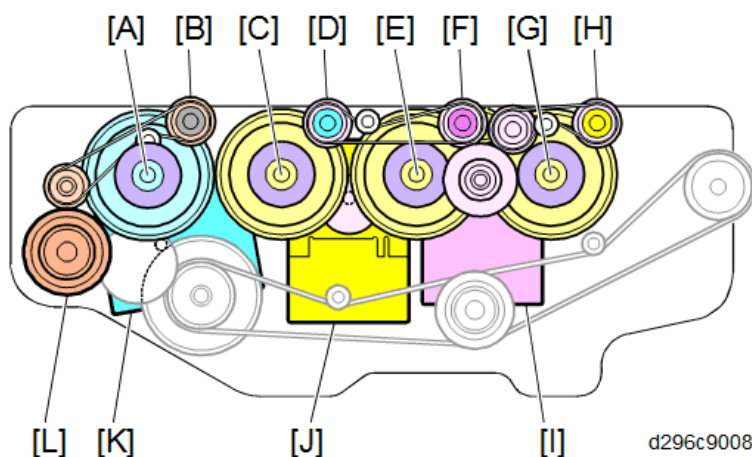
- Toner Density Control

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.

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## Drum/Development Drive

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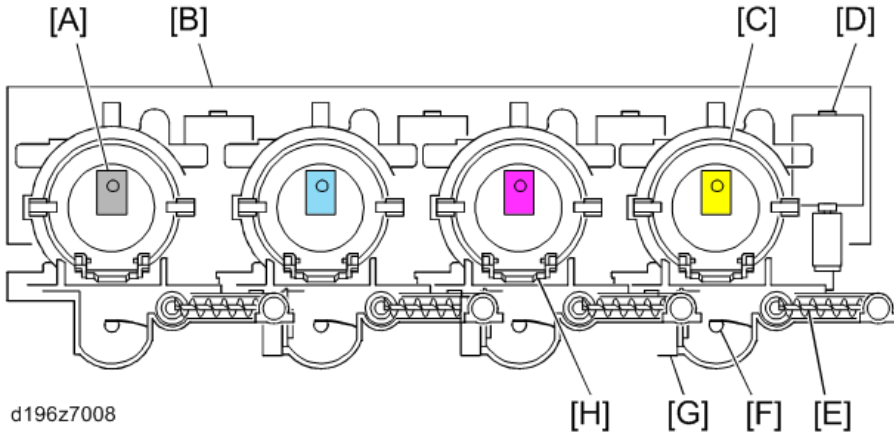
| Callout | Item                       | Callout | Item                       |
|---------|----------------------------|---------|----------------------------|
| [A]     | Drum Gear (K)              | [G]     | Drum Drive Gear (Y)        |
| [B]     | Development Drive Gear (K) | [H]     | Development 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

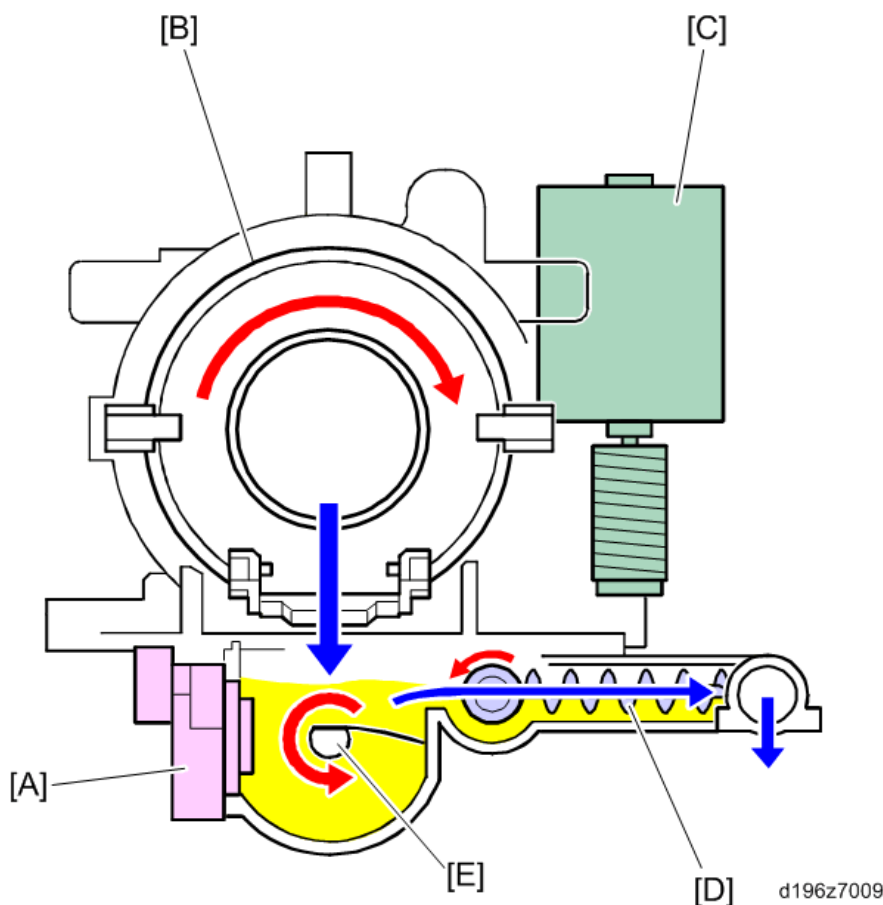


| Callout | Item                         | Callout | Item                 |
|---------|------------------------------|---------|----------------------|
| [A]     | ID Chip                      | [E]     | Toner Transport Coil |
| [B]     | Bottle ID Chip Contact Board | [F]     | Agitator             |
| [C]     | Toner Bottle                 | [G]     | Toner End Sensor     |
| [D]     | Toner Supply Motor           | [H]     | Shutter              |

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 Toner Supply and Transport Mechanism
 

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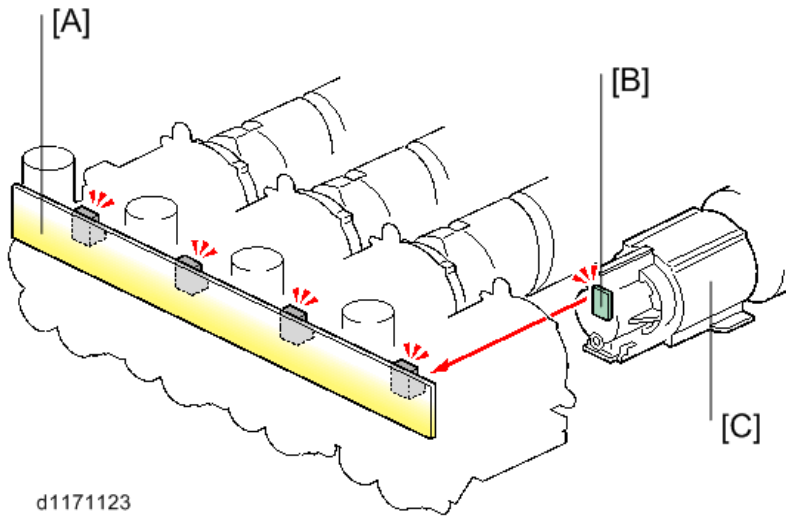


| Callout | Item                            | Callout | Item                 |
|---------|---------------------------------|---------|----------------------|
| [A]     | Toner End Sensor (Only for CMY) | [D]     | Toner Transport Coil |
| [B]     | Toner Bottle                    | [E]     | Agitator             |
| [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  $V_t$  and  $V_{tref}$ , and their total difference are as in the following matrix:

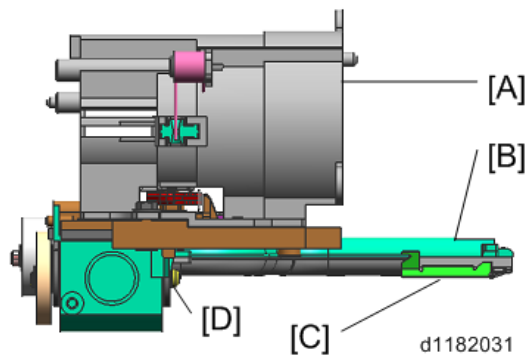
|     | Condition       | $V_t/V_{tref}$ : Diff | $V_t/V_{tref}$ : Diff: Total |
|-----|-----------------|-----------------------|------------------------------|
| K   | Before Near-End | 0.7 V or more         | Over 10 V                    |
|     | After Near-End  | 0.3 V or more         | Over 3 V                     |
| CMY | -               | 0.5 V or more         | Over 10 V                    |

---

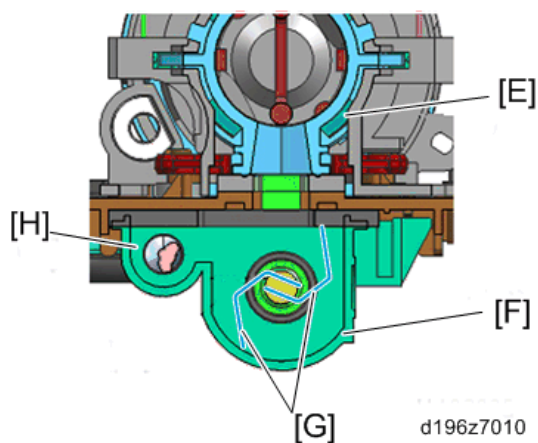
## Toner Supply Unit

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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

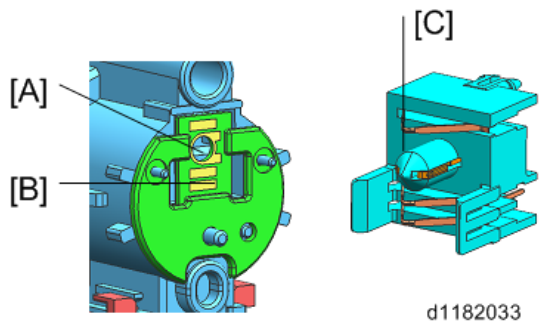
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## ID Chip

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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.

## 7.Detailed Descriptions



[A] Positioning Hole

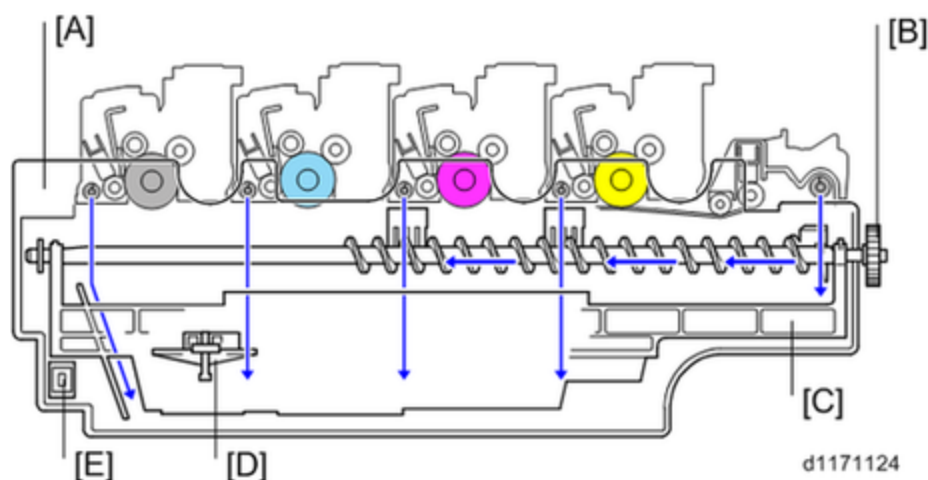
[B] ID Chip

[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              |         |                               |

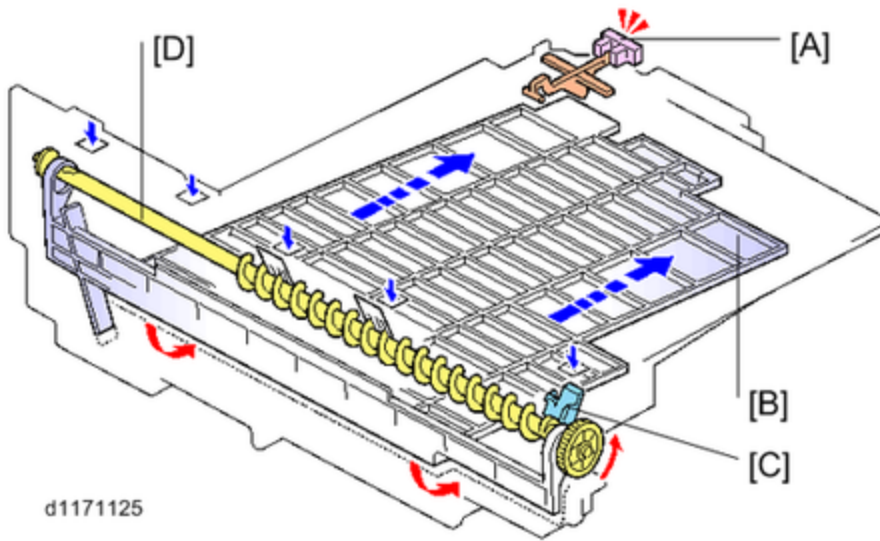
The waste toner collected from the ITB cleaning unit is transported towards the front of the machine and it goes into the waste toner bottle [A].

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.

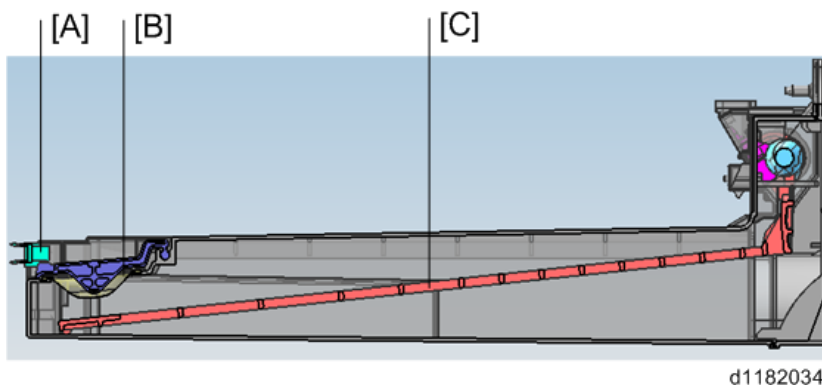
Waste Toner Full Detection

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.

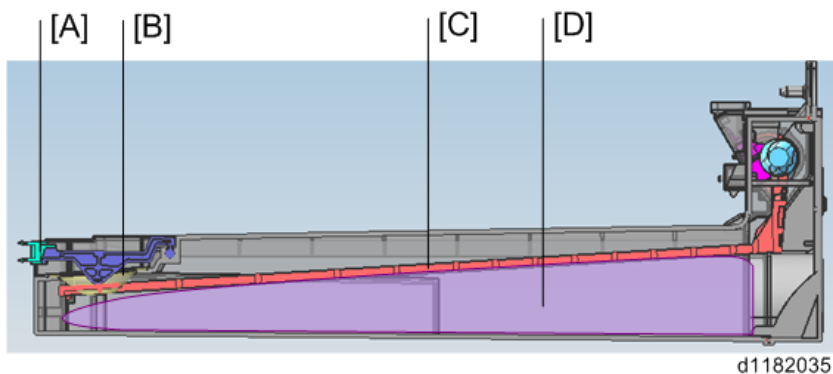
When the quantity of waste toner calculated by the machine reaches 25 g or 3,000 sheets in standard mode, whichever comes first after near-full was detected, the machine detects that the waste toner bottle is full, and stops itself automatically.

**Note**

- **When the waste toner bottle is empty:**



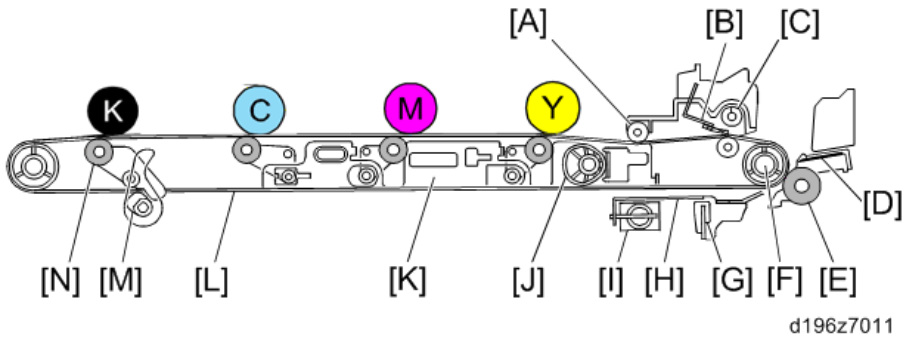
- **When the waste toner bottle is full:**



- [A] Waste Toner Full Sensor
- [B] Rubber Actuator
- [C] Waste toner agitator
- [D] Waste Toner

## ITB/ Paper Transfer

### Overview

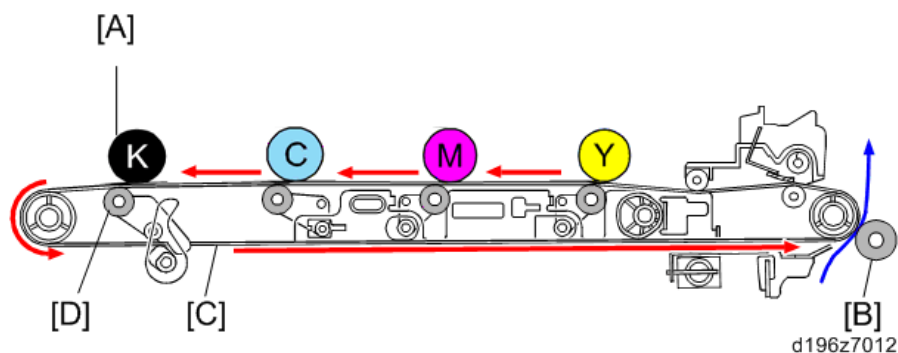


| Callout | Item                       | Callout | Item                       |
|---------|----------------------------|---------|----------------------------|
| [A]     | Belt Tension Roller        | [H]     | ID Sensor Shutter          |
| [B]     | ITB Cleaning Blade         | [I]     | ID Sensor 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<br>(Paper transfer bias is applied to the ITB drive roller.) | Attraction transfer<br>(Paper transfer bias is applied to the paper transfer roller.) |
|                    | Contact/release mechanism   | Constant contact<br>(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.

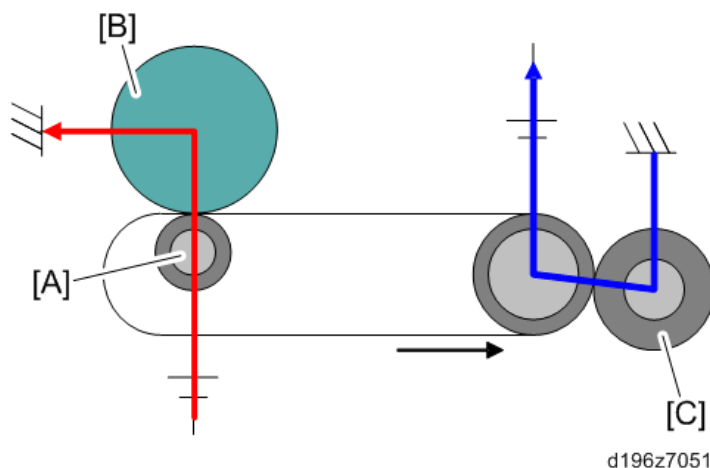
The indirect transfer method uses the resistance of the ITB to apply the bias to the drum. So, in this model, the position of the image transfer roller is changed and so is its material.

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):**

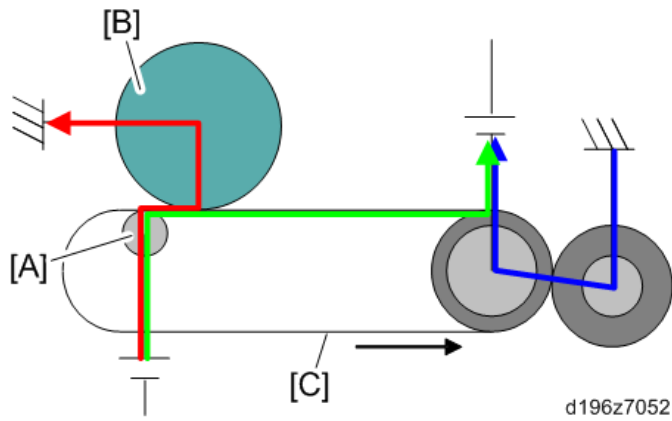
The image transfer roller [A] transfers the image transfer bias to the drum [B]. The paper transfer bias flows into the paper transfer roller [C].



• **Indirect Image Transfer + Repulsion Transfer Method:**

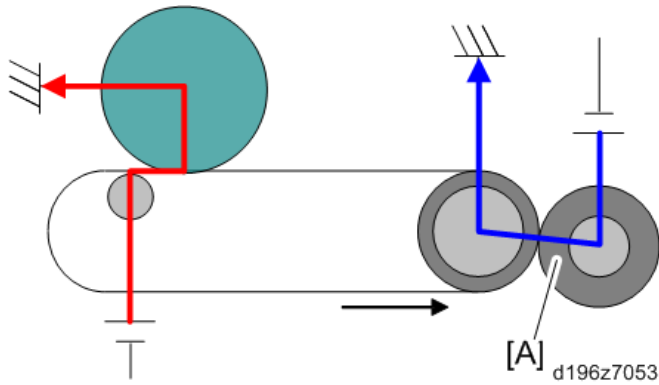
The image transfer roller [A] transfers the image transfer bias to the drum [B]. However, some of the bias goes to the image transfer belt [C]. This causes harmful interference between the image transfer current and paper transfer current.

7.Detailed Descriptions

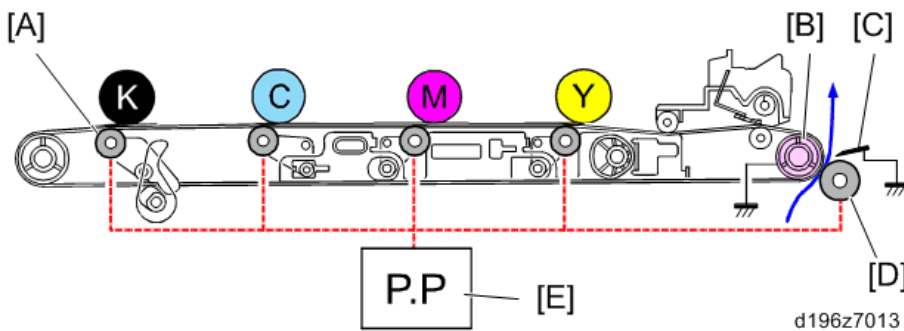


• **Indirect Image Transfer + Attraction Transfer Method (C306/C406/C307/C407):**

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

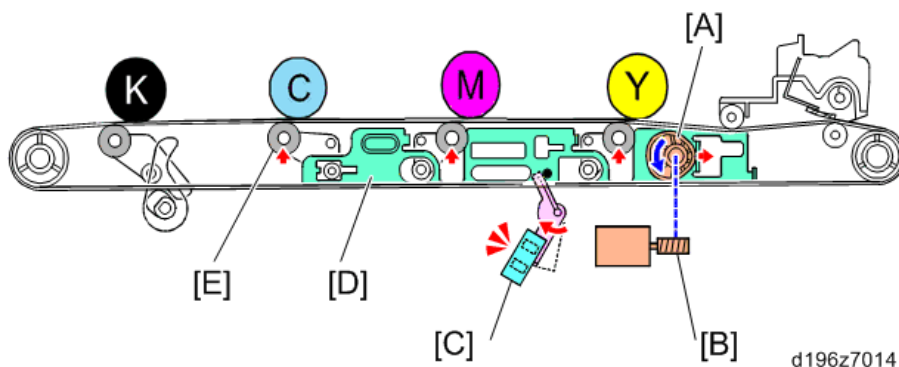


| Callout | Item  | Callout | Item                  |
|---------|---|---------|-----------------------|
| [A]     | Image Transfer Roller (First Transfer Roller) | [D]     | Paper Transfer Roller |
| [B]     | ITB Drive Roller                              | [E]     | Power Pack            |
| [C]     | 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

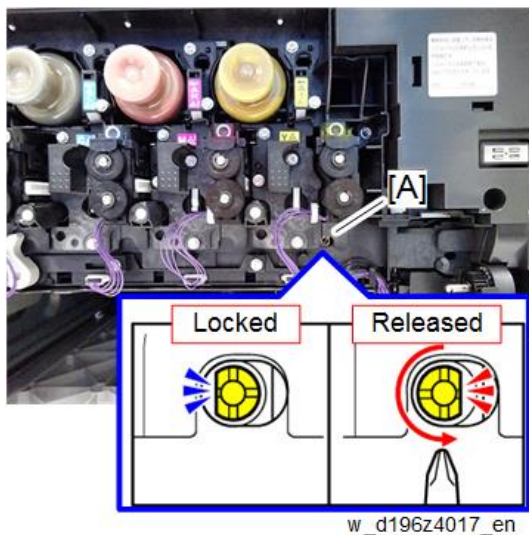


| Callout | Item                  | Callout | Item  |
|---------|-----------------------|---------|---|
| [A]     | ITB Contact Cam (CMY) | [D]     | Contact Slider                                |
| [B]     | ITB Contact Motor     | [E]     | Image Transfer Roller (First Transfer Roller) |
| [C]     | ITB Contact Sensor    |         |   |

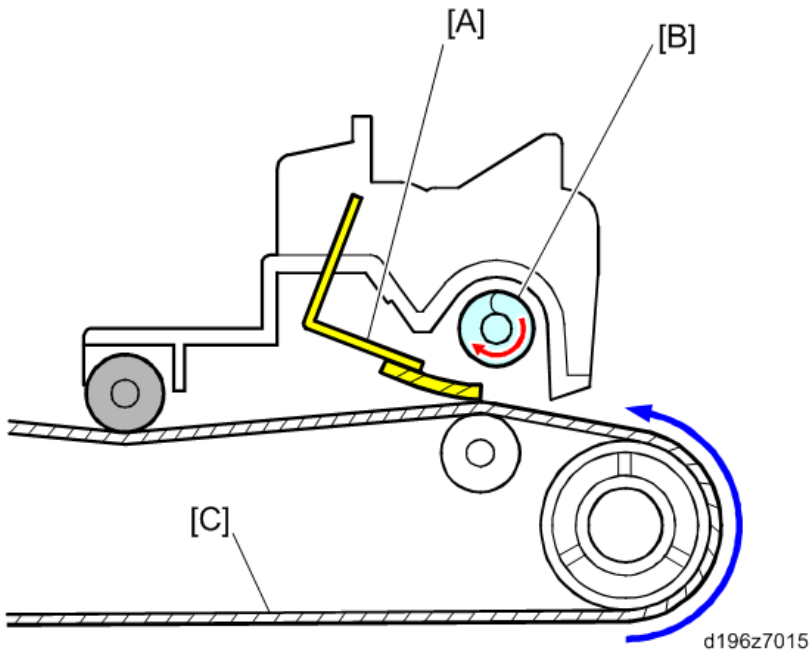
ITB has a contact mechanism to prevent the CMY drums from early deterioration. The color drums are not needed for B/W printing, so this mechanism releases the ITB from the CMY drums.

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

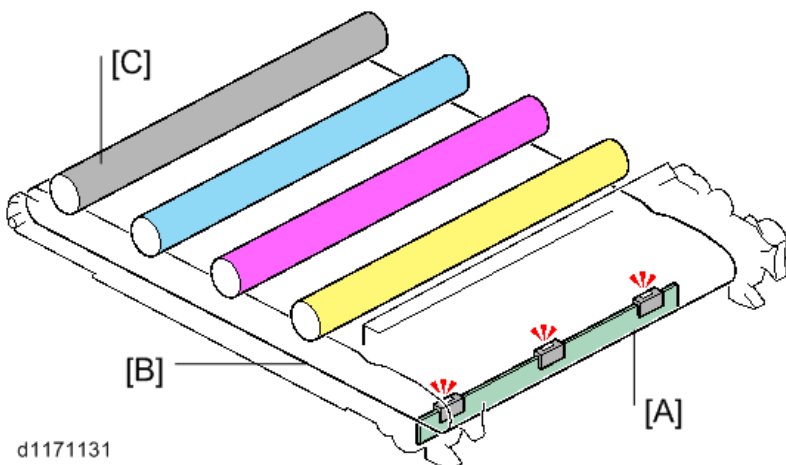


| Callout | Item                        | Callout | Item |
|---------|-----------------------------|---------|------|
| [A]     | ITB Cleaning Blade          | [C]     | ITB  |
| [B]     | Waste Toner Collection Coil |         |      |

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         | <ul style="list-style-type: none"> <li>• When a certain time passes after the previous job end, AND:               <ol style="list-style-type: none"> <li>1. More than six hours pass after the last OPC drum operation (SP3-530-001).</li> <li>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.</li> </ol> </li> <li>• 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:               <ol style="list-style-type: none"> <li>1. The change of temperature is more than or equal to the threshold [deg] (SP3-530-002).</li> <li>2. The change of relative humidity is more than or equal to the threshold [%RH] (SP3-530-003).</li> <li>3. The change of absolute humidity is more than or equal to the threshold [g/m<sup>3</sup>] (SP3-530-004).</li> </ol> </li> </ul> <p>Default settings:<br/>           Time: 360 minutes<br/>           Temperature: 10 deg<br/>           Relative humidity: 50%RH<br/>           Absolute humidity: 6 g/m<sup>3</sup><br/>           Other related SPs:<br/>           SP3-530-005/006</p> | Except when recovering from an SC or jam |
| Job End          | <p>When the job end counter becomes more than the threshold.</p> <p>Related SPs:<br/>           SP3-534-001/011</p>  | -  |
| Job Interruption | <p>When the job interrupt counter becomes more than the threshold.</p> <p>Related SPs:<br/>           SP3-533-001/011</p>  | -  |
| Non-use (Idle)   | <p>Non-use time becomes more than the value in SP3-531-001.</p>  | -  |
| Manual Process   | <p>When SP3-011-001 is executed.</p>   | -  |

7.Detailed Descriptions

| 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.

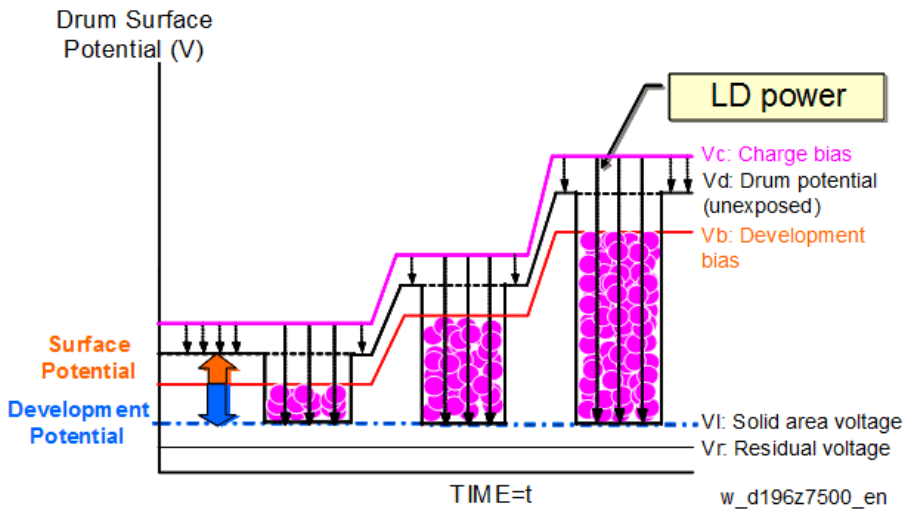
The value of Vc is not equal to Vd.

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.

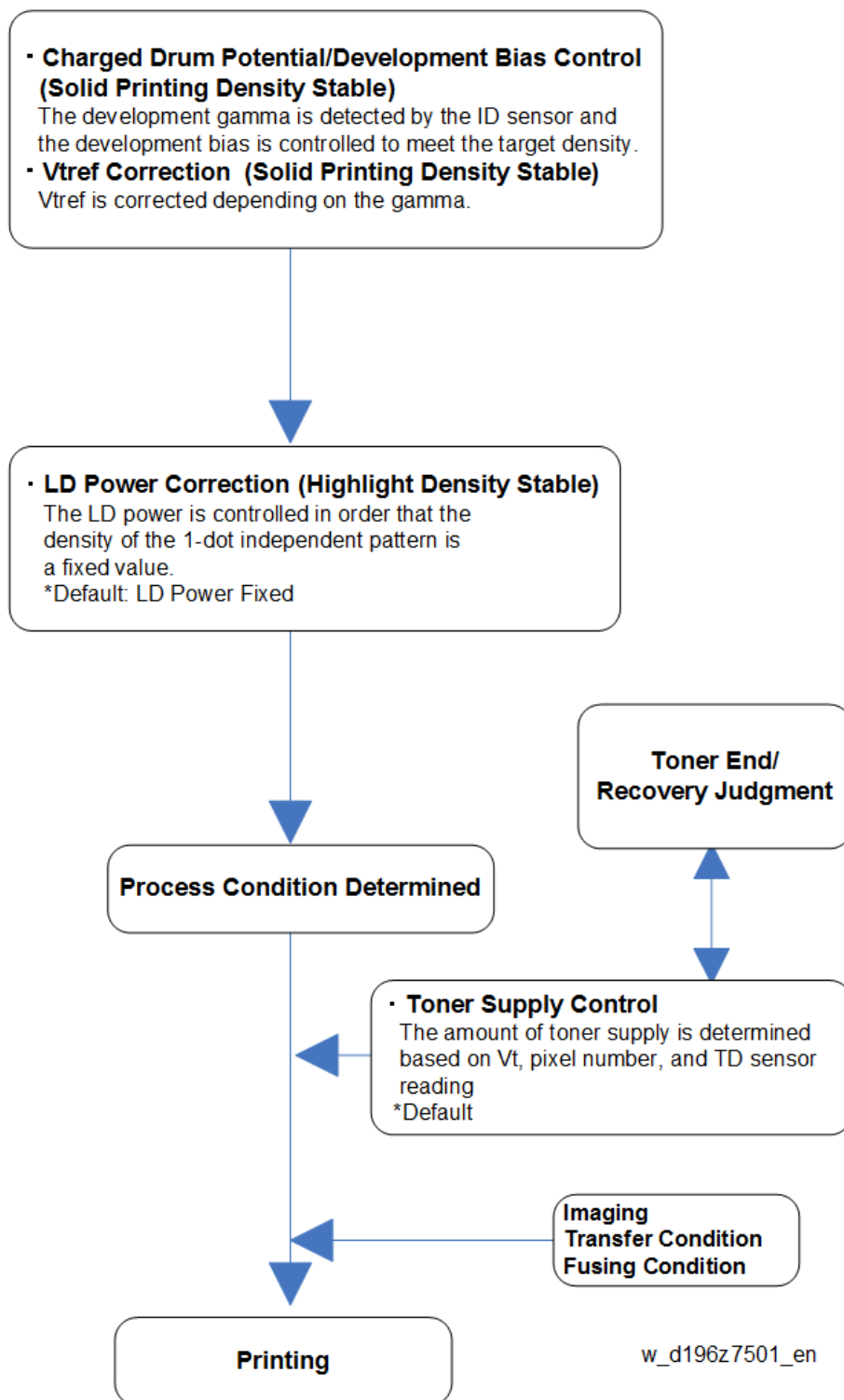


In addition to the development gamma and the potential, the toner density in the developer needs to be controlled.

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  $4.0 \pm 0.5V$ . When Vsg does not reach the target value three times, the

## 7. Detailed Descriptions

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.

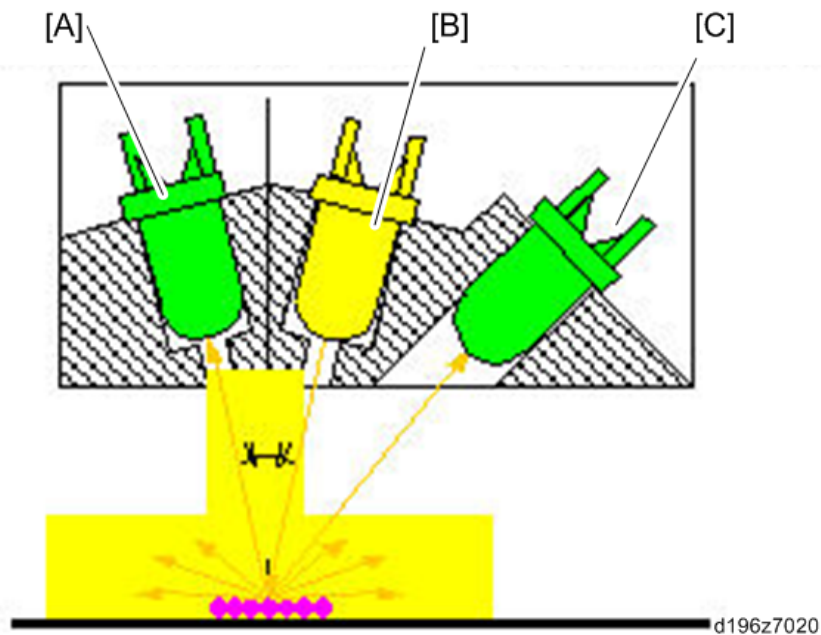
The developer agitation time is determined by the three factors below.

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 $V_{tref}$ from the Development Gamma

Detecting the development gamma value with an ID sensor pattern and measuring  $V_{sp}/V_{sg}$  determines the charge/development bias for the correct image density.

Also, the reading from the TD sensor and the development gamma determine  $V_{tref}$ , 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 SP3-600-001 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 SP3-600-001 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  $V_t$  and  $V_{tref}$ , and their total difference are as in the following matrix:

|     | Condition       | $V_t/V_{tref}$ : Diff | $V_t/V_{tref}$ : 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

## 7.Detailed Descriptions

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  $\mu$  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  $\mu$  count (Initial value)

While agitating the developer, the machine detects the output from the TD sensor, and stores this output as the initial  $\mu$  count.

**4.** Calculating Vt

The machine calculates Vt using the difference of the current  $\mu$  count while referring to the initial  $\mu$  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:

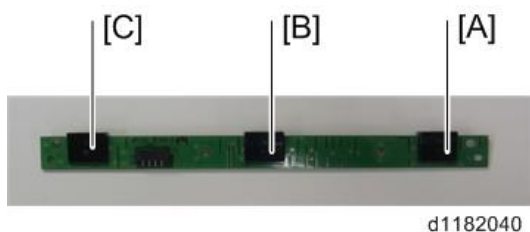
The  $\mu$  count is equal or exceeds the threshold (6480 [counts]).

The  $\mu$  count does not match the target threshold (5800 – 6380 [counts]) three times consecutively.

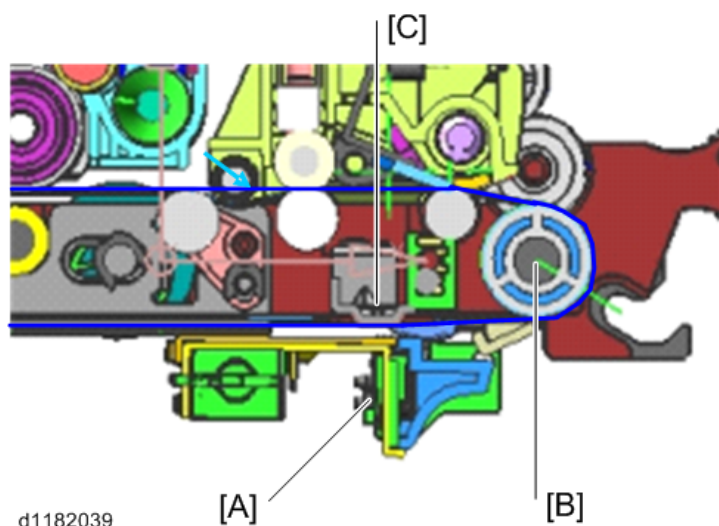
Process Control and MUSIC are forcibly done after developer initial setting when a PCDU is replaced.

### ID Sensor

---



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  $\mu$  ( $\mu$ ) 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  $V_t$ , the TD sensor output is converted into  $V_t$  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)                  |

## 7.Detailed Descriptions

| 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        |

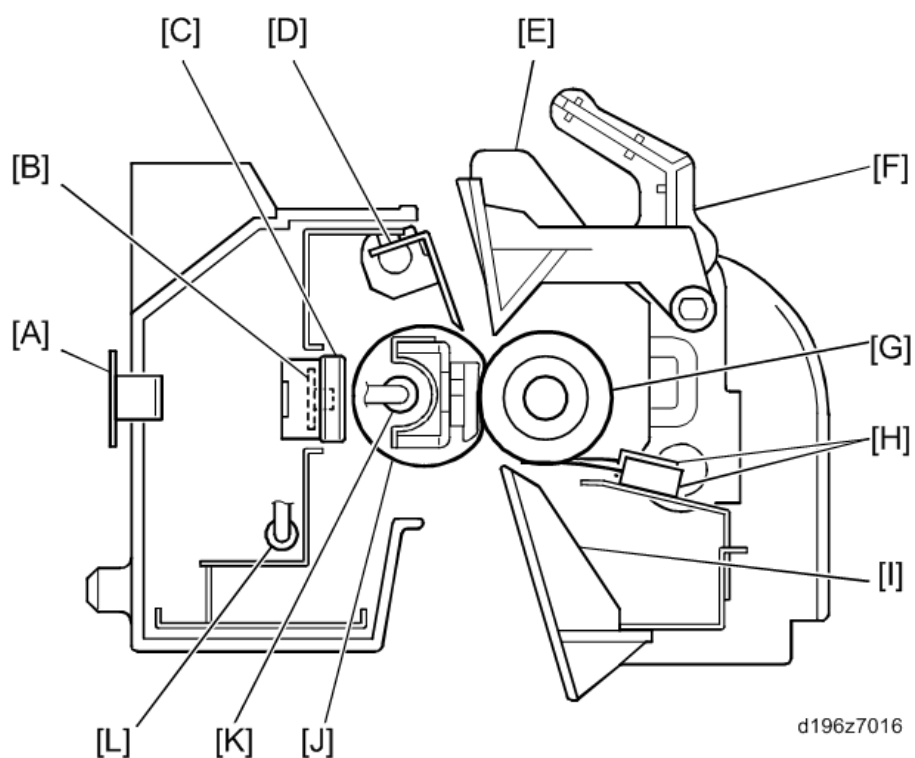
## Adjustment Overview

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.



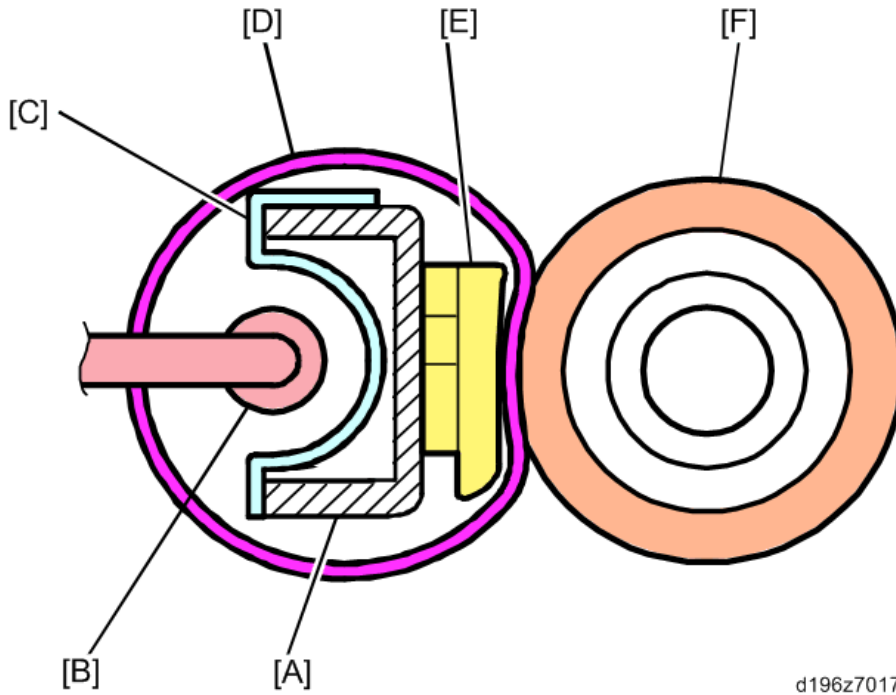
## Fusing

### 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].

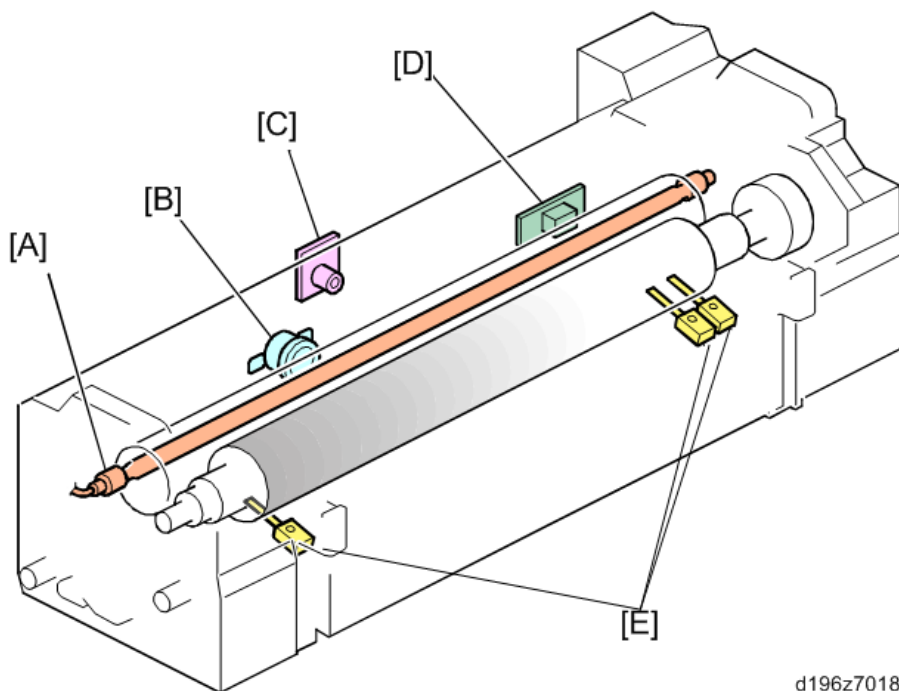
The temperature at both ends of the fusing lamp is lower than the middle.

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

---



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| 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 |         |   |

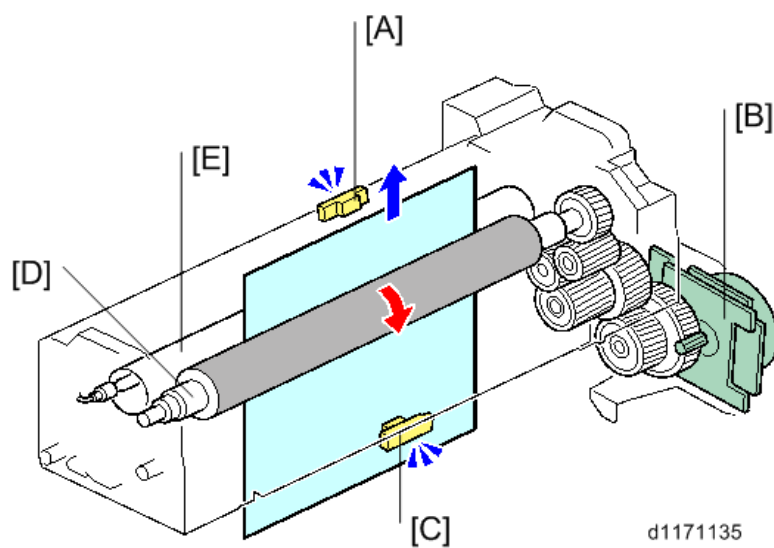
The fusing temperature is controlled by the fusing thermopile [C].

The thermostat [B] is a safety switch. The fusing unit must be replaced if the thermostat is blown.

---

Fusing Drive

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## 7.Detailed Descriptions

| 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

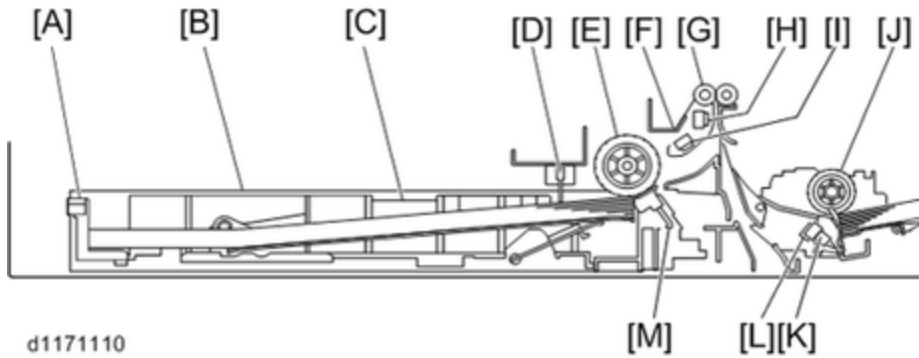
|                               | A5     | Postcard | Envelope  | Recovery Time |
|-------------------------------|--------|----------|-----------|---------------|
| CPM (Standard)                | 15     | 15       | 15        | 10 mins.      |
| CPM Down Starting Sheet Count | No CPM | 13th     | 4th 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

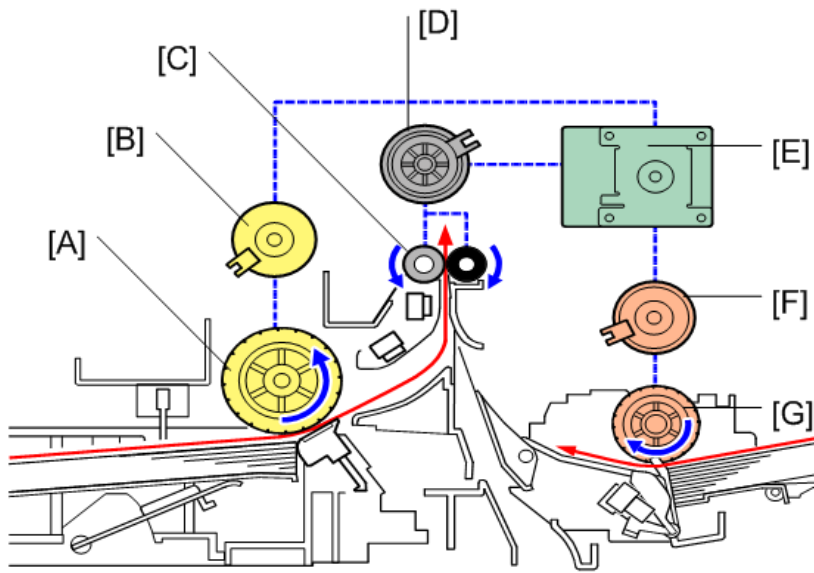
### Overview



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| 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



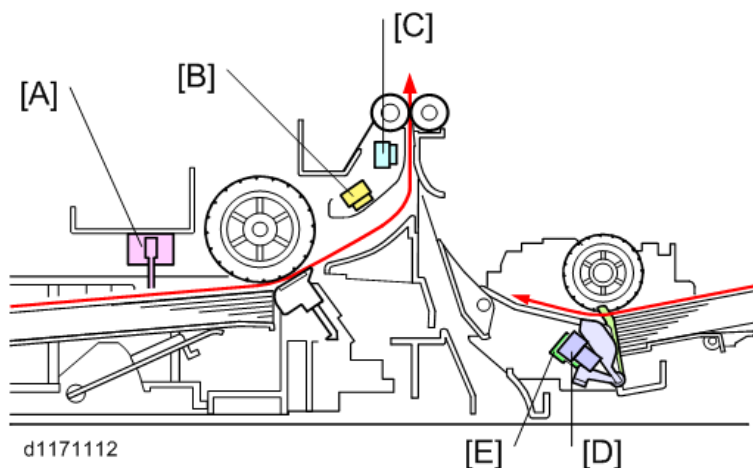
d1171111

| 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 |         |      |

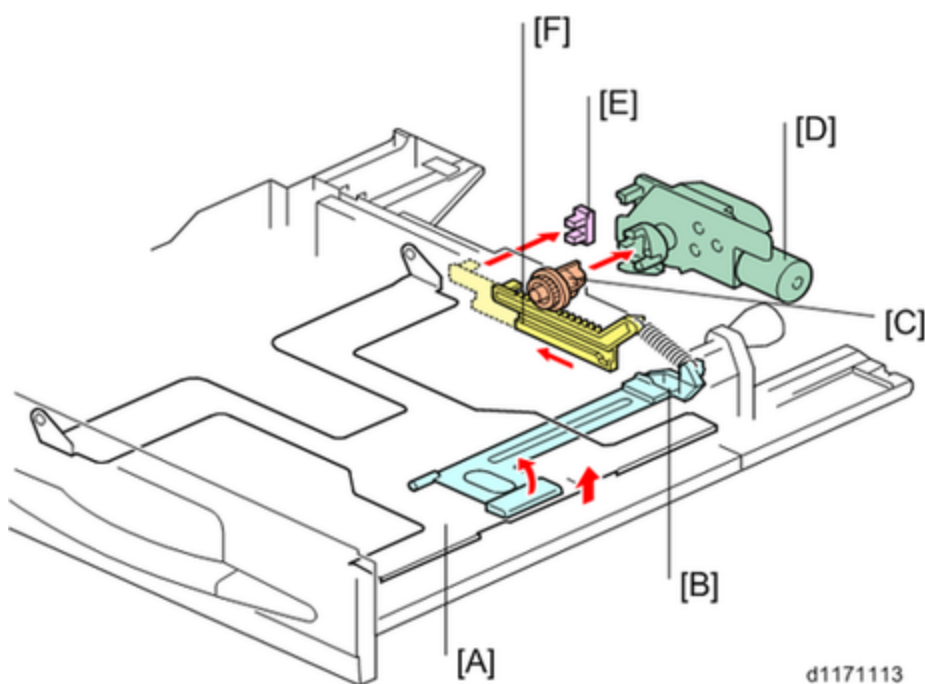
The drive from the paper transport motor is transmitted to each clutch through gears. The paper transport motor controls paper feed/exit, duplex, registration, waste toner transport coil and bypass tray lift.

**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 |

## 7.Detailed Descriptions

| 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].

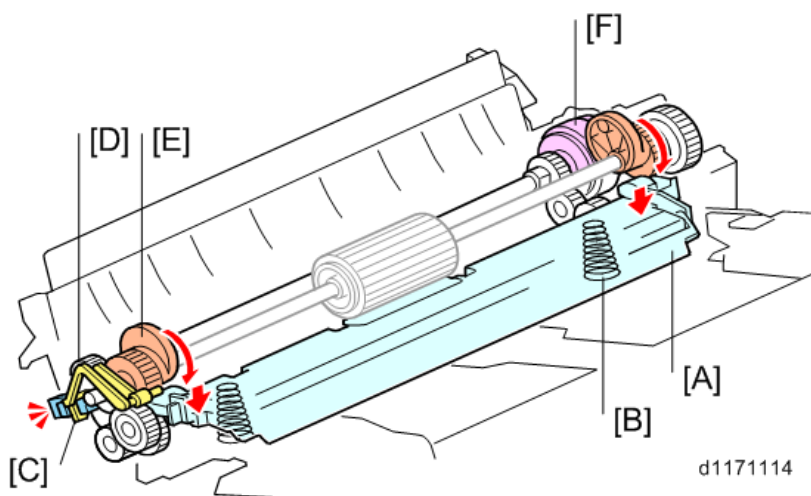
The arm lifts the bottom plate [A].

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.

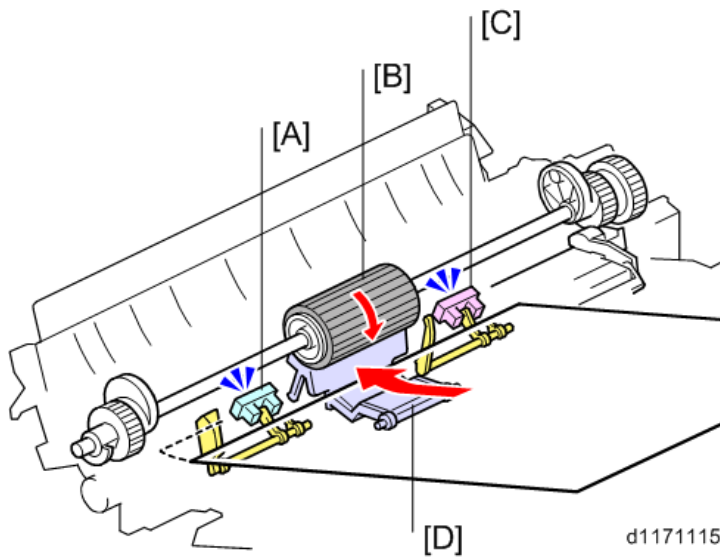
The position of the bypass tray bottom plate lift cams (and because of this, the bypass tray bottom plate) is detected by the bypass tray bottom plate lift cam HP sensor [C].



---

 Paper Size Detection and Paper End Detection
 

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| 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.

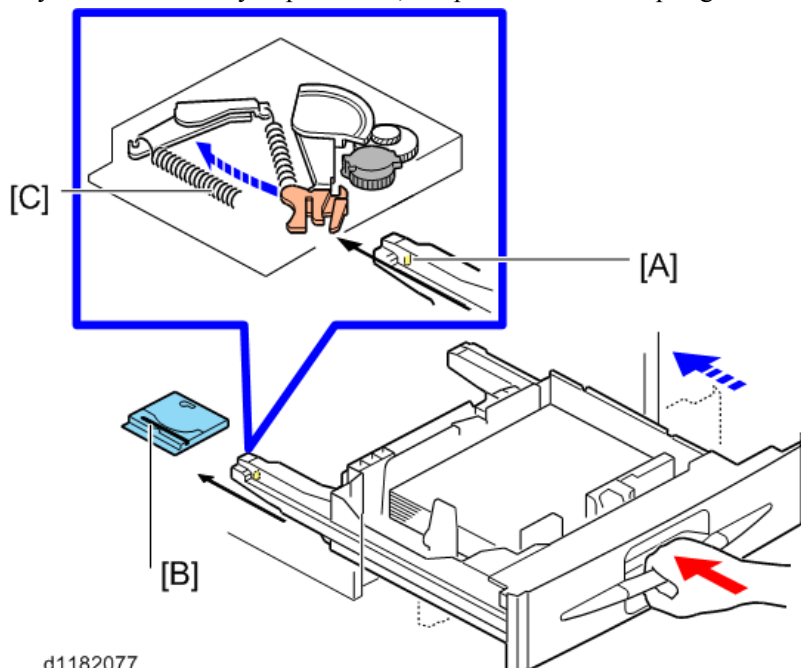
The bypass feed paper end sensor is activated if there is no paper on the tray.

---

 Tray Auto-close Mechanism
 

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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

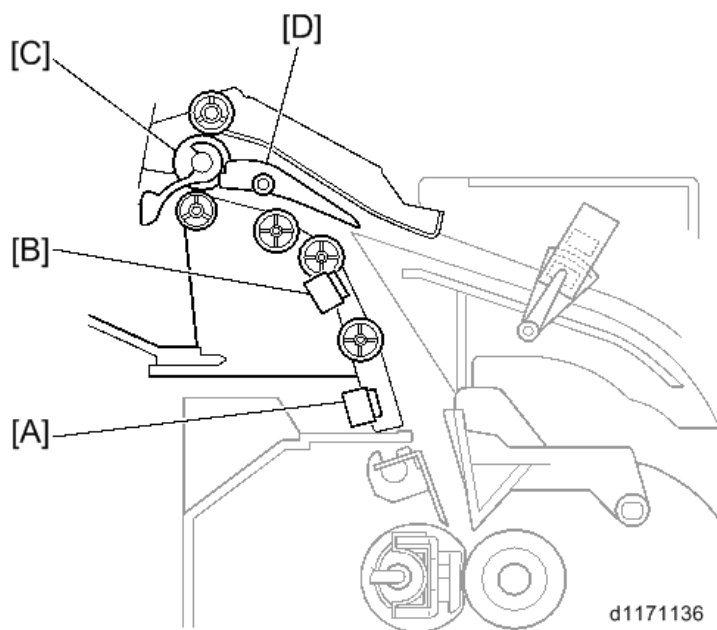
## 7. Detailed Descriptions

[B]: Draw-in Unit

[C]: Spring

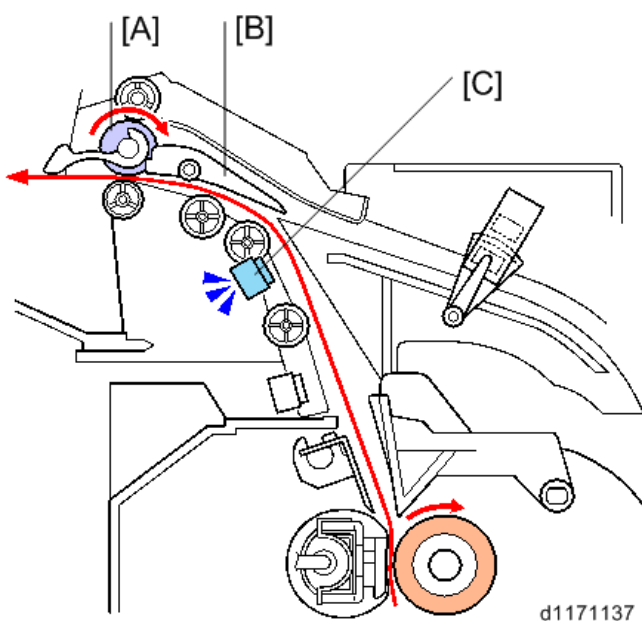
## Paper Exit and Inverter

### 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



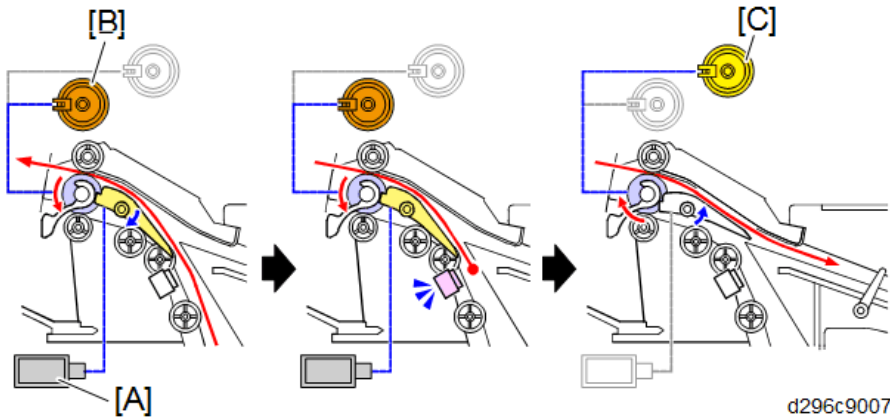
| Callout | Item                      | Callout | Item              |
|---------|---------------------------|---------|-------------------|
| [A]     | Paper exit/reverse roller | [C]     | Paper exit sensor |

## 7.Detailed Descriptions

| 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.

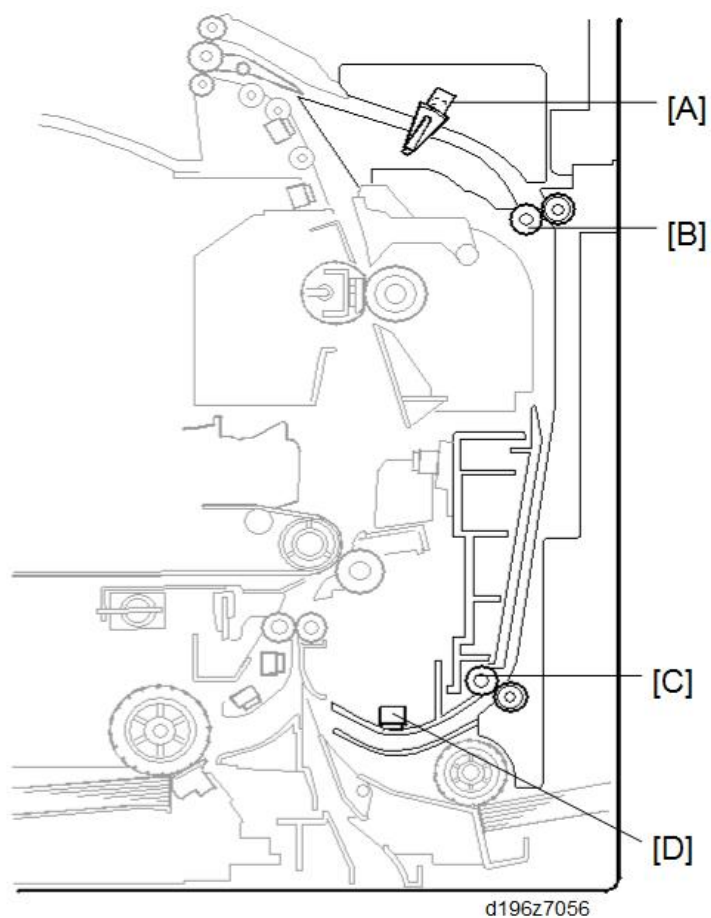
And then, the paper exit clutch turns OFF and the paper reverse clutch turns ON, to rotate the paper exit roller in reverse to feed the paper towards the paper exit (see the left illustration above).

