Model DI-C1.5 Machine Code: D104/D106

Field Service Manual

Important Safety Notices

Responsibilities of the Customer Engineer

Customer Engineer

Maintenance shall be done only by trained customer engineers who have completed service training for the machine and all optional devices designed for use with the machine.

Reference Material for Maintenance

- Maintenance shall be done using the special tools and procedures prescribed for maintenance of the
 machine described in the reference materials (service manuals, technical bulletins, operating
 instructions, and safety guidelines for customer engineers).
- In regard to other safety issues not described in this document, all customer engineers shall strictly obey procedures and recommendations described the "CE Safety Guide".
- Use only consumable supplies and replacement parts designed for use of the machine.

Before Installation, Maintenance

Shipping and Moving the Machine

ACAUTION

- 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 product. Before you move
 the product, arrange the power cord so it will not fall under the product.

Power

MARNING

- 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

ACAUTION

- 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.

Special Tools

ACAUTION

- Use only standard tools approved for machine maintenance.
- For special adjustments, use only the special tools and lubricants described in the service manual.
 Using tools incorrectly, or using tools that could damage parts, could damage the machine or cause injuries.

During Maintenance

General

CAUTION

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.

Safety Devices

MARNING

- Never remove any safety device unless it requires replacement. Always replace safety devices immediately.
- Never do any procedure that defeats the function of any safety device. Modification or removal of a
 safety device (fuse, switch, etc.) could lead to a fire and personal injury. Always test the operation of
 the machine to ensure that it is operating normally and safely after removal and replacement of any
 safety device.
- For replacements use only the correct fuses or circuit breakers rated for use with the machine. Using
 replacement devices not designed for use with the machine could lead to a fire and personal injuries.

Organic Cleaners

CAUTION

- During preventive maintenance, never use any organic cleaners (alcohol, etc.) other than those described in the service manual.
- Make sure the room is well ventilated before using any organic cleaner. Use organic solvents in small
 amounts to avoid breathing the fumes and becoming nauseous.
- Switch the machine off, unplug it, and allow it to cool before doing preventive maintenance. To avoid fire or explosion, never use an organic cleaner near any part that generates heat.
- Wash your hands thoroughly after cleaning parts with an organic cleaner to contamination of food, drinks, etc. which could cause illness.
- Clean the floor completely after accidental spillage of silicone oil or other materials to prevent slippery surfaces that could cause accidents leading to hand or leg injuries. Use "My Ace" Silicone Oil Remover (or dry rags) to soak up spills. For more details, please refer to Technical Bulletin "Silicone Oil Removal" (A024-50).

Lithium Batteries

⚠WARNING

- Always replace a lithium battery on a PCB with the same type of battery prescribed for use on that board. Replacing a lithium battery with any type other than the one prescribed for use on the board could lead to an explosion or damage to the PCB.
- Never discard used batteries by mixing them with other trash. Remove them from the work site and
 dispose of them in accordance with local laws and regulations regarding the disposal of such items.

Ozone Filters

CAUTION

- Always replace ozone filters as soon as their service life expires (as described in the service manual).
- An excessive amount of ozone can build up around machines that use ozone filters if they are not replaced at the prescribed time. Excessive ozone could cause personnel working around the machine to feel unwell.

Power Plug and Power Cord

⚠ WARNING

- Before serving 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



• 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.

ACAUTION

- 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 selenium 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

CAUTION

• 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

MARNING

- 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.

CAUTION

- 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

MARNING

- 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 this 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 plug should be near the machine and easily accessible.
- 3. Note that some components of the machine and the paper tray unit are supplied with electrical voltage even if the main power switch is turned off.
- 4. 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 as the machine starts making copies as soon as the warm-up period is completed.
- 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 prevent a 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.

Safety and Ecological Notes for Disposal

1. Do not incinerate toner bottles or used toner. Toner dust may ignite suddenly when exposed to an open flame.

- 2. Dispose of used toner, developer, 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.

CAUTION

- The danger of explosion exists if a battery of this type is incorrectly replaced.
- Replace only with the same or an equivalent type recommended by the manufacturer. Discard used batteries in accordance with the manufacturer's instructions.

Laser Safety

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

WARNING

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

MARNING

- WARNING: Turn off the main switch before attempting any of the procedures in the Laser Optics Housing Unit section. Laser beams can seriously damage your eyes.
- CAUTION MARKING:

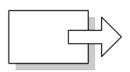


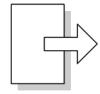
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Symbols, Abbreviations and Trademarks

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

10	See or Refer to
ℴ	Clip ring
P	Screw
	Connector
Sign and the sign	Clamp
©	E-ring
SEF	Short Edge Feed
LEF	Long Edge Feed





Short Edge Feed (SEF)

Long Edge Feed (LEF)

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1. Product Information

Specifications

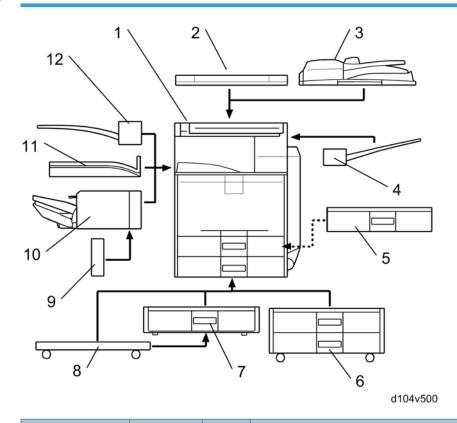
See "Appendices" for the following information:

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

1

Machine Configuration

Machine D104/D106



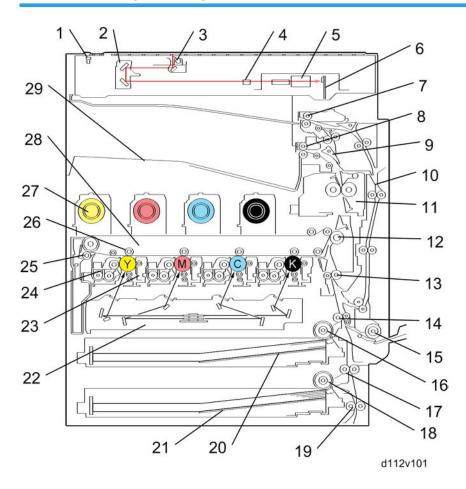
İtem	Machine Code	Call out	Remarks	
Mainframe	D104/ D106	[1]	D104: C1.5a, D106: C1.5c	
Platen cover	G329	[2]	One from the two;	
ARDF	D366	[3]	[3] is standard.	
Side tray	D427	[4]	-	
1-bin tray	D426	[12]		
Shift tray	D428	[11]	One of the following 4 choices: [10] only, [11] only, [12] only, or [11]+[12]	
Internal finisher	D429	[10]	,	

Item	Machine code	Remark	
USB2.0/SD Slot Type G	D556	-	
Card Reader Bracket	D547	-	
Fax Option Type C2551	D555	-	
Memory Unit Type B	G578	SAF memory: Requires the Fax Option.	
Hand Set	B433	For NA model only: Requires the Fax Option.	
Gigabit Ethernet Type B	D377-21	-	
IEEE 1284	B679		
Wireless LAN (IEEE 802.11a/g)	D377-01, 02		
Wireless LAN (IEEE 802.11g)	D377-19	You can only install one of these at a time.	
Bluetooth	B826		
File Format Converter	D377-04		

Optional Counter Interface Unit Type A	B870	-
Key Counter Bracket	A674	-
Postscript3 Unit Type C2551	D556-4, -5, -6	
IPDS Unit Type C2551	D556-12, -13, -14	You can only install one of these in SD slot 1 at a time.
Camera Direct Print Card Type I	D546	
Browser Unit Type E	D430-05, 06, 07	In SD card slot 2

Overview

Mechanical Component Layout

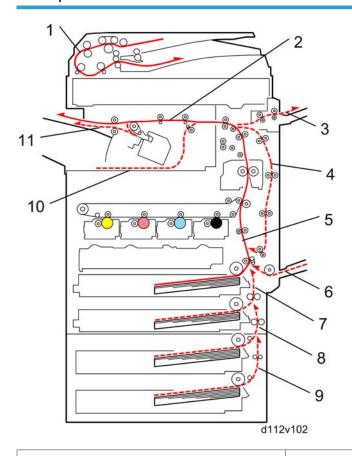


- 1. Scanner HP sensor
- 2. 2nd carriage
- 3. 1st carriage
- 4. Original length sensor
- 5. Lens
- 6. SBU
- 7. Inverter roller
- 8. Paper exit roller
- 9. Junction gate
- 10. Duplex unit
- 11. Fusing unit
- 12. PTR (Paper transfer roller) unit
- 13. Registration roller
- 14. Vertical transport roller 1
- 15. By-pass feed roller

- 16. Feed roller: T1
- 17. Vertical transport roller 2
- 18. Feed roller: T1
- 19. Vertical transport roller 3
- 20. Tray 2
- 21. Tray 1
- 22. Laser unit
- 23. Drum unit
- 24. Development unit
- 25. ITB cleaning unit
- 26. ITB roller
- 27. Toner bottle
- 28. ITB (Image Transfer Belt) unit
- 29. Inner Tray

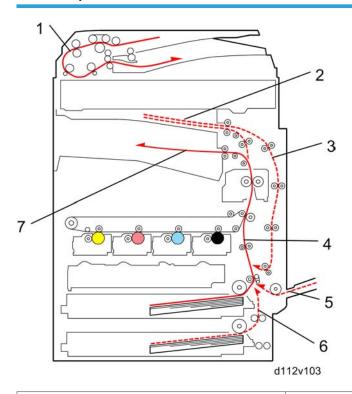
Paper Path

With options



- 1. DF path
- 2. Exit path: Straight feed out
- 3. Exit path: Side tray
- 4. Duplex path
- 5. Vertical transport path: Tray 1

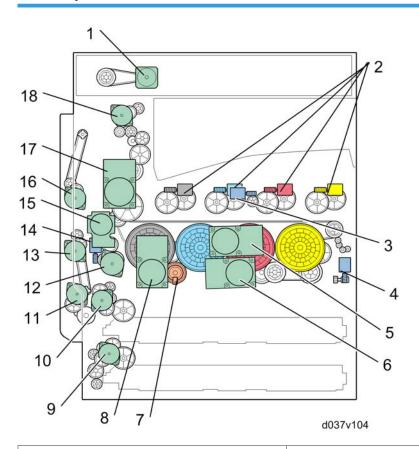
- 6. By-pass tray path
- 7. Vertical transport path: Tray 2
- 8. Vertical transport path: Tray 3 (option)
- 9. Vertical transport path: Tray 4 (option)
- 10. Inverter path (option)
- 11. Exit path: Staple/Shift



- 1. DF path
- 2. Inverter path
- 3. Duplex path
- 4. Vertical transport path: T1

- 5. By-pass tray path
- 6. Vertical transport path: Tray 2
- 7. Exit path

Drive Layout



- 1. Scanner motor
- 2. Toner supply motors
- 3. ITB contact motor
- 4. Used toner collection motor
- 5. Drum motor: CMY
- 6. Development motor: CMY
- 7. Development clutch: K
- 8. Drum/Development motor: K
- 9. Paper feed motor: T2

- 10. Paper feed motor: T1
- 11. By-pass motor
- 12. Registration motor
- 13. Duplex exit motor
- 14. PTR contact motor
- 15. ITB unit motor
- 16. Duplex entrance motor
- 17. Fusing/Paper exit motor
- 18. Inverter motor

Guidance for Those Who are Familiar with Predecessor Products

Machine D104/D106 is a successor model to Machine D038/D041. If you have experience with the predecessor products, the following information will be of help when you read this manual.

Different Points from Predecessor Products

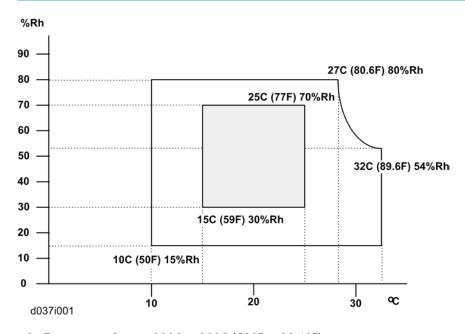
	D104/D106	D038/D041
Security Card	Standard	Optional
VM Card	Standard	Optional
Safety shutdown function	Available	Not available

1

2. Installation

Installation Requirements

Environment



- 1. Temperature Range: 10°C to 32°C (50°F to 89.6°F)
- 2. Humidity Range: 15% to 80% RH
- 3. Ambient Illumination: Less than 1500 lux (do not expose to direct sunlight)
- 4. Ventilation: 3 times/hr/person or more
- 5. Do not let the machine get exposed to the following:
 - 1) Cool air from an air conditioner
 - 2) Heat from a heater
- 6. Do not install the machine in areas that are exposed to corrosive gas.
- 7. Install the machine at locations lower than 2,000 m (6,560 ft.) above sea level.
- 8. Install the machine on a strong, level base. (Inclination on any side must be no more than 5 mm.)
- 9. Do not install the machine in areas that get strong vibrations.

• Do not leave the toner bottle in a place directly exposed to sunlight.

• The toner bottle must be kept at a temperature of 35°C (95°F) or less. Be careful not to leave the toner bottle in a hot place when transporting or storing it.

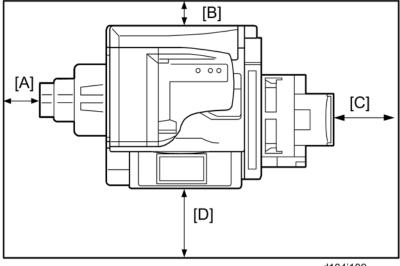
Machine Level

Front to back: Within 5 mm (0.2") Right to left: Within 5 mm (0.2")

Machine Space Requirements

ACAUTION

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



d104i109

- A: Over 100 mm (3.9")
- B: Over 100 mm (3.9")
- C: Over 315 mm (12.4")
- D: Over 400 mm (15.7")

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

9

Power Requirements

ACAUTION

- Insert the plug firmly in the outlet.
- Do not use an outlet extension plug or cord.
- Ground the machine.
- 1. Input voltage level:
 - 120 V to 127 V, 60 Hz: More than 12 A
 - 220 V to 240 V, 50 Hz/60 Hz: More than 10 A
- 2. Permissible voltage fluctuation: ±10 %
- 3. Do not put things on the power cord.

Optional Unit Combinations

Machine Options

No.	Options	Remarks	
1	2-tray paper feed unit		
2	1-tray paper feed unit	One from No.1 or No.2 (No. 2 requires No. 3)	
3	Caster table		
4	Envelop Feeder	This option can be installed only in the tray 1 of the mainframe.	
5	Platen cover	One from No.5 or No.6	
6	ARDF (Standard)		
7	1-bin tray unit	If No 10 is installed, then No 7 and/ or No 8 cannot be installed.	
8	Shift tray		
9	Side Tray		
10	Internal finisher		
11	*Punch kit (4 types)	No. 10 required; One of the types	
12	Fax unit	-	
13	Memory Unit (32M)*	Fax unit required	
14	USB2.0/SD Slot Type G	-	
15	Card Reader Bracket	One from No. 15 or No. 16	
16	ADF Handle Type B	One from No. 15 or No. 16	
17	Optional Counter Interface Unit	-	
18	Key Counter Bracket	-	

^{*:} Child options (Child options require a parent option.)

Controller Options

No.	Options	Remarks		
1	IEEE 802.11a/g			
2	IEEE 1284			
3	Bluetooth	One from six items (I/F Slot)		
4	File Format Converter			
5	Gigabit Ethernet	-		
6	PostScript 3	One of these (SD card slot 1)		
7	PictBridge			
8	Browser Unit	SD card slot 2 (during installation only)		

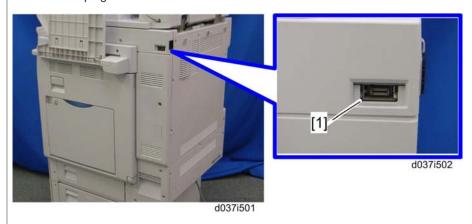
Copier Installation

Power Sockets for Peripherals

ACAUTION

Rating voltage for peripherals.

Make sure to plug the cables into the correct sockets.



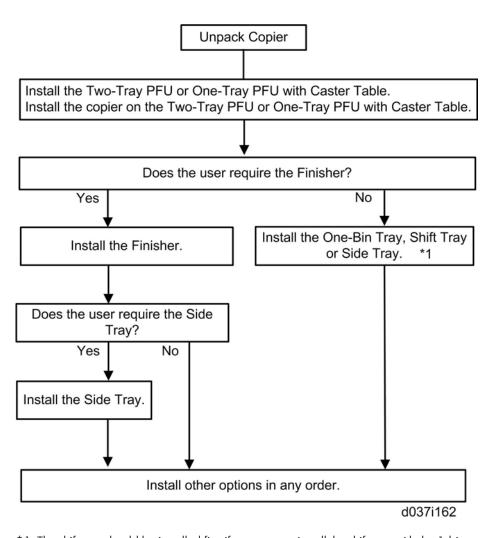
[1] ARDF: Rating voltage output connector for accessory Max. DC24V



[2] Finisher: Rating voltage output connector for accessory Max. DC24V

Installation Flow Chart

This flow chart shows the best procedure for installation.



* 1: The shift tray should be installed first if you want to install the shift tray with the 1-bin tray at the same time.

Accessory Check

Check the quantity and condition of these accessories.

No.	Description	Q'ty	Destination
1.	Stamp	1	-17, -27
2.	EU Safety Sheet	1	0.7
3.	WEEE	1	-27

No.	Description	Q'ty	Destination
4.	Certification	1	17, -19, -21,
5.	Warranty Sheet (Chinese)	1	-27, -28, -29
6.	Operating Instruction – About this machine	1	-1 <i>7</i> , -29, -21,
7.	Operating Instruction – Troubleshooting	1	-19
8.	Operating Instruction – Quick Reference Copy Guide	1	-27, -29, -21, -19
9.	Operating Instruction – Quick Reference Printer Guide	1	-1 <i>7</i> , -27, -29,
10.	Operating Instruction – Quick Reference Scanner Guide	1	-21, -19
11.	Operating Instruction – Manual for This Machine	1	27
12.	Operating Instruction – Safety Information	1	-27
13.	CD-ROM Instruction – About this machine	1	
14.	CD-ROM Instruction – Troubleshooting	1	
15.	CD-ROM Instruction –Copy/Document Server Reference	1	
16.	CD-ROM Instruction –Facsimile Reference		-17, -27, -29, -21, -19
17.	CD-ROM Instruction –Printer Reference		
18.	CD-ROM Instruction –Scanner Reference		
19.	CD-ROM Instruction – Network and System Settings Reference		
20.	CD-ROM Instruction – Security Reference	1	
21.	PostScript 3 Supplement		-27, -29, -21, -19
22.	Printer Driver CD-ROM	1	-29
23.	Scanner Driver & Utility CD-ROM	1	
24.	Clear Cover		-17, -27, -29
25.	SD Card (Java VM)	1	
26.	Inverter Tray	1	-17, -27, -29, -21, -19

No.	Description	Q'ty	Destination
27.	Handle Cover	1	-17, -27, -29, -21, -19
28.	Decal - Paper Size	1	-17, -27, -29, -21, -19
29.	Sheet: Data: Display: Plain	1	-27, -29, -21, -19

Installation Procedure

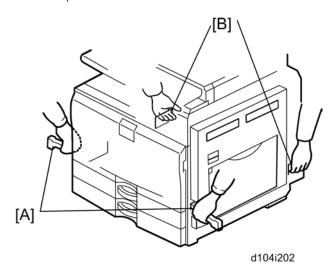
ACAUTION

• Remove the tapes from the development units before you turn the main switch on. The development units can be severely damaged if you do not remove the tapes.

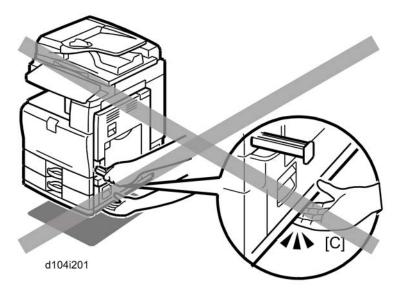
Put the machine on the paper tray unit first if you install an optional paper tray unit at the same time. Then install the machine and other options.



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



• Hold the handles [A] and grips [B] when lifting or moving the machine.

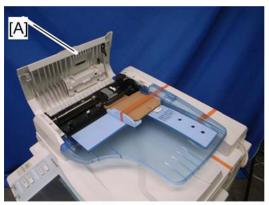


• Do not hold the right bottom frame [C] of the machine when lifting or moving the machine. If you do so, the right bottom frame [C] of the machine may be bent.

Tapes and Retainers



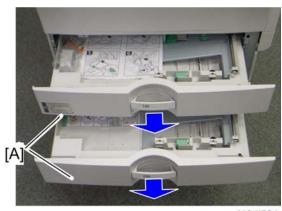
1. Remove all the tapes and retainers on the machine.





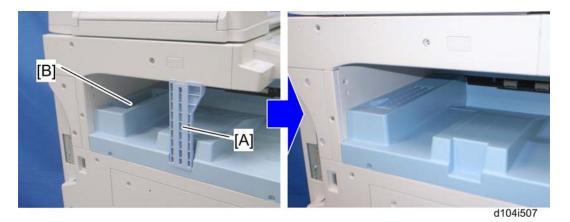
d104i530

- 2. Open the DF left cover [A], and then remove all the tapes and retainer on the ADF if the ADF has been installed.
- 3. Open the ADF unit, and then remove all the tapes and plastic package.
 - Keep the SD card for the Java VM and the decal sheet for the tray number and paper size. These items will be used in the later step.



d104i531

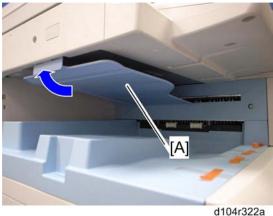
4. Pull out the tray 1 and 2 [A], and then remove all the tapes and retainers in the tray 1 and 2.



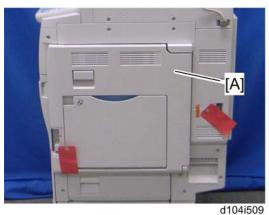
- 5. Remove the scanner unit stay [A].
- 6. Keep the scanner unit stay in the cutout [B] in the inner tray.

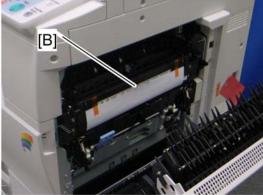


• For the EU models, the scanner unit stay cannot be inserted in the cutout on the inner tray. You must bring this stay back to your depot.



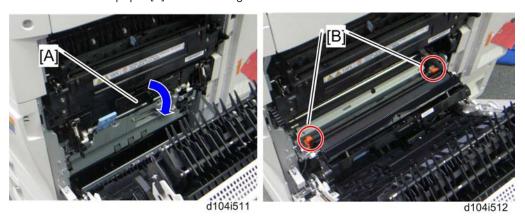
7. Install the inverter tray [A] (hooks).





d104i510

- 8. Open the duplex unit [A].
- 9. Remove the sheet of paper [B] from the fusing unit.



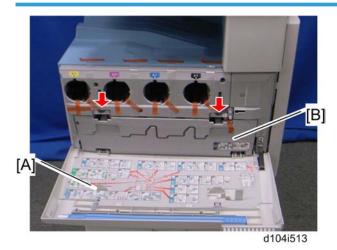
- 10. Open the paper transfer unit [A].
- 11. Remove the front and rear stoppers [B] with a red tag.
- 12. Close the duplex unit.



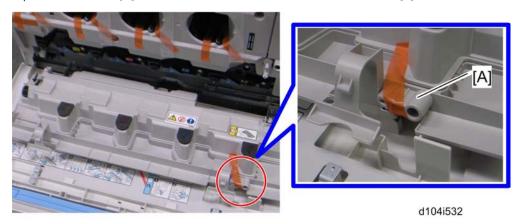
d037i518

13. Attach the handle cover [A] to the front side of the duplex unit.

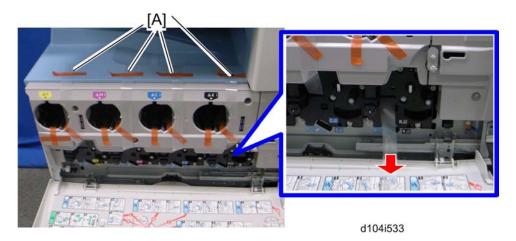
Developer and Toner Bottles



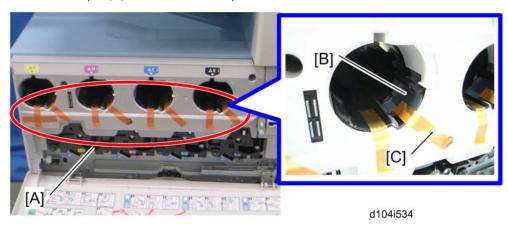
1. Open the front door [A], and then remove the PCDU toner collection bottle [B].



- 2. Remove the ITB lock lever [A] from the PCDU toner collection bottle.
 - Keep this lever for the later step.



3. Remove four tapes [A] from the four development units.



4. Remove the all tapes [A] from the toner hopper units.



- The toner hopper cover [B] can be removed with tape [C].
- Make sure that the all toner hopper covers are removed, when removing all tapes.





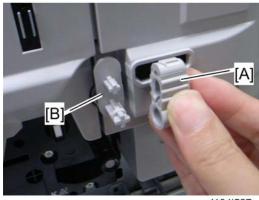
d104i516

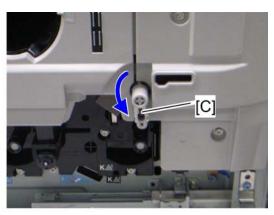
d104i517

5. Check if the toner hopper shutter [A] is fully closed.



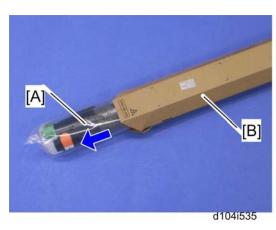
• If the toner hopper shutter is not fully closed and the inlet [B] of the toner hopper unit is visible, the toner bottle cannot be installed properly.

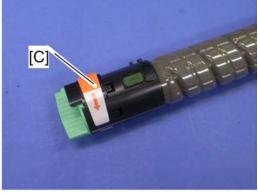




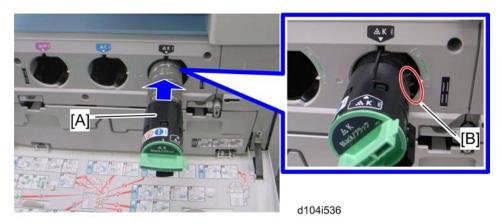
d104i527

- 6. Attach the ITB lock lever [A] to the ITB contact arm [B].
 - The arrow mark on the top of the ITB lock lever should be pointed to the machine.
 - This lock lever will not be removed once it is attached to the ITB contact arm.
- 7. Press the ITB lock lever [C] and turn it down as shown above.
- 8. Reinstall the PCDU toner collection bottle.

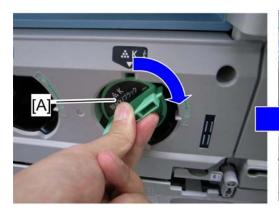




- 9. Take out the toner bottle package [A] from the toner bottle box [B].
- 10. Unpack the toner bottle package, and then remove the tape [C].
- 11. Shake each toner bottle five or six times.



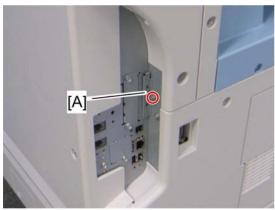
- 12. Slide the toner bottles [A] in toner bottle cartridges.
 - Each toner bottle has unique projections [B]. This prevents the toner bottle from being loaded in a wrong toner hopper unit.

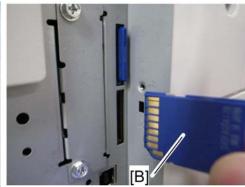




d104i537

13. Push the toner bottle, and then turn each one to the right (clockwise).





d104i124

- 14. Remove the SD card slot cover [A] (\nearrow x 1).
- 15. Insert the SD Card (Java VM) provided in the accessories into SD slot 2 [B].
- 16. Reattach the SD card slot cover (*x 1).
- 17. Switch the machine on.
- 18. On the operation panel, remove the bottom blank keytop and replace it with the keytop provided.
- 19. Attach the decal to the copier.
- 20. Close the front door.

Paper Trays

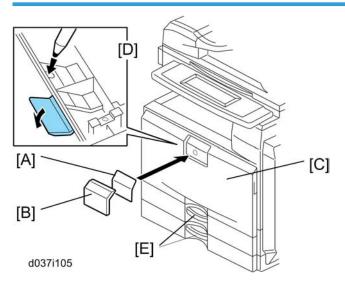


1. Pull each paper tray [A] out. Then adjust the side guides and end guide to match the paper size.



To move the side guides, first pull out the tray fully. Then push down the green lock at the rear
inside the tray.

Emblem and Decals



1. Attach the correct emblem [A] and the cover [B] to the front door [C] of the machine, if the emblem is not attached.



- If you want to change the emblem that has been already attached, remove the panel with an object (not a sharp object) as shown [D], and then install the correct emblem.
- 2. Attach the correct paper tray number and size decals to the paper trays [E].

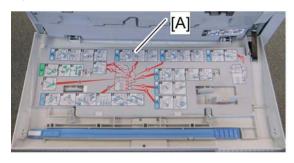


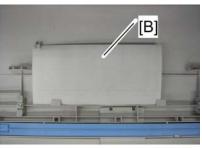
Paper tray number and size decals are also used for the optional paper tray or the optional LCT.
 Keep these decals for use with these optional units.

Initialize the Developer

- 1. Make sure that the platen or ARDF is closed and the main power is turned off.
- 2. Plug in the machine.
- 3. Turn the main power switch on. The machine automatically starts the initialization procedure. The Start button LED turns green when this procedure has finished.
- 4. Make copies of image samples (text, photo, and text/photo modes).
- 5. Do the Automatic Color Calibration process (ACC) for each mode (Copy mode, Printer 600 x 600 dpi, Printer 1800 x 600 dpi, and Printer 1200 x 1200 dpi) as follows:
 - 1) Print the ACC test pattern (User tools > Maintenance > ACC > Start).
 - 2) Put the printout on the exposure glass.
 - 3) Put 10 sheets of white paper on top of the test chart.

- 4) Close the ARDF or the platen cover.
- 5) Press "Start Scanning" on the LCD panel. The machine starts the ACC.
- 6. Check that the sample image has been copied normally.
- 7. Open the front cover.





d037i136

8. Remove the instruction guide sheet [A], and make sure the SMC report [B] is stored as shown above. Then replace the instruction guide sheet.

Settings Relevant to the Service Contract

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



 You must select one of the counter methods (developments/prints) in accordance with the contract (IPSP5045-001).

Counting method		
SP No.	Function	Default
SP5-045-001	Specifies if the counting method used in meter charge mode is based on developments or prints. NOTE: You can set this one time only. You cannot change the setting after you have set it for the first time.	"O": Developments
A3/11" x 17" do	uble counting	
SP No.	Function	Default
SP5-104-001	Specifies whether the counter is doubled for A3/11" x 17" paper. When you have to change this setting, contact your supervisor.	"No": Single counting

SP No.	Function	Default
SP5-812-001 through 004	5812-002 programs the service station fax number. The number is printed on the counter list when the meter charge mode is selected. This lets the user fax the counter data to the service station.	

