MP W6700 Machine Code: D212

Field Service Manual

March, 2016

Important Safety Notices

Warnings, Cautions, Notes

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

WARNING

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

• 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.

C Important

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

Note

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

General Safety Instructions

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

Safety Information

Always obey the following safety precautions when using this product.

Safety During Operation

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



[A]: ON

[B]: OFF

[C]: Push ON/Push OFF

[D]: Standby

Switches and Symbols

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

IT Power Distribution

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

Before Installation, Maintenance

Warning Label

The following figure shows the warning labels attached to this machine. Understand the symbols, and be sure to observe the instructions of the warning labels.

Label			
Description	General Caution	Be careful of the heat.	Do not put your hand.

Shipping and Moving the Machine

- Work carefully when lifting or moving the machine. If the machine is heavy, two or more customer engineers may be required to prevent injuries (muscle strains, spinal injuries, etc.) or damage to the machine if it is dropped or tipped over.
- Personnel moving or working around the machine should always wear proper clothing and footwear. Never wear loose fitting clothing or accessories (neckties, loose sweaters, bracelets, etc.) or casual footwear (slippers, sandals, etc.) when lifting or moving the machine.
- Always unplug the power cord from the power source before you move the machine. Before you move the product, arrange the power cord so it will not fall under the machine.

WARNING

• Always disconnect the power plug before doing any maintenance procedure. After switching off the machine, power is still supplied to the main machine and other devices. To prevent electrical shock, switch the machine off, wait for a few seconds, then unplug the machine from the power source.

- Before you do any checks or adjustments after turning the machine off, work carefully to avoid injury. After removing covers or opening the machine to do checks or adjustments, never touch electrical components or moving parts (gears, timing belts, etc.).
- After turning the machine on with any cover removed, keep your hands away from electrical components and moving parts. Never touch the cover of the fusing unit, gears, timing belts, etc.

Installation, Disassembly, and Adjustments

- After installation, maintenance, or adjustment, always check the operation of the machine to make sure that it is operating normally. This ensures that all shipping materials, protective materials, wires and tags, metal brackets, etc., removed for installation, have been removed and that no tools remain inside the machine. This also ensures that all release interlock switches have been restored to normal operation.
- Never use your fingers to check moving parts causing spurious noise. Never use your fingers to lubricate moving parts while the machine is operating.

During Maintenance

General

- Before you begin a maintenance procedure: 1) Switch the machine off, 2) Disconnect the power plug from the power source, 3) Allow the machine to cool for at least 10 minutes.
- Avoid touching the components inside the machine that are labeled as hot surfaces.

Power Plug and Power Cord

WARNING

- Before servicing the machine (especially when responding to a service call), always make sure that the power plug has been inserted completely into the power source. A partially inserted plug could lead to heat generation (due to a power surge caused by high resistance) and cause a fire or other problems.
- Always check the power plug and make sure that it is free of dust and lint. Clean it if necessary. A dirty plug can generate heat which could cause a fire.
- Inspect the length of the power cord for cuts or other damage. Replace the power cord if
 necessary. A frayed or otherwise damaged power cord can cause a short circuit which could lead
 to a fire or personal injury from electrical shock.

- Check the length of the power cord between the machine and power supply. Make sure the power cord is not coiled or wrapped around any object such as a table leg. Coiling the power cord can cause excessive heat to build up and could cause a fire.
- Make sure that the area around the power source is free of obstacles so the power cord can be removed quickly in case of an emergency.
- Make sure that the power cord is grounded (earthed) at the power source with the ground wire on the plug.
- Connect the power cord directly into the power source. Never use an extension cord.
- When you disconnect the power plug from the power source, always pull on the plug, not the cable.

After Installation, Servicing

Disposal of Used Items

WARNING

- Never incinerate used toner or toner cartridges.
- Toner or toner cartridges thrown into a fire can ignite or explode and cause serious injury. At the work site always carefully wrap used toner and toner cartridges with plastic bags to avoid spillage before disposal or removal.

- Always dispose of used items (developer, toner, toner cartridges, OPC drums, etc.) in accordance with the local laws and regulations regarding the disposal of such items.
- To protect the environment, never dispose of this product or any kind of waste from consumables at a household waste collection point. Dispose of these items at one of our dealers or at an authorized collection site.
- Return used drums to the service center for handling in accordance with company policy regarding the recycling or disposal of such items.

Points to Confirm with Operators

At the end of installation or a service call, instruct the user about use of the machine. Emphasize the following points.

- Show operators how to remove jammed paper and troubleshoot other minor problems by following the procedures described in the operating instructions.
- Point out the parts inside the machine that they should never touch or attempt to remove.
- Confirm that operators know how to store and dispose of consumables.

- Make sure that all operators have access to an operating instruction manual for the machine.
- Confirm that operators have read and understand all the safety instructions described in the operating instructions.
- Demonstrate how to turn off the power and disconnect the power plug (by pulling the plug, not the cord) if any of the following events occur: 1) something has spilled into the product, 2) service or repair of the product is necessary, 3) the product cover has been damaged.
- Caution operators about removing paper fasteners around the machine. They should never allow paper clips, staples, or any other small metallic objects to fall into the machine.

Special Safety Instructions for Toner

Accidental Physical Exposure

- 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.

Handling and Storing Toner

WARNING

- Toner, used toner, and developer are extremely flammable.
- Never store toner, developer, toner cartridges, or toner bottles (including empty toner bottles or cartridges) in a location where they will be exposed to high temperature or an open flame.

• Always store toner and developer supplies such as toner and developer packages, cartridges, and bottles (including used toner and empty bottles and cartridges) 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.

Toner Disposal

WARNING

- Never attempt to incinerate toner, used toner, or empty toner containers (bottles or cartridges). Burning toner can explode and scatter, causing serious burns.
- Always wrap used toner and empty toner bottles and cartridges in plastic bags to avoid spillage. Follow the local laws and regulations regarding the disposal of such items.
- Dispose of used toner and toner cartridges at one of our dealers or at an authorized collection site. Always dispose of used toner cartridges and toner bottles in accordance with the local laws and regulations regarding the disposal of such items.

Safety Instructions for the Machine

Prevention of Physical Injury

- 1. Before disassembling or assembling parts of the machine and peripherals, make sure that the machine and peripheral power cords are unplugged.
- 2. The power outlet 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. 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.
- 5. If the [Start] key is pressed before the machine completes the warm-up period (the [Start] key starts blinking red and green), keep hands away from the mechanical and the electrical components, because the machine starts making copies as soon as the warm-up period is completed.
- 6. 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.
- 7. To avoid the danger of fire or explosion, keep the machine away from flammable liquids, gases, and aerosols.

Health Safety Conditions

- 1. Never operate the machine without the ozone filters installed.
- 2. Always replace the ozone filters with the specified types at the proper intervals.

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

Observance of Electrical Safety Standards

- 1. The machine and its peripherals must be installed and maintained by a customer service representative who has completed the training course on those models.
- The NVRAM on the system control board has a lithium battery which can explode if replaced incorrectly. Replace the NVRAM only with an identical one. The manufacturer recommends replacing the entire NVRAM. Do not recharge or burn this battery. Used NVRAM must be handled in accordance with local regulations.
- 3. Test the breaker switches on the main machine and all peripheral devices at least once a year.

Safety and Ecological Notes for Disposal

- 1. Never incinerate toner bottles or used toner. Toner dust may ignite suddenly when exposed to an open flame.
- 2. Dispose of used toner, developer, and organic photoconductors 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.

- 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.

Symbols and Trademarks

Symbols Used in Text

Symbol	What it means
ji ji	Shaft bearing
\$	Binding screw (shoulder hexagonal head)
æ	Binding screw (round flathead)
4	Bushing
Ŵ	C-ring
S.	Connector
62	E-ring
	FFC (Flat Film Connector)
۲	Gear
ŝ	Harness clamp
┭	Hook (or tab release)
1	Knob screw (black)
**	Knob screw (sliver)
Å	Pivot screw
0)°	Screw (common screw)
Ør	Shoulder screw
- Cliffe	Spring
6 0	Standoff
\$	Stud screw
P	Tapping screw (for plastic)

Symbol	What it means
\bigcirc	Timing belt

The notations "SEF" and "LEF" describe the direction of paper feed. The arrows indicate the direction of paper feed.



SEF (Short Edge Feed)

LEF (Long Edge Feed)

In this manual "Horizontal" means the "Main Scan Direction" and "Vertical" means the "Sub Scan Direction" relative to the paper feed direction.



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- Internet Explorer[®] 10
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1. Product Information

Specifications

See the "Appendices" for the following information:

- Main Machine Specifications
- Printer Controller Specifications
- Scanner Specifications
- Peripheral Specifications

Guidance for Those Familiar with Predecessor Products

MP W6700 is successors to MP W8140 / MP W7100. If you have experience with these predecessor products, the following information will be of help when you read this manual.

Quick Summary of Similarities and Differences

ltem	MP W6700	MP W8140 MP W7100	
Scanner Unit	Common with MP CW2201	Unique	
Max. Original Width	914.4 mm (36")		
Max. Original Image Size	914.4 x 15,000 mm, 36" x 590"	914.4 x 30,000 mm, 36" x 1180" 914.4 x 15,000 mm 36" x 590"	
Min. Original Image Size	210 x 210 mm, 8.5" x 8.5"		
Min. through-put width	182 mm (7.2")		
Max. through-put width	950 mm (37.4")		
Original Weight	0.09 to 0.20mm Less than 0.60mm		
Copy Paper Size for Roll Feed	Max.: 914.4 x 15,000 mm, 36" x 590" Min.: 210 mm x 210 mm, 8.5" x 8.5"	Max.: 914.4 x 30,000 mm, 36" x 1180" Min.: 210 mm x 210 mm, 8.5" x 8.5"	Max.: 914.4 x 15,000 mm, 36" x 590" Min.: 210 mm x 210 mm, 8.5" x 8.5"
Copy Paper Size for Bypass Feed	Max.: 914 x 2,000 mm, 36" x 78" Min.: 210 mm x 182 mm, 8.5" x 7.2"		
Copy Paper Weight	52.3 to 110 g/m² (13.9 to 29.3 lb.)		
Unprintable margins	5 mm at each edge		

Here is a quick summary of the differences between the previous and new machines.

ltem	MP W6700	MP W8140	MP W7100
Printing Speed (ppm: prints / minute)	6.7 ppm @A2 /D LEF	14 ppm @ A1 / D LEF	10 ppm @ A1 / D LEF
Zoom	25 to 400% (0.1% / step	5)	
Resolution	Scanning: 600 dpi , Print	ing: 600 dpi	
Gradation	Scanning: 256 levels, Pri	nting: 2 levels	
Warm-up Time	Less than 120 seconds (R	coom temperature 23°C)	
First Print Time (A1/ D LEF)	19 sec	10 sec	13 sec
Print Number Input	Ten-key Pad, 1 to 99 (Sta	andard sizes only)	
Print Paper Capacity (Roll)	Max diameter: 175 mm		
Output Tray Capacity	Upper: 99 sheets @ A1/D LEF (plain paper), Larger than A1/D size cannot be stacked. 10 sheets @ A1/D LEF (application paper), 1 sheet/film Rear: 10 sheets @ A0/E SEF (plain paper), Smaller than A2/C size cannot be stacked. 1 sheet @ A0/E SEF (application paper), 1 sheet @ film		
Controller	GW+ (14S)		
Color scanning	Standard		
HDD overwrite/ encryption	Standard		
Scan to media, media to print	Standard		
Scanner and printer functions	Standard		
Memory (Standard)	2512 MB (512 MB + 2 GB) +320GB HDD		
SDK	Yes		

ltem	MP W6700	MP W8140	MP W7100
Scanning Speed (600 dpi)	80 mm/s (B/W) 26.7 mm/s (FC)	170 mm/s (B/W) 100 mm/s (FC)	
WSD (Web Services on Devices)	Yes		
Operation Panel	Standard Ricoh Operatio	n Panel	
Roll Unit RU6540	No	Yes	Yes
Paper Cassette CT6510	No	Yes	Yes
Original Hanger	Yes	Yes	Yes
Scanner Separation Kit Type M14	No	Yes	No
Original Tray Type G	Yes	Yes	Yes
Multi Copy Stacker Type 7140	Yes	Yes Yes	
W stacker Type 7140	Yes	Yes	Yes
Browser Unit Type M14	Yes	Yes	Yes
OCR Unit Type M2	Yes	Yes	Yes
SD card for NetWare printing Type M14	Yes	Yes	Yes
Data Overwrite Security Unit Type H	Yes	Yes	Yes
IEEE 802.11a/g/n Interface Unit Type M2	Yes	Yes Yes	
Print Copy Tool	Yes	Yes Yes	
Print Copy Tool Type-D 2016 (Plug in)	Yes	Yes	Yes

Machine Codes, Peripheral Configurations

Machine, Option Codes

Code	Area
17	North America
27	Europe, Russia, Saudi Arabia, East Africa, South America, Central America, Asia, Oceania
21	China

Main Machine	Machine Code	17	27	21
MP W6700	D212	Yes	Yes	Yes

Common Name	Product Name	No.
External Options		
Counter I/F Unit	Optional Counter I/F Unit	B870
Multi Stacker	Multi Stacker Type 7140	D437
Original Hanger	Original Hanger	D311
Original Tray	Original Tray Type G	D341
Roll Holder	Roll Holder Unit Type A	B394
Wide Stacker	W Stacker Type 7140	D438
Controller Options		
Browser	Browser Unit Type M14	D227
DOS Unit	Data Overwrite Security Unit Type H	D377
Netware Option	SD Card for NetWare Printing Type M14	D883
OCR Unit	OCR Unit Type M2	D166
Wireless LAN	IEEE 802.11a/g/n Interface Unit Type M2	D164

Machine Configuration

Main Unit

The standard Roller Feeder is in the drawer [1].



d212z0001

MFP Options

The machine controller box has four board slots and two SD card slots.



d208a0103
No.	Name	Description
1	Slot 1	Options (on SD cards):
		Browser Unit M14
		Data Overwrite Security Type H
		OCR Unit Type M2
		 SD Card for Network Printing Type M14
2	Slot 2	Service Slot
3	Slot B	Wireless LAN
4	Slot A	IEEE1284 (Japan Only)
5	Ethernet	IEEE 802.11 a/g/n Interface Unit Type M2
6	USB-B	Connection point for USB "B" connector
7	USB-A	Connection point for USB "A" connector
8	Debugging	For Design/Factory use only

Overview

See "Detailed Descriptions".

Preparation

Environment

- Never turn off the power switch when the power LED is lit or flashing.
- To avoid damaging the hard disk or memory, press the power switch, and then wait for the power LED to go off..



Vote

- The green square in the illustration shows the recommended temperature/humidity range for an
 office environment. The white square shows the minimum and maximum ranges of temperature and
 humidity where the machine can be used.
- 1. Recommended temperature range: 15°C to 25°C (59°F to 77°F)
- 2. Recommended humidity range: 15% to 70% rH
- 3. Ambient Illumination: Less than 1,500 Lux (do not expose to direct sunlight).
- Ventilation: Minimum space 20 m³ (approx. 700 cubic ft.) Room air should refresh at least 3 times per hour.
- 5. Ambient Dust: Less than 0.075 mg/m³
- 6. If the installation place is air-conditioned or heated, place the machine as follows:

- Where it will not be subjected to sudden temperature changes from low to high, or vice versa.
- Where it will not be directly exposed to cool air from an air conditioner in the summer.
- Where it will not be directly exposed to reflected heat from a space heater in the winter.
- 7. Avoid placing the machine in an area filled with corrosive gases.
- 8. Avoid any location higher than 2,000 m (6,500 ft) above sea level. (NA: 2,500 (8,202 ft))
- 9. Place the machine on a strong and level base.
- 10. Avoid any area where the machine may be subjected to frequent strong vibration.

Space Requirements

Minimum Space Requirements



[A]	Front: 1,000 mm (39")
[B]	Back: 600 mm (23.6")
[C]	Right: 600 mm (23.6")
[D]	Left: 600 mm (23.6")
	Height: 450 mm (18")



Configuration: Main Machine Standalone

Machine Level

- 1. Front to back: Within 0.15 mm/1000 mm (0.006"/39.4") of level
- Right to left: Within 0.15 mm/1000 mm (0.006"/39.4") of level. Make sure that the machine is level using a carpenter's level.

Power Source

The machines must be installed in a building or facility equipped with a protective device such as a circuit breaker, as the machine relies on such devices for protection against over-current and short circuits

Machine	Area	Power Source
D212	NA	120V 20A 60 Hz
	EU/Asia/ China	220 to 240V 8A 50/60 Hz
	• Permissible	Voltage Fluctuation: +/-10%

- Never set anything on the power cord.
- Make sure that the plug is clean and free of dust and firmly inserted in the outlet.

• Avoid multi-wiring.

Installation Procedure Guide

This guide describes the correct order of installation for these devices.

1. Main Machine Stand-alone

Install the main machine.

2. MFP Options



- 1. Install the main machine. (p.41)
- 2. Install the MFP options. (p.90)

Main Machine

Accessory Check

Check the accessories and their quantities against the following list:



No.	Description	Q′ty
1.	Holder – Exposure Glass Cloth	1
2.	Cloth – Exposure Glass	1
3.	Paper Holder	4
4.	Operating Instructions Holder	1
5.	Rear Copy Tray Guide	3
6.	Rear Copy Tray	
7.	Guide Mylar (Curved)	2
8.	Guide Mylar (Strips)	
9.	Front Copy Tray	1

No.	Description	Q′ty
10.	Support Bracket	1
11.	Rear Copy Tray Holder	1
12.	Leveling Shoes	4
13.	Original guide	1
14.	Original stacker	2
15.	Rear output guide	4
16.	Step Screws	2
17.	Round Head Screws (M4 x8) (Original Tray x2 each)	6
18.	Tapping Screws (M3 x 6)	5
19.	Grommets	6
20.	Roll Feeder Heater Switch Decal* ¹	1
21.	Paper Cassette Heater Switch Decal*!	1
22.	Emblem Logo	1
23.	Panel Logo	1
24.	Print Copy Tool Install CD-ROM (30 day trial version)	1

* 1	These heater switch decals should be attached to the Roll Feeder or Paper
	Cassette at the time of their installation.

Vote

• Because the installation procedure is not packed with the machine as an accessory, always bring this manual with you to the installation site.

Installation Procedure

Unpacking

1. Remove the box and plastic cover, and then set the machine onto a level floor with a fork lift or hand truck.



- The machine weighs approximately 295 (649 lb.)
- If a fork lift is not available, leave movement of the machine up to the shipping company.

ACAUTION

- Before you start this procedure, make sure the machine is unplugged.
- 2. Remove the accessories box [A] from the machine, and then remove all visible tape and shipping materials.



🔂 Important

- Keep the shipping retainers after installing the machine. They can be reused if the machine is moved to another location in the future.
- 3. Remove the tape and plastic cover from the LCD [A] of the operation panel.

4. Adjust the position of the operation panel to reduce reflection on the operation panel display. (The operation can swivel on its base [B].)



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- 5. Pull out the upper tray.
- 6. Remove the four paper holders with all their tape and packing material.



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7. Open the scanner cover.



d208a0106

8. Pull the orange tape at the center of the packing material [A], and then remove it.

2



d212k0002

9. Open the upper unit.



d208a0108

Note

- Always unlock the catch releases on both ends of the unit at the same time.
- 10. Before the machine leaves the factory, rubber pads [A] and [B] are inserted at each end of the transfer roller to keep the roller and drum separated during shipping.



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11. On the left side, remove the tape [A].

12. Press down on the left end of the transfer roller [B], and then pull on the wire [C] to remove the rubber pad.



d208a0156

- 13. On the right side, remove the tape [A].
- 14. Press down on the right end of the transfer roller [B], and then pull on the wire [C] to remove the rubber pad.



d208a0157

- 15. Discard the pads, wires, and tags.
- 16. Disconnect the three yellow tapes at the edge of the protective sheet.



d208a0109

- 17. Disconnect the long tape [A].
- 18. Pull the tape to remove the drum protection sheet [B].



d208a0110

ACAUTION

- Pull the long tape out slowly and carefully to prevent damage to the cleaning unit entrance seal.
- 19. Remove all tape from the left corner of the machine [A] and the right corner [B].



d208a0111

Leveling the Machine

- 1. Place a level at [A] and [B].
- 2. Make the machine level by turning the bolts [C] on the machine's four feet.



Testing the Breaker Operation

- 1. Close the upper unit and make sure that the scanner unit is closed.
- 2. Connect the power cord to the machine.
- 3. Connect the other end of the power cord to the power source.

- Do not turn the machine on!
- Before you test the breaker, always make sure that the power switch is off.
- Never test the breaker switch with the machine turned on.

- Push in the breaker test button with the tip of the screwdriver, until the breaker snaps to the 'Trip' ("O") position [A].
- 5. Confirm that the breaker switch is at the 'O' position.

If the breaker switch does not drop to the "O" position:

- Make sure that the power cord is securely connected to the power supply.
- Push the test button again.
- If the breaker switch does not snap down to the 'O' position, the breaker switch must be replaced.
- 6. Raise the breaker switch to the on (" | ") position [B].



d046i902

🔂 Important

- The breaker switch must be at the "|" position for the machine to operate.
- 7. Disconnect the power cord from the power source, and then continue the installation procedure.

Developer and Toner

ACAUTION

- Make sure that the power cord of the machine is disconnected.
- 1. Press release buttons on each end of the upper unit at the same time and raise the upper unit.
- 2. Open the toner hopper cover [A].
- 3. Remove the sheet [B].

🚼 Important 🔵

- There are two 1-kg packs of toner provided. Do not open each pack until you are instructed to do so in the procedure below.
- A developer lot number is embossed on the top edge of each package.

- Keep these top edges after you open each developer package.
- You will need these numbers when you input them later with SP2801-2 and -3.
- 4. Open the first 1 kg pack of developer [C] and pour it into the development unit.
 - Slowly pour the developer into the development unit, as you move the pack from left to right until the pack is empty.
 - An equal amount of developer must be spread along the entire open slot of the development unit.

🔁 Important 🔵

• Do not open the second pack of developer yet..



d046i100

- 5. Prepare the toner cartridge for installation.
 - Shake the cartridge several times and make sure that the toner is moving inside.
 - Push the cartridge cap [A]. At the same time, tap the bottom of the toner cartridge 4 or 5 times.
 - Hold the cartridge horizontally and shake it quickly from side to side 4 or 5 times.
 - Hold the joint [B] of the toner cartridge with two fingers, and turn the joint. If the joint does not turn, do the procedure again.

2



C Important

- Show the customer how to prepare a toner cartridge for installation.
- If toner is not loosened before the toner cartridge is installed, the customer may hear a rattling
 noise. The agitators inside the toner cartridge will disengage if compacted toner does not let
 them turn easily. This is the source of the rattling noise.
- To prevent this problem, instruct the customer to store extra toner cartridges horizontally on a flat surface.
- A toner cartridge should never be put on its end or stored vertically.
- 6. Install the unopened toner cartridge [A].

Coloritant 🗋

- Do not remove the tape from the toner cartridge at this time.
- 7. Rotate knob [B] until it stops.



- 8. Close the toner hopper cover.
- 9. Close the upper unit.
- 10. Connect the machine power cord to the power supply.
- 11. Press the power switch on the left side of the machine. The drum motor switches on and distributes the developer evenly inside the development unit.

Note

• The drum motor should switch on as soon as the machine warms up. However, the motor may not switch on immediately if the temperature of fusing unit is below 50°C (122°F).



d208a0112

- 12. Wait about 2 min. for the machine to stop.
- 13. Press the power switch again to turn the machine off.
- 14. Wait until the power LED on the operation panel goes off,.
- 15. Open the upper unit.
- 16. Open the toner hopper cover.

- 17. Remove the unopened toner cartridge.
- 18. Open the second 1 kg pack of developer, then slowly add it to the development unit. Move the pack from left to right until it is empty.
- 19. Use a clean cloth to clean the edges around the slot of the development unit.
- 20. Install the toner cartridge [A]. (You can refer to the decal attached to the left side of the machine.)
 - Peel off the green tape [B] from right to left to expose the perforated clear tape (these are the toner supply holes). (This clear tape is not removed.)
 - Rotate knob [C] clockwise until it stops.



- 21. Close the toner hopper cover.
- 22. Close the upper unit.

Enter Developer Lot Numbers

- 1. Turn on the main switch.
- 2. The Program/Change Administrator screen appears.

Program / Change Administrator	OK
Set items, then press [OK].	
Supervisor Login Password Change	
Administrator 1 Login Password Change	
Note: It is important that you do not forget this password. Set strong passwords to enhance the machine's security. (We recommend the passwords use combinations of at least to of the following: upper case letters, lower case letters, numbers, and symbols such as '.	
The password should also be at least eight charcters long.	2013/ 9/20
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- The machine is waiting for input of the Supervisor and Administrator login passwords.
- It is the responsibility of the site supervisor and administration to set these passwords.

Note

- The initial copy menu will not display until these passwords have been set by the Administrator and Supervisor. However, you can bypass this screen temporarily to complete the installation.
- 3. Enter SP mode.
- Execute SP5755-002. This SP bypasses the password request and allows you to use the machine to complete the installation.
- 5. Do SP2801-2 and -3 to enter the lot numbers.
 - Use the soft keyboard on the display panel to enter the lot numbers.
 - The lot numbers are embossed on the top edge of each developer pack.
 - If the numbers are the same, enter the same number twice.

C Important

- You must enter the lot numbers with SP2801-2 and -3 before doing SP2801-1. The main machine will return an error ("Failed") if you attempt to do SP2801-1 before SP2801-2 and -3.
- 6. After entering both developer lot numbers, go to the next section to initialize the developer.

Initializing the Developer and ID Sensor

🔂 Important 🔵

- Do not do this procedure until you have entered the Lot Numbers. See the previous section.
- The developer cannot be initialized until after both lot numbers have been entered.
- 1. In the Direct mode, enter 2801 001 and then press [#].

- 2. When the message prompts you to proceed, touch "Yes".
- 3. Touch [Execute]. Wait for about 2.5 to 3 min.
- 4. When the message tells you that the operation is finished, touch "Exit".
- 5. Touch "SP Direct", then enter 2923 001 and push [#].
- 6. Touch [Execute]. The machine enters the drum set mode. In the drum set mode the machine rotates to drum to coat it with toner.
- 7. After about 5 sec. a message prompts you that the operation is finished. Touch [Exit].
- 8. Open the upper unit and look at the exposed drum [A] to make sure that the drum is covered with toner.
- 9. Push the pressure lever [B] to the right. This sets the cleaning blade against the drum for normal operation.



d208a0114

- 10. Close the upper unit.
- 11. To initialize the ID sensor, touch "SP Direct", enter 3001 002, push [#], and then touch [Execute].
- 12. Wait about 6 seconds for initialization of the ID sensor to complete.
- 13. When the message tells you that the operation is finished, touch "Exit".
- 14. Exit SP mode.
- 15. Touch "Copy" to open the Copy screen.

Sample Copies

1. Load some roll paper in the machine.

Note

- For loading instructions, see the decals on the top edge of the roll feeder front cover.
- 2. Make some copy samples.

Emblem and Panel Logo

- 1. Attach the panel logo [A] on top of the **left** side of the original feed cover. (Push it down until you hear an audible click.)
- 2. Attach the emblem [B] to the **right** side original feed unit cover. (Push it down until you hear an audible click.)



d208a0115

Front Copy Tray

1. Attach the front copy tray [A].



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Original Trays

1. Hook the three projections [A] of the original stacker to the grooves on the scanner upper cover, and attach the stacker by inserting the four lower tabs into the slots of the scanner.

2



d212k0004

2. Attach the two original guides [A].



3. Attach the four rear guides [A].



d212k0005

Rear Copy Trays and Mylars

 Remove the bottom screws of the rear cover [A] (Sx4). Do not discard these screws! You will need them to attach the copy tray holder.



- d046i908
- 2. Fasten the step screws in the rear cover [A] ($\mathfrak{O}^{*}x2$).
- 3. Hang the support bracket [B] on the step screws.



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- 4. Fasten the support bracket [A] (🕅 x3).
- 5. Fasten the rear copy tray holder [B] (\$\$\vec{D}\$x6).

Note

• Use the four screws removed earlier from the bottom edge of the rear cover).



d046i908b

6. At the rear, attach:

[A] Guide mylar strips x3

[B] Curved mylars x2.



- 7. Slide two grommets onto each rear copy tray, and push them to the center.

59



d046i910a

- 8. Use the holes provided to hang the rear copy tray guides [A] (x3) from the back of the main machine.
- 9. Set the rear copy tray [B] (x3) into the holes in the support bracket [C] and rear copy tray holder [D].



Exposure Glass Cloth Holder

- 1. Peel the tape off the back of the exposure glass cloth holder.
- 2. Attach the exposure glass cloth holder to the left upper cover.
- 3. Place the exposure glass cloth in the holder.



Connect the LAN Cable

- 1. Make sure that the power switch is off.
- 2. Locate the controller faceplate [A] at the right rear corner of the machine.
- 3. Insert the LAN cable [B] into the connector point marked "Ethernet".



d208a0120

4. If security passwords are required for the machine, ask the site Administrator to set them by following the instructions in the last section.

Paper Settings

Instruct the operators and show them how to do the paper settings for optimum performance.

• The machine can automatically adjust the fusing temperature, and the voltages that control transfer of toner image from drum to paper and separation of the paper from the drum.

- These settings for paper size, paper type, and paper thickness can be done easily with the User Tools menus.
- The paper size settings should be set every time the operator switches the size, type, or thickness of paper in a paper feed station.
- 1. Press User Tools (2000).

System Settings	Cooler / Document Server Features	R	Français
Address Book Minamit	Printer Features	I	loquiny
Tray Paper Settings	Scarper Features		
Edit Home	Extended Feature Settings		
		B	Maintenance

2. Touch "Tray Paper Settings".

Tray Paner Settings	Artenia Sala	and Charles and	
Paper Tray Priority: Copier	Tray 1	Tray Paper Size: Tray 1	++36 indi/914 mm
Paper Tray Priority Printer	Tray 1	Tray Paper Sizes Tray 2	++++++++++++++++++++++++++++++++++++++
		Tray Paper Size: Tray 3	↔A0 Width (341 cm)
		Tray Paper Size: Tray 4	⊷A0 Width (841 mm)
		Printer Bypass Pilper Size	A4E7
And I Real Property lies and the	and the second second	1/3	192911
			d208a0165

3. Select a tray where paper is loaded.

Tray Paper Size: Tray 1			Cancel	CK
Select item, then pross	(OK)	×		
►A Series	►JIS B Series	► Others		
+-AD With ISAI and	++(1.05 Width/72(mm)		+-625 mm	
-AT Witth CO4 mm	+4235 Width(515m)	+	→620 mm]
		++707.mm	++490 mm]
	+-84.05 Welth(257m)	680 mm	440 mm	1/2
A4 Witth (210 mm)		660 mm		-
CONTRACTOR OF STREET,				- Neut
100000				
the second s		Contraction of the Advancement	A DECEMBER OF STREET, STRE	and the second s

d208a0166

4. Touch the "Next" or "Previous" button to select a size setting.

Select Itim, then wes	\$ [OK].	alla 🖌 🖌 🖌 🖌	
Engineering	Architecture	▶ Others	
34 kich	36 indv914 mm	++30 indt	
++22 linch	++24 inch		
+→17 inch	↔18 inch		
-11 inch	-+12 inch		212
-8 1/2 inch	-9 irch		Resius

d208a0167

5. Return to the top menu and select a paper Type.



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6. You can select "Recycled Paper", "Translucent Paper", or "Film".



7. Return to the top menu and select "Paper Thickness".

The Paser Settings	
Paper Thickness: Paper Tray	
Paper Thickness: Paper Bypass	
Paper Votume	
	3/3 A Previous

d208a0170

8. Select a number (Thicker or Thinner) for the "Paper Type".

Paper Thickness: Paper Tray			Cari	cel	OK
Select level of thick	ness for ea	ach paper ty	De.		
Paper Type	←Thicker			Thimer	
►Ptain Paper [1	2	3	4	5
►Recycled Paper	1	2	3	4	5
Translucent Paper	1	2	3	4	5
►Film	1	2	3	4	5

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9. Five selections are available for each paper type.

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 the first time the machine is turned on.

Overview

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

Program / Change Administrator	OK
Set items, then press [OK].	
► Supervisor	
Login Password Change	
Administrator 1	
Login Password Change	
Note: It is important that you do not forget this password. Set strong passwords to enhance the machine's security. (We recommend the passwords use combinations of at least to of the following: upper case letters, lower case letters, numbers, and symbols such as '. The password should also be at least eight charcters long.	
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- When the customers set the administrator/supervisor login password, the display disappears and the home display will appear.
- The customers, however, can erase this screen with the following procedure if they think there is no need to set the password.
- On the Program/Change Administrator screen, press [Change] next to Supervisor and then touch [OK] without inputting any password.
- 2. Touch [OK] again when the Confirm password display shows up.
- 3. For Administrator 1, do the same procedure as steps 1 and 2.
- 4. Press the [OK] button, then the home display appears.
 - **SP5-755-002** allows the service technician to skip this screen temporarily and continue the installation procedure without setting an administrator password.
 - However, the Program/Change Administrator screen appears every time the machine is cycle off/on if the password has not been set.

Password Setting Procedure

Vote

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

- When Supervisor/Administrator 1-4 passwords are configured via network, the "Change Supervisor login password" window 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 the main power switch on
- 3. Change the Supervisor login password.

Program / Change Adminis	trator	OK
Set items, then press [O	q.	
Supervisor Login Password	Change	
Administrator 1 Login Password	Change	
Note: It is importa Set strong passw (We recommend t at least to of the fe lower case letters The password sh	nt that you do not forget this password. ords to enhance the machine's security. he passwords use combinations of llowing: upper case letters, s, numbers, and symbols such as '. ould also be at least eight charcters long.	

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- 4. Input the password.
- 5. Press [OK].
- 6. Confirm the Password.
- 7. Press [OK].
- 8. Change the Administrator 1 login password.

Program / Change Administrator	OK
Set items, then press [OK].	
Supervisor Login Password Change	
Administrator 1 Login Password Change	
Note: It is important that you do not forget this password.	

d176f2106

- 9. Input the password.
- 10. Press [OK].

- 11. Confirm the password.
- 12. Press [OK].
- 13. Cycle the power OFF/ON.

Tray and Stacker Options

C Important

• After installation of the original exit tray or stacker at the rear, go into the SP mode and set SP4975 (Prevent Document Fall) to "1: Off". Otherwise, only one original can be fed at a time.

Original Tray Type G

Accessory Check

No.	Description	Q'ty
1	Base Strut Frame	2
2	Base Struts	2
3	Middle Struts	2
4	Tray Struts	2
5	Original Tray	1
6	Size Decal Sheet	1
7	Original Stoppers	2
8	Original Guides	2
9	Caps – Base Struts	2
10	Caps –Tray Struts	2
11	Hexagonal Bolt – M8 x 40	12
12	Washer – 8 mm	20
13	Tapping Screw – M4 x 8	6
14	Hex Nut – M8	8
15	Caster – dia. 40	2
16	Caster – dia. 40 Stopper	2

Installation Procedure

- 1. Attach the following to the base struts [A]:
 - [B] Casters: diameter 40 with stopper
 - [C] Caster: diameter 40
- 2. Assemble base stays [D] and base frame struts [A] (Bolts x4, Washers x4).
- 3. Attach caps [E] to base frame struts [A].



- 4. Attach:
 - [A] Middle struts (Bolts x4, Washers x8, Nuts 4)
 - [B] Tray struts (Bolts x4, Washers x8, Nuts x4)
 - [C] Caps





5. Install the original tray [A] on the original tray stays ($\mathfrak{O}^{p}x6$).



f341i003

6. Attach the size decals.


- 7. Attach:
 - [A] Original stoppers
 - [B] Original guides



Original Hanger

1. Open the top roller feeder drawer [A].

- 2. Hang one stacker [B] on the right.
- 3. Hang the other stacker [C] on the left.



d311i001

Multi Stacker Type 7140

C Important

• This option cannot be used at the rear when the following are installed: Original Exit Tray Type G (B341), Rear Copy Stacker Type 7140 (D438).

Accessories

No.	Description	Q'ty
1	Stacker Tray	1
2	Stoppers	2
3	Guides	2
4	Crosspieces	2
5	Tray Legs	2
6	Long Bolts – M8x45	4
7	Allen Key	1



Installation

- 1. Assemble the base:
 - Fasten cross-piece [1] to tray legs [3] and [4] (Long bolts x2).
 - Fasten cross-piece [2] to tray legs [3] and [4] (Long bolts x2).



d437i002

2. Note the "F" markings on the tray legs [1] and the stacker tray [2]. The "F" marks must face toward the rear of the main machine.



d437i003

- 3. Remove the lower knobs:
 - [1] Left knobs x2
 - [2] Right knobs x2



d437i004

- 4. With the "F" mark on the stacker tray [1] over the "F" marks on the legs, insert the arms of the stacker tray into the holes in the upright supports [2].
- 5. Push down the stacker tray [3] completely so the holes [4] are aligned on both the left and right upright supports.



d437i005

- 6. Reattach the knobs:
 - [1] Left knobs x2
 - [2] Right knobs x2



d437i006

- 7. Loosen the tray height adjustment knobs:
 - [1] Left knob x1
 - [2] Right knob x 1

2



d437i007

8. Swing the tray [1] up to the required height and tighten the height adjustment knobs.



d437i008

- 9. Install the tray:
 - At the rear for originals or copies
 - -or-
 - At the front for copies

Original Rear Exit

Follow this procedure to set the multi-stacker tray to hold long originals from the rear exit.

1. Make sure that the "F" mark on the stacker tray is on the same side as the "F" marks on the legs.



d437i010

- 2. Loosen the tray angle adjustment knobs on the right [1] and left [2].
- 3. Adjust the angle of the tray [3] to the height of the original exit and tighten the knobs.



4. Loosen the tray extension adjustment knobs on the right [1] and left [2].



d437i012

- 5. Push the stacker tray [1] as far as the rear original exit [2].
- 6. Tighten the tray extension knobs on the left [3] and right [4].





7. On the left and right, loosen the tray height adjustment knobs [1], swing the edge of the stacker tray to the exact height of the rear original exit [3], then tighten the knobs.



d437i014

- 8. Set the remaining accessories on the stacker tray:
 - [1] Upper guide
 - [2] Lower guide
 - [3] Right stopper
 - [4] Left stopper



d437i015

- 9. Hang the stoppers at the correct position for the length of the originals. The illustration above shows the stoppers set for the maximum length.
- 10. Go into the SP mode and switch off SP4975 (Original Edge Hold).

Front Copy Tray

Follow this procedure to set the multi-stacker to hold copies from the front copy tray.

- 1. Move the assembled multi-stacker to the front of the machine.
- 2. Loosen the height adjustment knobs [1] on the left and right side of the multi-stacker.



d437i020

- 3. Swing the edge of the stacker [1] to the edge of the front copy tray [2].
- 4. Tighten the height adjustment knobs on the left and right side of the stacker.



Rear Copy Exit

Follow this procedure to set the multi-stacker to hold long copies.

- 1. Remove the rear copy tray supports [1] (x3).
- 2. Remove the mylar strips [2] (x3).



d437i030a

- 3. Remove the two lower knobs [1] on the left and right side of the stacker.
- 4. Pull the stacker [2] out of the upright supports.



d437i030b

5. Lay the stacker on a flat surface and remove the extensions [1] and [2].



d437i031

- 6. Re-insert the arms of the stacker [1] completely into the upright supports so the holes are aligned on the left and right upright supports.
- 7. Reattach the knobs on the left and right upright supports [2] (2 each).



d437i032

- 8. Move the assembled multi-stacker to the rear of the machine.
- 9. Loosen the height adjustment knobs [1] on the left and right side of the multi-stacker.

2



d437i020

- 10. Swing the edge of the stacker to the edge of the rear copy exit.
- 11. Tighten the height adjustment knobs on the left and right side of the stacker.
- 12. Loosen the tray extension knobs [1] and [2].
- 13. Extend the tray [3] to the edge of the rear copy exit .



d437i033

- 14. Tighten the extension knobs.
- 15. Set the remaining accessories on the stacker tray:
 - [1] Upper guide
 - [2] Lower guide
 - [3] Right stopper

[4] Left stopper





16. Hang the stoppers at the correct position for the length of the copies. The illustration above shows the stoppers set for the maximum length.

W Stacker Type 7140 (D469)

Accessories



No.	Description	Q'ty
1	Nuts	12
2	Bolts	24
3	Screws – M4x8	6
4	Base Stay – Short	4
5	Base Stay – Long	2
6	Stoppers	4
7	Guides - Long	2
8	Guides - Short	2
9	Mylars	8
10	Base Struts	4
11	Tray Struts	4
12	Middle Struts	2
13	Spacers	36
14	Decal Sheet	1
15	Small Tray	1
16	Large Tray	1

2

- 1. Use the two long base stays [1] to assemble base struts (2) and (3) (Bolts x4, Spacers x4)
- 2. Use two of the short base stays [2] to attach base frame strut [3] to base frame strut (1) (Bolts x4, Spacers x4)
- 3. Use the remaining two short base stays [4] to attach base frame strut [5] to base strut (3) (Bolts x4, Spacers x4).



d469i101

- 4. Attach tray strut [1] to base strut (2) (Bolts x2, Nuts x2, Spacers x4).
- 5. Attach tray strut [2] to base strut (3) (Bolts x2, Nuts x2, Spacers x4).



- 6. Attach the small tray [1] to the tray struts [2] ($\mathfrak{O} x6$).
- 7. Hang the guides [3] on top of the tray (1: long, 2: short).
- 8. Hang the stoppers [4] on the tray. (These stoppers can be moved to a higher or lower position to accommodate the length of the copy.)

2



9. Attach four mylars to the small tray.



- 10. Attach middle strut [1] to base strut (1) (Bolts x2, Nuts x2, Spacers x4).
- 11. Attach original strut [2] to the middle strut [1] (Bolts x2, Nuts x2, Spacers x4).
- 12. Attach middle strut [3] to base strut (4) (Bolts x2).
- 13. Attach original strut [4] to the middle strut [3] (Bolts x2, Nuts x2, Spacers x4).



- 14. Attach the large tray [1] to the tray struts [2] ($\mathfrak{O}^{p}x6$).
- 15. Hang the guides [3] on the tray (1: long, 2: short).
- 16. Hang the stoppers [4] on the tray. (These stoppers can be moved to a higher or lower position to accommodate the length of the original.)



d469i105

17. Attach four mylars to the large tray..



MFP Options

Overview

The machine controller box has four board slots and two SD card slots. Make sure that each board and SD card is put in the correct slot.

Controller Board Slots



• Note

• The slot covers have been removed in the drawing above to show the shapes of the connection points.

No.	Name	Description
1	Slot 1	Options (on SD cards): • Browser Unit M14 • Data Overwrite Security Type H • OCR Unit Type M2 • SD Card for Netware Printing Type M14
2	Slot 2	Service Slot
3	Slot B	Wireless LAN

No.	Name	Description
4	Slot A	IEEE1284 (Japan Only)
5	Ethernet	IEEE802.11 a/g/n Interface Unit Type M2
6	USB-B	Connection point for USB "B" connector
7	USB-A	Connection point for USB "A" connector (Japan Only)
8	Debugging Port	For Design/Factory use only. This port is used by designers to download the engine log.

Before You Begin

The SD card slot cover and board slot covers are located on the faceplate [A] of the controller box in the well at the right rear corner of the main machine.

- The SD card slots (under the cover) are marked "1" and "2" on the left.
- The board slot covers are marked "B" and "A" below each cover.
- The decal [B] attached to the back of the machine tells you where the SD cards are boards should be installed.



d208a0124

To insert an SD card:

1. Remove the SD card slot cover [A] so you can see SD Card Slots 1 and 2 [B]. (Sx1).



d208a0125

- 2. Insert the SD card [A] with its label facing the front and beveled corner up.
- 3. Push the card [B] into the slot until it locks.



d208a0126

🔁 Important 🔵

- SD cards are held in position by a small spring-lock mechanism.
- To install an SD card, push it into the slot until it stops, then release it.
- To remove an SD card, push the SD card in carefully to release it, and then remove it from the slot.
- 4. Reattach the SD card slot cover (@x1).

To insert a board:

- 1. With your fingers, loosen the top and bottom screws of the cover [A].
- 2. Pull off the cover [B].



- 3. Slowly, insert the board [A] in the slot.
- 4. With your fingers, tighten the top and bottom screws [B].



d208a0128

🔁 Important 🔵

- Finger-tighten the screws attached to the board.
- Do not use a screw driver. If the screws are too tight, this could twist and damage the board.

Moving Applications on to One SD Card

There are only two SD card slots:

- Slot 1. Insert the application card in this slot. If more than one application is needed, the applications must be moved to one SD card with SP5873-1.
- Slot 2. This is the service slot used for updating the firmware.

Here are some important points you should keep in mind about SD cards and their applications:

- The data necessary for authentication is transferred with the application program to the target SD card.
- Do not use an SD card if it has previously been used with a computer. Correct operation is not guaranteed if such an SD card is used.
- The SD card is the only evidence that the customer is licensed to use the application program. The service technician may occasionally need to check the SD card and its contents to solve problems. Although copied SD cards are disabled for use, they must be stored at the customer site as proof of purchase.
- After an SD card has been used to hold several applications, it should not be used for any other purpose.

Moving Applications

Do this procedure to put more than one application on one SD card.

- 1. Turn off the copier.
- 2. Remove the SD card slot cover (\Im x2).
- 3. Insert the Source SD card in Slot 2. This card contains the application that you want to move to the other SD card.
- 4. Put the Target SD card in Slot 1.
- 5. Turn the copier on.
- 6. Go into the SP mode and do SP5873-1.
- 7. Follow the instructions on the display and touch "Execute" to start copying.
- 8. When the display tells you copying is completed, touch "Exit".
- 9. Turn the copier off.
- 10. Remove the Source SD card from Slot 2, and leave the target SD card in Slot 1.
- 11. Turn the copier on.
- Go into the User Tools mode and confirm that all the applications on the SD card in Slot 1 are enabled.

User Tools> System Settings> Administrator Tools> Next> Firmware Version> Next (3/4)

- 13. Turn the copier off again, then:
 - Reattach the SD card slot cover.
 - Store the copied SD card at the customer site.

The SD card must be stored with the machine for these reasons:

- After an SD card has been copied, it can no longer be used. But it must be stored at the customer site to serve as proof of purchase by the customer.
- Also, at a later time the stored SD cards can be restored to full use with SP5873-2 (described in the next section).

• Before storing the SD card at the customer site, label it so that it can be easily identified.

Undo Exec

- 1. Turn the main switch off.
- 2. Put the SD card with the applications in Slot 2.
- 3. Put the original destination SD card into Slot 1.

Note

- The SD card in Slot 1 must be the original SD card of the application you want to move from Slot 2 to Slot 1. You cannot use any blank SD card in Slot 1. The application will be moved only to the original SD card.
- 4. Turn the main switch on.
- 5. Go into the SP mode and do SP5873-2 (Undo Exec)
- 6. Follow the messages on the operation panel to complete the procedure.
- 7. Turn the main switch off.
- 8. Remove the SD cards from the slots.
- 9. Turn the main switch on.

IEEE 802.11 a/g/n Interface Unit Type M2

Accessories

Check the accessories and their quantities against this list.



d164a0001

	Description	Qty
1.	Antenna (White: Receive)	1
2.	Antenna (Black: Send/Receive)	1
3.	Wireless LAN PCB	1
4.	Velcro Pads	2
5.	Clamps	8
6.	Notes to Users	1

Note

• These accessories are provided as a kit for more than one model. You may not need to use all of the clamps and screws provided.

Choose a Good Location

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

Vote

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

Install the PCB

- 1. Unpack the box.
- 2. Remove the tape from both antenna cables [A].
- 3. Straighten the antenna cables [B] so they are not tangled.



d164a0002

- 4. On the right side of the machine:
 - Measure 5 cm down from the bottom edge of the scanner unit.
 - Measure 3 cm in from each side of the right rear cover, and then mark where these lines intersect.



d164a0003

- 5. On the controller faceplate at the right rear corner of the machine, loosen the screws of Slot B [A].
- 6. Remove Slot B [B].



d164a0004

- 7. Touch a metal surface to discharge any static electricity from your hands.
- 8. Align the bottom edge of the PCB with the white rail [A] in Slot B, and then push the board in until it stops.
- 9. Use your fingers to fasten the board [B] (A x2).

Comportant)

- Do not use a screwdriver to tighten these screws.
- If the screws are too tight, this could damage the PCB.



d164a0005

Install Antenna Cables

- 1. While holding the ferrite cores as shown, set the arm of a clamp [A].
- 2. Swing the back of the clamp around cables, and then lock it [B].

2



d164a0006

- 3. While holding the ferrite cores as shown (white above, black below), set the arm of another clamp [A].
- 4. Swing the back of the clamp around the cables, and then lock it [B].



d164a0007

5. Peel the tape from the back of both clamps.



d164a0008

6. Attach the clamps at the same height so the cables are straight and level with the board connection to the controller board.



d164a0009

- 7. Peel the back off a Velcro pad [A].
- 8. Set the upper left corner of the pad [B] at the front position you marked earlier on the right side of the machine.



d164a0010

9. Press the pad onto the side of the machine.



d164a0011

- 10. Peel the back off the other Velcro pad [A].
- 11. Set the upper right corner of the pad [B] at the rear position you marked earlier on the right side of the machine.



d164a0012

12. Press the pad [A] onto the side of the machine.





- 13. Determine which antenna has the black ferrite core on its cable and which has the white core on its cable.
- 14. Select the antenna with the black core on its cable.
- 15. Attach the antenna with the black core to the front pad [A].
- 16. Attach the antenna with the white core to the rear pad [B].



🚼 Important

- The antenna with the black core transmits and receives. It must be installed at the front.
- The antenna with the white core only receives. It must be installed at the rear.
- You may need to apply a bit of pressure for the antenna to snap onto the Velcro pads.
- 17. At the center of the base line between the antennas, measure 15 cm below and then mark this position [A] with a pencil.
- 18. Peel the back of a clamp, and then attach it to the marked position [B].



d164a0015

- 19. Route the antenna cables through the clamp [A], and then close the clamp.
- 20. Measure and mark the next position [B] 5 cm below the clamp you just attached.



21. Peel the tape from the back of another clamp, and then attach to the marked position [A].



d164a0017

23. Confirm that both clamps are not on the ventilation port.



d164a0018

- 24. At the lower right corner near the ferrite cores on the back of the machine, attach another clamp at [A].
- 25. Route the cables through the harness, and then close the arm [B].



d164a0019

26. This completes the device installation.



d164a0020

Testing the Installation

- 1. Turn on the main machine.
- 2. Make sure that the machine can recognize the option:

User Tools > Printer Features > List/Test Print > Configuration Page

3. Look under "System Reference", the first heading. You should see:

Device Connection: Wireless LAN

This means the Wireless LAN was installed successfully.

User Tool Settings

Go into the User Tools mode and do the procedure below. These settings take effect every time the machine is turned on.

Note

- You cannot use IEEE 802.11a/g/n if you use Ethernet.
- 1. Press the [User Tools].
- 2. Touch "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)

2412 - 2462 MHz (1 - 11 channels)

5180 - 5240 MHz (36, 40, 44 and 48 channels)

(default: 11)

Note

- In some countries, only the following channels are available: 2412 2462 MHz (1 11 channels)
- Region B (mainly North America)

2412 - 2462 MHz (1 - 11 channels)

5180 - 5240 MHz (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 in order 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 Authent. Method".
 - 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" is 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 wireless LAN settings.

SP Mode Settings

The following SP commands and UP modes can be set.

2

SP No.	Name	Function		
5840-006	Channel MAX	Sets the maximum range of the channel settings for the country.		
5840-007	Channel MIN	Sets the minimum range of the channels settings allowed for your country.		
5840-011	WEP Key Select	Used to select the WEP key (Default: 00).		
	Name	Function		
	SSID	Used to confirm the current SSID setting.		
	WEP Key	Used to confirm the current WEP key setting.		
UP mode	WEP Mode	Used to show the maximum length of the string that can be used for the WEP Key entry.		
	WPA2 Authent. Method	Used to confirm the current WPA authentication setting and pre-shared key.		

Browser Unit Type M14

Accessories

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

No.	Description	Q'ty
1.	SD Card	



Installation

- Unplug the machine power cord before you do the following procedure.
- 1. Turn the machine off.
- 2. Remove the SD card slot cover. (Sr 1).
- 3. Insert the Browser SD card in Slot 2.
- 4. Turn the machine on.
- 5. Press [User Tools].
- 6. On the touch panel, touch "Extended Feature settings".
- 7. Touch "Extended Feature Settings" in the Extended Feature Settings Menu.
- 8. Make sure that "Extended JS" application was automatically installed in the Startup Settings tab.
- 9. Cycle the machine off/on.
- 10. Perform SD Card Appli Move. (See "SD Card Appli Move" at the end of this section.)
- 11. Remove the SD Card from Slot 2.
- 12. Turn the machine on.
- 13. Press [User Tools] > Printer Features > List/Test Print > Configuration Page
- 14. Make sure that the Browser application appears in the list.
- 15. Touch "Edit home", and then "Add Icon".
- 16. Touch "Browse".
- 17. Touch a blank square to select the location for the browser icon.
- 18. Touch "Exit" to activate the Browser icon.
- 19. Enter the SP mode and do SP5-801-024 to clear Browser memory.

Ricoh JavaScript

Do the following procedure only if the customer is using the Ricoh JavaScript connected to a Web application developed by Operius/RiDP.

- 1. Turn the main switch ON.
- 2. Press [User Tools].
- 3. Touch "Browser Features".
- 4. Touch "JavaScript".
- 5. Change the Extended Java Script setting to "Active".

Browser/EXJS Firmware Update

The firmware configuration of the Browser Unit Type S1 has been changed to enhance browsing.

- The Browser Unit Type S1 consists of the Browser firmware and EXJS firmware.
- The EXJS firmware is equivalent to the existing browser firmware. Therefore, it is possible to update the EXJS firmware using the same procedure as that of SDK application firmware.
- 1. Turn the main switch ON.
- 2. Press [User Tools].
- 3. Touch "Extended Feature settings".
- 4. Touch "Extended Feature settings" in the Extended Feature Settings Menu.
- 5. Disable "Extended JS" in the Startup Settings tab.
- 6. Turn the main switch OFF.
- 7. Remove the SD card slot cover. (@x 1)
- 8. Insert the SD card for Browser firmware update into Slot 2 with its label facing the front of the machine.

Note

- Make sure that only the Browser firmware is on this SD card
- Do not copy the EXJS firmware.
- 9. Turn the main switch on.
- 10. When the Update screen opens, select the "Browser".
- 11. Touch "Update (#)".
- 12. When you see "Update Done", turn the main off.
- 13. Remove the SD card from Slot 2.

Note

- Continue with this procedure only if you are updating the Extended JavaScript (EXJS).
- 14. Insert the SD card for EXJS firmware update into Slot 2 with its label facing the front of the machine.
- 15. Make sure that only the EXJS firmware is on this SD card; do not copy the Browser firmware.
- 16. Turn the machine on, and then press [User Tools].
- 17. Touch "Extended Feature Settings".
- 18. Touch "Extended Feature Settings" in the Extended Feature Settings Menu.
- 19. Change the status of "Extended JS" to "Ending" on the Startup Settings tab.
- 20. Turn the main switch off.
- 21. Insert the SD card containing the Extended JS firmware into Slot 2.
- 22. Turn the machine on, and then press [User Tools].

- 23. Touch "Extended Feature Settings".
- 24. Touch "Extended Feature Settings" in the Extended Feature Settings Menu.
- 25. Touch the "Install" tab.
- 26. Touch "SD card", then select "Extended JS" from the list of Extended Features.
- 27. Select "Machine HDD" as the "Install to" destination, then touch "Next".
- 28. Check the Extended Features information on the "Ready to Install" screen, and then press "OK".
- After "The following extended feature has already been installed. Are you sure you want to overwrite it?" is displayed, press "Yes".
- 30. Change the status of Extended JS to "Waiting" in the Startup Settings tab.
- 31. Turn the machine off.
- 32. Remove the SD card from Slot 2.
- 33. Turn the machine on.
- 34. Press [User Tools].
- 35. Touch "Extended Feature Settings".
- 36. Touch "Extended Feature settings" in the Extended Feature settings Menu.
- 37. Make sure that the "Extended JS" has been updated to the latest version in the Startup Settings tab.

Uninstalling EXJS Firmware

- 1. Turn the machine on.
- 2. Press [User Tools].
- 3. Login with the Administrator user name and password.
- 4. Touch "Extended Feature Settings".
- 5. Touch "Extended Feature Settings" in the Extended Feature Settings Menu.
- 6. Touch "Uninstall".
- 7. Touch "Extended JS", and then touch "Yes" after "Are you sure you want to uninstall the following extended feature?" is displayed. "Uninstalling the extended feature... Please wait" is then displayed on the touch screen.
- 8. After "Completed" is displayed, turn the machine off.
- 🕓 Note
 - The Browser firmware is un-installed from the machine when the Browser SD card is removed.

Data Overwrite Security Unit Type H

Accessory Check

Check the accessories and their quantities against the table below.

No.	Description	Qťy
1	Notes and Notices for Users	1
2	Manuals CDROM	1
3	Data Overwrite Security SD Card	1



d362a0001

Before You Begin...

- Make sure that the Data Overwrite Security unit SD card is the correct type for this machine. The correct type for this machine is type "H".
- 2. Make sure that the following settings are not at the factory default settings:
 - Supervisor login password
 - Administrator login name
 - Administrator login password

These settings must be set up by the customer before the Data Overwrite Security unit can be installed.

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

2

[User Tools]> "System Settings"> "Administrator Tools">> "Next"> "Administrator Authentication Management"> "Admin. Authentication"> "On"

"Available Settings: [Administrator Tools]" appears below "Authentication Management".

Note

- "Available Settings" is not displayed until "Admin. Authentication" is switched on.
- This setting must be selected and displayed before you can do the installation procedure.

Seal Check and Removal

1. Check the two seals and confirm that they are firmly attached.

🔂 Important

- If the seals have been broken, do not use the SD card for this installation. Contact your sales division.
- 2. Break the seals.



d362a0002

Installation Procedure

- 1. Turn the machine off.
- 2. Disconnect the machine power cord.

- 3. Disconnect the network cable if one is attached.
- 4. Remove the SD card slot cover on the controller box ($\mathfrak{O}x1$).
- 5. Open the package.
- 6. Remove the SD card from its cover.



d362a0003

- 7. Insert the SD card into Slot 1.
- 8. Reconnect the network cable.
- 9. Turn the machine on.
- 10. Do SP5878-001 and push [Execute] to enable the Data Overwrite Security option.
- 11. Go out of the SP mode.
- 12. Cycle the machine off/on.
- 13. Do SP5990-5 to print the Self Diagnosis Test.
- 14. Make sure the ROM number and firmware version in area [a] of the diagnostic report are the same as those in area [b]:
 - Area [a]: "ROM Number/Firmware Version" "HDD Format Option"
 - Area [b]: "Loading Program" "GW4a_zoffyx"

Check Operation of the DOS Application

- Turn "Auto Erase Memory Setting" on: [User Tools]> "System Settings"> "Administrator Tools"> "Auto Erase Memory Setting"> "On"
- 2. Exit User Tools.
- 3. Check the display and make sure that the overwrite erase icon is displayed is the lower left corner of the operation panel.

- 4. Check the overwrite erase icon.
 - Icon [1]. Lights when temporary data exists that must be overwritten, and blinks during overwriting.
 - Icon [2]: Lights when no temporary data exists that must be overwritten.



d377i-dos004

OCR Unit Type M2

What is Searchable PDF?

- Searchable PDF embeds the text information in the scanned document without processing the data on a computer.
- If this option is installed:
 - 1. You can search the text in the scanned document.
 - 2. You can add extra text to the file name.
 - 3. The orientation of the originals is detected, and the document is automatically rotated.
- The OCR unit is provided on an SD card. By installing the SD card on the main machine, a function key is added to the operation panel. The OCR application does not need to be installed on the computer.
- After OCR installation, you can specify the settings of the searchable PDF function.
- The machine embeds the text information of the scanned document after scanning the originals (after the originals are ejected from the ADF). Therefore, you can remove the originals from the exposure glass or ADF.
- You can use other applications such as copy and printer while the machine embeds the text information of the scanned document.

Accessories

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

No.	Description	Q'ty
1.	SD Card	1



d208a0121

Installation



- Unplug the machine power cord before you do the following procedure.
- 1. Remove the SD card slot cover, and then insert the OCR SD card in Slot 1 with its label facing the front of the machine.



d208a0129

- 2. Turn on the machine.
- 3. Go into the SP mode and do SP5-878-004 (Option Setup OCR Dictionary).

- This records the content of the SD card in NVRAM
- The machine ID of the main machine is recorded on the SD card.
- 4. When the display tells you that the execution is completed, touch [Exit].
 - If the machine returns the "Failed" alert, check if the SD card to determine if it has already been used.
 - Turn off the machine and then do steps 1 to 3 again.
- 5. Cycle the machine off/on.
- 6. Go in the SP mode and do **SP5-878-004**, and then press [EXECUTE]. The OCR dictionary is copied to the HDD from the SD card.
 - In the first execution, the SD card and the machine are linked.
 - In the second execution, the OCR dictionary is copied onto the HDD.
- 7. Turn off the machine, and then remove the SD card.

C Important

- Store the SD card in a safe location.
- You will need the original SD card in case the HDD unit ever fails.
- 8. Turn the machine on.



d208a0122

9. On the "Scanner" screen touch [Send File Type / Name].

Scanner 🔊	Remaining: 3341,	96MB Store File	samet file: Status	, Glosi Mobe
Set 🖉 🍰 🛇	ady original, then press the	e Start key.	Thomas	Titl Dect Merrory 0100%
Send File Type / Name				OK
Select item.				
Single Page	Multi-page			
►File Type				
TIFF	PDF			
► PDF File Setting				7
Hat Compassion RVF	PDF/A	OCR Settings _	Security Settings	Digital Signature
			►Start No.	
File Name		AntDithiGTone	0001	Chiepe
				1 JAN 2013 5:15
				d208a012

- 10. Check to see if [OCR Settings] is displayed on the [Send File Type / Name] screen.
 - The searchable PDF function can be switched on/off on the [OCR Settings] screen after installing the OCR unit.
 - If you want to use the searchable PDF function, select [On] for [OCR Settings]. (Default: [Off])

Restoration

After installation of the OCR Unit:

- The searchable PDF function is saved on the HDD and the SD card ID is saved in NVRAM.
- After replacement of either the HDD unit or the NVRAM, OCR Unit Type M2 must be installed again.

When the original SD card exists

• If you replace the HDD.

Re-install the OCR Unit Type M2 from the original SD card.

• If you replace the NVRAM.

If you upload / download the NVRAM data, re-install the OCR Unit Type M2 from the original SD card. If you don't upload / download the NVRAM data, order a new SD card (service part) of the OCR Unit Type M2. Then re-install the OCR Unit Type M2 from the new SD card.

When you replace the HDD and NVRAM at the same time.

Re-install the OCR Unit Type M2 from the original SD card.

If Original SD Card is Lost

Order a new SD card (service part) of the OCR Unit Type M2, and then re-install from the new SD card.

• When you re-install the OCR Unit Type M2, do the same procedure as the original installation procedure.

SD Card for Network Printing Type M14

Accessories

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

No.	Description	Q'ty
1	SD Card	1



d208a0121

Installation

- Before you do the following procedure, the machine must be switched off and unplugged from its power source.
- 1. Switch the machine off.
- 2. Unplug the power supply cord.
- Remove the SD card slot cover, and then insert the NetWare SD card in Slot 1 with its label facing the front of the machine.

Note

• If you need to use more than one SD card, merge the applications onto one SD card with **SP5873-1**.



- 4. Turn on the machine.
- Print a configuration page to confirm that the machine recognizes the option: [User Tools] > Printer Features > List/Test Print > Configuration Page
- 6. At the bottom of the Configuration Page, look under "Interface Information". You should see: Operation Mode (Netware)...

File Server Name (Netware)...

This tells you Netware was successfully enabled.

2

Optional Counter I/F Unit

Accessories



b870a0001a

No.	Description	Q′ty
1.	Counter I/F PCB	1
2.	Standoffs	4
3.	Adapter Harness – Short	1
4.	Long Harness – Key Card RK4	1
5.	Long Harness – Key Card (Not Used)	1

Comportant 🔿

• If screws are provided with the accessories, you can discard them. They are not needed for this installation.

Installation

Preparation

• Remove the right front cover (p.150)

- Remove the rear cover (p.156)
- Remove the controller box cover (p.365)
- 1. Locate the box cover [1] on the left rear corner of the machine.
- 2. Open the harness clamps [2] and free the harnesses (🖗 x2).
- 3. Unfasten the box cover [3] (*P*x2).



b870a0002

- 4. Make sure that the harnesses [1] are free from the clamps.
- 5. Pull the box cover [2] away from the machine.



b870a0003



6. Unfasten the side cover [1] and then remove it [2] ($rac{r}{x}$ 2).

7. Re-attach the box cover [1] (*P*x2).



b870a0005

- 8. Lay the unit [1] on the floor.
- 9. Pull the end of the cable [2] through the side of the box cover where you just removed the side cover.



b870a0006

10. Locate the holes between the ESB [1] and the PSU [2].



- 11. Set one standoff [1] in any hole with the large base against the machine frame ($\overline{*}$ x1).
- 12. Set the other three standoffs [2] in the same way ($\overline{\$}\,x3).$



b870a0008

Parallel Mode (RK4)

- 1. Hold the counter I/F PCB as shown with the large connector [1] up and facing to the right.
- 2. Connect the unit harness [2] to the PCB (\Im x1).



b870a0009

- 3. Select the long harness [1] (13-pin)
- Connect it to the left edge of the PCB [2], opposite the connector [3] where you just connected the unit (\$\$\vert\$x1\$).



b870a0010

- 5. Set the connected PCB [1] on the standoffs.
- 6. With firm, even pressure, push the PCB [2] onto the standoffs.



b870a0011

- 7. Route the unit harness cable from the box cover [1] over the top of the PSU [2].
- 8. Open the clamps, set the cable in the clamps, and then close them ([®]x4).



b870a0012

9. Connect the other end of the long harness [1] to the connector near the center of the IOB (STA1).



b870a0013

- 10. At the top, clamp the long harness [1] (X1).
- 11. At the bottom right corner of the IOB, clamp the long harness at [1] ([®]x2).



b870a0014

- 12. Remove screw [1] at the upper right corner of the ESB ($\mathfrak{V}x1$).
- 13. Use the screw to fasten the ground wire [2] at the same location ($\mathbb{O}^{r}x1$).



b870a0015

14. The other connector [1] (7-pin) on the unit harness is allowed to hang free.



b870a0016

15. Re-attach the rear cover [1], and then the right cover.





- 16. Place the optional charge device on a flat, stable surface near the machine.
- 17. Turn the machine on.
- 18. Enter the SP mode.
- 19. Open 5113-001, and then select "11" or "12" (MF Key Card).
- 20. Open **5120-001**, and then select "1" (for Reset).

Key Counter Installation

- 1. Remove the right front cover [1] (🕅 x5).
- 2. Remove the cosmetic plate [2] (@x1).
- 3. Attach the key counter receptacle ($\mathfrak{O}x2$).



b870a0027

- 4. Re-attach the right front cover.
- 5. Turn the machine on.
- 6. Go into the SP mode.
- 7. Open **5120-001**, and then select "**1**" (for Reset).

3. Preventive Maintenance

Preventive Maintenance Tables

See "Appendices" for the following information:

• Preventive Maintenance Tables

PM Parts Replacement

Periodic PM

This machine is equipped with a PM counter, so when a PM part reaches the end of its service life, the machine displays an alert that the part should be replaced.

- SP7951-002 to 15 (Remaining Days Counter). When a PM part should be replaced within the next 15 days, a near-end message is displayed on the machine operation panel.
- SP7803-002 to 015 (PM Counter Display). This SP codes allows the service technician to see the number of sheets and distance counts for the listed PM parts before the end message is displayed. (This is the count threshold for the interval between the near-end alert and the final end alert.)
- SP7804 (PM Count Clear). The count for the replaced part must be cleared before the machine can resume normal operation. (However, the default is not displayed.)

At every PM visit for periodic checking, cleaning, etc. done according to the PM tables, the service technician should check the number of days remaining for each PM part and then replace any PM parts if necessary. A PM part does not require replacement if its count will not become zero before the next scheduled PM visit.

PM Parts

Here is a list of the PM parts, their assigned numbers, the sections of this manual where replacement procedures can be found. (The numbers in the first column are the sub numbers of the counter SP codes.)

No.	PM Parts	Replacement Procedure
002	Developer	(p.276)
003	Charge Corona Unit	(p.224)
004	Transfer Roller	(p.329)
005	Separation Corona Unit	(p.224)
006	OPC Drum	(p.249)
007	Cleaning Blade	(p.249)
008	3rd Feed Roller	(p.297)
009	4th Feed Roller	(p.298)
011	Hot Roller	(p.359)

No.	PM Parts	Replacement Procedure
012	Pressure Roller	(p.362)
013	Fusing Cleaning Roller	(p.351)
014	Cleaning Inspection 1	Counter for 10Km (32.8ft.) intervals.
015	Cleaning Inspection 2	Counter for 20Km (65.6ft.) intervals.

Related SP Codes

SP7803-002 to 015	PM Counter Display: Page
SP7803-022 to 027	PM Counter Display: Distance
SP7803-042 to 047	PM Counter Display: Distance (%)
SP7803-062 to 075	PM Counter Display: Page (%)
SP7853-002 to 015	Replacement Counter
SP7952-002 to 015	PM Count Settings

Replacing PM Parts

There is no feature on this machine that can detect a new PM part after it has been installed in the machine, so the expired count for the replaced part must be reset to zero manually.

- 1. Enter the SP mode.
- 2. Do SP5990-004 to print the logging data SMC report.
- 3. Turn the machine off.
- 4. Wait for the power LED on the control panel to go off.
- 5. Unplug the machine from its power source, and then press the power switch again to dissipate residual charges on the PCBs.
- 6. Replace the PM part.
- 7. Turn the machine on.
- 8. Enter the SP mode.
- 9. Open SP7804 (Counter Reset), and then reset the counter for the replaced PM part.
- 10. Do SP5990-004 to print another logging data SMC report, and then confirm that the count for the replaced part has been reset to zero. (This can also be confirmed with SP7803).

- 11. If the count has not reset to zero, do the procedure again to set the count for the replaced part to zero.
- 12. Leave the SP mode.

Lubrication Points

Fusing Section

[1]	Fusing Gears (Barrieta JFE 55/2)
[2]	Fusing Drive Gears (Silicone Grease G501)
[3], [4]	Fusing Pressure Screw Shaft (Barrieta JFE 55/2)



Development Section

[1]	Development Sleeve Gear (Silicone Grease G501)
[2]	Gear-20Z (Auger) (Silicone Grease G501)

The following gears should be checked every 200 km and replaced if necessary:

- [1] Development Sleeve Gear
- [3] Gear 28Z (Idle Gear)
- [4] Paddle Gear



d046p002

Drum Drive Section



d046p919

3

Cleaning Points

Ozone Filter

Note

- Clean the ozone filter to prevent the collection of dirt and paper dust which can prevent air from passing through the filter efficiently.
- 1. The ozone filter [A] is inside a duct above the used toner bottle on the right side of the machine.





d208a3374

- 2. Pull the filter out of its duct.
- 3. Use a vacuum cleaner to clean the dust from both sides of the filter.



d208a3375

Charge Corona Unit

1. Remove the charge corona unit (p.224)

2. Use lens paper to clean the grid wires.



- 3. Remove the grid wires [1].
- 4. Use lens paper to clean the charge corona wire [2].
- 5. Remove the wire and clean the casing [3] with dry or water damp cloth.



Comportant 🗋

• If you use a damp cloth, use the damp cloth first. Then be sure to wipe the cleaned area dry with a clean dry cloth.

LPH Cleaning

1. Remove the LPH. (p.215)

2. Use lens paper (or clean cloth dampened with alcohol) to clean the surfaces of the LPH unit lenses [1], [2], [3].



3. After cleaning, touch a grounded surface to discharge static electricity from your hands.

C Important

- If you use a cloth dampened with alcohol, be sure there is no residue remaining around the cleaned area.
- If you use a damp cloth, use the damp cloth first. Then be sure to wipe the cleaned area dry with a clean dry cloth.

Used Toner Bottle Cleaning

Preparation

Remove:

- Right rear cover, right front cover (p.150)
- 1. Remove the used toner bottle [1] (\Im x1).



d046r523

- 2. Wrap a piece of dry cloth [1] around the tip of a small screwdriver and fasten it with tape.
- 3. Insert the covered tip [2] and clean the area around the upper right corner of the toner bottle [3] to remove all toner.



4. The area [1] around the used toner bottle sensor [2] must be clean so that the sensor can function accurately.

З



d208a0004

3. Preventive Maintenance
4. Replacement and Adjustment

Notes on the Main Power Switch

Push Switch

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



d208a0134

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.

In 100V models, only one of the AC lines for the fusing unit is shut off when you turn off the main power; the other line carries current even when you turn off the main power switch.

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.

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

When you disconnect the power cord from the AC wall outlet, inside the machine for a while there is still residual charge. 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, be sure to press the main power switch. Thus, 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 while 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.

Vote

 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 while 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 front of the machine.



d208a0134

- 2. Disconnect the power cord
- 3. Wait 3 minutes. This is the time required if you intend to remove the rear cover and service parts in the machine, like removal of the controller board, for example).

Note

- If some LEDs on any of the boards are blinking or lit, current is still flowing.
- After the shutdown process, the main power is turned off automatically.

When the shutdown is complete

Main power LED: Off

Operation panel LED: Off

Note

- How to start from shutdown
- To start the machine, press the main power switch. However, if you press the main power switch between the beginning and the end of a shutdown, the machine will not start.

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.



• 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.

Special Tools and Lubricants

Special Tools

This Test Chart commonly used with other machines.

Part No.	Description	Q'ty
A0239504	Test Chart OS-A1 (2 sheets/set)	1

Lubricants

These lubricants are commonly used with other machines.

Part No.	Description	Q'ty
A2579300	Grease Barrierta – S552R	1
52039502	Silicon Grease G-501	1

Beforehand

WARNING

- Before servicing the machine, always follow the instructions in this manual to 1) turn off the power switch, 2) disconnect the power cord, and then press the power switch again to dissipate residual charge on the main boards.
- After replacements, make sure that all removed harnesses are connected up again and secured in their clamps.

• The pneumatic arms on both sides of the upper unit are charged with gas under high pressure. To avoid damage or personal injury, never attempt to disassemble or repair these arms.



d206z0028

Opening and Closing the Machine

Upper Unit

WARNING

• Before you do any procedure described in this section, always switch off the machine, wait for the machine to shut down, and then disconnect the power cord.

🚼 Important

- To avoid bending the catch and release mechanisms, always release and raise the right and left sides together.
- 1. Raise the upper unit release buttons on both sides and raise the upper unit [1].



2. When closing the upper unit, always press down firmly on both ends to make sure that they lock.

Roll Tray, Toner Hopper

- 1. Pull out the handle [1] to unlock it and pull out the roll tray.
- 2. Set your thumbs in the recesses on both sides of the toner hopper cover [2] and lower the cover.



d046r302

Paper Exit Cover, Paper Exit Guide Plate

1. Grip both ends of the paper exit cover [1], pull it toward you to release it, and lower the cover.



d046r303

2. Grip the rings on both ends of the paper exit guide [1], pull it toward you to release it, and lower the guide.



d046r304

Exterior Covers

Right Covers

- 1. [1] Right rear cover (@°x6)
- 2. [2] Right front cover (@x4)



d046r305

Left Covers

- 1. [1] Left rear cover (@ x7)
- 2. [2] Left front cover (@ x4)



d046r306

Inner Covers

Left Inner Cover

Preparation

- Remove the left rear cover, left front cover (p.150)
- Open the upper unit (p.148)



d208a3031

- 1. Remove:
 - [1] Front screw (@ x1)

[2] Rear screw (@x1)



- 2. Remove:
 - [1] Rear plate
 - [2] Front plate



d208a3033

Right Inner Cover

Preparation

• Remove the right rear cover, right front cover (p.150) The right inner cover [1] covers two boards.



d208a3034

1. Remove rear vertical plate [1] (@x1)



d208a3035

2. Disconnect flat plate front [1] and rear [2] (@x2).



d208a3036

3. Remove the flat plate.



d208a3037

Upper Unit Covers

Left Upper Unit Cover

- 1. Raise the upper unit [1] and remove screws (@x2).
- 2. Push up the release [2] then remove the left upper unit cover [3].



d046r310

Right Upper Unit Cover

- 1. Raise the upper unit and remove screws (@x2).
- 2. Push up the release [1] then remove the right upper unit cover [2].



d046r311

End Covers

Left End Cover

- 1. At the front [1], remove the screw (🕅 x1).
- 2. Remove the screw at the rear, and pull off the left end cover [2] (\mathfrak{W}^{x} 1).



d046r312

Right End Cover

- 1. At the front [1], remove the screw (🕅 x1).
- 2. Remove the screw at the rear, and pull off the right end cover [2] (\Im x1).



d046r313

Rear Cover

- 1. Remove:
 - [1] Guides x3
 - [2] Small mylars x3
 - [3] Large mylar x 1
 - [4] Rear copy tray stays x3
 - [5] Rear copy tray holder (@x4)



d046r314

2. Remove the rear cover [1] (@²x7)



d046r315

Scanner Cover

Raise the Scanner Unit

- 1. Open the scanner unit.
- 2. Remove the lock screws on the left and right bases of the scanner unit arms (blue $\mathfrak{P}x2$).



d212k0011

3. Disconnect the hinges from the post screws. Do not remove the screws.



d212k0012

4. Raise the scanner to the full upright position.



Scanner Left Cover

1. Remove the screw [1] (lower left of the original table) (🕅 x1).



2. Remove the screws on the rear, and disconnect the left cover [2] ($\mathfrak{G}^{*}x1$).

Scanner Right Cover

- 1. Remove the screw [1] (lower right of the original table) ($\mathfrak{O} x$ 1).
- 2. Remove the screws on the rear, and disconnect the right cover [2] (x1).



d212k0015

Scanner Rear Cover

Remove

4

 Remove the four blue screws and the other four screws, and disconnect the scanner rear cover 1 (\$x8).



d212k0016

2. Remove the scanner rear cover 2.



d212k0017

Precaution

Hook the scanner rear cover 1 at the two points.



Set the three guides of the scanner rear cover 2 to the cutout on the rear of the scanner unit.



d212k0019

Original Table

- 1. Open the original cover (p.157)
- 2. Remove the scanner left cover and scanner right cover (p.158, p.159)
- 3. Remove the screw [B] on the left side of the original table [A] (\$\$\mathcal{O}^*x1\$, M4x10).

• Note

- To mount the original table, be sure to attach the screw on the left side.
- 4. Remove the tapping screw [D] on the right side of the original table [C] (Sx1, AA143788).

Note

• To mount the original table, be sure to attach the tapping screw on the right side,



5. Remove the original table.



d212k0021

Operation Panel

Removing the Operation Panel

1. Remove the two copy trays [1].



2. Pull up the four tabs [1], and remove the original guide trays [2].



d212k0023

3. Push up the operation panel [1].



4. Remove inner cover [1] ($\mathfrak{O} x2$).



- 5. Tilt the operation panel [1] to the horizontal position.
- 6. Slide out the base cover [2] from the front.



d208a3006

7. Free the harnesses (🖗x3).



d208a3002

8. Disconnect ground wire. (🌶 x1)



d208a3003

9. Disconnect harnesses [1] and [2] (🖾 x2).



d208a3004

10. Disconnect base (@x4).

4



d208a3005

- 11. Push the base to disengage T-bar [1]
- 12. Lift off operation panel [2] off the top of the machine with metal base attached.



d208a3007

13. Lay the operation panel on a flat clean surface.



d208a3282

Touch Panel Replacement

The touch panel needs to be replaced if the touch panel cannot be calibrated correctly.

4

Preparation

- Remove the operation panel. (p.163)
- 1. Remove the back cover (@x6).



d208a3008

- 2. Raise the swivel base [1].
- 3. Slide the back cover [2] up over the upraised base.



d208a3009

4. Remove the spacer.



d208a3010

5. Disconnect the swivel base on the right [1] (& x3).



d208a3011

6. Disconnect the swivel base on the left [1] (x4).



d208a3012

7. Lift the swivel base [1], and then disconnect it [2] ($\Im x$ 1).



d208a3013

8. Raise the harness hood slightly and set it aside. Do not try to remove it.



d208a3014

- 9. Disconnect:
 - Ground wire [1] (🕅 x1)
 - Lower left corner of plate [2] (⋧ x1).



d208a3015

- 10. Disconnect plate:
 - Lower right corner [1] (X 1)
 - Right edge [2] (& x1)



d208a3016

- 11. Disconnect plate:
 - Upper right corner [1] (& x1)
 - Upper left corner [2] (を x1)



d208a3017

12. Remove the plate.



d208a3018

4

- 13. Release harness [1] and pull it aside ([®]x2).
- 14. Disconnect clamp [2] (🌶 x1).



d208a3019

15. Disconnect harnesses at [1] and [2] (Sx2).



d208a3020

16. On the left side [1], disconnect the ribbon connectors (💷 x1, 🗫 x1).



d208a3021

17. Disconnect the right side [1] (\blacksquare x1, \heartsuit x1).



d208a3022

18. Pull the disconnected ribbon connector [1] through the mylar sleeves so it is free.



d208a3023

19. Disconnect the LCD plate [1] (& x6).



d208a3024

20. Note the position of the permanently attached film connector [1].



21. Carefully, and slowly, raise the LCD plate [2].



22. Carefully, raise the LCD [1], and then separate the touch panel [2] from the LCD.



d208a3026

23. When you set the new touch panel, make sure that the ribbon connector [1] is on the left.



d208a3027

Re-installation

- 1. To re-attach the back cover, first raise the swivel base [1].
- 2. Slide the rear cover [2] down over the raised base.



d208a3028

- 3. To re-attach the base cover, turn the re-installed operation panel [1] to the horizontal position.
- 4. Slide the base cover [2] in from the front.



d208a3029

5. Be sure to calibrate the new touch panel screen. (p.469)

Scanner

Before You Begin

Safety Switch Diagram



To ensure the safety of everyone working around the machine, two switches [1] inside the scanner section prevent the LED radiation from switching on accidentally.

- When the original feed unit is opened and the switches open, a +24V line connecting each LED driver on the SIF board is disconnected.
- When the original feed unit is closed and the switches close, the +24V line is re-connected.

Scanner Right Bracket

1. Scanner right bracket [A] (🕅 x3)



Scanner Left Bracket

1. Scanner left bracket [A] (@x3)



d212k0027

Scanner Upper Cover

- 1. Scanner scanner left cover and right cover (p.158, p.159)
- 2. Original exit guide [A]



d212k0114

- 3. Tilt the operation panel [A] horizontally.
- 4. Copy tray [B] and [C]
- 5. Original tray [D]



6. Rear cover of the operation panel [A] (🕅 x2)



d212k0029

7. Free the harnesses [A] and [B] (💱 x2, 🎯 x2)



d212k0030

- 8. Pull up the scanner upper cover.
- 9. Platen plate (p.208)
- 10. Pass the harnesses from the cut [A] of the frame to the front of the main unit [B].



d212k0031
11. Release the clamp of the harness arranged on the rear of the scanner upper cover (%x6).



d212k0032

12. Detach the harness.



d212k0033

13. Bracket [A] on the right (@x1)



d212k0034

14. Harness [A] (🕅 x1)



d212k0035

Release the clamp of the harness on the right and remove the ground wire [A] (\$\$x2, \$\$x1).



d212k0036

16. Free the harness to the right side.



d212k0038



17. Remove the ground wire on the left [A] and detach the bracket [B] (Ox1).

d212k0037

- 18. Tilt the scanner upper cover horizontally.
- 19. Release the boss of the right latch [A] of the scanner upper cover on the rear of the main unit and pull the latch up.



20. Release the boss of the left latch [A] of the scanner upper cover on the rear of the main unit and pull the latch up.



d212k0040

21. Hold the left and right latches pushed, open the scanner upper cover, and pull it up to remove.



d212k0041

Comportant 🗋

• The left and right latches easily come off the scanner upper cover. Check that the latches are attached on the scanner upper cover soon after removing it.

Original Set Sensor, Original Width Sensor

- 1. Scanner rear cover (p.159)
- 1. Scanner scanner left cover and right cover (p.158, p.159)
- 2. Raise the scanner unit to the full upright position (p.157).
- 3. Original table (p.161)
- 4. Sensor cover (@x2)



d262k1017

5. Disconnect the original width sensor bracket and turn the bracket over (🕅 x3).



d124r121





In the center of the bracket, disconnect and remove the original set sensor ([®]x1 [A], ▼ x4 [B], [®]x1 [C]).





7. Other original width sensors ([®]x1 [A], ▼x4 [B], [®]x1 [C] for each)



d124r124

Safety Switches

- 1. Scanner rear cover (p.159)
- 2. Scanner scanner left cover and right cover (p.158, p.159)
- 3. Raise the scanner unit to the full upright position (p.157).
- 4. Original table (p.161)
- 5. Sensor cover (@x2)





6. Safety switch with the bracket [A] ($\mathfrak{O}^{*}x1$)



7. Separate the bracket and the switch [A] ($\Im x1$, $\Im x2$).



Original Registration Sensor

- 1. Raise the scanner unit to the full upright position (p.157).
- 2. Sensor cover (blue @x2)



d262k1009

3. Original registration sensor with the bracket [A] (blue 🕅 x1, 🕬 x1, 🖗 x1)



4. Separate the bracket and the original registration sensor [A] (🕅 x1).



Scanner Motor

- 1. Scanner rear cover (p.159)
- 2. Scanner scanner left cover and right cover (p.158, p.159)
- 3. Scanner left bracket (p.176)

- 4. Loosen the screw of the tension bracket [A], and then remove the spring [B] to loosen the tension of the timing belt (¹⁰⁰x1).

- 5. Timing belt [B] from the scanner motor [A]
- 6. Scanner motor [C] (blue @x2, @x1)



Scanner Motor



d1241347

SIB (Scanner I/F Board)

Remove

- 1. Scanner rear cover (p.159)
- 2. Disconnect all the connectors connected to the SIB (🎯 x11).
- 3. FFCs (x5)



d212k0107



• Each FFC is numbered with the number of the CIS unit it is connected to.

4. Free the harnesses (🎯 x3).



d212k0113

5. SIB (blue @x3, \$x3)

Vote

• Use a pair of radio pliers to disconnect the front edge of the board.



Precaution

Each FFC connector slot is marked with the number of CIS element that it connects to. The example below shows "CIS 1".

4. Replacement and Adjustment



Connect the FFC with the same number as the number of the SIB connector to the SIB.

Note

- If the tip of the FFC curls, flatten it and make the connection.
- If the FFC is connected with its tip curled, SC may be displayed or the picture cannot be copied or scanned properly.

Original Feed Roller

Remove

- 1. Scanner rear cover (p.159)
- 2. Scanner scanner left and cover right cover (p.158, p.159)
- 3. Raise the scanner unit to the full upright position (p.157).
- 4. Sensor cover (blue $\Im x2$)



d262k1009

4

 Loosen the screw of the tension bracket [A], and then remove the spring [B] to loosen the tension of the timing belt (^{CCC}x1).



6. Remove the timing belt from the original feed roller drive gear.



d212k0045

7. Gear and shaft ([®]x1)



d124r152



Note

• Attach the gear with the face of the gear [A] inserted against the frame so that it can fit over the flat side of the shaft [B].





8. On the right, remove the ground plate [A] from the shaft (blue $\widehat{\mathbb{O}}^r x 1$).



• Conductive grease is applied to the shaft and ground plate. Take care not to spread it around.



9. Shaft ([®])x1, wave washer x1, washer x1)



d212k0110

10. Slowly, push the end of the shaft [A] to the left until you see the coated surface [B] close to the hole in the frame and remove the right end of the roller from the hole of the right frame.



d124r157

195



d124r158

11. Slide the original feed roller to the right, and remove the left end of the roller from the hole of the left frame.



d124r159

Adjustment

After changing the original feed roller, perform the CIS adjustment (p.404).

Exposure Glass

Remove

- The exposure glass is very long and thin. It is very easy to break, so handle it carefully.
- 1. Scanner rear cover (p.159)
- 2. Scanner scanner left cover and right cover (p.158, p.159)
- 3. Raise the scanner unit to the full upright position (p.157).
- 4. Center plate [A] (blue ^(C)x2)



d262k1009

5. Remove the screw on the right side [A] and the leaf spring [B] on the right of the exposure glass (^(W)x1 with washer).



d212k0052

6. Remove the screw on the left side [A] and the leaf spring [B] on the left of the exposure glass (IX 1 with washer).



d212k0053

7. Exposure glass



d124r132

Precaution

When you reinstall the exposure glass, set the glass so that the blue dot is on the surface of the lower left corner of the glass.

199

4

CAUTION
For changing or adjusting, be sure to turn the main power off. Otherwise the LED emission may damage your eyes.

- Follow these cautions when changing the CIS unit. Otherwise the CIS may be damaged or print quality may be deteriorated.
 - Handle the CIS unit carefully to protect it from sudden shock and vibration.
 - Never touch the CIS lenses.
 - Clean the CIS lens cover with lens paper only. Never use tissues paper or cloth that could leave lint or other particles on the lenses.
 - Never disconnect the signal or power supply harnesses from the CIS unit.
- 1. Scanner rear cover (p.159)
- 2. Scanner scanner left cover and right cover (p.158, p.159)
- 3. Raise the scanner unit to the full upright position (p.157).
- 4. Exposure glass (p.197)
- Pull the harness away and disconnect the FFCs, and push them into the opening [A] (\$\$\$\$x5).









6. Remove the screws from the left [A] and right [B] sides of the CIS frame (blue 🕅 x4).



d212k0048

7. CIS unit [A].

Note

- Lift the right side of the CIS unit and move it to the right to remove it.
- Never touch the CIS lenses.
- Handle the CIS unit carefully to protect it from sudden shock and vibration.



Precaution



d124r139

- 1. Never touch the CIS lenses.
- 2. Clean away smudges or dirt with lens paper.
- 3. At the rear, locate the slot rimmed with white plastic [A]. This is where the FFCs will be reinserted.





4. Insert the CIS units into the slits on the left [A] and right [B].



d124r141

Note

- To attach the CIS unit, fully insert the frames on the both sides into the slits of the main unit and fasten it with screws.
- Check that there is no dust or dirt on the CIS lenses or exposure glass.
- 5. At the rear, pull each FFC through the slot using the Allen key. [A]
- 6. Connect the FFCs to the SIB (



d212k0116

Note

- Each FFC connector slot is marked with the number of CIS element that it connects to. The example below shows "CIS 1".
- Connect the FFC with the same number as the number of the SIB connector to the SIB.



d212k0109

Note

- If the tip of the FFC curls, flatten it and make the connection.
- If the FFC is connected with its tip curled, SC may be displayed or the picture cannot be copied or scanned properly.

Adjustment

After changing the CIS unit, perform the CIS adjustment (p.404).

Original Exit Sensor

- 1. Scanner upper cover (p.177)
- 2. Scanner rear cover (p.159)
- 3. CIS unit (p.199)
- 4. Brackets on both sides of the original exit roller (blue 🕅 x4)



5. Original exit sensor [A] (🖗 x1, 🎯 x1, 🕼 x1)



d124r173

Original Exit Roller

Remove

- 1. Scanner upper cover (p.177)
- 2. Scanner right bracket (p.176)
- 3. Scanner left bracket (p.176)
- 4. Scanner rear cover (p.159)
- 5. CIS unit (p.199)

6. Brackets on both sides of the original exit roller (blue 🕅 x4)



7. Loosen the screw of the tension bracket [A], and then remove the spring [B] to loosen the tension of the timing belt (¹⁰⁰x1).



8. Timing belt from the original feed roller drive gear



d212k0051

9. Gear and shaft ([®]x1)







d124r177

Note

• Attach the gear with the face of the gear [A] inserted against the frame so that it can fit over the flat side of the shaft [B].



d124r153

10. On the right, remove the ground plate [A] from the shaft (blue $\Im x1$).

Note

• Conductive grease is applied to the shaft and ground plate. Take care not to spread it around.



d262k1023



11. Right shaft of the original exit roller ([®])x1, wave washer x1, washer x1)





d124r179

12. Slowly, push the end of the shaft [A] to the left until you see the coated surface [B] close to the hole in the frame and remove the right end of the roller from the hole of the right frame.



d124r180



d124r181

Adjustment

After changing the original exit roller, perform the CIS adjustment (p.404).

Platen Plate

- 1. Raise the scanner unit to the full upright position (p.157).
- 2. Ground wire connected to the platen plate (blue $\widehat{{\mathbb O}}^{r}x2)$



d262k1018

3. While holding the right and left objects pressed, remove the platen plate [A]



Original Stop Switch

- 1. Raise the scanner unit to the full upright position (p.157).
- The switch cover is fastened by four hooks under the scanner unit cover on the right side Use the tip of a small screwdriver, release the hooks [A] of the switch cover and remove the switch cover on top of the scanner cover [B] (▼ x4).



d124r701



3. Switch cover plate (🕅 x1)

d124r702



d124r703

 Use the tip of a small screwdriver to release both sides of the switch [A] and remove and disconnect the connector [B] (\$\$x1).



d124r704

4

Original Stop Switch



d124r705

Scanner Fan (Right)

- 1. Scanner right cover (p.159)
- 2. Scanner right bracket (p.176)
- 3. Connector [A] and clamp, and fan [B] (☞ x1, ≪x3, ☞x2)



d212k0111

Scanner Fan (Left)

- 1. Scanner left cover (p.158)
- 2. Scanner left bracket (p.176)

3. Connector [A] and clamp, and fan [B] (☞ x1, x3, ☞ x2)



d212k0112

Image Writing Unit

VDB

1. Open toner hopper cover [1].



d208a3126

- 2. Remove:
 - [1] Left copy tray (@x2)
 - [2] Right copy tray (@x2)



d208a3127

3. To avoid damaging the pawls on the bottom of the covers, hold the covers level as you pull them straight out a short distance, and then remove them.



d208a3128a

4. Locate the VDB inside the machine where you just removed the covers.



d208a3110

- 5. Disconnect:
 - Front connectors [1] (\$\$x2)
 - Rear connectors [2] (💷 x3).



d208a3129

- 6. Disconnect:
 - Rear left corner [1] (@^{*}x1)
 - Rear right corner [2] (@^{*}x1)


- 7. Disconnect:
 - Front right corner [1] (@ x1)
 - Front left corner [2] (@²x1)



d208a3131

8. Remove the board.



d208a3132

LPH

Preparation

- Raise the upper unit. (p.148)
- Remove the upper unit left and right covers. (p.154)

- Close the upper unit.
- 1. Open the toner hopper cover.



d208a3215

2. Unfasten the left and right copy trays [1] and [2] ($\mathfrak{O} x4).$



d208a3216

3. To prevent damaging the tabs on the bottom of the trays, pull each straight out about 10 cm (4-in), and then remove it.



d208a3217

4. On the left side of the machine [1], loosen screw [2] to allow stopper [3] to slide down, away from the cutout above. **Do not remove this screw!**



d208a3283

5. On the right side of the machine [1], loosen screw [2] to allow stopper [3] to slide down, away from the cutout above. **Do not remove this screw!**



6. Inside the machine, disconnect the VDB (💷 x3, 💞 x2).



7. On the left [1] disconnect the lock plate (\Im x1).



d208a3219

8. Remove the lock plate.



9. On the right [1], release the disconnected harnesses, so you can see the screw [2] (@x2).



d208a3221

- 10. Use a stubby driver to unfasten the lock plate [1] ($\mathfrak{O}x$ 1).
- 11. Remove the plate [2].



d208a3222

12. Near the right edge of the VDB [1], remove harness clamp [2].



13. Locate the plastic loops on the LPH unit.



d208a3223

14. Grasp both plastics loops and lift the unit out of the machine.



d208a3224

15. Lay the LPH on a flat clean surface.



d208a3286



• Always handle the LPH by grasping these plastic loops.



Content (1997)

- While the LPH is out of the machine, never touch the surface of the LED elements.
- Never attempt to remove an element, or loosen a screw to adjust its position. These screws are adjusted at the factory.



d208a3226

Re-installation

1. There is a groove [1] cut into the left end of the shaft of the LPH. When you re-install the LPH align this groove with the cut-out [2] on the left frame of the machine. This will guide it into the correct position.



d208a3227

4

2. Be sure to slide the tips of the left stopper [1] and right stopper [2] up into their cutouts and tighten the screws.



d208a3287

- 3. Before putting the LPH unit in the machine, record the LPH settings on the labels attached to the LPH.
- 4. After replacing the LPH, print an IPU Test Pattern to confirm that the joints of the LPH are aligned correctly and then adjust if necessary. (p.407)

Drum Charge, Quenching Unit

Charge Corona Unit

Preparation

- Raise the upper unit. (p.148)
- Remove the upper unit left and right covers. (p.154)
- Close the upper unit.
- 1. Open the toner hopper cover.



d208a3215

2. Unfasten the left and right copy trays [1] and [2] (@x4).

/ / // ////



d208a3216

3. To prevent damaging the tabs on the bottom of the trays, pull each straight out about 10 cm (4-in), and then remove it.



d208a3217

4. On the right side of the machine [1], disconnect the unit (🖗 x1).



d208a3230

- 5. On the right side of the frame [1] unfasten the leaf spring ($rac{r}{x1}$).
- 6. Remove leaf spring [2].



d208a3231

7. On the right side of the upper unit [1], unfasten and remove the end holder [2] ($\Im^{r}x1$).





8. On the left side of the machine [1], unfasten and then remove the leaf spring [2] ($rac{r}{x}$ 1).

d208a3234

- 9. On the right side of the machine inside the frame disconnect the vertical bayonet connector [1] (🖾 x1).
- 10. Outside the frame [2] disconnect harness [2] (STx1).



d208a3235

- 11. Turn the connector [1] and push it through the hole in the frame.
- 12. Pull the connector and harness [2] through the hole.



d208a3236

13. Disconnect the right end of the stay [1] and left end of the stay [2] (\Im x4).



d208a3238

14. Lift the stay straight up, remove it, and then lay it on a flat, clean surface.



d208a3239

15. Next, disconnect the charge corona unit on the right [1] and on the left [2] (\Im x6).



d208a3240



16. Lift the charge corona unit straight up, and then remove it.

d208a3241

17. Lay the charge corona unit on a flat, clean surface.



18. Turn the unit over so you can see the three quenching lamp elements.



d208a3243

19. Last, remove the charge corona wire assembly.



d208a3244

20. Lay the wire assembly down on a flat, clean surface with the wires facing up.





Comportant 🗋

• Never place the wire assembly down on the wires. Always leave the wires facing up so they avoid damage and contamination by dirt and dust.

Charge Corona Wires

Preparation

- Remove the charge corona unit (p.224)
- 1. Remove:
 - [1] Grid wires ([™]x1 each)
 - [2] Cover plates (pressure release) (x2)
 - [3] Charge corona wire



d046r434

Reinstallation

- 1. Insert the right end into the right hole.
- 2. Insert the left end into the left hole.
- 3. Attach the right plate, then the left plate.
- 4. After replacing the corona wire, do SP2803 to clean the new corona wire.

Quenching Lamps

- Remove the charge corona unit (p.224)
- 1. Disconnect bracket and free the harness (🌶 x1, 🖏 x2)





2. Disconnect the harness at [1].

🔁 Important 🔵

• The harness is permanently attached to the quenching lamp element at [2]. Do not attempt to disconnect the harness at [2].



d208a3247

3. There are three quenching lamp elements. The removal procedure is the same for each element.



d208a3248

Around the Drum, Development Unit

Development Unit

Development Unit Removal

Before You Begin...

The development unit of this machine is not compatible with the development unit of the previous machines (D046/D049).

Preparation

Left and right upper unit covers (p.154)

- The development unit weighs 10.4 kg (22.9 lb.) with the toner cartridge installed. We recommend that it be removed by two people.
- 1. Before you do this procedure, make sure that you have the following tools:
 - Standard (+) screwdriver
 - Small (-) screwdriver
 - Radio (long-nose) pliers
 - Allen key (1.5 mm)
- 2. Open the toner hopper cover [1].
- 3. On the right side [1], remove the pivot screw ($\Im^{r}x1$).
- 4. Remove toner hopper cover [2].



d208a3141

5. Raise the upper unit [1].



- 6. On the left side of the machine [1], disconnect the drum motor ($\Im x$ 1).
- 7. Below the drum motor [2] free the harnesses (🕸x3).



d208a3145

- 8. Disconnect the harnesses [1] (🌮 x2).
- 9. Open the clamps on the drum motor bracket [2] (x3).



d208a3146

- 10. Pull the harnesses [1] away from the top of the drum motor bracket.
- 11. Free the harnesses [2] from the top of the bracket (%x2).



d208a3147

12. Pull the harnesses away from the top of the bracket.



d208a3148

- 13. Unfasten:
 - Front upper corner [1] of the drum motor bracket (@x1)
 - Rear corner [2] of bracket (@x1)

4



d208a3149

14. Unfasten:

- Lower rear corner of bracket [1] (@x1)
- Lower front corner of bracket [2] (@x1)

Note

• The screw at the lower front corner [3] also fastens a ground wire. Be sure to re-attach this wire with the screw when you re-install the motor bracket.