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.

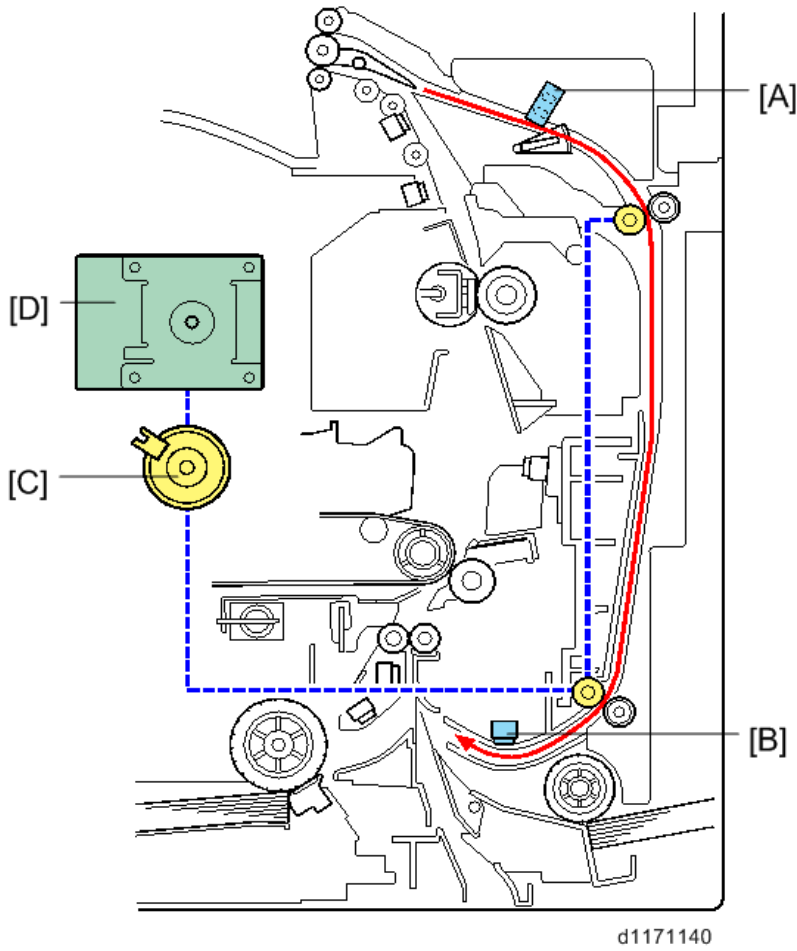
## Duplex

### 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**

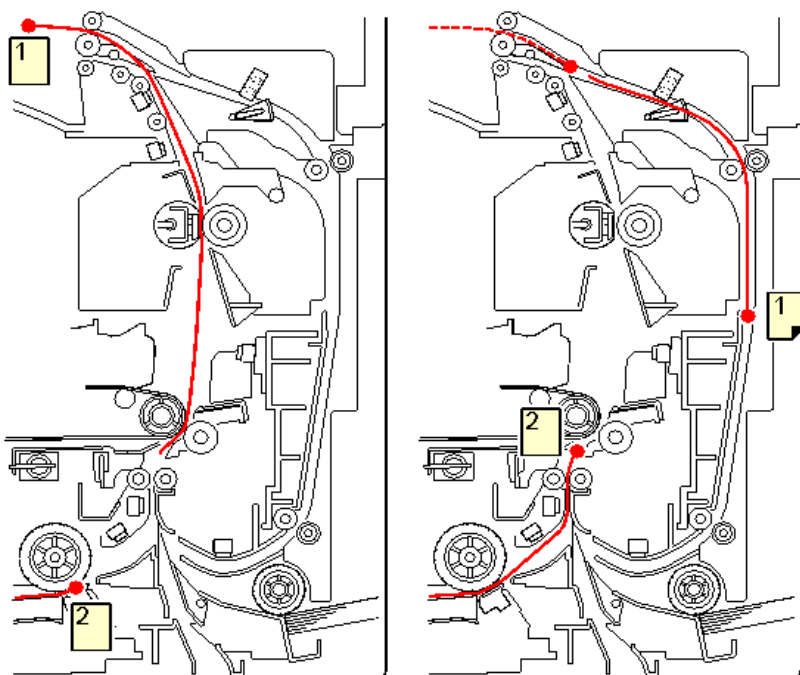
The drive from the paper transport motor [D] is transmitted to the duplex clutch [C] through a gear, and the duplex clutch turns on to drive the duplex rollers.

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.

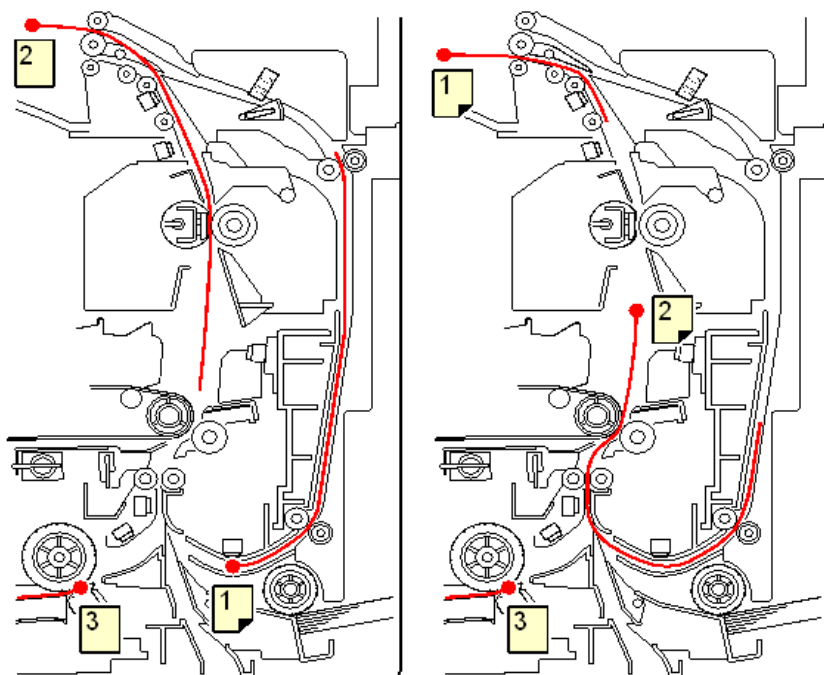
**Duplex Transport**

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

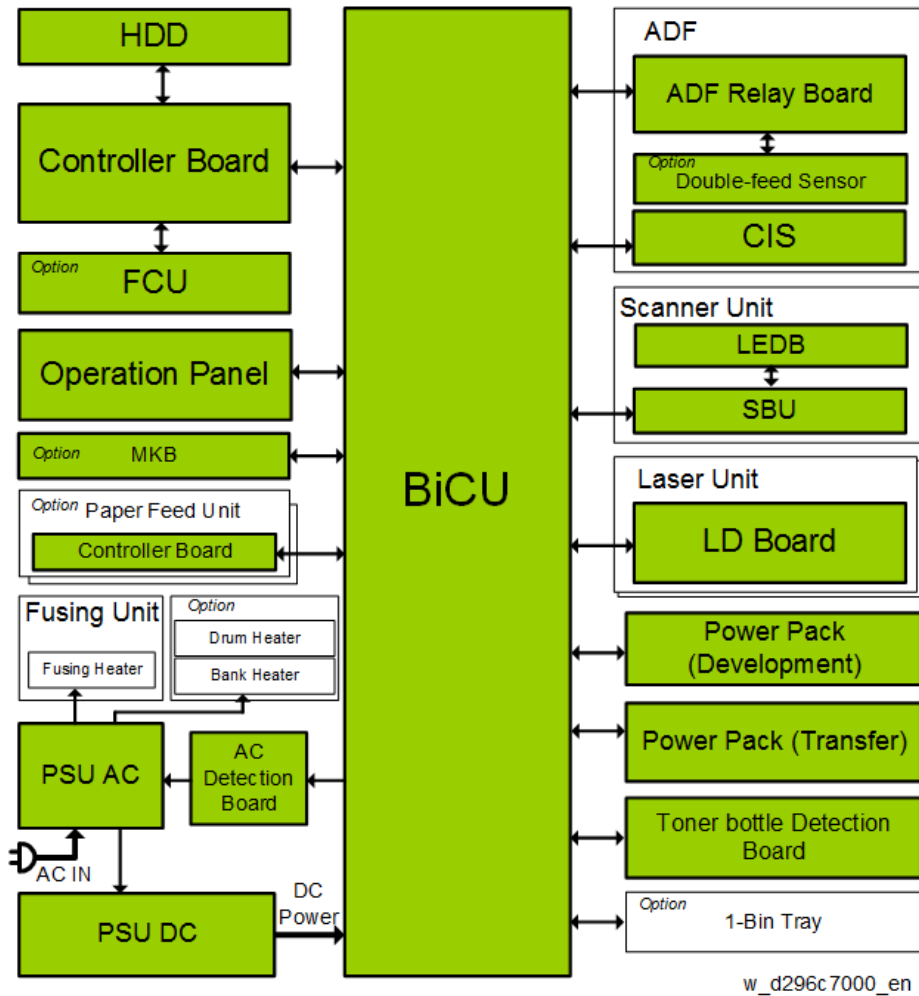
This machine adopts “2 in 1” interleaving.

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**

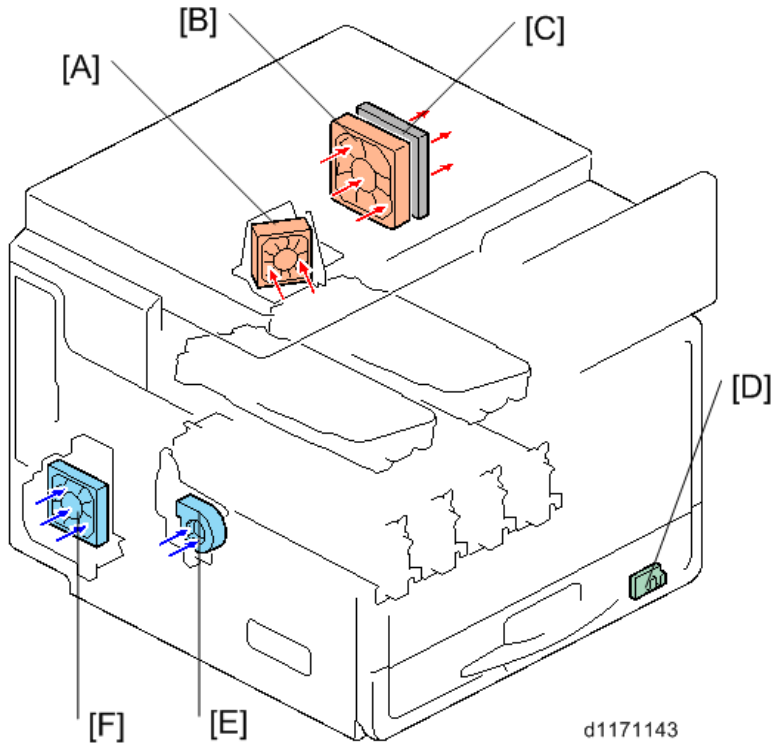
Controls motors, sensors, and solenoids in the ADF.

**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                 |            |         |             |

## 7.Detailed Descriptions

| 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.

## 7.Detailed Descriptions

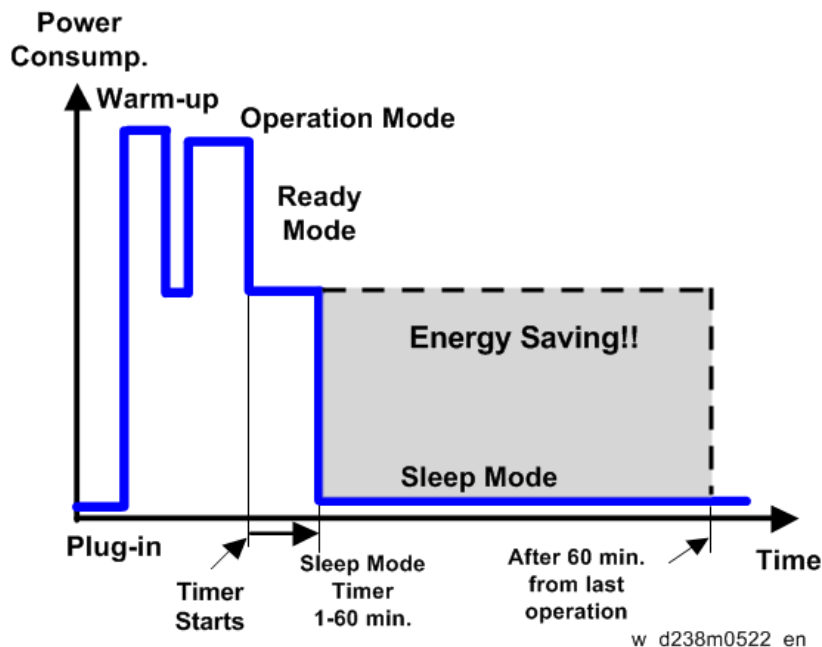
### **Operation Panel**

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]

## 7. Detailed Descriptions

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:**

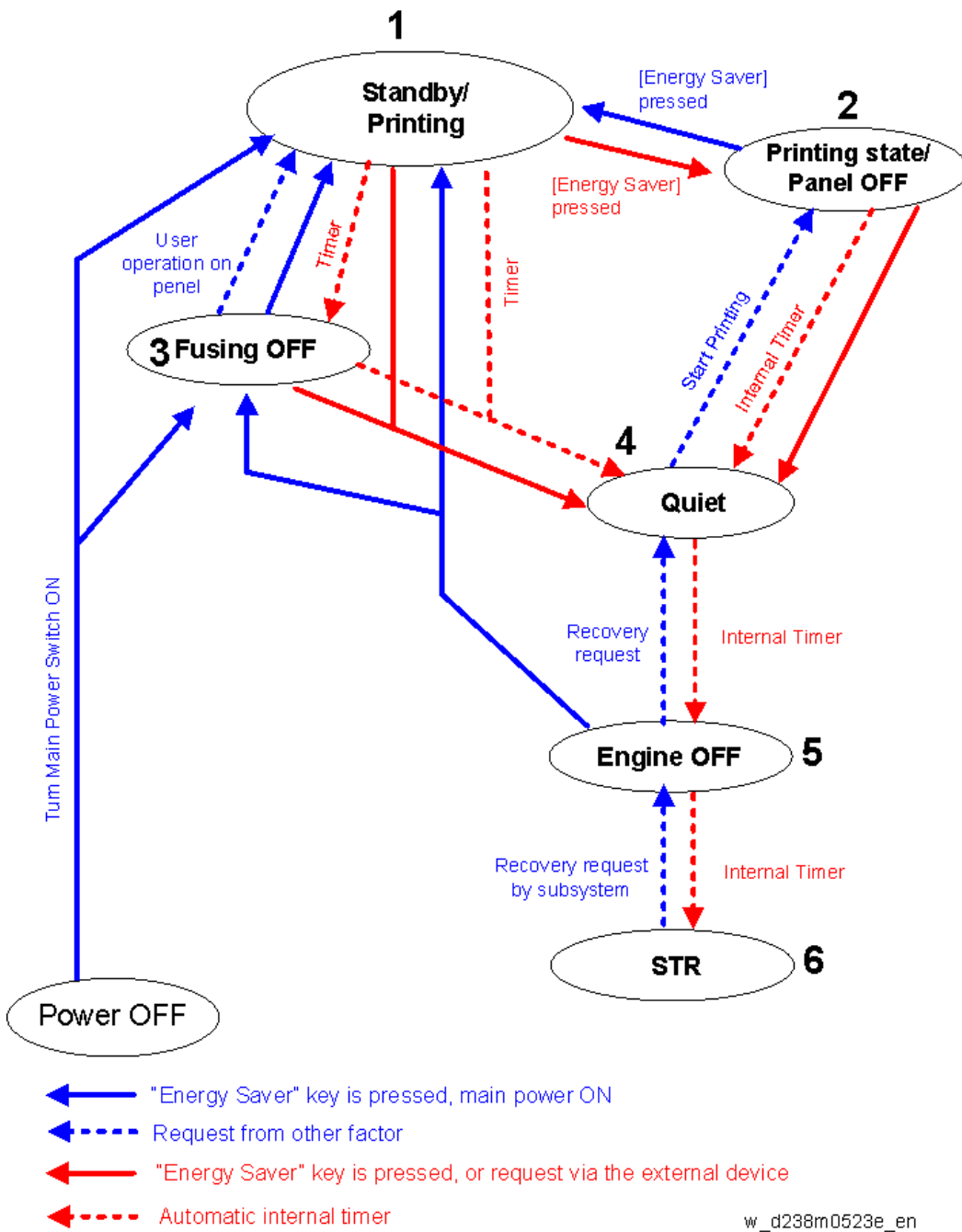
| MP C307                 | MP C407                 |
|-------------------------|-------------------------|
| NA/EU/AA: 1.0 W or less | NA/EU/AA: 1.0 W or less |

#### **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         | <ul style="list-style-type: none"> <li>State where normal operation is possible after warm-up</li> <li>State during printing</li> </ul>  |
| 2 | Printing state/Panel OFF | State when printing with the backlight of the operation panel turned off   |
| 3 | Fusing OFF               | <p>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.</p> <ul style="list-style-type: none"> <li>State where the operation panel is flashing and the fusing lamp is OFF.</li> </ul> |

## 7. Detailed Descriptions

|   | State                      | Description  |
|---|----------------------------|--|
|   |                            | <ul style="list-style-type: none"> <li>The bottom plate of the paper feed tray is raised.</li> </ul>   |
| 4 | Quiet state                | <p><b>Quiet</b> state is entered when the Energy Saving key is pressed or the time set with the "<b>Sleep Mode Timer</b>" of the User Tools has elapsed. This is a temporary energy saving state before entering sleep mode.</p> <ul style="list-style-type: none"> <li>Basically, no homing (initialization) of peripheral devices is performed.</li> <li>The bottom plate of the paper feed tray is raised.</li> <li>The fusing lamp is turned OFF.</li> </ul> |
| 5 | Engine OFF<br>(Sleep mode) | <p>Entered from <b>Quiet</b> state with internal timer.</p> <ul style="list-style-type: none"> <li>The relevant power systems (24V, 12V, 5V) are turned OFF at the same time as the fusing lamp.</li> <li>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.</li> </ul>  |
| 6 | STR state<br>(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<br>(Printer is in <b>Quiet</b> state) | ON                 | ON  |
| <b>Quiet</b> state       | ON                                | OFF<br><b>ON*1</b>          | ON<br>(Printer is in <b>Quiet</b> state) | ON                 | ON  |
| Engine OFF               | Blinking gradually<br><b>ON*1</b> | Sleep<br><b>OFF or ON*1</b> | OFF                                      | OFF<br><b>ON*1</b> | 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.   |

## 7.Detailed Descriptions

| 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. <ul style="list-style-type: none"> <li>• SP8-941-006: SC (excluding mode SC)</li> <li>• SP8-941-007: Jam (plotter)</li> <li>• SP8-941-009: Supply/PM unit end</li> </ul> |

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

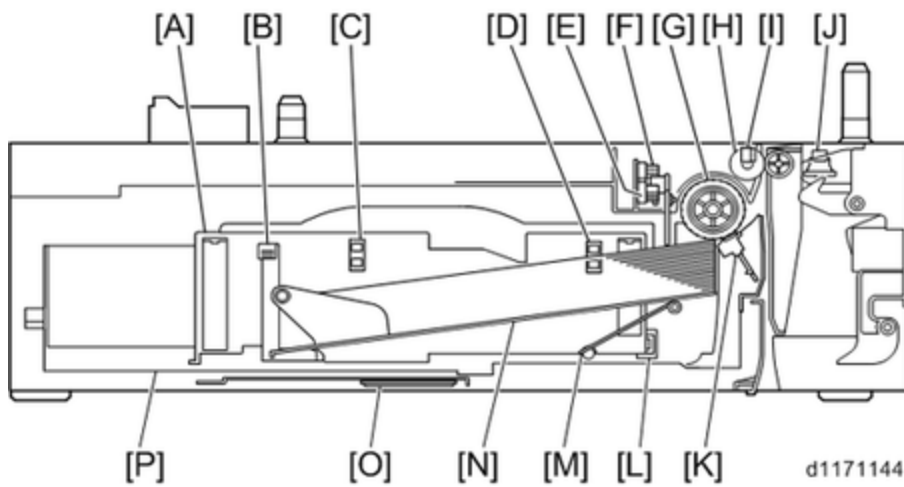
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We recommend that the default settings related to energy saving should be kept.

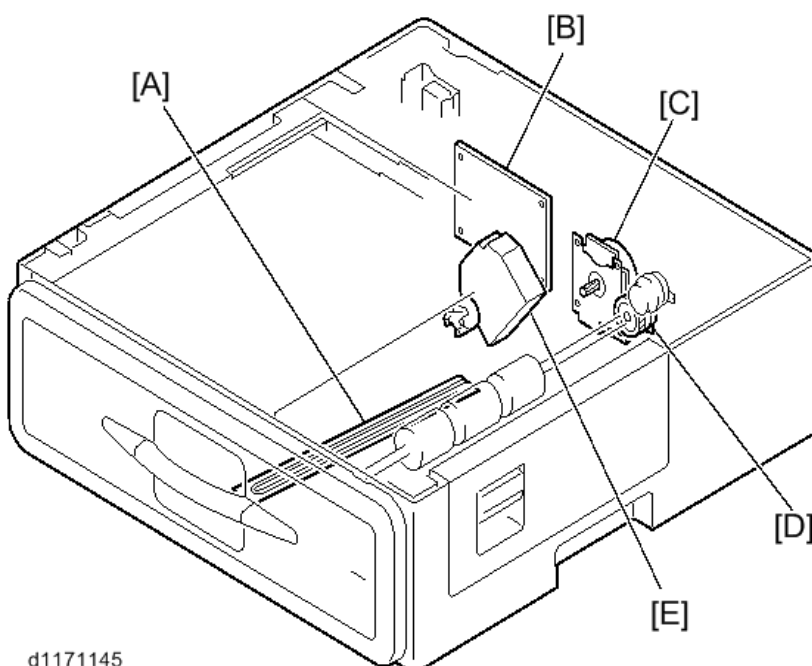
- If the customer requests that these settings should be changed, please explain that their energy costs could increase, and that they should consider the effects on the environment of extra energy use.

## Paper Feed Unit PB1080/PB1080TE (Optional)

### Overview



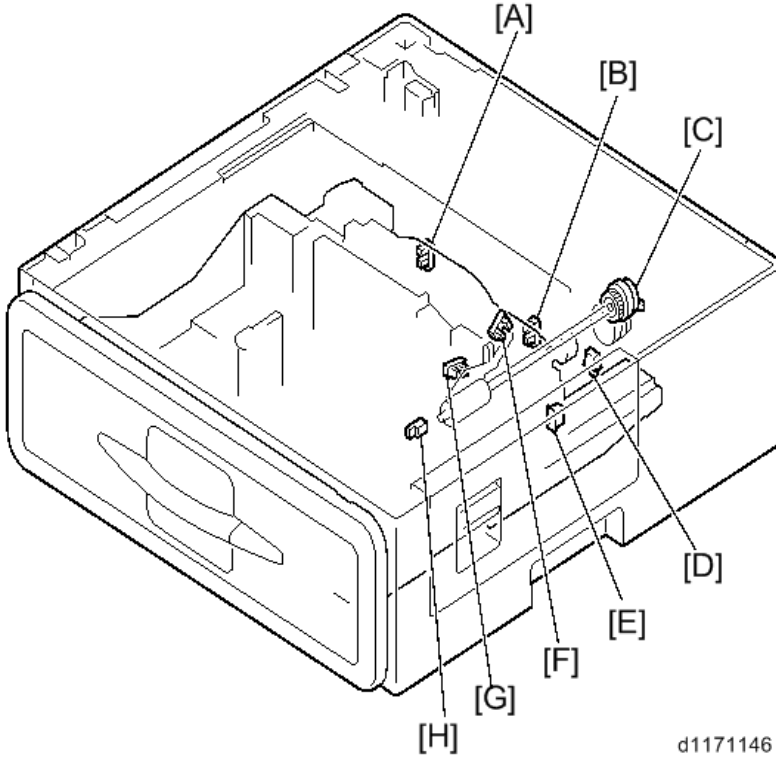
| Callout | Item                          | Callout | Item                                       |
|---------|-------------------------------|---------|--|
| [A]     | Side Fence                    | [I]     | Paper Transport Sensor                     |
| [B]     | End Fence                     | [J]     | 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                                 |



d1171145

7.Detailed Descriptions

| Callout | Item                              | Callout | Item              |
|---------|-----------------------------------|---------|-------------------|
| [A]     | Anti-condensation Heater (Option) | [D]     | Paper Feed Clutch |
| [B]     | Controller Board                  | [E]     | Tray Lift Motor   |
| [C]     | Paper Feed Motor                  |         |                   |



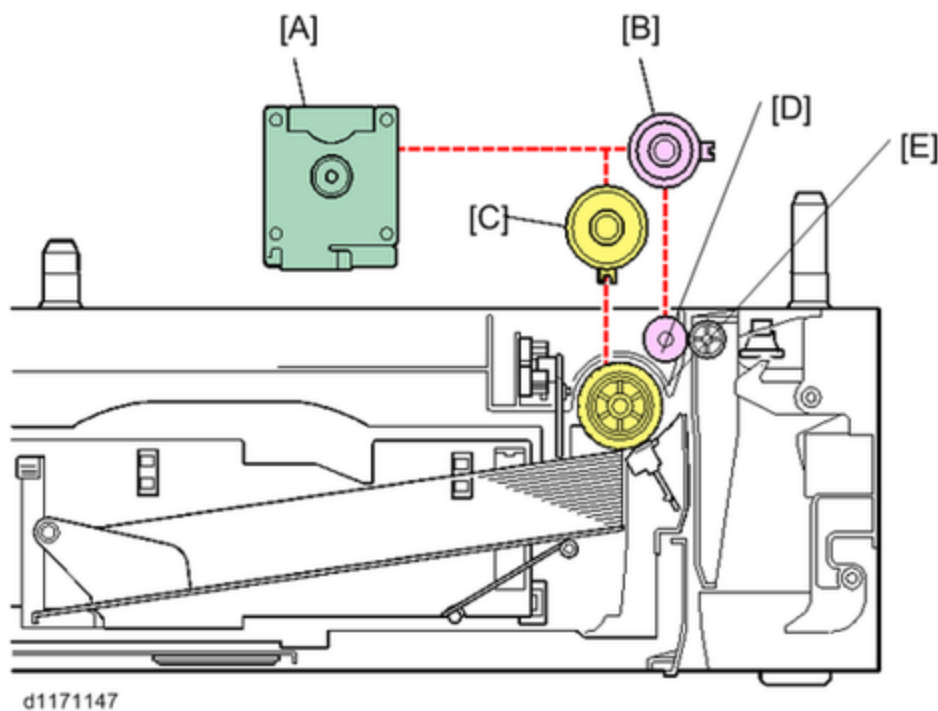
d1171146

| 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
 

---

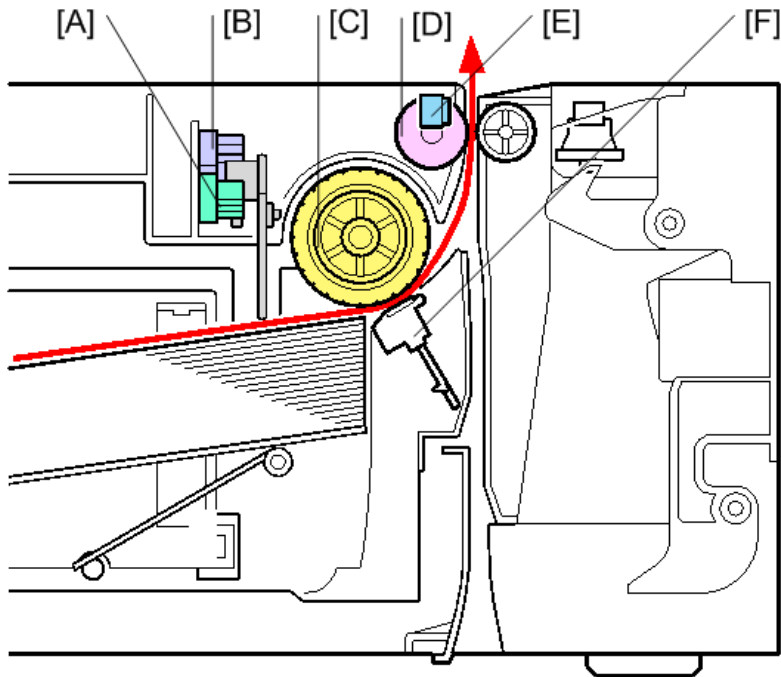


| Callout | Item                      | Callout | Item                      |
|---------|---------------------------|---------|---------------------------|
| [A]     | Paper Feed Motor          | [D]     | Vertical Transport Roller |
| [B]     | Vertical Transport Clutch | [E]     | Paper Feed Roller         |
| [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



d1171148

| 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].

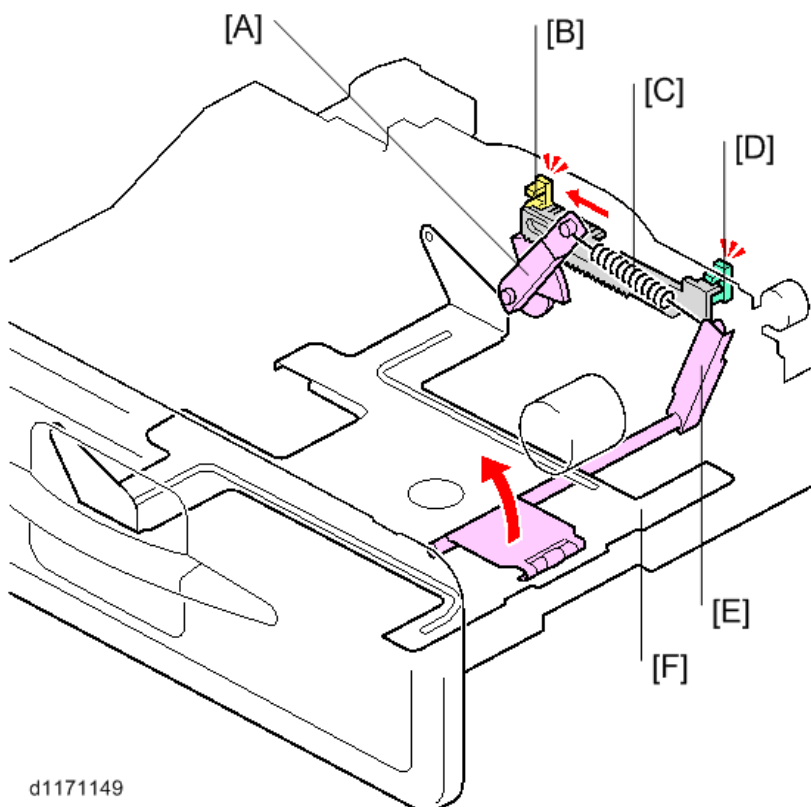
The vertical transport sensor [E] acts as a paper feed sensor.

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)
 

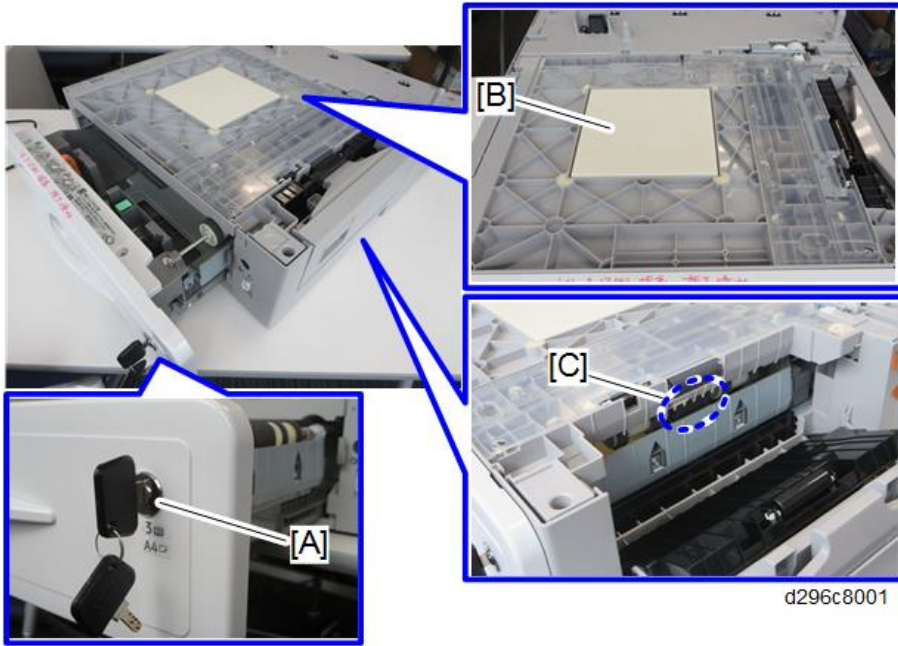
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Paper Feed Unit PB1080TE is the optional PFU which can be locked with a key.

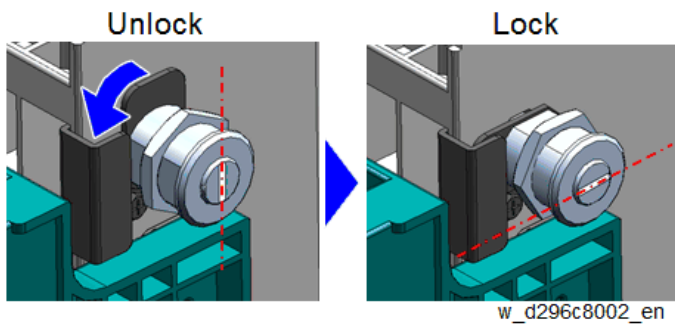
The key cylinder [A] is mounted on the front cover of the tray for preventing theft of paper. When the tray is locked with a key, it cannot be pulled out. Even if the machine body is unloaded from the PFU, taking out paper is impossible, because the plate [B] is fixed on top of the PFU.

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.

## 7.Detailed Descriptions



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.

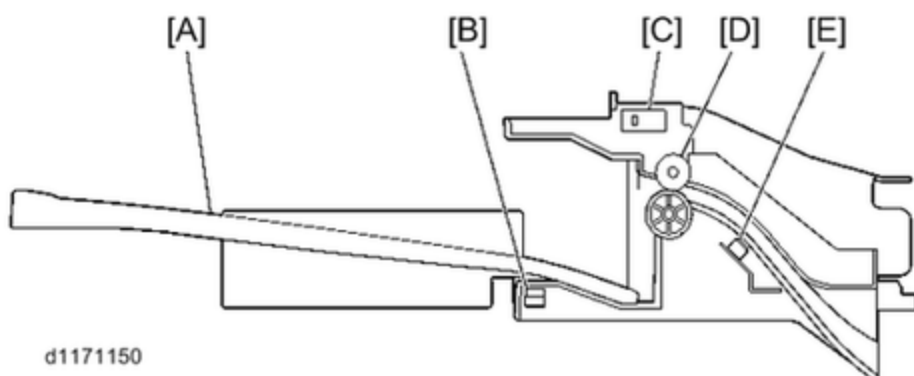


If the key has been lost, arrange new keys registered as service parts (P/N: D1462868, this P/N is as of October, 2016).



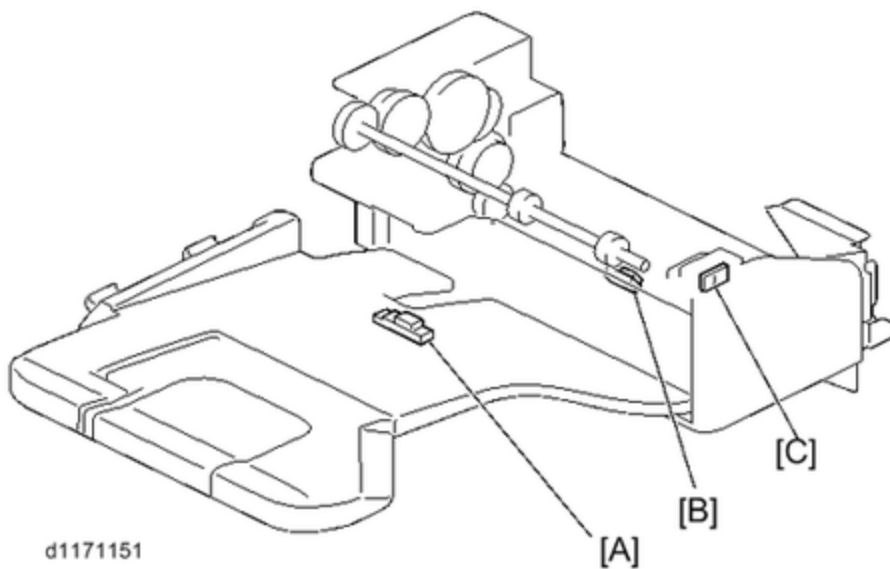
## 1 Bin Tray BN1030 (Optional)

### Overview



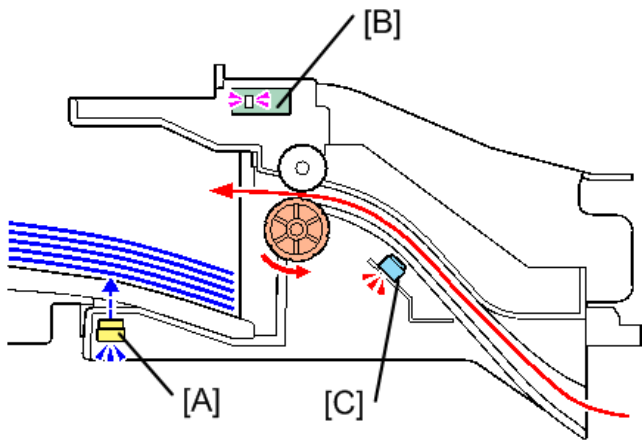
| Callout | Item                              | Callout | Item                   |
|---------|-----------------------------------|---------|------------------------|
| [A]     | Paper Exit Tray                   | [D]     | Paper Exit Roller      |
| [B]     | 1-Bin Tray Paper Remaining Sensor | [E]     | 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



d1182501

| 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.

The 1-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<br>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:                           | <b>Scan:</b> <ul style="list-style-type: none"> <li>Exposure glass: 600 × 600 dpi</li> <li>ADF: 600 × 300 dpi (front), 300 × 600 dpi (back) , 600 × 600 dpi</li> </ul> <b>Print:</b> <ul style="list-style-type: none"> <li>600 × 600 dpi, 1200 × 1200dpi</li> </ul>   | <b>Scan:</b> <ul style="list-style-type: none"> <li>Exposure glass: 600 × 600 dpi</li> <li>ADF: 600 × 300 dpi</li> </ul> <b>Print:</b> <ul style="list-style-type: none"> <li>600 × 600 dpi</li> </ul>   |
| Fusing:                               | Direct Heating (DH) fusing   |  |
| Original type:                        | Sheets, book, three-dimensional object   |  |
| Maximum original size:                | 216 × 356 mm (8.5" × 14 ")   |  |
| Copy speed:                           | <b>C307:</b> <ul style="list-style-type: none"> <li>Color: 30 cpm (A4), 31cpm (LT)</li> <li>Color/1200dpi: 15 cpm (A4), 15cpm (LT)</li> <li>B&amp;W: 30 cpm (A4), 31cpm (LT)</li> </ul> <b>C407:</b> <ul style="list-style-type: none"> <li>Color: 35 cpm (A4), 36 cpm (LT)</li> <li>Color/1200dpi: 15 cpm (A4), 15cpm (LT)</li> <li>B&amp;W: 40 cpm (A4), 42cpm (LT)</li> </ul> | <b>C306:</b> <ul style="list-style-type: none"> <li>Color: 30 cpm (A4), 31cpm (LT)</li> <li>B&amp;W: 30 cpm (A4), 31cpm (LT)</li> </ul> <b>C406:</b> <ul style="list-style-type: none"> <li>Color: 35 cpm (A4), 36 cpm (LT)</li> <li>B&amp;W: 40 cpm (A4), 42cpm (LT)</li> </ul> |
| First copy time:<br>(A4/LT, 1st tray) | <b>C307:</b><br>Color: 8.5 seconds or less<br>B&W: 7.1 seconds or less<br><br><b>C407:</b>   | <b>C306:</b><br>Color: 11.0 seconds or less<br>B&W: 7.2 seconds or less<br><br><b>C406:</b>  |



## 1. Specifications

| Items   | MP C307/C407  | MP C306/C406  |
|---|---|---|
|   | Color: 7.5 seconds or less<br>B&W: 6.1 seconds or less  | Color: 10.5 seconds or less<br>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:<br>(80 g/m <sup>2</sup> , 20 lb.) | Standard tray: 250 sheets<br>Bypass tray: 100 sheets<br>Optional tray: 500 sheets   |   |
| Print paper size:                                       | Standard tray: A4 SEF / LT SEF to A5 SEF<br>Bypass tray: A4 / LG to A6 SEF / Envelope<br>Optional tray: A4 SEF / LG SEF to A5 SEF<br>For details, see <a href="#">Supported Paper Sizes</a>   |   |
| Printing paper weight:                                  | Standard tray: 60-163 g/m <sup>2</sup> (16-90 lb.)<br>Bypass tray: 60-220 g/m <sup>2</sup> (16-80 lb.)<br>Optional tray: 60-163 g/m <sup>2</sup> (16-90 lb.)<br>Duplex: 60-163 g/m <sup>2</sup> (16-90 lb.)   |   |
| Output paper capacity:                                  | Std: 100 sheets<br>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:<br>From 25 to 400% (1% step)   |   |
|   | Fixed:<br><b>North America</b><br>65%, 78%, 93%, 100%, 129%, 155%<br><b>Europe/Asia</b><br>50%, 71%, 93%, 100%, 141%, 200%  |   |
| Power source:   | 110 V, 60 Hz: More than 10 A (for Taiwan)<br>120V -127 V, 60 Hz: More than 10 A (for North America)<br>220 V - 240 V, 50/60 Hz: More than 5 A (for Europe/Asia)   |   |
| Power consumption:                                      | <b>North America</b><br>C307 (with full system): 1,300 W or less<br>C407 (with full system): 1,300 W or less<br><b>EU/Asia</b><br>C307 (with full system): 1,200 W or less<br>C407 (with full system): 1,200 W or less<br>*The full system consists of the main unit, | <b>North America</b><br>C306 (with full system): 1,300 W or less<br>C406 (with full system): 1,300 W or less<br><b>EU/Asia</b><br>C306 (with full system): 1,200 W or less<br>C406 (with full system): 1,200 W or less<br>*The full system consists of the main |

## 1. Specifications

| Items           | MP C307/C407  | MP C306/C406  |
|-----------------|---|---|
|                 | two paper tray units, and 1 bin unit.   | unit, two paper tray units, and 1 bin unit.   |
| Energy saver:   | Reduced electrical consumption:<br>C307/C407: 1.0 W or less   | Reduced electrical consumption:<br><b>North America</b><br>C306: 0.71 W or less<br>C406: 0.63 W or less<br><b>EU/Asia</b><br>C306: 0.66 W or less<br>C406: 0.75 W or less   |
| Noise emission: | <p><b>Sound power level with full system</b></p> <p><b>C307:</b></p> <ul style="list-style-type: none"> <li>• Stand-by: 30.5 dB (A)</li> <li>• Copying:<br/>B&amp;W: 66.7 dB (A)<br/>Color: 67.8 dB (A)</li> </ul> <p><b>C407:</b></p> <ul style="list-style-type: none"> <li>• Stand-by: 30.8 dB (A)</li> <li>• Copying:<br/>B&amp;W: 69.7 dB (A)<br/>Color: 68.6 dB (A)</li> </ul> <p><b>Sound pressure level with full system</b></p> <p><b>C307:</b></p> <ul style="list-style-type: none"> <li>• Stand-by: 20.2 dB (A)</li> <li>• Copying:<br/>B&amp;W: 59.7 dB (A)<br/>Color: 61.1 dB (A)</li> </ul> <p><b>C407:</b></p> <ul style="list-style-type: none"> <li>• Stand-by: 21.0 dB (A)</li> <li>• Copying:<br/>B&amp;W: 62.3 dB (A)<br/>Color: 62.2 dB (A)</li> </ul> <p>Sound power level and sound pressure level are actual values measured in accordance with ISO 7779.</p> <p>Sound pressure level is measured from the position of the bystander.</p> <p>The full system consists of the main unit, 1-bin unit and two paper tray units.</p> | <p><b>Sound power level with full system</b></p> <p><b>C306:</b></p> <ul style="list-style-type: none"> <li>• Stand-by: 31.9 dB (A)</li> <li>• Copying: 67.7 dB (A)</li> </ul> <p><b>C406:</b></p> <ul style="list-style-type: none"> <li>• Stand-by: 31.9 dB (A)</li> <li>• Copying:<br/>B&amp;W: 68.3 dB (A)<br/>Color: 67.8 dB (A)</li> </ul> <p><b>Sound pressure level with full system</b></p> <p><b>C306:</b></p> <ul style="list-style-type: none"> <li>• Stand-by: 19.3 dB (A)</li> <li>• Copying: 55.3 dB (A)</li> </ul> <p><b>C406:</b></p> <ul style="list-style-type: none"> <li>• Stand-by: 19.8 dB (A)</li> <li>• Copying:<br/>B&amp;W: 56.1 dB (A)<br/>Color: 54.2 dB (A)</li> </ul> <p>Sound power level and sound pressure level are actual values measured in accordance with ISO 7779.</p> <p>Sound pressure level is measured from the position of the bystander.</p> <p>The full system consists of the main unit, ADF, 1 bin unit, and two paper tray units.</p> |
| 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"):<br>(including ARDF and operation panel)                |
| Weight: | 46 kg (101.4 lb.)<br>(including ADF) | Basic model: 40.5 kg (89.3 lb.)<br>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<br>Option: XPS, PictBridge, Adobe PostScript3   | Standard: PCL 5c/6, PDF, RPCS, PostScript 3<br>Option: XPS, PictBridge  |
| Resolution:        | 200 dpi, 300 dpi, 400 dpi, 600 dpi, 1200 dpi<br>Note: <ul style="list-style-type: none"> <li>• PCL5c: 600 x 600 dpi (1, 2, 4 bit), 300 x 300 dpi Grayscale</li> <li>• PCXL: 1200 x 1200 dpi (1 bit), 600 x 600 dpi (1, 2, 4 bit)</li> <li>• XPS: 600 x 600 dpi (1, 2, 4 bit)</li> </ul> | PCL5c:<br>600 x 600 dpi (1, 2, 4 bit), 300 x 300 dpi Grayscale<br>PCL6:<br>1200 x 1200 dpi (1 bit), 600 x 600 dpi (1, 2, 4 bit)<br>PS3:<br>1200 x 1200 dpi (1 bit), 600 x 600 dpi (1, 2, 4 bit)<br>XPS:<br>600 x 600 dpi (1, 2, 4 bit)                                    |
| Resident fonts:    | PCL 5c/6: 93 fonts<br>PDF: 136 fonts<br>PostScript 3: 136 fonts   | PCL5c/ 6: 45 fonts, 13 International fonts<br>Adobe PostScript 3: 136 fonts   |
| Host interfaces:   | <b>Standard:</b><br>Ethernet (10Base-T/100Base-TX/1000Base-T), USB2.0 (Type A), SD card slot<br><b>Option:</b><br>IEEE1284, Wireless LAN (IEEE802.11a/b/g/n), USB 2.0 (Type B), Ethernet (10Base-T/100Base-TX/1000Base-T)   | <b>Standard:</b><br>Ethernet (10Base-T/100Base-TX/1000Base-T), USB2.0[TypeB], USB2.0 Host I/F[TypeA](2 port), SD card slot<br><b>Option:</b><br>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)<br>Optional: IPX/SPX  |

1.Specifications

Scanner

| Items                | MP C307/C407   | MP C306/C406   |
|----------------------|--|--|
| Scanning method:     | Full-color scanner / Flatbed scanning  |  |
| Scanning resolution: | <b>TWAIN Mode:</b> <ul style="list-style-type: none"> <li>Exposure glass: 100 to 1200 dpi</li> <li>ADF: 100 to 600 dpi</li> </ul> <b>WIA Mode:</b> <ul style="list-style-type: none"> <li>100 to 1200 dpi</li> </ul> <b>Delivery Mode:</b> <ul style="list-style-type: none"> <li>100 / 200 / 300 / 400 / 600 dpi (default: 200 x 200 dpi)</li> </ul>  |  |
| Grayscales:          | 1 bit or 8 bits/pixel each for RGB   |  |
| Scanning Throughput: | <b>B&amp;W:</b><br>Simplex: 40 pages/minute (200 dpi/300 dpi)<br>Duplex: 80 pages/minute (200 dpi/300 dpi)<br>(A4 SEF, Mono 1bit, Text/Line Art, MMR compression with ADF)<br><b>Color:</b><br>Simplex: 40 pages/minute (200 dpi/300 dpi)<br>Duplex: 80 pages/minute (200 dpi/300 dpi)<br>(A4 SEF, FC Text/Photo / JPEG standard compression with ADF) | <b>B&amp;W:</b><br>Over 30 pages/minute (200dpi / 300dpi)<br>(A4, SEF, Mono 1bit, Text/Line Art, MMR compression with ADF)<br><b>Color:</b><br>Over 30 pages/minute (200dpi), Over 20 pages/minute (300dpi)<br>(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)<br>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<br>Duplex: A4 to A6, LG to HLT   |
| Original weight: | 52 to 128 g/m <sup>2</sup> (14 to 34 lb.)  | Simplex: 52 to 128 g/m <sup>2</sup> (14 to 34 lb.)<br>Duplex: 64 to 105 g/m <sup>2</sup> (17 to 28 lb.) |
| Table capacity:  | 50 sheets (80 g/m <sup>2</sup> , 20 lb. Bond or less)<br>20 sheets (more than 80 g/m <sup>2</sup> , 20 lb. Bond) |   |
| Separation:      | Friction pad   |   |

## 1.Specifications

| 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<br>5.50 - 8.50 inch  | 139.5 - 216.0 mm<br>5.50 - 8.50 inch  | 76.2 - 216.0 mm<br>3.00 - 8.50 inch   |
| Length | 210.0 - 297.0 mm<br>8.27 - 11.69 inch | 210.0 - 356.6 mm<br>8.27 - 14.03 inch | 139.0 - 600.0 mm<br>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<br>3.00 - 8.50 inch   | 139.7 - 216.0 mm<br>5.50 - 8.50 inch  |
| Length | 139.0 - 600.0 mm<br>5.48 - 23.62 inch | 210.0 - 600.0 mm<br>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.

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### Printer Drivers

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#### 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   | Code 128, Code 39, Code 93, Codabar, 2 of 5       |
|                               | Fonts     | 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.

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### Scanner and LAN Fax drivers

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#### 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.)

## 1. Specifications

### **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 from your PC. Address Book Editor and Cover Sheet Editor are to be installed as well.
- The Network TWAIN driver operates in 32-bit compatibility mode on 64-bit operating systems
- 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 <sup>2</sup> (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<br>(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 <sup>2</sup> )  |
| Paper Weight:           | 60 to 163 g/m <sup>2</sup> (16 to 43.5 lb.)                                  |
| Paper Size:             | Width: 140 to 216 mm (5.5" to 8.5")<br>Length: 210 to 356 mm (8.3" to 14.0") |
| Power Source:           | DC 5V (from the mainframe)   |
| Power Consumption:      | Less than 1 W<br>(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.



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### 3.SP Mode Tables

2. Enter the key code for SP mode.



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For details of the key code to enter the SP mode, ask your supervisor.

#### Exiting SP Mode

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- Press "Exit" on the LCD twice to return to the copy window.

#### Types of SP Modes

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- 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.

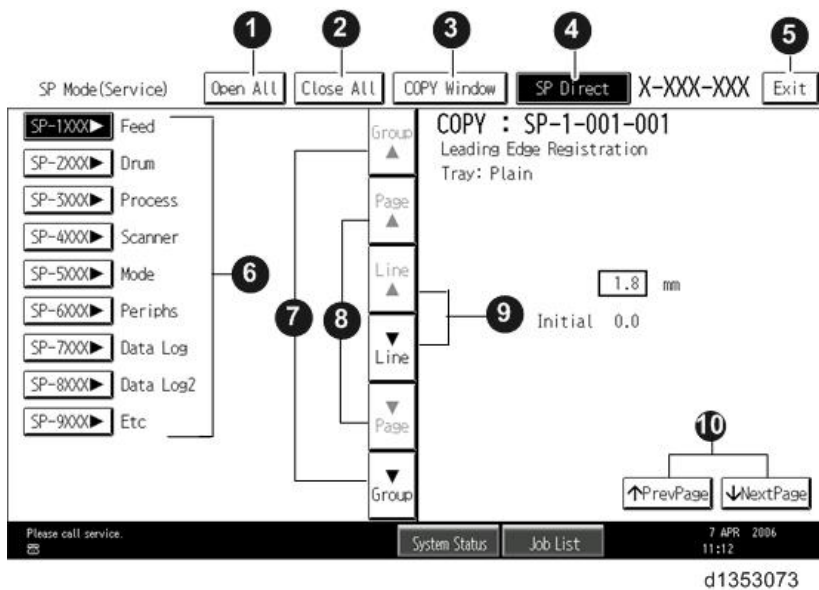


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#### SP Mode Button Summary

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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 $\oplus$ . (The required SP Mode number will be highlighted when pressing $\oplus$ . 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.

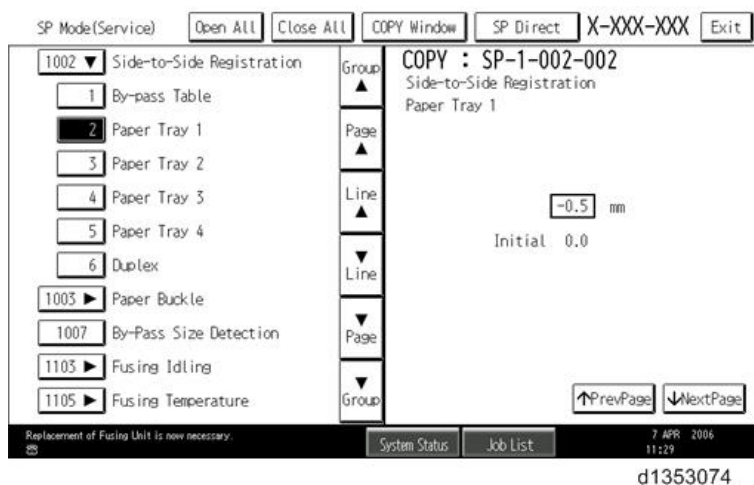
Selecting the Program Number

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.

### 3.SP Mode Tables

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.



#### Note

- Refer to the Service Tables for the range of allowed settings.

5. Do this procedure to enter a setting:
- Press  $\ominus$  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.

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## Remarks

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### Display on the Control Panel Screen

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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 <sup>2</sup> , 16-20lb.<br>Plain Paper2: 75-81 g/m <sup>2</sup> , 20lb.<br>Middle Thick: 82-105 g/m <sup>2</sup> , 20-28lb.<br>Thick Paper1: 106-169 g/m <sup>2</sup> , 28lb. Bond-90lb.<br>Thick Paper2: 170-220 g/m <sup>2</sup> , 65-80lb.<br>Thick Paper3: 221-256 g/m <sup>2</sup> , 80lb. Cover-140lb. |
| Paper Type            | N: Normal paper<br>MTH: Middle thick paper<br>TH: Thick paper  |
| Paper Feed Station    | P: Paper tray<br>B: Bypass table   |
| Color Mode<br>[Color] | [K]: Black in B&W mode<br>[Y], [M], or [C]: Yellow, Magenta, or Cyan in Full Color mode<br>[YMC]: Only for Yellow, Magenta, and Cyan<br>[FC]: Full Color mode<br>[FC, K], [FC, Y], [FC, M], or [FC, C]: Black, Yellow, Magenta, or Cyan in full color mode   |
| Print Mode            | S: Simplex<br>D: Duplex  |
| Process Speed         | L: Low speed (89 mm/s)<br>M: Middle speed (178 mm/s)   |

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## Others

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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.)