Settings for @Remote Service



 Prepare and check the following check points before you visit the customer site. For details, ask the @Remote key person.

Check points before making @Remote settings

- 1. The setting of SP5816-201 in the mainframe must be "0".
- 2. Print the SMC with SP5990-002 and then check if a device ID2 (SP5811-003) must be correctly programmed.
 - 6 spaces must be put between the 3-digit prefix and the following 8-digit number (e.g. xxx___xxxxxxx).
 - ID2 (SP5811-003) and the serial number (SP5811-001) must be the same (e.g. ID2:
 A01______23456789 = serial No. A0123456789)
- 3. The following settings must be correctly programmed.
 - Proxy server IP address (SP5816-063)
 - Proxy server Port number (SP5816-064)
 - Proxy User ID (SP5816-065)
 - Proxy Password (SP5816-066)
- 4. Get a Request Number

Execute the @Remote Settings

- 1. Enter the SP mode.
- 2. Input the Request number which you have obtained from @Remote Center GUI, and then enter [OK] with SP5816-202.
- 3. Confirm the Request number, and then click [EXECUTE] with SP5816-203.
- 4. Check the confirmation result with SP5816-204.

Value	Meaning	Solution/Workaround
0	Succeeded	-
1	Request number error	Check the request number again.

Value	Meaning	Solution/Workaround
3	Communication error (proxy enabled)	Check the network condition.
4	Communication error (proxy disabled)	Check the network condition.
5	Proxy error (Illegal user name or password)	Check Proxy user name and password.
6	Communication error	Check the network condition.
8	Other error	See "SP5816-208 Error Codes" below this.
9	Request number confirmation executing	Processing Please wait.

- 5. Make sure that the screen displays the Location Information with SP5816-205 only when it has been input at the Center GUI.
- 6. Click [EXECUTE] to execute the registration with SP5816-206.
- 7. Check the registration result with SP5816-207.

Value	Meaning	Solution/Workaround
0	Succeeded	-
1	Request number error	Check the request number again.
2	Already registered	Check the registration status.
3	Communication error (proxy enabled)	Check the network condition.
4	Communication error (proxy disabled)	Check the network condition.
5	Proxy error (Illegal user name or password)	Check Proxy user name and password.
8	Other error	See "SP5816-208 Error Codes" below this.
9	Request number confirmation executing	Processing Please wait.

8. Exit the SP mode.

SP5816-208 Error Codes

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

Cause	Code	Meaning	Solution/Workaround
	-2385	Other error	
	-2387	Not supported at the Service Center	
	-2389	Database out of service	
	-2390	Program out of service	
	-2391	Two registrations for the same mainframe	Check the registration condition of the mainframe
Error Caused by	-2392	Parameter error	
Response from GW URL	-2393	External RCG not managed	
	-2394	Mainframe not managed	
	-2395	Box ID for external RCG is illegal.	
	-2396	Mainframe ID for external RCG is illegal.	
	-2397	Incorrect ID2 format	Check the ID2 of the mainframe.
	-2398	Incorrect request number format	Check the Request No.

Moving the Machine

This section shows you how to manually move the machine from one floor to another floor. See the section "Transporting the Machine" if you have to pack the machine and move it a longer distance.

• Remove all trays from the optional paper feed unit.

Transporting the Machine

Main Frame

- 1. Do SP 4806-001 to move the scanner carriage from the home position. This prevents dust from falling into the machine during transportation.
- 2. Make sure there is no paper left in the paper trays. Then fix down the bottom plates with a sheet of paper and tape.
- 3. Do one of the following:

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



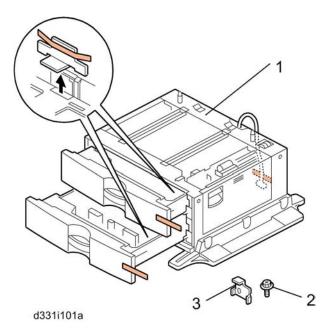
- After you move the machine, Make sure you do the "Auto Color Registration" as follows. This
 optimizes color registration.
- Do the "Forced Line Position Adj. Mode c" (SP2-111-3).
- Then do the "Forced Line Position Adj. Mode a" (SP2-111-1).
 To check if SP 2-111-1 was successful, watch the screen during the process. A message is displayed at the end. Also, you can check the result with SP 2-194-10 to -12.
- Make sure that the side fences in the trays are correctly positioned to prevent color registration errors.

Paper Feed Unit (D331)

Accessory Check

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

No.	Description	Q'ty
1	Paper Feed Unit	1
2	Screw - M4 x 10	4
3	Securing Bracket	2

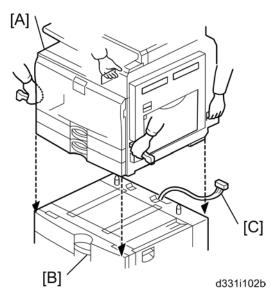


Installation Procedure

ACAUTION

- Unplug the machine power cord before starting the following procedure.
- The handles of the main machine for lifting must be inserted inside the machine and locked, unless these handles are used for the installation or relocation of the main machine.
- You need two or more persons to lift the copier. The copier is highly unstable when lifted by one person, and may cause human injury or property damage.

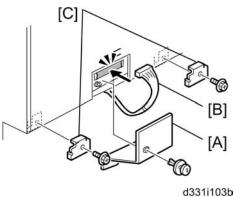
1. Remove the strips of tape.



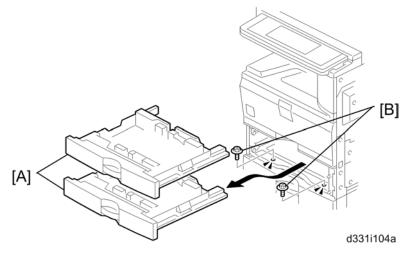
2. Set the copier [A] on the paper tray unit [B].



• When installing the copier, be careful not to pinch the cable [C].



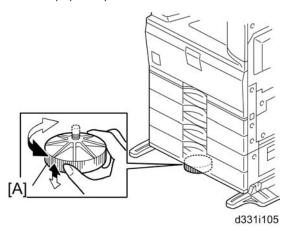
- 3. Remove the connector cover [A] (rivet screw x 1).
- 4. Connect the cable [B] to the copier, as shown.
- 5. Attach a securing bracket [C] to each side of the paper tray unit, as shown (*x 1: M3 x 8 each).
- 6. Re-install the connector cover.



- 7. Remove the 1st and 2nd paper trays [A] and secure the paper tray unit with two screws (M4 x 10) [B].
- 8. Reinstall all the paper trays.
- 9. Attach the appropriate paper tray number decal and paper size decal to each handle of the trays.



• The paper tray number and size decal sheet is in the accessory box of the main machine.



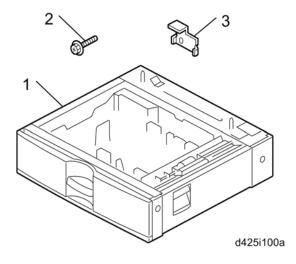
- 10. Rotate the adjuster [A] until the machine cannot be pushed across the floor.
- 11. Load paper into the paper trays and select the proper paper size.
- 12. Turn on the main switch.
- 13. Adjust the registration for each tray (Image Adjustment).
 - For tray 3, use SP1002-004
 - For tray 4, use SP1002-005
- 14. Check the machine's operation and copy quality.

Paper Feed Unit (D425)

Component Check

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

No.	Description	Q'ty
1	Paper Feed Unit	1
2	Securing bracket	2
3	Screw (M4 x 10)	4



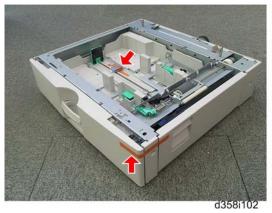
Installation Procedure

ACAUTION

- Turn off the main switch of the copier and unplug the power cord before you start the installation procedure.
- You need two or more persons to lift the copier. The copier is highly unstable when lifted by one person, and may cause human injury or property damage.
- Do not lift the copier with the paper feed unit installed. The handle and grips may be damaged.



• The one-tray paper feed unit must be installed on the caster table (D448). Prepare the caster table first before installing this unit.

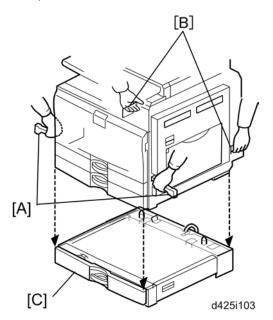




- 1. Remove all tape on the paper feed unit.
- 2. Remove the paper tray and remove all tapes and padding.
- 3. Put the paper tray unit on the caster table (D448).



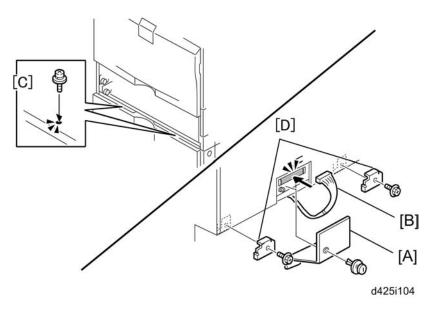
 For details about the installation of the caster table, see the "Caster Table (D488)" installation procedure.



- 4. Grasp the handle [A] and grips [B] of the machine.
- 5. Lift the copier and install it on the paper feed unit [C].



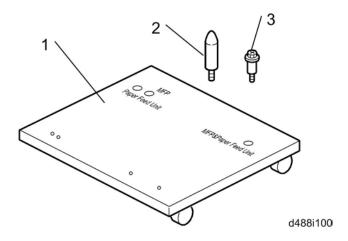
• Hold the handle and grips of the machine when you lift and move the machine.



- 6. Remove the rear connector cover [A] of the main machine (rivet screw x 1).
- 7. Connect the harness [B] to the main machine.
- 8. Reinstall the rear connector cover [A] (rivet screw x 1).
- 9. Remove tray 1 and 2 of the machine.
- 10. Fasten the screws $(M4 \times 10)$ [C].
- 11. Reinstall all trays.
- 12. Attach the securing brackets [D] (M4 x 10; F x 1 each).
- 13. Load paper into the paper feed unit.
- 14. Turn on the main power switch of the machine.
- 15. Adjust the registration for each tray (Filmage Adjustment).
 - Use SP1002-004
- 16. Check the paper feed unit operation and copy quality.

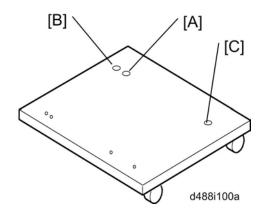
Component Check

No.	Description	Q'ty
1	Caster Table	1
2	Pin	2
3	Step Screw	2



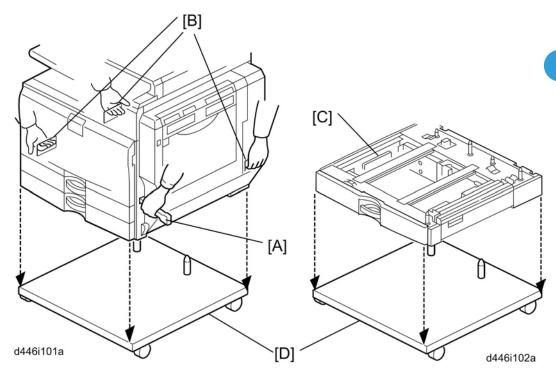
Installation Procedure

1. Put the caster table on a flat place.



2. Install the two pins in the screw holes.

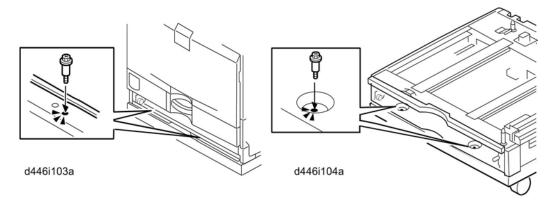
- Use the screw holes [A] and [C] if the mainframe is directly installed on the caster table.
- Use the screw holes [B] and [C] if the one-tray paper feed unit (D425) is installed on the caster table.



3. Grasp the handle [A] and grips [B] of the machine, if the copier is to be installed on the caster table.



- Hold the handle and grips of the machine when you lift and move the machine.
- 4. Lift the copier or one-tray paper feed unit [C], and then install it on the caster table [D].
- 5. Pull out tray 2 of the mainframe or the tray of the one-tray paper feed unit.



6. Secure the machine or one-tray paper feed unit to the caster table (step screw x 2)

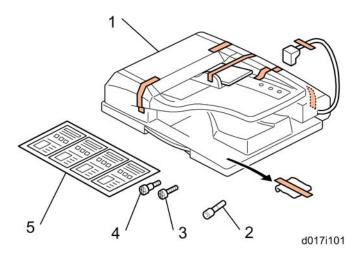
- 7. Reinstall the tray in the mainframe or one-tray paper feed unit.
- 8. Adjust the five leveling adjustors of the caster table.

ARDF (D366)

Component Check

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

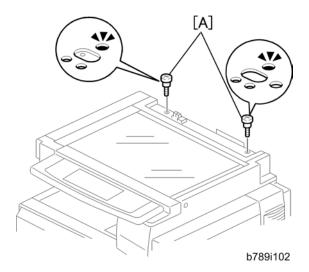
No.	Description	Q'ty
1	ARDF	1
2	Stamp Cartridge	1
3	Knob Screw	2
4	Stud Screw	2
5	Attention Decal – Top Cover	1



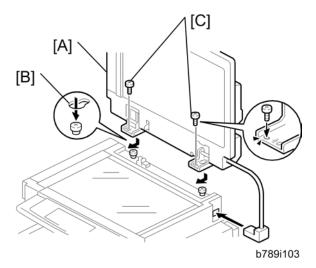
Installation Procedure

ACAUTION

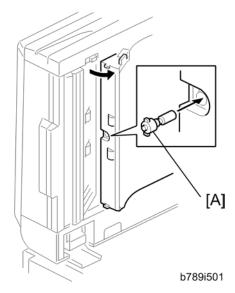
- Unplug the copier power cord before starting the following procedure.
- 1. Remove all tapes and shipping retainers.



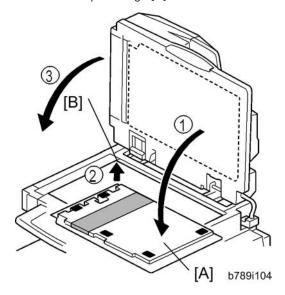
2. Insert the two stud screws [A] on the top of the machine.



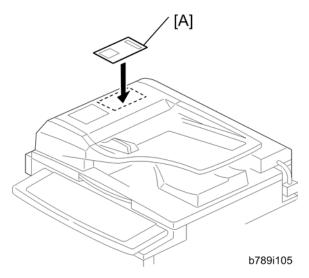
- 3. Mount the ARDF [A] by aligning the screw keyholes [B] of the ARDF support plate over the stud screws.
- 4. Slide the ARDF toward the front of the machine.
- 5. Secure the ARDF with the two knob screws [C].



6. Install the stamp cartridge [A] in the ARDF.



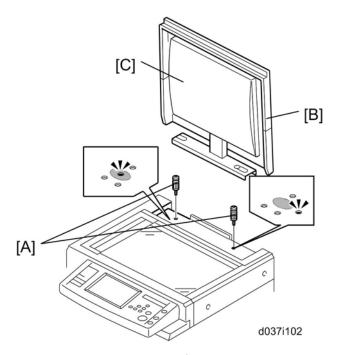
- 7. Peel off the platen sheet [A] and place it on the exposure glass.
- 8. Align the rear left corner (of the platen sheet) with the corner [B] on the exposure glass.
- 9. Close the ARDF.
- $10. \;$ Open the ARDF and check that the platen sheet is correctly attached.



- 11. Attach the decal [A] to the top cover as shown. Choose the language that you want.
- 12. Plug in and turn on the main power switch of the machine, and then check the ARDF operation.
- 13. Make a full size copy. Check that the registrations (side-to-side and leading edge) and image skew are correct. If they are not, adjust the registrations and image skew (see "Image Adjustment" in the "Replacements and Adjustments" chapter).

2

Platen Cover Installation (G329)



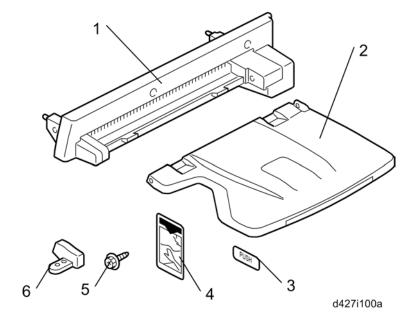
- 1. Install the stud screws [A] (F x 2) on the top cover as shown.
- 2. Position the platen cover bracket [B] on the heads of the stud screws, and slide the platen cover [C] to the left.

Side Tray (D427)

Component Check

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

No.	Description	Q'ty
1	Side Tray Paper Exit Unit	1
2	Side Tray	1
3	Decal: Push	1
4	Decal: Door Push	1
5	Screw: M3x8	1
6	Tray Stopper	1



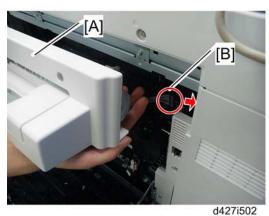
Installation Procedure

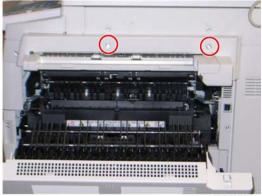
ACAUTION

- Unplug the copier power cord before starting the following procedure.
- 1. Remove all tapes on the side tray.



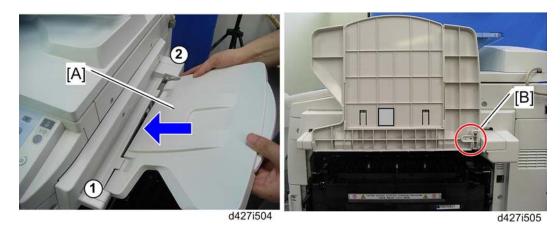
- U42/1
- 2. Open the duplex unit [A].
- 3. Remove the right upper cover [B] (\mathcal{F} x 2).



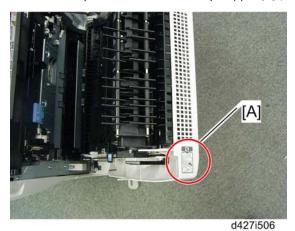


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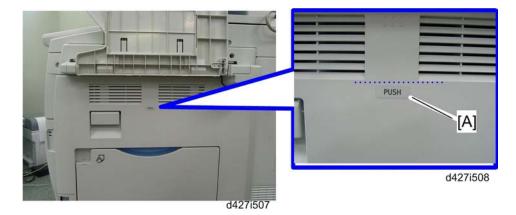
- 4. Close the side tray paper exit unit [A], and then connect the harness [B] to the machine.
- 5. Install the side tray paper exit unit (F x 2: removed in step 3).



- 6. Install the side tray [A].
- 7. Lift the side tray, and then install the tray stopper [B] (\nearrow x 1: M3x8).



8. Attach the 'Push door' decal [A] to the top front edge of the duplex unit cover.



9. Close the duplex unit, and then attach the 'Push' decal [A] to the duplex unit cover.

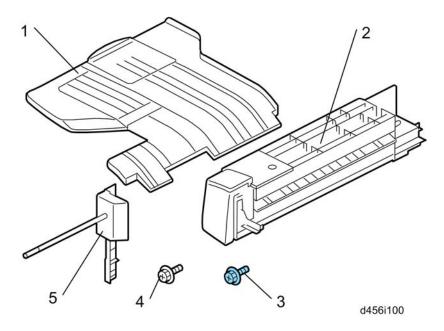
- 10. Turn on the main power switch of the machine.
- 11. Check the side tray operation.

1-Bin Tray Unit (D426)

Component Check

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

No.	Description	Q'ty
1	Tray	1
2	1-Bin Tray Unit	1
3	Screw: Blue (M3 x 6)	1
4	Screw (M3 x 8)	1
5	Tray Support Bar	1



Installation Procedure

ACAUTION

• Unplug the copier power cord before starting the following procedure.



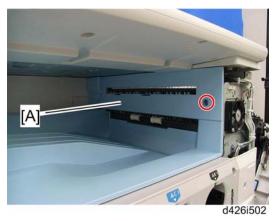
- If both the shift tray unit and the 1-bin tray unit are installed in the mainframe at the same time, install the shift tray unit first. Installing the shift tray unit after the 1-bin tray unit may be difficult.
- 1. Remove all tapes.



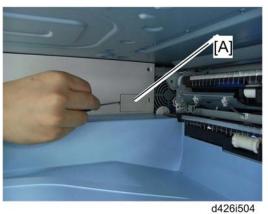


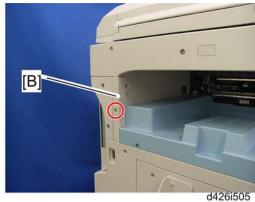
d426i501

- 2. Remove the inverter tray [A] (hook).
- 3. Open the right door [B] of the machine.
- 4. Remove the front right cover [C] (*x 1).



5. Remove the paper exit cover [A] (> x 1).



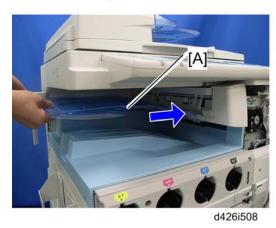


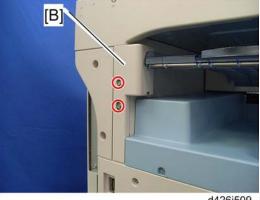
- 6. Remove the connector cover [A] with a small flat screwdriver.
- 7. Remove the left frame cover [B] (** x 1).





8. Install the 1-bin tray unit [A] (** x 1: M3x6 blue, ** x 1).





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9. Install the tray [A] (with the tray support bar) in the machine.

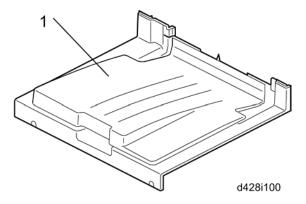
- 10. Attach the tray support cover [B] (** x 2: M3x8 in the accessories and one screw removed in step 7).
- 11. Reassemble the machine.
- 12. Turn on the main power switch of the machine, and check the 1-bin tray unit operation.

Shift Tray Unit (D428)

Component Check

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

No.	Description	Q'ty
1	Shift Tray Unit	1



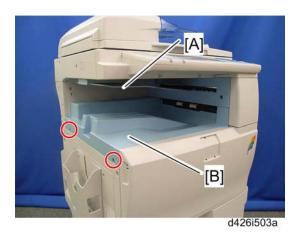
Installation Procedure

ACAUTION

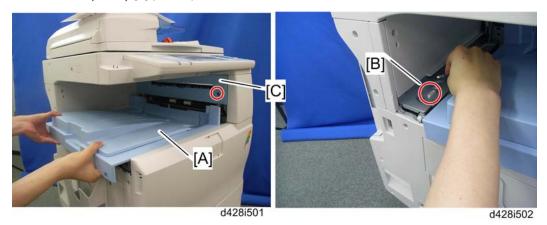
• Unplug the copier power cord before starting the following procedure.



- If both the shift tray unit and the 1-bin tray unit are installed in the mainframe at the same time, install the shift tray unit first. Installing the shift tray unit after the 1-bin tray unit may be difficult.
- 1. Remove all tapes.



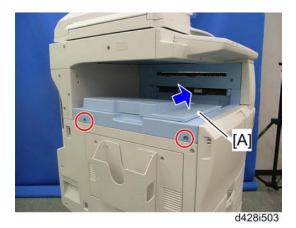
- 2. Remove the inverter tray [A] (hook).
- 3. Remove the output tray [B] (\mathcal{F} x 2).



4. Put the shift tray [A] in the machine, and then connect the harness to the connector [B] on the inner rear frame.



• If the shift tray is difficult to install in the mainframe, remove the paper exit cover [C] first (\mathscr{F} x 1).



- 5. Install the shift tray [A] fully in the machine ($\mathcal{F} \times 2$).
- 6. Reinstall the inverter tray.
- 7. Turn on the main power switch of the machine.
- 8. Check the shift tray unit operation.

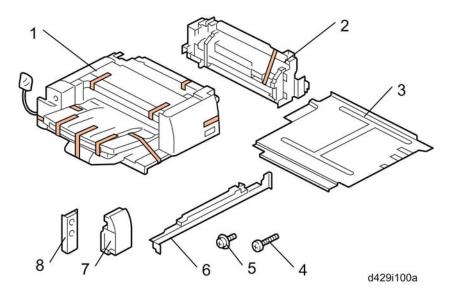
Internal Finisher (D429)

This procedure explains how to install the internal finisher, without installing the punch unit at the same time.

Component Check

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

No.	Description	Q'ty
1	Internal Finisher	1
2	Inverter Unit	1
3	Inner Bottom Plate	1
4	Screw: M3x10	3
5	Screw: M3x6	12
6	Guide Rail	1
7	Inverter Cover	1
8	Left Cover	1



ACAUTION

• Unplug the copier power cord before starting the following procedure.

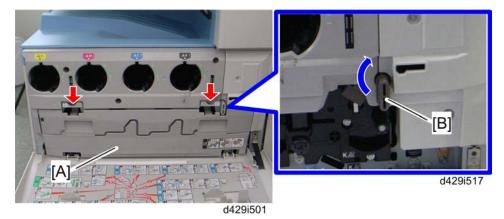
Preparing before Installing the Internal Finisher

1. Remove all tapes from the internal finisher.

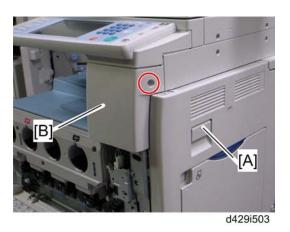


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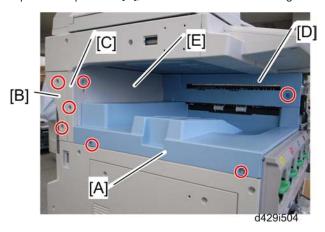
- 2. Remove the inverter tray [A].
- 3. Open the front door [B].



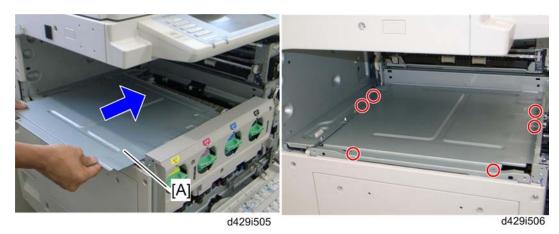
- 4. Remove the PCDU toner collection bottle [A].
- 5. Hold down the ITB lock lever [B] and turn it in the arrow direction.
- 6. Remove the inner right cover [A] (* x 2).



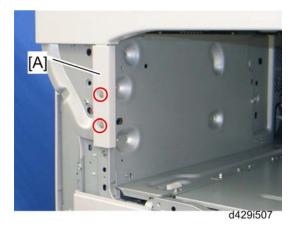
7. Open the duplex unit [A], and then remove the front right cover [B] (\mathcal{F} x 1).



- 8. Remove the following:
 - Inner tray [A] (x 2)
 - Left frame rear cover [B] (🎤 x 2)
 - Left frame cover [C] (* x 1)
 - Paper exit cover [D] (* x 1)
 - Inner rear cover [E] (* x 1)



9. Install the inner bottom plate [A] (*x 6).

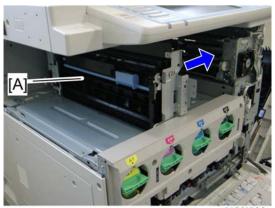


10. Attach the left cover [A] (*x 2: M3x6, one screw removed in step 8).

Internal Finisher Installation

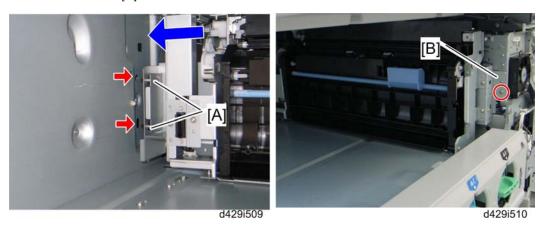


• If the punch unit (D390) is to be installed with this finisher (D429) at the same time, skip this procedure below, and then refer to the installation procedure of "Punch Unit (D390)".



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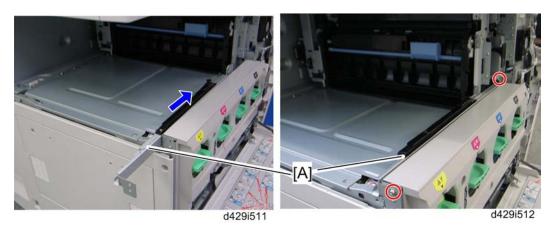
1. Insert the inverter unit [A] in the machine.



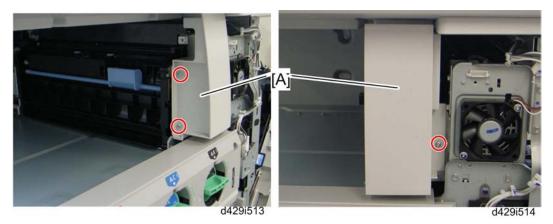
- 2. Insert two joint pins [A] into the two holes in the inner rear bracket.
- 3. Fully attach the front side [B] of the inverter unit to the paper exit unit of the mainframe after inserting the two joint pins ($\Re x$ 1: M3x6).



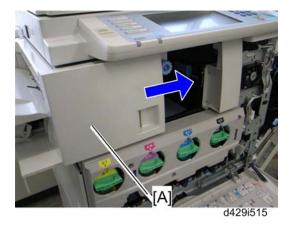
• Insert the two joint pins before attaching the front side of the inverter unit to the paper exit unit of the mainframe. Otherwise, paper jams may occur between the paper exit unit and inverter unit.



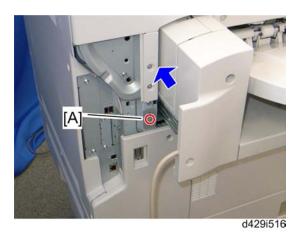
4. Install the guide rail [A] (** x 2: M3x6).



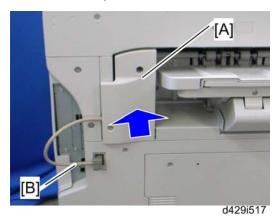
5. Attach the inverter cover [A] (\rat{p} x 3: M3x10).



6. Install the internal finisher [A] from the left side of the machine.



7. Insert the rear rail pins [A] into the frame of the machine (\rat{F} x 1: M3x6).



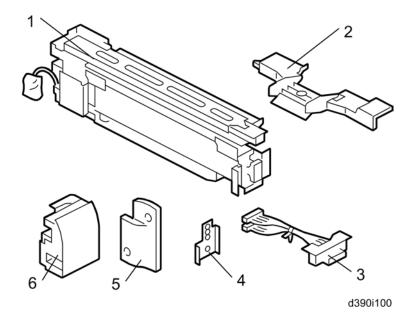
- 8. Push the internal finisher [A] and connect the cable [B] to the power socket of the machine.
- 9. Reassemble the machine.
- 10. Turn on the main power switch of the machine.
- 11. Check the internal finisher operation.