15. Remove the drum motor bracket with motor attached.



d208a3151

16. At the lower left side of the upper unit, free the harness of the registration idle roller panel.



d208a3152

Use a stubby driver to unfasten the left end [1] and right end [2] of the registration idle roller panel (⁽³⁾x2).



d208a3143

18. Allow the panel [1] to swing down.



d208a3144

19. On the right side of the machine, raise the right corner of the registration idle roller panel [1], and then rotate it slightly behind the pivot screw [2].



d208a3153

20. Remove the registration idle roller panel.





21. Remove the exposed pivot screws on the left [1] and the remaining screw [2] on the right [2]. (One pivot screw on the right was removed earlier.)

4



d208a3272

- The tips of these screws are sharp and could cause personal injury or damage the development unit or drum unit frame as they are removed and re-installed.
- 22. On the left side of the machine, rotate the drum gear [1] by hand so you can see the first screw hole.
- 23. Insert the long end of an Allen key [2] into the hole.



d208a3155

- 24. Use radio pliers [1] to loosen the screw.
- 25. Rotate the Allen key about two or three turns to loosen the screw. Do not remove this screw.



d208a3156

- 26. Rotate the gear [1] again by hand so you can see second screw hole.
- 27. Insert the long end of the Allen key into the hole [2] and loosen the screw, just as you did for the first screw.



d208a3157

Comportant)

- After re-installation of the unit, it is extremely important that these screws be tightened sufficiently so the gear does not slip on its shaft.
- If the screws are not tight, you will hear a loud ratcheting sound as soon as you turn the machine on again.
- If this occurs turn the machine off immediately and tighten these screws.
- 28. Use the tip of a small screwdriver to remove the bushing and washer from the drum motor shaft.



29. Remove the e-ring [1] and collar [2], and then disconnect the drive belt.



d208a3159

Comportant 2

- Note that there is a small ridge on the outer face of the collar. When you re-attach the collar, make sure that this side is facing out.
- 30. Remove the drive belt [1].
- 31. Pull off the drum drive gear [2].



d208a3160

- 32. Remove the three large screws [1] to disconnect the left side of the development unit ($\Im^{x}x3$).
- 33. Note that the screws are different lengths. The small screw [2] is the center screw.





34. On the right side of the machine [1], disconnect the bias connector [2].



d208a3162

35. Remove the three large screws to disconnect the right side of the development unit (@x3). Once again, note that the small screw is the center screw.



d208a3163

- 36. Next, remove the two sleeves [1].
- 37. If a sleeve is difficult to remove, press up slightly on the bottom of the development unit [2] as you pull out the sleeve.



d208a3164

- 38. On the left side of the machine, remove the two sleeves [1].
- 39. If a sleeve [2] is difficult to remove, press up slightly on the bottom of the development unit as you pull out the sleeve.



d208a3165

🚼 Important

- Make sure that the upper unit is open.
- To avoid damaging the wings of the development unit, never try to remove or re-install the development unit with the upper unit closed.
- 40. With someone holding each end of the development unit, pull the unit straight out to remove it from the machine.



Development Unit Gear Replacement

The gears on the development unit [1], [2], and [3] (x1 each) must be checked every 200 Km (656 K ft.) of paper feed and replaced if necessary.



d046d541a

CGB Power Pack

Preparation

- Raise the upper unit. (p.148)
- Remove the right cover of the upper unit (\$\$x2). (p.154)
- 1. Remove the CGB power pack [1] (𝔐x3, ♣x1, ☜x1, ☜x4).



d046r383

Drum Motor

Preparation

- Remove the left cover of the upper unit. (p.154)
- Remove the left rear cover and the left front cover. (p.150)
- 1. Locate the drum motor on the left side of the machine.



d208a3275

2. Disconnect the motor (🏹 x1).



d208a3276

- 3. Unfasten:
 - Bottom of motor [1] (@x2)
 - Top of motor [2] (@²x2)



d208a3277

4. Remove the motor.



d208a3278

Drum, Cleaning Blade

Comportant 🗋

- After moving the drum from the cold into a warm location, allow enough time for the drum to warm to room temperature.
- Inspect the drum for condensation before installing it. If you see condensation on the surface of the drum, allow more time for it to dry. Never wipe the surface of the drum to remove condensation.
- Store extra drums in a clean, dry location. Never remove a new drum from its package until you are ready to install it.
- Never store a drum where it will be exposed to ammonia or other airborne corrosive substances.
- Never touch the surface of a bare drum.
- Avoid exposing a bare drum to light. Cover it with paper while it is out of the machine.
- Never clean the drum surface with alcohol or any other organic solvent.

Drum Unit Removal

Preparation

- Remove the development unit (p.233)
- 1. Make sure that the upper unit is raised.
- 2. On the left side [1] disconnect the drum (🖗x2, 💞 x1).



d208a3167

3. While still on the left side [1], remove the left drum lock plate (🕅 x2).



d208a3168

4. Remove the left plate [1] and mark it [2] to remind you of which side it is from and which end is up.



d208a3169

5. On the right side of the upper unit [1], unfasten the right drum lock plate [2].


d208a3170

6. Remove the right plate [1] and mark it [2] to remind you which side it is from and which end is up.



d208a3171

7. Now you are ready to remove the drum. A handle is provided on the left end [1] and right end [2] of the drum.

Comportant)

- Use these handles to remove and carry the drum.
- Never touch the surface of the drum.



8. Check the left side of the upper unit [1] to confirm that the drum connector is disconnected and floating free.





9. Pull the drum straight out to remove it. The drum is light. One person can manage to remove and carry it.



- 10. Place the drum unit on a clean surface [1].
- 11. Cover the drum unit with paper [2] to protect its surface from light.



d208a3175

Drum Removal

Before You Begin

Follow these guidelines when you replace the drum and drum cleaning blade:

- The drum and drum cleaning blade are usually replaced together.
- You must do the following SPs after replacing the drum and drum cleaning blade.

4

SP	What It Does
2923	Drum Setting Mode . This applies toner to the drum to reduce friction between the drum and cleaning blade. This prevents the blade from bending or scratching the surface of the drum.
3001 002	ID Sensor Setting – Initial Setting. Initializes the ID sensor.

- SP2923 and SP3001-002 must be done after both drum and drum cleaning blade replacement. If only the cleaning blade was replaced only SP2923 is required.
- You can remove the drum or the cleaning blade first. The order of removal is not important.
- The dimensions of the drum for the previous machines (D046/D049) and this machine are identical, but please remember that the drum for this machine is blue (not green). The green drum of the previous machines [A] should never be used to replace the blue drum [B] in this machine.



d206z0029

Preparation

- Remove the development unit (p.233)
- Remove the drum unit (p.249)
- 1. Disconnect the lock plate on the left end of the drum [1] ($\mathfrak{V}x1$).



2. Slide the bearing [1] off the left end of the shaft.



d208a3289

3. Remove the screw on the right tip of the drum shaft [1] ($\mathfrak{O}^{*}x1$).



d208a3290

4. Remove the bearing [1].



d208a3291

5. Grip the drum by the left and right tip of the shaft, and then remove it from its cradle.



d208a3292

6. Lay the drum on a flat clean surface.



d208a3293

- 7. Locate the eyelets of the retaining spring clip on the left end of the drum [1].

d208a3294

8. Spread the eyelets [1] and remove the retaining clip [2].



d208a3295

9. Next, remove the gear wheel [1].



10. On the right end of the drum [1], unscrew the knob and then remove it.



d208a3297

11. Remove the flat washer [1], and then remove the spring [2].



12. Locate the lock washer [1] on the neck of the right shaft, and then pull off the washer [2]. (You may have to rotate it around the shaft until it comes free.)



13. On the left end of the drum, grip the tip of the shaft [1], and then slowly pull it out of the drum [2].



d208a3300

14. Lay the shaft on a flat, clean surface.



d208a3301

- 15. On the right end of the drum [1], remove the stopper [2].

- d208a3302
- There are two rubber pads inside the drum, each pad is about 100 mm inside the left end of the drum [1] and right end [2].



🔂 Important 🔵

- When installing a new drum, always remove both rubber plates from the old drum and install them in the new drum.
- These plates reduce the noise caused by the inertia when the drum starts and stops.
- 17. At the right end of the drum [1], use a pair of long-nose pliers to pull the pad [2] out of the drum.



18. Pull the other pad [1] out of the left end of the drum.



d208a3305

Re-installation

1. The pads should be pushed in at least 100 mm into left end and right end of the new drum



Drum Cleaning Blade Removal

1. On the right end of the drum unit [1], locate the pressure lever [2].



d208a3307

2. Pull the bottom of the lever [1] toward the end of the drum unit to swing the top of the lever [2] toward the center of the unit. This releases the pressure on the blade.



3. On the left end of the drum unit [1], remove the cap screw from the left end of the cleaning blade..





4. On the right end of the drum unit [1], remove the cap screw from the right end of the cleaning blade..



d208a3310

- 5. Disconnect and remove spring [1] from the right end of the cleaning blade.
- 6. Disconnect and remove spring [2] from the left end of the cleaning blade.



d208a3311

7. Remove the cleaning blade.



d208a3312

8. Lay the cleaning blade on a flat, clean surface.



d208a3313

After Replacement of the Drum and Cleaning Blade

1. After re-attaching the blade, be sure to push the pressure lever [1] toward the center of the drum unit so it raises and locks the cleaning blade [2] against the drum.



d208a3314

2. After re-installing the drum unit, set the pressure lever to the left. This separates the blade from the "dry" surface of the new drum that is not yet coated with toner.

4

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- 3. Plug in the power cable and switch the main power switch on.
- 4. Enter the SP mode.
- 5. Enter "**2923**", press [#], then touch "Start". This applies a coat of toner to the surface of the new drum so the new blade will not scratch the "dry" surface of the new drum.
- 6. After the operation has finished, be sure to set the pressure lever to the right so the cleaning blade is against the surface of the drum for normal operation.



d208a0174

Content Important

- SP3001-002 in the next step is not required if only the cleaning blade was replaced.
- 7. Enter 3001-002, press [#], then touch "Start" to initialize the ID sensor.

Drum Handling

Always follow these guidelines when handling drums.

- Store drums at room temperature in a clean, dry area.
- After a drum is brought in from the cold into a warm room, never wipe the surface of the drum remove condensation. Allow the condensation to evaporate.

- Never remove a new drum from its packaging until you are ready to install it.
- Never touch the surface of a drum with bare hands.
- Never expose a bare to direct sunlight.
- During replacement procedures never expose the florescent light for a long period.
- While a drum is out of the machine, always cover the exposed surface of the drum with paper or a cloth.
- Never apply alcohol, or any other type of organic solvent, to the surface of a drum.
- Never install the machine, or store drums, in any location exposed to ammonia or halogen gases.
- Always obey local laws and regulations when disposing of used drums.

Bypass Set, Bypass Registration Sensors

Preparation

- Raise the upper unit. (p.148)
- Remove the upper unit right cover. (p.154)
- 1. Open the toner hopper cover [1], and then remove the toner cartridge [2].



d208a3140

2. Remove pivot screw [1] and then remove the toner hopper cover [2].



3. Raise the upper unit [1].



d208a3142

4. Use a stubby driver to unfasten the left end [1] and right end [2] of the registration idle roller panel (@x2).



d208a3143

5. Allow the panel [1] to swing down until it is hanging vertically.



d208a3144

6. Locate the connectors and clamps [1] at the lower left corner of the upper unit below the drum motor [2].





- 7. Free the harnesses and disconnect the ground wire [1] (\$x3, \$x1).
- 8. Disconnect the harness [2] leading to the registration idle roller panel ($\Im x1$).



d208a3269

9. Make sure that the disconnected harness is hanging free.



10. On the right side of the machine, raise the right corner of the registration idle roller panel [1], and then rotate it slightly behind the pivot screw [2].



11. Remove the registration idle roller panel [1].



d046r417

- 12. Turn over the registration idle roller panel and lay it on a flat surface.
 - [1] is the bypass set sensor, [2] is the bypass registration sensor



d046r418

- 13. Remove:
 - [1] Sensor assembly (@x1)
 - [2] Bypass paper set sensor (@x1, @x1)
 - [3] Bypass paper registration sensor (@x1, @x1)



d046r419

4

Toner Supply Clutch

Preparation

- Remove the development unit. (p.233)
- 1. Remove:

[1] Plate (ℬx1, ☜x1, ◀x1)

The stopper is spring-loaded. It will pop out suddenly after removal of the e-ring.

[2] Cut the harness clamp

[3] Toner supply clutch



Used Toner Bottle Full Sensor/ Temperature/humidity sensor

Preparation

• Right rear cover (p.150)

- Right front cover (p.150)
- Right inner cover (p.152)
- 1. The temperature/humidity sensor [1] and toner bottle sensor [2] are mounted on the same bracket below the transfer power pack [3] on the right side of the machine.



2. Remove the toner bottle.



d208a3121

- 3. Disconnect the bracket [1] (*P* x2).
- 4. Open clamps [2] and free the harnesses (x3).



d208a3122

5. Disconnect the toner bottle sensor [1] and temperature/humidity sensor [2] (STx2).



d208a3123

6. Pinch the tabs of the toner bottle sensor [1] to release it.

4



Developer

Preparation

- You need one unopened toner cartridge to do this procedure.
- Remove the toner cartridge from the machine. Follow the instructions on the decal on the front left side of the machine.
- 1. Remove
 - [1] Toner supply casing (🕅 x2)
 - [2] Development filter and bracket.



D046R114

Comportant 🖸

• Always handle the development unit carefully, to avoid damaging the bias terminal on the left end of the unit.

Note

- Make sure that the filter is re-installed with the holes facing down.
- 2. Raise the clutch-end [1] up about 45 degrees to remove the developer, and then lay it flat.



D046R115

- 3. Rotate the unit [1] to remove more developer.
- 4. Rotate the knob [2] to remove the remaining developer.



Installing the developer

- 1. Open the first 1 kg pack of developer and pour it into the development unit.
 - Slowly add the developer from the first pack into the development unit, while you move the pack from left to right until the pack is empty.
 - An equal amount of developer must be spread along the entire open slot of the development unit.



() Important

- Do not add the second pack at this time.
- 2. Set an **unopened** toner cartridge [A] in the machine.

🔁 Important

- If a new toner cartridge is not available, cover the open slot of the toner cartridge with some tape to seal it temporarily.
- 3. Rotate knob [B] until it stops.



- 4. Close the toner hopper cover.
- 5. Close the upper unit.
- 6. Connect the power supply cord and switch the main power switch on. The main motor switches on and distributes the developer evenly inside the development unit.
- 7. Wait about 22 seconds until the machine stops.
- 8. Turn on the machine.
- 9. Open the upper unit.
- 10. Open the toner hopper cover.
- 11. Remove the toner cartridge.
- 12. Open the second 1 kg pack of developer, then slowly add it to the development unit. Move the pack from left to right until it is empty.
- 13. Use a clean cloth to clean the edges around the slot of the development unit.
- 14. Remove the unopened toner cartridge from the machine.
- 15. Install the original toner cartridge.
- 16. Close the toner hopper cover.
- 17. Close the upper unit.
- 18. Wait for the machine to warm up.

Entering Developer Lot Numbers

- 1. Enter SP mode.
- 2. Do SP2801-002 and -003 to enter the lot numbers.
- Use the soft keyboard on the display panel to enter the lot numbers. (The lot numbers are embossed on the top edge of each developer pack.) If the numbers are the same, enter the same number twice.

C Important

 You must enter the lot numbers with SP2801-2 and -3 before doing SP2801-1. The main machine will return an error ("Failed") if you attempt to do SP2801-1 before SP2801-2 and -3.

Initializing the Developer

🔁 Important

- Do not do this procedure until you have entered the Lot Numbers. See the previous section.
- 1. Enter the SP mode.
- 2. Enter 2801 001 and press [#].
- 3. When the message prompts you to proceed, touch "Yes".
- 4. Push [Execute]. Wait for about 2.5 min.
- 5. When the message tells you that the operation is finished, touch "Exit".
- 6. Touch "SP Direct", then use the 10-key pad to enter 2923 001 and push [#].
- 7. Push [Execute]. The machine enters the drum set mode and dusts the drum with toner.
- 8. When the message prompts you that the operation is finished, touch [Exit].
- 9. Open the upper unit and confirm that the drum is covered with toner.
- 10. Push the pressure lever to the right to push the cleaning blade against the drum, then close the upper unit.
- 11. To initialize the ID sensor, touch "SP Direct", push [#], enter 3001 002 then touch [Execute].
- 12. Wait about 6 seconds for initialization to complete.
- 13. When the message prompts you that the operation is finished, touch "Exit".

Development Motor

Preparation

- 1. Raise the upper unit. (p.148)
- 2. Remove the left cover of the upper unit. (p.154)

- 3. Remove the left rear cover and the left front cover. (p.150)
- 4. Remove the development motor [1] (\$\$\vec{y}\$x1, \$\$\vec{y}\$x4).





d046r404

Reinstallation

- 1. Set the timing belt [1] behind the panel to receive the drive gear of the development motor.
- 2. After reattaching the development motor [2], turn it slowly to the front and back.
- 3. If the two gears at [3] move to the front and back when you turn the development motor, the belt and timing gear are correctly engaged.



d046r405

ID Sensor

The ID sensor is located on the edge of the registration idle roller panel.

Preparation

- Remove the left and right upper unit covers. (p.154)
- 1. Open the toner hopper cover [1], and then remove the toner cartridge [2].



d208a3140

2. Remove pivot screw [1] and then remove the toner hopper cover [2].



d208a3141

3. Raise the upper unit [1].



4. Use a stubby driver to unfasten the left end [1] and right end [2] of the registration idle roller panel (@[®]x2).



- 5. Allow the panel [1] to swing down until it is hanging vertically.



d208a3144

6. Locate the connectors and clamps [1] at the lower front corner of the upper unit below the drum motor [2].



d208a3268

- 7. Free the harnesses and disconnect the ground wire [1] (💱x3, 🕸x1).
- 8. Disconnect the harness [2] leading to the registration idle roller panel (🖾 x1).



9. Make sure that the disconnected harness is hanging free.



d208a3270

10. On the right side of the machine, raise the right corner of the registration idle roller panel [1], and then rotate it slightly behind the pivot screw [2].



d208a3153

11. Remove the registration idle roller panel.



d208a3154

12. Lay the panel on a flat, clean surface.


d208a3271

13. Locate the ID sensor on the edge of the panel.



d208a3209

- 14. Disconnect the mounting bracket [1] ($\mathfrak{O} x2$).
- 15. Remove the bracket [2] with sensor attached.



16. Disconnect the sensor (\Im x1).



d208a3211

17. Separate the sensor and small bracket (@x2).



d208a3212

18. Release small lock plate [1].



19. Separate small bracket [2] and sensor.

d208a3213

20. The sensor is free.



d208a3214

289

4

Paper Feed, Cutting

Cutter Unit

Preparation

- Pull out the roll tray
- 1. Remove
 - [1] Roll tray cover (🕅 x2)
 - [2] Left spring, hook (@x1)
 - [3] Side plate (@[®]x2)
 - [4] Guide plate (pressure release).





2. Remove:

- [1] Left cutter HP switch connector (🎯 x1)
- [2] Right cutter HP switch connector (🎯 x1)
- [3] Cutter motor connector (🖗x2,🞯 x1)
- [4] Cutter unit (@x2). (Slide out to the left.)



D046R124

Cutter Motor, Cutter HP Switches

- Remove the cutter unit (p.290)
- 1. Remove:
 - [1] Cutter motor (@x2, &x1)



Paper Feed Motor

- The paper feed drive motor is located under the front left corner of the roll tray.
- Remove the roll tray.
- 1. Remove:
 - [1] Paper feed drive cover, left rear corner (@x1)
 - [2] Loosen the adjustment screw.

- [3] Remove the pressure spring.
- [4] Motor assembly (x1, ☞x2,☞x2)
- [5] Paper feed motor(@x2)





Cutting Sensor, Feed Exit Roller

- Pull out the roll tray drawer.
- Remove the left and right inner cover. (p.151)
- 1. Remove
 - [1] Lock plate (@x2)
 - [2] Sensor bracket
 - [3] Cutting sensor (🖾 x1, 🖾 x1)



D046R126

2. Remove:

- [1] Bushings (®x2)
- [2] Guide plate (@^{*}x4)
- [3] Feed exit roller



Reinstallation

• Re-install the left end first (viewed from the front).

Roll Tray

- The roll tray weighs 36 kg (80 lb.) At least two technicians are needed to remove it and re-install it.
- Prepare a clean flat surface to set the unit on after removal. The paper feed motor is mounted under the roll tray. A strong table, or four blocks, to raise the roll tray slightly, is ideal and will make it easier to service.
- Right rear cover, right front cover (p.150)
- Rear cover (p.156)
- Controller box cover (p.365)
- 1. Remove:
 - [1] Open the harness clamps (🖗x6)
 - [2] Connectors (STx2)





- 2. Remove:
 - [1] Left inner cover (@ x3)
 - [2] Right inner cover (@x2)
 - [3] Harness clamp at the corner of the right inner cover



D 046 R 129

3. Remove harness clamps [1] inside the machine (🎯 x2).



D046R130

- 4. Remove the roll tray [1] (@x4 with washers).
- 5. Pull the flat connector [2] from the back to the front of the machine.



D046R131

- 6. Coil the flat connector and then place it inside the roll tray.
- With a technician on each side of the roll tray, lift it off the rail and set it down on a clean flat surface.

1 st Feed Roller and Clutch

- Remove the roll tray. (p.294)
- 1. Remove:
 - [1] Bushings (🕅 x2)
 - [2] First feed roller (🕅 x 1)
 - [3] Paper feed clutch (💱x2,🎯 x1)



2. After replacement, do the SP codes for the roller which you replaced, to adjust the cut length.

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SP1920-021 to 253
```

Cut Length Adjustment

2nd Feed Roller and Clutch

- Remove the roll tray. (p.294)
- 1. Remove:
 - [1] Bushings (🕅 x2, 📕 x2)
 - [2] Second feed roller (🕅 x1)
 - [3] Paper feed clutch (x2,☞x1)



D046R134

2. After replacement, do these SP codes for the roller which you replaced, to adjust the cut length.

SP1920-021 to 253	Cut Length Adjustment	
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Roll Paper End Sensors

- Open the roll feeder drawer.
- There are two roll paper end sensors: the front end sensor [1] for Roll 1, the rear end sensor for Roll 2.



Roll End Sensor 1

- 1. Open the roll feeder drawer.
- 2. Detach the sensor bracket [1] (🕅 x1).
- 3. Push the bracket [2] toward the right and then pull it out slightly with the sensor attached.



d3a2a0002

4. Disconnect the sensor (\Im x1).



d3a2a0003

5. Separate the sensor and bracket ($\mathfrak{O}x1$).



d3a2a0004

Roll End Sensor 2

- 1. Open the roll feeder drawer.
- 2. This sensor is located on the bottom plate under the roll feeder.



d3a2a0005

- 3. While lying flat on your back and looking up at the bottom of the roll feeder, free the sensor harness [1] ([®]x2).
- 4. Detach the sensor [2] (@x1).



d3a2a0006

5. Disconnect the sensor (🎯 x1).



d3a2a0007

Registration Roller

Preparation

- 1. Raise the upper unit.
- 2. On the left, remove:
 - Upper unit left cover (p.154)
 - Left front cover (p.150)
 - Left inner cover (p.151)
 - Registration motor (p.311)
 - Registration clutch (p.309)
- 3. On the right, remove:
 - Upper unit right cover (p.154)
 - Right front cover (p.150)
 - Right inner cover (p.151)
 - Separation power pack (p.323)
- 4. At the front, remove the bypass feed table.

Torque Limiter

1. On the right side, remove the torque limiter bracket [1] (\Im x2).



d046r508

2. Remove the torque limiter [1] from the right end of the roller (@x1).



d046r509

Aluminum Guide Plate

1. On the right [1], remove the screws (🕅 x2)



2. On the left, remove: [1] E-ring (🕅x1)

[2] Spring ([™]x1)



d046r511

- 3. Slide the gear [1] out slightly (do not remove it).
- 4. Remove the screw [2] (@x1).

4



d046r512

5. Remove the aluminum guide plate [1].



d046r513

Main Guide Plate

1. On the left, remove screws [1] and [2] (${}^{\textcircled{\mbox{\rm SY}}}x3).$



d046r514

- 2. On the right, remove screws [1] and [2] (@*x2).



3. On the left, remove screws [1] and [2] ($\mathfrak{O} x2).$



d046r516

4. Remove screws [1] and [2] (@x3).



d046r518

5. While pressing down plate [1], remove screw [2] (Ox1).



6. Grasp the main guide plate at each corner and remove it [1].



d046r520

Roller Removal

- 1. Disconnect the roller:
 - [1] Left end (🕅 x 1, 📕 x 1)
 - [2] Right end ([®])x1, **■** x1)
- 2. Slide the right end of the roller [3] to the right until the left end of the roller shaft clears its hole on the left.



3. Pull the roller to the left and remove it.

Registration Clutch

Preparation

- Raise the scanner cover, open the upper unit (p.148)
- Remove the left rear and left front covers. (p.150)
- 1. Remove the front [1] and rear [2] halves of the left inner plate (🕅 x2).



d046r491

2. Pull off the registration motor assembly [1] (*x4, *x1, *x4).

4



d046r492

- 3. Remove the clutch bracket screw [1].
- 4. Loosen the belt tension screw [2].



5. Remove the screws of the development motor and tip the motor [1] forward slightly (🗊 x5).



d046r494

- 6. Pull off the gear and drive belt [1].
- 7. Remove the registration clutch [2].



d046r495

Registration Motor

Preparation

- 1. Raise the upper unit. (p.148)
- 2. Remove the left cover of the upper unit. (p.154)
- 3. Remove the left rear cover and the left front cover. (p.150)
- 4. Remove the screws of the left inner plate [1] ($\mathfrak{O}^{p}x2$).



5. Remove the vertical [1] and horizontal [2] halves of the left inner plate.

4



d046r407

6. Remove the registration motor [1] ($\Re x1$, $\Im x1$, $\Im x4$).



d046r408

Paper Transfer, Transport Unit

Transfer Unit

Transfer Unit Removal

Preparation

- Raise the upper unit. (p.148)
- Left rear cover, left front cover (p.150)
- Right rear, right front cover (p.150)
- Development Unit (p.233)
- Drum Unit (p.249)
- 1. Before removing the transfer roller, you must remove the right inner cover and used toner duct on the right side of the machine. (p.151)
- 2. Disconnect the used toner duct ($\mathfrak{O}^{*}x2$).



d208a3180

3. Remove the used toner duct.



- 4. Disconnect the separation power pack harness [1] ($\Im x$ 1, $\Re x$ 5).
- 5. Free the harness and confirm that the clamp [2] on the other side of the frame is open and that the harness is free.





- 6. Disconnect the harness of the transfer power pack [1] ($\Im x1$, $\Re x2$).
- 7. Free the harness and confirm that the clamp [2] on the other side of the frame is open and that the harness is free.



d208a3183

8. Unfasten both ends of the pressure plate pressing down on the transfer roller ($\mathfrak{O}^{*}x2$).



9. Remove the pressure plate.



d208a3185

10. Lift the transfer roller straight up, pull it forward slightly, and then set it down. Do not remove it yet.



d208a3189

11. On the right, pull the connectors [1] through the hole in frame so the attached harnesses can be removed with the roller unit.



d208a3190

12. Remove the roller unit and then lay it on a clean, flat surface.



d208a3192

Re-installation

1. Set the roller so there is a gap of the same width on the left [1] and the right [2].



d208a3191

2. The even gaps show that the roller is positioned correctly. If there is no gap, you will not be able to re-install the pressure plate.

Transfer Roller Removal

- Remove the transfer roller unit (p.313)
- 1. Remove the left guide [1] (@x3).



d208a3194

2. Remove the center guide [1] (@x3).



3. Remove the right guide [1] (@x3).



d208a3196

4. Remove the right spines





- Handle the fragile spines carefully. Do not touch the sharp tines of the quenching spines to avoid bending them.
- 5. Remove the center spines [1] and left spines [2].



d208a3199

6. Lay the spines on a flat clean surface.



7. The right end of the roller [1] is where the harnesses are attached.



d208a3201

8. Remove the roller (®x1).



d208a3202

9. Remove the bushing ([®]x1).



10. Remove the bearing.



d208a3204

11. Move to the left end of the transfer roller unit [1], and then unfasten the gear (\mathfrak{V}_{x1}).



d208a3205

12. Remove gear [1] and roller [2].



13. Remove the bearing.



d208a3207

14. Lift the transfer roller out of the unit.



d208a3208
Separation Power Pack

Preparation

Remove:

- Right rear cover, right front cover (p.150)
- 1. Locate the Separation PP [1] under the right inner cover.



d208a3101

- 2. Remove the right inner cover. (p.151)
- 3. Disconnect the used toner duct [1] ($\mathfrak{O}^{*}x2$)



d208a3102

4. Remove the used toner duct.



d208a3103

- 5. Disconnect the harnesses at the lower left corner [1] of the PCB ($\Im x_1, \Im x_2$).
- 6. Pull the harness [2] away from the edge of the board.





- 7. Disconnect the lower right corner of the board [1] ($\mathbf{V} \mathbf{x}$ 1).
- 8. Free the harnesses on the right [2] (x6).



9. Unfasten the front edge of the board [1] (\Im^{x} x1).

d208a3105



10. Unfasten the center of the bracket [2] (@*x1).

d208a3106

- 11. Unfasten the bracket at the far right [1] (\Im x1).
- 12. Clear the harnesses [2] away from the board.



d208a3107

- 13. Remove the board from the machine.
- 14. Disconnect the board [1] and bracket [2] (@x4).



d208a3109

15. Separate board and bracket.



d208a3111

Transfer Power Pack

Preparation

Remove:

- Right rear cover, right front cover (p.150)
- Right inner cover. (p.151)
- 1. Locate the Transfer PP [1] under the duct and to the right of the Separation PP [2].

Note

• In the previous machine there was a single Transfer/Separation PP. In this machine these functions are divided between two separate boards.



d208a3112

2. Disconnect the used toner duct [1] (\Im x2)



d208a3113

3. Remove the used toner duct.





4. Disconnect ozone filter duct [1], and then remove duct with filter [2] ($\mathfrak{W}x2$).



d208a3115

5. Disconnect the left side of the board [1] and board bracket at [2] ($\mathfrak{V}x1$, $\mathfrak{V}x1$)

4



d208a3116

6. Unfasten the bracket at [1] and [2] (ℬx1, ≯x1).



d208a3117

- 7. Remove the board [1] with bracket attached.
- 8. Unfasten board at [2] (🕅 x1).



d208a3118

- 9. Use a pair of radio pliers to release the standoffs on the left edge [1] ($\overline{\$}$ x2).
- 10. Separate board [2] from bracket.



d208a3119

Transport Unit

Preparation

- Raise the upper unit. (p.148)
- Left rear cover, left front covers (p.150)
- Registration motor (p.311)
- Right rear, right front cover (p.150)
- Fusing unit (p.338)
- 1. Free the cables on the registration motor bracket [1] (\$x5).
- 2. Loosen the tension screw [2] and remove the spring [3] (10 x1).



d046r500

3. Remove the registration motor bracket [1] (\$\$\mathcal{O}\$x3).



d046r501

4. Remove the gear [1] and screws [2] (@x2).



5. Remove the ozone filter duct [1] (@x2).



d046r503

6. Push the internal duct [1] to the left to disconnect it, then remove it.



d046r504

7. On the right [1], remove the screws ($\widehat{\mathbb{O}}^{r}x2).$



d046r505

8. At the rear, disconnect the connectors below the left transport belt [1] and right transport belt [2] (\$x2,\$x2).



d046r506

9. Remove the transport unit [1].



d046r507

Transport Belts

Preparation

- Remove the transport unit. (p.313)
- 1. Remove:
 - [1] Guide plate (🕅 x2)
 - [2] Left transport fan motor (@²x2)
 - [3] Right transport fan motor (🕅 x2)



2. Remove:

- [1] Arm bushings @x3)
- [2] Bracket (@ x1)
- [3] Bushings (**4** x2)
- [4] Drive gear (🛈 x1)
- [5] Drive shaft
- [6] Transport belts



Temperature/Humidity Sensor

Preparation

- Right rear cover (p.150)
- Right front cover (p.150)
- Right inner cover (p.151)
- 1. The temperature/humidity sensor [1] and toner bottle sensor [2] are mounted on the same bracket below the transfer power pack [3] on the right side of the machine.



2. Remove the toner bottle.



d208a3121

- 3. Disconnect the bracket [1] (🌶 x2).
- 4. Open clamps [2] and free the harnesses (💱x3).



d208a3122

5. Disconnect the toner bottle sensor [1] and temperature/humidity sensor [2] (SFx2).



d208a3123

6. Remove the temperature/humidity sensor (\Im x2).



d208a3124

335

Gear Replacement

- Remove the fusing unit (p.338)
- Remove gear [1].



d046r541



• Gear [1] must be checked every 200 Km (656 K ft.) of paper feed and replaced if necessary.

Fusing

Important Note Regarding Fusing Unit Replacement

Before you set fusing unit on mainframe, you must remove the transportation parts fixed on both the left and right side of the unit.

And then you must attach accessories on fusing unit.

- 1. Remove the screw [1], [2], [3], [4] from both the left and right side of the unit, and then also remove the fixed parts [6] tagged with shipping label [5].
- 2. Attach the screw [1], [2], [3], [4], which were removed in step 1, to both the left and right side of the fusing unit.
- 3. Attach accessories [A] and [B] to both the left and right of fusing unit.

Note

- Please unhook accessary [C] (spring) before you attach accessary [B] to the fusing unit.
- After you attach the [B], you must hook the [C] (spring).



4. Replacement and Adjustment

Index	PN	Description	Qty
A	AA143543	SCREW:M4:DIA6X1.7:BLACK	2
В	D2124131	LVER:PRESSURE	2

4. Pass harness through harness clamp. (Total 6 locations)



d212k1011

Fusing Unit

Preparation



- To avoid serious injury, before servicing the machine: 1) Turn off the power switch, 2) Wait for the power LED on the operation panel to go off, 3) Unplug the machine, and then 4) Press the power switch again to dissipate residual charges on the PCBs.
- Always allow the machine to cool for about 15 min. before removing the fusing unit.
- 1. Prepare a flat, clean surface where you can set the fusing unit after it has been removed.
- 2. At the back of the machine, remove the fusing lower cover (@x2).



d212k0055

3. Push the hinge [A] of the paper exit cover off its post.



d212k0056

4. Disconnect ground wire [A]. ($\mathfrak{O}^{p}x1$).



d212k0057

5. On the other side, push the hinge [A] of the paper exit cover off its post.



- 6. Remove the connector [A] of the paper exit cover and release the clamp ($\mathfrak{V}x1$, $\mathfrak{K}x2$).
- 7. Remove the paper exit cover.



d208a3348

8. Grip the paper exit guide plate by the small handles on both ends.



d208a3349

9. Lower the guide plate [1], and then pull it straight out [2] to remove it.



d208a3350



10. Disconnect the right FPDB connectors [A] and [B], and then free the harnesses [C] (🖉 x1, 🖏 x1).

 Release the clamp beneath the right pressure motor [A], disconnect the connector [B], and then free the harness (\$\$\vec{x}1\$, \$\$\vec{x}1\$).





12. Release the left FPDB clamp, and then disconnect the connector ($\mathbf{SFx1},\mathbf{Rx1}$).



d212k0062

Release the clamp beneath the left pressure motor [A], disconnect the connector of the fusing lamps
[B] and [C] (\$\$x2, \$\$x1).



14. Remove the connector (\Im x1).



15. Disconnect the connectors of the pressure roller thermistor [A] [B] (5 x2, 8 x3).



16. Pull the freed harness away from the clamps so it will not snag when the fusing unit is removed.



d212k0066

17. Remove the left screws of the fusing unit [A] ($\widehat{{\mathbb O}}{}^{\!\!\!\!\!}x1).$



18. Remove the right screws of the fusing unit [A] ($\mathfrak{O}^{p}x1$).

343



d212k0067

• The fusing unit is heavy, about 18 kg (40 lb). Handle it carefully.



19. Get a firm grip on the fusing unit, and then slide it out of the machine.

- 421210000
- 20. Lay the fusing unit on its front, as shown, with the right fusing pressure motor [A] and left fusing pressure motor [B] facing up.



d212k0070

21. Clear all the harnesses away from the bottom of the fusing pressure motors, and then set the fusing unit on its bottom.



• Before you set the fusing unit down always make sure that the no harnesses are under the pressure motor brackets. This avoids damage to the harnesses.

Paper Junction Gate Solenoid/Exit Sensor

- 1. Remove the fusing lower cover. (p.338)
- 2. Remove the paper exit cover. (p.338)
- 3. Remove:
 - [1] Ground wire (@x1)
 - [2] Spring
 - [3] Solenoid arm
 - [4] Guide plate (ℬx4, ℻x4)
 - [5] Solenoid (@x2, @x1)
 - [6] Exit sensor (@x1, @x1)



D046R147

FPDB (Fusing Pressure Drive Board)

- 1. Remove the fusing unit. (p.338)
- 2. Remove the connectors [A] and [B] (Sx2).



d212k0071

3. Remove the FPDB by pushing in the tip of the clip using the longnose pliers.



d212k0072

Pressure Roller Thermistors

Pressure Roller Center Thermistor

- 1. Remove the fusing unit. (p.338)
- 2. Remove the paper exit cover. (p.338)
- 3. Remove the guide plate. (p.338)
- Disconnect the connector [A], and then remove the pressure roller center thermistor [B] with the bracket (𝒴 x1, ☜x3, ☜x1).



d212k0073

5. Remove the pressure roller center thermistor [A] from the bracket (\Im x1).



d212k0074

Pressure Roller End Thermistor

- 1. Remove the fusing lower panel. (p.338)
- 2. Remove the paper exit cover. (p.338)
- 3. Remove the guide plate. (p.338)
- Disconnect the connector [A], and then remove the pressure roller end thermistor [B] with the bracket (𝒱 x1, 𝒱 x4, 𝒱 x1).



d212k0075

5. Remove the pressure roller end thermistor [A] from the bracket (🕅 x1).



Hot Roller Strippers

- 1. Remove the fusing lower panel. (p.338)
- 2. Remove the paper exit cover. (p.338)
- 3. Remove the screws (@x4).

They jointly fasten the internal two guide plates.



4. Remove the stripper support plate [A].



Hot Roller Center Thermistor

- 1. Remove the fusing unit. (p.338)
- 2. Release the clamper on the bottom and free the harness ($\ensuremath{\Re x}6\xspace).$



d212k0078

3. Remove the hot roller center thermistor [A] from the bracket ($\mathfrak{Gr}x1$).



Hot Roller Cleaning Roller

- 1. Remove the fusing unit. (p.338)
- 2. Remove the screws [A] and [B] on the right and left upper panel of the fusing unit, and remove the brackets [C] and [D] (^(C)x2).



d212k0080



d212k0081

3. Remove the screws [A] and [B] on the right and left of the fusing unit (@x2).



4. Remove the hot roller cleaning roller unit [A].





5. Remove the screws [A] and [B], and then remove the fusing upper cover [C] (^(V)x2).



6. Remove the right and left plates [A] and [B], bearing [C] and [D], and hot roller cleaning roller.



Thermostats

- 1. Remove the fusing unit. (p.338)
- 2. Remove the thermostat cover on the rear of the fusing unit [A] and [B] (\$\$x4).



d212k0117

3. Remove the thermostat bracket [A] and [B]. ($\textcircled{S}x6, \circledastx1).$



d212k0087

Important

- Note the correct arrangement of the harness wires at [2]. They must be reattached in the same way. If they are not reattached correctly, this will cause a SC code for a fusing unit error.
- 4. Pull apart the thermostat assembly [1] to remove the thermostat [2].



d046r456

If you are replacing a thermostat:

- Use only thermostats rated for use with this machine.
- The thermostats may have different numbers. This means they are taken from different lots.
- This is a backup safety policy that ensures the thermostats are taken from separate lots.

WARNING

- Always replace a thermostat with a new thermostat.
- Never attempt to reset a thermostat by striking it on a table. If a thermostat has triggered an error, discard it and replace it with a new one.

Fusing Lamps

Comportant 🔁

- The rated voltages of the fusing lamps are different, depending on location (EU or NA).
- 1. Remove the hot roller cleaning roller. (p.351)
- 2. Remove the left plate [A] (^(C)x1).





d212k0088

3. Remove the right plate [A] (@x1).



d212k0089

4. Remove the right and left thermostat covers on the rear of the fusing unit [A] and [B] (\mathfrak{W} x4).



d212k0086

5. Remove the heater harness from the thermostat (\$\$\vec{O}\$x2, \$\$\vec{s}\$x2).



d212k0090

- 6. On the left, remove the plate [A] ($\mathfrak{O}x1$).
- 7. Pull the heater harness [B] from the plate.



- 8. On the right, remove plate [A] (@x1).
- 9. Pull out the heater harness [B] from the plate.



10. Pull out the fusing lamp [A] from the left.



d212k0093



• Use a dry cloth to avoid touching the lamps with your fingers. Oils from the fingers could cause the lamp to burn unevenly.
• If you touch the surface of a fusing lamp accidentally, clean the surface with a clean cloth dampened slightly with alcohol, then wipe it dry with a dry cloth.

Precaution

Secure the heater harness so that it does not bend at the points of the clamps [A] and [E] and the guides [B] and [F].

Arrange the harness so that it is not placed on the fusing side [C], [D], [H], and [G]. (If the fusing unit is set with the harness placed on the fusing side, the harness may become damaged.)



Note

• When attaching the heater harness on the left (as viewed from the rear of the main unit) to the thermostat, dress the excess length of the harness as shown below to prevent it from being pinched by brackets.



Hot Roller

- 1. Remove:
 - Fusing unit (p.338)

- Fusing lamps (p.355)
- 2. Disconnect:
 - Left pressure spring [A] ([™] x1)
 - [2] Right pressure spring [B] ([™]x1)



- d212k0096
- 3. Insert some paper [A] between the hot roller and pressure roller.





- 4. On the left, spread the wire clamp [A] with your fingers and remove it.
- 5. Remove gear [B] and bushing [C].



d212k0098

- 6. On the right, remove the wire clamp [A].
- 7. Remove the bushing [B].



d212k0099

8. Remove the hot roller [1].



Preparation

Pressure Roller

Remove:

- Stripper support plate (p.347)
- Fusing unit (p.338)
- Fusing lamps (p.355)
- Hot roller (p.359)
- 1. Remove the bracket [A] on the rear of the fusing unit ($\mathfrak{P}x3$).



2. Remove the guide plate (press the black stopper [A], and then remove the guide plate [B].)



d212k0102

3. Remove the pressure roller [A] from the fusing unit.



d212k0103

4. Pull the bushings [A] and [B] from the left and right ends of the roller.



d212k0104

5. Pull out the steel spindle roller [A] and remove it from inside the pressure roller.



Fusing/Exit Motor

Preparation

- 1. Remove the left rear cover and the left front cover. (p.150)
- 2. Remove the fusing/exit motor [1] ($\mathfrak{F}_{x1}, \mathfrak{F}_{x4}$).





d212k0106

PCB, HDD

Overview

You can see all the main boards on the back of the machine with the rear cover and controller box cover removed.



Controller Box Cover Removal

1. Remove all installed boards [1].



d208a3038

- 2. On the left side of the controller box remove:
 - [1] SD card slot cover (@x1)
 - [2] Debug port cover (@x1)



d208a3039

- 3. Disconnect controller box faceplate:
 - [1] Top (ြိုးx1)
 - [2] Bottom (@x1)



d208a3040

4. Remove controller box cover [1] (\$\$\mathcal{O}^x12\$).



d208a3041

5. Remove the faceplate.



d208a3042

With the controller box cover removed, you can see:



d208a3030

1.	PSU
2.	ESB
3.	ЮВ
4.	IPU
5.	BCU
6.	МВ
7.	Controller board
8.	HDD unit

PSU

- Work carefully when replacing the PSU to avoid the danger of electrical shock.
- Turn OFF the main power switch and unplug the power cord before replacing the PSU.
- 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.
- 100V



d212k1006

• 200V



d212k1007

• Avoid touching the back of the board with your fingers or a tool.

Always obey these safety guidelines when replacing the PSU.

• Before removing the back cover of the machine, switch the machine off, disconnect the power cord, and then allow the machine to sit at least 15 min.

- The board generates heat so the board is hot after the machine is turned off. Allow time for the board to cool before you remove the rear cover. Always remember when working around the board that the board could be hot.
- The condenser on the PSU can hold a residual charge even after the machine has been turned off and the power cord has been disconnected.
- Always handle the board by its edges. Never touch the components on the board or the soldered connections with either fingers or tools.
- After removing the PSU from the back of the machine, place it on a flat, dry location where it is not close to conductive materials or tools.
- After you have determined that the PSU has not been damaged, be sure to check the glass fuses on the AC control board.



d208a6011

Preparation

- Rear cover (@x7). (p.156)
- 1. Locate the PSU [1].



d208a3051

- 2. Disconnect:
 - Upper left corner [1] (\$\$x3)
 - Upper right corner [2] (🏹 x3)



d208a3052

3. Disconnect lower right corner [1] (F1).



d208a3053

4. Unfasten the board [1] (@x7).

5. Use a pair of radio pliers to release the standoff at [2] ($\overline{\$} \times 1$).



d208a3054

6. Remove the PSU.



d208a3055

IOB

Preparation

- Remove the rear cover (@x7). (p.156)
- 1. Locate the IOB [1].



d208a3056

2. Disconnect the upper half (\$\$\vec{x12}\$).



d208a3057

- 3. Disconnect:
 - Lower right corner [1] (\$\$x5)
 - Lower left corner [2] (\$\$x6)



d208a3058

- 4. Unfasten the board [1] (@x5).
- 5. Use a pair of radio pliers to release the standoff at [2] ($\overline{*}$ x1).





6. Remove the IOB.



d208a3060

7. Before you replace the IOB, check the DIP SW settings, and make sure that they are correct for your location.



d208a3376

Location	SW1	SW2
Japan	OFF	OFF
NA	ON	OFF
EU	OFF	ON
CHN	ON	ON

AC Control Board

Preparation

Remove:

• Left rear cover, left front cover (p.156)



• This board and the breaker switch next to it are high voltage points.

- Before you do this procedure, confirm that the machine is turned off and disconnected from the power supply.
- Never remove this board with the machine connected to its power source.
- 1. Locate the AC control board [1] on the left side of the machine.



d208a3091

2. Open the clamps at the top [1] and bottom [2] (\$x3).



d208a3092

3. Unfasten the cover at the top [1] and bottom [2] ($\mathfrak{O}x2$).



d208a3093

4. Remove the cover [1].



d208a3094

- 5. Disconnect:
 - Top [1] (🖾 x3)
 - Lower right corner [2] (🖾 x2)



d208a3095

6. Disconnect:

- Top right [1] (@x1)
- Lower right [2] (@²x1)



d208a3096

- 7. Disconnect:
 - Top left [1] (@[®]x1)
 - Lower left [2] (@²x1)



d208a3097

8. Remove the board with bracket attached.



d208a3098

9. Unfasten the board at [1] and [2] (@x8).



d208a3099

10. Separate board and bracket.



d208a3100

Controller Board

Controller Board Removal

Preparation

- Rear cover (p.156)
- Controller box cover (p.365)

1. Locate the controller board [1].



d208a3068

- Press the bottom of the connector of the red harness [1] to release it, and then disconnect it (\$\$x1).
- Press the bottom of the connector of the black harness [2] to release it, and then disconnect it (x1).

Comportant)

- These harnesses must be re-connected in the same way: black over red.
- 4. Disconnect the top of the board [3] (State x1).



d208a3069

5. Disconnect the board, and then remove it ($\Im^{2}x7$).



d208a3071

- 6. Lay the board on a flat clean surface.
- 7. Note the location of the single, small NVRAM.

Comportant)

• If you are replacing the controller board, remove this NVRAM from the old board and install it on the new one.



d208a3072

Controller NVRAM

To Upload NVRAM to an SD Card

- 1. Enter the SP mode and do SP5990-2 to print an SMC report.
- 2. Turn the machine off.
- 3. Insert the SD card in Slot 2.
- 4. Turn the machine on.
- 5. Enter the SP mode and do **SP5824**.
- 6. Touch [OK] on the operation panel to start the upload.
- 7. Data uploaded from NVRAM is stored in the NVRAM folder on the card.

To Replace the NVRAM

Remove:

- Rear cover (@ x7) (p.156)
- Controller box cover (p.365)

- Remove PSU (p.369)
- 1. Remove the single NVRAM.



d208a3072

After Replacement

- 1. Turn the machine on.
- 2. Calibrate the touch panel. (p.469)
- 3. Do SP5801-1 (All Clear) to reset default settings for the NVRAM.
- 4. Cycle the machine off/on.
- 5. In User Tools, confirm that the counter setting is "0".
- 6. Make some test copies or prints.
- 7. Confirm that the counter value has increased by the same number of copies/prints you just made.

To Download NVRAM Data from the SD Card

- 1. Turn the machine off.
- 2. Insert the SD card to hold the NVRAM data in Slot 1.
- 3. Turn the machine on.

- 4. Enter the SP mode and do SP5825.
- 5. Print an SMC report with SP5990-2.
- 6. Compare the information in this SMC report with the one you printed before NVRAM removal.
 - If the content of the SMC reports do not match, this means that the content of the old NVRAM could not be uploaded to the SD card.
 - In this case, do SP5801-1 again and do the settings recommended for the machine.

🔂 Important

• The factory settings are printed on a sheet of paper taped on the inside of the rear cover.

BCU

BCU Removal

🚼 Important

• If you are going to replace the BCU, make sure that you print an SMC report and upload the NVRAM data to an SD card before you remove the BCU. This is described later in this section.

Preparation

Remove:

- Rear cover (@ x7) (p.156)
- Controller box cover (p.365)
- 1. Locate the BCU [1].



d208a3065

- 2. Disconnect the BCU [1] (💷 x1, 🖤 x3).
- 3. Pull the bottom [2] of the BCU straight out to prevent damaging the edge connector [3] on the bottom edge of the board.



4. Lay the board on a flat clean surface.



d208a3067

BCU NVRAM (EEPROM)

Comportant 1

- If you are replacing the BCU, the NVRAM must be pulled from the old board and then installed on the new board. This allows the machine to function with the same SP code settings.
- The machine will may issue SC995 after BCU replacement. If this occurs, do SP5811-004, and then cycle the machine off/on.
- However, if you have to replace the NVRAM itself, do the following procedure.

- 1. Make sure that your have the SMC report (factory settings) provided with the machine at installation.
- 2. Do SP5990-001 (or SP5992-001) to print the SMC data.
- 3. Turn the machine off.
- 4. Insert a blank SD card in SD Slot 2, and then turn the machine on.
- 5. Do SP5824 to upload the NVRAM data from the BCU.
- 6. Turn the machine off, unplug the power cord, and then press the power switch again. (This dissipates residual charge on the boards.)
- 7. Remove the BCU (described in "BCU Removal", the next section below), remove the NVRAM from the BCU, and then insert it on the new BCU.

🔁 Important

 When you install the NVRAM, make sure that the half-circle indentation [A] is open to the left as shown below. Incorrect installation can damage both the BCU and NVRAM.



d208a3377

- 8. Connect the power source, and then turn the machine on.
- 9. Enter the SP mode, open SP5811-001 and then enter the machine number setting.

• Note

- If you need assistance with the machine number, contact the site manager.
- 10. Cycle the machine off/on.
- 11. Do SP5825 to download the saved data from the SD card to the new NVRAM on the BCU.
- 12. Turn the machine off, and then remove the SD card from Slot 2.
- 13. Turn the machine on.

14. Turn the machine on, and then check the factory settings User Tool settings on the SMC report you printed earlier, and then adjust the settings if necessary.

IPU

Preparation

Remove:

- Rear cover (p.156)
- Controller box cover (p.365)
- 1. Locate the IPU [1].



d208a3073

2. Disconnect the top [1] of the IPU ($\Im x4$, $\Im x3$).



d208a3074

- 3. Disconnect:
 - Upper left edge [1] (🕅 x1)
 - Lower right edge at [2] and [3] (@*x1, 💷 x1)



d208a3075

4. Disconnect lower right corner [1] ($\mathfrak{S} x1$, $\mathfrak{S} x2$).



d208a3076

- 5. Remove the BCU [1] (**I** x1, 𝔐x3).
- 6. At the right lower corner, use a small wrench [2] to remove the BCU support posts (x3). (These also fasten the IPU at the lower right corner.)



d208a3077

7. Remove the IPU [1].



d208a3078

ESB

Preparation

- Rear cover (p.156)
- 1. Locate the ESB [1].



d208a3061

- 2. Disconnect:
 - Harnesses [1] (\$\$ x5).
 - Right edge of board [2] (@*x2).



d208a3062

3. Use a pair of radio pliers to release the standoffs at top left corner [1] bottom left corner [2] (🐺 x2).



d208a3063

4. Remove the board.

4



d208a3064

MLB

Preparation

- Rear cover (p.156)
- Remove controller box cover (p.365)
- 1. The MLB [1] is behind the controller board [2].



d208a3079

2. Remove controller board (p.382)
4

3. Disconnect the MLB (@x4).



d208a3080

4. Pull the board [1] straight out to the left to remove it.



d208a3081

MB

Preparation

- Rear cover (p.156)
- Controller box cover (p.365)
- Controller board (p.382)
- 1. Locate the MB [1].



d208a3108

- 2. Remove the IPU (p.390)
- 3. The MB [1] is mounted at a right angle to the frame of the machine.
- 4. Disconnect the bracket [2] (@x2).



d208a3082

5. Remove the board with bracket attached.



d208a3083

6. Separate board [1] and bracket (@x4).



d208a3084

HDD

Before Replacement

Explain to the customer that the following information on the HDD is lost after the HDD has been replaced

- Document server documents
- Document server address book
- Document stamps created by the user

The address book and document server documents (if needed) must be input again. However, before replacing the HDD, you can try to recover the address book by uploading it to an SD Card.

Comportant 🗋

• The Data Encryption and Data Overwrite Security functions must be set up again after the HDD is replaced.

To Upload the Address Book to an SD Card

Do this procedure before replacing the HDD

Comportant 🗋

- This procedure may not execute successfully if the HDD is damaged.
- 1. Turn the main power switch off.
- 2. Insert an SD card in SD card Slot 1.
- 3. Do SP5846-51 to upload the address book to the SD card in Slot 1.
- 4. Turn the main power switch on.
- 5. Remove the SD card from Slot 1.

To Download the Address Book from an SD Card

Do this procedure after replacing the HDD

- 1. Turn the main power switch off.
- 2. Insert the SD card with the directory information in SD card Slot 1.
- 3. Do SP5846-52 to download the information from the SD card in Slot 1.
- 4. Turn the main power switch on.
- 5. Remove the SD card from Slot 1.

HDD Replacement

Preparation

• Remove the rear cover. (p.156)

- Remove the controller box cover. (p.365)
- 1. Locate the HDD [1].



d208a3085

- Press the bottom of the connector of the red harness [1] to release it, and then disconnect it (\$\$x1).
- Press the bottom of the connector of the black harness [2] to release it, and then disconnect it (X1).

Comportant 2

- These harnesses must be re-connected in the same way: black over red.
- 4. Disconnect the top of the board [3] (\Im x1).



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- 5. Disconnect:
 - Left edge of bracket [1] (@²x2)
 - Right edge of bracket [2] (@*x1)

4



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6. Remove HDD with bracket attached.



d208a3088

7. Note and mark the arrangement of the connectors on the dual disks before you remove them. The disks must be re-connected in exactly the same way.



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8. Remove the screws on each side of the bracket (@x8). Each HDD is fastened with four screws.



d208a3090

C Important

• This is a two-disk unit. All disks must be replaced at the same time. Do not try to replace one disk only.

Adjustment after replacement

Execute SP5-832-001 to initialize the hard disk.
 Even if you use an HDD that is already formatted, it is recommended that you re-initialize.

Reinstallation

• Follow the directions provided on the decal.

- Do **SP5853** to copy the preset stamp data from the firmware to the hard disk. Then turn the main power switch off/on.
- If you successfully uploaded the address book to an SD card, download the information now.
- If the customer is using the Data Overwrite Security feature, the DOS function must be set up again.
- If the customer is using the Data Encryption function, data encryption must be set up again.
- If the customer is using the optional Browser Unit, this unit must be installed again. For more, see Section 1 (Installation).
- Explain to the customer that the following information stored on the HDD is lost when the HDD is replaced:
 - Document server documents
 - Custom-made stamps
 - Document server address book
- The address book and document server documents (if needed) must be input again.

Important Notes about HDD Replacement

- Never remove an HDD unit from the work site without the consent of the client.
- If the customer has concerns about the security of information on the HDD, leave the HDD unit with the customer for disposal or safekeeping.
- The HDD may contain proprietary or classified (Confidential, Secret) information. Specifically, the HDD contains document server documents and data stored in temporary files created automatically during copy job sorting and jam recovery. Such data is stored on the HDD in a special format, so it cannot normally be read but can be recovered with illegal methods.

Power Switch

Preparation

- Remove left front cover (p.150)
- 1. At the left front corner of the machine [1] remove cover [2] (*P*x2).



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2. Free the harness, and then disconnect the switch from the bracket (x2, x1).



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3. Disconnect the switch (🎯 x1).



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Important Adjustments

CIS Adjustment with SP Modes

To Print the CIS Adjustment Pattern

- 1. Open the roll unit drawer and cut off a sheet of paper from the widest roll. (Turn the manual feed knob to feed the paper, then push the cutter from side to side to cut.)
- 2. Close the roll unit drawer.
- 3. Enter the SP mode.
- 4. Open SP4-417 Pattern 28, and touch [OK].
- 5. Touch [COPY Window] to go to the main screen.
- 6. On the operation panel, select one of the rolls for paper feed.
- Put the blank sheet of paper on the original feed tray and feed it into the original feed unit. Pattern 28 (grid pattern) prints.
- 8. Touch [SP Mode] to return to the SP mode.
- Open SP4-973, push [0] on the operation panel to change the setting from "2" to "0", then push [#].
- 10. Touch [Exit] twice to leave the SP mode.
- 11. Select the paper input size, and then copy the grid pattern that you printed in Step 7 above.



Note

• When you look at the printed pattern, the number sequence of the CIS joints is reversed, with CIS-5 on the left through CIS-1 on the right as shown in the diagram above.

Vote

• After completing the CIS adjustments, be sure to reset SP4-973 to "2".

To Adjust the Image at the CIS Joints

- 1. Check the printed pattern to determine if the dots are aligned at CIS 1-2.
- 2. If they are aligned correctly, no adjustment is necessary.

-or-

If they are not aligned correctly, do the next step. Here are two samples where the outputs are not aligned correctly.



- [A]: Distance between the lines at CIS 1-2 is wider than usual (as shown above). If the
 distance between these lines is wider or narrower than the other lines, adjust the main scan
 offset at CIS 1-2 with SP4-972-001 (CIS Joint Adjustment –CIS 1-2 Main Scan) as described
 below.
- [B]: The lines at CIS 1-2 are broken. If the output from CIS 1 is lower (as shown above) or higher, adjust the sub scan offset at CIS 1-2 with SP4-972-006 (CIS Joint Adjustment – CIS 1-2 Sub Scan) as described below.

To adjust the main scan offset for Example [A]

Problem: Output from CIS 1 is too far to the right.

- 1. Do SP4-972-001 and adjust the setting.
 - Adjust the position of CIS 1. The position of CIS 2 does not move.
 - If the area at the joint is too wide, set a smaller value.
 - If the area at the joint is too narrow, set a larger value.
 - In the example [A], you must set a smaller value.

To adjust the sub scan offset for Example [B]

Problem: Output from CIS 1 is lower than the output from CIS 2.

- 1. Do SP4-972-006 and adjust the setting.
 - Adjust the position of CIS 1. The position of CIS 2 does not move.
 - If the CIS 1 area is higher than the CIS 2 area, set a larger value.

- If the CIS 1 area is lower than the CIS 2 area, set a smaller value.
- In the example shown [B], you must decrease the value for CIS 1.

After adjusting

- 1. Print one more pattern and check CIS 1-2.
- 2. Repeat these procedures until the image at CIS 1-2 is correct.
- 3. Do these procedures for the other joints (CIS 2-3, CIS 3-4, CIS 4-5)

Vote

• The "Effect" column in the table below tells you which area moves with the adjustment, and which area does not move.

SP4-972	CIS Main/Sub Scan Offset Adjustment [0 to 2047/638/1]		
Problem		Joint	Effect
001 Main Scan Interval 1-2 CIS 1-2 CIS 1 moves. CIS 2 does not mo		CIS 1 moves. CIS 2 does not move.	
003	Main Scan Interval 2-3	CIS 2-3	CIS 3 moves. CIS 2 does not move.
004	4 Main Scan Interval 3-4 CIS 3-4 CIS 4 moves. CIS 3 does not m		CIS 4 moves. CIS 3 does not move.
005	Main Scan Interval 4-5 CIS 4-5 CIS 5 moves. CIS 4 does not move Sub Scan Interval 1-2 CIS 1-2 CIS 1 moves. CIS 2 does not move		CIS 5 moves. CIS 4 does not move.
006			CIS 1 moves. CIS 2 does not move.
008	Sub Scan Interval 2-3	CIS 2-3	CIS 3 moves. CIS 2 does not move.
009	9Sub Scan Interval 3-4CIS 3-4CIS 4 moves. CIS 3 does not move.0Sub Scan Interval 4-5CIS 4-5CIS 5 moves. CIS 4 does not move.		CIS 4 moves. CIS 3 does not move.
010			CIS 5 moves. CIS 4 does not move.

Note

• After completing the CIS adjustments, be sure to reset SP4-973 to "2.

To Adjust the Scan Speed Switching

If some problem is found with the distance between the original feed roller (rear) and the original feed roller (front) in the CIS adjustment pattern, do the adjustment described below.

1. Enter SP mode and select the appropriate SP number in the table below.

SP4-965	Problem	Effect	
1	Leading edge	The original feeding is interrupted at the position where the original is fed by the distance of the original exit roller (112.2 mm) from where the original registration sensor detects the leading edge of the original. Then the scan speed is lowered by the set value.	
2	Position	To adjust the starting position of SP4-965-001 (Scan Speed Adjustment: Leading Edge).	
3	Trailing edge	The scan speed is changed to the value set for SP4-965 14.5 mm after the original set sensor detects the original trailing edge.	

- 2. Enter the value and touch [Set].
- 3. Touch [Exit] once.
- 4. Repeat steps 1 to 3.

LPH Adjustment with SP Codes

Doing SP Adjustment Settings for a Replacement LPH

- 1. Remove the replacement LPH from its box.
- 2. Read the label [A] attached to the replacement LPH and write down the settings for SP2952 (LPH Joint Adjustment) and SP2943 (LED Duty Adjustment).



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🔁 Important

- This label is attached to the replacement LPH only.
- 3. Remove the old LPH and install the new LPH unit.
- 4. Do SP2952-1, -2, -11, -12 and enter the settings you read from the label attached to the LPH replacement unit.
- 5. Do SP2943-1, -2, -3 and enter the settings you read from the label attached to the replacement unit.
- Do SP4417 to print IPU Test Pattern 27 to make sure that the LPH joints are aligned correctly (see the procedure below).

To Print IPU Test Pattern 27

- 1. Open the roll feeder drawer. Cut off a sheet manually from a roll.
- 2. Close the roll feeder drawer.
- 3. Go into the SP mode.
- 4. Do SP4417 (IPU Test Pattern Setting), select Pattern "27" then press "OK".
- 5. Touch "COPY Window" to go to the copy display.
- 6. Select one of the rolls for paper feed.
- 7. Feed a blank sheet of paper into the machine, then press [Start].
- 8. Check the printed pattern:
 - If you see vertical white or black lines, do the vertical line adjustments (See the next section, "Main Scan Adjustment: White or Black Vertical Lines").
 - If you see the areas are not aligned, do the misalignment adjustments (See below, "To Adjust the LPH for Misalignment").
 - If you see vertical white/black lines and misalignment, do the vertical line adjustment first.

Main Scan Adjustment: White or Black Vertical Lines

- 1. Check the printed pattern at LPH 1-2 for white or black lines.
- 2. If there are no lines, no adjustment is necessary.



If you see white or black lines at LPH 1-2, go to the next step.

- White lines occur if too few LEDs come on at the joint.
- Black lines occur if too many LEDs come on at the joint.

Abnormal Pattern

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- 3. Left line:
 - If the left line is **white**, adjust SP2952-1 to a smaller value.
 - If the left line is **black**, adjust SP2952-1 to a larger value.
- 4. Right line:
 - If the right line is white, adjust SP2952-2 to a smaller value.
 - If the right line is **black**, adjust SP2952-2 to a larger value.
- 5. After the adjustment, feed the blank sheet again to print one more pattern.
- 6. Check the results of the adjustment.
- 7. Do the adjustment again until the lines appear faint.

Note

• The lines cannot be completely erased.

Main Scan Adjustment: LED Light Level at LPH Joints

After you do the previous procedure to adjust the main scan at the LPH joints, you can do a fine adjustment on this area. To do this, you increase or decrease the intensity of the light from the four LEDs at the joints.

"500" is the default setting for LPH 1-2 and LPH 2-3.



- If you change the 2nd digit of the value for LPH 1-2 (500 to **510**) with SP2952-1, this moves the four LEDs by one position to the **left**.
- If you change the 2nd digit of the value for LPH 2-3 (500 to **510**) with SP2952-2, this moves the four LEDs by one position to the **right**.
- If you change the 3rd digit of LPH 1-2 or LPH 2-3 (510 to **512**, for example), this increases the quantity of light from LEDs 1, 2, 3, 4 in the illustration.

The quantity of light can be adjusted for each LED independently with SP2953 (Power Correction). But, this fine adjustment is usually not necessary in the field.

Adjusting LPH Alignment

Broken lines [A] or [B] in the IPU Test Pattern (SP4417, Pattern 28) indicate incorrect sub scan timing at one or both joints.



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- 1. Go into the SP mode, and do SP2952-11 for LPH 1-2
 - Adjust the position of LPH 2 (LPH 1 does not move).
 - If LPH 2 is higher than LPH 1, set a larger value.
 - If LPH 2 is lower than LPH 1, set a smaller value.

- 2. Print one more pattern with SP2952-11 and check the alignment at the joints.
- 3. Do this procedure again until the pattern at the joint is correct.
- 4. Do SP2952-12 for LPH 2-3
 - Adjust the position of LPH 3 to LPH 2 (LPH 2 is the standard).
 - If LPH 3 is higher than LPH 2, set a larger value.
 - If LPH 3 is lower than LPH 2, set a smaller value.
- 5. Do this procedure again until the pattern at the joint is correct.

LPH Density Adjustment with SP Codes

To Print the IPU Test Pattern 27

- 1. Open the roll feeder drawer. Cut off a sheet manually from a roll.
- 2. Close the roll feeder drawer.
- 3. Go into the SP mode.
- 4. Do SP4417, select Pattern "27", then touch "OK".
- 5. Touch "COPY Window" to show the main screen.
- 6. On the operation panel, select one of the rolls for paper feed.

🚼 Important 🗋

- You must select Tray 1 (1st Roll) or Tray 2 (2nd Roll). You cannot use "Auto Paper Select". If
 you select "Auto Paper Select" the pattern will not print.
- 7. Set the blank sheet of paper on the original feed tray.
- 8. Press [Start]. The pattern prints.
- 9. Touch "SP Mode" to return to the SP mode.
- 10. Check the density of the patterns in LPH 1, LPH 2, and LPH 3.

If density is equal for all areas, no adjustment is necessary. If the density is not equal, do the next procedure.

LPH 1	LPH 2	LPH 3
		B286r906

To Correct Pattern Density

- 1. Do SP2943-1, -2, and -3
 - This SP makes the output of each LPH block brighter or darker.
- 2. Adjust the density for LPH 1 with SP2943-1.
 - If the density is too dark, set a smaller value.
 - If the density is too light, set a larger value.
- 3. Do SP4417, select Pattern #27, touch [OK], then print the pattern by feeding the blank sheet and check the density.
- 4. Do this procedure for LPH2 and LPH3 until the density is the same in each of the three sections.
 - LPH2: SP2943-2
 - LPH3: SP2943-3

Image Position, Magnification, Margin Adjustments

Do these adjustments if the customer is unhappy about the above properties of the output. Before you do any measurements, allow the test print output to cool for five minutes.

Note

• Do these adjustments in the order prescribed below.

(1)	Printer Skew Adjustment		
	SP1914-2, -3 (Fusing Pressure Motor)		
	Standard: No more than 1 mm skew /1 m.		
	Note : Difference between the two SP values must be less than 30.		
(2)	Printer Magnification Adjustment		
	Standard: Magnification error less than ±0.3%.		

(3)	Print and Erase Margin Setting
	SP4012-5, -7 (Scanner Erase Margin): 0
	SP2101-1, -3 (Print Erase Margin): 5 mm
(4)	Printer Leading Edge and Side-to-Side Registration
	SP1001 (Leading Edge Registration)
	Standard: 5±2.8 mm.
	SP1002 (Side-to-side Registration)
	Standard: 5±2.0 mm
(5)	Restoring the Printing and Scanner Erase Margin Setting
	SP4012 (Scanner Edge Margin)
	SP2101 (Print Erase Margin)
	Return to previous setting (before Step 3)
(6)	Printer/Scanner Magnification
	SP4101 001 (Scanner Main Scan)
	SP4008 001 (Scanner Sub Scan).
	Standard: Magnification error less than ±0.5%
(7)	Printer/Scanner Leading Edge Registration
	SP4010 001 (Scanner Sub Scan)
	Standard: ±3.0 mm
(8)	Printer/Scanner Side-to-side Registration
	SP4011 (Scanner Main Scan)
	Standard: ±2.8 mm
(9)	Printer Cut Length Adjustment
	SP1920 (Cut Length Adjustment)
	Standard: Depends on the length
(10)	Printer/Scanner Trailing Edge Registration (Synchro-cut)
	SP4961 (Document Length Adjustment):
	SP4961 001: Standard: 210 mm ±0.5 mm
	.SP4961 002: Standard: 1000 mm ±1 mm

(1) Printer Skew Adjustment

- Set normal weight plain paper (841 mm wide/E size, from roll 1) and print an IPU dot pattern with SP2902-3 (PrintingTest Pattern – Pattern 1), of length 6 m, and output to the rear exit.
- 2. At the rear paper exit, measure the amount of skew on the output. Make sure it is within the standards below.

3. If the amount of measured shift is not within standards, adjust the right and left fusing pressure from the pressure roller with the following SP codes.

SP1914 002	Fusing Pressure Motor – Pressure Adjustment Right
SP1914 003	Fusing Pressure Motor –Pressure Adjustment Left

If the paper is skewed to the right, weaken the pressure on the right roller, then increase the pressure on the left roller.

To determine if there is skew, look at the trailing edge.

The SP values must be the same size, but of opposite sign (for example, if SP 1914 002 is -10, SP 1914 003 must be + 10). The difference between the two SP values must be less than 30.

If roller pressure adjustment is not successful, reset the SP settings to their previous values, then try again to adjust roller pressure.

(2) Printer Magnification Adjustment

- 1. Set normal weight plain paper (841 mm wide/E size, from roll 1) and print an IPU dot pattern with SP2902-3, Pattern 1, AO SEF/E SEF (send it out the rear exit).
- 2. Refer to the illustration:



- From the top measure the distance from the bottom of the 9th black to the bottom of the 101st block. This should be 997±3 mm
- On the left measure the distance from the right edge of the first block to the right edge of the 76th block. This should be 812.8±3 mm.
- 3. If the main scan measurement (down) is not 997±3 mm do SP2916-1 to adjust it.
- 4. If the sub scan measurement (left to right) is not 812.8±3 mm do SP2916-2 to adjust it.
- 5. Repeat this procedure until the measurements are within standard.

- 6. After the measurements are within standard, adjust the following SP codes with the same value you used to adjust SP2916-1:
 - SP2916-7
 - SP2916-9
 - SP2916-15
- 7. Next, adjust the following SP codes with the same value you used to adjust SP2916-2:
 - SP2916-8
 - SP2916-10
 - SP2916-16

(3) Print and Erase Margin Setting

- 1. Execute SP5990 002 to print the SMC Copy List (a list of the SPs).
- 2. Set the following SPs to the settings below to make measurement easier.

SP	Name	Setting
2101-1	Printing Erase Margin – Leading Edge	2 to 5
2101-3	Printing Erase Margin – Left Edge	2 to 5
4012-5	12-5 Scanner Erase Margin – DF Leading Edge	
4012-7	Scanner Erase Margin – DF Left	1.5 to 0



(4) Printer Leading Edge and Side-to-Side Registration

Leading Edge Registration

- Set normal weight plain paper (841 mm wide/E size, from roll 1) and print an IPU dot pattern with SP2902-003, Pattern 1 (Length: A1 LEF/D LEF)
- 2. Measure the leading edge registration.

Standard 5±2.8 mm

3. Adjust leading edge registration for each paper feed station if necessary.

SP	Name
1001-1	Leading Edge Registration - 1st Roll
1001-2	Leading Edge Registration - 2nd Roll
1001-3	Leading Edge Registration - 3rd Roll/1st Cassette
1001-4	Leading Edge Registration - 4th Roll/2nd Cassette
1001-5	Leading Edge Registration - Bypass feed

Side-to-Side Registration

1. Set normal weight plain paper (841 mm wide/E size, from roll 1) and print an IPU Print Pattern with SP2902-003, Pattern 1.

2. Measure the side-to-side registration.

Standard 5±2.0 mm

3. Adjust side-to-side Registration for each paper feed station if necessary.

SP	Name
1002-1	Side-to-Side Registration - 1st Roll
1002-2	Side-to-Side Registration - 2nd Roll
1002-3	Side-to-Side Registration - 3rd Roll/1st Cassette
1002-4	Side-to-Side Registration - 4th Roll/2nd Cassette
1002-5	Side-to-Side Registration - Bypass feed

(5) Restoring the Printing and Scanner Erase Margin Setting

1. Restore the SP codes listed below to their original settings. (Refer to the SMC list printed earlier).

SP	Name	Setting
2101-1	Printing Erase Margin – Leading Edge	5 to 2 (default)
2101-3	Printing Erase Margin – Left Edge	5 to 2 (default)
4012-5	Scanner Erase Margin – DF: Leading Edge	0 to 1.5 (default)
4012-7	Scanner Erase Margin – DF: Left	0 to 1.5 (default)

(6) Printer/Scanner Magnification

- 1. Copy an OS-A-1 Test Chart with plain paper (cut sheet or roll).
- 2. Measure the length and width of the image on the original and the copy.

Standard	Less than ± 0.5 %	
Standara	Less man ± 0.5 //	

3. If the measurements do not meet the standard, adjust the following SP codes.

SP4101-1	Scanner Main Scan - Magnification Adjustment
SP4008-1	Scanner Sub Scan - Magnification Adjustment

(7) Printer/Scanner Leading Edge Registration

1. Copy an OS-A-1 Test Chart with plain paper (cut sheet or roll).

Vote

- Make sure that you execute the copy with manual density set at the operation panel.
- Measure the leading edge registration.

Standard	Within ±3.0 mm	
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If the measurement does not meet the standard, adjust the following SP code.

SP4010 001	Scanner Sub Scan - Registration Leading Edge Registration Adjustment

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(8) Printer/Scanner Side-to-Side Registration

1. Copy an OS-A-1 Test Chart with plain paper (cut sheet or roll).

• Note

- Make sure that you execute the copy with manual density set at the operation panel.
- Measure the side-to-side registration, within 50 mm from the leading edge of the copy.

Standard	Within ±2.8 mm
----------	----------------

If the measurement does not meet the standard, adjust the following SP code.

SP4011001

Scanner Main Scan Registration

(9) Printer Cut Length Adjustment

- 1. Using the Preset Cut feature, make standard cuts of plain paper for A4 sideways, A3 sideways, A1 lengthways, and A0, A sideways, B sideways, D lengthways, and E.
- 2. Measure the cuts and check them against the standards in the table.

Range	Plain	Translucent/Film
Up to 297 mm	Less than ±2 mm	Less than ±3 mm
298 - 800 mm	Less than ±3 mm	Less than ±4.5 mm
801 - 1189 mm	Less than ±4 mm	Less than ±5 mm
1190 - 2500 mm	Less than ±7 mm	Less than ±9 mm

2501 - 3600 mm	Less than ±11 mm	Less than ±13.5 mm
3601 - 6000 mm	Less than ±20 mm	
6001 - 15000 mm	Less than –32 to +200 mm	
15001 – 30000 mm	Less than –32 to +400 mm	

3. If a measurement does not meet the standard, then adjust the following SPs for each roller and paper type.

Upper Tray	
SP1920-21 to 33	Cut Length Adjustment – 1st Roll: Plain Paper
SP1920-41 to 53	Cut Length Adjustment - 1 st Roll: Trans. Paper
SP1920-61 to 73	Cut Length Adjustment – 1st Roll: Film
SP1920-81 to 93	Cut Length Adjustment – 2nd Roll: Plain Paper
SP1920-101 to 113	Cut Length Adjustment - 2nd Roll: Trans. Paper
SP1920-121 to 133	Cut Length Adjustment - 2nd Roll: Film
Lower Tray	
Lower Tray SP1920-141 to 153	Cut Length Adjustment – 3rd Roll: Plain Paper
Lower Tray SP1920-141 to 153 SP1920-161 to 173	Cut Length Adjustment – 3rd Roll: Plain Paper Cut Length Adjustment – 3rd Roll: Trans. Paper
Lower Tray SP1920-141 to 153 SP1920-161 to 173 SP1920-181 to 193	Cut Length Adjustment – 3rd Roll: Plain Paper Cut Length Adjustment – 3rd Roll: Trans. Paper Cut Length Adjustment – 3rd Roll: Film
Lower Tray SP1920-141 to 153 SP1920-161 to 173 SP1920-181 to 193 SP1920-201 to 213	Cut Length Adjustment – 3rd Roll: Plain Paper Cut Length Adjustment – 3rd Roll: Trans. Paper Cut Length Adjustment – 3rd Roll: Film Cut Length Adjustment – 4th Roll: Plain Paper
Lower Tray SP1920-141 to 153 SP1920-161 to 173 SP1920-181 to 193 SP1920-201 to 213 SP1920-221 to 233	Cut Length Adjustment – 3rd Roll: Plain Paper Cut Length Adjustment – 3rd Roll: Trans. Paper Cut Length Adjustment – 3rd Roll: Film Cut Length Adjustment – 4th Roll: Plain Paper Cut Length Adjustment – 4th Roll: Trans. Paper

(10) Printer/Scanner Trailing Edge Registration (Synchro-Cut)

- 1. Prepare two originals. One must have length 210 mm, and the other must have length 1000 mm.
- 2. Make a copy of each original with plain paper in the synchro cut mode.
- 3. Measure the cuts and check them against the standards in the table.

Range	Plain	Translucent/Film
-------	-------	------------------

Up to 297 mm	Less than ±3.5 mm	Less than ±4.5 mm
298 to 594 mm	Less than ±4.0 mm	Less than ±5.0 mm
595 to 841 mm	Less than ±4.5 mm	Less than ±6.5 mm
842 to 1189 mm	Less than ±6.0 mm	Less than ±8.5 mm
1190 to 2500 mm	Less than ±12 mm	Less than ±17.5 mm
2501 to 3600 mm	Less than ±17.5 mm	Less than ±25.5 mm
3601 to 6000 mm	Less than ±32 mm	
6001 to 15000 mm	Less than –32 to +200 mm	
15001 to 30000 mm	Less than –32 to +400 mm	

4. If the measurements do not meet the standards (see the table below), adjust the following SP settings.

SP4961 001	Document Length Adjustment- Input Tolerance: 210mm
SP4961 002	Document Length Adjustment - Input Tolerance: 1000mm

5. System Maintenance Reference

Service Program Mode

See "Appendices" for Service Program Mode.

Firmware Update

To upgrade the firmware for this machine, you need the most recent version of the firmware downloaded onto an SD card. The SD card is then inserted into SD Card Slot 2 on the faceplate of the controller on the back of the machine. The firmware is downloaded from this SD card into the machine.

Make sure that the machine is disconnected from the network to prevent a print job from arriving
while the firmware update is in progress before you start the firmware update procedure.

🔁 Important

- Never insert or remove the firmware data SD card with the main power switch turned on.
- Never turn the machine off while the firmware is being updated.
- 1. Prepare the SD card.
 - Format the SD card.
 - Create a "romdata" folder on the SD card.
 - Download the firmware into the "romdata "folder.
- 2. Turn the main power switch off.
- 3. Remove the SD slot cover (@x1).
- 4. Insert the SD card with the firmware into Slot 2 (the bottom slot).
- 5. Turn the copier on. A message will ask you to wait until the machine has warmed up.
- 6. Wait for the initial screen to appear.
- 7. Read the left and right columns to the right of the touch-keys.

Select Target Page01		E	xit (0)
OpePanel (1) Engine (2)	ROM :D2085741C ROM :1.05.2 ROM :D2085230C ROM :1.50:04	NEW :D2085741D NEW :1.05.2 NEW :D2085230D NEW :1.50:04	
			1000-0007

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- The "ROM" column lists the numbers of the versions currently installed.
- The "NEW" column lists the numbers of the versions on the SD card in Slot 2.
- 8. Touch the key for the item that you want to update: (1) OpePanel, (2) Engine, etc.

- You can select more than one item for update.
- The selected items appear in reverse.
- The "Update(#) touch-key appears on the screen..

Select Target Page01					Exit (0)
OpePanel (1)	ROM :	:D2085741C :1.05.2	NEW NEW	:D2085741 :1.05.2	D
Engine (2)	ROM : ROM :	:D2085230C :1.50:04	NEW NEW	:D2085230 :1.50:04	D
					Update(#)

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- Touch [Update (#)] on the screen or an on the machine control panel to start the update procedure.
- 10. Follow the prompts on the screen.
 - You will see a series of progress bars (lines of asterisks) appear while the update is in progress while the option you selected is "Loading".
 - Next, you will see the "Updating ROM" message. The message also asks you to wait and not turn of the power until the update is finished.
 - Another progress bar (asterisks) is displayed as the ROM is updated.
- 11. Finally, when you see the message:

ROM update is completed.

Turn the main power switch off then on."

Turn the power switch off.

12. Remove the SD card from Slot 2.

🚼 Important 🔵

- Do not turn the machine on until you have removed the SD card from Slot 2.
- 13. Turn the machine on, wait for the machine to warm up, and then confirm that it is operating normally.

5

Package Firmware Update

• The HDD unit must be installed on the machine to enable the SFU or the package firmware update via SD card.

Overview

Each firmware module (such as System/Copy, Engine, etc) used to be updated individually. However, an all-inclusive firmware package (package_ALL) is now available.

There are two ways to update using the firmware package.

- Package Firmware Update via a network: SFU (Smart Firmware Update)
- Package Firmware Update with an SD card



Package Firmware Update via a network: SFU (Smart Firmware Update)

- There are two methods for SFU.
 - Immediate Update: To update the firmware when visiting
 - Update at the next visit: To set the date and time for downloading. The firmware will be automatically downloaded beforehand and updated at the following visit.
- "Update at the next visit" is recommended since firmware download may take some minutes due to the network condition.

🖖 Note

 SFU requires the connection to @Remote via a device which has the embedded @Remote communicating function. When a machine is connected to @Remote via an intermediate device (RC Gate), the SFU function is disabled.

Package Firmware Update via an SD Card

Package firmware update can also be performed using the conventional SD card method by writing the package firmware directly to the SD card.

	SFU	SD	RFU
Individual firmware	N/A	Available	Available
Package firmware	Available	Available	N/A

Types of firmware update files, supported update methods:

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

SP mode		MAN	183		Exit
	System	Sp	1		
	Fax Sj	p			
	Printer	Sp			
	Stanner	Sp			
	PMCour	nter			
	Firmwaie U	ipda te			
LartSp Logia					1 JULY 2014
1100 2010 1920				d	197f0507

3. Touch [Update].

	Update	
	Reserve	
	Back	
last5p log's		1 JULY 2014
1 JULY 2014 17:30		17:30
		d197f0508

4. Touch [Execute Update].

	Execute Update	
	Updated Package Information	
	Back	
ետ է 5ր եռց՝ս 1 JULY 2014-17:30		1,100,2014 1,230 d197f0509

5. Touch [YES].



6. The following display will be displayed.

	Updating	
Cancel		1 JULY 2014 1 730
		d197f0513

Note

- If the error code E66 displays this indicates that the download has failed. Do this procedure from step 1.
- Update will be started automatically after the download is finished.

• When the machine is in the update mode, the automatic update is suspended if a print job is implemented. After the print job is finished, touch [YES] on the display shown with the following picture to restart updating.



d197f0515

1. [Update done] is displayed.

The machine will automatically reboot itself.

	Loading	
	System/Copy	
	** *** *** *	
	9/22	
Last Spi Login 1 J ULY 2014 17:30		1 JULY 2014 17:30
	1	
	· · · · · · · · · · · · · · · · · · ·	
	Update done	
	Package Ver.1 -> 2	
	22/22	
Last Spilog) 1 JULY 2014 17:30		1 JULY 2014 17:30
		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.

Vote

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



3. Touch [Reserve].
| | Update | |
|-----------------------------------|---------|-----------------------|
| | [] | |
| | Reserve | |
| | Back | |
| | , | |
| last5p logis
1 JULY 2014 17:30 | | 1 JU LY 2014
17:30 |

d197f0508

4. Touch [Reservation setting].

	Reservation setting	
	Reserved and recleved package information	
	Back	
ետուէ5 թետց՝ս 1 JUL 17 2014-17:30		1 JULY 2014 17:30
		d197f0510

- 5. Enter the dates and times of next visit and start of receiving data.
 - "Next time to visit this customer": The package firmware will be automatically downloaded by this time/date.
 - "When to receive? (1-7)": The download of the package firmware will begin this number of days before the next visit.

Next time to visit	t this customer	
2013	/ 05 / 22	15 : 00
year	month day	nour minute
When to re	ceive? (1-7)	day(s) before visit
Set	Clear	Cancel
Last5 plog's 1 JULY 2014 17:30		1 JULY 2014 17:30
		d197f0512

Successful Download

In the two diagrams below, the

firmware is set to be downloaded by the day before the next scheduled visit. In the first diagram, the download is successful on the first try. In the second diagram, the download fails three times and is successful on the fourth try.

Start Download (Setting: Before 24 hours)	[Success Download by 3 trials]	Visit Day
Start Download (Setting: Before 24 hours)	[Success Download by 3 trials]	Visit Day
		w_d197f0507

- 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].

SP mode	MAN 1.22	Exit
	System Sp	
	Fax Sp	
	PinterSp	
	Scanner Sp	
	PMCounter	
	Firmwa ie Upda ie	
LartSp Login 1 JULY 2014 17:20		1 JULY 2014. 17:30
		d197f0507

3. Touch [Reserve].

	Update	
	Reserve	
	Back	
last5p Logia 1 کا 11 کا 17:30 کا 17:30		1 JULY 2014 17:30

d197f0508

4. Touch [Reserve and received package information].

	Reservation setting	
	Reserved and recieved package information	
	Back	
ևաս է5 յ ևոց՝ո 1 JULY 2014-17-30		1 JULY 2014 17:30

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.



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	M.D.N 182		Exit
	SystemSp		
	Fax Sp		
	PónterSp		
	Scanner Sp		
	PM Counter		
	Firmwa ie Upda ie		
Lant5p Login 1 JULY 2014 1230			1 JULY 2014. 17:20
		d	197f0507

3. Touch [Update].

	Update	
	Reserve	
	Back	
Last5p Log's 1 اللال 2014 - 17:30		1 JULY 2014 17:30

d197f0508

4. Touch [Execute Update].

	Execute Update	
	Updated Package Information	
	Back	
Laat5 p Loogʻa 1 JULIY 20014-17:30		1 JULY 2014 17:30
		d197f0509

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

Thew puckage was received	machine's frmuere?
bo you wish to update your	machine simmware?
YES	NO
YES	
YES	NO

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.

Download and update the latest package	Evocuto
* Downloading may take some time.	EXECUTE
Updated to the received package (Ver.1.36)	Execute
(art5) (og)n 1 JUY 204 - 720	Back
	d197f0517

- If you wish to download the latest version, touch [Execute] beside the message "Download and update the latest package." Then update of the package firmware will be started.
- If you wish to update using the firmware in the HDD (old version), touch [Execute] beside the message "Update to the received package."
- 6. [Update done] message is displayed.
 - The machine will automatically reboot itself.

	Loading		
	System/Copy		

		9/22	
Last Sp Login 1 JULY 2014 17:30			1 JULY 2014 17:30
	1		
	· · · · · · · · · · · · · · · · · · ·		
	Update done		
	Package Ver.1 -> 2		
		22/22	
Last5p Login 1 JULY 2014 17:30			1 JULY 2014 17:30
			d197f0518

Note

• The figures at the lower right of the display indicate "Number of updated items/ All items to be updated".

Update via SD card

Update with an SD card, which is the conventional method, is available if you write the package firmware to the SD card.

- 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].

5

package Metis-C1 ALL package Metis-C1 DOM package Metis-C1 DOM FCU	RCM :COD0000 RCM :0.01 ROM :B0705254 ROM :E0705254 ROM :E070570 ROM :E070570 ROM :1.22	NEW :COD00000 NEW :0.0X NEW :0.0X NEW :2.01%524 NEW :2.16:16 NEW :20155370 NEW :2.00
	Exit(0)	UpOate(I)
		d176f2127

Note

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

This SD card contains both a firmware package and a module. Select the one to use for updating.
Package
Module
Cancel OK
d176f2128

- 6. Update is started automatically after the package firmware download to the HDD has been completed.
- 7. When update is completed, "Update done" is displayed.

	Loading System/Copy 9/22
[+
	Update done Package Ver.1 ->2 22/22
	w d177z0021a

Note

- The figures at the lower right of the display indicate "Number of updated items/ All items to be updated".
- 8. Turn the main power switch OFF, and then pull out the SD card from SD card slot 2.

9. Turn the power ON.

RFU Updating the Firmware

In this machine, software can be updated using files from a remote site using @Remote.



RFU Performable Condition

RFU is performable for a device which meets the following conditions.

- 1. The customer consents to the use of RFU.
- 2. The devise is connected to a network via TCP/IP for @Remote.

Updating JavaVM

Creating an SD Card for Updating

- Download the update modules from Firmware Download Center. As one of the model modules, "Java VM v11 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

- 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.)
- 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 main power switch.
- 3. After booting Java VM, update of the application is started. "Updating SDK/J" appears in the lower left corner of the operation panel screen. (Estimated time: about 2 minutes)



d1352725

 When the update is complete, "Update SDK / J done SUCCESS" will appear in the banner message of the touch panel display. After turning off the power, remove the SD card from the slot. If the update fails, "Update SDK/J done FAIL" is displayed. You can confirm the cause of the error message below.

 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.

6. Return to the previous setting for the boot priority application.

List of Error Messages

Update results are output as a text file on the SD card called "sdkjversionup.log" in the "\sdk \update" folder.

Result	File contents	Description of the output
Success	script file = /mnt/sd0/sdk/update/ bootscript 2012/08/22 17:57:47 start 2012/08/22 17:59:47 end SUCCESS	Boot script path Boot scripts processing start time End time boot script processing, the results
Failure	script file = /mnt/sd0/sdk/update/ bootscript 2012/08/22 17:57:47 start XXXX Error 2012/08/22 17:57:57 end FAIL	Boot script path Boot scripts processing start time Error message (Possibly multiple) End time boot script processing, the results

Error Message	Cause	Remedy
PIECEMARK Error, machine=XXXXX	Applied the wrong updating tool (Using the updating tool of a different model)	Use the correct updating tool for this model.
pasePut() - error : The file of the copy origin is not found Put Error!	Inadequacy with the SD card for updating (Files are missing in the updating tool)	Re-create the SD card for updating.
paseCopy() - error : The file of the copy origin is not found. Copy Error!	Inadequacy SD card for updating (Files in the updating tool are missing)	Inadequacy SD card for updating (Files in the updating tool are missing)

Error Message	Cause	Remedy
[file name: XX] error, No space left on device pasePut() - error : The destination directory cannot be made. pasePut() - error : fileCopy Error. Put Error!	Writing destination is full. (The NAND flash memory on the controller board is full.)	Uninstall the unnecessary SDK applications. If you can not uninstall it, implement escalation, stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file."
[file name: XX] error, No space left on device paseCopy() - error : The destination directory cannot be made. paseCopy() - error : fileCopy Error. Copy Error!	Writing destination is full. (The NAND flash memory on the controller board is full.)	Uninstall the unnecessary SDK applications. If you can not uninstall it, implement escalation stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file."
Put Error! * 1 Copy Error! * 1 Delete Error! [XXXXX] is an unsupported command. Version Error	Error, not normally expected to occur	If you cannot uninstall it, implement escalation stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file." * 1 Without the foregoing error message, only "Put Error / Copy Error" will be displayed

NVRAM Upload, Download

Uploading NVRAM Data to an SD Card

An SD card is used to upload and download NVRAM data.

🔁 Important

- Data upload from NVRAM to SD card will fail if the machine serial number of the machine is not registered with SP5811. The machine serial number should be set at the factory before shipping.
- NVRAM data can be uploaded from several machines and stored on the same SD card. A unique filename is created automatically for each machine.
- 1. Enter the SP mode and do SP5990-2 to print an SMC report.

🔁 Important

- Always print an SMC report before uploading NVRAM data.
- The settings listed in the table at the end of the downloading procedures below are stored in the EEPROM of the MCU board (not in NVRAM). This data is not uploaded to the SD card and must be re-entered manually after NVRAM downloading.
- 2. Turn the machine off.
- 3. Insert the SD card in Slot 2 (the bottom slot).
- 4. Turn the machine on.
- 5. Enter the SP mode and do SP5824.
- 6. Touch [OK] on the operation panel to start the upload. Data uploaded from NVRAM is stored in the NVRAM folder on the card:

NVRAM\<Machine No.>.nv

🚼 Important 🗋

• The upload automatically overwrites any file of the same name without warning.

Downloading NVRAM Data from an SD Card

🚼 Important

- Downloading NVRAM data from an SD card may fail if the SD card is defective or if there is poor connection between the controller and the BCU.
- If downloading NVRAM data from an SD card fails, just repeat the procedure.
- If the second attempt to download from the SD card fails, then you must enter the SP and UP settings manually from the SMC report your printed before uploading the NVRAM data to the SD card.

- 1. Turn the machine off.
- 2. Insert the SD card to hold the NVRAM data in Slot 2.
- 3. Turn the machine on.
- 4. Enter the SP mode and perform memory clear (SP5801-001 or -002).
- 5. Do SP5825 (NVRAM Download).

The download executes, provided the SD card contains the NVRAM data for the machine. (The machine serial number in the file name of the NVRAM data must match the registered number of the machine.)

-or-

The download will not proceed if the correct NVRAM data is not on the SD card.

- 6. Enter the SP mode and enter following settings manually.
 - The data in the table below must be entered manually because it was stored on the EEPROM of the MCU (not the NVRAM).
 - Using the SMC report that you printed before you uploaded the data to the SD card, enter the values for the following settings.

	SP	Description
1105	005 – 008	Fusing Temperature Adj.
1914	002 - 003	Fusing Pressure Motor Adjustments
1951	011 – 153	Fusing Pressure
4008	001	Scanner Sub Scan (Magnification)
4010	001, 002	Scanner Sub Scan (Leading Edge)
4012	005 – 008	Scanner Edge Margin
4550	005 – 009	Scan Apli: Txt Print DFU
4551	005 – 009	Scan Apli: Txt DFU
4553	005 – 009	Scan Apli: Txt Dropout DFU
4554	005 – 009	Scan Apli: Txt Photo DFU
4555	005 – 009	Scan Apli: Photo DFU
4565	005 – 009	Scan Apli: Grayscale DFU
4570	005 – 009	Scan Apli: Col Txt Photo DFU

	SP	Description
4571	005 – 009	Scan Apli: Col Gloss Photo DFU
4700	001	FPGA ID Indication
4901	001, 002	Shading Correction DFU
4903	001 – 019	Filter Setting DFU
4904	001 – 007	Smoothing Filter Level DFU
4905	001	Gray Scale Processing Select
4961	001 – 002	Document Length Adjustment
4962	003	Original Spd Ctl: Temp. Corr. DFU
4975	001	Prevent Document Fall

Address Book Export/Import

Export

Backup address book information on SD card formatted with the specified software.

- 1. Switch the power OFF.
- 2. Locate the SD card slots on the controller box faceplate at the right rear corner of the machine.



d208a0603

3. Remove the SD slot cover (@x1).



d208a0604

4. Insert the SD card into SD card Slot 2 (the lower slot)..

5



d208a0605

- 5. Switch the power ON.
- 6. Execute SP5-846-051 full address book backup.
- 7. Switch the power OFF.
- 8. Remove the SD card.
- 9. Attach the SD slot cover to the original position (🕅 x1).

Note

- When local user information to be uploaded is not contained in the SD card, an execute malfunction is displayed. It cannot be used in the write-protect state.
- Since the address book is the customer's information, take care about handling it, and never bring it back.

Import

- 1. Switch the power OFF.
- 2. After removing the SD slot cover of the controller unit, set the SD card in the service slot.
- 3. Switch the power ON.
- 4. Execute SP5-846-052 (address book information restore).
- 5. Switch the power OFF.
- 6. Remove the SD card.
- 7. Attach the SD slot cover to the original position (\Im x1).
- 8. Switch the power ON, and check that the address book has been restored.

Note

• User code counter information is initialized.

- Administrator and supervisor information is not backed up. Also, it is not erased during restore.
- If a download file does not exist, or if erasure is complete, execution malfunction is displayed.

Specification

The information which can be exported /imported is the following items.

- Entry information
- User code information
- E-mail information
- Protection code information
- Group information
- Title information
- Title position information
- Folder information
- SMTP attestation
- Local authorization
- Folder authorization information
- Account ACL information
- New document initial ACL information
- LDAP authorization information

UP/SP Data Import/Export

Overview

Import/export conditions

Import/export is possible between devices only if their model type, region of use, and the following device configurations match.

- Input Tray
- Output Tray
- ARDF
- Whether or not equipped with a hard disk
- Whether or not equipped with a finisher and the type of finisher

Vote

• Facsimile functions are mentioned in this section but this machine does not support fax functions at this time.

UP Data Import/Export

Data that can be imported and exported

- Copier / Document Server Features
- Printer Features
- Scanner Features
- Facsimile Features
- Browser Features
- Extended Feature Settings
- Program (Document Server)
- Program (Copier)
- Program (Scanner)
- Web Image Monitor Setting
- Web Service Settings
- System Settings

Data that cannot be imported or exported

• Some System Settings *1 *2

* 1 The setting for the date, settings that require the device certificate, and settings that need to be adjusted for each machine (for example, image adjustment settings) cannot be imported or exported.

*2 Settings only for executing functions and settings only for viewing cannot be imported or exported.

- Extended Feature Settings
- Address book
- Programs (fax function)
- Programs (printer function)
- User stamp in Copier / Document Server Features
- Settings that can be specified via telnet
- @Remote-related data
- Counters
- EFI printer unit settings
- Settings that can only be specified via Web Image Monitor or Web Service (for example, Bonjour, SSDP setting)

Exporting Device Information

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

When exporting SP device information from the control panel, the data is saved on an SD card.

- 1. Insert an SD card into the media slot on the side of the control panel.
- 2. Log in from the control panel as an administrator with all privileges.
- 3. Press [System Settings].
- 4. Press [Administrator Tools].
- 5. Press [Next] four times.
- 6. Press [Device Setting Information: Export (Memry Strge Devc)].

Device Setting Information: Impor	t Setting (Server)	Compulsory
Device Setting Information: Run	Import (Server)	Compulsory
Device Setting Information: Export	(Memry Strge Devc)	Compulsor
Device Setting Information: Import	(Memry Strge Devc)	User's
PDF File Type: PDF/A Fixed	Off	Volume Use
Stop Key to Suspend Print Job	All Print Jobs	
Compulsory Security Stamp:Copier	Do not Stamp	

7. Set the export conditions.

Select item, then press (numex	portj.	
Device Unique Information	Include	Exclude
►Encryption Key	Enter	
		w d182550

- 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.
- 8. Press [Run Export].
- 9. Press [OK].
- 10. Press [Exit].
- 11. Log out.

Vote

- 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. Press [System Settings].
- 4. Press [Administrator Tools].
- 5. Press [Next] four times.
- 6. Press [Device Setting Information: Import (Memry Strge Devc)].
- 7. Configure the import conditions.

Image for Home Screen		
►Device Unique Information	Include	Exclude
Encryption Key	Enter	

w_d1825503

- 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.
- 8. Press [Run Import].
- 9. Press [OK].
- 10. Press [Exit].

The machine restarts.

Note

• If data export fails, the details of the error can be viewed in the log.

SP Data Import/Export

Data that can be imported and exported

- System SP
- Printer SP
- Fax SP
- Scanner SP

Exporting Device Information

When exporting SP device information from the control panel, the data is saved on an SD card.

- 1. Insert an SD card into the media slot on the side of the control panel.
- 2. Enter SP mode.
- 3. Press SP5-749-001 (Import/Export: Export)
- 4. Select "Target" SP settings (System/Printer/Fax/Scanner) to be exported.
- 5. Select "Option" settings (Unique/Secret).

ltem	Specification	Note
Unique	Unique information of the machine is included in the exported file if you select "Unique" setting.	Unique information that can be updated #1. Items that are to be used to identify the machine. Example: Network Information/ Host name / Information related to fax number / Mail address assigned to the machine
		#2. Items for specifying the options equipped on the machine.
		Example: Lot number for developer
		Unique information that cannot be updated
		#1. Items that may cause a problem if imported
		Example: Serial number / Information related to @Remote
		#2. Items for managing the history of the machine
		Example: Time and date / Counter information / Installation date
		#3. Setting values for the Engine

5

ltem	Specification	Note
Secret	Secret information is	Secret information
	exported if you select "Secret" setting.	#1. Data that cannot be exported without being encrypted.
		(Exported data is encrypted.)
		Example: Password / Encryption key / PIN code
		#2. Confidential information for the customer
		Example: User name / User ID / Department code / Mail address / Phone number
		#3. Personal information
		Example: Document name / Image data
		#4. Sensitive information for the customer
		Example: MAC address / Network parameters

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

6. Select "Crpt config" setting (Encryption).

Encryption	Select whether to encrypt or not when	If the encryption function is used, setting of an encryption key is required by direct input.
	exporting. If you push the	 Type the arbitrary password using the soft keyboard
	"Encryption" key, you can export secret information.	• 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. Press SP5-749-101 (Import/Export: Import)

- 4. Select a unique setting.
- 5. Press [Encryption Key], if the encryption key was created when the file was exported.
- 6. Select an encryption setting.

Unique	If you want to apply the unique information to the target machine, select the "Unique" key.	Refer to the above information.
Encryption	If an encrypted file is selected as the import file, this setting is required.	

- 7. Press [Execute].
- 8. Press [OK].