### 3.SP Mode Tables

**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)**

| <b>SP No.</b> | <b>Large Category</b>     | <b>Small Category</b>       | <b>ENG or CTL</b> | <b>[Min to Max/Init./Step]</b> |
|---------------|---------------------------|-----------------------------|-------------------|--------------------------------|
| 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 ]        |

3.SP Mode Tables

|           |                           |                             |      |                           |
|-----------|---------------------------|-----------------------------|------|---------------------------|
| 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 ]   |

## 3.SP Mode Tables

|           |                           |                                |     |                           |
|-----------|---------------------------|--------------------------------|-----|---------------------------|
| 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 ]     |

3.SP Mode Tables

|           |                          |                             |      |  |
|-----------|--------------------------|-----------------------------|------|--|
| 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:<br>[ 100 to 180 / 143 / 1deg ]<br>MP C407:<br>[ 100 to 200 / 168 / 1deg ] |
| 1-105-003 | Print Target Temperature | Plain1:BW:Center            | ENG* | [ 100 to 180 / * / 1deg ]<br>*MP C307:139<br>*MP C407:157                          |
| 1-105-    | Print Target             | Plain2:FC:Center            | ENG* | MP C307:   |

|           |                             |                        |      |  |
|-----------|-----------------------------|------------------------|------|--|
| 005       | Temperature                 |                        |      | [ 100 to 180 / 154 /<br>1deg ]<br>MP C407:<br>[ 100 to 200 / 180 /<br>1deg ]             |
| 1-105-007 | Print Target<br>Temperature | Plain2:BW:Center       | ENG* | [ 100 to 180 / * /<br>1deg ]<br>*MP C307:144<br>*MP C407:162                             |
| 1-105-009 | Print Target<br>Temperature | Thin:FC:Center         | ENG* | [ 100 to 180 / * /<br>1deg ]<br>*MP C307:153<br>*MP C407:163                             |
| 1-105-011 | Print Target<br>Temperature | Thin:BW:Center         | ENG* | [ 100 to 180 / * /<br>1deg ]<br>*MP C307:143<br>*MP C407:147                             |
| 1-105-013 | Print Target<br>Temperature | Middle Thick:FC:Center | ENG* | [ 100 to 180 / 168 /<br>1deg ]   |
| 1-105-015 | Print Target<br>Temperature | Middle Thick:BW:Center | ENG* | [ 100 to 180 / 158 /<br>1deg ]   |
| 1-105-017 | Print Target<br>Temperature | Thick1:FC:Center       | ENG* | [ 100 to 180 / 143 /<br>1deg ]   |
| 1-105-019 | Print Target<br>Temperature | Thick1:BW:Center       | ENG* | [ 100 to 180 / 143 /<br>1deg ]   |
| 1-105-021 | Print Target<br>Temperature | Thick2:FC:Center       | ENG* | [ 100 to 180 / 145 /<br>1deg ]   |
| 1-105-023 | Print Target<br>Temperature | Thick2:BW:Center       | ENG* | [ 100 to 180 / 145 /<br>1deg ]   |
| 1-105-025 | Print Target<br>Temperature | Thick3:FC:Center       | ENG* | [ 100 to 180 / 148 /<br>1deg ]   |
| 1-105-027 | Print Target<br>Temperature | Thick3:BW:Center       | ENG* | [ 100 to 180 / 148 /<br>1deg ]   |
| 1-105-029 | Print Target<br>Temperature | Special1:FC:Center     | ENG* | MP C307:<br>[ 100 to 180 / 143 /<br>1deg ]<br>MP C407:<br>[ 100 to 200 / 168 /<br>1deg ] |

3.SP Mode Tables

|           |                          |                                  |      |  |
|-----------|--------------------------|----------------------------------|------|--|
| 1-105-031 | Print Target Temperature | Special1:BW:Center               | ENG* | [ 100 to 180 / * / 1deg ]<br>*MP C307:139<br>*MP C407:1357                         |
| 1-105-033 | Print Target Temperature | Special2:FC:Center               | ENG* | MP C307:<br>[ 100 to 180 / 154 / 1deg ]<br>MP C407:<br>[ 100 to 200 / 180 / 1deg ] |
| 1-105-035 | Print Target Temperature | Special2:BW:Center               | ENG* | [ 100 to 180 / * / 1deg ]<br>*MP C307:144<br>*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 ]  |

## 3.SP Mode Tables

|           |                            |                               |      |                             |
|-----------|----------------------------|-------------------------------|------|-----------------------------|
| 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 ]   |

### 3.SP Mode Tables

|           |                                |                                  |      |   |
|-----------|--------------------------------|----------------------------------|------|---|
| 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 ]<br>0: 89mm/s (C307, C407)<br>1: 178mm/s (C307, C407)<br>2: 212mm/s (C407)<br>3: 252mm/s (C407) |
| 1-109-002 | Rotation Speed Setting         | After Reload Rotation            | ENG* | [ 0 to 3 / 0 / 1 ]<br>0: 89mm/s (C307, C407)<br>1: 178mm/s (C307, C407)<br>2: 212mm/s (C407)<br>3: 252mm/s (C407) |
| 1-109-003 | Rotation Speed Setting         | Print Ready Rotation             | ENG* | [ 0 to 3 / 0 / 1 ]<br>0: 89mm/s (C307, C407)<br>1: 178mm/s (C307, C407)<br>2: 212mm/s (C407)<br>3: 252mm/s (C407) |
| 1-112-002 | Image Processing Temp. Correct | Temp.:Plain:Center:Energy Saving | ENG* | [ -30 to 20 / * / 1deg ]<br>*MP C307:13<br>*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 ]<br>0: OFF<br>1: ON   |
| 1-131-001 | Continuous Print Mode Switch   | Feed Permit Condition Setting    | ENG* | [ 0 to 2 / 1 / 1 ]<br>0: Productivity Mode  |



## 3.SP Mode Tables

|           |                              |  |      |  |
|-----------|------------------------------|--|------|--|
|           |                              |  |      | 1: Fusing Quality<br>Mode 1<br>2: Fusing Quality<br>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<br>Judg. | Control ON/OFF                         | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: OFF<br>1: ON                      |
| 1-141-001 | Fusing SC Issue Time<br>Info | SC Number                              | ENG* | [ 0 to 99999 / 0 / 1 ]                                     |
| 1-141-101 | Fusing SC Issue Time<br>Info | Heating Roller Temperature<br>1:Center | ENG* | [ -50 to 260 / 0 / 1deg ]                                  |
| 1-141-104 | Fusing SC Issue Time<br>Info | Heating Roller Temperature 1:End       | ENG* | [ -50 to 260 / 0 / 1deg ]                                  |
| 1-141-107 | Fusing SC Issue Time<br>Info | Press Roller Temperature 1             | ENG* | [ -50 to 260 / 0 / 1deg ]                                  |
| 1-141-108 | Fusing SC Issue Time<br>Info | Press Roller: End R Temperature 1      | ENG* | [ -50 to 260 / 0 / 1deg ]                                  |
| 1-141-109 | Fusing SC Issue Time<br>Info | Press Roller: End F Temperature 1      | ENG* | [ -50 to 260 / 0 / 1deg ]                                  |
| 1-141-151 | Fusing SC Issue Time<br>Info | Heating Roller Temperature<br>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 ]                                  |

### 3.SP Mode Tables

|           |                                |  |      |   |
|-----------|--------------------------------|--|------|---|
| 154       | Info                           |  |      |   |
| 1-141-157 | Fusing SC Issue Time<br>Info   | Press Roller Temperature 2             | ENG* | [ -50 to 260 / 0 / 1deg ]   |
| 1-141-158 | Fusing SC Issue Time<br>Info   | Press Roller.End R Temperature 2       | ENG* | [ -50 to 260 / 0 / 1deg ]   |
| 1-141-159 | Fusing SC Issue Time<br>Info   | Press Roller.End F Temperature 2       | ENG* | [ -50 to 260 / 0 / 1deg ]   |
| 1-141-201 | Fusing SC Issue Time<br>Info   | Heating Roller Temperature<br>3:Center | ENG* | [ -50 to 260 / 0 / 1deg ]   |
| 1-141-204 | Fusing SC Issue Time<br>Info   | Heating Roller Temperature 3:End       | ENG* | [ -50 to 260 / 0 / 1deg ]   |
| 1-141-207 | Fusing SC Issue Time<br>Info   | Press Roller Temperature 3             | ENG* | [ -50 to 260 / 0 / 1deg ]   |
| 1-141-208 | Fusing SC Issue Time<br>Info   | Press Roller.End R Temperature 3       | ENG* | [ -50 to 260 / 0 / 1deg ]   |
| 1-141-209 | Fusing SC Issue Time<br>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 ]<br>0: OFF<br>1: ON   |
| 1-152-001 | Fusing Nip Band<br>Check       | Execute                                | ENG  | [ 0 or 1 / 0 / 1 ]  |
| 1-158-001 | Abnormal Noise<br>Confirmation | Unit: Execute                          | ENG  | [ 0 or 1 / 0 / 1 ]  |
| 1-158-002 | Abnormal Noise<br>Confirmation | No Unit: Execute                       | ENG  | [ 0 or 1 / 0 / 1 ]  |
| 1-158-003 | Abnormal Noise<br>Confirmation | Operation Time                         | ENG* | [ 0 to 200 / 20 / 1sec ]  |
| 1-158-004 | Abnormal Noise<br>Confirmation | Operation Line Speed                   | ENG* | [ 0 to 3 / 0 / 1 ]<br>0: 89mm/s (C307,<br>C407)<br>1: 178mm/s (C307,<br>C407)<br>2: 212mm/s (C407)<br>3: 252mm/s (C407) |
| 1-158-005 | Abnormal Noise<br>Confirmation | Heat Center Target Temp                | ENG* | [ 100 to 180 / * /<br>1deg ]<br>*MP C307:154  |

## 3.SP Mode Tables

|           |                             |                                 |      |                            |
|-----------|-----------------------------|---------------------------------|------|----------------------------|
|           |                             |                                 |      | *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 | IBin 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 /         |

3.SP Mode Tables

|           |                        |                                      |      |  |
|-----------|------------------------|--------------------------------------|------|--|
| 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:<br>[ -6 to 6 / 0 / 1STEP ]<br>MP C407:<br>[ -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:<br>[ -6 to 6 / 0 / 1STEP ]<br>MP C407:<br>[ -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 /   |

## 3.SP Mode Tables

|           |                        |                                 |      |                          |
|-----------|------------------------|---------------------------------|------|--------------------------|
| 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 ]  |

3.SP Mode Tables

|           |                           |  |      |                                |
|-----------|---------------------------|--|------|--------------------------------|
| 010       | Adj.                      |  |      |                                |
| 1-907-011 | Paper Feed Timing<br>Adj. | Tray1 Paper Exit Sensor: Middle<br>Thick | ENG  | [ -10 to 10 / 0 / 1mm ]        |
| 1-907-012 | Paper Feed Timing<br>Adj. | Tray1 Paper Exit Sensor: Thick           | ENG  | [ -10 to 10 / 0 / 1mm ]        |
| 1-907-013 | Paper Feed Timing<br>Adj. | By-pass Clutch ON: Plain                 | ENG  | [ -10 to 10 / 0 / 1mm ]        |
| 1-907-014 | Paper Feed Timing<br>Adj. | By-pass Clutch ON: Middle Thick          | ENG  | [ -10 to 10 / 0 / 1mm ]        |
| 1-907-015 | Paper Feed Timing<br>Adj. | By-pass Clutch ON: Thick                 | ENG  | [ -10 to 10 / 0 / 1mm ]        |
| 1-907-016 | Paper Feed Timing<br>Adj. | By-pass Clutch ON: Envelope              | ENG  | [ -10 to 10 / 0 / 1mm ]        |
| 1-907-017 | Paper Feed Timing<br>Adj. | By-pass Clutch OFF: Plain                | ENG  | [ -10 to 10 / -5 / 1mm ]       |
| 1-907-018 | Paper Feed Timing<br>Adj. | By-pass Clutch OFF: Middle Thick         | ENG  | [ -10 to 10 / -5 / 1mm ]       |
| 1-907-019 | Paper Feed Timing<br>Adj. | By-pass Clutch OFF: Thick                | ENG  | [ -10 to 10 / -5 / 1mm ]       |
| 1-907-020 | Paper Feed Timing<br>Adj. | By-pass Clutch OFF: Envelope             | ENG  | [ -10 to 10 / -5 / 1mm ]       |
| 1-907-021 | Paper Feed Timing<br>Adj. | Exit Junction Solenoid: OFF              | ENG  | [ -20 to 20 / 0 / 1mm ]        |
| 1-907-022 | Paper Feed Timing<br>Adj. | Exit Junction Solenoid: ON               | ENG  | [ -20 to 20 / 0 / 1mm ]        |
| 1-907-025 | Paper Feed Timing<br>Adj. | Exit Junction Solenoid: OFF:Low          | ENG  | [ -10 to 10 / 0 / 1mm ]        |
| 1-907-026 | Paper Feed Timing<br>Adj. | Exit Junction Solenoid: ON:Low           | ENG  | [ -10 to 10 / 0 / 1mm ]        |
| 1-907-029 | Paper Feed Timing<br>Adj. | Tray Lift Motor Pressure                 | ENG* | [ -2540 to 2540 / 0 / 20msec ] |
| 1-907-032 | Paper Feed Timing<br>Adj. | Tray Lift Motor Up                       | ENG* | [ -2540 to 2540 / 0 / 20msec ] |
| 1-907-033 | Paper Feed Timing<br>Adj. | Tray Lift Motor Down                     | ENG* | [ -2540 to 2540 / 0 / 20msec ] |
| 1-907-034 | Paper Feed Timing<br>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 ]        |

## 3.SP Mode Tables

|           |                           |  |      |                         |
|-----------|---------------------------|--|------|-------------------------|
| 035       | Adj.                      |  |      |                         |
| 1-907-036 | Paper Feed Timing<br>Adj. | Tray2: Paper Interval: Mid. Thick        | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-037 | Paper Feed Timing<br>Adj. | Tray2: Paper Interval: Thick             | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-038 | Paper Feed Timing<br>Adj. | Tray3: Paper Interval: Plain             | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-039 | Paper Feed Timing<br>Adj. | Tray3: Paper Interval: Mid. Thick        | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-040 | Paper Feed Timing<br>Adj. | Tray3: Paper Interval: Thick             | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-041 | Paper Feed Timing<br>Adj. | Tray2: 1st Leading Edge Pos.: Plain      | ENG* | [ 0 to 10 / 0 / 1mm ]   |
| 1-907-042 | Paper Feed Timing<br>Adj. | Tray2: 1st Leading Edge Pos.: Mid. Thick | ENG* | [ 0 to 10 / 0 / 1mm ]   |
| 1-907-043 | Paper Feed Timing<br>Adj. | Tray2: 1st Leading Edge Pos.: Thick      | ENG* | [ 0 to 10 / 0 / 1mm ]   |
| 1-907-044 | Paper Feed Timing<br>Adj. | Tray3: 1st Leading Edge Pos.: Plain      | ENG* | [ 0 to 10 / 0 / 1mm ]   |
| 1-907-045 | Paper Feed Timing<br>Adj. | Tray3: 1st Leading Edge Pos.: Mid. Thick | ENG* | [ 0 to 10 / 0 / 1mm ]   |
| 1-907-046 | Paper Feed Timing<br>Adj. | Tray3: 1st Leading Edge Pos.: Thick      | ENG* | [ 0 to 10 / 0 / 1mm ]   |
| 1-907-047 | Paper Feed Timing<br>Adj. | Tray2: Min. Paper Interval: Plain        | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-048 | Paper Feed Timing<br>Adj. | Tray2: Min. Paper Interval: Mid. Thick   | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-049 | Paper Feed Timing<br>Adj. | Tray2: Min. Paper Interval: Thick        | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-050 | Paper Feed Timing<br>Adj. | Tray3: Min. Paper Interval: Plain        | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-051 | Paper Feed Timing<br>Adj. | Tray3: Min. Paper Interval: Mid. Thick   | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-052 | Paper Feed Timing<br>Adj. | Tray3: Min. Paper Interval: Thick        | ENG* | [ -10 to 10 / 0 / 1mm ] |
| 1-907-053 | Paper Feed Timing<br>Adj. | Tray1 Clutch ON: Plain: Std Speed<br>2   | ENG  | [ -10 to 10 / 0 / 1mm ] |
| 1-907-    | Paper Feed Timing         | Tray1 Clutch OFF: Plain: Std Speed       | ENG  | [ -10 to 10 / 0 / 1mm ] |

3.SP Mode Tables

|           |                           |   |     |                          |
|-----------|---------------------------|---|-----|--------------------------|
| 055       | Adj.                      | 2   |     |                          |
| 1-907-057 | Paper Feed Timing<br>Adj. | Tray1 Paper Exit Sen.: Plain: Std<br>Spd 2      | ENG | [ -10 to 10 / 0 / 1mm ]  |
| 1-907-058 | Paper Feed Timing<br>Adj. | Tray1 Paper Exit Sen.: Middle<br>Thick: BW      | ENG | [ -10 to 10 / 0 / 1mm ]  |
| 1-907-059 | Paper Feed Timing<br>Adj. | By-pass Clutch ON: Plain: Std<br>Speed 2        | ENG | [ -10 to 10 / 0 / 1mm ]  |
| 1-907-061 | Paper Feed Timing<br>Adj. | By-pass Clutch OFF: Plain: Std<br>Speed 2       | ENG | [ -10 to 10 / -5 / 1mm ] |
| 1-907-063 | Paper Feed Timing<br>Adj. | Exit Junction SOL:OFF: Std Speed<br>2           | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-064 | Paper Feed Timing<br>Adj. | Exit Junction SOL:ON: Std Speed 2               | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-065 | Paper Feed Timing<br>Adj. | Exit Junction SOL:OFF: Mid Speed                | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-066 | Paper Feed Timing<br>Adj. | Exit Junction SOL:ON: Mid Speed                 | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-067 | Paper Feed Timing<br>Adj. | Exit Clutch OFF: Exit Finish : Plain            | ENG | [ -10 to 10 / 0 / 1mm ]  |
| 1-907-068 | Paper Feed Timing<br>Adj. | Exit Clutch OFF: Reverse Finish :<br>Plain      | ENG | [ -10 to 10 / 0 / 1mm ]  |
| 1-907-069 | Paper Feed Timing<br>Adj. | Exit Clutch OFF: Invert Finish :<br>Plain       | ENG | [ -10 to 10 / 0 / 1mm ]  |
| 1-907-070 | Paper Feed Timing<br>Adj. | Exit Clutch OFF: Exit Finish : Std<br>Speed 2   | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-071 | Paper Feed Timing<br>Adj. | Exit Clutch OFF: Invert Finish : Std<br>Speed 2 | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-072 | Paper Feed Timing<br>Adj. | Exit Clutch ON: Std Speed 2                     | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-073 | Paper Feed Timing<br>Adj. | Exit Clutch OFF: Exit Finish : Low              | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-074 | Paper Feed Timing<br>Adj. | Exit Clutch OFF: Invert Finish :<br>Low         | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-075 | Paper Feed Timing<br>Adj. | Exit Clutch ON: Low Speed                       | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-076 | Paper Feed Timing<br>Adj. | Exit Clutch OFF: Exit Finish : Mid<br>Speed     | ENG | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-    | Paper Feed Timing         | Exit Clutch OFF: Invert Finish :                | ENG | [ -20 to 20 / 0 / 1mm ]  |



## 3.SP Mode Tables

|           |                           |  |      |                          |
|-----------|---------------------------|--|------|--------------------------|
| 077       | Adj.                      | Mid Speed                                |      |                          |
| 1-907-078 | Paper Feed Timing<br>Adj. | Exit Clutch ON: Mid Speed                | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-079 | Paper Feed Timing<br>Adj. | Invert Clutch OFF: Invert : Plain        | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-080 | Paper Feed Timing<br>Adj. | Invert Clutch OFF:1bin Exit: Plain       | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-081 | Paper Feed Timing<br>Adj. | Invert Clutch ON: Plain                  | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-082 | Paper Feed Timing<br>Adj. | Invert Clutch OFF: Invert:Std Speed<br>2 | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-083 | Paper Feed Timing<br>Adj. | Invert Clutch OFF:1BIN: Std Speed<br>2   | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-084 | Paper Feed Timing<br>Adj. | Invert Clutch ON: Std Speed 2            | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-085 | Paper Feed Timing<br>Adj. | Invert Clutch OFF: Invert: Low<br>Speed  | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-086 | Paper Feed Timing<br>Adj. | Invert Clutch OFF:1BIN: Low<br>Speed     | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-087 | Paper Feed Timing<br>Adj. | Invert Clutch ON: Low Speed              | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-088 | Paper Feed Timing<br>Adj. | Invert Clutch OFF: Invert :Mid<br>Speed  | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-089 | Paper Feed Timing<br>Adj. | Invert Clutch OFF:1BIN: Mid<br>Speed     | ENG  | [ -20 to 20 / 0 / 1mm ]  |
| 1-907-090 | Paper Feed Timing<br>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 ]  |

### 3.SP Mode Tables

|           |                               |                                   |      |                            |
|-----------|-------------------------------|-----------------------------------|------|----------------------------|
| 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

| <b>SP No.</b> | <b>Large Category</b>         | <b>Small Category</b>          | <b>ENG or CTL</b> | <b>[Min to Max/Init./Step]</b> |
|---------------|-------------------------------|--------------------------------|-------------------|--------------------------------|
| 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.<br>2 | ENG*              | [ 0 to 999 / 0 / 1page ]       |

3.SP Mode Tables

|           |                           |                                   |      |                            |
|-----------|---------------------------|-----------------------------------|------|----------------------------|
| 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 ] |

## 3.SP Mode Tables

|                   |                          |                                   |      |                                    |
|-------------------|--------------------------|-----------------------------------|------|------------------------------------|
| 2-<br>101-<br>002 | Registration Correction  | Color Main Dot: Ma                | ENG* | [ -512 to 511 / 0 /<br>1dot ]      |
| 2-<br>101-<br>003 | Registration Correction  | Color Main Dot: Cy                | ENG* | [ -512 to 511 / 0 /<br>1dot ]      |
| 2-<br>101-<br>004 | Registration Correction  | Color Main Dot: Ye                | ENG* | [ -512 to 511 / 0 /<br>1dot ]      |
| 2-<br>101-<br>005 | Registration Correction  | Color Sub Line: Bk                | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>101-<br>006 | Registration Correction  | Color Sub Line: Ma                | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>101-<br>007 | Registration Correction  | Color Sub Line: Cy                | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>101-<br>008 | Registration Correction  | Color Sub Line: Ye                | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>102-<br>001 | Magnification Adjustment | Main Mag.: Standard<br>Speed: Bk  | ENG* | [ -1 to 1 / 0.091 /<br>0.001% ]    |
| 2-<br>102-<br>002 | Magnification Adjustment | Main Mag.: Standard<br>Speed2: Bk | ENG* | [ -1 to 1 / 0.091 /<br>0.001% ]    |
| 2-<br>102-<br>003 | Magnification Adjustment | Main Mag.: Low Speed: Bk          | ENG* | [ -1 to 1 / 0.091 /<br>0.001% ]    |
| 2-<br>102-<br>004 | Magnification Adjustment | Main Mag.: Standard<br>Speed: Ma  | ENG* | [ -1 to 1 / 0.091 /<br>0.001% ]    |
| 2-<br>102-<br>006 | Magnification Adjustment | Main Mag.: Low Speed: Ma          | ENG* | [ -1 to 1 / 0.091 /<br>0.001% ]    |
| 2-<br>102-<br>007 | Magnification Adjustment | Main Mag.: Standard<br>Speed: Cy  | ENG* | [ -1 to 1 / 0.081 /<br>0.001% ]    |

3.SP Mode Tables

|                   |                           |                                     |      |                                |
|-------------------|---------------------------|-------------------------------------|------|--------------------------------|
| 2-<br>102-<br>009 | Magnification Adjustment  | Main Mag.: Low Speed: Cy            | ENG* | [ -1 to 1 / 0.081 / 0.001% ]   |
| 2-<br>102-<br>010 | Magnification Adjustment  | Main Mag.: Standard Speed: Ye       | ENG* | [ -1 to 1 / 0.081 / 0.001% ]   |
| 2-<br>102-<br>012 | Magnification Adjustment  | Main Mag.: Low Speed: Ye            | ENG* | [ -1 to 1 / 0.081 / 0.001% ]   |
| 2-<br>102-<br>013 | Main Scan Beam Pitch Adj. | Bk                                  | ENG* | [ 0 to 100 / 11.53 / 0.01dot ] |
| 2-<br>102-<br>015 | Main Scan Beam Pitch Adj. | Ma                                  | ENG* | [ 0 to 100 / 11.53 / 0.01dot ] |
| 2-<br>102-<br>017 | Main Scan Beam Pitch Adj. | Cy                                  | ENG* | [ 0 to 100 / 11.53 / 0.01dot ] |
| 2-<br>102-<br>019 | Main Scan Beam Pitch Adj. | Ye                                  | ENG* | [ 0 to 100 / 11.53 / 0.01dot ] |
| 2-<br>102-<br>028 | Magnification Adjustment  | Color Main Mag.: Standard Speed: Ma | ENG* | [ -1 to 1 / 0 / 0.001% ]       |
| 2-<br>102-<br>031 | Magnification Adjustment  | Color Main Mag.: Standard Speed: Cy | ENG* | [ -1 to 1 / 0 / 0.001% ]       |
| 2-<br>102-<br>034 | Magnification Adjustment  | Color Main Mag.: Standard Speed: Ye | ENG* | [ -1 to 1 / 0 / 0.001% ]       |
| 2-<br>103-<br>001 | Erase Margin Adjustment   | Leading Edge Width                  | ENG* | [ 0 to 9.9 / 4.2 / 0.1mm ]     |
| 2-<br>103-<br>002 | Erase Margin Adjustment   | Trailing Edge Width                 | ENG* | [ 0 to 9.9 / 4.2 / 0.1mm ]     |
| 2-<br>103-<br>003 | Erase Margin Adjustment   | Left                                | ENG* | [ 0 to 9.9 / 2 / 0.1mm ]       |

## 3.SP Mode Tables

|                   |                         |  |      |   |
|-------------------|-------------------------|--|------|---|
| 2-<br>103-<br>004 | Erase Margin Adjustment | Right                                    | ENG* | [ 0 to 9.9 / 2 / 0.1mm ]  |
| 2-<br>103-<br>005 | Erase Margin Adjustment | Duplex: Trailing Edge                    | ENG* | [ 0 to 9.9 / 0 / 0.1mm ]  |
| 2-<br>103-<br>006 | Erase Margin Adjustment | Duplex: Left Edge                        | ENG* | [ 0 to 9.9 / 0 / 0.1mm ]  |
| 2-<br>103-<br>007 | Erase Margin Adjustment | Duplex: Right Edge                       | ENG* | [ 0 to 9.9 / 0 / 0.1mm ]  |
| 2-<br>106-<br>001 | Polygon Rotation Time   | Warming-Up Time Set                      | ENG* | [ 0 to 60 / 10 / 1sec ]   |
| 2-<br>106-<br>002 | Polygon Rotation Time   | Post Rotating Time Set<br>After Printing | ENG* | [ 0 to 60 / 0 / 1sec ]  |
| 2-<br>107-<br>002 | Image Parameter         | Shading Correction Flag                  | ENG* | [ 0 or 1 / 1 / 1 ]  |
| 2-<br>109-<br>003 | Test Pattern            | Pattern Selection                        | ENG  | [ 0 to 23 / 0 / 1 ]<br>0: None<br>1: Vertical Line (1dot)<br>2: Vertical Line<br>(2dots)<br>3: Horizontal Line<br>(1dot)<br>4: Horizontal Line<br>(2dots)<br>5: Grid Vertical Line<br>6: Grid Horizontal<br>Line<br>7: Grid Pattern Small<br>8: Grid Pattern Large<br>9: Argyle Pattern<br>Small<br>10: Argyle Pattern<br>Large |

3.SP Mode Tables

|           |              |                 |     |  |
|-----------|--------------|-----------------|-----|--|
|           |              |                 |     | <p>11: Independent Pattern (1dot)</p> <p>12: Independent Pattern (2dots)</p> <p>13: Independent Pattern (4dots)</p> <p>14: Trimming Area</p> <p>15: Hound's Tooth Check (Vertical)</p> <p>16: Hound's Tooth Check (Horizontal)</p> <p>17: Band (Horizontal)</p> <p>18: Band (Vertical)</p> <p>19: Checker Flag Pattern</p> <p>20: Grayscale (Vertical Margin)</p> <p>21: Grayscale (Horizontal Margin)</p> <p>22: Two-Beam Density Pattern</p> <p>23: Full Dot Pattern</p> |
| 2-109-005 | Test Pattern | Color Selection | ENG | <p>[ 1 to 4 / 1 / 1 ]</p> <p>1: All Color</p> <p>2: Ma</p> <p>3: Ye</p> <p>4: Cy</p>   |
| 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 ]   |



## 3.SP Mode Tables

|                   |                           |                                       |      |                                      |
|-------------------|---------------------------|---------------------------------------|------|--------------------------------------|
| 2-<br>110-<br>001 | STOUT                     | STOUT Selection                       | ENG* | [ 0 or 1 / 0 / 1 ]                   |
| 2-<br>110-<br>002 | LD Driver                 | Error Bk                              | ENG  | [ 0x0000 to 0xFFFF /<br>0x0000 / 1 ] |
| 2-<br>110-<br>003 | LD Driver                 | Error Ma                              | ENG  | [ 0x0000 to 0xFFFF /<br>0x0000 / 1 ] |
| 2-<br>110-<br>004 | LD Driver                 | Error Cy                              | ENG  | [ 0x0000 to 0xFFFF /<br>0x0000 / 1 ] |
| 2-<br>110-<br>005 | LD Driver                 | Error Ye                              | ENG  | [ 0x0000 to 0xFFFF /<br>0x0000 / 1 ] |
| 2-<br>110-<br>006 | LD Driver                 | Writing Unit Adj. Transfer            | ENG  | [ 0 or 1 / 0 / 1 ]                   |
| 2-<br>111-<br>001 | Forced Line Position Adj. | Mode a                                | ENG  | [ 0 or 1 / 0 / 1 ]                   |
| 2-<br>111-<br>002 | Forced Line Position Adj. | Mode b                                | ENG  | [ 0 or 1 / 0 / 1 ]                   |
| 2-<br>111-<br>003 | Forced Line Position Adj. | Mode c                                | ENG  | [ 0 or 1 / 0 / 1 ]                   |
| 2-<br>111-<br>004 | Forced Line Position Adj. | Mode d                                | ENG  | [ 0 or 1 / 0 / 1 ]                   |
| 2-<br>112-<br>001 | TM/ID Sensor Check        | Execute                               | ENG  | [ 0 or 1 / 0 / 1 ]                   |
| 2-<br>112-<br>010 | TM/ID Sensor Check        | Display Result: Front-<br>Center-Rear | ENG* | [ 0 to 999 / 0 / 1 ]                 |
| 2-<br>112-<br>020 | TM/ID Sensor Check        | Threshold Setting                     | ENG* | [ 0 to 5.5 / 1.9 /<br>0.01V ]        |

### 3.SP Mode Tables

|                   |                    |                    |      |                                 |
|-------------------|--------------------|--------------------|------|---------------------------------|
| 2-<br>117-<br>001 | Skew Adjustment    | Ma:Skew Adjustment | ENG* | [ -256 to 256 / 0 /<br>1click ] |
| 2-<br>117-<br>002 | Skew Adjustment    | Cy:Skew Adjustment | ENG* | [ -256 to 256 / 0 /<br>1click ] |
| 2-<br>117-<br>003 | Skew Adjustment    | Ye:Skew Adjustment | ENG* | [ -256 to 256 / 0 /<br>1click ] |
| 2-<br>117-<br>004 | Skew Adjustment    | Bk:Skew Adjustment | ENG* | [ -256 to 256 / 0 /<br>1click ] |
| 2-<br>140-<br>005 | TM/ID Sensor Check | PWM: Front         | ENG* | [ 0 to 1024 / 0 / 1 ]           |
| 2-<br>140-<br>006 | TM/ID Sensor Check | PWM: Center        | ENG* | [ 0 to 1024 / 0 / 1 ]           |
| 2-<br>140-<br>007 | TM/ID Sensor Check | PWM: Rear          | ENG* | [ 0 to 1024 / 0 / 1 ]           |
| 2-<br>141-<br>005 | TM/ID Sensor Check | Average: Front     | ENG* | [ 0 to 5.5 / 0 / 0.01V ]        |
| 2-<br>141-<br>006 | TM/ID Sensor Check | Average: Center    | ENG* | [ 0 to 5.5 / 0 / 0.01V ]        |
| 2-<br>141-<br>007 | TM/ID Sensor Check | Average: Rear      | ENG* | [ 0 to 5.5 / 0 / 0.01V ]        |
| 2-<br>142-<br>005 | TM/ID Sensor Check | Maximum: Front     | ENG* | [ 0 to 5.5 / 0 / 0.01V ]        |
| 2-<br>142-<br>006 | TM/ID Sensor Check | Maximum: Center    | ENG* | [ 0 to 5.5 / 0 / 0.01V ]        |
| 2-<br>142-<br>007 | TM/ID Sensor Check | Maximum: Rear      | ENG* | [ 0 to 5.5 / 0 / 0.01V ]        |

## 3.SP Mode Tables

|                   |                        |                                    |      |                               |
|-------------------|------------------------|------------------------------------|------|-------------------------------|
| 2-<br>143-<br>005 | TM/ID Sensor Check     | Minimum: Front                     | ENG* | [ 0 to 5.5 / 0 / 0.01V ]      |
| 2-<br>143-<br>006 | TM/ID Sensor Check     | Minimum: Center                    | ENG* | [ 0 to 5.5 / 0 / 0.01V ]      |
| 2-<br>143-<br>007 | TM/ID Sensor Check     | Minimum: Rear                      | ENG* | [ 0 to 5.5 / 0 / 0.01V ]      |
| 2-<br>146-<br>005 | TM-Sensor Check Result | Number of Edge<br>Detection:Front  | ENG* | [ 0 to 16 / 0 / 1 ]           |
| 2-<br>146-<br>006 | TM-Sensor Check Result | Number of Edge<br>Detection:Center | ENG* | [ 0 to 16 / 0 / 1 ]           |
| 2-<br>146-<br>007 | TM-Sensor Check Result | Number of Edge<br>Detection:Rear   | ENG* | [ 0 to 16 / 0 / 1 ]           |
| 2-<br>154-<br>002 | Shad. Correct Setting  | Front End Area: Bk: LD1            | ENG* | [ 50 to 150 / 100 /<br>0.1% ] |
| 2-<br>154-<br>003 | Shad. Correct Setting  | Front End Area: Bk: LD2            | ENG* | [ 50 to 150 / 100 /<br>0.1% ] |
| 2-<br>154-<br>005 | Shad. Correct Setting  | Front End Area: Ma: LD1            | ENG* | [ 50 to 150 / 100 /<br>0.1% ] |
| 2-<br>154-<br>006 | Shad. Correct Setting  | Front End Area: Ma: LD2            | ENG* | [ 50 to 150 / 100 /<br>0.1% ] |
| 2-<br>154-<br>007 | Shad. Correct Setting  | Front End Area: Cy: LD1            | ENG* | [ 50 to 150 / 100 /<br>0.1% ] |
| 2-<br>154-<br>008 | Shad. Correct Setting  | Front End Area: Cy: LD2            | ENG* | [ 50 to 150 / 100 /<br>0.1% ] |
| 2-<br>154-<br>009 | Shad. Correct Setting  | Front End Area: Ye: LD1            | ENG* | [ 50 to 150 / 100 /<br>0.1% ] |

### 3.SP Mode Tables

|                   |                       |                            |      |                            |
|-------------------|-----------------------|----------------------------|------|----------------------------|
| 2-<br>154-<br>010 | Shad. Correct Setting | Front End Area: Ye: LD2    | ENG* | [ 50 to 150 / 100 / 0.1% ] |
| 2-<br>160-<br>001 | Vertical Line Width   | 600dpi:Bk                  | ENG* | [ 10 to 15 / 14 / 1 ]      |
| 2-<br>160-<br>002 | Vertical Line Width   | 600dpi:Ma                  | ENG* | [ 10 to 15 / 14 / 1 ]      |
| 2-<br>160-<br>003 | Vertical Line Width   | 600dpi:Cy                  | ENG* | [ 10 to 15 / 14 / 1 ]      |
| 2-<br>160-<br>004 | Vertical Line Width   | 600dpi:Ye                  | ENG* | [ 10 to 15 / 14 / 1 ]      |
| 2-<br>160-<br>005 | Vertical Line Width   | 1200dpi:Bk                 | ENG* | [ 10 to 15 / 15 / 1 ]      |
| 2-<br>160-<br>006 | Vertical Line Width   | 1200dpi:Ma                 | ENG* | [ 10 to 15 / 15 / 1 ]      |
| 2-<br>160-<br>007 | Vertical Line Width   | 1200dpi:Cy                 | ENG* | [ 10 to 15 / 15 / 1 ]      |
| 2-<br>160-<br>008 | Vertical Line Width   | 1200dpi:Ye                 | ENG* | [ 10 to 15 / 15 / 1 ]      |
| 2-<br>160-<br>009 | Vertical Line Width   | 600dpi:Independent Dot:Bk  | ENG* | [ 10 to 15 / 15 / 1 ]      |
| 2-<br>160-<br>010 | Vertical Line Width   | 1200dpi:Independent Dot:Bk | ENG* | [ 10 to 15 / 15 / 1 ]      |
| 2-<br>180-<br>001 | Line Pos. Adj. Clear  | Color Registration         | ENG  | [ 0 or 1 / 0 / 1 ]         |
| 2-<br>180-<br>002 | Line Pos. Adj. Clear  | Main Scan Length Detection | ENG  | [ 0 or 1 / 0 / 1 ]         |

## 3.SP Mode Tables

|                   |                           |                       |      |                                    |
|-------------------|---------------------------|-----------------------|------|------------------------------------|
| 2-<br>180-<br>003 | Line Pos. Adj. Clear      | MUSIC Result          | ENG  | [ 0 or 1 / 0 / 1 ]                 |
| 2-<br>181-<br>003 | Line Position Adj. Result | Skew: M               | ENG* | [ -5000 to 5000 / 0 /<br>0.001um ] |
| 2-<br>181-<br>011 | Line Position Adj. Result | M. Cor.: Dot: M       | ENG* | [ -512 to 511 / 0 /<br>1dot ]      |
| 2-<br>181-<br>012 | Line Position Adj. Result | M. Cor.: Subdot: M    | ENG* | [ -1 to 1 / 0 / 0.01dot ]          |
| 2-<br>181-<br>015 | Line Position Adj. Result | Left Mag.: Subdot: M  | ENG* | [ -32 to 32 / 0 /<br>0.01dot ]     |
| 2-<br>181-<br>016 | Line Position Adj. Result | Right Mag.: Subdot: M | ENG* | [ -32 to 32 / 0 /<br>0.01dot ]     |
| 2-<br>181-<br>017 | Line Position Adj. Result | S. Cor.: 600 Line: M  | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>181-<br>018 | Line Position Adj. Result | S. Cor.: 600 Sub: M   | ENG* | [ -1 to 1 / 0 /<br>0.001line ]     |
| 2-<br>181-<br>019 | Line Position Adj. Result | S. Cor.: 1200 Line: M | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>181-<br>020 | Line Position Adj. Result | S. Cor.: 1200 Sub: M  | ENG* | [ -1 to 1 / 0 /<br>0.001line ]     |
| 2-<br>181-<br>021 | Line Position Adj. Result | Skew: C               | ENG* | [ -5000 to 5000 / 0 /<br>0.001um ] |
| 2-<br>181-<br>029 | Line Position Adj. Result | M. Cor.: Dot: C       | ENG* | [ -512 to 511 / 0 /<br>1dot ]      |
| 2-<br>181-<br>030 | Line Position Adj. Result | M. Cor.: Subdot: C    | ENG* | [ -1 to 1 / 0 / 0.01dot ]          |

3.SP Mode Tables

|                   |                           |                       |      |                                    |
|-------------------|---------------------------|-----------------------|------|------------------------------------|
| 2-<br>181-<br>033 | Line Position Adj. Result | Left Mag.: Subdot: C  | ENG* | [ -32 to 32 / 0 /<br>0.01dot ]     |
| 2-<br>181-<br>034 | Line Position Adj. Result | Right Mag.: Subdot: C | ENG* | [ -32 to 32 / 0 /<br>0.01dot ]     |
| 2-<br>181-<br>035 | Line Position Adj. Result | S. Cor.: 600 Line: C  | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>181-<br>036 | Line Position Adj. Result | S. Cor.: 600 Sub: C   | ENG* | [ -1 to 1 / 0 /<br>0.001line ]     |
| 2-<br>181-<br>037 | Line Position Adj. Result | S. Cor.: 1200 Line: C | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>181-<br>038 | Line Position Adj. Result | S. Cor.: 1200 Sub: C  | ENG* | [ -1 to 1 / 0 /<br>0.001line ]     |
| 2-<br>181-<br>039 | Line Position Adj. Result | Skew: Y               | ENG* | [ -5000 to 5000 / 0 /<br>0.001um ] |
| 2-<br>181-<br>047 | Line Position Adj. Result | M. Cor.: Dot: Y       | ENG* | [ -512 to 511 / 0 /<br>1dot ]      |
| 2-<br>181-<br>048 | Line Position Adj. Result | M. Cor.: Subdot: Y    | ENG* | [ -1 to 1 / 0 / 0.01dot ]          |
| 2-<br>181-<br>051 | Line Position Adj. Result | Left Mag.: Subdot: Y  | ENG* | [ -32 to 32 / 0 /<br>0.01dot ]     |
| 2-<br>181-<br>052 | Line Position Adj. Result | Right Mag.: Subdot: Y | ENG* | [ -32 to 32 / 0 /<br>0.01dot ]     |
| 2-<br>181-<br>053 | Line Position Adj. Result | S. Cor.: 600 Line: Y  | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>181-<br>054 | Line Position Adj. Result | S. Cor.: 600 Sub: Y   | ENG* | [ -1 to 1 / 0 /<br>0.001line ]     |

## 3.SP Mode Tables

|                   |                           |                                 |      |                                    |
|-------------------|---------------------------|---------------------------------|------|------------------------------------|
| 2-<br>181-<br>055 | Line Position Adj. Result | S. Cor.: 1200 Line: Y           | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>181-<br>056 | Line Position Adj. Result | S. Cor.: 1200 Sub: Y            | ENG* | [ -1 to 1 / 0 /<br>0.001line ]     |
| 2-<br>181-<br>057 | Line Position Adj. Result | S. Cor.: 600 Sub                | ENG* | [ -1 to 1 / 0 /<br>0.001line ]     |
| 2-<br>181-<br>059 | Line Position Adj. Result | S. Cor.: 1200 Sub               | ENG* | [ -1 to 1 / 0 /<br>0.001line ]     |
| 2-<br>181-<br>061 | Line Position Adj. Result | Skew: Bk                        | ENG* | [ -5000 to 5000 / 0 /<br>0.001um ] |
| 2-<br>181-<br>072 | Line Position Adj. Result | Line Shift: M                   | ENG* | [ 0 to 1 / 0 / 1line ]             |
| 2-<br>181-<br>074 | Line Position Adj. Result | Line Shift: C                   | ENG* | [ 0 to 1 / 0 / 1line ]             |
| 2-<br>181-<br>076 | Line Position Adj. Result | Line Shift: Y                   | ENG* | [ 0 to 1 / 0 / 1line ]             |
| 2-<br>182-<br>004 | Line Position Offset      | M. Scan: Standard: Dot: M       | ENG* | [ -512 to 511 / 0 /<br>1dot ]      |
| 2-<br>182-<br>005 | Line Position Offset      | M. Scan: Standard: Subdot:<br>M | ENG* | [ -1 to 1 / 0 / 0.01dot ]          |
| 2-<br>182-<br>006 | Line Position Offset      | M. Scan: Middle: Dot: M         | ENG* | [ -512 to 511 / 0 /<br>1dot ]      |
| 2-<br>182-<br>007 | Line Position Offset      | M. Scan: Middle: Subdot:<br>M   | ENG* | [ -1 to 1 / 0 / 0.01dot ]          |
| 2-<br>182-<br>008 | Line Position Offset      | M. Scan: Low: Dot: M            | ENG* | [ -512 to 511 / 0 /<br>1dot ]      |

3.SP Mode Tables

|                   |                      |                              |      |                            |
|-------------------|----------------------|------------------------------|------|----------------------------|
| 2-<br>182-<br>009 | Line Position Offset | M. Scan: Low: Subdot: M      | ENG* | [ -1 to 1 / 0 / 0.01dot ]  |
| 2-<br>182-<br>010 | Line Position Offset | M. Scan: Standard: Dot: C    | ENG* | [ -512 to 511 / 0 / 1dot ] |
| 2-<br>182-<br>011 | Line Position Offset | M. Scan: Standard: Subdot: C | ENG* | [ -1 to 1 / 0 / 0.01dot ]  |
| 2-<br>182-<br>012 | Line Position Offset | M. Scan: Middle: Dot: C      | ENG* | [ -512 to 511 / 0 / 1dot ] |
| 2-<br>182-<br>013 | Line Position Offset | M. Scan: Middle: Subdot: C   | ENG* | [ -1 to 1 / 0 / 0.01dot ]  |
| 2-<br>182-<br>014 | Line Position Offset | M. Scan: Low: Dot: C         | ENG* | [ -512 to 511 / 0 / 1dot ] |
| 2-<br>182-<br>015 | Line Position Offset | M. Scan: Low: Subdot: C      | ENG* | [ -1 to 1 / 0 / 0.01dot ]  |
| 2-<br>182-<br>016 | Line Position Offset | M. Scan: Standard: Dot: Y    | ENG* | [ -512 to 511 / 0 / 1dot ] |
| 2-<br>182-<br>017 | Line Position Offset | M. Scan: Standard: Subdot: Y | ENG* | [ -1 to 1 / 0 / 0.01dot ]  |
| 2-<br>182-<br>018 | Line Position Offset | M. Scan: Middle: Dot: Y      | ENG* | [ -512 to 511 / 0 / 1dot ] |
| 2-<br>182-<br>019 | Line Position Offset | M. Scan: Middle: Subdot: Y   | ENG* | [ -1 to 1 / 0 / 0.01dot ]  |
| 2-<br>182-<br>020 | Line Position Offset | M. Scan: Low: Dot: Y         | ENG* | [ -512 to 511 / 0 / 1dot ] |
| 2-<br>182-<br>021 | Line Position Offset | M. Scan: Low: Subdot: Y      | ENG* | [ -1 to 1 / 0 / 0.01dot ]  |



## 3.SP Mode Tables

|                   |                      |                               |      |                                 |
|-------------------|----------------------|-------------------------------|------|---------------------------------|
| 2-<br>182-<br>022 | Line Position Offset | S. Scan: Standard: Line: M    | ENG* | [ -16384 to 16383 / 0 / 1line ] |
| 2-<br>182-<br>023 | Line Position Offset | S. Scan: Standard: Subline: M | ENG* | [ -1 to 1 / 0 / 0.01line ]      |
| 2-<br>182-<br>024 | Line Position Offset | S. Scan: Middle: Line: M      | ENG* | [ -16384 to 16383 / 0 / 1line ] |
| 2-<br>182-<br>025 | Line Position Offset | S. Scan: Middle: Subline: M   | ENG* | [ -1 to 1 / 0 / 0.01line ]      |
| 2-<br>182-<br>026 | Line Position Offset | S. Scan: Low: Line: M         | ENG* | [ -16384 to 16383 / 0 / 1line ] |
| 2-<br>182-<br>027 | Line Position Offset | S. Scan: Low: Subline: M      | ENG* | [ -1 to 1 / 0 / 0.01line ]      |
| 2-<br>182-<br>028 | Line Position Offset | S. Scan: Standard: Line: C    | ENG* | [ -16384 to 16383 / 0 / 1line ] |
| 2-<br>182-<br>029 | Line Position Offset | S. Scan: Standard: Subline: C | ENG* | [ -1 to 1 / 0 / 0.01line ]      |
| 2-<br>182-<br>030 | Line Position Offset | S. Scan: Middle: Line: C      | ENG* | [ -16384 to 16383 / 0 / 1line ] |
| 2-<br>182-<br>031 | Line Position Offset | S. Scan: Middle: Subline: C   | ENG* | [ -1 to 1 / 0 / 0.01line ]      |
| 2-<br>182-<br>032 | Line Position Offset | S. Scan: Low: Line: C         | ENG* | [ -16384 to 16383 / 0 / 1line ] |
| 2-<br>182-<br>033 | Line Position Offset | S. Scan: Low: Subline: C      | ENG* | [ -1 to 1 / 0 / 0.01line ]      |
| 2-<br>182-<br>034 | Line Position Offset | S. Scan: Standard: Line: Y    | ENG* | [ -16384 to 16383 / 0 / 1line ] |

3.SP Mode Tables

|                   |                           |                                  |      |                                    |
|-------------------|---------------------------|----------------------------------|------|------------------------------------|
| 2-<br>182-<br>035 | Line Position Offset      | S. Scan: Standard: Subline:<br>Y | ENG* | [ -1 to 1 / 0 / 0.01line ]         |
| 2-<br>182-<br>036 | Line Position Offset      | S. Scan: Middle: Line: Y         | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>182-<br>037 | Line Position Offset      | S. Scan: Middle: Subline:<br>Y   | ENG* | [ -1 to 1 / 0 / 0.01line ]         |
| 2-<br>182-<br>038 | Line Position Offset      | S. Scan: Low: Line: Y            | ENG* | [ -16384 to 16383 / 0 /<br>1line ] |
| 2-<br>182-<br>039 | Line Position Offset      | S. Scan: Low: Subline: Y         | ENG* | [ -1 to 1 / 0 / 0.01line ]         |
| 2-<br>190-<br>012 | Line Position Adj. Select | Detection Error Level: um        | ENG* | [ -3500 to 3500 / 0 /<br>1um ]     |
| 2-<br>193-<br>002 | MUSIC Condition Set       | Page: Job End: BW+FC             | ENG* | [ 0 to 999 / 500 /<br>1page ]      |
| 2-<br>193-<br>003 | MUSIC Condition Set       | Page: Job End: FC                | ENG* | [ 0 to 999 / 200 /<br>1page ]      |
| 2-<br>193-<br>004 | MUSIC Condition Set       | Page: Interrupt: BW+FC           | ENG* | [ 0 to 999 / 200 /<br>1page ]      |
| 2-<br>193-<br>005 | MUSIC Condition Set       | Page: Interrupt: FC              | ENG* | [ 0 to 999 / 200 /<br>1page ]      |
| 2-<br>193-<br>006 | MUSIC Condition Set       | Page: Standby: BW                | ENG* | [ 0 to 999 / 100 /<br>1page ]      |
| 2-<br>193-<br>007 | MUSIC Condition Set       | Page: Standby: FC                | ENG* | [ 0 to 999 / 100 /<br>1page ]      |
| 2-<br>193-<br>008 | MUSIC Condition Set       | Temp. Change                     | ENG* | [ 0 to 100 / 5 / 1deg ]            |

|                   |                        |                      |      |                                |
|-------------------|------------------------|----------------------|------|--------------------------------|
| 2-<br>193-<br>011 | MUSIC Condition Set    | Temp. Change 2       | ENG* | [ 0 to 100 / 10 / 1deg ]       |
| 2-<br>193-<br>016 | MUSIC Condition Set    | Page: Power ON:BW+FC | ENG* | [ 0 to 999 / 200 /<br>1page ]  |
| 2-<br>194-<br>001 | MUSIC Execution Result | Year                 | ENG* | [ 0 to 99 / 0 / 1year ]        |
| 2-<br>194-<br>002 | MUSIC Execution Result | Month                | ENG* | [ 1 to 12 / 1 / 1month ]       |
| 2-<br>194-<br>003 | MUSIC Execution Result | Day                  | ENG* | [ 1 to 31 / 1 / 1day ]         |
| 2-<br>194-<br>004 | MUSIC Execution Result | Hour                 | ENG* | [ 0 to 23 / 0 / 1hour ]        |
| 2-<br>194-<br>005 | MUSIC Execution Result | Minute               | ENG* | [ 0 to 59 / 0 /<br>1minute ]   |
| 2-<br>194-<br>006 | MUSIC Execution Result | Temperature          | ENG* | [ 0 to 100 / 0 / 1deg ]        |
| 2-<br>194-<br>007 | MUSIC Execution Result | Execution Result     | ENG* | [ 0 or 1 / 0 / 1 ]             |
| 2-<br>194-<br>008 | MUSIC Execution Result | Number of Execution  | ENG* | [ 0 to 999999 / 0 /<br>1time ] |
| 2-<br>194-<br>009 | MUSIC Execution Result | Number of Failure    | ENG* | [ 0 to 999999 / 0 /<br>1time ] |
| 2-<br>194-<br>010 | MUSIC Execution Result | Error Result: C      | ENG* | [ 0 to 9 / 0 / 1 ]             |
| 2-<br>194-<br>011 | MUSIC Execution Result | Error Result: M      | ENG* | [ 0 to 9 / 0 / 1 ]             |

### 3.SP Mode Tables

|                   |                           |   |      |                          |
|-------------------|---------------------------|---|------|--------------------------|
| 2-<br>194-<br>012 | MUSIC Execution Result    | Error Result: Y                         | ENG* | [ 0 to 9 / 0 / 1 ]       |
| 2-<br>194-<br>013 | MUSIC Execution Result    | Error Result: Bk                        | ENG* | [ 0 to 9 / 0 / 1 ]       |
| 2-<br>221-<br>001 | LD Power: Fixed: Set      | Standard Speed: Bk                      | ENG* | [ 0 to 200 / 100 / 1% ]  |
| 2-<br>221-<br>002 | LD Power: Fixed: Set      | Standard Speed: C                       | ENG* | [ 0 to 200 / 100 / 1% ]  |
| 2-<br>221-<br>003 | LD Power: Fixed: Set      | Standard Speed: M                       | ENG* | [ 0 to 200 / 100 / 1% ]  |
| 2-<br>221-<br>004 | LD Power: Fixed: Set      | Standard Speed: Y                       | ENG* | [ 0 to 200 / 100 / 1% ]  |
| 2-<br>221-<br>011 | LD Power: Fixed: Set      | Low Speed: M                            | ENG* | [ 0 to 200 / 100 / 1% ]  |
| 2-<br>221-<br>012 | LD Power: Fixed: Set      | Low Speed: Y                            | ENG* | [ 0 to 200 / 100 / 1% ]  |
| 2-<br>229-<br>001 | Develop DC Bias: Fixed    | Standard Speed: Bk                      | ENG* | [ 0 to 800 / 450 / 1-V ] |
| 2-<br>229-<br>002 | Develop DC Bias: Fixed    | Standard Speed: C                       | ENG* | [ 0 to 800 / 450 / 1-V ] |
| 2-<br>229-<br>003 | Develop DC Bias: Fixed    | Standard Speed: M                       | ENG* | [ 0 to 800 / 450 / 1-V ] |
| 2-<br>229-<br>004 | Develop DC Bias: Fixed    | Standard Speed: Y                       | ENG* | [ 0 to 800 / 450 / 1-V ] |
| 2-<br>241-<br>003 | PCDU Temperature: Display | Time Interval: Fan<br>Extension Control | ENG* | [ 1 to 300 / 10 / 1sec ] |

## 3.SP Mode Tables

|                   |                                |                                  |      |                                   |
|-------------------|--------------------------------|----------------------------------|------|-----------------------------------|
| 2-<br>241-<br>004 | PCDU Temperature: Display      | PCDU Temperature                 | ENG  | [ 0 to 70 / 0 / 0.1deg ]          |
| 2-<br>242-<br>001 | TS Operation Env. Log          | Distance: PCU: Bk:<br>TS<=A-3    | ENG  | [ 0 to 99999999 / 0 /<br>1mm ]    |
| 2-<br>242-<br>002 | TS Operation Env. Log          | Distance: PCU: Bk: A-<br>3<TS<=A | ENG  | [ 0 to 99999999 / 0 /<br>1mm ]    |
| 2-<br>242-<br>003 | TS Operation Env. Log          | Distance: PCU: Bk:<br>A<TS<=A+3  | ENG  | [ 0 to 99999999 / 0 /<br>1mm ]    |
| 2-<br>242-<br>004 | TS Operation Env. Log          | Distance: PCU: Bk:<br>A+3<TS     | ENG  | [ 0 to 99999999 / 0 /<br>1mm ]    |
| 2-<br>242-<br>100 | TS Operation Env. Log          | Log Clear                        | ENG  | [ 0 or 1 / 0 / 1 ]                |
| 2-<br>302-<br>001 | Environmental Correction:Trans | Current Environmental<br>Display | ENG  | [ 0 or 0 / 0 / 0 ]                |
| 2-<br>302-<br>002 | Environmental Correction:Trans | Forced Setting                   | ENG* | [ 0 or 6 / 0 / 1 ]                |
| 2-<br>302-<br>003 | Environmental Correction:Trans | Absolute<br>Humidity:Threshold 1 | ENG* | [ 0 to 100 / 4.5 /<br>0.01g/m3 ]  |
| 2-<br>302-<br>004 | Environmental Correction:Trans | Absolute<br>Humidity:Threshold 2 | ENG* | [ 0 to 100 / 9 /<br>0.01g/m3 ]    |
| 2-<br>302-<br>005 | Environmental Correction:Trans | Absolute<br>Humidity:Threshold 3 | ENG* | [ 0 to 100 / 17.5 /<br>0.01g/m3 ] |
| 2-<br>302-<br>006 | Environmental Correction:Trans | Absolute<br>Humidity:Threshold 4 | ENG* | [ 0 to 100 / 24 /<br>0.01g/m3 ]   |
| 2-<br>302-<br>007 | Environmental Correction:Trans | Temperature:Threshold            | ENG* | [ -5 to 30 / 10 / 1deg ]          |

3.SP Mode Tables

|                   |                                |                              |      |                                  |
|-------------------|--------------------------------|------------------------------|------|----------------------------------|
| 2-<br>303-<br>001 | Time-Lapse Correction          | Current Div Bk               | ENG* | [ 0 to 3 / 0 / 1 ]               |
| 2-<br>303-<br>002 | Time-Lapse Correction          | Current Div C                | ENG* | [ 0 to 3 / 0 / 1 ]               |
| 2-<br>303-<br>003 | Time-Lapse Correction          | Current Div M                | ENG* | [ 0 to 3 / 0 / 1 ]               |
| 2-<br>303-<br>004 | Time-Lapse Correction          | Current Div Y                | ENG* | [ 0 to 3 / 0 / 1 ]               |
| 2-<br>303-<br>005 | Time-Lapse Correction          | Correction Threshold 1_Bk    | ENG* | [ 0 to 600000 / 5000 / 10page ]  |
| 2-<br>303-<br>006 | Time-Lapse Correction          | Correction Threshold 1_Color | ENG* | [ 0 to 600000 / 5000 / 10page ]  |
| 2-<br>303-<br>007 | Time-Lapse Correction          | Correction Threshold 2_Bk    | ENG* | [ 0 to 600000 / 20000 / 10page ] |
| 2-<br>303-<br>008 | Time-Lapse Correction          | Correction Threshold 2_Color | ENG* | [ 0 to 600000 / 20000 / 10page ] |
| 2-<br>303-<br>009 | Time-Lapse Correction          | Correction Threshold 3_Bk    | ENG* | [ 0 to 600000 / 50000 / 10page ] |
| 2-<br>303-<br>010 | Time-Lapse Correction          | Correction Threshold 3_Color | ENG* | [ 0 to 600000 / 50000 / 10page ] |
| 2-<br>304-<br>001 | Time-Lapse Correction:Transfer | Threshold 1                  | ENG* | [ 0 to 999999999 / 0 / 1mm ]     |
| 2-<br>304-<br>002 | Time-Lapse Correction:Transfer | Threshold 2                  | ENG* | [ 0 to 999999999 / 0 / 1mm ]     |
| 2-<br>304-<br>003 | Time-Lapse Correction:Transfer | Threshold 3                  | ENG* | [ 0 to 999999999 / 0 / 1mm ]     |

## 3.SP Mode Tables

|                   |                                |  |      |                                 |
|-------------------|--------------------------------|--|------|---------------------------------|
| 2-<br>304-<br>004 | Time-Lapse Correction:Transfer | Threshold 4                                | ENG* | [ 0 to 999999999 / 0 /<br>1mm ] |
| 2-<br>305-<br>001 | Vc Correction                  | Threshold 1                                | ENG* | [ 0 to 2000 / 450 / 10-<br>V ]  |
| 2-<br>305-<br>002 | Vc Correction                  | Threshold 2                                | ENG* | [ 0 to 2000 / 600 / 10-<br>V ]  |
| 2-<br>305-<br>003 | Vc Correction                  | Threshold 3                                | ENG* | [ 0 to 2000 / 750 / 10-<br>V ]  |
| 2-<br>305-<br>004 | Vc Correction                  | Threshold 4                                | ENG* | [ 0 to 2000 / 900 / 10-<br>V ]  |
| 2-<br>308-<br>001 | Paper Size Correction          | Threshold 1                                | ENG* | [ 0 to 250 / 194 /<br>1mm ]     |
| 2-<br>308-<br>002 | Paper Size Correction          | Threshold 2                                | ENG* | [ 0 to 250 / 165 /<br>1mm ]     |
| 2-<br>308-<br>003 | Paper Size Correction          | Threshold 3                                | ENG* | [ 0 to 250 / 139 /<br>1mm ]     |
| 2-<br>311-<br>001 | Non Image Area: Bias           | Image Transfer                             | ENG* | [ 0 to 2000 / 100 /<br>10% ]    |
| 2-<br>311-<br>003 | Non Image Area: Bias           | Paper Transfer                             | ENG* | [ 0 to 2100 / 500 / 10-<br>V ]  |
| 2-<br>316-<br>001 | Power ON: Bias                 | Image Transfer                             | ENG* | [ 0 to 2100 / 1400 /<br>10V ]   |
| 2-<br>326-<br>001 | Transfer Roller CL: Bias       | Neg. Bias: Befor and After<br>JOB          | ENG* | [ 0 to 2100 / 250 / 10-<br>V ]  |
| 2-<br>326-<br>002 | Transfer Roller CL: Bias       | Pos. Bias Cor Coef: Befor<br>and After JOB | ENG* | [ 10 to 995 / 100 /<br>10% ]    |

3.SP Mode Tables

|           |                           |                                   |      |                                       |
|-----------|---------------------------|-----------------------------------|------|---------------------------------------|
| 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 ]<br>0: OFF<br>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 ]            |



## 3.SP Mode Tables

|                   |                               |                                   |      |                               |
|-------------------|-------------------------------|-----------------------------------|------|-------------------------------|
| 2-<br>357-<br>003 | Common: FC: Bias              | Image Transfer: Std Spd: M        | ENG* | [ 0 to 2100 / 1400 /<br>10V ] |
| 2-<br>357-<br>004 | Common: FC: Bias              | Image Transfer: Std Spd: Y        | ENG* | [ 0 to 2100 / 1400 /<br>10V ] |
| 2-<br>357-<br>005 | Common: FC: Bias              | Image Transfer: Middle<br>Spd: Bk | ENG* | [ 0 to 2100 / 1400 /<br>10V ] |
| 2-<br>357-<br>006 | Common: FC: Bias              | Image Transfer: Middle<br>Spd: C  | ENG* | [ 0 to 2100 / 1400 /<br>10V ] |
| 2-<br>357-<br>007 | Common: FC: Bias              | Image Transfer: Middle<br>Spd: M  | ENG* | [ 0 to 2100 / 1400 /<br>10V ] |
| 2-<br>357-<br>008 | Common: FC: Bias              | Image Transfer: Middle<br>Spd: Y  | ENG* | [ 0 to 2100 / 1400 /<br>10V ] |
| 2-<br>357-<br>009 | Common: FC: Bias              | Image Transfer: Low Spd:<br>Bk    | ENG* | [ 0 to 2100 / 1300 /<br>10V ] |
| 2-<br>357-<br>010 | Common: FC: Bias              | Image Transfer: Low Spd: C        | ENG* | [ 0 to 2100 / 1300 /<br>10V ] |
| 2-<br>357-<br>011 | Common: FC: Bias              | Image Transfer: Low Spd:<br>M     | ENG* | [ 0 to 2100 / 1300 /<br>10V ] |
| 2-<br>357-<br>012 | Common: FC: Bias              | Image Transfer: Low Spd: Y        | ENG* | [ 0 to 2100 / 1300 /<br>10V ] |
| 2-<br>360-<br>001 | Common:BW:Env.CorrectionTable | Image Transfer: Standard<br>Spd   | ENG* | [ 1 to 100 / 6 / 1 ]          |
| 2-<br>360-<br>002 | Common:BW:Env.CorrectionTable | Image Transfer: Middle Spd        | ENG* | [ 1 to 100 / 6 / 1 ]          |
| 2-<br>360-<br>003 | Common:BW:Env.CorrectionTable | Image Transfer: Low Spd           | ENG* | [ 1 to 100 / 6 / 1 ]          |

3.SP Mode Tables

|                   |                               |                                  |      |                      |
|-------------------|-------------------------------|----------------------------------|------|----------------------|
| 2-<br>360-<br>004 | Common:FC:Env.CorrectionTable | ImageTransfer: Std Spd: Bk       | ENG* | [ 1 to 100 / 6 / 1 ] |
| 2-<br>360-<br>005 | Common:FC:Env.CorrectionTable | ImageTransfer: Std Spd: C        | ENG* | [ 1 to 100 / 5 / 1 ] |
| 2-<br>360-<br>006 | Common:FC:Env.CorrectionTable | ImageTransfer: Std Spd: M        | ENG* | [ 1 to 100 / 5 / 1 ] |
| 2-<br>360-<br>007 | Common:FC:Env.CorrectionTable | ImageTransfer: Std Spd: Y        | ENG* | [ 1 to 100 / 5 / 1 ] |
| 2-<br>360-<br>008 | Common:FC:Env.CorrectionTable | ImageTransfer: Middle Spd:<br>Bk | ENG* | [ 1 to 100 / 6 / 1 ] |
| 2-<br>360-<br>009 | Common:FC:Env.CorrectionTable | ImageTransfer: Middle Spd:<br>C  | ENG* | [ 1 to 100 / 5 / 1 ] |
| 2-<br>360-<br>010 | Common:FC:Env.CorrectionTable | ImageTransfer: Middle Spd:<br>M  | ENG* | [ 1 to 100 / 5 / 1 ] |
| 2-<br>360-<br>011 | Common:FC:Env.CorrectionTable | ImageTransfer: Middle Spd:<br>Y  | ENG* | [ 1 to 100 / 5 / 1 ] |
| 2-<br>360-<br>012 | Common:FC:Env.CorrectionTable | Image Transfer: Low Spd:<br>Bk   | ENG* | [ 1 to 100 / 6 / 1 ] |
| 2-<br>360-<br>013 | Common:FC:Env.CorrectionTable | Image Transfer: Low Spd: C       | ENG* | [ 1 to 100 / 5 / 1 ] |
| 2-<br>360-<br>014 | Common:FC:Env.CorrectionTable | Image Transfer: Low Spd:<br>M    | ENG* | [ 1 to 100 / 5 / 1 ] |
| 2-<br>360-<br>015 | Common:FC:Env.CorrectionTable | Image Transfer: Low Spd: Y       | ENG* | [ 1 to 100 / 5 / 1 ] |
| 2-<br>361-<br>001 | Time-Lapse Correction: Div 1  | Standard Speed: Bk               | ENG* | [ 1 to 60 / 1 / 1 ]  |

## 3.SP Mode Tables

|                   |                              |                        |      |                     |
|-------------------|------------------------------|------------------------|------|---------------------|
| 2-<br>361-<br>002 | Time-Lapse Correction: Div 1 | Middle Speed: Bk       | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>003 | Time-Lapse Correction: Div 1 | Low Speed: Bk          | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>004 | Time-Lapse Correction: Div 1 | Standard Speed: FC: Bk | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>005 | Time-Lapse Correction: Div 1 | Standard Speed: FC: C  | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>006 | Time-Lapse Correction: Div 1 | Standard Speed: FC: M  | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>007 | Time-Lapse Correction: Div 1 | Standard Speed: FC: Y  | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>008 | Time-Lapse Correction: Div 1 | Middle Speed: FC: Bk   | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>009 | Time-Lapse Correction: Div 1 | Middle Speed: FC: C    | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>010 | Time-Lapse Correction: Div 1 | Middle Speed: FC: M    | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>011 | Time-Lapse Correction: Div 1 | Middle Speed: FC: Y    | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>012 | Time-Lapse Correction: Div 1 | Low Speed: FC: Bk      | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>013 | Time-Lapse Correction: Div 1 | Low Speed: FC: C       | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>361-<br>014 | Time-Lapse Correction: Div 1 | Low Speed: FC: M       | ENG* | [ 1 to 60 / 1 / 1 ] |

3.SP Mode Tables

|                   |                              |                        |      |                     |
|-------------------|------------------------------|------------------------|------|---------------------|
| 2-<br>361-<br>015 | Time-Lapse Correction: Div 1 | Low Speed: FC: Y       | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>001 | Time-Lapse Correction: Div 2 | Standard Speed: Bk     | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>002 | Time-Lapse Correction: Div 2 | Middle Speed: Bk       | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>003 | Time-Lapse Correction: Div 2 | Low Speed: Bk          | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>004 | Time-Lapse Correction: Div 2 | Standard Speed: FC: Bk | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>005 | Time-Lapse Correction: Div 2 | Standard Speed: FC: C  | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>006 | Time-Lapse Correction: Div 2 | Standard Speed: FC: M  | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>007 | Time-Lapse Correction: Div 2 | Standard Speed: FC: Y  | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>008 | Time-Lapse Correction: Div 2 | Middle Speed: FC: Bk   | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>009 | Time-Lapse Correction: Div 2 | Middle Speed: FC: C    | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>010 | Time-Lapse Correction: Div 2 | Middle Speed: FC: M    | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>011 | Time-Lapse Correction: Div 2 | Middle Speed: FC: Y    | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>012 | Time-Lapse Correction: Div 2 | Low Speed: FC: Bk      | ENG* | [ 1 to 60 / 1 / 1 ] |

## 3.SP Mode Tables

|                   |                              |                        |      |                     |
|-------------------|------------------------------|------------------------|------|---------------------|
| 2-<br>362-<br>013 | Time-Lapse Correction: Div 2 | Low Speed: FC: C       | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>014 | Time-Lapse Correction: Div 2 | Low Speed: FC: M       | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>362-<br>015 | Time-Lapse Correction: Div 2 | Low Speed: FC: Y       | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>001 | Time-Lapse Correction: Div 3 | Standard Speed: Bk     | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>002 | Time-Lapse Correction: Div 3 | Middle Speed: Bk       | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>003 | Time-Lapse Correction: Div 3 | Low Speed: Bk          | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>004 | Time-Lapse Correction: Div 3 | Standard Speed: FC: Bk | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>005 | Time-Lapse Correction: Div 3 | Standard Speed: FC: C  | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>006 | Time-Lapse Correction: Div 3 | Standard Speed: FC: M  | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>007 | Time-Lapse Correction: Div 3 | Standard Speed: FC: Y  | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>008 | Time-Lapse Correction: Div 3 | Middle Speed: FC: Bk   | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>009 | Time-Lapse Correction: Div 3 | Middle Speed: FC: C    | ENG* | [ 1 to 60 / 1 / 1 ] |
| 2-<br>363-<br>010 | Time-Lapse Correction: Div 3 | Middle Speed: FC: M    | ENG* | [ 1 to 60 / 1 / 1 ] |

3.SP Mode Tables

|                   |                                |                      |      |                         |
|-------------------|--------------------------------|----------------------|------|-------------------------|
| 2-<br>363-<br>011 | Time-Lapse Correction: Div 3   | Middle Speed: FC: Y  | ENG* | [ 1 to 60 / 1 / 1 ]     |
| 2-<br>363-<br>012 | Time-Lapse Correction: Div 3   | Low Speed: FC: Bk    | ENG* | [ 1 to 60 / 1 / 1 ]     |
| 2-<br>363-<br>013 | Time-Lapse Correction: Div 3   | Low Speed: FC: C     | ENG* | [ 1 to 60 / 1 / 1 ]     |
| 2-<br>363-<br>014 | Time-Lapse Correction: Div 3   | Low Speed: FC: M     | ENG* | [ 1 to 60 / 1 / 1 ]     |
| 2-<br>363-<br>015 | Time-Lapse Correction: Div 3   | Low Speed: FC: Y     | ENG* | [ 1 to 60 / 1 / 1 ]     |
| 2-<br>371-<br>001 | Time-Lapse Correction:Transfer | Standard Speed: Div1 | ENG* | [ 0 to 2000 / 0 / 10V ] |
| 2-<br>371-<br>002 | Time-Lapse Correction:Transfer | Middle Speed: Div1   | ENG* | [ 0 to 2000 / 0 / 10V ] |
| 2-<br>371-<br>003 | Time-Lapse Correction:Transfer | Low Speed: Div1      | ENG* | [ 0 to 2000 / 0 / 10V ] |
| 2-<br>372-<br>001 | Time-Lapse Correction:Transfer | Standard Speed: Div2 | ENG* | [ 0 to 2000 / 0 / 10V ] |
| 2-<br>372-<br>002 | Time-Lapse Correction:Transfer | Middle Speed: Div2   | ENG* | [ 0 to 2000 / 0 / 10V ] |
| 2-<br>372-<br>003 | Time-Lapse Correction:Transfer | Low Speed: Div2      | ENG* | [ 0 to 2000 / 0 / 10V ] |
| 2-<br>373-<br>001 | Time-Lapse Correction:Transfer | Standard Speed: Div3 | ENG* | [ 0 to 2000 / 0 / 10V ] |
| 2-<br>373-<br>002 | Time-Lapse Correction:Transfer | Middle Speed: Div3   | ENG* | [ 0 to 2000 / 0 / 10V ] |