Punch Unit (D390)

Component Check

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

No.	Description	Q'ty
1	Punch Unit	1
2	Output Tray Lower Cover	1
3	Drawer Connector	1
4	Bracket	1
5	Left Frame Cover	1
6	Punch Cover	1



Installation Procedure

If the internal finisher has **not** already been installed, skip the "Removing the Internal Finisher" section, and go to the "Preparing the Punch Unit before Installing the Internal Finisher" section. Also do "Preparing before Installing the Internal Finisher" in the "Internal Finisher (D429)" section.

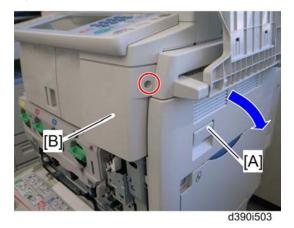
If the internal finisher has already been installed, you must remove it first. Start from the "Removing the Internal Finisher" section.

ACAUTION

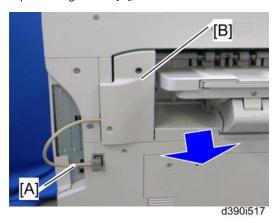
• Unplug the copier power cord before starting the following procedure.

Removing the Internal Finisher

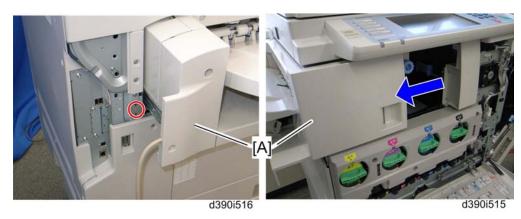
1. Open the front door.



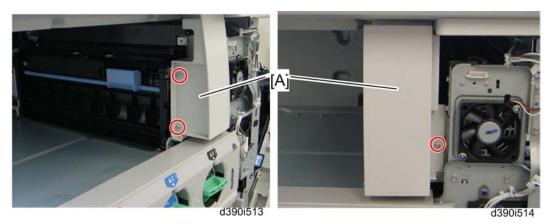
2. Open the right door [A], and then remove the front right cover [B] (${\cal F} \times 1$).



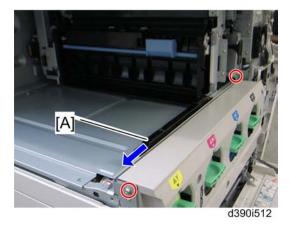
3. Disconnect the cable [A] from the power socket of the machine, and then pull out the internal finisher [B].



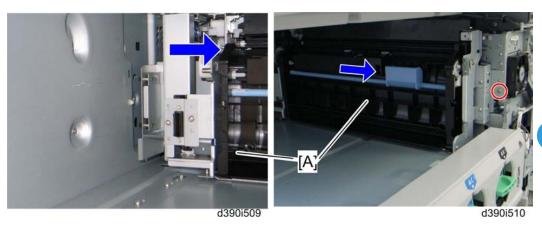
4. Remove the internal finisher [A] (** x 1: M3x6).



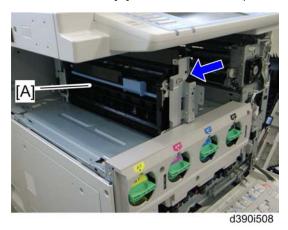
5. Remove the inverter cover [A] (\rat{F} x 3: M3x10).



6. Remove the guide rail [A] (\rat{F} x 2: M3x6).

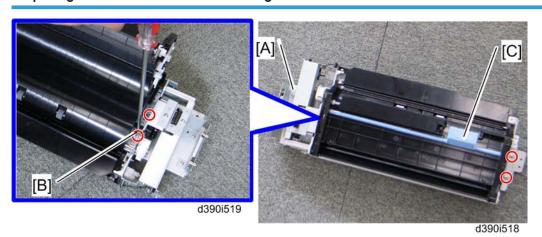


7. Pull the inverter unit [A] toward the front side (*x 1: M3x6).



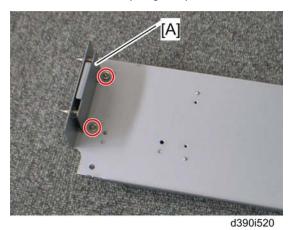
8. Remove the inverter unit [A] from the machine.

Preparing the Punch Unit before Installing the Internal Finisher

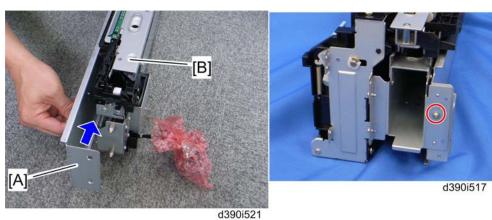


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- 1. Remove the inverter right bracket [A] from the inverter unit (\nearrow x 4).
- 2. To remove screw [B], open guide plate [C].



3. Remove the positioning pin bracket [A] from the inverter right bracket ($\mathcal{F} \times 2$).



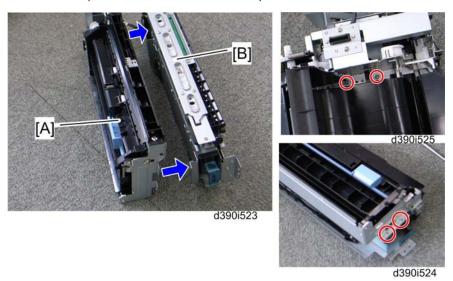
4. Attach the inverter right bracket [A] to the punch unit [B] (\ref{eq} x 1: M3x6).



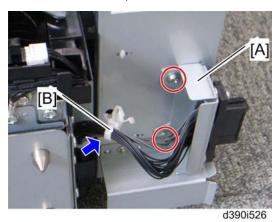
- 5. Slide the inverter small guide [A] to the front side (arrow direction), and then remove it (** x 1).
- 6. Remove all the tapes on the punch unit.



• If all the tapes are not removed, SC763 may occur.



7. Attach the inverter unit [A] to the punch unit [B], and then secure the inverter unit with the punch unit (*\vec{F} \times 4 \text{ removed in step 1}).

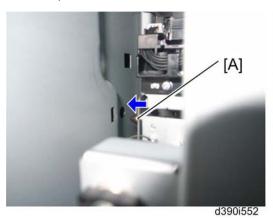


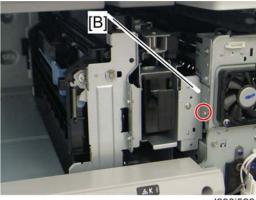
- 8. Attach the drawer connector [A] of the punch unit to the rear bracket of the inverter unit (** x 2 removed in step 3).
- 9. Attach the clamp [B] to the rear bracket of the inverter unit.

Installing the Punch and Inverter Unit



1. Install the punch and inverter unit [A] in the mainframe.





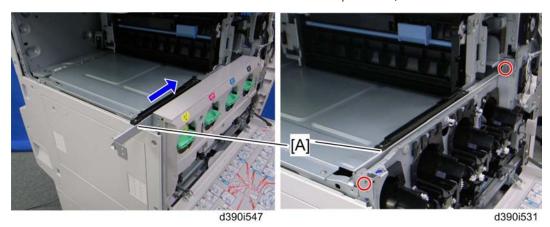
- d390i528
- 2. Insert the two joint pins [A] (this picture does not show the two joint pins) into the two holes in the inner rear bracket.
- 3. Fully attach the front side [B] of the inverter unit to the paper exit unit of the mainframe after inserting two joint pins ($\mathscr{F} \times 1$: M3x6).



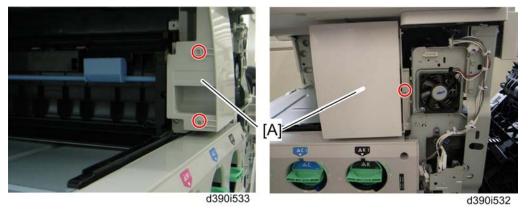
Insert the two joint pins before attaching the front side of the inverter unit to the paper exit unit of
the mainframe. Otherwise, paper jams may occur between the paper exit unit and inverter unit.



4. Remove the stopper [A] from the guide rail, and then attach with the screw holes [B] (these screw holes must be used when the internal finisher is installed with the punch unit).

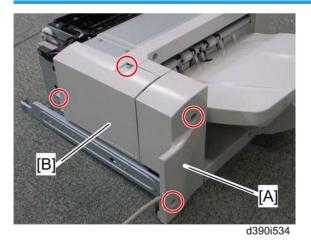


5. Install the guide rail [A] on the front edge of the inner bottom plate (\mathcal{F} x 2).

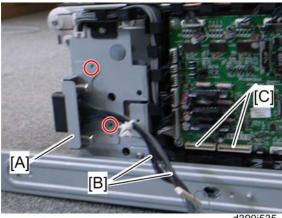


6. Install the punch cover [A] (*x 3: M3x6).

Preparing the Internal Finisher

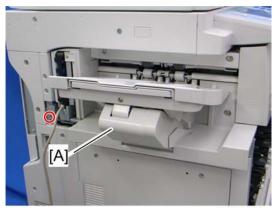


1. Remove the left rear cover [A] and the rear cover [B] of the internal finisher (\mathcal{F} x 2 each).



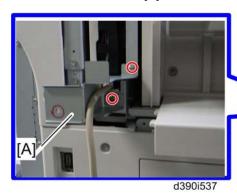
- d390i535
- 2. Attach the drawer connector [A] to the rear bracket of the finisher.
- 3. Connect the harnesses [B] to the connectors [C] on the main board.
 - Black harness connector to CN16
 - Gray harness connector to CN17
- 4. Reinstall the rear cover (removed in step 1) ($\mathscr{F} \times 2$).

Installing the Internal Finisher



d390i536

1. Install the internal finisher [A] in the mainframe ($\mbox{\em phi} \times 1$).





2. Remove the bracket [A] (\rat{F} x 2).

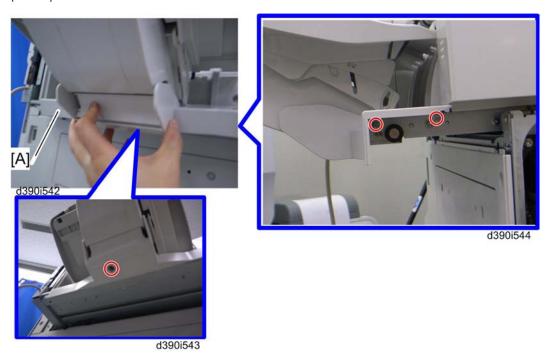




3. Attach the bracket [A] (\mathscr{F} x 2); this bracket is for the internal finisher when used with the punch unit.

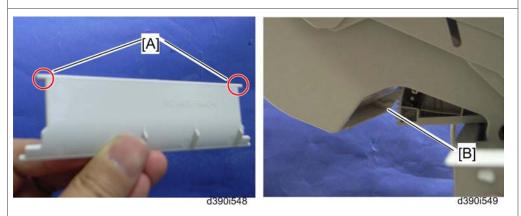


4. Remove the output tray lower cover [A]; this cover is for the internal finisher without the punch unit ($\mathscr{F} \times 3$).

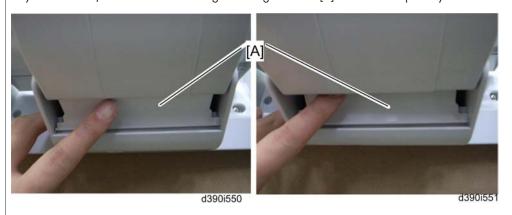


5. Attach the output tray lower cover [A]; this cover is for the internal finisher when used with the punch unit (*\varPti x 3).

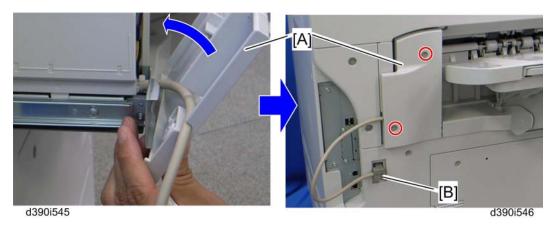
Note



The two projections [A] on the output tray lower cover (this plate is actually attached to the output tray lower cover) must be inserted along the two guide rails [B] inside the output tray unit.



Push the slide plate [A] to check if the output tray lower cover is correctly installed. The left side picture shows the correct result and the right side picture shows the incorrect result.



6. Attach the left frame cover [A] (> x 2).

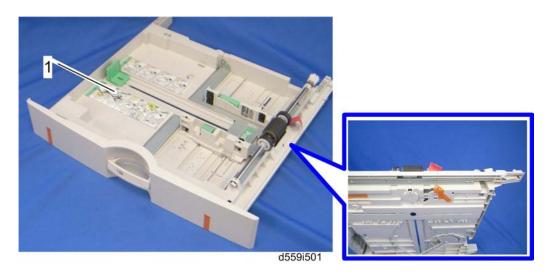
- 7. Push the internal finisher in the mainframe.
- 8. Connect the I/F cable [B] of the finisher to the inlet of the mainframe.

Envelope Feeder EF3010 (D559)

Component Check

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

No.	Description	Q'ty
1	Envelope Feeder	1



Installation Procedure



- This tray can be only installed in tray 1 of the copier. Do not install this tray in trays other than tray 1. Otherwise, paper jam or other paper problem may occur.
- 1. Remove all tapes and red tag from the envelope feeder.



- 2. Pull paper tray 1 [A] part of the way out.
- 3. Remove two screws from both tray guides.
- 4. Pull out paper tray 1 [A].



- 5. Install the envelope feeder [A] into tray 1 of the main machine.
- 6. Secure two screws at both tray guides.
- 7. Close the tray 1, and then turn on the machine.

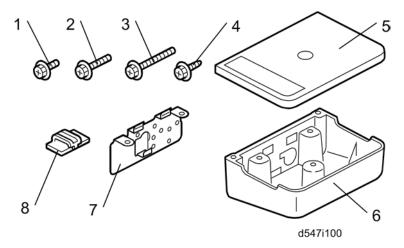
Card Reader Bracket Type C5501 (D547)

Component Check

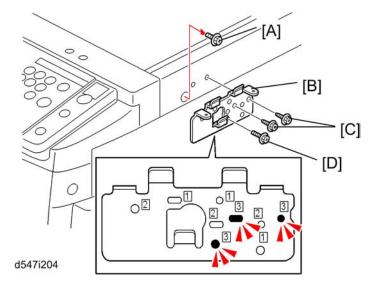
Check the quantity and condition of the accessories against the following list.

No.	Description	Q′ty
1	Screw: M3 x 8	1
2	Screw: M3 x 14*1	1
3	Screw: M3 x 25	1
4	Tapping Screw: M3 x 10	2
5	Upper Tray	1
6	Lower Tray	1
7	Tray Bracket	3
8	Clamp	5

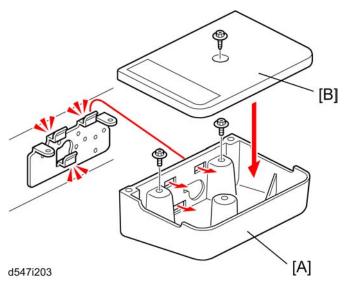
* 1: Not used in this machine



Installation Procedure



- 1. Remove the screw [A] on the scanner right cover.
- 2. Attach the tray bracket [B] to the scanner right cover (* [C] x 2: M3x10, * [D] x 1: M3x25).
 - For this model, use the screw holes marked "3" on the table bracket.



- 3. Attach the lower tray [A] to the tray bracket (\rat{p} x 2: M3x8).
- 4. Attach the upper tray [B] to the tray bracket (** x 1: M3x8).
- 5. Use the clamps as necessary to clamp the cable of the card read/writer device.

2



• The smart card reader must be placed on this card reader tray. If not, some antenna or transmitter in the main machine may be interrupted.

USB2.0/SD Slot Type G (D556)

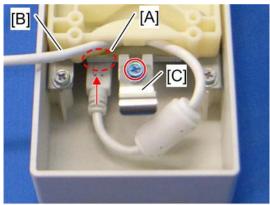
Accessory Check

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

No.	Description	Q'ty
1	USB2.0/SD Slot	1
2	Ground Plate	1
3	USB Cable	1
4	Screw: M3 x 6 blue	1
5	Screw: M3 x 8	4
6	Decal	1
7	Clamp	1
8	PDF Direct Card* ¹	1

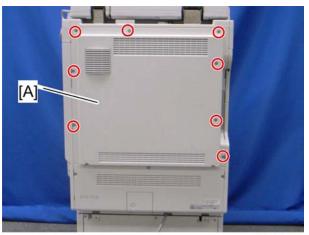
^{* 1:} If the PostScript 3 option is used in this machine, this card is not necessary.

Installation Procedure



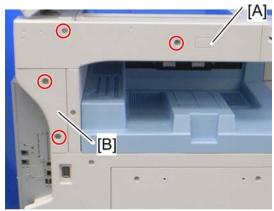
d027i111

- 1. Connect the USB cable [B] to the USB slot [A] in the USB2.0/SD Slot unit.
- 2. Attach the ground plate [C] to the bracket of the USB2.0/SD Slot (*x 1: M3x6 blue).



d104r110

3. Remove the rear cover [A] (> x 8).

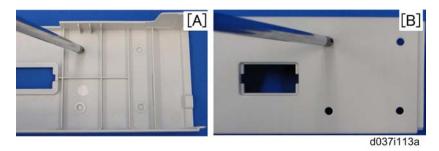


d556i110

- 4. Remove the scanner left cover [A] (\rat{F} x 2).
- 5. Remove the left frame cover [B] ($\rat{p} \times 2$).



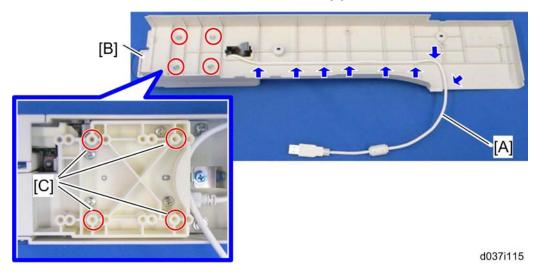
6. Remove the part $\left[A\right]$ on the scanner left cover.



7. Make four holes in the scanner left cover with a screwdriver as shown [A].



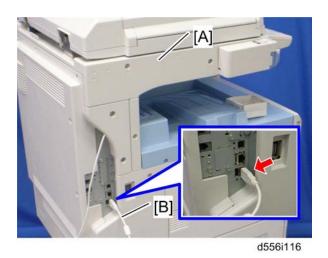
• Smooth the four holes in the scanner left cover as shown [B].



- 8. Route the USB cable [A] through the gaps in the left scanner cover.
- 9. Secure the USB2.0/SD Slot [B] with the left scanner cover as shown above (\checkmark x 4: M3x8).



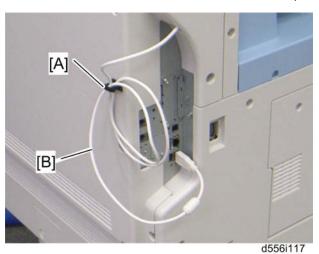
• Use the screw holes [C] as shown above.



- 10. Attach the scanner left cover [A] to the mainframe (F x 2).
- 11. Connect the USB cable [B] to USB-A (this is the USB slot closest to the front side of the machine) as shown above.



• Make sure that the USB cable is inserted in USB-A (front side).

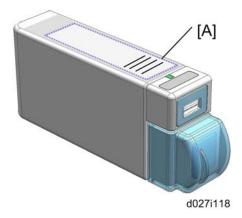


- 12. Attach the clamp [A] to the left middle area of the rear cover.
- 13. Wind the USB cable [B] two or three times not to interrupt the other slots, and then clamp the cable loops (🖨 x 1).

If PostScript 3 is already installed, go to step 23. If not, follow the steps from 14 to 22.

- 14. Remove the SD slot cover (*x 1), and move the SD card from SD slot 1 to SD slot 2.
- 15. Insert the PDF direct card in SD slot 1.
- 16. Plug in and turn on the mainframe.

- 17. Enter the System SP mode.
- 18. Move security applications (HDD Encryption unit and Data Overwrite Security Unit) from the SD card in SD slot 2 to the SD card in SD slot 1 with SP5-873-001 "Move Exec" (**p.132 "SD Card Appli Move").
- 19. Enter the Scanner SP mode, and then change the setting of SP1013-001 from "0" to "1".
- 20. Enter the Printer SP mode, and then change the setting of SP1110-001 from "0" to "1".
- 21. Exit the SP mode, and then turn off the machine.
- 22. Remove the SD card in slot 2, and then attach the SD slot cover (** x 1).
 - Keep this card in the safe place (**p.132).
- 23. Turn on the mainframe.
- 24. Check the operation of the USB2.0/SD Slot.



25. Attach the decal [A] to the USB2.0/SD Slot as shown above.

Testing the SD Card/USB Slot

- 1. Insert an SD card or USB memory device in the slot.
 - You can connect only one removable memory device at a time.
- 2. Close the media slot cover.
 - If you leave the cover open, static electricity conducted through an inserted SD card could cause the machine to malfunction.
- 3. Make sure that no previous settings remain.
 - If a previous setting remains, press the [Clear Modes] key.
- 4. Place an original on the exposure glass.
- 5. Press [Store File].
- 6. Press [Store to Memory Device].

- 7. Press [OK].
- 8. Press the [Start] key.

When writing is complete, a confirmation message appears.

- 9. Press [Exit].
- 10. Remove the memory device from the media slot.
 - Do not remove the memory device while writing is in process.

Mechanical Counter (NA Only)



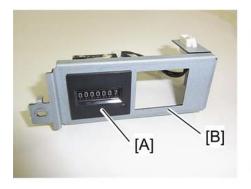
• This counter is supplied as a spare part.

Installation Procedure

- 1. Rear cover (**p.168)
- 2. Rear lower cover (Pp.168)
- 3. Controller box cover (**p.293)



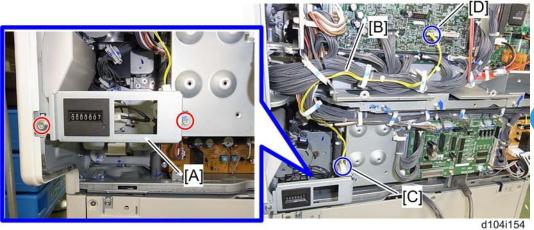
4. Remove the cutout [A] in the rear lower cover with nippers.





d104i153

- 5. Attach the mechanical counter [A] to the bracket [B] and connect the harness to each mechanical counter as shown above.
 - The one [C] of two harnesses is not used in this model.



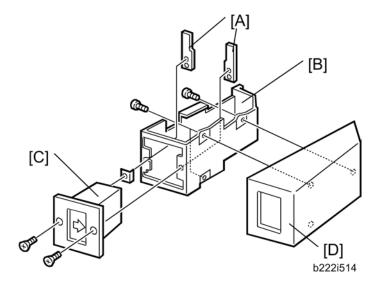
- 6. Attach the mechanical counter bracket [A] to the frame (F x 2).
- 7. Connect the mechanical counter harness [C] to the mechanical counter [D] and the BCU (CN218)
- 8. Reassemble the machine.
- 9. Plug in the machine and turn on the main power switch.
- 10. Enter the SP mode.
- 11. Set SP5987-001 to "1: ON".
- 12. Exit the SP mode, and then turn the machine off and on.

Key Counter Bracket

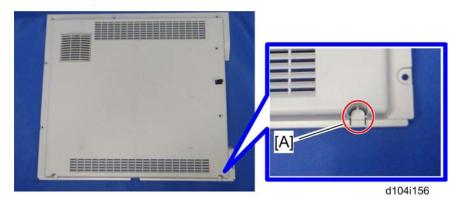
After the key counter bracket is installed in the mainframe, the following options cannot be used at the same time.

- Internal Finisher Type C2550 (D429)
- Handset (B433)

Installation Procedure



- 1. Hold the key counter plate nuts [A] on the inside of the key counter bracket [B] and insert the key counter holder [C].
- 2. Secure the key counter holder to the bracket ($\mathcal{F} \times 2$).
- 3. Install the key counter cover [D] (*x 2).
- 4. Rear cover (1 p. 168)



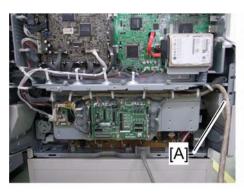
2

5. Cut off the part [A] of the rear cover.



d037i161

6. Peel off double sided tape on the key counter bracket, and attach the key counter to the scanner left cover.



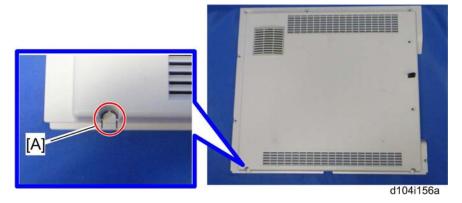


[B]

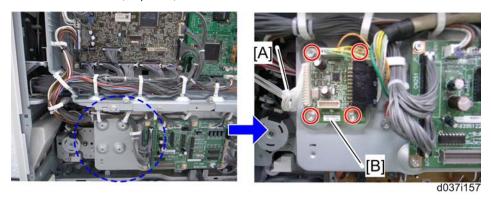
- 7. Connect the key counter cable [A] to the connector [B].
- 8. Reassemble the machine.

Installation Procedure

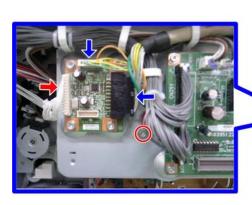
1. Rear cover (**p.168)

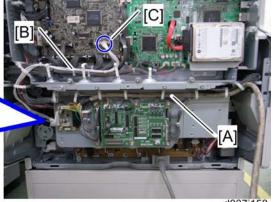


- 2. Cut off the part [A] of the rear cover.
- 3. Rear lower cover (**p.168)
- 4. Controller box cover (**p.293)



- 5. Attach the clamp [A] to the DRB bracket.
- 6. Install the key counter interface board [B] on the DRB bracket ($\mathcal{F} \times 4$).





d037i158

- 7. Connect and route the key counter cable [A] to the connector on the key counter interface board as shown above (ground screw x 1, 🖨 x 6).
- 8. Connect and route the harness [B] to the connector on the key counter interface board and connector CN216 [C] on the BCU (🖨 x 5)

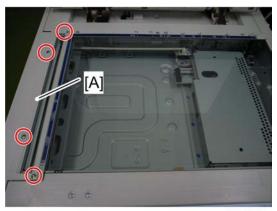


- 9. Pull the key counter cable through from the cutout and connect it to the connector [A] of the key counter
- 10. Reassemble the machine.

Installation Procedure

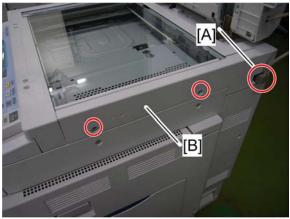
U Note

- This heater is supplied as a spare part.
- 1. Rear cover (**p**.168)
- 2. Open the ARDF or platen cover.



d037i128

3. Glass cover [A] (stepped screw x 4)



d037i130

- 4. Disconnect the DF I/F cable [A].
- 5. Scanner right cover [B] (*x 2)

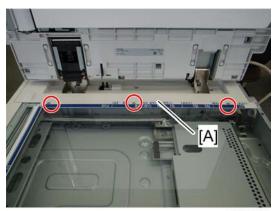
2



6. ARDF exposure glass [A]

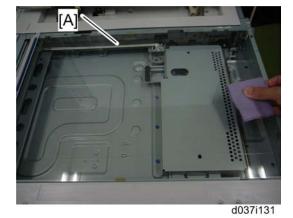


• Position the white marker [B] at the rear-left corner when you reattach the ARDF exposure glass.



d037i129

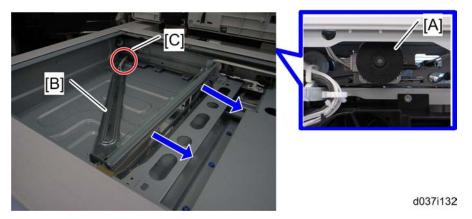
7. Rear scale [A] (stepped screw x 3)



8. Exposure glass [A] with left scale.



• Position the marker at the front-left corner when you reattach the exposure glass.

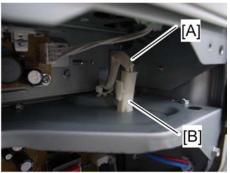


- 9. Move the scanner carriage fully across to the right side by rotating the scanner motor [A] at the rear of the machine.
- 10. Put the connector of the heater [B] through the cutout [C].



- 11. Move the scanner carriage to the left side as shown above by rotating the scanner motor at the rear of the machine.
- 12. Install the heater in the scanner unit ($\mathcal{F} \times 1$).
- 13. Secure the cable cover [A] and the left side of the heater (\nearrow x 1).





d037i134

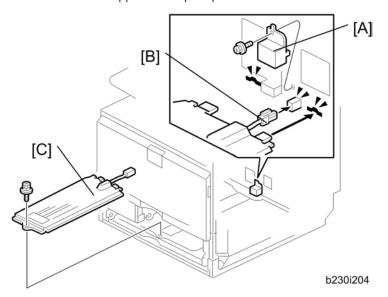
- 14. Attach a clamp as shown above.
- 15. Connect the harness [A] of the heater to the connector [B] in the frame of the machine.
- 16. Reassemble the machine.

Installation Procedure

Mainframe



• This heater is supplied as a spare part.

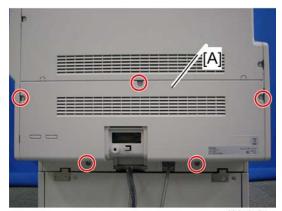


- 1. Remove trays 1 and 2 from the machine.
- 2. Remove the connector cover [A] (* x 1).
- 3. Connect the connector [B] of the heater to the connector of the main machine.
- 4. Install the heater [C] inside the machine (\nearrow x 1).
- 5. Reassemble the machine.

Tray Heater for D425 (Option)

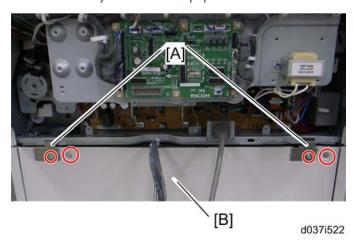


- 1. Remove the rear connector cover [A] (rivet screw $x\ 1$) of the mainframe.
- 2. Disconnect the harness [B].

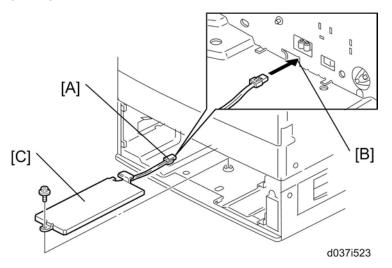


d037i521

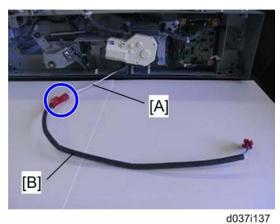
- 3. Remove the rear lower cover [A] of the mainframe ($\mbox{\ensuremath{\not\sim}}\xspace$ x 5).
- 4. Pull out all the tray cassettes of the paper feed unit.



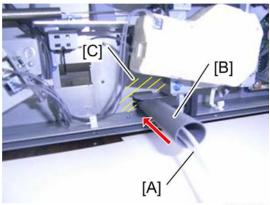
5. Remove the securing brackets [A] (** x 1 each), and then the rear cover [B] of the paper feed unit (** x 2).