```
Vote
```

• 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



w_d1825500

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.

Result Code	Cause	Solutions
20 (PART FAILED)	Failed to import some settings.	The reason for the failure is logged in "NgCode". Check the code.
		Reason for the Error (Ng-Name)
		2. INVALID VALUE
		The specified value exceeds the allowable range.
		3. PERMISSION ERROR
		The permission to edit the setting is missing.
		4. NOT EXIST
		The setting does not exist in the system.
		5. INTERLOCK ERROR
		The setting cannot be changed because of the system status or interlocking with other specified settings.
		6. OTHER ERROR
		The setting cannot be changed for some other reason.
21 (INVALID FILE)	Failed to import the file because it is in the wrong format in the external medium.	Check whether the file format is correct. The import file should be a CSV file.
22 (INVALID KEY)	The encryption key is not valid.	Use the correct encryption key.

5

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.

Using the Debug Log

Overview

With this feature, you can save debug logs that are stored in the machine (HDD or operation panel) on an SD card. This function allows the Customer Engineer to save and retrieve error information for analysis. The Capturing Log feature saves debug logs for:

- Controller
- Engine
- Operation panel

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- 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 debug log.
- However, this new feature saves the debug logs whenever a problem occurs, and then this log can be saved to an SD card.
- You can retrieve the debug logs with an SD card without a network.
- Analysis of the debug log is effective for problems caused by the software. Analysis of the debug log is not valid for the selection of defective parts or problems caused by hardware.

Туре	Storage Timing	Destination (maximum storage capacity)
Controller debug log (GW debug log)	• Saved at all times	HDD (4 GB). Compressed when written to an SD card from the HDD (from 4 GB to about 300 MB)
Engine debug log	 When an engine SC occurs When paper feeding/output stop by jams When the machine doors are opened during normal operation 	HDD (up to 300 times)

Types of debug logs that can be saved

Туре	Storage Timing	Destination (maximum storage capacity)
Operation panel debug log	 When a controller SC occurs When saving by manual operation with the Number keys and the Reset key (Press "Reset", "O", "1" and "C" (hold for 3 seconds)) When the operation unit detects an error When the operation panel detects an error 	Operation panel (400 MB /Up to 30 times) When updating the firmware for the operation panel, the debug logs are erased.

Debug logs are not saved when:

- Memory is being erased
- Data encryption equipment is being installed
- Firmware configuration is being changed
- There is a power outage (power cord disconnected accidentally)
- The machine is shutdown normally with the power switch and data write to the HDD cannot be completed. For example, when shutdown starts immediately after a paper jam occurs or the front door is opened or closed, the machine needs about 5 sec. to save the debug log after the machine stops completely.
- Power supply to the HDD is off because of energy saving (engine OFF mode /STR mode)

Operation Log Security

The following operation logs related to security are never saved.

- User ID
- Password
- IP address
- Telephone number
- Encryption key
- Transition to SP mode

The following operation logs are never saved.

- Number keys (0 to 9) on the operation panel
- Soft keyboard on the touch panel display
- External keyboard

Retrieving Debug Logs

Retrieve debug logs to identify the date of occurrence and details about problems.

- Analysis of the debug log is effective for problems caused by the software.
- Analysis of the debug log cannot identify defects in parts or problems caused by hardware.

Procedure for Retrieving the Debug Log



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- 1. Insert the SD card into the slot on the right edge of the operation panel.
- 2. Enter SP mode.
- 3. Do SP5857-001 to switch Debug Log on (set to "1").
- Do SP5857-002 and select SD ("3") for the target media for the Debug Log file. (The default selection is "2" for HDD
- 5. Set the start date of the log with SP5857-101.
 - Enter the date in the format yyyymmdd where yyyy is the year, mm the month, and dd the day.
 - For example, for March 28, 2013 you would enter "20130328"
 - Enter a date 72 hours before the problem occurred.
- 6. Set the end date of the log with SP5857-102.
 - Use the same format (yyyymmdd) that you used to enter the start date.
 - For example, for March 31, 2013 you would enter "20130331".
- 7. Next, continue with **SP5857** to select the type of data to retrieve for the debug log to be stored on the SD card. The log is created after selecting one of the options in the table below.

SP	Selects
5857-103	All debug logs (controller, engine, operation panel)
5857-104	Controller debug log only
5857-105	Engine debug log only
5857-107	Operation panel debug log only

8. When the transfer is finished, the machine will display "Completed" on the operation panel.

🔁 Important 🗋

• The length of time needed to transfer the debug log data can be affected by the type and format of the SD card. Formatting the SD card with Panasonic SD Formatter (freeware) is recommended.

The approximate time required for the transfer of the following debug logs are:

- Controller (GW): 2 to 20 min.
- Engine debug log: 2 min.
- Operation: 2 to 20 min.
- 9. Make sure that the SD card access LED is off, then remove the SD card.

If you see the "Failed" message, remove the SD card, cycle the machine off/on, and then repeat this procedure.

Debug logs are saved with the following file names.

Debug Log	Filename Format
Controller(GW)	/LogTrace/machine no./watching/yyyymmdd_hhmmss_unique ID.gz
Engine	/LogTrace/machine number/engine/yyyymmdd_hhmmss.gz
Operation Panel	/LogTrace/machine no./opepanel/yyyymmdd_hhmmss.tar.gz

Printing an SMC Report

The SP mode settings are adjusted before shipment, and are listed in the copy of the SMC print provided on the original table. Keep this SMC print in the used-toner-bottle cabinet as a record of the default settings.

Follow this procedure if you want to print another copy of the SMC list.

- 1. Enter the SP Mode.
- 2. Press [Copy Mode] to return to the initial screen and select the feed source and other settings for the print job, and then press SP Mode to return to the SP Mode.
- 3. Enter 5990 002 and then press [#].
- 4. Press [Start].

SP Text Mode (Saving SMC List to SD Card)

Overview

SP Text Mode

This function is used to save the SMC list as CSV files to the SD card inserted into service slot 2 or the operation panel card slot.

Procedure

- 1. Turn the main power switch OFF.
- 2. Insert the SD card into slot 2 or the operation panel SD card slot. Then turn the power ON.
- 3. Enter SP mode.
- 4. Select "Copy SP".



- 5. Select SP5-992 (SP Text Mode).
- 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

Detail No.	SMC Categories to Save
005	Diagnostic Report
006	Non-Default
007	NIB Summary
008	Capture Log
021	Copier User Program
022	Scanner SP
023	Scanner User Program
024	SDK/J Summary
025	SDK/J Application Info
026	Printer SP

7. Press [EXECUTE].





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





9. "It is executing it" is shown on the screen while executing.





10. Wait for 2 to 3 minutes until "Completed" is shown.

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- The SMC list saving may take from 2 to 3 minutes to complete.
- Press [CANCEL] to abort executing.
- 11. Press [Exit] to exit from SP mode.

File Names of the Saved SMC Lists

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

Example:



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- A: Machine serial number (fixed for each machine)
- B: The first four digits indicate the SP number. The last three digits indicate the branch number.
- C: File creation date (YYYY/MM/DD)
- D: File creation time (HH/MM/SS)

Note

• A folder named by the machine serial number will be created on the SD card when this function is executed.
Error Messages

• Failed:

Read-only file system, No space left on device. If an error occurs, pressing "Exit" will cause the device to discard the job and return to the ready state.

Initialize All SP Settings

Follow this procedure to initialize the SP settings and restore them to their factory default settings.

- 1. Enter the SP Mode.
- 2. Print an SMC list (see the procedure above).
- 3. To initialize the SP settings, do **5801-001**.

• Note

- The total counter is not cleared when RAM is cleared.
- 4. After initializing the SP settings, use SP5811 to re-enter the serial number of the machine.

Calibrating the Touch Panel

Follow this procedure to calibrate the touch panel.

After clearing memory, or if the touch screen detection function is not working correctly, calibrate the touch screen.

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- Do not attempt to use any other selections on this menu.
- 1. At the "Ready" screen, press 🥮.
- 2. On the operation panel keypad push [1] [9] [9] [3].
- 3. Press 🗐 five times.
- 4. Push "Touch Screen Adjust" (or push "1").

[1] Touch Screen Adjust	[6] Touch Screen Test
[2] LED Test	
[3 Hard Key Test	[8] Message Display Debug
[4] Buzzer Test	[9] Debug Log
[5] LCD Test	

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5. Touch 🕮 OK



6. A message will prompt you to touch the plus mark in the upper left corner. Touch this mark with a tool (like the dull end of a pen or pencil).



7. The next message will prompt you to touch the plus mark in the lower right corner of the screen. Touch this mark with the tool.



- 8. Touch the screen when next three messages prompt you to touch each mark in the lower left corner, center, and finally, the upper right corner.
- 9. When the last message prompts you to do so, touch a few random spots on the touch screen to confirm that the teardrop marks appear exactly where the screen is touched.



- 10. If the operation is satisfactory, press 🕮 OK.
 - If the mark does not appear where the screen is touched, push [Cancel].
 - Follow the prompts to repeat the procedure.
- 11. Touch [#] Exit on the screen to close the Self-Diagnostic Menu and save the settings.

Note

• If you cannot calibrate the screen correctly, the touch panel may need to be replaced. (p.166)

Software Reset

To reset the software, hold down and together for 10 seconds. This software reset is the same as turning the machine off on and with the main power switch.

You cannot use this procedure to reset the software when the operation panel has stalled or if a fusing-related SC code has appeared.

Card Save Function

Overview

- 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 in the Printer SP mode using printer "Bit Switch 1 Setting" (Bit 4).
- Card Save will remain enabled until the SD card becomes full, or until all file names have been used (up to 5 digits: PRT99999).
- 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 is also 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 and does not overwrite existing files. If the card becomes full or if all file names are used, a message 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.

Note

• 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 the machine off.
- 2. Insert the SD card into Slot 2.
- 3. Turn the machine on.
- 4. Enter SP mode.
- 5. Select "Printer Sp".
- 6. Select "Bit Switch 1 Settings".



- 7. Select "Bit Switch 1 Settings".
- 8. Press [4] on the numeric keypad, and then press [#]. This toggles Bit 4 ON by setting it to "1" and saves the setting. The result should look like: **00010000**.



- 9. Press "Exit" to exit SP Mode.
- 10. Press the "User Tools/Counter" button, and then select "Printer Features".
- Card Save (Add) and Card Save (New) should be displayed on the screen. Select "Card Save (ADD)" or "Card Save (NEW).



12. Press "OK" and then exit the "User Tools/Counter" menu.

E Print	er Features	Exit
List /	I NI NI NI NI N	_
Test Prin	Switching to Card Save mode.	
	V	
6		
	Cancel	
133.159.166.065	System Status Job List	12 AUG 2008 6:42
		d037t105

- 13. Press the 🛅 button.
- 14. On the Check Status screen touch "Check" for Printer.

Mach./Applic. Stat Current Jo	b Job History	Maint./Inquiry/Mach. Info
Machine Status	Ready	
Copier	Ready	Check
Printer	Ready	
Scanner	Ready	Check
Document Server	Ready	Check

15. Card Save should be displayed at the top of the screen



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16. Send a job to the printer. The Data In LED in the lower left corner of the operation panel should start blinking.

- 17. As soon as the printer receives the print job, it will be stored on the SD card automatically with no paper output. Nothing is displayed on the screen, indicating that a Card Save operation was successful.
- 18. Touch "Check" for "Copier" to return to the initial Copier screen.

Check Status	[Exit
Mach./Applic. Stat Current Job	Job History Maint./Inquiry/M	fach. Info
Machine Status	Ready	
Copier	Ready	Check
Printer	Ready	Check
Scanner	Ready	Check
Document Server	Ready	Check

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- 19. Go into Printer SP mode, and then change the Bit Switch Settings back to the default 00000000.
- 20. Press [#] on the numeric keypad to save the changes, and then leave the SP mode.
- 21. Turn the machine off.
- 22. Remove the SD card from SD card Slot 2.
- 23. Turn the machine on to resume normal operation.

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.

Troubleshooting Guide

Troubleshooting Flowchart

Follow the flowchart to determine the cause of an image problem. Use **SP2902** (VDB Test Pattern) and **SP4417** (IPU Test Pattern) to print the test patterns.



For the VDB test patterns, use SP2902.

- 1. Enter the SP mode.
- 2. Select the test pattern number, touch [Copy Screen], then push [Start].

0	None	13	Vertical Line (1-dot)
1	Grid Pattern (1-dot)	14	Vertical Line (2-dot)
2	Grid Pattern (2-dot)	15	Horizontal Line (1-dot)
3	Grid Pattern (3-dot)	16	Horizontal Line (2-dot)

4	Grid Pattern (4-dot)	17	Checkered Flag
5	Grid Pattern (5-dot)	18	Alternating Dot Pattern (1-dot)
6	Grid Pattern (6-dot)	19	Alternating Dot Pattern (2-dot)
7	Argyle Pattern (1-dot)	20	Alternating Dot Pattern (4-dot)
8	Argyle Pattern (2-dot)	21	Trimming Area
9	Argyle Pattern (3-dot)	22	Full Dot Pattern
10	Argyle Pattern (4-dot)	23	Black Band (Vertical)
11	Argyle Pattern (5-dot)	24	Black Band (Horizontal)
12	Argyle Pattern (6-dot)	25	Blank Image

For the IPU test patterns, use SP 4417

- 1. Enter the SP mode.
- 2. Enter the number for the desired test pattern.
- 3. Switch the display to the "Copy Window" then press the [Start] button.

	Scan Test Patterns	Print Test Patterns		
0	Scanner Data	1 8	Independent Dot: 1-4 dot: PRN	
1	Vertical Line: 1-dot: SCN	1 9	Grayscale Horizontal: 16-level: PRN	
2	Vertical Line: 2-dot: SCN	2 0	Grayscale Vertical: 16-level: PRN	
3	Horizontal Line: 1-dot: SCN	2 1	Grayscale: 16-level: PRN	
4	Horizontal Line: 2-dot: SCN	2 2	Density Patch: 256-level: PRN	
5	Independent Dot: 1-dot: SCN	2 3	Density Patch: 64-level: PRN	
6	Grid Pattern: 1-dot: SCN	2 4	Plus Sign: PRN	

7	Vertical Stripes: SCN	2 5	Grid Pattern: 96-dot: PRN
8	Grayscale Horizontal: 16-level: SCN	2 6	Argyle Pattern: PRN
9	Grayscale Vertical: 16-level: SCN	2 7	Grayscale Horizontal: 16-level: + Line: PRN
10	Density Patch: 16-level: SCN	2 8	Grid Pattern: 128-dot: PRN
11	Plus Sign: SCN		
12	Argyle Pattern: SCN		
13	Density Patch: 256-level: SCN		
14	Density Patch: 64-level: SCN		
15	Trimming Area: SCN		
16	Bandwidth Vertical: SCN		
17	Bandwidth Horizontal: SCN		

Scanning

	1.	No image (blank copy/print, or no image with only vertical black lines on the output)
		Possible causes:
		 Connection problem between CIS and IPU.
		CIS defective
d046t902		

d046t903	2.	No image (solid black copy/print, or no image with only vertical white lines on the output) Possible causes: • Connection problem between CIS and IPU. • CIS defective
d046t904	3.	Light image Possible causes: • Low CIS output • IPU board defective
d046t905	4.	Vertical black lines Possible causes: • Dirty exposure glass • CIS defective • IPU defective
d046t906	5.	Vertical white lines Possible causes: • Dirty exposure glass • Dirt or scratches on white plate above the CIS • CIS defective



Image Writing

	1.	No Image (blank copy/print)
		Possible causes:
		• VDB board defective
		IPU board defective
		LPH defective
d046t908		





d046t912

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Printing

d093t991	1	Dirty Background
		Possible causes:
		Possible causes:
		• Dirty ID sensor
		Deteriorated developer
		Deteriorated OPC drum
		• Excessive toner due to toner over supply

		2	Black Spots at Regular Intervals (Pitch)
•			Possible causes:
•			• Scratched OPC drum (250 mm pitch)
•			• Scratched hot roller (157 mm pitch)
	d093t992		• Scratched pressure roller (173 mm pitch)

	Random Black Spots Possible causes:
	 Toner scattering caused by bent entrance seal in cleaning unit
d093t993	 Developer scattering caused by defective seals in development unit
	Deteriorated OPC drum
	Hot roller cleaning roller dirty

	4	Vertical Black Lines or Bands
		Possible causes:
		Line caused by defective cleaning blade
		 Band caused by bent cleaning blade
d093t994		 Line caused by dirty corona wire
		 Band caused by dirty OPC drum
		 Line caused by scratched OPC drum



SC Tables

Service Call Conditions

There are 4 levels of service call conditions.

Level	Definition	Reset Procedure
A	To prevent damage to the machine, the main machine cannot be operated until the SC has been reset by a service representative (see the note below).	Enter SP mode, use SP 5810, touch [Execute], and then turn the main power switch off and on.
В	SC codes that disable only the features that use the defective item. These codes are not shown to the user under normal conditions, but they are displayed when the defective feature is selected.	Cycle the machine off/on.
С	The SC history is updated. The machine can be operated as usual.	The SC will not be displayed. Only the SC history is updated.
D	Cycling the machine off/on resets SC codes displayed on the operation panel. These are re- displayed if the error occurs again.	Cycle the machine off/on.

- If the problem concerns electrical circuit boards, first disconnect then reconnect the connectors before replacing the PCBs.
- If the problem concerns a motor lock, before replacing motors or sensors always inspect the area around the motor and drive train for a physical obstruction..
- When a Level A or B SC occurs while in an SP mode, the display does not indicate the SC number. If this occurs, check the SC number after leaving the SP mode. This does not apply to Level B codes.

- Never turn off the main power switch when the power LED is lit or flashing.
- To avoid damage to the hard disk or memory, always follow the procedure below to turn the machine off.
- 1. Press the switch on the left corner of the machine, wait for the power down message to go off, and then wait for the power LED on the operation panel to go off.
- 2. Press the power switch again. This dissipates residual charge on the PCBs.
- 3. Unplug the machine from the power source.

Tray Names



SC Code Tables

Group 100: Exposure

SC101-100	D	Lamp error	
		Lamp does not light at power on.	
		If cycling the machine power off/on does not solve the problem:	
		White plate dirty	
		CIS glass dirty	
		CIS, IPU, BCU connection loose, broken, defective	
		LED connection loose, broken, defective	
		Harness between CIS and IPU loose, broken, defective	
		Harness between CIS and PSU loose, broken, defective	
		One or more defective: CIS, IPU, BCU, PSU, LED lamp	

If cycling the machine power off/on does not solve the problem:
Clean white plate
Clean the CIS glass
Check CIS, IPU, BCU connections
Check LED connections
Check harness connections between CIS and IPU
Check harness connections between CIS and PSU
Replace one or more: CIS, IPU, BCU, PSU, LED lamp

SC143-00 D	D	Scanner automatic adjustment error
		CIS automatic adjustment failed at power ON.
		White plate dirty or positioned incorrectly
		CIS LED not light
		Connection harness between SIF and PSU loose, broken, defective
		Connection harness between SIF, SIPU loose, broken, defective
		• SIF failure
		BCU/IOB failure
		• SIPU failure
		CIS failure
		Clean white plate or adjust the position.
		• Check harness connections between CIS and PSU or replace harness.
		Check harness connections between CIS and SIPU or replace harness.
		Replace CIS.

SC144-00	С	SIB communication error	
		LM98714 communication error	
		• SIB failure	
		• IPU failure	
		Harness between SIB and IPU fault	
		Check harness connections between SIB and IPU or replace harness.	

SC161-01	D	IPU error (Volans configuration trouble)	
		LM98714 communication error	
		• SIB failure	
		• IPU failure	
		Harness between SIB and IPU fault	
		Check harness connections between SIB and IPU or replace harness.	

SC161-02	D	IPU error (Ri2005_SIB response error)
		IPU error (Ri response error) is issued if an error is detected on Ri access.
		IPU board error (Ri2005 and peripheral circuits fault).
		Chip fault (Ri2005 fault)
		Power reset

SC161-03	D	IPU Error – Ri response failure
		An IPU error issued (no response from Ri) when a problem occurred in an attempt to access Ri20.
		IPU harness connection loose, broken, defective
		IPU defective
		Check all IPU harness connections
		• Replace IPU

SC161-04	D	Cetus 2 configuration error	
		An attempt to configure Cetus 2 failed due to an IPU error (Ri response failure)	
		IPU harness connection loose, broken, defectiveIPU defective	
		Check all IPU harness connectionsReplace IPU	

SC180-00	D	Left scanner fan lock
		Lock signal for the left scanner fan is detected.
		 Scanner Fan (Left): trouble Scanner Fan (Left): Harness between SIBs loosen or broken SIB defective IPLI defective
		BCU defectiveIOB defective
		If not retrieved by turning the power OFF and ON, check and replace the parts below. • Scanner Fan (Left) • SIB • IPU • BCU • IOB • Harness.

SC181-00 D	D	Right scanner fan lock
		Lock signal for the right scanner fan is detected.
		• Scanner Fan (Right): trouble
		Scanner Fan (Right): Harness between SIBs loosen or broken
		• SIB defective
		• IPU defective
		BCU defective
		IOB defective

If not retrieved by turning the power OFF and ON, check and replace the parts below.
• Scanner Fan (Right)
• SIB
• IPU
• BCU
• IOB
• Harness.

SC186-00	D	Gray-balance adjustment error
		The area average value after adjustment is outside the specified value by ±20 degrees.
		 CIS defective SIB defective IPU defective FFC defective
		If not retrieved by turning the power OFF and ON, check and replace the parts below. • CIS • SIB • IPU • FFC

Group 200: writing

SC290-01	D	VDB configuration error
		The INIT_DONE signal level did not go HIGH within 1 sec. after power on.
		Connection harness between VDB, IPU loose, broken, defective
		VDB defective
		BCU defective

Check the connection harnesses between VDB, IPU
Replace VDB
Replace BCU

SC290-02	290-02 D	D	VDB communication read error
		The machine failed twice to read the fixed value for DPIT4 in the register.	
		Connection harness between VDB, IPU loose, broken, defective	
		VDB defective	
		BCU defective	
		Check the connection harnesses between VDB, IPU	
		Replace VDB	
		Replace BCU	

SC290-03	D	VDB communication write error
		The machine failed twice to read correctly the value stored in the register for the read check.
		 Connection harness between VDB, IPU loose, broken, defective VDB defective BCU defective
		 Check the connection harnesses between VDB, IPU Replace VDB Replace BCU

SC291-01	D	D	D	VDB-LPH communication error: LPH 1
		Two attempts failed to read the register where the value for LPH communication recognition is stored.		
		VDB-LPH connection harness loose, broken, defective		
		VDB defective		
		LPH defective		

Check connection of all VDB-LPH harnesses
Replace VDB
• Replace LPH

SC291-02	D	VDB-LPH communication error: LPH 2
		Two attempts failed to read the register where the value for LPH communication recognition is stored.
		 VDB-LPH connection harness loose, broken, defective VDB defective
		VDB detective
		Check connection of all VDB-LPH harnesses
		Replace VDB
		• Replace LPH

SC291-03	D	VDB-LPH communication error: LPH 3
		Two attempts failed to read the register where the value for LPH communication recognition is stored.
		VDB-LPH connection harness loose, broken, defective
		VDB defective
		LPH defective
		Check connection of all VDB-LPH harnesses
		• Replace VDB
		• Replace LPH

SC292-00	D	VDB flash intensity correction sequence error
		After flash intensity correction was set to "1" in the register (khstat), "0" was not detected within the estimated end time.
		VDB-IPU connection harness loose, broken, defective
		VDB defective
		BCU defective

Check connection of all VDB-IPU harnesses
Replace VDB
Replace BCU

Group 300: Charge, Development

SC300-00	D	Charge corona output error
		Charge corona feedback voltage less than 0.5 V was detected for more than 100 ms after power on.
		Dirty charge corona wire caused voltage leak
		 CGB power pack cable loose, broken, defective
		TD HVPS power pack defective
		Clean charge corona wire
		Check TD HVPS power pack cable
		Replace TD HVPS power pack

SC305-00	D	Charge corona wire cleaner error
		The wire cleaning pad did not return to its home position within 5 sec. after wire cleaning ended.
		Wire cleaner motor harness loose, broken, defective
		Wire cleaner motor defective
		Charge corona wire defective
		Check wire cleaner motor harness
		Replace corona wire
		Replace wire cleaner motor
		Note:
		• This SC is not issued if SP2804 is set to zero (no cleaning).
		 If immediate repair is not possible, set SP2804 to zero to switch off the charge corona cleaner function.

SC347-00	D	Development drive motor lock error
		Development drive motor stopped. (The lock signal remained HIGH longer than 5 sec. when the development was operating.)
		 Motor or drive mechanism jammed by physical obstruction Motor harness loose, broken, defective Motor defective
		 Remove obstruction to free motor operation Check motor harness Replace motor

SC392-00	D	Development bias error
		The PWM duty level was detected higher than 5% within 100 ms after high voltage output started, and the feedback voltage was detected less than 0.3 V for more than 200 ms.
		Development bias connection harness loose, broken, defective
		 Development bias connection point damaged
		High voltage cable damaged
		CGB power pack defective
		Check the development bias harness
		Check the development bias connection point
		Check the high voltage cable
		Replace CGB power pack

Group 400: Around the Drum (Transfer, Separation, Cleaning)

SC400-00	D	ID sensor error: Automatic adjustment error
		During the process control self-check, the Vsg value (reflectivity of the bare drum surface) could not be adjusted to within 4.0±0.2V within 20 sec. after automatic adjustment began.
		ID sensor dirty
		ID sensor harness loose, broken, defective
		• ID sensor harness connection at IOB loose, broken, defective.
		ID sensor defective
		Exposure unit defective
		Development unit defective
		CGB power pack defective
		Clean ID sensor
		Check ID sensor harness
		 Inspect ID sensor connection at IOB
		Replace ID sensor
		Replace exposure unit
		Replace development unit
		Replace CGB power pack

SC401-00	D	ID sensor error: Vsg
		When the ID sensor was calibrated, Vsg (reflectivity of the bare drum surface) was detected less than 2.5V after two attempts.
		-0Г-
		After calibration, Vsg was detected as 5.0V at PWM adjustment and PWM=0.
		Dirty ID sensor
		ID sensor harness connection loose, broken, defective
		ID sensor defective
		Transfer power pack defective
		IOB defective

Clean ID sensor
Inspect ID sensor harness, connector
Replace ID sensor
Replace transfer power pack
Replace separation power pack
Replace IOB

SC402-00	В	ID sensor error: Vsp
		The Vsp (reflectivity of ID sensor pattern) value was detected at "0" or more than 2.5V when the ID sensor was calibrated during process control.
		OPC drum gear Allen screw loose
		• ID sensor dirty
		ID sensor harness loose, broken, defective
		• ID sensor defective
		IOB defective
		Exposure unit defective
		Development unit defective
		Transfer power pack defective
		Tighten Allen screw of drum gear
		Clean ID sensor
		Inspect ID sensor harness, connector
		Replace ID sensor
		Replace exposure unit
		Replace development unit
		Replace transfer power pack

SC406-00	D	ID sensor error: Edge detection error during calibration
		The voltage reading of the ID sensor pattern during process control remained less than 2.5V for more than 0.6 sec. during process control.
		• ID sensor dirty
		 ID sensor harness connection loose, broken, defective
		ID sensor defective
		IOB defective
		LPH defective
		Development unit defective
		Transfer power pack defective
		Clean ID sensor
		 Inspect ID sensor harness, connector
		Replace ID sensor
		• Replace IOB
		• Replace LPH
		Replace development unit
		Replace transfer power pack

SC440-00	D	Transfer voltage output error
		100 ms after the transfer power pack started to output the transfer voltage, no voltage was detected, possibly due to a power leak on a defective cable. (The feedback voltage was detected less than 0.33 V for more than 200 ms after sampling at 10 ms intervals.)
		Defective transfer power pack high voltage cableTransfer power pack defective
		Inspect connection of transfer power pack cableReplace transfer power pack

SC441-00	D	Transfer negative bias output error
		100 ms after the transfer power pack started to output the transfer voltage, no voltage was detected, possibly due to a power leak on a defective cable. (The feedback voltage was detected less than 0.25 V for more than 200 ms after samplings at 10 ms intervals.)
		Defective transfer power pack high voltage cableTransfer power pack defective
		Inspect connection of transfer power pack cableReplace transfer power pack

SC460-00	D	Paper separation DC charge error
		100 ms after the separation power pack started to output the separation charge, no voltage was detected. (The feedback voltage was detected less than 0.5 V for more than 200 ms after samplings at 10 ms intervals.)
		Defective separation power pack high voltage cableSeparation power pack defective
		Inspect connection, condition of separation power pack cableReplace separation power pack

SC498-00	С	Temperature/humidity sensor error
		No output charge was detected 100 ms after the separation power pack switched on. (The feedback voltage was detected less than 0.5 V for more than 200 ms after samplings at 10 ms intervals.)
		 Sensor harness loose, broken, defective Sensor connector defective Sensor defective
		Inspect sensor harness, connector, and replaceReplace temperature/humidity sensor

Group 500: Paper Feed, Paper Transport, Fusing

SC507-00	D	Registration motor lock
		The registration motor lock signal remained high longer than 5 sec. during motor operation.
		 Motor harness loose, broken, defective Drive mechanism overloaded due to obstruction Motor driver PCB or motor defective
		 Inspect motor harness Inspect area around motor and remove obstruction Replace motor and PCB

SC521-00	D	Drum motor error
		The main motor lock signal remained HIGH for 5 sec. after the motor started.
		Motor harness loose, broken, defective
		Motor driver PCB or motor defective
		Inspect motor harness
		Replace motor and PCB

SC530-00	D	Fusing exhaust fan error
		Not used

SC531-00	D	Fusing drive motor error
		The fusing drive motor lock signal remained HIGH for 5 sec.
		Fusing motor drive mechanism overloaded.
		 Motor harness loose, broken, defective
		Motor drive PCB or motor defective.
		 Inspect area around motor and remove obstruction
		Inspect motor harness
		Replace motor and PCB

SC532-00	D	Left fusing pressure motor home position error 1
		The left pressure motor did not arrive at the home position within 23 sec. after the left pressure motor started.
		• Left fusing pressure motor home position sensor loose, broken, defective.
		Motor drive mechanism overloaded
		• Sensor defective.
		Motor defective.
		 Inspect home position sensor harness
		 Inspect area around left fusing pressure motor and remove obstruction
		Replace home position sensor
		Replace motor

SC533-00	D	Left fusing pressure motor home position error 2
		The left pressure motor remained at the home position for 3 sec. after the motor switched on.
		Left fusing pressure motor drive mechanism overloaded
		• Left fusing pressure motor home position sensor loose, broken, defective.
		Sensor defective.
		Motor defective.
		 Inspect area around motor and remove obstruction
		Inspect motor harness
		Replace home position sensor
		Replace motor

SC534-00	D	Right fusing pressure motor home position error 1
		The right pressure motor did not arrive at the home position 23 sec. after the right pressure motor switched on.
		Right fusing pressure motor drive mechanism overloaded
		• Right fusing pressure motor home position sensor loose, broken, defective.
		• Sensor defective.
		Motor defective.

 Inspect area around motor and remove obstruction
Inspect home position sensor harness
Replace home position sensor
Replace motor

SC535-00	D	Right fusing pressure motor home position error 2
		The right pressure motor remained at the home position 3 sec. after motor switched on.
		Right fusing pressure motor drive mechanism overloaded
		• Right fusing pressure motor home position sensor loose, broken, defective.
		Sensor defective.
		Motor defective.
		 Inspect area around motor and remove obstruction
		 Inspect home position sensor harness
		Replace home position sensor
		Replace motor

SC541-00	A	Fusing thermistor open
		The fusing temperature detected by the thermistor remained below 5°C (41°F) for 30 sec.
		Thermistor cable disconnected, broken, defectiveThermistor defective
		 Inspect thermistor cable, connector for damage, poor connection Make sure thermistor is installed correctly Replace thermistor

SC542-01	A	Fusing temperature warm-up error 1: Temperature rise too slow
		After the machine was switched on, the fusing temperature was detected below 2°C (35.6°F) seven times in succession. Temperature readings are done two seconds after the fusing lamps turn on. If temperature was below 45°C (113°F), at power on, another reading is taken once temperature reaches 45°C (113°F). Temperature readings stop, once the fusing unit reaches reload temperature. Temperature readings stop after inching begins.
		The reload temperature (normal paper feed mode), or "Ready" temperature for this SC code (SC542) may actually be slightly different in some cases::
		 If the temperature at power on was above 80°C (152°F): Reload temp. = Target fusing temp.
		 If the temperature was less than 80°C (152°F): Reload temp. = Target fusing temp SP1105
		If the pressure roller inching target temperature (SP1948-***) is above 65°C (149°F): Reload temp. = Target fusing temp SP1937
		Thermistor loose, positioned incorrectly
		Thermistor defective
		IOB defective
		 Inspect installation of thermistor, thermistor harness
		Replace thermistor
		Replace BCU/IOB
SC542-02	A	Fusing temperature warm-up error 2: Timeout
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		The reload temperature could not be detected within 4 min. 30 sec. (5 min. EU). Temperature reading stops once the reload temperature is detected, or if the inching sequence begins during the temperature reading.
		The reload temperature (normal paper feed mode), or "Ready" temperature for this SC code (SC542) may actually be slightly different in some cases::
		 If the temperature at power on was above 80°C (152°F): Reload temp. = Target fusing temp.
		 If the temperature was less than 80°C (152°F): Reload temp. = Target fusing temp SP1105
		 If the pressure roller inching target temperature (SP1948-***) is above 65°C (149°F): Reload temp. = Target fusing temp SP1937
		Thermistor loose, positioned incorrectly
		Thermistor defective
		 Fusing lamp harness loose, broken, defective
		IOB defective
		Inspect installation of thermistor, thermistor harness
		Replace thermistor
		 Inspect fusing lamp harness for damage, incorrect connection
		Replace BCU/IOB

SC542-03	A	Fusing temperature warm-up error 3: Pressure roller temperature
		The hot roller continued to rotate without detection of the target pressure roller temperature during inching, even after 15 min. had elapsed. The 15-minute timer is reset of the fusing motor stops, or if the machine is opened and closed.
		Fusing/exit motor blockedPressure roller rotation abnormal due to defective motor, drive PCB
		• Pressure roller thermistor damaged, out of position, defective

 Inspect installation, position of pressure roller thermistor
Inspect motor harnesses, connectors
 Inspect HP sensor harnesses, connectors
Replace right fusing pressure motor and motor drive PCB
Replace left fusing pressure motor and motor drive PCB
Replace right fusing pressure motor HP sensor
Replace left fusing pressure motor HP sensor
Replace pressure roller thermistor

SC543-00	А	Fusing overheat error 1: Software
		A fusing temperature of over 230°C (446°F) was detected for 2 sec.
		TRIAC short
		BCU failure
		• IOB failure
		Fusing temperature control failure
		Replace BCU/IOB

SC544-00	A	Fusing overheat error 2: Hardware
		A fusing high-temperature detection signal was detected.
		TRIAC short
		• BCU failure
		IOB failure
		Fusing temperature control failure
		PSU defective
		Fusing unit defective
		Replace BCU/IOB

SC545-01	A	Fusing lamp overheat error 1
		After reloading, the full power status of the fusing lamp continues for more than 50 seconds.
		After printing, the full power status of the fusing lamp continues for more than 110 seconds.
		Note: In both cases, the hot roller stops.
		Thermistor out of position
		 Fusing lamp harness loose, broken, defective
		IOB defective
		Inspect position of thermistor
		 Inspect fusing lamp harnesses, connectors
		Replace thermistor
		Replace fusing lamp harnesses
		Replace BCU/IOB

SC546-00	A	Unstable fusing temperature
		Fusing temperature fluctuated more than 20°C (68°F) within 1 sec. more than 7 times during the previous 60 sec. of fusing temperature control.
		Thermistor disconnected
		• Thermistor out of position, not in contact with hot roller
		Thermistor connection loose, broken, defective
		 Fusing lamp harness loose, broken, defective
		Inspect position of thermistor
		Inspect thermistor harness, connector for damage, poor connection
		 Inspect fusing lamp harnesses, connectors
		Replace thermistor
		Replace fusing lamps
		Replace BCU/IOB

SC547-01	D	Zero-cross signal error: Relay connection
		At power on and with the power relay OFF the machine checks from the presence of a zero cross signal at 50 ms intervals. If a zero cross signal is detected three times in succession at 50 ms intervals, the machine issues this SC code.
		Fusing relay connection point damagedFusing relay drive circuit malfunction
		 Cycle the machine off/on Inspect the PSU harnesses for loose, broken, defective parts Cycle the machine off/on again If this does not solve the problem, replace the PSU

SC547-02	D	Zero-cross signal error 2: Relay connection
		No zero-cross signal detected within 3 sec. after fusing relay turned on after power on.
		Fusing relay connection point damaged (open)
		Fusing relay drive circuit maltunction
		Cycle the machine off/on
		 Inspect the PSU harnesses for loose, broken, defective parts
		Cycle the machine off/on again
		 If this does not solve the problem, replace the PSU

SC547-03	D	Zero-cross signal error 3: Low frequency waves
		After 10 samplings the interrupt count was still below 44.
		Power relay damaged
		Power relay drive circuit malfunction
		Power source voltage unstable
		Cycle the machine off/on
		 Inspect the PSU harnesses for loose, broken, defective parts
		Cycle the machine off/on again
		 If this does not solve the problem, replace the PSU

SC551-00	A	Pressure roller center thermistor error 1
		The thermistor returned temperature readings of less than 5°C (41°F) for 30 sec. during fusing temperature control while the hot roller and pressure rollers were rotating
		Pressure roller thermistor (center) disconnected or not positioned correctly
		Thermistor connection loose, broken, defective
		Thermistor defective
		IOB defective
		Inspect position of thermistor
		 Inspect thermistor harness, connector for damage, poor connection
		Replace thermistor
		Replace BCU/IOB

SC553-00	А	Pressure roller center thermistor error 2
		During fusing temperature control the thermistor at the center of the pressure roller returned a low temperature reading below 250°C (482°F).
		Thermistor has short circuited
		Thermistor not positioned correctly
		 Thermistor harness loose, broken, defective
		Thermistor defective
		IOB defective
		 Inspect thermistor positioning for correct installation
		 Inspect thermistor harness, connector for damage, poor connection
		Replace thermistor
		Replace BCU/IOB

SC557-00	С	Applied zero-cross waveform error
		The applied power ac frequency was detected less than 66 Hz more than 10 times.
		Noise on the AC power supply line
		Install a noise filter

SC559-00	A	Three consecutive fusing paper jam errors
		Three consecutive paper jam errors occurred in the fusing unit.
		Note: This SC code is not issued unless SP1159 is switched on (set to "1").
		Paper jam in fusing unit
		Pick-off pawl defective
		 Paper scraps in fusing unit
		Exit sensor defective
		• Remove paper jam
		 Carefully inspect area around to rollers for paper fragments
		 Inspect pickoff pawls and replace if necessary
		 Inspect fusing exit sensor harness for damage, disconnection
		Replace exit sensor

SC561-00	А	Pressure roller end thermistor error 1
		The thermistor returned temperature readings less than 5°C (41°F) for 30 sec. during fusing temperature control while the hot roller and pressure rollers were rotating
		Thermistor connection loose, broken, defective
		 Thermistor floating free, not positioned correctly
		Thermistor defective
		IOB defective
		 Inspect thermistor positioning for correct installation
		 Inspect thermistor harness, connector for damage, poor connection
		Replace thermistor
		Replace BCU/IOB

SC563-00	A	Pressure roller end thermistor error 2
		During fusing temperature control the thermistor at the end of the pressure roller returned a low temperature reading below 250°C (482°F).
		Thermistor connection loose, broken, defective
		 Thermistor floating free, not positioned correctly
		Thermistor defective
		IOB defective
		 Inspect thermistor positioning for correct installation
		 Inspect thermistor harness, connector for damage, poor connection
		Replace thermistor
		Replace BCU/IOB

SC592-00	В	Cutter 1 home position error 2: Upper Tray
		The left home position switch remained on 300 ms after the cutter motor switched on.
		Cutter motor overload due to physical obstruction
		Cutter motor 1 harness loose, broken, defective
		Cutter motor 1 defective
		 Inspect area around motor and remove obstruction
		Inspect motor harness
		Replace cutter motor 1

SC593-00	В	Cutter 1 home position error 3: Upper Tray
		The home position switch remains off for 1 sec. after cutter motor 1 switches on.
		Cutter motor 1 overload due to physical obstruction
		Cutter motor 1 harness loose, broken, defective
		Cutter motor 1 defective
		 Inspect area around motor and remove obstruction
		Inspect motor harness
		Replace cutter motor 1

Group 600: Communication

SC610-00	D	Mechanical Total Counter Error
		• The mechanical counter is disconnected from the hardware when the mechanical total counter is to be activated.
		 Detects only for export models to protect the mechanical counter from being falsified.
		 The mechanical counter is pulled out during counting by the client. Connection problem occurs during counting. Mechanical counter trouble during counting.
		Check the total mechanical counter connection.Change it with a new one if necessary.

SC632-0 0	В	Key/card counter device error 1	GW+	
		After 1 data frame is sent to the device, an ACK signal is not received within 100 ms, and is not received after 3 retries.		
		• The serial line from the device to the copier is unstable, disconnected, defective.	or	

SC633-0 0	В	Key/card counter device error 2	GW+
		During communication with the device, the BCU received a break (Low) signal.	
		• The serial line from the device to the copier is unstable, disconnected, a defective.	or

SC634-0 0	В	Key/card counter device error 3	GW+
		The backup battery of the counter device RAM is low.	
		Replace the RAM backup battery.	

SC635-0 0	В	Key/card counter device error 4	GW+
		After installation of the device, a message alerts user to a battery voltage abnormal error.	
		Device control board defective	
		Device control board backup battery defective	

SC636-0 0	В	Expansion recognition module error	GW+		
		An error has occurred while trying to access the file of the expansion recognition module.			
		DESS module does not exist on SD card			
		• External expansion recognition module does not exist on SD card			
		• SD card damaged			
		External expansion recognition file corrupted			

SC636-01	D	IC Card Error: External authentication module error	GW+
		This SC is generated if the external authentication is enabled and following condition occurs.	
		No external authentication module	
		SD card error or external authentication module broken	
		No DESS module	
		Cycle the machine off/on	
		Use another IC card	

SC636-02	IC Card Error: Version error	GW+
	The version of the external authentication module is not correct.	
	Incorrect module version	
	Cycle the machine off/on	
	Use another IC card	

SC637-01	D	Tracking Information Notice Error 1	GW+
		When the tracking information is lost, this SC is issued.	
		• The machine failed to give notice the tracking information to the tracking SDK application.	acking
		• Tracking information is lost, and the machine cannot count correct	ly.
		Cycle the machine off/on	

SC637-02	D	Tracking Information Notice Error 2	GW+
		When the tracking information is lost, this SC is issued.	
		• The machine failed to give notice the tracking information to the management server.	
		 Tracking information is lost, and the machine cannot count correct 	ly.
		Cycle the machine off/on	

SC641-00	D	Engine-to-controller communication error: No response	GW+	
		The controller sent a frame to the main machine engine but there was no response as demanded by RAPI protocol. The frame was sent 3 times at 100 ms intervals. This SC was issued after the 3rd attempt failed.		
		Examine the connection between the controller and the engine boarReplace the engine board if the error is frequent.	[.] d.	
66450.01			0.44	

SC650-01	В	Remote service modem communication error: Authentication	GW+
		The authentication for the Embedded RCG-M fails at a dial up connection	on.
		Incorrect SP settings	
		Disconnected telephone line	
		 Disconnected modem board 	
		LAN board disconnected, not installed	

Check the setting of SP???
Check telephone line connection
Check modem board connection
Check LAN cable connection
Install LAN board

SC650-04	В	Remote service modem error: Incorrect modem setting	GW+
		Dial up fails due to the incorrect modem setting.	
		Incorrect SP settings	
		Disconnected telephone line	
		 Disconnected modem board 	
		LAN board disconnected	
		Check the setting of SP???	
		Check telephone line connection	
		Check modem board connection	
		Check LAN cable connection	
		Install LAN board	

SC650-05	В	Remote service modem error: Communication line error	GW+
		The supplied voltage is not sufficient due to a defective communication defective connection.	line or
		Incorrect SP settings	
		Disconnected telephone line	
		 Disconnected modem board 	
		 LAN board disconnected 	
	В	Check the setting of SP???	
		Check telephone line connection	
		Check modem board connection	
		Check LAN cable connection	
		Install LAN board	

SC650-13	В	Remote service modem error: Modem board error 1	GW+
		The modem board does not work properly even though the setting of the modem board is installed with a dial up connection.	e
		Incorrect SP settings	
		Disconnected telephone line	
		 Disconnected modem board 	
		 LAN board disconnected 	
		Check the setting of SP???	
		Check telephone line connection	
		Check modem board connection	
		Check LAN cable connection	
		 Install LAN board 	

SC650-14	В	Remote service modem error: Modem board error 2	GW+
		The modem board is installed even though the RCG-N is installed.	
		Incorrect SP settings	
		Disconnected telephone line	
		 Disconnected modem board 	
		 LAN board disconnected 	
		Check the setting of SP???	
		Check telephone line connection	
		Check modem board connection	
		Check LAN cable connection	
		Install LAN board	

SC651-01	В	Chat program error 1: Parameter error	GW+
		An unexpected error occurs when the modem (Embedded RCG-M) tries to call the center with a dial up connection.	
		• Software bug	
		No action required	

SC651-02	В	Chat program error 1: Execution error	GW+
		An unexpected error occurs when the modem (Embedded RCG-M) tries to call the center with a dial up connection.	
		Software bug	
		No action required	

SC652-00	А	ID2 mismatching	GW+
		ID2 for @Remote certification is mismatching between the controller bo NVRAM.	ard and
		Used controller board installedUsed NVRAM installed	
		Install new controller boardInstall new NVRAM	

SC653-00	D	@Remote Service ID2 Mismatch Error 2	GW+
		There is an error in the ID2 stored in the NVRAM on the controller boar	d.
		ID2 has less than 17 digits	
		A non-printable character exists in ID2	
		ID2 is all spaces	
		ID2 is NULL	
		Replace NVRAM.	

SC669-00	D	EEPROM communication error
		Three tries were attempted but three EEPROM communication errors were returned.
SC669-01	D	EEPROM OPEN ID error
SC669-02	D	EEPROM OPEN channel error
SC669-03	D	EEPROM OPEN device error
SC669-04	D	EEPROM OPEN communication interrupt error

SC669-05	D	EEPROM OPEN timeout error
SC669-06	D	EEPROM OPEN operation interrupt error
SC669-07	D	EEPROM OPEN buffer full
SC669-08	D	EEPROM OPEN no error code
SC669-09	D	EEPROM CLOSE ID error
SC669-10	D	EEPROM CLOSE no error code
SC669-11	D	EEPROM DATA WRITE ID error
SC669-12	D	EEPROM DATA WRITE channel error
SC669-13	D	EEPROM DATA WRITE device error
SC669-14	D	EEPROM DATA WRITE communication cancel error
SC669-15	D	EEPROM DATA WRITE communication timeout error
SC669-16	D	EEPROM DATA WRITE operation interrupt error
SC669-17	D	EEPROM DATA WRITE buffer full
SC669-18	D	EEPROM DATA WRITE no error code
SC669-19	D	EEPROM DATA READ ID error SC669
SC669-20	D	EEPROM DATA READ channel error
SC669-21	D	EEPROM DATA READ device error
SC669-22	D	EEPROM DATA READ communication cancel error
SC669-23	D	EEPROM DATA READ timeout error
SC669-24	D	EEPROM DATA READ operation interrupt error
SC669-25	D	EEPROM DATA READ buffer full
SC669-26	D	EEPROM DATA READ no error code
SC669-27	D	EEPROM DEVICE DETECT ID error
SC669-28	D	EEPROM DEVICE DETECT channel error
SC669-29	D	EEPROM DEVICE DETECT device error
SC669-30	D	EEPROM DEVICE DETECT communication cancel error

SC669-31	D	EEPROM DEVICE DETECT communication timeout error
SC669-32	D	EEPROM DEVICE DETECT operation interrupt error
SC669-33	D	EEPROM DEVICE DETECT no error code
SC669-34	D	EEPROM DEVICE DETECT buffer full
		Noise on the lineEEPROM defectiveBCU defective
		 Cycle the machine off/on Install a noise filter Replace BCU

SC672-10	D	Controller-operation panel error 1: Power on	GW+
		At power on there was a communication error between the controller b and the operation panel.	oard
		Controller board installed incorrectly	
		Controller board defective	
		 Operation panel connector loose or defective 	
		Inspect installation of controller board	
		Replace controller board	
		 Inspect installation of operation panel 	
		Replace operation panel	

SC672-11	D	Controller-operation panel error 2: Power on, data error	GW+			
		At power on there was a communication error, or a data error, between the controller board and the operation panel.				
		Controller board installed incorrectly				
						Controller board defective
		Operation panel connector loose or defective				

Inspect installation of controller board
Replace controller board
 Inspect installation of operation panel
Replace operation panel

SC672-12	D	Controller-operation panel error 3: Power on, data error	GW+
		At power on there was a communication error the controller board and operation panel.	the
		Controller board installed incorrectly	
		Controller board defective	
		 Operation panel connector loose or defective 	
		 Inspect installation of controller board 	
		Replace controller board	
		 Inspect installation of operation panel 	
		Replace operation panel	

SC672-13	D	Controller-operation panel error 4: Controller cutout after power on	GW+
		A problem caused the controller board to shut down suddenly.	
		Controller board installed incorrectly	
		Controller board defective	
		 Operation panel connector loose or defective 	
		Inspect installation of controller board	
		Replace controller board	
		 Inspect installation of operation panel 	
		Replace operation panel	

SC672-99	D	Controller-operation panel error 5: OCS firmware error	GW+
		After the machine is powered on, the communication between the controller and the operation panel was not established, or communication with controller was interrupted after a normal startup.	
		Controller board installed incorrectly	
		Controller board defective	
		 Operation panel connector loose or defective 	
		 Inspect installation of controller board 	
		Replace controller board	
		 Inspect installation of operation panel 	
		Replace operation panel	

SC687-00	D	PER command error
		The main machine received no PER command module from the controller.
		Poor communication
		Cycle the machine off/on

Group 700: Peripheral Devices

There are no SC codes for this group

Group 800

SC816-**		Energy save I/O subsystem errors	GW+
		The machine issued one of the SC codes below due to an error ir save subsystem.	n the energy
SC816-01	D	Sub system error	
SC816-02	D	sysarch(LPUX_GET_PORT_INFO) error	
SC816-03	D	STR shift reject	
SC816-04	D	Write error generated by kernel communication driver	

SC816-05, 06	D	STR pre-shift processing error
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	D	sysarch(LPUX_GET_PORT_INFO) error
SC816-11	D	sysarch(LPUX_GET_PORT_INFO) error
SC816-12	D	sysarch(LPUX_GET_PORT_INFO) error
SC816-13	D	open() Error
SC816-14	D	Memory address setting error
SC816-15	D	open() Error
SC816-16	D	open() Error
SC816-17	D	open() Error
SC816-18	D	open() Error
SC816-19	D	Duplicate open () error
SC816-20	D	open() Error
SC816-22	D	Parameter error
SC816-23	D	read() Error
SC816-24	D	read() Error
SC816-25	D	write() Error
SC816-26	D	write() communication retry error
SC816-27	D	write() communication retry error
SC816-28	D	write() communication retry error
SC816-29	D	read() communication retry error
SC816-30	D	read() communication retry error
SC816-35	D	read() Error

SC816-36	D	Sub System Error
SC816-37	D	Sub System Error
SC816-38	D	Sub System Error
SC816-39	D	Sub System Error
SC816-40	D	Sub System Error
SC816-41	D	Sub System Error
SC816-42	D	Sub System Error
SC816-43	D	Sub System Error
SC816-44	D	Sub System Error
SC816-45	D	Sub System Error
SC816-46	D	Sub System Error
SC816-47	D	Sub System Error
SC816-48	D	Sub System Error
SC816-49	D	Sub System Error
SC816-50	D	Sub System Error
SC816-51	D	Sub System Error
SC816-52	D	Sub System Error
SC816-53	D	Sub System Error
SC816-54	D	Sub System Error
SC816-55	D	Sub System Error
SC816-56	D	Sub System Error
SC816-57	D	Sub System Error
SC816-58	D	Sub System Error
SC816-59	D	Sub System Error
SC816-60	D	Sub System Error
SC816-61	D	Sub System Error

SC816-62	D	Sub System Error
SC816-63	D	Sub System Error
SC816-64	D	Sub System Error
SC816-65	D	Sub System Error
SC816-66	D	Sub System Error
SC816-67	D	Sub System Error
SC816-68	D	Sub System Error
SC816-69	D	Sub System Error
SC816-71	D	Sub System Error
SC816-72	D	Sub System Error
SC816-73	D	Sub System Error
SC816-74	D	Sub System Error
SC816-75	D	Sub System Error
SC816-76	D	Sub System Error
SC816-77	D	Sub System Error
SC816-78	D	Sub System Error
SC816-79	D	Sub System Error
SC816-80	D	Sub System Error
SC816-81	D	Sub System Error
SC816-82	D	Sub System Error
SC816-83	D	Sub System Error
SC816-84	D	Sub System Error
SC816-85	D	Sub System Error
SC816-86	D	Sub System Error
SC816-87	D	Sub System Error
SC816-88	D	Sub System Error

SC816-89	D	Sub System Error
SC816-90	D	Sub System Error
SC816-91	D	Sub System Error
SC816-92	D	Sub System Error
SC816-93	D	Sub System Error
SC816-94	D	Sub System Error
		 Low power I/O sub system error Low power I/O sub system command heard error (no response)
		 Error detected before STR shift processing
		 Cycle the machine off/on If cycling the machine off/on does not restore normal operation, replace the IOB.

SC817-00	D	Monitor Error	GW+
		This is a file detection and electronic file signature check error done w boot loader attempts to read the self-diagnostic module, system kerne system files from the OS Flash ROM, but the items on the SD card in th controller slot are false or corrupted.	rhen the el, or root ne
		OS Flash ROM data defectiveSD card data defective	
		Update controller firmwareUse another SD card	

SC818-00	D	Watchdog error	GW+
		While the system program is running, a bus hold or interrupt program goes into an endless loop, preventing any other programs from executing.	
		System program defective	
		Controller board defective	

		Cycle he machine off/on	
		Update controller firmware	
		Replace controller board	
SC819-**	D	Fatal kernel errors	GW+
		Due to a control error, one of the following messages below was dis on the operation panel. If the error code is not displayed, execute SF print an SMC report so you can read the error code.	played 25990 to
0x5032	D	HAIC-P2 Error	
		Data decompression error in the ASIC module.	
		Firmware failure	
		HDD defective	
		Memory defective	
		Controller board defective	
		Cycle the machine off/on	
		Execute firmware update	
		Replace HDD	
		Replace controller board	
0x5245	D	Link up failure	
		Link up processing did not complete normally. The kernel entered a ti because an interrupt was not generated within 100 ms.	meout
		Controller board defective	
		IPU defective	
		BCU defective	
		Cycle the machine off/on	
		Replace controller board	
		Replace IPU	
		Replace BCU	
0x5355	D	L2 Status Timeout	
		During normal operation the engine ASIC suddenly rebooted the ma entered the Energy Save Mode.	chine

		Controller board defective
		IPU defective
		BCU defective
		Cycle the machine off/on
		Replace controller board
		Replace IPU
		• Replace BCU
0x6261	D	HDD defect
		The file system has been corrupted and cannot be read due to damage by sudden loss of power during operation.
		HDD corrupted
		Format the HDD
		• If this fails to solve the problem, replace HDD
0x696e	D	gwint processing end
		If an unexpected error occurs at SCS processing end, gwint processing also halts (this result is judged a kernel stop error by the gwinit specification).
		Memory defective
		Flash memory defective
		CPU defective
		Replace controller board
0x766d	D	VM full error
		Occurs when too much RAM is used during system processing
		Memory defective
		Flash memory defective
		CPU defective
		Replace controller board

6. Troubleshooting

SC842-0 1	В	NAND Flash Error 1: Insufficient number of blocks	GW+
		SCS write error (the number of available blocks insufficient) occurred at the NAND Flash module at power on or when the machine returned to operation from sleep mode.	
		NAND Flash defective	
		Replace controller board	

SC842-02	В	NAND Flash Error 1: Too many blocks deleted	GW+
		SCS write error (too many blocks deleted) occurred at the NAND F power on or when the machine returned to operation from sleep ma	Flash module at ode.
		Nand-Flash defective	
		Replace controller board	

SC853-00	В	Bluetooth device connection error	GW+	
		An error occurred with the Bluetooth device at power on.		
		• The Bluetooth device (USB type) was connected after the powered on.	machine was	
			Turn the machine offConnect the Bluetooth deviceTurn the machine on.	

SC854-00	В	Bluetooth device removed	GW+
		An error occurred when the Bluetooth device was removed.	
		• The Bluetooth device was removed while the machine wa	is on.
		• Turn the machine off.	
		Remove Bluetooth device.	

SC855	В	Wireless LAN card error	GW+
		During machine operation of the wireless connection, an error occurred on the wireless LAN card.	
		Wireless LAN card not installed properly	
		Wireless LAN card defective	
		 Inspect the wireless LAN card and confirm that is installed correctly. 	
		 Cycle the machine off/on. 	
		Replace wireless LAN card.	

SC855-01	В	Wireless LAN: Driver attach error	GW+
		An error was detected for the wireless LAN card (IEEE802.11).	
		LAN card not installed	
		LAN card installed incorrectly	
		LAN card defective	
		Make sure LAN card is inserted, inserted correctly	
		Replace LAN card	

SC855-02	В	Wireless LAN: Driver failed to initialize	GW+
		An error was detected for the wireless LAN card (IEEE802.11a/g/n).	
		LAN card not installed	
		LAN card installed incorrectly	
		LAN card defective	
		Make sure LAN card is inserted, inserted correctly	
		Replace LAN card	

SC857-00	В	USB I/F Error	GW+
		The USB driver is not stable and caused an error.	
		Poor USB board connection	
		Controller board defective	

		Inspect installation of controller boardReplace the controller board	
SC858-00	A	Data Encryption Error: Update failure	GW+
		When the data encryption key was updated, data was converted but a serious error occurred.	
		USB Flash memory corrupted	
		Spurious noise	

	Controller board defective
	Replace controller board
	-

SC858-01	A	Data Encryption Error: HDD Key Setting Error	GW+
		An error occurred when the HDD key settings was updated.	
		USB Flash, other data, corrupted	
		 Communication error caused by electrostatic noise 	
		Controller board defective	
		Replace controller board	

SC858-02	A	Data Encryption Error: NVRAM Read Error	GW+
		An error occurred when the key settings were updated.	
		NVRAM defective	
		Controller board defective	
		Replace controller board	

SC858-30	А	Data Encryption Error: NVRAM before replace error	GW+
		Software error occurred at data conversion.	
		Software parameters incorrectController board defective	
		Replace controller board	

SC858-31	A	Data Encryption Error: other error	GW+
		Error occurred for some other unexpected reason.	
		Controller board defective	
		Replace controller board	

SC859-00	В	Data encryption error: Update	GW+
		An error occurred while data encryption was in progress.	
		 HDD was removed or settings were changed during encryption key Machine was turned off during encryption key update Spurious noise or faulty HDD cable connection HDD defective 	update.
		 Inspect the HDD for correct installation Format the HDD Replace HDD 	

SC859-01	В	Data encryption error: HDD check error	GW+
		An error occurred while data encryption was in progress.	
		 HDD was removed or settings were changed during encryption key Machine was turned off during encryption key update Spurious noise or faulty HDD cable connection HDD defective 	update.
		Inspect the HDD for correct installationInitialize the HDD with SP5832Replace HDD	

SC859-02	В	Data encryption error: Power loss during data encryption	GW+
		An error occurred while data encryption was in progress.	
		• Power loss occurred while the data encryption key was being upda	ted.
		• Reboot the machine, and then follow the prompts on the screen afte	r startup

SC859-10	В	Data encryption error: Data read command error	GW+
		HDD error occurred, during data encryption key update, and data was r encrypted.	not
		 Machine lost power during data encryption key update Electrostatic noise HDD defective 	
		 Inspect HDD for correct installation Initialize HDD with SP5832 Replace HDD 	

SC860-00	В	HDD startup error at power on	GW+
		HDD is connected but a driver error is detected, or the driver did no with the status of the HDD within 30 s.	t respond
		 HDD is not initialized 	
		 Level data is corrupted 	
		HDD is defective	
		Install HDD	
		 Initialize HDD with SP5832-001 	
		• Replace HDD	

SC862-00	D	Bad sector number MAX
		In the image storage area on the HDD, up to 101 bad sectors are logged.
		SC863 occurs during reading the HDD, and the 101th bad sector is logged.
		 Format the HDD with SP4911-2 to replace with alternate sector. If the HDD on which bad sectors are stored continues to be used, reliability and productivity may be degraded. Changing the HDD is recommended.

SC863-00	D	HDD data read error
		Data written on the HDD cannot be read correctly.
		Bad sectors occur during operating.

[raw area (MIPS: d partition/x86: e partition)]
Image area
If this occurs in the image data partition under IMH management, bad sector information is written on the HDD and access to the bad sectors (writing/reading) is limited.
Because of duplexing of the image control area, the management area is recovered if a bad cluster occurs in the area.
[ffs area]
If a read error is detected on the device drive, reading is retried. But the retry fails, SC863 occurs.
If the application is controlled so that the same cluster is read again, data may not be recovered by turning the power OFF/ON. Then the HDD may be reformatted or replaced.
[HDD replacement]
1. When SC863 occurs 10 times or more, replacement is required.
It can be checked by SP7402 (SC Code Count) after performing SP5990-004 (logging data print)
This number of tries is only for guidance. In the cases below, replacement is required before 10 times.
• SC863 occurs within a short interval.
 It occurs with the same timing, such as starting frequently.
 Time until startup after turning the power ON is long.
2. A long period is required for entering operation-ready status after turning the power ON.
Accessing the HDD may require a long time. Normal time until the HDD is accessible is about 5 seconds after turning the power ON. If more than 20 to 30 seconds elapsed without waiting engine-ready, the HDD may has
If the cause is related to the HDD, SCs related to the HDD, such as SC860 and SC863, occur frequently. Check a printout of the log data mentioned above.

SC863-0 1	D	HDD data read failure	GW+
		The data written to the HDD cannot be read normally, due to bad sector generated during operation. The cause and correction for data read er SC863-02 to SC863-23 are the same.	ors rors

		• The error occurred more than 10 times.
		 Rebooting the machine requires 20 to 30 sec. (Rebooting normally requires about 4 sec.)
		Cycle the machine off/on.
		Replace the HDD if rebooting requires 20 to 30 sec.
SC863-0 2	D	The error was detected at partition a.
SC863-0 3	D	The error was detected at partition b.
SC863-0 4	D	The error was detected at partition c.
SC863-0 5	D	The error was detected at partition d.
SC863-0 6	D	The error was detected at partition e.
SC863-0 7	D	The error was detected at partition f.
SC863-0 8	D	The error was detected at partition g.
SC863-0 9	D	The error was detected at partition h.
SC863-1 0	D	The error was detected at partition i.
SC863-1 1	D	The error was detected at partition j.
SC863-1 2	D	The error was detected at partition k.
SC863-1 3	D	The error was detected at partition I.
SC863-1 4	D	The error was detected at partition m.

SC863-1 5	D	The error was detected at partition n.
SC863-1 6	D	The error was detected at partition o.
SC863-1 7	363-1 D The err	The error was detected at partition p.
SC863-1 8	D	The error was detected at partition q.
SC863-1 9	D	The error was detected at partition r.
SC863-2 0	D	The error was detected at partition s.
SC863-2 1	D	The error was detected at partition t.
SC863-2 2	D	The error was detected at partition u.
SC863-2 3	D	The error was detected at partition v.

SC864-0 1	D	HDD data CRC error	GW+
		During HDD operation, the HDD could not respond to a CRC error qu transfer did not execute normally while data was being written to the h correction procedure for SC864-01 to SC864-23 is the same (see be	ery. Data HDD. The elow).
		HDD defective	
		Cycle the machine off/onIf the problem persists, format HDDReplace HDD	
SC864-0 2	D	The error was detected at partition a.	
SC864-0 3	D	The error was detected at partition b.	

SC864-0 4	D	The error was detected at partition c.
SC864-0 5	D	The error was detected at partition d.
SC864-0 6	D	The error was detected at partition e.
SC864-0 7	D	The error was detected at partition f.
SC864-0 8	D	The error was detected at partition g.
SC864-0 9	D	The error was detected at partition h.
SC864-1 0	D	The error was detected at partition i.
SC864-1 1	D	The error was detected at partition j.
SC864-1 2	D	The error was detected at partition k.
SC864-1 3	D	The error was detected at partition l.
SC864-1 4	D	The error was detected at partition m.
SC864-1 5	D	The error was detected at partition n.
SC864-1 6	D	The error was detected at partition o.
SC864-1 7	D	The error was detected at partition p.
SC864-1 8	D	The error was detected at partition q.
SC864-1	D	The error was detected at partition r.

SC864-2 0	D	The error was detected at partition s.
SC864-2 1	D	The error was detected at partition t.
SC864-2 2	D	The error was detected at partition u.
SC864-2 3	D	The error was detected at partition v.

SC865-0 1	D	HDD data CRC error	GW+
		HDD responded to an error during operation for a condition other tha SC863, 864. The correction procedure for SC865-01 to SC865-23 (see below).	in those for is the same
		HDD defective	
		• Replace HDD	
SC865-0 2	D	The error was detected at partition a.	
SC865-0 3	D	The error was detected at partition b.	
SC865-0 4	D	The error was detected at partition c.	
SC865-0 5	D	The error was detected at partition d.	
SC865-0 6	D	The error was detected at partition e.	
SC865-0 7	D	The error was detected at partition f.	
SC865-0 8	D	The error was detected at partition g.	
SC865-0 9	D	The error was detected at partition h.	

SC865-1 0	D	The error was detected at partition i.
SC865-1 1	D	The error was detected at partition j.
SC865-1 2	D	The error was detected at partition k.
SC865-1 3	D	The error was detected at partition l.
SC865-1 4	D	The error was detected at partition m.
SC865-1 5	D	The error was detected at partition n.
SC865-1 6	D	The error was detected at partition o.
SC865-1 7	D	The error was detected at partition p.
SC865-1 8	D	The error was detected at partition q.
SC865-1 9	D	The error was detected at partition r.
SC865-2 0	D	The error was detected at partition s.
SC865-2 1	D	The error was detected at partition t.
SC865-2 2	D	The error was detected at partition u.
SC865-2 3	D	The error was detected at partition v.

SC865-50	D	HDD access timeout error	GW+
		There was no response during a read/write operation with the DMA fu The correction procedure for SC865-50 to SC865-74 is the same (see	nction. below).
		There was no response during a read/write operation with the DMA fu The correction procedure for SC865-50 to SC865-74 is the same (see	nction belov

		HDD cable loose, broken, defective
		HDD installed incorrectly
		HDD defective
		Cycle the machine off/on
		 Inspect HDD cables for damage, loose connections
		Make sure the HDD is installed correctly
		Replace HDD
SC865-51	D	HDD access timeout error
SC865-52	D	HDD access timeout error
SC865-53	D	HDD access timeout error
SC865-54	D	HDD access timeout error
SC865-55	D	HDD access timeout error
SC865-56	D	HDD access timeout error
SC865-57	D	HDD access timeout error
SC865-58	D	HDD access timeout error
SC865-59	D	HDD access timeout error
SC865-60	D	HDD access timeout error
SC865-61	D	HDD access timeout error
SC865-62	D	HDD access timeout error
SC865-63	D	HDD access timeout error
SC865-64	D	HDD access timeout error
SC865-65	D	HDD access timeout error
SC865-66	D	HDD access timeout error
SC865-67	D	HDD access timeout error
SC865-68	D	HDD access timeout error
SC865-69	D	HDD access timeout error
SC865-70	D	HDD access timeout error

SC865-71	D	HDD access timeout error
SC865-72	D	HDD access timeout error
SC865-73	D	HDD access timeout error
SC865-74	D	HDD access timeout error

SC866-00	В	SD card error 1: Confirmation	GW+
		The machine detected an electronic license error in the application on in the controller slot immediately after the machine was turned on.	the SD card
		• The program on the SD card contains electronic confirmation lice	nse data.
		• This SC code is displayed only if the SD card contains license info	rmation.
		• There is an illegal program on the SD card.	
		• Use another SD card	

SC867-0	D	SD card removed error 1	GW+
I		The SD card in the boot slot when the machine was turned on was removed the machine was on.	l while
		SD card was removed during operationCheck SD card slot and confirm that SD card is inserted completely	
		 Turn the machine off Insert SD card Turn the machine on. 	
SC867-0 2	D	SD card removed error 2	
		SD card was removed during operation	
		• Check SD card slot and confirm that SD card is inserted completely	
		 Turn the machine off Insert SD card Turn the machine on. 	
SC868-0	D	SD card error 1	GW+
---------	---	---	-----
1		An error occurred while an SD card was used.	
		SD card not inserted correctly	
		• SD card defective	
		Controller board defective	
		 Confirm that SD card was inserted correctly 	
		 Confirm that SD card was inserted in correct slot 	
		Cycle the machine off/on	
		 Format SD card with SD Formatter Ver. 1.1 	
		Replace SD card	
		Replace controller board	
SC868-0	D	SD card error 2	GW+
2		An error occurred while an SD card was used.	
		SD card not inserted correctly	
		SD card defective	
		Controller board defective	
		Confirm that SD card was inserted correctly	
		 Confirm that SD card was inserted in correct slot 	
		Cycle the machine off/on	
		 Format SD card with SD Formatter Ver. 1.1 	
		Replace SD card	
		Replace controller board	

SC870-00	В	Address book data errors	GW+
	В	Address book data on the hard disk was detected as abnormal when it w accessed from either the operation panel or the network. The address boo cannot be read from the HDD or SD card where it is stored, or the data re from the media is defective.	as ok data ead
SC870-01	В	No media to hold the saved address book data at startup.	
SC870-02	В	The setting that enables data encryption at startup did not find the required module (DESS).	d

SC870-03	В	At initialization failed to generate file required to save the address book data.
SC870-04	В	At initialization failed to generate file required to save destination data.
SC870-05	В	At initialization the file required to generate destination address data failed.
SC870-06	В	At initialization failed to generate file required for LDAP search.
SC870-07	В	At initialization failed to initialize entry information required by the system.
SC870-08	В	At initialization there was a setting on the HDD required by the system for entry, but the initialization of the area to hold the address book failed to initialize.
SC870-09	В	Mismatch error occurred in NVRAM device setting for the area where the information required to save the address book configuration is stored.
SC870-10	В	No directory created for storage of the address book data in SD/USB Flash ROM (device setting).
SC870-11	В	Mismatch error occurred with address book items at startup
SC870-20	В	File I/O: file initialization failed
SC870-21	В	File I/O: file creation failed
SC870-22	В	File I/O: file open failed
SC870-23	В	File I/O: file write failed
SC870-24	В	File I/O: file read failed
SC870-25	В	File I/O: file size check failed
SC870-26	В	File I/O: data erasure failed
SC870-27	В	File I/O: data add failed
SC870-30	В	Failed to retrieve data from cache when the address book was searched for a destination or remote receiver
SC870-31	В	Failed to retrieve data from cache when LDAP was searched
SC870-32	В	Failed to retrieve WS-Scanner address book data from the cache
SC870-41	В	Failed to retrieve data from cache
SC870-50	В	Address book data encryption error at startup
SC870-51	В	Failed to create directory required to convert normal data to encrypted data

SC870-52	В	Failed to convert normal data to encrypted data
SC870-53	В	Failed to convert encrypted data to normal data
SC870-54	В	Data mismatch occurred when data was retrieved from encrypted address book
SC870-55	В	Failed to delete files when setting was changed
SC870-56	В	Failed to create special file to hold encryption key when files were deleted
SC870-57	В	Failed to move files when data encryption setting was changed
SC870-58	В	Failed to delete directory for data encryption setting change
SC870-59	В	Insufficient resources detected when data encryption setting was changed
SC870-60	В	Could not retrieve system administrator permission setting
		Controller firmware error
		Controller firmware errorHDD defective
		 Controller firmware error HDD defective Cycle the machine off/on
		 Controller firmware error HDD defective Cycle the machine off/on Replace controller board
		 Controller firmware error HDD defective Cycle the machine off/on Replace controller board Do SP5846 050 (UCS Settings – Initialize all Directory Info.) to reset all address book data.
		 Controller firmware error HDD defective Cycle the machine off/on Replace controller board Do SP5846 050 (UCS Settings – Initialize all Directory Info.) to reset all address book data. Reset the user information with SP5832 006 (HDD Formatting– User Information).

SC872-00	B HDD mail RX data error An HDD error was detected immediately after power on. The HDD r defective or the machine was accidentally powered off while the HD being accessed.	GW+	
		An HDD error was detected immediately after power on. The HDD may be defective or the machine was accidentally powered off while the HDD was being accessed.	
		HDD defectiveMachine lost power while HDD was being accessed	
		Reformat the HDD with SP5832-7 (Mail RX Data)Replace the HDD	

6. Troubleshooting

SC873-00	В	HDD mail send data error	GW+
		An error was detected on the HDD immediately after the machine was or power was turned off while the machine used the HDD.	sturned on,
		HDD defective	
		 Machine lost power while HDD was being accessed 	
		• Do SP5832-007 (Format HDD – Mail TX Data) to initialize the	HDD.
		Replace the HDD	

SC875-01	D	HDD check error	GW+	
		During deletion of data from the HDD, and error was detected before HDD erase.		
		HDD logic delete failedFailed to delete every module holding data		
		Cycle machine off/on		
SC875-02	D	Data delete failure	GW+	
		During deletion of data from the HDD, and error was detected before	e HDD erase.	
		HDD logic delete failedFailed to delete every module holding data		
		Cycle machine off/on		

SC876-00	D	Log data errors	GW+
		These errors occur when the machine tries to acquire the log data imm after power on or upon leaving the energy save mode.	ediately

If only the HDD is replaced:

- 1. Switch off the machine.
- 2. Remove the HDD, switch the machine on again.
- 3. Do SP5801-19 (Memory Clear LCS).
- 4. Switch off the machine.
- 5. Reinstall the original HDD and switch on the machine.
- 6. Do SP5832-4 (HDD Formatting Job Log).
- 7. Cycle the machine off/on.

- 8. Do **SP9730-2** and switch it ON (set to "1").
- 9. Do SP9730-3 and switch it ON (set to "1").
- 10. Do **SP9730-4** and switch it ON (set to "1").
- 11. Cycle the machine off/on.

SC878-00	D	TPM electronic authentication error	GW+
		The attempt by the main machine to electronically authenticate TPM failed. the machine was switched on the value registered by TPM did not match th stored in the USB Flash Memory	When e value
		USB Flash memory defective	
		Replace the IOB.	
SC878-01	D	USB Flash error	GW+
		There was a problem with the USB flash file system. USB Flash Partition 3 could not be mounted. No configuration/encoding file available. File required to operate KMMD not found.	
		USB Flash memory defective	
		Replace controller board	
SC878-02	D	TPM error	GW+
		There was a problem with TPM or TPM driver.	
		TPM defective	
		Replace controller board	
SC878-03	D	TCSD error	GW+
		An error occurred in the TPM software stack. Cannot communicate with TP	М
		TPM defective	
		Replace controller board	

SC880-00	D	File Format Converter (MLB) error	GW+
		A request to get access to the MLB was not answered within the specified time.	
		MLB defective	

		• Replace MLB	
SC881-01	D	Management area error	GW+
		A problem was detected in the software. This error may occur even if option is not installed.	an IC card
		Error occurred:	
		• At login	
		When a print job was received	
		When WEB browser was opened	
		Cycle the machine off/on	

SC899-00	D	Software error	GW+
		Unknown software error occurred.	•
		A software error occurred in the GW+ controllerController board defective	
		Update the software with latest versionReplace controller board	

Group 900

SC900-00	D	Electrical total counter error	GW+
		The total counter contains something that is not a number.	
		NVRAM incorrect type	
		NVRAM defective	
		NVRAM data scrambled	
		Unexpected error from external source	
		Unexpected error from external source	
		• When PRT received signals at SRM, the requested count did not	complete.
		NVRAM defective	
		Replace NVRAM	

SC920-00	В	Printer function trouble (no response upon PM starting)	GW+
SC920-01	В	Printer function trouble (timeout of PM operation)	GW+
SC920-02	В	Printer Error 1: WORK memory not acquired	GW+
SC920-03	В	Printer function trouble (filter process starting failure)	GW+
SC920-04	В	Printer Error 1: Filter processing ended abnormally	GW+
		An internal application error was detected and operation cannot conti	nue.
		Software defectiveController firmware defective	
		Update softwareUpdate controller firmware modules	

SC921-00	В	Printer error 2	GW+
		When the application started, the necessary font was not on the SD car	d.
		Required font not on the SD card	
		Cycle the machine off/on	

SC925-00	В	Net File function error	GW+
SC925-01		Net File function error	GW+
		The NetFile file management on the HDD cannot be used, or a NetFile management file is corrupted and operation cannot continue. The HDD defective and they cannot be debugged or partitioned, so the Scan Ro functions (delivery of received faxes, document capture, etc.), Web set and other network functions cannot be used. HDD status codes are displayed below the SC code:	Os are uter rvices,
		HDD defective	
		 Power loss while data was writing to HDD Software bug 	
		For recovery see procedures 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

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), turn the machine power off and on.
- If this is not the solution for the problem, then initialize the NetFile partition on the HDD with SP5832-11 (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 SP5832-11, do these steps:
- 4. In the User Tools mode, do Document Management> Batch Delete Transfer Documents.
- 5. Do SP5832-11, and turn the machine off and on.

Procedure 3

- 1. If "Procedure 2" is not the solution for the problem, do SP5832-1 (HDD Formatting All)
- 2. Cycle the machine off/on.

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• SP5832-001 erases all document and address book data on the hard disks. Consult with the customer before you do this SP code.

Procedure 4

If "Procedure 3" does not solve the problem, replace the HDD.

SC954-00	D	Printer Image Setting Error
		The IPU did not issue the signal required to start image processing for the printing mode within 60 s after the paper stops for registration.
		Firmware defectiveIPU defective
		Run firmware update procedure to replace all firmware modulesReplace IPU

SC965-00	D	Print start signal error 1
		The printer received another print start signal after print job has already started.
		Main machine firmware defective
		Run firmware update procedure to replace all firmware modules

SC967-00	D	67-00 D	Print start signal error 2
		The printer received another print start signal after print job has already started.	
		Main machine firmware defective	
		IOB defective	
		• Run firmware update procedure to replace all firmware modules	

SC984-00	D	Print image data send error
		No data was sent within 1 sec. after the print image data stream started.
		Harness from IPU to controller board loose, broken, defectiveIPU defective
		 Inspect harnesses and connectors between IPU-Controller for damage, poor connections IPU defective
SC991-00	С	Software trouble occurs, but the operation is enabled.
		Unexpected operation with the software is to be performed.
		This SC is only for the operation that can be continued with recovery unlike the case of RS990.
		Parameter error
		Internal parameter error
		Work memory shortage
		 Troubles that cannot be detected with the standard SC detection on hardware
		[On Designing]
		Rebooting the main power switch is required.
		[After Mass Production]
		No action is required, because the operation continues even if SC occurs.
		[Checking Details]
		 Check 7403 in Copy/System SP mode or SC history/SC details on the latest data on SMC print. (recommended)
		 Press "0" of the number keys on the SP application select menu screen and the details on the latest SC990 or SC991, filename of the software, line number, and analysis variables. The latest SC990/991 may overwrite the previous data. So checking with item "1" is recommended. Example: function.c LINE:123 VAL:0

SC992-00	D	Undefined SC occurs.
		SC indicating no management by the system is generated.
		• It may be generated if the SC used on the previous model is used. Software bag basically.
		Main power OFF/ON

SC994	С	Operation panel management code error	GW+
		Thee number of records exceeded the limit for images managed in the service layer of the firmware. This can occur if there are too many application screens open on the operation panel.	
		No action required.This error does not interfere with operation of the machine.	

SC998-00	D	Application is not activated.
		 No application performs the registration process with the system after the specified period of time after you turn on the main power (all applications are not activated correctly or all applications end abnormally.)
		 After an application is activated, all applications enter no drawing status with some trouble.
		Software bag
		 Optional RAM, DIMM, and boards required for applications are not installed correctly.
		Check whether optional RAM, DIMM, and boards function correctly.
		• Check whether the combination of downloaded programs is correct.
		Change the controller board.

Jam Detection





Jam Code Table

	Jam Name	Detection Site Sensor
1	At Power On	If any sensor is ON.
3	Tray 1: No Feed: A2	Upper tray roll feed exit sensor. Exit sensor did not go ON during paper feed from Tray 1
4	Tray 2: No Feed: A2	Upper tray roll feed exit sensor. Exit sensor did not go ON during paper feed from Tray 2.
13	Registration Sensor: Not On: B	(1) Registration sensor. Registration sensor did not go ON during paper feed. Other than when feeding paper manually.
		(2) Manual paper set sensor. Manual paper set sensor did not go ON during manual feed.
16	Exit Sn: Not On: C	Exit Sensor. Exit sensor did not go ON after paper passed registration sensor.
34	Bypass: No Feed: B	Registration sensor. Registration sensor did not go on during manual paper feed.
53	Tray 1: Paper Lag: A2	Upper tray roll feed exit sensor. Exit sensor did not go OFF during paper feed from Tray 1.
54	Tray 2: Paper Lag: A2	Upper tray roll feed exit sensor. Exit sensor did not go OFF during paper feed from Tray 2.
63	Registration Sensor: Not Off: B	Registration sensor. Registration sensor did not go OFF after start of paper feed.
66	Exit Sensor: Not Off: C	Exit Sensor. Exit sensor did not go OFF after paper passed registration sensor.
84	Bypass Sn: Not Off: B	Manual paper set sensor. Manual paper set sensor did not go OFF after start of manual paper feed.

6. Troubleshooting

Machine Overview

Machine Layout



- 1. Image Writing Unit
 - Uses an LPH (LED Print Head) capable of 32-level gradation to write 2-bit image data.
- 2. Scanner Unit
 - Uses five CIS for 256-level scanning.
- 3. Cleaning Unit
 - The drum is cleaned with a counter blade.

- 4. Fusing Unit
 - Fusing is done using a hot roller containing two halogen lamps. For the given paper type/size
 selected by the user, the machine chooses the most suitable fusing temperature and nip band
 width.
- 5. OPC Drum, Around the Drum
 - The units located around the OPC drum do the charging, image writing, development, image transfer, paper separation, cleaning, and quenching.
- 6. Roll Trays
 - Paper is supplied from continuous rolls.
- 7. Bypass Tray
 - The bypass tray can be used to feed individual sheets of copy paper.
- 8. Development Unit
 - Toner is attracted from a single magnetic roller to the low charge areas on the OPC drum. The ID sensor located below the drum on the edge of the idle registration panel is used to control the toner concentration.

Original/Copy Paper Paths



А	Paper path from the by-pass feed table
В	Paper path from the 1st/2nd roll tray
С	Original paths

Drive Layout



d212z9003

No.	Name	No.	Name
1	Original Feed Motor	4	Roll Feed Motor 1
2	Drum Motor	5	Development Motor

7. Detailed Descriptions

No.	Name	No.	Name
3	Registration Motor	6	Fusing/Exit Motor

Mechanical Component Layout



No.	Name	No.	Name
1	Front Copy Tray	14	Pressure Roller

No.	Name	No.	Name
2	OPC Drum	15	Rear Copy Tray
3	Original Table	16	Transfer Roller
4	Charge Corona Unit	17	Roll Holder
5	Cleaning Unit	18	2nd Feed Rollers
6	Original Feed Rollers	19	1 st Feed Rollers
7	Original Exit Rollers	20	1 st Roll Tray
8	Original Exit Guides	21	Cutter Unit 1
9	Upper Exit Rollers	22	1 st/2nd Feed Exit Roller
10	Fusing Cleaning Roller	23	Registration Rollers
11	Paper Exit Junction Gate	24	Development Unit
12	(Rear) Exit Rollers	25	Toner Cartridge
13	Hot Roller	-	

Scanner Unit

Scanner Layout

Side View



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No.	ltem
1	Original width sensors
2	Original set sensor
3	Original entrance roller
4	Original registration sensor
5	CIS unit
6	Original exit sensor
7	Original exit roller
8	Scanner motor

• The original width sensors (1) detect the width of the original, and the original set sensor (2) detects when the original is set by the operator.

- The original entrance roller (3) feeds the original to the original registration sensor (4). The original registration sensor detects the leading edge of the original and stops long enough for the operator to align the original manually if the original is not straight.
- The CIS unit (5) under the original scans the original and sends the data to the SIB in the scanner unit.
- The original exit sensor (6) detects the leading and trailing edges of the original to check the feed timing of the original.
- The original exit roller (7) feeds the original out of the scanner unit.
- The scanner motor (8) drives the scanner entrance roller and the exit roller via a single timing belt.
- Two safety micro-switches (not shown) on the left side of the scanner unit disconnect power to the scanner unit every time the scanner unit cover is opened. This prevents the CIS unit from switching on while the cover is open.
- Pressing the original stop key 🙆 (a push-switch on the right side of the scanner unit) interrupts scanning if a problem occurs during scanning (wrinkling, skew) so that the original can be removed.

Front View



No.	ltem
1	Safety switches

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No.	ltem	
2	Scanner motor	
3	SIB	
4	Original set sensor	
5	Original registration sensor	
6	Original exit sensor	
7	CIS unit (5 elements)	
8	Original stop switch	
9	Original width sensors	

Original Width Detection



Several sensors are used to detect the width of the original when it is set on the original table:

- Metric. 10 sensors: 9 original width sensors plus the original set sensor [1] which also functions as a width sensor.
- Inch. 11 sensors: 10 original width sensors and the original set sensor [1] which also functions as a width sensor. The NA machine has one additional width sensor [2] (30").

335	235	163	115	0	1	3 7 19	95	282	400 4	51
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Metric

Inch



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- The sensors to the left of center (set sensor position "0") detect B series (Metric) or Architecture (USA) sizes.
- The sensors to the right of center (set sensor position "0") detect A series (Metric) or Engineering (USA) sizes.
- If the original set sensor is the only one that detects paper, the machine detects an A4 or 8 ½" "A" size SEF original.

Scanning

Original Feed, Exit Sequence



Only one original can be placed face-down on the original table.

- The original set sensor (1) detects the leading edge of the original and the original width sensors (2) detect the width of the original.
- The original entrance roller (3) grabs the leading edge, feeds it a short distance and then stops for 1 sec. This is called Delay 1. This gives the operator time to set the paper again if it is not perfectly straight.
- The original feed roller feeds the original to the original registration sensor (4).
- When the original registration sensor detects the leading edge of the original, the machine stops original feed again for 1 sec. This is called Delay 2. This gives the operator another chance to check that the original is straight.
- If the original is not straight, the user can push the original stop key (100) on the right side of the scanner unit, remove the original, and try again.
- The length of time for Delay 1 and Delay 2 to pause can be adjusted with User Tools > System Settings > General Features > Original Feed Delay.
- The CIS (Contact Image Sensor) (5) scans the original from below.
- The original exit sensor (6) checks the timing of the passage between the leading and trailing edge of the original to make sure that there is no jam.

- The original exit roller (7) feed the original out of the scanner unit while the scanned image is processed
- The original stacker (8) and original guide (9) comprise the upper output tray (10). The upper output tray receives the original after scanning. Long originals will curl in the tray.
- If the original guide is removed, the original feeds straight out the back of the scanner unit (11)

Vote

- If the original output trays are removed, the original feeds straight out of the rear of the machine. The user should remove the original output trays when scanning thick originals.
- The scanner motor (10) drives the entrance roller and exit roller in the scanner unit via a single timing belt.

Auto Image Density Correction



Auto Image Density Correction corrects the background density.

- First, the CIS unit (1) reads the surface of the white strips (2) on the platen plate.
- There is one white strip mounted above each section of the CIS unit. The machine uses these readings as reference points for density correction.

Scanning Area



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During scanning, the CIS corrects the image density line by line. To do this, it starts 3 mm from the leading edge of the original [B], and reads 60 mm to the left and to the right of center.

These start positions can be adjusted with the following SP codes:

- SP4901-005 Digital AE -Start Position
- SP4901-006 Digital AE -Left Start Position
- SP4901-007 Digital AE -Right Start Position

Scan Magnification Correction

Magnification (enlargement/reduction) correction in the sub scan (vertical) direction is done by adjusting the speed of the scanner motor with **SP2-116** (Copier Sub Scan Magnification Correct) Adjustment is done relative to the default setting "0" (100%).

• Reducing the setting increases the speed of the scanner motor, and the image is reduced when it prints.

• Increasing the setting reduces the speed of the scanner motor, and the image is enlarged when it is printed.

Original Drive Mechanism

Scanning Motor, Rollers



- The scanner motor (1) (a stepper motor) and timing belt (2) drive the original entrance roller (3) and original exit roller (4).
- The original set sensor (5) turns the motor on when the original is set.
- The original exit sensor (6) switches the motor off when the sensor detects the trailing edge of the original.

Original Feed Speed



Black-and-White Copying





Color Scanning

d212z2005b

In the diagram above, the red numbers (%) below the horizontal axis of both graphs show the magnification steps for copy jobs and scanning jobs. The green numbers (dpi) below the horizontal axis of both graphs show the resolution steps for scanning jobs.

During copying, the speed of original feed is adjusted for magnification (resolution is fixed at 600 dpi). During scanning to a file, the speed of original feed is adjusted for resolution (magnification is fixed at 100%).

7

The scanning speed increases as resolution or magnification lowers. But to prevent color separation caused by excessive speed, scanning speed does not increase any more when resolution (or magnification) reaches the following values, and then image processing reduces the data:

- Black-and-white: When resolution is less than 300 dpi or less, or magnification is less than 50% [A]
- Full color: When resolution is less than 300 dpi or less, or magnification is less than 50% [B]

Black-and-White Standard for Copying

- Resolution: 600 dpi (fixed). Copy resolution cannot be adjusted.
- Magnification: 100%
- Original scanning speed : 80 mm/s

Black-and-White Standard for Scan to File

- Resolution: 200 dpi
- Magnification: 100% (fixed)
- Scanning speed: 160 mm/s (with electronic magnification)

This graph shows the reciprocal relation between copy magnification and scan job resolution. For example:

- A copy reduced to 50% (one-half of an image at 100% 600 dpi) is reduced by removing half the pixels.
- This is the same as a 300 dpi copy at 100%, in other words, the same as a document scanned to a file at 300 dpi.

Scanning Mechanism

CIS Structure



This machine uses 5 contact image sensors (1) linked in a staggered configuration mounted below the original feed path. The CIS scans both black-and-white and color originals at a maximum of 926.5 mm (361/2 inches) wide with 600 dpi.

A pair of safety switches (2) cut off the power circuits of the CIS unit when the scanner cover is raised. This prevents the CIS unit from lighting up accidentally when the cover is open.



The CIS unit is made of 5 contact image sensors connected at 4 joints. If you look from above, the CIS sections are numbered from left to right as CIS-1 to CIS-5.

Printed Image

Abc				
CIS-5	CIS-4	CIS-3	CIS-2	CIS-1

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When you look at the copy to identify the areas scanned by each section, the numbering is in the opposite sequence, with CIS-5 on the left to CIS-1 on the right.

Long Original or Special Original with Carrier Sheet

When a long original, or a special original (extremely thin or fragile) with a carrier sheet, is fed into the scanner unit, this creates a load on the scanner when the scanned portion of the original behind the scanner unit starts to sag. This can cause the original to slip in the original feed path and interfere with smooth operation of the scanner motor. To correct this, the scanning speed can be switched at a desired location in order to compensate for slippage of the special originals in the original feed path.

The scanning speed can be switched at designated points:

- Up to 15 switching points can be designated for a long original up to the maximum length of 15,000 mm (15 m or approximately 50 ft.).
- The first starting point (the reference point) is upstream of the CIS.
- The points can be entered with SP codes SP4-993, SP4-994
- The speed of the scanner motor can be set in the range of ±10% where it can be adjusted in fine increments (±0.1%)



d1242008

Look at the settings above. Note that as more of the original feeds through the scanner unit, the speed of the scanner motor is decreased slightly.

- If the speed is set at "0" at any point, the speed will be 100% the normal speed of the scanner motor.
- If the image is to be magnified, the speed of the vertical motor is automatically adjusted to account for the changes in scanning speed, so magnification will not be affected.

The machine can also be set not to release the trailing edge of the original at the end of the scan job. This prevents the original from falling on the floor. The trailing edge is held in the nip of the exit roller until it can be removed manually. This feature can be switched on/off with **SP4-975** (Prevent Original Falling). 7

Image Processing

General Image Processing Flow Chart

The IPU processes images.



Original Modes

Here is a brief summary of the original modes that the user can select for this machine at the operation panel. The condition of the auto image density (ADS) feature is selected automatically after the original mode is selected:

- ADS ON: Drawing, Text, Text/Photo, Background Lines, Generation
- ADS OFF: Photo, Patched Original

Mode	Function
Text	Text mode does not distinguish between areas of the page that contain text, graphics, or photographs; the entire page is processed as a text original. However, straight lines appear sharp in the copies.
Drawing	Drawing mode is used to copy drawings, or architectural and design plans with a variety of fine lines.
Text/Photo	Achieves the best reproduction for originals with text and photos on the same page. There are three additional sub selections for "Text/ Photo": "Glossy Photo", "Printed Photo", "Copied Photo". Grayscales are more accurate than those obtained with Text mode.
Photo	Achieves the best reproduction for originals with photos and no text. There are three additional sub selections for "Text/Photo": "Glossy Photo", "Printed Photo", "Copied Photo". Grayscales are more accurate than those obtained with Text or Text/Photo mode.
Generation Copy	Similar to the Text mode, but attempts to reduce the thickness of thick characters, restore the thin or broken lines of originals, ignore the background texture, and erase independent dots that tend to appear in copies of originals which are 2nd, 3rd, etc. generation copies
Highlight Pen	Use for text and drawings marked up with yellow highlights that that you do not want to lose in a black-and-white copy.
Background Lines	Ignores only the blue or green lines of section (graph) paper on the originals. Dark blue and sepia lines will not drop out.
Patched Original	Prevents background from appearing in copies of originals where the textures of the backgrounds differ. For example, this mode will even out the backgrounds and eliminate the shadows and lines on page or boards pasted up for design layout.

The following tables show which SP modes can be used for each original mode. These SP settings are only valid if the following user tool is set to "Custom Setting": Copier/Document Server> General Features> Copy Quality. Also, **SP5106** must be set to "3".

Mode	Related SP Codes
Text	• SP4550: Scan Apli:Txt/Print
	• SP4551:Scan Apli:Txt
	• SP4903-1:Filter Setting/Ind Dot Erase: Text
	 SP4903:Image Quality Adjustment
	-011 Line Width Corr: Text Mode Set
	-012 Line Width Corr: Text: Main Scan
	-013 Line Width Corr: Text: Sub Scan
	SP4904-1: Smoothing Filter Level/Text
Drawing	• SP4555: Scan Apli:Photo
	• SP4565: Scan Apli:GrayScale
	SP4904-001: Smoothing Filter Level/Photo
Text/Photo	SP4553: Scan Apli:Txt Dropout
	• SP4570: Scan Apli:Col Txt/Photo
	SP4904-002: Smoothing Filter Level/photo
	 SP4904-003: Smoothing Filter Level/Text/Photo
Glossy Photo	• SP4571: Scan Apli:Col Gloss Photo
Printed Photo	 SP codes for "3. Text/Photo" apply.
Copied Photo	
Background Lines	• SP4904-7: Smoothing Filter Level/Blue Line
Patched Original	SP4904-6: Smoothing Filter Level/Patched Original

Generation Copy	SP4903-002: Filter Setting/Ind Dot Erase: Generation Copy
	SP4903: Image Quality Adjustment
	-014 Line Width Corr: Gen. Copy Mode Set
	-015 Line Width Corr: Gen. Copy: Main Scan
	-016 Line Width Corr: Gen. Copy: Sub Scan
	 SP4904-004: Smoothing Filter Level/Generation Copy

Around the Drum

Overview



No.	Name
1	LPH (LED Print Head)
2	Charge Corona Unit
3	Quenching Lamp (LED Array)
4	Charge Corona Grid Wires
5	Cleaning Blade
6	Pick-off Pawl
7	Drum
8	Transfer Roller
9	Registration Roller
10	ID Sensor
No.	Name
-----	--------------------
11	Development Roller

Drum Drive, Transfer Roller Drive

The drum motor [A] rotates the drum [B] through gear [C] which also rotates transfer roller [D] below the drum.



The drum and roller rotate in opposite directions as the paper passes through the nip of the drum and transfer roller.

- The drum speed of the W6700 (D212) is 80 mm/s.
- The diameter of the drum is 80 mm (3.2-in), also the same as the previous machine.
- However, the drum of the previous machine [A] is green, and the color of the drum of this machine [B] is blue.



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• These drums are not interchangeable. Never install a green drum in the W6700 (D212). Use the blue drum for this machines.

Charge Corona Unit



The charge corona unit [A], above the OPC drum, uses the Scorotron (Negative) Charge Method. A single gold-plated charge wire is mounted behind a wire grid. The grid applies an even charge to the OPC drum.

- Grid: -800 V
- Drum surface: -710 V

Corona Wire Cleaning



The corona wire is cleaned:

- When the temperature of the hot roller drops below 50°C (122°F) and 600 m of paper has been fed through the machine since the last wire cleaning.
- The wire is also cleaned immediately after the machine is powered on when these two conditions co-exist.

Wire cleaning is never done while the corona wire is charging the surface of the drum.

The interval between automatic wire cleaning (Default: 600 m) can be adjusted with **SP2-804**. This SP can also be set to clean the corona wire every time the machine is switched on when the temperature drops below 50°C, regardless of the number of previous copies.

The wire cleaner motor [A] controls the cleaning pad [B].

- When the cleaning pad reaches the left side (as shown above), the motor reverses and drives the cleaning pad back to the home position on the right.
- If the cleaning pad is not at the home position immediately after the main power is switched on, the cleaning pad goes to the home position.
- The actuator [C] for the wire cleaner sensor [D] turns as the cleaner moves from side to side. The signals from this sensor tell the machine when the cleaning pad is moving.
- If the wire cleaner stops before it reaches the end, or if stops too long at the far left position, the wire cleaner sensor detects an error.

Cleaning the Drum



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This machine uses a counter blade system to clean toner from the photoconductive surface of the drum. The cleaning blade [A] is mounted opposite the direction of drum rotation.



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The counter blade has a pressure release lever which can be moved easily between the opened [A] and closed [B] position to release it from the drum. This blade must be released before the drum is removed from the machine.

Collecting Used Toner



The toner collection coil [A], driven by the registration motor, collects the used toner from the drum and sends it through a tube [B] to the used toner bottle.

The toner overflow sensor [C] monitors the level of the toner in the used toner tank [D], and triggers a warning message on the operation panel when the used toner tank is almost full.

The capacity of the used toner bottle is 4600 cc (about 25.3 k copies/A1 sideways [LEF] or 15 km at 6% coverage)

- After the near overflow warning, the machine can continue to operate and will copy up to 100 m (equivalent to 168 A1 LEF sheets).
- After the 20 m copies are completed, the overflow warning is issued and copying can no longer be done.
- If the 20 m limit is exceeded during a copy job, the job in progress will finish but copying cannot continue until the used toner bottle has been emptied.
- To release the machine from the overflow shutdown, first turn the main power switch off/on. If the
 message does not appear after 1 second, you can continue to use the machine. However, if the
 message appears again, the used bottle must be emptied.

🔁 Important

 After emptying the used toner bottle, you must clean the area inside the bottle where the used toner overflow sensor is located.

Quenching



This machine uses an LED array [A] to quench the surface of the drum after each drum rotation. To reduce the possibility of drum fatigue, this LED uses red light.



Two anti-condensation heaters [A] below the transfer roller unit [B] prevent condensation in areas around the OPC drum [C] while the machine is off. These heaters turn on as soon as the main power switch is turned off.

580

LPH Fan



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LPH cooling fans on the left end [A] and right end [B] f the LPH unit.

- These fans pull in air and circulate it around the LPH unit. Both fans are provided with air filters.
- The air flow lowers the temperature around the LPH unit to prevent heat expansion of the LPH components. Expansion of heated components can cause image distortion.

These fans are linked to the operation of the main motor and fusing/exit motor. Both fans switch on when the main motor and fusing/exit motor switch on and then switch off when these motors switch off. **SP2-940** controls operation of these two fans.

Image Writing

LED Print Heads



This machine uses LED heads [A] that shine light directly onto the OPC to form a latent image with 32 levels of gradation.



The LPH unit contains an array of three A4 1200 dpi print heads.

Each print head has an array SELFOC (self-focusing) lenses [A] mounted above an LED array and drive board inside the unit. A heat sink [B] draws heat away from the print heads and lenses to prevent them from expanding. The maximum operational width of the unit is 930 mm (36.6").

Development

Overview



d046d302

1	Auger	6	Paddle Roller
2	Doctor Blade	7	Toner Agitator
3	Development Entrance Seal	8	Toner Cartridge
4	OPC Drum	9	Separator
5	Development Roller	10	Development Filter

This machine uses the dual component development method with toner concentration control.

- The paddle roller picks up developer in its paddles and transports it to the development roller. Internal permanent magnets in the development roller attract the developer to the development roller sleeve.
- The rotation of the sleeve carries developer toward the OPC drum. Developer back spill from the doctor blade goes either to the separator then the agitator, or to the augur then the paddle roller.
- A filter relieves the pressure that tends to build up in the development unit.
- The toner density is constantly monitored by an ID sensor (there is no TD sensor).

Vote

• This machine requires two packs of developer. Each pack weighs 1 kg (2.2 lb.)

On the left side of this machine [A] you can see a large knockout [B].

- This knockout is found on the development units of the W6700 (D212) but not the previous machines W8100/W7140 (D046/D155) [C].
- The purpose of the knockout is to prevent installation of a development unit designed for the previous machines.
- The development units of these machines and the previous machines are not interchangeable.



Developer Cross-Mixing



Photocopying Processes> Development> Cross-mixing

[A]	Doctor blade
[B]	Development roller
[C]	Back-spill plate
[D]	Paddle roller
[E]	Auger inlet
[F]	Mixing auger
[G]	Paddle roller inlet

Development Bias

Copying



The CGB (Charge, Grid, Bias) power pack applies [A] a negative bias (-650V) to the development roller, slightly higher than the residual charge on the drum. **SP2-201-001** determines the development bias for copying.

Making ID Sensor Patterns

The machine makes two types of ID sensor patterns on the drum:

- Low Duty Mode pattern
- High Duty Mode pattern

The setting of SP2-201-004 determines which pattern is used.

- Due to this machine's high line speed (W6700: 80 mm/s), the High Duty Mode pattern is set as the default selection in order to stabilize the amount of toner pulled onto the drum.
- The Low Duty Mode pattern should be selected if images appear dark (high toner density) or if there is evidence of toner scatter inside the machine.

The ID sensor pattern development bias voltages for high and low duty modes can be adjusted with SP2-201-002 and 003, as shown in the following table.

SP No.	Setting	Default
		W6700
SP2-201-002	ID Sensor Pattern: Low Duty Copy Jobs	-350 V

ID Sensor Pattern

SP No.	Setting	Default
		W6700
SP2-201-003	Sensor Pattern: High Duty Copy Jobs	-400 V
SP2-201-004	Duty Mode Switch	Low Duty

Development Drive Mechanism



The development motor [A] drives the development unit through a timing belt [B] and gears.

Toner Supply Mechanism



This machine uses dual-component development with toner concentration control. The toner agitator [A] turns in the center of the toner cartridge to move toner to the paddle roller [B] in the development unit. Toner then goes to the development roller [C] and the drum [D]. To control the quantity of toner that is supplied to the development unit, the machine switches the toner supply clutch on and off. The output from the ID sensor controls the clutch on/off timing. This development unit does not have a TD sensor.

ID Sensor

Overview



The ID sensor [A] reads the density of the ID sensor pattern, the temporary image projected onto the drum at prescribed intervals by the LED print head.

This density reading (Vsp/Vsg) is used to determine whether more toner is needed.

The ID sensor pattern is created at 100 cm (4 in.) intervals during the jog and at the end of every job if the previous job was longer than 100 cm (4 in.). The interval (100 cm) can be adjusted with SP3-920 or switched off.

Reading Vsp/Vsg

Vsp Reading

- 1. A pulse (PWM) is output to the ID sensor.
- 2. Within 100 ms the ID sensor reads the bare drum surface voltage to confirm that it is over 2.8V.
- 3. The ID sensor reads the ID sensor pattern (less than 2.3V)
- 4. The machine issues SC406 if the ID sensor pattern is not detected within 410 ms.

- 5. After 50 ms the ID sensor takes 5 sample readings at 2 ms intervals. It ignores the highest and lowest reading and averages the remaining three readings.
- 6. Step 5 repeats until 5 averaged samplings have been obtained.
- 7. Of the 5 averaged readings the highest and lowest value are ignored and the remaining three readings are averaged, provided the condition at Step (3) has been met (2.3V). **This is Vsp**.
- 8. The machine issues SC402 of the condition at Step 3 is not obtained.

Vsg Reading

- 1. The ID sensor reads the bare surface of the drum to confirm that the drum surface voltage is more than 2.8V.
- 2. After 50 ms the ID sensor takes 5 sample readings of the bare drum surface at 2 ms intervals. It ignores the highest and lowest reading and averages the remaining three readings.
- 3. Step 10 repeats until 5 averaged samplings have been obtained.
- 4. Of the 5 averaged readings the highest and lowest value are ignored and the remaining three readings are averaged, provided the condition at Step (9) has been met (2.8V). **This is Vsg**.

The result of the Vsp/Vsg calculation is used to retrieve the corresponding GAIN setting from a lookup table.

If Vsg is less than 3.9V or greater than 4.1V the PWM value for the ID sensor is automatically recalibrated.

	Vsg Reading	PWM Adjustment
1.	Less than 3.9V	+0.5%
2.	More than 4.1V	-0.2%
3.	Between 4.1V and 4.5V	-0.5%
4.	Between 4.5V and 4.8V	-1.0%
5.	Over 4.8V	Issue SC401 (Vsg abnormal)

Toner Supply

Overview

The machine controls toner the supply of toner to the development unit by switching the toner supply clutch on/off. The on/off timing determined by the ID sensor readings from the sensor pattern on the drum.

- The machine uses the readings of the ID sensor to operate toner supply control for copies shorter than 1250 mm (49.2 in.). The default toner supply mode setting of SP2-208-003 (0: Detect Mode) is used.
- If the machine determines a copy is longer than 1250 mm (49.2 in.), it automatically enters the "Long Print" mode.
- In the Long Print mode the machine uses the Fixed Toner supply settings to run toner supply control (the readings of the ID sensor are ignored). This means the "0: Detect Mode" setting of SP2-208-003 is ignored and the machine uses either the Fixed Mode settings: "1" (3%) or "2" (6%) of SP2-208-003. (For more, see Toner Supply Modes below.)

The machine uses the following equation to determine the toner supply time (timing of the toner supply clutch operation).

[GAIN A]*1000 x [SCC]*10 x [PWC]*100 x 350 ms

((1000*10*100)*100 ÷ (1250 x 0.25)) [sec.]

GAIN A: SP2208-1

SCC:Supply Capacity Coefficient: SP2208-2PWC:Paper Width Coefficient (from a paper-size lookup table350 ms:Standard Toner Supply Time (a constant)

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 The "GAIN A" value that determines the amount of toner supplied during the base time uses the Vsp/Vsg reading of the ID sensor pattern reading to retrieve the gain value for a lookup table (shown below).

Vsp/Vsg	GAINO	GAIN1	GAIN2	GAIN3	GAIN4	GAIN5	GAIN6	GAIN7	GAIN8	GAIN9
0~0.070	0	0	0		0	0	0	0	0	(
0.071~0.074	0	0	0		0	0	0	0	0	0.13
0.075~0.077	0	0	0		0	0	0	0	0.13	0.24
0.078~0.080	0	0	0		0	0	0	0.13	0.24	0.36
0.081~0.083	0	0	0		0	0	0.13	0.24	0.36	0.49
0.084~0.087	0	0	0		0	0.13	0.24	0.36	0.49	0.62
0.088~0.091	0	0	0		0.13	0.24	0.36	0.49	0.62	0.77
0.092~0.095	0	0	0	0.13	0.24	0.36	0.49	0.62	0.77	0.92
0.096~0.100	0	0	0.13	0.24	0.36	0.49	0.62	0.77	0.92	1.09
0.101~0.105	0	0.13	0.24	0.36	0.49	0.62	0.77	0.92	1.09	1.27
0.106~0.111	0.13	0.24	0.36	0.49	0.62	0.77	0.92	1.09	1.27	1.47
0.112~0.118	0.24	0.36	0.49	0.62	0.77	0.92	1.09	1.27	1.47	1.69
0.119~0.125	0.36	0.49	0.62	0.77	0.92	1.09	1.27	1.47	1.69	1.94
0.126~0.133	0.49	0.62	0.77	0.92	1.09	1.27	1.47	1.69	1.94	2.21
0.134~0.143	0.62	0.77	0.92	1.09	1.27	1.47	1.69	1.94	2.21	2.54
0.144~0.154	0.77	0.92	1.09	1.27	1.47	1.69	1.94	2.21	2.54	2.92
0.155~0.167	0.92	1.09	1.27	1.47	1.69	1.94	2.21	2.54	2.92	3.38
0.168~0.182	1.09	1.27	1.47	1.69	1.94	2.21	2.54	2.92	3.38	3.98
0.183~0.200	1.27	1.47	1.69	1.94	2.21	2.54	2.92	3.38	3.98	4.83
0.201~0.222	1.47	1.69	1.94	2.21	2.54	2.92	3.38	3.98	4.83	5.65
0.223~0.250	1.69	1.94	2.21	2.54	2.92	3.38	3.98	4.83	5.65	6.61
0.251~0.286	1.94	2.21	2.54	2.92	3.38	3.98	4.83	5.65	6.61	7.74

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- Initial gain to determine the amount of toner supply using Vsp/Vsg can be selected with SP2-208-001 Toner Supply Setting - Gain Level.
- If SP2-208-001 is adjusted, this change is entered for the "GAIN A" value in the equation above to determine the new toner supply time.

• The "PWC" value (Paper Width Coefficient) is retrieved from a lookup table (shown below), based on the size of the paper selected for the job.

Width: mm	Coefficient
841~	1
728~840	0.9
594 ~ 727	0.7
515~593	0.6
420~514	0.5
364~419	0.45
297~363	0.35
257 ~ 296	0.3
210~256	0.25
~209	0.2
	d046d806

 The amount of toner derived from this calculation is used for repeated toner supply until Vsp/Vsg is updated.

The results of this equation are used to control the on/off timing of the toner supply clutch. This sequencing is dynamic and changes with each update of the toner supply equation. The example below shows what happens as toner supply timing is changed through 35 ms, 100 ms, 280 ms.