## 3.SP Mode Tables

|                   |                                |                       |      |                          |
|-------------------|--------------------------------|-----------------------|------|--------------------------|
| 2-<br>373-<br>003 | Time-Lapse Correction:Transfer | Low Speed: Div3       | ENG* | [ 0 to 2000 / 0 / 10V ]  |
| 2-<br>374-<br>001 | Time-Lapse Correction:Transfer | Standard Speed: Div4  | ENG* | [ 0 to 2000 / 0 / 10V ]  |
| 2-<br>374-<br>002 | Time-Lapse Correction:Transfer | Middle Speed: Div4    | ENG* | [ 0 to 2000 / 0 / 10V ]  |
| 2-<br>374-<br>003 | Time-Lapse Correction:Transfer | Low Speed: Div4       | ENG* | [ 0 to 2000 / 0 / 10V ]  |
| 2-<br>381-<br>001 | Vc Correction                  | Standard Speed: Div 1 | ENG* | [ 0 to 2000 / 0 / 10-V ] |
| 2-<br>381-<br>002 | Vc Correction                  | Middle Speed: Div 1   | ENG* | [ 0 to 2000 / 0 / 10-V ] |
| 2-<br>381-<br>003 | Vc Correction                  | Low Speed: Div 1      | ENG* | [ 0 to 2000 / 0 / 10-V ] |
| 2-<br>382-<br>001 | Vc Correction                  | Standard Speed: Div2  | ENG* | [ 0 to 2000 / 0 / 10-V ] |
| 2-<br>382-<br>002 | Vc Correction                  | Middle Speed: Div 2   | ENG* | [ 0 to 2000 / 0 / 10-V ] |
| 2-<br>382-<br>003 | Vc Correction                  | Low Speed: Div2       | ENG* | [ 0 to 2000 / 0 / 10-V ] |
| 2-<br>383-<br>001 | Vc Correction                  | Standard Speed: Div3  | ENG* | [ 0 to 2000 / 0 / 10-V ] |
| 2-<br>383-<br>002 | Vc Correction                  | Middle Speed: Div3    | ENG* | [ 0 to 2000 / 0 / 10-V ] |
| 2-<br>383-<br>003 | Vc Correction                  | Low Speed: Div3       | ENG* | [ 0 to 2000 / 0 / 10-V ] |

3.SP Mode Tables

|                   |                                |                                   |      |  |
|-------------------|--------------------------------|-----------------------------------|------|--|
| 2-<br>384-<br>001 | Vc Correction                  | Standard Speed: Div4              | ENG* | [ 0 to 2000 / 0 / 10-V ]                               |
| 2-<br>384-<br>002 | Vc Correction                  | Middle Speed: Div4                | ENG* | [ 0 to 2000 / 0 / 10-V ]                               |
| 2-<br>384-<br>003 | Vc Correction                  | Low Speed: Div4                   | ENG* | [ 0 to 2000 / 0 / 10-V ]                               |
| 2-<br>385-<br>001 | Vc Correction                  | Standard Speed: Div5              | ENG* | [ 0 to 2000 / 0 / 10-V ]                               |
| 2-<br>385-<br>002 | Vc Correction                  | Middle Speed: Div5                | ENG* | [ 0 to 2000 / 0 / 10-V ]                               |
| 2-<br>385-<br>003 | Vc Correction                  | Low Speed: Div5                   | ENG* | [ 0 to 2000 / 0 / 10-V ]                               |
| 2-<br>401-<br>001 | T1 at low temp and tempolarity | Standard speed:K                  | ENG* | [ 0 to 2100 / 1300 / 10V ]                             |
| 2-<br>401-<br>002 | T1 at low temp and tempolarity | Standard speed:C                  | ENG* | [ 0 to 2100 / 1300 / 10V ]                             |
| 2-<br>401-<br>003 | T1 at low temp and tempolarity | Standard speed:M                  | ENG* | [ 0 to 2100 / 1300 / 10V ]                             |
| 2-<br>401-<br>004 | T1 at low temp and tempolarity | Standard speed:Y                  | ENG* | [ 0 to 2100 / 1300 / 10V ]                             |
| 2-<br>403-<br>001 | Plain 1: Bias: BW              | Paper Transfer: Std Spd:<br>1Side | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 21<br>*MP C407: 24 |
| 2-<br>403-<br>002 | Plain 1: Bias: BW              | Paper Transfer: Std Spd:<br>2Side | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 16<br>*MP C407: 18 |
| 2-<br>403-<br>003 | Plain 1: Bias: BW              | Paper Transfer: Low Spd:<br>1Side | ENG* | [ 0 to 200 / 10 / 1uA ]                                |



## 3.SP Mode Tables

|                   |                             |                                      |      |  |
|-------------------|-----------------------------|--------------------------------------|------|--|
| 2-<br>403-<br>004 | Plain 1: Bias: BW           | Paper Transfer: Low Spd:<br>2Side    | ENG* | [ 0 to 200 / 8 / 1uA ]                                 |
| 2-<br>403-<br>201 | Plain 1: Bias: BW           | Paper Transfer: Std Spd 2:<br>1Side  | ENG* | [ 0 to 200 / 30 / 1uA ]                                |
| 2-<br>403-<br>202 | Plain 1: Bias: BW           | Paper Transfer: Std Spd 2:<br>2Side  | ENG* | [ 0 to 200 / 22 / 1uA ]                                |
| 2-<br>407-<br>001 | Plain 1: Bias: FC           | Paper Transfer: Std Spd:<br>1Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 22<br>*MP C407: 25 |
| 2-<br>407-<br>002 | Plain 1: Bias: FC           | Paper Transfer: Std Spd:<br>2Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 18<br>*MP C407: 20 |
| 2-<br>407-<br>003 | Plain 1: Bias: FC           | Paper Transfer: Low Spd:<br>1Side    | ENG* | [ 0 to 200 / 11 / 1uA ]                                |
| 2-<br>407-<br>004 | Plain 1: Bias: FC           | Paper Transfer: Low Spd:<br>2Side    | ENG* | [ 0 to 200 / 10 / 1uA ]                                |
| 2-<br>411-<br>001 | Plain 1: Size Correction:BW | Paper Transfer: Std<br>Spd:1Sid:S1   | ENG* | [ 100 to 995 / 100 /<br>5% ]                           |
| 2-<br>411-<br>002 | Plain 1: Size Correction:BW | Paper Transfer: Std<br>Spd:2Sid:S1   | ENG* | [ 100 to 995 / 100 /<br>5% ]                           |
| 2-<br>411-<br>003 | Plain 1: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ]                           |
| 2-<br>411-<br>004 | Plain 1: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ]                           |
| 2-<br>411-<br>007 | Plain 1: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S2 | ENG* | [ 100 to 995 / 120 /<br>5% ]                           |
| 2-<br>411-<br>008 | Plain 1: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S2 | ENG* | [ 100 to 995 / 175 /<br>5% ]                           |

3.SP Mode Tables

|           |                             |                                      |      |                           |
|-----------|-----------------------------|--------------------------------------|------|---------------------------|
| 2-411-011 | Plain 1: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S3 | ENG* | [ 100 to 995 / 130 / 5% ] |
| 2-411-012 | Plain 1: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S3 | ENG* | [ 100 to 995 / 213 / 5% ] |
| 2-411-015 | Plain 1: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S4 | ENG* | [ 100 to 995 / 140 / 5% ] |
| 2-411-016 | Plain 1: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S4 | ENG* | [ 100 to 995 / 275 / 5% ] |
| 2-412-001 | Plain 1: Size Correction:FC | Paper Transfer: Std Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-412-002 | Plain 1: Size Correction:FC | Paper Transfer: Std Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-412-003 | Plain 1: Size Correction:FC | Paper Transfer: Low Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-412-004 | Plain 1: Size Correction:FC | Paper Transfer: Low Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-412-007 | Plain 1: Size Correction:FC | Paper Transfer: Low Spd:<br>1Side:S2 | ENG* | [ 100 to 995 / 118 / 5% ] |
| 2-412-008 | Plain 1: Size Correction:FC | Paper Transfer: Low Spd:<br>2Side:S2 | ENG* | [ 100 to 995 / 150 / 5% ] |
| 2-412-011 | Plain 1: Size Correction:FC | Paper Transfer: Low Spd:<br>1Side:S3 | ENG* | [ 100 to 995 / 130 / 5% ] |
| 2-412-012 | Plain 1: Size Correction:FC | Paper Transfer: Low Spd:<br>2Side:S3 | ENG* | [ 100 to 995 / 180 / 5% ] |
| 2-412-015 | Plain 1: Size Correction:FC | Paper Transfer: Low Spd:<br>1Side:S4 | ENG* | [ 100 to 995 / 140 / 5% ] |

## 3.SP Mode Tables

|                   |                              |                                      |      |                              |
|-------------------|------------------------------|--------------------------------------|------|------------------------------|
| 2-<br>412-<br>016 | Plain 1: Size Correction:FC  | Paper Transfer: Low Spd:<br>2Side:S4 | ENG* | [ 100 to 995 / 250 /<br>5% ] |
| 2-<br>413-<br>001 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Std Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 21 / 1 ]        |
| 2-<br>413-<br>002 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Std Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 22 / 1 ]        |
| 2-<br>413-<br>003 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 25 / 1 ]        |
| 2-<br>413-<br>004 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 26 / 1 ]        |
| 2-<br>413-<br>007 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S2 | ENG* | [ 1 to 100 / 27 / 1 ]        |
| 2-<br>413-<br>008 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S2 | ENG* | [ 1 to 100 / 28 / 1 ]        |
| 2-<br>413-<br>011 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S3 | ENG* | [ 1 to 100 / 29 / 1 ]        |
| 2-<br>413-<br>012 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S3 | ENG* | [ 1 to 100 / 30 / 1 ]        |
| 2-<br>413-<br>015 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S4 | ENG* | [ 1 to 100 / 31 / 1 ]        |
| 2-<br>413-<br>016 | Plain 1: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S4 | ENG* | [ 1 to 100 / 32 / 1 ]        |
| 2-<br>414-<br>001 | Plain 1: Size-Env.Correct:FC | Paper Transfer: Std Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 23 / 1 ]        |
| 2-<br>414-<br>002 | Plain 1: Size-Env.Correct:FC | Paper Transfer: Std Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 24 / 1 ]        |

3.SP Mode Tables

|                   |                                |                                      |      |                         |
|-------------------|--------------------------------|--------------------------------------|------|-------------------------|
| 2-<br>414-<br>003 | Plain 1: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 25 / 1 ]   |
| 2-<br>414-<br>004 | Plain 1: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 26 / 1 ]   |
| 2-<br>414-<br>007 | Plain 1: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S2 | ENG* | [ 1 to 100 / 27 / 1 ]   |
| 2-<br>414-<br>008 | Plain 1: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S2 | ENG* | [ 1 to 100 / 28 / 1 ]   |
| 2-<br>414-<br>011 | Plain 1: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S3 | ENG* | [ 1 to 100 / 29 / 1 ]   |
| 2-<br>414-<br>012 | Plain 1: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S3 | ENG* | [ 1 to 100 / 30 / 1 ]   |
| 2-<br>414-<br>015 | Plain 1: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S4 | ENG* | [ 1 to 100 / 31 / 1 ]   |
| 2-<br>414-<br>016 | Plain 1: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S4 | ENG* | [ 1 to 100 / 32 / 1 ]   |
| 2-<br>415-<br>001 | Plain 1: Leading Edge Correct. | Paper Transfer: Std Spd:<br>1Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>415-<br>002 | Plain 1: Leading Edge Correct. | Paper Transfer: Std Spd:<br>2Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>415-<br>003 | Plain 1: Leading Edge Correct. | Paper Transfer: Low Spd:<br>1Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>415-<br>004 | Plain 1: Leading Edge Correct. | Paper Transfer: Low Spd:<br>2Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>415-<br>005 | Plain 1: Leading Edge Correct. | Separation DC: Std Spd:<br>1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |

## 3.SP Mode Tables

|                   |                                |                                   |      |                         |
|-------------------|--------------------------------|-----------------------------------|------|-------------------------|
| 2-<br>415-<br>006 | Plain 1: Leading Edge Correct. | Separation DC: Std Spd:<br>2Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>415-<br>007 | Plain 1: Leading Edge Correct. | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>415-<br>008 | Plain 1: Leading Edge Correct. | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>416-<br>001 | Plain 1: SW Timing Lead Edge   | Paper Transfer: Std Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>416-<br>002 | Plain 1: SW Timing Lead Edge   | Paper Transfer: Std Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>416-<br>003 | Plain 1: SW Timing Lead Edge   | Paper Transfer: Low Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>416-<br>004 | Plain 1: SW Timing Lead Edge   | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>416-<br>005 | Plain 1: SW Timing Lead Edge   | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>416-<br>006 | Plain 1: SW Timing Lead Edge   | Separation DC: Std Spd:<br>2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>416-<br>007 | Plain 1: SW Timing Lead Edge   | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>416-<br>008 | Plain 1: SW Timing Lead Edge   | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>417-<br>001 | Plain 1: Trail Edge Correction | Paper Transfer: Std Spd:<br>1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>417-<br>002 | Plain 1: Trail Edge Correction | Paper Transfer: Std Spd:<br>2Side | ENG* | [ 0 to 995 / 100 / 5% ] |

### 3.SP Mode Tables

|                   |                                |                                   |      |                         |
|-------------------|--------------------------------|-----------------------------------|------|-------------------------|
| 2-<br>417-<br>003 | Plain 1: Trail Edge Correction | Paper Transfer: Low Spd:<br>1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>417-<br>004 | Plain 1: Trail Edge Correction | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>417-<br>005 | Plain 1: Trail Edge Correction | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>417-<br>006 | Plain 1: Trail Edge Correction | Separation DC: Std Spd:<br>2Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>417-<br>007 | Plain 1: Trail Edge Correction | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>417-<br>008 | Plain 1: Trail Edge Correction | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>418-<br>001 | Plain 1: SW Timing Trail Edge  | Paper Transfer: Std Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>418-<br>002 | Plain 1: SW Timing Trail Edge  | Paper Transfer: Std Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>418-<br>003 | Plain 1: SW Timing Trail Edge  | Paper Transfer: Low Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>418-<br>004 | Plain 1: SW Timing Trail Edge  | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>418-<br>005 | Plain 1: SW Timing Trail Edge  | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>418-<br>006 | Plain 1: SW Timing Trail Edge  | Separation DC: Std Spd:<br>2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>418-<br>007 | Plain 1: SW Timing Trail Edge  | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |

## 3.SP Mode Tables

|           |                                |                                  |      |                            |
|-----------|--------------------------------|----------------------------------|------|----------------------------|
| 2-418-008 | Plain 1: SW Timing Trail Edge  | Separation DC: Low Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]      |
| 2-419-013 | Plain 1: Envir Correct. Table  | Separation DC: Std Spd:<br>1Side | ENG* | [ 1 to 100 / 30 / 1 ]      |
| 2-419-014 | Plain 1: Envir Correct. Table  | Separation DC: Std Spd:<br>2Side | ENG* | [ 1 to 100 / 30 / 1 ]      |
| 2-419-015 | Plain 1: Envir Correct. Table  | Separation DC: Low Spd:<br>1Side | ENG* | [ 1 to 100 / 30 / 1 ]      |
| 2-419-016 | Plain 1: Envir Correct. Table  | Separation DC: Low Spd:<br>2Side | ENG* | [ 1 to 100 / 30 / 1 ]      |
| 2-419-017 | Plain 1: Edge Envir Correct.   | Separation DC: Std Spd:<br>1Side | ENG* | [ 1 to 100 / 50 / 1 ]      |
| 2-419-018 | Plain 1: Edge Envir Correct.   | Separation DC: Std Spd:<br>2Side | ENG* | [ 1 to 100 / 50 / 1 ]      |
| 2-419-019 | Plain 1: Edge Envir Correct.   | Separation DC: Low Spd:<br>1Side | ENG* | [ 1 to 100 / 50 / 1 ]      |
| 2-419-020 | Plain 1: Edge Envir Correct.   | Separation DC: Low Spd:<br>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 ] |

### 3.SP Mode Tables

|                   |                             |                                      |      |  |
|-------------------|-----------------------------|--------------------------------------|------|--|
| 2-<br>423-<br>001 | Plain 2: Bias: BW           | Paper Transfer: Std Spd:<br>1Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 19<br>*MP C407: 22 |
| 2-<br>423-<br>002 | Plain 2: Bias: BW           | Paper Transfer: Std Spd:<br>2Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 16<br>*MP C407: 18 |
| 2-<br>423-<br>003 | Plain 2: Bias: BW           | Paper Transfer: Low Spd:<br>1Side    | ENG* | [ 0 to 200 / 11 / 1uA ]                                |
| 2-<br>423-<br>004 | Plain 2: Bias: BW           | Paper Transfer: Low Spd:<br>2Side    | ENG* | [ 0 to 200 / 11 / 1uA ]                                |
| 2-<br>423-<br>201 | Plain 2: Bias: BW           | Paper Transfer: Std Spd 2:<br>1Side  | ENG* | [ 0 to 200 / 26 / 1uA ]                                |
| 2-<br>423-<br>202 | Plain 2: Bias: BW           | Paper Transfer: Std Spd 2:<br>2Side  | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 22<br>*MP C407: 15 |
| 2-<br>427-<br>001 | Plain 2: Bias: FC           | Paper Transfer: Std Spd:<br>1Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 18<br>*MP C407: 20 |
| 2-<br>427-<br>002 | Plain 2: Bias: FC           | Paper Transfer: Std Spd:<br>2Side    | ENG* | [ 0 to 200 / 18 / 1uA ]                                |
| 2-<br>427-<br>003 | Plain 2: Bias: FC           | Paper Transfer: Low Spd:<br>1Side    | ENG* | [ 0 to 200 / 13 / 1uA ]                                |
| 2-<br>427-<br>004 | Plain 2: Bias: FC           | Paper Transfer: Low Spd:<br>2Side    | ENG* | [ 0 to 200 / 13 / 1uA ]                                |
| 2-<br>431-<br>001 | Plain 2: Size Correction:BW | Paper Transfer: Std Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ]                           |
| 2-<br>431-<br>002 | Plain 2: Size Correction:BW | Paper Transfer: Std Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ]                           |
| 2-<br>431-<br>003 | Plain 2: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ]                           |



## 3.SP Mode Tables

|           |                             |                                      |      |                           |
|-----------|-----------------------------|--------------------------------------|------|---------------------------|
| 2-431-004 | Plain 2: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-431-007 | Plain 2: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S2 | ENG* | [ 100 to 995 / 120 / 5% ] |
| 2-431-008 | Plain 2: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S2 | ENG* | [ 100 to 995 / 175 / 5% ] |
| 2-431-011 | Plain 2: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S3 | ENG* | [ 100 to 995 / 140 / 5% ] |
| 2-431-012 | Plain 2: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S3 | ENG* | [ 100 to 995 / 213 / 5% ] |
| 2-431-015 | Plain 2: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S4 | ENG* | [ 100 to 995 / 150 / 5% ] |
| 2-431-016 | Plain 2: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S4 | ENG* | [ 100 to 995 / 275 / 5% ] |
| 2-432-001 | Plain 2: Size Correction:FC | Paper Transfer: Std Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-432-002 | Plain 2: Size Correction:FC | Paper Transfer: Std Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-432-003 | Plain 2: Size Correction:FC | Paper Transfer: Low Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-432-004 | Plain 2: Size Correction:FC | Paper Transfer: Low Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-432-007 | Plain 2: Size Correction:FC | Paper Transfer: Low Spd:<br>1Side:S2 | ENG* | [ 100 to 995 / 118 / 5% ] |
| 2-432-008 | Plain 2: Size Correction:FC | Paper Transfer: Low Spd:<br>2Side:S2 | ENG* | [ 100 to 995 / 150 / 5% ] |

3.SP Mode Tables

|                   |                              |                                      |      |                              |
|-------------------|------------------------------|--------------------------------------|------|------------------------------|
| 2-<br>432-<br>011 | Plain 2: Size Correction:FC  | Paper Transfer: Low Spd:<br>1Side:S3 | ENG* | [ 100 to 995 / 136 /<br>5% ] |
| 2-<br>432-<br>012 | Plain 2: Size Correction:FC  | Paper Transfer: Low Spd:<br>2Side:S3 | ENG* | [ 100 to 995 / 180 /<br>5% ] |
| 2-<br>432-<br>015 | Plain 2: Size Correction:FC  | Paper Transfer: Low Spd:<br>1Side:S4 | ENG* | [ 100 to 995 / 140 /<br>5% ] |
| 2-<br>432-<br>016 | Plain 2: Size Correction:FC  | Paper Transfer: Low Spd:<br>2Side:S4 | ENG* | [ 100 to 995 / 250 /<br>5% ] |
| 2-<br>433-<br>001 | Plain 2: Size-Env.Correct:BW | Paper Transfer: Std Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 33 / 1 ]        |
| 2-<br>433-<br>002 | Plain 2: Size-Env.Correct:BW | Paper Transfer: Std Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 34 / 1 ]        |
| 2-<br>433-<br>003 | Plain 2: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 37 / 1 ]        |
| 2-<br>433-<br>004 | Plain 2: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 38 / 1 ]        |
| 2-<br>433-<br>007 | Plain 2: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S2 | ENG* | [ 1 to 100 / 39 / 1 ]        |
| 2-<br>433-<br>008 | Plain 2: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S2 | ENG* | [ 1 to 100 / 40 / 1 ]        |
| 2-<br>433-<br>011 | Plain 2: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S3 | ENG* | [ 1 to 100 / 41 / 1 ]        |
| 2-<br>433-<br>012 | Plain 2: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S3 | ENG* | [ 1 to 100 / 42 / 1 ]        |
| 2-<br>433-<br>015 | Plain 2: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S4 | ENG* | [ 1 to 100 / 43 / 1 ]        |

## 3.SP Mode Tables

|                   |                                |                                      |      |                         |
|-------------------|--------------------------------|--------------------------------------|------|-------------------------|
| 2-<br>433-<br>016 | Plain 2: Size-Env.Correct:BW   | Paper Transfer: Low Spd:<br>2Side:S4 | ENG* | [ 1 to 100 / 44 / 1 ]   |
| 2-<br>434-<br>001 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Std Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 35 / 1 ]   |
| 2-<br>434-<br>002 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Std Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 36 / 1 ]   |
| 2-<br>434-<br>003 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 37 / 1 ]   |
| 2-<br>434-<br>004 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 38 / 1 ]   |
| 2-<br>434-<br>007 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S2 | ENG* | [ 1 to 100 / 39 / 1 ]   |
| 2-<br>434-<br>008 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S2 | ENG* | [ 1 to 100 / 40 / 1 ]   |
| 2-<br>434-<br>011 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S3 | ENG* | [ 1 to 100 / 41 / 1 ]   |
| 2-<br>434-<br>012 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S3 | ENG* | [ 1 to 100 / 42 / 1 ]   |
| 2-<br>434-<br>015 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S4 | ENG* | [ 1 to 100 / 43 / 1 ]   |
| 2-<br>434-<br>016 | Plain 2: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S4 | ENG* | [ 1 to 100 / 44 / 1 ]   |
| 2-<br>435-<br>001 | Plain 2: Leading Edge Correct. | Paper Transfer: Std Spd:<br>1Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>435-<br>002 | Plain 2: Leading Edge Correct. | Paper Transfer: Std Spd:<br>2Side    | ENG* | [ 0 to 995 / 100 / 5% ] |

3.SP Mode Tables

|                   |                                |                                   |      |                         |
|-------------------|--------------------------------|-----------------------------------|------|-------------------------|
| 2-<br>435-<br>003 | Plain 2: Leading Edge Correct. | Paper Transfer: Low Spd:<br>1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>435-<br>004 | Plain 2: Leading Edge Correct. | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>435-<br>005 | Plain 2: Leading Edge Correct. | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>435-<br>006 | Plain 2: Leading Edge Correct. | Separation DC: Std Spd:<br>2Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>435-<br>007 | Plain 2: Leading Edge Correct. | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>435-<br>008 | Plain 2: Leading Edge Correct. | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>436-<br>001 | Plain 2: SW Timing Lead Edge   | Paper Transfer: Std Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>436-<br>002 | Plain 2: SW Timing Lead Edge   | Paper Transfer: Std Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>436-<br>003 | Plain 2: SW Timing Lead Edge   | Paper Transfer: Low Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>436-<br>004 | Plain 2: SW Timing Lead Edge   | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>436-<br>005 | Plain 2: SW Timing Lead Edge   | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>436-<br>006 | Plain 2: SW Timing Lead Edge   | Separation DC: Std Spd:<br>2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>436-<br>007 | Plain 2: SW Timing Lead Edge   | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |

## 3.SP Mode Tables

|                   |                                |                                   |      |                         |
|-------------------|--------------------------------|-----------------------------------|------|-------------------------|
| 2-<br>436-<br>008 | Plain 2: SW Timing Lead Edge   | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>437-<br>001 | Plain 2: Trail Edge Correction | Paper Transfer: Std Spd:<br>1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>437-<br>002 | Plain 2: Trail Edge Correction | Paper Transfer: Std Spd:<br>2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>437-<br>003 | Plain 2: Trail Edge Correction | Paper Transfer: Low Spd:<br>1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>437-<br>004 | Plain 2: Trail Edge Correction | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>437-<br>005 | Plain 2: Trail Edge Correction | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>437-<br>006 | Plain 2: Trail Edge Correction | Separation DC: Std Spd:<br>2Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>437-<br>007 | Plain 2: Trail Edge Correction | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>437-<br>008 | Plain 2: Trail Edge Correction | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>438-<br>001 | Plain 2: SW Timing Trail Edge  | Paper Transfer: Std Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>438-<br>002 | Plain 2: SW Timing Trail Edge  | Paper Transfer: Std Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>438-<br>003 | Plain 2: SW Timing Trail Edge  | Paper Transfer: Low Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>438-<br>004 | Plain 2: SW Timing Trail Edge  | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |

### 3.SP Mode Tables

|                   |                                |                                  |      |                            |
|-------------------|--------------------------------|----------------------------------|------|----------------------------|
| 2-<br>438-<br>005 | Plain 2: SW Timing Trail Edge  | Separation DC: Std Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]      |
| 2-<br>438-<br>006 | Plain 2: SW Timing Trail Edge  | Separation DC: Std Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]      |
| 2-<br>438-<br>007 | Plain 2: SW Timing Trail Edge  | Separation DC: Low Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]      |
| 2-<br>438-<br>008 | Plain 2: SW Timing Trail Edge  | Separation DC: Low Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]      |
| 2-<br>439-<br>013 | Plain 2: Envir Correct. Table  | Separation DC: Std Spd:<br>1Side | ENG* | [ 1 to 100 / 30 / 1 ]      |
| 2-<br>439-<br>014 | Plain 2: Envir Correct. Table  | Separation DC: Std Spd:<br>2Side | ENG* | [ 1 to 100 / 30 / 1 ]      |
| 2-<br>439-<br>015 | Plain 2: Envir Correct. Table  | Separation DC: Low Spd:<br>1Side | ENG* | [ 1 to 100 / 30 / 1 ]      |
| 2-<br>439-<br>016 | Plain 2: Envir Correct. Table  | Separation DC: Low Spd:<br>2Side | ENG* | [ 1 to 100 / 30 / 1 ]      |
| 2-<br>439-<br>017 | Plain 2: Edge Envir Correct.   | Separation DC: Std Spd:<br>1Side | ENG* | [ 1 to 100 / 50 / 1 ]      |
| 2-<br>439-<br>018 | Plain 2: Edge Envir Correct.   | Separation DC: Std Spd:<br>2Side | ENG* | [ 1 to 100 / 50 / 1 ]      |
| 2-<br>439-<br>019 | Plain 2: Edge Envir Correct.   | Separation DC: Low Spd:<br>1Side | ENG* | [ 1 to 100 / 50 / 1 ]      |
| 2-<br>439-<br>020 | Plain 2: Edge Envir Correct.   | Separation DC: Low Spd:<br>2Side | ENG* | [ 1 to 100 / 50 / 1 ]      |
| 2-<br>441-<br>001 | T1 at low temp and tempolarity | Low speed:K                      | ENG* | [ 0 to 2100 / 1300 / 10V ] |

## 3.SP Mode Tables

|           |                                |  |      |                            |
|-----------|--------------------------------|--|------|----------------------------|
| 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<br>Spd: 1Side    | ENG* | [ 0 to 200 / 20 / 1uA ]    |
| 2-443-002 | M-Thick: Bias: BW              | Paper Transfer: Std/Mid<br>Spd: 2Side    | ENG* | [ 0 to 200 / 16 / 1uA ]    |
| 2-443-003 | M-Thick: Bias: BW              | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 200 / 10 / 1uA ]    |
| 2-443-004 | M-Thick: Bias: BW              | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 200 / 8 / 1uA ]     |
| 2-447-001 | M-Thick: Bias: FC              | Paper Transfer: Std/Mid<br>Spd: 1Side    | ENG* | [ 0 to 200 / 22 / 1uA ]    |
| 2-447-002 | M-Thick: Bias: FC              | Paper Transfer: Std/Mid<br>Spd: 2Side    | ENG* | [ 0 to 200 / 18 / 1uA ]    |
| 2-447-003 | M-Thick: Bias: FC              | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 200 / 11 / 1uA ]    |
| 2-447-004 | M-Thick: Bias: FC              | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 200 / 10 / 1uA ]    |
| 2-451-001 | M-Thick: Size Correction:BW    | Paper Transfer: Std/Mid<br>Spd: 1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ]  |
| 2-451-002 | M-Thick: Size Correction:BW    | Paper Transfer: Std/Mid<br>Spd: 2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ]  |

3.SP Mode Tables

|                   |                             |  |      |                              |
|-------------------|-----------------------------|--|------|------------------------------|
| 2-<br>451-<br>003 | M-Thick: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>451-<br>004 | M-Thick: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>451-<br>007 | M-Thick: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 100 to 995 / 130 /<br>5% ] |
| 2-<br>451-<br>008 | M-Thick: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 100 to 995 / 163 /<br>5% ] |
| 2-<br>451-<br>011 | M-Thick: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 100 to 995 / 150 /<br>5% ] |
| 2-<br>451-<br>012 | M-Thick: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 100 to 995 / 250 /<br>5% ] |
| 2-<br>451-<br>015 | M-Thick: Size Correction:BW | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 100 to 995 / 150 /<br>5% ] |
| 2-<br>451-<br>016 | M-Thick: Size Correction:BW | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 100 to 995 / 375 /<br>5% ] |
| 2-<br>452-<br>001 | M-Thick: Size Correction:FC | Paper Transfer: Std/Mid<br>Spd: 1Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>452-<br>002 | M-Thick: Size Correction:FC | Paper Transfer: Std/Mid<br>Spd: 2Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>452-<br>003 | M-Thick: Size Correction:FC | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>452-<br>004 | M-Thick: Size Correction:FC | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>452-<br>007 | M-Thick: Size Correction:FC | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 100 to 995 / 136 /<br>5% ] |



## 3.SP Mode Tables

|                   |                              |  |      |                              |
|-------------------|------------------------------|--|------|------------------------------|
| 2-<br>452-<br>008 | M-Thick: Size Correction:FC  | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 100 to 995 / 180 /<br>5% ] |
| 2-<br>452-<br>011 | M-Thick: Size Correction:FC  | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 100 to 995 / 150 /<br>5% ] |
| 2-<br>452-<br>012 | M-Thick: Size Correction:FC  | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 100 to 995 / 250 /<br>5% ] |
| 2-<br>452-<br>015 | M-Thick: Size Correction:FC  | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 100 to 995 / 150 /<br>5% ] |
| 2-<br>452-<br>016 | M-Thick: Size Correction:FC  | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 100 to 995 / 350 /<br>5% ] |
| 2-<br>453-<br>001 | M-Thick: Size-Env.Correct:BW | Paper Transfer: Std/Mid<br>Spd: 1Side:S1 | ENG* | [ 1 to 100 / 21 / 1 ]        |
| 2-<br>453-<br>002 | M-Thick: Size-Env.Correct:BW | Paper Transfer: Std/Mid<br>Spd: 2Side:S1 | ENG* | [ 1 to 100 / 22 / 1 ]        |
| 2-<br>453-<br>003 | M-Thick: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 1 to 100 / 47 / 1 ]        |
| 2-<br>453-<br>004 | M-Thick: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 1 to 100 / 48 / 1 ]        |
| 2-<br>453-<br>007 | M-Thick: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 1 to 100 / 49 / 1 ]        |
| 2-<br>453-<br>008 | M-Thick: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 1 to 100 / 50 / 1 ]        |
| 2-<br>453-<br>011 | M-Thick: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 1 to 100 / 51 / 1 ]        |
| 2-<br>453-<br>012 | M-Thick: Size-Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 1 to 100 / 52 / 1 ]        |

3.SP Mode Tables

|                   |                                |  |      |                         |
|-------------------|--------------------------------|--|------|-------------------------|
| 2-<br>453-<br>015 | M-Thick: Size-Env.Correct:BW   | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 1 to 100 / 53 / 1 ]   |
| 2-<br>453-<br>016 | M-Thick: Size-Env.Correct:BW   | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 1 to 100 / 54 / 1 ]   |
| 2-<br>454-<br>001 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Std/Mid<br>Spd: 1Side:S1 | ENG* | [ 1 to 100 / 45 / 1 ]   |
| 2-<br>454-<br>002 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Std/Mid<br>Spd: 2Side:S1 | ENG* | [ 1 to 100 / 46 / 1 ]   |
| 2-<br>454-<br>003 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 1 to 100 / 47 / 1 ]   |
| 2-<br>454-<br>004 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 1 to 100 / 48 / 1 ]   |
| 2-<br>454-<br>007 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 1 to 100 / 49 / 1 ]   |
| 2-<br>454-<br>008 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 1 to 100 / 50 / 1 ]   |
| 2-<br>454-<br>011 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 1 to 100 / 51 / 1 ]   |
| 2-<br>454-<br>012 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 1 to 100 / 52 / 1 ]   |
| 2-<br>454-<br>015 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 1 to 100 / 53 / 1 ]   |
| 2-<br>454-<br>016 | M-Thick: Size-Env.Correct:FC   | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 1 to 100 / 54 / 1 ]   |
| 2-<br>455-<br>001 | M-Thick: Leading Edge Correct. | Paper Transfer: Std/Mid<br>Spd: 1Side    | ENG* | [ 0 to 995 / 100 / 5% ] |

## 3.SP Mode Tables

|                   |                                |                                       |      |                         |
|-------------------|--------------------------------|---------------------------------------|------|-------------------------|
| 2-<br>455-<br>002 | M-Thick: Leading Edge Correct. | Paper Transfer: Std/Mid<br>Spd: 2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>455-<br>003 | M-Thick: Leading Edge Correct. | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>455-<br>004 | M-Thick: Leading Edge Correct. | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>455-<br>005 | M-Thick: Leading Edge Correct. | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>455-<br>006 | M-Thick: Leading Edge Correct. | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>455-<br>007 | M-Thick: Leading Edge Correct. | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>455-<br>008 | M-Thick: Leading Edge Correct. | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>456-<br>001 | M-Thick: SW Timing Lead Edge   | Paper Transfer: Std/Mid<br>Spd: 1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>456-<br>002 | M-Thick: SW Timing Lead Edge   | Paper Transfer: Std/Mid<br>Spd: 2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>456-<br>003 | M-Thick: SW Timing Lead Edge   | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>456-<br>004 | M-Thick: SW Timing Lead Edge   | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>456-<br>005 | M-Thick: SW Timing Lead Edge   | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>456-<br>006 | M-Thick: SW Timing Lead Edge   | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |

### 3.SP Mode Tables

|                   |                                |                                       |      |                         |
|-------------------|--------------------------------|---------------------------------------|------|-------------------------|
| 2-<br>456-<br>007 | M-Thick: SW Timing Lead Edge   | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>456-<br>008 | M-Thick: SW Timing Lead Edge   | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>457-<br>001 | M-Thick: Trail Edge Correction | Paper Transfer: Std/Mid<br>Spd: 1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>457-<br>002 | M-Thick: Trail Edge Correction | Paper Transfer: Std/Mid<br>Spd: 2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>457-<br>003 | M-Thick: Trail Edge Correction | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>457-<br>004 | M-Thick: Trail Edge Correction | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>457-<br>005 | M-Thick: Trail Edge Correction | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>457-<br>006 | M-Thick: Trail Edge Correction | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>457-<br>007 | M-Thick: Trail Edge Correction | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>457-<br>008 | M-Thick: Trail Edge Correction | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>458-<br>001 | M-Thick: SW Timing Trail Edge  | Paper Transfer: Std/Mid<br>Spd: 1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>458-<br>002 | M-Thick: SW Timing Trail Edge  | Paper Transfer: Std/Mid<br>Spd: 2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>458-<br>003 | M-Thick: SW Timing Trail Edge  | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |

## 3.SP Mode Tables

|                   |                                |                                   |      |                       |
|-------------------|--------------------------------|-----------------------------------|------|-----------------------|
| 2-<br>458-<br>004 | M-Thick: SW Timing Trail Edge  | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ] |
| 2-<br>458-<br>005 | M-Thick: SW Timing Trail Edge  | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ] |
| 2-<br>458-<br>006 | M-Thick: SW Timing Trail Edge  | Separation DC: Std Spd:<br>2Side  | ENG* | [ 0 to 50 / 0 / 2mm ] |
| 2-<br>458-<br>007 | M-Thick: SW Timing Trail Edge  | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ] |
| 2-<br>458-<br>008 | M-Thick: SW Timing Trail Edge  | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 50 / 0 / 2mm ] |
| 2-<br>459-<br>013 | M-Thick: Envir Correct. Table  | Separation DC: Std Spd:<br>1Side  | ENG* | [ 1 to 100 / 30 / 1 ] |
| 2-<br>459-<br>014 | M-Thick: Envir Correct. Table  | Separation DC: Std Spd:<br>2Side  | ENG* | [ 1 to 100 / 30 / 1 ] |
| 2-<br>459-<br>015 | M-Thick: Envir Correct. Table  | Separation DC: Low Spd:<br>1Side  | ENG* | [ 1 to 100 / 30 / 1 ] |
| 2-<br>459-<br>016 | M-Thick: Envir Correct. Table  | Separation DC: Low Spd:<br>2Side  | ENG* | [ 1 to 100 / 30 / 1 ] |
| 2-<br>459-<br>017 | M-Thick: Edge Envir Correction | Separation DC: Std Spd:<br>1Side  | ENG* | [ 1 to 100 / 50 / 1 ] |
| 2-<br>459-<br>018 | M-Thick: Edge Envir Correction | Separation DC: Std Spd:<br>2Side  | ENG* | [ 1 to 100 / 50 / 1 ] |
| 2-<br>459-<br>019 | M-Thick: Edge Envir Correction | Separation DC: Low Spd:<br>1Side  | ENG* | [ 1 to 100 / 50 / 1 ] |
| 2-<br>459-<br>020 | M-Thick: Edge Envir Correction | Separation DC: Low Spd:<br>2Side  | ENG* | [ 1 to 100 / 50 / 1 ] |

### 3.SP Mode Tables

|                   |                             |                          |      |                           |
|-------------------|-----------------------------|--------------------------|------|---------------------------|
| 2-<br>481-<br>003 | Thick 1: Bias               | Separation DC: 1Side     | ENG* | [ 0 to 4000 / 0 / 10-V ]  |
| 2-<br>481-<br>004 | Thick 1: Bias               | Separation DC: 2Side     | ENG* | [ 0 to 4000 / 0 / 10-V ]  |
| 2-<br>483-<br>003 | Thick 1: Bias: BW           | Paper Transfer: 1Side    | ENG* | [ 0 to 200 / 14 / 1uA ]   |
| 2-<br>483-<br>004 | Thick 1: Bias: BW           | Paper Transfer: 2Side    | ENG* | [ 0 to 200 / 9 / 1uA ]    |
| 2-<br>487-<br>003 | Thick 1: Bias: FC           | Paper Transfer: 1Side    | ENG* | [ 0 to 200 / 15 / 1uA ]   |
| 2-<br>487-<br>004 | Thick 1: Bias: FC           | Paper Transfer: 2Side    | ENG* | [ 0 to 200 / 11 / 1uA ]   |
| 2-<br>491-<br>003 | Thick 1: Size Correction:BW | Paper Transfer: 1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-<br>491-<br>004 | Thick 1: Size Correction:BW | Paper Transfer: 2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-<br>491-<br>007 | Thick 1: Size Correction:BW | Paper Transfer: 1Side:S2 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-<br>491-<br>008 | Thick 1: Size Correction:BW | Paper Transfer: 2Side:S2 | ENG* | [ 100 to 995 / 156 / 5% ] |
| 2-<br>491-<br>011 | Thick 1: Size Correction:BW | Paper Transfer: 1Side:S3 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-<br>491-<br>012 | Thick 1: Size Correction:BW | Paper Transfer: 2Side:S3 | ENG* | [ 100 to 995 / 167 / 5% ] |
| 2-<br>491-<br>015 | Thick 1: Size Correction:BW | Paper Transfer: 1Side:S4 | ENG* | [ 100 to 995 / 107 / 5% ] |

## 3.SP Mode Tables

|                   |                              |                          |      |                              |
|-------------------|------------------------------|--------------------------|------|------------------------------|
| 2-<br>491-<br>016 | Thick 1: Size Correction:BW  | Paper Transfer: 2Side:S4 | ENG* | [ 100 to 995 / 278 /<br>5% ] |
| 2-<br>492-<br>003 | Thick 1: Size Correction:FC  | Paper Transfer: 1Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>492-<br>004 | Thick 1: Size Correction:FC  | Paper Transfer: 2Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>492-<br>007 | Thick 1: Size Correction:FC  | Paper Transfer: 1Side:S2 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>492-<br>008 | Thick 1: Size Correction:FC  | Paper Transfer: 2Side:S2 | ENG* | [ 100 to 995 / 164 /<br>5% ] |
| 2-<br>492-<br>011 | Thick 1: Size Correction:FC  | Paper Transfer: 1Side:S3 | ENG* | [ 100 to 995 / 120 /<br>5% ] |
| 2-<br>492-<br>012 | Thick 1: Size Correction:FC  | Paper Transfer: 2Side:S3 | ENG* | [ 100 to 995 / 227 /<br>5% ] |
| 2-<br>492-<br>015 | Thick 1: Size Correction:FC  | Paper Transfer: 1Side:S4 | ENG* | [ 100 to 995 / 130 /<br>5% ] |
| 2-<br>492-<br>016 | Thick 1: Size Correction:FC  | Paper Transfer: 2Side:S4 | ENG* | [ 100 to 995 / 364 /<br>5% ] |
| 2-<br>493-<br>003 | Thick 1: Size-Env.Correct:BW | Paper Transfer: 1Side:S1 | ENG* | [ 1 to 100 / 59 / 1 ]        |
| 2-<br>493-<br>004 | Thick 1: Size-Env.Correct:BW | Paper Transfer: 2Side:S1 | ENG* | [ 1 to 100 / 60 / 1 ]        |
| 2-<br>493-<br>007 | Thick 1: Size-Env.Correct:BW | Paper Transfer: 1Side:S2 | ENG* | [ 1 to 100 / 61 / 1 ]        |
| 2-<br>493-<br>008 | Thick 1: Size-Env.Correct:BW | Paper Transfer: 2Side:S2 | ENG* | [ 1 to 100 / 62 / 1 ]        |

3.SP Mode Tables

|           |                                |                          |      |                         |
|-----------|--------------------------------|--------------------------|------|-------------------------|
| 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% ] |



## 3.SP Mode Tables

|           |                                |                       |      |                         |
|-----------|--------------------------------|-----------------------|------|-------------------------|
| 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 ]   |

### 3.SP Mode Tables

|           |                               |                          |      |                           |
|-----------|-------------------------------|--------------------------|------|---------------------------|
| 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% ] |

## 3.SP Mode Tables

|                   |                             |                          |      |                              |
|-------------------|-----------------------------|--------------------------|------|------------------------------|
| 2-<br>511-<br>004 | Thick 2: Size Correction:BW | Paper Transfer: 2Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>511-<br>007 | Thick 2: Size Correction:BW | Paper Transfer: 1Side:S2 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>511-<br>008 | Thick 2: Size Correction:BW | Paper Transfer: 2Side:S2 | ENG* | [ 100 to 995 / 163 /<br>5% ] |
| 2-<br>511-<br>011 | Thick 2: Size Correction:BW | Paper Transfer: 1Side:S3 | ENG* | [ 100 to 995 / 136 /<br>5% ] |
| 2-<br>511-<br>012 | Thick 2: Size Correction:BW | Paper Transfer: 2Side:S3 | ENG* | [ 100 to 995 / 250 /<br>5% ] |
| 2-<br>511-<br>015 | Thick 2: Size Correction:BW | Paper Transfer: 1Side:S4 | ENG* | [ 100 to 995 / 164 /<br>5% ] |
| 2-<br>511-<br>016 | Thick 2: Size Correction:BW | Paper Transfer: 2Side:S4 | ENG* | [ 100 to 995 / 313 /<br>5% ] |
| 2-<br>512-<br>003 | Thick 2: Size Correction:FC | Paper Transfer: 1Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>512-<br>004 | Thick 2: Size Correction:FC | Paper Transfer: 2Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>512-<br>007 | Thick 2: Size Correction:FC | Paper Transfer: 1Side:S2 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-<br>512-<br>008 | Thick 2: Size Correction:FC | Paper Transfer: 2Side:S2 | ENG* | [ 100 to 995 / 200 /<br>5% ] |
| 2-<br>512-<br>011 | Thick 2: Size Correction:FC | Paper Transfer: 1Side:S3 | ENG* | [ 100 to 995 / 138 /<br>5% ] |
| 2-<br>512-<br>012 | Thick 2: Size Correction:FC | Paper Transfer: 2Side:S3 | ENG* | [ 100 to 995 / 278 /<br>5% ] |

### 3.SP Mode Tables

|                   |                              |                          |      |                           |
|-------------------|------------------------------|--------------------------|------|---------------------------|
| 2-<br>512-<br>015 | Thick 2: Size Correction:FC  | Paper Transfer: 1Side:S4 | ENG* | [ 100 to 995 / 154 / 5% ] |
| 2-<br>512-<br>016 | Thick 2: Size Correction:FC  | Paper Transfer: 2Side:S4 | ENG* | [ 100 to 995 / 389 / 5% ] |
| 2-<br>513-<br>003 | Thick 2: Size-Env.Correct:BW | Paper Transfer: 1Side:S1 | ENG* | [ 1 to 100 / 67 / 1 ]     |
| 2-<br>513-<br>004 | Thick 2: Size-Env.Correct:BW | Paper Transfer: 2Side:S1 | ENG* | [ 1 to 100 / 68 / 1 ]     |
| 2-<br>513-<br>007 | Thick 2: Size-Env.Correct:BW | Paper Transfer: 1Side:S2 | ENG* | [ 1 to 100 / 69 / 1 ]     |
| 2-<br>513-<br>008 | Thick 2: Size-Env.Correct:BW | Paper Transfer: 2Side:S2 | ENG* | [ 1 to 100 / 70 / 1 ]     |
| 2-<br>513-<br>011 | Thick 2: Size-Env.Correct:BW | Paper Transfer: 1Side:S3 | ENG* | [ 1 to 100 / 71 / 1 ]     |
| 2-<br>513-<br>012 | Thick 2: Size-Env.Correct:BW | Paper Transfer: 2Side:S3 | ENG* | [ 1 to 100 / 72 / 1 ]     |
| 2-<br>513-<br>015 | Thick 2: Size-Env.Correct:BW | Paper Transfer: 1Side:S4 | ENG* | [ 1 to 100 / 73 / 1 ]     |
| 2-<br>513-<br>016 | Thick 2: Size-Env.Correct:BW | Paper Transfer: 2Side:S4 | ENG* | [ 1 to 100 / 74 / 1 ]     |
| 2-<br>514-<br>003 | Thick 2: Size-Env.Correct:FC | Paper Transfer: 1Side:S1 | ENG* | [ 1 to 100 / 67 / 1 ]     |
| 2-<br>514-<br>004 | Thick 2: Size-Env.Correct:FC | Paper Transfer: 2Side:S1 | ENG* | [ 1 to 100 / 68 / 1 ]     |
| 2-<br>514-<br>007 | Thick 2: Size-Env.Correct:FC | Paper Transfer: 1Side:S2 | ENG* | [ 1 to 100 / 69 / 1 ]     |

## 3.SP Mode Tables

|                   |                                |                          |      |                         |
|-------------------|--------------------------------|--------------------------|------|-------------------------|
| 2-<br>514-<br>008 | Thick 2: Size-Env.Correct:FC   | Paper Transfer: 2Side:S2 | ENG* | [ 1 to 100 / 70 / 1 ]   |
| 2-<br>514-<br>011 | Thick 2: Size-Env.Correct:FC   | Paper Transfer: 1Side:S3 | ENG* | [ 1 to 100 / 71 / 1 ]   |
| 2-<br>514-<br>012 | Thick 2: Size-Env.Correct:FC   | Paper Transfer: 2Side:S3 | ENG* | [ 1 to 100 / 72 / 1 ]   |
| 2-<br>514-<br>015 | Thick 2: Size-Env.Correct:FC   | Paper Transfer: 1Side:S4 | ENG* | [ 1 to 100 / 73 / 1 ]   |
| 2-<br>514-<br>016 | Thick 2: Size-Env.Correct:FC   | Paper Transfer: 2Side:S4 | ENG* | [ 1 to 100 / 74 / 1 ]   |
| 2-<br>515-<br>003 | Thick 2: Leading Edge Correct. | Paper Transfer: 1Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>515-<br>004 | Thick 2: Leading Edge Correct. | Paper Transfer: 2Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>515-<br>007 | Thick 2: Leading Edge Correct. | Separation DC: 1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>515-<br>008 | Thick 2: Leading Edge Correct. | Separation DC: 2Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>516-<br>003 | Thick 2: SW Timing Lead Edge   | Paper Transfer: 1Side    | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>516-<br>004 | Thick 2: SW Timing Lead Edge   | Paper Transfer: 2Side    | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>516-<br>007 | Thick 2: SW Timing Lead Edge   | Separation DC: 1Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-<br>516-<br>008 | Thick 2: SW Timing Lead Edge   | Separation DC: 2Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |

### 3.SP Mode Tables

|                   |                                |                       |      |                          |
|-------------------|--------------------------------|-----------------------|------|--------------------------|
| 2-<br>517-<br>003 | Thick 2: Trail Edge Correction | Paper Transfer: 1Side | ENG* | [ 0 to 995 / 100 / 5% ]  |
| 2-<br>517-<br>004 | Thick 2: Trail Edge Correction | Paper Transfer: 2Side | ENG* | [ 0 to 995 / 100 / 5% ]  |
| 2-<br>517-<br>007 | Thick 2: Trail Edge Correction | Separation DC: 1Side  | ENG* | [ 0 to 995 / 100 / 5% ]  |
| 2-<br>517-<br>008 | Thick 2: Trail Edge Correction | Separation DC: 2Side  | ENG* | [ 0 to 995 / 100 / 5% ]  |
| 2-<br>518-<br>003 | Thick 2: SW Timing Trail Edge  | Paper Transfer: 1Side | ENG* | [ 0 to 50 / 0 / 2mm ]    |
| 2-<br>518-<br>004 | Thick 2: SW Timing Trail Edge  | Paper Transfer: 2Side | ENG* | [ 0 to 50 / 0 / 2mm ]    |
| 2-<br>518-<br>007 | Thick 2: SW Timing Trail Edge  | Separation DC: 1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]    |
| 2-<br>518-<br>008 | Thick 2: SW Timing Trail Edge  | Separation DC: 2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]    |
| 2-<br>519-<br>015 | Thick 2: Envir Correct. Table  | Separation DC: 1Side  | ENG* | [ 1 to 100 / 30 / 1 ]    |
| 2-<br>519-<br>016 | Thick 2: Envir Correct. Table  | Separation DC: 2Side  | ENG* | [ 1 to 100 / 30 / 1 ]    |
| 2-<br>519-<br>019 | Thick 2: Edge Envir Correct.   | Separation DC: 1Side  | ENG* | [ 1 to 100 / 30 / 1 ]    |
| 2-<br>519-<br>020 | Thick 2: Edge Envir Correct.   | Separation DC: 2Side  | ENG* | [ 1 to 100 / 30 / 1 ]    |
| 2-<br>521-<br>003 | Thick 3: Bias                  | Separation DC: 1Side  | ENG* | [ 0 to 4000 / 0 / 10-V ] |

## 3.SP Mode Tables

|                   |                             |                          |      |                           |
|-------------------|-----------------------------|--------------------------|------|---------------------------|
| 2-<br>521-<br>004 | Thick 3: Bias               | Separation DC: 2Side     | ENG* | [ 0 to 4000 / 0 / 10-V ]  |
| 2-<br>523-<br>003 | Thick 3: Bias: BW           | Paper Transfer: 1Side    | ENG* | [ 0 to 200 / 9 / 1uA ]    |
| 2-<br>523-<br>004 | Thick 3: Bias: BW           | Paper Transfer: 2Side    | ENG* | [ 0 to 200 / 7 / 1uA ]    |
| 2-<br>527-<br>003 | Thick 3: Bias: FC           | Paper Transfer: 1Side    | ENG* | [ 0 to 200 / 11 / 1uA ]   |
| 2-<br>527-<br>004 | Thick 3: Bias: FC           | Paper Transfer: 2Side    | ENG* | [ 0 to 200 / 9 / 1uA ]    |
| 2-<br>531-<br>003 | Thick 3: Size Correction:BW | Paper Transfer: 1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-<br>531-<br>004 | Thick 3: Size Correction:BW | Paper Transfer: 2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-<br>531-<br>007 | Thick 3: Size Correction:BW | Paper Transfer: 1Side:S2 | ENG* | [ 100 to 995 / 122 / 5% ] |
| 2-<br>531-<br>008 | Thick 3: Size Correction:BW | Paper Transfer: 2Side:S2 | ENG* | [ 100 to 995 / 186 / 5% ] |
| 2-<br>531-<br>011 | Thick 3: Size Correction:BW | Paper Transfer: 1Side:S3 | ENG* | [ 100 to 995 / 156 / 5% ] |
| 2-<br>531-<br>012 | Thick 3: Size Correction:BW | Paper Transfer: 2Side:S3 | ENG* | [ 100 to 995 / 271 / 5% ] |
| 2-<br>531-<br>015 | Thick 3: Size Correction:BW | Paper Transfer: 1Side:S4 | ENG* | [ 100 to 995 / 170 / 5% ] |
| 2-<br>531-<br>016 | Thick 3: Size Correction:BW | Paper Transfer: 2Side:S4 | ENG* | [ 100 to 995 / 357 / 5% ] |

### 3.SP Mode Tables

|                   |                              |                          |      |                           |
|-------------------|------------------------------|--------------------------|------|---------------------------|
| 2-<br>532-<br>003 | Thick 3: Size Correction:FC  | Paper Transfer: 1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-<br>532-<br>004 | Thick 3: Size Correction:FC  | Paper Transfer: 2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-<br>532-<br>007 | Thick 3: Size Correction:FC  | Paper Transfer: 1Side:S2 | ENG* | [ 100 to 995 / 118 / 5% ] |
| 2-<br>532-<br>008 | Thick 3: Size Correction:FC  | Paper Transfer: 2Side:S2 | ENG* | [ 100 to 995 / 200 / 5% ] |
| 2-<br>532-<br>011 | Thick 3: Size Correction:FC  | Paper Transfer: 1Side:S3 | ENG* | [ 100 to 995 / 140 / 5% ] |
| 2-<br>532-<br>012 | Thick 3: Size Correction:FC  | Paper Transfer: 2Side:S3 | ENG* | [ 100 to 995 / 278 / 5% ] |
| 2-<br>532-<br>015 | Thick 3: Size Correction:FC  | Paper Transfer: 1Side:S4 | ENG* | [ 100 to 995 / 150 / 5% ] |
| 2-<br>532-<br>016 | Thick 3: Size Correction:FC  | Paper Transfer: 2Side:S4 | ENG* | [ 100 to 995 / 389 / 5% ] |
| 2-<br>533-<br>003 | Thick 3: Size-Env.Correct:BW | Paper Transfer: 1Side:S1 | ENG* | [ 1 to 100 / 75 / 1 ]     |
| 2-<br>533-<br>004 | Thick 3: Size-Env.Correct:BW | Paper Transfer: 2Side:S1 | ENG* | [ 1 to 100 / 76 / 1 ]     |
| 2-<br>533-<br>007 | Thick 3: Size-Env.Correct:BW | Paper Transfer: 1Side:S2 | ENG* | [ 1 to 100 / 77 / 1 ]     |
| 2-<br>533-<br>008 | Thick 3: Size-Env.Correct:BW | Paper Transfer: 2Side:S2 | ENG* | [ 1 to 100 / 78 / 1 ]     |
| 2-<br>533-<br>011 | Thick 3: Size-Env.Correct:BW | Paper Transfer: 1Side:S3 | ENG* | [ 1 to 100 / 79 / 1 ]     |



## 3.SP Mode Tables

|                   |                                |                          |      |                         |
|-------------------|--------------------------------|--------------------------|------|-------------------------|
| 2-<br>533-<br>012 | Thick 3: Size-Env.Correct:BW   | Paper Transfer: 2Side:S3 | ENG* | [ 1 to 100 / 80 / 1 ]   |
| 2-<br>533-<br>015 | Thick 3: Size-Env.Correct:BW   | Paper Transfer: 1Side:S4 | ENG* | [ 1 to 100 / 81 / 1 ]   |
| 2-<br>533-<br>016 | Thick 3: Size-Env.Correct:BW   | Paper Transfer: 2Side:S4 | ENG* | [ 1 to 100 / 82 / 1 ]   |
| 2-<br>534-<br>003 | Thick 3: Size-Env.Correct:FC   | Paper Transfer: 1Side:S1 | ENG* | [ 1 to 100 / 75 / 1 ]   |
| 2-<br>534-<br>004 | Thick 3: Size-Env.Correct:FC   | Paper Transfer: 2Side:S1 | ENG* | [ 1 to 100 / 76 / 1 ]   |
| 2-<br>534-<br>007 | Thick 3: Size-Env.Correct:FC   | Paper Transfer: 1Side:S2 | ENG* | [ 1 to 100 / 77 / 1 ]   |
| 2-<br>534-<br>008 | Thick 3: Size-Env.Correct:FC   | Paper Transfer: 2Side:S2 | ENG* | [ 1 to 100 / 78 / 1 ]   |
| 2-<br>534-<br>011 | Thick 3: Size-Env.Correct:FC   | Paper Transfer: 1Side:S3 | ENG* | [ 1 to 100 / 79 / 1 ]   |
| 2-<br>534-<br>012 | Thick 3: Size-Env.Correct:FC   | Paper Transfer: 2Side:S3 | ENG* | [ 1 to 100 / 80 / 1 ]   |
| 2-<br>534-<br>015 | Thick 3: Size-Env.Correct:FC   | Paper Transfer: 1Side:S4 | ENG* | [ 1 to 100 / 81 / 1 ]   |
| 2-<br>534-<br>016 | Thick 3: Size-Env.Correct:FC   | Paper Transfer: 2Side:S4 | ENG* | [ 1 to 100 / 82 / 1 ]   |
| 2-<br>535-<br>003 | Thick 3: Leading Edge Correct. | Paper Transfer: 1Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-<br>535-<br>004 | Thick 3: Leading Edge Correct. | Paper Transfer: 2Side    | ENG* | [ 0 to 995 / 100 / 5% ] |

3.SP Mode Tables

|           |                                |                       |      |                         |
|-----------|--------------------------------|-----------------------|------|-------------------------|
| 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 ]   |

## 3.SP Mode Tables

|                   |                               |                      |      |                       |
|-------------------|-------------------------------|----------------------|------|-----------------------|
| 2-<br>538-<br>008 | Thick 3: SW Timing Trail Edge | Separation DC: 2Side | ENG* | [ 0 to 50 / 0 / 2mm ] |
| 2-<br>539-<br>015 | Thick 3: Envir Correct. Table | Separation DC: 1Side | ENG* | [ 1 to 100 / 30 / 1 ] |
| 2-<br>539-<br>016 | Thick 3: Envir Correct. Table | Separation DC: 2Side | ENG* | [ 1 to 100 / 30 / 1 ] |
| 2-<br>539-<br>019 | Thick 3: Edge Envir Correct.  | Separation DC: 1Side | ENG* | [ 1 to 100 / 30 / 1 ] |
| 2-<br>539-<br>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 ]     |

## 3.SP Mode Tables

|           |                                |                                       |      |  |
|-----------|--------------------------------|---------------------------------------|------|--|
| 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:<br>1Side      | ENG* | [ 0 to 4000 / 2000 / 10-V ]                            |
| 2-561-002 | Special 1: Bias                | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 4000 / 2000 / 10-V ]                            |
| 2-561-003 | Special 1: Bias                | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 4000 / 2000 / 10-V ]                            |
| 2-561-004 | Special 1: Bias                | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 4000 / 2000 / 10-V ]                            |
| 2-563-001 | Special 1: Bias: BW            | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 21<br>*MP C407: 24 |
| 2-563-002 | Special 1: Bias: BW            | Paper Transfer: Std/Mid Spd:<br>2Side | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 16                 |

3.SP Mode Tables

|           |                              |  |      |  |
|-----------|------------------------------|--|------|--|
|           |                              |  |      | *MP C407: 18   |
| 2-563-003 | Special 1: Bias: BW          | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 200 / 10 / 1uA ]                                |
| 2-563-004 | Special 1: Bias: BW          | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 200 / 8 / 1uA ]                                 |
| 2-563-201 | Special 1: Bias: BW          | Paper Transfer: Std Spd 2:<br>1Side      | ENG* | [ 0 to 200 / 30 / 1uA ]                                |
| 2-563-202 | Special 1: Bias: BW          | Paper Transfer: Std Spd 2:<br>2Side      | ENG* | [ 0 to 200 / 22 / 1uA ]                                |
| 2-567-001 | Special 1: Bias: FC          | Paper Transfer: Std/Mid Spd:<br>1Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 22<br>*MP C407: 25 |
| 2-567-002 | Special 1: Bias: FC          | Paper Transfer: Std/Mid Spd:<br>2Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 18<br>*MP C407: 20 |
| 2-567-003 | Special 1: Bias: FC          | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 200 / 11 / 1uA ]                                |
| 2-567-004 | Special 1: Bias: FC          | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 200 / 10 / 1uA ]                                |
| 2-571-001 | Special 1: SizeCorrection:BW | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ]                              |
| 2-571-002 | Special 1: SizeCorrection:BW | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ]                              |
| 2-571-003 | Special 1: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 100 to 995 / 100 / 5% ]                              |
| 2-571-004 | Special 1: SizeCorrection:BW | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 100 to 995 / 100 / 5% ]                              |
| 2-571-007 | Special 1: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 100 to 995 / 120 / 5% ]                              |
| 2-571-008 | Special 1: SizeCorrection:BW | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 100 to 995 / 175 / 5% ]                              |
| 2-571-011 | Special 1: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 100 to 995 / 130 / 5% ]                              |
| 2-571-012 | Special 1: SizeCorrection:BW | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 100 to 995 / 213 / 5% ]                              |
| 2-571-015 | Special 1: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 100 to 995 / 140 / 5% ]                              |
| 2-571-    | Special 1: SizeCorrection:BW | Paper Transfer: Low Spd:                 | ENG* | [ 100 to 995 / 275 /                                   |

## 3.SP Mode Tables

|           |                                    |  |      |                              |
|-----------|------------------------------------|--|------|------------------------------|
| 016       |                                    | 2Side:S4                                 |      | 5% ]                         |
| 2-572-001 | Special 1: SizeCorrection:FC       | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-572-002 | Special 1: SizeCorrection:FC       | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-572-003 | Special 1: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-572-004 | Special 1: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-572-007 | Special 1: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 100 to 995 / 118 /<br>5% ] |
| 2-572-008 | Special 1: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 100 to 995 / 150 /<br>5% ] |
| 2-572-011 | Special 1: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 100 to 995 / 130 /<br>5% ] |
| 2-572-012 | Special 1: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 100 to 995 / 180 /<br>5% ] |
| 2-572-015 | Special 1: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 100 to 995 / 140 /<br>5% ] |
| 2-572-016 | Special 1: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 100 to 995 / 250 /<br>5% ] |
| 2-573-001 | Special 1: Size-<br>Env.Correct:BW | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 21 / 1 ]        |
| 2-573-002 | Special 1: Size-<br>Env.Correct:BW | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 22 / 1 ]        |
| 2-573-003 | Special 1: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 1 to 100 / 25 / 1 ]        |
| 2-573-004 | Special 1: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 1 to 100 / 26 / 1 ]        |
| 2-573-007 | Special 1: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 1 to 100 / 27 / 1 ]        |
| 2-573-008 | Special 1: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 1 to 100 / 28 / 1 ]        |
| 2-573-011 | Special 1: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 1 to 100 / 29 / 1 ]        |
| 2-573-012 | Special 1: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 1 to 100 / 30 / 1 ]        |
| 2-573-    | Special 1: Size-                   | Paper Transfer: Low Spd:                 | ENG* | [ 1 to 100 / 31 / 1 ]        |