- 6. Pass the connector [A] through the opening [B].
- 7. Install the tray heater [C] (🗗 x 1)



8. Connect the heater harness [A] of the heater to the relay harness [B].

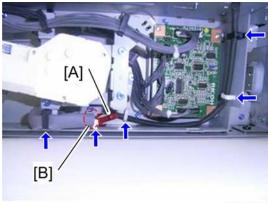


d037i138

9. Insert the heater harness [A] into the tube [B], and push the tube against the rear frame of the paper feed unit as shown above.



• Make sure that the tube is in contact with the rear frame [C].

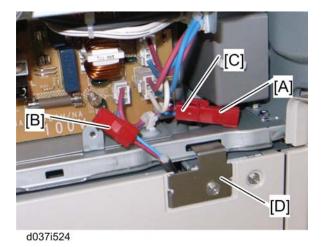


d037i139

10. Route the relay harness [A] as shown above (🖨 x 5).



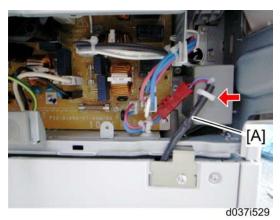
- Make sure that the connector [A] is placed securely as shown above.
- Make sure that the edge of the tube [B] is placed as shown above.
- 11. Reattach the rear cover of the paper feed unit (** x 2) and securing brackets (** x 1 each)



- 12. Remove the connector cap [A] from the tray heater harness.
- 13. Connect the relay harness [B] to the tray heater harness [C] of the mainframe.



• Do not connect the relay harness [B] to the tray heater harness of the mainframe before installing the securing bracket [D]. Otherwise, the securing bracket may pinch the relay harness.

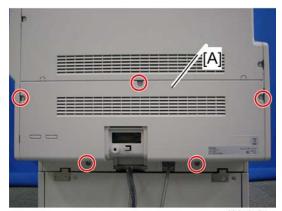


- 14. Clamp the harness [A] as shown above (🖨 x 1).
- 15. Reinstall the rear lower cover of the mainframe ($\mathcal{F} \times 5$).
- 16. Reinstall all the tray cassettes.

Tray Heater for D331 (Option)

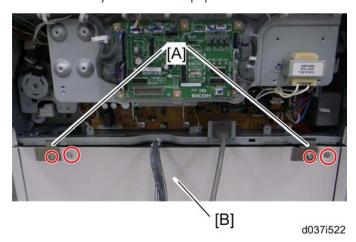


- 1. Remove the rear connector cover [A] (rivet screw $x\ 1$) of the mainframe.
- 2. Disconnect the harness [B].

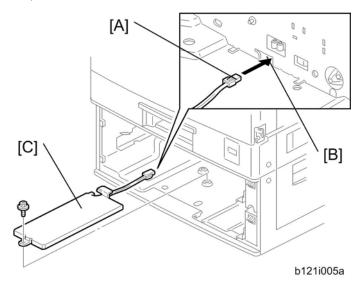


d037i521

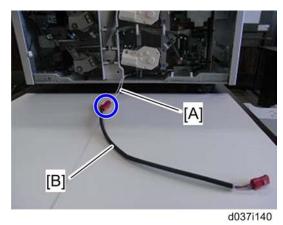
- 3. Remove the rear lower cover [A] of the mainframe ($\mbox{\ensuremath{\not\sim}}\xspace$ x 5).
- 4. Pull out all the tray cassettes of the paper feed unit.



5. Remove the securing brackets [A] (** x 1 each), and then rear cover [B] of the paper feed unit (** x 2).



- 6. Pass the connector [A] through the opening [B].
- 7. Install the tray heater [C] (** x 1).



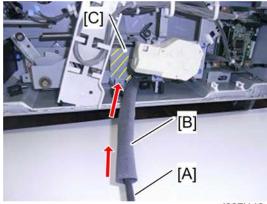
8. Connect heater harness [A] of the heater to the relay harness [B].





d037i141

9. Remove the harness guide [A] (\mathcal{F} x 1), and move it in the blue arrow direction as shown above.

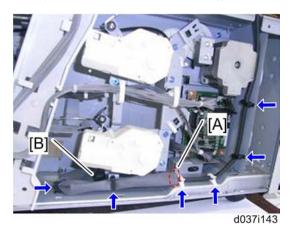


d037i142

10. Insert the heater harness [A] into the tube [B], and push the tube against the rear frame of the paper feed unit as shown above.



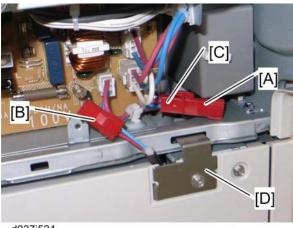
• Make sure that the tube is contact with the rear frame [C].



11. Route the relay harness as shown above (🖨 x 6).



- Make sure that the edge of the tube [A] is placed as shown above.
- The clamp [B] is not used.
- 12. Reinstall the harness guide.
- 13. Reattach the rear cover of the paper feed unit (x 2) and securing brackets (x 1 each).

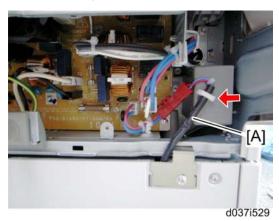


d037i524

- 14. Remove the connector cap [A] from the tray heater harness.
- 15. Connect the relay harness [B] to the tray heater harness [C] of the mainframe.



Do not connect the relay harness [B] to the tray heater harness of the mainframe before installing
the securing bracket [D]. Otherwise, the securing bracket may pinch the relay harness.



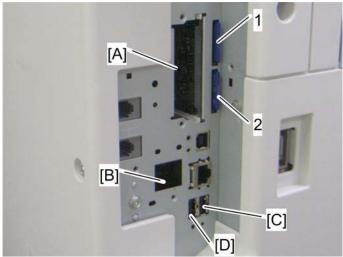
- 16. Clamp the harness [A] as shown above (🖨 x 1).
- 17. Reinstall the rear lower cover of the mainframe ($\mathscr{F} \times 5$).
- 18. Reinstall all the tray cassettes.

Controller Options

Overview

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

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



d104i117

I/F Card Slots

- I/F slot [A] is used for one of the optional I/F connections (only one can be installed): IEEE1284, IEEE802.11a/g, g (Wireless LAN), Bluetooth, File Format Converter.
- I/F slot [B] is used only for Gigabit Ethernet.

SD Card Slots

- Slot 1 is used for Security Card by default. Merge multiple SD cars in one SD card If the following optional applications are to be installed in this machine; PostScript 3, PictBridge and/or IPDS.
- Slot 2 is used for VM card (App2Me) by default or for service only (for example, updating the firmware). If the Browser Unit is to be installed in this machine, remove the VM card from the SD slot 2, and then use the SD slot 2 for installing the Browser Unit. Reinstall the VM card in the SD slot 2 after completing the installation of the Browser Unit.

USB Slots

- Left-side USB slot [C]: Used for connecting a digital camera (only works if PictBridge is installed).
- Right-side USB slot [D]: Used when installing the optional USB2.0/SD card slot

SD Card Appli Move



• The PostScript3 application and fonts cannot be moved to another SD card. However, other applications can be moved onto the PostScript3 SD card.

Overview

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

Slot 1 is used to store application programs. But there are four possible applications (PostScript 3, Security Card (DataOverwriteSecurity and HDD Encryption Unit), PictBridge, IPDS). You cannot run application programs from Slot 2. However you can move application programs from Slot 2 to Slot 1 with the following procedure.

Make sure that the target SD card has enough space.

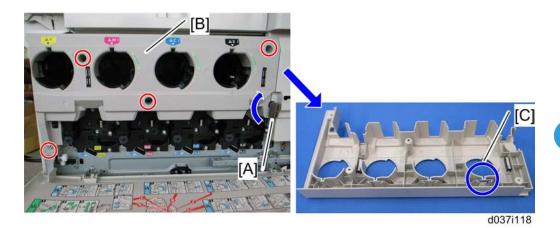
- 1. Enter SP5873 "SD Card Appli Move".
- 2. Then move the application from the SD Card in Slot 2 to the SD Card in Slot 1.



- Do steps 1-2 again if you want to move another application program.
- 3. Exit the SP mode.

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

- The data necessary for authentication is transferred with the application program from an SD card to another SD card. Authentication fails if you try to use the SD card after you copy the application program from one card to another card.
- Do not use the SD card if it has been used before for other purposes. Normal operation is not guaranteed when such an SD card is used.
- Keep the SD card in the place after you copy the application program from one card to another card.
 This is done for the following reasons:
 - 1) The SD card can be the only proof that the user is licensed to use the application program.
 - 2) You may need to check the SD card and its data to solve a problem in the future.



SD Card Storage:

- 1. Hold down the ITB lock lever [A] and turn it in the arrow direction.
- 2. Remove the inner cover [B] (> x 4), and then keep the SD card in the place [C] after you copy the application program from one card to another card.
- You cannot copy PostScript application to another SD card. You have to copy the other application (PictBridge, Security Card or IPDS) to the SD card that stores the PostScript application.

Move Exec

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



- Do not turn ON the write protect switch of the system SD card or application SD card on the machine.
 If the write protect switch is ON, a download error (e.g. Error Code 44) occurs during a firmware upgrade or application merge.
- 1. Turn the main switch off.
- 2. Make sure that an SD card is in SD Card Slot 1. The application program is copied to this SD card.
- 3. Insert the SD card with the application program in SD Card Slot 2. The application program is copied from this SD card.
- 4. Turn the main switch on.
- 5. Start the SP mode.
- 6. Select SP5-873-001 "Move Exec."
- 7. Follow the messages shown on the operation panel.
- 8. Turn the main switch off.
- 9. Remove the SD card from SD Card Slot 2.

- 10. Turn the main switch on.
- 11. Check that the application programs run normally.

Undo Exec

"Undo Exec" (SP5-873-002) lets you copy back application programs from an SD card to the original SD card. You can use this program when, for example, you have mistakenly copied some programs by using Move Exec (SP5-873-001).

☆ Important

- Do not turn ON the write protect switch of the system SD card or application SD card on the machine.
 If the write protect switch is ON, a download error (e.g. Error Code 44) occurs during a firmware upgrade or application merge.
- 1. Turn the main switch off.
- 2. Insert the original SD card in SD Card Slot 2. The application program is copied back into this card.
- 3. Insert the SD card with the application program in SD Card Slot 1. The application program is copied back from this SD card.
- 4. Turn the main switch on.
- 5. Start the SP mode.
- 6. Select SP5-873-002 "Undo Exec."
- 7. Follow the messages shown on the operation panel.
- 8. Turn the main switch off.
- 9. Remove the SD card from SD Card Slot 2.



- This step assumes that the application programs in the SD card are used by the machine.
- 10. Turn the main switch on.
- 11. Check that the application programs run normally.
- 12. Make sure that the machine can recognize the option (see "Check All Connections" at the end of this section).

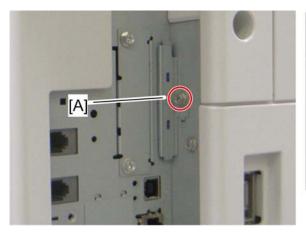
PostScript 3

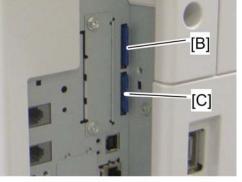


 The PostScript3 application and fonts cannot be moved to another SD card. However, other applications can be moved onto the PostScript3 SD card.

ACAUTION

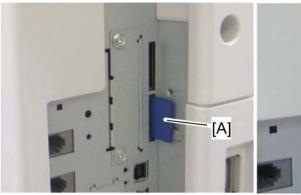
• Unplug the main machine power cord before you do the following procedure.

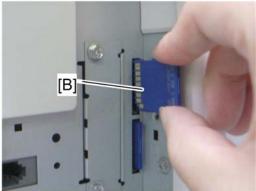




d104i119

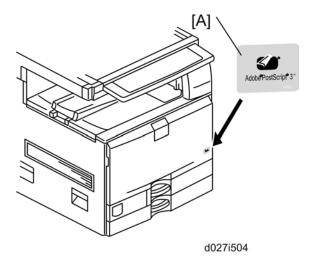
- 1. Remove the SD slot cover [A] from the SD card slots (${\it F} \times$ 1).
- 2. Remove the Security Card [B] from the SD slot 1 and VM card [C] from the SD slot 2.





d104i203

- 3. Turn the SD-card label face of the Security Card [A] to the front of the machine. Then push it [A] slowly into SD slot 2 [B] until you hear a click.
- 4. Turn the SD-card label face of the PostScript3 [B] to the front of the machine. Then push it slowly into slot 1 [B] until you hear a click.
- 5. Plug in and turn on the main power switch, and then execute "Move Exec" with SP5-873-001.
 - For details, see "SD Card Appli Move".
- 6. Turn off the machine after completing the "Move Exec".
- 7. Remove the Security Card from the SD slot 2, and then keep the Security Card in the place for the SD card storage (**p.132 "SD Card Appli Move").
- 8. Reinstall the VM card in the SD slot 2.
- 9. Attach the SD slot cover (F x 1).

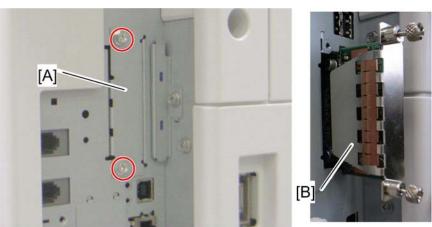


- 10. Attach the "Adobe PostScript 3" decal [A] to the front door.
- 11. Make sure that the machine can recognize the option (see "Check All Connections" at the end of this section).

File Format Converter

ACAUTION

• Unplug the main machine power cord before you do the following procedure.



- d104i120
- 1. Remove the I/F-slot cover [A] (Fx 2).
- 2. Install the file format converter [B] into the I/F-slot and then fasten it with screws.
- 3. Plug in and turn on the main power switch.
- 4. Check or set the following SP codes with the values shown below.

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

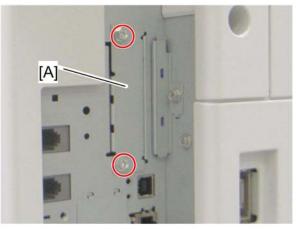
- 5. Check the operation.
- 6. Make sure that the machine can recognize the option (see "Check All Connections" at the end of this section).

IEEE1284

CAUTION

• Unplug the main machine power cord before you do the following procedure.

You can only install one of the following network interfaces at a time: (IEEE 802.11 a/g, g (Wireless LAN), IEEE1284, Bluetooth).





d104i121

- 1. Remove the I/F-slot cover [A] (*x 2).
- 2. Install the interface board [B] (Knob-screw x 2) into the I/F-slot.
- 3. Make sure that the machine can recognize the option (see "Check All Connections" at the end of this section).

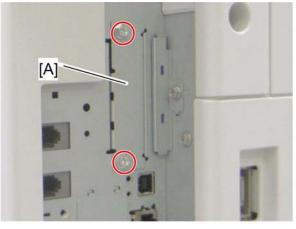
IEEE 802.11 a/g, g (Wireless LAN)

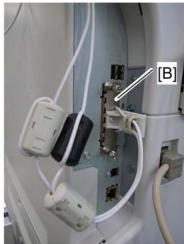
Installation Procedure

ACAUTION

• Unplug the main machine power cord before you do the following procedure.

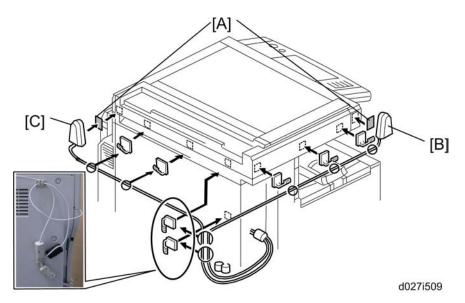
You can only install one of the following network interfaces at one time: (IEEE 802.11 a/g, g (Wireless LAN), IEEE1284, Bluetooth).





d104i122

- 1. Remove the I/F-slot cover [A] from the I/F-slot ($\slash\hspace{-0.6em}P \times 2$).
- 2. Install the wireless LAN board [B] (Knob-screw x 2) into the I/F-slot.
- 3. Make sure that the machine can recognize the option (see "Check All Connections" at the end of this section).



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



- "ANT1" is a transmission/reception antenna and "ANT2" is a reception antenna. Do not attach
 them at the wrong places.
- 7. Attach the clamps as shown above.



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

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

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

Installing Various Hardware Combinations





d037i135

• Refer to the above picture when installing the USB2.0/SD.

UP Mode Settings for Wireless LAN

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



- You cannot use the wireless LAN if you use Ethernet.
- 1. Press the "User Tools/Counter" key.
- 2. On the touch panel, press "System Settings".



- The Network I/F (default: Ethernet) must be set for either Ethernet or wireless LAN.
- 3. Select "Interface Settings".
- 4. Press "Wireless LAN". Only the wireless LAN options show.
- 5. Communication Mode. Select either "802.11 Ad hoc", "Ad hoc" or "Infrastructure".
- 6. SSID Setting. Enter the SSID setting. (The setting is case sensitive.)
- 7. Channel. You need this setting when Ad Hoc Mode is selected.

Range: 1 to 14 (default: 11)



- The allowed range for the channel settings may vary for different countries.
- 8. WEP (Encryption) Setting. 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.

WEP:

Selects "Active" or "Inactive" ("Inactive" is default.).

Range of Allowed Settings:

64 bit: 10 characters
128 bit: 26 characters

9. Transmission Speed. Press the Next button to show more settings. Then select the transmission speed for the mode: Auto, 11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps (default: Auto). This setting should match the distance between the closest machine or access point. This depends on which mode is selected.



For the Ad Hoc Mode, this is the distance between the machine and the closest PC in the network.
 For the Infrastructure Mode, this is the distance between the machine and the closest access point.

11 Mbps: 140 m (153 yd.) 5.5 Mbps: 200 m (219 yd.) 2 Mbps: 270 m (295 yd.) 1 Mbps: 400 m (437 yd.)

10. Press "Return to Default" to initialize the wireless LAN settings.

Press "Yes" to initialize the following settings:

- Transmission mode
- Channel
- Transmission Speed
- WEP
- SSID
- WEP Key

SP Mode and UP Mode Settings for IEEE 802.11 a/g, g Wireless LAN

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

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).
UP mode	Name	Function

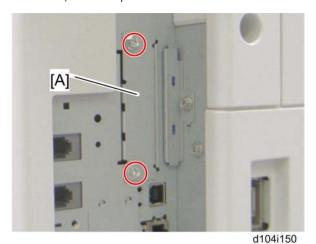
SSID	Used to confirm the current SSID setting.
WEP Key	Used to confirm the current WEP key setting.
WEP Mode	Used to show the maximum length of the string that can be used for the WEP Key entry.

Bluetooth

ACAUTION

• Unplug the main machine power cord before you do the following procedure.

You can only install one of the following network interfaces at a time: (IEEE 802.11 a/g, g (Wireless LAN), IEEE1284, Bluetooth).



1. Remove the slot cover [A] (*x 2).



2. Install the Bluetooth board [A] (Knob-screw x 2) into the slot.

- 3. Insert the Bluetooth card [B] into the Bluetooth card adaptor.
- 4. Install the Bluetooth card adaptor on the Bluetooth board.
- 5. Attach the antenna cap to the Bluetooth board.
- 6. Make sure that the machine can recognize the option (see "Check All Connections" at the end of this section).

PictBridge

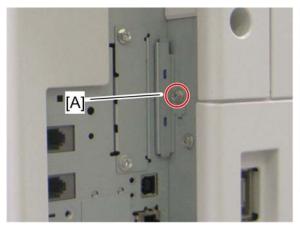


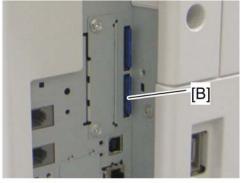
ACAUTION

• Unplug the main machine power cord before you do the following procedure.



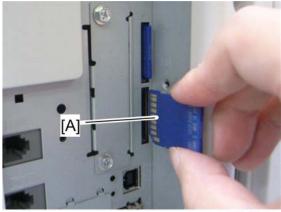
· You must install the PictBridge option in SD Card slot 1. However, the Postscript3 option, Security Card and IPDS unit option are also installed in SD Card slot 1. You must do the SD Card Appli move procedure first if you have the PpostScript3, Security Card or IPDS unit option installed and you want to install the PictBridge unit.





d104i119a

- 1. Remove the SD slot cover [A] for SD cards (x 1).
- 2. Remove the VM card [B] from the SD slot 2.



d104i204

- 3. Turn the SD card label face of the PictBridge [A] to the front of the machine. Then push it slowly into SD slot 2 until you hear a click.
- 4. Plug in and turn on the main power switch, and then execute "Move Exec" with SP5-873-001.
 - For details, see "SD Card Appli Move".
- 5. Turn off the machine after completing the "Move Exec".
- 6. Remove the PictBrdige from the SD slot 2, and then keep the PictBrdige card in the place for the SD card storage (*** p.132 "SD Card Appli Move").
- 7. Reinstall the VM card in the SD slot 2.
- 8. Attach the SD slot cover (> x 1).
- 9. Make sure that the machine can recognize the option (see "Check All Connections" at the end of this section).

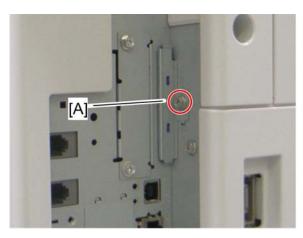
Browser Unit Type E

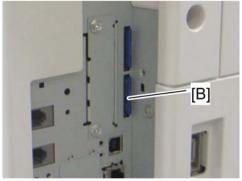
Installation Procedure

ACAUTION

Unplug the main machine power cord before you do the following procedure.

Do not leave the SD card in slot 2 after installing this application.



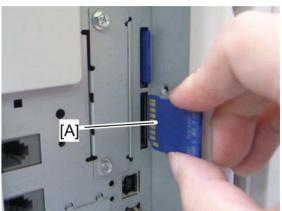


Installation procedure was modified

Browser unit RTB 2

d104i119a

- 1. Remove the SD slot cover [A] for SD cards (\mathcal{F} x 1).
- 2. Remove the VM card [B] from the SD slot 2.



d104i204

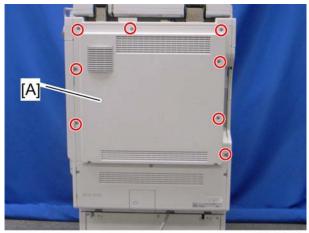
- 3. Turn the SD-card label face of the Browser Unit [A] to the front of the machine. Then push it slowly into SD slot 2 [A] until you hear a click.
- 4. Plug in and turn on the main power switch.
- 5. Push the "User Tools" key.
 - If an administrator setting is registered for the machine, step 5 and 6 are required. Otherwise, skip to step 7
- 6. Push the "Login/ Logout" key.
- 7. Login with the administrator user name and password.
- 8. Touch "Extended Feature Settings" twice on the LCD.
- 9. Touch "Install" on the LCD.
- 10. Touch "SD Card".
- 11. Touch the "Browser" line.

- 12. Under "Install to" touch "Machine HDD" and touch "Next".
- 13. When you see "Ready to Install", check the information on the screen to confirm your previous selection.
- 14. Touch "OK". You will see "Installing the extended feature... Please wait.", and then "Completed".
- 15. Touch "Exit" to go back to the setting screen.
- 16. Touch "Change Allocation".
- 17. Touch the "Browser" line.
- 18. Press the hard key that you want to use for the Browser Unit. As a default, this function is assigned to the "Other Functions" key (the bottom key of the function keys).
- 19. Touch "OK".
- 20. Touch "Exit" twice to go back to the copy screen.
- 21. Turn off the main power switch.
- 22. Install the key for "Browser Unit" to the place where you want.
- 23. Remove the SD card of the Brower Unit from SD slot 2.
- 24. Reinstall the VM card in the SD slot 2.
- 25. Attach the slot cover [A] (F x 1).
- 26. Keep the SD card in the place (**p.132 "SD Card Appli Move") after you install the application program from the card to HDD. This is because the SD card can be the only proof that the user is licensed to use the application program. You may need to check the SD card and its data to solve a problem in the future.

Gigabit Ethernet

ACAUTION

• Unplug the main machine power cord before you do the following procedure.

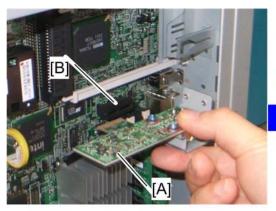


d104r110

1. Rear cover [A] (🗗 x 8)



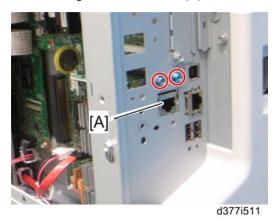
- 2. Remove the I/F-slot cover [A] from the I/F-slot ($\mbox{\em psi}$ x 1).
- 3. Remove the controller bracket [B] (\mathcal{F} x 2).



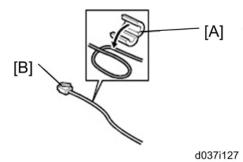


d377i510

4. Install the Gigabit Ethernet board [A] in the connector [B] on the controller board.



- 5. Secure the GigabitEthernet board [A] to the controller box (\mathcal{F} x 2).
- 6. Reassemble the controller bracket (\mathcal{F} x 2) and rear cover (\mathcal{F} x 8).



- 7. Attach the ferrite core [A] to the LAN cable [B] as shown above, and connect the LAN cable to the machine.
- 8. Make sure that the machine can recognize this option (see "Check All Connections" at the end of this section).

Check All Connections

- 1. Plug in the power cord. Then turn on the main switch.
- Enter the printer user mode. Then print the configuration page.
 User Tools > Printer Settings > List Test Print > Config. Page

All installed options are shown in the "System Reference" column.

3. Preventive Maintenance

Maintenance Tables

See "Appendices" for the following information:

- Preventive Maintenance Items
- Other Yield Parts

PM Parts Settings

Before Removing the Old PM Parts

- 1. Enter the SP mode.
- 2. Output the SMC logging data with SP5-990-004.
- 3. Set the following SPs to "1" before you turn the power off. Then, the machine will reset the PM counters automatically. In the case of developer, the developer initialization will also be done automatically.
- 4. Exit the SP mode.

Item	SP
	Black: 3902-001
Development Unit	Cyan: 3902-002
Development offit	Magenta: 3902-003
	Yellow: 3902-004
	Black: 3902-009
Drum Unit	Cyan: 3902-010
	Magenta: 3902-011
	Yellow: 3902-012
ITB Unit	3902-013
Fusing Unit	3902-014
Heating Roller Unit	3902-016
ITB Cleaning Unit	3902-017
PTR Unit	3902-018
PCDU Toner Collection Bottle	3902-019*1
ITB Toner Collection Bottle	3902-020*1



• *1: Only if the toner collection bottle is replaced before the machine detects near-full.

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

• Development unit

• PCU/ITB Toner Collection Bottle (if full or near-full)

After Installing the New PM parts

- 1. Turn on the main power switch.
- 2. Output the SMC logging data with SP5-990-004 and check the counter values.
- 3. Make sure that the PM counters for the replaced units are "0" with SP7-803. If the PM counter for a unit was not reset, then reset that counter with SP 7-804.
- 4. Make sure that the exchange counter counts up with SP7-853.
- 5. Make sure that the counters for the previous units (SP7-906) on the new SMC logging data list (from step 2 above) are equal to the counters (SP7-803) for these units on the previous SMC logging data list (the list that was output in the "Before removing the old parts" section).
- 6. Make sure that the unit replacement date is updated with SP7-950.

Preparation before Operation Check

- 1. Clean the exposure glasses (for DF and book scanning).
- 2. Enter the user tools mode.
- 3. Do the "Automatic Color Calibration (ACC)" for the copier mode & printer mode as follows:
 - Print the ACC test pattern (User Tools > Maintenance > ACC > Start).
 - Put the printout on the exposure glass.
 - Put 10 sheets of white paper on the test chart. This ensures the precise ACC adjustment.
 - Close the ARDF or the platen cover.
 - Press "Start Scanning" on the LCD. Then, the machine starts the ACC.
- 4. Exit the User Tools mode, and then enter the SP mode.
- 5. Do the "Forced line position adjustment" as follows.
 - First do SP2-111-3 (Mode c).
 - Then do SP2-111-1 (Mode a).
 - To check if SP 2-111-1 was successful, watch the screen during the process. A message is
 displayed at the end. Also, you can check the result with SP 2-194-10 to -12.
- 6. Exit the SP mode.

Operation Check

Check if the sample image has been copied normally.

4. Replacement and Adjustment

Beforehand

ACAUTION

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

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

Part Number	Description	Q'ty
B645 5010	SD Card	1
G021 9350	Loop-back Connector - Parallel	1
C401 9503	20X Magnification Scope	1
A257 9300	Grease Barrierta – S552R	1
A092 9503	C4 Color Test Chart (3 pcs/set)	1
B679 5100	Plug - IEEE1284 Type C	1
A184 9501	Optics Adjustment Tool (2 pcs/set)	1
5203 9502	Silicon Grease G-501	1

Image Adjustment

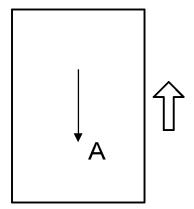
Scanning

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



• Use S-2-1 test chart to do the following adjustments.

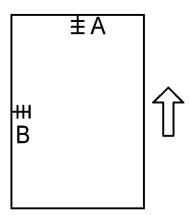
Scanner sub-scan magnification



A: Sub-scan magnification

- 1. Put the test chart on the exposure glass. Then make a copy from one of the feed stations.
- Check the magnification ratio. Adjust with SP4-008 if necessary. Standard: ±1.0%.

Scanner leading edge and side-to-side registration



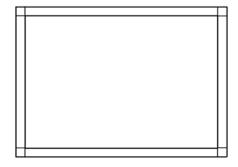
A: Leading Edge Registration

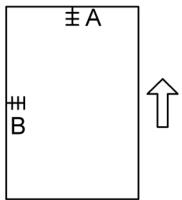
- 1. Put the test chart on the exposure glass. Then make a copy from one of the feed stations.
- 2. Check the leading edge and side-to-side registration. Adjust the following SP modes if necessary. Standard: 0 ± 2 mm for the leading edge registration, 0 ± 2 mm for the side-to-side registration.

	SP mode
Leading Edge Registration	SP4-010-001
Side-to-Side Registration	SP4-011-001

ARDF

ARDF side-to-side, leading edge registration and trailing edge





A: Leading edge registration, B: Side-to-Side registration

Use A3/DLT paper to make a temporary test chart as shown above.

- 1. Put the temporary test chart on the ARDF. Then make a copy from one of the feed stations.
- 2. Check the registration. Check the leading edge and side-to-side registration. Adjust the following SP modes if necessary.

Standard: 4.2 ± 3.0 mm for the leading edge registration, 2 ± 3.0 mm for the side-to-side registration. Use the following SP modes to adjust if necessary.