```
Toner Supply Time: 35 ms (= Toner Supply Amount 10%)
|O|O|O|O|O|O|O|O|O|O|O|O|O|O|···
(35/350=1/10)
```

Toner Supply Time: 100 ms (= Toner Supply Amount 29%) $|O|O|O| \bullet |O|O| \bullet |O|O| \bullet |O|O| \bullet |\cdots$ (100/350=2/7)

Toner Supply Time: 280 ms (= Toner Supply Amount 80%) $O|\bullet|\bullet|\bullet|O|\bullet|\bullet|O|\bullet|\bullet|O|\bullet|\bullet|\cdots$ (280/350=4/5)

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In the example above:

- Each circle represents an interval of 350 ms (this is constant)
- A white circle means toner supply clutch OFF for 350 ms.
- A filled circle means toner supply clutch ON for 350 ms.
- After paper registration restarts, the sequence starts with a white circle: Clutch OFF

The toner supply sequence (toner supply clutch on/off timing) operates during the following intervals:

Exit Sensor ON to Registration Sensor ON

Registration restart to Registration Sensor OFF

Registration Sensor OFF to Exit Sensor ON

Exit Sensor ON to Exit Sensor OFF

- For (1) to (4), the toner supply sequence does not operate while the development unit rollers are turning.
- For manual paper feed, the sequence exits from Step 2.

Toner Supply Mode Switching: SP2-208-003

The machine uses the readings of the ID sensor to control the amount of toner supplied to the development unit. In the fixed supply mode, however, the toner supply is set at a fixed rate. The toner supply setting (SP2-208-003) provides three settings that affect the toner supply mode:

- 0: Detect (uses the ID sensor pattern readings)
- 1: Fixed Mode 3%
- 2: Fixed Mode 6%

Normally, the machine should be used in Detect mode (0). The Fixed modes can be used if the ID sensor is broken or has malfunctioned in some way, and a new ID sensor is not readily available for replacement. Otherwise, either Fixed mode should not be selected with SP2-208-003.

Both fixed modes supply a fixed amount of toner (3% or 6%) and ignore the ID sensor readings of the ID sensor pattern. Even with "0" selected as the toner supply mode (the default) this machine will automatically switch to the Fixed Mode when it detects a copy job longer than 1250 mm (49.2 in.)

Only two fixed modes are available, 3% and 6%. However, this rate of coverage can be adjusted for both of these settings.

- SP2-208-005 Toner Supply Setting: Long Print: Drawing. "Drawing" is for originals with fine lines. The default is 3% coverage, and this level can be adjusted with this SP code.
- SP2-208-006 Toner Supply Setting: Long Print: Graphic. "Graphic" is for originals with large areas that need to be shaded or filled (photos, for example). The default is 6%, and this level can be adjusted.
- First, SP2-208-007 (Long Print Mode Setting). This SP code must be switched ON in order to enable the adjustments done for SP2-208-005 and SP2-208-006. If SP2-208-007 is OFF, the default settings are used for fixed toner supply mode (3% or 6%).

For more details about SP2-208, please refer to Section 5.

Toner Near-end Detection, Toner-End Detection

Toner Near-End Detection

The toner near-end alert is issued if the values of three successive readings of the ID sensor pattern (Vsp/ Vsg) are less than 0.155. This is the default setting for SP2927-1 (Toner End Detection/Near End Level).

- After the toner near-end alert is issued it is cancelled immediately if even one Vsp/Vsg reading is less that the Vsp/Vsg value specified for SP2-927-001
- The toner near-end alert is issued once again if the values of three successive readings of the ID sensor pattern (Vsp/Vsg) are more than 0.155.

Toner End Detection

Toner end occurs when three Vsp/Vsg readings are less than 0.175. The toner-end alert appears on the operation panel screen and the machine stops. 0.175 is the default setting SP2-927-002 (Toner End Detection/Toner End Level).

Toner End Recovery

The flowchart below illustrates the toner end recovery cycle. Toner end recovery entails opening the toner hopper cover when the near toner or toner end messages are displayed, then closing the cover after replacing the toner cartridge. If the toner cartridge is replaced during a long print job, the job can be restarted by pressing the [Restart] key.



Paper Feed and Registration

Overview



No.	Name	No.	Name
1	Registration Roller	egistration Roller 8 1 st Feed Roller	
2	By-pass Feed table	9	1st Roll Paper End Sensor
3	Cutting Sensor 1	10	Relay Rollers
4	Feed Exit Roller 1	11	2nd Roll Paper End Sensor
5	Cutter 1 (Upper Tray)	12	2nd Feed Roller
6	1st Roll Lead Edge Sensor	13	Roll End Sensor 2

7. Detailed Descriptions

No.	Name	No.	Name
7	2nd Roll Lead Edge Sensor	14	Roll End Sensor 1

- The paper feed section consists of the roll tray and the by-pass feed table. Each paper source can be selected from the operation panel.
- The roll tray contains two rolls (Roll 1 is at the front of the machine, and Roll 2 is at the rear). Inserting the original starts the feed motor and the registration motor, and paper feed begins.
- The paper is fed from the paper supply source, passes the feed exit roller and is fed into the machine by the registration rollers.
- The registration rollers halt temporarily to allow paper skew correction, and then start again to feed the paper to the drum.
- The cutter cuts the paper after the specified paper length has been fed (monitored by the cutting sensor).
- The starting time of the cutter depends on the cutting mode selected at the operation panel (preset cut, synchro cut, or variable cut).
 After the last cut, the feed roller reverses and returns the edge of the paper to its home position

After the last cut, the teed roller reverses and returns the edge of the paper to its home position away from the vertical part of the feed path. (See next section below.)

Paper Holder



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The racks [A] where the paper rolls are mounted in the paper tray units are adjustable to allow loading paper rolls of different width.



To load a paper roll, release the lever [A] on the paper holder [B] then insert the holder into the end of the paper roll [C]. Once the holder is in place, move the lever to the lock position [D].

Roll Paper HP Timing

At the end of each job the feed roller reverses to take up the leading edge of the roll paper until it stops at its home position. Positioning the edge of every roll sheet at its home position ensures that the common paper path is open for paper feed from any source selected for the next job.



Within 0.5 sec. after the last sheet feeds (and after power on) if there are no further feed instructions:

- 1. The machine checks the status of the paper sensors: Roll 2> Roll> 1.
- 2. If a paper sensor is OFF:
 - Paper feeds as far as the paper sensor of each roll tray (paper sensor 1 in for Roll 1, for example) and stops.
 - After 200 ms paper feed reverses to pull the edge of the paper out of the paper path and then stops with the leading edge of the paper at its standby position.
 - The amount of take-up is prescribed for each roll:

Roll	Amount of Take-up (Reverse Feed)	
1	23.13 mm	

Roll	Amount of Take-up (Reverse Feed)	
2	11.34 mm	

- This is done in turn for each roll in reverse order: Roll 2> Roll 1
- 3. If one more than one sensor is ON:
 - Paper feed reverses where the paper sensor is on to take up the paper.
 - Step 2 is repeated for each paper roll to ensure that the leading edge of every roll sheet is positioned correctly at its standby position for the next job.

Paper Width and Media Type Settings

After a roll has been installed, the width and media type must be selected on the operation panel screen, and special settings input with User Tools must be done before printing from the roll.

These settings determine machine parameters, such as toner supply and temperature and pressure in the fusing unit.

To do the paper selection settings for the rolls and the cassettes:

[User Tools]> "System Settings"> "Tray Paper Settings".

In the User Tool menus:

- "Tray 1" and "Tray 2" selections refer to "Roll 1" and "Roll 2".
- "Auto" for automatic paper size detection can be selected for either paper cassette to detect standard paper sizes.

For more, please refer to the Operating Instructions.

Roll Tray Feed Mechanism



The tray has one independent motor that drives the feed rollers and exit rollers for the tray.

- The feed motor [A] and feed clutches [B] are on the left side of the tray.
- There are two knobs [C] attached to the timing belts on the right side of the tray to allow removal of paper jams manually.

By-Pass Feed Mechanism



Inserting a cut sheet from the by-pass feed table into the machine switches on the by-pass feed sensor [A].

- The by-pass feed sensor switches on the main motor, registration motor [B] and the registration clutch [C]. The paper starts to move.
- The registration clutch switches off temporarily so the user can adjust the position of the paper. This delay time can be adjusted with **SP191**1 (Bypass Feed Start Timing Adj.).

Paper Registration

Registration Roller Drive



The registration motor [A] and registration clutch [B] drive the registration roller [C].

- When the paper arrives at the registration roller, the registration clutch switches off temporarily.
- This allows the operator to manually correct any skew. Then motor switches on again to resume feed.

Registration Motor Timing Adjustment

The speed of the fusing roller increases slightly than the speed of the registration roller in order to pull the paper taut to prevent wrinkling and skew. Due to the tension of this pull on the paper, this could cause image jitter (image distortion) when the trailing edge of the paper leaves the registration roller. In order to prevent this, just before the paper leaves the registration roller the speed of the registration roller is increased slightly.



When the trailing edge of the paper fed by the registration roller [A] reaches the point 50 mm before the registration sensor [B] the speed of the registration roller is increased 2%. This speed can be adjusted with SP1-912-001 [0 to 5.00 / 2.00 / 0.02%].

Cutting Mechanism



There is a cutter unit on each roll tray.

- The rotary disk cutter [A] can cut in either direction. When it comes to rest at the home position [B] on either end of the cutting unit, a cam opens the paper holder for the next paper feed.
- Before cutting, the registration roller continues to rotate at normal speed, but the roll feed motor speed increases slightly. This causes the paper to buckle slightly between the registration roller and the top of the cutter.

• When the cutter motor switches on, the cutter starts to move. This closes the paper clamp to hold the paper at the cutting position. The cutter disk pushes the paper against a horizontal blade behind the paper, and moves across the paper, cutting as it moves.

The registration roller continues to turn during cutting. At this time, the slack generated between registration roller and cutter is taken up. This allows paper feed past the drum to continue at the same speed during cutting.

- To cut a sheet from a roll of freshly loaded paper, press the auto feed key for the each roll to feed paper, then release the key to cut. Paper will continue to feed for as long as the auto feed key is pressed.
- The paper can also be cut by pushing the handle on the cutter to the left or right.

Roll End Detection





Roll end is detected with reflective photosensors that detect the exposed, black core of an empty roll.

Roll Paper Photosensors

- In the roll tray unit, the roll end photosensors [A] are mounted above the two paper rolls.
- One photosensor is provided for each roll. These photosensors detect paper-out for paper rolls that have a **black** core. When the white paper separates from the black core, the photosensors detect this change in color (white to black) and signal roll paper end.
- These photosensors cannot detect paper-out for rolls that use a **white** core because they cannot detect a change in color when the paper separates from the roll.

Paper-end sensors

- Two paper end sensors [B] are mounted in the roll tray.
- The paper sensors detect the end of the paper roll if the core of the paper roll is a color other color than black.

Paper End with a Black Core

When a roll end sensor signals paper out after the trailing edge of the white paper separates from the black core:

- If less than 210 mm (about 8 in.) has fed past the cutting sensor, the paper roll reverses and takes up 200 mm of paper. The paper does not exit the machine.
- If more than 210 mm has fed past the cutting sensor, paper feed stops the cutter cuts the paper, the paper roll reverses and takes up the paper. The paper is cut diagonally. This is no problem for plain paper and translucent paper, but with film the machine will signal a jam with paper feed.

Paper End with a White Core

The roll end sensor cannot signal paper out when the trailing edge of the roll separates from the white core (there is no color change for the roll end sensor to detect). However, when the paper end sensor detects the trailing edge of the paper:

- If less than 210 mm (about 8 in.) has fed past the cutting sensor, the roll reverses and takes up 200 mm of paper. The paper does not exit the machine.
- If more than 210 mm has fed past the cutting sensor, the paper is allowed to feed out of the machine without cutting.

Rolls with taped or glued trailing edges

The trailing edges of some roll paper are attached to the roll core with either glue or tape. In this case:

- When the roll reaches the end the paper will pull against the tape or glued end of the paper and the roll rotation will stop.
- The machine signals a paper jam. This indicates that the empty roll must be replaced.

Condensation Prevention



The roll tray contains two heaters.

- There is one manual switch for the tray [A].
- This switch is set to OFF before the machine leaves the factory. The switch is at the rear left corner of the tray.
- To switch the heaters on/off, open the tray completely and push the switch.

OFF	Anti-condensation heaters OFF when main power switch is ON/OFF.	
ON	Main Power SW OFF:	The anti-condensation heaters turn on.
	Main Power SW ON:	In standby mode and during copying, the anti-condensation heaters are ON, but when both of the fusing lamps are on, the anti-condensation heaters turn OFF.

Heater Switch Operation

Paper Feed Timing: Roll Tray

Feed timing is controlled by the copy signal (original at the original registration sensor, or when Start is pressed for a multi-copy job).

Paper Feed Timing Chart



Timing Chart Key

In the timing chart above:

- The chart above illustrates timing for feeding a sheet of A1 LEF (841 x 594 mm) from the tray, Roll
 2.
- The double lines indicate repetitive operation.
- Bracketed numbers on the left side denote the following components:

[1]	Roll feed clutch
[2]	Roll feed motor
[3]	Cutter motor
[4]	Tray exit sensor
[5]	Registration motor
[6]	Registration clutch
[7]	Registration sensor

Timing Chart Description

TO	Roll feed clutch, registration motor ON
TI	Roll feed motor ON
T2	Tray exit sensor ON

Т3	Registration clutch ON.	
Τ4	After registration sensor ON, registration sensor goes OFF for prescribed time (paper feeds 10 mm after paper sensor ON), registration clutch OFF, feed motor slows then goes OFF.	
T5	Registration clutch, feed motor go ON.	
Τ6	Paper feed motor accelerates. • W6700: 80 mm to 200 mm/s to create 85 mm of slack for cutting.	
T7	Cutter ON	
Т8	Registration sensor OFF, then registration clutch and registration motor OFF.	

Image Transfer and Paper Separation

Overview



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The soft, spongy surface of the transfer roller [A] is in contact with the OPC drum [B] above.

- The transfer roller applies the transfer voltage from the transfer power pack to the back of the paper to attract toner from the drum to the paper.
- The quenching plates apply the separation voltages from the separation power pack to separate the paper from the drum.
- In the previous machine, the transfer voltage, and the separation voltage was supplied by a single board, the T&S power pack.
- However, in this machine there are two boards. A transfer power pack supplies the transfer voltage and a separation power pack supplies the separation voltage.

Transfer Unit

This machine uses a transfer unit to transfer the toner image from the drum and then separate the paper from the drum. The transfer unit is comprised of the following parts.

- Transfer power pack
- Transfer roller
- Separation power pack
- Quenching plates.

The separation power pack [A] and transfer power pack [B] are separate boards on the right side of the machine.



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Both harnesses enter though a cutout on the right end of the transfer unit. The separation power pack harness [A] runs toward the center of the transfer unit. The transfer power pack harness [B] stops at the right end.





The transfer harness connector [1] connects to terminal [2] in contact with bearing [3] of the shaft of the transfer roller [4].



d208a6014

This connection transfers the charge from the transfer power pack to the transfer roller through its metal shaft.

The separation power pack harness [A] winds its way toward the center of the transfer unit. Its connector [B] connects to contact plate [C].



d208a6015

There are three quenching plates on top of the transfer unit. The three identical plates [1], [2], [3] are thin, flat spines with sharp tines on their trailing edges. They are arranged in a straight line across the top of the transfer unit [B] under the lattice paper guides.



d208a6020

The first two quenching plates [A] and [B] (shown with the paper guides removed) rest on top of contact plate [C].



The harness conducts the current from the separation power pack to these two plates.

Continuing toward the left end of the transfer unit, the left end of the middle plate contacts the right side of the second contact plate [1]. The third plate rests on top of the left side second plate [2] which receives current conducted from the right side of the contact plate.



d208a6017

The left photo shows the left contact plate with the quenching plates removed. The right photo shows the middle quenching plate [3] and left quenching plate [4] in position on top of the contact plate below.

When the machine prints:

- The transfer power pack applies a positive charge to the transfer roller in contact with the bottom of the drum.
- When paper passes through this nip of the transfer roller and drum, the positive charge on transport roller pulls the negatively charged toner from the drum above onto the paper below it.
- The transfer current is applied to the transfer roller by the transfer power pack.
- The strength of this charge can be adjusted for the type and thickness of the paper in use.
- After the toner image has been transferred to paper, the separation power pack applies a negative charge to the positively charged paper. This neutralizes the surface of the paper, allowing it to separate from the drum.

Transfer Roller Cleaning

The smooth, spongy surface of the transfer roller [A] is always flattened against the hard surface of the drum [B] above.



- d208a6019
- There is no mechanism to separate drum and transfer roller. The drum and transfer roller always remain in contact with one another.
- In order to keep the surface of the transfer roller clean, and to prevent wrinkling, a reverse bias charge is periodically applied to the transfer roller to blow back toner and paper dust from the transfer roller onto the drum.
- The counter-blade cleaning mechanism of the drum collects and disposes of toner on its surface, including the blowback from the transfer roller.

Transfer and Separation Timing Control

Temperature/Humidity Sensor

A new temperature/humidity sensor, located on the left side of the machine above the used toner bottle duct, monitors the temperature and humidity around the machine.



d208a6007

• Temperature and humidity around the machine can vary.

 The temperature and humidity readings of this sensor are used to adjust the voltages applied by the transfer roller for image transfer and paper separation and to adjust the timing of these voltage applications for optimum performance, especially when using paper sensitive to changes in ambient temperature and humidity.

SP2925-2 can be used to determine when the machine switches the transfer current over from the current for the leading edge (relatively weak) to the current for the image (relatively strong).

- If there is insufficient toner transfer at the leading edge of the image, adjust this SP so that the switchover point is earlier. However, this can cause paper separation at the leading edge to be less effective.
- If paper separation at the leading edge is poor, adjust the SP so that the switchover point is earlier. However, this can cause insufficient toner transfer at the leading edge of the image.

Paper Settings

User Tool settings are required for the type of paper loaded in the machine.

- These settings allow fine adjustment to prevent blank areas that can appear at the leading and trailing edges of printed images, and to avoid poor fusing and faulty paper transport.
- These adjustments are done by the transfer roller and quenching plates in the new transfer and separation transfer unit which replaces the wire unit of the previous machine.
- This new arrangement allows fine adjustment of the transfer current and separation bias, based on reference to paper settings for different types of paper.
- Also, there are many new SP codes provided for the adjustment of AC and DC bias, and there are now up to 500 settings available to compensate for environmental conditions.

Pick-Off Pawls



Pick-off pawls separate paper from the drum if the separation with the corona unit fails. This machine has a total of four pick-off pawls mounted opposite to the direction of rotation of the drum.

- The pick-off pawl solenoid brings the pick-off pawls into contact with the drum.
- When the leading edge of the paper on the drum enters the separation corona unit with about 198 mm (7.8") of the paper in contact with the drum, the solenoid [A] switches on.
- The pick-off pawl shaft starts to rotate, and the pawls [B] attached to the shaft are held against the drum by a spring.

Paper Transport

Overview



Air suction holds the paper on the transport belt.

- The paper separated from the drum by the separation corona unit goes to the transport belt [A] which transports the paper to the fusing unit.
- The suction of the transport fans [B] below the separation transport tank [C] hold the paper on the belt. The transport fans continue to operate while the machine is in standby mode keep the machine cool.
- The fusing motor drives the transport unit as well as the fusing unit.



Here is another view of the same components. The perforations in the transfer belt [A] allow suction from the cycling fan below [B] to hold the paper on the belt.

An ozone filter [C] at the exhaust port on the right side of the machine traps ozone released from the machine.

Note

- The speed of the separation/transport fan accelerates slightly as soon as a job starts with Film Mode 4 selected. The fan speed returns to normal as soon as the last sheet exits the machine.
- This function can be adjusted with SP1955-1 (Transport Fan Duty Setting).

Fusing Unit

Overview



No.	Parts Name	No.	Parts Name
1	Hot Roller	7	Pressure Roller
2	Fusing Cleaning Roller	8	Pressure Release Lever
3	Hot Roller Strippers	9	Fusing Lamps
4	Pressure Roller Strippers	10	Hot Roller Thermistor
5	Pressure Roller Thermistors (Center, End)	11	Thermostats
6	Fusing Motor	-	

The hot roller wall thickness is 1.3 mm. As a result, warm-up time is short (less than 120 sec).

Paper Feed through the Fusing Unit



After separation from the drum:

- The paper feeds to the transport plate [1].
- The 5 sets of spurs [2] at the entrance hold the paper against the transport plate
- The heat and pressure of the hot roller [3] against the pressure roller [4] fuse the image to the paper.
- The fusing lamp [5] in the center of the hot roller is pre-heated to the correct temperature. (It switches on and off to keep the rollers at the correct operating temperature.)
- The hot roller strippers [6] pull the copy off the hot roller.
- The fusing exit sensor [7] detects the leading edge and trailing edge of the sheet, and checks the timing to detect paper jams.
- The fusing exit rollers [8] feed the paper out of the fusing unit.

Fusing Pressure Control Mechanism



The spring loaded pressure levers [A] mounted on the pressure roller shaft [B] force the pressure roller [C] (a silicone rubber roller) against the hot roller [D].

The pressure of this spring can be adjusted manually.

The fusing temperature and amount of pressure applied by the pressure roller is adjusted for the type of paper.

- Two stepper motors [E] are provided at either end of the pressure roller.
- The fusing pressure motors are controlled by SP settings that determine the amount of pressure applied by the pressure roller on the hot roller above.

SP1914-002 Pressure Adjustment: Right

SP1914-003 Pressure Adjustment: Left

When the paper feed station is selected and every time paper exits the machine, the pressure steps are calculated for the hot roller actual temperature. This step process is different for each paper type.

If a jam occurs:

- The left and right fusing pressure stepper motors reverse to release the pressure on the rollers and the gears in the fusing unit.
- The fusing unit powers down when the paper exit cover or the upper unit are opened to ensure safe removal of the jammed sheet.

Fusing Pressure Adjustment

Control adjustments are done for each fusing mode as described below to achieve optimum pressure between the fusing roller and pressure roller for the job. The adjustments are done for the type of paper used (normal, tracing paper, film) in Modes 1 to 5 (a total of 15 patterns).

There are three temperature ranges:

- Step 1: Less than 165°C
- Step 2: 166 to 180°C
- Step 3: More than 181°C

Note

• The amount of pressure exerted by each pressure motor can be adjusted with the SP codes.

The pressure mode control is adjusted separately for each type of paper:

The machine references the current hot roller temperature and determines the position of the pressure roller based on this reading:

- At power on
- When the door is closed
- When the leading edge of the paper arrives at the registration sensor and switches it on
- During scanning
- When the printed copy exits the machine
- When the paper feed source is selected
- After the machine leaves the energy save mode
- After the machine leaves low power mode

The machine switches on the fusing pressure adjustment motors to move the pressure roller to the calculated position:

- When the machine enters energy saver mode
- When the machine enters low power mode
- The machine moves the pressure roller to the determined position again after a jam occurs

The table below summarizes the adjustments done for each type of paper.

Plain Paper

SP No.		Hot	Hot Mode 1		Mode 2		Mode 3		Mode 4		Mode 5	
		Rolle r Temp Read ing	Settin g	Total								
	STEP 3	181	0	155 0	500	250 0	500	250 0	500	250 0	500	250 0
1-95 1-	STEP 2	166 - 180	0	155 0	450	200 0	100 0	200 0	450	200 0	450	200 0
	STEP 1	165	155 0	155 0	155 0	155 0	100 0	100 0	155 0	155 0	155 0	155 0

Tracing Paper

SP No.		Hot	Мо	de 1	Moo	de 2	Мо	de 3	Мо	de 4	Мо	de 5
		Rolle r Temp Read ing	Settin g	Total								
	STEP 3	181	0	200 0	0	200 0	0	200 0	200	235 0	200	235 0
1-95 1-	STEP 2	166 - 180	0	200 0	0	200 0	0	200 0	150	215 0	150	215 0
	STEP 1	165	200 0	200 0								

SP No.		Hot	Moo	de 1 Mode 2		Mode 3		Mode 4		Mode 5		
		Rolle r Temp Read ing	Settin g	Total	Settin g	Total	Settin g	Total	Settin g	Total	Settin g	Total
	STEP 3	181	500	250 0	500	250 0	500	250 0	500	250 0	500	250 0
1-95 1-	STEP 2	166 - 180	500	200 0	500	200 0	500	200 0	500	200 0	500	200 0
	STEP 1	165	150 0	150 0	150 0	150 0	150 0	150 0	150 0	150 0	150 0	150 0

Film

Hot Roller Cleaning



d212z0953

The cleaning roller [A] mounted above the hot roller presses against the hot roller [B].

- To prevent the oil from streaking at the start of rotation, the hot roller reverses 12 mm to wipe and clean its surface against the cleaning roller.
- The hot roller and pressure roller [C] both have stripping pawls.





Three thermistors monitor the temperature of the hot roller and pressure roller:

- Thermistor [A] monitors the temperature of the hot roller.
- Two thermistors [B] monitor the temperature of the pressure roller. One thermistor is at the center of the pressure roller and the other is near the end of the pressure roller.

Thermostat [C] (199°C) and thermostat [D] (200°C) give emergency heat protection. If one of the thermistors breaks, one of the thermostats will cut power to the fusing lamp. Also, interlock switches cut power to the fusing circuit when a cover is opened.

Fusing Unit Drive Mechanism



7

The fusing motor [A] (a stepper motor) controls the gears and timing belt [B] that turn the hot roller [C] The pressure of the hot roller against the pressure roller [D] and cleaning roller [E] turns these rollers in the opposite direction.

An idle gear [F] turns the gears and timing belt [G]. These gears and belts turn the fusing exit roller [H] and upper exit rollers [I] in the same direction as the hot roller.

The speed of the fusing motor is controlled by:

- The paper feed source set by the user (manual feed table, roll feeder paper, and cassette).
- The type of paper set for the paper feed source: plain (not displayed), recycled, translucent, or film, (This is done with the User Tool: System Settings > Paper Type Settings > Paper Type).
- The width of the paper in the feed source that is used. (The width in each feed source is set with the User Tool 1 System Setting > 1 General Features > Tray Paper Size. The feed source for the job is set at the operation panel.)

Wrinkle Prevention



Motor Speed Control

During normal operation, the hot roller [A] (controlled by the fusing motor) is slightly faster than the registration rollers [B] (controlled by the main motor).

This stretches the paper between the registration rollers and the fusing unit to keep the paper from wrinkling inside the fusing unit.

Inching Control

This machine also has an inching control feature that controls the temperature of the pressure roller to prevent wrinkling. (See Temperature Control)

Paper Exit

Overview

After the paper passes through the fusing unit, it is fed to the paper exit. The paper exit section contains a jam sensor (the exit sensor).

Paper Exit Drive



The paper exit section is driven by the fusing motor [A], gear trains [B] and [C]. Gear train [C] feeds paper to the front copy tray.

The machine can be set so the exit roller [D] holds the last sheet of a print job when printing on paper longer than 630 mm to prevent it from falling.

- For this to occur, the fusing/exit motor must be stopped before the paper exits the nip of the exit rollers.
- In order to adjust for length of the paper whose trailing edge will be caught in the nip of the exit rollers to stop the paper, the setting of SP1950-002 (Paper Exit Control - Paper Hold Length Adjustment) setting is increased to adjust the timing of the fusing motor:

65 mm - SP1950-002 = Distance upstream from exit roller

- For paper longer than 630 mm, when the exit sensor goes off after the trailing edge of the second to last sheet paper passes, the fusing motor will stop at the calculated distance upstream of the exit rollers for the last sheet so it does not fall.
- This setting is enabled for only the last sheet of a continuous print job.

• If the machine enters the inching control mode (in order to maintain pressure roller temperature) after the last sheet starts to feed, the setting is ignored and the paper will be exit and fall.

Paper Exit Access



The paper exit cover [A] and the paper exit guide plate [B] can be opened to make it easier to remove jammed paper from the fusing and exit sections.

Switching Paper Exits



Paper longer than A1 LEF paper must exit at the rear because the front paper exit does not have a large tray.

- Selecting the paper exit on the operation panel switches the paper junction gate solenoid [A] on and off to open and close the junction gate [B] to select the paper exit path.
- The machine does not automatically select the correct exit if the paper is longer than A1 LEF. The exit selection must be selected on the operation panel.

Exit Jam Detection

Rear Exit Jam Detection



The exit sensor [A] in front of the rear exit rollers [B] detects paper jams. Upper Exit

Front Copy Tray Full Detection

The front copy tray is provided with a tray-full detection mechanism.



Paper [1] feeds past the tray full detection sensor actuator [2] and falls into the front copy tray [3]. The top of the stack [4] pushes up the actuator of the tray-full sensor above until it goes ON. This signals that the tray is full. (The capacity of the front copy tray is approximately 100 sheets.)

Boards

Overview



Main Boards

BCU

The BCU (Base Control Unit) is the main board. It controls the printer engine and all system processing.





d208a6001

LED

LED	Color	Function	Downloading		Normal
			EXECUTE	END	
LED 1	Red	Displays BCU	On	Off	Off
LED 2	Green	Operation Status _eSOC	Off	Flash	Flash

SW Address: SW 1

SW No.	Function	Factory Setting	Comments
SW1	Reset	None	Engine control reset operates only when button is depressed.

IPU

The IPU (Image Processing Unit) conducts image processing. It processes image data from the CIS (Contact Image Sensors), sends it to the VDB (Video Drive Board), and then to the LPH (LED Print Heads).



d208a6002

LED	Color	LED Definition	LED State
IED 10	Orango	Image Processing IC (IC15) Status	Standby: Flash
			Operation: On
	Orango	Image Processing IC (IC18) Status	Standby: Flash
LED II Orange Image I			Operation: On
	Orango	Image Processing IC (IC20) Status	Standby: Flash
	Ordinge		Operation: On
	Orange	Image Processing IC (IC35) Status	Standby: Flash
			Operation: On
	Green	Image Processing IC (IC14) Status	Standby: Flash
	Green		Operation: On
	Velleur	Image Brossessing IC (IC27) Status	Standby: Flash
LED 20	rellow	Image Frocessing IC (IC27) Status	Operation: Flash

LEDs

LED	Color	LED Definition	LED State
IED 30 Vallow		Image Processing IC (IC32) Status	Standby: Off
	Tellow		Operation: On
			Standby: Off
LED 31	Yellow	Image Processing IC (IC32) Status	Operation: On
			On during input FGATE assert
			Standby: Off
LED 32	Yellow	Image Processing IC (IC32) Status	Operation: On
			On during input FGATE assert
	Yellow	In the Branching IC (IC22) Status	Standby: Off
		Image Processing IC (IC32) Status	During Interrupt: Off

File Format Converter (MLB)

The file format converter (also called the "Media Link Board" or "MLB") allows you to download copy and print data through via network with Desk Top Binder.



d208a6003

LED	Color	Normal Status
LED 1	GREEN	Lights
LED2	GREEN	Lights
LED3	YELLOW	Flashes
LED4	YELLOW	Flashes
LED5	YELLOW	Flashes

IOB

The IOB (Input/Output Board) controls each sensor, motor, solenoid, and high voltage supply board. It contains the drive circuits for these components. It also performs process control, transfers serial data between the machine and peripherals, and controls the fusing unit.

- The paper cassette sensors and motors are controlled by the RFDB (Roll Feeder Drive Board).
- The pressure motors are controlled by the FPDB (Fusing Pressure Drive Board).



d208a6004

😪 Important

• The DIP switch settings are provided here for reference only. They should always remain OFF (default). They should never be changed in the field.

LED	Color	Function	Downloading		Normal
			EXECUTE	END	
1	Red	Displays IOB Operation Status _e10	On or OFF		Flash
2	Red	IOB Operation Status _Trio2	On or Off		Flash

LEDs

SW No.	Function	Default	Comments		
1	Destination Setting	OFF	Region	SW1	SW2
			Japan	OFF	OFF
			NA	ON	OFFF
			EU	OFF	ON
			CHN	ON	ON
2	Destination Setting 2	OFF			
3	Jam Detect OFF	OFF	No jam detec	tion at ON	
4	SC Detection OFF	OFF	No SC detect	tion at ON	
5	(Not Used)	OFF			
6	(Not Used)	OFF			
7	(Not Used)	OFF			
8	(Not Used)	OFF			

DIP SW Address: SW 1

PSU

The PSU (Power Supply Unit) supplies direct current for every electrical component in the machine, and controls alternating current input to the fusing lamps and anti-condensation heaters.



d208a6005

Fuses

Fuses FU1 and FU2 are both 5V fuses. These fuses are permanently to the PSU and cannot be replaced. If a fuse fails, the board must be replaced.

AC Control Board



d208a6011

Name	No.	Contact	Processing
FU101	11071239	Fusing lamp 1	AC board, harness connections
FU102	11071239	Fusing lamp 2	AC board, harness connections
FU103	11071308	Drum heater, condensation heater	AC board, harness connections
FU105	11071222	Internal connections (wave frequency circuits)	AC board, harness connections
FU131	11071344	PSU	PSU, AC board, harness connections

200V Machine (Output AC)

RTB010

Controller Board

GW (Ground Works) controller architecture allows a basic 600-dpi copier to be upgraded to a full multifunctional product, including printing, Internet, scanning, scan-to-email, and scan-to-folder with Scan Router.



DIP SW 1-8

Controller LED States

LED	Color	Function	LED State
1	RED	BIOS Post Code	Hex 1: ON
			Hex 0: OFF
2	RED	BIOS Post Code	Hex 1: ON
3	RED	BIOS Post Code	Hex 0: OFF
4	RED	BIOS Post Code	Hex 1: ON
5	RED	BIOS Post Code	Hex 0: OFF
6	RED	BIOS Post Code	Hex 1: ON
7	RED	BIOS Post Code	Hex 0: OFF
8	RED	BIOS Post Code	Hex 1: ON
9	RED	BIOS/OS Distinction	OS operate: FLASH (Hex 1)
			BIOS operate: OFF
10	GREEN	Controller board power on	Power on: ON
			Power off: OFF
11	YELLOW	3.3VEP conduction status	3.3VEP conducting: FLASH (1 sec. intervals)
			3.3VEP OFF: OFF
13	ORANGE	HDD Access	ON: Accessing HDD
			OFF: Not accessing HDD

LAN Connector LED

Link Speed	LED Definition	LED (Green)
10Base-T	Network Speed Link Status Display	ON
100Base-TX Network Speed Link Status Display		OFF
1000Base-T Network Speed Link Status Display		ON
STR Link Display for STR Mode		OFF

Controller DIP Switches

S١	M	/	1

No.	Application	Default	Comments			
1	Selects boot device	OFF	Boot	SW1	SW2	SW3
			USB	OFF	OFF	OFF
			SD Card	ON	OFF	OFF
2	Selects boot device	OFF		-	•	
3	Selects boot device	OFF				
4	Selects "Quick Boot"	OFF	OFF: Quick B	oot		
			ON: Normal	Boot		
5	Selects Boot Prompt	OFF	OFF: Disable			
			ON: Enable			
6	-	OFF	Do Not Use			
7	-	OFF	Do Not Use			
8	-	OFF	Do Not Use			

SW 3

No.	Application	Default	Comments		
1	-	OFF	Do Not Use		
2	-	OFF	Do Not Use		
3	Initializes CMOS RAM in ICH6-M	OFF	OFF: Normal ON: Clear		
4	-	OFF	Do Not Use		
5	Selects boot device 2	ON:	Selects sub system software boot device.		
			Boot	SW5	SW6
			Flash ROM	ON	ON
			SD Card	OFF	OFF
6	Selects boot device 2	ON:			

No.	Application	Default	Comments
7	Selects HDD common power source	elects HDD common OFF ower source	OFF: VE System Power Power always on, regardless of energy save status. ON: VEP System Power
			Power source goes off according to energy save mode (STR). However, ASIC: Whistle controls HDD common power source, regardless of this setting.
8	-	OFF	Do Not Use

The controller is equipped the following memory devices (including the HDD) that are used for data processing and data storage.

Flash ROM (Built-in)

In addition to holding the controller firmware, the Flash ROM stores the certifications for the security functions: scanner, printer, SDK, data encryption, etc.

- Flash: 512MB
 - Flash (Sub System): 4MB
 - Flash (BIOS): 4MB

Memory Board

Provides volatile memory space for the operation of every function (copying, printing, SDK, etc.), and also provides the memory space required for image processing.

Capacity: 2.5GB (2GB×1 + 512MB×1)

NVRAM

Holds the count totals in non-volatile memory. Also holds all SP code settings that are enabled every time the machine is turned on.

Capacity: 256 KB

HDD

Provides space for processing and storing the data in the two partitions.

Capacity: 320GBx2 2.5" SATA (Actual usable space for each disk is 192 GB, providing enough space for 192 GB x 2 = 384 GB.)

1. HDD Partition 1 (UNIX-FS)

Provides work and storage space required for:

- ROM updates
- Fonts
- Job spooling
- Thumbnail images
- SDK logs
- SDK applications
- Job and access logs
- Debugging and count logs
- Address book
- Emails (TX/RX)
- 2. Partition 2 (RAW)

Provides work and storage space required for:

- Capture functions
- Temporary files for printing: PDF printing, RTIFF job capture, resource saving, PS file processing, temporary RPGL image data, media application print data, thumbnails, print previews, HTML print data
- Print data processing: data accumulated before RIP processing
- HDD Partition 2 (RAW)
- Local storage: document box images, print test documents, saved documents, confidential documents.
- Electronic sort data
- Area for temporary storage of scanned documents (max. 2 GB)
- Print electronic sorting.
- Fixed user stamps, halftone settings, registered copy printing.

Other Boards

VDB

The Video Drive Board controls the LPH (LED Print Heads). It processes the image information sent from the IPU and sends it to the LPH.

• ESB

The ESB (Eco Switch Board) receives the 5V current supplied to the switchboard from the PSU (5V and 5VX) and distributes it to machine components according to what is required for machine operation: copying, printing, energy save modes (sleep mode, etc.) for maximum efficiency in power consumption.

RFDB

Roll Feed Drive Board controls the motors, solenoids, and clutches inside the roll paper trays.

• FPDB

The Fusing Pressure Drive Board controls the two pressure roller motors mounted on each side of the pressure roller. These motors apply more or less pressure between the pressure roller and hot roller, depending on the type of paper used for the copy/print job.

• AC Control Board

The AC Control Board is the connection point for the main power supply. It controls the power supply to the PSU, fusing lamps, and all heaters.

• CGB Power Pack

The CGB power pack provides is the power supply for the charge, grid, and bias applied to the drum.

• Transfer Power Pack

The transfer power pack provides power for voltage that pulls the image off the drum and onto the paper.

• Separation Power Pack

The separation power pack provides the power for the voltage to separate the paper from the drum after the image has been transferred to paper.

SIB

The Scanner Interface Board controls the scanner, and serves as the signal I/F board between the IOB and IPU.

CIS IF

This is a new board attached to the left side of the SIB. The CIS IF provides the interface between the LEDs in the CIS and the SIB.

• PFB

The Paper Feed Board inside the optional Paper Cassette (D395) controls the components that feed paper from the paper cassette (sensors, clutches, and motors).

• File Format Converter

The file format converter (also called the "Media Link Board" or "MLB") allows you to download copy and print data through via network with Desk Top Binder.

• Operation Panel

Mounted directly below the operation panel LCD, controls the operation panel display and input from the 10-key pad.
Breaker Switch



Key to Acronyms

TR	Transformer
TC	Trip Coil
ZCT	Zero Cross Terminal
R	Resistance Test Switch
м	Load Device
lg	Current Leakage

The breaker switch mechanism consists of a ZCT (Zero Cross Terminal), a sensor inside the breaker switch unit checks the amplified signals from a detection device.

The main power supply line runs through the ZCT. The ZCT generates a signal if it detects any fluctuation in the power supply caused by a short circuit.

Normally, the current phase is zero and the breaker does not operate.

When a short circuit occurs:

- The current leakage (Ia + Ib Ic = Ig) flows.
- Voltage is generated at the secondary winding.
- The amplitude of the detection device increases

• The magnetic trip coil operates and opens the breaker circuit to cut the power supply to the machine.

Energy Saver Modes

This machine is provided with the functions to reduce power consumption.

Note

• Power consumption data in this section were obtained by testing prior to shipment of the machine.

Low Power Mode

• If the machine remains idle for a specified length of time, it automatically reduces its electrical consumption.

Mode	Control Panel Display	Control Panel [Energy Saver] Key	Fusing Lamps	+24V	System +5V
Low Power	OFF	ON	90°C	ON	ON

• The default time period the machine waits before it enters Low Power Mode is 7 minutes. This default setting can be changed.

[User Tools]> "System Settings"> "Timer Settings"> "Low Power Mode Timer"

Sleep Mode (Machines with printer or scanner functions)

- After the machine enters Low Power Mode if it remains idle for a specified length of time, it automatically enters Sleep Mode to reduce further its electrical consumption.
- The machine can print jobs from a computer while in the Sleep Mode.

Mode	Control Panel Display	Control Panel [Energy Saver] Key	Fusing Lamps	+24V	System +5∨
Sleep	OFF	Flashes slowly	OFF* ¹	OFF	OFF * 2

- *¹: ON when printing in Sleep mode.
- *²: +5VX is supplied.
- The default delay time that the machine remains idle before it enters Sleep Mode is 14 minutes. This default setting can be changed.

[User Tools]> "System Settings"> "Timer Settings"> "Sleep Mode Timer"

Specifications

NA		D212-17
[1]	Plug-in	0.19W
[2]	Warm-up	1440W (actual value: 1320W)

	NA	D212-17
[3]	Ready	503W
[4]	Operating Mode	1234W
[5]	Low power mode:	134W
	Switching time	7 min.
	Recovery time	94 sec.
[6]	Sleep mode	0.76W
	Switching time:	14 min.
	Recovery time	118 sec.

	EU	D212-27
[1]	Plug-in	0.30W
[2]	Warm-up	1500W (actual value:1440W)
[3]	Ready	505W
[4]	Operating Mode	-
[5]	Low power mode:	134W
	Switching time	7 min.
	Recovery time	84 sec.
[6]	Sleep mode	0.94W
	Switching time:	14 min.
	Recovery time	106 sec.

Energy Saver Operation Flow



7

MEMO

MP W6700 Machine Code: D212

Appendices

March, 2016

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1. Specifications

Specifications

Main Machine

Copier

Configuration	Console
Copy method	Dry static conduction
Original feed	Single cut sheet
Original setting	Facedown enter reference point, left right
Original size (W x L)	Max. 914.4 (36.0") x 15,000 (590.5") mm
	Min. 210 (8.3") x 210 (8.3") mm
Copy start point	Upper left corner, reference point
Copy size (W x L)	Max. 914.4 (36.0″) x 15,000 (590.5″) mm (R/F)
	Max. 914.4 (36.0″) x 2,000 (78.7″) mm (Bypass)
	Min. 210 (8.3″) x 210 (8.3″) mm
Resolution (fixed)	
Engineering (NA)	25.0%, 32.4%, 50.0% 64.7%, 100.0%, 129.4%, 200.0%, 258.8%, 400.0%
Architecture (NA)	25.0%, 33.3%, 50.0% 66.7%, 100.0%, 133.3%, 200.0%, 266.7%, 400.0%
EU/Asia/China	25.0%, 35.4%, 50.0% 70.7%, 100.0%, 141.4%, 200.0%, 282.8%, 400.0%
Zoom (adjustable)	25.0% to 400.0%
Continuous copy speed	> 3 cpm A1 SEF
	> 6 cpm A1 LEF: 1st, 2nd sheet
Warm-up time	Within 2 min.

1

1 st Copy time	< 19 sec. A1 LEF R/F
Continuous copy setting	1 to 99
Paper feed method	Std. Roll x2 + Bypass
Paper cut switching wait time	Less than 2 min.
Resolution	Scanning 600 × 600 dpi RGB 256 gradations Printing 600 × 600 dpi digital B&W
HDD	360 GB x2
Power Supply	NA: 120V 15A 60 Hz EU/Asia/China: 220 to 240V 8A 50/60 Hz
Max. power consumption	NA: Less than 1,440W EU/Asia/China: Les than 1,840W

Scanner

Energy save mode	Yes
Low power mode 1	Factory set.
	Shift time 7 min. (default)
	Recovery time < 77 sec.
Low power mode 2	Shift time 7 min. (default)
	Recovery time < 30 sec.
Standby fusing off mode	Shift time 30 min. (default)
	Recovery time variable
Sleep mode	Shift time 14 min. (default)
	Recovery time < 120 sec.
Energy save mode shift time	1 to 240 min. (1 min. steps)
Average consumption	
Standby: Low Power Mode 1	Variable
Low Power Mode 2	Variable

Standby fusing off mode	Variable
Sleep mode	< 1 Wh/h
Plug in	< 0.5 Wh/h
Dimensions (w x d x h)	1250 x 755 x 1215 mm (49.2 x 29.7 x 47.8 in.)
Weight	240 kg (529 lb.)
Original scan method	A five-dimensional solid scanning system through CIS
Max. scanning area (W x L)	Max. 914.4 (36.0″) x 15,000 (590.5″) mm
	Min. 210 (8.3") x 210 (8.3") mm
Original scanning speed	42.5 to 340 mm/sec.
	170 mm/sec. (B&W)
	150 mm/sec. (Grayscale)
	100 mm/sec.(FC)
Scanning base point	Center
Exposure light source	LED lamps in CIS
Scanning resolution	150 to 1,200 (copying)
	100 to 1,200 (scanning)
Scanning gradation	RGB 256 levels each color
Original exit	Top or rear exit (selectable on operation panel)

Printer

Print method	Digital dry static				
Printed image size	Max. 914.4 (36.0") x 15,000 (590.5") mm (R/F) Max. 914.4 (36.0") x 2,000 (78.7") mm (Bypass) Min. 210 (8.3") x 210 (8.3") mm				
Paper widths	mm	210, 257, 297, 364, 420, 515,594, 680, 728, 800, 841, 880, 914.4, 440, 490, 620, 625, 660, 707			

	in.	8.5, 9, 11, 12, 17, 18. 22, 24, 30, 34, 36				
Printing speed (A1 LEF one-side printing)	6 Sheets/minute					
Image writing to drum	LPH: Three A3-size LEDs					
Writing gradation	Digital					
Resolution	600 dots/inch					

Units

Drum	OPC drum
Charge	Scorotron charge method
Development	Dual-element electrostatic toner
Developer density control	ID sensor
Image transfer	Transfer roller
Paper separation	Applied AC bias + pickoff pawls
Drum cleaning	Counter blade system
Toner supply	Toner cartridge
Quenching	Quenching lamp
Paper transport	Rollers + Vacuum transport belt
Paper exit	Front or rear exit, selectable

Operation Panel

Configuration	Color WVGA with hard keys
Cutting selections	Set, Synchro, Free
White space adjustment	0 to 200 mm (1 mm steps)
SMC Functions	Logging data, SP mode, User Tools
Controller	

Туре	GW+ Type-EX3 14S
Operation panel	Color 9-inch LCD WVGA with touch panel, hard keys
RAM	2.5 GB
I/F	GbE: 1 ch
	USB 2.0 Device: 1ch
	USB 2.0 Host: 2ch
	SD card slots: 2 (SDHC compatible)
	HDD

1. Specifications

Preventive Maintenance Tables

Letter	РМ
A	Adjust
С	Clean
I	Inspect
L	Lubricate
R	Replace

Units of measure in the PM Interval column: $1 \text{ m}^2 = 9.05 \text{ sqf}$

Important

• After replacing a PM part, be sure to reset its counter to zero with SP7804-002 to -015.

Main Machine

Original Feed

ltem	Interval		PM	Comment
	m	sqf		
Exposure Glass			I, C	
Original Sensors	30K	271.5 K	С	Blower brush
Original Feed Roller			С	Alcohol or water, dry cloth
Original Exit Roller				
Platen Plate			I, C	Blower brush
CIS			С	Lens paper

Development

ltem	Qty	Interval		PM	Comment
		m	sqf		
Developer Type 30W Black	2	30K	271.5K	R	Replace if necessary.
Development Filter		10K	90.5K	С	Dry cloth, vacuum
	1	20K	181K	R	
Development Sleeve Gear*1		10K	90.5K	С	
	1	200K	1810K	R	Replace if necessary.
Paddle Gear		10K	90.5K	С	
	1	200K	1810K	R	Replace if necessary.
Development Idler Gear		10K	90.5K	С	
	1	200K	1810K	R	Replace if necessary.
Cartridge Holder		10K	90.5K	С	Blower brush, dry cloth.
Registration Upper Guide Plate		10K	90.5K	С	Damp cloth, then dry cloth.
Side Seals		10K	90.5K	I/C	Dry cloth
Development Lower Casing		10K	90.5K	С	Damp cloth, dry cloth
Used Toner Bottle		10K	90.5K		Empty used toner. Clean rear shoulder of bottle near full sensor.

* 1: See "Lubrication Points" at Main Chapters.

Cleaning

ltem	Qty	Interval		Interval		PM	Comment
		m	sqf				
Cleaning Blade	1	30K	271.5K	R	Replace if necessary.		
Cleaning Entrance Seal		20K	181K	С	Dry cloth, when required		
Side Seals		20K	181K	С	Dry cloth.		
Pick-off Pawls		20K	181K	С	Dry cloth.		

ltem	Qty	Interval		PM	Comment
		m	sqf		
Cleaning Unit Interior		20K	181K	I	Dry cloth if necessary

Drum, Around the Drum

ltem	Qty	Interval		PM	Comment
		m	sqf		
Charge Corona Wire - G (C)	1	10K	90.5K	R	Replace.
Cleaner: Charge	1	10K	90.5K	R	Replace.
Corona: Ass'y					
Charge Corona Casing	1	10K	90.5K	С	Dry cloth.
Grid Wire	1	10K	90.5K	С	
Transfer Roller :Ass'y	1	10K	90.5K	С	Dry cloth, vacuum
		30K	271.5K	R	
Transfer Roller Electrode Plate (Quenching Spines)	3	10K	90.5K	R	Dry cloth, vacuum
Transfer Casing Guide		20K	181K	С	Dry cloth, vacuum
Quenching Lamp		20K	181K	С	Dry cloth
ID Sensor		20K	181K	С	Blower brush
LPH (LED Print Heads)		10K	90.5K	С	Alcohol, dry cloth.
					No chemical cleaners!
					After wiping, touch to discharge static.
Drum Drive Gear		10K	90.5K	L	Silicone Grease G501
OPC Drum	1	30K	271.5K	R	Inspect every 10K (90.5K)

Paper Feed

ltem	Qty	Interval		PM	Comment
		m	sqf		
Cutter Unit	1	10K	90.5K	С	Alcohol, dry cloth
		83K	751.15 K	R	
Paper Feed Roller	1	10K	90.5K	С	Alcohol, dry cloth
Paper Exit Roller	1	10K	90.5K	С	Alcohol, dry cloth
Cutting Sensor		20K	181K	С	Blower brush
Registration Rollers		10K	90.5K	С	Alcohol, dry cloth (both drive and idle rollers)
Registration Sensor		10K	90.5K	С	Blower brush
Relay Sensor		20K	181K	С	Blower brush
Registration Roller Drive Gear		10K	90.5K	L	Silicone Grease G501

*1: The cutter unit can be used up to 140K actual cuts (regardless of paper length).

Fusing Unit

ltem	Qty	Interval		PM	Comment
		m	sqf		
Hot Roller	1	28K	253.4K	R	Replace if necessary.
Fusing Cleaning Roller	1	30K	271.5K	R	Replace if necessary.
Bushing – Hot Roller	4	28K	253.4K	R	Replace with hot roller. Replace if necessary.
Pressure Roller	1	33K	298.65 K	R	Replace if necessary.
Hot Roller Stripper		10K	90.5K	С	Dry cloth.
Pressure Roller Stripper		10K	90.5K	С	Dry cloth.
Thermistors	2	10K	90.5K	С	Dry cloth.

ltem	Qty	Interval		PM	Comment
		m	sqf		
Fusing Entrance Guide		10K	90.5K	С	Dry cloth
Fusing Entrance Spurs					
Fusing Exit Guide Plate		10K	90.5K	С	Dry cloth.
Fusing Unit Gears* ¹		10K	90.5K	L	Barrierta JFE 55/2
Fusing Pressure Screw Shaft*1		40K	271.5K	L	Barrierta JFE 55/2
Fusing Drive Gears		10K	90.5K	L	Silicone Grease G501
Exit Turn Guide		10K	90.5K	С	Damp cloth, then dry cloth.
Paper Exit Sensor		10K	90.5K	С	Blower brush
Exit Rollers		20K	181K	С	Alcohol, dry cloth

* 1: See "Lubrication Points" (end of this section).

Others

ltem	Qty	Interval		PM	Comment
		m	sqf		
Ozone Filter	1	20K	181K	С	
Breaker switch	1			С	Check operation once a year.
Transfer Tank Gear	1	200K	1810K	R	Replace

2. Preventive Maintenance

3. SP Mode Tables

Service Program Mode

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

Vote

• 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

For details, ask your supervisor.

Exiting SP Mode

• Press "Exit" on the LCD twice to return to the copy window.

Types of SP Modes

- System SP: SP modes related to the engine functions
- Printer SP: SP modes related to the controller functions
- Scanner SP: SP modes related to the scanner functions

Select one of the Service Program modes (System, Printer, or Scanner) 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.

SP mode	MAIN 1.01	Exit
	System Sp	
	Fax Sp	
	Printer Sp	
	Scanner Sp	
	PM Counter	
	Firmware Update	
		25 IN 2014
		25 JOL 2014 3:12

d197z3001

SP Mode Button Summary

Here is a short summary of the touch-panel buttons.



1	Opens all SP groups and sublevels.
2	Closes all open groups and sublevels and restores the initial SP mode display.

3	Opens the copy window (copy mode) so you can make test copies. Press SP Mode (highlighted) in the copy window to return to the SP mode screen,
4	Enter the SP code directly with the number keys if you know the SP number. Then press [#]. The required SP Mode number will be highlighted when pressing [#]. If not, just press the required SP Mode number.)
5	Press two times to leave the SP mode and return to the copy window to resume normal operation.
6	Press any Class 1 number to open a list of Class 2 SP modes.
7	Press to scroll the show to the previous or next group.
8	Press to scroll to the previous or next display in segments the size of the screen display (page).
9	Press to scroll the show the previous or next line (line by line).
10	Press to move the highlight on the left to the previous or next selection in the list.

Switching Between SP Mode and Copy Mode for Test Printing

- 1. In the SP mode, select the test print. Then press "Copy Window".
- 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.
- 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.
- 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.

SP Mode(Service) Open All Close	e All COPY Window	SP Direct	X-XXX-XXX Exit
1002 🔻 Side-to-Side Registration	Group COPY	: SP-1-002-0	002
1 By-pass Table	▲ Side-to Paper T	~Side Registratio 'ray 1	n
2 Paper Tray 1	Page		
3 Paper Tray 2			
4 Paper Tray 3	Line	-0.5	mm
5 Paper Tray 4	<u> </u>	Initial 0.0	
6 Duplex	Line		
1003 ► Paper Buckle			
1007 By-Pass Size Detection	Page .		
1103 Fusing Idling			
1105 Fusing Temperature	Group	1	PrevPage WextPage
Replacement of Fusing Unit is now necessary.	System Status	Job List	7 APR 2006 11:29
	(-) · · · · · · · · · · · · · · · · · ·		d1353074

Vote

- Refer to the Service Tables for the range of allowed settings.
- 5. Do this procedure to enter a setting:
 - Press ^(C) 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.

Exiting Service Mode

Press the Exit key on the touch-panel.

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.

 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 power switch off and on. It is not necessary to ask the Administrator to log in again each time the main power switch is turned on.
- 2. Go into the SP mode and set SP5-169 to "1" if you must use the printer bit switches.
- 3. After machine servicing is completed:
 - Change SP5-169 from "1" to "0".
 - Turn the machine power switch off and on. Tell the administrator that you have completed servicing the machine.
 - The Administrator will then set the "Service Mode Lock" to ON.

Others

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.

The following symbols are used in the SP mode tables.

Notation	What it means
ENG	Engine SP
CTL	Controller SP
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 in the front cover.
DFU	Design/Factory Use only: Do not touch these SP modes in the field.
*	An asterisk (*) to the left side of ENG/CTL column means that this mode is stored in the NVRAM. 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: NVRAM on the BCU board
	*CTL: NVRAM on the controller board
SSP	This denotes a "Special Service Program" mode setting.

SP Mode Tables - SP1000

SP1-XXX (Feed)

1001	[Leading Edge Registration]				
	Adjusts the printing leading edge registration.				
	To delay the starting position of the image, increase the value.				
1-001-001	1 st Roll	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/		
1-001-002	2nd Roll	ENG	step]		
1-001-003	3rd Roll/1st Cassette	ENG			
1-001-004	4th Roll/2nd Cassette	ENG			
1-001-005	Bypass Feed	ENG			

1002	[Side-to-Side Registration]				
	Adjusts the printing side-to-side registration.				
	To shift the starting position to the right, increase the value.				
1-002-001	1 st Roll	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/		
1-002-002	2nd Roll	ENG	step]		
1-002-003	3rd Roll/1st Cassette	ENG			
1-002-004	4th Roll/2nd Cassette	ENG			
1-002-005	Bypass Feed	ENG			

1003	[Registration Buckle Adjustment]				
	Removes skew from sheets feed from the cassettes. When the registration sensor detects the leading edge of a cut sheet paper at the nip of the registration roller, the registration roller motor stops briefly and then starts again.				
	 This buckles the paper slightly adjust the amount of time that t 	 This buckles the paper slightly (about 5 mm) to correct skew. Use this SP to adjust the amount of time that the roller stops. Too much buckle can cause wrinkling and lead to poor images. Lower this setting to shorten the time the registration motor remains off. tenough buckle can cause a jam at the registration roller (lag error). Raise this ting to lengthen the time registration motor remains off. 			
	 Too much buckle can cause wr setting to shorten the time the re 				
	Not enough buckle can cause a jam setting to lengthen the time registrati				
1-003-001	Cassette Feed	ENG	[-20 to 20 / 0 / 1 mm/step]		

1003	[Registration Buckle Adjustment]			
	Removes skew from sheets feed from the paper rolls.			
	Adjusts the amount of paper buckle created when the paper hits the registration roller. This enables only for cutting pattern 3 when the leading edge of paper longer than 460 mm from Tray 1, or paper longer than 390 mm from Tray 2.			
1-003-010	1st/2nd Roll	ENG	[-20 to 20 / -3 / 1 mm/step]	
1-003-011	3rd/4th Roll	ENG	[-20 to 20 / -5 / 1 mm/step]	

1103	[Fusing Idling] Not used		
1-103-001	Idle Time	ENG	[0 to 5 / 0 / 1 minutes/step]

1104	[Fusing Temp. Control] Not used		
1-104-001		ENG	[0 or 1 / 0 / 1/step]

1105	[Fusing Temp. Adjustment]
------	---------------------------

1-105-001		ENG	[0 to 50 / 10 / 1/step]	
	Determines the copy ready temperature.			
	Re-load temperature that the value substracts this SP from 1-931-003 (Target Temp.: Hot Roller Plain: Mode3) does not detect low temperature detection (SP1-937-002).			
	Note: This SP code applies to Mode	e 3 only.		
1-105-002	Edge Temp.	ENG	[0 to 25 / 10 / 1/step]	
	When the temperature set for the en temperature at the center, the setting target center temperature.	ds of the fusin g for this SP is	ng roller is different from the subtracted from the value of the	
	Note: This SP applies to the D208 o	nly.		
1-105-003	Low Power Level	ENG	[80 to 190 / 90 / 1/step]	
	Sets the fusing temperature for low p	oower mode.		
1-105-004	Lower Limit Edge Temp.	ENG	[150 to 170 / 155 / 1/step]	
	Sets the lower limit for the value of the hot roller/pressure roller end temperature. If the difference between the center and roller end temperature is greater than or equal to the value of the SP code setting, the machine will suspend fusing until these temperatures are once rise to acceptable levels. Note: This SP applies to the D208 only.			
1 105 005				
1-105-005	Fusing Temp. Calibration	ENG*	[-10 to 10 / 0 / 1 / step]	
	Calibrates the scale for the fusing te	mperature se	ttings at the center of the hot roller.	
1-105-006	Pressure Temp. Calibration: Center	ENG*	[-10 to 10 / 0 / 1/step]	
	Calibrates the scale for the pressure temperature control at the center of the pressure roller.			
1-105-007	Pressure Temp. Calibration: Edge	ENG*	[-10 to 10 / 0 / 1/step]	
	Calibrates the scale for the temperature control at the end of the pressure roller.			
1-105-008	Fusing Temp. Calibration: Edge	ENG*	[-10 to 10 / 0 / 1/step]	
	Calibrates the scale for the tempera	ture control a	t the end of the hot roller.	
	Note: This SP applies to the D208 only.			

1106	[Fusing Temp. Display]			
	Displays the hot roller and pressure roller temperatures (°C)			
1-106-001	Hot Roller Temp. ENG [0 to 0 / 0 / 0 deg/step]			
1-106-002	Pressure Roller Temp.: Center	ENG	[0 to 0 / 0 / 0 deg/step]	
1-106-003	Pressure Roller Temp.: Edge	ENG	[0 to 0 / 0 / 0 deg/step]	
1-106-004	Hot Roller Temp.: Edge	ENG	[0 to 0 / 0 / 0 deg/step]	
1-106-010	Pressure Roller Temp.	ENG	[0 to 0 / 0 / 0/step]	
	Not used			

1159	[Fusing Jam SC Setting]		
1-159-001		ENG	[0 or 1 / 0 / 1/step]
	Determines whether the machine stops and displays an SC if three consecutive jams occur in the fusing unit.		
	0: Disable. SC code is not displayed	d.	
	1: Enable. SC code is displayed.		

1801	[Motor Speed Adjustment] <carefully use=""></carefully>		
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).		
	 These speeds of the motors below can be adjusted by the percentage entered. D208: 120 mm/s D211: 170 mm/s Raising the setting in the plus direction increases speed, lowering the setting in the minus direction lowers speed. 		
1-801-001	Feed Motor: 1st Roll	ENG	[-5.0 to 5.0 / 0.4 / 0.1%/step]
1-801-002	Feed Motor: 2nd Roll	ENG	
1-801-003	Feed Motor: 3rd Roll	ENG	
1-801-004	Feed Motor: 4th Roll	ENG	-
1-801-005	Feed Motor: Cassette	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]

1-801-006	Registration Motor	ENG	[-5.00 to 5.00 / 0.7 / 0.02%/ step]	
1-801-007	Fusing Motor	ENG	[-5.00 to 5.00 / 1 / 0.01%/ step]	
	Sets the speed of the fusing motor.			
	Add the SP setting values below and multiply the standard speed.			
	 SP1-801-007 (Motor Speed Adjustment : Fusing Motor) SP1-916-010 to 013 (Paper Width) 			
	• SP1-916-021 to 045 (Paper T	ype)		
	• SP1-916-051 to 053 (Feed St	ation)		

	[Black Core Full Paste]				
1001	Selects the feed station where a full-paste roll with a black core has been installed. The roll has a black core with the trailing edge of the roll paper either fully or partially taped to the surface of the black core.				
1701	Note:				
	• The normal paper-out control sequence does not for this type of roll.				
	When a roll reaches the end, paper feed stops before the end of the roll separates from the roll core, and the machine signals a paper jam.				
1-901-001	1 st Roll	ENG			
1-901-002	2nd Roll	ENG	$\begin{bmatrix} 0 & zz \end{bmatrix} \begin{pmatrix} 1 & l \end{bmatrix} \begin{pmatrix} 1 & l \end{bmatrix}$		
1-901-003	3rd Roll	ENG			
1-901-004	4th Roll	ENG			

1902	[Special Paper Selection]
------	---------------------------

1-902-001	-	ENG	[0 to 4 / 0 / 1/step]
			0: Current Setting
			1: Plain Paper
			2: Recycled Paper
			3: Tracing Paper
			4: Film
	This SP changes the pape	er transport speed fo	or each paper type.

1903	[Registration Motor Spped Adj.]		
	Adjusts the registration motor speed. Raising the setting in the plus direction increases speed, lowering the setting in the minus direction lowers speed.		
1-903-010	Plain Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-011	Plain Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-012	Plain Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-013	Plain Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-015	Trans. Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-016	Trans. Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-017	Trans. Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-018	Trans. Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-020	Film:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-021	Film:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-022	Film:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-023	Film:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-025	Recycled Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-026	Recycled Paper: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-027	Recycled Paper: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]

1-903-028	Recycled Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-030	Special Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-031	Special Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-032	Special Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]
1-903-033	Special Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.02%/step]

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	[Feed Motor Speed Adj.]			
1904	Adjusts the feed motor speed. Raising the setting in the plus direction increases speed, lowering the setting in the minus direction lowers speed.			
1-904-010	Roll Plain Paper:611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-011	Roll Plain Paper: 461-610mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-012	Roll Plain Paper: 298-460mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-013	Roll Plain Paper:<297mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-015	Roll Trans. Paper:611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-016	Roll Trans. Paper: 461-610mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-017	Roll Trans. Paper: 298-460mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-018	Roll Trans. Paper:<297mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-020	Roll Film:611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-021	Roll Film:461-610mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-022	Roll Film:298-460mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-023	Roll Film:<297mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-025	Roll Recycled Paper: 611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	
1-904-026	Roll Recycled Paper: 461-610mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]	

1-9	04-027	Roll Recycled Paper: 298-460mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-9	04-028	Roll Recycled Paper:<297mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-9	04-030	Roll Special Paper: 611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-9	04-031	Roll Special Paper: 461-610mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-9	04-032	Roll Special Paper: 298-460mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-9	04-033	Roll Special Paper:<297mm	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]

1905	[Fusing/Regist Mtr Spd Change]		
	The machine stretches the paper between the registration roller and fusing roller byrunning the fusing/exit motor at a speed slightly higher than that of the registrationmotor. This "stretch-transport" method prevents long sheets from skewing andwrinkling. However, this stretching can also affect the rate of magnification.To compensate for this, these SP codes change speed and timing control.		
	• "1st Chg Tmg": adjusts the timing of 3rd simultaneous speed change.		
	• "1st Chg %": Sets the change rate of 3rd simultaneous speed change.		
	Note		
	• Priority: $1^{st} \rightarrow 3rd \rightarrow 2nd$		
	 Sets the timing to start 1st and 2nd speed changes after the specified distance transported from the reference point of the drum. 		
	• 3rd change timing: the distance (mm) from trailing edge of paper to the reference point of the drum to start speed changes.		
1-905-010	Roll:1st Chg Tmg:Recycled Paper:611mm<	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-011	Roll:1st Chg Tmg:Recycled Paper:461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-012	Roll:1st Chg Tmg:Recycled Paper:298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]

1-905-013	Roll:1st Chg Tmg:Recycled Paper:<297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-015	Roll:1st Chg %:Recycled Paper:611mm<	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-905-016	Roll:1st Chg %:Recycled Paper:461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-017	Roll:1st Chg %:Recycled Paper:298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-018	Roll:1st Chg %:Recycled Paper:<297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-905-020	Roll:1st Chg Tmg:Special Paper:611mm<	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-021	Roll:1st Chg Tmg:Special Paper:461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-022	Roll:1st Chg Tmg:Special Paper:298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-023	Roll:1st Chg Tmg:Special Paper:<297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-025	Roll:1st Chg %:Special Paper:611mm<	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-905-026	Roll:1st Chg %:Special Paper:461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-027	Roll:1st Chg %:Special Paper:298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-028	Roll:1st Chg %:Special Paper:<297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-905-030	Cass:1st Chg Tmg:Recycled Paper:461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-031	Cass:1st Chg Tmg:Recycled Paper:298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-032	Cass:1st Chg Tmg:Recycled Paper:<297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-035	Cass:1st Chg %:Recycled Paper:461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
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1-905-036	Cass:1st Chg %:Recycled Paper:298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-037	Cass:1st Chg %:Recycled Paper:<297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-905-040	Cass:1st Chg Tmg:Special Paper:461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-041	Cass:1st Chg Tmg:Special Paper:298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-042	Cass:1st Chg Tmg:Special Paper:<297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-045	Cass:1st Chg %:Special Paper:461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-046	Cass:1st Chg %:Special Paper:298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-047	Cass:1st Chg %:Special Paper:<297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-905-050	Bypass:1st Chg Tmg:Recycled Paper: 611mm<	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-051	Bypass:1st Chg Tmg:Recycled Paper: 461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-052	Bypass:1st Chg Tmg:Recycled Paper: 298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-053	Bypass: 1 st Chg Tmg:Recycled Paper:<297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-055	Bypass:1st Chg %:Recycled Paper:611mm<	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]

1-905-056	Bypass:1st Chg %:Recycled Paper:461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-057	Bypass:1st Chg %:Recycled Paper:298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-058	Bypass:1st Chg %:Recycled Paper:<297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-905-060	Bypass:1st Chg Tmg:Special Paper: 611mm<	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-061	Bypass:1st Chg Tmg:Special Paper: 461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-062	Bypass:1st Chg Tmg:Special Paper: 298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-063	Bypass:1st Chg Tmg:Special Paper:<297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-905-065	Bypass:1st Chg %:Special Paper:611mm<	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-905-066	Bypass:1st Chg %:Special Paper:461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-067	Bypass:1st Chg %:Special Paper:298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-905-068	Bypass:1st Chg %:Special Paper:<297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]

	[Fusing/Regist Mtr Spd Change]		
1906	 The machine stretches the paper between the registration roller and fusing roller byrunning the fusing/exit motor at a speed slightly higher than that of the registrationmotor. This "stretch-transport" method prevents long sheets from skewing andwrinkling. However, this stretching can also affect the rate of magnification.To compensate for this, these SP codes change speed and timing control. "2nd Chg Tmg": adjusts the timing of 3rd simultaneous speed change. "2nd Chg %": Sets the change rate of 3rd simultaneous speed change. 		
	♦ Note		
	 Priority: 1st → 3rd → 2n 	d	
	 Sets the timing to start 1st and 2nd speed changes after the specified distance transported from the reference point of the drum. 		
	• 3rd change timing: the distance (mm) from trailing edge of paper to the reference point of the drum to start speed changes.		
1-906-010	Roll:2nd Chg Tmg:Recycled Paper:611mm<	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-011	Roll:2nd Chg Tmg:Recycled Paper:461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-012	Roll:2nd Chg Tmg:Recycled Paper:298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-013	Roll:2nd Chg Tmg:Recycled Paper:<297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-015	Roll:2nd Chg %:Recycled Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-016	Roll:2nd Chg %:Recycled Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-017	Roll:2nd Chg %:Recycled Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-018	Roll:2nd Chg %:Recycled Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-020	Roll:2nd Chg Tmg:Special Paper:611mm<	ENG	[0 to 3200 / 0 / 1 mm/step]

1-906-021	Roll:2nd Chg Tmg:Special Paper:461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-022	Roll:2nd Chg Tmg:Special Paper:298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-023	Roll:2nd Chg Tmg:Special Paper:<297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-025	Roll:2nd Chg %:Special Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-026	Roll:2nd Chg %:Special Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-027	Roll:2nd Chg %:Special Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-028	Roll:2nd Chg %:Special Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-030	Cass:2nd Chg Tmg:Recycled Paper: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-031	Cass:2nd Chg Tmg:Recycled Paper: 298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-032	Cass:2nd Chg Tmg:Recycled Paper:<297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-035	Cass:2nd Chg %:Recycled Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-036	Cass:2nd Chg %:Recycled Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-037	Cass:2nd Chg %:Recycled Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-040	Cass:2nd Chg Tmg:Special Paper:461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-041	Cass:2nd Chg Tmg:Special Paper:298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]

1-906-042	Cass:2nd Chg Tmg:Special Paper:<297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-045	Cass:2nd Chg %:Special Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-046	Cass:2nd Chg %:Special Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-047	Cass:2nd Chg %:Special Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-050	Bypass:2nd Chg Tmg:Recycled Paper: 611mm<	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-051	Bypass:2nd Chg Tmg:Recycled Paper: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-052	Bypass:2nd Chg Tmg:Recycled Paper: 298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-053	Bypass:2nd Chg Tmg:Recycled Paper:<297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-055	Bypass:2nd Chg %:Recycled Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-056	Bypass:2nd Chg %:Recycled Paper: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-057	Bypass:2nd Chg %:Recycled Paper: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-058	Bypass:2nd Chg %:Recycled Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-060	Bypass:2nd Chg Tmg:Special Paper: 611mm<	ENG	[0 to 3200 / 0 / 1 mm/step]

1-906-061	Bypass:2nd Chg Tmg:Special Paper: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-062	Bypass:2nd Chg Tmg:Special Paper: 298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-063	Bypass:2nd Chg Tmg:Special Paper:<297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-906-065	Bypass:2nd Chg %:Special Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-066	Bypass:2nd Chg %:Special Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-067	Bypass:2nd Chg %:Special Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-906-068	Bypass:2nd Chg %:Special Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]

1907	[Fusing/Regist Mtr Spd Change]		
	The machine stretches the paper between the registration roller and fusing roller byrunning the fusing/exit motor at a speed slightly higher than that of the registrationmotor. This "stretch-transport" method prevents long sheets from skewing andwrinkling. However, this stretching can also affect the rate of magnification.To compensate for this, these SP codes change speed and timing control.		
	• "3rd Chg Tmg": adjusts the timing of 3rd simultaneous speed change.		
	• "3rd Chg %": Sets the change rate of 3rd simultaneous speed change.		
	♦ Note		
	 Priority: 1st → 3rd → 2nd 		
	 Sets the timing to start 1 st and 2nd speed changes after the specified distance transported from the reference point of the drum. 		
	 3rd change timing: the distance (mm) from trailing edge of paper to the reference point of the drum to start speed changes. 		
1-907-010	Roll:3rd Chg Tmg:RecycledENG[0 to 2200 / 0 / 1 mm/step]Paper:611mm<		

1-907-011	Roll:3rd Chg Tmg:Recycled Paper:461-610mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-907-012	Roll:3rd Chg Tmg:Recycled Paper:298-460mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-907-013	Roll:3rd Chg Tmg:Recycled Paper:<297mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-907-015	Roll:3rd Chg %:Recycled Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-907-016	Roll:3rd Chg %:Recycled Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-907-017	Roll:3rd Chg %:Recycled Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-907-018	Roll:3rd Chg %:Recycled Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-907-020	Roll:3rd Chg Tmg:Special Paper:611mm<	ENG	[0 to 2200 / 0 / 1 mm/step]
1-907-021	Roll:3rd Chg Tmg:Special Paper:461-610mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-907-022	Roll:3rd Chg Tmg:Special Paper:298-460mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-907-023	Roll:3rd Chg Tmg:Special Paper:<297mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-907-025	Roll:3rd Chg %:Special Paper:611mm<	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-907-026	Roll:3rd Chg %:Special Paper:461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-907-027	Roll:3rd Chg %:Special Paper:298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-907-028	Roll:3rd Chg %:Special Paper:<297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]

1908	[Fusing/Regist Mtr Spd Change]		
	Changes the feed motor speed according to the fusing / registration motor speed change. (0%=No Speed Changing)		
1-908-010	Roll Feed Mtr Spd Chg:Plain:611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-908-011	Roll Feed Mtr Spd Chg:Plain:461-610mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-012	Roll Feed Mtr Spd Chg:Plain:298-460mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-013	Roll Feed Mtr Spd Chg:Plain:<297mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-015	Roll Feed Mtr Spd Chg:Trans:611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-908-016	Roll Feed Mtr Spd Chg:Trans:461-610mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-017	Roll Feed Mtr Spd Chg:Trans:298-460mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-018	Roll Feed Mtr Spd Chg:Trans:<297mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-020	Roll Feed Mtr Spd Chg:Film:611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-908-021	Roll Feed Mtr Spd Chg:Film:461-610mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-022	Roll Feed Mtr Spd Chg:Film:298-460mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-023	Roll Feed Mtr Spd Chg:Film:<297mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-025	Roll Feed Mtr Spd Chg:Recycled:611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-908-026	Roll Feed Mtr Spd Chg:Recycled:461-610mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]

1-908-027	Roll Feed Mtr Spd Chg:Recycled:298-460mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-028	Roll Feed Mtr Spd Chg:Recycled:<297mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-030	Roll Feed Mtr Spd Chg:Special:611mm<	ENG	[-5.0 to 5.0 / 0 / 0.1%/step]
1-908-031	Roll Feed Mtr Spd Chg:Special:461-610mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-032	Roll Feed Mtr Spd Chg:Special:298-460mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]
1-908-033	Roll Feed Mtr Spd Chg:Special:<297mm	ENG	[-5.0 to 5.0 / 0.2 / 0.1%/step]

1909	[Paper Thickness Set]		
	Adjusts the fusing settings for	each paper type o	depending on the paper thickness.
1-909-001	Tray:Special Paper	ENG	[1 to 5 / 3 / 1/step]
1-909-002	Bypass:Special Paper	ENG	[1 to 5 / 3 / 1/step]

1911	[Bypass Feed Start Timing Adj.]		
1-911-001		ENG	[0.5 to 8.0 / 2.0 / 0.5 sec/step]
	Adjusts the waiting time for the manual feed table.	or the by-pass pape	er feed when paper is fed manually from

1912	[Regist Motor Speed-Up Adj.]
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1-912-001		ENG	[0 to 5.00 / 2.00 / 0.02%/step]	
	Determines how fast the registration motor speeds up before the paper leaves the registration roller.			
 To keep a long sheet of paper taut and to prevent it from wrinkling the motor rotates slightly faster than the registration motor. 				
 If this tension is not adjusted the paper will snap out of the nip of the rollers and cause "jitter" in the image. This problem can occur speci A SEF paper. 				
	 While using Cut Patt tray (or longer than the paper feeds to a the registration moto paper and allows th 	• While using Cut Pattern 3 with a copy longer than 460 mm from the upper roll tray (or longer than 690 mm from the lower roll tray), when the trailing edge of the paper feeds to a point 50 mm before the registration sensor, the speed of the registration motor is increased 20 pulses. This reduces the tension in the paper and allows the paper to exit the nip of the registration rollers smoothly.		
	• This has the same ef	fect as adjusting the	feed motor speed with SP1801.	

1913	[Fusing Motor Speed-up Control]		
1-913-001	Adjustment Ratio	ENG	[0 to 18 / 10 / 1%/step]
	Adjusts the percent of the increase in fusing motor speed. Normally, the speed fusing motor is slightly faster to keep the paper taut and prevent skewing and wrinkling.		
1-913-002	Off Timing	ENG	[180 to 230 / 205 / 5 mm/step]
	After the registration roller starts turning to feed paper, just before the paper red the nip of the fusing roller, the speed of the fusing motor is increased slightly wh the paper is still in the paper separation path. This raises the speed of the paper separation belt and prevents skew. This SP adjusts the length of time from when the speed of the fusing motor is increased to when it returns to normal speed.		

1914	[Fusing Pressure Motor]		
1-914-001	Home Position Stop Mode	ENG	[0 or 1 / 0 / 0/step]
	Resets the fusing pressure roller motor to the home position.		
	0: OFF (Standby position)		
	1: ON (Home position)		

1-914-002	Pressure Adjustment: Right	ENG*	[-25 to 25 / 0 / 1 step]	
1-914-003	Pressure Adjustment: Left	ENG*		
	Adjusts the pressure of the fusing pressure motor. If right and left pressures are different, the screw might occur to transport paper.			
1915 [Fusing Motor Speed-Down Adj.]				
	Sets the rate of reduction in the fusing motor speed before the trailing edge of the paper leaves the nip of the registration rollers. Note: • During paper feed the fusing/exit motor speeds up slightly to keep the paper			
	 Before the trailing edge of the leaves the registration rollers, the speed of the fusing/exit motor slows so the paper does not snap out of the registration nip quickly and cause jitter. Stretching the paper excessively could cause distortion of the image 			
1-915-010	Slow Down Position	ENG	[0 to 50 / 0 / 1 mm/step]	
1-915-015	Reduction Ratio: Plain: 611mm <	ENG	[-5.00 to 0.00 / -0.2 / 0.01%/ step]	
1-915-016	Reduction Ratio: Plain: 461-610mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]	
1-915-017	Reduction Ratio: Plain: 298-460mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]	
1-915-018	Reduction Ratio: Plain: < 297mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]	
1-915-020	Reduction Ratio: Trace: 611mm <	ENG	[-5.00 to 0.00 / -0.7 / 0.01%/ step]	
1-915-021	Reduction Ratio: Trace: 461-610mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]	
1-915-022	Reduction Ratio: Trace: 298-460mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]	
1-915-023	Reduction Ratio: Trace: < 297mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]	
1-915-025	Reduction Ratio: Film: 611mm <	ENG	[-5.00 to 0.00 / -0.2 / 0.01%/ step]	

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1-915-026	Reduction Ratio: Film: 461-610mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]
1-915-027	Reduction Ratio: Film: 298-460mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]
1-915-028	Reduction Ratio: Film: < 297mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]
1-915-030	Reducation Ratio:Recycled: 611mm<	ENG	[-5.00 to 0.00 / -0.2 / 0.01%/ step]
1-915-031	Reducation Ratio:Recycled: 461-610mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]
1-915-032	Reducation Ratio:Recycled: 298-460mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]
1-915-033	Reducation Ratio:Recycled:<297mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]
1-915-035	Reducation Ratio:Special: 611mm<	ENG	[-5.00 to 0.00 / -0.2 / 0.01%/ step]
1-915-036	Reducation Ratio:Special: 461-610mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]
1-915-037	Reducation Ratio:Special: 298-460mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]
1-915-038	Reducation Ratio:Special:<297mm	ENG	[-5.00 to 0.00 / 0 / 0.01%/step]

1916[Fusing Motor Speed Adj.] <carefully use="">If possible, consult the site manager before affect other SP settings).</carefully>			nging this SP (any change could
	These SP codes are used to calculate the speed of the fusing motor.		
1-916-010	Width: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-011	Width: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-012	Width: 298-460mm	ENG	[-5.00 to 5.00 / 0.2 / 0.01%/ step]

1-916-013	Width: < 297mm	ENG	[-5.00 to 5.00 / 0.4 / 0.01%/ step]
1-916-021	Plain: Mode 1	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-022	Plain: Mode2	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-023	Plain: Mode3	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-024	Plain: Mode4	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-025	Plain: Mode5	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-031	Trans.: Mode 1	ENG	[-5.00 to 5.00 / 0.2 / 0.01%/ step]
1-916-032	Trans.: Mode2	ENG	[-5.00 to 5.00 / 0.2 / 0.01%/ step]
1-916-033	Trans.: Mode3	ENG	[-5.00 to 5.00 / 0.2 / 0.01%/ step]
1-916-034	Trans.: Mode4	ENG	[-5.00 to 5.00 / 0.2 / 0.01%/ step]
1-916-035	Trans.: Mode5	ENG	[-5.00 to 5.00 / 0.2 / 0.01%/ step]
1-916-041	Film: Mode1	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-042	Film: Mode2	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-043	Film: Mode3	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-044	Film: Mode4	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-045	Film: Mode5	ENG	[-5.00 to 5.00 / 0.5 / 0.01%/ step]
1-916-051	Roll	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-052	Bypass	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-053	Cassette	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-061	Recycled Paper:mode 1	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-062	Recycled Paper:mode2	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]

1-916-063	Recycled Paper:mode3	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-064	Recycled Paper:mode4	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-065	Recycled Paper:mode5	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-071	Special Paper:mode1	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-072	Special Paper:mode2	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-073	Special Paper:mode3	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-074	Special Paper:mode4	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-916-075	Special Paper:mode5	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]

1917	[Side-to-Side Regist Offset]		
	Adjusts the side-to-side registration for the cassettes.		
	Based on the settings of SP1-002-003, -004, this SP sets the amount of offsets for the paper sizes.		
1-917-030	Cassette-1: < 230mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-031	Cassette-1: < 310mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-032	Cassette-1: < 400mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-040	Cassette-2: < 230mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-041	Cassette-2: < 310mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-042	Cassette-2: < 400mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]

191 <i>7</i>	[Side-to-Side Regist Offset]		
	Adjusts side-to-side registration for roll feeders to prevent displaced position. Based on SP1-002-003, -004: Side-to-Side Registration 3rd, 4th Roll/1st, 2nd Cassette, this SP sets the amount of offsets for the paper sizes.		
1-917-110	1 st Roll: < 299mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-111	1 st Roll: < 440mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-112	1 st Roll: < 600mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-120	2nd Roll: < 299mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]

1-917-121	2nd Roll: < 440mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-122	2nd Roll: < 600mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-130	3rd Roll: < 299mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-131	3rd Roll: < 440mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-132	3rd Roll: < 600mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-140	4th Roll: < 299mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-141	4th Roll: < 440mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-917-142	4th Roll: < 600mm Width	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]

1918	[Fusing/Regist Mtr Spd Change] <carefully use=""></carefully>		
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).		
	The machine stretches the paper between the registration roller and fusing roller by running the fusing/exit motor at a speed slightly higher than that of the registration motor. This "stretch-transport" method prevents long sheets from skewing and wrinkling. However, this stretching can also affect the rate of magnification.		
	To compensate for this, these SP code	s change	speed and timing control.
	• "1st Chg Tmg": adjusts the timing of 1st simultaneous speed change.		
	• "1st Chg %": Sets the change rate of 1st simultaneous speed change.		
	Note:		
	 Priority: 1st → 3rd → 2nd 		
	• Sets the timing to start 1 st and 2nd speed changes after the specified distance transported from the reference point of the drum.		
	• 3rd change timing: the distance (mm) from trailing edge of paper to the reference point of the drum to start speed changes.		
1-918-010	Roll: 1st Chg Tmg: Plain: 611mm <	ENG	[132 to 3200 / 170 / 1 mm/step]
1-918-011	Roll: 1st Chg Tmg: Plain: 461-610mm	ENG	[132 to 3200 / 170 / 1 mm/step]
1-918-012	Roll: 1st Chg Tmg: Plain: 298-460mm	ENG	[132 to 3200 / 170 / 1 mm/step]
1-918-013	Roll: 1 st Chg Tmg: Plain: < 297mm	ENG	[132 to 3200 / 170 / 1 mm/step]