3.SP Mode Tables

|           |                                    |  |      |                         |
|-----------|------------------------------------|--|------|-------------------------|
| 015       | Env.Correct:BW                     | 1Side:S4                                 |      |                         |
| 2-573-016 | Special 1: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 1 to 100 / 32 / 1 ]   |
| 2-574-001 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 23 / 1 ]   |
| 2-574-002 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 24 / 1 ]   |
| 2-574-003 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 1 to 100 / 25 / 1 ]   |
| 2-574-004 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 1 to 100 / 26 / 1 ]   |
| 2-574-007 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 1 to 100 / 27 / 1 ]   |
| 2-574-008 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 1 to 100 / 28 / 1 ]   |
| 2-574-011 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 1 to 100 / 29 / 1 ]   |
| 2-574-012 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 1 to 100 / 30 / 1 ]   |
| 2-574-015 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 1 to 100 / 31 / 1 ]   |
| 2-574-016 | Special 1: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 1 to 100 / 32 / 1 ]   |
| 2-575-001 | Special 1:<br>LeadingEdgeCorrect.  | Paper Transfer: Std/Mid Spd:<br>1Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-575-002 | Special 1:<br>LeadingEdgeCorrect.  | Paper Transfer: Std/Mid Spd:<br>2Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-575-003 | Special 1:<br>LeadingEdgeCorrect.  | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-575-004 | Special 1:<br>LeadingEdgeCorrect.  | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-575-005 | Special 1:<br>LeadingEdgeCorrect.  | Separation DC: Std Spd:<br>1Side         | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-575-006 | Special 1:<br>LeadingEdgeCorrect.  | Separation DC: Std Spd:<br>2Side         | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-575-007 | Special 1:<br>LeadingEdgeCorrect.  | Separation DC: Low Spd:<br>1Side         | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-575-    | Special 1:                         | Separation DC: Low Spd:                  | ENG* | [ 0 to 995 / 100 / 5% ] |



## 3.SP Mode Tables

|           |                                   |                                       |      |                         |
|-----------|-----------------------------------|---------------------------------------|------|-------------------------|
| 008       | LeadingEdgeCorrect.               | 2Side                                 |      |                         |
| 2-576-001 | Special 1: SW Timing Lead Edge    | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-576-002 | Special 1: SW Timing Lead Edge    | Paper Transfer: Std/Mid Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-576-003 | Special 1: SW Timing Lead Edge    | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-576-004 | Special 1: SW Timing Lead Edge    | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-576-005 | Special 1: SW Timing Lead Edge    | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-576-006 | Special 1: SW Timing Lead Edge    | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-576-007 | Special 1: SW Timing Lead Edge    | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-576-008 | Special 1: SW Timing Lead Edge    | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-577-001 | Special 1:<br>TrailEdgeCorrection | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-577-002 | Special 1:<br>TrailEdgeCorrection | Paper Transfer: Std/Mid Spd:<br>2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-577-003 | Special 1:<br>TrailEdgeCorrection | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-577-004 | Special 1:<br>TrailEdgeCorrection | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-577-005 | Special 1:<br>TrailEdgeCorrection | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-577-006 | Special 1:<br>TrailEdgeCorrection | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-577-007 | Special 1:<br>TrailEdgeCorrection | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-577-008 | Special 1:<br>TrailEdgeCorrection | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-578-001 | Special 1: SWTiming Trail Edge    | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-578-002 | Special 1: SWTiming Trail Edge    | Paper Transfer: Std/Mid Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-578-    | Special 1: SWTiming Trail         | Paper Transfer: Low Spd:              | ENG* | [ 0 to 50 / 0 / 2mm ]   |

### 3.SP Mode Tables

|           |                                   |                                       |      |  |
|-----------|-----------------------------------|---------------------------------------|------|--|
| 003       | Edge                              | 1Side                                 |      |  |
| 2-578-004 | Special 1: SWTiming Trail<br>Edge | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 50 / 0 / 2mm ]                                  |
| 2-578-005 | Special 1: SWTiming Trail<br>Edge | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]                                  |
| 2-578-006 | Special 1: SWTiming Trail<br>Edge | Separation DC: Std Spd: 2side         | ENG* | [ 0 to 50 / 0 / 2mm ]                                  |
| 2-578-007 | Special 1: SWTiming Trail<br>Edge | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]                                  |
| 2-578-008 | Special 1: SWTiming Trail<br>Edge | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 50 / 0 / 2mm ]                                  |
| 2-579-013 | Special 1: EnvCorrectionTable     | Separation DC: Std Spd:<br>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:<br>1Side      | ENG* | [ 1 to 100 / 30 / 1 ]                                  |
| 2-579-016 | Special 1: EnvCorrectionTable     | Separation DC: Low Spd:<br>2Side      | ENG* | [ 1 to 100 / 30 / 1 ]                                  |
| 2-579-017 | Special 1: Edge Envir Correc.     | Separation DC: Std Spd:<br>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:<br>1Side      | ENG* | [ 1 to 100 / 50 / 1 ]                                  |
| 2-579-020 | Special 1: Edge Envir Correc.     | Separation DC: Low Spd:<br>2Side      | ENG* | [ 1 to 100 / 50 / 1 ]                                  |
| 2-581-001 | Special 2: Bias                   | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 4000 / 2000 /<br>10-V ]                         |
| 2-581-002 | Special 2: Bias                   | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 4000 / 2000 /<br>10-V ]                         |
| 2-581-003 | Special 2: Bias                   | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 4000 / 2000 /<br>10-V ]                         |
| 2-581-004 | Special 2: Bias                   | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 4000 / 2000 /<br>10-V ]                         |
| 2-583-001 | Special 2: Bias: BW               | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 19<br>*MP C407: 22 |

## 3.SP Mode Tables

|           |                              |  |      |  |
|-----------|------------------------------|--|------|--|
| 2-583-002 | Special 2: Bias: BW          | Paper Transfer: Std/Mid Spd:<br>2Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 16<br>*MP C407: 18 |
| 2-583-003 | Special 2: Bias: BW          | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 200 / 11 / 1uA ]                                |
| 2-583-004 | Special 2: Bias: BW          | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 200 / 11 / 1uA ]                                |
| 2-583-201 | Special 2: Bias: BW          | Paper Transfer: Std Spd 2:<br>1Side      | ENG* | [ 0 to 200 / 26 / 1uA ]                                |
| 2-583-202 | Special 2: Bias: BW          | Paper Transfer: Std Spd 2:<br>2Side      | ENG* | [ 0 to 200 / 22 / 1uA ]                                |
| 2-587-001 | Special 2: Bias: FC          | Paper Transfer: Std/Mid Spd:<br>1Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 22<br>*MP C407: 25 |
| 2-587-002 | Special 2: Bias: FC          | Paper Transfer: Std/Mid Spd:<br>2Side    | ENG* | [ 0 to 200 / * / 1uA ]<br>*MP C307: 18<br>*MP C407: 20 |
| 2-587-003 | Special 2: Bias: FC          | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 200 / 13 / 1uA ]                                |
| 2-587-004 | Special 2: Bias: FC          | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 200 / 13 / 1uA ]                                |
| 2-591-001 | Special 2: SizeCorrection:BW | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ]                              |
| 2-591-002 | Special 2: SizeCorrection:BW | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ]                              |
| 2-591-003 | Special 2: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 100 to 995 / 100 / 5% ]                              |
| 2-591-004 | Special 2: SizeCorrection:BW | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 100 to 995 / 100 / 5% ]                              |
| 2-591-007 | Special 2: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 100 to 995 / 120 / 5% ]                              |
| 2-591-008 | Special 2: SizeCorrection:BW | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 100 to 995 / 175 / 5% ]                              |
| 2-591-011 | Special 2: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 100 to 995 / 140 / 5% ]                              |
| 2-591-012 | Special 2: SizeCorrection:BW | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 100 to 995 / 213 / 5% ]                              |
| 2-591-    | Special 2: SizeCorrection:BW | Paper Transfer: Low Spd:                 | ENG* | [ 100 to 995 / 150 /                                   |

3.SP Mode Tables

|           |                                    |  |      |                           |
|-----------|------------------------------------|--|------|---------------------------|
| 015       |                                    | 1Side:S4                                 |      | 5% ]                      |
| 2-591-016 | Special 2: SizeCorrection:BW       | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 100 to 995 / 275 / 5% ] |
| 2-592-001 | Special 2: SizeCorrection:FC       | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-592-002 | Special 2: SizeCorrection:FC       | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-592-003 | Special 2: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-592-004 | Special 2: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-592-007 | Special 2: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 100 to 995 / 118 / 5% ] |
| 2-592-008 | Special 2: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 100 to 995 / 150 / 5% ] |
| 2-592-011 | Special 2: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 100 to 995 / 136 / 5% ] |
| 2-592-012 | Special 2: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 100 to 995 / 154 / 5% ] |
| 2-592-015 | Special 2: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 100 to 995 / 140 / 5% ] |
| 2-592-016 | Special 2: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 100 to 995 / 250 / 5% ] |
| 2-593-001 | Special 2: Size-<br>Env.Correct:BW | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 33 / 1 ]     |
| 2-593-002 | Special 2: Size-<br>Env.Correct:BW | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 34 / 1 ]     |
| 2-593-003 | Special 2: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 1 to 100 / 37 / 1 ]     |
| 2-593-004 | Special 2: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 1 to 100 / 38 / 1 ]     |
| 2-593-007 | Special 2: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 1 to 100 / 39 / 1 ]     |
| 2-593-008 | Special 2: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 1 to 100 / 40 / 1 ]     |
| 2-593-011 | Special 2: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 1 to 100 / 41 / 1 ]     |
| 2-593-    | Special 2: Size-                   | Paper Transfer: Low Spd:                 | ENG* | [ 1 to 100 / 42 / 1 ]     |

## 3.SP Mode Tables

|           |                                    |  |      |                         |
|-----------|------------------------------------|--|------|-------------------------|
| 012       | Env.Correct:BW                     | 2Side:S3                                 |      |                         |
| 2-593-015 | Special 2: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 1 to 100 / 43 / 1 ]   |
| 2-593-016 | Special 2: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 1 to 100 / 44 / 1 ]   |
| 2-594-001 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 35 / 1 ]   |
| 2-594-002 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 36 / 1 ]   |
| 2-594-003 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 1 to 100 / 37 / 1 ]   |
| 2-594-004 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 1 to 100 / 38 / 1 ]   |
| 2-594-007 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 1 to 100 / 39 / 1 ]   |
| 2-594-008 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 1 to 100 / 40 / 1 ]   |
| 2-594-011 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 1 to 100 / 41 / 1 ]   |
| 2-594-012 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 1 to 100 / 42 / 1 ]   |
| 2-594-015 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 1 to 100 / 43 / 1 ]   |
| 2-594-016 | Special 2: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 1 to 100 / 44 / 1 ]   |
| 2-595-001 | Special 2:<br>LeadingEdgeCorrect.  | Paper Transfer: Std/Mid Spd:<br>1Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-595-002 | Special 2:<br>LeadingEdgeCorrect.  | Paper Transfer: Std/Mid Spd:<br>2Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-595-003 | Special 2:<br>LeadingEdgeCorrect.  | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-595-004 | Special 2:<br>LeadingEdgeCorrect.  | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-595-005 | Special 2:<br>LeadingEdgeCorrect.  | Separation DC: Std Spd:<br>1Side         | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-595-006 | Special 2:<br>LeadingEdgeCorrect.  | Separation DC: Std Spd:<br>2Side         | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-595-    | Special 2:                         | Separation DC: Low Spd:                  | ENG* | [ 0 to 995 / 100 / 5% ] |

3.SP Mode Tables

|           |                                   |                                       |      |                         |
|-----------|-----------------------------------|---------------------------------------|------|-------------------------|
| 007       | LeadingEdgeCorrect.               | 1Side                                 |      |                         |
| 2-595-008 | Special 2:<br>LeadingEdgeCorrect. | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-596-001 | Special 2: SW Timing Lead<br>Edge | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-596-002 | Special 2: SW Timing Lead<br>Edge | Paper Transfer: Std/Mid Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-596-003 | Special 2: SW Timing Lead<br>Edge | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-596-004 | Special 2: SW Timing Lead<br>Edge | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-596-005 | Special 2: SW Timing Lead<br>Edge | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-596-006 | Special 2: SW Timing Lead<br>Edge | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-596-007 | Special 2: SW Timing Lead<br>Edge | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-596-008 | Special 2: SW Timing Lead<br>Edge | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-597-001 | Special 2:<br>TrailEdgeCorrection | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-597-002 | Special 2:<br>TrailEdgeCorrection | Paper Transfer: Std/Mid Spd:<br>2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-597-003 | Special 2:<br>TrailEdgeCorrection | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-597-004 | Special 2:<br>TrailEdgeCorrection | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-597-005 | Special 2:<br>TrailEdgeCorrection | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-597-006 | Special 2:<br>TrailEdgeCorrection | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-597-007 | Special 2:<br>TrailEdgeCorrection | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-597-008 | Special 2:<br>TrailEdgeCorrection | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-598-001 | Special 2: SWTiming Trail<br>Edge | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-598-    | Special 2: SWTiming Trail         | Paper Transfer: Std/Mid Spd:          | ENG* | [ 0 to 50 / 0 / 2mm ]   |

## 3.SP Mode Tables

|           |                                   |                                   |      |                                |
|-----------|-----------------------------------|-----------------------------------|------|--------------------------------|
| 002       | Edge                              | 2Side                             |      |                                |
| 2-598-003 | Special 2: SWTiming Trail<br>Edge | Paper Transfer: Low Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]          |
| 2-598-004 | Special 2: SWTiming Trail<br>Edge | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]          |
| 2-598-005 | Special 2: SWTiming Trail<br>Edge | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]          |
| 2-598-006 | Special 2: SWTiming Trail<br>Edge | Separation DC: Std Spd: 2side     | ENG* | [ 0 to 50 / 0 / 2mm ]          |
| 2-598-007 | Special 2: SWTiming Trail<br>Edge | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]          |
| 2-598-008 | Special 2: SWTiming Trail<br>Edge | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]          |
| 2-599-013 | Special 2: EnvCorrectionTable     | Separation DC: Std Spd:<br>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:<br>1Side  | ENG* | [ 1 to 100 / 30 / 1 ]          |
| 2-599-016 | Special 2: EnvCorrectionTable     | Separation DC: Low Spd:<br>2Side  | ENG* | [ 1 to 100 / 30 / 1 ]          |
| 2-599-017 | Special 2: Edge Envir Correc.     | Separation DC: Std Spd:<br>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:<br>1Side  | ENG* | [ 1 to 100 / 30 / 1 ]          |
| 2-599-020 | Special 2: Edge Envir Correc.     | Separation DC: Low Spd:<br>2Side  | ENG* | [ 1 to 100 / 30 / 1 ]          |
| 2-601-001 | Special 3: Bias                   | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 4000 / 2000 /<br>10-V ] |
| 2-601-002 | Special 3: Bias                   | Separation DC: Std Spd:<br>2Side  | ENG* | [ 0 to 4000 / 2000 /<br>10-V ] |
| 2-601-003 | Special 3: Bias                   | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 4000 / 2000 /<br>10-V ] |
| 2-601-004 | Special 3: Bias                   | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 4000 / 2000 /<br>10-V ] |
| 2-603-    | Special 3: Bias: BW               | Paper Transfer: Std/Mid Spd:      | ENG* | [ 0 to 200 / 20 / 1uA ]        |

3.SP Mode Tables

|           |                              |  |      |                           |
|-----------|------------------------------|--|------|---------------------------|
| 001       |                              | 1Side                                    |      |                           |
| 2-603-002 | Special 3: Bias: BW          | Paper Transfer: Std/Mid Spd:<br>2Side    | ENG* | [ 0 to 200 / 16 / 1uA ]   |
| 2-603-003 | Special 3: Bias: BW          | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 200 / 10 / 1uA ]   |
| 2-603-004 | Special 3: Bias: BW          | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 200 / 8 / 1uA ]    |
| 2-603-201 | Special 3: Bias: BW          | Paper Transfer: Std Spd 2:<br>1Side      | ENG* | [ 0 to 200 / 26 / 1uA ]   |
| 2-603-202 | Special 3: Bias: BW          | Paper Transfer: Std Spd 2:<br>2Side      | ENG* | [ 0 to 200 / 22 / 1uA ]   |
| 2-607-001 | Special 3: Bias: FC          | Paper Transfer: Std/Mid Spd:<br>1Side    | ENG* | [ 0 to 200 / 22 / 1uA ]   |
| 2-607-002 | Special 3: Bias: FC          | Paper Transfer: Std/Mid Spd:<br>2Side    | ENG* | [ 0 to 200 / 18 / 1uA ]   |
| 2-607-003 | Special 3: Bias: FC          | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 200 / 11 / 1uA ]   |
| 2-607-004 | Special 3: Bias: FC          | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 200 / 10 / 1uA ]   |
| 2-611-001 | Special 3: SizeCorrection:BW | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-611-002 | Special 3: SizeCorrection:BW | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-611-003 | Special 3: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-611-004 | Special 3: SizeCorrection:BW | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 100 to 995 / 100 / 5% ] |
| 2-611-007 | Special 3: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 100 to 995 / 130 / 5% ] |
| 2-611-008 | Special 3: SizeCorrection:BW | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 100 to 995 / 163 / 5% ] |
| 2-611-011 | Special 3: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 100 to 995 / 150 / 5% ] |
| 2-611-012 | Special 3: SizeCorrection:BW | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 100 to 995 / 250 / 5% ] |
| 2-611-015 | Special 3: SizeCorrection:BW | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 100 to 995 / 150 / 5% ] |
| 2-611-    | Special 3: SizeCorrection:BW | Paper Transfer: Low Spd:                 | ENG* | [ 100 to 995 / 375 /      |



## 3.SP Mode Tables

|           |                                    |  |      |                              |
|-----------|------------------------------------|--|------|------------------------------|
| 016       |                                    | 2Side:S4                                 |      | 5% ]                         |
| 2-612-001 | Special 3: SizeCorrection:FC       | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-612-002 | Special 3: SizeCorrection:FC       | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-612-003 | Special 3: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-612-004 | Special 3: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 100 to 995 / 100 /<br>5% ] |
| 2-612-007 | Special 3: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 100 to 995 / 136 /<br>5% ] |
| 2-612-008 | Special 3: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 100 to 995 / 180 /<br>5% ] |
| 2-612-011 | Special 3: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 100 to 995 / 150 /<br>5% ] |
| 2-612-012 | Special 3: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 100 to 995 / 250 /<br>5% ] |
| 2-612-015 | Special 3: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 100 to 995 / 150 /<br>5% ] |
| 2-612-016 | Special 3: SizeCorrection:FC       | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 100 to 995 / 350 /<br>5% ] |
| 2-613-001 | Special 3: Size-<br>Env.Correct:BW | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 21 / 1 ]        |
| 2-613-002 | Special 3: Size-<br>Env.Correct:BW | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 22 / 1 ]        |
| 2-613-003 | Special 3: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 1 to 100 / 47 / 1 ]        |
| 2-613-004 | Special 3: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 1 to 100 / 48 / 1 ]        |
| 2-613-007 | Special 3: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 1 to 100 / 49 / 1 ]        |
| 2-613-008 | Special 3: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 1 to 100 / 50 / 1 ]        |
| 2-613-011 | Special 3: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 1 to 100 / 51 / 1 ]        |
| 2-613-012 | Special 3: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 1 to 100 / 52 / 1 ]        |
| 2-613-    | Special 3: Size-                   | Paper Transfer: Low Spd:                 | ENG* | [ 1 to 100 / 53 / 1 ]        |

3.SP Mode Tables

|           |                                    |  |      |                         |
|-----------|------------------------------------|--|------|-------------------------|
| 015       | Env.Correct:BW                     | 1Side:S4                                 |      |                         |
| 2-613-016 | Special 3: Size-<br>Env.Correct:BW | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 1 to 100 / 54 / 1 ]   |
| 2-614-001 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Std/Mid Spd:<br>1Side:S1 | ENG* | [ 1 to 100 / 45 / 1 ]   |
| 2-614-002 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Std/Mid Spd:<br>2Side:S1 | ENG* | [ 1 to 100 / 46 / 1 ]   |
| 2-614-003 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S1     | ENG* | [ 1 to 100 / 47 / 1 ]   |
| 2-614-004 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S1     | ENG* | [ 1 to 100 / 48 / 1 ]   |
| 2-614-007 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S2     | ENG* | [ 1 to 100 / 49 / 1 ]   |
| 2-614-008 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S2     | ENG* | [ 1 to 100 / 50 / 1 ]   |
| 2-614-011 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S3     | ENG* | [ 1 to 100 / 51 / 1 ]   |
| 2-614-012 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S3     | ENG* | [ 1 to 100 / 52 / 1 ]   |
| 2-614-015 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>1Side:S4     | ENG* | [ 1 to 100 / 53 / 1 ]   |
| 2-614-016 | Special 3: Size-<br>Env.Correct:FC | Paper Transfer: Low Spd:<br>2Side:S4     | ENG* | [ 1 to 100 / 54 / 1 ]   |
| 2-615-001 | Special 3:<br>LeadingEdgeCorrect.  | Paper Transfer: Std/Mid Spd:<br>1Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-615-002 | Special 3:<br>LeadingEdgeCorrect.  | Paper Transfer: Std/Mid Spd:<br>2Side    | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-615-003 | Special 3:<br>LeadingEdgeCorrect.  | Paper Transfer: Low Spd:<br>1Side        | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-615-004 | Special 3:<br>LeadingEdgeCorrect.  | Paper Transfer: Low Spd:<br>2Side        | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-615-005 | Special 3:<br>LeadingEdgeCorrect.  | Separation DC: Std Spd:<br>1Side         | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-615-006 | Special 3:<br>LeadingEdgeCorrect.  | Separation DC: Std Spd:<br>2Side         | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-615-007 | Special 3:<br>LeadingEdgeCorrect.  | Separation DC: Low Spd:<br>1Side         | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-615-    | Special 3:                         | Separation DC: Low Spd:                  | ENG* | [ 0 to 995 / 100 / 5% ] |

## 3.SP Mode Tables

|           |                                   |                                       |      |                         |
|-----------|-----------------------------------|---------------------------------------|------|-------------------------|
| 008       | LeadingEdgeCorrect.               | 2Side                                 |      |                         |
| 2-616-001 | Special 3: SW Timing Lead Edge    | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-616-002 | Special 3: SW Timing Lead Edge    | Paper Transfer: Std/Mid Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-616-003 | Special 3: SW Timing Lead Edge    | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-616-004 | Special 3: SW Timing Lead Edge    | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-616-005 | Special 3: SW Timing Lead Edge    | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-616-006 | Special 3: SW Timing Lead Edge    | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-616-007 | Special 3: SW Timing Lead Edge    | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-616-008 | Special 3: SW Timing Lead Edge    | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-617-001 | Special 3:<br>TrailEdgeCorrection | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-617-002 | Special 3:<br>TrailEdgeCorrection | Paper Transfer: Std/Mid Spd:<br>2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-617-003 | Special 3:<br>TrailEdgeCorrection | Paper Transfer: Low Spd:<br>1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-617-004 | Special 3:<br>TrailEdgeCorrection | Paper Transfer: Low Spd:<br>2Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-617-005 | Special 3:<br>TrailEdgeCorrection | Separation DC: Std Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-617-006 | Special 3:<br>TrailEdgeCorrection | Separation DC: Std Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-617-007 | Special 3:<br>TrailEdgeCorrection | Separation DC: Low Spd:<br>1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-617-008 | Special 3:<br>TrailEdgeCorrection | Separation DC: Low Spd:<br>2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-618-001 | Special 3: SWTiming Trail Edge    | Paper Transfer: Std/Mid Spd:<br>1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-618-002 | Special 3: SWTiming Trail Edge    | Paper Transfer: Std/Mid Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-618-    | Special 3: SWTiming Trail         | Paper Transfer: Low Spd:              | ENG* | [ 0 to 50 / 0 / 2mm ]   |

### 3.SP Mode Tables

|           |                                   |                                   |      |                             |
|-----------|-----------------------------------|-----------------------------------|------|-----------------------------|
| 003       | Edge                              | 1Side                             |      |                             |
| 2-618-004 | Special 3: SWTiming Trail<br>Edge | Paper Transfer: Low Spd:<br>2Side | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-618-005 | Special 3: SWTiming Trail<br>Edge | Separation DC: Std Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-618-006 | Special 3: SWTiming Trail<br>Edge | Separation DC: Std Spd: 2side     | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-618-007 | Special 3: SWTiming Trail<br>Edge | Separation DC: Low Spd:<br>1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-618-008 | Special 3: SWTiming Trail<br>Edge | Separation DC: Low Spd:<br>2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-619-013 | Special 3: EnvCorrectionTable     | Separation DC: Std Spd:<br>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:<br>1Side  | ENG* | [ 1 to 100 / 30 / 1 ]       |
| 2-619-016 | Special 3: EnvCorrectionTable     | Separation DC: Low Spd:<br>2Side  | ENG* | [ 1 to 100 / 30 / 1 ]       |
| 2-619-017 | Special 3: Edge Envir Correc.     | Separation DC: Std Spd:<br>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:<br>1Side  | ENG* | [ 1 to 100 / 30 / 1 ]       |
| 2-619-020 | Special 3: Edge Envir Correc.     | Separation DC: Low Spd:<br>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 ]     |

## 3.SP Mode Tables

|           |                                    |                           |      |                           |
|-----------|------------------------------------|---------------------------|------|---------------------------|
| 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-<br>Env.Correct:BW | Paper Transfer: 1Side: S1 | ENG* | [ 1 to 100 / 59 / 1 ]     |
| 2-633-004 | Special 4: Size-<br>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 ]     |

3.SP Mode Tables

|           |                                    |                           |      |                         |
|-----------|------------------------------------|---------------------------|------|-------------------------|
| 007       | Env.Correct:BW                     |                           |      |                         |
| 2-633-008 | Special 4: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S2 | ENG* | [ 1 to 100 / 62 / 1 ]   |
| 2-633-011 | Special 4: Size-<br>Env.Correct:BW | Paper Transfer: 1Side: S3 | ENG* | [ 1 to 100 / 55 / 1 ]   |
| 2-633-012 | Special 4: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S3 | ENG* | [ 1 to 100 / 56 / 1 ]   |
| 2-633-015 | Special 4: Size-<br>Env.Correct:BW | Paper Transfer: 1Side: S4 | ENG* | [ 1 to 100 / 57 / 1 ]   |
| 2-633-016 | Special 4: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S4 | ENG* | [ 1 to 100 / 58 / 1 ]   |
| 2-634-003 | Special 4: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S1 | ENG* | [ 1 to 100 / 59 / 1 ]   |
| 2-634-004 | Special 4: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S1 | ENG* | [ 1 to 100 / 60 / 1 ]   |
| 2-634-007 | Special 4: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S2 | ENG* | [ 1 to 100 / 61 / 1 ]   |
| 2-634-008 | Special 4: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S2 | ENG* | [ 1 to 100 / 62 / 1 ]   |
| 2-634-011 | Special 4: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S3 | ENG* | [ 1 to 100 / 63 / 1 ]   |
| 2-634-012 | Special 4: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S3 | ENG* | [ 1 to 100 / 64 / 1 ]   |
| 2-634-015 | Special 4: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S4 | ENG* | [ 1 to 100 / 65 / 1 ]   |
| 2-634-016 | Special 4: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S4 | ENG* | [ 1 to 100 / 66 / 1 ]   |
| 2-635-003 | Special 4:<br>LeadingEdgeCorrect.  | Paper Transfer: 1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-635-004 | Special 4:<br>LeadingEdgeCorrect.  | Paper Transfer: 2Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-635-007 | Special 4:<br>LeadingEdgeCorrect.  | Separation DC: 1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-635-008 | Special 4:<br>LeadingEdgeCorrect.  | Separation DC: 2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-636-003 | Special 4: SW Timing Lead<br>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 ]   |

## 3.SP Mode Tables

|           |                                   |                       |      |                             |
|-----------|-----------------------------------|-----------------------|------|-----------------------------|
| 004       | Edge                              |                       |      |                             |
| 2-636-007 | Special 4: SW Timing Lead<br>Edge | Separation DC: 1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-636-008 | Special 4: SW Timing Lead<br>Edge | Separation DC: 2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-637-003 | Special 4:<br>TrailEdgeCorrection | Paper Transfer: 1Side | ENG* | [ 0 to 995 / 100 / 5% ]     |
| 2-637-004 | Special 4:<br>TrailEdgeCorrection | Paper Transfer: 2Side | ENG* | [ 0 to 995 / 100 / 5% ]     |
| 2-637-007 | Special 4:<br>TrailEdgeCorrection | Separation DC: 1Side  | ENG* | [ 0 to 995 / 100 / 5% ]     |
| 2-637-008 | Special 4:<br>TrailEdgeCorrection | Separation DC: 2Side  | ENG* | [ 0 to 995 / 100 / 5% ]     |
| 2-638-003 | Special 4: SWTiming Trail<br>Edge | Paper Transfer: 1Side | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-638-004 | Special 4: SWTiming Trail<br>Edge | Paper Transfer: 2Side | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-638-007 | Special 4: SWTiming Trail<br>Edge | Separation DC: 1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-638-008 | Special 4: SWTiming Trail<br>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 ]     |

3.SP Mode Tables

|           |                                |                           |      |                           |
|-----------|--------------------------------|---------------------------|------|---------------------------|
| 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 ]     |



## 3.SP Mode Tables

|           |                                    |                           |      |                         |
|-----------|------------------------------------|---------------------------|------|-------------------------|
| 004       | Env.Correct:BW                     |                           |      |                         |
| 2-653-007 | Special 5: Size-<br>Env.Correct:BW | Paper Transfer: 1Side: S2 | ENG* | [ 1 to 100 / 69 / 1 ]   |
| 2-653-008 | Special 5: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S2 | ENG* | [ 1 to 100 / 70 / 1 ]   |
| 2-653-011 | Special 5: Size-<br>Env.Correct:BW | Paper Transfer: 1Side: S3 | ENG* | [ 1 to 100 / 71 / 1 ]   |
| 2-653-012 | Special 5: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S3 | ENG* | [ 1 to 100 / 72 / 1 ]   |
| 2-653-015 | Special 5: Size-<br>Env.Correct:BW | Paper Transfer: 1Side: S4 | ENG* | [ 1 to 100 / 73 / 1 ]   |
| 2-653-016 | Special 5: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S4 | ENG* | [ 1 to 100 / 74 / 1 ]   |
| 2-654-003 | Special 5: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S1 | ENG* | [ 1 to 100 / 67 / 1 ]   |
| 2-654-004 | Special 5: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S1 | ENG* | [ 1 to 100 / 68 / 1 ]   |
| 2-654-007 | Special 5: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S2 | ENG* | [ 1 to 100 / 69 / 1 ]   |
| 2-654-008 | Special 5: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S2 | ENG* | [ 1 to 100 / 70 / 1 ]   |
| 2-654-011 | Special 5: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S3 | ENG* | [ 1 to 100 / 71 / 1 ]   |
| 2-654-012 | Special 5: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S3 | ENG* | [ 1 to 100 / 72 / 1 ]   |
| 2-654-015 | Special 5: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S4 | ENG* | [ 1 to 100 / 73 / 1 ]   |
| 2-654-016 | Special 5: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S4 | ENG* | [ 1 to 100 / 74 / 1 ]   |
| 2-655-003 | Special 5:<br>LeadingEdgeCorrect.  | Paper Transfer: 1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-655-004 | Special 5:<br>LeadingEdgeCorrect.  | Paper Transfer: 2Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-655-007 | Special 5:<br>LeadingEdgeCorrect.  | Separation DC: 1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-655-008 | Special 5:<br>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 ]   |

### 3.SP Mode Tables

|           |                                   |                       |      |                             |
|-----------|-----------------------------------|-----------------------|------|-----------------------------|
| 003       | Edge                              |                       |      |                             |
| 2-656-004 | Special 5: SW Timing Lead<br>Edge | Paper Transfer: 2Side | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-656-007 | Special 5: SW Timing Lead<br>Edge | Separation DC: 1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-656-008 | Special 5: SW Timing Lead<br>Edge | Separation DC: 2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-657-003 | Special 5:<br>TrailEdgeCorrection | Paper Transfer: 1Side | ENG* | [ 0 to 995 / 100 / 5% ]     |
| 2-657-004 | Special 5:<br>TrailEdgeCorrection | Paper Transfer: 2Side | ENG* | [ 0 to 995 / 100 / 5% ]     |
| 2-657-007 | Special 5:<br>TrailEdgeCorrection | Separation DC: 1Side  | ENG* | [ 0 to 995 / 100 / 5% ]     |
| 2-657-008 | Special 5:<br>TrailEdgeCorrection | Separation DC: 2Side  | ENG* | [ 0 to 995 / 100 / 5% ]     |
| 2-658-003 | Special 5: SWTiming Trail<br>Edge | Paper Transfer: 1Side | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-658-004 | Special 5: SWTiming Trail<br>Edge | Paper Transfer: 2Side | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-658-007 | Special 5: SWTiming Trail<br>Edge | Separation DC: 1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]       |
| 2-658-008 | Special 5: SWTiming Trail<br>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 ]      |
| 2-663-004 | Special 6: Bias: BW               | Paper Transfer: 2Side | ENG* | [ 0 to 200 / 7 / 1uA ]      |

## 3.SP Mode Tables

|           |                              |                           |      |                           |
|-----------|------------------------------|---------------------------|------|---------------------------|
| 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 ]     |

3.SP Mode Tables

|           |                                    |                           |      |                         |
|-----------|------------------------------------|---------------------------|------|-------------------------|
| 003       | Env.Correct:BW                     |                           |      |                         |
| 2-673-004 | Special 6: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S1 | ENG* | [ 1 to 100 / 76 / 1 ]   |
| 2-673-007 | Special 6: Size-<br>Env.Correct:BW | Paper Transfer: 1Side: S2 | ENG* | [ 1 to 100 / 77 / 1 ]   |
| 2-673-008 | Special 6: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S2 | ENG* | [ 1 to 100 / 78 / 1 ]   |
| 2-673-011 | Special 6: Size-<br>Env.Correct:BW | Paper Transfer: 1Side: S3 | ENG* | [ 1 to 100 / 79 / 1 ]   |
| 2-673-012 | Special 6: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S3 | ENG* | [ 1 to 100 / 80 / 1 ]   |
| 2-673-015 | Special 6: Size-<br>Env.Correct:BW | Paper Transfer: 1Side: S4 | ENG* | [ 1 to 100 / 81 / 1 ]   |
| 2-673-016 | Special 6: Size-<br>Env.Correct:BW | Paper Transfer: 2Side: S4 | ENG* | [ 1 to 100 / 82 / 1 ]   |
| 2-674-003 | Special 6: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S1 | ENG* | [ 1 to 100 / 75 / 1 ]   |
| 2-674-004 | Special 6: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S1 | ENG* | [ 1 to 100 / 76 / 1 ]   |
| 2-674-007 | Special 6: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S2 | ENG* | [ 1 to 100 / 77 / 1 ]   |
| 2-674-008 | Special 6: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S2 | ENG* | [ 1 to 100 / 78 / 1 ]   |
| 2-674-011 | Special 6: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S3 | ENG* | [ 1 to 100 / 79 / 1 ]   |
| 2-674-012 | Special 6: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S3 | ENG* | [ 1 to 100 / 80 / 1 ]   |
| 2-674-015 | Special 6: Size-<br>Env.Correct:FC | Paper Transfer: 1Side: S4 | ENG* | [ 1 to 100 / 81 / 1 ]   |
| 2-674-016 | Special 6: Size-<br>Env.Correct:FC | Paper Transfer: 2Side: S4 | ENG* | [ 1 to 100 / 82 / 1 ]   |
| 2-675-003 | Special 6:<br>LeadingEdgeCorrect.  | Paper Transfer: 1Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-675-004 | Special 6:<br>LeadingEdgeCorrect.  | Paper Transfer: 2Side     | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-675-007 | Special 6:<br>LeadingEdgeCorrect.  | Separation DC: 1Side      | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-675-    | Special 6:                         | Separation DC: 2Side      | ENG* | [ 0 to 995 / 100 / 5% ] |

## 3.SP Mode Tables

|           |                                   |                       |      |                         |
|-----------|-----------------------------------|-----------------------|------|-------------------------|
| 008       | LeadingEdgeCorrect.               |                       |      |                         |
| 2-676-003 | Special 6:<br>SWTimingLeadEdge    | Paper Transfer: 1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-676-004 | Special 6:<br>SWTimingLeadEdge    | Paper Transfer: 2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-676-007 | Special 6:<br>SWTimingLeadEdge    | Separation DC: 1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-676-008 | Special 6:<br>SWTimingLeadEdge    | Separation DC: 2Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-677-003 | Special 6:<br>TrailEdgeCorrection | Paper Transfer: 1Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-677-004 | Special 6:<br>TrailEdgeCorrection | Paper Transfer: 2Side | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-677-007 | Special 6:<br>TrailEdgeCorrection | Separation DC: 1Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-677-008 | Special 6:<br>TrailEdgeCorrection | Separation DC: 2Side  | ENG* | [ 0 to 995 / 100 / 5% ] |
| 2-678-003 | Special 6:<br>SWTimingTrailEdge   | Paper Transfer: 1Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-678-004 | Special 6:<br>SWTimingTrailEdge   | Paper Transfer: 2Side | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-678-007 | Special 6:<br>SWTimingTrailEdge   | Separation DC: 1Side  | ENG* | [ 0 to 50 / 0 / 2mm ]   |
| 2-678-008 | Special 6:<br>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 ]      |

### 3.SP Mode Tables

|           |                                   |                     |      |                                       |
|-----------|-----------------------------------|---------------------|------|---------------------------------------|
| 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.<br>Reload:DrumIdleTimeOffset | Coverage: 0-6%      | ENG* | [ -60 to 300 / 0 / 1sec ]             |
| 2-901-002 | Fus.<br>Reload:DrumIdleTimeOffset | Coverage: 6-10%     | ENG* | [ -60 to 300 / -11 / 1sec ]           |
| 2-901-003 | Fus.<br>Reload:DrumIdleTimeOffset | Coverage: 10-20%    | ENG* | [ -60 to 300 / -26 / 1sec ]           |
| 2-901-004 | Fus.<br>Reload:DrumIdleTimeOffset | Coverage: 20-40%    | ENG* | [ -60 to 300 / -21 / 1sec ]           |
| 2-901-005 | Fus.<br>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 ]<br>0: OFF<br>1: ON |
| 2-907-001 | ACS Setting (FC)                  | Continuous Bk Pages | ENG* | [ 0 to 10 / 0 / 1sheet ]              |

## 3.SP Mode Tables

|           |                              |  |      |                            |
|-----------|------------------------------|--|------|----------------------------|
| 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:<br>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:<br>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 ] |

### 3.SP Mode Tables

|           |                    |                                 |      |                           |
|-----------|--------------------|---------------------------------|------|---------------------------|
| 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 ]        |

3.SP Mode Tables

|           |                                   |                     |      |                           |
|-----------|-----------------------------------|---------------------|------|---------------------------|
| 001       | Execute                           |                     |      |                           |
| 3-030-002 | TD Sensor Initial Set:<br>Execute | Execute: Color      | ENG  | [ 0 or 1 / 0 / 1 ]        |
| 3-030-003 | TD Sensor Initial Set:<br>Execute | Execute: Bk         | ENG  | [ 0 or 1 / 0 / 1 ]        |
| 3-030-004 | TD Sensor Initial Set:<br>Execute | Execute: C          | ENG  | [ 0 or 1 / 0 / 1 ]        |
| 3-030-005 | TD Sensor Initial Set:<br>Execute | Execute: M          | ENG  | [ 0 or 1 / 0 / 1 ]        |
| 3-030-006 | TD Sensor Initial Set:<br>Execute | Execute: Y          | ENG  | [ 0 or 1 / 0 / 1 ]        |
| 3-031-001 | TD Sen. Ini. Set: Result:<br>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 ]    |

## 3.SP Mode Tables

|           |                          |                                      |      |  |
|-----------|--------------------------|--------------------------------------|------|--|
| 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 ]<br>0: Detect<br>1: Not Detect |
| 3-100-002 | Toner End Detection: Set | NE Detection Select                  | ENG* | [ 0 or 1 / 0 / 1 ]<br>0: ALL<br>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<br>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 ]                        |

### 3.SP Mode Tables

|           |                                   |                                     |      |                           |
|-----------|-----------------------------------|-------------------------------------|------|---------------------------|
| 002       |                                   | Time: C                             |      |                           |
| 3-102-003 | Toner Remaining: Display          | Toner Supply Motor Drive<br>Time: M | ENG* | [ 0 to 500 / 0 / 0.001g ] |
| 3-102-004 | Toner Remaining: Display          | Toner Supply Motor Drive<br>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:<br>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:<br>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<br>Thresh | Bk                                  | ENG* | [ 0 to 500 / 23 / 1g ]    |
| 3-110-002 | NE Detect: Toner Remain<br>Thresh | C                                   | ENG* | [ 0 to 500 / 10 / 1g ]    |
| 3-110-003 | NE Detect: Toner Remain<br>Thresh | M                                   | ENG* | [ 0 to 500 / 10 / 1g ]    |
| 3-110-004 | NE Detect: Toner Remain<br>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 ]        |

## 3.SP Mode Tables

|           |                               |                                       |      |                            |
|-----------|-------------------------------|---------------------------------------|------|----------------------------|
| 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 ]    |

3.SP Mode Tables

|           |                           |                                   |      |  |
|-----------|---------------------------|-----------------------------------|------|--|
| 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.<br>Coef.: Bk | ENG* | [ 0 to 6.5535 / 0.4945 /<br>0.0001g/cm3/g/m3 ] |
| 3-206-002 | TD Sensor Bulk Corr.: Set | Abs. Humidity Cnver.<br>Coef.: C  | ENG* | [ 0 to 6.5535 / 0.4945 /<br>0.0001g/cm3/g/m3 ] |
| 3-206-003 | TD Sensor Bulk Corr.: Set | Abs. Humidity Cnver.<br>Coef.: M  | ENG* | [ 0 to 6.5535 / 0.4945 /<br>0.0001g/cm3/g/m3 ] |
| 3-206-004 | TD Sensor Bulk Corr.: Set | Abs. Humidity Cnver.<br>Coef.: Y  | ENG* | [ 0 to 6.5535 / 0.4945 /<br>0.0001g/cm3/g/m3 ] |
| 3-206-011 | TD Sensor Bulk Corr.: Set | Color Conversion Coef.:<br>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.:<br>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 ]                  |

## 3.SP Mode Tables

|           |                           |                               |      |   |
|-----------|---------------------------|-------------------------------|------|---|
| 033       |                           |                               |      |   |
| 3-206-034 | TD Sensor Bulk Corr.: Set | Offset: Y                     | ENG* | [ -2 to 2 / 0 / 0.0001g/cm <sup>3</sup> ]       |
| 3-206-041 | TD Sensor Bulk Corr.: Set | Conversion Coeff. Beta: Bk    | ENG* | [ -999 to 0 / -1 / 0.1count/g/cm <sup>3</sup> ] |
| 3-206-042 | TD Sensor Bulk Corr.: Set | Conversion Coeff. Beta: C     | ENG* | [ -999 to 0 / -1 / 0.1count/g/cm <sup>3</sup> ] |
| 3-206-043 | TD Sensor Bulk Corr.: Set | Conversion Coeff. Beta: M     | ENG* | [ -999 to 0 / -1 / 0.1count/g/cm <sup>3</sup> ] |
| 3-206-044 | TD Sensor Bulk Corr.: Set | Conversion Coeff. Beta: Y     | ENG* | [ -999 to 0 / -1 / 0.1count/g/cm <sup>3</sup> ] |
| 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 ]<br>0: OFF<br>1: ON           |
| 3-213-001 | Vt Shift: Set             | TC Cor.(ON/OFF)               | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: OFF<br>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 ]                        |

3.SP Mode Tables

|           |                           |                                  |      |                                       |
|-----------|---------------------------|----------------------------------|------|---------------------------------------|
| 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 ]<br>0: OFF<br>1: ON |
| 3-232-011 | Vtref Correct: Pixel: Set | Low Coverage<br>Coefficient: Bk  | ENG* | [ 0 to 5 / 0.3 / 0.1 ]                |
| 3-232-012 | Vtref Correct: Pixel: Set | Low Coverage<br>Coefficient: C   | ENG* | [ 0 to 5 / 0.3 / 0.1 ]                |
| 3-232-013 | Vtref Correct: Pixel: Set | Low Coverage<br>Coefficient: M   | ENG* | [ 0 to 5 / 0.3 / 0.1 ]                |
| 3-232-014 | Vtref Correct: Pixel: Set | Low Coverage<br>Coefficient: Y   | ENG* | [ 0 to 5 / 0.3 / 0.1 ]                |
| 3-232-021 | Vtref Correct: Pixel: Set | High Coverage<br>Coefficient: Bk | ENG* | [ 0 to 5 / 0.4 / 0.1 ]                |
| 3-232-022 | Vtref Correct: Pixel: Set | High Coverage<br>Coefficient: C  | ENG* | [ 0 to 5 / 0.4 / 0.1 ]                |
| 3-232-023 | Vtref Correct: Pixel: Set | High Coverage<br>Coefficient: M  | ENG* | [ 0 to 5 / 0.4 / 0.1 ]                |
| 3-232-024 | Vtref Correct: Pixel: Set | High Coverage<br>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<br>Correction     | ENG* | [ 0 to 5 / 0.5 / 0.1wt% ]             |
| 3-232-071 | Vtref Correct: Pixel: Set | TC Upper Limit: Display:<br>Bk   | ENG* | [ 1 to 15 / 8.5 / 0.1wt% ]            |



## 3.SP Mode Tables

|           |                           |                               |      |                                       |
|-----------|---------------------------|-------------------------------|------|---------------------------------------|
| 3-232-072 | Vtref Correct: Pixel: Set | TC Upper Limit: Display:<br>C | ENG* | [ 1 to 15 / 8.5 / 0.1wt% ]            |
| 3-232-073 | Vtref Correct: Pixel: Set | TC Upper Limit: Display:<br>M | ENG* | [ 1 to 15 / 8.5 / 0.1wt% ]            |
| 3-232-074 | Vtref Correct: Pixel: Set | TC Upper Limit: Display:<br>Y | ENG* | [ 1 to 15 / 8.5 / 0.1wt% ]            |
| 3-234-001 | Vtref Correction.: Set    | ON/OFF                        | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: OFF<br>1: ON |
| 3-234-011 | Vtref Correction.: Set    | Correction Amount (+):<br>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 ]                  |

3.SP Mode Tables

|           |                       |                               |      |                          |
|-----------|-----------------------|-------------------------------|------|--------------------------|
| 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:<br>Bk | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-012 | Dot Coverage: Display | Accumulate: Average: S:<br>C  | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-013 | Dot Coverage: Display | Accumulate: Average: S:<br>M  | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-014 | Dot Coverage: Display | Accumulate: Average: S:<br>Y  | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-021 | Dot Coverage: Display | Accumulate: Average: M:<br>Bk | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-022 | Dot Coverage: Display | Accumulate: Average: M:<br>C  | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-023 | Dot Coverage: Display | Accumulate: Average: M:<br>M  | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-024 | Dot Coverage: Display | Accumulate: Average: M:<br>Y  | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-031 | Dot Coverage: Display | Accumulate: Average: L:<br>Bk | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-032 | Dot Coverage: Display | Accumulate: Average: L:<br>C  | ENG* | [ 0 to 100 / 5 / 0.01% ] |
| 3-251-    | Dot Coverage: Display | Accumulate: Average: L:       | ENG* | [ 0 to 100 / 5 / 0.01% ] |

## 3.SP Mode Tables

|           |                                |                           |      |                                |
|-----------|--------------------------------|---------------------------|------|--------------------------------|
| 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 /        |

### 3.SP Mode Tables

|           |                               |                            |      |                             |
|-----------|-------------------------------|----------------------------|------|-----------------------------|
| 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 ]    |
| 3-321-043 | Vsg Adj. Result: Vsg          | Vsg TM (Rear)              | ENG* | [ 0 to 5.5 / 4 / 0.01V ]    |

## 3.SP Mode Tables

|           |                                   |                          |      |                             |
|-----------|-----------------------------------|--------------------------|------|-----------------------------|
| 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.:<br>Set | K2(Latest)               | ENG* | [ 0 to 5 / 0.528 / 0.0001 ] |
| 3-330-011 | ID Sen. Sensitivity Coef.:<br>Set | K5(Latest)               | ENG* | [ 0 to 10 / 2 / 0.0001 ]    |
| 3-331-021 | ID Sen. Sensitivity Coef.:<br>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 ] |

3.SP Mode Tables

| 031       | Set                               | Coef.                |      |   |
|-----------|-----------------------------------|----------------------|------|---|
| 3-331-041 | ID Sen. Sensitivity Coef.:<br>Set | Vct_reg Check:Slope  | ENG* | [ 0 to 1 / 0 / 0.0001V/mA ]                         |
| 3-331-046 | ID Sen. Sensitivity Coef.:<br>Set | Vct_reg Check:Xint   | ENG* | [ 0 to 25.5 / 0 / 0.1mA ]                           |
| 3-331-051 | ID Sen. Sensitivity Coef.:<br>Set | Vct_dif Check:Slope  | ENG* | [ 0 to 1 / 0 / 0.0001V/mA ]                         |
| 3-331-056 | ID Sen. Sensitivity Coef.:<br>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 ]<br>0: FIXED<br>2: PID<br>4: DANC |
| 3-400-002 | Toner Supply Type Select          | C                    | ENG* | [ 0 to 4 / 4 / 1 ]<br>0: FIXED<br>2: PID<br>4: DANC |
| 3-400-003 | Toner Supply Type Select          | M                    | ENG* | [ 0 to 4 / 4 / 1 ]<br>0: FIXED<br>2: PID<br>4: DANC |
| 3-400-004 | Toner Supply Type Select          | Y                    | ENG* | [ 0 to 4 / 4 / 1 ]<br>0: FIXED<br>2: PID<br>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 /                              |

## 3.SP Mode Tables

|           |                           |                           |      |                                     |
|-----------|---------------------------|---------------------------|------|-------------------------------------|
| 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 ]             |

### 3.SP Mode Tables

|           |                            |                           |      |                             |
|-----------|----------------------------|---------------------------|------|-----------------------------|
| 043       |                            |                           |      |                             |
| 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 ]  |



## 3.SP Mode Tables

|           |                           |                                 |      |                              |
|-----------|---------------------------|---------------------------------|------|------------------------------|
| 011       |                           | Bk                              |      |                              |
| 3-450-012 | Toner Supply PID: Setting | Pixel Proportion Coef. 1:<br>C  | ENG* | [ 0 to 2.55 / 0.6 / 0.01 ]   |
| 3-450-013 | Toner Supply PID: Setting | Pixel Proportion Coef. 1:<br>M  | ENG* | [ 0 to 2.55 / 0.6 / 0.01 ]   |
| 3-450-014 | Toner Supply PID: Setting | Pixel Proportion Coef. 1:<br>Y  | ENG* | [ 0 to 2.55 / 0.6 / 0.01 ]   |
| 3-450-021 | Toner Supply PID: Setting | Pixel Proportion Coef. 2:<br>Bk | ENG* | [ 0 to 2.55 / 1 / 0.01 ]     |
| 3-450-022 | Toner Supply PID: Setting | Pixel Proportion Coef. 2:<br>C  | ENG* | [ 0 to 2.55 / 1 / 0.01 ]     |
| 3-450-023 | Toner Supply PID: Setting | Pixel Proportion Coef. 2:<br>M  | ENG* | [ 0 to 2.55 / 1 / 0.01 ]     |
| 3-450-024 | Toner Supply PID: Setting | Pixel Proportion Coef. 2:<br>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:<br>Bk | ENG* | [ 0.7 to 1.3 / 1 / 0.01 ]    |
| 3-450-042 | Toner Supply PID: Setting | Pixel Proportion Coef. 3:<br>C  | ENG* | [ 0.7 to 1.3 / 1 / 0.01 ]    |
| 3-450-043 | Toner Supply PID: Setting | Pixel Proportion Coef. 3:<br>M  | ENG* | [ 0.7 to 1.3 / 1 / 0.01 ]    |
| 3-450-044 | Toner Supply PID: Setting | Pixel Proportion Coef. 3:<br>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 ]     |

### 3.SP Mode Tables

|           |                              |                          |      |                             |
|-----------|------------------------------|--------------------------|------|-----------------------------|
| 061       |                              |                          |      |                             |
| 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 ]     |

## 3.SP Mode Tables

|           |                                 |                                    |      |   |
|-----------|---------------------------------|------------------------------------|------|---|
| 114       | Set                             |                                    |      |   |
| 3-461-001 | Toner Supply Ctrl: DANC:<br>Set | PI Rate                            | ENG* | [ 5 to 200 / 100 / 1% ]                                     |
| 3-461-011 | Toner Supply Ctrl: DANC:<br>Set | PI: P Gain: Bk                     | ENG* | [ 0 to 1 / 0.01 / 0.0001 ]                                  |
| 3-461-012 | Toner Supply Ctrl: DANC:<br>Set | P Limits: Ratio: Up: Bk            | ENG* | [ 0 to 1 / 0.05 / 0.01 ]                                    |
| 3-461-013 | Toner Supply Ctrl: DANC:<br>Set | P Limits: Ratio: Low: Bk           | ENG* | [ 0 to 1 / 0.2 / 0.01 ]                                     |
| 3-461-021 | Toner Supply Ctrl: DANC:<br>Set | PI: I Gain: Bk                     | ENG* | [ 0 to 0.1 / 0.01 / 0.0001 ]                                |
| 3-461-022 | Toner Supply Ctrl: DANC:<br>Set | I Limits: Ratio: Up: Bk            | ENG* | [ 0 to 1 / 0.05 / 0.01 ]                                    |
| 3-461-023 | Toner Supply Ctrl: DANC:<br>Set | I Limits: Ratio: Low: Bk           | ENG* | [ 0 to 1 / 0.3 / 0.01 ]                                     |
| 3-461-052 | Toner Supply Ctrl: DANC:<br>Set | AW:AWIpmi:Bk                       | ENG* | [ 0 to 2000 / 100 / 1 ]                                     |
| 3-461-102 | Toner Supply Ctrl: DANC:<br>Set | PI: Line Spd Corr.:<br>StdSpd1: Bk | ENG* | [ 0.05 to 1 / * / 0.01 ]<br>*MP C307: 1<br>*MP C407: 0.84   |
| 3-461-103 | Toner Supply Ctrl: DANC:<br>Set | PI: Line Spd Corr.:<br>StdSpd2: Bk | ENG* | [ 0.05 to 1 / * / 0.01 ]<br>*MP C307: 1<br>*MP C407: 0.71   |
| 3-461-104 | Toner Supply Ctrl: DANC:<br>Set | PI: Line Spd Corr.:<br>LowSpd: Bk  | ENG* | [ 0.05 to 1 / * / 0.01 ]<br>*MP C307: 0.5<br>*MP C407: 0.35 |
| 3-461-121 | Toner Supply Ctrl: DANC:<br>Set | SMITH: Gain: Bk                    | ENG* | [ 0 to 2 / 1 / 0.01 ]                                       |
| 3-461-122 | Toner Supply Ctrl: DANC:<br>Set | SMITH: Ratio: Std Speed<br>1: Bk   | ENG* | [ 0 to 1 / 1 / 0.01 ]                                       |
| 3-461-123 | Toner Supply Ctrl: DANC:<br>Set | SMITH: Ratio: Std Speed<br>2: Bk   | ENG* | [ 0 to 1 / 1 / 0.01 ]                                       |
| 3-461-124 | Toner Supply Ctrl: DANC:<br>Set | SMITH: Ratio: Low<br>Speed: Bk     | ENG* | [ 0 to 1 / 1 / 0.01 ]                                       |
| 3-462-001 | Toner Supply Ctrl: DANC:<br>Set | ANC: Rate                          | ENG* | [ 0 to 200 / 100 / 1% ]                                     |
| 3-462-101 | Toner Supply Ctrl: DANC:<br>Set | ANC: Gain: Bk                      | ENG* | [ 0 to 2 / 1 / 0.01 ]                                       |

### 3.SP Mode Tables

|           |                                 |                                |      |                                       |
|-----------|---------------------------------|--------------------------------|------|---------------------------------------|
| 3-462-102 | Toner Supply Ctrl: DANC:<br>Set | ANC: Ratio: Std Speed 1:<br>Bk | ENG* | [ 0.05 to 1 / 1 / 0.01 ]              |
| 3-462-103 | Toner Supply Ctrl: DANC:<br>Set | ANC: Ratio: Std Speed 2:<br>Bk | ENG* | [ 0.05 to 1 / 1 / 0.01 ]              |
| 3-462-104 | Toner Supply Ctrl: DANC:<br>Set | ANC: Ratio: Low Speed:<br>Bk   | ENG* | [ 0.05 to 1 / 1 / 0.01 ]              |
| 3-463-101 | Toner Supply Ctrl: DANC:<br>Set | Integral: I: Save: Bk          | ENG* | [ -1000 to 1000 / 0 / 0.0001 ]        |
| 3-463-102 | Toner Supply Ctrl: DANC:<br>Set | Integral: I: Save: C           | ENG* | [ -1000 to 1000 / 0 / 0.0001 ]        |
| 3-463-103 | Toner Supply Ctrl: DANC:<br>Set | Integral: I: Save: M           | ENG* | [ -1000 to 1000 / 0 / 0.0001 ]        |
| 3-463-104 | Toner Supply Ctrl: DANC:<br>Set | Integral: I: Save: Y           | ENG* | [ -1000 to 1000 / 0 / 0.0001 ]        |
| 3-463-111 | Toner Supply Ctrl: DANC:<br>Set | ANC:Ref Save: Bk               | ENG* | [ -1000 to 1000 / 0 / 0.0001 ]        |
| 3-463-112 | Toner Supply Ctrl: DANC:<br>Set | ANC:Ref Save: C                | ENG* | [ -1000 to 1000 / 0 / 0.0001 ]        |
| 3-463-113 | Toner Supply Ctrl: DANC:<br>Set | ANC:Ref Save: M                | ENG* | [ -1000 to 1000 / 0 / 0.0001 ]        |
| 3-463-114 | Toner Supply Ctrl: DANC:<br>Set | ANC:Ref Save: Y                | ENG* | [ -1000 to 1000 / 0 / 0.0001 ]        |
| 3-463-201 | Toner Supply Ctrl: DANC:<br>Set | Save_DANC: Bk                  | ENG* | [ 0 to 9999 / 0 / 1cm2 ]              |
| 3-463-202 | Toner Supply Ctrl: DANC:<br>Set | Save_DANC: C                   | ENG* | [ 0 to 9999 / 0 / 1cm2 ]              |
| 3-463-203 | Toner Supply Ctrl: DANC:<br>Set | Save_DANC: M                   | ENG* | [ 0 to 9999 / 0 / 1cm2 ]              |
| 3-463-204 | Toner Supply Ctrl: DANC:<br>Set | Save_DANC: Y                   | ENG* | [ 0 to 9999 / 0 / 1cm2 ]              |
| 3-500-001 | Image Quality Adj.:<br>ON/OFF   | ALL                            | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: OFF<br>1: ON |
| 3-500-002 | Image Quality Adj.:<br>ON/OFF   | Process Control                | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: OFF<br>1: ON |
| 3-500-003 | Image Quality Adj.:<br>ON/OFF   | MUSIC                          | ENG* | [ 0 or 1 / 1 / 1 ]                    |

## 3.SP Mode Tables

|           |                                  |                                 |      |  |
|-----------|----------------------------------|---------------------------------|------|--|
| 3-500-004 | Image Quality Adj.:<br>ON/OFF    | TD Sensor Initial Set           | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: OFF<br>1: ON                  |
| 3-501-001 | Toner End Prohibition<br>Setting | Process Control                 | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: Permit<br>1: Forbid           |
| 3-501-002 | Toner End Prohibition<br>Setting | MUSIC                           | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: Permit<br>1: Forbid           |
| 3-501-003 | Toner End Prohibition<br>Setting | TC Adjustment                   | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: Permit<br>1: Forbid           |
| 3-509-011 | ImgQltyAdj :ModeSelect           | FC/BW Mode Priority<br>Setting  | ENG* | [ 0 or 1 / 0 / 1 ]<br>0: FC Priority<br>1: BW Priority |
| 3-510-024 | Image Quality Adj.: Exec<br>Flag | MUSIC                           | ENG* | [ 0 to 2 / 0 / 1 ]                                     |
| 3-510-031 | Image Quality Adj.: Exec<br>Flag | Init Toner Replenishment:<br>Bk | ENG* | [ 0 to 1 / 0 / 1 ]                                     |
| 3-510-032 | Image Quality Adj.: Exec<br>Flag | Init Toner Replenishment:<br>C  | ENG* | [ 0 to 1 / 0 / 1 ]                                     |
| 3-510-033 | Image Quality Adj.: Exec<br>Flag | Init Toner Replenishment:<br>M  | ENG* | [ 0 to 1 / 0 / 1 ]                                     |
| 3-510-034 | Image Quality Adj.: Exec<br>Flag | Init Toner Replenishment:<br>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 ]                              |

### 3.SP Mode Tables

|           |                               |                              |      |                                       |
|-----------|-------------------------------|------------------------------|------|---------------------------------------|
| 005       |                               |                              |      |                                       |
| 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 ]<br>0: OFF<br>1: ON |
| 3-529-002 | ProCon Auto Exe Interval: Set | Environment Correction       | ENG* | [ 0 to 1 / 1 / 1 ]<br>0: OFF<br>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 ]            |

## 3.SP Mode Tables

|           |                                  |                                   |      |                               |
|-----------|----------------------------------|-----------------------------------|------|-------------------------------|
| 006       | Set                              |                                   |      |                               |
| 3-529-007 | ProCon Auto Exe Interval:<br>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<br>Threshold    | ENG* | [ 0 to 99 / 10 / 1deg ]       |
| 3-530-003 | Power ON ProCon: Set             | Relative Humidity Range<br>Thresh | ENG* | [ 0 to 99 / 50 / 1%RH ]       |
| 3-530-004 | Power ON ProCon: Set             | Absolute Humidity Range<br>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<br>(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<br>Threshold    | ENG* | [ 0 to 99 / 10 / 1deg ]       |
| 3-531-003 | Non-useTime Procon: Set          | Relative Humidity Range<br>Thresh | ENG* | [ 0 to 99 / 50 / 1%RH ]       |
| 3-531-004 | Non-useTime Procon: Set          | Absolute Humidity Range<br>Thresh | ENG* | [ 0 to 99 / 6 / 1g/m3 ]       |
| 3-531-005 | Non-useTime Procon: Set          | Maximum Execution<br>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 ]         |

### 3.SP Mode Tables

|           |                         |                                |      |                                       |
|-----------|-------------------------|--------------------------------|------|---------------------------------------|
| 004       |                         |                                |      |                                       |
| 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 ]<br>0: OFF<br>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.SP Mode Tables

|           |                         |                                   |      |                                       |
|-----------|-------------------------|-----------------------------------|------|---------------------------------------|
| 3-539-015 | Dev Agitating Time: Set | Absolute Humidity<br>Reference: 5 | ENG* | [ 0 to 3000 / 5 / 1sec ]              |
| 3-539-016 | Dev Agitating Time: Set | Absolute Humidity<br>Reference: 6 | ENG* | [ 0 to 3000 / 5 / 1sec ]              |
| 3-539-021 | Dev Agitating Time: Set | Absolute Humidity<br>Threshold: 1 | ENG* | [ 0 to 65 / 4 / 0.1g/m3 ]             |
| 3-539-022 | Dev Agitating Time: Set | Absolute Humidity<br>Threshold: 2 | ENG* | [ 0 to 65 / 8 / 0.1g/m3 ]             |
| 3-539-023 | Dev Agitating Time: Set | Absolute Humidity<br>Threshold: 3 | ENG* | [ 0 to 65 / 12 / 0.1g/m3 ]            |
| 3-539-024 | Dev Agitating Time: Set | Absolute Humidity<br>Threshold: 4 | ENG* | [ 0 to 65 / 16 / 0.1g/m3 ]            |
| 3-539-025 | Dev Agitating Time: Set | Absolute Humidity<br>Threshold: 5 | ENG* | [ 0 to 65 / 24 / 0.1g/m3 ]            |
| 3-539-030 | Dev Agitating Time: Set | ON/OFF(Non-use Time<br>Reference) | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: OFF<br>1: ON |
| 3-539-031 | Dev Agitating Time: Set | Non-use Time Reference:<br>1      | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-032 | Dev Agitating Time: Set | Non-use Time Reference:<br>2      | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-033 | Dev Agitating Time: Set | Non-use Time Reference:<br>3      | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-034 | Dev Agitating Time: Set | Non-use Time Reference:<br>4      | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-035 | Dev Agitating Time: Set | Non-use Time Reference:<br>5      | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-036 | Dev Agitating Time: Set | Non-use Time Reference:<br>6      | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-037 | Dev Agitating Time: Set | Non-use Time Reference:<br>7      | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-038 | Dev Agitating Time: Set | Non-use Time Reference:<br>8      | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-039 | Dev Agitating Time: Set | Non-use Time Reference:<br>9      | ENG* | [ 0 to 3000 / 5 / 1sec ]              |
| 3-539-040 | Dev Agitating Time: Set | Non-use Time Reference:<br>10     | ENG* | [ 0 to 3000 / 10 / 1sec ]             |
| 3-539-    | Dev Agitating Time: Set | Non-use Time Threshold:           | ENG* | [ 0 to 30000 / 15 / 1min ]            |