SP Code	What It Does	Adjustment Range
SP6-006-001	Side-to-Side Registration (1 st side)	± 3.0 mm
SP6-006-002	Side-to-Side Registration (2nd side)	± 3.0 mm
SP6-006-003	Leading Edge Registration	± 5.0 mm
SP6-006-005	Buckle: Duplex Front	± 5.0 mm
SP6-006-006	Buckle: Duplex Rear	± 5.0 mm
SP6-006-007	Rear Edge Erase (Trailing Edge)	± 5.0 mm

ARDF sub-scan magnification

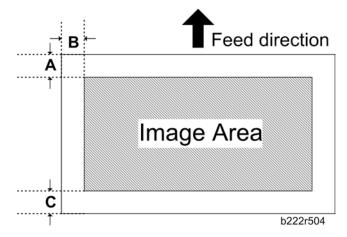
- 1. Put the temporary test chart on the ARDF. Then make a copy from one of the feed stations.
- 2. Check the magnification ratio. Adjust with SP6-017-001 if necessary.

• Standard: ±5.0%

• Reduction mode: ±5.0%

• Enlargement mode: ±5.0%

Image Area



A = 4.2 mm, B = 2.25 mm, C = 3.25

Make sure that the registration is adjusted within the adjustment standard range as shown below.

Leading Edge

Adjusts the leading edge registration for each paper type and process line speed.

Side to Side

Adjusts the side-to-side registration for each paper feed station. Use SP mode (SP1-002) to adjust the side-to-side registration for the optional paper feed unit, LCT, and duplex unit.

Adjustment Standard

- Leading edge (sub-scan direction): 4.2 ± 1.5 mm
- Side to side (main-scan direction): 2.25 ± 1.75 mm

Paper Registration Standard

The registration in both main- and sub-scan directions can change within the following tolerance.

- Sub-scan direction: 0 ± 9 mm
- Main-scan direction: 0 ± 4 mm

Adjustment Procedure

- 1. Enter SP2-109-003.
- 2. Print out the test pattern (14: Trimming Area) with SP2-109-003.

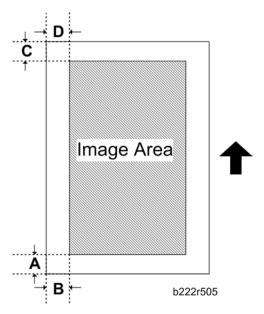


- Registration can change slightly as shown on the previous page. Print some pages of the
 "Trimming Area" for step 3 and 4. Then average the leading edge and side-to-side registration
 values, and adjust each SP mode.
- 3. Do the leading edge registration adjustment.
 - 1) Check the leading edge registration and adjust it with SP1-001.
 - 2) Select the adjustment conditions (paper type and process line speed).
 - 3) Input the value. Then press the @ key.
 - 4) Generate a trim pattern to check the leading edge adjustment.
- 4. Do the side-to-side registration adjustment.
 - 1) Check the side-to-side registration and adjust it with SP1-002.
 - 2) Select the adjustment conditions (paper feed station).
 - 3) Input the value. Then press the 🖱 key.
 - 4) Generate a trim pattern to check the leading edge adjustment.

Erase Margin Adjustment



• Adjust the erase margin C and D only if the registration (main scan and sub scan) cannot be adjusted within the standard values. Do the registration adjustment after adjusting the erase margin C and D, and then adjust the erase margin A and B.



- 1. Enter SP2-109-003.
- 2. Print out the test pattern (14: 1-dot trimming pattern) with SP2-109-003.
- 3. Check the erase margin A and B. Adjust them with SP2-103-001 to -010 if necessary.

• Leading edge: 1.5 to 5.0 mm,

• Side-to-side: 0.5 to 4.0 mm,

• Trailing edge: 0.5 to 0.6 mm

Color Registration

Line Position Adjustment

The automatic line position adjustment usually is done for a specified condition to get the best color prints.

Do the following if color registration shifts:

- Do "Auto Color Registration" as follows to do the forced line position adjustment.
 - 1. First do SP2-111-3.
 - 2. Then do SP2-111-1.

To check if SP 2-111-1 was successful, watch the screen during the process. A message is displayed at the end. Also, you can check the result with SP 2-194-007 (0: Completed successfully, 1: Failed).

• You should also do the line position adjustment at these times:

- After you transport or move the machine (you should do the forced line position adjustment if you install the machine at the user location.) if the machine is pre-installed at the workshop and moved to the user location,
- 2. When you remove the PCDU
- 3. When you remove or replace the image transfer belt, image transfer belt unit or laser optical housing unit

Printer Gamma Correction



• The ACC is usually sufficient to adjust the color balance to get the best print output. You only need the printer gamma correction to fine-tune to meet user requirements.

Use SP modes if you want to modify the printer gamma curve created with ACC. You can adjust the gamma data for the following:

- Highlight
- Middle
- Shadow areas
- IDmax.

The adjustable range is from 0 to 30 (31 steps).

Copy Mode

- Photo Mode -

	Item to Adjust	Level on the C-4 chart	Adjustment Standard	
1	ID max: (K, C, M, and Y)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that the density of level 10 matches that of level 10 on the C-4 chart.	
	For adjusting ID max: Soft keys on the operation panel (SP4-918-009)			
2	Middle (Middle ID) (K, C, M, and Y) Adjust the offset value so that the density of level 6 matches that level 6 on the C-4 chart.			
	For adjusting Middle: Soft keys on the operation panel (SP4-918-009)			

	Item to Adjust	Level on the C-4 chart	Adjustment Standard
3	Shadow (High ID) (K, C, M, and Y)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that the density of level 8 matches that of level 8 on the C-4 chart.
	For adjusting Shadow: S	Soft keys on the operation panel (SP4-	918-009)
4	Highlight (Low ID) 4 (K, C, M, and Y)		Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-4 chart.
	For adjusting Highlight: Soft keys on the operation panel (SP4-918-009)		
5	K Highlight (Low ID) (C,M, and Y) <on color="" copy="" full="" the=""></on>	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that the color balance of black scale levels 3 through 5 in the copy is seen as gray (no C, M, or Y should be visible). If the black scale contains C, M, or Y, do steps 1 to 4 again.
For adjusting K Highlight: Soft keys on the operation panel (SP4-918-009)			24-918-009)

- Text (Letter) Mode, Full Color -

	Item to Adjust	Level on the C-4 chart (K)	Adjustment Standard	
1	ID max: (K, C, M, and Y)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that the density of level 10 matches that of level 10 on the C-4 chart.	
	For adjusting ID max: Soft keys on the operation panel (SP4-918-009)			
2	Middle (Middle ID) (K, C, M, and Y)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that the density of level 6 matches that of level 6 on the C-4 chart.	
	For adjusting Middle: Soft keys on the operation panel (SP4-918-009)			
3	Shadow (High ID) (K, C, M, and Y)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that the density of level 8 matches that of level 8 on the C-4 chart.	
	For adjusting Shadow: Soft keys on the operation panel (SP4-918-009)			

		Item to Adjust	Level on the C-4 chart (K)	Adjustment Standard
2		Highlight (Low ID) (K, C, M, and Y)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-4 chart.
	For adjusting Highlight: Soft keys on the operation panel (SP4-918-009)			918-009)

- Text (Letter) Mode, Single Color -

	Item to Adjust	Level on the C-4 chart (K)	Adjustment Standard
1	ID max: (K)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that the density of level 10 matches that of level 10 on the C-4 chart.
	For adjusting K ID max:	Soft keys on the operation panel (SP4-9	718-009)
2	Middle (Middle ID) (K)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that the density of level 6 matches that of level 6 on the C-4 chart.
	For adjusting K Middle: Soft keys on the operation panel (SP4-918-009)		
3	Shadow (High ID) (K)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that the density of level 8 matches that of level 8 on the C-4 chart.
	For adjusting K Shadow: Soft keys on the operation panel (SP4-918-009)		
4	Highlight (Low ID) (K)	1 2 3 4 5 6 7 8 9 10	Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-4 chart.
For adjusting K Highlight: Soft keys on the operation panel (SP4-918-009)			l-918-009)



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

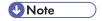
There are six adjustable modes (select these modes with printer SP1-102-001):

- 1200 x 1200 photo mode
- 1200 x 1200 text mode
- 2400 x 600 photo mode
- 2400 x 600 text mode
- 1800 x 600 photo mode
- 1800 x 600 text mode
- 600 x 600 photo mode
- 600 x 600 text mode

	K	С	М	Υ
Highlight	SP1-104-1	SP1-104-21	SP1-104-41	SP1-104-61
Shadow	SP1-104-2	SP1-104-22	SP1-104-42	SP1-104-62
Middle	SP1-104-3	SP1-104-23	SP1-104-43	SP1-104-63
IDmax	SP1-104-4	SP1-104-24	SP1-104-44	SP1-104-64

- Adjustment Procedure -

- 1. Do ACC for the printer mode.
- 2. Turn the main power off and on.
- 3. Enter SP mode.
- 4. Select "Printer SP".
- 5. Select SP1-102-001. Then select the necessary print mode to adjust.
- 6. Choose SP1-103-1 to print out a tone control test sheet if you want to examine the image quality for these settings.
- 7. Adjust the color density with SP1-104. Compare the tone control test sheet with the C4 test chart.



- Adjust the density in this order: "ID Max", "Shadow", "Middle", "Highlight".
- 8. Use SP1-105-001 to keep the adjusted settings.

Exterior Covers

PCDU Toner Collection Bottle

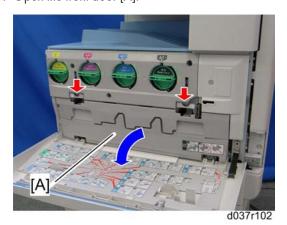
If you replace this toner collection bottle after the machine detects that it is full or near-full, the machine automatically resets the PM counter for the PCDU toner collection bottle after replacement.

But, if you replace a bottle that is not full or near-full, then you must reset the PM counter for this unit. To do this, set SP 3902 019 to 1 before you start to work on the machine.



d037r101

1. Open the front door [A].

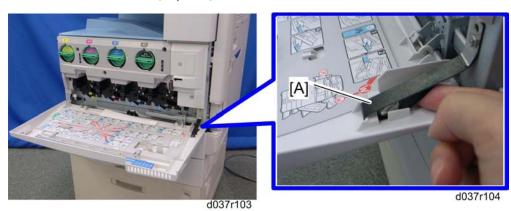


2. PCDU toner collection bottle [A] (lock x 2)

Front Door

1. Open the front door.

2. PCDU toner collection bottle (**p.165)



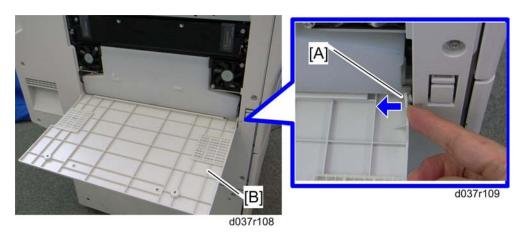
3. Release the belt [A].



ITB Cleaning Unit Cover

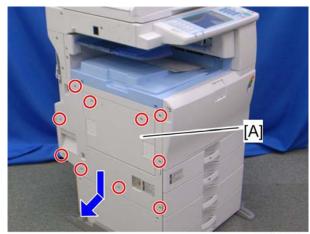


1. Open the ITB cleaning unit cover [A] (\mathcal{F} x 2).



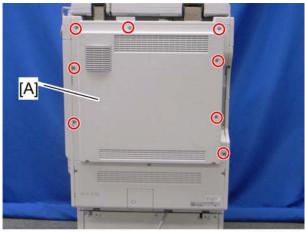
2. Release the tab [A], and then remove the ITB cleaning unit cover [B].

Left Cover



d037r201

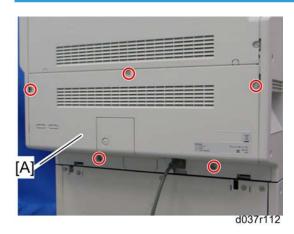
1. Left cover [A] (🔊 x 10)



d104r110

1. Rear cover [A] (🗗 x 8)

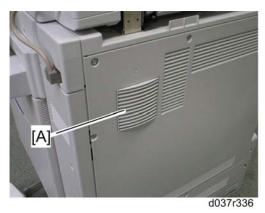
Rear Lower Cover

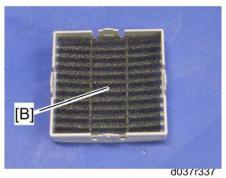


1. Rear lower cover [A] (🏲 x 5)

_/

Dust Filter

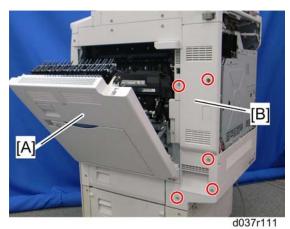




- Dust filter cover [A] (hooks)
- 2. Dust filter [B]

Right Rear Cover

1. Rear cover (**p.168)



- 2. Open the duplex unit [A].
- 3. Right rear cover [B] (🗗 x 5)

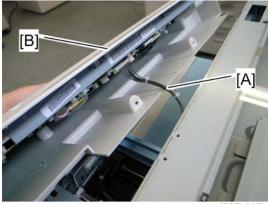






d037r113

- 1. Remove six screws on the operation panel [A].
- 2. Slide the operation panel to the front side.



d037r115

- 3. Disconnect the harness [A].
- 4. Operation panel [B]

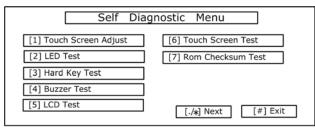
Touch Panel Position Adjustment



- It is necessary to calibrate the touch panel at the following times:
- When you replace the operation panel.
- When you replace the controller board.
- When the touch panel detection function does not operate correctly

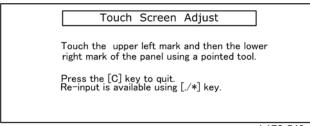
Do not use items [2] to [9] on the Self-Diagnostic Menu. These items are for design use only.

1. Press , press "1", "1", "9", "3", and then press 5 times to open the Self-Diagnostics menu.



b178r548

- 2. On the touch screen press "Touch Screen Adjust" (or press"1").
- 3. Use a pointed (not sharp) tool to press the upper left mark s.

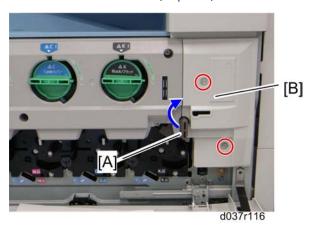


b178r549

- 4. Press the lower right mark when "*o" shows.
- 5. Press [#] OK on the screen (or press ⁽¹⁾) when you are finished.
- 6. Touch [#] Exit on the screen to close the Self-Diagnostic menu. Save the calibration settings.

Inner Right Cover

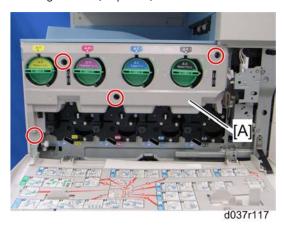
1. PCDU toner collection bottle (IPp.165)



Inner Cover

1. PCDU toner collection bottle (IPp.165)

2. Inner right cover (Pp.171)



2. Press the ITB lock lever [A] and turn it up clockwise as shown above.

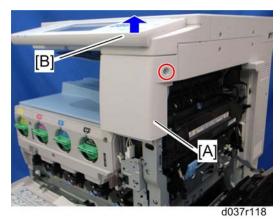
3. Inner cover [A] (🗗 x 4)

Front Right Cover

1. Open the duplex unit.

2. PCDU toner collection bottle (**p.165)

3. Inner right cover (**p.171)



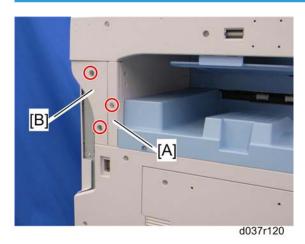
4. Remove the front right cover [A] with the operation panel [B] lifted up (\mathcal{F} x 1).

Right Upper Cover



1. Right upper cover [A] (* x 2)

Left Frame and Left Frame Rear Cover



- 1. Left frame cover [A] (F x 1)
- 2. Left frame rear cover [B] (** x 2)

Paper Exit Cover



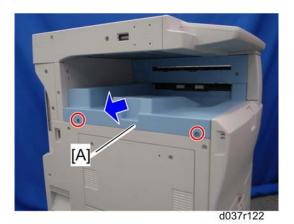
- 1. Inverter tray [A]
- 2. Paper exit cover [B] (🏲 x 1)

Inverter Tray



1. Inverter tray [A] (hooks)

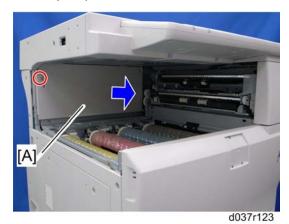
Inner Tray



1. Inner tray [A] (🔊 x 2)

Inner Rear Cover

- 1. Left frame cover (**p.173 "Left Frame and Left Frame Rear Cover")
- 2. Paper exit cover (Pp.174)
- 3. Inner tray (**p.175)

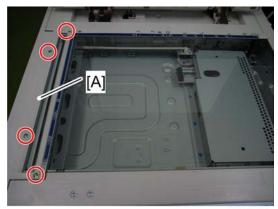


4. Inner rear cover [A] (* x 1)

Scanner Unit

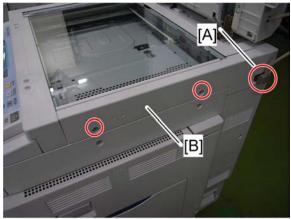
Exposure Glass

- 1. Rear cover (**P**p.168)
- 2. Open the ARDF or platen cover.



d037i128

3. Glass cover [A] (🗗 x 4)



d037i130

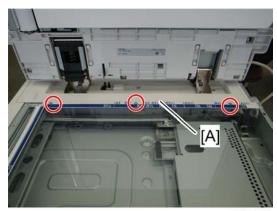
- 4. Disconnect the DF I/F cable [A]
- 5. Scanner right cover [B] (Fx 2)



6. ARDF exposure glass [A]

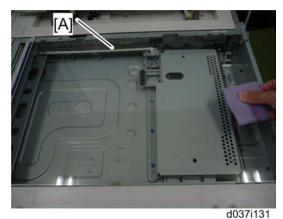


• Position the white marker [B] at the rear-left corner when you reattach the ARDF exposure glass.



d037i129

7. Rear scale [A] (🗗 x 3)



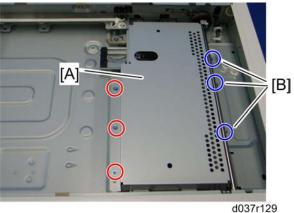
8. Exposure glass [A] with left scale



• Position the marker at the front-left corner when you reattach the exposure glass.

Original Length Sensors

1. Exposure glass with left scale (IPp.176)

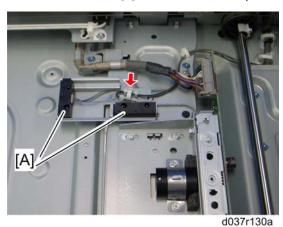


dos

2. SBU cover [A] (*x 6)



• The three screws [B] do not need to be fully removed. Just loosen them to remove the SBU cover.



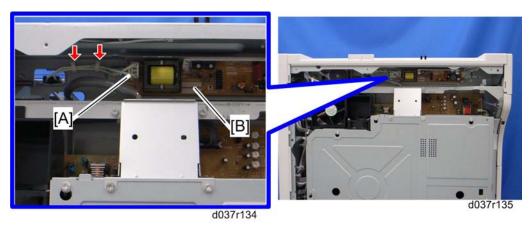
3. Original length sensors [A] (hooks, 🖨 x 1, 📬 x 1 each))

Exposure Lamp

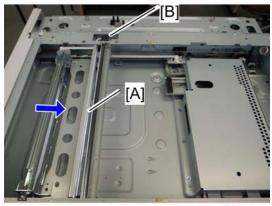
- 1. Rear cover (**1**p.168)
- 2. Operation panel (Pp.170)
- 3. Exposure glass (Pp.176)



4. Scanner rear cover [A] (Fx 1)



5. Disconnect the connector [A] from the lamp stabilizer [B].

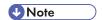


d037r136

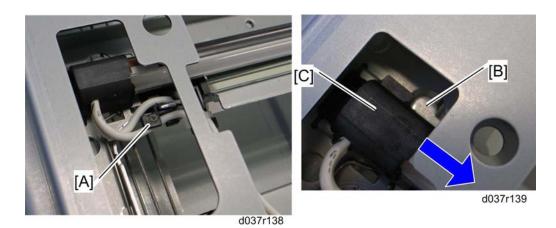
6. Move the carriage unit [A] to the cutout position [B].



7. Cable guide [A] (hooks)



- Keep the cable guide for reassembling.
- 8. Adjustor clamp [B] (🗗 x 1)
- 9. Pulley [C]

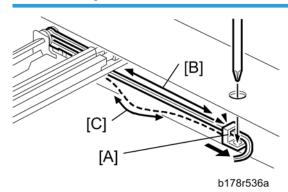


- 10. Release the cable clamp [A] (one hook under the cable clamp) at the rear edge of the exposure lamp.
- 11. Hold down the snap [B], and then slide the exposure lamp [C] to the front side.



12. Exposure lamp [A]

Reassembling



Run the cable so there is no slack. Slide the adjustor clamp [A] to adjust the cable slack.



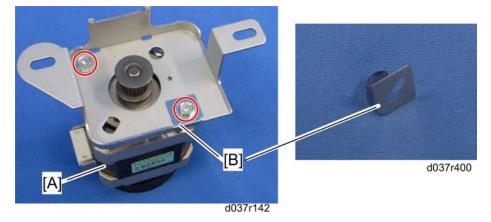
- [B]: Good
- [C]: Not good

Scanner Motor

1. Rear cover (**p.168)



2. Scanner motor assembly [A] (Fx 2, spring x 1, 🖾 x 1, timing belt x 1)



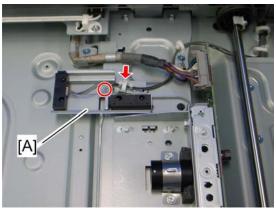
3. Scanner motor [A] ($\mbox{\ensuremath{\not{/}}{\sc x}}$ 2, ground plate [B] x 1)



- Make sure that the ground plate [B] is attached when installing the scanner motor in the scanner motor bracket.
- Do the scanner image adjustment after replacing the scanner motor (**p.155 "Image Adjustment").

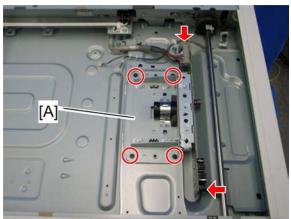
Sensor Board Unit (SBU)

1. Exposure glass (Pp.176)



d037r130

2. Original length sensor assembly [A] (** x 1, ** x 1, ** x 1 each)



d037r132

3. Sensor board unit [A] (> x 4, ground screw x 1, 🗗 x 2)

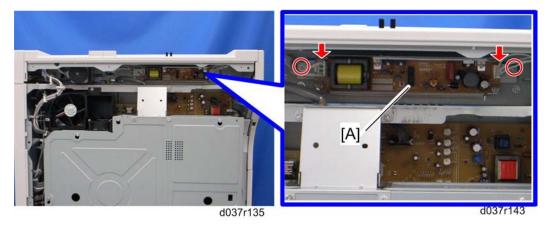
When reassembling

Adjust the following SP modes after you replace the sensor board unit:

- SP4-008 (Sub Scan Mag.Adjustment): See "Image Adjustment: Scanning" (p.155 "Image Adjustment").
- SP4-010 (LE Regist Adjust): See "Image Adjustment: Scanning" (p.155 "Image Adjustment").
- SP4-011 (S-to-S Regist Adjustment): See "Image Adjustment: Scanning" (p.155 "Image Adjustment").

Exposure Lamp Stabilizer

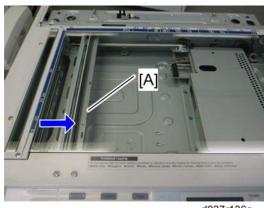
1. Rear cover (**P**p.168)



2. Exposure lamp stabilizer assembly [A] (🔊 x 2, 📬 x 2)

Scanner HP Sensor

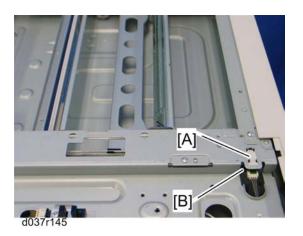
- 1. Rear Cover (p. 168)
- 2. Scanner rear cover (p. 179 "Exposure Lamp")





3. Move the 1st scanner carriage [A] to the right side by rotating the scanner motor [B] clockwise.

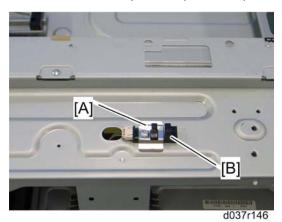
4



- 4. Remove the mylar [A].
- 5. Remove the scanner HP sensor [B] (🖾 x 1, hooks).

Platen Cover Sensor

1. Scanner rear cover (***p.179 "Exposure Lamp")



- 2. Holder bracket [A] (🗗 x 1)
- 3. Platen cover sensor [B] (🗗 x 1)

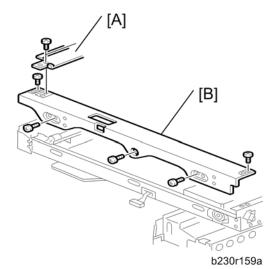
Front Scanner Wire

- 1. Rear Cover (1 p. 168)
- 2. Operation panel (**p.170)
- 3. Exposure glass (IPp.176)

d037r391

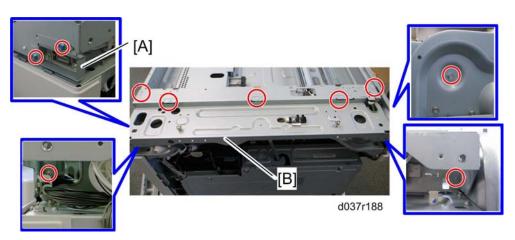
0

4. Scanner left cover [A] (🗗 x 2)



- 5. Scanner left stay [A] (🗗 x 3)
- 6. Scanner front frame [B] (🏲 x 5)

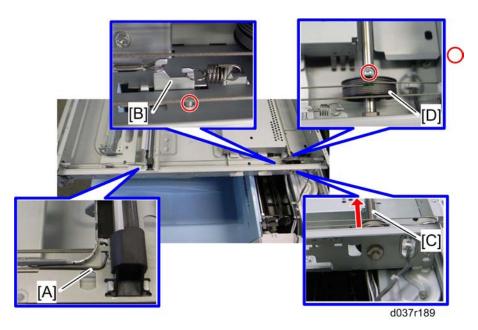
4



- 7. Take aside the connector bracket [A] (\mathscr{F} x 2).
- 8. Scanner rear frame [B] (🎤 x 8, 🖨 x all, 📬 x all)
- 9. Scanner motor assembly (**p.182)

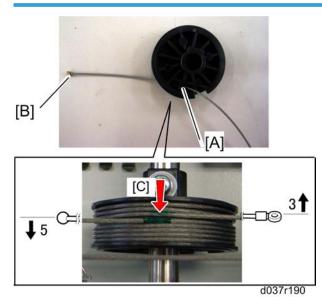


10. Rear scanner drive pulley [A] (\mathcal{F} x 1)



- 11. Front scanner wire clamp [A]
- 12. Loosen the front scanner wire bracket [B] (🗗 x 1)
- 13. Front scanner wire

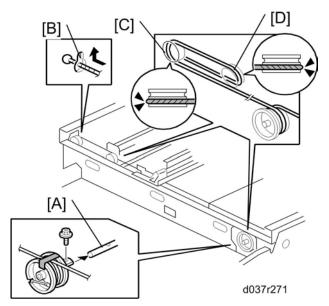
Reinstalling the Front Scanner Wire



- 1. Position the center ball [A] in the middle of the forked holder.
- 2. Pass the right end (with the ball) [B] through the square hole. Pass the left end (with the ring) through the notch.
- 3. Wind the right end counterclockwise (shown from the machine's front) five times. Wind the left end clockwise three times.



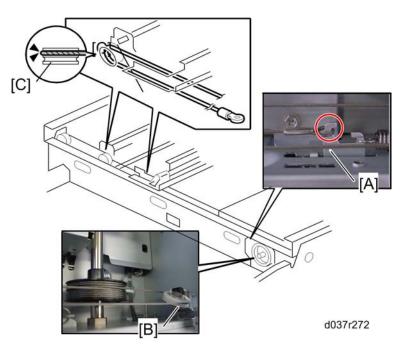
The two green marks [C] come together when you have done this. Stick the wire to the pulley
with tape. This lets you easily handle the assembly at the time of installation.



4. Install the drive pulley on the shaft [A] (\mathcal{F} x 1, \mathcal{F} x 1).



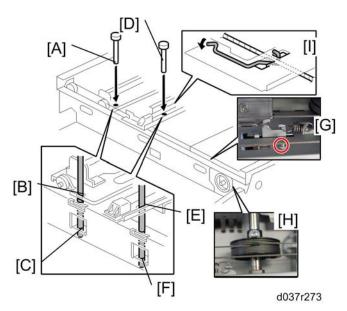
- Do not attach the pulley to the shaft with the screw at this time.
- 5. Insert the left end into the slit [B]. The end should go via the rear track of the left pulley [C] and the rear track of the movable pulley [D].



6. Hook the right end onto the front scanner wire bracket [A]. The end should go via the rear track of the right pulley [B] and the rear track of the movable pulley [C].



• Do not attach the scanner wire bracket with the screw at this time.



7. Remove the tape from the drive pulley.

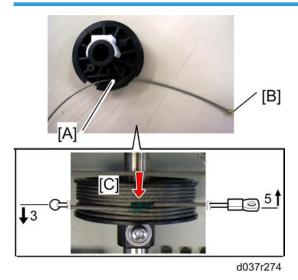
- 8. Insert a scanner positioning pin [A] through the 2nd carriage hole [B] and the left holes [C] in the front rail. Insert another scanner positioning pin [D] through the 1st carriage hole [E] and the right holes in the front rail [F].
- 9. Insert two more scanner positioning pins through the holes in the rear rail.
- 10. Screw the drive pulley to the shaft [G].
- 11. Screw the scanner wire bracket to the front rail [H].
- 12. Install the scanner wire clamp [1].
- 13. Pull out the positioning pins.



 Make sure the 1st and 2nd carriages move smoothly after you remove the positioning pins. Do steps 8 through 13 again if they do not.

Rear Scanner Wire

- 1. Rear Cover (p. 168)
- 2. Operation panel (**p.170)
- 3. Exposure glass (Pp. 176)
- 4. Scanner left cover (**p.185 "Front Scanner Wire")
- 6. Scanner left stay (*** p.185 "Front Scanner Wire")
- 7. Scanner rear frame (***p.185 "Front Scanner Wire")
- 8. Follow steps 10 through 14 in the p.185 "Front Scanner Wire". You can remove the rear scanner wire with the same manner for replacing the front scanner wire.



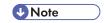
- 1. Position the center ball [A] in the middle of the forked holder.
- 2. Pass the left end (with the ball) [B] through the drive pulley notch. Pass the right end (with the ring) through the drive pulley hole.
- 3. Wind the left end [B] clockwise (shown from the machine's front) five times. Wind the right end counterclockwise three times.



- The two green marks [C] come together when you do this. Attach the wire to the pulley with tape. This lets you easily handle the assembly at the time of installation.
- 4. Install the drive pulley on the shaft.



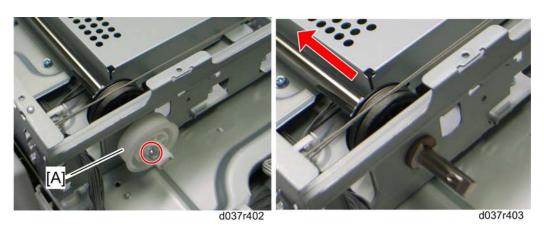
- Do not attach the pulley on the shaft with the screw at this time.
- 5. Install the wire.