1-918-015	Roll: 1st Chg %: Plain: 611mm <	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-016	Roll: 1st Chg %: Plain: 461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-017	Roll: 1 st Chg %: Plain: 298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-018	Roll: 1 st Chg %: Plain: < 297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-020	Roll: 1st Chg Tmg: Trans: 611mm <	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-021	Roll: 1st Chg Tmg: Trans: 461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-022	Roll: 1st Chg Tmg: Trans: 298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-023	Roll: 1st Chg Tmg: Trans: < 297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-025	Roll: 1st Chg %: Trans: 611mm <	ENG	[-5.00 to 5.00 / -0.4 / 0.01%/ step]
1-918-026	Roll: 1st Chg %: Trans: 461-610mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-027	Roll: 1 st Chg %: Trans: 298-460mm	ENG	[-5.00 to 5.00 / -0.4 / 0.01%/ step]
1-918-028	Roll: 1st Chg %: Trans: < 297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-030	Roll: 1st Chg Tmg: Film: 611mm <	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-031	Roll: 1st Chg Tmg: Film: 461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-032	Roll: 1st Chg Tmg: Film: 298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-033	Roll: 1st Chg Tmg: Film: < 297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-035	Roll: 1st Chg %: Film: 611mm <	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]

1-918-036	Roll: 1st Chg %: Film: 461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-037	Roll: 1st Chg %: Film: 298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-038	Roll: 1st Chg %: Film: < 297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-041	Cass: 1st Chg Tmg: Plain: 461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-042	Cass: 1st Chg Tmg: Plain: 298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-043	Cass: 1st Chg Tmg: Plain: < 297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-046	Cass: 1st Chg %: Plain: 461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-047	Cass: 1st Chg %: Plain: 298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-048	Cass: 1st Chg %: Plain: < 297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-051	Cass: 1st Chg Tmg: Trans: 461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-052	Cass: 1st Chg Tmg: Trans: 298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-053	Cass: 1st Chg Tmg: Trans: < 297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-056	Cass: 1st Chg %: Trans: 461-610mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-057	Cass: 1st Chg %: Trans: 298-460mm	ENG	[-5.00 to 5.00 / -0.4 / 0.01%/ step]
1-918-058	Cass: 1st Chg %: Trans: < 297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-070	Bypass: 1st Chg Tmg: Plain: 611mm <	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-071	Bypass: 1st Chg Tmg: Plain: 461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]

1-918-072	Bypass: 1 st Chg Tmg: Plain: 298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-073	Bypass: 1 st Chg Tmg: Plain: < 297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-075	Bypass: 1st Chg %: Plain: 611mm <	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-076	Bypass: 1st Chg %: Plain: 461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-077	Bypass: 1 st Chg %: Plain: 298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-078	Bypass: 1st Chg %: Plain: < 297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-080	Bypass: 1st Chg Tmg: Trans: 611mm <	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-081	Bypass: 1st Chg Tmg: Trans: 461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-082	Bypass: 1 st Chg Tmg: Trans: 298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-083	Bypass: 1 st Chg Tmg: Trans: < 297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-085	Bypass: 1st Chg %: Trans: 611mm <	ENG	[-5.00 to 5.00 / -0.4 / 0.01%/ step]
1-918-086	Bypass: 1st Chg %: Trans: 461-610mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-087	Bypass: 1 st Chg %: Trans: 298-460mm	ENG	[-5.00 to 5.00 / -0.4 / 0.01%/ step]
1-918-088	Bypass: 1 st Chg %: Trans: < 297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-090	Bypass: 1st Chg Tmg: Film: 611mm <	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-091	Bypass: 1st Chg Tmg: Film: 461-610mm	ENG	[0 to 3200 / 170 / 1 mm/step]

1-918-092	Bypass: 1 st Chg Tmg: Film: 298-460mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-093	Bypass: 1 st Chg Tmg: Film: < 297mm	ENG	[0 to 3200 / 170 / 1 mm/step]
1-918-095	Bypass: 1st Chg %: Film: 611mm <	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]
1-918-096	Bypass: 1st Chg %: Film: 461-610mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-097	Bypass: 1 st Chg %: Film: 298-460mm	ENG	[-5.00 to 5.00 / -0.1 / 0.01%/ step]
1-918-098	Bypass: 1st Chg %: Film: < 297mm	ENG	[-5.00 to 5.00 / -0.2 / 0.01%/ step]

1918	[Fusing/Regist Mtr Spd Change] <carefully use=""> If possible, consult the site manager before changing this SP (any change could affect other SP settings).</carefully>		
	The machine stretches the paper between the registration roller and fusing roller by running the fusing/exit motor at a speed slightly higher than that of the registration motor. This "stretch-transport" method prevents long sheets from skewing and wrinkling. However, this stretching can also affect the rate of magnification.		
	To compensate for this, these SP coo	des change	speed and timing control.
	• "2nd Chg Tmg": adjusts the timing of 2nd simultaneous speed change.		
	• "2nd Chg %": Sets the change rate of 2nd simultaneous speed change.		
	Note:		
	 Priority: 1st > 3rd > 2nd 		
	 Sets the timing to start 1st and 2nd speed changes after the specified distance transported from the reference point of the drum. 		
	 3rd change timing: the distance (mm) from trailing edge of paper to the reference point of the drum to start speed changes. 		
1-918-110	Roll: 2nd Chg Tmg: Plain: 611mm <	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-111	Roll: 2nd Chg Tmg: Plain: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]

1-918-112	Roll: 2nd Chg Tmg: Plain: 298-460mm	eng	[0 to 3200 / 0 / 1 mm/step]
1-918-113	Roll: 2nd Chg Tmg: Plain: < 297mm	eng	[0 to 3200 / 0 / 1 mm/step]
1-918-115	Roll: 2nd Chg %: Plain: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-116	Roll: 2nd Chg %: Plain: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-117	Roll: 2nd Chg %: Plain: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-118	Roll: 2nd Chg %: Plain: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-120	Roll: 2nd Chg Tmg: Trans: 611mm <	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-121	Roll: 2nd Chg Tmg: Trans: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-122	Roll: 2nd Chg Tmg: Trans: 298-460mm	eng	[0 to 3200 / 0 / 1 mm/step]
1-918-123	Roll: 2nd Chg Tmg: Trans: < 297mm	eng	[0 to 3200 / 0 / 1 mm/step]
1-918-125	Roll: 2nd Chg %: Trans: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-126	Roll: 2nd Chg %: Trans: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-127	Roll: 2nd Chg %: Trans: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-128	Roll: 2nd Chg %: Trans: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-130	Roll: 2nd Chg Tmg: Film: 611mm <	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-131	Roll: 2nd Chg Tmg: Film: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-132	Roll: 2nd Chg Tmg: Film: 298-460mm	eng	[0 to 3200 / 0 / 1 mm/step]

1-918-133	Roll: 2nd Chg Tmg: Film: < 297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-135	Roll: 2nd Chg %: Film: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-136	Roll: 2nd Chg %: Film: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-137	Roll: 2nd Chg %: Film: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-138	Roll: 2nd Chg %: Film: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-141	Cass: 2nd Chg Tmg: Plain: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-142	Cass: 2nd Chg Tmg: Plain: 298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-143	Cass: 2nd Chg Tmg: Plain: < 297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-146	Cass: 2nd Chg %: Plain: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-147	Cass: 2nd Chg %: Plain: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-148	Cass: 2nd Chg %: Plain: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-151	Cass: 2nd Chg Tmg: Trans: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-152	Cass: 2nd Chg Tmg: Trans: 298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-153	Cass: 2nd Chg Tmg: Trans: < 297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-156	Cass: 2nd Chg %: Trans: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-157	Cass: 2nd Chg %: Trans: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-158	Cass: 2nd Chg %: Trans: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]

1-918-170	Bypass: 2nd Chg Tmg: Plain: 611mm <	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-171	Bypass: 2nd Chg Tmg: Plain: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-172	Bypass: 2nd Chg Tmg: Plain: 298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-173	Bypass: 2nd Chg Tmg: Plain: < 297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-175	Bypass: 2nd Chg %: Plain: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-176	Bypass: 2nd Chg %: Plain: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-177	Bypass: 2nd Chg %: Plain: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-178	Bypass: 2nd Chg %: Plain: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-180	Bypass: 2nd Chg Tmg: Trans: 611mm <	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-181	Bypass: 2nd Chg Tmg: Trans: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-182	Bypass: 2nd Chg Tmg: Trans: 298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-183	Bypass: 2nd Chg Tmg: Trans: < 297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-185	Bypass: 2nd Chg %: Trans: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-186	Bypass: 2nd Chg %: Trans: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-187	Bypass: 2nd Chg %: Trans: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-188	Bypass: 2nd Chg %: Trans: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]

1-918-190	Bypass: 2nd Chg Tmg: Film: 611mm <	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-191	Bypass: 2nd Chg Tmg: Film: 461-610mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-192	Bypass: 2nd Chg Tmg: Film: 298-460mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-193	Bypass: 2nd Chg Tmg: Film: < 297mm	ENG	[0 to 3200 / 0 / 1 mm/step]
1-918-195	Bypass: 2nd Chg %: Film: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-196	Bypass: 2nd Chg %: Film: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-197	Bypass: 2nd Chg %: Film: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-198	Bypass: 2nd Chg %: Film: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]

1918	[Fusing/Regist Mtr Spd Change] <carefully use=""></carefully> If possible, consult the site manager before changing this SP (any change could affect other SP settings).
	The machine stretches the paper between the registration roller and fusing roller by running the fusing/exit motor at a speed slightly higher than that of the registration motor. This "stretch-transport" method prevents long sheets from skewing and wrinkling. However, this stretching can also affect the rate of magnification.
	To compensate for this, these SP codes change speed and timing control.
	• "3rd Chg Tmg": adjusts the timing of 3rd simultaneous speed change.
	• "3rd Chg %": Sets the change rate of 3rd simultaneous speed change.
	Note:
	 Priority: 1st → 3rd → 2nd
	 Sets the timing to start 1 st and 2nd speed changes after the specified distance transported from the reference point of the drum.
	 3rd change timing: the distance (mm) from trailing edge of paper to the reference point of the drum to start speed changes.

1-918-210	Roll: 3rd Chg Tmg: Plain: 611mm <	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-211	Roll: 3rd Chg Tmg: Plain: 461-610mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-212	Roll: 3rd Chg Tmg: Plain: 298-460mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-213	Roll: 3rd Chg Tmg: Plain: < 297mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-215	Roll: 3rd Chg %: Plain: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-216	Roll: 3rd Chg %: Plain: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-217	Roll: 3rd Chg %: Plain: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-218	Roll: 3rd Chg %: Plain: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-220	Roll: 3rd Chg Tmg: Trans: 611mm <	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-221	Roll: 3rd Chg Tmg: Trans: 461-610mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-222	Roll: 3rd Chg Tmg: Trans: 298-460mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-223	Roll: 3rd Chg Tmg: Trans: < 297mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-225	Roll: 3rd Chg %: Trans: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-226	Roll: 3rd Chg %: Trans: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-227	Roll: 3rd Chg %: Trans: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-228	Roll: 3rd Chg %: Trans: < 297mm	ENG	[-5.00 to .500 / 0 / 0.01%/step]
1-918-230	Roll: 3rd Chg Tmg: Film: 611mm <	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-231	Roll: 3rd Chg Tmg: Film: 461-610mm	eng	[0 to 2200 / 0 / 1 mm/step]

1-918-232	Roll: 3rd Chg Tmg: Film: 298-460mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-233	Roll: 3rd Chg Tmg: Film: < 297mm	ENG	[0 to 2200 / 0 / 1 mm/step]
1-918-235	Roll: 3rd Chg %: Film: 611mm <	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-236	Roll: 3rd Chg %: Film: 461-610mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-237	Roll: 3rd Chg %: Film: 298-460mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]
1-918-238	Roll: 3rd Chg %: Film: < 297mm	ENG	[-5.00 to 5.00 / 0 / 0.01%/step]

1918 [Fusing/Regist Mtr Spd Change] <carefully use=""></carefully>			
If possible, consult the site manager before changing t affect other SP settings).			nging this SP (any change could
	Sets the minimum length of the 1st sp are set.	peed chang	e when 2nd and 3rd speed changes
1-918-250	1st Change Speed Min. Length	ENG	[0 to 300 / 0 / 1 mm/step]

1919	[Paper Interval Adjustment]					
1-919-001	ALL Paper Interval	Paper Interval ENG [0 to 1000 / 0 / 1 mm/step]				
	of the interval between sheets when					
	 Notes: "O" is the smallest setting allowed. The "O" sets default interval of 90 mm not set the interval to zero. 					
	• If this SP setting is less than the CPM down setting (which also sets the interval) the machine will ignore this SP setting and use the CPM setting to set the interval between sheets.					
	If this SP setting is more than the CP <i>I</i> subtracted from this SP setting and th For example, if this SP setting "80" of = 80 mm.	M down se ne differend and CPM is	tting, the CPM setting will be ce will be added to the CPM setting. "50", then (80 - 50) + 50 = 30 + 50			

1-919-002	ID Sensor Paper Interval Adjustment	ENG	[0 to 1000 / 197 / 1 mm/step]
	Adjusts the paper interval (mm) whe	n ID sensoi	r pattern is created.

1920	[Cut Length Adjustment]				
	This SP adjusts the cut length for each paper source and type of paper.				
1-920-021	1st Roll: 210mm: Plain Paper	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]		
1-920-022	1 st Roll: 297mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]		
1-920-023	1 st Roll: 420mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]		
1-920-024	1 st Roll: 594mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]		
1-920-025	1st Roll: 841mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]		
1-920-026	1st Roll: 1189mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]		
1-920-027	1st Roll: 2000mm: Plain Paper	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]		
1-920-028	1st Roll: 3600mm: Plain Paper	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]		
1-920-029	1st Roll: 6000mm: Plain Paper	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]		
1-920-030	1st Roll: 15000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]		
1-920-031	1 st Roll: 20000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]		
1-920-032	1 st Roll: 25000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]		
1-920-033	1 st Roll: 30000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]		
1-920-041	1st Roll: 210mm: Trans. Paper	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]		
1-920-042	1st Roll: 297mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]		
1-920-043	1st Roll: 420mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]		
1-920-044	1st Roll: 594mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]		

1-920-045	1st Roll: 841mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-046	1st Roll: 1189mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-047	1 st Roll: 2000mm: Trans. Paper	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-048	1 st Roll: 3600mm: Trans. Paper	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-049	1st Roll: 6000mm: Trans. Paper	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-050	1st Roll: 15000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-051	1 st Roll: 20000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-052	1st Roll: 25000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-053	1st Roll: 30000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-061	1st Roll: 210mm: Film	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-062	1 st Roll: 297mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-063	1 st Roll: 420mm: Film	ENG	[-10.0 to 1.00 / 0 / 0.1 mm/step]
1-920-064	1 st Roll: 594mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-065	1st Roll: 841mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-066	1st Roll: 1189mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-067	1 st Roll: 2000mm: Film	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-068	1 st Roll: 3600mm: Film	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-069	1 st Roll: 6000mm: Film	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-070	1st Roll: 15000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-071	1 st Roll: 20000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]

1-920-072	1 st Roll: 25000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-073	1 st Roll: 30000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-081	2nd Roll: 210mm: Plain Paper	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-082	2nd Roll: 297mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-083	2nd Roll: 420mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-084	2nd Roll: 594mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-085	2nd Roll: 841mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-086	2nd Roll: 1189mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-087	2nd Roll: 2000mm: Plain Paper	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-088	2nd Roll: 3600mm: Plain Paper	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-089	2nd Roll: 6000mm: Plain Paper	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-090	2nd Roll: 15000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-091	2nd Roll: 20000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-092	2nd Roll: 25000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-093	2nd Roll: 30000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-101	2nd Roll: 210mm: Trans. Paper	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-102	2nd Roll: 297mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-103	2nd Roll: 420mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-104	2nd Roll: 594mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-105	2nd Roll: 841mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-106	2nd Roll: 1189mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]

1-920-107	2nd Roll: 2000mm: Trans. Paper	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-108	2nd Roll: 3600mm: Trans. Paper	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-109	2nd Roll: 6000mm: Trans. Paper	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-110	2nd Roll: 15000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-111	2nd Roll: 20000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-112	2nd Roll: 25000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-113	2nd Roll: 30000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-121	2nd Roll: 210mm: Film	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-122	2nd Roll: 297mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-123	2nd Roll: 420mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-124	2nd Roll: 594mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-125	2nd Roll: 841mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-126	2nd Roll: 1189mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-127	2nd Roll: 2000mm: Film	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-128	2nd Roll: 3600mm: Film	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-129	2nd Roll: 6000mm: Film	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-130	2nd Roll: 15000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-131	2nd Roll: 20000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-132	2nd Roll: 25000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-133	2nd Roll: 30000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]

1-920-141	3rd Roll: 210mm: Plain Paper	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-142	3rd Roll: 297mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-143	3rd Roll: 420mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-144	3rd Roll: 594mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-145	3rd Roll: 841mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-146	3rd Roll: 1189mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-147	3rd Roll: 2000mm: Plain Paper	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-148	3rd Roll: 3600mm: Plain Paper	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-149	3rd Roll: 6000mm: Plain Paper	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-150	3rd Roll: 15000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-151	3rd Roll: 20000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-152	3rd Roll: 25000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-153	3rd Roll: 30000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-161	3rd Roll: 210mm: Trans. Paper	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-162	3rd Roll: 297mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-163	3rd Roll: 420mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-164	3rd Roll: 594mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-165	3rd Roll: 841mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-166	3rd Roll: 1189mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-167	3rd Roll: 2000mm: Trans. Paper	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-168	3rd Roll: 3600mm: Trans. Paper	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-169	3rd Roll: 6000mm: Trans. Paper	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]

1-920-170	3rd Roll: 15000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-171	3rd Roll: 20000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-172	3rd Roll: 25000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-173	3rd Roll: 30000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-181	3rd Roll: 210mm: Film	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-182	3rd Roll: 297mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-183	3rd Roll: 420mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-184	3rd Roll: 594mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-185	3rd Roll: 841mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-186	3rd Roll: 1189mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-187	3rd Roll: 2000mm: Film	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-188	3rd Roll: 3600mm: Film	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-189	3rd Roll: 6000mm: Film	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-190	3rd Roll: 15000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-191	3rd Roll: 20000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-192	3rd Roll: 25000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-193	3rd Roll: 30000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-201	4th Roll: 210mm: Plain Paper	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-202	4th Roll: 297mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-203	4th Roll: 420mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]

1-920-204	4th Roll: 594mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-205	4th Roll: 841mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-206	4th Roll: 1189mm: Plain Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-207	4th Roll: 2000mm: Plain Paper	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-208	4th Roll: 3600mm: Plain Paper	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-209	4th Roll: 6000mm: Plain Paper	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-210	4th Roll: 15000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-211	4th Roll: 20000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-212	4th Roll: 25000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-213	4th Roll: 30000mm: Plain Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-221	4th Roll: 210mm: Trans. Paper	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-222	4th Roll: 297mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-223	4th Roll: 420mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-224	4th Roll: 594mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-225	4th Roll: 841mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-226	4th Roll: 1189mm: Trans. Paper	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-227	4th Roll: 2000mm: Trans. Paper	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-228	4th Roll: 3600mm: Trans. Paper	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-229	4th Roll: 6000mm: Trans. Paper	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-230	4th Roll: 15000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-231	4th Roll: 20000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]

1-920-232	4th Roll: 25000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-233	4th Roll: 30000mm: Trans. Paper	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-241	4th Roll: 210mm: Film	ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]
1-920-242	4th Roll: 297mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-243	4th Roll: 420mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-244	4th Roll: 594mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-245	4th Roll: 841mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-246	4th Roll: 1189mm: Film	ENG	[-10.0 to 10.0 / 0 / 0.1 mm/step]
1-920-247	4th Roll: 2000mm: Film	ENG	[-15.0 to 15.0 / 0 / 0.1 mm/step]
1-920-248	4th Roll: 3600mm: Film	ENG	[-30.0 to 30.0 / 0 / 0.1 mm/step]
1-920-249	4th Roll: 6000mm: Film	ENG	[-100.0 to 100.0 / 0 / 0.1 mm/ step]
1-920-250	4th Roll: 15000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-251	4th Roll: 20000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-252	4th Roll: 25000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]
1-920-253	4th Roll: 30000mm: Film	ENG	[-300.0 to 300.0 / 0 / 0.1 mm/ step]

1923	[Cutter Brake Timing]		
	Sets the brake timing for the 1st and 2nd cutter.		
1-923-001	1 st Cutter	ENG	[0 to 12 / 8 / 1 msec/step]
1-923-002	2nd Cutter	ENG	[0 to 12 / 8 / 1 msec/step]

1924	[Roll Feed Reverse Timing]		
	Sets the length of time that the paper feed motor stops before it reverses take-up paper after paper feed. (The rolls are reversed after every job to take-up the leading edge of the roll so the common paper path remains clear.)		
1-924-001	Roll	ENG	[0 to 2.0 / 1.0 / 0.1 sec/step]

1925	[Cut Length Offset Correction]		
	Corrects for factors that affect paper characteristics. 0: JPN 1: EXP	r slippage d	luring feed, such as paper surface
1-925-001		ENG	[0 or 1 / 1 / 1/step]

1926	[Lift Motor Off Timing]		
	When a loaded paper cassette tray is closed:		
	• The tray lift motor lifts the tray until the lift sensor switches on.		
	• The tray lowers until the sensor switches off.		
	 The tray lift motor switches the prescribed time (20 ms) to lift the tray to the correct feed position. 		
	This SP adjusts the length of time for the prescribed lift.		
1-926-001	1 st Cassette	ENG	[20 to 200 / 20 / 20 msec/step]
1-926-002	2nd Cassette	ENG	

1927	P27 [Pick-up Solenoid On Time]		
	Adjusts the length of time the pickup solenoid remains on (500 ms) when a sheet of paper is feed from a cassette tray.		
1-927-001	1 st Cassette	ENG	[200 to 1000 / 500 / 20 msec/
1-927-002	2nd Cassette	ENG	step]

1929	[Regist CL ON/OFF: L-Edge Roll]		
	Switches off the registration clutch timing. Switch this SP on (1) if a blank spot appears in the center of the image at the leading edge.		
	0: ON		
	This is normal operation. The registration clutch disengages and stops the registration roller just before the leading edge reaches the roller.		
	1: OFF		
	The registration roller does not disengage, and the registration roller does not stop. The paper continues to feed without the leading edge hitting the stopper roller to correct skew.		
1-929-001	Roll	ENG	[0 or 1 / 0 / 1/step]

	[Target Temp.: Hot Roller] <carefully use=""></carefully>
1931	If possible, consult the site manager before changing this SP (any change could affect other SP settings).
	Set the values for the target temperature of the hot roller, based on the type of paper used: Plain Paper, Tracing Paper (Trans.), and Film.
	Target temperature is determined by the patterns below:
	1. "SP1-932" is equal to or bigger than current pressure roller temperature
	Fusing roller target temperature = "SP1-931"
	2. SP1932 < Current pressure roller temperature < "SP1-932" + "SP1-335"
	Fusing roller target temperature = "SP1-931" - (Current pressure roller temperature – "SP1-932") × "SP1-934" / "SP1-935"
	Ex) when default setting of Plain: Mode3 and current pressure roller temperature is 83 degree, fusing roller target temperature is 195-(83-60) ×25/30=175.83
	 Current pressure roller temperature is equal to or bigger than "SP1-932" + "SP1-335"
	Fusing roller target temperature = "SP1-931" – "SP1-934"

When re-loading is below: When re-loading without inching Re-load when fusing roller temperature reaches "SP1931" - "SP1-105-001". • When re-loading from inching after the target temperature Start inching when the fusing roller temperature reaches "SP1-931" and reloard when the fusing roller temperature reaches "SP1-931" and the pressure roller temperature reaches "SP1-932". When re-loading from inching before the target temperature Start inching when the fusing roller temperature reaches "SP1-931" -"SP1-937-003" and re-loard when the fusing roller temperature reaches "SP1-931" and the pressure roller temperature reaches "SP1-932". Note • "Inching" is movement to drive the pressure roller by a single step little by little. 1-931-001 Plain: Mode1 ENG [120 to 220 / **195** / 5/step] 1-931-002 Plain: Mode2 FNG [120 to 220 / **195** / 5/step] 1-931-003 Plain: Mode3 ENG [120 to 220 / **195** / 5/step] 1-931-004 Plain: Mode4 ENG [120 to 220 / **185** / 5/step] 1-931-005 Plain: Mode5 [120 to 220 / **175** / 5/step] ENG Trans.: Mode1 [120 to 220 / **205** / 5/step] 1-931-006 ENG 1-931-007 Trans.: Mode2 ENG [120 to 220 / **195** / 5/step] 1-931-008 Trans.: Mode3 ENG [120 to 220 / **195** / 5/step] 1-931-009 Trans.: Mode4 ENG [120 to 220 / **165** / 5/step] 1-931-010 Trans.: Mode5 ENG [120 to 220 / **165** / 5/step] 1-931-011 Film: Mode1 ENG [120 to 220 / **195** / 5/step] 1-931-012 Film: Mode2 ENG [120 to 220 / **190** / 5/step] 1-931-013 Film: Mode3 ENG [120 to 220 / **185** / 5/step]

ENG

ENG

ENG

[120 to 220 / **185** / 5/step]

[120 to 220 / **175** / 5/step]

[120 to 220 / **195** / 5/step]

1-931-014

1-931-015

1-931-016

Film: Mode4

Film: Mode5

Plain: Low Temperature Mode
1932	[Target Temp.: Pressure Roller] <carefully use=""></carefully>				
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).				
	Set the values for the target temperature of the pressure roller, based on the type of paper used: Plain Paper, Tracing Paper (Trans.), and Film. This SP codes sets the start temperature for feedback pressure control. Keep the temperature of the pressure roller ±5 deg from the temperature set by SP1932 after re-loading.				
1-932-001	Plain: Mode 1	ENG	[55 to 180 / 130 / 5/step]		
1-932-002	Plain: Mode2	ENG	[55 to 180 / 100 / 5/step]		
1-932-003	Plain: Mode3	ENG	[55 to 180 / 60 / 5/step]		
1-932-004	Plain: Mode4	[55 to 180 / 60 / 5/step]			
1-932-005	Plain: Mode5	[55 to 180 / 60 / 5/step]			
1-932-006	Trans.: Mode 1	[55 to 180 / 150 / 5/step]			
1-932-007	Trans.: Mode2	[55 to 180 / 100 / 5/step]			
1-932-008	Trans.: Mode3	: Mode3 ENG [55 to 180 / 60 /			
1-932-009	Trans.: Mode4	ENG	[55 to 180 / 60 / 5/step]		
1-932-010	Trans.: Mode5	ENG	[55 to 180 / 60 / 5/step]		
1-932-011	Film: Mode 1	ENG	[55 to 180 / 60 / 5/step]		
1-932-012	Film: Mode2	ENG	[55 to 180 / 60 / 5/step]		
1-932-013	Film: Mode3	ENG	[55 to 180 / 60 / 5/step]		
1-932-014	Film: Mode4	ENG	[55 to 180 / 60 / 5/step]		
1-932-015	Film: Mode5	ENG	[55 to 180 / 60 / 5/step]		
1-932-016	Plain: Low Temperature Mode	ENG	[55 to 180 / 120 / 5/step]		

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1934	[Lower Limit Temp.: Hot Roller] <carefully use=""> If possible, consult the site manager before changing this SP (any change could affect other SP settings).</carefully>					
	Set the values for minimum temperature, based on the type of paper used: Plain Paper, Tracing Paper (Trans.), and Film. Reference SP for "Fusing Roller Target Temperature"					
1-934-001	Plain: Mode 1	[0 to 50 / 20 / 5/step]				
1-934-002	Plain: Mode2	ENG [0 to 50 / 20 / 5/step]				
1-934-003	Plain: Mode3	Plain: Mode3 ENG [0 to 50 / 25 / 5/ste				
1-934-004	Plain: Mode4	Plain: Mode4 ENG [0 to 50 / 20 /				
1-934-005	Plain: Mode5 ENG [0 to 50 / 20]		[0 to 50 / 20 / 5/step]			
1-934-006	Trans.: Mode 1 ENG [0 to 50 / 20 /		[0 to 50 / 20 / 5/step]			
1-934-007	Trans.: Mode2 ENG [0 to 50		[0 to 50 / 20 / 5/step]			
1-934-008	Trans.: Mode3	Mode3 ENG [0 to s				
1-934-009	Trans.: Mode4	ENG [0 to 50 / 20 / 5/step]				
1-934-010	Trans.: Mode5	ENG	[0 to 50 / 20 / 5/step]			
1-934-011	Film: Mode 1	ENG	[0 to 50 / 20 / 5/step]			
1-934-012	Film: Mode2	ENG	[0 to 50 / 20 / 5/step]			
1-934-013	Film: Mode3	[0 to 50 / 20 / 5/step]				
1-934-014	Film: Mode4	ENG	[0 to 50 / 20 / 5/step]			
1-934-015	Film: Mode5	ENG	[0 to 50 / 20 / 5/step]			
1-934-016	Plain: Low Temperature Mode ENG [0 to 50 / 0 / 5/step]					

1935	[Upper Limit Temp.:Press Roller] <carefully use=""></carefully>
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).
	Set the values for maximum temperature, based on the type of paper used: Plain Paper, Tracing Paper (Trans.), and Film.
	Reference SP for "Fusing Roller Target Temperature"

1-935-001	Plain: Mode 1	ENG	[0 to 50 / 20 / 5/step]	
1-935-002	Plain: Mode2	ENG	[0 to 50 / 20 / 5/step]	
1-935-003	Plain: Mode3	ENG	[0 to 50 / 30 / 5/step]	
1-935-004	Plain: Mode4	ENG	[0 to 50 / 20 / 5/step]	
1-935-005	Plain: Mode5	ENG	[0 to 50 / 20 / 5/step]	
1-935-006	Trans.: Mode 1	ENG	[0 to 50 / 20 / 5/step]	
1-935-007	Trans.: Mode2	ENG	[0 to 50 / 20 / 5/step]	
1-935-008	Trans.: Mode3	ENG	[0 to 50 / 20 / 5/step]	
1-935-009	Trans.: Mode4	ENG	[0 to 50 / 20 / 5/step]	
1-935-010	Trans.: Mode5	ENG	[0 to 50 / 20 / 5/step]	
1-935-011	Film: Mode1	ENG	[0 to 50 / 20 / 5/step]	
1-935-012	Film: Mode2	ENG	[0 to 50 / 20 / 5/step]	
1-935-013	Film: Mode3	ENG	[0 to 50 / 20 / 5/step]	
1-935-014	Film: Mode4	ENG [0 to 50 / 20 / 5/step]		
1-935-015	Film: Mode5	ENG	[0 to 50 / 20 / 5/step]	

1935	[Press Roller FB Step Control] <carefully use=""></carefully>				
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).				
	Adjusts the steps of the pressure roller temperature FB control.				
1-935-016	Plain: Low Temperature Mode	ENG	[0 to 50 / 0 / 5/step]		

1936	[Lower Limit Temp.:Press Roller]					
	Sets the minimum difference allowed between the actual temperature and the target temperature of the pressure roller.					
	Setting "0 (default)" = does not operate.					
	If the temperature is below the temperature set for the pressure roller, paper feed will stop during a long job to perform inching to allow enough time for the pressure roller temperature to rise to the level of the prescribed setting, and then the job will continue.					
	↓Note					
	• "Inching" is movement to drive	the pressu	re roller by a single step little by little.			
1-936-001	Plain: Mode 1 ENG [0 to 50 / 0 / 5/step]					
1-936-002	Plain: Mode2	ENG	[0 to 50 / 0 / 5/step]			
1-936-003	Plain: Mode3	ENG	[0 to 50 / 0 / 5/step]			
1-936-004	Plain: Mode4 ENG [0 to 50 / 0 /		[0 to 50 / 0 / 5/step]			
1-936-005	Plain: Mode5	Plain: Mode5 ENG [0 to 50 / 0 / 5]				
1-936-006	Trans.: Mode 1 ENG [0 to 50 / 20 / 5/step]					
1-936-007	Trans.: Mode2	ans.: Mode2 ENG [0 to 50 / 0 / 5/step]				
1-936-008	Trans.: Mode3	ENG	[0 to 50 / 0 / 5/step]			
1-936-009	Trans.: Mode4	ENG	[0 to 50 / 0 / 5/step]			
1-936-010	Trans.: Mode5	ENG	[0 to 50 / 0 / 5/step]			
1-936-011	Film: Mode1	ENG	[0 to 50 / 0 / 5/step]			
1-936-012	Film: Mode2	ENG	[0 to 50 / 0 / 5/step]			
1-936-013	Film: Mode3	ENG	[0 to 50 / 0 / 5/step]			
1-936-014	Film: Mode4	ENG	[0 to 50 / 0 / 5/step]			
1-936-015	Film: Mode5	ENG	[0 to 50 / 0 / 5/step]			

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[LowTempEnvironDetectControl]

1-937-001	Low Temperature Setting	ENG	[0 to 50 / 20 / 5/step]		
	Not Used: Fusing roller temperature	is fixed to	140 deg.		
1-937-002	Low Temperature Time Setting	etting ENG [0 to 180 / 120 / 1/step]			
	Selecting Plain: Mode3 in a low-ten 140 degree is more than this SP, co to the level of the prescribed fusing	3 in a low-temperature environment, rising time to reach to an this SP, copying is not allowed until the temperature to rise cribed fusing condition.			
1-937-003	Pressure Inching Start Temperature	ENG [0 to 50 / 20 / 5/step]			
	Adjusts the start temperature to perfo low temperature (SP1-397-002) ar	orm the pre nd re-loadin	essure roller inching for detecting the ng in a low-temperature environment.		
	Re-load from inching before target temperature (SP1931), and perform inching when the temperature of the fusing roller reaches the temperature substract "SP1-937-003 (this SP)" from "SP1-931".				
	• "Inching" is movement to drive	ing" is movement to drive the pressure roller by a single step little by little.			
1-937-011	Low Temp. Mode Set: Cold Start	ENG [0 to 50 / 15 / 1/step]			
	Not used				
1-937-012	Low Temp. Mode Set: Cold Start Hold Time	ENG	[0 to 20.0 / 7.0 / 0.5 minutes/ step]		
	Not used				
1-937-013	Low Temp. Mode Paper Interval Ratio	ENG	[1.0 to 10.0 / 3.0 / 0.1/step]		
	Not used				

1940	[CPM Down Setting] <carefully use=""></carefully>				
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).				
	Disables/enables the CPM down function during machine operation. Note : Disabling this feature is not recommended.				
1-940-001	ENG [0 or 1 / 1 / 1/step]				
	Enable 0: Disable				
	1: Enable				

1940	[CPM Down Setting] <carefully use=""></carefully>					
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).					
	While the machine is operating the CPM down function increases the gap between the trailing edge of the sheet in the fusing unit and the leading edge of the sheet behind. Widening this gap allows more time for the hot roller to transfer heat to the pressure roller while there is no paper between the fusing roller and pressure roller. This keeps the fusing temperature at the optimum level for fusing. This is especially important in long jobs that use narrow paper.					
1-940-011	Temperature Differential: Step 1	ENG	[25 to 75 / 50 / 5/step]			
1-940-012	Temperature Differential: Step 2	[5 to 50 / 25 / 5/step]				
1-940-013	Temperature Differential: Step 3 ENG [5 to 50 / 25 / 5/step]					
1-940-021	Paper Interval: Step 1 ENG [90 to 200 / 100 / 10mm/step					
1-940-022	Paper Interval: Step 2 ENG [100 to 420 / 210 / 10 m]					
1-940-023	Paper Interval: Step 3	ENG	[100 to 420 / 210 / 10 mm/step]			

- The "differential" (SP1940-11, -12, -13) is the difference between the temperatures at the center and end of the pressure roller (measured by the pressure roller center and end thermistsor).
- The "paper interval" (SP1940-21, -22, -23), is set (or adjusted) with SP1940-21, -22, -23.

Step 1	If the temperature reading of the pressure roller center thermistor is higher than the temperature of the pressure roller end thermistor ("differential"), the paper feed timing widens the gap between paper by the Default distance (+100 mm to existing gap).
Step 2	If the difference between the temperatures is still not within range at Step 2 after the gap was widened at Step 1, the default distance for Step 2 is added to the gap (+210 mm to existing gap).
Step 3	If the difference between the temperatures is still not within range at Step 3 after the gap was widened at Step 3, the default distance for Step 3 is added to the gap (+210 mm to existing gap).

1943	[CPM Down Setting II] <carefully use=""> If possible, consult the site manager before changing this SP (any change could affect other SP settings).</carefully>			
	The SP1940 settings control the operation of the CPM function while the machine is operating. SP1943 controls the operation of the CPM down function after a cold start and after the machine recovers from the energy save mode.			
1-943-001	3-001 Enable ENG [0 or 1 / 1 / 1/step] 1: On 2: Off Disables/enables the CPM down function after a cold start after the machi recovers from the energy save mode. Note: Disabling this feature is not recommended.			
1-943-011	Paper Interval Step 2	ENG	[100 to 1500 / 450 / 10 mm/ step]	
	Determins the control mode of CPM Down Setting II See the details below.			
1-943-012	Paper Interval Step 3	ENG	[100 to 1500 / 1300 / 10 mm/ step]	
	Determins the control mode of CPM Down Setting II See the details below.			

SP1943-011, -012

Plain Paper, Recycled paper, Film								
	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5			
Step 1	160 <t< td=""><td>155<t< td=""><td></td><td colspan="5">148<t< td=""></t<></td></t<></td></t<>	155 <t< td=""><td></td><td colspan="5">148<t< td=""></t<></td></t<>		148 <t< td=""></t<>				
Step 2	151 <t<159< td=""><td>146<t<154< td=""><td colspan="4">143<t<147< td=""></t<147<></td></t<154<></td></t<159<>	146 <t<154< td=""><td colspan="4">143<t<147< td=""></t<147<></td></t<154<>	143 <t<147< td=""></t<147<>					
Step 3	T<150	T<145	T<142					
Tracing Paper								
	Mode 1	Mode 2	Mode 3 Mode 4 Mode 5					
Step 1	175 <t< td=""><td>170<t< td=""><td colspan="3">166<t 155<t<="" td=""></t></td></t<></td></t<>	170 <t< td=""><td colspan="3">166<t 155<t<="" td=""></t></td></t<>	166 <t 155<t<="" td=""></t>					

Step 2	166 <t<174< th=""><th>161<t<169< th=""><th>156<t<165< th=""><th>146<t<154< th=""></t<154<></th></t<165<></th></t<169<></th></t<174<>	161 <t<169< th=""><th>156<t<165< th=""><th>146<t<154< th=""></t<154<></th></t<165<></th></t<169<>	156 <t<165< th=""><th>146<t<154< th=""></t<154<></th></t<165<>	146 <t<154< th=""></t<154<>
Step 3	T<165	T<160	T<155	T<145

- The numbers in the table above are the temperatures at the center and end of the pressure roller (measured by the pressure roller center and end thermistsor) when the machine is turned on or leaves the energy save mode.
- The temperature thresholds are based on the type of paper selected for the job and the mode.

Range/Defaults for Both Types of Paper

	Setting Range (mm)	Gap mm (Defaults)
Step 1	Normal: No Adjustment	
Step 2	100 to 1500	450
Step 3	100 to 1500	1300

- The "Setting Ranges" are the ranges for SP1943-11, -12.
- The "Gap" settings are the default sizes set for the gap between the trailing edge of the sheet ahead and leading edge of the sheet behind (\$1943-11, -12).

Step 1	No adjustment.
Step 2	The size of the gap is increased with the default (450) if the temperature is not within range.
Step 3	The size of the gap is increased with the default setting (1300) if the temperature is still not within range after the gap is widened by at Step 2.

1945	[Long Print Level Setting] DFU		
1-945-001	Level 1	ENG	[1000 to 30000 / 1300 / 1 mm/ step]
1-945-002	Level 2	ENG	[1000 to 30000 / 3700 / 1 mm/ step]
1-945-003	Level 3	ENG	[1000 to 30000 / 6100 / 1 mm/ step]
1-945-004	Level 4	ENG	[1000 to 30000 / 9100 / 1 mm/ step]

1 0 4 5 0 0 5	Level 5	ENG	[1000 to 30000 / 12100 / 1
1-745-005			mm/step]

1949	[Press FB Std Temperature Coeff] DI	FU	
1-949-011	Plain Mode1: 611mm <	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-012	Plain Mode1: 461-610mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-013	Plain Mode1: 298-460mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-014	Plain Mode1: < 297mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-021	Plain Mode2: 611mm <	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-022	Plain Mode2: 461-610mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-023	Plain Mode2: 298-460mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-024	Plain Mode2: < 297mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-031	Plain Mode3: 611mm <	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-032	Plain Mode3: 461-610mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-033	Plain Mode3: 298-460mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-034	Plain Mode3: < 297mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-041	Plain Mode4: 611mm <	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-042	Plain Mode4: 461-610mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-043	Plain Mode4: 298-460mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-044	Plain Mode4: < 297mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-051	Plain Mode5: 611mm <	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-052	Plain Mode5: 461-610mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-053	Plain Mode5: 298-460mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-054	Plain Mode5: < 297mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-061	Translucent Mode: 611mm <	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-062	Translucent Mode: 461-610mm	ENG	[0 to 1.0 / 0 / 0.1/step]

1-949-063	Translucent Mode: 298-460mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-064	Translucent Mode: < 297mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-111	Film Mode: 611mm <	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-112	Film Mode: 461-610mm	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-113	Film Mode: 298-460	ENG	[0 to 1.0 / 0 / 0.1/step]
1-949-114	Film Mode: < 297mm	ENG	[0 to 1.0 / 0 / 0.1/step]

1950	[Paper Exit Control]		
1-950-002	Paper Hold Length Adjustment	ENG	[-99 to 50 / 0 / 1 mm/step]

1951	[Fusing Pressure Adjustment] < Carefully Use>				
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).				
	Control adjustments are done for each fusing mode to achieve optimum pressure between the fusing roller and pressure roller for the job. The adjustments are done for the type of paper used (normal, tracing paper, film) in Modes 1 to 5 (5 Modes/ Each Paper Type (3) = 15 patterns).				
	There are three: Step 1, 2, 3				
	• Step 1: Less than 165°C				
	• Step 2: 166-180°C				
	• Step 3: More than 181°C				
	The amount of pressure exerted by each pressure motor can be adjusted with this SP code for optimum fusing.				
	 Step 1 (< 165°C) entered value [a] 				
	• Step 2 (166-180°C) entered value [b] + Step 1 entered value [a]				
	 Step 3 (>181°C) entered value [c] + Step 2 entered value [b] + Step [1] entered value [a]. 				
	Notes:				
	• Sum limit is [a] + [b] + [c] less than or equal to 5000.				
	• The priority for reflection of the values is in this order: [a], [b], [c].				
	The initial values for D208/D211 are not the same (see below).				
1-951-011	Plain: Mode1: STEP1: Input: [a]	ENG*	[0 to 5000 / 1550 / 1/step]		

1-951-012	Plain: Mode1: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 0 / 1/step]
1-951-013	Plain: Mode1: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 0 / 1/step]
1-951-021	Plain: Mode2: STEP1: Input: [a]	ENG*	[0 to 5000 / 1550 / 1/step]
1-951-022	Plain: Mode2: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 450 / 1/step]
1-951-023	Plain: Mode2: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-031	Plain: Mode3: STEP1: Input: [a]	ENG*	[0 to 5000 / 1000 / 1/step]
1-951-032	Plain: Mode3: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 1000 / 1/step]
1-951-033	Plain: Mode3: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-041	Plain: Mode4: STEP1: Input: [a]	ENG*	[0 to 5000 / 1550 / 1/step]
1-951-042	Plain: Mode4: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 450 / 1/step]
1-951-043	Plain: Mode4: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-051	Plain: Mode5: STEP1: Input: [a]	ENG*	[0 to 5000 / 1550 / 1/step]
1-951-052	Plain: Mode5: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 450 / 1/step]
1-951-053	Plain: Mode5: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-061	Trans: Mode1: STEP1: Input: [a]	ENG*	[0 to 5000 / 2000 / 1/step]
1-951-062	Trans: Mode1: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 0 / 1/step]
1-951-063	Trans: Mode1: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 0 / 1/step]
1-951-071	Trans: Mode2: STEP1: Input: [a]	ENG*	[0 to 5000 / 2000 / 1/step]

1-951-072	Trans: Mode2: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 0 / 1/step]
1-951-073	Trans: Mode2: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 0 / 1/step]
1-951-081	Trans: Mode3: STEP1: Input: [a]	ENG*	[0 to 5000 / 2000 / 1/step]
1-951-082	Trans: Mode3: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 0 / 1/step]
1-951-083	Trans: Mode3: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 0 / 1/step]
1-951-091	Trans: Mode4: STEP1: Input: [a]	ENG*	[0 to 5000 / 2000 / 1/step]
1-951-092	Trans: Mode4: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 150 / 1/step]
1-951-093	Trans: Mode4: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 200 / 1/step]
1-951-101	Trans: Mode5: STEP1: Input: [a]	ENG*	[0 to 5000 / 2000 / 1/step]
1-951-102	Trans: Mode5: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 150 / 1/step]
1-951-103	Trans: Mode5: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 200 / 1/step]
1-951-111	Film: Mode1: STEP1: Input: [a]	ENG*	[0 to 5000 / 1500 / 1/step]
1-951-112	Film: Mode1: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-113	Film: Mode1: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-121	Film: Mode2: STEP1: Input: [a]	ENG*	[0 to 5000 / 1500 / 1/step]
1-951-122	Film: Mode2: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-123	Film: Mode2: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-131	Film: Mode3: STEP1: Input: [a]	ENG*	[0 to 5000 / 1500 / 1/step]

1-951-132	Film: Mode3: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-133	Film: Mode3: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-141	Film: Mode4: STEP1: Input: [a]	ENG*	[0 to 5000 / 1500 / 1/step]
1-951-142	Film: Mode4: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-143	Film: Mode4: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-151	Film: Mode5: STEP1: Input: [a]	ENG*	[0 to 5000 / 1500 / 1/step]
1-951-152	Film: Mode5: STEP2: Input: [a]+ [b]	ENG*	[0 to 5000 / 500 / 1/step]
1-951-153	Film: Mode5: STEP3: Input: [a]+ [b]+[c]	ENG*	[0 to 5000 / 500 / 1/step]

1955	[Transport Fan Duty Setting]				
1-955-001	Very Thin Paper ENG [0 to 100 / 0 / 10%/step]				
	Selects the transport fan rotation speed for Japanese chemical paper. The suction created by the transport motor below the paper feed path keeps the paper straight. The force of this suction could be too great for extremely thin paper.				
1-955-002	Stand-by Condition ENG [0 to 100 / 100 / 10%/step]				
	Selects the transport fan rotation speed for stand-by mode.				

1960	[Paper Exit Destination Control]		
Switchies the paper exit destination.			
	0: User Selection		
	1: Fixed		
1-960-001		ENG	[0 or 1 / 0 / 1/step]

1961	[Press FB Ctrl Sw by Temp Diff]		
	-		
1-961-001	Plain Paper	ENG	[0 to 50 / 0 / 5/step]

1962	[Press FB Temp Hold Int: Normal]		
	-		
1-962-001	Plain Paper: Mode 1	ENG	[0 to 50 / 0 / 5/step]
1-962-002	Plain Paper: Mode2	ENG	[0 to 50 / 0 / 5/step]
1-962-003	Plain Paper: Mode3	ENG	[0 to 50 / 0 / 5/step]
1-962-004	Plain Paper: Mode4	ENG	[0 to 50 / 0 / 5/step]
1-962-005	Plain Paper: Mode5	ENG	[0 to 50 / 0 / 5/step]

1963	[Press FB Temp H Temp: Special]		
	-		
1-963-001	Plain Paper: Mode 1	ENG	[0 to 50 / 0 / 5/step]
1-963-002	Plain Paper: Mode2	ENG	[0 to 50 / 0 / 5/step]
1-963-003	Plain Paper: Mode3	ENG	[0 to 50 / 0 / 5/step]
1-963-004	Plain Paper: Mode4	ENG	[0 to 50 / 0 / 5/step]
1-963-005	Plain Paper: Mode5	ENG	[0 to 50 / 0 / 5/step]

1964	[Press FB Temp L Temp: Special]		
	-		
1-964-001	Plain Paper: Mode 1	ENG	[0 to 50 / 0 / 5/step]
1-964-002	Plain Paper: Mode2	ENG	[0 to 50 / 0 / 5/step]
1-964-003	Plain Paper: Mode3	ENG	[0 to 50 / 0 / 5/step]
1-964-004	Plain Paper: Mode4	ENG	[0 to 50 / 0 / 5/step]
1-964-005	Plain Paper: Mode5	ENG	[0 to 50 / 0 / 5/step]

SP Mode Tables - SP2000

SP2-XXX (Drum)

2001	[Charge Corona Adjustment] <carefully use=""></carefully>				
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).				
2-001-001	Total Corona Current	ENG	[650 to 1530 / 1270 / 1 uA/step]		
	Adjusts the charge corona ou	tput.			
2-001-002	Grid Voltage: Image Area	ENG	[160 to 1080 / 770 / 1 vol/step]		
	Adjusts the charge grid outpu	t.			
2-001-003	Grid Voltage: ID Sensor Pattern	ENG	[160 to 1080 / 650 / 1 vol/step]		
	Adjusts the charge grid outpu	Adjusts the charge grid output for the ID sensor pattern.			
2-001-004	Grid Vol. Corr.: Img Area: Spec Paper	ENG	[160 to 1080 / 0.67 / 1 vol/step]		
	This SP sets the correction coefficient to print on a specified plain paper type, such as thin, thick, or film. When the paper specified by the Tray Paper Setting is selected (thin, thick, film), the coefficient of this SP is applied to the grid voltage (bias voltage or Vg) of SP2-001-002 to determine the level of the voltage to be applied.				
2-001-005	Vol Corr:Grid Img Area:Spec Paper Manu Feed	ENG	[0.50 to 1.00 / 0.77 / 0.01/step]		
	Changes the charging grid voltage for manual feed paper.				

2002	[Charge Corona: Time Correction] <carefully use=""></carefully>			
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).			
	The electrical potential of the unexposed surface of the drum (Vd) becomes lower as the service life of the drum grows longer, so this SP sets the coefficient to be applied at regular intervals (based on metering the distance the drum has rotated) to raise the level of the applied voltage (Vg) and compensate for the slight deterioration in the surface of the drum. The percentage of the rate of increase is applied to the voltage setting of SP2001-002. If the setting exceeds 1080, the value remains at 1080. Ex) When SP2001-002: Grid Voltage: Image Area is 900 • SP2002-002: 0 - 10km [1.00%] → 900 x 1.00 = 900 • SP2002-003: 10 - 20km [1.02%] → 900 x 1.05 = 918			
	• SP2002-004: Over 20	cm [1.05%] → 900 x 1.10= 945	
2-002-001	ON/OFF	ENG	[0 to 1 / 0 / 1/step]	
2-002-002	0-10 km	ENG	[1.00 to 1.20 / 1.00 / 0.01%/step]	
2-002-003	10-20 km	ENG	[1.00 to 1.20 / 1.02 / 0.01%/step]	
2-002-004	20 km <	ENG	[1.00 to 1.20 / 1.05 / 0.01%/step]	

2101	[Print Erase Margin]				
	Adjusts the printing margin.				
2-101-001	Leading Edge	ENG	[0 to 10.0 / 2.0 / 0.1 mm/step]		
2-101-002	Trailing Edge	ENG	[0 to 10.0 / 2.0 / 0.1 mm/step]		
2-101-003	Left Edge	ENG	[0 to 10.0 / 2.0 / 0.1 mm/step]		
2-101-004	Right Edge	ENG	[0 to 10.0 / 2.0 / 0.1 mm/step]		

2110	[Test Mode dpi]		
	This SP adjusts the image resc and testing the FCI operation mode, this SP automatically re	olution. This with the tes eturns to its	adjustment is required for Design checking st patterns. Once the machine leaves the SP default settings.
2-110-001		ENG*	[1 to 9 / 2 / 1/step]

2201	[Development Bias Adjustment]					
2-201-001	Image Area *1	ENG	[100 to 1000 / 600 / 1 vol/step]			
	Sets the development bias vo	development bias voltage to adjust the toner amount for the image area.				
2-201-002	ID Sensor Pattern: Low Duty Copy Jobs*1	ENG	[100 to 1000 / 350 / 1 vol/step]			
	Sets the development bias to	adjust the t	oner amount for the ID sensor pattern.			
2-201-003	ID Sensor Pattern: High Duty Copy Jobs*1	ENG	[100 to 1000 / 400 / 1 vol/step]			
	Sets the development bias to	adjust the t	oner amount for the ID sensor pattern.			
2-201-004	Duty Mode Switch	ENG	[0 to 1 / 0 / 1/step]			
	Determines the mode used for generating the ID sensor pattern. 0: Low Duty (SP2-201-002) 1:High Duty (SP2-201-003)					
2-201-005	Vol Corr.: Image Area: Spec Paper *1	ENG	[0.50 to 1.00 / 0.67 / 0.01/step]			
	This SP sets the correction coefficient appropriate for the type of Plain Paper: Thin, Thick, or Film. When the paper specified by the Tray Paper Setting is selected (thin, thick, film) the coefficient of this SP is applied to the development bias of SP2-201-001 to determine the level of the voltage to be applied in order to prevent the attraction of toner to background areas on the drum after exposure to light.					
2-201-006	Vol Corr:Img Area:Spec Paper Manu Feed	ENG	[0.50 to 1.00 / 0.77 / 0.01/step]			
	Changes the development bias for manual feed paper.					

* 1 If possible, consult the site manager before changing this SP (any change could affect other SP settings).

2201	[Development Bias Adjustment]			
	When this SP is set to "1: On", the coefficient of SP2001-004 is applied to the grid voltage of (SP2001-002) for the image area, and the coefficient of SP 2201-005 is applied to the development bias (SP2201-001) to determine the applied voltage at printing.			
	This is done to prevent poor images whic	lone to prevent poor images which can show a worm-eaten appearance.		
0: Off				
	1: On	1: On		
2-201-011	1st Roll ON/OFF	ENG	[0 to 1 / 0 / 1/step]	
2-201-012	2nd Roll ON/OFF	ENG	[0 to 1 / 0 / 1/step]	
2-201-013	3rd Roll/1st Cassette ON/OFF	ENG	[0 to 1 / 0 / 1/step]	
2-201-014	4th Roll/2nd Cassette ON/OFF	ENG	[0 to 1 / 0 / 1/step]	
2-201-015	By-pass Feed ON/OFF	ENG	[0 to 1 / 0 / 1/step]	

2203	[Development Motor Speed Change] DFU		
2-203-001	Coefficient	ENG	[0.75 to 1.50 / 1.00 / 0.01/step]

2207	[Forced Toner Supply]		
	Press [Execute] to execute a for If this switched on, this SP sup execution, toner is supplied o the copy density.	orced tone plies more ne time. Af	r supply. toner to darken light copies. For every ter doing this SP, make a copy and check
2-207-001		ENG	[Execute]

2208	[Toner Supply Setting]			
2-208-001	Gain Level*1	Gain Level*1ENG[0 to 9 / 1 / 1/step]djusts the toner supply for ordinary operations by adjusting the GAIN (Vsp/Vsg).the GAIN value for toner supply is determined by the ID sensor reading (Vsp/Vsg)and selected from a lookup table. The larger the value of the setting, the larger theGAIN used to control the density.		
	Adjusts the toner supply for o The GAIN value for toner sup and selected from a lookup to GAIN used to control the der			
	This setting may require adjustment for a customer with special needs, such as continuous copy jobs of that contain photographs.			

2-208-002	Supply Capacity*1	ENG	[0 to 3.5 / 1.7 / 0.1/step]		
	Selects the toner supply capacity for the job load.				
	This SP sets the toner supply coefficient for toner supply control. This coefficient is used to determine the amount of toner, based on the calculation with this coefficient, the GAIN value, and width of the paper. Increasing the value of this setting raises the amount of toner applied and controls the image density. The larger this setting, the larger the amount of toner for the image density.				
2-208-003	Toner Supply Mode *1	ENG	[0 to 2 / 0 / 1/step]		
	This SP sets the toner supply n • 0: Detect Mode.	node. Three	e selections are available.		
	Uses the ID sensor readi	ng (Vsp/V	sg) to determine the GAIN setting.		
	• 1: Fixed Mode (3%)				
	Sets the GAIN value for toner supply for 3% coverage and ignores the ID sensor input. Use this setting for drawings (originals that contain fine lines.)				
	• 2: Fixed Mode (6%).				
	Sets the GAIN value for toner supply for 6% coverage and ignores the ID sensor input. Use this setting for graphics (originals that contain photos or graphics that require large amounts shading or fill.)				
2-208-005	Long Print: Drawing*1	ENG	[1 to 40 / 3 / 1%/step]		
	This SP sets the percent of coverage precisely for drawings when the machine uses the Fixed Mode (SP2208-3). Note:				
	 If the length of the copy exceeds 1189 mm (46.8 in.) the machine automatically switches to the Fixed Mode (SP2-208-3). 				
	 The Long Print: Drawing mode (this SP) and Long Print: Graphic mode (SP2-208-6) are separate. Drawings are originals with large numbers of fine lines, and Graphics are originals with graphic images that require more solid shading and fill such as photos. If the customer is scanning large numbers of drawings, first switch on SP2-208-7 (select "1") then do this SP adjustment to set the percent of coverage. 				

2-208-006	Long Print: Graphic*1	ENG	[1 to 40 / 6 / 1%/step]		
	This SP sets the percent of coverage precisely for graphics when the machine uses the Fixed Mode (SP2208-3).				
	[1 to 40/6/1%]				
	Note:				
	 If the length of the copy automatically switches to 	exceeds 1 o the Fixed	189 mm (46.8 in.) the machine Mode (SP208-3).		
	 The Long Print: Graphic mode (this SP) and Long Print: Drawing mode (SP2208-5) are separate. Drawings are originals with large numbers of find lines, and Graphics are originals with graphic images that require more solid shading and fill such as photos. If the customer is scanning large numbers of originals that contain graphics, first switch on SP2-208-7 (select "1") then do this SP adjustment to set the percent of coverage. 				
2-208-007	Long Print Mode Setting	ENG	[0 to 1 / 0 / 1/step]		
	This SP must be switched ON to have the adjustments for SP2208-5 and SP2208-6 enabled for Fixed Mode (SP2208-3). If the length of the copy exceeds 1189 mm (46.8 in.) the machine automatically switches to the Fixed Mode (SP208-3).				
	0: Primary 1: Graphic				
	When "0" is selected SP2208-5, SP2208-6 adjustments are ignored. In SP2208-3 the default settings are used for 3% or 6% ("1" or "2", whichever is selected).				
	1: On. After this SP is switched ON:				
	 The SP2208-5 (Long Print: Drawing) setting will applied to the "1" selection (3%) for SP2-208-3. 				
	• The SP2208-6 (Long Print: Graphic) setting will be applied to the "2" selection (6%) for SP2-208-3.				

*1 If possible, consult the site manager before changing this SP (any change could affect other SP settings).

2209	[High Image Toner Supply]
	The machine conducts toner supply control in order to achieve and maintain excellent quality printing in the High Quality print mode.

2-209-001	OFF/ON	ENG	[0 to 1 / 0 / 1/step]	
	Sets high image mode ON/0 0: Off 1: On	OFF.		
2-209-002	Image rate setting*1	ENG	[1 to 100 / 20 / 1%/step]	
	 This SP sets the threshold for image coverage (calculated based on A1 surface area). When this threshold is exceeded, toner supply control starts and continues until the ID sensor detects the return of a stable value. 			
 If the threshold is exceeded during a long print job (or continumachine goes into standby mode to delay the next printing we executes, and also executes at Job End. 			ng print job (or continuous printing), the lay the next printing while toner supply	
2-209-003	Image rate displayed*1	ENG	[0 to 100 / 0 / 1%/step]	
	Displays current image rate caluculated as A1			
2-209-004	Recovery Level*1	ENG	[0.050 to 0.215 / 0.1 / 0.005/step]	
	Sets the end timing for the hig This is the ratio of Vsp to Vsp SP2-209-004 is equal to or b	h image mode. from ID sensor pigger than Vsp	and ends the high image mode when /Vsg.	
2-209-005	Recovery Time *1	ENG	[1 to 10 / 5 / 1/step]	
	Sets toner supplt times under the high image mode.			

*1 If possible, consult the site manager before changing this SP (any change could affect other SP settings).

2301	[Transfer Current Adjustment] < Carefully Use>		
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).		
	Adjusts the applying negative current of start, paper interval, and end to c toner adhesion.		
2-301-051	Neg. Current: Start/Ppr Interval/End	ENG	[0 to 100 / 9 / 1%/step]

2302	[Transfer Roller Cleaning] DFU		
2-302-001	Cleaning Operation	ENG	[0 to 1 / 0 / 1/step]
2-302-002	Minus Current Adjustment	ENG	[0 to 100 / 37 / 1%/step]
2-302-003	Plus Current Adjustment	ENG	[0 to 100 / 13 / 1%/step]
2-302-004	Minus Current Applied Time	ENG	[10 to 5000 / 2775 / 10 msec/ step]
2-302-007	Plus Current Applied Time	ENG	[10 to 5000 / 2775 / 10 msec/ step] *D208: 1850 *D211: 1310
2-302-010	Operation Times: Job End	ENG	[0 to 99 / 2 / 1 set/step]
2-302-011	Operation Times: Continuous Print	ENG	[0 to 99 / 2 / 1 set/step]
2-302-012	Operation Times: Jam	ENG	[0 to 99 / 6 / 1 set/step]
2-302-013	Operation Times: Power ON	ENG	[0 to 99 / 2 / 1 set/step]
2-302-014	Operation Times: Recovery from SP Exe	ENG	[1 to 99 / 6 / 1 set/step]
2-302-016	Interval: Job End	ENG	[0 to 999 / 25 / 1 m/step]
2-302-017	Interval: Job Interruption	ENG	[0 to 999 / 30 / 1 m/step]

2401	[Transfer Current Timing] DFU		
2-401-001	ON Timing: Roll Paper	ENG	[-5 to 30 / -5 / 1 mm/step]
2-401-002	ON Timing: Cut Paper	ENG	[-5 to 30 / -5 / 1 mm/step]
2-401-003	Leading Edge: Roll Paper	ENG	[10 to 300 / 100 / 1 mm/step]
2-401-004	Leading Edge: Cut Paper	ENG	[10 to 300 / 100 / 1 mm/step]
2-401-005	OFF Timing: Roll Paper	ENG	[-30 to 30 / 19 / 1 mm/step]
2-401-006	OFF Timing: Cut Paper	ENG	[-30 to 30 / 19 / 1 mm/step]

2501	[Quenching Lamp Emitting Time] DFU		
2-501-001	Interval	ENG	[0.10 to 2.00 / 0.50 / 0.05 msec/ step]
2-501-002	Duty	ENG	[1 to 100 / 48 / 1%/step]

2601	[Transfer Current Adjustment]	DFU	
2-601-001	Roll: Plain T1: Before Leading Edge	ENG	[0 to 100 / 20 / 1%/step]
2-601-002	Roll: Plain T1: Leading Edge	ENG	[0 to 100 / 20 / 1%/step]
2-601-003	Roll: Plain T1: Image Area	ENG	[0 to 100 / 20 / 1%/step]
2-601-004	Roll: Plain T1: Trailing Edge	ENG	[0 to 100 / 20 / 1%/step]
2-601-005	Roll: Trans T2: Before Leading Edge	ENG	[0 to 100 / 21 / 1%/step]
2-601-006	Roll: Trans T2: Leading Edge	ENG	[0 to 100 / 21 / 1%/step]
2-601-007	Roll: Trans T2: Image Area	ENG	[0 to 100 / 21 / 1%/step]
2-601-008	Roll: Trans T2: Trailing Edge	ENG	[0 to 100 / 21 / 1%/step]
2-601-009	Roll: Film T3: Before Leading Edge	ENG	[0 to 100 / 21 / 1%/step]
2-601-010	Roll: Film T3: Leading Edge	ENG	[0 to 100 / 21 / 1%/step]
2-601-011	Roll: Film T3: Image Area	ENG	[0 to 100 / 21 / 1%/step]
2-601-012	Roll: Film T3: Trailing Edge	ENG	[0 to 100 / 21 / 1%/step]
2-601-013	Cut: Plain T4: Before Leading Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-014	Cut: Plain T4: Leading Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-015	Cut: Plain T4: Image Area	ENG	[0 to 100 / 22 / 1%/step]
2-601-016	Cut: Plain T4: Trailing Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-017	Cut: Trans T5: Before Leading Edge	ENG	[0 to 100 / 22 / 1%/step]

			1
2-601-018	Cut: Trans T5: Leading Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-019	Cut: Trans T5: Image Area	ENG	[0 to 100 / 22 / 1%/step]
2-601-020	Cut: Trans T5: Trailing Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-021	Cut: Film T6: Before Leading Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-022	Cut: Film T6: Leading Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-023	Cut: Film T6: Image Area	ENG	[0 to 100 / 22 / 1%/step]
2-601-024	Cut: Film T6: Trailing Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-025	Cut: Plain T7: Before Leading Edge	ENG	[0 to 100 / 21 / 1%/step]
2-601-026	Cut: Plain T7: Leading Edge	ENG	[0 to 100 / 21 / 1%/step]
2-601-027	Cut: Plain T7: Image Area	ENG	[0 to 100 / 21 / 1%/step]
2-601-028	Cut: Plain T7: Trailing Edge	ENG	[0 to 100 / 21 / 1%/step]
2-601-029	Cut: Trans T8: Before Leading Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-030	Cut: Trans T8: Leading Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-031	Cut: Trans T8: Image Area	ENG	[0 to 100 / 22 / 1%/step]
2-601-032	Cut: Trans T8: Trailing Edge	ENG	[0 to 100 / 22 / 1%/step]
2-601-033	Cut: Plain T9: Before Leading Edge	ENG	[0 to 100 / 19 / 1%/step]
2-601-034	Cut: Plain T9: Leading Edge	ENG	[0 to 100 / 19 / 1%/step]
2-601-035	Cut: Plain T9: Image Area	ENG	[0 to 100 / 19 / 1%/step]
			D208: 26
			D211:28
2-601-036	Cut: Plain T9: Trailing Edge	ENG	[0 to 100 / 19 / 1%/step]
2-601-037	Cut: Trans T10: Before Leading Edge	ENG	[0 to 100 / 28 / 1%/step]

2-601-038	Cut: Trans T10: Leading Edge	ENG	[0 to 100 / 28 / 1%/step]
2-601-039	Cut: Trans T10: Image Area	ENG	[0 to 100 / 28 / 1%/step]
2-601-040	Cut: Trans T10: Trailing Edge	ENG	[0 to 100 / 28 / 1%/step]
2-601-041	Cut: Plain T11: Before Leading Edge	ENG	[0 to 100 / 20 / 1%/step]
2-601-042	Cut: Plain T11: Leading Edge	ENG	[0 to 100 / 20 / 1%/step]
2-601-043	Cut: Plain T11: Image Area	ENG	[0 to 100 / 20 / 1%/step]
2-601-044	Cut: Plain T11: Trailing Edge	ENG	[0 to 100 / 20 / 1%/step]
2-601-045	Cut: Trans T12: Before Leading Edge	ENG	[0 to 100 / 15 / 1%/step]
2-601-046	Cut: Trans T12: Leading Edge	ENG	[0 to 100 / 15 / 1%/step]
2-601-047	Cut: Trans T12: Image Area	ENG	[0 to 100 / 15 / 1%/step]
2-601-048	Cut: Trans T12: Trailing Edge	ENG	[0 to 100 / 15 / 1%/step]

2602	[Trans. Roll Crrnt Correct Coef] DFU		
2-602-001	Env./Ppr Size1: LL: 611mm <	ENG	[1 to 250 / 90 / 1%/step]
2-602-002	Env./Ppr Size1: LL: 461 - 610mm	ENG	[1 to 250 / 100 / 1%/step]
2-602-003	Env./Ppr Size1: LL: 332 - 460mm	ENG	[1 to 250 / 124 / 1%/step]
2-602-004	Env./Ppr Size1:LL: < 331mm	ENG	[1 to 250 / 133 / 1%/step]
2-602-005	Env./Ppr Size1: ML: 611mm <	ENG	[1 to 250 / 95 / 1%/step]

2-602-006	Env./Ppr Size1: ML: 461 - 610mm	ENG	[1 to 250 / 111 / 1%/step]
2-602-007	Env./Ppr Size1: ML: 332 - 460mm	ENG	[1 to 250 / 127 / 1%/step]
2-602-008	Env./Ppr Size1: ML: < 331mm	ENG	[1 to 250 / 139 / 1%/step]
2-602-009	Env./Ppr Size1: MM: 611mm <	ENG	[1 to 250 / 100 / 1%/step]
2-602-010	Env./Ppr Size1: MM: 461 - 610mm	ENG	[1 to 250 / 122 / 1%/step]
2-602-011	Env./Ppr Size1: MM: 332 - 460mm	ENG	[1 to 250 / 130 / 1%/step]
2-602-012	Env./Ppr Size1: MM: < 331mm	ENG	[1 to 250 / 145 / 1%/step]
2-602-013	Env./Ppr Size1: MH: 611mm <	ENG	[1 to 250 / 110 / 1%/step]
2-602-014	Env./Ppr Size1: MH: 461 - 610mm	ENG	[1 to 250 / 126 / 1%/step]
2-602-015	Env./Ppr Size1: MH: 332 - 460mm	ENG	[1 to 250 / 135 / 1%/step]
2-602-016	Env./Ppr Size1: MH: < 331mm	ENG	[1 to 250 / 148 / 1%/step]
2-602-017	Env./Ppr Size1:HH: 611mm <	ENG	[1 to 250 / 120 / 1%/step]
2-602-018	Env./Ppr Size1: HH: 461 - 610mm	ENG	[1 to 250 / 130 / 1%/step]
2-602-019	Env./Ppr Size1: HH: 332 - 460mm	ENG	[1 to 250 / 140 / 1%/step]
2-602-020	Env./Ppr Size1: HH: < 331mm	ENG	[1 to 250 / 150 / 1%/step]
2-602-021	Env./Ppr Size2: LL: 611mm <	ENG	[1 to 250 / 90 / 1%/step]

2-602-022	Env./Ppr Size2: LL: 461 - 610mm	ENG	[1 to 250 / 110 / 1%/step]
2-602-023	Env./Ppr Size2: LL: 332 - 460mm	ENG	[1 to 250 / 122 / 1%/step]
2-602-024	Env./Ppr Size2: LL: < 331mm	ENG	[1 to 250 / 136 / 1%/step]
2-602-025	Env./Ppr Size2: ML: 611mm <	ENG	[1 to 250 / 95 / 1%/step]
2-602-026	Env./Ppr Size2: ML: 461 - 610mm	ENG	[1 to 250 / 113 / 1%/step]
2-602-027	Env./Ppr Size2: ML: 332 - 460mm	ENG	[1 to 250 / 122 / 1%/step]
2-602-028	Env./Ppr Size2: ML: < 331mm	ENG	[1 to 250 / 135 / 1%/step]
2-602-029	Env./Ppr Size2: MM: 611mm <	ENG	[1 to 250 / 100 / 1%/step]
2-602-030	Env./Ppr Size2: MM: 461 - 610mm	ENG	[1 to 250 / 115 / 1%/step]
2-602-031	Env./Ppr Size2: MM: 332 - 460mm	ENG	[1 to 250 / 122 / 1%/step]
2-602-032	Env./Ppr Size2: MM: < 331mm	ENG	[1 to 250 / 133 / 1%/step]
2-602-033	Env./Ppr Size2: MH: 611mm <	ENG	[1 to 250 / 110 / 1%/step]
2-602-034	Env./Ppr Size2: MH: 461 - 610mm	ENG	[1 to 250 / 122 / 1%/step]
2-602-035	Env./Ppr Size2: MH: 332 - 460mm	ENG	[1 to 250 / 128 / 1%/step]
2-602-036	Env./Ppr Size2: MH: < 331mm	ENG	[1 to 250 / 138 / 1%/step]
2-602-037	Env./Ppr Size2: HH: 611mm <	ENG	[1 to 250 / 120 / 1%/step]

2-602-038	Env./Ppr Size2: HH: 461 - 610mm	ENG	[1 to 250 / 128 / 1%/step]
2-602-039	Env./Ppr Size2: HH: 332 - 460mm	ENG	[1 to 250 / 133 / 1%/step]
2-602-040	Env./Ppr Size2: HH: < 331mm	ENG	[1 to 250 / 142 / 1%/step]
2-602-041	Env./Ppr Size3: LL: 611mm <	ENG	[1 to 250 / 88 / 1%/step]
2-602-042	Env./Ppr Size3: LL: 461 - 610mm	ENG	[1 to 250 / 102 / 1%/step]
2-602-043	Env./Ppr Size3: LL: 332 - 460mm	ENG	[1 to 250 / 120 / 1%/step]
2-602-044	Env./Ppr Size3: LL: 230 - 331mm	ENG	[1 to 250 / 132 / 1%/step]
2-602-045	Env./Ppr Size3: LL: < 229mm	ENG	[1 to 250 / 140 / 1%/step]
2-602-046	Env./Ppr Size3: ML: 611mm <	ENG	[1 to 250 / 94 / 1%/step]
2-602-047	Env./Ppr Size3: ML: 461 - 610mm	ENG	[1 to 250 / 107 / 1%/step]
2-602-048	Env./Ppr Size3: ML: 332 - 460mm	ENG	[1 to 250 / 125 / 1%/step]
2-602-049	Env./Ppr Size3: ML: 230 - 331mm	ENG	[1 to 250 / 138 / 1%/step]
2-602-050	Env./Ppr Size3: ML: < 229mm	ENG	[1 to 250 / 145 / 1%/step]
2-602-051	Env./Ppr Size3: MM: 611mm <	ENG	[1 to 250 / 100 / 1%/step]
2-602-052	Env./Ppr Size3: MM: 461 - 610mm	ENG	[1 to 250 / 112 / 1%/step]
2-602-053	Env./Ppr Size3: MM: 332 - 460mm	ENG	[1 to 250 / 130 / 1%/step]

2-602-054	Env./Ppr Size3: MM: 230 - 331mm	ENG	[1 to 250 / 144 / 1%/step]
2-602-055	Env./Ppr Size3: MM: < 229mm	ENG	[1 to 250 / 150 / 1%/step]
2-602-056	Env./Ppr Size3: MH: 611mm <	ENG	[1 to 250 / 107 / 1%/step]
2-602-057	Env./Ppr Size3: MH: 461 - 610mm	ENG	[1 to 250 / 120 / 1%/step]
2-602-058	Env./Ppr Size3: MH: 332 - 460mm	ENG	[1 to 250 / 133 / 1%/step]
2-602-059	Env./Ppr Size3: MH: 230 - 331mm	ENG	[1 to 250 / 143 / 1%/step]
2-602-060	Env./Ppr Size3: MH: < 229mm	ENG	[1 to 250 / 148 / 1%/step]
2-602-061	Env./Ppr Size3: HH: 611mm <	ENG	[1 to 250 / 114 / 1%/step]
2-602-062	Env./Ppr Size3: HH: 461 - 610mm	ENG	[1 to 250 / 128 / 1%/step]
2-602-063	Env./Ppr Size3: HH: 332 - 460mm	ENG	[1 to 250 / 136 / 1%/step]
2-602-064	Env./Ppr Size3: HH: 230 - 331mm	ENG	[1 to 250 / 141 / 1%/step]
2-602-065	Env./Ppr Size3: HH: < 229mm	ENG	[1 to 250 / 145 / 1%/step]
2-602-066	Env./Ppr Size4: LL: 611mm <	ENG	[1 to 250 / 80 / 1%/step]
2-602-067	Env./Ppr Size4: LL: 461 - 610mm	ENG	[1 to 250 / 113 / 1%/step]
2-602-068	Env./Ppr Size4: LL: 332 - 460mm	ENG	[1 to 250 / 147 / 1%/step]
2-602-069	Env./Ppr Size4: LL: 230 - 331mm	ENG	[1 to 250 / 160 / 1%/step]

2-602-070	Env./Ppr Size4: LL: < 229mm	ENG	[1 to 250 / 167 / 1%/step]
2-602-071	Env./Ppr Size4: ML: 611mm <	ENG	[1 to 250 / 90 / 1%/step]
2-602-072	Env./Ppr Size4: ML: 461 - 610mm	ENG	[1 to 250 / 130 / 1%/step]
2-602-073	Env./Ppr Size4: ML: 332 - 460mm	ENG	[1 to 250 / 170 / 1%/step]
2-602-074	Env./Ppr Size4: ML: 230 - 331mm	ENG	[1 to 250 / 184 / 1%/step]
2-602-075	Env./Ppr Size4: ML: < 229mm	ENG	[1 to 250 / 191 / 1%/step]
2-602-076	Env./Ppr Size4: MM: 611mm <	ENG	[1 to 250 / 100 / 1%/step]
2-602-077	Env./Ppr Size4: MM: 461 - 610mm	ENG	[1 to 250 / 147 / 1%/step]
2-602-078	Env./Ppr Size4: MM: 332 - 460mm	ENG	[1 to 250 / 193 / 1%/step]
2-602-079	Env./Ppr Size4: MM: 230 - 331mm	ENG	[1 to 250 / 207 / 1%/step]
2-602-080	Env./Ppr Size4: MM: < 229mm	ENG	[1 to 250 / 215 / 1%/step]
2-602-081	Env./Ppr Size4: MH: 611mm <	ENG	[1 to 250 / 103 / 1%/step]
2-602-082	Env./Ppr Size4: MH: 461 - 610mm	ENG	[1 to 250 / 150 / 1%/step]
2-602-083	Env./Ppr Size4: MH: 332 - 460mm	ENG	[1 to 250 / 197 / 1%/step]
2-602-084	Env./Ppr Size4: MH: 230 - 331mm	ENG	[1 to 250 / 211 / 1%/step]
2-602-085	Env./Ppr Size4: MH: < 229mm	ENG	[1 to 250 / 218 / 1%/step]

2-602-086	Env./Ppr Size4: HH: 611mm <	ENG	[1 to 250 / 106 / 1%/step]
2-602-087	Env./Ppr Size4: HH: 461 - 610mm	ENG	[1 to 250 / 152 / 1%/step]
2-602-088	Env./Ppr Size4: HH: 332 - 460mm	ENG	[1 to 250 / 200 / 1%/step]
2-602-089	Env./Ppr Size4: HH: 230 - 331mm	ENG	[1 to 250 / 215 / 1%/step]
2-602-090	Env./Ppr Size4: HH: < 229mm	ENG	[1 to 250 / 221 / 1%/step]

2603	[Transfer Current Timing] DFU		
2-603-001	ON Timing 1: Roll: Plain	ENG	[-5 to 20 / 0 / 1 mm/step]
2-603-002	ON Timing 2: Roll: Trans.	ENG	[-5 to 20 / 0 / 1 mm/step]
2-603-003	ON Timing 3: Roll: Film	ENG	[-5 to 20 / 0 / 1 mm/step]

2603	[Transfer Current Timing] DFU		
2-603-004	OFF Timing 1: Leading Edge	ENG	[0 to 100 / 16 / 1 mm/step]
2-603-005	OFF Timing 2: Leading Edge	ENG	[0 to 100 / 16 / 1 mm/step]
2-603-006	OFF Timing 3: Leading Edge	ENG	[0 to 100 / 16 / 1 mm/step]

2603	[Transfer Current Timing] DFU		
2-603-007	Trailing Edge1	ENG	[-50 to 10 / -22 / 1 mm/step]
2-603-008	Trailing Edge2	ENG	[-50 to 10 / -22 / 1 mm/step]
2-603-009	Trailing Edge3	ENG	[-50 to 10 / -22 / 1 mm/step]

2603	[Transfer Current Timing] DFU		
2-603-010	Transfer Current ON Timing	ENG	[-49 to 50 / -49 / 1 mm/step]

2-603-011	Transfer Current ON Timing	ENG	[-49 to 50 / -49 / 1 mm/step]
2-603-012	Transfer Current ON Timing	ENG	[-49 to 50 / -49 / 1 mm/step]

2603	[Transfer Current Timing] DFL	J	
2-603-013	OFF Timing: Roll: Plain Paper 1	ENG	[0 to 50 / 8 / 1 mm/step]
2-603-014	OFF Timing: Roll: Plain Paper 2	ENG	[0 to 50 / 8 / 1 mm/step]
2-603-015	OFF Timing: Roll: Plain Paper 3	ENG	[0 to 50 / 8 / 1 mm/step]

2605	[Transfer CL Cur: Env. Corr] DFU		
2-605-001	Ш	ENG	[1 to 250 / 100 / 1%/step]
2-605-002	ML	ENG	[1 to 250 / 100 / 1%/step]
2-605-003	мм	ENG	[1 to 250 / 100 / 1%/step]
2-605-004	мн	ENG	[1 to 250 / 100 / 1%/step]
2-605-005	НН	ENG	[1 to 250 / 100 / 1%/step]

2611	[Transfer Current Corr Coef] DFU		
2-611-001	Anti-Condensation Heater ON	ENG	[1 to 250 / 100 / 1%/step]

2621	[Transfer voltage correction] DFU		
2-621-001	OFF/ON	ENG	[0 to 1 / 1 / 1/step]
2-621-002	Environment threshold	ENG	[1 to 5 / 3 / 1/step]
2-621-003	Temperature threshold	ENG	[0 to 45 / 25 / 1 deg/step]
2-621-004	PWM threshold	ENG	[20 to 50 / 35 / 1%/step]
2-621-005	FB voltage threshold	ENG	[0.5 to 2.0 / 1.5 / 0.1V/step]

2-621-006	Transcription factor correction	ENG	[0.1 to 1.0 / 0.8 / 0.1/step]
2-621-007	Transcription factor Display	ENG	[0 to 3.00 / 0 / 0.01vol/step]

2701	[Separation AC Setting] DFU		
2-701-001	Leading Edge A01: LL	ENG	[0 to 100 / 80 / 1%/step]
2-701-002	Leading Edge A02: LL	ENG	[0 to 100 / 80 / 1%/step]
2-701-003	Leading Edge A03: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-004	Leading Edge A04: LL	ENG*	[0 to 100 / 90 / 1%/step]
2-701-005	Leading Edge A05: LL	ENG*	[0 to 100 / 100 / 1%/step]
2-701-006	Leading Edge A06: LL	ENG*	[0 to 100 / 90 / 1%/step]
2-701-007	Leading Edge A07: LL	ENG*	[0 to 100 / 90 / 1%/step]
2-701-008	Leading Edge A08: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-009	Leading Edge A09: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-010	Leading Edge A10: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-011	Leading Edge A11: LL	ENG	[0 to 100 / 80 / 1%/step]
2-701-012	Leading Edge A12: LL	ENG	[0 to 100 / 80 / 1%/step]
2-701-013	Leading Edge A01: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-014	Leading Edge A02: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-015	Leading Edge A03: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-016	Leading Edge A04: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-017	Leading Edge A05: MM	ENG	[0 to 100 / 90 / 1%/step]
2-701-018	Leading Edge A06: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-019	Leading Edge A07: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-020	Leading Edge A08: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-021	Leading Edge A09: MM	ENG	[0 to 100 / 100 / 1%/step]

2-701-022	Leading Edge A10: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-023	Leading Edge A11: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-024	Leading Edge A12: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-025	Leading Edge A01: HH	ENG	[0 to 100 / 80 / 1%/step]
2-701-026	Leading Edge A02: HH	ENG	[0 to 100 / 80 / 1%/step]
2-701-027	Leading Edge A03: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-028	Leading Edge A04: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-029	Leading Edge A05: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-030	Leading Edge A06: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-031	Leading Edge A07: HH	ENG	[0 to 100 / 80 / 1%/step]
2-701-032	Leading Edge A08: HH	ENG	[0 to 100 / 80 / 1%/step]
2-701-033	Leading Edge A09: HH	ENG	[0 to 100 / 90 / 1%/step]
2-701-034	Leading Edge A10: HH	ENG	[0 to 100 / 90 / 1%/step]
2-701-035	Leading Edge A11: HH	ENG	[0 to 100 / 80 / 1%/step]
2-701-036	Leading Edge A12: HH	ENG	[0 to 100 / 80 / 1%/step]
2-701-037	Image Area A01: LL	ENG	[0 to 100 / 60 / 1%/step]
2-701-038	Image Area A02: LL	ENG	[0 to 100 / 70 / 1%/step]
2-701-039	Image Area A03: LL	ENG	[0 to 100 / 70 / 1%/step]
2-701-040	Image Area A04: LL	ENG	[0 to 100 / 70 / 1%/step]
2-701-041	Image Area A05: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-042	Image Area A06: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-043	Image Area A07: LL	ENG	[0 to 100 / 70 / 1%/step]
2-701-044	Image Area A08: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-045	Image Area A09: LL	ENG	[0 to 100 / 70 / 1%/step]
2-701-046	Image Area A10: LL	ENG	[0 to 100 / 70 / 1%/step]
2-701-047	Image Area A11: LL	ENG	[0 to 100 / 60 / 1%/step]

2-701-048	Image Area A12: LL	ENG	[0 to 100 / 60 / 1%/step]
2-701-049	Image Area A01: MM	ENG	[0 to 100 / 60 / 1%/step]
2-701-050	Image Area A02: MM	ENG	[0 to 100 / 60 / 1%/step]
2-701-051	Image Area A03: MM	ENG	[0 to 100 / 90 / 1%/step]
2-701-052	Image Area A04: MM	ENG	[0 to 100 / 70 / 1%/step]
2-701-053	Image Area A05: MM	ENG	[0 to 100 / 70 / 1%/step]
2-701-054	Image Area A06: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-055	Image Area A07: MM	ENG	[0 to 100 / 50 / 1%/step]
2-701-056	Image Area A08: MM	ENG	[0 to 100 / 60 / 1%/step]
2-701-057	Image Area A09: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-058	Image Area A10: MM	ENG	[0 to 100 / 70 / 1%/step]
2-701-059	Image Area A11: MM	ENG	[0 to 100 / 60 / 1%/step]
2-701-060	Image Area A12: MM	ENG	[0 to 100 / 60 / 1%/step]
2-701-061	Image Area A01: HH	ENG	[0 to 100 / 50 / 1%/step]
2-701-062	Image Area A02: HH	ENG	[0 to 100 / 60 / 1%/step]
2-701-063	Image Area A03: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-064	Image Area A04: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-065	Image Area A05: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-066	Image Area A06: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-067	Image Area A07: HH	ENG	[0 to 100 / 50 / 1%/step]
2-701-068	Image Area A08: HH	ENG	[0 to 100 / 50 / 1%/step]
2-701-069	Image Area A09: HH	ENG	[0 to 100 / 90 / 1%/step]
2-701-070	Image Area A10: HH	ENG	[0 to 100 / 90 / 1%/step]
2-701-071	Image Area A11: HH	ENG	[0 to 100 / 60 / 1%/step]
2-701-072	Image Area A12: HH	ENG	[0 to 100 / 60 / 1%/step]
2-701-101	Leading Edge A13: LL	ENG	[0 to 100 / 80 / 1%/step]

2-701-102	Leading Edge A14: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-103	Leading Edge A15: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-104	Leading Edge A16: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-105	Leading Edge A17: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-106	Leading Edge A18: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-107	Leading Edge A19: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-108	Leading Edge A20: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-109	Leading Edge A21: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-110	Leading Edge A13: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-111	Leading Edge A14: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-112	Leading Edge A15: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-113	Leading Edge A16: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-114	Leading Edge A17: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-115	Leading Edge A18: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-116	Leading Edge A19: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-117	Leading Edge A20: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-118	Leading Edge A21: MM	ENG	[0 to 100 / 100 / 1%/step]
2-701-119	Leading Edge A13: HH	ENG	[0 to 100 / 80 / 1%/step]
2-701-120	Leading Edge A14: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-121	Leading Edge A15: HH	ENG	[0 to 100 / 80 / 1%/step]
2-701-122	Leading Edge A16: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-123	Leading Edge A17: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-124	Leading Edge A18: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-125	Leading Edge A19: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-126	Leading Edge A20: HH	ENG	[0 to 100 / 90 / 1%/step]
2-701-127	Leading Edge A21: HH	ENG	[0 to 100 / 90 / 1%/step]
2-701-137	Image Area A13: LL	ENG	[0 to 100 / 70 / 1%/step]
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2-701-138	Image Area A14: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-139	Image Area A15: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-140	Image Area A16: LL	ENG	[0 to 100 / 75 / 1%/step]
2-701-141	Image Area A17: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-142	Image Area A18: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-143	Image Area A19: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-144	Image Area A20: LL	ENG	[0 to 100 / 75 / 1%/step]
2-701-145	Image Area A21: LL	ENG	[0 to 100 / 90 / 1%/step]
2-701-146	Image Area A13: MM	ENG	[0 to 100 / 60 / 1%/step]
2-701-147	Image Area A14: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-148	Image Area A15: MM	ENG	[0 to 100 / 60 / 1%/step]
2-701-149	Image Area A16: MM	ENG	[0 to 100 / 70 / 1%/step]
2-701-150	Image Area A17: MM	ENG	[0 to 100 / 70 / 1%/step]
2-701-151	Image Area A18: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-152	Image Area A19: MM	ENG	[0 to 100 / 80 / 1%/step]
2-701-153	Image Area A20: MM	ENG	[0 to 100 / 70 / 1%/step]
2-701-154	Image Area A21: MM	ENG	[0 to 100 / 70 / 1%/step]
2-701-155	Image Area A13: HH	ENG	[0 to 100 / 60 / 1%/step]
2-701-156	Image Area A14: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-157	Image Area A15: HH	ENG	[0 to 100 / 50 / 1%/step]
2-701-158	Image Area A16: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-159	Image Area A17: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-160	Image Area A18: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-161	Image Area A19: HH	ENG	[0 to 100 / 100 / 1%/step]
2-701-162	Image Area A20: HH	ENG	[0 to 100 / 90 / 1%/step]

2-701-163	Image Area A21: HH	ENG	[0 to 100 / 90 / 1%/step]	
2702				
2-702-001	Leading Edge D01: LL	ENG	[0 to 100 / 10 / 1%/step]	
2-702-002	Leading Edge D02: LL	ENG	[0 to 100 / 30 / 1%/step]	
2-702-003	Leading Edge D03: LL	ENG	[0 to 100 / 30 / 1%/step]	
2-702-004	Leading Edge D04: LL	ENG	[0 to 100 / 30 / 1%/step]	
2-702-005	Leading Edge D05: LL	ENG	[0 to 100 / 10 / 1%/step]	
2-702-006	Leading Edge D06: LL	ENG	[0 to 100 / 30 / 1%/step]	
2-702-007	Leading Edge D07: LL	ENG	[0 to 100 / 30 / 1%/step]	
2-702-008	Leading Edge D08: LL	ENG	[0 to 100 / 30 / 1%/step]	
2-702-009	Leading Edge D09: LL	ENG	[0 to 100 / 30 / 1%/step]	
2-702-010	Leading Edge D10: LL	ENG	[0 to 100 / 40 / 1%/step]	
2-702-011	Leading Edge D11:LL	ENG	[0 to 100 / 40 / 1%/step]	
2-702-012	Leading Edge D12: LL	ENG	[0 to 100 / 40 / 1%/step]	
2-702-013	Leading Edge D13: LL	ENG	[0 to 100 / 25 / 1%/step]	
2-702-014	Leading Edge D14: LL	ENG	[0 to 100 / 40 / 1%/step]	
2-702-015	Leading Edge D15: LL	ENG	[0 to 100 / 25 / 1%/step]	
2-702-016	Leading Edge D16: LL	ENG	[0 to 100 / 40 / 1%/step]	
2-702-017	Leading Edge D17: LL	ENG	[0 to 100 / 40 / 1%/step]	
2-702-018	Leading Edge D18: LL	ENG	[0 to 100 / 40 / 1%/step]	
2-702-019	Leading Edge D19: LL	ENG	[0 to 100 / 15 / 1%/step]	
2-702-020	Leading Edge D20: LL	ENG	[0 to 100 / 30 / 1%/step]	
2-702-021	Leading Edge D21: LL	ENG	[0 to 100 / 15 / 1%/step]	
2-702-022	Leading Edge D22: LL	ENG	[0 to 100 / 30 / 1%/step]	
2-702-023	Leading Edge D23: LL	ENG	[0 to 100 / 30 / 1%/step]	

2-702-024	Leading Edge D24: LL	ENG	[0 to 100 / 30 / 1%/step]
2-702-025	Leading Edge D25: LL	ENG	[0 to 100 / 40 / 1%/step]
2-702-026	Leading Edge D26: LL	ENG	[0 to 100 / 30 / 1%/step]
2-702-027	Leading Edge D27: LL	ENG	[0 to 100 / 40 / 1%/step]
2-702-028	Leading Edge D28: LL	ENG	[0 to 100 / 40 / 1%/step]
2-702-029	Leading Edge D29: LL	ENG	[0 to 100 / 40 / 1%/step]
2-702-030	Leading Edge D30: LL	ENG	[0 to 100 / 10 / 1%/step]
2-702-031	Leading Edge D31: LL	ENG	[0 to 100 / 30 / 1%/step]
2-702-032	Leading Edge D32: LL	ENG	[0 to 100 / 50 / 1%/step]
2-702-033	Leading Edge D33: LL	ENG	[0 to 100 / 50 / 1%/step]
2-702-034	Leading Edge D34: LL	ENG	[0 to 100 / 50 / 1%/step]
2-702-035	Leading Edge D35: LL	ENG	[0 to 100 / 50 / 1%/step]
2-702-036	Leading Edge D36: LL	ENG	[0 to 100 / 50 / 1%/step]
2-702-037	Leading Edge D37: LL	ENG	[0 to 100 / 50 / 1%/step]
2-702-038	Leading Edge D38: LL	ENG	[0 to 100 / 50 / 1%/step]
2-702-039	Leading Edge D39: LL	ENG	[0 to 100 / 50 / 1%/step]
2-702-040	Leading Edge D40: LL	ENG	[0 to 100 / 50 / 1%/step]
2-702-041	Leading Edge D01: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-042	Leading Edge D02: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-043	Leading Edge D03: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-044	Leading Edge D04: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-045	Leading Edge D05: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-046	Leading Edge D06: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-047	Leading Edge D07: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-048	Leading Edge D08: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-049	Leading Edge D09: MM	ENG	[0 to 100 / 30 / 1%/step]

2-702-050	Leading Edge D10: MM	ENG	[0 to 100 / 40 / 1%/step]
2-702-051	Leading Edge D11: MM	ENG	[0 to 100 / 40 / 1%/step]
2-702-052	Leading Edge D12: MM	ENG	[0 to 100 / 40 / 1%/step]
2-702-053	Leading Edge D13: MM	ENG	[0 to 100 / 20 / 1%/step]
2-702-054	Leading Edge D14: MM	ENG	[0 to 100 / 20 / 1%/step]
2-702-055	Leading Edge D15: MM	ENG	[0 to 100 / 20 / 1%/step]
2-702-056	Leading Edge D16: MM	ENG	[0 to 100 / 20 / 1%/step]
2-702-057	Leading Edge D17: MM	ENG	[0 to 100 / 20 / 1%/step]
2-702-058	Leading Edge D18: MM	ENG	[0 to 100 / 20 / 1%/step]
2-702-059	Leading Edge D19: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-060	Leading Edge D20: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-061	Leading Edge D21: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-062	Leading Edge D22: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-063	Leading Edge D23: MM	ENG	[0 to 100 / 50 / 1%/step]
2-702-064	Leading Edge D24: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-065	Leading Edge D25: MM	ENG	[0 to 100 / 40 / 1%/step]
2-702-066	Leading Edge D26: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-067	Leading Edge D27: MM	ENG	[0 to 100 / 40 / 1%/step]
2-702-068	Leading Edge D28: MM	ENG	[0 to 100 / 40 / 1%/step]
2-702-069	Leading Edge D29: MM	ENG	[0 to 100 / 40 / 1%/step]
2-702-070	Leading Edge D30: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-071	Leading Edge D31: MM	ENG	[0 to 100 / 30 / 1%/step]
2-702-072	Leading Edge D32: MM	ENG	[0 to 100 / 50 / 1%/step]
2-702-073	Leading Edge D33: MM	ENG	[0 to 100 / 50 / 1%/step]
2-702-074	Leading Edge D34: MM	ENG	[0 to 100 / 50 / 1%/step]
2-702-075	Leading Edge D35: MM	ENG	[0 to 100 / 50 / 1%/step]

Г				
	2-702-076	Leading Edge D36: MM	ENG	[0 to 100 / 50 / 1%/step]
	2-702-077	Leading Edge D37: MM	ENG	[0 to 100 / 50 / 1%/step]
	2-702-078	Leading Edge D38: MM	ENG	[0 to 100 / 50 / 1%/step]
	2-702-079	Leading Edge D39: MM	ENG	[0 to 100 / 50 / 1%/step]
	2-702-080	Leading Edge D40: MM	ENG	[0 to 100 / 50 / 1%/step]
	2-702-081	Leading Edge D01: HH	ENG	[0 to 100 / 10 / 1%/step]
	2-702-082	Leading Edge D02: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-083	Leading Edge D03: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-084	Leading Edge D04: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-085	Leading Edge D05: HH	ENG	[0 to 100 / 10 / 1%/step]
	2-702-086	Leading Edge D06: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-087	Leading Edge D07: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-088	Leading Edge D08: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-089	Leading Edge D09: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-090	Leading Edge D10: HH	ENG	[0 to 100 / 70 / 1%/step]
	2-702-091	Leading Edge D11: HH	ENG	[0 to 100 / 40 / 1%/step]
	2-702-092	Leading Edge D12: HH	ENG	[0 to 100 / 40 / 1%/step]
	2-702-093	Leading Edge D13: HH	ENG	[0 to 100 / 20 / 1%/step]
	2-702-094	Leading Edge D14: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-095	Leading Edge D15: HH	ENG	[0 to 100 / 20 / 1%/step]
	2-702-096	Leading Edge D16: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-097	Leading Edge D17: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-098	Leading Edge D18: HH	ENG	[0 to 100 / 30 / 1%/step]
	2-702-099	Leading Edge D19: HH	ENG	[0 to 100 / 30 / 1%/step]
ſ	2-702-100	Leading Edge D20: HH	ENG	[0 to 100 / 30 / 1%/step]
ſ	2-702-101	Leading Edge D21: HH	ENG	[0 to 100 / 30 / 1%/step]

2-702-102	Leading Edge D22: HH	ENG	[0 to 100 / 30 / 1%/step]
2-702-103	Leading Edge D23: HH	ENG	[0 to 100 / 30 / 1%/step]
2-702-104	Leading Edge D24: HH	ENG	[0 to 100 / 30 / 1%/step]
2-702-105	Leading Edge D25: HH	ENG	[0 to 100 / 40 / 1%/step]
2-702-106	Leading Edge D26: HH	ENG	[0 to 100 / 30 / 1%/step]
2-702-107	Leading Edge D27: HH	ENG	[0 to 100 / 40 / 1%/step]
2-702-108	Leading Edge D28: HH	ENG	[0 to 100 / 40 / 1%/step]
2-702-109	Leading Edge D29: HH	ENG	[0 to 100 / 40 / 1%/step]
2-702-110	Leading Edge D30: HH	ENG	[0 to 100 / 10 / 1%/step]
2-702-111	Leading Edge D31: HH	ENG	[0 to 100 / 30 / 1%/step]
2-702-112	Leading Edge D32: HH	ENG	[0 to 100 / 50 / 1%/step]
2-702-113	Leading Edge D33: HH	ENG	[0 to 100 / 50 / 1%/step]
2-702-114	Leading Edge D34: HH	ENG	[0 to 100 / 50 / 1%/step]