### 3.SP Mode Tables

|           |                         |                                |      |                                       |
|-----------|-------------------------|--------------------------------|------|---------------------------------------|
| 041       |                         | 1                              |      |                                       |
| 3-539-042 | Dev Agitating Time: Set | Non-use Time Threshold:        | ENG* | [ 0 to 30000 / 30 / 1min ]            |
| 3-539-043 | Dev Agitating Time: Set | Non-use Time Threshold:        | ENG* | [ 0 to 30000 / 60 / 1min ]            |
| 3-539-044 | Dev Agitating Time: Set | Non-use Time Threshold:        | ENG* | [ 0 to 30000 / 120 / 1min ]           |
| 3-539-045 | Dev Agitating Time: Set | Non-use Time Threshold:        | ENG* | [ 0 to 30000 / 240 / 1min ]           |
| 3-539-046 | Dev Agitating Time: Set | Non-use Time Threshold:        | ENG* | [ 0 to 30000 / 360 / 1min ]           |
| 3-539-047 | Dev Agitating Time: Set | Non-use Time Threshold:        | ENG* | [ 0 to 30000 / 720 / 1min ]           |
| 3-539-048 | Dev Agitating Time: Set | Non-use Time Threshold:        | ENG* | [ 0 to 30000 / 1440 / 1min ]          |
| 3-539-049 | Dev Agitating Time: Set | Non-use Time Threshold:        | ENG* | [ 0 to 30000 / 2880 / 1min ]          |
| 3-539-050 | Dev Agitating Time: Set | ON/OFF(Dot Coverage Reference) | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: OFF<br>1: ON |
| 3-539-051 | Dev Agitating Time: Set | Dot Coverage Reference:        | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-052 | Dev Agitating Time: Set | Dot Coverage Reference:        | ENG* | [ 0 to 3000 / 0 / 1sec ]              |
| 3-539-053 | Dev Agitating Time: Set | Dot Coverage Reference:        | ENG* | [ 0 to 3000 / 5 / 1sec ]              |
| 3-539-054 | Dev Agitating Time: Set | Dot Coverage Reference:        | ENG* | [ 0 to 3000 / 5 / 1sec ]              |
| 3-539-055 | Dev Agitating Time: Set | Dot Coverage Reference:        | ENG* | [ 0 to 3000 / 10 / 1sec ]             |
| 3-539-056 | Dev Agitating Time: Set | Dot Coverage Reference:        | ENG* | [ 0 to 3000 / 10 / 1sec ]             |
| 3-539-061 | Dev Agitating Time: Set | Dot Coverage Threshold:        | ENG* | [ 0 to 100 / 10 / 1% ]                |
| 3-539-062 | Dev Agitating Time: Set | Dot Coverage Threshold:        | ENG* | [ 0 to 100 / 20 / 1% ]                |
| 3-539-063 | Dev Agitating Time: Set | Dot Coverage Threshold:        | ENG* | [ 0 to 100 / 40 / 1% ]                |

## 3.SP Mode Tables

|           |                         |                                     |      |                            |
|-----------|-------------------------|-------------------------------------|------|----------------------------|
| 3-539-064 | Dev Agitating Time: Set | Dot Coverage Threshold:<br>4        | ENG* | [ 0 to 100 / 60 / 1% ]     |
| 3-539-065 | Dev Agitating Time: Set | Dot Coverage Threshold:<br>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:<br>Display: Bk | ENG* | [ 0 to 1000 / 0 / 0.1m ]   |
| 3-550-012 | Refresh Mode            | Dev. Motor Rotation:<br>Display: C  | ENG* | [ 0 to 1000 / 0 / 0.1m ]   |
| 3-550-013 | Refresh Mode            | Dev. Motor Rotation:<br>Display: M  | ENG* | [ 0 to 1000 / 0 / 0.1m ]   |
| 3-550-014 | Refresh Mode            | Dev. Motor Rotation:<br>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.SP Mode Tables

|           |                         |                                 |      |                                 |
|-----------|-------------------------|---------------------------------|------|---------------------------------|
| 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.SP Mode Tables

|           |                                 |                               |      |  |
|-----------|---------------------------------|-------------------------------|------|--|
| 3-600-001 | Select ProCon                   | Potential Control             | ENG* | [ 0 or 1 / 1 / 1 ]<br>0: FIXED<br>1: CONTROL   |
| 3-600-002 | Select ProCon                   | LD Control                    | ENG* | [ 0 to 3 / 1 / 1 ]<br>0: OFF<br>1: ON  |
| 3-600-003 | Select ProCon                   | TC Adj. Mode                  | ENG* | [ 0 to 3 / 3 / 1 ]<br>0: Do Not Execute<br>1: 1st Power On<br>2: 1st Power On & Job End<br>3: Dev gamma judgment |
| 3-600-004 | Select ProCon                   | ACC Before ProCon             | ENG* | [ 0 to 3 / 2 / 1 ]<br>0: Not Execute<br>1: Process Control<br>2: TC Control                                      |
| 3-600-060 | Select ProCon                   | Vsg ITB Prev Pattern<br>Corr. | ENG* | [ 0 to 2 / 2 / 1 ]<br>0: OFF<br>1: All Time<br>2: Non-use Time (Long)  |
| 3-610-001 | Charging AC Control:<br>Display | Standard Speed: Bk            | ENG* | [ 0 to 3 / 2.1 / 0.01kV ]  |
| 3-610-002 | Charging AC Control:<br>Display | Standard Speed: C             | ENG* | [ 0 to 3 / 2.1 / 0.01kV ]  |
| 3-610-003 | Charging AC Control:<br>Display | Standard Speed: M             | ENG* | [ 0 to 3 / 2.1 / 0.01kV ]  |
| 3-610-004 | Charging AC Control:<br>Display | Standard Speed: Y             | ENG* | [ 0 to 3 / 2.1 / 0.01kV ]  |
| 3-611-001 | Charging DC Control:<br>Display | Standard Speed: Bk            | ENG* | [ 300 to 1000 / 700 / 1-V ]  |
| 3-611-002 | Charging DC Control:<br>Display | Standard Speed: C             | ENG* | [ 300 to 1000 / 690 / 1-V ]  |
| 3-611-003 | Charging DC Control:<br>Display | Standard Speed: M             | ENG* | [ 300 to 1000 / 690 / 1-V ]  |
| 3-611-004 | Charging DC Control:<br>Display | Standard Speed: Y             | ENG* | [ 300 to 1000 / 690 / 1-V ]  |
| 3-611-011 | Charging DC Control:<br>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 ]  |

3.SP Mode Tables

|           |                              |                |      |                             |
|-----------|------------------------------|----------------|------|-----------------------------|
| 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 ]  |

## 3.SP Mode Tables

|           |                           |                                |      |  |
|-----------|---------------------------|--------------------------------|------|--|
| 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<br>Thresh:K   | ENG* | [ 0 to 999999999 / 23968496<br>/ 1mm ] |
| 3-612-125 | Dev DC Control: Display   | Set:PCU Distance<br>Thresh:Col | ENG* | [ 0 to 999999999 / 17451292<br>/ 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% ]                |

3.SP Mode Tables

|           |                              |                        |      |  |
|-----------|------------------------------|------------------------|------|--|
| 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 ]<br>*MP C307: 0.65<br>*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.SP Mode Tables

|           |                              |                          |      |  |
|-----------|------------------------------|--------------------------|------|--|
| 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 ]<br>*MP C307: 0.41<br>*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 ]<br>*MP C307: 163<br>*MP C407: 264 |
| 3-619-012 | Img Bias: Line Spd Corr: Set | Vb Offset: Std Speed: C  | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: 44<br>*MP C407: 45   |
| 3-619-013 | Img Bias: Line Spd Corr: Set | Vb Offset: Std Speed: M  | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: 44<br>*MP C407: 45   |
| 3-619-014 | Img Bias: Line Spd Corr: Set | Vb Offset: Std Speed: Y  | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: 44<br>*MP C407: 45   |
| 3-619-015 | Img Bias: Line Spd Corr: Set | Vb Offset: Low Speed: Bk | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: 215<br>*MP C407: 200 |
| 3-619-016 | Img Bias: Line Spd Corr: Set | Vb Offset: Low Speed: C  | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: -37<br>*MP C407: -44 |
| 3-619-017 | Img Bias: Line Spd Corr: Set | Vb Offset: Low Speed: M  | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: -37<br>*MP C407: -44 |
| 3-619-018 | Img Bias: Line Spd Corr: Set | Vb Offset: Low Speed: Y  | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: -37<br>*MP C407: -44 |
| 3-619-    | Img Bias: Line Spd Corr: Set | Vb Coef: Standard Speed  | ENG* | [ 0 to 2.55 / 0.51 / 0.01 ]                                  |

3.SP Mode Tables

|           |                              |                                     |      |  |
|-----------|------------------------------|-------------------------------------|------|--|
| 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/cm <sup>2</sup> ] |
| 3-620-002 | ProCon Target M/A            | Maximum M/A: C                      | ENG* | [ 0.25 to 0.75 / 0.412 / 0.001mg/cm <sup>2</sup> ] |
| 3-620-003 | ProCon Target M/A            | Maximum M/A: M                      | ENG* | [ 0.25 to 0.75 / 0.471 / 0.001mg/cm <sup>2</sup> ] |
| 3-620-    | ProCon Target M/A            | Maximum M/A: Y                      | ENG* | [ 0.25 to 0.75 / 0.464 /                           |

## 3.SP Mode Tables

|           |                                |                          |      |  |
|-----------|--------------------------------|--------------------------|------|--|
| 004       |                                |                          |      | 0.001mg/cm <sup>2</sup> ]                                    |
| 3-620-051 | ProCon Target M/A              | Maximum M/A: BW          | ENG* | [ 0.25 to 0.75 / 0.383 / 0.001mg/cm <sup>2</sup> ]           |
| 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 ]<br>*MP C307: 186<br>*MP C407: 228 |
| 3-623-002 | LD Power: Set                  | Standard Speed Slope: C  | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: 186<br>*MP C407: 228 |
| 3-623-003 | LD Power: Set                  | Standard Speed Slope: M  | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: 186<br>*MP C407: 228 |

### 3.SP Mode Tables

|           |               |                           |      |  |
|-----------|---------------|---------------------------|------|--|
| 3-623-004 | LD Power: Set | Standard Speed Slope: Y   | ENG* | [ -1000 to 1000 / * / 1V ]<br>*MP C307: 186<br>*MP C407: 228 |
| 3-623-011 | LD Power: Set | Standard Speed Offset: Bk | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 6<br>*MP C407: -8     |
| 3-623-012 | LD Power: Set | Standard Speed Offset: C  | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 8<br>*MP C407: -8     |
| 3-623-013 | LD Power: Set | Standard Speed Offset: M  | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 8<br>*MP C407: -8     |
| 3-623-014 | LD Power: Set | Standard Speed Offset: Y  | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 8<br>*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 ]<br>*MP C307: 144<br>*MP C407: 154  |
| 3-623-042 | LD Power: Set | Low Speed Slope: C        | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 144<br>*MP C407: 154  |
| 3-623-    | LD Power: Set | Low Speed Slope: M        | ENG* | [ -1000 to 1000 / * / 1 ]                                    |

## 3.SP Mode Tables

|           |                   |                             |      |   |
|-----------|-------------------|-----------------------------|------|---|
| 043       |                   |                             |      | *MP C307: 144<br>*MP C407: 154                              |
| 3-623-044 | LD Power: Set     | Low Speed Slope: Y          | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 144<br>*MP C407: 154 |
| 3-623-051 | LD Power: Set     | Low Speed Offset: Bk        | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 26<br>*MP C407: 12   |
| 3-623-052 | LD Power: Set     | Low Speed Offset: C         | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 28<br>*MP C407: 12   |
| 3-623-053 | LD Power: Set     | Low Speed Offset: M         | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 28<br>*MP C407: 12   |
| 3-623-054 | LD Power: Set     | Low Speed Offset: Y         | ENG* | [ -1000 to 1000 / * / 1 ]<br>*MP C307: 28<br>*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 ]   |

3.SP Mode Tables

|           |                            |                               |      |   |
|-----------|----------------------------|-------------------------------|------|---|
| 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 ]<br>*MP C307: 34<br>*MP C407: 28 |
| 3-627-012 | ID Pattern Extraction: Set | Edge Upper Limit: Std Speed 2 | ENG* | [ 0 to 255 / 24 / 1point ]                                |

## 3.SP Mode Tables

|           |                            |                               |      |   |
|-----------|----------------------------|-------------------------------|------|---|
| 3-627-021 | ID Pattern Extraction: Set | Edge Lower Limit              | ENG* | [ 0 to 255 / * / 1point ]<br>*MP C307: 14<br>*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 ]<br>*MP C307: 701<br>*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.SP Mode Tables

|           |                                  |                     |      |                            |
|-----------|----------------------------------|---------------------|------|----------------------------|
| 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<br>Vk :Display | Bk                  | ENG* | [ -300 to 300 / 0 / 1-V ]  |
| 3-631-002 | Development Start<br>Vk :Display | C                   | ENG* | [ -300 to 300 / 0 / 1-V ]  |
| 3-631-003 | Development Start<br>Vk :Display | M                   | ENG* | [ -300 to 300 / 0 / 1-V ]  |
| 3-631-004 | Development Start<br>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.SP Mode Tables

|           |                               |                            |      |  |
|-----------|-------------------------------|----------------------------|------|--|
| 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 ]<br>0: Not Use<br>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 ]                  |

### 3.SP Mode Tables

|           |                              |                                   |      |                            |
|-----------|------------------------------|-----------------------------------|------|----------------------------|
| 003       |                              | Near Full                         |      |                            |
| 3-800-005 | Waste Toner Full Detection   | Volume Count 2 After<br>Near Full | ENG* | [ 0 to 1000000 / 0 / 0.1 ] |
| 3-800-007 | Waste Toner Full Detection   | Volume Count After<br>Replacement | ENG* | [ 0 to 1000000 / 0 / 0.1 ] |
| 3-800-012 | Waste Toner Full Detection   | Remaining days<br>Threshold       | ENG* | [ 0 to 255 / 15 / 1 ]      |
| 3-800-020 | Waste Toner Full Detection   | Mechanical Full Detection<br>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 ]  |

### 3.SP Mode Tables

|           |                       |                                       |      |                          |
|-----------|-----------------------|---------------------------------------|------|--------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                           |                  |      |  |
|-----------|---------------------------|------------------|------|--|
| 008       |                           |                  |      |  |
| 4-417-001 | IPU Test Pattern          | Test Pattern     | ENG  | [ 0 to 8 / 0 / 1 ]<br>0: Scanned image<br>1: Gradation main scan A<br>2: Patch 16C<br>3: Grid pattern A<br>4: Slant grid pattern B<br>5: Slant grid pattern C<br>6: Slant grid pattern D<br>7: Scanned+Slant Grid C<br>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 ]  |

### 3.SP Mode Tables

|           |                |                  |      |                         |
|-----------|----------------|------------------|------|-------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                |                  |     |                         |
|-----------|----------------|------------------|-----|-------------------------|
| 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 ]    |

### 3.SP Mode Tables

|           |                |                  |     |                         |
|-----------|----------------|------------------|-----|-------------------------|
| 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 ] |



## 3.SP Mode Tables

|           |                     |                                    |      |                         |
|-----------|---------------------|------------------------------------|------|-------------------------|
| 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 ]      |

### 3.SP Mode Tables

|           |                       |  |     |                        |
|-----------|-----------------------|--|-----|------------------------|
| 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<br>(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<br>(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<br>(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<br>(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 ]    |

## 3.SP Mode Tables

|           |                              |   |     |                        |
|-----------|------------------------------|---|-----|------------------------|
| 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<br>Photo | MTF: 0(Off) 1-15 (Weak-Strong)          | ENG | [ 0 to 15 / 8 / 1 ]    |
| 4-571-006 | Scan Apli:Col Gloss<br>Photo | Smoothing: 0(x1) 1-7 (Weak-Strong)      | ENG | [ 0 to 7 / 4 / 1 ]     |
| 4-571-007 | Scan Apli:Col Gloss<br>Photo | Brightness: 1-255                       | ENG | [ 1 to 255 / 128 / 1 ] |
| 4-571-008 | Scan Apli:Col Gloss<br>Photo | Contrast: 1-255                         | ENG | [ 1 to 255 / 128 / 1 ] |
| 4-571-009 | Scan Apli:Col Gloss<br>Photo | Ind Dot Erase: 0(Off) 1-7 (Weak-Strong) | ENG | [ 0 to 7 / 0 / 1 ]     |

3.SP Mode Tables

|           |                    |   |     |                        |
|-----------|--------------------|---|-----|------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                     |   |     |                        |
|-----------|---------------------|---|-----|------------------------|
| 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 ]     |

### 3.SP Mode Tables

|           |                       |                     |      |                                 |
|-----------|-----------------------|---------------------|------|---------------------------------|
| 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 ]          |

## 3.SP Mode Tables

|           |                              |                        |      |   |
|-----------|------------------------------|------------------------|------|---|
| 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 ]<br>0: OFF<br>1: WEAK<br>2: MEDIUM<br>3: STRONG |
| 4-796-002 | Low Density Color Correction | Rear Side              | ENG* | [ 0 to 3 / 0 / 1 ]<br>0: OFF<br>1: WEAK<br>2: MEDIUM<br>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 ]  |

3.SP Mode Tables

|           |                        |                                |      |                        |
|-----------|------------------------|--------------------------------|------|------------------------|
| 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 ] |



## 3.SP Mode Tables

|           |                             |                       |      |                        |
|-----------|-----------------------------|-----------------------|------|------------------------|
| 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 ]<br>*NA: 1<br>*EU, AA, CHN, TWN,<br>KOR: 2<br>0: JP<br>1: NA<br>2: EU/ASIA |
| 5-186-001 | RK4 Pulling                   |                       | ENG*       | [ 0 or 1 / 0 / 1 ]   |
| 5-610-004 | Base Gamma Ctrl<br>Pt:Execute | Get Factory Default   | ENG        | [ 0 or 1 / 0 / 1 ]   |
| 5-610-005 | Base Gamma Ctrl<br>Pt:Execute | Set Factory Default   | ENG        | [ 0 or 1 / 0 / 1 ]   |
| 5-610-006 | Base Gamma Ctrl<br>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 ]<br>1: Japan<br>2: NA<br>3: EU   |

## 3.SP Mode Tables

|           |                             |                             |      |  |
|-----------|-----------------------------|-----------------------------|------|--|
|           |                             |                             |      | 4: Taiwan<br>5: Asia<br>6: China<br>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 ]<br>0: OFF<br>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 ]    |

### 3.SP Mode Tables

|           |                                |                           |      |  |
|-----------|--------------------------------|---------------------------|------|--|
| 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 ]<br>*NA: 1<br>*Others: 0   |
| 5-045-001 | Accounting counter             | Counter Method            | CTL* | [ 0 to 7 / 0 / 1 ]<br>0: Developments<br>1: Prints<br>2: Coverage<br>7: Coverage (YMC) |
| 5-047-001 | Paper Display                  | Backing Paper             | CTL* | [ 0 to 1 / 0 / 1 ]<br>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-        | Part Replacement Alert         | #Image Transfer Belt Unit | CTL* | [ 0 to 1 / 0 / 1 ]   |

## 3.SP Mode Tables

|           |                                    |                             |      |                    |
|-----------|------------------------------------|-----------------------------|------|--------------------|
| 062-093   | Display                            |                             |      |                    |
| 5-062-109 | Part Replacement Alert<br>Display  | #Paper Transfer Roller Unit | CTL* | [ 0 to 1 / 0 / 1 ] |
| 5-062-115 | Part Replacement Alert<br>Display  | #Fusing Unit                | CTL* | [ 0 to 1 / 0 / 1 ] |
| 5-062-116 | Part Replacement Alert<br>Display  | Fusing Sleeve               | CTL* | [ 0 to 1 / 0 / 1 ] |
| 5-062-118 | Part Replacement Alert<br>Display  | Pressure Roller             | CTL* | [ 0 to 1 / 0 / 1 ] |
| 5-062-142 | Part Replacement Alert<br>Display  | #Wast Toner bottle          | CTL* | [ 0 to 1 / 0 / 1 ] |
| 5-062-147 | Part Replacement Alert<br>Display  | #Paper Feed Roller:Tray1    | CTL* | [ 0 to 1 / 0 / 1 ] |
| 5-062-148 | Part Replacement Alert<br>Display  | #Friction Pad:Tray1         | CTL* | [ 0 to 1 / 0 / 1 ] |
| 5-062-169 | Part Replacement Alert<br>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<br>Type | #PCU:Bk                     | CTL* | [ 0 to 1 / 0 / 1 ] |
| 5-067-025 | Part Replacement Operation<br>Type | #PCU:C                      | CTL* | [ 0 to 1 / 0 / 1 ] |
| 5-067-048 | Part Replacement Operation<br>Type | #PCU:M                      | CTL* | [ 0 to 1 / 0 / 1 ] |

### 3.SP Mode Tables

|           |                                 |                             |      |   |
|-----------|---------------------------------|-----------------------------|------|---|
| 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 ]<br>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 ]                          |

## 3.SP Mode Tables

|           |                                |                                       |      |   |
|-----------|--------------------------------|---------------------------------------|------|---|
| 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 ]<br>*NA: 1<br>*Others: 0  |
| 5-081-001 | ServiceSP Entry Code Setting   |                                       | CTL* | [ 0 to 0 / 0 / 0 ]<br><b>DFU</b>  |
| 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 ]<br>0: None, 1: Key card (RK 3, 4)<br>2: Key card (down), 3: Prepaid card<br>4: Coin lock, 5: MF key card<br>8: Key counter + Vendor<br>9: Bar-code Printer |
| 5-113-002 | Optional Counter Type          | External Optional Counter Type        | CTL* | [ 0 to 3 / 0 / 1 ]<br>0: None<br>1: Expansion Device 1  |

3.SP Mode Tables

|                   |  |   |      |   |
|-------------------|--|---|------|---|
|                   |  |   |      | 2: Expansion Device 2<br>3: Expansion Device 3                                    |
| 5-<br>114-<br>001 | Optional Counter I/F                         | MF Key Card Extension                                       | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Not installed / 1:<br>Installed (scanning<br>accounting) |
| 5-<br>118-<br>001 | Disable Copying                              |   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Enabled, 1: Disabled                                     |
| 5-<br>120-<br>001 | Mode Clear Opt. Counter<br>Removal           | 0:Yes 1:StandBy 2:No  | CTL* | [ 0 to 2 / 0 / 1 ]  |
| 5-<br>121-<br>001 | Counter Up Timing                            | 0:Feed 1:Exit   | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>127-<br>001 | APS OFF Mode                                 |   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Not disabled 1:<br>Disabled                              |
| 5-<br>128-<br>001 | Code Mode With Key/Card<br>Option            |   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: not used in<br>combination<br>1: used in combination     |
| 5-<br>167-<br>001 | Fax Printing Mode at Optional<br>Counter Off |   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Automatic printing<br>1: No automatic printing           |
| 5-<br>169-<br>001 | CE Login                                     |   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Disabled<br>1: Enabled                                   |
| 5-<br>188-<br>001 | Copy Nv Version                              |   | CTL* | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>191-<br>001 | Mode Set                                     | Power Str Set   | CTL* | [ 0 to 1 / 1 / 1 ]  |
| 5-<br>195-<br>001 | Limitless SW                                 |   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Productivity Precede<br>1: Use paper up                  |
| 5-<br>212-        | Page Numbering                               | Duplex Printout Left/Right<br>Position of Left/Right Facing | CTL* | [ -10 to 10 / 0 / 0.01mm ]  |



## 3.SP Mode Tables

|                   |                      |   |      |  |
|-------------------|----------------------|---|------|--|
| 003               |                      |   |      |  |
| 5-<br>212-<br>004 | Page Numbering       | Duplex Printout Top/Bottom<br>Position of Left/Right Facing | CTL* | [ -10 to 10 / 0 / 0.01mm ]   |
| 5-<br>212-<br>018 | Page Numbering       | Duplex Printout Left/Right<br>Position of Top/Bottom Facing | CTL* | [ -10 to 10 / 0 / 0.01mm ]   |
| 5-<br>212-<br>019 | Page Numbering       | Duplex Printout Top/Bottom<br>Position of Top/Bottom Facing | CTL* | [ -10 to 10 / 0 / 0.01mm ]   |
| 5-<br>227-<br>201 | Page Numbering       | Allow Page No. Entry  | CTL* | [ 2 to 9 / 9 / 1 ]   |
| 5-<br>227-<br>202 | Page Numbering       | Zero Surplus Setting  | CTL* | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>302-<br>002 | Set Time             | Time Difference   | CTL* | [ -1440 to 1440 / * / 1 ]<br>*NA: -300<br>*EU: 60<br>*AA, CHN, TWN: 480                              |
| 5-<br>305-<br>101 | Auto Off Set         | Auto Off Limit Set  | CTL* | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>307-<br>001 | Daylight Saving Time | Setting   | CTL* | [ 0 to 1 / * / 1 ]<br>*NA, EU: 1<br>*AA, CHN, TWN: 0   |
| 5-<br>307-<br>003 | Daylight Saving Time | Rule Set(Start)   | CTL* | [ 0 to 0xffffffff / * / 1 ]<br>*NA: 0x03200210<br>*EU: 0x03500010<br>*AA: 0x10500010<br>*CHN, TWN: 0 |
| 5-<br>307-<br>004 | Daylight Saving Time | Rule Set(End)   | CTL* | [ 0 to 0xffffffff / 0 / 1 ]<br>*NA: 0x11100200<br>*EU: 0x10500100<br>*AA: 0x03100000<br>*CHN, TWN: 0 |
| 5-<br>401-<br>103 | Access Control       | Default Document ACL  | CTL* | [ 0 to 3 / 0 / 1 ]   |

### 3.SP Mode Tables

|                   |                |                             |      |                             |
|-------------------|----------------|-----------------------------|------|-----------------------------|
| 5-<br>401-<br>104 | Access Control | Authentication Time         | CTL* | [ 0 to 255 / 0 / 1sec ]     |
| 5-<br>401-<br>162 | Access Control | Extend Certification Detail | CTL* | [ 0 to 0xff / 0 / 1 ]       |
| 5-<br>401-<br>200 | Access Control | SDK1 UniqueID               | CTL* | [ 0 to 0xFFFFFFFF / 0 / 1 ] |
| 5-<br>401-<br>201 | Access Control | SDK1 Certification Method   | CTL* | [ 0 to 0xFF / 0 / 1 ]       |
| 5-<br>401-<br>210 | Access Control | SDK2 UniqueID               | CTL* | [ 0 to 0xFFFFFFFF / 0 / 1 ] |
| 5-<br>401-<br>211 | Access Control | SDK2 Certification Method   | CTL* | [ 0 to 0xFF / 0 / 1 ]       |
| 5-<br>401-<br>220 | Access Control | SDK3 UniqueID               | CTL* | [ 0 to 0xFFFFFFFF / 0 / 1 ] |
| 5-<br>401-<br>221 | Access Control | SDK3 Certification Method   | CTL* | [ 0 to 0xFF / 0 / 1 ]       |
| 5-<br>401-<br>230 | Access Control | SDK Certification Device    | CTL* | [ 0 to 0xff / 0 / 1 ]       |
| 5-<br>401-<br>240 | Access Control | Detail Option               | CTL* | [ 0 to 0xff / 0 / 1 ]       |
| 5-<br>402-<br>101 | Access Control | SDKJ1 Limit Setting         | CTL* | [ 0 to 0xFF / 0 / 1 ]       |
| 5-<br>402-<br>102 | Access Control | SDKJ2 Limit Setting         | CTL* | [ 0 to 0xFF / 0 / 1 ]       |
| 5-<br>402-<br>103 | Access Control | SDKJ3 Limit Setting         | CTL* | [ 0 to 0xFF / 0 / 1 ]       |

|                   |                |                      |      |                       |
|-------------------|----------------|----------------------|------|-----------------------|
| 5-<br>402-<br>104 | Access Control | SDKJ4 Limit Setting  | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>105 | Access Control | SDKJ5 Limit Setting  | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>106 | Access Control | SDKJ6 Limit Setting  | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>107 | Access Control | SDKJ7 Limit Setting  | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>108 | Access Control | SDKJ8 Limit Setting  | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>109 | Access Control | SDKJ9 Limit Setting  | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>110 | Access Control | SDKJ10 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>111 | Access Control | SDKJ11 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>112 | Access Control | SDKJ12 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>113 | Access Control | SDKJ13 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>114 | Access Control | SDKJ14 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>115 | Access Control | SDKJ15 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>116 | Access Control | SDKJ16 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |

### 3.SP Mode Tables

|                   |                |                      |      |                       |
|-------------------|----------------|----------------------|------|-----------------------|
| 5-<br>402-<br>117 | Access Control | SDKJ17 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>118 | Access Control | SDKJ18 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>119 | Access Control | SDKJ19 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>120 | Access Control | SDKJ20 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>121 | Access Control | SDKJ21 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>122 | Access Control | SDKJ22 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>123 | Access Control | SDKJ23 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>124 | Access Control | SDKJ24 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>125 | Access Control | SDKJ25 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>126 | Access Control | SDKJ26 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>127 | Access Control | SDKJ27 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>128 | Access Control | SDKJ28 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |
| 5-<br>402-<br>129 | Access Control | SDKJ29 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ] |

## 3.SP Mode Tables

|                   |                |                      |      |                             |
|-------------------|----------------|----------------------|------|-----------------------------|
| 5-<br>402-<br>130 | Access Control | SDKJ30 Limit Setting | CTL* | [ 0 to 0xFF / 0 / 1 ]       |
| 5-<br>402-<br>141 | Access Control | SDKJ1 ProductID      | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>142 | Access Control | SDKJ2 ProductID      | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>143 | Access Control | SDKJ3 ProductID      | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>144 | Access Control | SDKJ4 ProductID      | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>145 | Access Control | SDKJ5 ProductID      | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>146 | Access Control | SDKJ6 ProductID      | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>147 | Access Control | SDKJ7 ProductID      | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>148 | Access Control | SDKJ8 ProductID      | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>149 | Access Control | SDKJ9 ProductID      | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>150 | Access Control | SDKJ10 ProductID     | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>151 | Access Control | SDKJ11 ProductID     | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>152 | Access Control | SDKJ12 ProductID     | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |

3.SP Mode Tables

|                   |                |                  |      |                             |
|-------------------|----------------|------------------|------|-----------------------------|
| 5-<br>402-<br>153 | Access Control | SDKJ13 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>154 | Access Control | SDKJ14 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>155 | Access Control | SDKJ15 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>156 | Access Control | SDKJ16 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>157 | Access Control | SDKJ17 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>158 | Access Control | SDKJ18 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>159 | Access Control | SDKJ19 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>160 | Access Control | SDKJ20 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>161 | Access Control | SDKJ21 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>162 | Access Control | SDKJ22 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>163 | Access Control | SDKJ23 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>164 | Access Control | SDKJ24 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>402-<br>165 | Access Control | SDKJ25 ProductID | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |

## 3.SP Mode Tables

|                   |                       |                                      |      |  |
|-------------------|-----------------------|--------------------------------------|------|--|
| 5-<br>402-<br>166 | Access Control        | SDKJ26 ProductID                     | CTL* | [ 0 to 0xffffffff / 0 / 1 ]  |
| 5-<br>402-<br>167 | Access Control        | SDKJ27 ProductID                     | CTL* | [ 0 to 0xffffffff / 0 / 1 ]  |
| 5-<br>402-<br>168 | Access Control        | SDKJ28 ProductID                     | CTL* | [ 0 to 0xffffffff / 0 / 1 ]  |
| 5-<br>402-<br>169 | Access Control        | SDKJ29 ProductID                     | CTL* | [ 0 to 0xffffffff / 0 / 1 ]  |
| 5-<br>402-<br>170 | Access Control        | SDKJ30 ProductID                     | CTL* | [ 0 to 0xffffffff / 0 / 1 ]  |
| 5-<br>404-<br>001 | User Code Count Clear | User Code Count Clear                | CTL* | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>404-<br>101 | User Code Count Clear | User Code Count Clear Permit Setting | CTL* | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>411-<br>004 | LDAP-Certification    | Simplified Authentication            | CTL* | [ 0 to 1 / 1 / 1 ]<br>1: On, 0: Off  |
| 5-<br>411-<br>005 | LDAP-Certification    | Password Null Not Permit             | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: Password NULL not permitted.<br>1: Password NULL permitted. |
| 5-<br>411-<br>006 | LDAP-Certification    | Detail Option                        | CTL* | [ 0 to 0xff / 0 / 1 ]  |
| 5-<br>412-<br>100 | Krb-Certification     | Encrypt Mode                         | CTL* | [ 0 to 0xFF / 0x1F / 1 ]   |
| 5-<br>413-<br>001 | Lockout Setting       | Lockout On/Off                       | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Off, 1: On  |
| 5-                | Lockout Setting       | Lockout Threshold                    | CTL* | [ 1 to 10 / 5 / 1 ]  |

### 3.SP Mode Tables

|           |                    |                           |      |                                     |
|-----------|--------------------|---------------------------|------|-------------------------------------|
| 413-002   |                    |                           |      |                                     |
| 5-413-003 | Lockout Setting    | Cancelation On/Off        | CTL* | [ 0 to 1 / 0 / 1 ]<br>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 ]<br>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 ]               |



## 3.SP Mode Tables

|                   |                            |                        |      |                                     |
|-------------------|----------------------------|------------------------|------|-------------------------------------|
| 5-<br>417-<br>004 | Access Attack              | Attack Max Num         | CTL* | [ 50 to 200 / 200 / 1 ]             |
| 5-<br>420-<br>001 | User Authentication        | Copy                   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: On, 1: Off |
| 5-<br>420-<br>002 | User Authentication        | Color Security Setting | CTL* | [ 0 to 255 / 0 / 1 ]                |
| 5-<br>420-<br>011 | User Authentication        | DocumentServer         | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: On, 1: Off |
| 5-<br>420-<br>021 | User Authentication        | Fax                    | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: On, 1: Off |
| 5-<br>420-<br>031 | User Authentication        | Scanner                | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: On, 1: Off |
| 5-<br>420-<br>041 | User Authentication        | Printer                | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: On, 1: Off |
| 5-<br>420-<br>051 | User Authentication        | SDK1                   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: On, 1: Off |
| 5-<br>420-<br>061 | User Authentication        | SDK2                   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: On, 1: Off |
| 5-<br>420-<br>071 | User Authentication        | SDK3                   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: On, 1: Off |
| 5-<br>420-<br>081 | User Authentication        | Browser                | CTL* | [ 0 to 1 / 0 / 1 ]                  |
| 5-<br>430-<br>001 | Auth Dialog Message Change | Message Change On/Off  | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Off, 1: On |
| 5-<br>430-<br>002 | Auth Dialog Message Change | Message Text Download  | CTL  | [ 0 to 0 / 0 / 0 ]                  |

### 3.SP Mode Tables

|                   |                            |                   |      |                    |
|-------------------|----------------------------|-------------------|------|--------------------|
| 5-<br>430-<br>003 | Auth Dialog Message Change | Message Text ID   | CTL  | [ 0 to 0 / 0 / 0 ] |
| 5-<br>431-<br>010 | External Auth User Preset  | Tag               | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>011 | External Auth User Preset  | Entry             | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>012 | External Auth User Preset  | Group             | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>020 | External Auth User Preset  | Mail              | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>030 | External Auth User Preset  | Fax               | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>031 | External Auth User Preset  | FaxSub            | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>032 | External Auth User Preset  | Folder            | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>033 | External Auth User Preset  | ProtectCode       | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>034 | External Auth User Preset  | SmtplAuth         | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>035 | External Auth User Preset  | LdapAuth          | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>036 | External Auth User Preset  | Smb Ftp Fldr Auth | CTL* | [ 0 to 1 / 1 / 1 ] |
| 5-<br>431-<br>037 | External Auth User Preset  | AcntAcl           | CTL* | [ 0 to 1 / 1 / 1 ] |

## 3.SP Mode Tables

|                   |                           |                      |      |   |
|-------------------|---------------------------|----------------------|------|---|
| 5-<br>431-<br>038 | External Auth User Preset | DocumentAcl          | CTL* | [ 0 to 1 / 1 / 1 ]  |
| 5-<br>431-<br>040 | External Auth User Preset | CertCrypt            | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>431-<br>050 | External Auth User Preset | UserLimitCount       | CTL* | [ 0 to 1 / 1 / 1 ]  |
| 5-<br>481-<br>001 | Authentication Error Code | System Log Disp      | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Off, 1: On   |
| 5-<br>481-<br>002 | Authentication Error Code | Panel Disp           | CTL* | [ 0 to 1 / 1 / 1 ]<br>1: On, 0: Off   |
| 5-<br>490-<br>001 | MF KeyCard                | Job Permit Setting   | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Disabled<br>1: Enabled   |
| 5-<br>490-<br>002 | MF KeyCard                | Count Mode Setting   | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>491-<br>001 | Optional Counter          | Detail Option        | CTL* | [ 0 to 0xff / 0 / 1 ]   |
| 5-<br>501-<br>001 | PM Alarm                  | PM Alarm Level       | CTL* | [ 0 to 9999 / 0 / 1 ]   |
| 5-<br>501-<br>002 | PM Alarm                  | Original Count Alarm | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>504-<br>001 | Jam Alarm                 |                      | CTL* | [ 0 to 3 / 3 / 1 ]<br>0: Zero (Off)<br>1: Low (2.5K jams)<br>2: Medium (3K jams)<br>3: High (6K jams) |
| 5-<br>504-<br>002 | Jam Alarm                 | Threshold            | CTL* | [ 1 to 99 / 10 / 1 ]  |
| 5-                | Error Alarm               |                      | CTL* | [ 0 to 255 / 19 / 1 ]   |

3.SP Mode Tables

|           |                 |                      |      |  |
|-----------|-----------------|----------------------|------|--|
| 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 ]<br>0: Off, 1: On                            |
| 5-507-003 | Supply/CC Alarm | Toner Supply Alarm   | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: Off, 1: On                            |
| 5-507-080 | Supply/CC Alarm | Toner Call Timing    | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: At replacement<br>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 ]                                    |

## 3.SP Mode Tables

|                   |                  |                                 |      |   |
|-------------------|------------------|---------------------------------|------|---|
| 5-<br>508-<br>001 | CC Call          | Jam Remains                     | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: Disable, 1: Enable |
| 5-<br>508-<br>002 | CC Call          | Continuous Jams                 | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: Disable, 1: Enable |
| 5-<br>508-<br>003 | CC Call          | Continuous Door Open            | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: Disable, 1: Enable |
| 5-<br>508-<br>011 | CC Call          | Jam Detection: Time Length      | CTL* | [ 3 to 30 / 10 / 1 ]                        |
| 5-<br>508-<br>012 | CC Call          | Jam Detection: Continuous Count | CTL* | [ 2 to 10 / 5 / 1 ]                         |
| 5-<br>508-<br>013 | CC Call          | Door Open: Time Length          | CTL* | [ 3 to 30 / 10 / 1 ]                        |
| 5-<br>515-<br>001 | SC/Alarm Setting | SC Call                         | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: Off, 1: On         |
| 5-<br>515-<br>002 | SC/Alarm Setting | Service Parts Near End Call     | CTL* | [ 0 to 1 / 1 / 1 ]                          |
| 5-<br>515-<br>003 | SC/Alarm Setting | Service Parts End Call          | CTL* | [ 0 to 1 / 1 / 1 ]                          |
| 5-<br>515-<br>004 | SC/Alarm Setting | User Call                       | CTL* | [ 0 to 1 / 1 / 1 ]                          |
| 5-<br>515-<br>006 | SC/Alarm Setting | Communication Test Call         | CTL* | [ 0 to 1 / 1 / 1 ]                          |
| 5-<br>515-<br>007 | SC/Alarm Setting | Machine Information Notice      | CTL* | [ 0 to 1 / 1 / 1 ]                          |
| 5-<br>515-<br>008 | SC/Alarm Setting | Alarm Notice                    | CTL* | [ 0 to 1 / 1 / 1 ]                          |

### 3.SP Mode Tables

|                   |                              |                                   |      |                          |
|-------------------|------------------------------|-----------------------------------|------|--------------------------|
| 5-<br>515-<br>009 | SC/Alarm Setting             | Non Genuine Tonner Ararm          | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 5-<br>515-<br>010 | SC/Alarm Setting             | Supply Automatic Ordering Call    | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 5-<br>515-<br>011 | SC/Alarm Setting             | Supply Management Report Call     | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 5-<br>515-<br>012 | SC/Alarm Setting             | Jam/Door Open Call                | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 5-<br>515-<br>050 | SC/Alarm Setting             | Timeout:Manual Call               | CTL* | [ 1 to 255 / 5 / 1min ]  |
| 5-<br>515-<br>051 | SC/Alarm Setting             | Timeout:Other Call                | CTL* | [ 1 to 255 / 10 / 1min ] |
| 5-<br>517-<br>061 | Get Machine Information      | AutoDiscovery Execution Setting   | CTL* | [ 0 to 1 / 0 / 1 ]       |
| 5-<br>517-<br>062 | Get Machine Information      | AutoDiscovery Execution Interval  | CTL* | [ 0 to 1 / 0 / 1 ]       |
| 5-<br>517-<br>063 | Get Machine Information      | AutoDiscovery Execution Weekday   | CTL* | [ 0 to 6 / 0 / 1 ]       |
| 5-<br>517-<br>064 | Get Machine Information      | AutoDiscovery Execution Hour      | CTL* | [ 0 to 23 / 0 / 1 ]      |
| 5-<br>517-<br>065 | Get Machine Information      | AutoDiscovery Execution Minute    | CTL* | [ 0 to 59 / 0 / 1 ]      |
| 5-<br>517-<br>066 | Get Machine Information      | AutoDiscovery SNMP Community Name | CTL* | [ 0 to 0 / 0 / 0 ]       |
| 5-<br>618-<br>001 | Color Mode Display Selection |                                   | CTL* | [ 0 to 1 / 1 / 1 ]       |

## 3.SP Mode Tables

|                   |                 |                   |      |                            |
|-------------------|-----------------|-------------------|------|----------------------------|
| 5-<br>728-<br>001 | Network Setting | NAT Machine Port1 | CTL* | [ 1 to 65535 / 49101 / 1 ] |
| 5-<br>728-<br>002 | Network Setting | NAT UI Port1      | CTL* | [ 1 to 65535 / 55101 / 1 ] |
| 5-<br>728-<br>003 | Network Setting | NAT Machine Port2 | CTL* | [ 1 to 65535 / 49102 / 1 ] |
| 5-<br>728-<br>004 | Network Setting | NAT UI Port2      | CTL* | [ 1 to 65535 / 55102 / 1 ] |
| 5-<br>728-<br>005 | Network Setting | NAT Machine Port3 | CTL* | [ 1 to 65535 / 49103 / 1 ] |
| 5-<br>728-<br>006 | Network Setting | NAT UI Port3      | CTL* | [ 1 to 65535 / 55103 / 1 ] |
| 5-<br>728-<br>007 | Network Setting | NAT Machine Port4 | CTL* | [ 1 to 65535 / 49104 / 1 ] |
| 5-<br>728-<br>008 | Network Setting | NAT UI Port4      | CTL* | [ 1 to 65535 / 55104 / 1 ] |
| 5-<br>728-<br>009 | Network Setting | NAT Machine Port5 | CTL* | [ 1 to 65535 / 49105 / 1 ] |
| 5-<br>728-<br>010 | Network Setting | NAT UI Port5      | CTL* | [ 1 to 65535 / 55105 / 1 ] |
| 5-<br>728-<br>011 | Network Setting | NAT Machine Port6 | CTL* | [ 1 to 65535 / 49106 / 1 ] |
| 5-<br>728-<br>012 | Network Setting | NAT UI Port6      | CTL* | [ 1 to 65535 / 55106 / 1 ] |
| 5-<br>728-<br>013 | Network Setting | NAT Machine Port7 | CTL* | [ 1 to 65535 / 49107 / 1 ] |

### 3.SP Mode Tables

|                   |                 |                            |      |                            |
|-------------------|-----------------|----------------------------|------|----------------------------|
| 5-<br>728-<br>014 | Network Setting | NAT UI Port7               | CTL* | [ 1 to 65535 / 55107 / 1 ] |
| 5-<br>728-<br>015 | Network Setting | NAT Machine Port8          | CTL* | [ 1 to 65535 / 49108 / 1 ] |
| 5-<br>728-<br>016 | Network Setting | NAT UI Port8               | CTL* | [ 1 to 65535 / 55108 / 1 ] |
| 5-<br>728-<br>017 | Network Setting | NAT Machine Port9          | CTL* | [ 1 to 65535 / 49109 / 1 ] |
| 5-<br>728-<br>018 | Network Setting | NAT UI Port9               | CTL* | [ 1 to 65535 / 55109 / 1 ] |
| 5-<br>728-<br>019 | Network Setting | NAT Machine Port10         | CTL* | [ 1 to 65535 / 49110 / 1 ] |
| 5-<br>728-<br>020 | Network Setting | NAT UI Port10              | CTL* | [ 1 to 65535 / 55110 / 1 ] |
| 5-<br>728-<br>101 | Network Setting | PacketCapture              | CTL  | [ 0 to 1 / 0 / 1 ]         |
| 5-<br>728-<br>102 | Network Setting | PacketCapture:mode         | CTL  | [ 0 to 1 / 0 / 1 ]         |
| 5-<br>728-<br>103 | Network Setting | PacketCapture:interface    | CTL  | [ 0 to 3 / 0 / 1 ]         |
| 5-<br>728-<br>104 | Network Setting | PacketCapture:length       | CTL  | [ 54 to 65535 / 128 / 1 ]  |
| 5-<br>728-<br>105 | Network Setting | PacketCapture:broadcast    | CTL  | [ 0 to 1 / 0 / 1 ]         |
| 5-<br>728-<br>106 | Network Setting | PacketCapture:specify port | CTL  | [ 0 to 1 / 0 / 1 ]         |



|                   |                             |                                |      |  |
|-------------------|-----------------------------|--------------------------------|------|--|
| 5-<br>728-<br>107 | Network Setting             | PacketCapture:portnumber       | CTL  | [ 0 to 65535 / 0 / 1 ]                     |
| 5-<br>728-<br>108 | Network Setting             | PacketCapture:time             | CTL  | [ 0 to 0xffffffff / 0 / 1 ]                |
| 5-<br>730-<br>001 | Extended Function Setting   | JavaTM Platform setting        | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: Disable 1: Enable |
| 5-<br>730-<br>010 | Extended Function Setting   | Expiration Prior Alarm Set     | CTL* | [ 0 to 999 / 20 / 1days ]                  |
| 5-<br>731-<br>001 | Counter Effect              | Change Mk1 Cnt(Paper->Combine) | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Disable 1: Enable |
| 5-<br>734-<br>001 | PDF Setting                 | PDF/A Fixed                    | CTL* | [ 0 to 1 / 0 / 1 ]                         |
| 5-<br>741-<br>001 | Node Authentication Timuout |                                | CTL* | [ 1 to 255 / 60 / 1sec ]                   |
| 5-<br>745-<br>211 | DeemedPowerConsumption      | Controller Standby             | CTL* | [ 0 to 9999 / 0 / 1 ]                      |
| 5-<br>745-<br>212 | DeemedPowerConsumption      | STR                            | CTL* | [ 0 to 9999 / 0 / 1 ]                      |
| 5-<br>745-<br>213 | DeemedPowerConsumption      | Main Power Off                 | CTL* | [ 0 to 9999 / 0 / 1 ]                      |
| 5-<br>745-<br>214 | DeemedPowerConsumption      | Scanning and Printing          | CTL* | [ 0 to 9999 / 0 / 1 ]                      |
| 5-<br>745-<br>215 | DeemedPowerConsumption      | Printing                       | CTL* | [ 0 to 9999 / 0 / 1 ]                      |
| 5-<br>745-<br>216 | DeemedPowerConsumption      | Scanning                       | CTL* | [ 0 to 9999 / 0 / 1 ]                      |

### 3.SP Mode Tables

|                   |                              |  |      |                       |
|-------------------|------------------------------|--|------|-----------------------|
| 5-<br>745-<br>217 | DeemedPowerConsumption       | Engine Standby                             | CTL* | [ 0 to 9999 / 0 / 1 ] |
| 5-<br>745-<br>218 | DeemedPowerConsumption       | Low Power Consumption                      | CTL* | [ 0 to 9999 / 0 / 1 ] |
| 5-<br>745-<br>219 | DeemedPowerConsumption       | Silent condition                           | CTL* | [ 0 to 9999 / 0 / 1 ] |
| 5-<br>745-<br>220 | DeemedPowerConsumption       | Heater Off                                 | CTL* | [ 0 to 9999 / 0 / 1 ] |
| 5-<br>748-<br>101 | OpePanel Setting             | Op Type Action Setting                     | CTL* | [ 0 to 255 / 0 / 1 ]  |
| 5-<br>748-<br>201 | OpePanel Setting             | Cheetah Panel Connect Setting              | CTL* | [ 0 to 1 / 0 / 1 ]    |
| 5-<br>749-<br>001 | Import/Export                | Export                                     | CTL  | [ 0 to 0 / 0 / 0 ]    |
| 5-<br>749-<br>101 | Import/Export                | Import                                     | CTL  | [ 0 to 0 / 0 / 0 ]    |
| 5-<br>751-<br>001 | Key Event Encryption Setting | Password                                   | CTL* | [ 0 to 255 / 0 / 1 ]  |
| 5-<br>752-<br>001 | Copy:WebAPI Setting          | Copy:FlairAPI Setting                      | CTL* | [ 0 to 255 / 0 / 1 ]  |
| 5-<br>755-<br>001 | Display Setting              | Disp Administrator Password<br>Change Scrn | CTL  | [ 0 to 0 / 0 / 0 ]    |
| 5-<br>755-<br>002 | Display Setting              | Hide Administrator Password<br>Change Scrn | CTL  | [ 0 to 0 / 0 / 0 ]    |
| 5-<br>758-<br>001 | RemoteUI Setting             | Authentication                             | CTL* | [ 0 to 1 / 0 / 1 ]    |

|                   |                             |                                 |      |                           |
|-------------------|-----------------------------|---------------------------------|------|---------------------------|
| 5-<br>759-<br>001 | Machine Limit Count         | Machine Limit Count Setting     | CTL* | [ 0 to 1 / 0 / 1 ]        |
| 5-<br>759-<br>061 | Machine Limit Count         | Full Color Limit Count          | CTL* | [ 0 to 99999999 / 0 / 1 ] |
| 5-<br>759-<br>062 | Machine Limit Count         | Mono Color Limit Count          | CTL* | [ 0 to 99999999 / 0 / 1 ] |
| 5-<br>761-<br>001 | SmartOperationPanel Setting | Restore the default Home screen | CTL* | [ 0 to 255 / 0 / 1 ]      |
| 5-<br>801-<br>001 | Memory Clear                | All Clear                       | CTL  | [ 0 to 0 / 0 / 0 ]        |
| 5-<br>801-<br>003 | Memory Clear                | SCS                             | CTL  | [ 0 to 0 / 0 / 0 ]        |
| 5-<br>801-<br>004 | Memory Clear                | IMH Memory Clr                  | CTL  | [ 0 to 0 / 0 / 0 ]        |
| 5-<br>801-<br>005 | Memory Clear                | MCS                             | CTL  | [ 0 to 0 / 0 / 0 ]        |
| 5-<br>801-<br>006 | Memory Clear                | Copier application              | CTL  | [ 0 to 0 / 0 / 0 ]        |
| 5-<br>801-<br>007 | Memory Clear                | Fax Application                 | CTL  | [ 0 to 0 / 0 / 0 ]        |
| 5-<br>801-<br>008 | Memory Clear                | Printer Application             | CTL  | [ 0 to 0 / 0 / 0 ]        |
| 5-<br>801-<br>009 | Memory Clear                | Scanner Application             | CTL  | [ 0 to 0 / 0 / 0 ]        |
| 5-<br>801-<br>010 | Memory Clear                | Web Service                     | CTL  | [ 0 to 0 / 0 / 0 ]        |

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|                   |              |                   |     |                    |
|-------------------|--------------|-------------------|-----|--------------------|
| 5-<br>801-<br>011 | Memory Clear | NCS               | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>012 | Memory Clear | R-FAX             | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>014 | Memory Clear | Clear DCS Setting | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>015 | Memory Clear | Clear UCS Setting | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>016 | Memory Clear | MIRS Setting      | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>017 | Memory Clear | CCS               | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>018 | Memory Clear | SRM Memory Clr    | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>019 | Memory Clear | LCS               | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>020 | Clea Memory  | Web Uapli         | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>021 | Memory Clear | ECS               | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>023 | Memory Clear | AICS              | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>025 | Clea Memory  | websys            | CTL | [ 0 to 0 / 0 / 0 ] |
| 5-<br>801-<br>026 | Memory Clear | PLN               | CTL | [ 0 to 0 / 0 / 0 ] |

## 3.SP Mode Tables

|                   |                          |                     |      |                          |
|-------------------|--------------------------|---------------------|------|--------------------------|
| 5-<br>801-<br>027 | Memory Clear             | SAS                 | CTL  | [ 0 to 0 / 0 / 0 ]       |
| 5-<br>801-<br>028 | Memory Clear             | Rest WebService     | CTL  | [ 0 to 0 / 0 / 0 ]       |
| 5-<br>812-<br>001 | Service Tel. No. Setting | Service             | CTL* | [ 0 to 0 / 0 / 0 ]       |
| 5-<br>812-<br>002 | Service Tel. No. Setting | Facsimile           | CTL* | [ 0 to 0 / 0 / 0 ]       |
| 5-<br>812-<br>003 | Service Tel. No. Setting | Supply              | CTL* | [ 0 to 0 / 0 / 0 ]       |
| 5-<br>812-<br>004 | Service Tel. No. Setting | Operation           | CTL* | [ 0 to 0 / 0 / 0 ]       |
| 5-<br>816-<br>001 | Remote Service           | I/F Setting         | CTL* | [ 0 to 2 / 2 / 1 ]       |
| 5-<br>816-<br>002 | Remote Service           | CE Call             | CTL* | [ 0 to 1 / 0 / 1 ]       |
| 5-<br>816-<br>003 | Remote Service           | Function Flag       | CTL* | [ 0 to 1 / 0 / 1 ]       |
| 5-<br>816-<br>007 | Remote Service           | SSL Disable         | CTL* | [ 0 to 1 / 0 / 1 ]       |
| 5-<br>816-<br>008 | Remote Service           | RCG Connect Timeout | CTL* | [ 1 to 90 / 30 / 1sec ]  |
| 5-<br>816-<br>009 | Remote Service           | RCG Write Timeout   | CTL* | [ 0 to 100 / 60 / 1sec ] |
| 5-<br>816-<br>010 | Remote Service           | RCG Read Timeout    | CTL* | [ 0 to 100 / 60 / 1sec ] |

### 3.SP Mode Tables

|                   |                |                      |      |                         |
|-------------------|----------------|----------------------|------|-------------------------|
| 5-<br>816-<br>011 | Remote Service | Port 80 Enable       | CTL* | [ 0 to 1 / 0 / 1 ]      |
| 5-<br>816-<br>013 | Remote Service | RFU Timing           | CTL* | [ 0 to 1 / 1 / 1 ]      |
| 5-<br>816-<br>014 | Remote Service | RCG Error Cause      | CTL* | [ 0 to 2 / 0 / 1 ]      |
| 5-<br>816-<br>021 | Remote Service | RCG-C Registered     | CTL* | [ 0 to 1 / 0 / 1 ]      |
| 5-<br>816-<br>023 | Remote Service | Connect Type(N/M/3G) | CTL* | [ 0 to 2 / 0 / 1 ]      |
| 5-<br>816-<br>061 | Remote Service | Cert Expire Timing   | CTL* | [ 0 to 0 / 0 / 1 ]      |
| 5-<br>816-<br>062 | Remote Service | Use Proxy            | CTL* | [ 0 to 1 / 0 / 1 ]      |
| 5-<br>816-<br>063 | Remote Service | Proxy Host           | CTL* | [ 0 to 0 / 0 / 0 ]      |
| 5-<br>816-<br>064 | Remote Service | Proxy PortNumber     | CTL* | [ 0 to 0xffff / 0 / 1 ] |
| 5-<br>816-<br>065 | Remote Service | Proxy User Name      | CTL* | [ 0 to 0 / 0 / 0 ]      |
| 5-<br>816-<br>066 | Remote Service | Proxy Password       | CTL* | [ 0 to 0 / 0 / 0 ]      |
| 5-<br>816-<br>067 | Remote Service | CERT:Up State        | CTL* | [ 0 to 255 / 0 / 1 ]    |
| 5-<br>816-<br>068 | Remote Service | CERT:Error           | CTL* | [ 0 to 255 / 0 / 1 ]    |

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|                   |                |                    |      |   |
|-------------------|----------------|--------------------|------|---|
| 5-<br>816-<br>069 | Remote Service | CERT:Up ID         | CTL* | [ 0 to 0 / 0 / 0 ]                              |
| 5-<br>816-<br>083 | Remote Service | Firm Up Status     | CTL* | [ 0 to 1 / 0 / 1 ]                              |
| 5-<br>816-<br>085 | Remote Service | Firm Up User Check | CTL* | [ 0 to 1 / 0 / 1 ]                              |
| 5-<br>816-<br>086 | Remote Service | Firmware Size      | CTL* | [ 0 to 0xffffffff / 0 / 1 ]                     |
| 5-<br>816-<br>087 | Remote Service | CERT:Macro Ver.    | CTL  | [ 0 to 0 / 0 / 0 ]                              |
| 5-<br>816-<br>088 | Remote Service | CERT:PAC Ver.      | CTL  | [ 0 to 0 / 0 / 0 ]                              |
| 5-<br>816-<br>089 | Remote Service | CERT:ID2Code       | CTL  | [ 0 to 0 / 0 / 0 ]                              |
| 5-<br>816-<br>090 | Remote Service | CERT:Subject       | CTL  | [ 0 to 0 / 0 / 0 ]                              |
| 5-<br>816-<br>091 | Remote Service | CERT:SerialNo.     | CTL  | [ 0 to 0 / 0 / 0 ]                              |
| 5-<br>816-<br>092 | Remote Service | CERT:Issuer        | CTL  | [ 0 to 0 / 0 / 0 ]                              |
| 5-<br>816-<br>093 | Remote Service | CERT:Valid Start   | CTL  | [ 0 to 0 / 0 / 0 ]                              |
| 5-<br>816-<br>094 | Remote Service | CERT:Valid End     | CTL  | [ 0 to 0 / 0 / 0 ]                              |
| 5-<br>816-<br>102 | Remote Service | CERT:Encrypt Level | CTL* | [ 1 to 2 / 1 / 1 ]<br>1: 512 bit<br>2: 2048 bit |

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|                   |                |                                       |      |   |
|-------------------|----------------|---------------------------------------|------|---|
| 5-<br>816-<br>103 | Remote Service | Client Communication Method           | CTL* | [ 0 to 3 / 0 / 1 ]<br>1: IPv4<br>2: IPv6<br>3: Hostname                   |
| 5-<br>816-<br>104 | Remote Service | Client Communication Limit            | CTL* | [ 1 to 7 / 7 / 1 ]  |
| 5-<br>816-<br>115 | Remote Service | Network Information Waiting timer     | CTL* | [ 5 to 255 / 5 / 1sec ]   |
| 5-<br>816-<br>150 | Remote Service | Selection Country                     | CTL* | [ 0 to 10 / * / 1 ]<br>*NA: 1<br>*EU: 3<br>*AA, CHN, TWN, KOR:<br>0       |
| 5-<br>816-<br>151 | Remote Service | Line Type Automatic Judgement         | CTL  | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>816-<br>152 | Remote Service | Line Type Judgement Result            | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>816-<br>153 | Remote Service | Selection Dial / Push                 | CTL* | NA, EU:<br>[ 0 to 1 / 0 / 0 ]<br>AA, CHN, TWN, KOR:<br>[ 0 to 2 / 0 / 0 ] |
| 5-<br>816-<br>154 | Remote Service | Outside Line Outgoing Number          | CTL* | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>816-<br>156 | Remote Service | Dial Up User Name                     | CTL* | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>816-<br>157 | Remote Service | Dial Up Password                      | CTL* | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>816-<br>161 | Remote Service | Local Phone Number                    | CTL* | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>816-        | Remote Service | Connection Timing Adjustment Incoming | CTL* | [ 0 to 24 / 1 / 1 ]   |



|                   |                |                      |      |   |
|-------------------|----------------|----------------------|------|---|
| 162               |                |                      |      |   |
| 5-<br>816-<br>163 | Remote Service | Access Point         | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>816-<br>164 | Remote Service | Line Connecting      | CTL* | [ 0 to 1 / 0 / 1 ]                          |
| 5-<br>816-<br>173 | Remote Service | Modem Serial No.     | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>816-<br>174 | Remote Service | Retransmission Limit | CTL  | [ 0 to 1 / 0 / 1 ]                          |
| 5-<br>816-<br>187 | Remote Service | FAX TX Priority      | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Disable, 1: Enable |
| 5-<br>816-<br>190 | Remote Service | 3G DongleID          | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>816-<br>199 | Remote Service | ppp Connect Timer    | CTL* | [ 15 to 30 / 15 / 1min ]                    |
| 5-<br>816-<br>200 | Remote Service | Manual Polling       | CTL  | [ 0 to 1 / 0 / 1 ]                          |
| 5-<br>816-<br>201 | Remote Service | Regist Status        | CTL  | [ 0 to 255 / 0 / 1 ]                        |
| 5-<br>816-<br>202 | Remote Service | Letter Number        | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>816-<br>203 | Remote Service | Confirm Execute      | CTL  | [ 0 to 1 / 0 / 1 ]                          |
| 5-<br>816-<br>204 | Remote Service | Confirm Result       | CTL  | [ 0 to 255 / 0 / 1 ]                        |
| 5-                | Remote Service | Confirm Place        | CTL  | [ 0 to 1 / 0 / 1 ]                          |

### 3.SP Mode Tables

|           |                |                  |      |                                      |
|-----------|----------------|------------------|------|--------------------------------------|
| 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 ]                 |

## 3.SP Mode Tables

|                   |                            |                   |      |                             |
|-------------------|----------------------------|-------------------|------|-----------------------------|
| 5-<br>816-<br>248 | Remote Service             | Other Err Count   | CTL* | [ 0 to 255 / 0 / 1 ]        |
| 5-<br>816-<br>250 | Remote Service             | CommLog Print     | CTL  | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>821-<br>002 | Remote Service RCG Setting | RCG IPv4 Address  | CTL* | [ 0 to 0xffffffff / 0 / 1 ] |
| 5-<br>821-<br>003 | Remote Service RCG Setting | RCG Port          | CTL* | [ 0 to 65535 / 443 / 1 ]    |
| 5-<br>821-<br>004 | Remote Service RCG Setting | RCG IPv4 URL Path | CTL* | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>821-<br>005 | Remote Service RCG Setting | RCG IPv6 Address  | CTL* | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>821-<br>006 | Remote Service RCG Setting | RCG IPv6 URL Path | CTL* | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>821-<br>007 | Remote Service RCG Setting | RCG Host Name     | CTL* | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>821-<br>008 | Remote Service RCG Setting | RCG Host URL Path | CTL* | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>824-<br>001 | NV-RAM Data Upload         |                   | CTL  | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>825-<br>001 | NV-RAM Data Download       |                   | CTL  | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>828-<br>039 | Network Setting            | User Class        | CTL* | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>828-<br>040 | Network Setting            | Class Id          | CTL* | [ 0 to 0 / 0 / 0 ]          |