The winding of the wire on the three pulleys at the rear of the scanner should be the same as the
winding on the three pulleys at the front. This must show as a mirror image.

Example: At the front of the machine, the side of the drive pulley with the three windings must face the front of the machine. At the rear of the machine, it must face the rear.

6. Do steps 7 through 13 from the "Reinstalling the Front Scanner Wire" (p.185 "Front Scanner Wire").





• When removing the rear scanner wire, removing the timing pulley [A] is required before moving the shaft (**\vec{P}\timex 1).

Laser Optics

MARNING

• Turn off the main switch and unplug the machine before beginning any of the procedures in this section.

Laser beams can cause serious eye injury.

Caution Decal Location

The caution decal is placed as shown below.





d037r204

MARNING

• Be sure to turn off the main switch and disconnect the power plug from the power outlet before beginning any disassembly or adjustment of the laser unit. This copier uses a class IIIb laser beam with a wavelength of 648 - 663 nm and an output of 9 mW. The laser can cause serious eye injury.

Laser Unit

ACAUTION

 Before installing a new laser unit, remove the polygon motor holder bracket and the tag from the new unit.

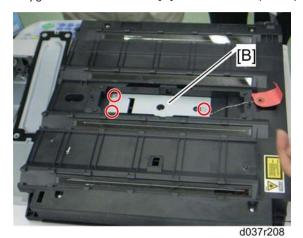
4

Preparing a new laser unit

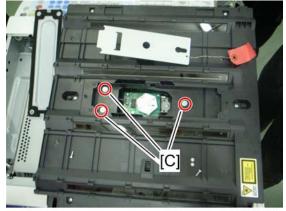


d037r207

1. Polygon mirror motor cover [A] of the laser unit (** x 4)



2. Polygon motor holder bracket [B] with a red tag (\mathcal{F} x 3)



d037r209

4. Reinstall the polygon mirror motor cover [A] (*\bar{x} 4).

Before removing the old laser unit

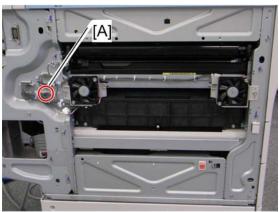
Do the following settings before removing the laser unit. These are adjustments for skew adjustment motors in the laser unit.

- 1. Plug in and turn on the main power switch of the copier.
- 2. Enter the SP mode.
- 3. Execute SP2-220-001 to clear the Mirror-No.2 positioning motor setting for Cyan.
- 4. Execute SP2-220-002 to clear the Mirror-No.2 positioning motor setting for Magenta.
- 5. Execute SP2-220-003 to clear the Mirror-No.2 positioning motor setting for Yellow.
- 6. Exit the SP mode.
- 7. Turn off the main power switch and disconnect the power cord of the copier.

Recovery procedure for no replacement preparation of laser unit

If you did not do the procedure in 'Before removing the laser unit' before removing the laser unit, you must do the following.

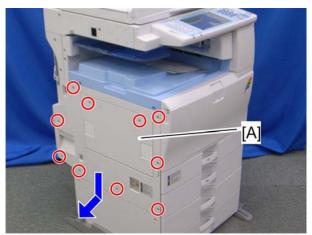
- 1. Turn off the main power switch and disconnect the power cord of the copier.
- 2. Remove the left cover (see the following "Removing the laser unit").



d037r203a

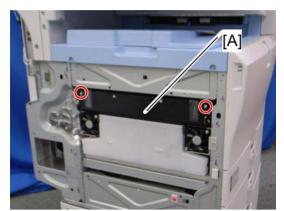
- 3. Disconnect the harness [A] of the skew correction motor.
- 4. Do steps 1 to 7 of "Before removing the laser unit".
- 5. Connect the harness [A] and reinstall the left cover.
- 6. Plug in and turn on the main power switch.

Removing the laser unit



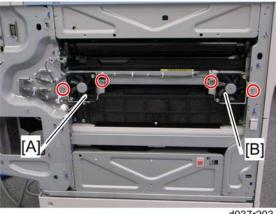
d037r201

1. Left cover [A] (🗗 x 10)



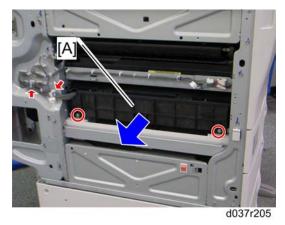
d037r202a

2. ITB cleaning unit [A] (🗗 x 2)



d037r203

- 3. Ventilation rear fan holder [A] (🗗 x 2, 📬 x 1)
- 4. Ventilation front fan holder [B] (🗗 x 2, 🖨 x 1, 📬 x 1)



5. Remove the laser unit [A] (\$\mathbb{P} \times 2, \text{2}}}}}} \text{\texi{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tile}}\text{\texi}\text{\text{\text{\text{\texit{\text{\text{\text{\texi}\text{\texit{\text{\texi}\text{\texititt{\text{\texit{\texi{\texi{\texi{\texi}\text{\texi{\texi{\texi{\texi{\texi{\texi{\texi{\texi{\texi{\texi{\

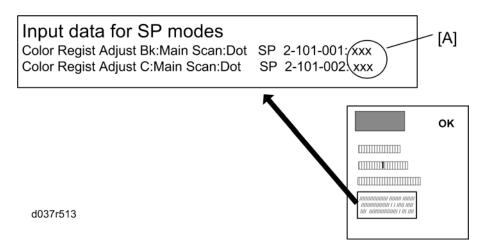
After installing a new laser unit

Do the following adjustment after installing the new laser unit.

- 1. Open the front door of the machine.
- 2. Plug in and turn on the main power switch.
- 3. Check that the settings of SP2-119-001, -002 and -003 are "0". If these settings are not "0", execute "Recovery procedure for no replacement preparation of laser unit" described above.



• If this step is not correctly done, an image problem may occur on printouts.



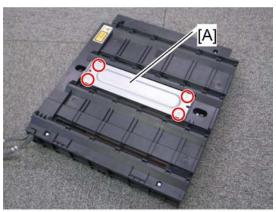
- 4. Input the SP settings on the sheet provided with a new LD unit.
 - SP2-101-001 to -004: Color Registration: Main Scan for each color
 - SP2-101-013 to -016: Color Registration: Sub Scan for each color
 - SP2-102-001, -003, -004, -006, -007, -009, -010, -012: Main Magnification for each color and line speed
 - SP2-104-001 to -004: :LD Initial Power Adjustment for each color



- The printed values [A] are different for each laser unit.
- 5. Print the test pattern (14: 1-dot trimming pattern in the SP2-109-003).
- 6. Check that the left and right trim margin is within 4 ± 1 mm. If not, change the standard value for the main scan magnification adjustment.
- 7. Select "0" with SP2-109-003 after printing the "1-dot trimming pattern.
- 8. Do the line position adjustment.
 - First do SP2-111-003.
 - Then do SP2-111-001.
 - To check if SP 2-111-001 was successful, watch the screen during the process. A message is displayed at the end. Also, you can check the result with SP 2-194-010 to -012.
- 9. Exit the SP mode.

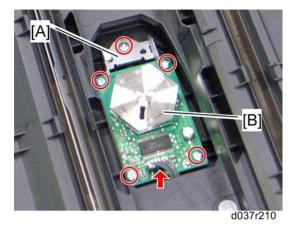
Polygon Mirror Motor

1. Laser unit (1 p. 194)



d037r207

2. Polygon mirror motor cover [A] (Fx 4)



- 3. Polygon mirror motor holder [A] (🗗 x 1)
- 4. Polygon mirror motor [B] (*\begin{align*} x 4, \boxed{1} x 1)

After installing the laser optics housing unit:

- Do the "Line Pos. Adjust Execute: Mode c" (SP2-111-003).
- Then do the "Line Pos. Adjust Execute:Mode a" (SP2-111-001).

To check if SP 2-111-001 was successful, watch the screen during the process. A message is displayed at the end. Also, you can check the result with SP2-194-010 to -012.

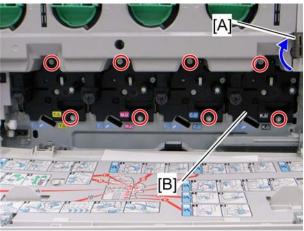
4

Image Creation

PCDU (Photo Conductor and Development Unit)

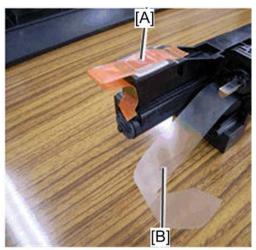
U Note

- Do not touch the OPC drum. Do not let metal objects touch the development sleeve.
- 1. Open the front door.
- 2. PCDU toner collection bottle (**p.165)



d037r177

- 3. Hold down the ITB lock lever [A] and turn it in the arrow direction.
- 4. PCDU [B] (*x 2 each)



d037r333

Remove the cover [A] on the toner inlet and pull out the tape [B] from the new development unit before installing a new PCDU in the machine.

Drum Unit and Development Unit

The new drum unit has a front cover. When you attach the new drum unit to the development unit, remove the front cover first.

Use it for installing the new drum unit and development unit.

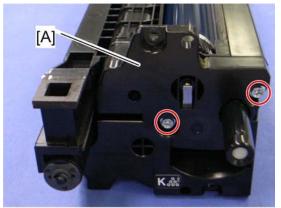
- 1. If you install a new drum unit only, set SP 3902-xxx to "1".
 - Black: 3902-009
 - Cyan: 3902-010
 - Magenta: 3902-011
 - Yellow: 3902-012

₩Note

- If you do this, then the machine will reset the PM counter for the drum unit automatically, after you turn the power on again.
- 2. If you install a new development unit only, set SP 3902-xxx to "1".
 - Black: 3902-001
 - Cyan: 3902-002
 - Magenta: 3902-003
 - Yellow: 3902-004

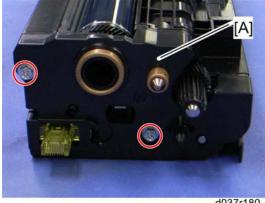


- If you do this, then the machine will reset the PM counter for the development unit automatically, after you turn the power on again.
- 3. Turn the machine power off.
- 4. PCDU (*p.201)



d037r179

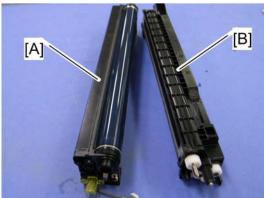
5. Front cover [A] (** x 2)



d037r180

6. Rear cover [A] (🗗 x 2)





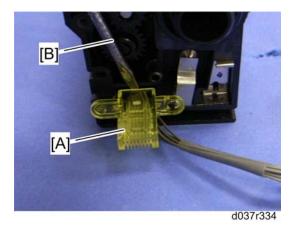
d037r182

7. Drum unit [A] and development unit [B] (🗗 x 1)



UNote

• When the development unit is removed from the drum unit, clean the entrance mylar [A] with a vacuum cleaner.



8. Remove the connector [A] with a small flat tool [B].



- Keep this connector [A] for the new drum unit.
- 9. If you change the development unit, do the ACC procedure.
- 10. Execute the drum phase adjustment with SP1902-001 twice.

New unit detection for the development unit

When a new development unit is installed in the machine, the machine will automatically reset the PM counters for the development unit and drum unit, even if the drum unit was not changed. To avoid resetting both counters after you install a new development unit only, make sure that step 2 in the procedure above is done before installing.

Toner Hopper Unit

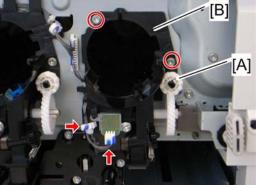
Toner hopper unit: K, C, M

- 1. Open the front door.
- 2. PCDU toner collection bottle (**p.165)
- 3. Inner cover (**p.172)
- 4. PCDU (**p.201)



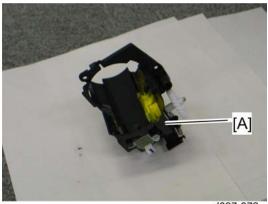
 Remove the corresponding color PCDU. For example, if you remove the toner hopper unit: K, remove the black PCDU.





d037r305

- 5. Toner supply drive gear [A] (hook x 1)
- 6. Toner hopper unit: K, C, M [B] (*x 2, * x 1 for K and M; 2 for C, * x 1 each)

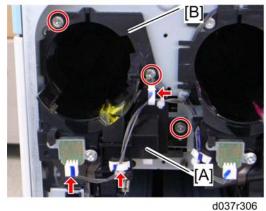


d037r372

7. Place the toner hopper unit [A] on sheets of paper.

Toner hopper unit: Y

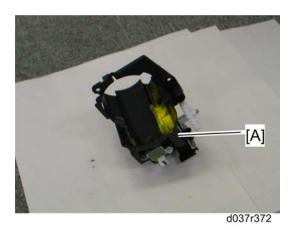
- 1. Open the front door.
- 2. PCDU toner collection bottle (**p.165)
- 3. Inner cover (172)
- 4. PCDU (*p.201)





d037r304

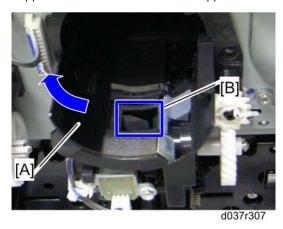
- 6. Toner supply drive gear (hook x 1)
- 7. Toner hopper unit: Y [B] (Fx 2, 🖽 x 1 each)



8. Place the toner hopper unit [A] on sheets of paper.

When installing a new toner hopper unit

Developer must be added to the new toner hopper. Some developer (8 g) is provided with each new toner hopper unit. Pour this into the toner hopper unit before reattaching the inner cover.

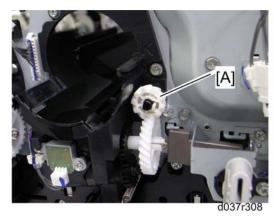


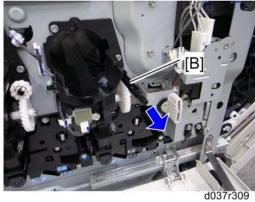
1. Slowly open the toner hopper shutter [A].



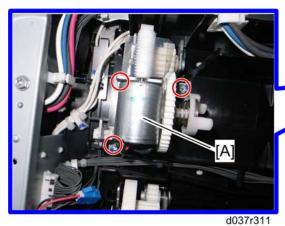
- Do not try to open the toner hopper shutter fully at one try. This shutter comes off easily without the inner cover. If the toner hopper shutter has come off, reattach it.
- 2. Pour the developer (8 g) into the inlet [B] of the toner hopper unit.
- 3. Close the toner hopper shutter.
- 4. Reassemble the machine.

- 1. Open the front door.
- 2. PCDU toner collection bottle (**p.165)
- 3. Inner cover (172)
- 4. Inner tray (**p.175)





- 5. Toner supply drive gear [A] (hook x 1)
- 6. Pull the toner supply drive shaft [B].





7. Take aside the toner supply gear unit [A] (\mathcal{F} x 3).

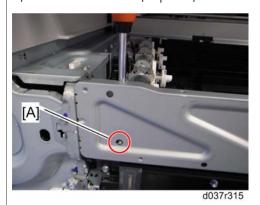
NOTE

4

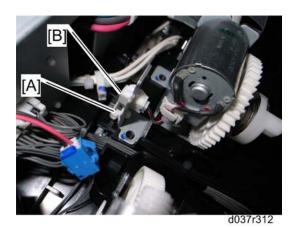
4

When removing the toner supply gear unit for **Yellow**, one of screws on the toner supply gear unit is difficult to see.

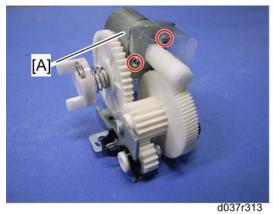
1) Remove the left cover (**p.167).

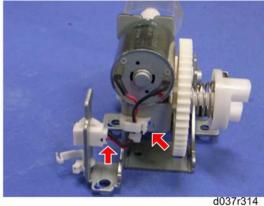


2) Check the screw position [A] as shown above.



8. Release the clamp [A], and then disconnect the harness [B].





9. Toner supply motor [A] (♠ x 1, ▮ x 1, x 2)

NOTE

Apply "Silicon Grease G501" to the gear of the motor. The appropriate amount of grease is as shown below.

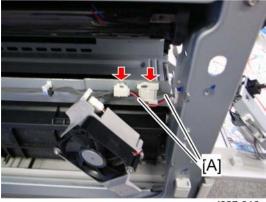


d037r561

• The flat screwdriver in the photo is a small size.

Toner Collection Motor

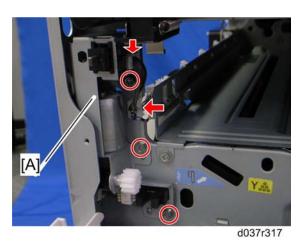
- 1. Open the front door.
- 2. PCDU toner collection bottle (**p.165)
- 3. PCDU: Yellow (**p.201)
- 4. Ventilation Fan: Front (Removing the laser unit" under p. 194 "Laser Unit")



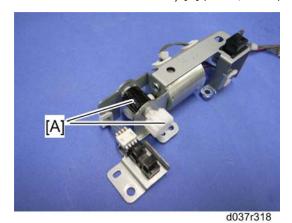
d037r316

5. Disconnect two harnesses [A].





6. Toner collection motor assembly [A] ($\mbox{$\not =$} x\ 2,\ \mbox{$\not =$} x\ 3)$



7. Gears [A] (Ѿx 1)



8. Toner collection motor [A] (\mathcal{F} x 2)

shown below.

Apply "Silicon Grease G501" to the gear of the motor. The appropriate amount of grease is as

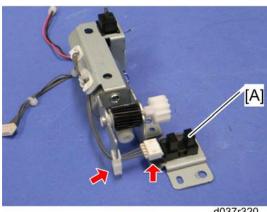


d037r561

• The flat screwdriver in the photo is a small size.

PCDU Toner Collection Bottle Full Sensor

1. Toner collection motor assembly (**p.210 "Toner Collection Motor")



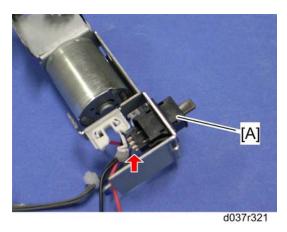
d037r320

2. PCDU toner collection bottle full sensor [A] (🖨 x 1, 🞜 x 1, hooks)

PCDU Toner Collection Bottle Set Switch

1. Toner collection motor assembly (**p.210 "Toner Collection Motor")

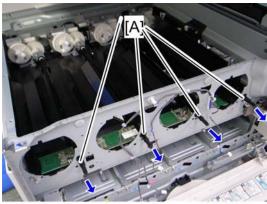




2. PCDU toner collection bottle set switch [A] (hooks, 🗗 x 1)

RFID Board

- 1. All toner hopper units (**p.205)
- 2. Inner tray (**p.175)

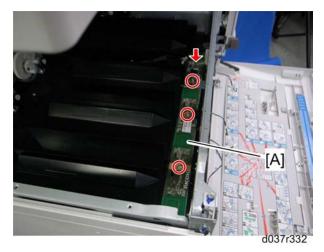


d037r330

3. Toner supply drive shafts [A]



4. Harness cover [A] (🗗 x 1)



5. RFID board [A] (🗗 x 3, 📬 x 1)

Image Transfer

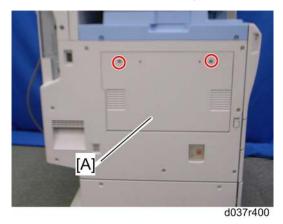
ITB Cleaning Unit

If you replace the cleaning unit or toner collection bottle after the machine detects that it is full or near-full, the machine automatically resets the PM counter for the bottle after replacement.

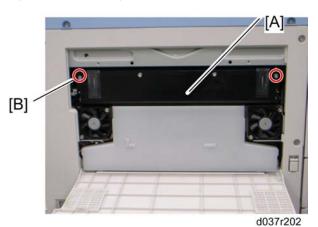
But, if you replace a bottle that is not full or near-full, then you must reset the PM counter for this unit. To do this, set SPs 3902-017 and -020 to 1 before you turn off the power switch.

If you do this, then the machine will reset the PM counter for the units automatically, after you turn the power on again.

SP 3902-017 is for the ITB cleaning unit and SP 3902-020 is for the ITB toner collection bottle.



1. Open the ITB cleaning unit cover [A] (Fx 2).



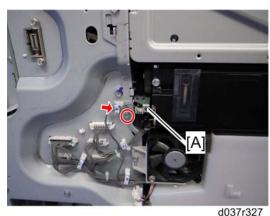
2. ITB cleaning unit [A] (Fx 2)

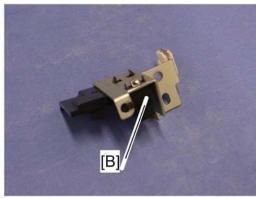
When installing the ITB cleaning unit

Secure the front side [B] first with a screw. This [B] is the positioning screw.

ITB Toner Collection Bottle Full Sensor

1. Left cover (1 p. 167)



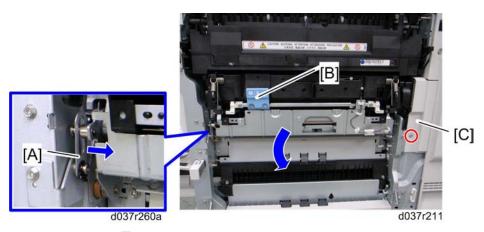


d037r328

- 2. Bottle full sensor assembly [A] (Fx 1, 🖨 x 1, 📬 x 1)
- 3. ITB toner collection bottle full sensor [B] (hooks)

ITB (Image Transfer Belt) Unit

- 1. ITB cleaning unit (** p.215)
- 2. PCU toner collection bottle (**p.165)
- 3. Unlock the ITB lock lever (**p.171 "Inner Right Cover").
- 4. Duplex unit (**P**p.280)



- 6. Pull the lever [B] to open the paper transfer unit.
- 7. Harness cover [C] (*x 1)



- 8. Grasp the handles [A], and then pull out the ITB unit fully [B] (*x 2, * x 1).
- 9. Remove the ITB unit motor after pulling out the ITB unit from the machine. (** "Next procedure")

• If it takes much time to reinstall the ITB unit after removing it from the machine, close the paper transfer unit to prevent the drum units from being exposed to light.

ITB Unit Motor

- 1. ITB cleaning unit (**p.215)
- 2. ITB unit (p.216)

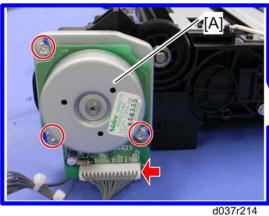


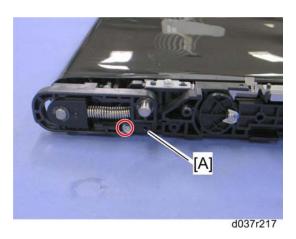


Image Transfer Belt

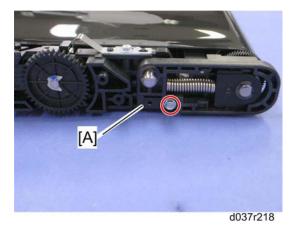
- 1. ITB cleaning unit (Pp.215)
- 2. ITB unit (p.216)
- 3. ITB unit motor (p.217)



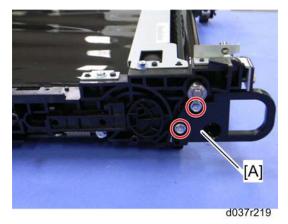
4. Two stays [A] (🗗 x 2 each)



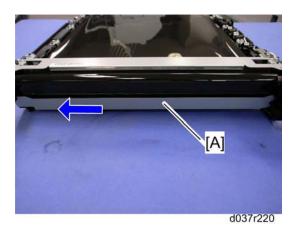
5. Front holder bracket [A] (as seen from the front) (\ref{eq} x 1: M3x10)



6. Rear holder bracket [A] (as seen from the rear) (\cancel{F} x 1: M3x10)



7. Handle [A] (🗗 x 2: M3x10)



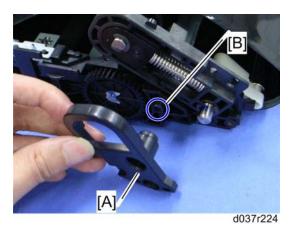
8. Guide bracket [A]



9. Pull the tension roller [A] as shown.



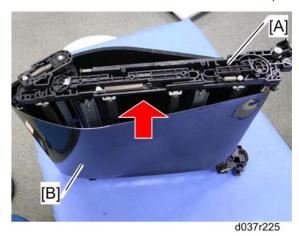
- 10. Front guide pin bracket [A] (🗗 x 1)
- 11. Press roller bracket [B] (🏲 x 2)



12. Attach the handle [A], which was removed in step 7, to the projection [B] on the rear left side (*\varPcx x 1).



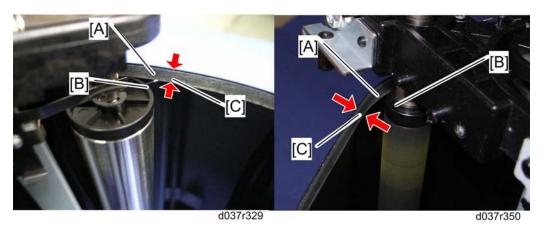
• This handle will be used as a stand in later steps.



- 13. Stand the ITB unit [A] as shown above.
- 14. Image transfer belt [B]

When reinstalling a new image transfer belt

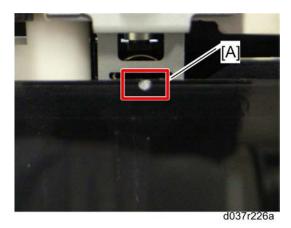
• Reset the PM counter



• There is a rim [A] at each edge of the transfer belt. The ends of all the rollers ([B] for example) in the transfer belt unit must be between the two rims.



• There are two rims (width [C]: about 5 mm) at the front and rear edges inside the image transfer helt

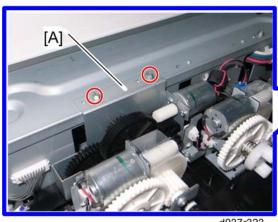


• This belt must be installed the correct way around. When you reinstall the image transfer belt unit, install it with the white mark [A] on the belt at the rear side of the unit.

ITB Contact Motor

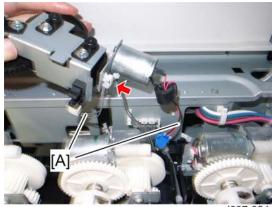
- 1. Pull out all the toner bottles.
- 2. Inverter tray (Fp.174)
- 3. Inner tray (**p.175)





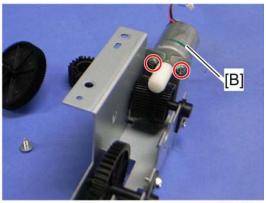


4. Take aside the ITB contact motor unit [A] (\mathcal{F} x 2)



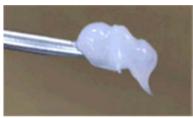
d037r324





d037r325

- 6. Gears [A] (🗗 x 1)
- 7. ITB contact motor [B] (🗗 x 2)

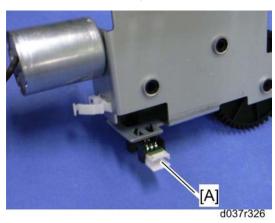


d037r561

• The flat screwdriver in the photo is a small size.

ITB Contact Sensor

1. ITB contact motor unit (**p.222 "ITB Contact Motor")



2. ITB contact sensor [A] (hooks)

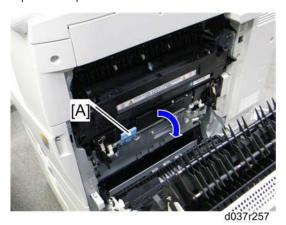
Paper Transfer

PTR (Paper Transfer Roller) Unit

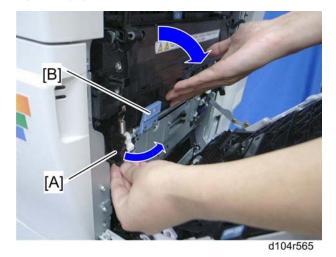
• If you install a new PTR unit, then set SP 3902-018 to "1" before you start this procedure.



- If you do this, then the machine will reset the PM counter for the paper transfer unit automatically, after you turn the power on again.
- 1. Open the duplex unit.

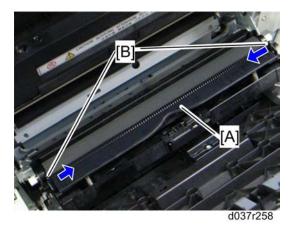


2. Open the paper transfer unit [A].

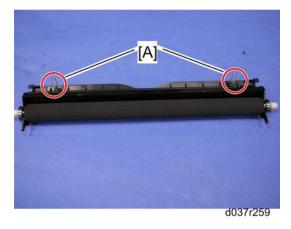


• If the paper transfer unit cannot be opened, keep your hand supporting the PTR unit as shown above and release very carefully the front tension lever [A] of the PTR unit. In this case, the PTR unit open lever [B] does not work to open the PTR unit.

The spring tension of the tension lever is very strong. Be very careful to release the tension lever.
 Otherwise, your hand or fingers may be injured.



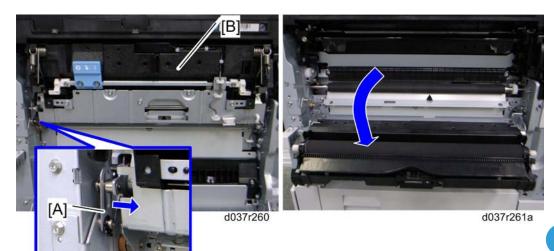
3. Remove the PTR unit [A], releasing the two locks [B].



- 4. Remove the two springs [A].
 - Keep these two springs from the old PTR unit and install them in the new PTR unit.

Paper Transfer Unit Full-Open

1. Duplex unit (p.280)



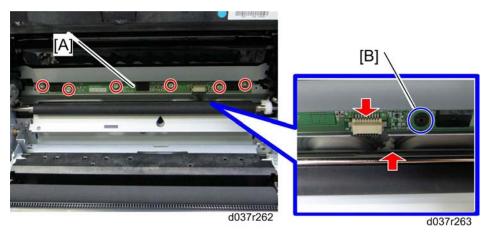
- 2. Release the arm [A] (🛱 x 1).
- 3. Open the paper transfer unit [B] fully.

ID Sensor Board

- 1. Duplex unit (**p.280)
- 2. Open the paper transfer unit fully (***p.226 "Paper Transfer Unit Full-Open").



3. ID sensor cover [A] (🗗 x 2)



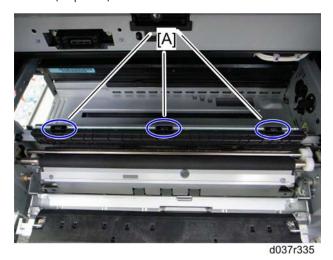


• If the black spacer [B] is stuck to the sensor board as shown above, remove all black spacers. These black spacers should be used when a new ID sensor board is installed.

Cleaning for ID sensors

ID sensors require cleaning maintenance every EM. Do the following steps for ID sensor cleaning.