2-702-115	Leading Edge D35: HH	ENG	[0 to 100 / 50 / 1%/step]
2-702-116	Leading Edge D36: HH	ENG	[0 to 100 / 50 / 1%/step]
2-702-117	Leading Edge D37: HH	ENG	[0 to 100 / 50 / 1%/step]
2-702-118	Leading Edge D38: HH	ENG	[0 to 100 / 50 / 1%/step]
2-702-119	Leading Edge D39: HH	ENG	[0 to 100 / 50 / 1%/step]
2-702-120	Leading Edge D40: HH	ENG	[0 to 100 / 50 / 1%/step]
2-702-121	Image Area D01: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-122	Image Area D02: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-123	Image Area D03: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-124	Image Area D04: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-125	Image Area D05: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-126	Image Area D06: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-127	Image Area D07: LL	ENG	[0 to 100 / 0 / 1%/step]

2-702-128	Image Area D08: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-129	Image Area D09: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-130	Image Area D10: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-131	Image Area D11:LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-132	Image Area D12: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-133	Image Area D13: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-134	Image Area D14: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-135	Image Area D15: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-136	Image Area D16: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-137	Image Area D17: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-138	Image Area D18: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-139	Image Area D19: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-140	Image Area D20: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-141	Image Area D21: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-142	Image Area D22: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-143	Image Area D23: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-144	Image Area D24: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-145	Image Area D25: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-146	Image Area D26: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-147	Image Area D27: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-148	Image Area D28: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-149	Image Area D29: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-150	Image Area D30: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-151	Image Area D31: LL	ENG	[0 to 100 / 0 / 1%/step]
2-702-152	Image Area D32: LL	ENG	[0 to 100 / 10 / 1%/step]
2-702-153	Image Area D33: LL	ENG	[0 to 100 / 10 / 1%/step]

2-702-154	Image Area D34: LL	ENG	[0 to 100 / 10 / 1%/step]
2-702-155	Image Area D35: LL	ENG	[0 to 100 / 10 / 1%/step]
2-702-156	Image Area D36: LL	ENG	[0 to 100 / 10 / 1%/step]
2-702-157	Image Area D37: LL	ENG	[0 to 100 / 10 / 1%/step]
2-702-158	Image Area D38: LL	ENG	[0 to 100 / 10 / 1%/step]
2-702-159	Image Area D39: LL	ENG	[0 to 100 / 10 / 1%/step]
2-702-160	Image Area D40: LL	ENG	[0 to 100 / 10 / 1%/step]
2-702-161	Image Area D01: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-162	Image Area D02: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-163	Image Area D03: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-164	Image Area D04: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-165	Image Area D05: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-166	Image Area D06: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-167	Image Area D07: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-168	Image Area D08: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-169	Image Area D09: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-170	Image Area D10: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-171	Image Area D11: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-172	Image Area D12: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-173	Image Area D13: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-174	Image Area D14: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-175	Image Area D15: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-176	Image Area D16: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-177	Image Area D17: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-178	Image Area D18: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-179	Image Area D19: MM	ENG	[0 to 100 / 0 / 1%/step]

2-702-180	Image Area D20: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-181	Image Area D21: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-182	Image Area D22: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-183	Image Area D23: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-184	Image Area D24: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-185	Image Area D25: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-186	Image Area D26: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-187	Image Area D27: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-188	Image Area D28: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-189	Image Area D29: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-190	Image Area D30: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-191	Image Area D31: MM	ENG	[0 to 100 / 0 / 1%/step]
2-702-192	Image Area D32: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-193	Image Area D33: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-194	Image Area D34: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-195	Image Area D35: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-196	Image Area D36: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-197	Image Area D37: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-198	Image Area D38: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-199	Image Area D39: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-200	Image Area D40: MM	ENG	[0 to 100 / 10 / 1%/step]
2-702-201	Image Area D01: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-202	Image Area D02: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-203	Image Area D03: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-204	Image Area D04: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-205	Image Area D05: HH	ENG	[0 to 100 / 0 / 1%/step]

2-702-206	Image Area D06: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-207	Image Area D07: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-208	Image Area D08: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-209	Image Area D09: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-210	Image Area D10: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-211	Image Area D11: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-212	Image Area D12: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-213	Image Area D13: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-214	Image Area D14: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-215	Image Area D15: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-216	Image Area D16: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-217	Image Area D17: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-218	Image Area D18: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-219	Image Area D19: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-220	Image Area D20: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-221	Image Area D21: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-222	Image Area D22: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-223	Image Area D23: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-224	Image Area D24: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-225	Image Area D25: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-226	Image Area D26: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-227	Image Area D27: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-228	Image Area D28: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-229	Image Area D29: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-230	Image Area D30: HH	ENG	[0 to 100 / 0 / 1%/step]
2-702-231	Image Area D31: HH	ENG	[0 to 100 / 0 / 1%/step]

2-7	02-232	Image Area D32: HH	ENG	[0 to 100 / 10 / 1%/step]
2-7	02-233	Image Area D33: HH	ENG	[0 to 100 / 10 / 1%/step]
2-7	02-234	Image Area D34: HH	ENG	[0 to 100 / 10 / 1%/step]
2-7	02-235	Image Area D35: HH	ENG	[0 to 100 / 10 / 1%/step]
2-7	02-236	Image Area D36: HH	ENG	[0 to 100 / 10 / 1%/step]
2-7	02-237	Image Area D37: HH	ENG	[0 to 100 / 10 / 1%/step]
2-7	02-238	Image Area D38: HH	ENG	[0 to 100 / 10 / 1%/step]
2-7	02-239	Image Area D39: HH	ENG	[0 to 100 / 10 / 1%/step]
2-7	02-240	Image Area D40: HH	ENG	[0 to 100 / 10 / 1%/step]

2801	[Developer Initial Setting]			
	Execute this SP only after replacing the developer. Executing this SP raises the chargeability of the developer in the development unit.			
	Note : You must also enter the lot numbers of the toner that has just been insta The lot number is embossed on the top edge of each developer pack.			
2-801-001	Initialize Developer: Execute	ENG	[0 to 1 / 0 / 1/step] Press [Start] to execute.	
2-801-002	Lot Number 1	ENG	[0 to 0 / 0 / 0/step]	
2-801-003	Lot Number 2	ENG	Enter the lot numbers with the 10-key pad.	

2803	[Charge Corona Wire Cleaning]		
	Executes the charging corona wire cleaning manually.		
2-803-001		ENG	[Execute]

2804	[Corona Wire Cleaning Interva	l] <carefully< th=""><th>Use></th></carefully<>	Use>
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).		
	This SP selects the interval between corona wire cleanings.		
	0 : None (no cleaning)		
	1 : After Main Power SW On, if the fusing temperature is below 50°C		
	 2 : After 300 m Prints (Job End), if the fusing temperature is below 50°C 3 : After 600 m Prints (Job End), if the fusing temperature is below 50°C 4 : After 900 m Prints (Job End), if the fusing temperature is below 50°C 5 : After 1200 m Prints (Job End), if the fusing temperature is below 50°C 6 : After 1500 m Prints (Job End), if the fusing temperature is below 50°C 		
2-804-001	Mode	ENG	[0 to 6 / 3 / 1/step]

2902	[Test Pattern]
	0: None
	1: Grid Pattern (1-dot)
	2: Grid Pattern (2-dot)
	3: Grid Pattern (3-dot)
	4: Grid Pattern (4-dot)
	5: Grid Pattern (5-dot)
	6: Grid Pattern (6-dot)
	7: Argyle Pattern (1-dot)
	8: Argyle Pattern (2-dot)
	9: Argyle Pattern (3-dot)
	10: Argyle Pattern (4-dot)

	11: Argyle Pattern (5-dot)		
	12: Argyle Pattern (6-dot)		
	13: Vertical Line (1-dot)		
	14: Vertical Line (2-dot)		
	15: Horizontal Line (1-dot)		
	16: Horizontal Line (2-dot)		
	17: Checkered Flag		
	18: Alternating Dot Pattern (1-dot)		
	19: Alternating Dot Pattern (2-dot)		
	20: Alternating Dot Pattern (4-dot)		
	21: Trimming Area		
	22: Full Dot Pattern		
	23: Black Band (Vertical)		
	24: Black Band (Horizontal)		
	25: Blank Image		
	26: 1-dotGridPattern(1Time)		
	27: 1by1(1Time)		
2-902-003	Printing Test Pattern	ENG	[0 to 27 / 0 / 1/step]

2916	[Fine Magnification]		
	This SP supplements the rate of magnification and paper selected by the user for the job in order to maintain the fine magnification for the paper in use.		
2-916-001	Plain Paper: Mode1-4: Main Scan	ENG	[-1.0 to 1.0 / 0 / 0.1%/step]
2-916-002	Plain Paper: Mode1-4: Sub Scan	ENG	[-1.3 to 1.0 / 0 / 0.1%/step]
2-916-003	Translucent: Mode1-4: Main Scan	ENG	[-1.0 to 1.0 / 0 / 0.1%/step]
2-916-004	Translucent: Mode1-4: Sub Scan	ENG	[-1.3 to 1.0 / 0 / 0.1%/step]
2-916-005	Film: Mode1-4: Main Scan	ENG	[-1.0 to 1.0 / 0 / 0.1%/step]
2-916-006	Film: Mode1-4: Sub Scan	ENG	[-1.3 to 1.0 / 0 / 0.1%/step]

2-916-007	Recycled Paper: Mode1-4: Main Scan	ENG	[-1.0 to 1.0 / 0 / 0.1%/step]
2-916-008	Recycled Paper: Mode1-4: Sub Scan	ENG	[-1.3 to 1.0 / 0 / 0.1%/step]
2-916-009	Plain Paper: Mode5: Main Scan	ENG	[-1.0 to 1.0 / 0 / 0.1%/step]
2-916-010	Plain Paper: Mode5: Sub Scan	ENG	[-1.3 to 1.0 / 0 / 0.1%/step]
2-916-011	Translucent: Mode5: Main Scan	ENG	[-1.0 to 1.0 / 0 / 0.1%/step]
2-916-012	Translucent: Mode5: Sub Scan	ENG	[-1.3 to 1.0 / 0 / 0.1%/step]
2-916-013	Film: Mode5: Main Scan	ENG	[-1.0 to 1.0 / 0 / 0.1%/step]
2-916-014	Film: Mode5: Sub Scan	ENG	[-1.3 to 1.0 / 0 / 0.1%/step]
2-916-015	Recycled Paper: Mode5: Main Scan	ENG	[-1.0 to 1.0 / 0 / 0.1%/step]
2-916-016	Recycled Paper: Mode5: Sub Scan	ENG	[-1.3 to 1.0 / 0 / 0.1%/step]

2923	[Drum Setting Mode]		
	This SP puts the machine in the Drum Set Mode. Execute this SP code at machine installation and after replacing the drum.		
	 Push the drum release lever to the right to separate the cleaning blade from the drum surface, and then execute this SP to rotate the drum and coat the surface of the drum with a light coat of toner. 		
	• Push the drum release lever back to the left.		
	• When the machine is turned on again, the light film of toner on the drum prevents the cleaning blade from scouring the surface of the drum.		he light film of toner on the drum ng the surface of the drum.
	 If the dry surface of the new contact with the cleaning b 	the new drum is not coated with a thin coat of toner the first aning blade could damage the surface of the drum.	
2-923-001		ENG	[Execute]

2924	[Drum Initialization] <carefully< th=""><th>Use></th><th></th></carefully<>	Use>			
	If possible, consult the site mand affect other SP settings).	ager before c	hanging this SP (any change could		
2-924-001	Developer Mixing Warmup ENG [0 to 2 / 1 / 1/step]				
	This SP setting controls warm-up to prevent dark backgrounds in the first prints after cold start.				
	0: No warm-up control				
	1: Executes warm-up control only if the fusing temperature is below 50°C.				
	2: Executes warm-up control every time the machine is powered on, regardless of the fusing temperature.				
2-924-002	D2 Enable ENG [0 to 1 / 0 / 1/step]				
	If the drum seal is left open external light can fatigue the drum and cause horizont banding in prints. After the upper unit has been open, the charge corona is applie and the drum operates so the drum can recover from drum fatigue.				
	[0 to 1/0/1]				
	0: (Upper unit opening/closing) drum initialization operates.				
	1: (Upper unit opening/closing) drum initiali	zation does not operate.		
	However, each setting is affecte	ed by the follo	owing:		
	 "Toner-End Recovery" and "Drum Initialization"> Toner-end recovery executes. Drum initialization is not done. 				
	 "Warm-up Control" and "E Drum initialization is not de 	Drum Initializa one.	ation"> Cold-start inching executes.		
	 After the machine is turned closed then the conditions 	on with the u described at	upper unit open, after the upper unit is pove exist.		

2926	[Used Toner Control] DFU		
2-926-001	Used Toner Full Detection	ENG	[1 to 300 / 100 / 1 m/step]
2-926-002	Full Detection Display: Changed Value	ENG	[0 to 1000 / 0 / 1 m/step]

2927	[Toner End Detection] <carefully use=""></carefully>
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).

З

2-927-001 Near End Level ENG [0.130 to 0.215 / 0.155 / 0.005/ step] Selects the near end level (Vsp/Vsg). A higher setting increases toner, a lower setting increases toner.				
Selects the near end level (Vsp/Vsg). A higher setting increases toner, a lower setting increases toner.	2-927-001	Near End Level	ENG	[0.130 to 0.215 / 0.155 / 0.005/ step]
		Selects the near end level (Vsp/ A higher setting increases toner	′Vsg). , a lower setti	ing increases toner.
2-927-002 Toner End Level ENG [0.150 to 0.235 / 0.175 / 0.005/ step]	2-927-002	Toner End Level	ENG	[0.150 to 0.235 / 0.175 / 0.005/ step]
After the toner near-end alert has been issued based on the ID sensor pattern readings, if the reading is larger than this SP for three successive readings, the tone end alert is issued and the machine stops.		After the toner near-end alert has been issued based on the ID sensor pattern readings, if the reading is larger than this SP for three successive readings, the toner end alert is issued and the machine stops.		

2928	[Toner End Recovery] <carefully use=""></carefully>		
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).		
2-928-001	Recovery Level	ENG	[0.130 to 0.215 / 0.155 / 0.005/ step]
	Once the calculated Vsp/Vsg drops below the value of this SP setting, the machine recovers from the toner-end (or toner near-end) condition.		

2930	[Drum Reverse Rotation Ctrl]			
2-930-001	During Job DFU	ENG	[0 to 1 / 0 / 1/step]	
	Sets the drum reverse rotation c	ontrol ON/C	DFF during the job.	
2-930-002	Distance*1 ENG [1 to 200 / 60 / 1 m/step]			
	If the specified number of pages exceeded during a continuous p paper reverse feeds, and the jo emptied and re-installed.	pecified number of pages allowed to print after the near-full alert has been ded during a continuous print job, the machine stops the drum motor, the reverse feeds, and the job continues after the used toner bottle has been ad and re-installed.		

*1 If possible, consult the site manager before changing this SP (any change could affect other SP settings).

2940	[LPH Fan Motor Setting]			
	This setting controls the operation of the LPH fan.			
	0: Synchronizes with driving mo	otor		
	 Fan operation synchronizes with main motor or fusing motor. The left, right motors go ON when the main motor, fusing motor start-up (whichever is first) goes ON. 			
	 Left, right motors go OFF when the main motor or fusing motor goes OFF (whichever goes OFF second). 			
	1: Off			
	2: Synchronizes with power relay. Synchronizes with the operation of the fusing lamps (OFF when an SC is issued and when the upper unit is open.)			
2-940-001	ENG [0 to 2 / 0 / 1/step]			

2943	[LED Duty Adjustment]		
	Adjusts the LED duty level for each LPH.		
2-943-001	LPH 1	ENG	[1.00 to 9.00 / 2.64 / 0.02us/step]
2-943-002	LPH2	ENG	
2-943-003	LPH3	ENG	

2951	[LPH Joint Power Effective Dot]		
2-951-001	Left:1-8dot	ENG	[0 to 255 / 255 / 1/step]
	This is the dot setting (Left: 1-8 dot) for correction at the left joint of the LPH bracket.		
2-951-002	Right: 1-8dot ENG [0 to 255 / 255 / 1/step]		
	This is the dot setting (Right: 1-8 dot) for correction at the right joint of the LPH bracket.		

2952	[LPH Joint Adjustment]
	These SP codes adjust the scanning at the points of the LPH joints.
	Note: Do these adjustments only after replacing the LPH>

2-952-001	LPH1-2 Main Scan	ENG	[0 to 999 / 500 / 1/step]	
	This SP code adjusts the joint at LPH1, 2 in the main scan direction.			
	 It adjusts the amount of light LPH2. 	ht for one col	umn position fixed at 8 dots to the left of	
	 As the value of the setting is increased, it shifts to the left away from the joint, and as the value is decreased it shifts to the right and eventually overlaps the joint. 			
	As larger settings are select	cted, the amo	unt of light is reduced to thinner density.	
2-952-002	LPH2-3 Main Scan	ENG	[0 to 999 / 500 / 1/step]	
	This SP code adjusts the joint at amount of light for one column value of the setting is increased, value is decreased it shifts to the settings are selected, the amour	s SP code adjusts the joint at LPH2, 3 in the main scan direction. It adjusts the ount of light for one column position fixed at 8 dots to the right of LPH2. As the ue of the setting is increased, it shifts to the right away from the joint, and as the ue is decreased it shifts to the left and eventually overlaps the joint. As larger tings are selected, the amount of light is reduced to thinner density.		
2-952-011	LPH1-2 Sub Scan	ENG	[300 to 999 / 618 / 1/step]	
	This SP code adjusts the joint at LPH1, 2 in the sub scan direction.			
	 The difference in the write time between LPH2 and LPH1 is adjusted in units of one line. 			
	 As the setting is increased, setting is decreased it shifts 	the image or s up.	utput at LPH2 shifts down, and as the	
2-952-012	LPH2-3 Sub Scan	ENG	[2 to 200 / 34 / 1/step]	
	This SP code adjusts the joint at LPH2, 3 in the sub scan direction.			
	• The difference in the write one line.	time betweer	LPH3 and LPH1 is adjusted in units of	
 As the setting is increased, the image output at LPH3 shifts do setting is decreased it shifts up. 		utput at LPH3 shifts down, and as the		

2953	[LPH Joint Power Correction]		
	This SP adjusts LPH1-2 in the main scan direction. Adjusts in units of dots.		
2-953-001	1 dot:Left	ENG	[-63 to 63 / 0 / 1/step]
2-953-002	2dot:Left	ENG	[-63 to 63 / 0 / 1/step]

2-953-003	3dot:Left	ENG	[-63 to 63 / 0 / 1/step]
2-953-004	4dot:Left	ENG	[-63 to 63 / 0 / 1/step]
2-953-005	5dot:Left	ENG	[-63 to 63 / 0 / 1/step]
2-953-006	6dot:Left	ENG	[-63 to 63 / 0 / 1/step]
2-953-007	7dot:Left	ENG	[-63 to 63 / 0 / 1/step]
2-953-008	8dot:Left	ENG	[-63 to 63 / 0 / 1/step]

2953	[LPH Joint Power Correction]		
	This SP adjusts LPH2-3 in the main scan direction. Adjusts in units of dots.		
2-953-011	1 dot:Right	ENG	[-63 to 63 / 0 / 1/step]
2-953-012	2dot:Right	ENG	[-63 to 63 / 0 / 1/step]
2-953-013	3dot:Right	ENG	[-63 to 63 / 0 / 1/step]
2-953-014	4dot:Right	ENG	[-63 to 63 / 0 / 1/step]
2-953-015	5dot:Right	ENG	[-63 to 63 / 0 / 1/step]
2-953-016	6dot:Right	ENG	[-63 to 63 / 0 / 1/step]
2-953-017	7dot:Right	ENG	[-63 to 63 / 0 / 1/step]
2-953-018	8dot:Right	ENG	[-63 to 63 / 0 / 1/step]

2954	[Binary Line Width Correction]			
2-954-010	Level Select: > 2dots ENG [0 to 3 / 1 / 1/step]			
	Selects the level for fine line processing of vertical lines thicker than two dots.			
	0: Strongest processing (thinnest)			
	1: Normal processing			
	2: Weaker processing			
	3: Weakest processing (thickest)		

2-954-011	Level Select: > 1 dot ENG [1 to 15 / 9 / 1/step]			
	This SP sets the level for vertical image quality adjustment to elin scratchy.	line width (1 ninate the pos	-dot) correction. This setting is used for ssible occurrence of images that appear	

2956	[Toner Save Mode Setting]			
2-956-001	Mode Selection	ENG	[0 to 3 / 0 / 1/step]	
	Selects the toner seve mode type.			
	0: Based on the Printer Driver Setting			
	1: Printer (Binary Output) Always ON 2: Always OFF 3: Always ON			
2-956-002	2-956-002 Pattern Selection ENG [0 to 3 / 1 / 1/step]			
	Selects the print pattern under the toner save mode.		mode.	

2959	[Display: VDB ID]		
	Reads and displays the FPGA version 8-bit data of the VDB.		
	Note: The VDB (Video Drive Board) controls the LPH. It processes the image information sent from the IPU and sends it to the LPH.		
2-959-001		ENG	[0x00 to 0xFF / 0x01 / 1Hex/step]

2960	[Display: Light source Power]			
	Displays LPH light source power (read value).			
2-960-001	LPH 1	ENG	[0 to 2.55 / 0 / 0.01 uW/step]	
2-960-002	LPH2	ENG	[0 to 2.55 / 0 / 0.01 uW/step]	
2-960-003	LPH3	ENG	[0 to 2.55 / 0 / 0.01 uW/step]	

2961	[Display: Serial Data]			
	Displays LPH serial data (read value).			
2-961-001	LPH 1	ENG	[0 to 1 / 0 / 1/step]	

2-961-002	LPH2	ENG	[0 to 1 / 0 / 1/step]
2-961-003	LPH3	ENG	[0 to 1 / 0 / 1/step]

2962	[Display: Identification data]		
	Displays LPH identification data.		
2-962-001	LPH 1	ENG	[0x00 to 0xFF / 0x00 / 1 Hex/step]
2-962-002	LPH2	ENG	[0x00 to 0xFF / 0x00 / 1 Hex/step]
2-962-003	LPH3	ENG	[0x00 to 0xFF / 0x00 / 1 Hex/step]

2970	[LED Duty Calculated Value]			
	Displays the calculated output of adjustment for each LPH strobe.			
2-970-001	LPH 1	ENG	[1.00 to 9.00 / 1.00 / 0.02 us/step]	
2-970-002	LPH2	ENG	[1.00 to 9.00 / 1.00 / 0.02 us/step]	
2-970-003	LPH3	ENG	[1.00 to 9.00 / 1.00 / 0.02 us/step]	

2992	[Temperature/Humidity Thresh] DFU		
2-992-001	SL	ENG	[0 to 100 / 5 / 1 deg/step]
2-992-002	LL/ML	ENG	[0 to 100 / 5 / 1g/m3/step]
2-992-003	ML/MM	ENG	[0 to 100 / 8 / 1g/m3/step]
2-992-004	мм/мн	ENG	[0 to 100 / 16 / 1g/m3/step]
2-992-005	мн/нн	ENG	[0 to 100 / 22 / 1g/m3/step]
2-992-007	Current Env. Range Display	ENG	[0 to 10 / 0 / 1/step]
2-992-008	Current Temperature Display	ENG	[0 to 100.0 / 0 / 0.1 deg/step]
2-992-009	Current Relative Humidity Display	ENG	[0 to 100.0 / 0 / 0.1%RH/step]
2-992-010	Current Absolute Humidity Display	ENG	[0 to 100.0 / 0 / 0.1 g/m3/step]

2-992-011	Switch Temperature/Humidity Ctrl	ENG	[0 to 1 / 1 / 1/step]
2-992-021	Transfer: LL/ML	ENG	[0 to 100 / 4 / 1 g/m3/step]
2-992-022	Transfer: ML/MM	ENG	[0 to 100 / 8 / 1 g/m3/step]
2-992-023	Transfer: MH/MH	ENG	[0 to 100 / 16 / 1 g/m3/step]
2-992-024	Transfer: MH/HH	ENG	[0 to 100 / 23 / 1 g/m3/step]
2-992-031	Separation: LL/MM	ENG	[0 to 100 / 7 / 1 g/m3/step]
2-992-032	Separation MM/HH	ENG	[0 to 100 / 20 / 1 g/m3/step]
2-992-040	Transfer: Current Env. Range: Display	ENG	[0 to 10 / 0 / 1/step]
2-992-041	Separation: Current Env. Range: Display	ENG	[0 to 10 / 0 / 1/step]
2-992-050	Abs. Humidity: Pick-Off Pawl: Roll	ENG	[0.3 to 55.0 / 50.0 / 0.1 g/m3/ step]
2-992-051	Abs. Humidity: Pick-Off Pawl: Cut	ENG	[0.3 to 55.0 / 16.0 / 0.1 g/m3/ step]

2996	[Dev. Bias Env Correction] DFU		
2-996-001	SL	ENG	[1 to 120 / 100 / 1%/step]
2-996-002	LL	ENG	[1 to 120 / 100 / 1%/step]
2-996-003	ML	ENG	[1 to 120 / 100 / 1%/step]
2-996-004	ММ	ENG	[1 to 120 / 100 / 1%/step]
2-996-005	МН	ENG	[1 to 120 / 100 / 1%/step]
2-996-006	НН	ENG	[1 to 120 / 100 / 1%/step]

2996	[Charge Bias Env. Correction]		
	This SP code adjusts the value of the charge grid voltage (bias voltage or Vg) applied to the drum for ambient conditions of temperature and humidity.		
2-996-007	SL	ENG	[1 to 120 / 100 / 1%/step]

2-996-008	Ш	ENG	[1 to 120 / 100 / 1%/step]
2-996-009	ML	ENG	[1 to 120 / 100 / 1%/step]
2-996-010	ММ	ENG	[1 to 120 / 100 / 1%/step]
2-996-011	МН	ENG	[1 to 120 / 100 / 1%/step]
2-996-012	НН	ENG	[1 to 120 / 100 / 1%/step]

SP Mode Tables - SP3000

SP3-XXX (Process Control)

3001	[ID Sensor Initial Setting] DFU		
3-001-001	PWM Setting: ID Sensor LED	ENG	[0 to 100.0 / 10.0 / 0.1%/step]
3-001-002	Initialization	ENG	[Execute]

3103	[ID Sensor Output Display] <carefully use=""> If possible, consult the site manager before changing this SP (any change could affect other SP settings).</carefully>			
3-103-001	Vsg	ENG	[0 to 5.00 / 0 / 0.01 vol/step]	
	Displays the ID sensor output vo sensor is detecting the pattern.	ltage (Vsg) a	n the surface of the drum when ID	
	Note:			
	ID Sensor detection is exrcuted at fixed intervals after image transfer is done.			
	The gain setting is determined by the ratio of Vsp to Vsg for toner supplying.			
3-103-002	Vsp	ENG	[0 to 5.00 / 0 / 0.01 vol/step]	
	Displays the ID sensor output voltage (Vsp) of the pattern created on the surface of the drum.			
	SP2-201-002(ID Sensor Pattern: Low Duty Copy Jobs) or SP2-201-003(ID Sensor Pattern: High Duty Copy Jobs) controls the pattern density of the ID sensor.			
	SP2-201-004 (Duty Mode Switch) determines the mode: SP2-201-002 or 003.			
	Note:			
	ID Sensor detection is exrcuted at fixed intervals after image transfer is done.			
	The gain setting is determined by the ratio of Vsp to Vsg for toner supplying.			

3920	[ID Sensor Pattern Interval] <carefully use=""></carefully>
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).

3-920-001	Job End	ENG	[20 to 1000 / 100 / 10 cm/step]
	This SP sets the distance between creation and reading of the ID sensor patterns. The default setting (100) creates the ID sensor pattern for the next reading if the previous copy was longer than 100 cm (4 in.).		
3-920-002	2 During Job ON/OFF ENG [0 to 1 / 1 / 1/step]		
	This SP determines whether ID sensor patterns are created and read during jobs.		
	 1: On. ID sensor patterns are created and read during the job at prescribed intervals so the Vsp/Vsg readings are updated for more accurate toner supply control. (The interval is prescribed by SP3020-3 below.) 0: Off. No ID sensor patterns are created and read during the job. The machine uses the last Vsp/Vsg reading of the previous job for toner supply control. 		
3-920-003	During Job	ENG	[20 to 2000 / 410 / 10 cm/step]
	This SP determines the interval for creation and reading of the ID sensor pat for toner supply control during a job. This setting is ignored if SP3920-2 ab switched off.		nd reading of the ID sensor pattern done ting is ignored if SP3920-2 above is

3930	[Dev. Bias Init PWM Display] <carefully use=""></carefully>		
	If possible, consult the site manager before changing this SP (any change could affect other SP settings).		
3-930-001	-	ENG	[9.0 to 29.0 / 19.6 / 0.1%/step]

SP Mode Tables - SP4000

SP4-XXX (Scanner)

4008	[Scanner Sub Scan]		
	Adjusts the magnification of scanner image for sub scan direction.		
4-008-001	Magnification Adjustment	ENG*	[-0.9 to 0.9 / 0 / 0.1%/step]

4010	[Scanner Sub Scan]		
	Adjusts the scanner image registro Increasing value: image shift	ation for sul s towards t fts towards	o scan direction. o trailing edge of sub scan. to leading edge of sub scan
	• Decreasing value. Intage sin		lo ledding edge of sob scall.
4-010-001	Leading Edge Registration Adjustment	ENG*	[-10.0 to 10.0 / 0 / 0.1 mm/step]
4-010-002	Trailing Edge Registration Adjustment	ENG*	[-10.0 to 10.0 / 0 / 0.1 mm/step]

4011	[Scanner Main Scan]		
	Adjusts the scanner image registro	ition for mo	ain scan direction.
	 Increasing value: image shift 	s towards t	o left.
	 Decreasing value: image shill 	ts towards	to right.
4-011-001	Registration Adjustment	ENG	[-4.0 to 5.8 / 3.3 / 0.1 mm/step]

4012	[Scanner Edge Margin]		
	Adjusts scanning margins for the la and left edge (main scan).	eading and	trailing edges (sub scan) and right
4-012-005	DF: Leading Edge	ENG	[0 to 9.0 / 0 / 0.1 mm/step]
4-012-006	DF: Trailing Edge	ENG	[0 to 9.0 / 0 / 0.1 mm/step]
4-012-007	DF: Left Edge	ENG	[0 to 9.0 / 0 / 0.1 mm/step]
4-012-008	DF: Right Edge	ENG	[0 to 9.0 / 0 / 0.1 mm/step]

4013	[Scanner Free Run]		
4-013-001	Execute	ENG	[0 to 1 / 0 / 1/step]
	To start the free run, touch [On].		
	To end the free run, touch [Off].		
	The free run simulates scanning po the interval between each page d	ages of len etermined	gth determined by SP4013 003, with by SP4013 002.
	[Default Condition]		
	Speed: equal magnification line s	peed	
	Original document exit: Rear (stra	ight)	
4-013-002	Dummy Page Interval Setting	ENG	[0 to 25.0 / 0.9 / 0.1 sec/step]
4-013-003	Dummy Document Length Setting	ENG	[0.2 to 30.0 / 0.6 / 0.1 m/step]

4101	[Scanner Main Scan]		
	Adjusts the magnification of scanr	ner image f	or main scan direction.
4-101-001	Magnification Adjustment	ENG	[-0.9 to 0.9 / 0 / 0.1%/step]

4417	[IPU Test Pattern Setting]
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Operates the test pattern printing.
Scan Test Patterns
0: Scanner Data
1: Vertical Line: 1-dot: SCN
2: Vertical Line: 2-dot: SCN
3: Horizontal Line: 1-dot: SCN
4: Horizontal Line: 2-dot: SCN
5: Independent Dot: 1-dot: SCN
6: Grid Pattern: 1-dot: SCN
7: Vertical Stripes: SCN
8: Grayscale Horizontal: 16-level: SCN
9: Grayscale Vertical: 16-level: SCN
10: Density Patch: 16-level: SCN
11: Plus Sign: SCN
12: Argyle Pattern: SCN
13: Density Patch: 256-level: SCN
14: Density Patch: 64-level: SCN
15: Trimming Area: SCN
16: Bandwidth Vertical: SCN
17: Bandwidth Horizontal: SCN
Print Test Patterns
18: Independent Dot: 1-4 dot: PRN
19: Grayscale Horizontal: 16-level: PRN
20: Grayscale Vertical: 16-level: PRN
21: Grayscale: 16-level: PRN
22: Density Patch: 256-level: PRN
23: Density Patch: 64-level: PRN
24: Plus Sign: PRN
25: Grid Pattern: 96-dot: PRN
26: Argyle Pattern: PRN
27: Grayscale Horizontal: 16-level: + Line: PRN
28: Grid Pattern: 128-dot: PRN

4-417-001	Pattern Selection	ENG	[0 to 28 / 0 / 1/step]
4550	[Scan Apli:Txt/Print] DFU		
4-550-005	MTF: 0(Off) 1-15 (Weak- Strong)	ENG*	[0 to 15 / 8 / 1/step]
	Sets emphasis level for Scan Ap	li: Text/Print	mode.
	Weak: Low end of the ran	ge (0)	
	Medium: Center of the ran	ge (detault)	
	Strong: High end of the rai	nge.	
	* 1: MTF (Modulation Transfer Function) level. When the CCD converts the original image to electrical signals, the contrast is reduced due to the influence that adjacent white and black pixels have on one another as a result of lens properties. Typically, you will see very narrow width and spacing between black and white areas. MTF corrects this problem and emphasizes image detail.		
4-550-006	Smoothing: 0(x1) 1-7 (Weak- Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Smoothing level for Scan A 1 (Weak) ← → 7 (Strong)	pli: Text/Prin	nt mode. 0 is for OFF.
4-550-007	Brightness: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Brightness level (1 to 255) Correction. 1 (Weak) ← → 255 (Strong)	for Scan Apl	i: Text/Print mode. 128 is for No
4-550-008	Contrast: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: Text/Print mode. 128 is for No Correction. 1 (Weak) ← → 255 (Strong)		
4-550-009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Text/Print mode. 0 is for OFF. 1 (Weak) ← → 7 (Strong)		

4551	[Scan Apli:Txt] DFU	
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4-551-005	MTF: 0(Off) 1-15 (Weak- Strong)	ENG*	[0 to 15 / 8 / 1/step]	
	Sets emphasis level for Scan Ap 1 (Weak) ← → 15 (Strong)	li: Text mode	e. 0 is for OFF.	
4-551-006	Smoothing: 0(x1) 1-7 (Weak- Strong)	ENG*	[0 to 7 / 0 / 1/step]	
	Sets Smoothing level for Scan A 1 (Weak) $\leftarrow \rightarrow 7$ (Strong)	pli: Text moc	le. 0 is for OFF.	
4-551-007	Brightness: 1-255	ENG*	[1 to 255 / 128 / 1/step]	
	Sets Brightness level (1 to 255) Correction. 1 (Weak) ← → 255 (Strong)	for Scan Apl	i: Text mode. 128 is for No	
4-551-008	Contrast: 1-255	ENG*	[1 to 255 / 128 / 1/step]	
	Sets Contrast level (1 to 255) fo 1 (Weak) ← → 255 (Strong)	or Scan Apli:	Text mode. 128 is for No Correction.	
4-551-009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG*	[0 to 7 / 0 / 1/step]	
	Sets Independent Dot Erase level for Scan Apli: Text mode. 0 is for OFF. 1 (Weak) ← → 7 (Strong)			

4553	[Scan Apli:Txt Dropout] DFU		
4-553-005	MTF: 0(Off) 1-15 (Weak- Strong)	ENG*	[0 to 15 / 8 / 1/step]
	Sets emphasis level for Scan Ap 1 (Weak) ← → 15 (Strong)	li: Text (Drop	Out Color) mode. 0 is for OFF.
4-553-006	Smoothing: 0(x1) 1-7 (Weak- Strong))	ENG*	[0 to 7 / 0 / 1/step]
	Sets Smoothing level for Scan Apli: Text (Drop Out Color) mode. 0 is for OFF. 1 (Weak) ← → 7 (Strong)		

4-553-007	Brightness: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Brightness level (1 to 255) for No Correction. 1 (Weak) ← → 255 (Strong)	for Scan Apl	i: Text (Drop Out Color) mode. 128 is
4-553-008	Contrast: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Contrast level (1 to 255) fo for No Correction. 1 (Weak) ← → 255 (Strong)	or Scan Apli:	Text (Drop Out Color) mode. 128 is
4-553-009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Text (Drop Out Color) mode. 0 is for OFF. 1 (Weak) ← → 7 (Strong)		

4554	[Scan Apli:Txt/Photo] DFU		
4-554-005	MTF: 0(Off) 1-15 (Weak- Strong)	ENG*	[0 to 15 / 8 / 1/step]
	Sets emphasis level for Scan Ap 1 (Weak) ← → 15 (Strong)	oli: Text/Phot	o mode. 0 is for OFF.
4-554-006	Smoothing: O(x1) 1-7 (Weak- Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Smoothing level for Scan A 1 (Weak) ← → 7 (Strong)	Apli: Text/Pho	oto mode. 0 is for OFF.
4-554-007	Brightness: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Brightness level (1 to 255) Correction. 1 (Weak) ← → 255 (Strong)	for Scan Apl	i: Text/Photo mode. 128 is for No
4-554-008	Contrast: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Contrast level (1 to 255) fo Correction. 1 (Weak) ← → 255 (Strong)	or Scan Apli:	Text/Photo mode. 128 is for No

4-554-009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Independent Dot Erase leve 1 (Weak) ← → 7 (Strong)	el for Scan A	pli: Text/Photo mode. 0 is for OFF.

4555	[Scan Apli:Photo] DFU		
4-555-005	MTF: 0(Off) 1-15 (Weak- Strong)	ENG*	[0 to 15 / 8 / 1/step]
	Sets emphasis level for Scan Ap 1 (Weak) ← → 15 (Strong)	oli: Photo mod	de. 0 is for OFF.
4-555-006	Smoothing: 0(x1) 1-7 (Weak- Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Smoothing level for Scan A 1 (Weak) ← → 7 (Strong)	vpli: Photo mo	ode. 0 is for OFF.
4-555-007 Brightness: 1-255 ENG* [1 to 255 / 128 /		[1 to 255 / 128 / 1/step]	
	Sets Brightness level (1 to 255) Correction. 1 (Weak) ← → 255 (Strong)	for Scan Apl	i: Photo mode. 128 is for No
4-555-008	Contrast: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Contrast level (1 to 255) fo Correction. 1 (Weak) ← → 255 (Strong)	or Scan Apli:	Photo mode. 128 is for No
4-555-009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Independent Dot Erase leve 1 (Weak) ← → 7 (Strong)	el for Scan A	pli: Photo mode. 0 is for OFF.

4565	[Scan Apli:GrayScale] DFU

4-565-005	MTF: 0(Off) 1-15 (Weak- Strong)	ENG*	[0 to 15 / 8 / 1/step]
	Sets emphasis level for Scan Ap 1 (Weak) ← → 15 (Strong)	oli: GrayScal	e mode. 0 is for OFF.
4-565-006	Smoothing: 0(x1) 1-7 (Weak- Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Smoothing level for Scan A 1 (Weak) ← → 7 (Strong)	npli: GraySco	ale mode. 0 is for OFF.
4-565-007	Brightness: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Brightness level (1 to 255) Correction. 1 (Weak) ← → 255 (Strong)	for Scan Apl	li: GrayScale mode. 128 is for No
4-565-008	Contrast: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Contrast level (1 to 255) fo Correction. 1 (Weak) ← → 255 (Strong)	or Scan Apli:	GrayScale mode. 128 is for No
4-565-009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Independent Dot Erase leve 1 (Weak) ← → 7 (Strong)	el for Scan A	pli: GrayScale mode. 0 is for OFF.

4570	[Scan Apli:Col Txt/Photo] DFU		
4-570-005	MTF: 0(Off) 1-15 (Weak- Strong)	[0 to 15 / 8 / 1/step]	
	Sets emphasis level for Scan Ap 1 (Weak) ← → 15 (Strong)	oli: Color Tex	t/Photo mode. 0 is for OFF.
4-570-006	Smoothing: 0(x1) 1-7 (Weak- Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Smoothing level for Scan Apli: Color Text/Photo mode. 0 is for OFF. 1 (Weak) ← → 7 (Strong)		

4-570-007	Brightness: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Brightness level (1 to 255) No Correction. 1 (Weak) ← → 255 (Strong)	for Scan Apl	i: Color Text/Photo mode. 128 is for
4-570-008	Contrast: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Contrast level (1 to 255) fo No Correction. 1 (Weak) ← → 255 (Strong)	or Scan Apli:	Color Text/Photo mode. 128 is for
4-570-009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Color Text/Photo mode. 0 is for OFF. 1 (Weak) ← → 7 (Strong)		

4571	[Scan Apli:Col Gloss Photo] DFU		
4-571-005	MTF: 0(Off) 1-15 (Weak- Strong)	ENG*	[0 to 15 / 8 / 1/step]
	Sets emphasis level for Scan Ap 1 (Weak) ← → 15 (Strong)	ıli: Color Glo	ss Photo mode. 0 is for OFF.
4-571-006	Smoothing: 0(x1) 1-7 (Weak- Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Smoothing level for Scan A 1 (Weak) ← → 7 (Strong)	pli: Color Gl	oss Photo mode. 0 is for OFF.
4-571-007	Brightness: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Brightness level (1 to 255) No Correction, 1 (Weak) ← → 255 (Strong)	for Scan Apl	i: Color Gloss Photo mode. 128 is for
4-571-008	Contrast: 1-255	ENG*	[1 to 255 / 128 / 1/step]
	Sets Contrast level (1 to 255) fo No Correction. 1 (Weak) ← → 255 (Strong)	or Scan Apli:	Color Gloss Photo mode. 128 is for

4-571-009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	ENG*	[0 to 7 / 0 / 1/step]
	Sets Independent Dot Erase leve OFF.	el for Scan A	pli: Color Gloss Photo mode. 0 is for
	1 (Weak) ← → 7 (Strong)		

4606	[Ini. Gain Correction]		
4-606-001	Define Target	ENG*	[0 to 1023 / 450 / 1/step]
	Target value for gain correction.		
4606	[LED Correction]		
4606	[LED Correction] Define Target	ENG*	[0 to 1023 / 880 / 1/step]

4623	[Black Level Adj Value: Curren	t]	
4-623-001	CIS1	ENG*	[0 to 1023 / 520 / 1/step]
4-623-002	CIS2	ENG*	[0 to 1023 / 520 / 1/step]
4-623-003	CIS3	ENG*	[0 to 1023 / 520 / 1/step]
4-623-004	CIS4	ENG*	[0 to 1023 / 520 / 1/step]
4-623-005	CIS5	ENG*	[0 to 1023 / 520 / 1/step]

4624	[Black Level Adj Value:Previou	s]	
4-624-001	CIS1	ENG*	[0 to 1023 / 520 / 1/step]
4-624-002	CIS2	ENG*	[0 to 1023 / 520 / 1/step]
4-624-003	CIS3	ENG*	[0 to 1023 / 520 / 1/step]
4-624-004	CIS4	ENG*	[0 to 1023 / 520 / 1/step]
4-624-005	CIS5	ENG*	[0 to 1023 / 520 / 1/step]



4705	[Gray Balance Adj]		
Displays a flag to indicate that grayscale balance adjustment has executed 1-Bit Copy Mode 0: Not Executed, 1: Executed		ance adjustment has executed. ted	
	0-Bit Color Scan Mode 0: Not Executed, 1: Executed		
4-705-001	Flag Display	ENG	[0 to 1 / 0 / 1/step]

4707	[Gray Balance Target Value]		
4-707-001	R	ENG	[0 to 255 / 176 / 1/step]
	Sets Gray Balance Target value: R.		
4-707-002	G	ENG	[0 to 255 / 174 / 1/step]
	Sets Gray Balance Target value: G.		
4-707-003	В	ENG	[0 to 255 / 169 / 1/step]
	Sets Gray Balance Target value	: В.	

4709	[Gray Balance Adj: Current]		
	Stores and displays the adjusted value of CIS for gray balance adjustment.		
4-709-001	CIS1:G	ENG*	[-1024 to 1023 / 0 / 1/step]
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4-709-002	CIS1:R	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-003	CIS1:B	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-004	CIS2:G	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-005	CIS2:R	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-006	CIS2:B	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-007	CIS3:G	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-008	CIS3:R	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-009	CIS3:B	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-010	CIS4:G	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-011	CIS4:R	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-012	CIS4:B	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-013	CIS5:G	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-014	CIS5:R	ENG*	[-1024 to 1023 / 0 / 1/step]
4-709-015	CIS5:B	ENG*	[-1024 to 1023 / 0 / 1/step]

4718	[Gray Balance Data:Present]			
	Stores and displays the read value of CIS for gray balance adjustment.			
4-718-001	CIS1:G	ENG*	[0 to 255 / 0 / 1/step]	
4-718-002	CIS1:R	ENG*	[0 to 255 / 0 / 1/step]	
4-718-003	CIS1:B	ENG*	[0 to 255 / 0 / 1/step]	
4-718-004	CIS2:G	ENG*	[0 to 255 / 0 / 1/step]	
4-718-005	CIS2:R	ENG*	[0 to 255 / 0 / 1/step]	
4-718-006	CIS2:B	ENG*	[0 to 255 / 0 / 1/step]	
4-718-007	CIS3:G	ENG*	[0 to 255 / 0 / 1/step]	
4-718-008	CIS3:R	ENG*	[0 to 255 / 0 / 1/step]	

4-718-009	CIS3:B	ENG*	[0 to 255 / 0 / 1/step]
4-718-010	CIS4:G	ENG*	[0 to 255 / 0 / 1/step]
4-718-011	CIS4:R	ENG*	[0 to 255 / 0 / 1/step]
4-718-012	CIS4:B	ENG*	[0 to 255 / 0 / 1/step]
4-718-013	CIS5:G	ENG*	[0 to 255 / 0 / 1/step]
4-718-014	CIS5:R	ENG*	[0 to 255 / 0 / 1/step]
4-718-015	CIS5:B	ENG*	[0 to 255 / 0 / 1/step]

4724	[Black Level Data] Displays MIN value (black level correction data) of CIS after the black level adjustment is performed.			
4-724-001	CIS1	ENG*	[0 to 1023 / 0 / 1/step]	
4-724-002	CIS2	ENG*	[0 to 1023 / 0 / 1/step]	
4-724-003	CIS3	ENG*	[0 to 1023 / 0 / 1/step]	
4-724-004	CIS4	ENG*	[0 to 1023 / 0 / 1/step]	
4-724-005	CIS5	ENG*	[0 to 1023 / 0 / 1/step]	

4732	[Gain Adjustment: Current]		
4-732-001	CIS1	ENG*	[0 to 1023 / 84 / 1/step]
4-732-002	CIS2	ENG*	[0 to 1023 / 84 / 1/step]
4-732-003	CIS3	ENG*	[0 to 1023 / 84 / 1/step]
4-732-004	CIS4	ENG*	[0 to 1023 / 84 / 1/step]
4-732-005	CIS5	ENG*	[0 to 1023 / 84 / 1/step]

4733	[LED Adjustment: Current] Not Used		
4-733-001	CIS1 R	ENG*	[23 to 523 / 304 / 1/step]
4-733-002	CIS2 R	ENG*	[23 to 523 / 304 / 1/step]

4-733-003	CIS3 R	ENG*	[23 to 523 / 304 / 1/step]
4-733-004	CIS4 R	ENG*	[23 to 523 / 304 / 1/step]
4-733-005	CIS5 R	ENG*	[23 to 523 / 304 / 1/step]
4-733-006	CIS1 G	ENG*	[23 to 523 / 304 / 1/step]
4-733-007	CIS2 G	ENG*	[23 to 523 / 304 / 1/step]
4-733-008	CIS3 G	ENG*	[23 to 523 / 304 / 1/step]
4-733-009	CIS4 G	ENG*	[23 to 523 / 304 / 1/step]
4-733-010	CIS5 G	ENG*	[23 to 523 / 304 / 1/step]
4-733-011	CIS1 B	ENG*	[23 to 523 / 304 / 1/step]
4-733-012	CIS2 B	ENG*	[23 to 523 / 304 / 1/step]
4-733-013	CIS3 B	ENG*	[23 to 523 / 304 / 1/step]
4-733-014	CIS4 B	ENG*	[23 to 523 / 304 / 1/step]
4-733-015	CIS5 B	ENG*	[23 to 523 / 304 / 1/step]

4735	[White Level Data] Displays the peak value of CIS shading data after performing the white level adjustment.			
4-735-001	CIS1:B	ENG*	[0 to 1023 / 0 / 1/step]	
4-735-002	CIS1:R	ENG*	[0 to 1023 / 0 / 1/step]	
4-735-003	CIS1:G	ENG*	[0 to 1023 / 0 / 1/step]	
4-735-004	CIS2 B	ENG*	[0 to 1023 / 0 / 1/step]	
4-735-005	CIS2 R	ENG*	[0 to 1023 / 0 / 1/step]	
4-735-006	CIS2 G	ENG*	[0 to 1023 / 0 / 1/step]	
4-735-007	CIS3 B	ENG*	[0 to 1023 / 0 / 1/step]	
4-735-008	CIS3 R	ENG*	[0 to 1023 / 0 / 1/step]	
4-735-009	CIS3 G	ENG*	[0 to 1023 / 0 / 1/step]	

4-735-0	010	CIS4 B	ENG*	[0 to 1023 / 0 / 1/step]
4-735-0)11	CIS4 R	ENG*	[0 to 1023 / 0 / 1/step]
4-735-0	12	CIS4 G	ENG*	[0 to 1023 / 0 / 1/step]
4-735-0	13	CIS5 B	ENG*	[0 to 1023 / 0 / 1/step]
4-735-0	14	CIS5 R	ENG*	[0 to 1023 / 0 / 1/step]
4-735-0	15	CIS5 G	ENG*	[0 to 1023 / 0 / 1/step]

4744	[Gray Balance Error Flag]		
4-744-001	-	ENG	[0 to 32768 / 0 / 1/step]
	This SP displays errors that occu	ır during gray	y balance adjustment.
	bit5:GB_ERR_B_BC		
	bit4:GB_ERR_G_BC		
	bit3:GB_ERR_R_BC		
	bit2:GB_ERR_B_CS		
	bit1:GB_ERR_G_CS		
	bit0:GB_ERR_R_CS		

4745	[CIS Auto-adj Error Flag]			
	This SP displays any black level or white level errors that occur during automatic CIS adjustment for the scan or copy modes (CS, BC, BS) after the machine is turned on.			
	bit8: BLACK_ERR_L_3BBC			
	bit7: BLACK_ERR_L_3GBC			
	bit6: BLACK_ERR_L_3RBC			
	bit5: BLACK_ERR_L_2BBC			
	bit4: BLACK_ERR_L_2GBC			
	bit3: BLACK_ERR_L_2RBC			
	bit2: BLACK_ERR_L_1BBC			
	bit1: BLACK_ERR_L_1GBC			
	bit0: BLACK_ERR_L_1RBC			
4-745-001	White Level CIS1	ENG*	[0 to 4095 / 0 / 1/step]	

4-745-002	White Level CIS2	ENG*	[0 to 4095 / 0 / 1/step]
4-745-003	White Level CIS3	ENG*	[0 to 4095 / 0 / 1/step]
4-745-004	White Level CIS4	ENG*	[0 to 4095 / 0 / 1/step]
4-745-005	White Level CIS5	ENG*	[0 to 4095 / 0 / 1/step]
4-745-006	White Level CIS1	ENG*	[0 to 4095 / 0 / 1/step]
4-745-007	White Level CIS2	ENG	[0 to 4095 / 0 / 1/step]
4-745-008	White Level CIS3	ENG*	[0 to 4095 / 0 / 1/step]
4-745-009	White Level CIS4	ENG*	[0 to 4095 / 0 / 1/step]
4-745-010	White Level CIS5	ENG	[0 to 4095 / 0 / 1/step]

4750	[CIS Output Mode Setting]		
4-750-001	-	ENG	[0 to 6 / 0 / 1/step]
	Not Used		

4751	[Scanner Test Pattern Setting]		
4-751-001	-	ENG	[0 to 5 / 0 / 1/step]
	Not Used		

4762	[Gain Adjustment: Previous]		
4-762-001	CIS1	ENG*	[0 to 255 / 84 / 1/step]
4-762-002	CIS2	ENG*	[0 to 255 / 84 / 1/step]
4-762-003	CIS3	ENG*	[0 to 255 / 84 / 1/step]
4-762-004	CIS4	ENG*	[0 to 255 / 84 / 1/step]
4-762-005	CIS5	ENG*	[0 to 255 / 84 / 1/step]

4763	[LED Adjustment: Previous]		
4-763-001	CIS1 R	ENG*	[23 to 523 / 304 / 1/step]

4-763-001	CIS2 R	ENG*	[23 to 523 / 304 / 1/step]
4-763-002	CIS3 R	ENG*	[23 to 523 / 304 / 1/step]
4-763-003	CIS4 R	ENG*	[23 to 523 / 304 / 1/step]
4-763-004	CIS5 R	ENG*	[23 to 523 / 304 / 1/step]
4-763-005	CIS1 G	ENG*	[23 to 523 / 304 / 1/step]
4-763-006	CIS2 G	ENG*	[23 to 523 / 304 / 1/step]
4-763-007	CIS3 G	ENG*	[23 to 523 / 304 / 1/step]
4-763-008	CIS4 G	ENG*	[23 to 523 / 304 / 1/step]
4-763-009	CIS5 G	ENG*	[23 to 523 / 304 / 1/step]
4-763-010	CIS1 B	ENG*	[23 to 523 / 304 / 1/step]
4-763-011	CIS2 B	ENG*	[23 to 523 / 304 / 1/step]
4-763-012	CIS3 B	ENG*	[23 to 523 / 304 / 1/step]
4-763-013	CIS4 B	ENG*	[23 to 523 / 304 / 1/step]
4-763-014	CIS5 B	ENG*	[23 to 523 / 304 / 1/step]
4-763-015	CIS2 R	ENG*	[23 to 523 / 304 / 1/step]

4820	[Lamp Defective]		
4-820-001	Lamp Error Flag	ENG*	[0 to 255 / 0 / 1/step]
	Not Used		

4901	[Shading Correction] DFU		
4-901-001	AEREF Correction Setting	ENG	[-512 to 511 / 0 / 1/step]
4-901-002	Define Target	ENG	[0 to 1023 / 800 / 1/step]

4901	[Digital AE]
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4-901-003	AEREF Correction Setting	ENG	[-63 to 63 / 25 / 1/step]	
	Changes the level for backgrou A/E processing of the scan date	ind erase (AE a.	REF value) that is used in the digital	
4-901-004	Low Limit	ENG	[0 to 255 / 82 / 1/step]	
	Defines the lower limit of the ba processing of the scanned data	ckground ero	ase level that is used in the digital A/E	
4-901-005	Start Position	ENG	[0 to 25.5 / 3.0 / 0.1 mm/step]	
	Changes the starting point for d Note: The starting position spec over this setting.	igital A/E pr ified with the	ocessing of the scanning data. scanning application takes priority	
4-901-006	Left Start Position	ENG	[0 to 512.0 / 60.0 / 0.1 mm/step]	
	This SP sets the start position for digital AE processing P-Wind for scanned image data in the main scan direction (from the center of the orignal as a reference point), starting at the left side of the original.			
4-901-007	4-901-007 Right Start Position ENG [0 to 512.0 / 60.0 / 0.1 mm			
	This SP sets the start position for digital AE processing P-Wind for scanned data in the main scan direction (from the center of the orignal as a refere point), stopping at the right side of the original.		rocessing P-Wind for scanned image ter of the orignal as a reference al.	

4901	[Shading Correction]		
4-901-008	Threshold Level	ENG	[0 to 1023 / 360 / 1/step]
	Not Used		

4903	[Filter Setting]		
4-903-001	Ind Dot Erase: Text	ENG*	[0 to 7 / 4 / 1/step]
	Sets Independent Dot Erase leve 0 (Weak) ← → 7 (Strong)	el for Copy A	pli: "Text" mode.

4-903-002	Ind Dot Erase: Generation Copy	ENG*	[0 to 7 / 4 / 1/step]
	Sets Independent Dot Erase level for Copy Apli: Printed Photo to "Drawing" mod		
	0 (Weak) ← → 7 (Strong)		
4-903-003	Ind Dot Erase: Drawing	ENG*	[0 to 7 / 0 / 1/step]
	Sets Independent Dot Erase lev	el for Copy A	Apli: "Drawing" mode.
	0 (Weak) ← → 7 (Strong)		
4903	[Image Quality Adjustment]		
4-903-011	Line Width Corr: Text Mode Set	ENG*	[0 to 8 / 3 / 1/step]
	Sets line width level for Copy A	pli: "Text" mo	ode.
	O (Thiner Lines) ← → 8 (Thicker	Lines)	
4-903-012	Line Width Corr: Text: Main Scan	ENG*	[0 to 2 / 1 / 1/step]
	Selects the line width correction	n of main scar	n for Copy Apli: "Text" mode.
	0: No line width correction		
	1: Line width correction nad do	t processing	
	2: Line width correction		
4-903-013	Line Width Corr: Text: Sub Scan	ENG*	[0 to 1 / 1 / 1/step]
	Selects the line width correction	of sub scan	for Copy Apli: "Text" mode.
	0: No line width correction		
	1: Line width correction		
4-903-014	Line Width Corr: Gen. Copy Mode Set	ENG*	[0 to 8 / 3 / 1/step]
	Sets line width level for Copy Apli: Printed Photo to "Generation Copy" mode.		
	O (Thiner Lines) $\leftarrow \rightarrow$ 8 (Thicker Lines)		

4-903-015	Line Width Corr: Gen. Copy: Main Scan	ENG*	[0 to 2 / 1 / 1/step]	
	Selects the line width correction of main scan for Copy Apli: Printed Photo to "Generation Copy" mode.			
	0: No line width correction			
	1: Line width correction nad do	t processing		
	2: Line width correction			
4-903-016	Line Width Corr: Gen. Copy: Sub Scan	ENG*	[0 to 1 / 1 / 1/step]	
	Selects the line width correction "Generation Copy" mode.	of sub scan	for Copy Apli: Printed Photo to	
	0: No line width correction			
	1: Line width correction			
4-903-017	Line Width Corr: Drawing Mode Set	ENG*	[0 to 8 / 3 / 1/step]	
Sets line width level for Copy Apli: "Drawing" mode.				
	O (Thiner Lines) ← → 8 (Thicker Lines)			
4-903-018	Line Width Corr: Drawing: Main Scan	ENG*	[0 to 2 / 1 / 1/step]	
	Selects the line width correction	Selects the line width correction of main scan for Copy Apli: "Drawing" mode.		
	0: No line width correction			
	1: Line width correction nad do	t processing		
	2: Line width correction			
4-903-019	Line Width Corr: Drawing: Sub Scan	ENG*	[0 to 1 / 1 / 1/step]	
	Selects the line width correction of sub scan for Copy Apli: "Drawing" mode.			
	0: No line width correction			
	1: Line width correction			

4904	[Smoothing Filter Level]
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4-904-001	Text	ENG*	[0 to 3 / 1 / 1/step]
	Sets Smoothing Filter Level for Copy Apli: Text mode. 0 is for OFF. 1 (None) ← → 3 (Strong)		
4-904-002	Photo	ENG*	[0 to 3 / 2 / 1/step]
	Sets Smoothing Filter Level for C OFF. 1 (None) ← → 3 (Strong)	Copy Apli: Pri	inted Photo to "Photo" mode. 0 is for
4-904-003	Text/Photo	ENG*	[0 to 3 / 1 / 1/step]
	Sets Smoothing Filter Level for Copy Apli: Photo/Text mode. 0 is for OFF 1 (None) ← → 3 (Strong)		
4-904-004	Generation Copy	ENG*	[0 to 3 / 1 / 1/step]
	Sets Smoothing Filter Level for Copy Apli: Printed Photo to "Generation Copy" mode. 0 is for OFF. 1 (None) ← → 3 (Strong)		
4-904-005	Drawing	ENG*	[0 to 3 / 1 / 1/step]
	Sets Smoothing Filter Level for Copy Apli: "Drawing" mode. 0 is for OFF. 1 (None) ← → 3 (Strong)		
4-904-006	Patched Original	ENG*	[0 to 3 / 1 / 1/step]
	Sets Smoothing Filter Level for Copy Apli: Printed Photo to "Patched Original" mode. 0 is for OFF. 1 (None) ← → 3 (Strong)		
4-904-007	Blue Line	ENG*	[0 to 3 / 1 / 1/step]
	Sets Smoothing Filter Level for C mode. 0 is for OFF. 1 (None) ← → 3 (Strong)	Copy Apli: Pri	inted Photo to "Background Lines"

4905	[Gray Scale Processing Select]

4-905-001	-	ENG	[0 to 255 / 0 / 1/step]
	Selects the type of dithering dor	ne in Text/Ph	oto mode.
	0: 2-value dithering 8x8		
	1: 2-value dithering 16x16		
	2: 2-value dithering 16x16		

4918	[Man Gamma] DFU		
4-918-009	-	ENG	[0 to 0 / 0 / 0/step]
	Not used		

4961	[Document Length Adjustment]			
4-961-001	Input Tolerance: 210mm	ENG*	[-9.9 to 9.9 / 0 / 0.1 mm/step]	
	Use the 210mm position in the sample to check the difference. This difference is used to calculate the motor clock count for adjusting the difference.			
4-961-002	Input Tolerance: 1000mm ENG* [-9.9 to 9.9 / 0 / 0.1 mm/step]			
	Use the 1000mm position in the sample to check the difference. This difference is used to calculate the motor clock count for adjusting the difference.			
4-961-003	Check Document Length ENG [0 to 99999.9 / 0 / 0.1 mm/step]			
	Display the original length.	*		

4965	[Scan Speed Adjustment]		
	Not Used		
4-965-001	Leading Edge	ENG*	[-3.0 to 3.0 / -0.9 / 0.1%/step]
4-965-002	Position	ENG*	[0 to 200 / 112 / 1 mm/step]
4-965-003	Trailing Edge	ENG*	[-1.5 to 1.5 / 0.3 / 0.1%/step]

4966	[Scan Speed Adjustment]		
	Not Used		

4-966-001	ENG	[5.0 to 170.0 / 80.0 / 0.1mm/s/
		step]

4972	[Scan Correction]		
	-		
4-972-001	CIS Joint Adjustment CIS1-2 Main Scan	ENG*	[0 to 656 / 241 / 0.1%/step]
4-972-002	CIS Joint Adjustment CIS2 Main Scan	ENG*	[0 to 656 / 242 / 0.1%/step]
4-972-003	CIS Joint Adjustment CIS2-3 Main Scan	ENG*	[0 to 656 / 243 / 0.1%/step]
4-972-004	CIS Joint Adjustment CIS3-4 Main Scan	ENG*	[0 to 656 / 425 / 0.1%/step]
4-972-005	CIS Joint Adjustment CIS4-5 Main Scan	ENG*	[0 to 656 / 426 / 0.1%/step]
4-972-006	CIS Joint Adjustment CIS1-2 Sub Scan	ENG*	[0 to 2815 / 1860 / 0.1%/step]
4-972-007	CIS Joint Adjustment CIS2 Sub Scan	ENG*	[0 to 225 / 16 / 0.1%/step]
4-972-008	CIS Joint Adjustment CIS2-3 Sub Scan	ENG*	[0 to 2815 / 1860 / 0.1%/step]
4-972-009	CIS Joint Adjustment CIS3-4 Sub Scan	ENG*	[0 to 225 / 84 / 0.1%/step]
4-972-010	CIS Joint Adjustment CIS4-5 Sub Scan	ENG*	[0 to 2815 / 1860 / 0.1%/step]

4973	[Scan Correction]		
	-		
4-973-001	CIS Scan Setting Difference In Grade Adj.	ENG*	[0 to 2 / 2 / 1/step]

4975	[Prevent Document Fall]

4-975-001		ENG*	[0 to 1 / 0 / 1/step]
	This SP switches the original edg	ge hold functi	ion off and on.
	0: On. With paper longer than 450 mm (18"), the original exit roller stops and holds the paper at the trailing edge so it does not fall off the original exit tray.		
	1: Off. With paper shorter than 450 mm, the rollers do not stop. The paper is allowed to fall onto the tray.		
	Note: When the rollers hold the of the nip and remove it from the	original edg e tray before	e the operator must pull the paper out another original can feed.

4978	[Scan LED Wavelength]		
4-978-001	CIS1 R	ENG*	[400 to 700 / 620 / 0.1 nm/step]
4-978-002	CIS1 G	ENG*	[400 to 700 / 530 / 0.1 nm/step]
4-978-003	CIS1 B	ENG*	[400 to 700 / 465 / 0.1 nm/step]
4-978-004	CIS2 R	ENG*	[400 to 700 / 620 / 0.1 nm/step]
4-978-005	CIS2 G	ENG*	[400 to 700 / 530 / 0.1 nm/step]
4-978-006	CIS2 B	ENG*	[400 to 700 / 465 / 0.1 nm/step]
4-978-007	CIS3 R	ENG*	[400 to 700 / 620 / 0.1 nm/step]
4-978-008	CIS3 G	ENG*	[400 to 700 / 530 / 0.1 nm/step]
4-978-009	CIS3 B	ENG*	[400 to 700 / 465 / 0.1 nm/step]
4-978-010	CIS4 R	ENG*	[400 to 700 / 620 / 0.1 nm/step]
4-978-011	CIS4 G	ENG*	[400 to 700 / 530 / 0.1 nm/step]
4-978-012	CIS4 B	ENG*	[400 to 700 / 465 / 0.1 nm/step]
4-978-013	CIS5 R	ENG*	[400 to 700 / 620 / 0.1 nm/step]
4-978-014	CIS5 G	ENG*	[400 to 700 / 530 / 0.1 nm/step]
4-978-015	CIS5 B	ENG*	[400 to 700 / 465 / 0.1 nm/step]
4-978-016	-	ENG	[-/-/-]

4979 [Scan Correction]			
	-		
4-979-001	Color Conversion Parameter CIS1 b1	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-002	Color Conversion Parameter CIS1 b11	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-003	Color Conversion Parameter CIS1 b12	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-004	Color Conversion Parameter CIS1 b13	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-005	Color Conversion Parameter CIS1 b2	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-006	Color Conversion Parameter CIS1 b21	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-007	Color Conversion Parameter CIS1 b22	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-008	Color Conversion Parameter CIS1 b23	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-009	Color Conversion Parameter CIS1 b3	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-010	Color Conversion Parameter CIS1 b31	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-011	Color Conversion Parameter CIS1 b32	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-012	Color Conversion Parameter CIS1 b33	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-013	Color Conversion Parameter CIS2 b1	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-014	Color Conversion Parameter CIS2 b1 1	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-015	Color Conversion Parameter CIS2 b12	ENG*	[-2048 to 2048 / 0 / 1/step]

4-979-016	Color Conversion Parameter CIS2 b13	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-017	Color Conversion Parameter CIS2 b2	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-018	Color Conversion Parameter CIS2 b21	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-019	Color Conversion Parameter CIS2 b22	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-020	Color Conversion Parameter CIS2 b23	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-021	Color Conversion Parameter CIS2 b3	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-022	Color Conversion Parameter CIS2 b31	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-023	Color Conversion Parameter CIS2 b32	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-024	Color Conversion Parameter CIS2 b33	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-025	Color Conversion Parameter CIS3 b1	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-026	Color Conversion Parameter CIS3 b11	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-027	Color Conversion Parameter CIS3 b12	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-028	Color Conversion Parameter CIS3 b13	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-029	Color Conversion Parameter CIS3 b2	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-030	Color Conversion Parameter CIS3 b21	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-031	Color Conversion Parameter CIS3 b22	ENG*	[-2048 to 2048 / 1024 / 1/step]

4-979-032	Color Conversion Parameter CIS3 b23	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-033	Color Conversion Parameter CIS3 b3	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-034	Color Conversion Parameter CIS3 b31	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-035	Color Conversion Parameter CIS3 b32	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-036	Color Conversion Parameter CIS3 b33	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-037	Color Conversion Parameter CIS4 b1	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-038	Color Conversion Parameter CIS4 b1 1	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-039	Color Conversion Parameter CIS4 b12	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-040	Color Conversion Parameter CIS4 b13	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-041	Color Conversion Parameter CIS4 b2	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-042	Color Conversion Parameter CIS4 b21	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-043	Color Conversion Parameter CIS4 b22	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-044	Color Conversion Parameter CIS4 b23	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-045	Color Conversion Parameter CIS4 b3	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-046	Color Conversion Parameter CIS4 b31	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-047	Color Conversion Parameter CIS4 b32	ENG*	[-2048 to 2048 / 0 / 1/step]

4-979-048	Color Conversion Parameter CIS4 b33	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-049	Color Conversion Parameter CIS5 b1	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-050	Color Conversion Parameter CIS5 b11	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-051	Color Conversion Parameter CIS5 b12	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-052	Color Conversion Parameter CIS5 b13	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-053	Color Conversion Parameter CIS5 b2	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-054	Color Conversion Parameter CIS5 b21	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-055	Color Conversion Parameter CIS5 b22	ENG*	[-2048 to 2048 / 1024 / 1/step]
4-979-056	Color Conversion Parameter CIS5 b23	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-057	Color Conversion Parameter CIS5 b3	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-058	Color Conversion Parameter CIS5 b31	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-059	Color Conversion Parameter CIS5 b32	ENG*	[-2048 to 2048 / 0 / 1/step]
4-979-060	Color Conversion Parameter CIS5 b33	ENG*	[-2048 to 2048 / 1024 / 1/step]

4991	[IPU Image Pass Selection 1]
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4-991-001	RGB Frame Memory	ENG	[0 to 255 / 0 / 1/step]		
	0: Dot correction module				
	1: Gray create module				
	2: Scanner gamma module				
	3: Registration adjustment & mirroring module				
	4: Main scan magnification & left shift/right shift module				
	5: Multi-rate_filter module				
	6: Multi-rate_line correction module				
	7: Multi-rate_independent dot e	erase module			

4991	[IPU Image Pass Selection 2]				
4-991-002	RGB Frame Memory ENG [0 to 255 / 0 / 1/step]				
	0: Multi-rate gamma conversion module				
	1: Main scan fine adjust/simple magnification module				
	2: Density gamma module				
	3: Gradation processing (M-to-P) module				
	4: Reserved				
	5: Reserved				
	6: Reserved				
	7: Reserved				

4992	[Document Feed Speed Adjustment]		
	-		
4-992-001	ON/OFF	ENG*	[0 to 1 / 0 / 1/step]

4993	[Document Feed Speed Adjustment]		
	-		
4-993-001	Speed 1	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-002	Speed 2	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-003	Speed 3	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]

4-993-004	Speed 4	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-005	Speed 5	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-006	Speed 6	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-007	Speed 7	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-008	Speed 8	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-009	Speed 9	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-010	Speed 10	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-011	Speed 11	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-012	Speed 12	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-013	Speed 13	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-014	Speed 14	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]
4-993-015	Speed 15	ENG*	[-10.0 to 10.0 / 0 / 0.1%/step]

4994	[Document Feed Speed Adjustment]		
	-		
4-994-001	Position 1	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-002	Position 2	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-003	Position 3	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-004	Position 4	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-005	Position 5	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-006	Position 6	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-007	Position 7	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-008	Position 8	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-009	Position 9	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-010	Position 10	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-011	Position 11	ENG*	[0 to 15000 / 0 / 1 mm/step]

4-994-012	Position 12	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-013	Position 13	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-014	Position 14	ENG*	[0 to 15000 / 0 / 1 mm/step]
4-994-015	Position 15	ENG*	[0 to 15000 / 0 / 1 mm/step]

SP Mode Tables - SP5000

SP5-XXX (Mode)

5009	[Add display language]		
	Adds language available in user choice. (Only the languages registered in the machine)		
	Refer to the displayed lang	uage list to se	et in the way showed below.
	List Number Assigned Bit Sv	witch	
	No.1 to 8: BIT1 to 8 (SP50	09-201)	
	No.9 to 16: BIT1 to 8 (SP5	009-202)	
	No.17 to 24: BIT1 to 8 (SP	5009-203)	
	No.25 to 32: BIT1 to 8 (SP5009-204)		
	Example: To add American (No.3 in the list) or Czech (No.15)		
	Turn Bit 3 of "SP5009-201" 0 to 1 for American.		
	Turn Bit 7 of "SP5009-202	" 0 to 1 for 0	Czech.
	After setting, turn the main p	power switch	off and on to make the setting valid.
5-009-201	1-8	CTL*	[1 to 255 / 0 / 1 /step]
5-009-202	9-16	CTL*	[1 to 255 / 0 / 1 /step]
5-009-203	17-24	CTL*	[1 to 255 / 0 / 1 /step]
5-009-204	25-32	CTL*	[1 to 255 / 0 / 1 /step]

5024	[mm/inch Display Selection]		
Display units (mm or inch) for custom paper sizes.		per sizes.	
5-024-001	0: mm 1: inch	CTL*	[0 to 1 / 1 (USA), 0 (Europe/Asia) / 1 / step] 0: mm 1: inch

5045	[Accounting counter]
	Sets the method of accounting for machine usage.

5-045-001	Counter Method Japan Only	CTL*	[0 to 1 / 0 / 1 /step] 0: 1 counter
			1: 2 counter
5-045-002	Counter Unit	CTL*	[0 to 8 / 0(EU), 2(NA) / 1 / -/step] Selects the unit for the counter (m, ft, yards, m2, ft2, or yd2) 0: metres 1: yards 2: feet 3: m2 4: yards2
			6: A3 area = 1 unit 7: 0.1 metre (key counter only)
			8: 0.1 yard (key counter only)

5055	[Display IP address]		
	Display or does not display	y the IP addre	ess on the operation panel.
5-055-001	-	CTL*	[0 or 1 / 0 / 1/step]
			0: OFF
			1: ON

5061	[Toner Remaining Icon Display Change] Display or does not display the remaining toner display icon on the LCD.		
5-061-001	-	CTL*	[0 or 1 / 0 / 1 /step]
			0: Not displayed
			1: Displayed

5062	[Part Replacement Alert Display]
	Display or does not display the PM part yield on the LCD.

5-062-001	Developer	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-002	Charge Corona Wire	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-003	Transfer Roller	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-004	Separation Unit	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-005	Drum	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-006	Cleaning Blade	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-007	Paper Feed Rollers 3rd Tray	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-008	Paper Feed Rollers 4th Tray	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-010	Hot Roller	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-011	Pressure Roller	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display

5-062-012	Fusing Cleaning Roller	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-013	Cleaning Maintenance 1	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display
5-062-014	Cleaning Maintenance 2	CTL*	[0 or 1 / 0 / 1 /step] 0: No display 1: Display

5066	[PM Parts Display]			
	Display or does not display the "PM parts" button on the LCD.			
5-066-001	-	CTL*	[0 or 1 / 0 / 1/step]	
			0: No display	
			1: Display	

5067	[Part Replacement Operation Type]			
	Selects the service maintenance or user maintenance for each PM parts. If the user service is selected, PM alert is displayed on the LCD			
5-067-001	Developer CTL* [0 or 1 / 0 / 1/step]			
			0: Service	
			1: User	
5-067-002	Charge Corona Wire	CTL*	[0 or 1 / 0 / 1/step]	
			0: Service	
			1: User	
5-067-003	Transfer Roller	CTL*	[0 or 1 / 0 / 1/step]	
			0: Service	
			1: User	

5-067-004	Separation Unit	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User
5-067-005	Drum	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User
5-067-006	Cleaning Blade	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User
5-067-007	Paper Feed Rollers 3rd Tray	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User
5-067-008	Paper Feed Rollers 4th Tray	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User
5-067-010	Hot Roller	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User
5-067-011	Pressure Roller	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User
5-067-012	Fusing Cleaning Roller	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User
5-067-013	Cleaning Maintenance 1	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User
5-067-014	Cleaning Maintenance 2	CTL*	[0 or 1 / 0 / 1/step] 0: Service 1: User

5071	[Set Bypass Paper Size Display] Turn on or off the paper size confirmation pop-up on the LED. This pop-up prevents mismatching between a paper size selected by the operation panel and an actual paper size on the by-pass tray.		
5-071-001	- CTL [0 to 1 / 0 / 1 /step]		
			0: Disable
			1: Enable

5074	[Home Key Customization]		
	Sets applications that appear c	on the operation	n panel when "home key" is pressed.
5-074-002	Login Setting	CTL*	 [0 to 255 / 0 / 1/step] Bit0: Sets login operation mode for panel display. 0: Displayed 1: Not display Bit1 to bit7: Not used
5-074-050	Show Home Edit Menu	CTL*	[0 to 2 / 0 / 1 /step] 0: Auto 1: Displayed 2: Not displayed
5-074-091	Function Setting	CTL*	[0 to 2 / 0 / 1 /step] 0: Function disable 1: SDK application 2: Browser application
5-074-092	Product ID	CTL*	[0 to 0xffffffff/ 0 / 1/step] Sets the application product ID.
5-074-093	Application Screen ID	CTL*	[0 to 255 / 0 / 1 /step] Sets the display category of the extended application.

[ServiceSP Entry Code Setting] DFU

5-081-001 ServiceSP Entry Code Setting	*CTL	-
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5083	[LED Light Switch Setting]			
	Turns LED lighting ON and OFF at Toner Near End or Waste Toner Near End.			
5-083-001	Toner Near End	CTL*	[0 or 1 / 0 / 1/step]	
			0: OFF	
			1: ON	
5-083-002	Waste Toner Near End	CTL*	[0 or 1 / 0 / 1/step]	
			0: OFF	
			1: ON	

5113	[Optional Counter Type]			
	Sets the counter device number for the optional unit or external unit.			
5-113-001	Default Optional Counter Type	CTL*	[0 to 12 / 0 / 1 /step] Selects the type of counter. 0: None 1: Key card (RK3, 4) Japan only 2: Key card down Japan only 3: Pre-paid card Japan only 4: Coin Rack Japan only 5: MF key card Japan only 11: Exp Key Card (Add) (used key counter connector) 12: Exp Key Card (Deduct) (used key counter connector)	

5-113-002	External Optional Counter Type	CTL*	[0 to 3 / 0 / 1 /step] 0: None
		1: Expansion Device 1	
			2: Expansion Device 2
			3: Expansion Device 3
		Enables the SDK application. This lets you select a number for the external device for user access control.	
			Note : "SDK" refers to software on an SD card.

5114	[Optional Counter I/F]			
	Sets this SP for connecting to an optional counter which uses MF key card I/F.			
5-114-001	MF Key Card Extension	CTL*	[0 or 1 / 0 / 1/step]	
			0: Not installed	
			1: Installed (scanning accounting)	

5118	[Disable Copying]				
	Temporarily denies access	porarily denies access to the machine.			
5-118-001	-	CTL*	[0 to 1 / 0 / 1 /step] 0: Release for normal operation 1: Prohibit access to machine		

5120	[Mode Clear Opt. Counter Removal]			
	This program updates the information on the optional counter. When you install or remove an optional counter, check the settings.			
5-120-001	0:Yes 1:StandBy 2:No	CTL*	Do not change. [0 to 2 / 0 / 1 /step] 0: Yes. Normal reset 1: Standby. Resets before job start/after completion 2: No. Normally no reset	

5121	[Counter Up Timing]		
	Determines whether the op	tional counte	er counts up at paper feed-in or at paper exit.
5-121-001	0:Feed 1:Exit	CTL*	[0 to 1 / 0 / 1 /step]
			0: Feed count
			1: No feed count

5127	[APS OFF Mode] This SP can be used to switch APS (Auto Paper Select) off when a coin lock or pre- paid key card device is connected to the machine.		
5-127-001	-	CTL*	[0 to 1 / 0 / 1 /step]
			0: On 1: Off

5162	[App. Switch Method]		
	Controls if the application screen is changed with a hardware switch or a software switch.		
5-162-001	-	CTL*	[0 to 1 / 0 / 1 /step]
			0: Soft Key Set
			1: Hard Key Set

5169	[CE Login] To change the printer bit switches, you must log into service mode with this SP before you go into the printer SP mode.		
5-169-001	-	CTL*	[0 to 1 / 0 / 1 /step]
			0: Off. Printer bit switches cannot be adjusted.
			1: On. Printer bit switches can be adjusted.

5180	[Charge Count Method] Japan Only	
5188	[Copy Ny Version]	
	Displays the version number of the NVRAM on the controller board.	

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5-188-001 -	-	CTL*	[- / - / -/step]
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5191	[Mode Set] DFU Shifts to the power save mode or not.		
5-191-001	Power Str Set	[0 or 1 / 1 / 1/step]	
			0: OFF
			1: ON

5193	[External Controller Info. Settings]				
	Select the type of external controller:				
	0: None				
	1: EFI				
	2: Ratio				
	3: Egret				
	4: GJ				
	5: Creo				
	6: QX-100				
	7: Kurofune				
	8 to 10: Reserved				
5-193-001	-	CTL	[0 to 10 / 0 / - /step]		

5195	[Limitless SW] DFU
	Selects the paper feed mode.
	Productivity priority:
	This changes the feeding tray as soon as the machine detects the priority tray even the paper still remains in the feeding tray.
	Tray priority:
	This changes the feeding tray after the paper in the tray where the machine has been feeding paper has been run out of.
	This SP is activated only when a customer selects the "Auto Paper Select".

5-195-001			[0 or 1 / 0 / 1/step]
	-	CTL*	0: Productivity Precede
			1: Use paper up

5227	[Page Numbering]		
	-		
5-227-201			[2 to 9 / 9 / 1 /step]
	Allow Page No. Entry	CTL*	Specifies input available figure length of "Job serial numbers page print out starts number" that specified by optional text print out.
5-227-202		CTI *	[0 to 1 / 0 / 1 /step]
			0:OFF
	Zero Surplus Setting		1:ON
			Specifies zero suppression of "Job serial numbers page print out starts number" that specified by optional text print out.

5302	[Set Time] DFU			
	Sets the time clock for the local time. This setting is done at the factory before delivery. The setting is GMT expressed in minutes.			
	• JA: +540 (Tokyo)			
	• NA: -300 (NY)			
	 EU: +60 (Paris) CH: +480 (Beijing) TW: +480 (Taipei) 			
	• AS: +480 (Hong Kong)			
	• KO :+540(Korea)			
5-302-002	Time Difference	CTL*	[-1440 to 1440 / - / 1 min/step]	

5305	[Auto Off Set] DFU
	This SP switches off the energy save feature.

5-305-101	Auto Off Limit Set	CTL*	[0 to 1 / 1 / 1 /step]
			0: Enable
			1: Disable
			Important: Do not change this setting.

5307	[Daylight Saving	[Daylight Saving Time]				
	Lets you set the r Daylight Saving set these items:	Lets you set the machine to adjust its date and time automatically with the change to Daylight Savings time in the spring and back to normal time in the fall. This SP lets you set these items:				
	 Day and tir 	• Day and time to go forward automatically in April.				
	 Day and tir 	 Day and time to go back automatically in October. 				
	 Set the length 	 Set the length of time to go forward and back automatically. 				
	The settings for (The settings for 002 and 003 are done with 8-digit numbers:				
	Digits	Meaning				
	1 st, 2nd	Month. 4: April, 10: October (for months 1 to 9, the first digit of 0 cannot be input, so the eight-digit setting for 002 or 003 becomes a seven-digit setting)				
	3rd	Day of the week. 0: Sunday, 1: Monday				
	4th	The number of the week for the day selected at the 3rd digit. If "O" is selected for "Sunday", for example, and the selected Sunday is the start of the 2nd week, then input a "2" for this digit.				
	5th, 6th	The time when the change occurs (24-hour as hex code). Example: 00:00 (Midnight) = 00, 01:00 (1 a.m.) = 01, and so on.				
	7th	The number of hours to change the time. 1 hour: 1				
	8th	If the time change is not a whole number (1.5 hours for example), digit 8 should be 3 (30 minutes).				

5-307-001	Setting	CTL*	[0 to 1 / 0 / 1 /step]		
			0: Disable		
			1: Enable		
			Enables/disables the settings for 002 and 003.		
			♦ Note		
			 Make sure that both SP5-307-3 and -4 are correctly set. Otherwise, this SP is not activated even if this SP is set to "1". 		
5-307-003	Rule Set(Start)	CTL*	[0 to 0xffffffff / 0 / -/step]		
			(Default)		
			NA: 0x11100200		
			EUR: 0x10500100		
			ASIA: 0x03100000		
			Other: 0x0000000		
	Specifies the start settin	ig for the sun	nmer time mode.		
	There are 8 digits in thi so the eight-digit setting	nis SP. For months 1 to 9, the "0" cannot be input in the first digit, ng for -2 or -3 becomes a seven-digit setting.			
	1 st and 2nd digits: The	e month. [1 to 12]			
	3rd digit: The week of	f the month. [1 to 5] he week. [0 to 6 = Sunday to Saturday] e hour. [00 to 23] of the advanced time. [0 to 9 / 1 hour /step]			
	4th digit: The day of the				
	5th and 6th digits: The				
	7th digit: The length of				
	8th digit: The length of	the advance	ed time. [0 to 5 / 10 minutes /step]		
	 The digits are cou 	nted from the	from the left.		
	 Make sure that SF 	that SP5-307-1 is set to "1".			

5-307-004	Rule Set(End)	CTL*	[0 to 0xfffffff / 0 / - /step]		
	Specifies the end setting for the summer time mode.				
	There are 8 digits in this SP.				
	1st and 2nd digits: The month. [1 to 12]				
	3rd digit: The week of the month. [0 to 5]				
	4th digit: The day of the week. [0 to 7 = Sunday to Saturday]				
	5th and 6th digits: The hour. [00 to 23]				
	The 7th and 8 digits must be set to "00".				
	• The digits are cou	nted from the left.			
	 Make sure that SF 	25-307-1 is set to "	Р.		

	[Access Control]			
5401	This SP stores the settings that limit uses access to SDK (Software Development Kit) application data. This data can be converted from SAS (VAS) when installed or uninstalled.			
5-401-103	Default Document ACL CTL* [0 to 3 / 0 / 1 /step]			
			0: Read Only	
			1: Edit	
			2: Edit/Delete	
			3: Full control	
			Whenever a new login user is added to the address book in external certification mode (for Windows, LDAP, RDH), the default document ACL is updated according to this SP setting.	
5-401-104	Authentication Time	CTL*	[0 to 255 / 0 / 1 sec/step] Specifies the timeout of the authentication.	

5-401-162	Extend Certification	CTL*	[0 to 0xff / 0 / 1 /step]		
	Detail		Selects the log out type for the extend authentication device.		
	 Bit 0: Log-out without 0: Not allowed (defau Bit1: Log out with IC c 0: Not allowed (defau Bit2: Return from energy 0: Not allowed (defau Bit3, Bit4: Password m 00: Mode 0 (default), 10: Mode 2, 11: Mode Bit5: PIN entry with al 0: Not allowed (defau Bit6: Restrict card scan 0: Not allowed (defau Bit7: Panel lock when 0: Not allowed (defau 	 Bit 0: Log-out without an IC card O: Not allowed (default), 1: Allowed Bit1: Log out with IC card O: Not allowed (default), 1: Allowed Bit2: Return from energy save mode with IC card O: Not allowed (default), 1: Allowed Bit3, Bit4: Password manual entry O0: Mode 0 (default), 01: Mode 1 10: Mode 2, 11: Mode 3 Bit5: PIN entry with alphanumeric character O: Not allowed (default), 1: Allowed Bit5: Restrict card scanning O: Not allowed (default), 1: Allowed 			
5-401-200	SDK1 UniqueID	CTL*	[0 to 0xfffffff / 0 / 1 /step]		
5-401-201	SDK1 Certification Method	CTL*	[0 to 0xff / 0 / 1 /step]		
5-401-210	SDK2 UniqueID	CTL*	[0 to 0xfffffff / 0 / 1 /step]		
5-401-211	SDK2 Certification Method	CTL*	[0 to 0xff / 0 / 1 / -/step]		
5-401-220	SDK3 UniqueID	CTL*	[0 to 0xfffffff / 0 / 1 /step]		
5-401-221	SDK3 Certification Method	CTL*	[0 to 0xff / 0 / 1 / -/step]		

	SDK Certification Device	CTL*	[0 to 0xff / 0 / 1 /-/step]			
5-401-230	 Bit0: SDK authentication O: Disable, 1: Enable Bit1: SKB Display O: Disable, 1: Enable Bit2: Administrator login O: Disable, 1: Enable 					
	• Bit3 to Bit7: Reserved	(set "0" only)				
5-401-240	Detail Option	CTL*	[0 to 0xff / 0 / 1 /step]			
	 Bit0: Logout confirm option 0: OFF, 1: ON Bit1, Bit2: Auto-logout timer (retry timer) 00: 60sec, 01: 10sec, 10: 20sec, 11: 30sec, Bit3: Personal authority / Group authority and operation 0: OFF, 1: ON Bit4: Skip password entry 0: OFF, 1: ON Bit5: Set the display of the remaining Frequence 0: OFF, 1: ON, Bit6, Bit7: Set the display time 00: 3sec, 01: 6sec, 10: 9sec, 11: 12sec 					
5402	[Access Control]					
5-402-101 to	SDKJ1 to SDKJ30 Limit Setting	CTL* [0 to 0xFF / 0 / 1 /step]				
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5-402-130	 Bit0: SDKJ Authenticat O: Panel Type, 1: Rem Bit1: Using user code O: OFF, 1: ON Bit2: Using key-counte O: OFF, 1: ON Bit3: Using external bit O: OFF, 1: ON Bit4: Using extended of O: OFF, 1: ON Bit5, Bit6: Not used Bit7: Using extended for O: OFF, 1: ON 	tion ote Type setup er setup Willing device setup external billing device	ce setup			
5-402-141 to 5-402-170	SDKJ1 to SDKJ30 ProductID	CTL*	[0 to 0xffffffff / 0 / 1 /step]			

5404	[User Code Count Clear]			
	Clears all user code counters.			
5-404-001	-	CTL	[Execute]	

5411	[LDAP-Certification]		
	Sets description of LDAP certification.		
5-411-004	Simplified Authentication	CTL*	[0 to 1/1/1/step]
			1: On
			0: Off

5-411-005	Password Null Not Permit	CTL*	[0 to 1 / 1 / 1 / step]
			This SP is referenced only when SP5411-4 is set to "1" (On).
			0: Password NULL permitted.
			1: Password NULL not permitted.
5-411-006	Detail Option	CTL*	[0 to 0xff / 0 / 1 /step]
			BitO:
			0: Anonymous authentication OFF
			1: Anonymous authentication ON
			Bit1 to Bit7: Not used

5412	[Krb-Certification]		
	-		
5-412-100	Encrypt Mode	CTL*	[0 to 0xff / 0 / 1 /step]
			0x01: AES256-CTS-HMAC-SHA1-96
			0x02: AES128-CTS-HMAC-SHA1-96
			0x04: DES3-CBC-SHA1
			0x08: RC4-HMAC
			0x10: DES-CBC-MD5
			OxFF: ALL

5413	[Lockout Setting]			
	Switches on/off the lock or	witches on/off the lock on the local address book account.		
5-413-001	Lockout On/Off	CTL*	[0 to 1/ 0 /1/step] Switches on/off the lock on the local address book account. 0:OFF 1: ON	
5-413-002	Lockout Threshold	CTL*	[1 to 10 / 5 / 1 /step] Sets a limit on the frequency of lockouts for account lockouts.	

5-413-003	Cancelation On/Off	CTL*	[0 to 1 / 0 / 1 /step]
			Determines whether the system waits the prescribed time for input of a correct user ID and password after an account lockout has occurred.
			0:OFF (no wait time, lockout not cancelled)
			1: ON (system waits, cancels lockout if correct user ID and password are entered)
5-413-004	Cancelation Time	CTL*	[1 to 9999 / 60 / 1 min/step]
			Determines the length of time that the system waits for correct input of the user ID and password after a lockout has occurred. This setting is used only if SP5413-3 is set to "1" (on).

5414	[Access Mitigation]		
5-414-001	Mitigation On/Offf	CTL*	[0 to 1 / 0 / 1 /step] 0:OFF, 1: ON Switches on/off masking of continuously used IDs and passwords that are identical.
5-414-002	Mitigation Time	CTL*	[O to 60 / 15 / 1 min/step] Sets the length of time for excluding continuous access for identical user IDs and passwords.

5415	[Password Attack]		
5-415-001	Permissible Number	CTL*	[0 to 100 / 30 / 1 /step] Sets the number of attempts to attack the system with random passwords to gain illegal access to the system.
5-415-002	Detect Time	CTL*	[1 to 10 / 5 / 1 /step] Sets the time limit to stop a password attack once such an attack has been detected.

5416	[Access Information]
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5-416-001	Access User Max Num	CTL*	[50 to 200 / 200 / 1 /step] Limits the number of users used by the access exclusion and password attack detection functions.
5-416-002	Access Password Max Num	CTL*	[50 to 200 / 200 / 1 /step] Limits the number of passwords used by the access exclusion and password attack detection functions.
5-416-003	Monitor Interval	CTL*	[1 to 10 / 3 / 1 sec/step] Sets the processing time interval for referencing user ID and password information.

5417	[Access Attack]		
5-417-001	Access Permissible Number	CTL*	[O to 500 / 100 / 1 /step] Sets a limit on access attempts when an excessive number of attempts are detected for MFP features.
5-417-002	Attack Detect Time	CTL*	[10 to 30 / 10 / 1 sec/step] Sets the length of time for monitoring the frequency of access to MFP features.
5-417-003	Productivity Fall Waite	CTL*	[0 to 9 / 3 / 1 sec/step] Sets the wait time to slow down the speed of certification when an excessive number of access attempts have been detected.
5-417-004	Attack Max Num	CTL*	[50 to 200 / 200 / 1 /step] Sets a limit on the number of requests received for certification in order to slow down the certification speed when an excessive number of access attempts have been detected.

5420	[User Authentication]
	These functions are enabled only after the user access feature has been enabled.

5-420-001	Сору	CTL*	[0 to 1 / 0 / 1 /step] 0: On 1: Off
5-420-011	DocumentServer	CTL*	[0 to 1 / 0 / 1 /step] 0: On 1: Off
5-420-031	Scanner	CTL*	[0 to 1 / 0 / 1 /step] 0: On 1: Off
5-420-041	Printer	CTL*	[0 to 1 / 0 / 1 /step] 0: On 1: Off
5-420-051	SDK1	CTL*	[0 to 1 / 0 / 1 /step] 0: On 1: Off
5-420-061	SDK2	CTL*	[0 to 1 / 0 / 1 /step] 0: On 1: Off
5-420-071	SDK3	CTL*	[0 to 1 / 0 / 1 /step] 0: On 1: Off
5-420-081	Browser	CTL*	[0 to 1 / 0 / 1 /step] 0: On 1: Off

5430	[Auth Dialog Message Change]
	-

5-430-001	Message Change	CTL*	[0 or 1 / 0 / 1/step]
	On/Ott		0: Function OFF
			1: Function ON
			Turns on or off the displayed message change for the authentication.
5-430-002	Message Text Download	CTL	[Execute]
			Executes the message download for the authentication.
5-430-003	Message Text ID	CTL	[Char:Up to 16 bytes / - / -]
			Inputs message text for the authentication.

5431	[External Auth User Preset]		
	-		
5-431-010	Tag	CTL*	[0 or 1 / 1 / 1/step] 0: Not permit, 1: Permit
5-431-011	Entry	CTL*	[0 or 1 / 1 / 1/step] 0: Not permit, 1: Permit
5-431-012	Group	CTL*	[0 or 1 / 1 / 1/step] 0: Not permit, 1: Permit
5-431-020	Mail	CTL*	[0 or 1 / 1 / 1/step] 0: Not permit, 1: Permit
5-431-032	Folder	CTL*	[0 or 1 / 1 / 1/step] 0: Not permit, 1: Permit
5-431-033	ProtectCode	CTL*	[0 or 1 / 1 / 1/step] 0: Not permit, 1: Permit
5-431-034	SmtpAuth	CTL*	[0 or 1 / 1 / 1/step] 0: Not permit, 1: Permit
5-431-035	LdapAuth	CTL*	[0 or 1 / 1 / 1/step] 0: Not permit, 1: Permit

5-431-036	Smb Ftp Fldr Auth	CTL*	[0 or 1 / 1 / 1/step]
			0: Not permit, 1: Permit
5-431-037	AcntAcl	CTL*	[0 or 1 / 1 / 1/step]
			0: Not permit, 1: Permit
5-431-038	DocumentAcl	CTL*	[0 or 1 / 1 / 1/step]
			0: Not permit, 1: Permit
5-431-040	CertCrypt	CTL*	[0 or 1 / 1 / 1/step]
			0: Not permit, 1: Permit

5481	[Authentication Error Code]		
	These SP codes determine how the authentication failures are displayed.		
5-481-001	System Log Disp	CTL*	[0 to 1 / 0 / 1 /step]
			0: OFF
			1: ON
5-481-002	Panel Disp	CTL*	[0 to 1 / 1 / 1 /step]
			0: OFF
			1: ON

5490	[MF KeyCard] Japan Only Sets up operation of the machine with a keycard.		
5-490-001	Job Permit Setting	CTL*	 [0 to 1 / 0 / 1 /step] 0: Disabled. Cancels operation if no code is input. 1: Enabled. Allows operation if another code is input and decrements the counter once for use of the entered code.

5491	[Optional Counter]
	-

5-491-001	Detail Option	CTL*	[0 to 0xff / 0 / 1 /step]
			BitO:
			BitO:
			0: Forced Job Canceling OFF
			1: Forced Job Canceling ON
			Bit1 to Bit7: Not used

5501	[PM Alarm] Sets the count level for the PM alarm.			
5-501-001	PM Alarm Level CTL* [0 to 9999 / 0 / 1 /step]			
			0: Alarm disabled	
			The PM alarm goes off when the print count reaches this value (multiplied by 1,000)	
5-501-002	Original Count Alarm	CTL*	[0 to 1 / 0 / 1 /step]	
	DFU		0: OFF	
			1: ON	

5504	[Jam Alarm] Japan Only			
	Sets the alarm to sound for the specified jam level (document miss feeds are not included).			
5-504-001	-	CTL*	[0 to 3 / 3 / 1 /step] O(Z): Jam alarm prohibited 1(L): level H 1/4 2(M): level H 1/2 3(H): Jam occurrence interval sheets of indicated paper that indicated product proposal.	

5505	[Error Alarm] Japan Only				
	Sets the error alarm level.				
	The error alarm counter counts "1" when any SC is detected. However, the error alarm counter decreases by "1" when an SC is not detected during a set number of copied sheets.				
5-505-001	-	CTL*	[0 to 255 / 19 / hundred/step]		
			0: Alarm Off		

5507	[[Supply/CC Alarm] Japan Only			
	Enables or disables the notifying a supply call via the @Remote.			
5-507-001	Paper Supply Alarm	CTL*	[0 or 1 / 0 / 1/step] 0: OFF 1: ON	
5-507-003	Toner Supply Alarm	CTL*	[0 or 1 / 1 / 1/step] 0: OFF 1: ON	
5-507-080	Toner Call Timing	CTL*	[0 or 1 / 0 / 1/step] 0: At replacement 1: At less than thresh	
5-507-081	Toner Call Threshold	CTL*	[10 to 10 / 10 / 10%/step] This program enables only if SP5-507-080 is "1"	
5-507-097	Interval: 841mm	CTL*	[00100 to 10000 / 300 / 1 /step]	
5-507-098	Interval: 594mm	CTL*	[00100 to 10000 / 300 / 1 /step]	
5-507-099	Interval: 420mm	CTL*	[00100 to 10000 / 300 / 1 /step]	
5-507-100	Interval: 297mm	CTL*	[00100 to 10000 / 300 / 1 /step]	
5-507-101	Interval: 210mm	CTL*	[00100 to 10000 / 300 / 1 /step]	
5-507-106	Interval: 728mm	CTL*	[00100 to 10000 / 300 / 1 /step]	
5-507-107	Interval: 515mm	CTL*	[00100 to 10000 / 300 / 1 /step]	

5-507-108	Interval: 364mm	CTL*	[00100 to 10000 / 300 / 1 /step]
5-507-109	Interval: 257mm	CTL*	[00100 to 10000 / 300 / 1 /step]
5-507-128	Interval: Others	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-129	Interval: A0	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-130	Interval: A1	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-132	Interval: A3	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-133	Interval: A4	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-138	Interval: B1	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-139	Interval: B2	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-141	Interval: B4	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-160	Interval: DLT	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-164	Interval: LG	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-165	Interval:Foolscap	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-166	Interval: LT	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-175	Interval:12x18	CTL*	[250 to 10000 / 1000 / 1 /step]
5-507-225	Interval:36inch	CTL*	[100 to 10000 / 300 / 1 /step]
5-507-226	Interval:24inch	CTL*	[100 to 10000 / 300 / 1 /step]
5-507-227	Interval:18inch	CTL*	[100 to 10000 / 300 / 1 /step]
5-507-228	Interval:12inch	CTL*	[100 to 10000 / 300 / 1 /step]
5-507-229	Interval:9inch	CTL*	[100 to 10000 / 300 / 1 /step]
5-507-234	Interval:34inch	CTL*	[100 to 10000 / 300 / 1 /step]
5-507-235	Interva*l:22inch	CTL*	[100 to 10000 / 300 / 1 /step]
5-507-236	Interval:17inch	CTL*	[100 to 10000 / 300 / 1 /step]
5-507-237	Interval:11inch	CTL*	[100 to 10000 / 300 / 1 /step]
5-507-238	Interval:8.5inch	CTL*	[100 to 10000 / 300 / 1 /step]

5508	[CC Call] Japan Only			
	Sets PM count level that e	Count level that emits PM alarm call.		
5-508-001	Jam Remains	CTL*	[0 to 1 / 1 / 1 /step] 0: Disable 1: Enable	
5-508-002	Continuous Jams	CTL*	[0 to 1 / 1 / 1 /step] 0: Disable 1: Enable	
5-508-003	Continuous Door Open	CTL*	[0 to 1 / 1 / 1 /step] Enables/disables initiating a call. 0: Disable 1: Enable	
5-508-011	Jam Detection: Time Length	CTL*	[3 to 30 / 10 / 1 min/step] Sets the length of time to determine the length of an unattended paper jam. This setting is enabled only when SP5508-004 is enabled (set to 1).	
5-508-012	Jam Detection: Continuous Count	CTL*	[2 to 10 / 5 / 1 time/step] Sets the length of time to determine the length of an unattended paper jam. This setting is enabled only when SP5508-004 is enabled (set to 1).	
5-508-013	Door Open: Time Length	CTL*	[3 to 30 / 10 / 1 min/step] Sets the length of time the remains opens to determine when to initiate a call. This setting is enabled only when SP5508-4 is enabled (set to 1).	

	is enabled (set to 1).			
[SC/Alarm Setting]				
With @Pamata in usa, thosa SP codes can be set to issue an SC call when an SC				

With @Remote in use, these SP codes can be set to issue an SC call when an SC error occurs. If this SP is switched off, the SC call is not issued when an SC error occurs.

5515

5-515-001	SC Call	CTL*	[0 or 1 / 1 / 1 /step] 0: OFF 1: ON
5-515-002	Service Parts Near End Call	CTL*	[0 or 1 / 1 / 1 /step] 0: OFF 1: ON
5-515-003	Service Parts End Call	CTL*	[0 or 1 / 1 / 1 /step] 0: OFF 1: ON
5-515-004	User Call	CTL*	[0 or 1 / 1 / 1 /step] 0: OFF 1: ON
5-515-006	Communication Test Call	CTL*	[0 or 1 / 1 / 1 /step] 0: OFF 1: ON
5-515-007	Machine Information Notice	CTL*	[0 or 1 / 1 / 1 /step] 0: OFF 1: ON
5-515-008	Alarm Notice	CTL*	[0 or 1 / 1 / 1/step] 0: OFF 1: ON
5-515-010	Supply Automatic Ordering Call	CTL*	[0 or 1 / 1 / 1 /step] 0: OFF 1: ON
5-515-011	Supply Management Report Call	CTL*	[0 or 1 / 1 / 1 /step] 0: OFF 1: ON
5-515-012	Jam/Door Open Call	CTL*	[0 or 1 / 1 / 1 /step] 0: OFF 1: ON

5517	[Get Machine Information]		
5-517-031	Get SMC Info: Retry Interval	CTL*	[10 to 255 / 10 / 1 / min/step] When SMC info collect is interrupt, retries during the time between receving Request for obtaining SMC info, to value set with this setting.

5728	[Network Setting]		
	Displays and sets the port numb operation panel.	pers of the por	rt forward for transfering to the Android
5-728-001	NAT Machine Port1	CTL*	[1 to 65535 / 49101 / -/step]
5-728-002	NAT UI Port1	CTL*	[1 to 65535 / 55101 / -/step]
5-728-003	NAT Machine Port2	CTL*	[1 to 65535 / 49102 / -/step]
5-728-004	NAT UI Port2	CTL*	[1 to 65535 / 55102 / -/step]
5-728-005	NAT Machine Port3	CTL*	[1 to 65535 / 49103 / -/step]
5-728-006	NAT UI Port3	CTL*	[1 to 65535 / 55103 / -/step]
5-728-007	NAT Machine Port4	CTL*	[1 to 65535 / 49104 / -/step]