### 3.SP Mode Tables

|                   |                 |                                 |      |   |
|-------------------|-----------------|---------------------------------|------|---|
| 5-<br>828-<br>050 | Network Setting | 1284 Compatiblity (Centro)      | CTL* | [ 0 to 1 / 1 / 1 ]  |
| 5-<br>828-<br>052 | Network Setting | ECP (Centro)                    | CTL* | [ 0 to 1 / 1 / 1 ]  |
| 5-<br>828-<br>065 | Network Setting | Job Spooling                    | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Disabled, 1: Enabled                                       |
| 5-<br>828-<br>066 | Network Setting | Job Spooling Clear: Start Time  | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: ON (Data is cleared),<br>1: OFF (Automatically<br>printed) |
| 5-<br>828-<br>069 | Network Setting | Job Spooling (Protocol)         | CTL* | [ 0x00 to 0xff / 0x7f / 0 ]   |
| 5-<br>828-<br>087 | Network Setting | Protocol usage                  | CTL* | [ 0x00000000 to<br>0xffffffff / 0x00000000 /<br>1 ]                                 |
| 5-<br>828-<br>090 | Network Setting | TELNET(0:OFF 1:ON)              | CTL* | [ 0 to 1 / 1 / 1 ]  |
| 5-<br>828-<br>091 | Network Setting | Web(0:OFF 1:ON)                 | CTL* | [ 0 to 1 / 1 / 1 ]  |
| 5-<br>828-<br>145 | Network Setting | Active IPv6 Link Local Address  | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>828-<br>147 | Network Setting | Active IPv6 Stateless Address 1 | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>828-<br>149 | Network Setting | Active IPv6 Stateless Address 2 | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>828-<br>151 | Network Setting | Active IPv6 Stateless Address 3 | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>828-        | Network Setting | Active IPv6 Stateless Address 4 | CTL  | [ 0 to 0 / 0 / 0 ]  |

|                   |                 |                                 |      |                                   |
|-------------------|-----------------|---------------------------------|------|-----------------------------------|
| 153               |                 |                                 |      |                                   |
| 5-<br>828-<br>155 | Network Setting | Active IPv6 Stateless Address 5 | CTL  | [ 0 to 0 / 0 / 0 ]                |
| 5-<br>828-<br>156 | Network Setting | IPv6 Manual Address             | CTL* | [ 0 to 0 / 0 / 0 ]                |
| 5-<br>828-<br>158 | Network Setting | IPv6 Gateway Address            | CTL* | [ 0 to 0 / 0 / 0 ]                |
| 5-<br>828-<br>161 | Network Setting | IPv6 Stateless Auto Setting     | CTL* | [ 0 to 1 / 1 / 1 ]                |
| 5-<br>828-<br>219 | Network Setting | IPsec Aggressive Mode Setting   | CTL  | [ 0 to 1 / 0 / 1 ]                |
| 5-<br>828-<br>236 | Network Setting | Web Item visible                | CTL* | [ 0x0000 to 0xffff / 0xffff / 1 ] |
| 5-<br>828-<br>237 | Network Setting | Web shopping link visible       | CTL* | [ 0 to 1 / 1 / 1 ]                |
| 5-<br>828-<br>238 | Network Setting | Web Supplies Link visible       | CTL* | [ 0 to 1 / 1 / 1 ]                |
| 5-<br>828-<br>239 | Network Setting | Web Link1 Name                  | CTL* | [ 0 to 0 / 0 / 0 ]                |
| 5-<br>828-<br>240 | Network Setting | Web Link1 URL                   | CTL* | [ 0 to 0 / 0 / 0 ]                |
| 5-<br>828-<br>241 | Network Setting | Web Link1 visible               | CTL* | [ 0 to 1 / 1 / 1 ]                |
| 5-<br>828-<br>242 | Network Setting | Web Link2 Name                  | CTL* | [ 0 to 0 / 0 / 0 ]                |
| 5-                | Network Setting | Web Link2 URL                   | CTL* | [ 0 to 0 / 0 / 0 ]                |

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|           |                 |                                    |      |                    |
|-----------|-----------------|------------------------------------|------|--------------------|
| 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 ] |

## 3.SP Mode Tables

|                   |                 |                                      |      |   |
|-------------------|-----------------|--------------------------------------|------|---|
| 5-<br>832-<br>011 | HDD             | HDD Formatting (Ridoc I/F)           | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>832-<br>012 | HDD             | HDD Formatting (Thumbnail)           | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>836-<br>001 | Capture Setting | Capture Function (0:Off 1:On)        | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>836-<br>011 | Capture Setting | Capture Setting: Copy                | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>836-<br>012 | Capture Setting | Capture Setting: Doc. Svr.           | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>836-<br>013 | Capture Setting | Capture Setting: Fax RX Printer      | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>836-<br>014 | Capture Setting | Capture Setting: Fax TX              | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>836-<br>015 | Capture Setting | Capture Setting: Printer             | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>836-<br>016 | Capture Setting | Capture Setting: Scanner             | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>836-<br>017 | Capture Setting | Capture Setting: SDK                 | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>836-<br>061 | Capture Setting | Captured File Resend (0:Off<br>1:On) | CTL* | [ 0 to 1 / 1 / 1 ]  |
| 5-<br>836-<br>071 | Capture Setting | Reduction for Copy Color             | CTL* | [ 0 to 3 / 2 / 1 ]<br>0: 1to-1, 1: 1/2, 2: 1/3, 3:<br>1/4         |
| 5-<br>836-<br>072 | Capture Setting | Reduction for Copy B&W Text          | CTL* | [ 0 to 6 / 0 / 1 ]<br>0: 1to-1, 1: 1/2, 2: 1/3, 3:<br>1/4, 6: 2/3 |

3.SP Mode Tables

|                   |                 |  |      |   |
|-------------------|-----------------|--|------|---|
| 5-<br>836-<br>073 | Capture Setting | Reduction for Copy B&W<br>Other        | CTL* | [ 0 to 6 / 0 / 1 ]<br>0: 1to-1, 1: 1/2, 2: 1/3, 3:<br>1/4, 6: 2/3             |
| 5-<br>836-<br>074 | Capture Setting | Reduction for Printer Color            | CTL* | [ 0 to 3 / 2 / 1 ]<br>0: 1to-1, 1: 1/2, 2: 1/3, 3:<br>1/4                     |
| 5-<br>836-<br>075 | Capture Setting | Reduction for Printer B&W              | CTL* | [ 0 to 6 / 0 / 1 ]<br>0: 1to-1, 1: 1/2, 2: 1/3, 3:<br>1/4, 6: 2/3             |
| 5-<br>836-<br>077 | Capture Setting | Reduction for Printer Color<br>1200dpi | CTL* | [ 1 to 5 / 4 / 1 ]<br>1: 1/2, 3: 1/4, 4: 1/6, 5:<br>1/8, 6: 2/3               |
| 5-<br>836-<br>078 | Capture Setting | Reduction for Printer B&W<br>1200dpi   | CTL* | [ 1 to 5 / 1 / 1 ]<br>1: 1/2, 3: 1/4, 4: 1/6, 5:<br>1/8, 6: 2/3               |
| 5-<br>836-<br>081 | Capture Setting | Format for Copy Color                  | CTL* | [ 0 to 0 / 0 / 1 ]  |
| 5-<br>836-<br>082 | Capture Setting | Format for Copy B&W Text               | CTL* | [ 0 to 3 / 1 / 1 ]<br>0: JFIF/JPEG, 1:<br>TIFF/MMR, 2:<br>TIFF/MH, 3: TIFF/MR |
| 5-<br>836-<br>083 | Capture Setting | Format for Copy B&W Other              | CTL* | [ 0 to 3 / 1 / 1 ]<br>0: JFIF/JPEG, 1:<br>TIFF/MMR, 2:<br>TIFF/MH, 3: TIFF/MR |
| 5-<br>836-<br>084 | Capture Setting | Format for Printer Color               | CTL* | [ 0 to 0 / 0 / 1 ]  |
| 5-<br>836-<br>085 | Capture Setting | Format for Printer B&W                 | CTL* | [ 0 to 3 / 1 / 1 ]<br>0: JFIF/JPEG, 1:<br>TIFF/MMR, 2:<br>TIFF/MH, 3: TIFF/MR |
| 5-<br>836-<br>091 | Capture Setting | Default for JPEG                       | CTL* | [ 5 to 95 / 50 / 1 ]  |
| 5-<br>836-<br>101 | Capture Setting | Primary srv IP address                 | CTL* | [ 0 to 0xffffffff / 0x00 /<br>0 ]   |



## 3.SP Mode Tables

|                   |                 |                           |      |  |
|-------------------|-----------------|---------------------------|------|--|
| 5-<br>836-<br>102 | Capture Setting | Primary srv scheme        | CTL* | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>836-<br>103 | Capture Setting | Primary srv port number   | CTL* | [ 1 to 65535 / 80 / 1 ]  |
| 5-<br>836-<br>104 | Capture Setting | Primary srv URL path      | CTL* | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>836-<br>111 | Capture Setting | Secondary srv IP address  | CTL* | [ 0 to 0xffffffff / 0x00 / 0 ]   |
| 5-<br>836-<br>112 | Capture Setting | Secondary srv scheme      | CTL* | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>836-<br>113 | Capture Setting | Secondary srv port number | CTL* | [ 1 to 65535 / 80 / 1 ]  |
| 5-<br>836-<br>114 | Capture Setting | Secondary srv URL path    | CTL* | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>836-<br>120 | Capture Setting | Default Reso Rate Switch  | CTL* | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>836-<br>121 | Capture Setting | Reso: Copy(Color)         | CTL* | [ 0 to 255 / 2 / 1 ]<br>0: 600dpi/ 1: 300dpi/ 2:<br>150dpi/ 3: 75dpi                           |
| 5-<br>836-<br>122 | Capture Setting | Reso: Copy(Mono)          | CTL* | [ 0 to 255 / 3 / 1 ]<br>0: 600dpi/ 1: 400dpi/ 2:<br>300dpi/ 3: 200dpi/ 4:<br>150dpi/ 5: 100dpi |
| 5-<br>836-<br>123 | Capture Setting | Reso: Print(Color)        | CTL* | [ 0 to 255 / 2 / 1 ]<br>0: 600dpi/ 1: 300dpi/ 2:<br>150dpi/ 3: 75dpi                           |
| 5-<br>836-<br>124 | Capture Setting | Reso: Print(Mono)         | CTL* | [ 0 to 255 / 3 / 1 ]<br>0: 600dpi/ 1: 400dpi/ 2:<br>300dpi/ 3: 200dpi/ 4:<br>150dpi/ 5: 100dpi |
| 5-                | Capture Setting | Reso: Fax(Color)          | CTL* | [ 0 to 255 / 4 / 1 ]   |

### 3.SP Mode Tables

|           |                 |                         |      |  |
|-----------|-----------------|-------------------------|------|--|
| 836-125   |                 |                         |      |  |
| 5-836-126 | Capture Setting | Reso: Fax(Mono)         | CTL* | [ 0 to 255 / 3 / 1 ]<br>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 ]<br>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 ]<br>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 /  |

## 3.SP Mode Tables

|           |                     |                             |      |   |
|-----------|---------------------|-----------------------------|------|---|
| 840-011   |                     |                             |      | 0 ]   |
| 5-840-045 | IEEE 802.11         | WPA Debug Lvl               | CTL* | [ 1 to 3 / 3 / 1 ]<br>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 ]<br>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 ]                         |

### 3.SP Mode Tables

|                   |                         |                             |      |  |
|-------------------|-------------------------|-----------------------------|------|--|
| 5-<br>844-<br>004 | USB                     | Device Release Number       | CTL* | [ 0 to 9999 / 100 / 1 ]  |
| 5-<br>844-<br>005 | USB                     | Fixed USB Port              | CTL* | [ 0 to 2 / 0 / 1 ]   |
| 5-<br>844-<br>006 | USB                     | PnP Model Name              | CTL* | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>844-<br>007 | USB                     | PnP Serial Number           | CTL* | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>844-<br>008 | USB                     | Mac Supply Level            | CTL* | [ 0 to 1 / 1 / 1 ]   |
| 5-<br>844-<br>009 | USB                     | USB Toggle Clear Mode       | CTL* | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>844-<br>100 | USB                     | Notify Unsupport            | CTL* | [ 0 to 1 / 1 / 1 ]   |
| 5-<br>845-<br>001 | Delivery Server Setting | FTP Port No.                | CTL* | [ 1 to 65535 / 3670 / 1 ]  |
| 5-<br>845-<br>002 | Delivery Server Setting | IP Address (Primary)        | CTL* | [ 0 to 0xffffffff / 0x00 / 0 ]   |
| 5-<br>845-<br>006 | Delivery Server Setting | Delivery Error Display Time | CTL* | [ 0 to 999 / 300 / 1sec ]  |
| 5-<br>845-<br>008 | Delivery Server Setting | IP Address (Secondary)      | CTL* | [ 0 to 0xffffffff / 0x00 / 0 ]   |
| 5-<br>845-<br>009 | Delivery Server Setting | Delivery Server Model       | CTL* | [ 0 to 4 / 0 / 1 ]<br>0: Unknown<br>1: SG1 Provided<br>2: SG1 Package<br>3: SG2 Provided<br>4: SG2 Package |

|                   |                         |   |      |   |
|-------------------|-------------------------|---|------|---|
| 5-<br>845-<br>010 | Delivery Server Setting | Delivery Svr. Capability                  | CTL* | [ 0 to 255 / 0 / 1 ]                        |
| 5-<br>845-<br>011 | Delivery Server Setting | Delivery Svr. Capability (Ext)            | CTL* | [ 0 to 255 / 0 / 1 ]                        |
| 5-<br>845-<br>013 | Delivery Server Setting | Server Scheme(Primary)                    | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>845-<br>014 | Delivery Server Setting | Server Port Number(Primary)               | CTL* | [ 1 to 65535 / 80 / 1 ]                     |
| 5-<br>845-<br>015 | Delivery Server Setting | Server URL Path(Primary)                  | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>845-<br>016 | Delivery Server Setting | Server Scheme(Secondary)                  | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>845-<br>017 | Delivery Server Setting | Server Port<br>Number(Secondary)          | CTL* | [ 1 to 65535 / 80 / 1 ]                     |
| 5-<br>845-<br>018 | Delivery Server Setting | Server URL Path(Secondary)                | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>845-<br>022 | Delivery Server Setting | Rapid Sending Control                     | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: Disable, 1: Enable |
| 5-<br>846-<br>001 | UCS Setting             | Machine ID (for Delivery<br>Server)       | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>846-<br>002 | UCS Setting             | Machine ID Clear (for Delivery<br>Server) | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>846-<br>003 | UCS Setting             | Maximum Entries                           | CTL* | [ 2000 to 20000 / 2000 /<br>1 ]             |
| 5-<br>846-<br>006 | UCS Setting             | Delivery Server Retry Timer               | CTL* | [ 0 to 255 / 0 / 1 ]                        |

### 3.SP Mode Tables

|                   |             |                                 |      |   |
|-------------------|-------------|---------------------------------|------|---|
| 5-<br>846-<br>007 | UCS Setting | Delivery Server Retry Times     | CTL* | [ 0 to 255 / 0 / 1 ]  |
| 5-<br>846-<br>008 | UCS Setting | Delivery Server Maximum Entries | CTL* | [ 2000 to 20000 / 2000 / 1 ]  |
| 5-<br>846-<br>010 | UCS Setting | LDAP Search Timeout             | CTL* | [ 1 to 255 / 60 / 1 ]   |
| 5-<br>846-<br>020 | UCS Setting | WSD Maximum Entries             | CTL* | [ 50 to 250 / 250 / 1 ]   |
| 5-<br>846-<br>021 | UCS Setting | Folder Auth Change              | CTL* | [ 0 to 1 / 0 / 1 ]  |
| 5-<br>846-<br>040 | UCS Setting | Addr Book Migration(USB->HDD)   | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>846-<br>041 | UCS Setting | Fill Addr Acl Info              | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>846-<br>043 | UCS Setting | Addr Book Media                 | CTL* | [ 0 to 30 / 0 / 1 ]<br>0: Unconfirmed<br>1: SD Slot 1<br>2: SD Slot 2<br>4: USB Flash ROM<br>10: SD Slot 10<br>20: HDD<br>30: Nothing |
| 5-<br>846-<br>047 | UCS Setting | Initialize Local Addr Book      | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>846-<br>048 | UCS Setting | Initialize Delivery Addr Book   | CTL  | [ 0 to 0 / 0 / 0 ]  |
| 5-<br>846-<br>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 ]<br>0: 1x 1: 1/2x 2:<br>1/3x 3: 1/4x 4:<br>1/6x 5: 1/8x |
| 5-847-002 | Rep Resolution Reduction | Rate for Copy B&W Text | CTL* | [ 0 to 6 / 0 / 1 ]<br>0: 1x 1: 1/2x 2:<br>1/3x 3: 1/4x 4:                 |

3.SP Mode Tables

|                   |                          |   |      |   |
|-------------------|--------------------------|---|------|---|
|                   |                          |   |      | 1/6x 5: 1/8x 6: 2/3x  |
| 5-<br>847-<br>003 | Rep Resolution Reduction | Rate for Copy B&W Other                     | CTL* | [ 0 to 6 / 0 / 1 ]<br>0: 1x 1: 1/2x 2:<br>1/3x 3: 1/4x 4:<br>1/6x 5: 1/8x 6: 2/3x |
| 5-<br>847-<br>004 | Rep Resolution Reduction | Rate for Printer Color                      | CTL* | [ 0 to 5 / 2 / 1 ]<br>0: 1x 1: 1/2x 2:<br>1/3x 3: 1/4x 4:<br>1/6x 5: 1/8x         |
| 5-<br>847-<br>005 | Rep Resolution Reduction | Rate for Printer B&W                        | CTL* | [ 0 to 6 / 0 / 1 ]<br>0: 1x 1: 1/2x 2:<br>1/3x 3: 1/4x 4:<br>1/6x 5: 1/8x 6: 2/3x |
| 5-<br>847-<br>006 | Rep Resolution Reduction | Rate for Printer Color 1200dpi              | CTL* | [ 0 to 5 / 4 / 1 ]<br>0: 1x 1: 1/2x 2:<br>1/3x 3: 1/4x 4:<br>1/6x 5: 1/8x         |
| 5-<br>847-<br>007 | Rep Resolution Reduction | Rate for Printer B&W 1200dpi                | CTL* | [ 0 to 6 / 1 / 1 ]<br>0: 1x 1: 1/2x 2:<br>1/3x 3: 1/4x 4:<br>1/6x 5: 1/8x 6: 2/3x |
| 5-<br>847-<br>021 | Rep Resolution Reduction | Network Quality Default for<br>JPEG         | CTL* | [ 5 to 95 / 50 / 1 ]  |
| 5-<br>848-<br>002 | Web Service              | Access Ctrl:<br>Repository(onlyLower4bits)  | CTL* | [ 0x00 to 0xFF / 0x02 /<br>0 ]  |
| 5-<br>848-<br>003 | Web Service              | Access Ctrl: Doc.Svr.Print<br>(Lower 4bits) | CTL* | [ 0x00 to 0xFF / 0x00 /<br>0 ]  |
| 5-<br>848-<br>004 | Web Service              | Access Ctrl: uirectory (Lower<br>4bits)     | CTL* | [ 0x00 to 0xFF / 0x00 /<br>0 ]  |
| 5-<br>848-<br>007 | Web Service              | Access Ctrl: Comm. Log<br>Fax(Lower 4bits)  | CTL* | [ 0x00 to 0xFF / 0x00 /<br>0 ]  |
| 5-<br>848-<br>009 | Web Service              | Access Ctrl: Job Ctrl (Lower<br>4bits)      | CTL* | [ 0x00 to 0xFF / 0x00 /<br>0 ]  |



## 3.SP Mode Tables

|                   |                   |  |      |                                     |
|-------------------|-------------------|--|------|-------------------------------------|
| 5-<br>848-<br>011 | Web Service       | Access Ctrl:<br>Devicemanagement(Lower<br>4bits) | CTL* | [ 0x00 to 0xFF / 0x00 /<br>0 ]      |
| 5-<br>848-<br>021 | Web Service       | Access Ctrl: Delivery (Lower<br>4bits)           | CTL* | [ 0x00 to 0xFF / 0x00 /<br>0 ]      |
| 5-<br>848-<br>022 | Web Service       | Access Ctrl: uadministration<br>(Lower 4bits)    | CTL* | [ 0x00 to 0xFF / 0x00 /<br>0 ]      |
| 5-<br>848-<br>024 | Web Service       | Access Ctrl: Log Service<br>(Lower 4bits)        | CTL* | [ 0x00 to 0xFF / 0x00 /<br>0 ]      |
| 5-<br>848-<br>025 | Web Service       | Access Ctrl: Rest WebService<br>(Lower 4bits)    | CTL* | [ 0x00 to 0xFF / 0x00 /<br>0 ]      |
| 5-<br>848-<br>099 | Web Service       | Repository: Download Image<br>Setting            | CTL* | [ 0x00 to 0xFF / 0x00 /<br>1 ]      |
| 5-<br>848-<br>100 | Web Service       | Repository: Download Image<br>Max. Size          | CTL* | [ 1 to 2048 / 2048 / 1 ]            |
| 5-<br>848-<br>150 | Web Service       | Log Operation Mode                               | CTL* | [ 0 to 9 / 0 / 1 ]                  |
| 5-<br>848-<br>217 | LogTrans          | Setting: Timing                                  | CTL* | [ 0 to 2 / 0 / 1 ]                  |
| 5-<br>849-<br>001 | Installation Date | Display  | CTL* | [ 0 to 0 / 0 / 0 ]                  |
| 5-<br>849-<br>002 | Installation Date | Switch to Print                                  | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: OFF, 1: ON |
| 5-<br>849-<br>003 | Installation Date | Total Counter                                    | CTL* | [ 0 to 99999999 / 0 / 1 ]           |
| 5-<br>851-<br>001 | Bluetooth         | Mode   | CTL* | [ 0x00 to 0x01 / 0x00 /<br>1 ]      |

### 3.SP Mode Tables

|                   |                      |                                    |      |   |
|-------------------|----------------------|------------------------------------|------|---|
| 5-<br>853-<br>001 | Stamp Data Download  |                                    | CTL* | [ 0 to 0 / 0 / 0 ]                          |
| 5-<br>856-<br>002 | Remote ROM Update    | Local Port                         | CTL  | [ 0 to 1 / 0 / 1 ]<br>0: Disable, 1: Enable |
| 5-<br>858-<br>001 | Collect Machine Info | 0:OFF 1:ON                         | CTL* | [ 0 to 1 / 1 / 1 ]                          |
| 5-<br>858-<br>002 | Collect Machine Info | Save To (0:HDD 1:SD)               | CTL* | [ 0 to 1 / 0 / 1 ]                          |
| 5-<br>858-<br>003 | Collect Machine Info | Make Log Trace Dir                 | CTL* | [ 0 to 1 / 0 / 0 ]                          |
| 5-<br>858-<br>101 | Collect Machine Info | Failure Occuring Date              | CTL* | [ 0 to 20371212 / 0 / 1 ]                   |
| 5-<br>858-<br>102 | Collect Machine Info | Tracing Days                       | CTL* | [ 1 to 180 / 2 / 1day ]                     |
| 5-<br>858-<br>103 | Collect Machine Info | Acquire Fax Address(0:OFF<br>1:ON) | CTL* | [ 0 to 1 / 0 / 1 ]                          |
| 5-<br>858-<br>111 | Collect Machine Info | Acquire All Info & Logs            | CTL* | [ 0 to 1 / 0 / 0 ]                          |
| 5-<br>858-<br>121 | Collect Machine Info | Acquire Configuration Page         | CTL* | [ 0 to 1 / 0 / 0 ]                          |
| 5-<br>858-<br>122 | Collect Machine Info | Acquire Font Page                  | CTL* | [ 0 to 1 / 0 / 0 ]                          |
| 5-<br>858-<br>123 | Collect Machine Info | Acquire Print Setting List         | CTL* | [ 0 to 1 / 0 / 0 ]                          |
| 5-<br>858-<br>124 | Collect Machine Info | Acquire Error Log                  | CTL* | [ 0 to 1 / 0 / 0 ]                          |

## 3.SP Mode Tables

|                   |                      |                                    |      |  |
|-------------------|----------------------|------------------------------------|------|--|
| 5-<br>858-<br>131 | Collect Machine Info | Acquire Fax Info                   | CTL* | [ 0 to 1 / 0 / 0 ]   |
| 5-<br>858-<br>141 | Collect Machine Info | Acquire All Debug Logs             | CTL* | [ 0 to 1 / 0 / 0 ]   |
| 5-<br>858-<br>142 | Collect Machine Info | Acquire Controller Debug Logs Only | CTL* | [ 0 to 1 / 0 / 0 ]   |
| 5-<br>858-<br>143 | Collect Machine Info | Acquire Engine Debug Logs Only     | CTL* | [ 0 to 1 / 0 / 0 ]   |
| 5-<br>858-<br>144 | Collect Machine Info | Acquire Opepanel Debug Logs Only   | CTL* | [ 0 to 1 / 0 / 0 ]   |
| 5-<br>858-<br>145 | Collect Machine Info | Acquire FCU Debug Logs Only        | CTL* | [ 0 to 1 / 0 / 0 ]   |
| 5-<br>858-<br>146 | Collect Machine Info | Acquire Only Network Packets       | CTL* | [ 0 to 1 / 0 / 0 ]   |
| 5-<br>860-<br>020 | SMTP/POP3/IMAP4      | Partial Mail Receive Timeout       | CTL* | [ 1 to 168 / 72 / 1hour ]  |
| 5-<br>860-<br>021 | SMTP/POP3/IMAP4      | MDN Response RFC2298 Compliance    | CTL* | [ 0 to 1 / 1 / 1 ]<br>0: No, 1: Yes  |
| 5-<br>860-<br>022 | SMTP/POP3/IMAP4      | SMTP Auth. From Field Replacement  | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: No, 1: Yes  |
| 5-<br>860-<br>025 | SMTP/POP3/IMAP4      | SMTP Auth. Direct Setting          | CTL* | [ 0 to 0xff / 0x0 / 1 ]  |
| 5-<br>860-<br>026 | SMTP/POP3/IMAP4      | S/MIME:MIME Header Setting         | CTL* | [ 0 to 2 / 0 / 1 ]<br>0: Microsoft Outlook Express standard<br>1: Internet Draft standard<br>2: RFC standard |
| 5-                | SMTP/POP3/IMAP4      | S/MIME: Authentication Check       | CTL* | [ 0 to 1 / 0 / 1 ]   |

3.SP Mode Tables

|           |                        |  |     |                       |
|-----------|------------------------|--|-----|-----------------------|
| 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 ]    |

## 3.SP Mode Tables

|                   |                            |                         |      |  |
|-------------------|----------------------------|-------------------------|------|--|
| 5-<br>870-<br>003 | Common KeyInfo Writing     | Initialize              | CTL  | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>870-<br>004 | Common Key Info Writing    | Writing: 2048bit        | CTL  | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>873-<br>001 | SDCardAppliMove            | MoveExec                | CTL  | [ 0 to 0 / 0 / 1 ]   |
| 5-<br>873-<br>002 | SDCardAppliMove            | UndoExec                | CTL  | [ 0 to 0 / 0 / 1 ]   |
| 5-<br>875-<br>001 | SC Auto Reboot             | Reboot Setting          | CTL* | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>875-<br>002 | SC Auto Reboot             | Reboot Type             | CTL* | [ 0 to 1 / 0 / 1 ]<br>0: Manual reboot, 1:<br>Automatic reboot |
| 5-<br>878-<br>001 | Option Setup               | Data Overwrite Security | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>878-<br>002 | Option Setup               | HDD Encryption          | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>878-<br>004 | Option Setup               | OCR Dictionary          | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>881-<br>001 | Fixed Phrase Block Erasing |                         | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>885-<br>020 | Set WIM Function           | DocSvr Acc Ctrl         | CTL  | [ 0x00 to 0xFF / 0x00 /<br>0 ]                                 |
| 5-<br>885-<br>050 | Set WIM Function           | DocSvr Format           | CTL  | [ 0 to 2 / 0 / 1 ]   |
| 5-<br>885-<br>051 | Set WIM Function           | DocSvr Trans            | CTL* | [ 5 to 20 / 10 / 1 ]   |

### 3.SP Mode Tables

|                   |                     |                                   |      |                             |
|-------------------|---------------------|-----------------------------------|------|-----------------------------|
| 5-<br>885-<br>100 | Set WIM Function    | Set Signature                     | CTL* | [ 0 to 2 / 0 / 1 ]          |
| 5-<br>885-<br>101 | Set WIM Function    | Set Encrypsion                    | CTL* | [ 0 to 1 / 0 / 1 ]          |
| 5-<br>885-<br>200 | Set WIM Function    | Detect Mem Leak                   | CTL* | [ 0x00 to 0xFF / 0x00 / 0 ] |
| 5-<br>885-<br>201 | Set WIM Function    | DocSvr Timeout                    | CTL* | [ 1 to 30 / 30 / 1 ]        |
| 5-<br>886-<br>100 | Farm Update Setting | Skip Version Check                | CTL* | [ 0 to 1 / 0 / 1 ]          |
| 5-<br>886-<br>101 | Farm Update Setting | Skip LR Check                     | CTL* | [ 0 to 1 / 0 / 1 ]          |
| 5-<br>886-<br>111 | Farm Update Setting | Auto Update Setting               | CTL* | [ 0 to 1 / 0 / 1 ]          |
| 5-<br>886-<br>112 | Farm Update Setting | Auto Update Prohibit Term Setting | CTL* | [ 0 to 1 / 1 / 1 ]          |
| 5-<br>886-<br>113 | Farm Update Setting | Auto Update Prohibit Start hour   | CTL* | [ 0 to 23 / 9 / 1hour ]     |
| 5-<br>886-<br>114 | Farm Update Setting | Auto Update Prohibit End hour     | CTL* | [ 0 to 23 / 17 / 1hour ]    |
| 5-<br>886-<br>115 | Farm Update Setting | SFU Auto Download Setting         | CTL* | [ 0 to 1 / 0 / 1 ]          |
| 5-<br>886-<br>116 | Farm Update Setting | Auto Update Next Date             | CTL* | [ 0 to 0 / 0 / 0 ]          |
| 5-<br>886-<br>117 | Farm Update Setting | Auto Update Retry Interval Hour   | CTL* | [ 1 to 24 / 1 / 1hour ]     |

|                   |                              |  |      |                      |
|-------------------|------------------------------|--|------|----------------------|
| 5-<br>886-<br>119 | Farm Update Setting          | Auto Update @Remote Using Setting        | CTL* | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>886-<br>120 | Farm Update Setting          | Auto Update Prohibit Day of Week Setting | CTL* | [ 0 to 255 / 0 / 1 ] |
| 5-<br>886-<br>201 | Farm Update Setting          | Restore Date                             | CTL* | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>886-<br>202 | Farm Update Setting          | Save Old Version List                    | CTL* | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>887-<br>001 | SD GetCounter                |  | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>888-<br>001 | Personal Information Protect |  | CTL* | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>893-<br>001 | SDK Application Counter      | SDK-1                                    | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>002 | SDK Application Counter      | SDK-2                                    | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>003 | SDK Application Counter      | SDK-3                                    | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>004 | SDK Application Counter      | SDK-4                                    | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>005 | SDK Application Counter      | SDK-5                                    | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>006 | SDK Application Counter      | SDK-6                                    | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>007 | SDK Application Counter      | SDK-7                                    | CTL  | [ 0 to 0 / 0 / 0 ]   |

### 3.SP Mode Tables

|                   |                              |                         |      |                      |
|-------------------|------------------------------|-------------------------|------|----------------------|
| 5-<br>893-<br>008 | SDK Application Counter      | SDK-8                   | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>009 | SDK Application Counter      | SDK-9                   | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>010 | SDK Application Counter      | SDK-10                  | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>011 | SDK Application Counter      | SDK-11                  | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>893-<br>012 | SDK Application Counter      | SDK-12                  | CTL  | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>895-<br>001 | Application invalidation     | Printer                 | CTL* | [ 0 to 1 / 0 / 0 ]   |
| 5-<br>895-<br>002 | Application invalidation     | Scanner                 | CTL* | [ 0 to 1 / 0 / 0 ]   |
| 5-<br>907-<br>001 | Plug & Play Maker/Model Name |                         | CTL* | [ 0 to 255 / 0 / 1 ] |
| 5-<br>913-<br>002 | Switchover Permission Time   | Print Application Timer | CTL* | [ 0 to 30 / 3 / 1 ]  |
| 5-<br>967-<br>001 | Copy Server : Set Function   | (0:ON 1:OFF)            | CTL* | [ 0 to 1 / 0 / 1 ]   |
| 5-<br>973-<br>101 | User Stamp Registration      | Frame deletion setting  | CTL* | [ 0 to 3 / 0 / 1 ]   |
| 5-<br>985-<br>001 | Device Setting               | On Board NIC            | CTL  | [ 0 to 2 / 0 / 1 ]   |
| 5-<br>985-<br>002 | Device Setting               | On Board USB            | CTL  | [ 0 to 1 / 0 / 1 ]   |



## 3.SP Mode Tables

|                   |               |                        |     |                      |
|-------------------|---------------|------------------------|-----|----------------------|
| 5-<br>990-<br>001 | SP Print Mode | All (Data List)        | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>002 | SP Print Mode | SP (Mode Data List)    | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>003 | SP Print Mode | User Program           | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>004 | SP Print Mode | Logging Data           | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>005 | SP Print Mode | Diagnostic Report      | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>006 | SP Print Mode | Non-Default            | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>007 | SP Print Mode | NIB Summary            | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>990-<br>008 | SP Print Mode | Capture Log            | CTL | [ 0 to 255 / 0 / 1 ] |
| 5-<br>990-<br>021 | SMC Print     | Copier User Program    | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>990-<br>022 | SP Print Mode | Scanner SP             | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>023 | SP Print Mode | Scanner User Program   | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>024 | SP Print Mode | SDK/J Summary          | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>990-<br>025 | SP Print Mode | SDK/J Application Info | CTL | [ 0 to 0 / 0 / 0 ]   |

### 3.SP Mode Tables

|                   |               |                        |     |                      |
|-------------------|---------------|------------------------|-----|----------------------|
| 5-<br>990-<br>026 | SP Print Mode | Printer SP             | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>027 | SP Print Mode | SmartOperationPanel SP | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>990-<br>028 | SP Print Mode | SmartOperationPanel UP | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>992-<br>001 | SP Text Mode  | All (Data List)        | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>002 | SP Text Mode  | SP (Mode Data List)    | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>003 | SP Text Mode  | User Program           | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>004 | SP Text Mode  | Logging Data           | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>005 | SP Text Mode  | Diagnostic Report      | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>006 | SP Text Mode  | Non-Default            | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>007 | SP Text Mode  | NIB Summary            | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>008 | SP Text Mode  | Capture Log            | CTL | [ 0 to 255 / 0 / 1 ] |
| 5-<br>992-<br>021 | SP Text Mode  | Copier User Program    | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>022 | SP Text Mode  | Scanner SP             | CTL | [ 0 to 0 / 0 / 0 ]   |

## 3.SP Mode Tables

|                   |              |                        |     |                      |
|-------------------|--------------|------------------------|-----|----------------------|
| 5-<br>992-<br>023 | SP Text Mode | Scanner User Program   | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>024 | SP Text Mode | SDK/J Summary          | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>025 | SP Text Mode | SDK/J Application Info | CTL | [ 0 to 0 / 0 / 0 ]   |
| 5-<br>992-<br>026 | SP Text Mode | Printer SP             | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>992-<br>027 | SP Text Mode | SmartOperationPanel SP | CTL | [ 0 to 255 / 0 / 0 ] |
| 5-<br>992-<br>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**

|             |   |     |                              |
|-------------|---|-----|------------------------------|
| <b>6800</b> | <b>[Sheet Conversion (Thick Paper)]</b> |     |                              |
|             | <b>Not used</b>                         |     |                              |
| 6-800-001   | 1 to 3 (Initial: 3 Sheets)              | CTL | [1 to 3 / <b>3</b> / 1/step] |

|             |   |     |                              |
|-------------|---|-----|------------------------------|
| <b>6810</b> | <b>[Ring Bind Sheet Conversion (Thick Paper)]</b> |     |                              |
|             | <b>Not used</b>                                   |     |                              |
| 6-810-001   | -   | CTL | [1 to 3 / <b>3</b> / 1/step] |

|             |                                   |      |                               |
|-------------|-----------------------------------|------|-------------------------------|
| <b>6830</b> | <b>[Extra]</b>                    |      |                               |
|             | <b>Not used</b>                   |      |                               |
| 6-830-001   | Staples 0 to 50 (Initial: 0)      | *CTL | [0 to 50 / <b>0</b> / 1/step] |
| 6-830-002   | Saddles 0 to 50 (Initial: 0)      | *CTL | [0 to 50 / <b>0</b> / 1/step] |
| 6-830-003   | Half-Fold 0 to 50 (Initial: 0)    | *CTL | [0 to 50 / <b>0</b> / 1/step] |
| 6-830-004   | Ring Binding 0 to 50 (Initial: 0) | *CTL | [0 to 50 / <b>0</b> / 1/step] |

|             |                                      |      |                              |
|-------------|--------------------------------------|------|------------------------------|
| <b>6890</b> | <b>[Function Enabled]</b>            |      |                              |
|             | <b>Not used</b>                      |      |                              |
| 6-890-001   | Z-Fold<br>0: No Punch 1: Punching OK | *CTL | [0 or 1 / <b>1</b> / 1/step] |
| 6-890-002   | Staple<br>0: No Shift 1: Shift OK    | *CTL | [0 or 1 / <b>0</b> / 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:<br>Pages | # PCU:Bk                 | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-003 | PM Counter Display:<br>Pages | # Dev Unit:Bk            | ENG*       | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-025 | PM Counter Display:<br>Pages | # PCU:C                  | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-026 | PM Counter Display:<br>Pages | # Dev Unit:C             | ENG*       | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-048 | PM Counter Display:<br>Pages | # PCU:M                  | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-049 | PM Counter Display:<br>Pages | # Dev Unit:M             | ENG*       | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-071 | PM Counter Display:<br>Pages | # PCU:Y                  | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-072 | PM Counter Display:<br>Pages | # Dev Unit:Y             | ENG*       | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-093 | PM Counter Display:<br>Pages | # ITB Unit               | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-102 | PM Counter Display:<br>Pages | # ITB Cleaning Unit      | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-109 | PM Counter Display:<br>Pages | # PTR Unit               | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-115 | PM Counter Display:<br>Pages | # Fusing Unit            | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-116 | PM Counter Display:<br>Pages | Fusing Sleeve            | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-118 | PM Counter Display:<br>Pages | Pressure Roller          | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-142 | PM Counter Display:<br>Pages | #Waste Toner bottle      | ENG        | [ 0 to 999999999 / 0 /<br>1mg ]  |
| 7-621-145 | PM Counter Display:<br>Pages | Tray1 Roller Assembly    | ENG        | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-    | PM Counter Display:          | #Paper Feed Roller:Tray1 | ENG        | [ 0 to 99999999 / 0 /            |

## 3.SP Mode Tables

|           |                              |                     |     |                                  |
|-----------|------------------------------|---------------------|-----|----------------------------------|
| 147       | Pages                        |                     |     | 1page ]                          |
| 7-621-148 | PM Counter Display:<br>Pages | #Friction Pad:Tray1 | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-169 | PM Counter Display:<br>Pages | #Feed Roller:Bypass | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-206 | PM Counter Display:<br>Pages | DF Friction Pad     | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-207 | PM Counter Display:<br>Pages | DF Pickup Roller    | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-621-208 | PM Counter Display:<br>Pages | DF Feed Roller      | ENG | [ 0 to 99999999 / 0 /<br>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 ]               |

3.SP Mode Tables

|           |                              |                             |     |                               |
|-----------|------------------------------|-----------------------------|-----|-------------------------------|
| 118       |                              |                             |     |                               |
| 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 /         |



## 3.SP Mode Tables

|           |                              |                          |     |                                    |
|-----------|------------------------------|--------------------------|-----|------------------------------------|
| 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 /              |

3.SP Mode Tables

|           |                                 |                          |     |                                  |
|-----------|---------------------------------|--------------------------|-----|----------------------------------|
| 026       | Pages                           |                          |     | 1page ]                          |
| 7-625-048 | Previous Unit Counter:<br>Pages | # PCU:M                  | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-049 | Previous Unit Counter:<br>Pages | # Dev Unit:M             | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-071 | Previous Unit Counter:<br>Pages | # PCU:Y                  | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-072 | Previous Unit Counter:<br>Pages | # Dev Unit:Y             | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-093 | Previous Unit Counter:<br>Pages | # ITB Unit               | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-102 | Previous Unit Counter:<br>Pages | # ITB Cleaning Unit      | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-109 | Previous Unit Counter:<br>Pages | # PTR Unit               | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-115 | Previous Unit Counter:<br>Pages | # Fusing Unit            | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-116 | Previous Unit Counter:<br>Pages | Fusing Sleeve            | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-118 | Previous Unit Counter:<br>Pages | Pressure Roller          | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-142 | Previous Unit Counter:<br>Pages | #Waste Toner bottle      | ENG | [ 0 to 999999999 / 0 /<br>1mg ]  |
| 7-625-145 | Previous Unit Counter:<br>Pages | Tray1 Roller Assembly    | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-147 | Previous Unit Counter:<br>Pages | #Paper Feed Roller:Tray1 | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-148 | Previous Unit Counter:<br>Pages | #Friction Pad:Tray1      | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-169 | Previous Unit Counter:<br>Pages | #Feed Roller:Bypass      | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-206 | Previous Unit Counter:<br>Pages | DF Friction Pad          | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-207 | Previous Unit Counter:<br>Pages | DF Pickup Roller         | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-625-208 | Previous Unit Counter:<br>Pages | DF Feed Roller           | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-    | Previous Unit Counter2:         | # PCU:Bk                 | ENG | [ 0 to 99999999 / 0 /            |

## 3.SP Mode Tables

|           |                                  |                          |     |                                  |
|-----------|----------------------------------|--------------------------|-----|----------------------------------|
| 002       | Pages                            |                          |     | 1page ]                          |
| 7-626-003 | Previous Unit Counter2:<br>Pages | # Dev Unit:Bk            | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-025 | Previous Unit Counter2:<br>Pages | # PCU:C                  | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-026 | Previous Unit Counter2:<br>Pages | # Dev Unit:C             | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-048 | Previous Unit Counter2:<br>Pages | # PCU:M                  | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-049 | Previous Unit Counter2:<br>Pages | # Dev Unit:M             | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-071 | Previous Unit Counter2:<br>Pages | # PCU:Y                  | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-072 | Previous Unit Counter2:<br>Pages | # Dev Unit:Y             | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-093 | Previous Unit Counter2:<br>Pages | # ITB Unit               | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-102 | Previous Unit Counter2:<br>Pages | # ITB Cleaning Unit      | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-109 | Previous Unit Counter2:<br>Pages | # PTR Unit               | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-115 | Previous Unit Counter2:<br>Pages | # Fusing Unit            | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-116 | Previous Unit Counter2:<br>Pages | Fusing Sleeve            | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-118 | Previous Unit Counter2:<br>Pages | Pressure Roller          | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-142 | Previous Unit Counter2:<br>Pages | #Waste Toner bottle      | ENG | [ 0 to 999999999 / 0 /<br>1mg ]  |
| 7-626-145 | Previous Unit Counter2:<br>Pages | Tray1 Roller Assembly    | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-147 | Previous Unit Counter2:<br>Pages | #Paper Feed Roller:Tray1 | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-148 | Previous Unit Counter2:<br>Pages | #Friction Pad:Tray1      | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-626-169 | Previous Unit Counter2:<br>Pages | #Feed Roller:Bypass      | ENG | [ 0 to 99999999 / 0 /<br>1page ] |
| 7-628-    | PM Counter Clear                 | All Clear                | ENG | [ 0 or 1 / 0 / 1 ]               |

3.SP Mode Tables

|           |                                    |        |      |                               |
|-----------|------------------------------------|--------|------|-------------------------------|
| 002       |                                    |        |      |                               |
| 7-700-001 | Accum Cvrgr 1 img<br>Process.:Disp | Bk     | ENG* | [ 0 to 400000000 / 0 / 0.1% ] |
| 7-700-002 | Accum Cvrgr 1 img<br>Process.:Disp | C      | ENG* | [ 0 to 400000000 / 0 / 0.1% ] |
| 7-700-003 | Accum Cvrgr 1 img<br>Process.:Disp | M      | ENG* | [ 0 to 400000000 / 0 / 0.1% ] |
| 7-700-004 | Accum Cvrgr 1 img<br>Process.:Disp | Y      | ENG* | [ 0 to 400000000 / 0 / 0.1% ] |
| 7-701-001 | Accum Cvrgr 2 img<br>Process.:Disp | Bk     | ENG* | [ 0 to 400000000 / 0 / 0.1% ] |
| 7-701-002 | Accum Cvrgr 2 img<br>Process.:Disp | C      | ENG* | [ 0 to 400000000 / 0 / 0.1% ] |
| 7-701-003 | Accum Cvrgr 2 img<br>Process.:Disp | M      | ENG* | [ 0 to 400000000 / 0 / 0.1% ] |
| 7-701-004 | Accum Cvrgr 2 img<br>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. Cvrgr for img.:<br>Display    | Bk     | ENG* | [ 0 to 100 / 0 / 0.01% ]      |
| 7-720-002 | Avg. Cvrgr for img.:<br>Display    | C      | ENG* | [ 0 to 100 / 0 / 0.01% ]      |
| 7-720-003 | Avg. Cvrgr for img.:<br>Display    | M      | ENG* | [ 0 to 100 / 0 / 0.01% ]      |
| 7-720-004 | Avg. Cvrgr for img.:<br>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  | [ - / - / - ]                 |

## 3.SP Mode Tables

|           |                     |                                       |      |                        |
|-----------|---------------------|---------------------------------------|------|------------------------|
| 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 ]   |

3.SP Mode Tables

|           |                                   |                     |     |                               |
|-----------|-----------------------------------|---------------------|-----|-------------------------------|
| 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<br>Counter:Distance | # PCU:Bk            | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-003 | Previous Unit<br>Counter:Distance | # Dev Unit:Bk       | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-025 | Previous Unit<br>Counter:Distance | # PCU:C             | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-026 | Previous Unit<br>Counter:Distance | # Dev Unit:C        | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-048 | Previous Unit<br>Counter:Distance | # PCU:M             | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-049 | Previous Unit<br>Counter:Distance | # Dev Unit:M        | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-071 | Previous Unit<br>Counter:Distance | # PCU:Y             | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-072 | Previous Unit<br>Counter:Distance | # Dev Unit:Y        | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-093 | Previous Unit<br>Counter:Distance | # ITB Unit          | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-102 | Previous Unit<br>Counter:Distance | # ITB Cleaning Unit | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-109 | Previous Unit<br>Counter:Distance | # PTR Unit          | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-115 | Previous Unit<br>Counter:Distance | # Fusing Unit       | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-116 | Previous Unit<br>Counter:Distance | Fusing Sleeve       | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-118 | Previous Unit<br>Counter:Distance | Pressure Roller     | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-220 | Previous Unit<br>Counter:Distance | Toner Sub Hopper:Bk | ENG | [ 0 to 999999999 / 0 / 1 ]    |
| 7-906-221 | Previous Unit<br>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 ]    |

## 3.SP Mode Tables

|           |                                   |                           |     |                               |
|-----------|-----------------------------------|---------------------------|-----|-------------------------------|
| 222       | Counter:Distance                  |                           |     |                               |
| 7-906-223 | Previous Unit<br>Counter:Distance | Toner Sub Hopper:Y        | ENG | [ 0 to 999999999 / 0 / 1 ]    |
| 7-906-230 | Previous Unit<br>Counter:Distance | Low Speed: # PCU:Bk       | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-231 | Previous Unit<br>Counter:Distance | Low Speed: # PCU:C        | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-232 | Previous Unit<br>Counter:Distance | Low Speed: # PCU:M        | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-233 | Previous Unit<br>Counter:Distance | Low Speed: # PCU:Y        | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-234 | Previous Unit<br>Counter:Distance | Middle Speed: # PCU:Bk    | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-235 | Previous Unit<br>Counter:Distance | Middle Speed: # PCU:C     | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-236 | Previous Unit<br>Counter:Distance | Middle Speed: # PCU:M     | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-237 | Previous Unit<br>Counter:Distance | Middle Speed: # PCU:Y     | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-906-238 | Previous Unit<br>Counter:Distance | Standard Speed2: # PCU:Bk | ENG | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-907-002 | Previous Unit<br>Cntr:Distance(%) | # PCU:Bk                  | ENG | [ 0 to 255 / 0 / 1% ]         |
| 7-907-003 | Previous Unit<br>Cntr:Distance(%) | # Dev Unit:Bk             | ENG | [ 0 to 255 / 0 / 1% ]         |
| 7-907-025 | Previous Unit<br>Cntr:Distance(%) | # PCU:C                   | ENG | [ 0 to 255 / 0 / 1% ]         |
| 7-907-026 | Previous Unit<br>Cntr:Distance(%) | # Dev Unit:C              | ENG | [ 0 to 255 / 0 / 1% ]         |
| 7-907-048 | Previous Unit<br>Cntr:Distance(%) | # PCU:M                   | ENG | [ 0 to 255 / 0 / 1% ]         |
| 7-907-049 | Previous Unit<br>Cntr:Distance(%) | # Dev Unit:M              | ENG | [ 0 to 255 / 0 / 1% ]         |
| 7-907-071 | Previous Unit<br>Cntr:Distance(%) | # PCU:Y                   | ENG | [ 0 to 255 / 0 / 1% ]         |
| 7-907-072 | Previous Unit<br>Cntr:Distance(%) | # Dev Unit:Y              | ENG | [ 0 to 255 / 0 / 1% ]         |
| 7-907-    | Previous Unit                     | # ITB Unit                | ENG | [ 0 to 255 / 0 / 1% ]         |

3.SP Mode Tables

|           |                                   |                     |     |                       |
|-----------|-----------------------------------|---------------------|-----|-----------------------|
| 093       | Cntr:Distance(%)                  |                     |     |                       |
| 7-907-102 | Previous Unit<br>Cntr:Distance(%) | # ITB Cleaning Unit | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-907-109 | Previous Unit<br>Cntr:Distance(%) | # PTR Unit          | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-907-115 | Previous Unit<br>Cntr:Distance(%) | # Fusing Unit       | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-907-116 | Previous Unit<br>Cntr:Distance(%) | Fusing Sleeve       | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-907-118 | Previous Unit<br>Cntr:Distance(%) | Pressure Roller     | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-002 | Previous Unit<br>Counter:Pages(%) | # PCU:Bk            | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-003 | Previous Unit<br>Counter:Pages(%) | # Dev Unit:Bk       | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-025 | Previous Unit<br>Counter:Pages(%) | # PCU:C             | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-026 | Previous Unit<br>Counter:Pages(%) | # Dev Unit:C        | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-048 | Previous Unit<br>Counter:Pages(%) | # PCU:M             | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-049 | Previous Unit<br>Counter:Pages(%) | # Dev Unit:M        | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-071 | Previous Unit<br>Counter:Pages(%) | # PCU:Y             | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-072 | Previous Unit<br>Counter:Pages(%) | # Dev Unit:Y        | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-093 | Previous Unit<br>Counter:Pages(%) | # ITB Unit          | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-102 | Previous Unit<br>Counter:Pages(%) | # ITB Cleaning Unit | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-109 | Previous Unit<br>Counter:Pages(%) | # PTR Unit          | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-115 | Previous Unit<br>Counter:Pages(%) | # Fusing Unit       | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-116 | Previous Unit<br>Counter:Pages(%) | Fusing Sleeve       | ENG | [ 0 to 255 / 0 / 1% ] |
| 7-908-    | Previous Unit                     | Pressure Roller     | ENG | [ 0 to 255 / 0 / 1% ] |



## 3.SP Mode Tables

|           |                                   |                          |      |                         |
|-----------|-----------------------------------|--------------------------|------|-------------------------|
| 118       | Counter:Pages(%)                  |                          |      |                         |
| 7-908-142 | Previous Unit<br>Counter:Pages(%) | #Waste Toner bottle      | ENG  | [ 0 to 255 / 0 / 1% ]   |
| 7-908-145 | Previous Unit<br>Counter:Pages(%) | Tray1 Roller Assembly    | ENG  | [ 0 to 255 / 0 / 1% ]   |
| 7-908-147 | Previous Unit<br>Counter:Pages(%) | #Paper Feed Roller:Tray1 | ENG  | [ 0 to 255 / 0 / 1% ]   |
| 7-908-148 | Previous Unit<br>Counter:Pages(%) | #Friction Pad:Tray1      | ENG  | [ 0 to 255 / 0 / 1% ]   |
| 7-908-169 | Previous Unit<br>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* | [ - / - / - ]           |

3.SP Mode Tables

|           |                 |                           |      |                           |
|-----------|-----------------|---------------------------|------|---------------------------|
| 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% ]   |

## 3.SP Mode Tables

|           |                |                           |      |                           |
|-----------|----------------|---------------------------|------|---------------------------|
| 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* | [ - / - / - ]             |

3.SP Mode Tables

|           |                |                           |      |                           |
|-----------|----------------|---------------------------|------|---------------------------|
| 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 ]      |

## 3.SP Mode Tables

|           |                        |                           |      |                           |
|-----------|------------------------|---------------------------|------|---------------------------|
| 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  | [ - / - / - ]             |

3.SP Mode Tables

|           |                        |                           |      |                           |
|-----------|------------------------|---------------------------|------|---------------------------|
| 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  | [ - / - / - ]             |

## 3.SP Mode Tables

|           |                       |                           |      |                           |
|-----------|-----------------------|---------------------------|------|---------------------------|
| 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* | [ - / - / - ]             |

3.SP Mode Tables

|           |                       |                           |      |                           |
|-----------|-----------------------|---------------------------|------|---------------------------|
| 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 ] |



## 3.SP Mode Tables

|           |                                |                           |      |                              |
|-----------|--------------------------------|---------------------------|------|------------------------------|
| 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 /       |

### 3.SP Mode Tables

|           |                                   |                     |     |   |
|-----------|-----------------------------------|---------------------|-----|---|
| 003       | Distance                          |                     |     | 1mm ]                                   |
| 7-940-025 | PM Value Setting:Life<br>Distance | # PCU:C             | ENG | [ 0 to 999999999 / 0 /<br>1mm ]         |
| 7-940-026 | PM Value Setting:Life<br>Distance | # Dev Unit:C        | ENG | [ 0 to 999999999 / 0 /<br>1mm ]         |
| 7-940-048 | PM Value Setting:Life<br>Distance | # PCU:M             | ENG | [ 0 to 999999999 / 0 /<br>1mm ]         |
| 7-940-049 | PM Value Setting:Life<br>Distance | # Dev Unit:M        | ENG | [ 0 to 999999999 / 0 /<br>1mm ]         |
| 7-940-071 | PM Value Setting:Life<br>Distance | # PCU:Y             | ENG | [ 0 to 999999999 / 0 /<br>1mm ]         |
| 7-940-072 | PM Value Setting:Life<br>Distance | # Dev Unit:Y        | ENG | [ 0 to 999999999 / 0 /<br>1mm ]         |
| 7-940-093 | PM Value Setting:Life<br>Distance | # ITB Unit          | ENG | [ 0 to 999999999 /<br>95873985 / 1mm ]  |
| 7-940-102 | PM Value Setting:Life<br>Distance | # ITB Cleaning Unit | ENG | [ 0 to 999999999 /<br>95873985 / 1mm ]  |
| 7-940-109 | PM Value Setting:Life<br>Distance | # PTR Unit          | ENG | [ 0 to 999999999 /<br>95873985 / 1mm ]  |
| 7-940-115 | PM Value Setting:Life<br>Distance | # Fusing Unit       | ENG | [ 0 to 999999999 /<br>168978600 / 1mm ] |
| 7-940-116 | PM Value Setting:Life<br>Distance | Fusing Sleeve       | ENG | [ 0 to 999999999 /<br>168978600 / 1mm ] |
| 7-940-118 | PM Value Setting:Life<br>Distance | Pressure Roller     | ENG | [ 0 to 999999999 /<br>168978600 / 1mm ] |
| 7-942-002 | PM Counter<br>Display:Distance(%) | # PCU:Bk            | ENG | [ 0 to 255 / 0 / 1% ]                   |
| 7-942-003 | PM Counter<br>Display:Distance(%) | # Dev Unit:Bk       | ENG | [ 0 to 255 / 0 / 1% ]                   |
| 7-942-025 | PM Counter<br>Display:Distance(%) | # PCU:C             | ENG | [ 0 to 255 / 0 / 1% ]                   |
| 7-942-026 | PM Counter<br>Display:Distance(%) | # Dev Unit:C        | ENG | [ 0 to 255 / 0 / 1% ]                   |
| 7-942-048 | PM Counter<br>Display:Distance(%) | # PCU:M             | ENG | [ 0 to 255 / 0 / 1% ]                   |
| 7-942-049 | PM Counter<br>Display:Distance(%) | # Dev Unit:M        | ENG | [ 0 to 255 / 0 / 1% ]                   |
| 7-942-    | PM Counter                        | # PCU:Y             | ENG | [ 0 to 255 / 0 / 1% ]                   |

## 3.SP Mode Tables

|           |                                   |                     |      |                               |
|-----------|-----------------------------------|---------------------|------|-------------------------------|
| 071       | Display:Distance(%)               |                     |      |                               |
| 7-942-072 | PM Counter<br>Display:Distance(%) | # Dev Unit:Y        | ENG  | [ 0 to 255 / 0 / 1% ]         |
| 7-942-093 | PM Counter<br>Display:Distance(%) | # ITB Unit          | ENG  | [ 0 to 255 / 0 / 1% ]         |
| 7-942-102 | PM Counter<br>Display:Distance(%) | # ITB Cleaning Unit | ENG  | [ 0 to 255 / 0 / 1% ]         |
| 7-942-109 | PM Counter<br>Display:Distance(%) | # PTR Unit          | ENG  | [ 0 to 255 / 0 / 1% ]         |
| 7-942-115 | PM Counter<br>Display:Distance(%) | # Fusing Unit       | ENG  | [ 0 to 255 / 0 / 1% ]         |
| 7-942-116 | PM Counter<br>Display:Distance(%) | Fusing Sleeve       | ENG  | [ 0 to 255 / 0 / 1% ]         |
| 7-942-118 | PM Counter<br>Display:Distance(%) | Pressure Roller     | ENG  | [ 0 to 255 / 0 / 1% ]         |
| 7-944-002 | PM Counter Display:<br>Distance   | # PCU:Bk            | ENG* | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-003 | PM Counter Display:<br>Distance   | # Dev Unit:Bk       | ENG* | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-025 | PM Counter Display:<br>Distance   | # PCU:C             | ENG* | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-026 | PM Counter Display:<br>Distance   | # Dev Unit:C        | ENG* | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-048 | PM Counter Display:<br>Distance   | # PCU:M             | ENG* | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-049 | PM Counter Display:<br>Distance   | # Dev Unit:M        | ENG* | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-071 | PM Counter Display:<br>Distance   | # PCU:Y             | ENG* | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-072 | PM Counter Display:<br>Distance   | # Dev Unit:Y        | ENG* | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-093 | PM Counter Display:<br>Distance   | # ITB Unit          | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-102 | PM Counter Display:<br>Distance   | # ITB Cleaning Unit | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-109 | PM Counter Display:<br>Distance   | # PTR Unit          | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-    | PM Counter Display:               | # Fusing Unit       | ENG  | [ 0 to 4294967295 / 0 /       |

3.SP Mode Tables

|           |                                 |                           |      |                               |
|-----------|---------------------------------|---------------------------|------|-------------------------------|
| 115       | Distance                        |                           |      | 1mm ]                         |
| 7-944-116 | PM Counter Display:<br>Distance | Fusing Sleeve             | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-118 | PM Counter Display:<br>Distance | Pressure Roller           | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-220 | PM Counter Display:<br>Distance | Toner Sub Hopper:Bk       | ENG  | [ 0 to 999999999 / 0 / 1 ]    |
| 7-944-221 | PM Counter Display:<br>Distance | Toner Sub Hopper:C        | ENG  | [ 0 to 999999999 / 0 / 1 ]    |
| 7-944-222 | PM Counter Display:<br>Distance | Toner Sub Hopper:M        | ENG  | [ 0 to 999999999 / 0 / 1 ]    |
| 7-944-223 | PM Counter Display:<br>Distance | Toner Sub Hopper:Y        | ENG  | [ 0 to 999999999 / 0 / 1 ]    |
| 7-944-230 | PM Counter Display:<br>Distance | Low Speed: # PCU:Bk       | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-231 | PM Counter Display:<br>Distance | Low Speed: # PCU:C        | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-232 | PM Counter Display:<br>Distance | Low Speed: # PCU:M        | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-233 | PM Counter Display:<br>Distance | Low Speed: # PCU:Y        | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-234 | PM Counter Display:<br>Distance | Middle Speed: # PCU:Bk    | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-235 | PM Counter Display:<br>Distance | Middle Speed: # PCU:C     | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-236 | PM Counter Display:<br>Distance | Middle Speed: # PCU:M     | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-237 | PM Counter Display:<br>Distance | Middle Speed: # PCU:Y     | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-238 | PM Counter Display:<br>Distance | Standard Speed2: # PCU:Bk | ENG  | [ 0 to 4294967295 / 0 / 1mm ] |
| 7-944-240 | PM Counter Display:<br>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* | [ - / - / - ]                 |

## 3.SP Mode Tables

|           |                              |                          |      |                           |
|-----------|------------------------------|--------------------------|------|---------------------------|
| 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:<br>Pages | # PCU:Bk                 | ENG  | [ 0 to 255 / 255 / 1day ] |
| 7-951-003 | Remain Day Counter:<br>Pages | # Dev Unit:Bk            | ENG  | [ 0 to 255 / 255 / 1day ] |
| 7-951-    | Remain Day Counter:          | # PCU:C                  | ENG  | [ 0 to 255 / 255 / 1day ] |

3.SP Mode Tables

|           |                                 |                          |     |                           |
|-----------|---------------------------------|--------------------------|-----|---------------------------|
| 025       | Pages                           |                          |     |                           |
| 7-951-026 | Remain Day Counter:<br>Pages    | # Dev Unit:C             | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-048 | Remain Day Counter:<br>Pages    | # PCU:M                  | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-049 | Remain Day Counter:<br>Pages    | # Dev Unit:M             | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-071 | Remain Day Counter:<br>Pages    | # PCU:Y                  | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-072 | Remain Day Counter:<br>Pages    | # Dev Unit:Y             | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-093 | Remain Day Counter:<br>Pages    | # ITB Unit               | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-102 | Remain Day Counter:<br>Pages    | # ITB Cleaning Unit      | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-109 | Remain Day Counter:<br>Pages    | # PTR Unit               | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-115 | Remain Day Counter:<br>Pages    | # Fusing Unit            | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-116 | Remain Day Counter:<br>Pages    | Fusing Sleeve            | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-118 | Remain Day Counter:<br>Pages    | Pressure Roller          | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-142 | Remain Day Counter:<br>Pages    | #Waste Toner bottle      | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-145 | Remain Day Counter:<br>Pages    | Tray1 Roller Assembly    | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-147 | Remain Day Counter:<br>Pages    | #Paper Feed Roller:Tray1 | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-148 | Remain Day Counter:<br>Pages    | #Friction Pad:Tray1      | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-951-169 | Remain Day Counter:<br>Pages    | #Feed Roller:Bypass      | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-952-002 | Remain Day Counter:<br>Distance | # PCU:Bk                 | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-952-003 | Remain Day Counter:<br>Distance | # Dev Unit:Bk            | ENG | [ 0 to 255 / 255 / 1day ] |
| 7-952-    | Remain Day Counter:             | # PCU:C                  | ENG | [ 0 to 255 / 255 / 1day ] |

## 3.SP Mode Tables

|           |                                 |                     |     |                             |
|-----------|---------------------------------|---------------------|-----|-----------------------------|
| 025       | Distance                        |                     |     |                             |
| 7-952-026 | Remain Day Counter:<br>Distance | # Dev Unit:C        | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-048 | Remain Day Counter:<br>Distance | # PCU:M             | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-049 | Remain Day Counter:<br>Distance | # Dev Unit:M        | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-071 | Remain Day Counter:<br>Distance | # PCU:Y             | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-072 | Remain Day Counter:<br>Distance | # Dev Unit:Y        | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-093 | Remain Day Counter:<br>Distance | # ITB Unit          | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-102 | Remain Day Counter:<br>Distance | # ITB Cleaning Unit | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-109 | Remain Day Counter:<br>Distance | # PTR Unit          | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-115 | Remain Day Counter:<br>Distance | # Fusing Unit       | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-116 | Remain Day Counter:<br>Distance | Fusing Sleeve       | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-952-118 | Remain Day Counter:<br>Distance | Pressure Roller     | ENG | [ 0 to 255 / 255 / 1day ]   |
| 7-953-001 | Operation Env. Log: PCU:<br>Bk  | T<=0                | ENG | [ 0 to 99999999 / 0 / 1mm ] |
| 7-953-002 | Operation Env. Log: PCU:<br>Bk  | 0<T<=5:0<=H<30      | ENG | [ 0 to 99999999 / 0 / 1mm ] |
| 7-953-003 | Operation Env. Log: PCU:<br>Bk  | 0<T<=5:30<=H<70     | ENG | [ 0 to 99999999 / 0 / 1mm ] |
| 7-953-004 | Operation Env. Log: PCU:<br>Bk  | 0<T<=5:70<=H<=100   | ENG | [ 0 to 99999999 / 0 / 1mm ] |
| 7-953-005 | Operation Env. Log: PCU:<br>Bk  | 5<T<15:0<=H<30      | ENG | [ 0 to 99999999 / 0 / 1mm ] |
| 7-953-006 | Operation Env. Log: PCU:<br>Bk  | 5<T<15:30<=H<55     | ENG | [ 0 to 99999999 / 0 / 1mm ] |
| 7-953-007 | Operation Env. Log: PCU:<br>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 /       |