- 1. PCDU: K (p.201)
- 2. ITB unit (1 p.216)



- 3. Clean the ID sensors [A].
 - Use a cloth moistened with alcohol to clean the ID sensors.

RTB 28

INCORRECT - DO NOT USE ALCOHOL



• Do not use a dry cloth. Otherwise, the ID sensors may get more dirty due to static electricity.

After installing a new ID sensor unit/board

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

- 1. Plug in and turn on the main power switch of the copier.
- 2. Enter the SP mode.



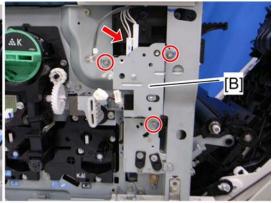
3. Input all correction coefficients [A] for the ID sensor with the SP modes referring to the barcode sheet provided with the new ID sensor unit/board.



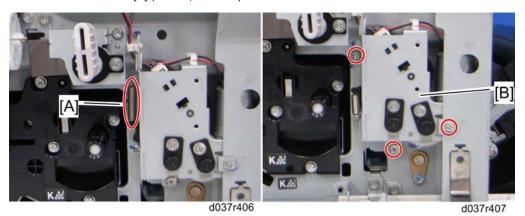
- For example, input "0.98" with SP3-362-013.
- 4. Exit the SP mode.

PTR Contact Motor

- 1. Open the duplex unit.
- 2. Open the paper transfer unit (***p.225 "PTR (Paper Transfer Roller) Unit").
- 3. Inner right cover (p. 171)
- 4. Inner cover (**p.172)



- 5. Disconnect the two harnesses [A] (🖨 x 1).
- 6. Interlock switch bracket [B] (\mathscr{F} x 3, CII x all)

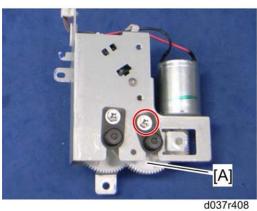


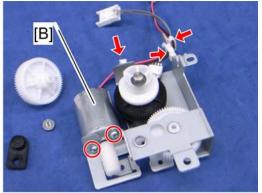
7. Spring [A]



- Do not forget to reinstall the spring [A] when reassembling. Otherwise, SC400 may occur.
- 8. PTR contact motor bracket [B] (\mathcal{F} x 3)







- 9. Gear [A] (🗗 x 1, bearing x 1)
- 10. PTR contact motor [B] (🗗 x 2, 🖼 x 3)

NOTE

Apply "Silicon Grease G501" to the gear of the motor. The appropriate amount of grease is as shown below.

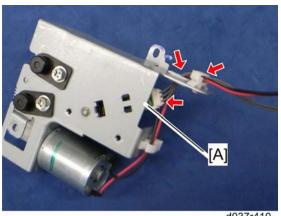


d037r561

• The flat screwdriver in the photo is a small size.

PTR Contact Sensor

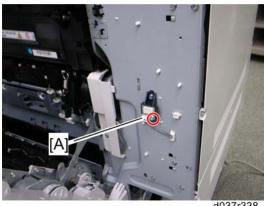
1. PTR contact motor bracket (pr p.229 "PTR Contact Motor")



2. PTR contact sensor [A] (hooks, 🖨 x 2, 📬 x 1)

Temperature and Humidity Sensor

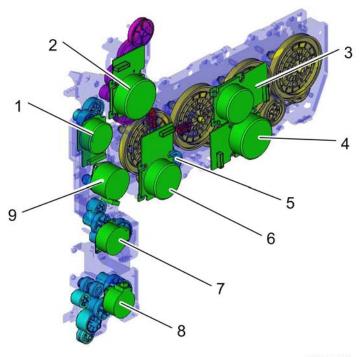
1. Right rear cover (IPp.169)



d037r338

2. Temperature and humidity sensor [A] ($\nearrow x$ 1, $\square x$ 1, $\square x$ 1, $\square x$ 1)

Drive Unit



d037r560

The drawing above shows the drive unit layout.

1. ITB unit motor

2. Fusing/paper exit motor

3. Drum motor: CMY

4. Development motor: CMY

5. Development clutch: K

6. Drum/Development motor: K

7. Paper feed motor: T1

8. Paper feed motor: T2

9. Registration motor

There are some motors and clutches that are not shown in the above drawing:

• Duplex inverter motor

• Duplex Exit Motor

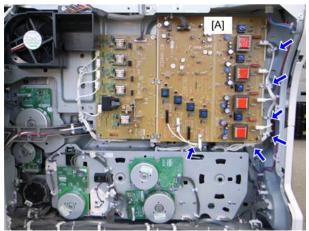
• Duplex Entrance Motor

• By-pass Motor

Gear Unit

1. Rear cover (**p**.168)

- 2. Rear lower cover (**p.168)
- 3. Open the controller box (**p.294 "Controller Box")



d037r165

- 4. Remove all connectors and clamps (blue arrows) on the HVPS: CB board [A].
- 5. Pull all the PCDUs to the front side. (**p.201)



d037r166

- 6. Gear unit [A] (□ x all, □ x all: blue arrows, F x 8)
 - The short screwdriver (190 mm or less in total length) is required to remove the screw [B].

Adjustment after reinstalling the gear unit

Do the following procedures after reinstalling the gear unit.

- 1. Turn on the main power switch.
- 2. Enter "System SP" in the SP mode.
- 3. Do "Drum Phase Adj." with SP1902-001.
- 4. Check the result of the Drum Phase Adjustment with SP1902-002.
 - 0: Success, 2: Failure due to no sampling data,
 - 3: Failure due to insufficient number of pattern detections

When the result of this adjustment is "2" or "3":

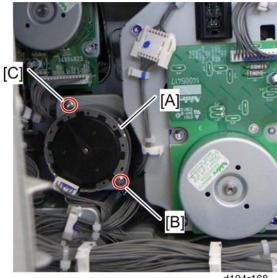
- Check that the all PCDUs are correctly set and that the ITB unit is correctly set.
- Do "Drum Phase Adj." again after checking the PCDUs and ITB unit.

When the result is still "2" or "3" after checking the PCDUs and image transfer belt unit:

- Check that the gear unit is installed correctly.
- 5. Exit the SP mode.

Registration Motor

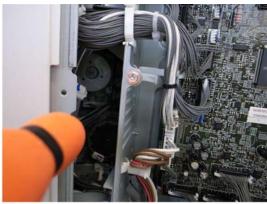
- 1. Rear cover (**p**.168)
- 2. Rear lower cover (p.168)
- 3. Open the controller box (**p.294 "Controller Box")



- 4. Registration motor [A] (** 2, ** x 1)
 - The short screwdriver (190 mm or less in total length) is required to remove the screw [B]



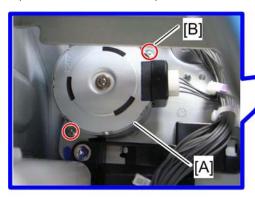
• The picture below shows how to remove the screw [C] of the gear unit. The controller box should be closed at this time.



d037r167

Paper Feed Motor: T1

- 1. Rear cover (1 p. 168)
- 2. Rear lower cover (IPp.168)
- 3. Open the controller box (**p.294 "Controller Box")





d037r171

4. Paper feed motor: T1 [A] (🗗 x 1, 🎉 x 2)



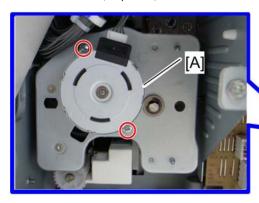
• The picture below shows how to remove the screw [B] of the paper feed motor T1.



d037r173

Paper Feed Motor: T2

1. Rear lower cover (**p.168)





d037r172

2. Paper feed motor: T2 [A] (🗗 x 1, 🎉 x 2)

Drum Motor: CMY

☆ Important

- Do not remove the PCDUs when you replace the drum motor-CMY.
- 1. Rear cover (**p.168)
- 2. Rear lower cover (**p.168)
- 3. Open the controller box (**p.294 "Controller Box")

4. Drum motor: CMY [A] (\mathscr{F} x 3, \square x 1)

Development Motor: CMY

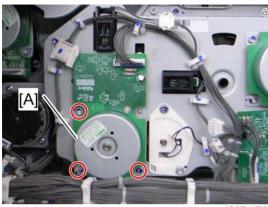
- 1. Rear cover (**p.168)
- 2. Rear lower cover (**p.168)
- 3. Open the controller box (**p.294 "Controller Box")



4. Development motor: CMY [A] (🗗 x 3, 📬 x 1)

Drum/Development Motor: K

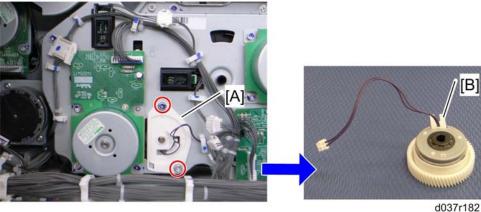
- 1. Rear cover (1 p. 168)
- 2. Rear lower cover (**p.168)
- 3. Open the controller box (**p.294 "Controller Box")



4. Drum/Development motor: K [A] (*x 3, * x 1)

Development Clutch: K

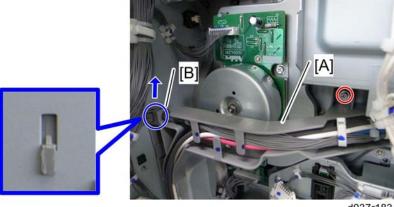
- 1. Rear cover (**p.168)
- 2. Rear lower cover (Pp. 168)
- 3. Open the controller box (**p.294 "Controller Box")
- 4. Drum/Development Motor: K (p.238)



- 5. Remove the bracket with the development clutch: K [A] (*x 2, *\frac{1}{2}x 1, *\frac{1}{2}x 1)
- 6. Remove the development clutch: K [B] from the bracket.

Fusing/Paper Exit Motor

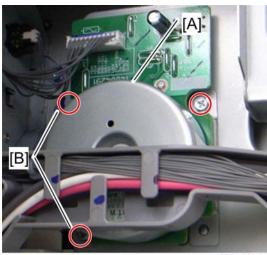
- 1. Rear cover (**p.168)
- 2. Rear lower cover (Pp. 168)



4. Loosen the stay [A] (Fx 1, hook [B] x 1)



• The hook [B] is installed as shown above. Do not pull the stay by force, or the hook might be broken.



d037r184

5. Fusing/paper exit motor [A] (** x 3, ** x 1)



• The picture below shows how to remove the screw [B] of the fusing/paper exit motor.

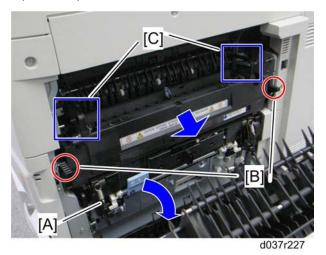


Fusing

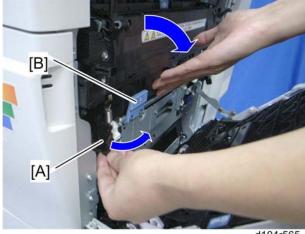
Fusing Unit

ACAUTION

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



- 2. Open the paper transfer unit [A]
- 3. Release the lock levers [B].
- 4. Hold the fusing unit handles [C], and then pull out the fusing unit.



d104r565

If the fusing unit is stuck to the PTR unit and cannot be removed from the machine, keep your hand supporting the PTR unit as shown above and release very carefully the front tension lever [A] of the PTR unit. In this case, the PTR unit open lever [B] does not work to open the PTR unit.

ACAUTION

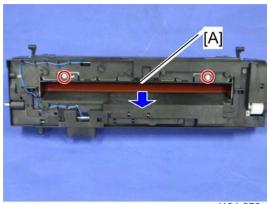
The spring tension of the tension lever is very strong. Be very careful to release the tension lever.
 Otherwise, your hand or fingers may be injured.

When installing the fusing unit

Make sure that the both lock levers [B] are locked before closing the duplex unit. Otherwise, these lock levers [B] can be broken.

Entrance Guide Plate

1. Fusing unit (p.242)

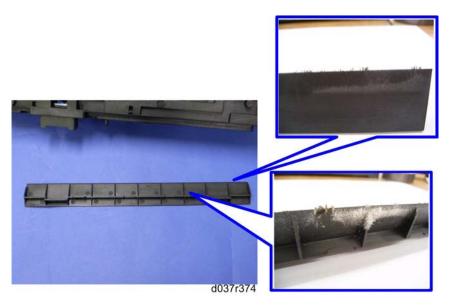


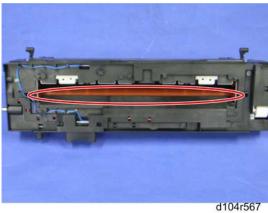
d104r373

2. Entrance Guide Plate [A] (F x 2)

Cleaning Requirement

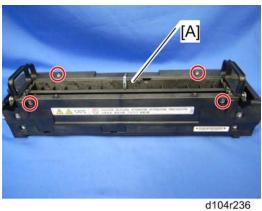
The entrance guide plate requires cleaning maintenance at every 60 K interval. Clean the entrance guide plate with a cloth moistened with alcohol at the following points.



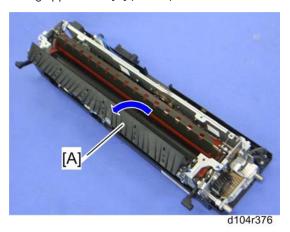


Stripper Plate

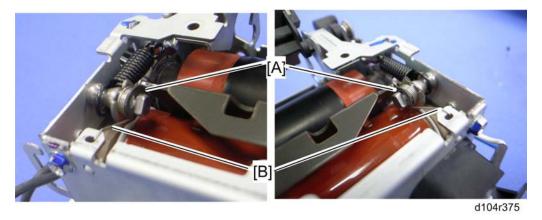
1. Fusing unit (1 p.242)



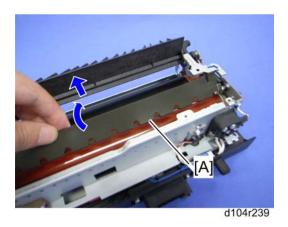
2. Fusing upper cover [A] (* x 4)



3. Open the exit guide plate [A].



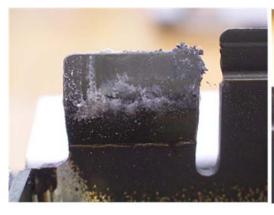
4. Remove the e-rings [A] at the front and rear side, and then springs [B] at the front and rear side.



5. Turn the stripper plate [A], and then remove it.

Cleaning Requirement

The stripper plate requires cleaning maintenance at every 60 K interval. Clean the stripper plate with a cloth moistened with alcohol at the following points.



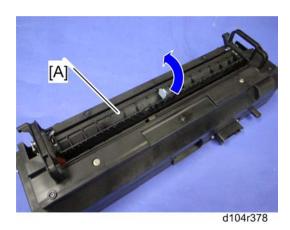


d037r377

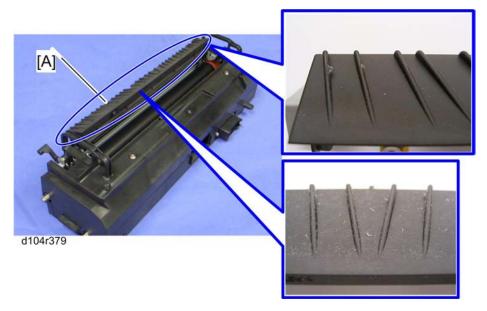
Exit Guide Plate Cleaning Procedure

The exit guide plate requires cleaning maintenance at every 60 K interval.

1. Fusing unit (**P**p.242)



2. Open the exit guide plate [A].

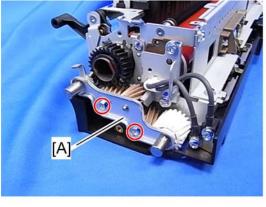


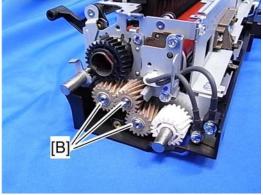
3. Clean the exit guide plate [A] with a cloth moistened with alcohol.

Fusing Gear Shafts Lubrication Procedure

The fusing gear shafts require cleaning maintenance (if it is dirty) at every 60 K interval.

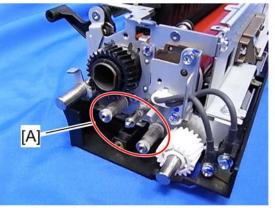
- 1. Fusing unit (p.242)
- 2. Fusing upper cover (Fp.244)





d104r564

- 3. Rear stay [A] (🔊 x 2)
- 4. Fusing idle gears [B]



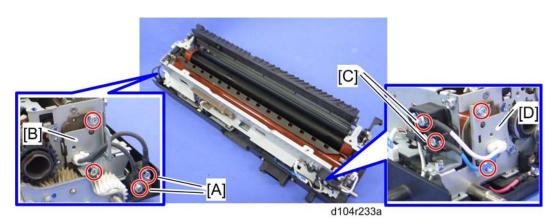


d104r563

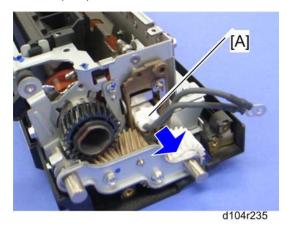
5. Apply "Barrierta S552R" to the gear shafts [A] of the fusing unit. The appropriate amount of grease is as shown above. The flat screwdriver [B] in the photo is a small size.

Heating Roller Fusing Lamp

- 1. Fusing unit (p.242)
- 2. Fusing upper cover (p.244 "Stripper Plate")



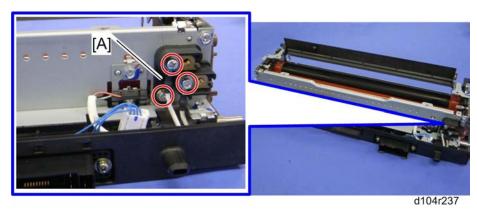
- 3. Remove the cords [A] from the rear stay (\mathcal{F} x 2).
- 4. Rear lamp stay [B] (🗗 x 2)
- 5. Remove the cords [C] from the front stay (** x 2).
- 6. Front lamp stay [D] (🌶 x 2)



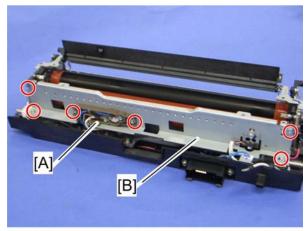
7. Heating roller fusing lamp [A]

Heating Roller Unit

- 1. Fusing unit (1 p.242)
- 2. Fusing upper cover (** p.244 "Stripper Plate")
- 3. Heating roller fusing lamp (**p.248)

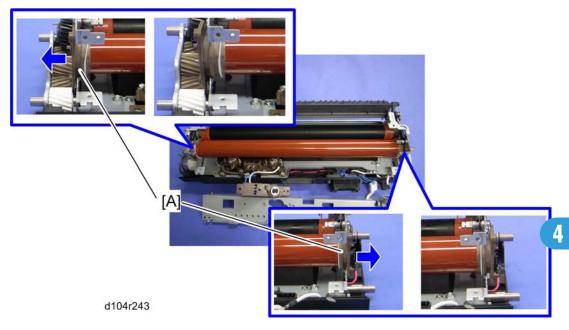


4. Terminal base [A] (🏲 x 3)

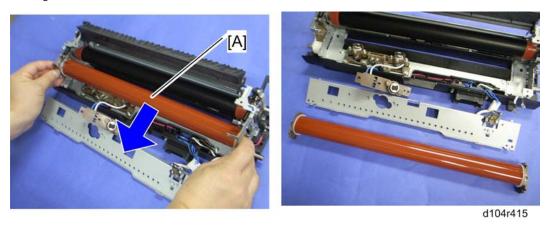


d104r238

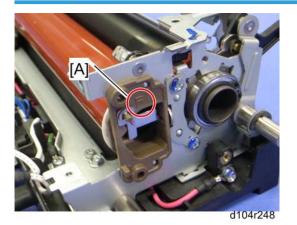
- 5. Thermostat base [A] (🗗 x 2)
- 6. Left frame [B] (🗗 x 4)
 - Some cables are still connected to the fusing unit at this time. Do not put any tension to the connected cables during this procedure.



7. Slide the front and rear flanges [A] to the outer sides to detach both flanges from the front and rear heating roller brackets.



8. Hold the both flange at the front and rear side of the heating roller unit [A], and then pull the heating roller unit [A].



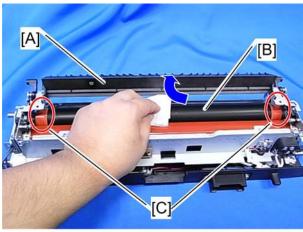
Make sure that the flange with mark "F" [A] is placed to the front side of the fusing unit when reinstalling the heating roller unit.

Pressure Roller

Cleaning Procedure

The pressure roller requires cleaning maintenance (if it is dirty) at every 60 K interval.

- 1. Fusing unit (p.242)
- 2. Fusing upper cover (p.244 "Stripper Plate")



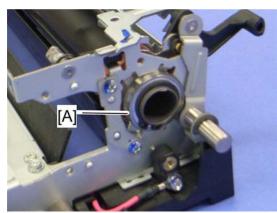
d104r562

- 3. Open the exit guide plate [A]
- 4. Clean the pressure roller [B] with a dry cloth.

• Clean the both ends [C] of the pressure roller as well as the center area.

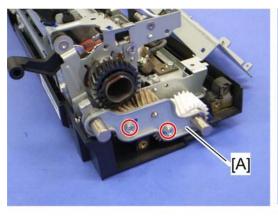
Replacement Procedure

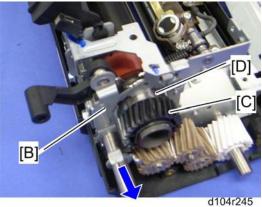
1. Heating roller unit (Fp.249)



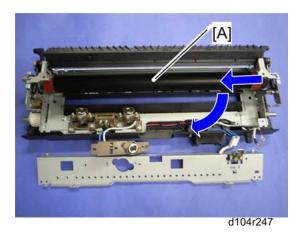
d104r240

2. Bearing [A] at the front end of the pressure roller (C-ring \times 1)





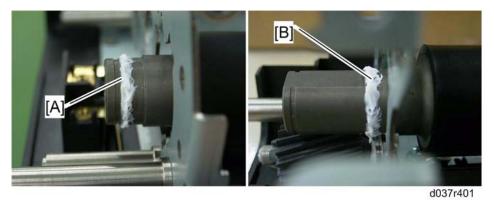
- 3. Rear stay [A] (🗗 x 2)
- 4. Pressure lever [B] (spring x 1)
- 5. Pressure roller gear [C] (C-ring x 1)
- 6. Bearing [D] at the rear end of the pressure roller



7. Pressure roller [A]

When reassembling the pressure roller

When replacing the pressure roller, you have to apply lubricant to the following places.

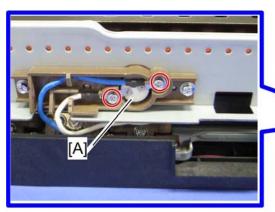


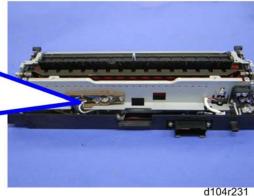
• Apply "Barrierta S552R" to the front edge [A] and rear edge [B] of the pressure roller as shown above.

Heating Roller Thermostats

Side Heating Roller Thermostat

1. Fusing upper cover (p.244 "Stripper Plate")





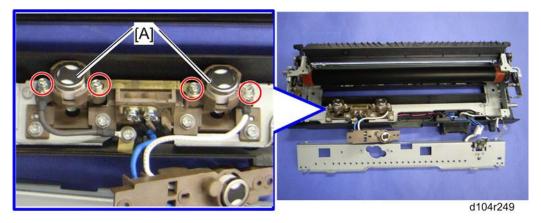
2. Side heating roller thermostat [A] (*x 2)



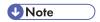
• Do not re-use a thermostat that is already opened. Safety is not guaranteed if you do this.

Lower Heating Roller Thermostats

1. Heating roller unit (Fr. p.249)



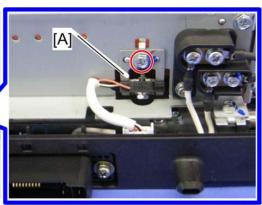
1. Lower heating roller thermostats [A] (*x 2 each)



• Do not re-use a thermostat that is already opened. Safety is not guaranteed if you do this.

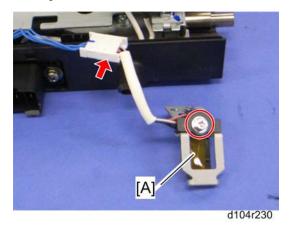
Heating Roller Thermistor

1. Fusing upper cover (p.244 "Stripper Plate")



d104r228

2. Heating roller thermistor bracket [A] ($\rat{P} \times 1$)



3. Heating roller thermistor [A] (> x 1, 🗂 x 1)

Cleaning Requirement

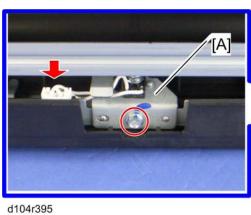
The heating roller thermistor requires cleaning maintenance at every 60 K interval. Clean the heating roller thermistor with a dry cloth.

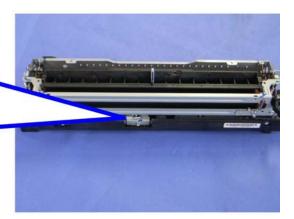
Pressure Roller Thermistor

Pressure Roller Thermistor: Center

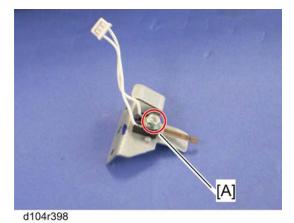
- 1. Fusing unit (p.242)
- 2. Fusing upper cover (*** p.244 "Stripper Plate")







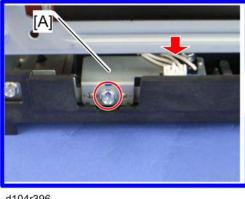
3. Thermistor center assembly [A] (🗗 x 1, 📬 x 1)



4. Pressure roller thermistor: Center [A] (🗗 x 1)

Pressure Roller Thermistor: End

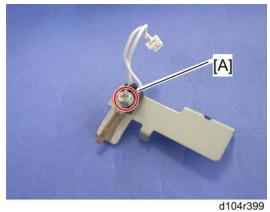
- 1. Fusing unit (p.242)
- 2. Fusing upper cover (*** p.244 "Stripper Plate")





d104r396

3. Thermistor end assembly [A] (*\begin{align*} x 1, \begin{align*} \pi x 1 \end{align*}



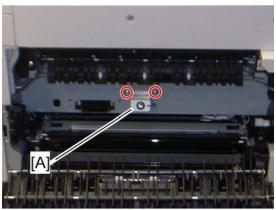
4. Pressure roller thermistor: End [A] (Fx 1)

Cleaning Requirement

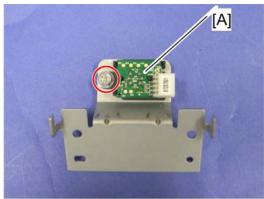
The pressure roller thermistors (center and end) require cleaning maintenance at every 60 K interval. Clean the pressure roller thermistors (center and end) with a dry cloth.

Thermopile

1. Fusing unit (p.242)



d104r381



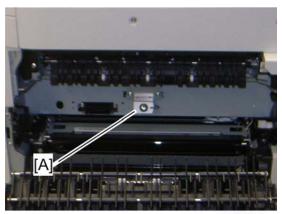
d104r382

3. Thermopile [A] (** x 1)

When cleaning the lens of the thermopile

ACAUTION

- Do this cleaning procedure after the fusing unit has completely cooled down. Otherwise, you may get a serious burn.
- 1. Fusing unit (**P**p.242)

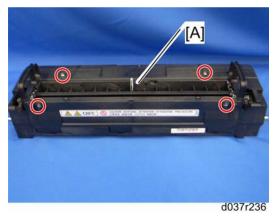


d104r381a

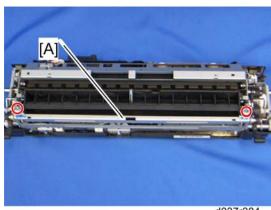
2. Clean the thermopile lens [A] with a dry cloth.

Cleaning Unit (Option) Installation Procedure

1. Fusing unit (p.242)



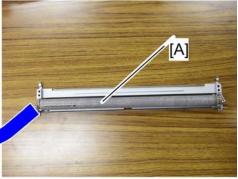
2. Fusing upper cover [A] (F x 4)



d037r384

3. Top right frame [A] (\rat{P} x 2)

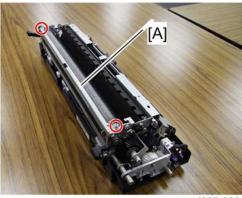




d037r386

4. Install the cleaning unit [A] in the fusing unit.



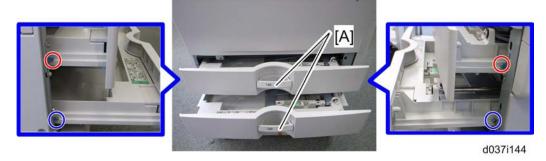


d037r388

- 5. Secure the cleaning unit [A] ($\mathcal{F} \times 2$)
- 6. Reassemble the fusing unit.

Paper Feed

Paper Tray

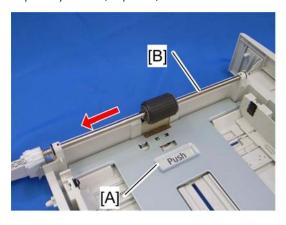


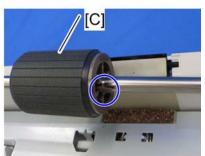
- 1. Pull paper tray 1 or 2 [A] part of the way out.
- 2. Remove two screws from both tray guides.
- 3. Pull out paper tray 1 or 2 [A].

Feed Roller

Tray 1 and Tray 2

1. Paper tray 1 or 2 (1 p.262)





d037i145

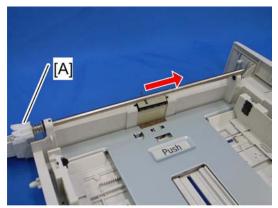
- 2. Press down the bottom plate [A].
- 4. Feed roller [C] (hook x 1)

When reinstalling the feed roller

Do not touch the feed roller with your bare hands when replacing it. If you do, clean the feed roller with a damp cloth or alcohol.

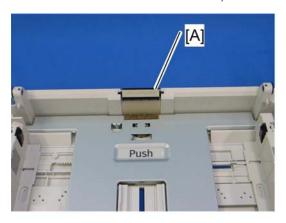
Friction Pad

- 1. Paper tray 1 or 2 (1 p.262)
- 2. Feed roller (**p.262)



d037i146

- 4. Slide the feed roller shaft to the front side, and then remove it.

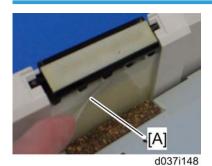




d037i147

5. Friction pad [A] (hooks, spring x 1)



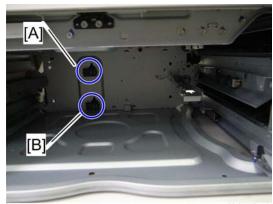


Make sure that the mylar [A] does not go under the friction pad when reinstalling the friction pad.