5-728-008	NAT UI Port4	CTL*	[1 to 65535 / 55104 / -/step]
5-728-009	NAT Machine Port5	CTL*	[1 to 65535 / 49105 / -/step]
5-728-010	NAT UI Port5	CTL*	[1 to 65535 / 55105 / -/step]
5-728-011	NAT Machine Port6	CTL*	[1 to 65535 / 49106 / -/step]
5-728-012	NAT UI Portó	CTL*	[1 to 65535 / 55106 / -/step]
5-728-013	NAT Machine Port7	CTL*	[1 to 65535 / 49107 / -/step]
5-728-014	NAT UI Port7	CTL*	[1 to 65535 / 55107 / -/step]
5-728-015	NAT Machine Port8	CTL*	[1 to 65535 / 49108 / -/step]
5-728-016	NAT UI Port8	CTL*	[1 to 65535 / 55108 / -/step]
5-728-017	NAT Machine Port9	CTL*	[1 to 65535 / 49109 / -/step]
5-728-018	NAT UI Port9	CTL*	[1 to 65535 / 55109 / -/step]

5-728-019	NAT Machine Port10	CTL*	[1 to 65535 / 49110 / -/step]
5-728-020	NAT UI Port10	CTL*	[1 to 65535 / 55110 / -/step]

5730	[Extended Function Setting]		
	-		
5-730-00	JavaTM Platform setting	CTL*	[0 or 1 / 1 / 1 /step]
			0: OFF
			1: ON
5-730-010	JavaTM Platform setting	CTL*	[0 to 999 / 20 / 1 days/step]

5731	[Counter Effect] Japan Only		
5-731-001	Change Mk1 Cnt(Paper- >Combine)	CTL*	[0 or 1 / 0 / 1 /step] 0: OFF 1: ON

5734	[PDF Setting]		
	Limits PDF file type when operating the scanner function		
5-734-001	PDF/A Fixed	CTL*	[0 to 1 / 0 / 1 /step]
			0: non-fixed setting
			1: fixed setting (PDF/A use only)

5745	[DeemedPowerConsumption]		
5-745-211	Controller Standby	CTL*	[0 to 9999 / 0 / 1 /step]
5-745-212	STR	CTL*	[0 to 9999 / 0 / 1 /step]
5-745-213	Main Power Off	CTL*	[0 to 9999 / 0 / 1 /step]
5-745-214	Scanning and Printing	CTL*	[0 to 9999 / 0 / 1 /step]
5-745-215	Printing	CTL*	[0 to 9999 / 0 / 1 /step]
5-745-216	Scanning	CTL*	[0 to 9999 / 0 / 1 /step]
5-745-217	Engine Standby	CTL*	[0 to 9999 / 0 / 1 /step]

5-745-218	Low Power Consumption	CTL*	[0 to 9999 / 0 / 1 /step]
5-745-219	Silent condition	CTL*	[0 to 9999 / 0 / 1 /step]
5-745-220	Heater Off	CTL*	[0 to 9999 / 0 / 1 /step]

5748	[OpePanel Setting]				
	Sets operation of related operational panel.				
5-748-101	Op Type Action Setting	CTL	[0 to 255 / 0 / 1 /step] Bit0: Re-connecting setting. 0: Re-connecting OFF 1: Re-connecting ON Bit1: Job stop setting at operational panel communication error 0: Job duration 1: Job stop Bit2: Smart Operation Panel mode 0: Common boot 1: Secure boot Bit2 to Bit7: Natured		

5749	[Import/Export]			
	Imports and exports preference information.			
5-749-001	Export CTL [Execute]			
	Target: System, Printer, Scanner			
	Option: Unique, Secret			
	Copy config: Encryption, Encryption key (if selected)			
5-749-101	1 Import CTL [Execute] Option: Unique			
	Copy config: Encryption, Encryption key (if selected)			

5751	[Key Event Encryption Setting]			
	Sets encryption key to encrypt key information.			
5-751-001	Password	CTL*	[32characters / - / 1/step]	

5755	[Display Setting]				
	Sets the display for the administrator password.				
5-755-001	Disp Administrator Password Change Scrn	CTL [- / - / - /step] [Execute]			
	Displays the password setting screen for the supervisor and administrator 1 at the startup after the execution of this SP is done.				
5-755-002	Hide Administrator Password Change Scrn	CTL	[- / - / - /step] [Execute]		
	Hides the input screen of the administrator password temporarily after the execution of this SP is done.				

5801	[Memory Clear]			
	Resets NVRAM data to the default settings. Before executing any of these SP codes, print an SMC Report.			
5-801-001	All Clear	CTL	[Execute]	
	Clears all data from NVRAM			
5-801-002	Engine	ENG	[Execute]	
	Initializes all SP settings for the engine and paper folding.			
	Reboot the machine after executin	g.		
5-801-003	SCS	CTL	[Execute]	
	Initializes default system settings, SCS (System Control Service) settings, operation display coordinates, and ROM update information.			
5-801-004	IMH Memory Clr	CTL	[Execute]	
	Clears Image Memory Handler which manages memory and HDD access.			

5-801-005	MCS	CTL	[Execute]		
	Initializes the automatic delete time setting for stored documents.				
	(MCS: Memory Control Service)				
5-801-006	Copier application CTL [Execute]				
	Initializes all copier application settings.				
	Before executing this SP, print an	SMC Repo	rt.		
	Clears data as follows:				
	1. Copier / Document Server Fec	itures			
	2. Following Copier SPs.				
	Set Bypass Paper Size Display (SP5-071-001)				
	• Disable Copying (SP5-118-001)				
	 APS OFF Mode (SP5-127-001) SP5-227-200 SP5-227-201 				
	• SP5-227-202				
5-801-006	3. System Settings				
	• SP5-002-001				
	• SP5-101-002				
	• SP5-101-102				
	4. Mode Programs, default progr	ams			
	5. Automatically giving numbers of stored documents named default file name (COPYxxxx).				

5-801-008	Printer Application	CTL	[Execute]		
	Initializes the printer defaults, programs registered, the printer SP bit switches, and the printer CSS counter.				
	The following service setting:				
	Bit switches				
	Gamma setting (User & Service	e)			
	• Toner Limit				
	The following user setting:				
	Tray Priority				
	Menu protect				
	System Setting except for setting	System Setting except for setting of Energy Saver			
	 I/F Setup (I/O Buffer and I/C 	Timeout)			
5-801-009	Scanner Application	CTL	[Execute]		
	Initializes the defaults for the scanner and all the scanner SP modes. Before executing this SP, print an SMC Report.				
	After clearing the memory, follow this procedure to calibrate the touch screen.				
	 Press [1], [9], [9], and [3] at the ten-key pad, and then press [C] (Clear) 5 times to open the "Self Diagnostics Menu." 				
	2. Press [[1] Touch Screen Adjust] (or press [1] on the ten-key pad).				
	 Press the points (upper left, lower left, upper right and lower right) and confirm that each value is within ±5 dots. 				
	 Press [[#] Exit] on the screen (c Diagnostic Menu". 	or press [#] oi	n the ten-key pad) to close the "Self		
	5. Reboot the machine.				
5-801-010	Web Service	CTL	[Execute]		
	Deletes the Netfile (NFA) management files and thumbnails, and initializes the Job login ID.				
	Netfiles: Jobs to be printed from the document server using a PC and the DeskTopBinder software. Before executing this SP, print an SMC Report.				

5-801-011	NCS	CTL	[Execute]		
	(NCS: Network Control Service)				
	Initializes the network settings as foll	ows:			
	 Settings to use the network such as IPaddress and Subnet masks. Initializes I/F Settings as follows: 				
	Clears the usuable I/F settings.				
	Centronics				
	• IEEE 1394				
IEEE 802.11USB					
5-801-014	Clear DCS Setting	CTL	[Execute]		
	Initializes the DCS (Delivery Control Service) settings.				
	Clears data as follows:				
	• All SP5-845-xxx				
	• All SP5-860-xxx				
	• All SP5-861-xxx				
	• All SP5-863-xxx				
	• Items that clears by executing S	SP5-864-00	1		

5-801-015	Clear UCS Setting	CTL	[Execute]		
	Initializes the UCS (User Information Control Service) settings.				
	1. Initializes NVRAM of UCS.				
	<sps></sps>				
	SP5-846-001 (Machine ID (for Delivery Server))				
	• SP5-846-003 (Max	kimum Entries)			
	• SP5-846-006 (Deliv	very Server Retry Ti	mer)		
	• SP5-846-007 (Deliv	very Server Retry Ti	mes)		
	• SP5-846-008 (Deliv	very Server Maximu	um Entries)		
	• SP5-846-009				
	• SP5-846-010 (LDA	P Search Timeout)			
	• SP5-846-021 (Fold	er Auth Change)			
	• SP5-846-060 (Search option)				
	SP5-846-091 (FTP Auth Port Setting)				
	• SP5-846-098				
	• SP5-846-099				
	<others></others>				
	 NVRAM magic number (for boot check) 				
	 Maximum number of the addressbook in use. (for boot check) 				
	 Generation numbers of the local addressbook. 				
	Index information				
	2. Initializes information of data saved on HDD/SD/USB FlashROM.				
	 Local user addressbook information 				
	 User addressbook information of the delivery server (To/Sender) 				
	 User addressbook o 	f LDAP server.			
	* After executing this SP,	re-register the IO d	evices to use the delivery server.		
5-801-016	MIRS Setting	CTL	[Execute]		
	Initializes the MIRS (Mac	hine Information Re	port Service) settings.		
5-801-017	CCS	CTL	[Execute]		
	Initializes the CCS (Certification and Charge-control Service) settings.				

5-801-018	SRM Memory Clr	CTL	[Execute]	
	Initializes the SRM (System Resource Manager) settings.			
	Before executing this SP, print an SMC Report.			
5-801-019	LCS	CTL	[Execute]	
	Initializes the LCS (Log Co	ount Service) setting	JS.	
	Before executing this SP,	print an SMC Repo	rt.	
5-801-020	Web Uapli	CTL	[Execute]	
	Initializes the web user ap	oplication settings.		
	Before executing this SP,	print an SMC Repo	rt.	
5-801-021	ECS	CTL	[Execute]	
	Initializes the ECS settings	S.		
	Before executing this SP,	print an SMC Repo	rt.	
5-801-022	Folder	ENG	[Execute]	
	Initializes all folding unit SP settings. Reboot the machine after the execution.			
	Before executing this SP,	print an SMC Repo	rt.	
5-801-025	websys	CTL	[Execute]	
5-801-026	PLN	CTL	[Execute]	
	This SP clears PLN encryption key information.			
5-801-027	SAS	CTL	[Execute]	
	This SP clears data as follows:			
	SDK/C application install information			
	• SP5-730-010			
	Betore executing this SP,	print an SMC Repo	rt.	
			1	

5802 [[Engine Free Run]

5-802-001	-	ENG	[0 to 1 / 0 / 1/step]
	Makes a base engine free run.		
	0: Disable: Release free run mode		
	1: Enable: Enable free run mode		
	Note: The machine automatically SP mode or after the machine is cy	leaves free /cled off ar	run mode after the machine laves the nd on.

3

5803 [[Input Check] Allows you to test component input. For details see p.331.

5804	[[Output Check]
	Allows you to test component output. For details see p.334.

5810	[[SC Reset] DFU		
	When the machine issues a "Level A" SC code, this indicates a serious problem in the fusing unit.		
	• As soon as the Level A SC code is issued, the machine is disabled immediately.		
	 The operator cannot reset the SC because the machine requires servicing immediately. 		
	• The machine cannot be used	until the m	achine has been service.
	Touch [EXECUTE] to release the m	achine for	servicing.
5-810-001	Fusing SC Reset	ENG	[EXECUTE]

[[Machine No. Setting]		
The serial number is set with this code before shipping.		
)]		
of the machine. The one at the factory, and		

5812	[Service Tel. No. Setting]
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5-812-001	Service	CTL*	[- / - / - /step]
	Sets the telephone number for a service representative. This number is printed on the Counter List, which can be printed with the user's "Counter" menu.		
	This can be up to 20 characters (both numbers and alphabetic characters can be input).		
5-812-002	Facsimile	CTL*	[- / - / - /step]
Sets the fax or telephone number for a service representative. This number is on the Counter List.			
	This can be up to 20 characters (both numbers and alphabetic characters can be input).		
5-812-003	Supply	CTL*	[- / - / - / step]
	Use this to input the telephone number of your supplier for consumables. Enter the number and press #.		
5-812-004	Operation	CTL*	[- / - / - /step]
	Use this to input the telephone nur press #.	mber of you	r sales agency. Enter the number and

5816	[Remote Service] Use it for Network remote diagnosis.		
5-816-001	I/F Setting	CTL*	[0 to 2 / 2 / 1 /step]
			0: Remote service off
			1: CSS remote service on
			2: @Remote service on
	Selects the remote service setting.		
5-816-002	CE Call	CTL*	[0 to 1 / 0 / 1 /step]
			0: Start of the service
			1: End of the service
	Performs the CE Call at the start or end of the service.		
	This SP is activated only when SP 5816-001 is set to "2".		

5-816-003	Function Flag	CTL*	[0 to 1 / 0 / 1 /step]	
			0: Disabled, 1: Enabled	
	Enables or disables the remote service function.			
	NOTE: This SP setting is changed to "1" after @Remote registor has been completed.			
5-816-007	SSL Disable	CTL*	[0 to 1 / 0 / 1 /step]	
			0: Uses the RCG certification	
			1: Does no use the RCG certification	
	Uses or does not use the RCG cer	tification by	y SSL when calling the RCG.	
5-816-008	RCG Connect Timeout	CTL*	[1 to 90 / 30 / 1 sec/step].	
	Specifies the connect timeout interval when calling the RCG			
5-816-009	RCG Write Timeout	CTL*	[0 to 100 / 60 / 1 sec/step]	
	Specifies the write timeout interva	ifies the write timeout interval when calling the RCG.		
5-816-010	RCG Read Timeout	CTL*	[0 to 100 / 60 / 1 sec/step].	
	Specifies the read timeout interval when calling the RCG			
5-816-011	Port 80 Enable	CTL*	[0 to 1 / 0 / 1 /step]	
			0: Disabled	
			1: Enabled	
	Enables/disables access via port	80 to the S	SOAP method.	
5-816-013	RFU Timing	CTL*	[0 to 1 / 1 / 1 / step]	
	Selects the RFU timing.			
	0: RFU is executed whenever update request is received.			
	1: RFU is executed only when the	machine is	in the sleep mode.	
5-816-014	RCG Error Cause	CTL	[0 to 2 / 0 / 1 /step]	
			0:Normal condition	
			1:Error	
	Displays the cause of an RCG err	or. When @	Remote is used, normally displays "O".	
	If "1" is displayed, this means that the network re-booted. To restore return a "0" (normal condition).	the authen normal op	tication from client to server failed when eration, cycle the machine off/on to	

5-816-021	RCG-C Registed	CTL*	[0 to 1 / 0 / 1 /step]	
			0: Installation not completed	
			1: Installation completed	
	This SP displays the Embedded RC	C Gate inst	allation end flag.	
5-816-023	Connect Type(N/M)	CTL*	[0 to 1 / 0 / 1 /step]	
			0: Internet connection	
			1: Dial-up connection	
	This SP displays and selects the Er	nbedded R	C Gate connection method.	
5-816-061	Cert Expire Timing (DFU)	CTL*	[0 to 0xffffffff / 0 / 1 /step]	
	Proximity of the expiration of the a	ertification		
5-816-062	Use Proxy	CTL*	[0 to 1 / 0 / 1 / step]	
			0: Not use	
			1: Use	
	This SP setting determines if the proxy server is used when the machine communicates with the service center.			
5-816-063	Proxy Host	CTL*	[- / - / - /step]	
	This SP sets the address of the proxy server used for communication between Embedded RC Gate-N and the gateway. Use this SP to set up or display the customer proxy server address. The address is necessary to set up Embedded RC Gate-N.			
	• The address display is limited to 128 characters. Characters beyond the 128 character are ignored.			
	• This address is customer info	rmation an	d is not printed in the SMC report.	
5-816-064	Proxy Port Number	CTL*	[0 to 0×ffff / 0 / 1 /step]	
	This SP sets the port number of the proxy server used for communication between Embedded RC Gate-N and the gateway. This setting is necessary to set up Embedded RC Gate-N.			
	This port number is customer	informatio	n and is not printed in the SMC report.	

5-816-065	Proxy User Name	CTL*	[- / - / - /step]	
	This SP sets the HTTP proxy certification user name.			
	• The length of the name is lim 31st character is ignored.	ited to 31 o	characters. Any character beyond the	
	• This name is customer inform	ation and i	s not printed in the SMC report.	
5-816-066	Proxy Password	CTL*	[- / - / - /step]	
	This SP sets the HTTP proxy certification password.			
	 The length of the password is limited to 31 characters. Any character beyond the 31st character is ignored. 			
	• This name is customer inform	ation and i	s not printed in the SMC report.	
5-816-067	CERT:Up State	CTL*	[0 to 255 / 0 / 1 /step]	
	Displays the status of the certification update.			

Up Status of SP5-816-067

0	The certification used by Embedded RC Gate is set correctly.
1	The certification request (setAuthKey) for update has been received from the GW URL and certification is presently being updated.
2	The certification update is completed and the GW URL is being notified of the successful update.
3	The certification update failed, and the GW URL is being notified of the failed update.
4	The period of the certification has expired and new request for an update is being sent to the GW URL.
11	A rescue update for certification has been issued and a rescue certification setting is in progress for the rescue GW connection.
12	The rescue certification setting is completed and the GW URL is being notified of the certification update request.
13	The notification of the request for certification update has completed successfully, and the system is waiting for the certification update request from the rescue GW URL.
14	The notification of the certification request has been received from the rescue GW controller
15	The certification has been stored
16	The storing of the certification has failed

17	The certification update request has been received from the GW URL
18	The rescue certification of No. 17 has been recorded

5-816-068	CERT	:Error	CTL*	[0 to 255 / 0 / 1 /step]	
	Displays a number code that describes the reason for the request for update of the certification.				
	0 Normal. There is no request for certification update in progress.				
	1	Request for certification update in progress. The current certification has expired.			
	2 An SSL error notification has been issued. Issued after the certification has expired.			ued. Issued after the certification has	
	3	Notification of shift from a common authentication to an individual certification.			
	4	Notification of a common certification without ID2.			
	5 Notification that no certification was issued.			ssued.	
	6	Notification that GW URL does not exist.			
5-816-069	CERT	:Up ID	CTL*	[- / - / - / step]	
	The I	D of the request for certification.			
5-816-083	Firm	Up Status	CTL*	[0 or 1 / 0 / 1 /step]	
	Displ	ays the status of the firmware	e update.		
	0: Fa	rm update reception standby	/		
	1: Fa	rm update start schedule star	ndby.		
5-816-085	Firm	Up User Check	CTL*	[0 or 1 / 0 / - /step]	
	This SP setting determines if the operator can confirm the previous version of the firmware before the firmware update execution. If the option to confirm the previous version is selected, a notification is sent to the system manager and the firmware update is done with the firmware files from the URL.				
5-816-086	Firmv	vare Size	CTL*	[0 to 0xffffffff / 0 / - /step]	
	Allows the service technician to confirm the size of the firmware data files du firmware update execution.			size of the firmware data files during the	

5-816-087	CERT:Macro Ver.	CTL	[- / - / - /step]	
	Displays the macro version of the	@Remote	certification. Max. 8digits.	
5-816-088	CERT:PAC Ver.	CTL	[- / - / - /step]	
	Displays the PAC version of the @	Remote ce	rtification. Max. 16 digits.	
5-816-089	CERT:ID2Code	CTL	[- / - / - /step]	
	Displays ID2 for the @Remote cer Asteriskes (*) indicate that no @R indicates "Common certification".	tification. S emote cert Max. 17 c	Spaces are displayed as underscores (_). ification exists. "000000" digits.	
5-816-090	CERT:Subject	CTL	[- / - / - /step]	
	Displays the common name of the 17 bytes. Spaces are displayed o @Remote certification exists. "000 certification". Max. 17 digits.	e @Remote as undersco 0000	certification subject. CN = the following ores (_). Asterisks (*) indicate that no " indicates "Common	
5-816-091	CERT:SerialNo.	CTL	[- / - / - / step]	
	Displays serial number for the @R @Remote certification exists. Max. 16 digits.	emote cert	ification. Asterisks (*) indicate that no	
5-816-092	CERT:Issuer	CTL	[- / - / - /step]	
	Displays the common name of the following 30 bytes. Asteriskes () in 30 digits.	issuer of t ndicate tha	he @Remote certification. CN = the It no @Remote certification exists. Max.	
5-816-093	CERT:Valid Start	CTL	[- / - / - /step]	
	Displays the start time of the period enabled. Max. 10 digits.	od for whic	h the current @Remote certification is	
5-816-094	CERT:Valid End	CTL	[- / - / - / step]	
	Displays the end time of the period for which the current @Remote certification is enabled. Max. 10 digits.			

5-816-102	CERT:Encrypt	Level	CTL*	[1 to 2 / 1 / 1	/step]
	Displays the strength of encryption used for NRS authentication. The displayed value is not the value acquired from the authentication domain, rather it is the value stored in NVRAM when authentication is written. When NRS starts up, if there is a mismatch between this SP setting and the authentication encryption, then the SP value is updated.				
	1:512bit				
	2:2048bit			1	
5-816-103	Client Commu	inication Method	CTL*	[0 to 3 / 0 / 1	/step]
	Saves the com communicatio	nmunication type the	at the mach	nine succeeded in	@Remote client
	0: Not commu	unicated (initial setti	ing)		
	1: IPv4				
	2: IPv6 3: Hostname				
5-816-104	Client Communication Limit CTL* [1 to 7 / 7 / 1 / step]			/step]	
	Determines the destinations of NRSGateway that the machine can use during @Remote communication. If NRS device runs, the setting specified here will be invalid.				
	Enable: Uses as the destinations				
	Disable: Does	not use as the dest	inations		
	Value	Hostmame		Pv6 Address	IPv4 Adress
	1	Disable		Disable	Enable
	2	Disable		Enable	Disable
	3	Disable		Enable	Enable
	4	Enable		Disable	Disable
	5	Enable		Disable	Enable
	6	Enable		Enable	Disable
	7	Enable		Enable	Enable

5-816-115	Network Information Waiting timer	CTL*	[5 to 255 / 5 / 1 sec/step]	
	Saves the time until the latest network information is determined.			
	If SCS does not notify a boot of the network or IPv6 address event, NRS determines the network information and notrifies the setting change(s) to intermediary device(s)			
5-816-150	Selection Country	CTL*	[0 to 10 / 0 / 1 /step]	
	Not used		0: Japan	
			1: USA	
			2: Canada	
			3: UK	
			4: Germany	
			5: France	
			6: Italy	
			7: Netherlands	
			8: Belgium	
			9: Luxembourg	
			10: Spain	
5-816-151	Line Type Automatic Judgement	CTL*	[0 to 1 / 0 / - /step]	
	Not used		[Execute]	
5-816-152	Line Type Judgement Result	CTL	[0 to 255/ 0 / 0 /step]	
	Not used			
5-816-153	Selection Dial / Push	CTL*	[0 to 1 / 0 / 1 /step]	
	Not used		0: Tone dialing phone	
			1: Pulse dialing phone	
5-816-154	Outside Line Outgoing Number	CTL	[char (4 digits) / - / -]	
	Not used			
5-816-156	Dial Up User Name	CTL*	[- / Initial user name is displayed. / - / step]	
	Use this SP to set a user name for	access to r	emote dial up	
	Name length: Up to 32 character	s		

5-816-157	Dial Up Password	CTL*	[- / Initial user name is displayed. / - / step]	
	Use this SP to set a password for access to remote dial up. Follow these rules when setting a user name			
	Name length: Up to 32 character	-s		
5-816-161	Local Phone Number	CTL*	[- / NULL / - /step]	
	Use this SP to set the telephone nu connected. This number is transmi Limit: 24 numbers (numbers only)	umber of th itted to and	e line where embedded RCG-M is used by the Call Center to return calls.	
5-816-162	Connection Timing Adjustment Incoming	CTL*	[0 to 24 / 1 / 1 /step]	
	When the Call Center calls out to an embedded RCG-M modem, it sends a repeating ID tone (*#1#). This SP sets the time the line remains open to send these ID tones after the number of the embedded RCG-M modem is dialed up and connected. The actual amount of time is this setting x 2 sec. For example, if you set "2", the line will remain open for 4 sec.			
5-816-163	Access Point	CTL*	[char (16 digits) / - / -]	
	This is the telephone number of th setting is done for this SP code, th selected) is used. Allowed: Up to 16 numeral charc	e dial-up a en a prese acters	ccess point for embedded RCG-M. If no t value (determined by the country	
5-816-164	Line Connecting	CTL*	[0 to 1 / 0 / 1 /step]	
	This setting dedicates the line to embedded RCG-M only, or sets the line for sharing between embedded RCG-M and a fax unit.			
	0: Line shared by embedded RCG-M/Fax			
	1 : Line dedicated to embedded RCG-M only			
	 If this setting is changed, the copier must be cycled off and on. 			
	 SP5816-187 determines whether the off-hook button can be used an embedded RCG-M transmission in progress to open the line for transaction. 			

5-816-173	Modem Serial No.	CTL*	[- / - / -]
			Displays the modem serial number.
	This SP displays the serial number	registered	for the embedded RCG-M.
5-816-174	Retransmission Limit	CTL	[0 to 1 / 0 / - /step]
			[Execute]
	Normally, it is best to allow unlimited time for certification and ID2 update requests, and for the notification that the certification has been completed. However, embedded RCGM generates charges based on transmission time for the customer, so a limit is placed upon the time allowed for these transactions.		
	If these transactions cannot be co cancel the time restriction.	mpleted wi	thin the allowed time, do this SP to
5-816-187	FAX TX Priority	CTL*	[0 to 1 / 0 / 1 /step]
	This SP determines whether pushing the off-hook button will interrupt an embedded RCGM transmission in progress to open the line for fax transaction. This SP can be used only if SP5816-164 is set to "0".		
	• O: Disable. Setting the fax unit off-hook does not interrupt a fax transaction in progress. If the off-hook button is pushed during an embedded RCG-M transmission, the button must be pushed again to set the fax unit on-hook after the embedded RCG-M transmission has completed.		
	• 1: Enable. When embedded RCG-M shares a line with a fax unit, setting the fax unit off-hook will interrupt a embedded RCG-M transmission in progress and open the line for a fax transaction.		
5-816-200	Manual Polling	CTL	[0 to 1 / 0 / - /step]
			[Execute]
	Executes the manual polling.		

5-816-201	Regist Status	CTL	[0 to 255 / 0 / 1 /step]	
	Displays a number that indicates the status of the @Remote service device.			
	0: Neither the registered device by the external nor embedded RCG device is set.			
	1: The embedded RCG device is being set. Only Box registration is completed. In this status, this unit cannot answer a polling request from the external RCG.			
	2. The embedded RCG device is set. In this status, the external RCG unit cannot answer a polling request.			
	3. The registered device by the external RCG is being set. In this status the embedded RCG device cannot be set.			
	4 The registered module by the ex	xternal RC	G has not started.	
5-816-202	Letter Number	CTL*	[- / - / - /step]	
	Allows entry of the number of the	request ne	eded for the RCG-N device.	
5-816-203	Confirm Execute	CTL	[0 to 1 / 0 / - /step]	
			[Execute]	
	Executes the inquiry request to the not entered, an error occurs.	e @Remote	Gate Way URL. If SP5-816-202 was	
5-816-204	Confirm Result	CTL	[0 to 255 / 0 / 1 /step]	
	Displays a number that indicates t	the result o	f the inquiry executed with SP5816-203.	
	0: Succeeded			
	1: Inquiry number error			
	2: Registration in progress			
	3: Proxy error (proxy enabled)			
	4: Proxy error (proxy disabled)			
	5: Proxy error (Illegal user name	or passwor	d)	
	6: Communication error			
	7: Certification update error			
	8: Other error			
	9: Inquiry executing			
5-816-205	Confirm Place	CTL	[0 to 1 / 0 / -]	
	Displays the result of the notification sent to the device from the GW URL in answer to the inquiry request. Displayed only when the result is registered at the GW URL.			

5-816-206	Register Execute	CTL	[0 to 1 / 0 / - /step] [Execute]		
	Executes "Embedded RCG Regist	ration".			
	Register Result	CTL	[0 to 255 / 0 / 1 /step]		
	Displays a number that indicates t	he registra	tion result.		
	0: Succeeded				
	2: Registration in progress				
	3: Proxy error (proxy enabled)				
	4: Proxy error (proxy disabled)				
	5: Proxy error (Illegal user name of	or passwor	d)		
	6: Communication error				
	7: Certification update error				
	8: Other error				
5 0 1 4 0 0 7	9: Registration executing				
5-816-207	10: Request paper number registration error (Hit device is not registered when request area of installation information was device transfer)				
	11: Request paper number registration error (Hit device have been registered already)				
	12: Request paper number registration error (parameter error)				
	20: Dial-up confirmation failure				
	21: Answer tone detection error				
	22: Carrier detection failure				
	23: Modem setting value injustice				
	24: Supply current shortage				
	25: Modem circuit failing out				
	26: Circuit is in use				
5-816-208	Error Code	CTL	[-2147483647 to 2147483647 / 0 / 1/step]		
	Displays a number that describes SP5-816-204 or SP5-816-207 v	the error co vas executo	ode that was issued when either ed.		

Cause Code	Meaning
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	-11001	Chat parameter error			
	-11002	Chat execution error			
Illegal Modem Parameter	-11003	Unexpected error			
	-11004	Cutting process occurs during modem connecting.			
	-11005	NCS reboot occurs during modem connecting.			
	-12002	Inquiry, registration attempted without acquiring device status.			
Operation Error,	-12003	Attempted registration without execution of an inquiry and no previous registration.			
Incorrect Setting	-12004	Attempted setting with illegal entries for certification and ID2.			
	-12005	@Remote communication is prohibited. The device has an Embedded RC gate-related problem.			
	-12006	A confirmation request was made after the confirmation had been already completed.			
	-12007	The request number used at registration was different from the one used at confirmation.			
Operation Error, Incorrect Setting	-12008	Update certification failed because mainframe was in use.			
	-12009	D2 mismatch between an individual certification and NVRAM.			
	-12010	Certification area is not initialized.			

	-2385	Attempted dial up overseas without the correct international prefix for the telephone number.
	-2387	Not supported at the Service Center
	-2389	Database out of service
	-2390	Program out of service
	-2391	Two registrations for same device
Error Caused by Response	-2392	Parameter error
from GVV UKL	-2393	Basil not managed
	-2394	Device not managed
	-2395	Box ID for Basil is illegal
	-2396	Device ID for Basil is illegal
	-2397	Incorrect ID2 format
	-2398	Incorrect request number format

5-816-209	Instl Clear	CTL	[0 to 1 / 0 / - /step] [Execute]
	Releases the machine from its e	mbedded RC	G setup.
5-816-240	CommErrorTime	CTL	[0 to 0xffffffff / 0 / 1 /step]
5-816-241	CommErrorCode 1	CTL*	[0 to 0xffffffff / 0x00000000 / 1 / step]
5-816-242	CommErrorCode 2	CTL*	[0 to 0xffffffff / 0x00000000 / 1 / step]
5-816-243	CommErrorCode 3	CTL*	[0 to 0xffffffff / 0x0000000 / 1 / step]
5-816-244	CommErrorState 1	CTL*	[0 to 0xffff / 0x0000 / 1 /step]
5-816-245	CommErrorState 2	CTL*	[0 to 0xffff / 0x0000 / 1 /step]
5-816-246	CommErrorState 3	CTL*	[0 to 0xffff / 0x0000 / 1 /step]
5-816-247	SSL Error Count	CTL*	[0 to 255 / 0 / 1 /step]
5-816-248	Other Err Count	CTL*	[0 to 255 / 0 / 1 /step]
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5-816-250	CommLog Print	CTL	[0 to 255 / 0 / - /step] [Execute]
	Prints the communication log.		

5821	[Remote Service RCG Setting]				
5-821-002	RCG IPv4 Address	CTL*	[0 to 0xfffffff / 0 / 1 /step]		
	Sets the IP address of the RCG (Remote Communication Gate) destination for call processing at the remote service center.				
5-821-003	RCG Port	CTL*	[0 to 65535 / 443 / 1 /step]		
	Sets destination port number of against center.	RCG (Remote C	Communication Gate) at call process		
5-821-004	RCG IPv4 URL Path	CTL*	[0 to 15 /RCG/services/ / - / step]		
	Sets the IPv4 address of the RCG destination URL path for call processing at the remote service center.				
5-821-005	RCG IPv6 Address	CTL*	[- / - / - /step]		
	Sets the IPv6 address of the RCG destination for call processing at the ren center.				
5-821-006	RCG IPv6 URL Path	CTL*	[0 to 15 /RCG/services/ /step]		
	Sets the IPv6 address of the RCC remote service center.	G destination U	RL path for call processing at the		
5-821-007	RCG Host Name	CTL*	[1 to 255 / - / -/step]		
	Sets the IPv6 address of the RCG destination host name for call processing at the remote service center.				
5-821-008	RCG Host URL Path	CTL*	[0 to 15 /RCG/services/ / - / step]		
	Sets the IPv6 address of the RCG host name destination URL path for call processing at the remote service center.				

5824	[NV-RAM Data Upload] Uploads the NVRAM data to an SD card. Note: When uploading in this SP mode data, the front door must be open.			
5-824-001	-	CTL	[- / - / - /step] [Execute]	

5825	825 [NV-RAM Data Download] Downloads data from an SD card to the NVRAM in the machine. After downloading is completed, remove the card and turn the machine power off and on.				
	Note: The pages-printed data stored by SP8381 to SP8387 are not downloaded.				
5-825-001	-	CTL	[- / - / - /step]		
			[Execute]		

5828	[Network Setting] Sets interface of Ethernet and wireless LAN.				
5-828-050	-050 1284 Compatiblity CTL* (Centro)		[0 to 1 / 1 / 1 /step] 0: Disabled 1: Enabled		
	Enables or disables 1284 (Compatibility.			
5-828-052	ECP (Centro)	CTL*	[0 to 1 / 1 / 1 /step] 0: Disabled 1:Enabled		
	Enables or disables ECP Compatibility. This SP is activated only when SP5-828-50 is set to "1".				
5-828-065	5-828-065 Job Spooling CTL*		[0 or 1 / 0 / 1 /step] 0: Disabled(No spooling) 1: Spooling enabled		
	Enables/disables Job Spooling.				

5-828-066	Job Spooling Clear: Start Time	CTL*	[0 or 1 / 1 / 1 /step] 0: ON (Data is cleared) 1: OFF (Automatically printed)		
	Treatment of the job when a	a spooled job exi	sts at power on.		
5-828-069	Job Spooling (Protocol)	CTL*	[0x00 to 0xff / 0x7f / 1 /step] 0: off 1: on		
	Validates or invalidates the	job spooling fund	tion for each protocol.		
	This is a 8-bit setting.				
	BitO: LPR				
	Bit1: FTP				
	Bit2: IPP				
	Bit3: SMB				
	Bit4: BMLinkS				
	Bit5: DIPRINT				
	Bit6: sftp				
	Bit7: wsprnd				
5-828-087	Protocol usage	CTL*	[0x00000000 to 0xffffffff / 0x00000000 / 1 /step]		
	Shows which protocols have been used with the network.				
	0: Off (Not used the network with the protocol.)				
	1: On (Used the network with the protocol once or more.)				

	bit	ltem	bit	ltem
	0	IPsec	16	SMB printing
	1	IPv6	17	WSD-Printer
	2	IEEE 802.1X	18	WSD-Scanner
	3	Wireless LAN	19	Scan to SMB
	4	security mode level setting	20	Scan to NCP
	5	Appletalk	21	Reserve
	6	DHCP	22	Bluetooth
	7	DHCPv6	23	IEEE 1284
	8	telnet	24	USB printing
	9	SSL	25	Dynamic DNS
	10	HTTPS	26	Netware printing
	11	BMLinkS printing	27	LLTD
	12	diprint printing	28	IPP printing
	13	LPRprinting	29	IPP printing (SSL)
	14	ftp printing	30	Ssh
	15	rsh printing	31	Sftp
5-828-090	TELNET(O	:OFF 1:ON)	CTL*	[0 or 1 / 1 / 1 /step] 0: Disable
				1: Enable
	Enabled o	Enabled or disabled the Telnet protocol.		
5-828-091	Web(0:C	FF 1:0N)	CTL*	[0 or 1 / 1 / 1 /step]
				0: Disable
				1: Enable
	Enables o	r disables the Web operation.		

5-828-145	Active IPv6 Link Local Address	CTL	[- / - / - /step]		
	This is the IPv6 local address link referenced on the Ethernet or wireless LAN in the format:				
	"Link Local Address" + "Prefix Length"				
	The IPv6 address consists of a total 128	bits config	ured in 8 blocks of 16 bits each.		
5-828-147	Active IPv6 Stateless Address 1	CTL	[- / - / - /step]		
5-828-149	Active IPv6 Stateless Address 2	CTL	[- / - / - /step]		
5-828-151	Active IPv6 Stateless Address 3	CTL	[- / - / - /step]		
5-828-153	Active IPv6 Stateless Address 4	CTL	[- / - / - /step]		
5-828-155	Active IPv6 Stateless Address 5	CTL	[- / - / - /step]		
	SP codes 147 to 155 are the IPv6 status addresses (1 to 5) referenced on the Ethernet or wireless LAN in the format: "Status Address" + "Prefix Length" The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.				
5-828-156	IPv6 Manual Address	CTL*	[- / - / - /step]		
	This SP is the IPv6 manually set address referenced on the Ethernet or wireless LAN in the format:				
	The IPv6 address consists of a total 128	bits config	ured in 8 blocks of 16 bits each.		
5-828-158	IPv6 Gateway Address	CTL*	[- / - / - /step]		
	This SP is the IPv6 gateway address referenced on the Ethernet or wireless LAN.				
	The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.				
5-828-161	IPv6 Stateless Auto Setting	CTL*	[0 or 1 / 1 / 1 / step]		
			0: Disable		
5-828-219	IPsec Aggressive Mode Setting	CTL	[0 or 1 / 0 / 1/step]		
			0: Disable, 1: Enable		

		1		
5-828-236	Web Item visible	CTL*	[0x0000 to 0xffff / 0xffff / - / step]	
			0: Not display	
			1: Display	
	Displays or does not display the Web sy	rstem items.		
	Bit0: NetRICOH			
	Bit1: Consumable Supplier			
	Bit2 to Bit15: Reserved (all)			
5-828-237	Web shopping link visible	CTL*	[0 or 1 / 1 / 1 /step]	
			0: Not display	
			1: Display	
	Displays or does not display the link to N the web system.	Net RICOH	on the top page and link page of	
5-828-238	Web Supplies Link visible	CTL*	[0 or 1 / 1 / 1 /step]	
			0: Not display	
			1: Display	
	Displays or does not display the link to C link page of the web system.	Consumable	e Supplier on the top page and	
5-828-239	Web Link1 Name	CTL*	[character strings(maximum 31byte) / URL1 / -]	
	This SP confirms or changes the URL1 na maximum characters for the URL name a	ime on the ire 31 char	link page of the web system. The acters.	
5-828-240	Web Link1 URL	CTL*	[character strings(maximum 127byte) / NULL / -]	
	This SP confirms or changes the link to U maximum characters for the URL are 122	RL1 on the 7 characte	link page of the web system. The rs.	
5-828-241	Web Link1 visible	CTL*	[0 or 1 / 1 / - /step]	
			0: Not display	
			1: Display	
	Displays or does not display the link to URL1 on the top page of the web system.			

5-828-242	Web Link2 Name	CTL*	[character strings(maximum 31byte) / URL2 / -]
	Same as "-239"		·
5-828-243	Web Link2 URL	CTL*	[character strings(maximum 127byte) / NULL / -]
	Same as "-240"		
5-828-244	Web Link2 visible	CTL*	[0 or 1 / 1 / - /step] 0: Not display 1: Display
	Same as "-241"		
5-828-249	DHCPv6 DUID	CTL	[- / - / - /step]
	This SP confirms or changes the value of DUID.		

5832	[HDD] Enter the SP number for the partition to initialize, then press #. When the execution ends, cycle the machine off and on.			
5-832-001	HDD Formatting (ALL)	CTL	[- / - / - /step] [Execute]	
5-832-002	HDD Formatting (IMH)	CTL	[- / - / - /step] [Execute]	
5-832-003	HDD Formatting (Thumbnail/ OCR)	CTL	[-/ - /-/step] [Execute]	
5-832-004	HDD Formatting (Job Log)	CTL	[-/ - /-/step] [Execute]	
5-832-005	HDD Formatting (Printer Fonts)	CTL	[-/ - /-/step] [Execute]	
5-832-006	HDD Formatting (User Info)	CTL	[-/ - /-/step] [Execute]	

5-832-007	Mail RX Data	CTL	[- / - / - /step] [Execute]
5-832-008	Mail TX Data	CTL	[- / - / - /step] [Execute]
5-832-009	HDD Formatting (Data for a Design)	CTL	[-/ - /-/step] [Execute]
5-832-010	HDD Formatting (Log)	CTL	[- / - / - /step] [Execute]
5-832-011	HDD Formatting (Ridoc I/F)	CTL	[-/-/step] [Execute]
5-832-012	HDD Formatting (Thumbnail)	CTL	[-/ - /-/step] [Execute]

5836	[Capture Setting]			
5-836-001	Capture Function (0:Off 1:On)	CTL* [0 or 1 / 0 / 1 /step] 0: Disable 1: Enable		
	With this function disabled, the settings related to the capture feature cannot be initialized, displayed, or selected.			
5-836-002	Panel Setting	CTL* [0 or 1 / 0 / 1 /step] 0: Disable 1: Enable		
	Determines whether each capture related setting can be selected or updated from the initial system screen. The setting for SP5836-001 has priority.			

5-836-072	Reduction for Copy B&W Text	CTL*	[0 to 6 / 0 / 1 /step] 0: 1 1: 1/2 2: 1/3 3: 1/4 6: 2/3
5-836-073	Reduction for Copy B&W Other	CTL*	[0 to 6 / 0 / 1 /step] 0: 1 1: 1/2 2: 1/3 3: 1/4 6: 2/3
5-836-075	Reduction for Printer B&W	CTL*	[0 to 6 / 0 / 1 /step] 0: 1 1: 1/2 2: 1/3 3: 1/4 6: 2/3
5-836-082	Format for Copy B&W Text	CTL*	[0 to 3 / 1 / 1 /step] 0: JFIF/JPEG 1: TIFF/MMR 2: TIFF/MH 3: TIFF/MR
5-836-083	Format for Copy B&W Other	CTL*	[0 to 3 / 1 / 1 /step] 0: JFIF/JPEG 1: TIFF/MMR 2: TIFF/MH 3: TIFF/MR

5-836-085	Format for Printer B&W DFU	CTL*	[0 to 3 / 1 / 1 /step] 0: JFIF/JPEG 1: TIFF/MMR 2: TIFF/MH 3: TIFF/MR
5-836-091	Default for JPEG	CTL*	[5 to 95 / 50 / 1 /step]
	Sets the JPEG format default for doc with the MLB, with JPEG selected as	cuments sent t s the format.	o the document management server
5-836-101	Primary srv IP address	CTL*	[0 to 0xfffffff / 0x00 / 1 /step]
	Sets the IP address of the PC design (CS).	ated to oper	ate as the primary capture server
5-836-102	Primary srv scheme	CTL*	[Char: Max. 6 / - / -]
5-836-103	Primary srv port number	CTL*	[1 to 65535 / 80 / 1 / -/step]
5-836-104	Primary srv URL path	CTL*	[0 to 16 / - / -]
5-836-111	Secondary srv IP address	CTL*	[0 to 0xffffffff / 0x00 / 1 /step]
5-836-112	Secondary srv scheme	CTL*	[Char: Max. 6 / - / -]
5-836-113	Secondary srv port number	CTL*	[1 to 65535 / 80 / 1 /step]
5-836-114	Secondary srv URL path	CTL*	[0 to 16 / 0 / 1 /step].
5-836-120	Default Reso Rate Switch	CTL*	[0 to 1 / 0 / 1 /step]
5-836-122	Reso: Copy(Mono)	CTL*	[0 to 255 / 3 / 1 /step] 0: 600dpi 1: 400dpi 2: 300dpi 3: 200dpi 4: 150dpi 5: 100dpi 6: 75dpi

5-836-124	Reso: Print(Mono)	CTL*	[0 to 255 / 3 / 1 /step] 0: 600dpi 1: 400dpi 2: 300dpi 3: 200dpi 4: 150dpi 5: 100dpi 6: 75dpi
5-836-127	Reso: Scan(Color)	CTL*	[0 to 255 / 4 / 1 /step] 0: 600dpi 1: 400dpi 2: 300dpi 3: 200dpi 4: 150dpi 5: 100dpi 6: 75dpi
5-836-128	Reso: Scan(Mono)	CTL*	[0 to 255 / 3 / 1 /step] 0: 600dpi 1: 400dpi 2: 300dpi 3: 200dpi 4: 150dpi 5: 100dpi 6: 75dpi
5-836-141	All Addr Info Switch	CTL*	[0 to 1 / 1 / 1 / -/step] 1: ON, 0: OFF
	Expands the scope of used resource is not being used.	es and perfor	mance. Switch this off if this feature
5-836-142	Stand-by Doc Max Number	CTL*	[10 to 10000 / 2000 / 1 /step]
	Expands the scope of used resource is not being used.	es and perfor	mance. Switch this off if this feature

5840	[IEEE 802.11]				
	Channel MAX	CTL*	[1 to 14 / 14 / 1 /step]		
5-840-006	Sets the maximum number of channels available for data transmission via the wireless LAN. The number of channels available varies according to location. The default settings are set for the maximum end of the range for each area. Adjust the upper 4 bits to set the maximum number of channels. Do not change the setting.				
	NA/ Asia: 1 to 11				
5-840-007	Channel MIN	CTL*	[1 to 14 / 1 / 1 /step]		
	Sets the minimum number of channels available for data transmission via the wireles LAN. The number of channels				
	available varies according to location. The default settings are set for the minimum end of the range for each area. Adjust the lower				
	4 bits to set the minimum number of channels.				
	Do not change the setting.				
	Europe: 1 to 13				
	NA/ Asia: 1 to 11	1			
5-840-011	WEP Key Select	CTL*	[0x00 to 0x11 / 0x00 / 1 /step]		
	Selects the WEP key.				
	00: Key #1				
	01: Key #2 (Reserved)				
	10: Key #3 (Reserved)				
	11: Key #4 (Reserved)				
5-840-045	WPA Debug Lvl CTL* [1 to 3 / 3 / 1 / step]				
	Selects the debug level for WPA authentication application.				
	1: info				
	2: warning				
	3: error				

5-840-046	11w	CTL*	[0 to 2 / 0 / 1 /step]			
	0: Not used					
	1: preferentially used					
	2: Required					
5-840-047	PSK Set Type	CTL*	[0 to 1 / 0 / 1 /step]			
	O: Passphrase					
	1: PSK					

5841	[Supply Name Setting]		
	This SP allows you to enter the name [User Tools] and then touch "Inquiry this SP, touch the "Soft Key Board" b of the supplies.	es of the supp " on the oper putton then us	lies that will appear when you push ation panel display. After you open e the keyboard to enter the names
5-841-001	Toner Name Setting: Black	CTL*	[- / - / - /step]

5842	[GWWS Analysis]
	These settings select the output mode for debugging information as each network file is processed.

5-842-001	Setting 1	CTL*	[0x00 to 0xFF / 0 / 1 /step]		
	Default: 00000000 – do not change Netfiles: Jobs to be printed from the document server using a PC and the DeskTopBinder software Obit[LSB]: system, other group 1 bit: capture related group				
	2bit: authentication relate	d group			
	3bit: address book relate	d group			
	4bit: device management	related group			
	5bit: output related(print,	FAX, and deliv	ery) group		
	6bit: repository, F0,etc. d	ocument relate	d group		
	 7bit: debug log level suppression Select the debug imformation output mode for each netfile process. Bit7 [MSB /step]: O: debug level log suppression 1: debug level log output 				
	Bit6 to Bit0:				
	0: log output related to ea	ach bit group			
	1: output suppression				
	Setting 2	CTL*	[0x00 to 0xFF / 0 / 1 /step]		
	Adjusts the debug program mode setting.				
5-842-002	Bit7: 5682 mmseg-log setting				
5 042 002	0: Date/Hour/Minute/S	econd			
	1: Minute/Second/Msec	2.			
	0 to 6: Not used				

5844	[USB]			
5-844-001	Transfer Rate	CTL*	[0x01 to 0x04 / 0x04 / - /step]	
	Sets the speed for USB data transmission.			
	0x01: Full Speed			
	0x04: Auto Change			

5-844-002	Vendor ID DFU	CTL*	[0x0000 to 0xFFFF / 0x05CA / 1 /step]		
	Sets the vendor ID. Initial Setting: 0x05A Ricoh Company				
5-844-003	Product ID DFU	CTL*	[0x0000 to 0xFFFF / 0x0403 / 1 /step]		
	Sets the product ID.				
5-844-004	Device Release Number DFU	CTL*	[0 to 9999 / 100 / 1 /step]		
	Sets the device release number of the BCD (binary coded decimal) display. Enter as a decimal number. NCS converts the number to hexadecimal number recognized as the BCD.				
5-844-005	Fixed USB Port	CTL*	[0 to 2 / 0 / 1 /step]		
	Selects the PnP name standardization mode. 0: OFF 1: Level 1 2: Level 2				
5-844-006	PnP Model Name	CTL*	[- / - / - /step]		
	Specifies PnP name for USB device.				
5-844-007	PnP Serial Number	CTL*	[12 characters / NULL / -]		
	Specifies PnP serial number for USB device.				
5-844-008	Mac Supply Level	CTL*	[0 to 1 / 1 / 1 / step]		
	Enables or disbles the Mac supply function. O: Disable 1: Enable				
5-844-100	Notify Unsupport	CTL*	[0 to 1 / 1 / 1 / step]		
	Displays or does not disp 0: Not display 1: Display	olay USB unsup	ported message.		

5845	[Delivery Server Setting]			
	Provides items for delivery server settings.			
5-845-001	FTP Port No.	CTL*	[1 to 65535 / 3670 / 1 / step]	
	Sets the FTP port number used when image	e files to the S	Scan Router Server.	
5-845-002	IP Address (Primary)	CTL*	[0 to 0xffffffff / 0x00 / 1 / step]	
	Use this SP to set the Scan Router Server address. The IP address under the transfer tab can be used with the initial system setting.			
5-845-006	Delivery Error Display Time	CTL*	[0 to 999 / 300 / 1 sec/ step]	
	Use this setting to set the length of time that the message is shown when a test error occurs during document transfer with the NetFile application and an external device.			
5-845-008	IP Address (Secondary)	CTL*	[0 to 0xfffffff / 0x00 / 1 / step]	
	Sets the IP address that is given to the computer that is the secondary delivery server for Scan Router. This SP lets you set only the IP address, and does not refer to the DNS setting.			
5-845-009	Delivery Server Model	CTL*	[0 to 4 / 0 / 1 /step]	
	Lets you change the model of the delivery server that is registered by the I/O device. 0: Unknown 1: SG1 Provided 2: SG1 Package 3: SG2 Provided			

5-845-010	Delivery Svr. Capability	CTL*	[0 to 255 / 0 / 1 /step]		
	Changes the functions that the registered I/O device can do.				
	Bit7=1: Comment information exits Bit6=1: Direct specification of mail address possible Bit5=1: Mail RX confirmation setting possible Bit4=1: Address book automatic update function exists Bit3=1: Fax RX delivery function exists				
	Bit2=1: Sender password function exists				
	Bit1=1: Function to link MK-1 user and Ser	nder exists			
	BitO=1: Sender specification required (if se	t to 1, Bit6 is	set to "O")		
5-845-011	Delivery Svr. Capability (Ext)	CTL*	[0 to 255 / 00000000 / 1/step]		
	Changes the capability of servers that is registered as I/O devices.				
	Bit7 = 1 Address book usage limitation (Limitation for each authorized user)				
	Bit6 = 1 RDH authorization link				
	Bit5 to 0: Not used				
5-845-013	Server Scheme(Primary)	CTL*	[- / - / - /step]		
	This is used for the scan router program.				
	6 Character strings.				
5-845-014	Server Port Number(Primary)	CTL*	[1 to 65535 / 80 / 1 / step]		
	This is used for the scan router program.				
5-845-015	Server URL Path(Primary)	CTL*	[- / - / - /step]		
	Character strings 16byte.				
	This is used for the scan router program.				
5-845-016	Server Scheme(Secondary)	CTL*	[- / - / - /step]		
	This is used for the scan router program.				
	6 character strings.				

This is used for the scan router program.			
5-845-018 Server URL Path(Secondary)	CTL*	[- / - / - /step]	
Character strings 16byte. This is used for the scan router program.			
5-845-022 Rapid Sending Control	CTL*	[0 to 1 / 1 / 1 /step]	
 Enables or disables the prevention function for the prevention function for the prevention function for the prevention function for the prevention function for the prevention function for the prevention for the pr	 Enables or disables the prevention function for the continuous data sending error. O: Disable, 1: Enable Note If it is set wrong network setting, the machines will continue to sending data over a network. If you switch off this SP, machine stops communication to 		
 If it is set wrong network setting, the moover a network. If you switch off this SF 	achines will P, machine s n its self.	c t	

• This setting would reduce network traffic by wrong setting.

5846	[UCS Setting]			
5-846-001	Machine ID (for Delivery Server)	CTL*	[- / - / - /step]	
	Displays the unique device ID in use by the delivery server directory. The value is only displayed and cannot be changed. This ID is created from the NIC MAC or IEEE 1394 EUI. The ID is displayed as either 6-byle or 8-byte binary.			
5-846-002	Machine ID Clear (for Delivery Server)	CTL*	[- / - / - /step]	
	Clears the unique ID of the device used as the name in the file transfer directory. Execute this SP if the connection of the device to the delivery server is unstable. Aft clearing the ID, the ID will be established again automatically by cycling the machine off and on.			
5-846-003	Maximum Entries	CTL*	[2000 to 20000 / 2000 / 1 / step]	
Changes the maximum number of entries that UCS can handle. If a value smaller than the present value is set, the UCS managed and the data (excluding user code information) is displayed.			can handle. JCS managed data is cleared, isplayed.	

5-846-006	Delivery Server Retry Timer	CTL*	[0 to 255 / 0 / 1 sec/step]	
	Sets the interval for retry attempts when the delivery server fails to acquire the delivery server address book.			
	0: No retries			
	Retry time x retry count has to be set in 1	80second	(SC reboot compatible model).	
5-846-007	Delivery Server Retry Times	CTL*	[0 to 255 / 0 / 1 /step]	
	Sets the number of retry attempts when t delivery server address book.	he delivery	server fails to acquire the	
	0: No retries			
	Retry time x retry count has to be set in a model).	try count has to be set in a 180 seconds (SC reboot compatible		
5-846-008	Delivery Server Maximum Entries	CTL*	[2000 to 20000 / 2000 / 1 / step]	
	Lets you set the maximum number of account entries and information about the users of the delivery server controlled by UCS.			
5-846-010	LDAP Search Timeout	CTL*	[1 to 255 / 60 / 1 /step]	
	Sets the length of the time-out for the search of the LDAP server.			
5-846-021	Folder Auth Change	CTL*	[0 to 1 / 0 / 1 /step]	
	Changes the folder authentication method.			
	0: Uses certification information of devic	e login use	er.	
	1: Uses certification information of address.			

5-846-040	Addr Book Migration(USB->HDD)	CTL	[- / - / - /step]	
	This SP moves the address book data from the SD card or flash ROM on the controller board to the HDD. You must cycle the machine off and on after executing this SP.			
	1. Turn the machine off.			
	2. Install the HDD.			
	3. Turn the machine on.			
	4. Do SP5846 040.			
	5. Turn the machine off/on.			
	Note: Executing this SP overwrites any a the data from the flash ROM on the cont	ddress boc roller boar	ok data already on the HDD with d.	
	We recommend that you back up all directory information to an SD card with SP5846-051 before you execute this SP.			
	After the address book data is copied to from the flash ROM. If the operation fails	HDD, all t s, the data	he address book data is deleted is not erased from the flash ROM.	
5-846-041	Fill Addr Acl Info	CTL		
	This SP must be executed immediately after installation of an HDD unit in a basic machine that previously had no HDD. The first time the machine is powered on with the new HDD installed, the system automatically takes the address book from the NVRAM and writes it onto the new HDD. However, the new address book on the HDD can be accessed only by the system administrator at this stage. Executing this SP by the service technician immediately after power on grants full address book access to all users.			
	Procedure			
	1. Turn the machine off.			
	2. Install the new HDD.			
	3. Turn the machine on.			
	4. The address book and its initial date	a are creat	ed on the HDD automatically.	
	5. However, at this point the address book can be accessed by only the system administrator or key operator.			
	Enter the SP mode and do SP5-846-041. After this SP executes successfully, any user can access the address book.			

5-846-043	Addr Book Media	CTL*	[0 to 30 / 0 / 1 /step]	
	Displays the slot number where an address book data is in.			
	0: Unconfirmed			
	1: SD Slot 1			
	2: SD Slot 2			
	4: USB Flash ROM			
	20: HDD			
	30: Nothing			
5-846-047	Initialize Local Addr Book	CTL	[- / - / - /step]	
	Clears all the information in the local address book. This SP also clears all the user codes.			
5-846-048	Initialize Delivery Addr Book	CTL	[- / - / - /step]	
	Push [Execute] to delete all items (this does not include user codes) in the delivery address book that is controlled by UCS.			
5-846-049	Initialize LDAP Addr Book	CTL	[- / - / - /step]	
	Push [Execute] to delete all items (this does not include user codes) in the LDAP address book that is controlled by UCS.			
5-846-050	Initialize All Addr Book	CTL	[- / - / - /step]	
	Clears everything (including users codes) in the directory information managed by UCS. However, the accounts and passwords of the system administrators are not deleted.			
	Administrator account is set at initialization of security setting.			
5-846-051	Backup All Addr Book	CTL	[- / - / - / -/step]	
	Uploads all directory information to the SD card.			
5-846-052	Restore All Addr Book	CTL	[- / - / - /step]	
	Downloads all directory information from the SD card.			

5-846-053	Clear Backup Info	CTL	[- / - / - /step]	
	Deletes the address book uploaded from the SD card in the slot. Deletes only the files uploaded for that machine. This feature does not work if the card is write-protected.			
	• After you do this SP, go out of the SP mode, turn the power off. Do not remove the SD card until the Power LED stops flashing.			
5-846-060	Search option	CTL*	[0x00 to 0xff / 0x0f / 1 /step] [0: Off 1: On]	
	This SP uses bit switches to set up the fuz book.	zy search o	options for the UCS local address	
	Bit0: Checks both upper/lower case cho	aracters		
	Bit1: Japan Only			
	Bit2: Japan Only			
	Bit3: Japan Only			
	Bit4-7: Not Used			
5-846-062	Complexity option 1	CTL*	[0 to 32 / 0 / 1 /step]	
	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to upper case and sets the length of the password.			
	♥ Note			
	This SP does not normally require adjustment.			
	Ihis SP is enabled only after the sys password policy to control access to	tem admin to the addr	istrator has set up a group ess book.	
5-846-063	Complexity option 2	CTL*	[0 to 32 / 0 / 1 /step]	
	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to lower case and defines the length of the password.			
	↓ Note			
	• This SP does not normally require a	ıdjustment.		
	• This SP is enabled only after the system administrator has set up a group password policy to control access to the address book.			

5-846-064	Complexity option 3	CTL*	[0 to 32 / 0 / 1 /step]	
	 Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to numbers and defines the length of the password. Note This SP does not normally require adjustment. This SP is enabled only after the system administrator has set up a group password policy to control access to the address book. 			
5-846-065	Complexity option 4	CTL*	[0 to 32 / 0 / 1 /step]	
	Use this SP to set the conditions for passw Specifically, this SP limits the password e password.	vord entry ntry to sym	to access the local address book. bols and defines the length of the	
	₩ Note			
	 This SP does not normally require adjustment. 			
	 This SP is enabled only after the system password policy to control access to 	tem admini o the addre	istrator has set up a group ess book.	
5-846-091	FTP Auth Port Setting	CTL*	[0 to 65535 / 3671 / 1 / step]	
	Sets the FTP port to get the delivery serve authorization mode.	er address k	book that is used in the individual	
5-846-094	Encryption Stat	CTL*	[0 to 255 / 0 / 1 /step]	
	Shows the status of the encryption function of the address book on the LDAP server.			
	0: Plain text in-operation. (in-use)			
	1: Encryption in-operation. (in use) Encryption process finished.			
	2: Encryption ->plain text in-conversion in-combined treatment.			
	3: Plain-text->encryption in-conversion in-encryption.			
	4: Encryption-> Plain-text double sign is completed.			
	5: Plain-text-> Encryption is completed.			
	6: Security in-change Encryption key cho	ange in-pro	ocess	
	7: Security change is completed Encrypti	ion key cho	ange is completed.	
	8: Previous security key change file default is completed.			
	9: C security key change is completed. Encryption key change is completed.			

5847	[Rep Resolution Reduction]				
	5847-002 through 5847-006 changes the default settings of image data sent externally by the Net File page reference function.				
	5847 21 sets the default for JPEG image quality of image files controlled by NetFile.				
	"Repository" refers to jobs to be printed from the document server with a PC and the DeskTopBinder software.				
5-847-002	Rate for Copy B&W Text	CTL*	[0 to 6 / 0 / 1 /step] 0: 1x 1: 1/2x		
			2: 1/3x 3: 1/4x 4: 1/6y		
			5: 1/8x 6: 2/3x		
5-847-003	Rate for Copy B&W Other	CTL*	[0 to 6 / 0 / 1 /step] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x 6: 2/3x		
5-847-005	Rate for Printer B&W	CTL*	[0 to 6 / 0 / 1 /step] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x 6: 2/3x		

5-847-021	Network Quality Default for JPEG	CTL*	[5 to 95 / 50 / 1 /step]
	Sets the default value for the quality of JI	PEG image	s sent as NetFile pages. This
	function is available only with the MLB (Media Link	Board) option installed.

5848	[Web Service]	Service]			
	5847-002 sets the 4-bit switch assignment for the access control setting. Setting of 0001 has no effect on access and delivery from Scan Router.				
	5847-100 sets the maximum size of images that can be downloaded. The default is equal to 1 gigabyte.				
5-848-002	Access Ctrl: Repository(onlyLower4bits)	CTL*	[0x00 to 0xFF/ 0x02 / 4bit assign/step] 0000: access enabled 0001: access disabled 0010: read only		
5-848-003	Access Ctrl: Doc.Svr.Print (Lower 4bits)	CTL*	[0x00 to 0xFF/ 0x00 / 4bit assign/step] 0000: access enabled 0001: access disabled		
5-848-004	Access Ctrl: udirectory (Lower 4bits)	CTL*	[0x00 to 0xFF/ 0x00 / 4bit		
5-848-007	Access Ctrl: Comm. Log Fax(Lower 4bits)	CTL*	assign] 0000: access enabled		
5-848-009	Access Ctrl: Job Ctrl (Lower 4bits)	CTL*	0001: access disabled		
5-848-011	Access Ctrl: Devicemanagement(Lower 4bits)	CTL*	[0x00 to 0xFF/ 0x00 / 4bit assign/step]		
5-848-021	Access Ctrl: Delivery (Lower 4bits)	CTL*	0000: access enabled		
5-848-022	Access Ctrl: uadministration (Lower 4bits)	CTL*	UUU I : access disabled		
5-848-024	Access Ctrl: Log Service (Lower 4bits)	CTL*			

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5-848-025	Access Ctrl: Rest WebService (Lower 4bits)	CTL*	[0x00 to 0xFF/ 0x00 / 4bit assign/step] 0000: Open Rest WebService func. 0001: Close Rest WebService func.		
5-848-099	Repository: Download Image Setting DFU	CTL*	[0x00 to 0xFF/ 0x00 / 4bit assign/step]		
	This is a bit-switch setting. Only the lower 4 bits are enabled/disabled.				
	Set to "0" (disabled) or "1" (enabled) as	Set to "0" (disabled) or "1" (enabled) as needed for image download. (1) Mac OS (2) Windows OS (3) OS other than Mac or Windows			
	(1) Mac OS (2) Windows OS (3) OS of				
	Note: This SP is used primarily by design	iers.			
5-848-100	Repository: Download Image Max. Size	CTL*	[1 to 2048 / 2048 / 1/step]		
	Specifies the max size of the image data	that the m	achine can download.		
5-848-217	Setting: Timing	CTL*	[0 to 2 / 0 / 1/step]		
	0: Transfer OFF				
	1: Successively transfer				
	2: Regular transfer				

5849	[Installation Date]				
	Displays or prints the installation date of the machine.				
5-849-001	Display CTL* [- / - / -/step]				
	The "Counter Clear Day" has been changed to "Installation Date" or "Inst. Date".				
5-849-002	Switch to Print CTL* [0 to 1 / 0 / 1/step]				
	Determines whether the installation date is printed on the printout for the total counter. 0: No Print			Determines whether the installation date is printed on the printout for the total counter.	
	1: Print				

5-849-003	Total Counter	CTL*	[0 to 99999999 / 0 / 1/step]	
	Displays the total count on the day SP5849-1 was set.			

5851	[Bluetooth]			
	Sets the operation mode for the Bluetoot	h Unit. Pre	ss either key.	
5-851-003	Mode CTL* [0 to 1 / 0 / 1/step]			
			0: Public	
			1: Private	

5853 [Stamp Data Download]			
	Push [Execute] to download the fixed stamp data from the machine ROM onto the hard disk. Then these stamps can be used by the system. If this is not done, the user will not have access to the fixed stamps ("Confidential", "Secret", etc.).		
	You must always execute this SP after re HDD. Always switch the machine off and	placing the d on after e	HDD or after formatting the xecuting this SP.
5-853-001	-	CTL	[Execute]

5856	[Remote ROM Update] DFU		
	Allows the technician to upgrade the firmware using a local port (IEEE1284) when updating the remote ROM.		
5-856-002	Local Port	CTL*	[0 to 1 / 0 / 1/step] 0: Disable 1: Enable
	When set to "1" allows reception of firm during a remote ROM update. This settir off and on. Allows the technician to upgrade the firm	ware data ng is reset to nware using	via the local port (IEEE 1284) o zero after the machine is cycled g a parallel cable.

5857 [Save Debug Log]

5-857-001	On/Off Switches the debug log feature on and c this feature is switched on.	CTL*	[0 or 1 / 0 / 1/step] 0: ON 1: OFF oug log cannot be captured until	
5-857-002	Target(2:HDD 3:SD)	CTL*	[1 to 3 / 2 / 1 /step] 1: IC Card 2: HDD 3: SD Card	
	Selects the storage device to save debug with SP5-858 are satisfied.	g logs infor	mation when the conditions set	
5-857-101	Debug Logging Start Date	CTL*	[19700101 to 20371212 / 20120101 / 1 /step]	
	Sets start date of the debug log output.			
5-857-102	Debug Logging End Date	CTL*	[19700101 to 20371212 / 20371212 / 1 /step]	
Sets end date of the debug log output.				
5-857-103	Acquire All Debug Logs	CTL*	[Execute]	
	Obtains all debug logs.			
5-857-104	Acquire Only Controller Debug Logs	CTL*	[Execute]	
	Obtains controller debug log only.			
5-857-105	Acquire Only Engine Debug Logs	CTL*	[Execute]	
	Obtains engine debug log only.			
5-857-107	Acquire Only Opepanel Debug Logs	CTL*	[Execute]	
	Outputs the controller debug log to the r	nedia insei	rted front I/F	
5-857-120	Make LogTrace Dir	CTL*	[Execute]	
	Makes a folder for the log trace in the SD card.			

5860	[SMTP/POP3/IMAP4]
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5-860-020	Partial Mail Receive Timeout	CTL*	[1 to 168 / 72 / 1 hour/step]		
	Sets the amount of time to wait before saving a mail that breaks up during reception. The received mail is discarded if the remaining portion of the mail is not received during this prescribed time.				
5-860-021	MDN Response RFC2298 CTL* [0 to 1 / 1 / 1 / step] Compliance CTL* [0 to 1 / 1 / 1 / step]				
	Determines whether RFC2298 complian	ce is switch	ned on for MDN reply mail.		
	0: No				
	1: Yes				
	Sends MAIL FROM SMTP Commands a	s empty (<>) when conforming to RFC2298.		
5-860-022	SMTP Auth. From Field Replacement	CTL*	[0 to 1 / 0 / 1 /step]		
	Determines whether the FROM item of the account after the SMTP server is validate	e mail hea d	der is switched to the validated		
	0: No. "From" item not switched				
	1: Yes. "From" item switched.				
5-860-025	SMTP Auth. Direct Setting CTL* [0 to 0xff / 0x0 / Multiple of 2 / step]				
	Occasionally SMTP fails to be recognized. If this occurs use this SP to force manual recognition.				
	Selects the authentication method for SM	NPT.			
	bit0: LOGIN				
	bit1: PLAIN				
	bit2: CRAM_MD5				
	bit3: DIGESI_MD5				
	Bit 4 to 7: Not used				
5-860-026	S/MIME:MIME Header Setting CTL* [0 to 2 / 0 / 1 /step]				
	Selects the MIME header type of an E-mail sent by S/MIME. 0 : Microsoft OutlookExpress standard				
	1 : Internet Draft standard				
	2 : RFC standard				

5-860-028	S/MIME: Authentication Check	[0 or 1 / 0 / 1 /step]	
	0: non-check, 1: check Specifies whether to check or non-check mail.	address co	ertification at sending S/MIME

5866	[E-Mail Report]			
5-866-001	Report Validity	CTL*	[0 or 1 / 0 / 1 /step]	
	Enables or disables the er	nail alert fun	ction.	
	0: Enabled			
	1 : Disabled			
5-866-005	Add Date Field CTL* [0 or 1 / 0 / 1 /step]			
	Adds or does not add the date field to the header of the alert mail.			
	0: Not added			
	1: Added			

5870	[Common KeyInfo Writing]				
5-870-001	Writing	CTL [0 to 1 / 0 / 1 /step]			
			[Execute]		
	Writes the authentication of	itication data (used for NRS) in the memory.			
5-870-003	Initialize	CTL [0 to 1 / 0 / 1 /step]			
			[Execute]		
	Initializes the authentication data in the memory.				
5-870-004	Writing: 2048bit	CTL [Execute]			
	Writes the authentication data used for @Remote into the flash ROM.				

5873	[SDCardAppliMove]
	Allows you to copy MFP controller applications from one SD card to another SD card.

5-873-001	MoveExec	CTL	[Execute]
	This SP copies the applicat to an SD card in SD card s	ion programs lot 1.	s from the original SD card in SD card slot 2
5-873-002	UndoExec	CTL	[Execute]
	This SP copies back the application programs from an SD card in SD Card Slot 2 to the original SD card in SD card slot 1. Use this menu when you have mistakenly copied some programs by using "Move Exec" (SP5873-1).		

5875	[SC Auto Reboot]			
	This SP determines whether the machine reboots automatically when an SC error occurs.			
	Note: The machine does not rebut for Type A (fatal) SC code errors.			
5-875-001	Reboot Setting CTL* [0 or 1 / 0 / 1 / step]			
	0: The machine reboots automatically when the machine issues an SC error and logs the SC error code. If the same SC occurs again, the machine does not reboot.			
	1: The machine does not reboot when an SC error occurs.			
	Reboot Type	CTL*	[0 or 1 / 1 / 1 /step]	
5-875-002	0: Manual reboot 1: Automatic reboot			

5878	[Option Setup]			
5-878-001	Data Overwrite Security CTL [Execute]			
	Enables the Data Overwrite Sea Then reboot the machine.	curity unit. Pr	ess "EXECUTE" on the operation panel.	
5-878-002	HDD Encryption CTL [Execute]			
	Enables the Copy Data Security unit. Press "EXECUTE" on the operation panel. Ther reboot the machine.			

5-878-004	OCR Dictionary	CTL	[- / - / - /step]		
			[Execute]		
	Installation Process				
	1: Put the SD card in the SD slot	(service slot), then start the device.		
	2: Execute SP5-878-004.	2: Execute SP5-878-004.			
	3: Reboot the machine.				
	4: Execute SP5-878-004.				
	*This SP executes linking SD ca	rd and copy	ing OCR dictionary.		
	Step 2 executes linking SD card	, and Step 4	executes copying dictionary.		
	And be sure to turn Off the mair step 4 (copying dictionary).	n power supp	bly between step 2 (linking SD card) and		
	* OCR dictionary is able to ove installation process.	rwrite. Over	write process is same as initial		
	Use new SD card to execute Ins	tallation pro	cess 1 to 4.		

5881	[Fixed Phrase Block Erasing]		
5-881-001	-	CTL	[EXECUTE]
	Press [EXECUTE] to erase fixed	phrases su	oplied by SKB.

	[Set WIM Function]
5885	This SP determines how access to the Web Image Monitor document server is controlled. These are bit settings where "1" enables and "0" disables.

5-885-020	DocSvr Acc Ctrl	CTL*	[0x00 to 0xFF / 0x00 / 1 /step]	
	Allows or disallows the functions of web image monitor.			
	0: OFF, 1: ON			
	Bit0: Denies all access to docun	nent server		
	Bit1: Denies all access to User T	ools		
	Bit:2: Denies access to printing			
	Bit3: Denies access to fax			
	Bit4: Denis access to scan-to-en	nail		
	Bit5: Denies access data downl	oading fun	ctions	
	Bit6: Denies access to data dele	ete function	s	
	Bit7: Forbid guest user			
5-885-050	DocSvr Format	CTL*	[0 to 2 / 0 / 1 /step]	
	Selects the display type for the o	document k	pox list.	
	0: Thumbnail			
	1: Icon			
	2: Details			
5-885-051	DocSvr Trans	CTL*	[5 to 20 / 10 / 1 /step]	
	Sets the number of documents to	o be displa	yed in the document box list.	
5-885-100	Set Signature	CTL*	[0 to 2 / 0 / 1 /step]	
	This SP determines whether a signature is attached to scanned documents queued for sending with Web Image Monitor. Operator has the option of selecting or not selecting a signature.			
	0: Set individually. Operator selects signature on the send screen when documents are sent via email.			
	1: Signature required. A signature must be selected for sending.			
	2: No signature. No signature r	equired.		
5-885-101	Set Encrypsion	CTL*	[0 or 1 / 0 / 1 /step]	
	Determines whether the scanned documents with the WIM are encrypted when they are transmitted by an e-mail.			
	0: Not encrypted			
	1: Encryption			

5-885-200	Detect Mem Leak	CTL*	[0x00 to 0xFF / 0x00 / 1 /step]	
	This SP determines how Web Im	iage Moni	tor memory leaks are handled.	
	A "1" setting enables the function.			
	BitO: Displays memory status at session timeouts.			
	Bit 1 : Displays memory status at the start/end of PF handler only.			
	Bit2 to Bit7: Not used			

5887	[SD GetCounter]			
	This SP sends a text file to an SD card inserted in SD card Slot 2 (lower slot).			
5-887-001	887-001 - CTL [EXECUTE] The operation stores. The file is stored in a folder created in the root directory of the SD card called SD_COUNTER. The file is saved as a text file (*.txt) prefixed with the number of the machine. • 1. Insert the SD card in SD card Slot 2 (lower slot).			
• 2. Select SP5887 then touch [EXECUTE].			ſE].	
	• 3. Touch [Execute] in the message when you are prompted.			

5888	[Personal Information Protect]			
	Selects the protection level for logs.			
5-888-001	- CTL* [0 to 1 / 0 / 1 /step]			
	0: No authentication, No protection for logs			
	1: No authentication, Protected lo	ogs (only a	n administrator can see the logs)	

5893	[SDK Application Counter]		
	-		
5-893-001	SDK-1 to SDK-12	CTL	[Display text]
to			
5-893-012			

5900	[Engine Log Upload] DFU For design use. Do not change.		
5-900-001	Pattern	ENG*	[0 to 4 / 0 / 1/step]

5-900-002	Trigger	ENG*	[0 to 3 / 0 / 1/step]	

5 007 001		OT! *	
	After selecting, press the "Original Type" key and "#" key at the same time. When t setting is completed, the beeper sounds five times.		
	This information is stored in the NVRAM. If the NVRAM is defective, these name should be registered again.		
	Selects the brand name and the production name for Windows Plug & Play.		
-			

5-907-001 - CTL* [-/-/-/step]

5913	[Switchover Permission Time]		
	Sets the length of time to elapse by the display when the application because a key has not been pres	pefore allo currently c ssed.	wing another application to take control of controlling the display is not operating
5-913-002	Print Application Timer	CTL*	[0 to 30 / 3 / 1 sec /step]

5967	[Copy Server : Set Function]				
	Enables and disables the document server. This is a security measure that prevents image data from being left in the temporary area of the HDD.				
5-967-001	(0:0N 1:0FF)	N 1:OFF) CTL* [0 to 1 / 0 / 1 /step]			
			0: ON		
			1: OFF		
	After changing this setting, you must switch the main switch off and on to enable new setting.				

5973	[User Stamp Registration] Sets the margin for the user stamp registration for each edge of paper.		
5-973-101	Frame deletion setting	CTL*	[0 to 3 / 0 / 1 mm/step]

5974	[Cherry Server] Japan Only
	Selects which version of the Scan Router application program, "Light" or "Full (Professional)", is installed.

5-974-001	(O:Light 1:Full)	CTL*	[0 or 1 / 0 / - /step]
			0: Light version
			1: Full version

5985	[Device Setting]			
	The NIC and USB support features are built into the GW+ controller. Use this SP to enable and disable these features. In order to use the NIC and USB functions built int the controller board, these SP codes must be set to "1".			
5-985-001	On Board NIC CTL [0 to 2 / 0 / 1 / step]			
			0: Disable	
			1: Enable	
			2: Function limitation	
	When the "Function limitation" is set, "On board NIC" is limited for use with only NR or LDAP/NT authentication. Note:			
	 Other network applications than @Remote or LDAP/NT authentication are no available when this SP is set to "2". Even if you can change the initial settings of those network applications, the setting will not work 			
5-985-002	02 On Board USB CTL [0 to 1 / 0 / 1 / step]			
			0: Disable	
			1: Enable	

5990	[SP Print Mode]		
5-990-001	All (Data List)	CTL	[0 to 255 / 0 / 1 /step]
5-990-002	SP (Mode Data List)	CTL	
5-990-003	User Program	CTL	
5-990-004	Logging Data	CTL	-
5-990-005	Diagnostic Report	CTL	
5-990-006	Non-Default	CTL	
5-990-007	NIB Summary	CTL	[- / - / -]
-----------	------------------------	-----	--------------------------
			[Execute]
5-990-008	Capture Log	CTL	[0 to 255 / 0 / 1 /step]
5-990-021	Copier User Program	CTL	[- / - / -]
			[Execute]
5-990-022	Scanner SP	CTL	[0 to 255 / 0 / 1 /step]
5-990-023	Scanner User Program	CTL	[0 to 255 / 0 / 1 /step]
5-990-024	SDK/J Summary	CTL	[- / - / -]
			[Execute]
5-990-025	SDK/J Application Info	CTL	[- / - / -]
			[Execute]
5-990-026	Printer SP	CTL	[0 to 255 / 0 / 1 /step]

5992	[SP Text Mode]				
	Prints the SMC report to a file on an SD card inserted into the SD card slot on the right side of the machine operation panel.				
	1: front SD slot				
	2: back SD slot (service slot)				
5-992-001	All (Data List)	CTL	[0 to 255 / 0 / 1 /step]		
5-992-002	SP (Mode Data List)	CTL			
5-992-003	User Program	CTL			
5-992-004	Logging Data	CTL			
5-992-005	Diagnostic Report	CTL			
5-992-006	Non-Default	CTL			
5-992-007	NIB Summary	CTL	[- / - / -]		
			[Execute]		
5-992-008	Capture Log	CTL	[0 to 255 / 0 / 1 /step]		

5-992-021	Copier User Program	CTL	[- / - / -] [Execute]
5-992-022	Scanner SP	CTL	[0 to 255 / 0 / 1 /step]
5-992-023	Scanner User Program	CTL	[0 to 255 / 0 / 1 /step]
5-992-024	SDK/J Summary	CTL	[- / - / -] [Execute]
5-992-025	SDK/J Application Info	CTL	[- / - / -] [Execute]
5-992-026	Printer SP	CTL	[0 to 255 / 0 / 1 /step]

SP Mode Tables - SP6000

SP6-XXX (Peripherals) DFU

These SP codes display on the operation panel but they are **not used**.

SP Mode Tables - SP7000

SP7-XXX (Data Log 1)

7001	[Operation Time]			
	Displays the drum drive motor operation time (for checking the print count and drum operation time.)			
7-001-001	Main Motor	ENG	[0 to 9999999 / 0 / 0 minutes / step]	

7001	[Operation Counter] Counts cumulative scanner motor operating time (min.)		
7-001-001	Scanner Motor	ENG	[0.0 to 9999999.0 / 0 / 0.1 m / step]

7401	[Total SC] Displays the total number of SCs logged.		
7-401-001	SC Counter	CTL*	[00000 to 65535 / 0 / 1 /step]
7-401-002	Total SC Counter	CTL*	[00000 to 65535 / 0 / 1 /step]

7403 [SC History]			
	Logs the SC codes detected. The 10 most recently detected SC Codes are not displayed on the screen, but can be seen on the SMC (logging) outputs.		
7-403-001	Latest	CTL*	[-/-/-/step]
7-403-002	Latest 1	CTL*	[-/-/-/step]
7-403-003	Latest 2	CTL*	[-/-/-/step]
7-403-004	Latest 3	CTL*	[-/-/-/step]
7-403-005	Latest 4	CTL*	[-/-/-/step]

7-403-006	Latest 5	CTL*	[-/-/-/step]
7-403-007	Latest 6	CTL*	[-/-/-/step]
7-403-008	Latest 7	CTL*	[-/-/-/step]
7-403-009	Latest 8	CTL*	[-/-/-/step]
7-403-010	Latest 9	CTL*	[-/-/-/step]

7404	[SC990/SC991 History]			
	Logs the SC991 detected.			
	The 10 most recently detected SC991 are not displayed on the screen, but can be seen on the SMC (logging) outputs.			
	●Note			
	 If the same SC codes are detected continuously and total counter is not increasing, it only logs once in case of deleting other SC code logs. 			
7-404-001	Latest	CTL*	[-/-/-/step]	
7-404-002	Latest 1	CTL*	[-/-/-/step]	
7-404-003	Latest 2	CTL*	[-/-/-/step]	
7-404-004	Latest 3	CTL*	[-/-/-/step]	
7-404-005	Latest 4	CTL*	[-/-/-/step]	
7-404-006	Latest 5	CTL*	[-/-/-/step]	
7-404-007	Latest 6	CTL*	[-/-/-/step]	
7-404-008	Latest 7	CTL*	[-/-/-/step]	
7-404-009	Latest 8	CTL*	[-/-/-/step]	
7-404-010	Latest 9	CTL*	[-/-/-/step]	

7502	[Total Paper Jam]		
	Displays the total paper jam count (copy paper).		
7-502-001	Jam Counter	CTL*	[00000 to 65535 / 0 / 1 /step]
7-502-002	Total Jam Counter	CTL*	[00000 to 65535 / 0 / 1 /step]

7503	[Total Original Jam Counter] Displays the total paper jam count (original).		
7-503-001	-	CTL*	[00000 to 65535 / 0 / 1 page / step]
7503	[Total Original Jam]		
7-503-002	Total Original Counter	CTL*	[00000 to 65535 / 0 / 1 page / step]

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7504	[Paper Jam Location]			
	Displays the total number of copy jams by location.			
	A "Paper Late" error occurs when the paper fails to activate the sensor at the precise time. A "Paper Lag" paper jam occurs when the paper remains at the sensor for longer than the prescribed time.			
7-504-001	At Power On	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-003	Roll1: No Feed	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-004	Roll2: No Feed	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-008	Roll: Exit Senor: Not ON	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-013	Registration Sensor: Not ON	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-016	Exit Sensor: Not ON	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-034	Bypass: No Feed	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-053	Roll1: Paper Lag	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-054	Roll2: Paper Lag	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-063	Registration Sensor: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-066	Exit Sensor: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-084	Bypass Sensor: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-100	Initial Jam: Entrance	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-130	Bypass Ent Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]	
7-504-131	Bypass Relay Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]	

7-504-132	Straight Exit Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-504-133	Straight Exit Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-504-134	Folder Relay Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-504-135	Folder Relay Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-504-136	Corner Folder Exit Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-504-137	Corner Folder Exit Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-504-138	Fan Folder Ent Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-504-139	Fan Folder Ent Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-504-140	Front Fold Width Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-504-141	Rear Fold Width Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-504-142	Rear Fold Width Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-504-143	Fan Folder Exit Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-504-144	Fan Folder Exit Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-504-145	Minimum Paper Length	CTL*	[0 to 65535 / 0 / 1/step]
7-504-146	Fold Count Limit	CTL*	[0 to 65535 / 0 / 1/step]

7505	[Original Jam Detection]			
	Displays the total number of original jams by location. These jams occur when the original does not activate the sensors.			
7-505-001	At Power On	CTL*	[0 to 65535 / 0 / 1/step]	
7-505-002	Original Reg Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]	
7-505-003	Org Reg Sn/Exit Sn: Both OFF	CTL*	[0 to 65535 / 0 / 1/step]	
7-505-004	Original Reg Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]	
7-505-005	Org Exit Sensor: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]	
7-505-006	Original Stop	CTL*	[0 to 65535 / 0 / 1/step]	
7-505-007	Original Exit Sensor: Not ON	CTL*	[0 to 65535 / 0 / 1/step]	

7-505-008	Original Interval Error	CTL*	[0 to 65535 / 0 / 1/step]	
/506	[Jam Count by Paper Size]			
	Displays the jam count for each p	aper width.	D.	
	Note: In the table below, I=SEF (Shorf Edge Fe	eed)	
7-506-097	AOT/A1	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-098	A1T/A2	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-099	A2T/A3	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-100	A3T/A4	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-101	A4T	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-106	B1T/B2	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-107	B2T/B3	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-108	B3T/B4	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-109	B4T	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-225	36x48T/24x36	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-226	24x36T/18x24	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-227	18x24T/12x18	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-228	12x18T/9x12	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-229	9x12T	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-234	34x44T/22x34	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-235	22x34T/17x22	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-236	17x22T/11x17	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-237	11x17T/8.5x11	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-238	8.5x11T	CTL*	[0 to 65535 / 0 / 1/step]	
7-506-255	Others	CTL*	[0 to 65535 / 0 / 1/step]	

7507	[Plotter Jam History]			
	Displays the following items for the last 10 copy paper jams: 1) Jam code, 2) Paper size, 3) Total count when jam occurred, 4) Date of jam.			
	The "jam codes" are listed in the SMC report under SP7504.			
7-507-001	Latest	CTL*	[- / - / - /step]	
7-507-002	Latest 1	CTL*	[- / - / - /step]	
7-507-003	Latest 2	CTL*	[- / - / - /step]	
7-507-004	Latest 3	CTL*	[- / - / - /step]	
7-507-005	Latest 4	CTL*	[- / - / - /step]	
7-507-006	Latest 5	CTL*	[- / - / - /step]	
7-507-007	Latest 6	CTL*	[- / - / - /step]	
7-507-008	Latest 7	CTL*	[- / - / - /step]	
7-507-009	Latest 8	CTL*	[- / - / - /step]	
7-507-010	Latest 9	CTL*	[- / - / - /step]	

7508	[Original Jam History]			
	Displays the following items for the Latest 10 original jams: 1) Jam code, 2) Paper size, 3) Total count when jam occurred, 4) Date of jam. The "jam codes" are listed in the SMC report under SP7504.			
7-508-001	Latest	CTL*	[- / - / - /step]	
7-508-002	Latest 1	CTL*	[- / - / - /step]	
7-508-003	Latest 2	CTL*	[- / - / - /step]	
7-508-004	Latest 3	CTL*	[- / - / - /step]	
7-508-005	Latest 4	CTL*	[- / - / - /step]	
7-508-006	Latest 5	CTL*	[- / - / - /step]	
7-508-007	Latest 6	CTL*	[- / - / - /step]	
7-508-008	Latest 7	CTL*	[- / - / - /step]	

7-508-009	Latest 8	CTL*	[- / - / - /step]
7-508-010	Latest 9	CTL*	[- / - / - /step]

7514	[Paper Jam Count by Location]		
	Displays the total number of jams according to the location where jams were detected.		
7-514-001	At Power On	CTL*	[0 to 65535 / 0 / 1/step]
7-514-003	Roll1: No Feed	CTL*	[0 to 65535 / 0 / 1/step]
7-514-004	Roll2: No Feed	CTL*	[0 to 65535 / 0 / 1/step]
7-514-008	Roll: Exit Senor: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-013	Registration Sensor: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-016	Exit Sensor: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-034	Bypass: No Feed	CTL*	[0 to 65535 / 0 / 1/step]
7-514-053	Roll1: Paper Lag	CTL*	[0 to 65535 / 0 / 1/step]
7-514-054	Roll2: Paper Lag	CTL*	[0 to 65535 / 0 / 1/step]
7-514-063	Registration Sensor: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-066	Exit Sensor: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-084	Bypass Sensor: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-100	Initial Jam: Entrance	CTL*	[0 to 65535 / 0 / 1/step]
7-514-130	Bypass Ent Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-131	Bypass Relay Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-132	Straight Exit Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-133	Straight Exit Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-134	Folder Relay Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-135	Folder Relay Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-136	Corner Folder Exit Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]

7-514-137	Corner Folder Exit Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-138	Fan Folder Ent Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-139	Fan Folder Ent Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-140	Front Fold Width Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-141	Rear Fold Width Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-142	Rear Fold Width Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-143	Fan Folder Exit Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-514-144	Fan Folder Exit Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-514-145	Minimum Paper Length	CTL*	[0 to 65535 / 0 / 1/step]
7-514-146	Fold Count Limit	CTL*	[0 to 65535 / 0 / 1/step]

7515	[Original Jam Detection]		
	Displays the number of original jams detected.		
7-515-001	At Power On	CTL*	[0 to 65535 / 0 / 1/step]
7-515-002	Original Reg Sn: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-515-003	Org Reg Sn/Exit Sn: Both OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-515-004	Original Reg Sn: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-515-005	Org Exit Sensor: Not OFF	CTL*	[0 to 65535 / 0 / 1/step]
7-515-006	Original Stop	CTL*	[0 to 65535 / 0 / 1/step]
7-515-007	Original Exit Sensor: Not ON	CTL*	[0 to 65535 / 0 / 1/step]
7-515-008	Original Interval Error	CTL*	[0 to 65535 / 0 / 1/step]

7516	[Paper Size Jam Count]		
	Displays the number of jams according to the paper size.		
7-516-097	AOT/A1	CTL*	[0 to 65535 / 0 / 1/step]
7-516-098	A1T/A2	CTL*	[0 to 65535 / 0 / 1/step]
7-516-099	A2T/A3	CTL*	[0 to 65535 / 0 / 1/step]

7-516-100	A3T/A4	CTL*	[0 to 65535 / 0 / 1/step]
7-516-101	A4T	CTL*	[0 to 65535 / 0 / 1/step]
7-516-106	B1T/B2	CTL*	[0 to 65535 / 0 / 1/step]
7-516-107	B2T/B3	CTL*	[0 to 65535 / 0 / 1/step]
7-516-108	B3T/B4	CTL*	[0 to 65535 / 0 / 1/step]
7-516-109	B4T	CTL*	[0 to 65535 / 0 / 1/step]
7-516-225	36x48T/24x36	CTL*	[0 to 65535 / 0 / 1/step]
7-516-226	24x36T/18x24	CTL*	[0 to 65535 / 0 / 1/step]
7-516-227	18x24T/12x18	CTL*	[0 to 65535 / 0 / 1/step]
7-516-228	12x18T/9x12	CTL*	[0 to 65535 / 0 / 1/step]
7-516-229	9x12T	CTL*	[0 to 65535 / 0 / 1/step]
7-516-234	34x44T/22x34	CTL*	[0 to 65535 / 0 / 1/step]
7-516-235	22x34T/17x22	CTL*	[0 to 65535 / 0 / 1/step]
7-516-236	17x22T/11x17	CTL*	[0 to 65535 / 0 / 1/step]
7-516-237	11x17T/8.5x11	CTL*	[0 to 65535 / 0 / 1/step]
7-516-238	8.5x11T	CTL*	[0 to 65535 / 0 / 1/step]
7-516-255	Others	CTL*	[0 to 65535 / 0 / 1/step]

7520	[Update Log] Displays error history of firmware update in the past 10 times. [-001] is the latest error history, and [-010] is the most old error history.		
7-520-001	ErrorRecord1	CTL*	[0 to 255 / 0 / 1/step]
7-520-002	ErrorRecord2	CTL*	[0 to 255 / 0 / 1/step]
7-520-003	ErrorRecord3	CTL*	[0 to 255 / 0 / 1/step]
7-520-004	ErrorRecord4	CTL*	[0 to 255 / 0 / 1/step]
7-520-005	ErrorRecord5	CTL*	[0 to 255 / 0 / 1/step]

7-520-006	ErrorRecord6	CTL*	[0 to 255 / 0 / 1/step]
7-520-007	ErrorRecord7	CTL*	[0 to 255 / 0 / 1/step]
7-520-008	ErrorRecord8	CTL*	[0 to 255 / 0 / 1/step]
7-520-009	ErrorRecord9	CTL*	[0 to 255 / 0 / 1/step]
7-520-010	ErrorRecord10	CTL*	[0 to 255 / 0 / 1/step]

7624	[Part Replacement Operation ON	I/OFF]		
	Sets part replacement (PM) operation ON/OFF.			
	If you set "1: ON", also set SP5-066-001 (PM Parts Display) and set display or does not display the "PM parts" button on the LCD.			
	0: PM Operation OFF	0: PM Operation OFF		
	1: PM Operation ON			
7-624-001	Developer	CTL*	[0 or 1 / 1 / 1/step]	
7-624-002	Charge Corona Wire	CTL*	[0 or 1 / 1 / 1/step]	
7-624-003	Transfer Roller	CTL*	[0 or 1 / 1 / 1/step]	
7-624-004	Separation Unit	CTL*	[0 or 1 / 1 / 1/step]	
7-624-005	Drum	CTL*	[0 or 1 / 1 / 1/step]	
7-624-006	Cleaning Blade	CTL*	[0 or 1 / 1 / 1/step]	
7-624-007	Paper Feed Rollers 3rd Tray	CTL*	[0 or 1 / 1 / 1/step]	
7-624-008	Paper Feed Rollers 4th Tray	CTL*	[0 or 1 / 1 / 1/step]	
7-624-010	Hot Roller	CTL*	[0 or 1 / 1 / 1/step]	
7-624-011	Pressure Roller	CTL*	[0 or 1 / 1 / 1/step]	
7-624-012	Fusing Cleaning Roller	CTL*	[0 or 1 / 1 / 1/step]	
7-624-013	Cleaning Maintenance 1	CTL*	[0 or 1 / 1 / 1/step]	
7-624-014	Cleaning Maintenance 2	CTL*	[0 or 1 / 1 / 1/step]	

7801	[ROM Part Number]
	Displays the ROM version.

7-801-002	Engine	ENG	[0 to 0 / 0 / 0/step]
7-801-007	Fan Folder	ENG	[0 to 0 / 0 / 0/step]
7-801-008	Cross Folder	ENG	[0 to 0 / 0 / 0/step]

7801	[Firmware Version]		
	Displays the firmware version.		
7-801-102	Engine	ENG	[0 to 0 / 0 / 0/step]
7-801-107	Fan Folder	ENG	[0 to 0 / 0 / 0/step]
7-801-108	Cross Folder	ENG	[0 to 0 / 0 / 0/step]

7801	[ROM No./ Firmware Version]		
	Displays the ROM version number devices.	rs of the main	machine and connected peripheral
7-801-255	-	CTL	[0 to 255/ 0 / - /step] up to 9 characters

7803	[PM Counter Display]		
	Displays the PM counter.		
7-803-001	Paper	CTL*	[0 to 9999999 / - / - /step]

7803	[PM Counter Display]		
	Displays the PM counter.		
7-803-002	Page: Developer	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-003	Page: Charge Corona Unit	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-004	Page: Transfer Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-005	Page: Separation Corona Unit	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-006	Page: OPC Drum	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-007	Page: Cleaning Blade	ENG	[0 to 9999999 / 0 / 1 page/step]

7-803-008	Page: 3rd Feed Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-009	Page: 4th Feed Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-010	Page: Ozone Filter	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-011	Page: Hot Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-012	Page: Pressure Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-013	Page: Fusing Cleaning Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-014	Page: Cleaning Inspection 1	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-015	Page: Cleaning Inspection 2	ENG	[0 to 9999999 / 0 / 1 page/step]
7-803-022	Distance: Developer	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]
7-803-023	Distance: Charge Corona Unit	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]
7-803-024	Distance: Transfer Roller	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]
7-803-025	Distance: Separation Corona Unit	ENG	[0 to 99999999.9 / 0 / 0.1 m/step]
7-803-026	Distance: OPC Drum	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]
7-803-027	Distance: Cleaning Blade	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]
7-803-042	Distance (%): Developer	ENG	[0 to 255 / 0 / 1%/step]
7-803-043	Distance (%): Charge Corona Unit	ENG	[0 to 255 / 0 / 1%/step]
7-803-044	Distance (%): Transfer Roller	ENG	[0 to 255 / 0 / 1%/step]
7-803-045	Distance (%): Separation Corona Unit	ENG	[0 to 255 / 0 / 1%/step]
7-803-046	Distance (%): OPC Drum	ENG	[0 to 255 / 0 / 1%/step]
7-803-047	Distance (%): Cleaning Blade	ENG	[0 to 255 / 0 / 1%/step]
7-803-062	Page (%): Developer	ENG	[0 to 255 / 0 / 1%/step]
7-803-063	Page (%): Charge Corona Unit	ENG	[0 to 255 / 0 / 1%/step]
7-803-064	Page : Transfer Roller	ENG	[0 to 255 / 0 / 1%/step]

7-803-065	Page (%): Separation Corona Unit	ENG	[0 to 255 / 0 / 1%/step]
7-803-066	Page (%): OPC Drum	ENG	[0 to 255 / 0 / 1%/step]
7-803-067	Page (%): Cleaning Blade	ENG	[0 to 255 / 0 / 1%/step]
7-803-068	Page (%): 3rd Feed Roller	ENG	[0 to 255 / 0 / 1%/step]
7-803-069	Page (%): 4th Feed Roller	ENG	[0 to 255 / 0 / 1%/step]
7-803-070	Page (%): Ozone Filter	ENG	[0 to 255 / 0 / 1%/step]
7-803-071	Page (%): Hot Roller	ENG	[0 to 255 / 0 / 1%/step]
7-803-072	Page (%): Pressure Roller	ENG	[0 to 255 / 0 / 1%/step]
7-803-073	Page (%): Fusing Cleaning Roller	ENG	[0 to 255 / 0 / 1%/step]
7-803-074	Page (%): Cleaning Inspection 1	ENG	[0 to 255 / 0 / 1%/step]
7-803-075	Page (%): Cleaning Inspection 2	ENG	[0 to 255 / 0 / 1%/step]

7804	[PM Counter Reset]		
	To clear the PM counter.		
7-804-001	Paper	CTL	[- / - / -/step] [Execute]

7804	[PM Counter Clear]		
	To clear the PM counter.		
7-804-002	Developer	ENG	[0 to 1 / 0 / 1/step]
7-804-003	Charge Corona Unit	ENG	[0 to 1 / 0 / 1/step]
7-804-004	Transfer Roller	ENG	[0 to 1 / 0 / 1/step]
7-804-005	Separation Corona Unit	ENG	[0 to 1 / 0 / 1/step]
7-804-006	OPC Drum	ENG	[0 to 1 / 0 / 1/step]
7-804-007	Cleaning Blade	ENG	[0 to 1 / 0 / 1/step]
7-804-008	3rd Feed Roller	ENG	[0 to 1 / 0 / 1/step]

7-804-009	4th Feed Roller	ENG	[0 to 1 / 0 / 1/step]
7-804-010	Ozone Filter	ENG	[0 to 1 / 0 / 1/step]
7-804-011	Hot Roller	ENG	[0 to 1 / 0 / 1/step]
7-804-012	Pressure Roller	ENG	[0 to 1 / 0 / 1/step]
7-804-013	Fusing Cleaning Roller	ENG	[0 to 1 / 0 / 1/step]
7-804-014	Cleaning Inspection 1	ENG	[0 to 1 / 0 / 1/step]
7-804-015	Cleaning Inspection 2	ENG	[0 to 1 / 0 / 1/step]
7-804-100	All Clear	ENG	[0 to 1 / 0 / 1/step]

7807	[SC/Jam Counter Reset]		
	Reset the SC and jam counters.		
7-807-001	-	CTL	[- / - / -/step] [Execute]

7826	[MF Error Counter] Japan Only Displays the number of counts requested of the card/key counter.			
7-826-001	I Error Total CTL* [0 to 9999999 / - / - /step]			
	A request for the count total failed at power on. This error will occur if the device is installed but disconnected.			
7-826-002	Error Staple CTL* [0 to 9999999 / - / - /step]			
The request for a staple count failed at power on. This error will installed but disconnected.		on. This error will occur if the device is		

7827	[MF Error Counter Clear] Japan Only		
	Press Execute to reset to 0 the values of SP7826.		
7-827-001	-	CTL	[- / - / -/step]

7832 [Self-Diagnose Result Display]	
7832 [Self-Diagnose Result Display]	

	Displays the result of the diagnostics. Press # to display a list of error codes. Nothing is displayed if no errors have occurred.		
7-832-001	-	CTL	