3.SP Mode Tables

|           |                                  |                     |     |                                |
|-----------|----------------------------------|---------------------|-----|--------------------------------|
| 008       | Bk                               |                     |     | 1mm ]                          |
| 7-953-009 | Operation Env. Log: PCU:<br>Bk   | 15<=T<25:0<=H<30    | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-010 | Operation Env. Log: PCU:<br>Bk   | 15<=T<25:30<=H<55   | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-011 | Operation Env. Log: PCU:<br>Bk   | 15<=T<25:55<=H<80   | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-012 | Operation Env. Log: PCU:<br>Bk   | 15<=T<25:80<=H<=100 | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-013 | Operation Env. Log: PCU:<br>Bk   | 25<=T<30:0<=H<30    | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-014 | Operation Env. Log: PCU:<br>Bk   | 25<=T<30:30<=H<55   | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-015 | Operation Env. Log: PCU:<br>Bk   | 25<=T<30:55<=H<80   | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-016 | Operation Env. Log: PCU:<br>Bk   | 25<=T<30:80<=H<=100 | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-017 | Operation Env. Log: PCU:<br>Bk   | 30<=T<35:0<=H<30    | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-018 | Operation Env. Log: PCU:<br>Bk   | 30<=T<35:30<=H<55   | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-019 | Operation Env. Log: PCU:<br>Bk   | 30<=T<35:55<=H<80   | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-020 | Operation Env. Log: PCU:<br>Bk   | 30<=T<35:80<=H<=100 | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-021 | Operation Env. Log: PCU:<br>Bk   | 35<=T               | ENG | [ 0 to 99999999 / 0 /<br>1mm ] |
| 7-953-100 | Operation Env. Log Clear         |                     | ENG | [ 0 or 1 / 0 / 1 ]             |
| 7-954-002 | PM Counter Display:<br>Pages (%) | # PCU:Bk            | ENG | [ 0 to 255 / 0 / 1% ]          |
| 7-954-003 | PM Counter Display:<br>Pages (%) | # Dev Unit:Bk       | ENG | [ 0 to 255 / 0 / 1% ]          |
| 7-954-025 | PM Counter Display:<br>Pages (%) | # PCU:C             | ENG | [ 0 to 255 / 0 / 1% ]          |
| 7-954-026 | PM Counter Display:<br>Pages (%) | # Dev Unit:C        | ENG | [ 0 to 255 / 0 / 1% ]          |
| 7-954-    | PM Counter Display:              | # PCU:M             | ENG | [ 0 to 255 / 0 / 1% ]          |



## 3.SP Mode Tables

|           |                                   |                          |     |                         |
|-----------|-----------------------------------|--------------------------|-----|-------------------------|
| 048       | Pages (%)                         |                          |     |                         |
| 7-954-049 | PM Counter Display:<br>Pages (%)  | # Dev Unit:M             | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-071 | PM Counter Display:<br>Pages (%)  | # PCU:Y                  | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-072 | PM Counter Display:<br>Pages (%)  | # Dev Unit:Y             | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-093 | PM Counter Display:<br>Pages (%)  | # ITB Unit               | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-102 | PM Counter Display:<br>Pages (%)  | # ITB Cleaning Unit      | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-109 | PM Counter Display:<br>Pages (%)  | # PTR Unit               | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-115 | PM Counter Display:<br>Pages (%)  | # Fusing Unit            | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-116 | PM Counter Display:<br>Pages (%)  | Fusing Sleeve            | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-118 | PM Counter Display:<br>Pages (%)  | Pressure Roller          | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-142 | PM Counter Display:<br>Pages (%)  | #Waste Toner bottle      | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-145 | PM Counter Display:<br>Pages (%)  | Tray1 Roller Assembly    | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-147 | PM Counter Display:<br>Pages (%)  | #Paper Feed Roller:Tray1 | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-148 | PM Counter Display:<br>Pages (%)  | #Friction Pad:Tray1      | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-954-169 | PM Counter Display:<br>Pages (%)  | #Feed Roller:Bypass      | ENG | [ 0 to 255 / 0 / 1% ]   |
| 7-958-002 | PM Value<br>Setting:DaysThreshold | # PCU:Bk                 | ENG | [ 1 to 30 / 15 / 1day ] |
| 7-958-003 | PM Value<br>Setting:DaysThreshold | # Dev Unit:Bk            | ENG | [ 1 to 30 / 15 / 1day ] |
| 7-958-025 | PM Value<br>Setting:DaysThreshold | # PCU:C                  | ENG | [ 1 to 30 / 15 / 1day ] |
| 7-958-026 | PM Value<br>Setting:DaysThreshold | # Dev Unit:C             | ENG | [ 1 to 30 / 15 / 1day ] |
| 7-958-    | PM Value                          | # PCU:M                  | ENG | [ 1 to 30 / 15 / 1day ] |

### 3.SP Mode Tables

|           |                                   |                          |      |                                   |
|-----------|-----------------------------------|--------------------------|------|-----------------------------------|
| 048       | Setting:DaysThreshold             |                          |      |                                   |
| 7-958-049 | PM Value<br>Setting:DaysThreshold | # Dev Unit:M             | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-071 | PM Value<br>Setting:DaysThreshold | # PCU:Y                  | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-072 | PM Value<br>Setting:DaysThreshold | # Dev Unit:Y             | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-093 | PM Value<br>Setting:DaysThreshold | # ITB Unit               | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-102 | PM Value<br>Setting:DaysThreshold | # ITB Cleaning Unit      | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-109 | PM Value<br>Setting:DaysThreshold | # PTR Unit               | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-115 | PM Value<br>Setting:DaysThreshold | # Fusing Unit            | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-116 | PM Value<br>Setting:DaysThreshold | Fusing Sleeve            | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-118 | PM Value<br>Setting:DaysThreshold | Pressure Roller          | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-142 | PM Value<br>Setting:DaysThreshold | #Waste Toner bottle      | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-145 | PM Value<br>Setting:DaysThreshold | Tray1 Roller Assembly    | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-147 | PM Value<br>Setting:DaysThreshold | #Paper Feed Roller:Tray1 | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-148 | PM Value<br>Setting:DaysThreshold | #Friction Pad:Tray1      | ENG  | [ 1 to 30 / 15 / 1day ]           |
| 7-958-169 | PM Value<br>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 /              |

## 3.SP Mode Tables

|           |               |        |      |                                   |
|-----------|---------------|--------|------|-----------------------------------|
| 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 ] |

3.SP Mode Tables

|           |                         |                          |      |                        |
|-----------|-------------------------|--------------------------|------|------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                         |          |      |                        |
|-----------|-------------------------|----------|------|------------------------|
| 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 ]     |

3.SP Mode Tables

|           |                             |                              |      |                        |
|-----------|-----------------------------|------------------------------|------|------------------------|
| 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:<br>On(Bypass)  | CTL* | [ 0 to 65535 / 0 / 0 ] |
| 7-514-009 | Paper Jam Count by Location | Registration:<br>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:<br>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 ] |



## 3.SP Mode Tables

|           |                                 |                          |      |                        |
|-----------|---------------------------------|--------------------------|------|------------------------|
| 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 ] |

3.SP Mode Tables

|           |                      |                 |      |                        |
|-----------|----------------------|-----------------|------|------------------------|
| 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 ]     |

## 3.SP Mode Tables

|           |            |                 |      |                      |
|-----------|------------|-----------------|------|----------------------|
| 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 ] |

3.SP Mode Tables

|           |                                      |                                |      |                          |
|-----------|--------------------------------------|--------------------------------|------|--------------------------|
| 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<br>ON/OFF | #PCU:Bk                        | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 7-624-025 | Part Replacement Operation<br>ON/OFF | #PCU:C                         | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 7-624-048 | Part Replacement Operation<br>ON/OFF | #PCU:M                         | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 7-624-071 | Part Replacement Operation<br>ON/OFF | #PCU:Y                         | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 7-624-093 | Part Replacement Operation<br>ON/OFF | #Image Transfer Belt<br>Unit   | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 7-624-109 | Part Replacement Operation<br>ON/OFF | #Paper Transfer Roller<br>Unit | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 7-624-115 | Part Replacement Operation<br>ON/OFF | #Fusing Unit                   | CTL* | [ 0 to 1 / 1 / 1 ]       |
| 7-624-    | Part Replacement Operation           | Fusing Sleeve                  | CTL* | [ 0 to 1 / 1 / 1 ]       |

## 3.SP Mode Tables

|           |                                      |                             |      |                               |
|-----------|--------------------------------------|-----------------------------|------|-------------------------------|
| 116       | ON/OFF                               |                             |      |                               |
| 7-624-118 | Part Replacement Operation<br>ON/OFF | Pressure Roller             | CTL* | [ 0 to 1 / 1 / 1 ]            |
| 7-624-142 | Part Replacement Operation<br>ON/OFF | #Wast Toner bottle          | CTL* | [ 0 to 1 / 1 / 1 ]            |
| 7-624-147 | Part Replacement Operation<br>ON/OFF | #Paper Feed<br>Roller:Tray1 | CTL* | [ 0 to 1 / 1 / 1 ]            |
| 7-624-148 | Part Replacement Operation<br>ON/OFF | #Friction Pad:Tray1         | CTL* | [ 0 to 1 / 1 / 1 ]            |
| 7-624-169 | Part Replacement Operation<br>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<br>Hist     | Change Time :Latest         | CTL* | [ 0 to 0 / 0 / 0 ]            |
| 7-840-002 | ServiceSP Entry Code Chg<br>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 ]            |

### 3.SP Mode Tables

|           |                                  |                        |      |                        |
|-----------|----------------------------------|------------------------|------|------------------------|
| 101       | Hist                             |                        |      |                        |
| 7-840-102 | ServiceSP Entry Code Chg<br>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 ] |

### 3.SP Mode Tables

|           |                  |                |      |                    |
|-----------|------------------|----------------|------|--------------------|
| 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 ] |

3.SP Mode Tables

|           |                  |               |      |                    |
|-----------|------------------|---------------|------|--------------------|
| 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 ] |

### 3.SP Mode Tables

|           |                  |         |      |                    |
|-----------|------------------|---------|------|--------------------|
| 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  |

3.SP Mode Tables

|              |   |
|--------------|---|
|              | 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 ] |

## 3.SP Mode Tables

|           |                  |        |      |                           |
|-----------|------------------|--------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |            |                |      |                           |
|-----------|------------|----------------|------|---------------------------|
| 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 ] |



## 3.SP Mode Tables

|           |            |                |      |                           |
|-----------|------------|----------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |            |                |      |                           |
|-----------|------------|----------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |            |                |      |                           |
|-----------|------------|----------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |            |                |      |                           |
|-----------|------------|----------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                   |                |      |                           |
|-----------|-------------------|----------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                      |                |      |                           |
|-----------|----------------------|----------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                |                   |      |                           |
|-----------|----------------|-------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                   |                  |      |                           |
|-----------|-------------------|------------------|------|---------------------------|
| 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 ] |



## 3.SP Mode Tables

|           |                 |                  |      |                           |
|-----------|-----------------|------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                 |                  |      |                           |
|-----------|-----------------|------------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                   |                 |      |                           |
|-----------|-------------------|-----------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                   |                  |      |                           |
|-----------|-------------------|------------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                   |                  |      |                           |
|-----------|-------------------|------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                   |                  |      |                           |
|-----------|-------------------|------------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                   |                  |      |                           |
|-----------|-------------------|------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                   |                  |      |                           |
|-----------|-------------------|------------------|------|---------------------------|
| 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 ] |



## 3.SP Mode Tables

|           |                   |                  |      |                           |
|-----------|-------------------|------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                   |               |      |                           |
|-----------|-------------------|---------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                   |                      |      |                           |
|-----------|-------------------|----------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                   |                      |      |                           |
|-----------|-------------------|----------------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |                   |                      |      |                           |
|-----------|-------------------|----------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |              |                |      |                           |
|-----------|--------------|----------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |              |                |      |                           |
|-----------|--------------|----------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                |                |      |                           |
|-----------|----------------|----------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                    |                      |      |                           |
|-----------|--------------------|----------------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |           |                               |      |                           |
|-----------|-----------|-------------------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                    |                      |      |                              |
|-----------|--------------------|----------------------|------|------------------------------|
| 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 ]    |

## 3.SP Mode Tables

|           |                    |                          |      |                              |
|-----------|--------------------|--------------------------|------|------------------------------|
| 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 ]    |

3.SP Mode Tables

|           |                  |              |      |                           |
|-----------|------------------|--------------|------|---------------------------|
| 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 ] |
| 8-621-008 | Func Use Counter | Function-008 | CTL* | [ 0 to 99999999 / 0 / 1 ] |

## 3.SP Mode Tables

|           |                  |              |      |                           |
|-----------|------------------|--------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                  |              |      |                           |
|-----------|------------------|--------------|------|---------------------------|
| 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 ] |



## 3.SP Mode Tables

|           |                  |              |      |                           |
|-----------|------------------|--------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                  |              |      |                           |
|-----------|------------------|--------------|------|---------------------------|
| 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 ] |
| 8-665-002 | S:Deliv PGS/Svr  | Color        | CTL* | [ 0 to 99999999 / 0 / 1 ] |

## 3.SP Mode Tables

|           |                 |                    |      |                           |
|-----------|-----------------|--------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                        |                    |      |                           |
|-----------|------------------------|--------------------|------|---------------------------|
| 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<br>PGS/WSD/DSM | B/W                | CTL* | [ 0 to 99999999 / 0 / 1 ] |
| 8-721-002 | T:Deliv<br>PGS/WSD/DSM | Color              | CTL* | [ 0 to 99999999 / 0 / 1 ] |
| 8-725-    | S:Deliv                | B/W                | CTL* | [ 0 to 99999999 / 0 / 1 ] |

## 3.SP Mode Tables

|           |                        |             |      |                           |
|-----------|------------------------|-------------|------|---------------------------|
| 001       | PGS/WSD/DSM            |             |      |                           |
| 8-725-002 | S:Deliv<br>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 ] |

3.SP Mode Tables

|           |                  |                 |      |                           |
|-----------|------------------|-----------------|------|---------------------------|
| 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 ] |

## 3.SP Mode Tables

|           |             |                      |      |                           |
|-----------|-------------|----------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |               |                         |      |                           |
|-----------|---------------|-------------------------|------|---------------------------|
| 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 ] |



## 3.SP Mode Tables

|           |                   |          |      |                           |
|-----------|-------------------|----------|------|---------------------------|
| 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 ] |
| 8-891-003 | Page/Toner Bottle | M        | CTL* | [ 0 to 99999999 / 0 / 1 ] |

3.SP Mode Tables

|           |                   |                |      |                              |
|-----------|-------------------|----------------|------|------------------------------|
| 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 ]    |

## 3.SP Mode Tables

|           |                    |                    |      |                           |
|-----------|--------------------|--------------------|------|---------------------------|
| 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 ] |

3.SP Mode Tables

|           |                     |                           |      |                           |
|-----------|---------------------|---------------------------|------|---------------------------|
| 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 Power 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 ] |

## 3.SP Mode Tables

|           |                     |                            |      |                             |
|-----------|---------------------|----------------------------|------|-----------------------------|
| 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 ]   |

### 3.SP Mode Tables

|           |                     |                                |      |                           |
|-----------|---------------------|--------------------------------|------|---------------------------|
| 103       |                     |                                |      |                           |
| 8-999-104 | Admin. Counter List | Scanner Transmission:<br>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<br>0   | <b>DFU</b>   | -                     | -        |
|  | bit<br>1   | <b>Responding with the hostname as the sysName</b> | Model name (PnP name) | Hostname |
|  | This BitSwitch can change the value of the sysName.<br>0 (default): Model name (PnP name) such as "MP C401SP"<br>1: Host name  |  |                       |          |
|  | bit<br>2   | <b>DFU</b>   | -                     | -        |
|  | bit<br>3   | <b>No I/O Timeout</b>                              | 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<br>4   | <b>SD Card Save Mode</b>                           | Disabled              | Enabled  |
|  | If this bit switch is enabled, print jobs will be saved to the GW SD slot and not output to paper.                             |  |                       |          |
|  | bit<br>5   | <b>[PS and PDF] Paper size error margin</b>        | ±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<br>6   | <b>Color balance switching</b>   | 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<br>7   | <b>DFU</b>   | -  | -                     |          |

| 1001     | Bit Switch   |                                |          |         |
|----------|--|--------------------------------|----------|---------|
| 002      | Bit Switch 2   |                                | 0        | 1       |
|          | bit<br>0   | <b>Color balance switching</b> | 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<br>1   | <b>DFU</b>                     | -        | -       |
| bit<br>2 | <b>DFU</b>   | -                              | -        |         |

3.SP Mode Tables

| 1001  |            | Bit Switch   |          |         |
|-------|------------|--|----------|---------|
|       | bit 3      | <b>[PCL5e/c.PS]: PDL Auto Switching</b>  | Enable   | Disable |
|       |            | Enables/disable the MFPs ability to change the PDL processor mid-job.<br>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      | <b>Color balance switching</b>   | 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      | <b>DFU</b>   | -        | -       |
|       | bit 6      | <b>DFU</b>   | -        | -       |
| bit 7 | <b>DFU</b> | -  | -        |         |

| 1001       |              | Bit Switch  |          |         |
|------------|--------------|---|----------|---------|
| 003        | Bit Switch 3 |   | 0        | 1       |
|            | bit 0        | <b>DFU</b>  | -        | -       |
|            | bit 1        | <b>DFU</b>  | -        | -       |
|            | bit 2        | <b>[PCL5e/c]: Legacy HP compatibility</b>   | Disabled | Enabled |
|            |              | Uses the same left margin as older HP models such as HP4000/HP8000.<br>In other words, the left margin defined in the job (usually "<ESC>*r0A") will be changed to "<ESC>*r1A". |          |         |
| bit 3 to 7 | <b>DFU</b>   | -   | -        |         |

| 1001 |              | Bit Switch |            |   |
|------|--------------|------------|------------|---|
| 004  | Bit Switch 4 |            | 0          | 1 |
|      | bit 0 to 7   |            | <b>DFU</b> | - |

| 1001 |              | Bit Switch  |          |         |
|------|--------------|---|----------|---------|
| 005  | Bit Switch 5 |   | 0        | 1       |
|      | bit 0        | <b>Show "Collate Type", "Staple Type" and "Punch Type" buttons on the operation panel.</b>  | 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.<br>After enabling this BitSwitch, the settings will appear under: |          |         |



| 1001     | Bit Switch  |                        |                         |
|----------|---|------------------------|-------------------------|
|          | User Tools > Printer Features > System  |                        |                         |
| bit<br>1 | <b>Multiple copies if a paper size or type mismatch occurs</b>  | 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<br>2 | <b>Prevent SDK applications from altering the contents of a job.</b>  | 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".<br><b>Note:</b> The main purpose of this bit switch is for troubleshooting the effects of SDK applications on data.       |                        |                         |
| bit<br>3 | <b>[PS] PS Criteria</b>   | Pattern3               | Pattern1                |
|          | Change the number of PS criterion used by the PS interpreter to determine whether a job is PS data or not.<br>Pattern3: The larger the pattern number, the greater the number of criterion used.<br>Pattern1: A small number of PS tags and headers                                       |                        |                         |
| bit<br>4 | <b>Increase max. number of stored jobs.</b>   | 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<br>5 | <b>DFU</b>  | -                      | -                       |
| bit<br>6 | <b>Method for determining the image rotation for the edge to bind on.</b>   | 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.<br>The old models are below:<br>- PCL: Pre-04A models<br>- PS/PDF/RPCS: Pre-05S models  |                        |                         |
| bit<br>7 | <b>Letterhead mode printing</b>   | Disabled               | Enabled (Duplex)        |
|          | Routes all pages through the duplex unit.<br>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.<br>Only affects pages specified as Letterhead paper. |                        |                         |

| 1001 | Bit Switch   |   |   |
|------|--------------|---|---|
| 006  | Bit Switch 6 | 0 | 1 |

3.SP Mode Tables

| 1001 |  | Bit Switch             |          |         |
|------|--|------------------------|----------|---------|
|      | bit 0  | <b>Forced printing</b> | 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   | <b>DFU</b>             | -        | -       |

| 1001 |              | Bit Switch |   |   |
|------|--------------|------------|---|---|
| 007  | Bit Switch 7 |            | 0 | 1 |
|      | bit 0 to 7   | <b>DFU</b> | - | - |

| 1001  |   | Bit Switch  |          |   |
|-------|---|---|----------|---|
| 008   | Bit Switch 8  |   | 0        | 1   |
|       | bit 0 to 2  | <b>DFU</b>  | -        | -   |
|       | bit 3   | <b>[PCL.PS]: Allow BW jobs to print without requiring User Code</b>   | Disabled | Enabled<br>(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.<br><b>Note:</b> Color jobs will not be printed without a valid user code. |          |   |
|       | bit 4 to 5  | <b>DFU</b>  | -        | -   |
|       | bit 6   | <b>PCL, RPCS, PS: Forced BW print</b>   | Enabled  | Disabled  |
|       |   | Switches whether to ignore PDL color command.   |          |   |
| bit 7 | <b>[PDF]: Orientation Auto Detect Function</b>  | 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        | <b>PDL Auto Detection timeout of jobs submitted via USB or Parallel Port (IEEE 1284).</b>  | Disabled<br>(Immediately) | Enabled<br>(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  | <b>DFU</b>   | -  | -                         |                         |

| 1001     | Bit Switch  |                          |                     |
|----------|---|--------------------------|---------------------|
| 1        |   |                          |                     |
| bit<br>2 | <b>Job Cancel</b>   | Disabled (Not cancelled) | Enabled (Cancelled) |
|          | <p>Enable: All jobs will be cancelled after a jam occurs.</p> <p><b>Note:</b> If this bit switch is enabled, printing under the following conditions might result in problems:</p> <ul style="list-style-type: none"> <li>- Job submission via USB or parallel port</li> <li>- Spool printing (WIM &gt; Configuration &gt; Device Settings &gt; System)</li> </ul>  |                          |                     |
| bit<br>3 | <b>DFU</b>  | -                        | -                   |
| bit<br>4 | <b>Timing of the PjL Status ReadBack (JOB END) when printing multiple collated copies.</b>  | Disabled                 | Enabled             |
|          | <p>This bit switch determines the timing of the PjL USTATUS JOB END sent when multiple collated copies are being printed.</p> <p>Disable (=0 (default)):<br/>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.</p> <p>Enable (=1):<br/>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.</p> |                          |                     |

| 1001     | Bit Switch   |          |          |
|----------|--|----------|----------|
| 009      | Bit Switch 9   | 0        | 1        |
| bit<br>5 | <b>Display UTF-8 text in the operation panel</b>   | Enabled  | Disabled |
|          | <p>Enable (=0):<br/>Text composed of UTF-8 characters can be displayed in the operation panel.</p> <p>Disable (=1):<br/>UTF-8 characters cannot be displayed in the operation panel.</p> <p>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).</p> |          |          |
| bit<br>6 | <b>Disable super option</b>  | Disabled | Enabled  |
|          | <p>Switches super option disable on / off. If this is On, multiple jobs are grouped at LPR port. PjL settings are enabled even jobs that are specified queue names are sent.</p>   |          |          |
| bit<br>7 | <b>Enable/Disable Print from USB/SD's Preview function</b>   | Enabled  | Disabled |
|          | <p>Determines whether print from USB/SD will have the Preview function.</p> <p>Enabled (=0): Print from USB/SD will have the Preview function.</p>   |          |          |

3.SP Mode Tables

|      |            |  |  |
|------|------------|--|--|
| 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  | <b>DFU</b>  | -                              | -                       |
|       | bit 4   | <b>Not Used</b>   | -                              | -                       |
|       | bit 5   | <b>Store and Skip Errored Job locks the queue</b>   | 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   | <b>Allow use of Store and Skip Errored Job if connected to an external charge device.</b> | 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.<br><b>Note:</b> We do not officially support enabling this bit switch (1). Use it at your own risk.   |   |                                |                         |
| bit 7 | <b>Job cancels remaining pages when the paid-for pages have been printed on an external charge device</b>   | 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.<br>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  | <b>Show Menu List</b>         | Hide Menu List              | Show Menu List     |
|       | If this is 0, the Menu List button will be removed from Printer Features.  |                               |                             |                    |
|       | bit 1  | <b>Print job interruption</b> | 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.<br>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 | <b>Switch for enabling or disabling Limitless Paper Feeding for the Bypass Tray</b>  | Enable                        | Disable                     |                    |
|       | When the Bypass Tray is the target of the Auto Tray Select and Any Size/Type is configured for   |                               |                             |                    |

| 1001       |  | Bit Switch   |         |
|------------|--|--|---------|
|            |  | <p>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).</p> <p>*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.</p> <p>Enabled (=0: Default):</p> <p>Limitless Paper Feeding is applied to the Bypass Tray.</p> <p>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.</p> <p>Disabled (=1):</p> <p>Limitless Paper Feeding is not applied to the Bypass Tray.</p> <p>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.</p> <p>Limitations when this BitSwitch is set to "1":</p> <ul style="list-style-type: none"> <li>- The "Paper Tray Priority: Printer" setting must be configured to a tray other than the Bypass Tray.</li> <li>- Jobs that contain more than one paper size cannot be printed.</li> </ul> |         |
| bit 3      | <b>DFU</b>   | -  | -       |
| bit 4      | <b>Add "Apply Auto Paper Select" is the condition that decides if the device's paper size or paper type should be overwritten.</b>   | Enabled  | Enabled |
|            | <p>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".</p> <ul style="list-style-type: none"> <li>- Apply Auto Paper Select = OFF: Overwritten (priority is given to the job's commands)</li> <li>- Apply Auto Paper Select = ON: Not overwritten (priority is given to the device settings)</li> </ul> |  |         |
| bit 5 to 7 | <b>Not Used</b>  | -  | -       |

| 1001       |   | Bit Switch |         |
|------------|---|------------|---------|
| 012        | Bit Switch C  | 0          | 1       |
| bit 0      | <b>DFU</b>  | -          | -       |
| bit 1 to 4 | <b>Not Used</b>   | -          | -       |
| bit 5      | <b>Change the user ID type displayed on the operation panel</b> | Disabled   | Enabled |

### 3.SP Mode Tables

|      |   |                  |                       |
|------|---|------------------|-----------------------|
| 1001 | <b>Bit Switch</b>   |                  |                       |
|      | <p>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:</p> <ul style="list-style-type: none"> <li>- 0 (Default): Login User Name</li> <li>- 1: User ID. If this is enabled, User ID will be displayed, which is equivalent to the behavior exhibited in 14A and earlier models.</li> </ul> |                  |                       |
|      | bit 6   | <b>Air Print</b> | 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   | <b>Not Used</b>  |                       |

|             |                        |   |
|-------------|------------------------|---|
| <b>1003</b> | <b>[Clear Setting]</b> |   |
| 001         | Initialize System      | Initializes settings in the System menu of the user mode. |
| 003         | Delete Program         | <b>DFU</b>  |

|             |                        |  |
|-------------|------------------------|--|
| <b>1004</b> | <b>[Print Summary]</b> |  |
| 001         | Service Summary        | Prints the service summary sheet (a summary of all the controller settings). |

|             |                          |  |
|-------------|--------------------------|--|
| <b>1005</b> | <b>[Display Version]</b> |  |
| 002         | Printer Version          | Displays the version of the controller firmware. |

|             |   |   |
|-------------|---|---|
| <b>1006</b> | <del><b>[Sample/Locked Print]</b></del> |   |
| 001         | 0:Link with Doc. Srv 1:Enable           | - |

|             |   |   |
|-------------|---|---|
| <b>1101</b> | <b>[ToneCtlSet]</b>   |   |
| 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. |   |

|             |   |  |
|-------------|---|--|
| <b>1102</b> | <b>[Resolution Settings]</b>  |  |
|             | Sets the printing mode (resolution) for the printer gamma adjustment. The asterisk (*) shows which mode is set.   |  |
|             | <ul style="list-style-type: none"> <li>• 00: *1200x1200Photo</li> <li>• 01: 600x600Text</li> <li>• 02: 1200x1200Text</li> <li>• 03: 1200x600Text</li> <li>• 04: 600x600Photo</li> </ul> |  |

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|          |   |                        |
|----------|---|------------------------|
|          | <ul style="list-style-type: none"> <li>• 05: 1200x600Photo</li> <li>• 06: 600x600Text</li> <li>• 07: 600x600Text</li> </ul> |                        |
| 1102-001 | Tone Control Mode Selection   | [0 to 99 / 0 / 1/step] |

|             |                        |  |
|-------------|------------------------|--|
| <b>1103</b> | <b>[PrnColorSheet]</b> |  |
| 1103-001    | ToneCtlSheet           | Prints the test page to check the color balance before and after the gamma adjustment. |
| 1103-002    | ColorChart             |  |

|             |   |                        |
|-------------|---|------------------------|
| <b>1104</b> | <b>[ToneCtlValue]</b>   |                        |
|             | 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   |                        |

|             |   |           |
|-------------|---|-----------|
| <b>1105</b> | <b>[Save Tone Cntrol Value]</b>   |           |
|             | 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] |

### 3.SP Mode Tables

|             |   |                                  |
|-------------|---|----------------------------------|
| <b>1106</b> | <b>[Toner Limit]</b>                                    |                                  |
|             | Adjusts the maximum toner amount for image development. |                                  |
| 1106-001    | Toner Limit Value                                       | [100 to 400 / <b>0</b> / 1/step] |

|             |   |                              |
|-------------|---|------------------------------|
| <b>1110</b> | <b>[Media Print Device Setting]</b>   |                              |
|             | Enable or disable the media print support function.<br>0: Disable, 1:Enable |                              |
| 1110-002    | 0: Disable 1:Enable   | [0 to 1 / <b>1</b> / 1/step] |

|             |  |                              |
|-------------|--|------------------------------|
| <b>1111</b> | <b>[All Job Delete Mode]</b>                   |                              |
|             | -<br>0: Exclusive New Job, 1:Including New Job |                              |
| 1110-002    | 0: Exclusive New Job 1: Including New Job      | [0 or 1 / <b>1</b> / 1/step] |



## Scanner Service Mode

### SP1-XXX (System and Others)

|             |  |      |   |
|-------------|--|------|---|
| <b>1001</b> | <b>[Scan Nv Version]</b>   |      |   |
| 1-001-005   | -  | *CTL | - |
|             | <p>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.</p> <p>“Function name”_”Machine code”_”Serial number”</p> <p>- Function name: Enter “3”.</p> <p>- Machine code: Enter the machine code with three characters.</p> <p>- Serial number: Enter the number (default: 001).</p> |      |   |

|             |   |      |                          |
|-------------|---|------|--------------------------|
| <b>1005</b> | <b>[Erase margin(Remote scan)]</b>  |      |                          |
| 1-005-001   | Range from 0 to 5 mm  | *CTL | [0 to 5 / 0 / 1 mm/step] |
|             | <p>Creates an erase margin for all edges of the scanned image.</p> <p>If the machine has scanned the edge of the original, create a margin. This SP is activated only when the machine uses TWAIN scanning.</p> |      |                          |

|             |                                |      |                        |
|-------------|--------------------------------|------|------------------------|
| <b>1009</b> | <b>[Remote scan disable]</b>   |      |                        |
| 1-009-001   | 0:enable 1:desable             | *CTL | [0 or 1 / 0 / - /step] |
|             | Enable or disable remote scan. |      |                        |

|             |  |      |                        |
|-------------|--|------|------------------------|
| <b>1010</b> | <b>[Non Display ClearLight PDF]</b>            |      |                        |
| 1-010-001   | 0:Display 1:Nondisplay                         | *CTL | [0 or 1 / 0 / - /step] |
|             | Display or nondisplay ClearLight PDF function. |      |                        |

|             |  |      |                        |
|-------------|--|------|------------------------|
| <b>1011</b> | <b>[Org Count Disp]</b>  |      |                        |
| 1-011-001   | 0:ON 1:OFF   | *CTL | [0 or 1 / 0 / - /step] |
|             | <p>Display or nondisplay original counter.</p> <p>0: Displays remaining memory.</p> <p>1: Displays original counter.</p> |      |                        |

|             |  |      |                        |
|-------------|--|------|------------------------|
| <b>1012</b> | <b>[UserInfo Release]</b>  |      |                        |
| 1-012-001   | 0:No 1:Yes   | *CTL | [0 or 1 / 1 / - /step] |
|             | <p>Set if the following user information is released or not.</p> <p>- Destination of the mail, folder, CS</p> <p>- Sender</p> <p>- Message</p> |      |                        |

### 3.SP Mode Tables

|  |                          |
|--|--------------------------|
|  | - Subject<br>- Fail name |
|--|--------------------------|

|             |  |      |                               |
|-------------|--|------|-------------------------------|
| <b>1013</b> | <b>[Scan to Media Device Setting]</b>  |      |                               |
| 1-013-002   | 0:OFF 1:ON                             | *CTL | [0 or 1 / <b>1</b> / - /step] |
|             | Enable or disable ScanTo media device. |      |                               |

|             |   |      |                                |
|-------------|---|------|--------------------------------|
| <b>1014</b> | <b>[Scan to Folder Pass Input Set]</b>                                      |      |                                |
| 1-014-001   | 0:OFF 1:ON  | *CTL | [ 0 or 1 / <b>0</b> / - /step] |
|             | Sets enable or disable the password setting when make a Scan to Folder job. |      |                                |

|             |   |      |                             |
|-------------|---|------|-----------------------------|
| <b>1040</b> | <b>[Scan: LT/LG Mixed Sized Sizes Setting]</b>  |      |                             |
| 1-040-001   | 0:OFF 1:ON  | *CTL | [0 or 1/ <b>1</b> / -/step] |
|             | Enables or disables mixing LT/LG size documents for scanner.<br>0: Disable, 1: Enable<br>Default<br>For North America: 1<br>Others: 0 |      |                             |

| <b>1041</b> | <b>[Scan:FlairAPI Setting]</b>  |                           |                        |   |
|-------------|---|---------------------------|------------------------|---|
| 1-041-001   | 0x00 – 0xff   | *CTL                      | * see BitSwitch below: |   |
|             | Sets Scanner FlairAPI Function enable / disable.<br>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  | <b>Off (Do not Start)</b> | 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   | <b>Disabled</b>           | 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  | <b>IPv6 (Exclusive)</b>   | 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 | <b>Not Used</b> | Use | Sets use of Remote UI for scanner function. |
| bit 4 | Reserved           | -               | -   | -   |
| bit 5 | Reserved           | -               | -   | -   |
| bit 6 | Reserved           | -               | -   | -   |
| bit 7 | Reserved           | -               | -   | -   |

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**SP2-XXX (Scanning-image Quality)**


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|             |   |      |                                  |  |
|-------------|---|------|----------------------------------|--|
| <b>2021</b> | <b>[Compression Level(Grayscale)]</b>   |      |                                  |  |
|             | 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 / <b>20</b> / 1 /step ] |  |
| 2-021-002   | Comp2:5-95  | *CTL | [5 to 95 / <b>40</b> / 1 /step ] |  |
| 2-021-003   | Comp3:5-95  | *CTL | [5 to 95 / <b>65</b> / 1 /step ] |  |
| 2-021-004   | Comp4:5-95  | *CTL | [5 to 95 / <b>80</b> / 1 /step ] |  |
| 2-021-005   | Comp5:5-95  | *CTL | [5 to 95 / <b>95</b> / 1 /step ] |  |

|             |  |      |                                  |  |
|-------------|--|------|----------------------------------|--|
| <b>2024</b> | <b>[Compression ratio of ClearLightPDF]</b>  |      |                                  |  |
|             | 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 / <b>25</b> / 1 /step ] |  |
| 2-024-002   | Compression Ratio(High)  | *CTL | [5 to 95 / <b>20</b> / 1 /step ] |  |

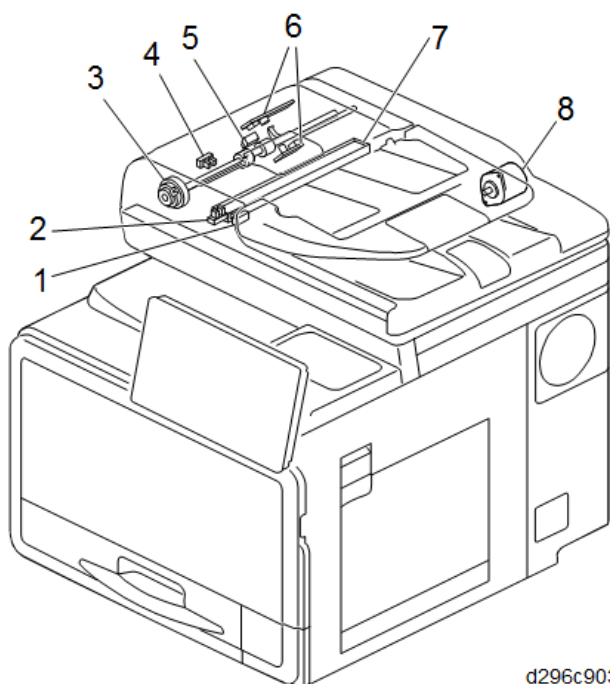
|             |  |      |                                  |  |
|-------------|--|------|----------------------------------|--|
| <b>2025</b> | <b>[Compression ratio of ClearLightPDF JPEG2000]</b>   |      |                                  |  |
|             | Selects the compression ratio for clearlight PDF for the two settings that can be selected at the operation panel. |      |                                  |  |
| 2-025-001   | Compression Ratio(Normal) JPEG2000   | *CTL | [5 to 95 / <b>25</b> / 1 /step ] |  |
| 2-025-002   | Compression Ratio(High) JPEG2000   | *CTL | [5 to 95 / <b>20</b> / 1 /step ] |  |

### 3.SP Mode Tables

| <b>2030</b> | <b>[OCR PDF DetectSens]</b> |      |                                    |
|-------------|-----------------------------|------|------------------------------------|
| 2-030-001   | White Lumi Value: 0 - 255   | *CTL | [0 to 255 / <b>250</b> / 1 / step] |
| 2-030-002   | White Pix Ratio: 0 - 100    | *CTL | [0 to 100 / <b>80</b> / 1 / step]  |
| 2-030-003   | White Tile Ratio: 0 -100    | *CTL | [0 to 100 / <b>80</b> / 1 / step]  |

## Input and Output Check

### ADF Unit



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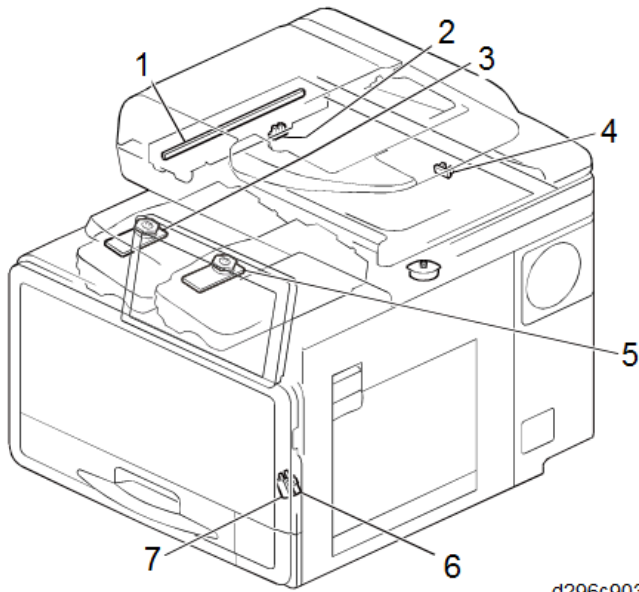
### Input Check

| 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



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**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 | -         | -          |

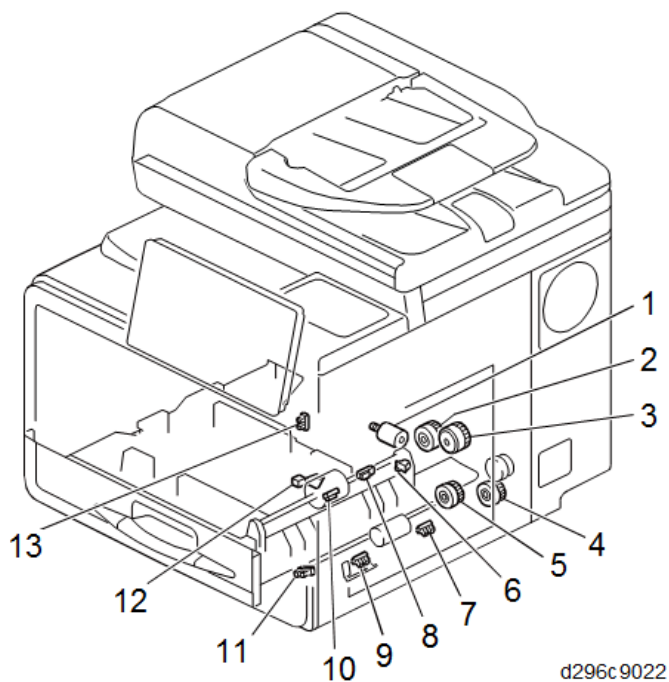
**Output check**

| 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 |               |

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**Paper Feed**


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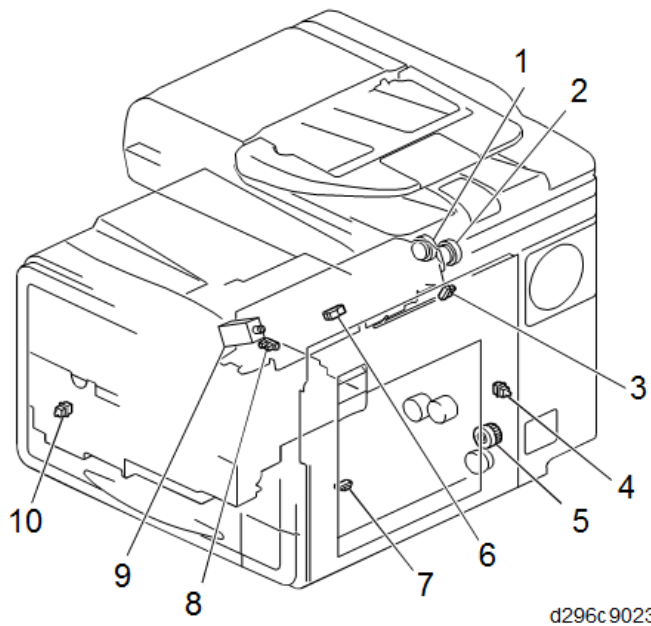
**Input Check**

| 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.<br>If keeps the tray lift motor switched ON, the bottom plate can lift up overmuch because the tray lift sensor does not work.<br>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**



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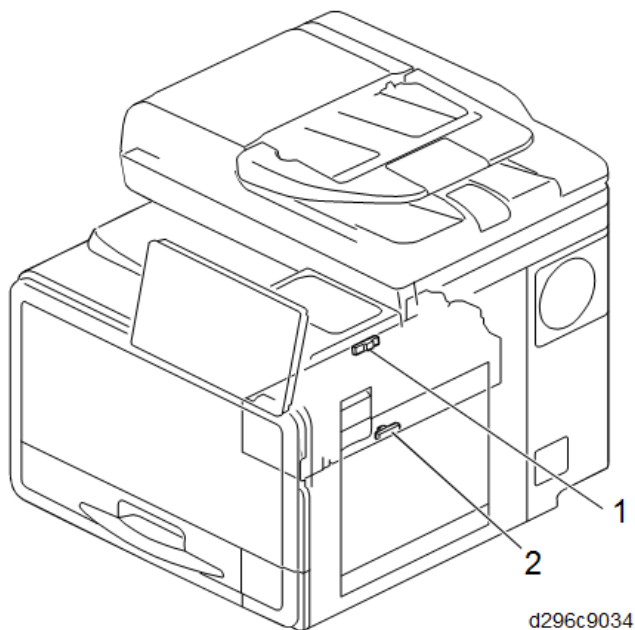
**Input Check**

| 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



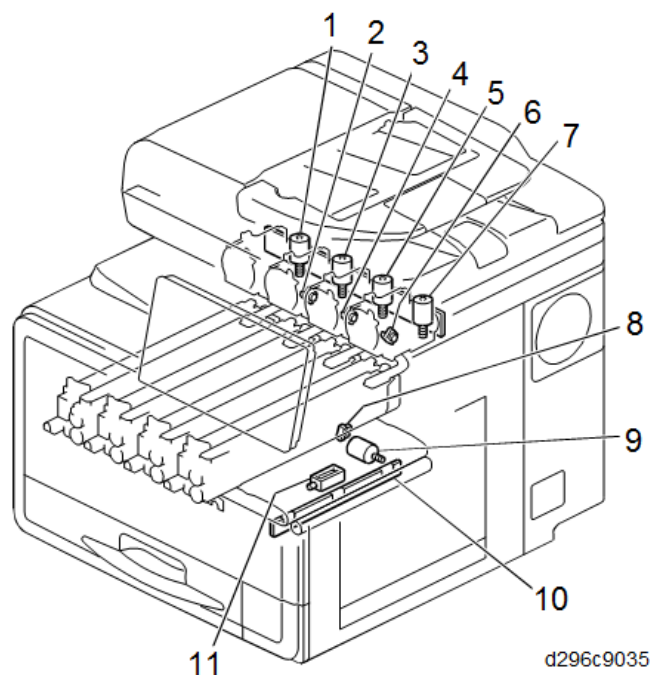
**Input Check**

| 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       |

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**Toner Supply/ Transfer**


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**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..<br>Notes : <ul style="list-style-type: none"> <li>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.</li> <li>If you run without obeying the above-mentioned operations, following failures may occur.               <ul style="list-style-type: none"> <li>The toner supply unit and PCDU are damaged, and units replacing is required.</li> <li>Toner can scatter inside and outside the machine from the supply unit.</li> </ul> </li> </ul> |
| 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-    |  |

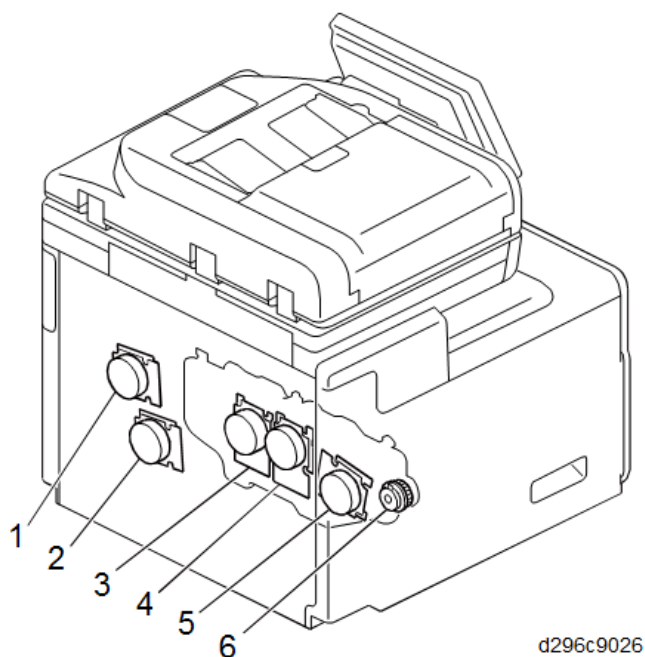
3.SP Mode Tables

| No. | Part Name                  | SP Name                      | SP No.    | Remark   |
|-----|----------------------------|------------------------------|-----------|--|
|     |                            |                              | 035       |  |
| 9   | ITB Contact Motor          | Image Transfer Contact Motor | 5-804-033 | <p>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.</p> <p>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.</p> |
| 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 | <p>After the motor is turned ON with this SP, it is turned OFF automatically in about 30 seconds.</p> <p>If you repeat turning OFF and ON continuously, the temperature of the solenoid rises. It can wrinkle the ITB near the solenoid.</p>   |
| -   | -                          | Toner End Sensor Power       | 5-804-039 |  |
| -   | -                          | ID Tag: Power Supply Control | 5-804-042 |  |
| -   | -                          | Toner Sensor Power           | 5-804-043 |  |

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 Drive Unit
 

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**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**

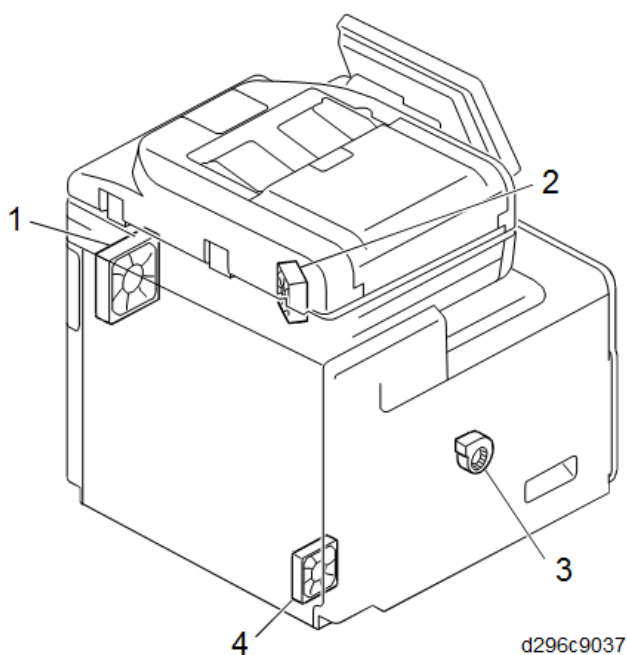
| No. | Part Name    | SP Name                        | SP No.    | Remark   |
|-----|--------------|--------------------------------|-----------|--|
| 1   | Fusing motor | Fusing Motor: Standard Speed 1 | 5-804-029 | Do not use these SPs, but use following SPs instead. <ul style="list-style-type: none"> <li>SP1-158-001 (Abnormal Noise Confirmation: Unit: Execute)</li> <li>SP1-158-002 (Abnormal Noise Confirmation: No Unit: Execute)</li> </ul> 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 |  |

### 3.SP Mode Tables

| No. | Part Name               | SP Name                           | SP No.            | Remark  |
|-----|-------------------------|-----------------------------------|-------------------|---|
|     |                         | Fusing Motor:<br>Middle Speed     | 5-<br>804-<br>096 |   |
| 2   | Paper transport motor   | Transport Motor: Std Speed 1      | 5-<br>804-<br>031 |   |
|     |                         | Transport Motor: Low Speed        | 5-<br>804-<br>032 |   |
|     |                         | Transport Motor: Standard Speed 2 | 5-<br>804-<br>092 |   |
|     |                         | Transport Motor: Middle Speed     | 5-<br>804-<br>097 |   |
| 3   | Development motor (CMY) | FC Dev Motor: Std Speed 1         | 5-<br>804-<br>024 |   |
|     |                         | FC Dev Motor: Low Speed           | 5-<br>804-<br>025 |   |
|     |                         | FC Dev Motor: Middle Speed        | 5-<br>804-<br>094 |   |
| 4   | Drum motor (CMY)        | FC Drum Motor: Std Speed 1        | 5-<br>804-<br>027 | When you turn ON the motor with these SPs, make sure to separate the color drums and ITB.<br><br>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-<br>804-<br>028 |   |
|     |                         | FC Drum Motor: Middle Speed       | 5-<br>804-<br>095 |   |
| 5   | Drum motor (K)          | Bk Drum Motor: Std Speed 1        | 5-<br>804-<br>022 | When you turn ON the motor with these SPs, make sure to separate the color drums and ITB.<br><br>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.<br>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 |

### 3.SP Mode Tables

| 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 | <p>drum. Therefore the drum may be damaged electrostatically.</p> <p>Note:</p> <p>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.</p> |
| -   | -         | 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 |   |
| -   | -         | 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.   |

### 3.SP Mode Tables

| 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 |

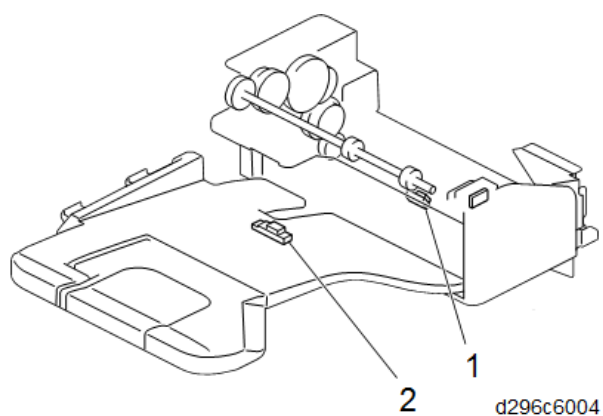
#### Output check

| 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 |        |

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**1 Bin Tray Unit (Optional)**


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**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

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### Management Features

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#### 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~~

RTB 22

- ~~1. Enter 'Printer' SP mode.~~
- ~~2. Set SP1-006-001 to 1.~~  
~~0: Link with Doc. Srv (default)~~  
~~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

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### 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+.

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### Auto PDL Detection Function

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#### Overview

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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

#### 4. Software Configuration

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.

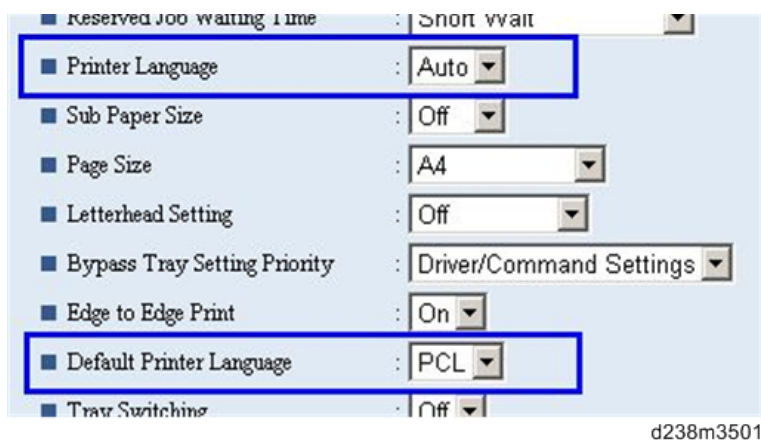
##### 3. **PS interpreter:**

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:

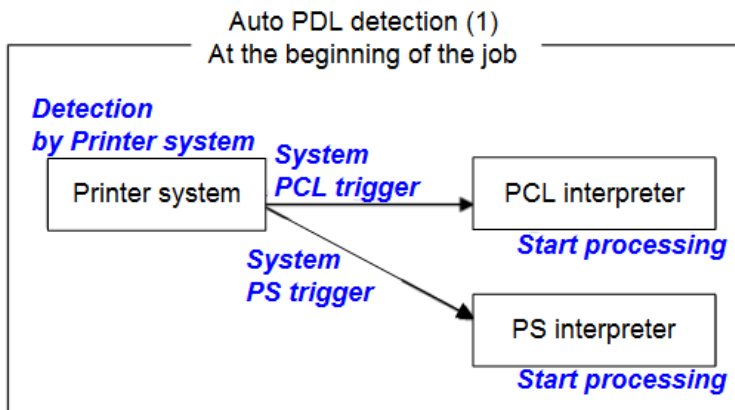


#### PDL selection and switching

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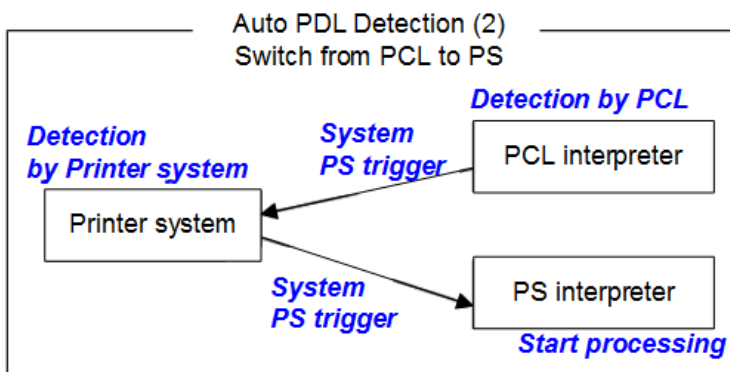
3 types of PDL selection/switching are performed:

1. PDL selection (PCL5 or PS (including PDF)) at the beginning of the job: performed by the printer system



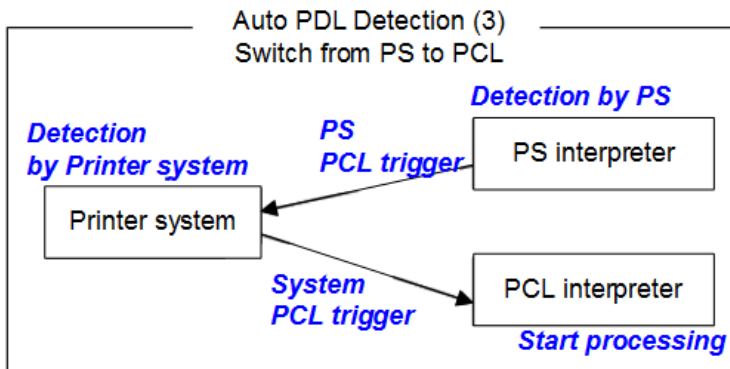
w\_d238m3502\_en

2. PDL switching from PCL5 to PS: performed by the PCL interpreter and the printer system



w\_d238m3503\_en

3. PDL switching from PS to PCL5: performed by the PS interpreter and the printer system



w\_d238m3504\_en

## Triggers

### Printer system

|               |                                    |
|---------------|------------------------------------|
| PCL5 triggers | [ESC]E<br>[FF]                     |
| PS triggers   | %!PS-Adobe-3.1<br>%!<br>dict begin |

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|              |   |
|--------------|---|
|              | bind def<br>findfont<br>showpage<br>/statusdict<br>0 startjob<br>[EOT]<br>} + space character + "def"<br>userdict (*) |
| PDF triggers | %PDF-<br>%!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.

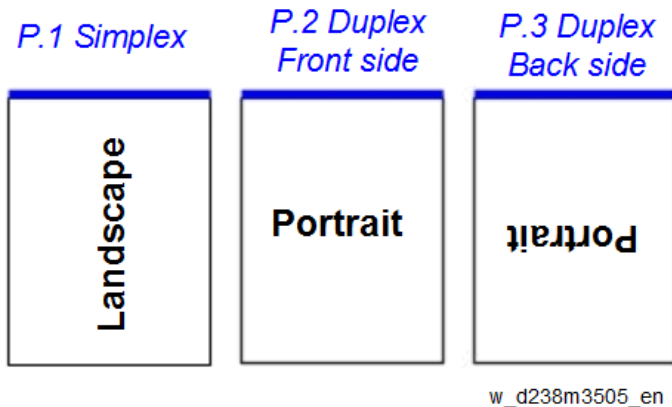
Example:

A 3-page job. Page 1 has the PCL simplex command. Page 2 and 3 have the PCL duplex long-edge bind commands.

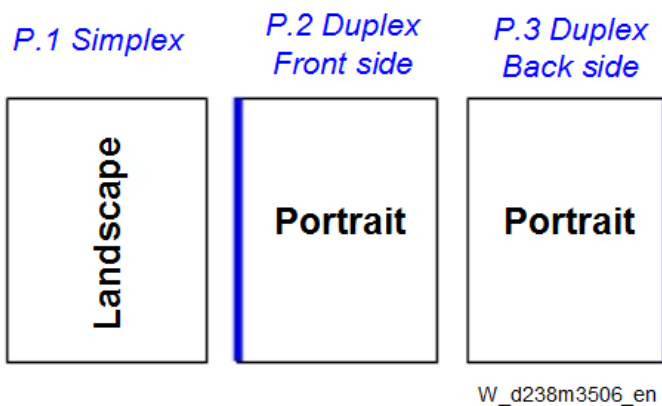
No finishing options (staple, punch, z-fold) are used.

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### Bit Switch #5-6=0:



### Bit Switch #5-6=1:



#### 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

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#### 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**

@PJM USTATUS JOB

START

NAME="TEST\_page1-3"

@PJM USTATUS PAGE

1

@PJM USTATUS PAGE

2

@PJM USTATUS PAGE

3

@PJM USTATUS JOB

END

NAME="TEST\_page1-3"

PAGES=3

<comment> The page count of the first copy is returned.</comment>

@PJM USTATUS PAGE

1

@PJM USTATUS PAGE

2

@PJM USTATUS PAGE

3

@PJM USTATUS PAGE

4

@PJM USTATUS PAGE

5

@PJM USTATUS PAGE

6

<comment> The page count of the remaining two copies is returned.</comment>

**9-4 = 1**

@PJM USTATUS JOB

START

NAME="Microsoft Word - TEST\_page1-3"

@PJM USTATUS PAGE

1

@PJM USTATUS PAGE

2

@PJM USTATUS PAGE

#### 4. Software Configuration

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

## 4. Software Configuration

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 logs 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.

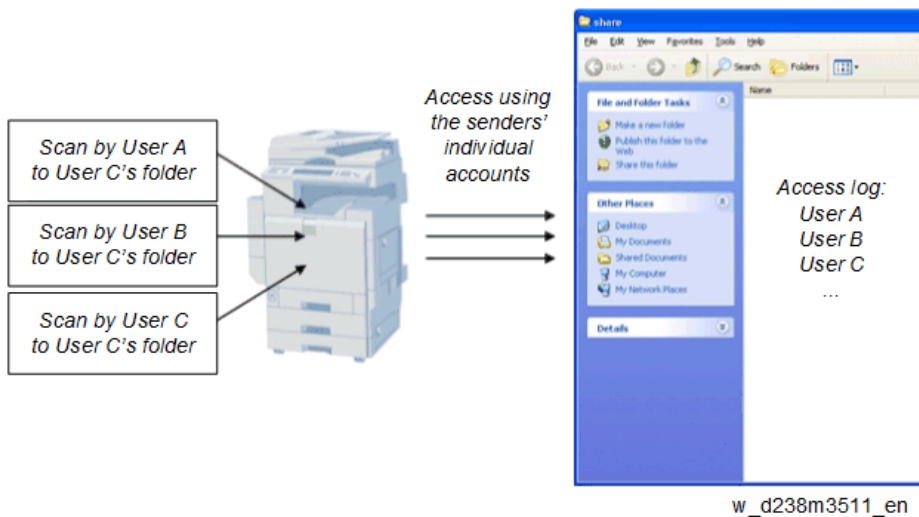
#### **Cases:**

| 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<br>(as configured in the Address Book's Folder Authentication setting)  |
| C    |                       | enabled                    | If SP 5-846-021 =<br>0 (default): The authenticated user's account<br>1: The recipient's account<br>(as configured in the Address Book's Folder Authentication setting) |

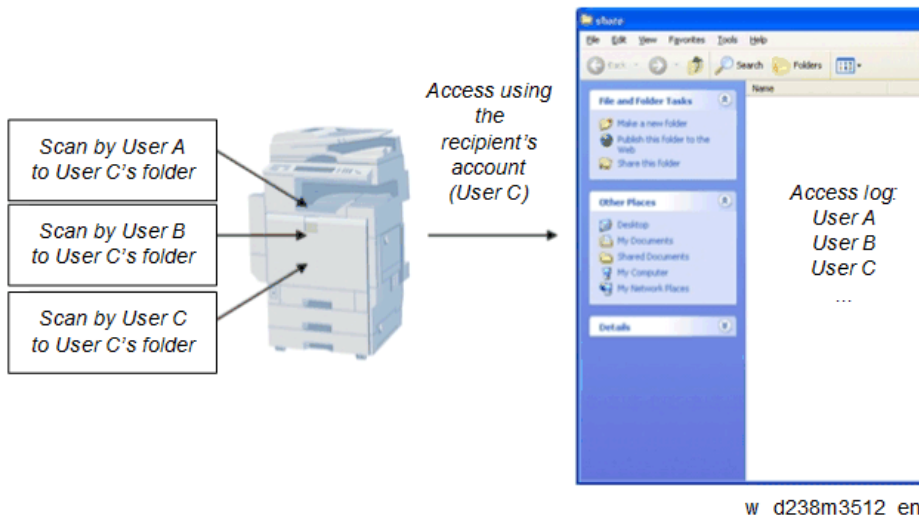
\* The "user's account" will be either the one entered during scanning (see the Manual Entry screen capture) or if User Auth. is enabled, the account configured in the user's Folder Authentication setting will be used.

**The destination's access logs:**

Case A or Case C with SP=0: The access logs can be used to determine which user sent the scan.



Case B or Case C with SP=1: All access will be logged as the same user.



## Security Features

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### 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 precedence 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~~.
- 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.

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### User Authentication for Specific MFP Applications

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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.