7836	[Total Memory Size] Displays the memory capacity of the controller system.		
7-836-001	-	CTL	[0 to 0xffffffff / 0 / -MB/step]

7840	(840 [ServiceSP Entry Code Chg Hist] Records dates and times of resetting / changing "Service SP mode switch code setting" for the recent 2 times. (Decides whether the record is for setting changes or resets by branch number.)		
7-840-001	Change Time :Latest	CTL*	[- / - / - /step]
7-840-002	Change Time :Last 1	CTL*	[- / - / - /step]
7-840-101	Initialize Time :Latest	CTL*	[- / - / - / step]
7-840-102	Initialize Time :Last 1	CTL*	[- / - / - /step]

7050	[Replacement Counter]		
7655	Displays replacement counter for each part.		
7-853-002	Developer	ENG	[0 to 255 / 0 / 1/step]
7-853-003	Charge Corona Unit	ENG	[0 to 255 / 0 / 1/step]
7-853-004	Transfer Roller	ENG	[0 to 255 / 0 / 1/step]
7-853-005	Separation Corona Unit	ENG	[0 to 255 / 0 / 1/step]
7-853-006	OPC Drum	ENG	[0 to 255 / 0 / 1/step]
7-853-007	Cleaning Blade	ENG	[0 to 255 / 0 / 1/step]
7-853-008	3rd Feed Roller	ENG	[0 to 255 / 0 / 1/step]
7-853-009	4th Feed Roller	ENG	[0 to 255 / 0 / 1/step]

7-853-010	Ozone Filter	ENG	[0 to 255 / 0 / 1/step]
7-853-011	Hot Roller	ENG	[0 to 255 / 0 / 1/step]
7-853-012	Pressure Roller	ENG	[0 to 255 / 0 / 1/step]
7-853-013	Fusing Cleaning Roller	ENG	[0 to 255 / 0 / 1/step]
7-853-014	Cleaning Inspection 1	ENG	[0 to 255 / 0 / 1/step]
7-853-015	Cleaning Inspection 2	ENG	[0 to 255 / 0 / 1/step]

7901	[Assert Info.] DFU		
	Records the location where a problem is detected in the program. Used for debugging.		
7-901-001	File Name	CTL*	[- / - / - /step]
7-901-002	Number of Lines	CTL*	[- / - / - /step]
7-901-003	Location	CTL*	[- / - / - /step]

7004	[Previous Unit Counter]		
7900	Displays page count information f	or the previo	us units.
7-906-002	Page: Developer	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-003	Page: Charge Corona Unit	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-004	Page: Transfer Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-005	Page: Separation Corona Unit	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-006	Page: OPC Drum	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-007	Page: Cleaning Blade	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-008	Page: 3rd Feed Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-009	Page: 4th Feed Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-010	Page: Ozone Filter	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-011	Page: Hot Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-012	Page: Pressure Roller	ENG	[0 to 9999999 / 0 / 1 page/step]

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7-906-013	Page: Fusing Cleaning Roller	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-014	Page: Cleaning Inspection 1	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-015	Page: Cleaning Inspection 2	ENG	[0 to 9999999 / 0 / 1 page/step]
7-906-022	Distance: Developer	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]
7-906-023	Distance: Charge Corona Unit	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]
7-906-024	Distance: Transfer Roller	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]
7-906-025	Distance: Separation Corona Unit	ENG	[0 to 99999999.9 / 0 / 0.1 m/step]
7-906-026	Distance: OPC Drum	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]
7-906-027	Distance: Cleaning Blade	ENG	[0 to 9999999.9 / 0 / 0.1 m/step]

7007	[Previous 1 Unit Counter]			
7907	Displays page count information for the one before previous units.			
7-907-002	Page: Developer	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-003	Page: Charge Corona Unit	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-004	Page: Transfer Roller	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-005	Page: Separation Corona Unit	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-006	Page: OPC Drum	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-007	Page: Cleaning Blade	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-008	Page: 3rd Feed Roller	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-009	Page: 4th Feed Roller	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-010	Page: Ozone Filter	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-011	Page: Hot Roller	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-012	Page: Pressure Roller	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-013	Page: Fusing Cleaning Roller	ENG	[0 to 9999999 / 0 / 1 page/step]	
7-907-014	Page: Cleaning Inspection 1	ENG	[0 to 9999999 / 0 / 1 page/step]	

7-907-015	Page: Cleaning Inspection 2	ENG	[0 to 9999999 / 0 / 1 page/step]
7-907-022	Distance: Developer	ENG	[0 to 99999999.9 / 0 / 0.1 m/ step]
7-907-023	Distance: Charge Corona Unit	ENG	[0 to 99999999.9 / 0 / 0.1 m/ step]
7-907-024	Distance: Transfer Roller	ENG	[0 to 99999999.9 / 0 / 0.1 m/ step]
7-907-025	Distance: Separation Corona Unit	ENG	[0 to 99999999.9 / 0 / 0.1 m/ step]
7-907-026	Distance: OPC Drum	ENG	[0 to 99999999.9 / 0 / 0.1 m/ step]
7-907-027	Distance: Cleaning Blade	ENG	[0 to 99999999.9 / 0 / 0.1 m/ step]

7910	[ROM No]			
	Gets ROM No. of main machine and peripherals.			
	These numbers do not display on the operation panel but print on the SMC sheets.			
7-910-001	System/Copy	CTL	[-/-/-]	
7-910-002	Engine	CTL	[-/-/-]	
7-910-003	Lcdc	CTL	[-/-/-]	
7-910-007	Finisher 1	CTL	[-/-/-]	
7-910-008	Finisher2	CTL	[-/-/-]	
7-910-018	NetworkSupport	CTL	[-/-/-]	
7-910-022	BIOS	CTL	[-/-/-]	
7-910-023	HDD Format Option	CTL	[-/-/-]	
7-910-132	NetWare	CTL	[-/-/-]	
7-910-150	RPCS	CTL	[-/-/-]	
7-910-151	PS	CTL	[-/-/-]	
7-910-152	RPDL	CTL	[-/-/-]	

7-910-155	RPGL	CTL	[-/-/-]
7-910-157	RTIFF	CTL	[-/-/-]
7-910-160	MSIS	CTL	[-/-/-]
7-910-162	PDF	CTL	[-/-/-]
7-910-165	PJL	CTL	[-/-/-]
7-910-167	MediaPrint:JPEG	CTL	[-/-/-]
7-910-168	MediaPrint:TIFF	CTL	[-/-/-]
7-910-180	FONT	CTL	[-/-/-]
7-910-181	FONTI	CTL	[-/-/-]
7-910-182	FONT2	CTL	[-/-/-]
7-910-183	FONT3	CTL	[-/-/-]
7-910-184	FONT4	CTL	[-/-/-]
7-910-185	FONT5	CTL	[-/-/-]
7-910-200	Factory	CTL	[-/-/-]
7-910-201	Сору	CTL	[-/-/-]
7-910-202	NetworkDocBox	CTL	[-/-/-]
7-910-204	Printer	CTL	[-/-/-]
7-910-205	Scanner	CTL	[-/-/-]
7-910-210	MIB	CTL	[-/-/-]
7-910-211	Websupport	CTL	[-/-/-]
7-910-212	WebUapl	CTL	[-/-/-]
7-910-213	SDK1	CTL	[-/-/-]
7-910-214	SDK2	CTL	[-/-/-]
7-910-215	SDK3	CTL	[-/-/-]
7-910-250	Package	CTL	[-/-/-]

7911	[Firmware Version]				
	Gets firmware version of main machine and peripherals.				
	These numbers do not display on the operation panel but print on the SMC sheets.				
7-911-002	Engine	CTL	[-/-/-]		
7-911-003	Lcdc	CTL	[-/-/-]		
7-911-007	Finisher 1	CTL	[-/-/-]		
7-911-008	Finisher2	CTL	[-/-/-]		
7-911-018	NetworkSupport	CTL	[-/-/-]		
7-911-022	BIOS	CTL	[-/-/-]		
7-911-023	HDD Format Option	CTL	[-/-/-]		
7-911-132	NetWare	CTL	[-/-/-]		
7-911-150	RPCS	CTL	[-/-/-]		
7-911-151	PS	CTL	[-/-/-]		
7-911-152	RPDL	CTL	[-/-/-]		
7-911-155	RPGL	CTL	[-/-/-]		
7-911-157	RTIFF	CTL	[-/-/-]		
7-911-160	MSIS	CTL	[-/-/-]		
7-911-162	PDF	CTL	[-/-/-]		
7-911-165	PJL	CTL	[-/-/-]		
7-911-167	MediaPrint:JPEG	CTL	[-/-/-]		
7-911-168	MediaPrint:TIFF	CTL	[-/-/-]		
7-911-180	FONT	CTL	[-/-/-]		
7-911-181	FONTI	CTL	[-/-/-]		
7-911-182	FONT2	CTL	[-/-/-]		
7-911-183	FONT3	CTL	[-/-/-]		
7-911-184	FONT4	CTL	[-/-/-]		

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FONT5	CTL	[-/-/-]
Factory	CTL	[-/-/-]
Сору	CTL	[-/-/-]
NetworkDocBox	CTL	[-/-/-]
Printer	CTL	[-/-/-]
Scanner	CTL	[-/-/-]
MIB	CTL	[-/-/-]
Websupport	CTL	[-/-/-]
WebUapl	CTL	[-/-/-]
SDK1	CTL	[-/-/-]
SDK2	CTL	[-/-/-]
SDK3	CTL	[-/-/-]
Package	CTL	[-/-/-]
	FONT5 Factory Copy NetworkDocBox Printer Scanner Scanner MIB Websupport WebUapl SDK1 SDK2 SDK3 Package	FONT5CTLFactoryCTLCopyCTLNetworkDocBoxCTLPrinterCTLScannerCTLMIBCTLWebsupportCTLWebUaplCTLSDK1CTLSDK3CTLPackageCTL

7950	[Replacement Date]			
	Displays last replacement (counter clear) date for each part.			
	Uispiays as yymmaa.			
7-950-002	Previous: Developer	ENG	[0 to 1 / 0 / 1/step]	
7-950-003	Previous: Charge Corona Unit	ENG	[0 to 1 / 0 / 1/step]	
7-950-004	Previous: Transfer Roller	ENG	[0 to 1 / 0 / 1/step]	
7-950-005	Previous: Separation Corona Unit	ENG	[0 to 1 / 0 / 1/step]	
7-950-006	Previous: OPC Drum	ENG	[0 to 1 / 0 / 1/step]	
7-950-007	Previous: Cleaning Blade	ENG	[0 to 1 / 0 / 1/step]	
7-950-008	Previous: 3rd Feed Roller	ENG	[0 to 1 / 0 / 1/step]	
7-950-009	Previous: 4th Feed Roller	ENG	[0 to 1 / 0 / 1/step]	
7-950-010	Previous: Ozone Filter	ENG	[0 to 1 / 0 / 1/step]	

7-950-011	Previous: Hot Roller	ENG	[0 to 1 / 0 / 1/step]
7-950-012	Previous: Pressure Roller	ENG	[0 to 1 / 0 / 1/step]
7-950-013	Previous: Fusing Cleaning Roller	ENG	[0 to 1 / 0 / 1/step]
7-950-014	Previous: Cleaning Inspection 1	ENG	[0 to 1 / 0 / 1/step]
7-950-015	Previous: Cleaning Inspection 2	ENG	[0 to 1 / 0 / 1/step]
7-950-022	Previous 1: Developer	ENG	[0 to 1 / 0 / 1/step]
7-950-023	Previous 1: Charge Corona Unit	ENG	[0 to 1 / 0 / 1/step]
7-950-024	Previous 1: Transfer Roller	ENG	[0 to 1 / 0 / 1/step]
7-950-025	Previous 1: Separation Corona Unit	ENG	[0 to 1 / 0 / 1/step]
7-950-026	Previous 1: OPC Drum	ENG	[0 to 1 / 0 / 1/step]
7-950-027	Previous 1: Cleaning Blade	ENG	[0 to 1 / 0 / 1/step]
7-950-028	Previous 1: 3rd Feed Roller	ENG	[0 to 1 / 0 / 1/step]
7-950-029	Previous 1: 4th Feed Roller	ENG	[0 to 1 / 0 / 1/step]
7-950-030	Previous 1: Ozone Filter	ENG	[0 to 1 / 0 / 1/step]
7-950-031	Previous 1: Hot Roller	ENG	[0 to 1 / 0 / 1/step]
7-950-032	Previous 1: Pressure Roller	ENG	[0 to 1 / 0 / 1/step]
7-950-033	Previous 1: Fusing Cleaning Roller	ENG	[0 to 1 / 0 / 1/step]
7-950-034	Previous 1: Cleaning Inspection 1	ENG	[0 to 1 / 0 / 1/step]
7-950-035	Previous 1: Cleaning Inspection 2	ENG	[0 to 1 / 0 / 1/step]

7951	[Remaining Days Counter]		
	Displays the remaining days calculated by page counter.		
7-951-002	Counter: Developer	ENG	[0 to 9999 / 1561 / 1 day/step]
7-951-003	Counter: Charge Corona Unit	ENG	[0 to 9999 / 520 / 1 day/step]

7-951-004	Counter: Transfer Roller	ENG	[0 to 9999 / 1561 / 1 day/step]
7-951-005	Counter: Separation Corona Unit	ENG	[0 to 9999 / 520 / 1 day/step]
7-951-006	Counter: OPC Drum	ENG	[0 to 9999 / 1561 / 1 day/step]
7-951-007	Counter: Cleaning Blade	ENG	[0 to 9999 / 1561 / 1 day/step]
7-951-008	Counter: 3rd Feed Roller	ENG	[0 to 9999 / 380 / 1 day/step]
7-951-009	Counter: 4th Feed Roller	ENG	[0 to 9999 / 380 / 1 day/step]
7-951-010	Counter: Ozone Filter	ENG	[0 to 9999 / 759 / 1 day/step]
7-951-011	Counter: Hot Roller	ENG	[0 to 9999 / 1460 / 1 day/step]
7-951-012	Counter: Pressure Roller	ENG	[0 to 9999 / 1751 / 1 day/step]
7-951-013	Counter: Fusing Cleaning Roller	ENG	[0 to 9999 / 1460 / 1 day/step]
7-951-014	Counter: Cleaning Inspection 1	ENG	[0 to 9999 / 520 / 1 day/step]
7-951-015	Counter: Cleaning Inspection 2	ENG	[0 to 9999 / 1041 / 1 day/step]
7-951-022	Distance: Developer	ENG	[0 to 9999 / 1716 / 1 day/step]
7-951-023	Distance: Charge Corona Unit	ENG	[0 to 9999 / 572 / 1 day/step]
7-951-024	Distance: Transfer Roller	ENG	[0 to 9999 / 1716 / 1 day/step]
7-951-025	Distance: Separation Corona Unit	ENG	[0 to 9999 / 572 / 1 day/step]
7-951-026	Distance: OPC Drum	ENG	[0 to 9999 / 1716 / 1 day/step]
7-951-027	Distance: Cleaning Blade	ENG	[0 to 9999 / 1716 / 1 day/step]

7952	[PM Count Settings] Sets the life cycle (counter) for each parts and units.		
7-952-002	Life Counter: Developer	ENG	[0 to 9999999 / 138000 / 1 page/step]
7-952-003	Life Counter: Charge Corona Unit	ENG	[0 to 9999999 / 46000 / 1 page/step]

7-952-004	Life Counter: Transfer Roller	ENG	[0 to 9999999 / 138000 / 1 page/step]
7-952-005	Life Counter: Separation Corona Unit	ENG	[0 to 9999999 / 46000 / 1 page/step]
7-952-006	Life Counter: OPC Drum	ENG	[0 to 9999999 / 138000 / 1 page/step]
7-952-007	Life Counter: Cleaning Blade	ENG	[0 to 9999999 / 138000 / 1 page/step]
7-952-008	Life Counter: 3rd Feed Roller	ENG	[0 to 9999999 / 46000 / 1 page/step]
7-952-009	Life Counter: 4th Feed Roller	ENG	[0 to 9999999 / 46000 / 1page/ step]
7-952-010	Life Counter: Ozone Filter	ENG	[0 to 9999999 / 92000 / 1page/ step]
7-952-011	Life Counter: Hot Roller	ENG	[0 to 9999999 / 129000 / 1 page/step]
7-952-012	Life Counter: Pressure Roller	ENG	[0 to 9999999 / 154800 / 1 page/step]
7-952-013	Life Counter: Fusing Cleaning Roller	ENG	[0 to 9999999 / 129000 / 1 page/step]
7-952-014	Life Counter: Cleaning Inspection 1	ENG	[0 to 9999999 / 46000 / 1 page/step]
7-952-015	Life Counter: Cleaning Inspection 2	ENG	[0 to 9999999 / 92000 / 1 page/step]
7-952-022	Life Distance: Developer	ENG	[0 to 9999999.9 / 43750.0 / 0.1 m/step]
7-952-023	Life Distance: Charge Corona Unit	ENG	[0 to 99999999.9 / 14583.0 / 0.1 m/step]
7-952-024	Life Distance: Transfer Roller	ENG	[0 to 99999999.9 / 43750.0 / 0.1 m/step]
7-952-025	Life Distance: Separation Corona Unit	ENG	[0 to 99999999.9 / 14583.0 / 0.1 m/step]

7-952-026	Life Distance: OPC Drum	ENG	[0 to 9999999.9 / 43750.0 / 0.1 m/step]
7-952-027	Life Distance: Cleaning Blade	ENG	[0 to 99999999.9 / 43750.0 / 0.1 m/step]
7-952-042	Days Range: Developer	ENG	[1 to 30 / 15 / 1 day/step]
7-952-043	Days Range: Charge Corona Unit	ENG	[1 to 30 / 15 / 1 day/step]
7-952-044	Days Range: Transfer Roller	ENG	[1 to 30 / 15 / 1 day/step]
7-952-045	Days Range: Separation Corona Unit	ENG	[1 to 30 / 15 / 1 day/step]
7-952-046	Days Range: OPC Drum	ENG	[1 to 30 / 15 / 1 day/step]
7-952-047	Days Range: Cleaning Blade	ENG	[1 to 30 / 15 / 1 day/step]
7-952-048	Days Range: 3rd Feed Roller	ENG	[1 to 30 / 15 / 1 day/step]
7-952-049	Days Range: 4th Feed Roller	ENG	[1 to 30 / 15 / 1 day/step]
7-952-050	Days Range: Ozone Filter	ENG	[1 to 30 / 15 / 1 day/step]
7-952-051	Days Range: Hot Roller	ENG	[1 to 30 / 15 / 1 day/step]
7-952-052	Days Range: Pressure Roller	ENG	[1 to 30 / 15 / 1 day/step]
7-952-053	Days Range: Fusing Cleaning Roller	ENG	[1 to 30 / 15 / 1 day/step]
7-952-054	Days Range: Cleaning Inspection 1	ENG	[1 to 30 / 15 / 1 day/step]
7-952-055	Days Range: Cleaning Inspection 2	ENG	[1 to 30 / 15 / 1 day/step]

7960	[Cutter Operation Time]		
	Counts (accumulates) the cutter operation times for each roll feeders. Replacement cycle of the cutter unit is 83K and can be used up to 140K actual cuts (regardless of paper length).		
7-960-001	1 st Cutter	ENG	[0 to 99999999 / 0 / 1 times/ step]

7-960-002 2nd Cutter	ENG [0 to 99999999 / 0 / 1 times/ step]
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SP Mode Tables - SP8000

SP8-XXX (Data Log 2)

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.

T:	Total: (Grand Total).	Grand total of the items counted for all applications (C, P, etc.).
C:	Copy application.	Totals (pages, jobs, etc.) executed for each application
P:	Print application.	when the job was not stored on the document server.
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 8xxx SP codes are limited to 17 characters, forced by the necessity of displaying them on the small LCDs of other machines that use these SP codes. Read over the list of abbreviations below and refer to it again if you see the name of an SP that you do not understand.

Key for Abbreviations

Abbreviation	What It Means
Apl	Application
Bk	Black

Abbreviation	What It Means
С	Cyan
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)
К	Black (YMCK)
Palm 2	Print Job Manager/Desk Top Editor: A pair of utilities that allows print jobs to be distributed evenly among the printers on the network, and allows files to move 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.
SC	Service Code (Error SC code displayed)
SMC	SMC report printed with SP5990. All of the Group 8 counters are recorded in the SMC report.
Т:	Total: (Grand Total).
ҮМС	Yellow, Magenta, Cyan
ҮМСК	Yellow, Magenta, Cyan, Black

Note

• All of the Group 8xxx SPs are reset with SP5801-001

8001	[T:Total Jobs]	CTL*	These SPs count the number of times each application is used to do a job.
8002	[C:Total Jobs]	CTL*	[0 to 99999999 / 0 / 1/step]
8004	[P:Total Jobs]	CTL*	times the other applications are used
8005	[S:Total Jobs]	CTL*	to send a job to the document server, plus the number of times a
8006	[L:Total Jobs]	CTL*	file already on the document server is used.

- These SPs reveal the number of times an application is used, not the number of pages processed.
- When an application is opened for image input or output, this counts as one job.
- Interrupted jobs (paper jams, etc.) are counted, even though they do not finish.
- Only jobs executed by the customer are counted. Jobs executed by the customer engineer using the SP modes are not counted.
- When using secure printing (when a password is required to start the print job), the job is counted at the time when either "Delete Data" or "Specify Output" is specified.
- When a copy job on the document server is printed, SP8022 also increments, and when a print job stored on the document server is printed, SP8024 also increments.
- When an original is both copied and stored on the document server, the C: and L: counters both increment.
- When a print job is stored on the document server, only the L: counter increments.
- When the user presses the Document Server button to store the job on the document server, only the L: counter increments.
- When the user enters document server mode and prints data stored on the document server, only the L: counter increments.
- When an image received from Palm 2 is received and stored, the L: counter increments.
- When the customer prints a report (user code list, for example), the O: counter increments.

8011	[T:Jobs/LS]	CTL*	These SPs count the number of jobs
8012	[C:Jobs/LS]	CTL*	stored to the document server by each application, to reveal how
8014	[P:Jobs/LS]	CTL*	local storage is being used for input.
8015	[S:Jobs/LS]	CTL*	[0 to 99999999 / 0 / 1/step] The L: counter counts the number of jobs stored from within the docume
8016	[L:Jobs/LS]	CTL*	
8017	[O:Jobs/LS]	CTL*	server mode screen at the operation panel.

- When a scan job is sent to the document server, the S: counter increments. When you enter document server mode and then scan an original, the L: counter increments.
- When a print job is sent to the document server, the P: counter increments.
- When a network application sends data to the document server, the O: counter increments.
- When an image from Palm 2 is stored on the document server, the O: counter increments.

8021	[T:Pjob/LS]	CTL*	These SPs reveal how files printed
8022	[C:Pjob/LS]	CTL*	trom the document server were stored on the document server
8024	[P:Pjob/LS]	CTL*	originally.
8025	[S:Pjob/LS]	CTL*	The L: counter counts the number of
8026	[L:Pjob/LS]	CTL*	jobs stored from within the document
8027	[O:Pjob/LS]	CTL*	server mode screen at the operation panel.

- When a copy job stored on the document server is printed with another application, the C: counter increments.
- When an application like DeskTopBinder merges a copy job that was stored on the document server with a print job that was stored on the document server, the C: and P: counters both increments.
- When a job already on the document server is printed with another application, the L: counter increments.
- When a scanner job stored on the document server is printed with another application, the S: counter increments. If the original was scanned from within document server mode, then the L: counter increments.
- When images stored on the document server by a network application (including Palm 2), are printed with another application, the O: counter increments.
- When a copy job stored on the document server is printed with a network application (Web Image Monitor, for example), the C: counter increments.

8031	[T:Pjob/DesApl]	CTL*	These SPs reveal what applications were used to output documents from the document server.
8032	[C:Pjob/DesApl]	CTL*	
8034	[P:Pjob/DesApl]	CTL*	[0 to 99999999 / 0 / 1/step]
8035	[S:Pjob/DesApl]	CTL*	The L: counter counts the number of jobs printed from within the
8036	[L:Pjob/DesApl]	CTL*	document server mode screen at th
8037	[O:Pjob/DesApl]	CTL*	operation panel.

- When documents already stored on the document server are printed, the count for the application that started the print job is incremented.
- When the print job is started from a network application (Desk Top Binder, Web Image Monitor, etc.) the L: counter increments.

8041	[T:TX Jobs/LS]	CTL*	These SPs count the applications that
8042	[C:TX Jobs/LS]	CTL*	stored tiles on the document server that were later accessed for
8044	[P:TX Jobs/LS]	CTL*	transmission over the telephone line or over a network (attached to an e-
8045	[S:TX Jobs/LS]	CTL*	mail).
8046	[L:TX Jobs/LS]	CTL*	[0 to 99999999 / 0 / 1]
8047	[O:TX Jobs/LS]	CTL*	 Jobs merged for sending are counted separately. The L: counter counts the number of jobs scanned from within the document server mode screen at the operation panel.

- When a stored copy job is sent from the document server, the C: counter increments.
- When images stored on the document server by a network application or Palm2 are sent as an email, the O: counter increments.

8051	[T:TX Jobs/DesApl]	CTL*	These SPs count the applications used to send files from the document server over the telephone line or over a network (attached to an e- mail). Jobs merged for sending are counted separately. [0 to 99999999 / 0 / 1] The L: counter counts the number of jobs sent from within the document server mode screen at the operation panel.
8052	[C:TX Jobs/DesApl]	CTL*	
8054	[P:TX Jobs/DesApl]	CTL*	
8055	[S:TX Jobs/DesApl]	CTL*	
8056	[L:TX Jobs/DesApl]	CTL*	
8057	[O:TX Jobs/DesApl]	CTL*	

• If the send is started from Desk Top Binder or Web Image Monitor, for example, then the O: counter increments.

8061	[T:FIN Jobs]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs total the finishing methods. The finishing method is specified by the application		

8062	[C:FIN Jobs]	CTL*	[0 to 99999999 / 0 / 1/step]	
	These SPs total finishing methods for copy jobs only. The finishing method is specified by the application.			
8064	[P: FIN Jobs]	CTL*	[0 to 99999999 / 0 / 1/step]	
	These SPs total finishing methods for print jobs only. The finishing method is specified by the application.			
8065	[S:FIN Jobs]	CTL*	[0 to 99999999 / 0 / 1/step]	
	These SPs total finishing methods for scan jobs only. The finishing method is specified by the application.			
	♦ Note			
• Finishing features for scan jobs are not available at this time.			e at this time.	
8066	[L:FIN Jobs]	CTL*	[0 to 99999999 / 0 / 1/step]	
These SPs total finishing methods for jobs output from within the document ser screen at the operation panel. The finishing method is specified from the print within document server mode.			within the document server mode s specified from the print window	
8067	[O:FIN Jobs]	CTL*	[0 to 99999999 / 0 / 1/step]	
	These SPs total finishing methods for jobs executed by an external application network. The finishing method is specified by the application.			
001	Sort	CTL*	[0 to 99999999 / 0 / 1/step]	
	Number of jobs started in Sort mode. When a stored copy job is set for Sort and then stored on the document server, the L: counter increments. (See SP8066)			
002	Stack	CTL*	[0 to 99999999 / 0 / 1/step]	
	Number of jobs started out of Sort mode.			
003	Staple	CTL*	[0 to 99999999 / 0 / 1/step]	
	Number of jobs started in Staple mode.			
004	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]	
	Number of jobs started in Booklet mode. If the machine is in staple mode, the Staple counter also increments.			

005	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
	Number of jobs started In any mode other than the Booklet mode and set for folding (Z-fold).			
006	Punch	CTL*	[0 to 99999999 / 0 / 1/step]	
	Number of jobs started in Punch mode. When Punch is set for a print job, the P: counter increments. (See SP8064)			
007	Other	CTL*	[0 to 99999999 / 0 / 1/step]	
	Reserved. Not used.			
008	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
	-			
009	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
	-			
010	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
	-			
011	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
	-			
012	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
	-			
013	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]	
	-			
014	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]	
	-			

8071	[T:Jobs/PGS]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count the number of jobs broken down by the number of pages in the job, regardless of which application was used.		
8072	[C:Jobs/PGS]	CTL*	[0 to 99999999 / 0 / 1/step]
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	These SPs count and calculate t pages in the job.	he number of copy jol	os by size based on the number of
8074	[P: Jobs/PGS]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count and calculate t pages in the job.	he number of print job	os by size based on the number of
8075	[S:Jobs/PGS]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count and calculate the number of scan jobs by size based on the number of pages in the job.		
8076	[L:Jobs/PGS]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count and calculate the number of jobs printed from within the document server mode window at the operation panel, by the number of pages in the job.		
8077	[O:Jobs/PGS]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count and calculate the number of "Other" application jobs (Web Image Monitor, Palm 2, etc.) by size based on the number of pages in the job.		
001	1 Page	CTL*	[0 to 99999999 / 0 / 1/step]
002	2 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
003	3 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
004	4 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
005	5 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
006	6 to 10 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
007	11 to 20 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
008	21 to 50 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
009	51 to 100 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
010	101 to 300 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
011	301 to 500 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
012	501 to 700 Pages	CTL*	[0 to 99999999 / 0 / 1/step]
013	701 to 1000 Pages	CTL*	[0 to 99999999 / 0 / 1/step]

014 1001 and more Pages CTL* [0 to 99999999 / 0 / 1/step]
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- For example: When a copy job stored on the document server is printed in document server mode, the appropriate L: counter (SP8076-0xx) increments.
- Interrupted jobs (paper jam, etc.) are counted, even though they do not finish.
- If a job is paused and re-started, it counts as one job.
- If the finisher runs out of staples during a print and staple job, then the job is counted at the time the error occurs.
- For copy jobs (SP8072) and scan jobs (SP8075), the total is calculated by multiplying the number of sets of copies by the number of pages scanned. (One duplex page counts as 2.)
- The first test print and subsequent test prints to adjust settings are added to the number of pages of the copy job (SP8072).
- When printing the first page of a job from within the document server screen, the page is counted.

8131	[T:S-to-Email Jobs]		
	These SPs count the total number of jobs scanned and attached to an e-mail, regardless of whether the document server was used or not.		
001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]
003	ACS	CTL*	[0 to 99999999 / 0 / 1/step]

8135	[S:S-to-Email Jobs]		
	These SPs count the number of jobs scanned and attached to an e-mail, without storing the original on the document server.		
001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]
003	ACS	CTL*	[0 to 99999999 / 0 / 1/step]

- These counters count jobs, not pages.
- If the job is stored on the document server, after the job is stored it is determined to be color or black-and-white then counted.
- If the job is cancelled during scanning, or if the job is cancelled while the document is waiting to be sent, the job is not counted.

- If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
- If several jobs are combined for sending to the Scan Router, Scan-to-Email, or Scan-to-PC, or if
 one job is sent to more than one destination. Each send is counted separately. For example, if the
 same document is sent by Scan-to-Email as well as Scan-to-PC, then it is counted twice (once for
 Scan-to-Email and once for Scan-to-PC).

8141	41 [T:Deliv Jobs/Svr] These SPs count the total number of jobs scanned and sent to a Scan Router server.		
8145	[S:Deliv Jobs/Svr]		
	These SPs count the number of jobs scanned in scanner mode and sent to a Scan Router server.		
001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]
003	ACS	CTL*	[0 to 99999999 / 0 / 1/step]

- These counters count jobs, not pages.
- The jobs are counted even though the arrival and reception of the jobs at the Scan Router server cannot be confirmed.
- If even one color image is mixed with black-and-white images, then the job is counted as a "Color" job.
- If the job is cancelled during scanning, or if the job is cancelled while the document is waiting to be delivered, the job is not counted.
- If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
- Even if several files are combined for sending, the transmission counts as one job.

8151	[T:Deliv Jobs/PC]		
	These SPs count the total number of jobs scanned and sent to a folder on a PC (Scan-to-PC).		
	Note		
	• At the present time, SP8151 and SP8155 perform identical counts.		
8155	[S:Deliv Jobs/PC]		
	These SPs count the total number of jobs scanned and sent with Scan-to-PC.		

001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]
003	ACS	CTL*	[0 to 99999999 / 0 / 1/step]

- These counters count jobs, not pages.
- If the job is cancelled during scanning, it is not counted.
- If the job is cancelled while it is waiting to be sent, the job is not counted.
- If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
- Even if several files are combined for sending, the transmission counts as one job.

8171	[T:Deliv Jobs/WSD/DSM]		
	These SPs count the pages scan	ned by WSD (WS-Sc	anner for Web Services Devices).
8175	[S:Deliv Jobs/WSD/DSM]		
	These SPs count the pages scanned by WSD (WS-Scanner for Web Services Devices).		
001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]
003	ACS	CTL*	[0 to 99999999 / 0 / 1/step]

8181	[T:Scan to Media Jobs]		
	These SPs count the scanned po	iges in a media by the	scanner application.
8185	[S:Scan to Media Jobs]		
	These SPs count the scanned pages in a media by the scanner application.		
001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]
003	ACS	CTL*	[0 to 99999999 / 0 / 1/step]

8191	[T:Total Scan PGS]	CTL*	These SPs count the pages scanned
8192	[C:Total Scan PGS]	CTL*	by each application that uses the scanner to scan images.
8195	[S:Total Scan PGS]	CTL*	[0 to 99999999 / 0 / 1/step]
8196	[L:Total Scan PGS]	CTL*	

- SP8191 to 8196 count the number of scanned sides of pages, not the number of physical pages.
- These counters do not count reading user stamp data, or reading color charts to adjust color.
- Previews done with a scanner driver are not counted.
- A count is done only after all images of a job have been scanned.
 - Scans made in SP mode are not counted.

Examples

- If 3 B5 pages and 1 A3 page are scanned with the scanner application but not stored, the S: count is 4.
- If both sides of 3 A4 sheets are copied and stored to the document server using the Store File button in the Copy mode window, the C: count is 6 and the L: count is 6.
- If both sides of 3 A4 sheets are copied but not stored, the C: count is 6.
- If you enter document server mode then scan 6 pages, the L: count is 6.

8211	[T:Scan PGS/LS]	CTL*	These SPs count the number of
8212	[C:Scan PGS/LS]	CTL*	pages scanned into the document server
8215	[S:Scan PGS/LS]	CTL*	[0 to 99999999 / 0 / 1/step]
8216	[L:Scan PGS/LS]	CTL*	The L: counter counts the number of pages stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen

- Reading user stamp data is not counted.
- If a job is cancelled, the pages output as far as the cancellation are counted.
- If the scanner application scans and stores 3 B5 sheets and 1 A4 sheet, the S: count is 4.
- If pages are copied but not stored on the document server, these counters do not change.
- If both sides of 3 A4 sheets are copied and stored to the document server, the C: count is 6 and the L: count is 6.
- If you enter document server mode then scan 6 pages, the L: count is 6.

8221	[ADF Org Feeds]				
	These SPs count the number of pages fed through the ADF for front and back side scanning.				
001	DO1 Front CTL* [0 to 99999999 / 0 / 1/s				
	Number of front sides fed for scanning: With an ADF that can scan both sides simultaneously, the Front side count is the same as				
	the number of pages fed for either simplex or duplex scanning.				
	the number of pages fed for duplex front side scanning. (The front side is determined by which side the user loads face up.)				
002	002 Back CTL* [0 to 99999999 / 0 / 1/s				
	Number of rear sides fed for scanning: With an ADF that can scan both sides simultaneously, the Back count is the same as the number of pages fed for duplex scanning. With an ADF that cannot scan both sides simultaneously, the Back count is the same as the number of pages fed for duplex rear-side scanning.				

- When 1 sheet is fed for duplex scanning the Front count is 1 and the Back count is 1.
- If a jam occurs during the job, recovery processing is not counted to avoid double counting. Also, the pages are not counted if the jam occurs before the first sheet is output.

8231	[Scan PGS/Mode]					
	These SPs count the number of pages scanned by each ADF mode to determine the work load on the ADF.					
001	Large VolumeCTL*[0 to 99999999 / 0 / 1/step]Selectable. Large copy jobs that cannot be loaded in the ADF at one time.					
002	[0 to 99999999 / 0 / 1/step]					
	Selectable. Feeding pages one by one through the ADF.					
003	Mixed Size CTL* [0 to 99999999 / 0 / 1/step]					
	Selectable. Select "Mixed Sizes" on the operation panel.					
004	004 Custom Size CTL* [0 to 99999999 / 0 / 1/s					
	Selectable. Originals of non-standard size.					

005	Platen	CTL*	[0 to 99999999 / 0 / 1/step]			
	Book mode. Raising the ADF and placing the original directly on the platen.					
006	6 Mixed 1side/2side CTL* [0 to 99999999 / 0 / 1/step]					
	Job mixed with printing one/two sides.					

- If the scan mode is changed during the job, for example, if the user switches from ADF to Platen mode, the count is done for the last selected mode.
- If the user selects "Mixed Sizes" for copying in the platen mode, the Mixed Size count is enabled.
- In the SADF mode if the user copies 1 page in platen mode and then copies 2 pages with SADF, the Platen count is 1 and the SADF count is 3.

8241	[T:Scan PGS/Org]		CTL*	[0 to 9999	9999 / 0 / 1	/step]
	These SPs count the total number of scanned pages by original type for all jobs, regardless of which application was used.					
8242	[C:Scan PGS/Org] CTL* [0 to 99999999 / 0 / 1/step]					/step]
	These SPs count the number of p	ages	scanned by ori	ginal type for	Copy jobs.	
8245	[S:Scan PGS/Org]		CTL*	[0 to 9999	9999 / 0 / 1	/step]
	These SPs count the number of p	ages	scanned by ori	ginal type for	Scan jobs.	
8246	[L:Scan PGS/Org] CTL* [0 to 99999999 / 0 / 1/step]			/step]		
	These SPs count the number of pages scanned and stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen					
			8241	8242	8245	8246
001	Text		Yes	Yes	Yes	Yes
002	Text/Photo		Yes	Yes	Yes	Yes
003	Photo		Yes	Yes	Yes	Yes
004	GenCopy, Pale		Yes	Yes	Yes	Yes
005	Мар		Yes	Yes	No	Yes
006	Normal/Detail		Yes	No	No	No
007	Fine/Super Fine		Yes	No	No	No

008	Binary	Yes	No	Yes	No
009	Grayscale	Yes	No	Yes	No
010	Color	Yes	No	Yes	No
011	Other	Yes	Yes	Yes	Yes

8251	[T:Scan PGS/ImgEdt]	CTL*	These SPs show how many times
8252	[C:Scan PGS/ImgEdt]	CTL*	Image Edit teatures have been selected at the operation panel for
8255	[S:Scan PGS/ImgEdt]	CTL*	each application. Some examples of
8256	[L:Scan PGS/ImgEdt]	CTL*	Erase> Border
8257	[O:Scan PGS/ImgEdt]	CTL*	 Erase> Center Image Repeat Centering Positive/Negative [0 to 99999999 / 0 / 1/step]
			• The count totals the number of times the edit features have been used. A detailed breakdown of exactly which features have been used is not given.

The L: counter counts the number of pages stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen.

8281 [T:Scan PGS/TWAIN]	CTL*	These SPs count the number of
8285 [S:Scan PGS/TWAIN]	CTL*	 pages scanned using a TWAIN driver. These counters reveal how the TWAIN driver is used for delivery functions. [0 to 99999999 / 0 / 1/step] ◆ Note At the present time, these counters perform identical counts.

8291	[T:Scan PGS/Stamp]	CTL*	These SPs count the number of
8295	[S:Scan PGS/Stamp]	CTL*	ADF unit.
			[0 to 99999999 / 0 / 1/step]
			The L: counter counts the number of pages stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen

8301	[T:Scan PGS/Size]		
	These SP's count by size the total number of pages scanned by all applications. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-441].		
8302	[C:Scan PGS/Size]		
	These SP's count by size the total number of pages scanned by the Copy application. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-442].		
8305	[S:Scan PGS/Size]		
	These SP's count by size the total number of pages scanned by the Scan application. Use these totals to compare original page size (scanning) and output page size [SP 8-445].		

8306	[L:Scan PGS/Size]					
	These SP's count by size the total number of pages scanned and stored from within the document server mode screen at the operation panel, and with the Store File but to n from within the Copy mode screen. Use these totals to compare original page size (scanning) and output page size [SP 8-446].					
001	A3	CTL*	[0 to 99999999 / 0 / 1/step]			
002	A4	CTL*	[0 to 99999999 / 0 / 1/step]			
004	В4	CTL*	[0 to 99999999 / 0 / 1/step]			
006	DLT	CTL*	[0 to 99999999 / 0 / 1/step]			
007	LG	CTL*	[0 to 99999999 / 0 / 1/step]			
008	LT	CTL*	[0 to 99999999 / 0 / 1/step]			
100	A2	CTL*	[0 to 99999999 / 0 / 1/step]			
101	ВЗ	CTL*	[0 to 99999999 / 0 / 1/step]			
102	AO	CTL*	[0 to 99999999 / 0 / 1/step]			
103	A1	CTL*	[0 to 99999999 / 0 / 1/step]			
104	В1	CTL*	[0 to 99999999 / 0 / 1/step]			
105	B2	CTL*	[0 to 99999999 / 0 / 1/step]			
106	30x42	CTL*	[0 to 99999999 / 0 / 1/step]			
107	34x44	CTL*	[0 to 99999999 / 0 / 1/step]			
108	22x34	CTL*	[0 to 99999999 / 0 / 1/step]			
109	17x22	CTL*	[0 to 99999999 / 0 / 1/step]			
110	36x48	CTL*	[0 to 99999999 / 0 / 1/step]			
111	24x36	CTL*	[0 to 99999999 / 0 / 1/step]			
112	18x24	CTL*	[0 to 99999999 / 0 / 1/step]			
113	12x18	CTL*	[0 to 99999999 / 0 / 1/step]			
114	9x12	CTL*	[0 to 99999999 / 0 / 1/step]			
254	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]			

255	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]			
8311	[T:Scan PGS/Rez]					
	These SPs count by resolution setting the total number of pages scanned by applications that can specify resolution settings.					
8315	[S:Scan PGS/Rez]					
	These SPs count by resolution setting the total number of pages scanned by applications that can specify resolution settings.					
001	1200dpi and more	CTL*	[0 to 99999999 / 0 / 1/step]			
002	600dpi to 1199dpi	CTL*	[0 to 99999999 / 0 / 1/step]			
003	400dpi to 599dpi	CTL*	[0 to 99999999 / 0 / 1/step]			
004	200dpi to 399dpi	CTL*	[0 to 99999999 / 0 / 1/step]			
005	199dpi or less	CTL*	[0 to 99999999 / 0 / 1/step]			

• Copy resolution settings are fixed so they are not counted.

8381	[T:Total PrtPGS]
8382	[C:Total PrtPGS]
8384	[P:Total PrtPGS]
8385	[S:Total PrtPGS]
8386	[L:Total PrtPGS]
8387	[O:Total PrtPGS]
	These SPs count the number of pages printed by the customer. The counter for the application used for storing the pages increments.
	The L: counter counts the number of pages stored from within the document server mode screen at the operation panel. Pages stored with the Store File button from within the Copy mode screen go to the C: counter.

001	Field Number	CTL*	[0 to 99999999 / 0 / 1/step]
	Total number of copies (regardl	ess of size)	
002	Length(High)	CTL*	[0 to 99999999 / 0 / 1/step]
	Total length		
003	Length(Low)	CTL*	[0 to 99999999 / 0 / 1/step]
	Total length		
004	Area(High)	CTL*	[0 to 99999999 / 0 / 1/step]
	Total area coverage		
005	Area(Low)	CTL*	[0 to 99999999 / 0 / 1/step]
	Total area coverage		

- When several documents are merged for a print job, the number of pages are counted for the application that stored them
- These counters are used primarily to calculate charges on use of the machine, so the following pages are not counted as printed pages:
- Blank pages in a duplex printing job.
- Blank pages inserted as document covers, chapter title sheets, and slip sheets
- Reports printed to confirm counts
- All reports done in the service mode (service summaries, engine maintenance reports, etc.)
- Test prints for machine image adjustment.
- Error notification reports.
- Partially printed pages as the result of a jam.

8401	[T:PrtPGS/LS]	CTL*	These SPs count the number of
8402	[C:PrtPGS/LS]	CTL*	pages printed trom the document server. The counter for the
8404	[P:PrtPGS/LS]	CTL*	application used to print the pages is incremented.
8405	[S:PrtPGS/LS]	CTL*	The L: counter counts the number of
8406	[L:PrtPGS/LS]	CTL*	jobs stored from within the document server mode screen at the operation panel. [O to 99999999 / O / 1]

• This SP counts the amount of paper (front/back counted as 1 page) used for duplex printing. Last pages printed only on one side are not counted.

8421	[T:PrtPGS/Dup Comb]		
	These SP's count by binding and processed for printing. This is the	d combine, and n-Up e total for all applice	o settings the number of pages ations.
8422	[C:PrtPGS/Dup Comb]		
	These SP's count by binding and processed for printing by the ap	d combine, and n-Up plication.	o settings the number of pages
8424	[P:PrtPGS/Dup Comb]		
	These SP's count by binding and processed for printing by the pri	d combine, and n-Up inter application.	o settings the number of pages
8425	[S:PrtPGS/Dup Comb]		
	These SP's count by binding and processed for printing by the sco	d combine, and n-Up anner application.	o settings the number of pages
8426	[L:PrtPGS/Dup Comb]		
	These SP's count by binding and combine, and n-Up settings the number of pages processed for printing from within the document server mode window at the operation panel.		
8427	[O:PrtPGS/Dup Comb]		
	These SP's count by binding and combine, and n-Up settings the number of pages processed for printing by Other applications.		
001	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
	-		
002	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
	-		
003	Book> Duplex	CTL*	[0 to 99999999 / 0 / 1/step]
	-		
004	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]
	-		

005	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1/step]		
	-				
006	2in 1	CTL*	[0 to 99999999 / 0 / 1/step]		
	2 pages on 1 side (2-Up)				
007	4in 1	CTL*	[0 to 99999999 / 0 / 1/step]		
	4 pages on 1 side (4-Up)				
008	6in 1	CTL*	[0 to 99999999 / 0 / 1/step]		
	6 pages on 1 side (6-Up)				
009	8in 1	CTL*	[0 to 99999999 / 0 / 1/step]		
	8pages on 1 side (8-Up)				
010	9in 1	CTL*	[0 to 99999999 / 0 / 1/step]		
	9 pages on 1 side (9-Up)				
011	16in 1	CTL*	[0 to 99999999 / 0 / 1/step]		
	16 pages on 1 side (16-Up)				
012	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]		
	-				
013	Magazine	CTL*	[0 to 99999999 / 0 / 1/step]		
	-				
014	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]		
	-	-			
015	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]		
	-				
016	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]		
	-				
017	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]		
	-				

018	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1/step]
	-		
019	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
	-		
020	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
	-		
021	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
	-		
022	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
	-		
023	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
	-		
024	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1/step]
	-		

- These counts (SP8421 to SP8427) are especially useful for customers who need to improve their compliance with ISO standards for the reduction of paper consumption.
- Pages that are only partially printed with the n-Up functions are counted as 1 page.
- Here is a summary of how the counters work for Booklet and Magazine modes:

Booklet		Magazine		
Original Pages	Count	Original Pages	Count	
1	1	1	1	
2	2	2	2	
3	2	3	2	
4	2	4	2	
5	3	5	4	
6	4	6	4	

Booklet		Magazine		
Original Pages	Count	Original Pages	Count	
7	4	7	4	
8	4	8	4	

8431	[T:PrtPGS/ImgEdt]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count the total num of which application was used	per of pages output with 1.	n the three features below, regardless
8432	[C: PrtPGS/ImgEdt]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count the total num copy application.	per of pages output with	n the three features below with the
8434	[P: PrtPGS/ImgEdt]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count the total num print application.	per of pages output with	n the three features below with the
8436	[L: PrtPGS/ImgEdt]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count the total number of pages output from within the document server m window at the operation panel with the three features below.		
8437	[O: PrtPGS/ImgEdt]	CTL*	[0 to 99999999 / 0 / 1/step]
	These SPs count the total num applications.	per of pages output with	n the three features below with Other
001	Cover/Slip Sheet	Total number of covers or slip sheets inserted. The count for a cover printed on both sides counts 2.	
002	Series/Book	The number of pages printed in series (one side) or printed as a book with booklet right/left pagination.	
003	User Stamp	The number of pages p including page numbe	printed where stamps were applied, ring and date stamping.

8441	[T:PrtPGS/Ppr Size]
	These SP's count by print paper size the number of pages printed by all applications.

8442	2 [C:PrtPGS/Ppr Size]			
	These SP's count by print paper size the number of pages printed by the copy application.			
8444	[P:PrtPGS/Ppr Size]			
These SP's count by print paper size the number of pages printed by the printer		ages printed by the printer application.		
8445	[S:PrtPGS/Ppr Size]			
	These SP's count by print paper application.	size the number of po	ages printed by the scanner	
8446	[L:PrtPGS/Ppr Size]			
	These SP's count by print paper server mode window at the ope	size the number of po eration panel.	ages printed from within the document	
8447	[O:PrtPGS/Ppr Size]			
	These SP's count by print paper	size the number of po	ages printed by Other applications.	
001	A3	CTL*	[0 to 99999999 / 0 / 1/step]	
002	A4	CTL*	[0 to 99999999 / 0 / 1/step]	
004	B4	CTL*	[0 to 99999999 / 0 / 1/step]	
006	DLT	CTL*	[0 to 99999999 / 0 / 1/step]	
007	LG	CTL*	[0 to 99999999 / 0 / 1/step]	
008	LT	CTL*	[0 to 99999999 / 0 / 1/step]	
100	A2	CTL*	[0 to 99999999 / 0 / 1/step]	
101	ВЗ	CTL*	[0 to 99999999 / 0 / 1/step]	
102	AO	CTL*	[0 to 99999999 / 0 / 1/step]	
103	A1	CTL*	[0 to 99999999 / 0 / 1/step]	
104	B1	CTL*	[0 to 99999999 / 0 / 1/step]	
105	B2	CTL*	[0 to 99999999 / 0 / 1/step]	
106	30x42	CTL*	[0 to 99999999 / 0 / 1/step]	
107	34x44	CTL*	[0 to 99999999 / 0 / 1/step]	

108	22x34	CTL*	[0 to 99999999 / 0 / 1/step]
109	17x22	CTL*	[0 to 99999999 / 0 / 1/step]
110	36x48	CTL*	[0 to 99999999 / 0 / 1/step]
111	24x36	CTL*	[0 to 99999999 / 0 / 1/step]
112	18x24	CTL*	[0 to 99999999 / 0 / 1/step]
113	12x18	CTL*	[0 to 99999999 / 0 / 1/step]
114	9x12	CTL*	[0 to 99999999 / 0 / 1/step]
239	841mmCustom;A0-	CTL*	[0 to 99999999 / 0 / 1/step]
240	841mmCustom;-A0	CTL*	[0 to 99999999 / 0 / 1/step]
241	594mm Custom	CTL*	[0 to 99999999 / 0 / 1/step]
242	420mm Custom	CTL*	[0 to 99999999 / 0 / 1/step]
243	297mm Custom	CTL*	[0 to 99999999 / 0 / 1/step]
244	210mm Custom	CTL*	[0 to 99999999 / 0 / 1/step]
245	728mm Custom	CTL*	[0 to 99999999 / 0 / 1/step]
246	515mm Custom	CTL*	[0 to 99999999 / 0 / 1/step]
247	364mm Custom	CTL*	[0 to 99999999 / 0 / 1/step]
248	257mm Custom	CTL*	[0 to 99999999 / 0 / 1/step]
249	30/34/36inch Custom	CTL*	[0 to 99999999 / 0 / 1/step]
250	22/24inch Custom	CTL*	[0 to 99999999 / 0 / 1/step]
251	17/18inch Custom	CTL*	[0 to 99999999 / 0 / 1/step]
252	11/12inch Custom	CTL*	[0 to 99999999 / 0 / 1/step]
253	8.5/9inch Custom	CTL*	[0 to 99999999 / 0 / 1/step]
254	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1/step]
255	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1/step]

• These counters do not distinguish between LEF and SEF.

З

8451	[PrtPGS/Ppr Tray] These SPs count the number of sheets fed from each paper feed station.				
001	Bypass Tray	CTL*	[0 to 99999999 / 0 / 1/step]		
	Bypass Tray				
002	Tray 1	CTL*	[0 to 99999999 / 0 / 1/step]		
	Copier				
003	Tray 2	CTL*	[0 to 99999999 / 0 / 1/step]		
	Copier				
004	Tray 3	CTL*	[0 to 99999999 / 0 / 1/step]		
	Paper Tray Unit (Option)				
005	Tray 4	CTL*	[0 to 99999999 / 0 / 1/step]		
	Paper Tray Unit (Option)				
006	Tray 5	CTL*	[0 to 99999999 / 0 / 1/step]		
	LCT (Option)				
007 to	Tray 6 to Tray 15	CTL*	[0 to 99999999 / 0 / 1/step]		
016	Currently not used				

8461	[T:PrtPGS/Ppr Type]
	These SPs count by paper type the number pages printed by all applications.
	 These counters are not the same as the PM counter. The PM counter is based on feed timing to accurately measure the service life of the feed rollers. However, these counts are based on output timing.
	• Blank sheets (covers, chapter covers, slip sheets) are also counted.
	• During duplex printing, pages printed on both sides count as 1, and a page printed on one side counts as 1.
8462	[C:PrtPGS/Ppr Type]
	These SPs count by paper type the number pages printed by the copy application.

8464	[P:PrtPGS/Ppr Type]			
	These SPs count by paper type the number pages printed by the printer application.			
8466	[L:PrtPGS/Ppr Type]			
	These SPs count by paper type the number pages printed from within the document server mode window at the operation panel.			
001	Normal	CTL*	[0 to 99999999 / 0 / 1/step]	
002	Recycled	CTL*	[0 to 99999999 / 0 / 1/step]	
003	Special	CTL*	[0 to 99999999 / 0 / 1/step]	
004	Thick	CTL*	[0 to 99999999 / 0 / 1/step]	
005	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1/step]	
006	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1/step]	
007	ОНР	CTL*	[0 to 99999999 / 0 / 1/step]	
008	Other	CTL*	[0 to 99999999 / 0 / 1/step]	

8471	[PrtPGS/Mag]			
	These SPs count by magnification rate the number of pages printed.			
001	49% or less	CTL*	[0 to 99999999 / 0 / 1/step]	
002	50% to 99%	CTL*	[0 to 99999999 / 0 / 1/step]	
003	100%	CTL*	[0 to 99999999 / 0 / 1/step]	
004	101% to 200%	CTL*	[0 to 99999999 / 0 / 1/step]	
005	201% and more	CTL*	[0 to 99999999 / 0 / 1/step]	

- Counts are done for magnification adjusted for pages, not only on the operation panel but performed remotely with an external network application capable of performing magnification adjustment as well.
- Magnification adjustments done with printer drivers with PC applications such as Excel are also counted.
- Magnification adjustments done for adjustments after they have been stored on the document server are not counted.

- Magnification adjustments performed automatically during Auto Reduce/Enlarge copying are counted.
- The magnification rates of blank cover sheets, slip sheets, etc. are automatically assigned a rate of 100%.

8511	[T:PrtPGS/Emul]			
	These SPs count by printer emulation mode the total number of pages printed.			
8514	[P: PrtPGS/Emul]			
	These SPs count by printer emul	ation mode the total r	number of pages printed.	
001	RPCS	CTL*	[0 to 99999999 / 0 / 1/step]	
002	RPDL	CTL*	[0 to 99999999 / 0 / 1/step]	
003	PS3	CTL*	[0 to 99999999 / 0 / 1/step]	
004	R98	CTL*	[0 to 99999999 / 0 / 1/step]	
005	R16	CTL*	[0 to 99999999 / 0 / 1/step]	
006	GL/GL2	CTL*	[0 to 99999999 / 0 / 1/step]	
007	R55	CTL*	[0 to 99999999 / 0 / 1/step]	
008	RTIFF	CTL*	[0 to 99999999 / 0 / 1/step]	
009	PDF	CTL*	[0 to 99999999 / 0 / 1/step]	
010	PCL5e/5c	CTL*	[0 to 99999999 / 0 / 1/step]	
011	PCL XL	CTL*	[0 to 99999999 / 0 / 1/step]	
012	IPDL-C	CTL*	[0 to 99999999 / 0 / 1/step]	
013	BM-Links	CTL*	[0 to 99999999 / 0 / 1/step]	
014	Other	CTL*	[0 to 99999999 / 0 / 1/step]	
015	IPDS	CTL*	[0 to 99999999 / 0 / 1/step]	
016	XPS	CTL*	[0 to 99999999 / 0 / 1/step]	

• SP8511 and SP8514 return the same results as they are both limited to the Print application.

• Print jobs output to the document server are not counted.

8521	[T:PrtPGS/FIN]	CTL*	[0 to 99999999 / 0 / 1/step]	
	These SPs count by finishing mode the total number of pages printed by all applications.			
8522	[C:PrtPGS/FIN]	CTL*	[0 to 99999999 / 0 / 1/step]	
	These SPs count by finishing mc application.	de the total number o	f pages printed by the Copy	
8524	[P:PrtPGS/FIN]			
	These SPs count by finishing mc application.	de the total number o	f pages printed by the Print	
8525	[S:PrtPGS/FIN			
	These SPs count by finishing mc application.	de the total number o	f pages printed by the Scanner	
8526	[L:PrtPGS/FIN]			
	These SPs count by finishing mode the total number of pages printed from within the document server mode window at the operation panel.			
001	Sort	CTL*	[0 to 99999999 / 0 / 1/step]	
002	Stack	CTL*	[0 to 99999999 / 0 / 1/step]	
003	Staple	CTL*	[0 to 99999999 / 0 / 1/step]	
004	Booklet	CTL*	[0 to 99999999 / 0 / 1/step]	
005	Z-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
006	Punch	CTL*	[0 to 99999999 / 0 / 1/step]	
007	Other	CTL*	[0 to 99999999 / 0 / 1/step]	
008	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
009	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
010	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
011	Four-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
012	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1/step]	
013	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]	

014	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]

Vote

- If stapling is selected for finishing and the stack is too large for stapling, the unstapled pages are still counted.
- The counts for staple finishing are based on output to the staple tray, so jam recoveries are counted.

8531	[Staples]				
	This SP counts the amount of staples used by the machine.				
001	-	CTL *	[0 to 99999999 / 0 / 1/step]		

8581	[T:Counter]			
	olor output, regardless of the application port, these counters are also displayed			
	Note: This SP is expanded for count is done for black only.	r color MFP and color	LP machines. For this machine, the	
001	Total	CTL*	[0 to 99999999 / 0 / 1/step]	

8551	[T: PrtBooks/FIN]		
8552	[C: PrtBooks/FIN]		
8554	[P: PrtBooks/FIN]		
8556	[L: PrtBooks/FIN]		
001	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1/step]
002	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1/step]

8601	[T:Coverage Counter]				
	These SPs tally the amount of coverage of black and white on pages.				
001	B/W	CTL*	[0 to 2147483647 / 0 / 1%/step]		
011	B/W Printing Pages	CTL*	[0 to 99999999 / 0 / 1/step]		

8602	[C:Coverage Counter]		
001	B/W	CTL*	[0 to 2147483647 / 0 / 1%/step]
-			·

8604	[P:Coverage Counter]		
001	B/W	CTL*	[0 to 2147483647 / 0 / 1%/step]

8606	[L:Coverage Counter]		
001	B/W	CTL*	[0 to 2147483647 / 0 / 1%/step]

8617	[SDK Apli Counter]		
	These SPs count the total printout pages for each SDK application.		
001 to 012	SDK-1 to SDK12	CTL*	[0 to 99999999 / 0 / 1/step]

8621	[Func Use Counter]		
	-		
001 to 064	Function-001 to Function-064	CTL*	[0 to 99999999 / 0 / 1/step]

8651	[T:S-to-Email PGS]		
	These SPs count by color mode the total number of pages attached to an e-mail for both the Scan and document server applications.		
	Note: This SP is expanded for color MFP and color LP machines. For this machine, the count is done for black only.		
8655	[S:S-to-Email PGS]		
	These SPs count by color mode the total number of pages attached to an e-mail for the Scan application only.		
	Note: This SP is expanded for color MFP and color LP machines. For this machine, the count is done for black only.		
001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]

Note

- The count for B/W and Color pages is done after the document is stored on the HDD. If the job is cancelled before it is stored, the pages are not counted.
- If Scan-to-Email is used to send a 10-page document to 5 addresses, the count is 10 (the pages are sent to the same SMTP server together).
- If Scan-to-PC is used to send a 10-page document to 5 folders, the count is 50 (the document is sent to each destination of the SMB/FTP server).
- Due to restrictions on some devices, if Scan-to-Email is used to send a 10-page document to a large number of destinations, the count may be divided and counted separately. For example, if a 10-page document is sent to 200 addresses, the count is 10 for the first 100 destinations and the count is also 10 for the second 100 destinations, for a total of 20.).

8661	[T:Deliv PGS/Svr]		
These SPs count by color mode the total number of pages sent to a Scan Router se both Scan and LS applications.			ages sent to a Scan Router server by
	Note: This SP is expanded for color MFP and color LP machines. For this machine, the count is done for black only.		
8665	[S:Deliv PGS/Svr]		
	These SPs count by color mode the total number of pages sent to a Scan Router server by the Scan application. Note: This SP is expanded for color MFP and color LP machines. For this machine, the count is done for black only.		
001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]

Note

- The B/W and Color counts are done after the document is stored on the HDD of the Scan Router server.
- If the job is canceled before storage on the Scan Router server finishes, the counts are not done.
- The count is executed even if regardless of confirmation of the arrival at the Scan Router server.

8671	[T:Deliv PGS/PC]			
	These SPs count by color mode the total number of pages sent to a folder on a PC (Scan- to-PC) with the Scan and LS applications.			
	Note: This SP is expanded for color MFP and color LP machines. For this machine, the count is done for black only.			
8675	[S:Deliv PGS/PC]			
	These SPs count by color mode the total number of pages sent with Scan-to-PC with the Scan application.			
	Note: This SP is expanded for color MFP and color LP machines. For this machine, the count is done for black only.			
001	B/W CTL* [0 to 99999999 / 0 / 1/step]			
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]	

8691	[T:TX PGS/LS]	CTL*	These SPs count the number of
8692	[C:TX PGS/LS]	CTL*	pages sent trom the document server. The counter for the
8694	[P:TX PGS/LS]	CTL*	application that was used to store the pages is incremented.
8695	[S:TX PGS/LS]	CTL*	[0 to 99999999 / 0 / 1]
8696	[L:TX PGS/LS]	CTL*	The L: counter counts the number of pages stored from within the document server mode screen at the operation panel. Pages stored with the Store File button from within the Copy mode screen go to the C: counter.

Vote

- Print jobs done with Web Image Monitor and Desk Top Binder are added to the count.
- If several documents are merged for sending, the number of pages stored are counted for the application that stored them.

870	D1	[TX PGS/Port]
		These SPs count the number of pages sent by the physical port used to send them. Forexample, if a 3-page original is sent to 4 destinations via ISDN G4, the count for ISDN(G3, G4) is 12.

001	PSTN-1	CTL*	[0 to 99999999 / 0 / 1 / step]
002	PSTN-2	CTL*	[0 to 99999999 / 0 / 1 / step]
003	PSTN-3	CTL*	[0 to 99999999 / 0 / 1 / step]
004	ISDN(G3,G4)	CTL*	[0 to 99999999 / 0 / 1 / step]
005	Network	CTL*	[0 to 99999999 / 0 / 1 / step]

8711	[T:Scan PGS/Comp]		
8715	[S: Scan PGS/Comp]		
	These SPs count the number of a counted by the formats listed be	compressed pages sco low.	anned into the document server,
001	JPEG/JPEG2000	CTL*	[0 to 99999999 / 0 / 1/step]
002	TIFF(Multi/Single)	CTL*	[0 to 99999999 / 0 / 1/step]
003	PDF	CTL*	[0 to 99999999 / 0 / 1/step]
004	Other	CTL*	[0 to 99999999 / 0 / 1/step]
005	PDF/Comp	CTL*	[0 to 99999999 / 0 / 1/step]
006	PDF/A	CTL*	[0 to 99999999 / 0 / 1/step]
007	PDF(OCR)	CTL*	[0 to 99999999 / 0 / 1/step]
008	PDF/Comp(OCR)	CTL*	[0 to 99999999 / 0 / 1/step]
009	PDF/A(OCR)	CTL*	[0 to 99999999 / 0 / 1/step]

8721	[T:Deliv PGS/WSD/DSM]		
8725	[S:Deliv PGS/WSD/DSM]		
	These SPs count the number of p	bages scanned by eac	ch scanner mode.
001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]

8731	[T:Scan PGS/Media]
------	--------------------

8735	[S:Scan PGS/Media]		
	These SPs count the number of pages scanned and saved in a meia by each scanner mode.		
001	B/W	CTL*	[0 to 99999999 / 0 / 1/step]
002	Color	CTL*	[0 to 99999999 / 0 / 1/step]

8741	[RX PGS/Port]		
	These SPs count the number of pages received by the physical port used to receive them.		
001	PSTN-1	CTL*	[0 to 99999999 / 0 / 1/step]
002	PSTN-2	CTL*	[0 to 99999999 / 0 / 1/step]
003	PSTN-3	CTL*	[0 to 99999999 / 0 / 1/step]
004	ISDN(G3,G4)	CTL*	[0 to 99999999 / 0 / 1/step]
005	Network	CTL*	[0 to 99999999 / 0 / 1/step]

8771	[Dev Counter]		
	These SPs count the frequency of use (number of rotations of the development rollers) for black and other color toners.		
	Note: For machines that do not support color, the Black toner count is the same as the Total count.		
001	Total	CTL*	[0 to 99999999 / 0 / 1/step]

8781	[Toner_Botol_Info.]			
	Total number of toner cartridges used, determined by toner end to toner end.			
001	ВК	CTL*	[0 to 99999999/ 0 / 1/step]	

8791	[LS Memory Remain]	CTL*	This SP displays the percent of space available on the document server for storing documents.
			[U to 100 / U / 1%/step]

8801	[Toner Remain]		
	This SP displays the percent of toner remaining for each color. This SP allows the user to check the toner supply at any time.		
	Note:		
This precise method of measuring remaining toner supply (1%s) is better that machines in the market that can only measure in increments of 10 (10%s).			oply (1%s) is better than other ements of 10 (10%s).
	This SP is expanded for color MFP and color LP machines. For this machine, the count is done for black only.		
001	К	CTL*	[0 to 100 / 0 / 10%/step]

8811	[Eco Counter]		
	-		
001	Eco Total	CTL*	[0 to 99999999 / 0 / 1/step]
005	Combine	CTL*	[0 to 99999999 / 0 / 1/step]
009	Combine(%)	CTL*	[0 to 100 / 0 / 1%/step]
010	Paper Cut(%)	CTL*	[0 to 100 / 0 / 1%/step]
101	Eco Totalr:Last	CTL*	[0 to 99999999 / 0 / 1/step]
105	Combine:Last	CTL*	[0 to 99999999 / 0 / 1/step]
109	Combine(%):Last	CTL*	[0 to 100 / 0 / 1%/step]
110	Paper Cut(%):Last	CTL*	[0 to 100 / 0 / 1%/step]

8851	[Cvr Cnt:0-10%]		
	These SP's count the percentage of toner dot coverage.		
011	0 to 2%: BK	CTL*	[0 to 99999999 / 0 / 1/step]
021	3 to 4%: BK	CTL*	[0 to 99999999 / 0 / 1/step]
031	5 to 7%: BK	CTL*	[0 to 99999999 / 0 / 1/step]
041	8 to 10%: BK	CTL*	[0 to 99999999 / 0 / 1/step]

3. SP Mode Tables

8861	[Cvr Cnt:11-20%]			
	This SP counts the number of copies in the toner dot coverage range 11-20%			
001	ВК	CTL*	[0 to 99999999/ 0 / 1/step]	

8871	[Cvr Cnt:21-30%]			
	This SP counts the number of copies in the toner dot coverage range 21-30%			
001	ВК	CTL*	[0 to 999999999 0 / 1/step]	

8881	[Cvr Cnt:31%-]			
	This SP counts the number of copies in the toner dot coverage range 31% and over.			
001	ВК	CTL*	[0 to 99999999/ 0 / 1/step]	

8891	[Page/Toner Bottle]			
	Counts that record number of pages per toner cartridge.			
001	ВК	CTL*	[0 to 99999999/ 0 / 1/step]	

8901	[Page/Toner_Prev1]				
	Counts that record number of pages per toner cartridge.				
001	ВК	CTL*	[0 to 999999999 0 / 1/step]		

8911	[Page/Toner_Prev2]			
	Counts that record number of pages per toner cartridge.			
001	ВК	CTL*	[0 to 99999999/ 0 / 1/step]	

8921	[Cvr Cnt/Total]			
	These SP's display the percent and number of pages for black toner coverage.			
001	Coverage(%):BK	CTL*	[0 to 2147483647 / 0 / 1%/step]	
011	Coverage/P:BK	CTL*	[0 to 99999999 / 0 / 1/step]	

8941	[Machine Status] These SPs count the amount of time the machine spends in each operation mode. These SPs are useful for customers who need to investigate machine operation for improvement in their compliance with ISO Standards.				
001	Operation Time	CTL*	[0 to 99999999 / 0 / 1/step]		
	Engine operation time. Does no engine is not operating).	ot include time while c	controller is saving data to HDD (while		
002	Standby Time	CTL*	[0 to 99999999 / 0 / 1/step]		
	Engine not operating. Includes time while controller saves data to HDD. Does not include time spent in Energy Save, Low Power, or Off modes.				
003	Energy Save Time	CTL*	[0 to 99999999 / 0 / 1/step]		
	Includes time while the machine is performing background printing.				
004	Low Power Time	CTL*	[0 to 99999999 / 0 / 1/step]		
	Includes time in Energy Save mode with Engine on. Includes time while machine is performing background printing.				
005	Off Mode Time	CTL*	[0 to 99999999 / 0 / 1/step]		
	Includes time while machine is performing background printing. Does not include time machine remains powered off with the power switches.				
006	SC	CTL*	[0 to 99999999 / 0 / 1/step]		
	Total down time due to SC errors.				
007	PrtJam	CTL*	[0 to 99999999 / 0 / 1/step]		
	Total down time due to paper jams during printing.				
008	OrgJam	CTL*	[0 to 99999999 / 0 / 1/step]		
	Total down time due to original jams during scanning.				
009	Supply PM Unit End	CTL*	[0 to 99999999 / 0 / 1/step]		
	Total down time due to toner end.				

8951	[AddBook Register]				
	These SP's count the number of events when the machine manages data registration.				
001	User Code /User ID	CTL*	[0 to 99999 / 0 / 1/step]		
	User code registrations.		-		
002	Mail Address	CTL*	[0 to 99999 / 0 / 1/step]		
	Mail address registrations.				
003	Fax Destination	CTL*	[0 to 99999 / 0 / 1/step]		
	Fax destination registrations.				
004	Group	CTL*	[0 to 99999 / 0 / 1/step]		
	Group destination registrations.				
005	Transfer Request	CTL*	[0 to 99999 / 0 / 1/step]		
	Fax relay destination registrations for relay TX.				
006	F-Code	CTL*	[0 to 99999 / 0 / 1/step]		
	F-Code box registrations.				
007	Copy Program	CTL*	[0 to 255 / 0 / 1/step]		
	Copy application registrations with the Program (job settings) feature.				
008	Fax Program	CTL*	[0 to 255 / 0 / 1/step]		
	Fax application registrations with the Program (job settings) feature.				
009	Printer Program	CTL*	[0 to 255 / 0 / 1/step]		
	Printer application registrations with the Program (job settings) feature				
010	Scanner Program	CTL*	[0 to 255 / 0 / 1/step]		
	Scanner application registrations with the Program (job settings) feature.				
	1				

8961	[Electricity Status]				
	-				

001	Ctrl Standby Time	CTL*	[0 to 99999999 / 0 / 1/step]
002	STR Time	CTL*	-
003	Main Power Off Time	CTL*	
004	Reading and Printing Time	CTL*	
005	Printing Time	CTL*	[0 to 99999999 / 0 / 1/step]
006	Reading Time	CTL*	
007	Eng Waiting Time	CTL*	
008	Low Pawer State Time	CTL*	
009	Silent State Time	CTL*	
010	Heater Off State Time	CTL*	[0 to 99999999 / 0 / 1/step]
011	LCD on Time	CTL*	

8971	[Unit Control]			
	-			
001	Engine Off Recovery Count	CTL*	[0 to 99999999 / 0 / 1/step]	
002	Power Off Count	CTL*		
003	Force Power Off Count	CTL*		

8999	[Admin. Counter List]				
	Displays each total print out and total coverage.				
001	Total CTL*		[0 to 99999999 / 0 / 1/step]		
003	Сору: ВW	CTL*	[0 to 99999999 / 0 / 1/step]		
007	Printer: BW	CTL*	[0 to 99999999 / 0 / 1/step]		
023	Copy: BW(%)	CTL*	[0 to 2147483647 / 0 / 1%/step]		
027	Printer: BW(%)	CTL*	[0 to 2147483647 / 0 / 1%/step]		
101	Transmission Total: Color	CTL*	[0 to 99999999 / 0 / 1/step]		
102	Transmission Total: BW	CTL*	[0 to 99999999 / 0 / 1/step]		

104	Scanner Transmission: Color	CTL*	[0 to 99999999 / 0 / 1/step]
105	Scanner Transmission: BW	CTL*	[0 to 99999999 / 0 / 1/step]

Printer SP Tables

Bit Switch

1001	[Bit Switch]			
001	Bit Swit	Bit Switch 1 Settings		1
	bit 0	DFU	-	-
	bit 1	Responding with the hostname as the sysName	Model name (PnP name)	Hostname
		This BitSwitch can change the value of the sy	vsName.	
	bit 2	DFU	-	-
	bit 3	No I/O Timeout	Disabled	Enabled
		Enables/Disables MFP I/O Timeouts. If ena setting will have no affect. I/O Timeouts will	bled, the MFP I never occur.	/O Timeout
	bit 4	SD Card Save Mode	Disabled	Enabled
		If this bit switch is enabled, print jobs will be not output to paper.	saved to the G	W SD slot and
	bit 5	[PS and PDF] Paper size error margin	±5pt	±10pt
		When a PS job is printed by using a custom paper size, the job might not printed because of a paper size mismatch caused by a calculation error. default, the error margin for matching to a paper size is ±5 points. enabling this BitSwitch, the error margin for matching to a paper size of be extended to ±10 points.		
	bit 6	DFU	-	-
	bit 7	[RPCS,PCL]: Printable area frame border	Disabled	Enabled
Prints all RPCS and PCL jobs with a border around the prin		round the printo	able area.	

1001	[Bit Switch]				
002	Bit Switch 2 Settings	0	1		

bit 0	DFU	-	-
bit 1	DFU	-	-
DFU	DFU	-	-
bit 3	DFU	-	-
bit 4	DFU	-	-
bit 5	DFU	-	-
bit 6	DFU	-	-
bit 7	DFU	-	-

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1001	[Bit Switch]			
003	Bit Switch 3 Settings		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	[Bit Switch]			
------	--------------			
004	Bit Switch	4 Settings	0	1
-----	------------	------------	---	---
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	[Bit Switch]				
005	Bit Switch	5 Settings	0	1	
		Show "Collate Type", "Staple Type" and "Punch Type" buttons on the operation panel.	Disabled	Enabled	
	bit 0	If enabled, users will be able to configure and Punch Type from the operation panel. depend on the device and configured opti After enabling the function, the settings wil "User Tools > Printer Features > System"	a Collate Type, The available t ons. I appear under:	e, Staple Type, • types will •r:	
	bit 1	DFU	-	-	
	bit 2	Prevent SDK applications from altering the contents of a job.	Disabled	Enabled	
		If this switch is enabled, SDK applications will not be able to alter pr data. This is achieved by preventing SDK applications from accessin module called the "GPS Filter". Note: The main purpose of this switch is for troubleshooting the effect SDK applications on data.		to alter print m accessing a g the effects of	

bit 3	[PS] PS Criteria	Pattern3	Pattern 1	
	Change the number of PS criterion used by the PS interpreter to determine whether a job is PS data or not.			
	Pattern3: includes most PS commands.			
	Pattern1: A small number of PS tags and h	eaders		
bit 4	Increase max number of stored jobs.	Disabled (100)	Enabled (750)	
	Changes the maximum number of jobs th The default (disabled) is 100. If this is end 750.	nat can be stor bled, the max.	ed on the HDD. will be raised to	
bit 5	DFU	-	-	
bit 6	Method for determining the image rotation for the edge to bind on.	Disabled	Enabled	
	If enabled, the image rotation will be perfors specifications of older models for the bindit orientation jobs.	ormed as they v ing of pages of	vere in the mixed	
	The old models are below:			
	- PCL: Pre-04A models			
	- PS/PDF/RPCS:Pre-05S models			
bit 7	DFU	-	-	

1001

[Bit Switch]

006	Bit Switch	6 Settings	0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	[Bit Switc	[Bit Switch]			
007	Bit Switch	7 Settings	0	1	
	bit 0	DFU	-	-	
	bit 1	DFU	-	-	
	bit 2	DFU	-	-	
	bit 3	DFU	-	-	
	bit 4	DFU	-	-	
	bit 5	DFU	-	-	
	bit 6	DFU	-	-	
	bit 7	DFU	_	-	

1001	[Bit Switc	[Bit Switch]			
008	Bit Switch	Bit Switch 8 Settings 0 1			
	bit 0	DFU	-	-	
	bit 1	DFU	-	-	
	bit 2	DFU	-	-	
	bit 3	DFU	-	-	

bit 4	DFU	-	-
bit 5	DFU	-	-
bit 6	PCL, RPCS, PS: Forced BW print	Enabled	Disabled
	Switches whether to ignore PDL color com	mand.	
bit 7	DFU	-	-

1001	[Bit Switcl	[Bit Switch]			
009	Bit Switch	Bit Switch 9 Settings 0 1			
	bit 0	PDL Auto Detection timeout of jobs submitted via USB or Parallel Port (IEEE 1284).	Disabled (Immediatel y)	Enabled (10 seconds)	
		To be used if PDL auto-detection fails. A failure of PDL auto-detection doesn't necessarily mean that the job can't be printed. This bit switch tells the device whether to time-out immediately (default) upon failure or to wait 10 seconds.			
	bit 1	Forced printing	Disabled	Enabled	
		If enabled, the image will be printed regardless of whether the specified roller is of the correct size paper or not. This is similar to "Form Feed" on a standard printer. The default is enabled.			
	bit 2	Job Cancel	Disabled (Not cancelled)	Enabled (Cancelled)	
		If this bit switch, all jobs will be cancelled after a jam occurs.			
Note: If this bitsw is enabled, printing under the following condi might result in problems:			conditions		
		- Job submission via USB or Parallel Port			
		- Spool printing (WIM >Configuration > D	evice Settings >	System)	
	bit 3	DFU	-	-	

	bit 4	Timing of the PJL Status ReadBack (JOB END) when printing multiple collated copies.	Disable	Enable
		This switch determines the timing of the PJL multiple collated copies are being printed.	USTATUS JOB	END sent when
		O (default): JOB END is sent by the device has completed printing. This causes the pa after the first copy and then again at the er	to the client afte ge counter to b nd of the job.	er the first copy e incremented
		1: JOB END is sent by the device to the cli- finished printing. This causes the page cou end of each job.	ent after the last nter to be incre	t copy has mented at the
	bit 5	Display UTF-8 text in the operation panel	Enabled	Disabled
		Enabled (=0):		
		Text composed of UTF-8 characters can be displayed in the operation panel.		
		Disabled (=1):		
		UTF-8 characters cannot be displayed in the operation panel.		
	For example, job names are sometimes stored in the MIB usi encoded characters. When these are displayed on the opera they will be garbled unless this switch is enabled (=0).			using UTF-8 peration panel,
	bit 6	Disable super option	Enabled	Disabled
		Switches super option disable on / off. It this is On, multiple jobs of grouped at LPR port. PJL settings are enabled even jobs that are specific queue names are sent.		
	bit 7	Enable/Disable Print from USB/SD's Preview function	Enabled	Disabled
		Determines whether Print from USB/SD will have the Preview function.		
Enabled (=0): Print from USB/SD			e the Preview fu	nction.
		Disabled (=1): Print from USB/SD will not	have the Previe	w function.

1001	[Bit Switch]
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010	Bit Switch A Settings		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	Store and Skip Errored Job locks the queue	Queue is not locked after SSEJ	Queue locked after SSEJ
		If this is 1, then after a job is stored using S (SSEJ), new jobs cannot be added to the c been completely printed.	tore and Skip E Jueue until the s	rrored Job tored job has
	bit 6	Allow use of Store and Skip Errored Job if connected to an external charge device.	Does not allow SSEJ with ECD	Allows SSEJ with ECD
		If this is 0, Store and Skip Errored Job (SSEJ) will be automatically disabled if an external charge device is connected. Note: We do not officially support enabling this bitsw (1). Use it at your own risk.		
	bit 7	Job cancels remaining pages when the paid-for pages have been printed on an external charge device	Job does not cancel	Job cancels
		When setting 1 is enabled, after printing the paid-for pages on an external charge device, the job that includes any remaining pages will be canceled.		
		This setting will prevent the next user from p from the previous user's print job.	printing the unne	ecessary pages

1001	[Bit Switch]			
011	Bit Switch B Settings	0	1	

bit 0	Show Menu List	Hide Menu List	Show Menu List
	If this is 0, the Menu List button will be rem	oved from Print	er Features.
bit 1	DFU	-	-
bit 2	DFU	-	-
bit 3	DFU	-	-
bit 4	Add "Apply Auto Paper Select" is the condition that decides if the device's paper size or paper type should be overwritten.	Disabled	Enabled
	If this BitSwitch is set to "1" (enabled), the "Apply Auto Paper Select" setting will decide if the paper size or paper type that is specified in the device settings should be overwritten by the job's commands when "Tray Setting Priority" is set to "Driver/Command" or "Any Type".		
	- Apply Auto Paper Select = OFF: Overwritten (priority is given to the job's commands)		
	- Apply Auto Paper Select = ON: Not overwritten (priority is given to the device settings)		
bit 5	DFU	-	-
bit 6	DFU	_	-
bit 7	DFU	_	-

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1001

[Bit Switch]

323

012	Bit Switch	C Settings	0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

SP1-XXX

1003	[Clear Setting]			
1-003-001	Initialize Printer System	*CTL	[- / - / -]	
			[Execute]	
	Initializes settings in the "System" menu of the user mode.			
1-003-003	Delete Program	*CTL	[-/-/-]	
			[Execute]	

1004	[Print Summary]			
	Prints the service summary sheet (a summary of all the controller settings).			
1-004-001	Print Printer Summary	CTL	[Execute]	
1-004-002	Print Printer Summary2	CTL	[Execute]	

1005	[Display Version]		
	Displays the version of the contro	ller firmware.	
1-005-001	Indicate Farm	CTL	[- / - / - / step]
1-005-002	-	CTL	[- / - / - / step]

1006	[Sample/Locked Print]		
1-006-001	0:Link with Doc. Srv 1:Enable	*CTL	[0 or 1 / 0 / 1]
	Enables and disables the docume is enabled or disabled in accorda select "1," the document server is SP5-967.	nt server. When you Ince with Copy Serv enabled regardless	u select "0," the document server vice Mode SP5-967. When you of Copy Service Mode

1110	[Media Print Device Setting]			
	Selects the setting for the media print device.			
1-110-002	0: Disable 1: Enable	*CTL	[0 or 1 / 1 / 1]	
	Sets Enabled/disabled front I/F(USB/SD) device at media print function.			
	It is required restart after the setting. Initial value is as follows by front I/F(SD/USB).			
	I/F(SD/USB) initial value			
	Option loading machine 0: Disabled			
	Standard loading machine 1: E	nabled		
1-110-003	-	CTL*	[0 to 1 / 1 / 1 / step]	
			0: Disable 1: Enable	
	Sets Enabled/disabled the media print function.			

1111	[All Job Delete Mode]		
	-		
1-111-001	0: Excluding New Job	CTL*	[0 to 1 / 1 / 1 / step]
	1: Including New Job		0: Excluding New Job
			1: Including New Job
			Selects whether to include an image processing job in jobs subject to full cancellation from the SCS job list.

1400	[RPGL Setting]
	These SP codes set up the print parameters for RPGL.

1-400-001	Set Thin Line Width	CTL*	[0 to 99 / 5 / 1 / step]
1-400-002	Correct Line Width	CTL*	[0 to 3 / 2 / 1 / step] 0:Mode 1 1:Mode 2 2:Mode 3 3:Mode 4
1-400-004	Character Density	CTL*	[15 to 30 / 15 / 1 / step]
1-400-005	Photo Density	CTL*	[15 to 30 / 15 / 1 / step]
1-400-006	Default Blank Space	CTL*	[0 to 1 / 1 / 1 / step] 0: Margin 1: No margin
1-400-007	Job Reset	CTL*	[0 to 1 / 0 / 1 / step] 0: Enable 1: Disable
1-400-008	Search Not Set Tray	CTL*	[0 to 1 / 0 / 1 / step] 0: Include tray not specified in search 1: Do not included unspecified tray in search
1-400-009	Character Total Amount	CTL*	[99 to 400 / 99 / 1 / step]
1-400-010	Photo Total Amount	CTL*	[99 to 400 / 99 / 1 / step]
1-400-011	Basis of Scale	CTL*	[0 or 1 / 1 / 1 / step] 0: Allow maximum size paper 1: Submenu setting
1-400-012	600dpi Calculation Round (EXP)	CTL*	[0 to 1 / 0 / 1 / step] 0: Round off 1: Round up on 5

7-911-***	-	CTL*	Returns the version string.
			RPCS:150
			PS:151
			RPDL:152
			R98:153
			R16:154
			RPGL:155
			R55:156
			RTIFF:157
			PCL:158
			PCLXL:159
			MSIS:160
			MSIS(OPT) :161
			PDF:162
			BMLinkS:163
			PICTBRIDGE: 164
			PJL:165
			IPDS:166
			MediaPrint:JPEG:167
			MediaPrint:TIFF:168
			XPS:169
			FONT:180
			FONT1:181
			FONT2:182
			FONT3:183
			FONT4:184
			FONT5:185

Scanner SP Tables

SP1-XXX

1001	[Scan NV Version]			
	Displays the scanner firmware version stored in NVRAM in a 9-digit format: Func			
	Name_Model Name_History No.			
1-001-005	-	CTL*	[- / - / - / step]	

1005	[Erase Margin (Remote Scan)]		
	Creates an erase margin for all edges of the scanned image.		
	If the machine has scanned the edge of the original, create a margin. This SP is activated only when the machine uses TWAIN scanning.		
1-005-001	Range from 0 to 5 mm	CTL*	[0 to 5 / 0 / 1 mm/ step]

1009	[Remote Scan Disable]			
	This SP switches the TWAIN scanner function on/off.			
	This is one of the scanner application functions.			
	0: Enable. TWAIN application can be used.			
1: Disable. TWAIN application cannot be used.			d.	
1-009-001	0: Enable	CTL* [0 to 1 / 0 / 1 / step]		
	1: Disable			

1010	[Non Display ClearLight PDF]			
	Display or Non display remote scan.			
1-010-001	0: Display 1: Nondisplay	CTL*	[0 to 1 / 0 / 1 / step] 0: Display, 1: Nondisplay	

1011	[Org Count Disp]				
	This SP codes switches the original count display on/off.				
	0: ON (count displays)				
	1: OFF (no display)				
1-011-001	0: ON 1: OFF	CTL*	[0 to 1 / 0 / 1 / step]		

1012	[User Info Release]				
	This SP determines whether user information is released at the end of every job.				
1-012-001	0: Off	Off CTL* [0 to 1 / 1 / 1 / step]			
	1: On		0: OFF. Do not release		
			1: ON. Release the following details:		
			 Destination (Email/Folder/CS) 		
			• Sender name		
			• Mail text		
			• Subject		
			• File name		

1013	[Scan to Media Device Setting]				
	Sets enable or disable multi-media function.				
	Default is different with operation panel type.				
	If media slot (USB/SD) mounted on the operation panel is standard, default is "1".				
	If media slot (USB/SD) mounted on the operation panel is optional, default is "0".				
1-013-002	0: OFF 1: ON CTL* [0 or 1 / 1 / 1 / step]				
			0: OFF		
			1: ON		

1014	[Scan to Folder Pass Input Set]			
	Sets enable or disable the password setting when make a Scan to Folder job.			
1-014-001	0: OFF 1: ON	CTL*	[0 to 1 / 0 / 1 / step] 0: OFF 1: ON	

SP2-XXX

2021	[Compression Level (Grayscale)]				
	Selects the compression ratio for grayscale processing mode (JPEG) for the five settings that can be selected at the operation panel.				
2-021-001	Comp1:5-95	CTL*	[5 to 95 / 20 / 1 / step]		
2-021-002	Comp2:5-95	CTL*	[5 to 95 / 40 / 1 / step]		
2-021-003	Comp3:5-95	CTL*	[5 to 95 / 65 / 1 / step]		
2-021-004	Comp4:5-95	CTL*	[5 to 95 / 80 / 1 / step]		
2-021-005	Comp5:5-95	CTL*	[5 to 95 / 95 / 1 / step]		

2026	[High Compression of Pdf]				
	Selects the compression ratio for the high compression PDF.				
	Incresing value (towards 95): Low compression				
	Decresing value (towards 5): High compression				
2-026-001	Comp1:5-95	CTL*	[5 to 95 / 15 / 1 / step]		
2-026-002	Comp2:5-95	CTL*	[5 to 95 / 25 / 1 / step]		
2-026-003	Comp3:5-95	CTL*	[5 to 95 / 40 / 1 / step]		
2-026-004	Comp4:5-95	CTL*	[5 to 95 / 70 / 1 / step]		
2-025-005	Comp5:5-95	CTL*	[5 to 95 / 90 / 1 / step]		

2030	[OCR PDF DetectSens]		
	Sets the white luminance value to determine white for the detection Lv. 5 when OCR PDF is set and white detection function is enabled.		
2-030-001	White Lumi Value: 0 - 255	CTL*	[0 to 255 / 250 / 1 / step]
2-030-002	White Pix Ratio: 0 - 100	CTL*	[0 to 100 / 80 / 1 / step]
2-030-003	White Tile Ratio: 0 -100	CTL*	[0 to 100 / 80 / 1 / step]

Input/Output Check Tables

Input Check Table

5803	[Input Check] Checks the status of the input sensors.		
5-803-001	Upper Roll Tray Open	ENG	[0 to 255 / 0 / 1/step]
5-803-002	Upper Cutter Cover Open	ENG	[0 to 255 / 0 / 1/step]
5-803-003	Upper Cutter HP Switch: Left	ENG	[0 to 255 / 0 / 1/step]
5-803-004	Upper Cutter HP Switch: Right	ENG	[0 to 255 / 0 / 1/step]
5-803-005	Upper Roll Tray Exit Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-006	Roll 1 Leading Edge Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-007	Roll 1 Roll End Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-008	Roll 1 Paper End Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-009	Roll 1 Pre-Feed Switch	ENG	[0 to 255 / 0 / 1/step]
5-803-010	Roll 1 Width Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-011	Roll 2 Leading Edge Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-012	Roll 2 Roll End Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-013	Roll 2 Paper End Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-014	Roll 2 Pre-Feed Switch	ENG	[0 to 255 / 0 / 1/step]
5-803-015	Roll 2 Width Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-070	Paper Set Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-071	Paper Registration Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-072	Paper Exit Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-073	Front Tray Full Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-074	Total counter SET	ENG	[0 to 255 / 0 / 1/step]

5-803-075	Waste Toner bottle Full Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-076	Corona Wire Cleaner Motor	ENG	[0 to 255 / 0 / 1/step]
5-803-080	Upper Unit Open Switch: Left	ENG	[0 to 255 / 0 / 1/step]
5-803-081	Upper Unit Open Sensor: Right	ENG	[0 to 255 / 0 / 1/step]
5-803-082	Exit Door Open Switch	ENG	[0 to 255 / 0 / 1/step]
5-803-083	Fusing Cover Open Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-084	Toner Hopper Cover Open Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-085	PSU Door Open Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-090	Main Motor	ENG	[0 to 255 / 0 / 1/step]
5-803-091	Development Motor	ENG	[0 to 255 / 0 / 1/step]
5-803-092	Registration Motor	ENG	[0 to 255 / 0 / 1/step]
5-803-093	Fusing Motor	ENG	[0 to 255 / 0 / 1/step]
5-803-094	LPH Cooling Fan Motor: Left	ENG	[0 to 255 / 0 / 1/step]
5-803-095	LPH Cooling Fan Motor: Right	ENG	[0 to 255 / 0 / 1/step]
5-803-096	Transport Fan Motor: Left	ENG	[0 to 255 / 0 / 1/step]
5-803-097	Transport Fan Motor: Right	ENG	[0 to 255 / 0 / 1/step]
5-803-100	Fusing High Temperature Latch	ENG	[0 to 255 / 0 / 1/step]
5-803-101	Zero Cross	ENG	[0 to 255 / 0 / 1/step]
5-803-102	Left Fusing Motor HP Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-103	Right Fusing Motor HP Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-110	Model Check	ENG	[0 to 255 / 0 / 1/step]
5-803-111	DIPSW1	ENG	[0 to 255 / 0 / 1/step]
5-803-112	Key card SET	ENG	[0 to 255 / 0 / 1/step]
5-803-113	Key counter SET	ENG	[0 to 255 / 0 / 1/step]
5-803-114	Folder Status	ENG	[0 to 255 / 0 / 1/step]
5-803-115	Folder Connection	ENG	[0 to 255 / 0 / 1/step]

5-803-116	Color Counter: KEY_IN	ENG	[0 to 255 / 0 / 1/step]
5-803-117	Color Counter: START	ENG	[0 to 255 / 0 / 1/step]
5-803-118	Color Counter: SET	ENG	[0 to 255 / 0 / 1/step]
5-803-150	Original Size Sensor: A	ENG	[0 to 255 / 0 / 1/step]
5-803-151	Original Size Sensor: B	ENG	[0 to 255 / 0 / 1/step]
5-803-152	Original Exit Sensor: Rear	ENG	[0 to 255 / 0 / 1/step]
5-803-153	Original Registration Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-154	Original Set Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-155	Original Feed Unit Open Sensor	ENG	[0 to 255 / 0 / 1/step]
5-803-157	Scan FAN L	ENG	[0 to 255 / 0 / 1/step]
5-803-158	Scan FAN R	ENG	[0 to 255 / 0 / 1/step]
5-803-159	Original Stop Key	ENG	[0 to 255 / 0 / 1/step]

6117	[Folder Input Check] Not used		
6-117-001	Fan Folder 1	ENG	[0 to 255 / 0 / 1/step]
6-117-002	Fan Folder 2	ENG	[0 to 255 / 0 / 1/step]
6-117-003	Fan Folder 3	ENG	[0 to 255 / 0 / 1/step]
6-117-004	Fan Folder 4	ENG	[0 to 255 / 0 / 1/step]
6-117-005	Transport Switching	ENG	[0 to 255 / 0 / 1/step]
6-117-006	Cross Folder	ENG	[0 to 255 / 0 / 1/step]
6-117-007	Invert/Rotatte	ENG	[0 to 255 / 0 / 1/step]
6-117-008	Shift Tray	ENG	[0 to 255 / 0 / 1/step]
6-117-009	Punch: Horiz	ENG	[0 to 255 / 0 / 1/step]
6-117-010	Punch: Vert	ENG	[0 to 255 / 0 / 1/step]
6-117-011	Door 1: Fan Folder	ENG	[0 to 255 / 0 / 1/step]
6-117-012	Door 2: Fan Folder	ENG	[0 to 255 / 0 / 1/step]

6-117-013	Door 1: Cross Folder	ENG	[0 to 255 / 0 / 1/step]
6-117-014	Door 2: Cross Folder	ENG	[0 to 255 / 0 / 1/step]
6-117-015	Stamp	ENG	[0 to 255 / 0 / 1/step]

Output Check Table

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5804	[Output Check]			
	Drives and check the motors, clutchs, and solenoids.			
	1: ON, 0: OFF			
5-804-001	Original Feed Motor	ENG	[On][Off]	
5-804-004	Scanner LampR	ENG	[On][Off]	
5-804-005	Scanner LampG	ENG	[On][Off]	
5-804-006	Scanner LampB	ENG	[On][Off]	
5-804-008	Scan FAN	ENG	[On][Off]	
5-804-011	Roll Feed Motor 1: Forward	ENG	[On][Off]	
5-804-012	Roll Feed Motor 1: Reverse	ENG	[On][Off]	
5-804-015	1 st Roll Feed Clutch	ENG	[On][Off]	
5-804-016	2nd Roll Feed Clutch	ENG	[On][Off]	
5-804-019	Cutter 1	ENG	[On][Off]	
5-804-031	Registration Motor	ENG	[On][Off]	
5-804-032	Main Motor	ENG	[On][Off]	
5-804-033	Fusing/Exit Motor	ENG	[On][Off]	
5-804-034	Registration Clutch	ENG	[On][Off]	
5-804-035	Junction Gate Solenoid	ENG	[On][Off]	
5-804-041	Charge Corona	ENG	[On][Off]	
5-804-042	Charge Grid: Image Area	ENG	[On][Off]	

5-804-043	Charge Grid: ID Sensor Pattern Area	ENG	[On][Off]
5-804-044	Charge Corona/Grid: Image Area	ENG	[On][Off]
5-804-045	Development Bias: Image Area	ENG	[On][Off]
5-804-046	Development Bias: ID Sensor Pattern Area	ENG	[On][Off]
5-804-049	Discharge Plate: Leading Edge	ENG	[On][Off]
5-804-050	Discharge Plate: Not Leading Edge	ENG	[On][Off]
5-804-051	Development Motor	ENG	[On][Off]
5-804-052	Toner Supply Clutch	ENG	[On][Off]
5-804-053	Quenching Lamp	ENG	[On][Off]
5-804-054	Pick-off Pawl Solenoid	ENG	[On][Off]
5-804-055	ID Sensor LED (PWM)	ENG	[On][Off]
5-804-058	LPH ON	ENG	[On][Off]
5-804-060	LPH Collong Fan Motor	ENG	[On][Off]
5-804-061	Right Fusing Pressure Motor: Home	ENG	[On][Off]
5-804-062	Right Fusing Pressure Motor: Release	ENG	[On][Off]
5-804-063	Left Fusing Pressure Motor: Home	ENG	[On][Off]
5-804-064	Left Fusing Pressure Motor: Release	ENG	[On][Off]
5-804-065	Transfer Fan Motor	ENG	[On][Off]
5-804-066	Charge Corona Wire Cleaner Motor	ENG	[On][Off]
5-804-067	Recycle Counter (Mechanical Counter)	ENG	[On][Off]
5-804-068	Dehumidfiers (Tray Heaters)	ENG	[On][Off]
5-804-070	Transfer Roller: Before Leading Edge	ENG	[On][Off]
5-804-071	Transfer Roller: Leading Edge	ENG	[On][Off]

5-804-072	Transfer Roller: Center	ENG	[On][Off]
5-804-073	Transfer Roller: Trailing Edge	ENG	[On][Off]
5-804-074	Transfer Roller: Cleaning: Positive	ENG	[On][Off]
5-804-075	Transfer Roller: Cleaning: Negative	ENG	[On][Off]

6118	[Folder Output Check] Not used		
6-118-001	Transport Motor: Fwd: Fan Folder	ENG	[On][Off]
6-118-002	Bypass Feed Clutch: Fan Folder	ENG	[On][Off]
6-118-003	Paper Entrance Clutch: Fan Folder	ENG	[On][Off]
6-118-004	Output Junction Gate SOL: Fan Folder	ENG	[On][Off]
6-118-005	Pre-Fold Motor: SE Fwd: Fan Folder	ENG	[On][Off]
6-118-006	Pre-Fold Motor: LE Fwd: Fan Folder	ENG	[On][Off]
6-118-007	Pre-Fold Clutch: SE: Fan Folder	ENG	[On][Off]
6-118-008	Pre-Fold Clutch: LE: Fan Folder	ENG	[On][Off]
6-118-009	Relay Clutch: Fan Folder	ENG	[On][Off]
6-118-010	Corner Fold Exit Clutch: Fan Folder	ENG	[On][Off]
6-118-011	Front Fold Plate: Fan Folder	ENG	[On][Off]
6-118-012	Rear Fold Plate: Fan Folder	ENG	[On][Off]
6-118-013	Fold Mtr: Fwd: Fan Folder	ENG	[On][Off]
6-118-014	Fold Mtr: Rev: Fan Folder	ENG	[On][Off]
6-118-015	Corner Fold Guide SOL: Fan Folder	ENG	[On][Off]
6-118-016	Front Fold Plate Motor: Fwd: Fan Folder	ENG	[On][Off]
6-118-017	Front Fold Plate Motor: Rev: Fan Folder	ENG	[On][Off]
6-118-018	Rear Fold Plate Motor: Fwd: Fan Folder	ENG	[On][Off]

6-118-019	Rear Fold Plate Motor: Rev: Fan Folder	ENG	[On][Off]
6-118-020	Feed 5 Clutch: Fan Folder	ENG	[On][Off]
6-118-021	Fan Fold Press Pos. Clutch: Fan Folder	ENG	[On][Off]
6-118-022	Corner Fold Guide Plate Mtr: Fan Folder	ENG	[On][Off]
6-118-031	Vert Transport Motor: Fwd: Cross Folder	ENG	[On][Off]
6-118-032	Vert Transport Motor: Rev: Cross Folder	ENG	[On][Off]
6-118-033	Jogger Mtr: Fwd: Cross Folder	ENG	[On][Off]
6-118-034	Jogger Mtr: HP Snsr: Cross Folder	ENG	[On][Off]
6-118-035	Punch Transport JG SOL: Cross Folder	ENG	[On][Off]
6-118-036	Horiz Fd Pres. Mtr HP Snsr: Cross Folder	ENG	[On][Off]
6-118-037	Horiz Fd Pres. Mtr Press Pos.: Cross	ENG	[On][Off]
6-118-038	Vert Fd Pressure SOL 1-3: Cross Folder	ENG	[On][Off]
6-118-039	Horiz Fd Mtr: Fwd: Cross Folder	ENG	[On][Off]
6-118-040	Horiz Fd Mtr: Rev: Cross Folder	ENG	[On][Off]
6-118-041	Vert Fd Pres. Idle SOL1: L: Cross Folder	ENG	[On][Off]
6-118-042	Vert Fd Pres. Idle SOL2: C: Cross Folder	ENG	[On][Off]
6-118-043	Vert Fd Pres. Idle SOL3: R: Cross Folder	ENG	[On][Off]
6-118-044	Fold Mtr: Fwd: Cross Folder	ENG	[On][Off]
6-118-045	Fold Mtr: Rev: Cross Folder	ENG	[On][Off]

6-118-046	Upper Fold Plate Mtr: Fwd: Cross Folder	ENG	[On][Off]
6-118-047	Upper Fold Plate Mtr: Rev: Cross Folder	ENG	[On][Off]
6-118-049	Lower Fold Plate Mtr: Fwd: Cross Folder	ENG	[On][Off]
6-118-050	Lower Fold Plate Mtr: Rev: Cross Folder	ENG	[On][Off]
6-118-051	Fold Plate Mtr HP Snsr: Cross Folder	ENG	[On][Off]
6-118-052	Inverter Mtr: Fwd: Cross Folder	ENG	[On][Off]
6-118-053	Inverter Mtr: Rev: Cross Folder	ENG	[On][Off]
6-118-054	Rotate/Transport Mtr: Fwd: Cross Folder	ENG	[On][Off]
6-118-055	Inverter Ent. JG SOL: Cross Folder	ENG	[On][Off]
6-118-057	Rotation Snsr SOL: Cross Folder	ENG	[On][Off]
6-118-058	Rotation Ent. Press SOL: Cross Folder	ENG	[On][Off]
6-118-059	Rotation Exit Press SOL: Cross Folder	ENG	[On][Off]
6-118-060	Rotation Right Press SOL: Cross Folder	ENG	[On][Off]
6-118-061	Rotation Left Press SOL: Cross Folder	ENG	[On][Off]
6-118-064	Tray Lift Mtr HP Snsr: Cross Folder	ENG	[On][Off]
6-118-065	Tray Upper Sensor Release SOL	ENG	[On][Off]
6-118-066	Punch Move Mtr: Fwd Horiz	ENG	[On][Off]
6-118-067	Punch Move Mtr: Rev Horiz	ENG	[On][Off]
6-118-068	Punch Waste Absorption Fan	ENG	[On][Off]
6-118-073	Punch Move Mtr: Fwd Vert	ENG	[On][Off]
6-118-074	Punch Move Mtr: Rev Vert	ENG	[On][Off]

6-118-075	Punch Drive Mtr: Vert	ENG	[On][Off]
6-118-076	Punch Drive Clutch	ENG	[On][Off]
6-118-081	Stamp Transport Mtr: Fwd: Cross Folder	ENG	[On][Off]
6-118-082	Stamp Trans Mtr: Rev: Cross Folder	ENG	[On][Off]
6-118-083	Stamp Trans Mtr: HP Snsr: Cross Folder	ENG	[On][Off]
6-118-084	Stamp Press Mtr: Fwd: Cross Folder	ENG	[On][Off]
6-118-085	Stamp Press Mtr: Rev: Cross Folder	ENG	[On][Off]
6-118-086	Stamp Press Mtr: HP Snsr: Cross Folder	ENG	[On][Off]

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