Do not touch the friction pad with your bare hands, when replacing it. If you do, clean the friction pad with a damp cloth or alcohol.

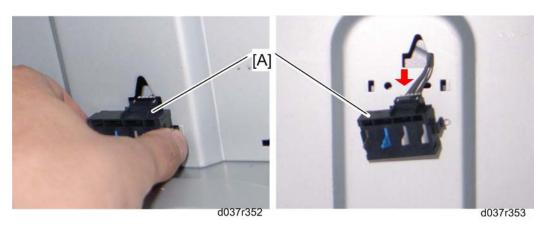
Paper Size Switch

1. Paper tray 1 and 2 (p.262)



d037r351

Paper size switch: T1 [A]Paper size switch: T2 [B]

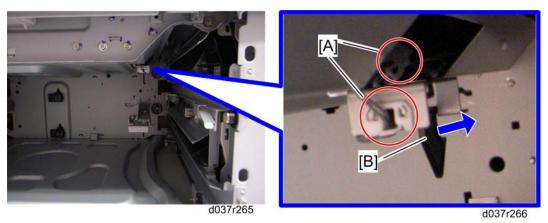


2. Paper size switch [A] (hooks, 📬 x 1)

Paper End Sensor

Paper End Sensor: T1

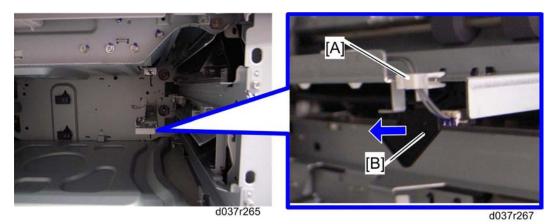
1. Paper tray 1 and 2 (**p.262)



- 2. Release the two clamps [A].
- 3. Paper end sensor: T1 [B] (hooks, 🗗 x 1)

Paper End Sensor: T2

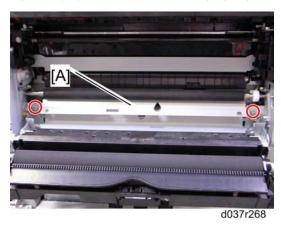
1. Paper tray 1 and 2 (**p.262)



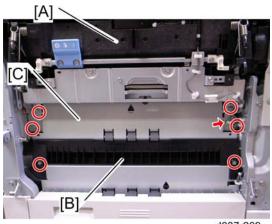
- 2. Release the clamp [A].
- 3. Paper end sensor: T2 [B] (hooks, 🗂 x 1)

Registration Sensor

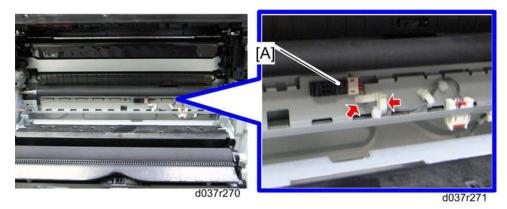
- 1. Duplex unit (**p.280)
- 2. Open the paper transfer unit to the fully-open position (**p.226*).



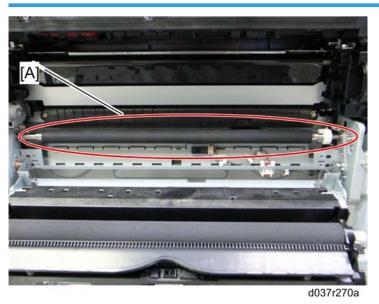
3. Registration roller guide [A] (Fx 2)



- d037r269
- 4. Close the paper transfer unit [A].
- 5. Relay guide plate [B] (Fx 2)
- 6. Upper vertical transport guide [C] (⊜x 1, 🗗 x 4)



7. Registration sensor [A] (🖨 x 2, hooks, 📬 x 1)



Clean the registration roller and registration idle roller [A] with a damp cloth every 60 K (total count).

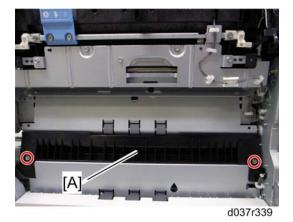


• Never use alcohol to clean the registration roller.

Vertical Transport Sensor

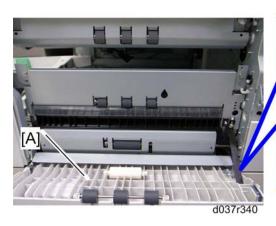
Vertical Transport Sensor 1

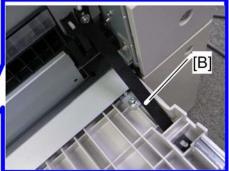
1. Duplex unit (p.280)



2. Middle guide plate [A] (🎤 x 2)

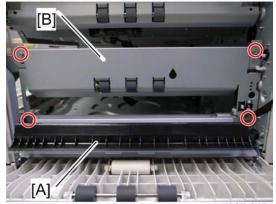




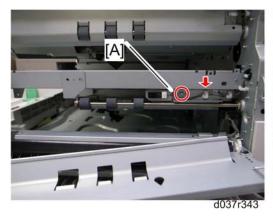


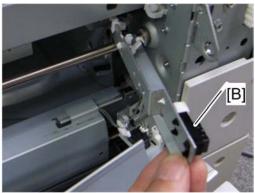
d037r341

- 3. Open the lower right door [A].
- 4. Release the belt [B].



- d037r342
- 5. Open the lower guide plate [A]





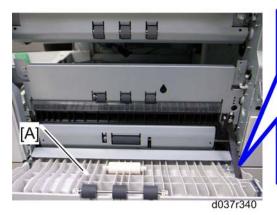
d037r344

7. Sensor bracket [A] (♠x 1, ♣x 1)

8. Vertical transport sensor 1 [B] (🗗 x 1, hooks)

Vertical Transport Sensor 2

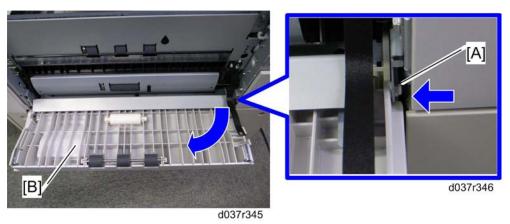
1. Duplex unit (p.280)



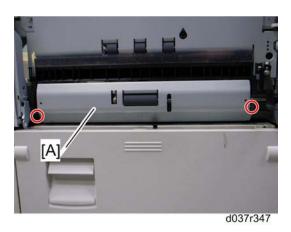


d037r341

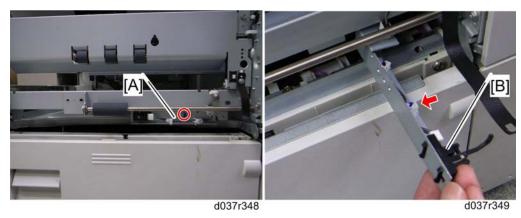
- 2. Open the lower right door [A].
- 3. Release the belt [B].



4. Release the rear pivot [A], and then remove the lower right door [B].



5. Lower guide bracket [A] (🏲 x 2)



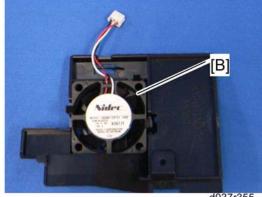
- 6. Sensor bracket [A] (🗗 x 1)
- 7. Vertical transport sensor 2 [B] (hooks, 🞜 x 1)

Paper Exit

Junction Gate Solenoid Fan

- 1. Right upper cover (**p.173)
- 2. Right rear cover (p. 169)





d037r355

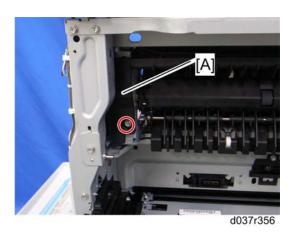
- 3. Fan base [A] (** 1, ** x 1)
- 4. Junction gate solenoid fan [B] (hooks)

When installing the junction gate solenoid fan

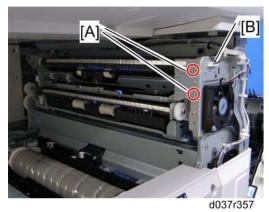
Make sure that the junction gate solenoid fan is installed with its decal facing to the left side.

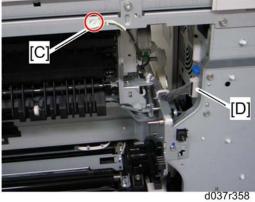
Paper Exit Unit

- 1. Fusing Unit (p.242)
- 2. Front right cover (IPp. 172)
- 3. Junction gate solenoid fan base (**p.272 "Junction Gate Solenoid Fan")
- 4. Paper exit cover (*** p.174)
- 5. Inner Tray (**p.175)



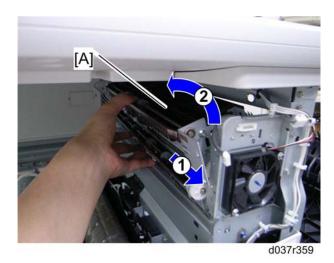
6. Front harness cover [A] (*x 1)





- 7. Remove or disconnect the following:
 - Two screws [A] at the front side
 - Front harness [B]
 - Ground cable [C] (🗗 x 1)
 - Rear harness [D]

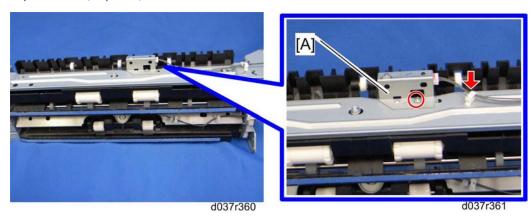


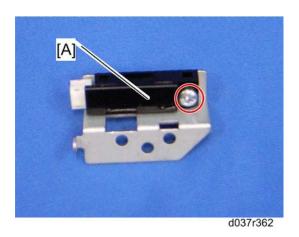


8. Paper exit unit [A]

Fusing Exit Sensor

1. Paper exit unit (1 p.272)

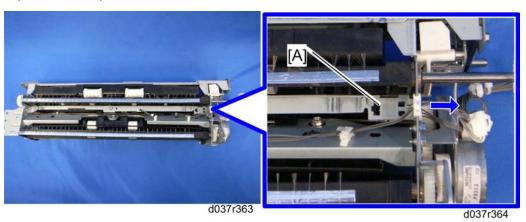




3. Fusing exit sensor [A] (Fx 1)

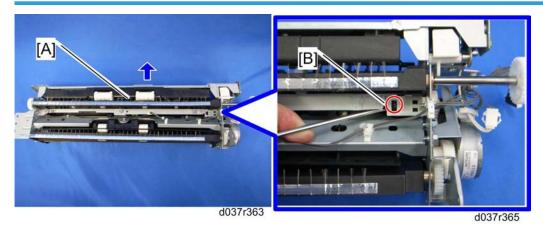
Paper Exit Sensor

1. Paper exit unit (**p.272)



2. Paper exit sensor [A] (hooks, 🞜 x 1)

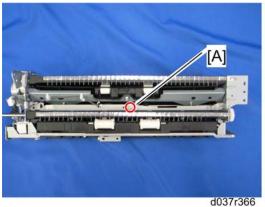
When installing the paper exit sensor

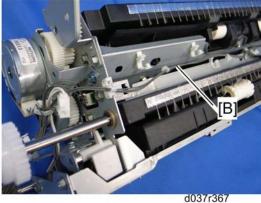


- Stand the paper exit unit so that [A] is facing up. Otherwise, the paper exit sensor feeler interrupts the installation of the paper exit sensor.
- Insert the hook [B] first.

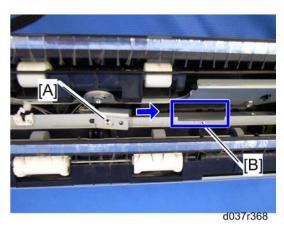
Inverter Sensor

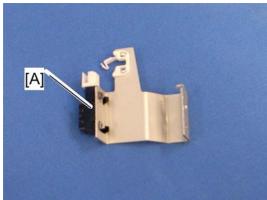
1. Paper exit unit (Pp.272)





- 2. Remove the screw [A].
- 3. Release all clamps that clamp the harness [B].



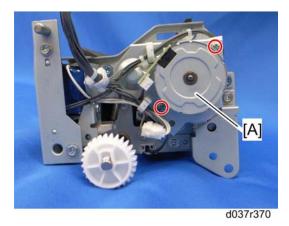


d037r369

5. Inverter sensor [A] (hooks)

Inverter Motor

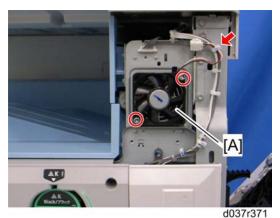
1. Paper exit unit (**p.272)



2. Inverter motor [A] (🔊 x 2, 📬 x 1)

Fusing Front Fan

1. Front right cover (Fp.172)

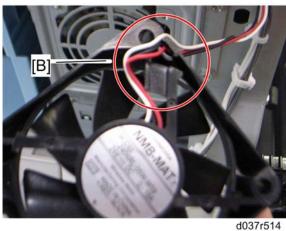


2. Fusing front fan [A] (\mathscr{F} x 2, $\overset{.}{\hookrightarrow}$ x 1, $\overset{.}{\hookleftarrow}$ x 1)

When installing the fusing front fan

Make sure that the fusing front fan is installed with its decal facing to the rear side.



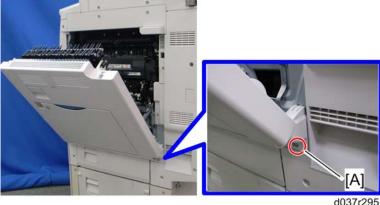




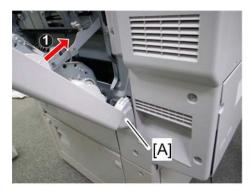
Make sure that harnesses are correctly set [A] along the guide on the fan frame without slack [B]. Otherwise, the some of the wires could be pinched and damaged or cut between the fan frame and the frame of the main machine. SC533 can be issued if the harnesses are broken.

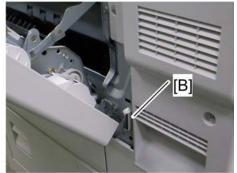
Duplex Unit

Duplex Unit



- 1. Remove the screw [A].
- 2. Open the duplex unit.



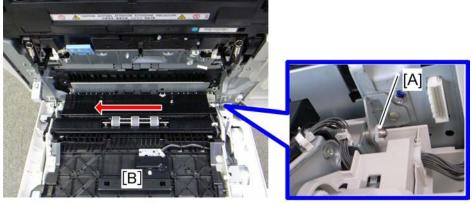


d037r296

- 3. Move the duplex unit in the direction shown by $\mathbf{0}$, and remove the hook [A].
- 4. Disconnect the harness [B].



d037r297

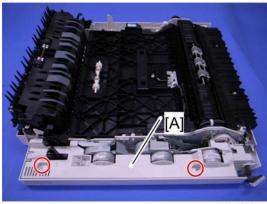


d037r298

- 6. Remove the clip [A].
- 7. Slide the duplex unit [B] to the front side, and then remove it.

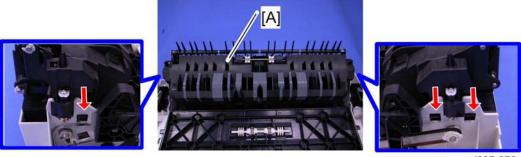
Duplex Entrance Sensor

1. Duplex unit (**P**p.280)



d037r275

2. Duplex inner cover [A] (* x 2)

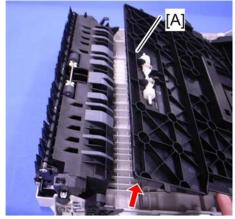


d037r276

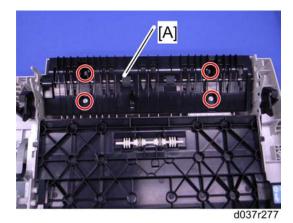
3. Duplex entrance guide unit [A] (hook x 3)



• Lift up the duplex guide plate [A] first when reinstalling the duplex entrance guide unit.

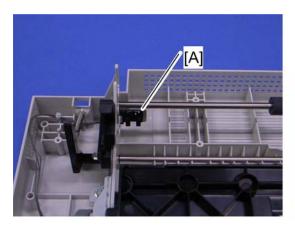


d037r287



4. Duplex outer guide plate [A] (F x 4)





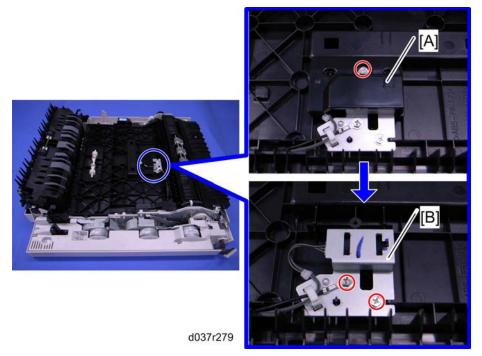


d037r278

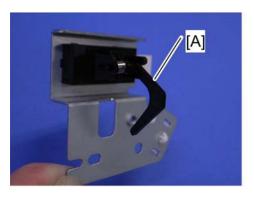
5. Duplex entrance sensor [A] (hook)

Duplex Exit Sensor

- 1. Pull out the 1st tray.
- 2. Duplex unit (p.280)



- 3. Duplex exit sensor assembly cover [A] (${\it F}$ x 1)
- 4. Duplex exit sensor assembly [B] ($\mbox{\it P} x$ 1, ground screw x 1, $\mbox{\it L} x$ 1, $\mbox{\it L} x$ 1)



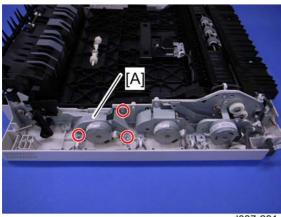


d037r280

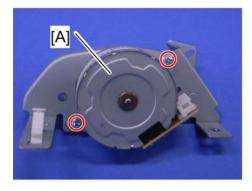
5. Duplex exit sensor [A] (hook)

Duplex Entrance Motor

- 1. Duplex unit (p.280)
- 2. Duplex inner cover (*** p.281 "Duplex Entrance Sensor")



d037r281



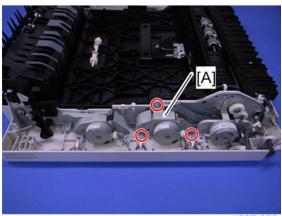


d037r282

4. Separate the duplex entrance motor [A] from the bracket (🗗 x 2)

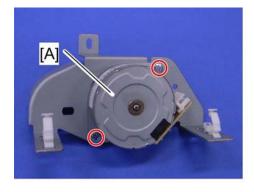
Duplex Exit Motor

- 1. Duplex unit (p.280)
- 2. Duplex inner cover (*** p.281 "Duplex Entrance Sensor")



d037r283

3. Duplex exit motor with the bracket [A] ($\mbox{\ensuremath{\mbox{$\not$}}} x$ 3, $\mbox{\ensuremath{\mbox{$\not$}}} x$ 2, $\mbox{\ensuremath{\mbox{$\not$}}} x$ 1)





d037r284

4. Separate the duplex exit motor [A] from the bracket (Fx 2)

By-pass Motor

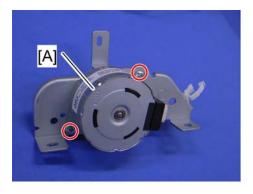
- 1. Duplex unit (p.280)
- 2. Duplex inner cover (*** p.281 "Duplex Entrance Sensor")



3. By-pass motor with the bracket [A] (🗗 x 3, 😂 x 2, 🚅 x 1)



• Remove the clamp [B] from the bracket to disconnect the harness.

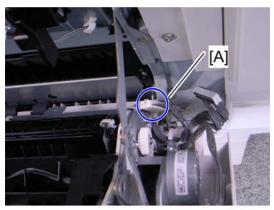




4. By-pass motor [A] (🗗 x 2)

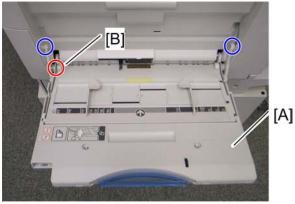
By-pass Tray Unit

- 1. Duplex unit (**P**p.280)
- 2. Duplex inner cover (**p.281 "Duplex Entrance Sensor")
- 3. Reinstall the duplex unit once, and open it.



d037r289

- 4. Disconnect the harness [A].
- 5. Close the duplex unit.



d037r288

- 6. Open the by-pass tray unit [A]
- 7. By-pass tray unit (のx 2, hook [B]).

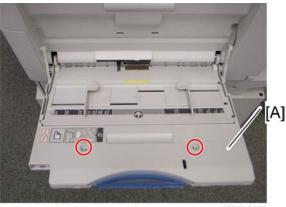


• Use a flat-head screw driver or similar tool to push the hook [B] down.

By-pass Paper Length Sensor

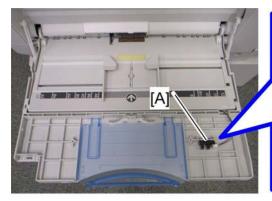
1. Open the by-pass tray unit.





d037r290

2. By-pass tray right cover [A] ($\rat{P} \times 2$)



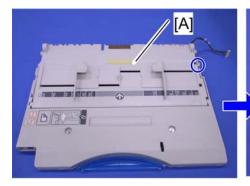


d037r291

3. By-pass paper length sensor [A] (🗂 x 1)

By-Pass Paper Size Sensor

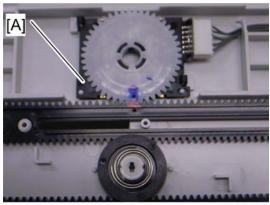
1. By-pass tray unit (Pp.286)





d037r292

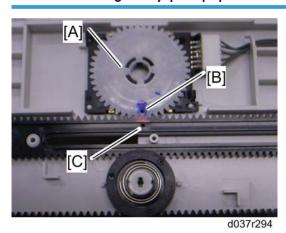
2. By-pass tray cover [A] (hook x 1)



d037r293

3. By-pass paper size sensor [A] (🗗 x 1)

When reinstalling the by-pass paper size sensor



- 1. Adjust the projection [A] of the left side fence bar (it must be centered).
- 2. Install the by-pass paper size detection switch so that the hole [B] in this switch faces the projection [C] of the left side fence bar.
- 3. Reassemble the copier.
- 4. Plug in and turn on the main power switch.
- 5. Check this switch operation with SP5803-046 (By-Pass Size Detection SW < Input Check).

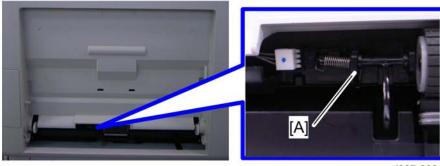
- Display on the LCD -

Paper Size	Display	Paper Size	Display
A3 SEF	00001001	A5 SEF	00001110
B4 SEF	00001011	B6 SEF	00001100

A4 SEF

By-pass Paper End Sensor

1. By-pass tray unit (Pp.286)



00000011

d037r300

2. By-pass paper end sensor [A] (🗗 x 1, hook)

Reinstalling the By-pass Paper End Sensor

• Reinstall the right hook first and then the left hook using a flat-head screw driver or similar tool.

By-pass Feed Roller

1. By-pass tray unit (Fp.286)

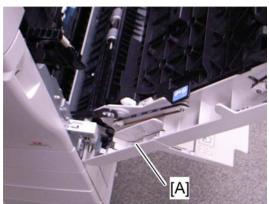


d037r301

2. By-pass feed roller [A] (hook)

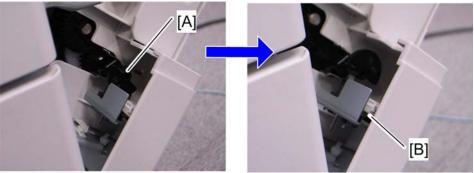
By-pass Tray HP Sensor

- 1. Open the by-pass tray unit.
- 2. Open the duplex unit.



d037r302

3. Remove the hand holder [A].



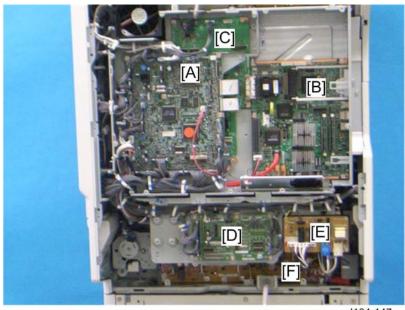
d037r303

- 4. Rotate the actuator [A] counter clockwise as shown above.
- 5. By-pass tray HP sensor [B] (hook).

Electrical Components

Boards

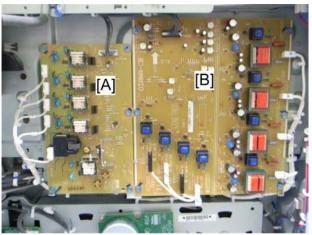
Controller Box Closed



d104r147

[A]	BCU
[B]	Controller Board
[C]	IPU
[D]	DRB
[E]	SDVDB (Shut Down and Voltage Detection Board)
[F]	PSU

Controller Box Open

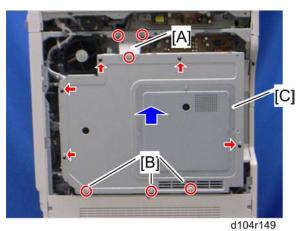


d104r148

[A]	HVPS: TTS Board
[B]	HVPS: CB Board

Controller Box Cover

1. Rear cover (**p.168)

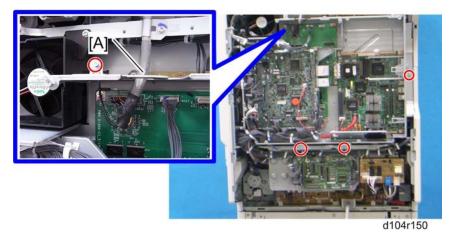


- .
- 2. Remove the scanner cable bracket [A] (\mathcal{F} x 3)
- 3. Loosen the five screws pointed by the arrow marks in the picture above.
- 4. Remove the three screws [B] at the bottom of the controller box.
- 5. Slid up the controller box cover [C], and then remove it.

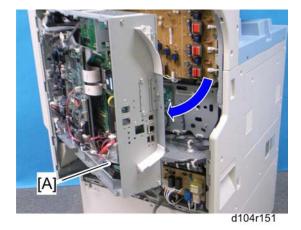
Controller Box

Opening the controller box

- 1. Rear cover (**p.168)
- 2. Rear lower cover (p.168)
- 3. Controller box cover (**p.293)



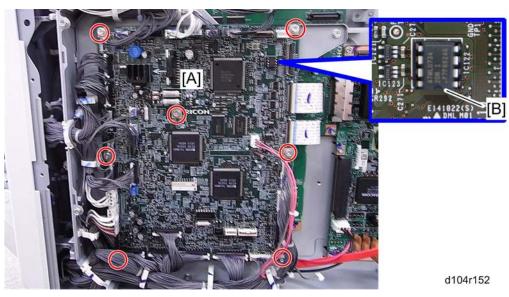
4. Remove the three screws and disconnect the scanner cable [A] (ground screw $x\ 1$)



5. Open the controller box [A].

BCU

- 1. Rear cover (**p**.168)
- 2. Controller box cover (**p.293)





Make sure the NVRAM is correctly installed on the BCU. Insert the NVRAM in the NVRAM slot
with the "half-moon" pointing [B] to the downward side.

When installing the new BCU

- 1. Remove the NVRAM from the old BCU.
- 2. Install the NVRAM on the new BCU after you replace the BCU.
- 3. Reassemble the machine.
- 4. Turn on the main power of the machine.
- 5. "SC995-01" occurs.
- 6. Enter the serial number with SP5811-004.
- 7. Turn the main power of the machine off and on.



 Make sure you print out the SMC reports ("SP Mode Data" and "Logging Data") before you replace the NVRAM.

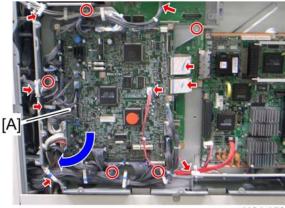
ACAUTION

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

HDD

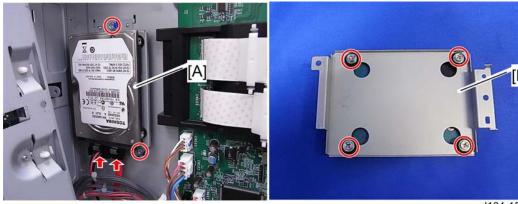


- Copy the address book data to an SD card from the HDD with SP5846-051 before replacing the HDD if possible.
- 1. Rear cover (1 p. 168)
- 2. Controller box cover (**p.293)



d104r156

3. Open the BCU bracket [A] (Fx 5, 🖨 x 4, 🗂 x 3, flat cable x 2).



d104r158

- 5. HDD bracket [B] (* x 4)
- 6. HDD

After installing a new HDD

1. Do SP5832-001 to format the HDD.

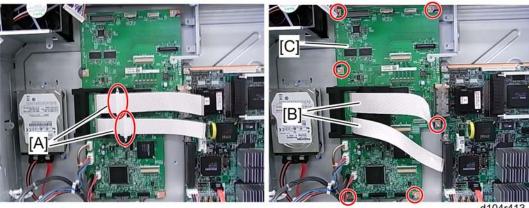
- 2. Do SP5853-001 to copy the preset stamp data from the firmware to the HDD.
- 3. Do SP5846-052 to copy back the address book to the hard disk from the SD card to which you have already copied the address book data if possible.
- 4. Do SP5-878-001 to install the DataOverwriteSecurity application.
- 5. Do SP5878-002 to install the HDD Encryption application.
- 6. Turn off the machine.

Disposal of HDD Units

- Never remove an HDD unit from the work site without the consent of the client.
- If the customer has any concerns about the security of any information on the HDD, the HDD must remain with the customer for disposal or safe keeping.
- 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.

IPU Board

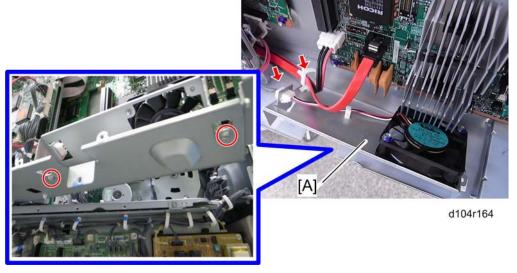
- 1. Rear cover (**p**.168)
- 2. Controller box cover (**p.293)
- 3. Open the BCU bracket (IPP p.296 "HDD")



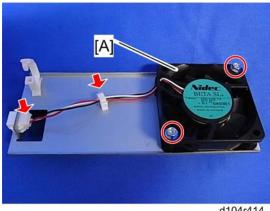
- 4. Flat cable holders [A]
- 5. Flat cables [B]
- 6. IPU board [C] (🔊 x 6, 📬 x all)

Controller Box Fan

- 1. Rear cover (1 p. 168)
- 2. Open the controller box (** p.294 "Controller Box").



3. Controller box fan with bracket [A] (\rat{F} x 2, \rat{CM} x 1, \rat{CM} x 1)



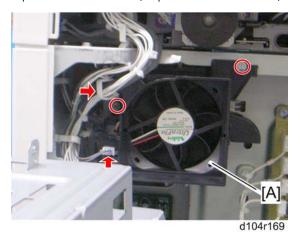
d104r414

When installing the controller box fan

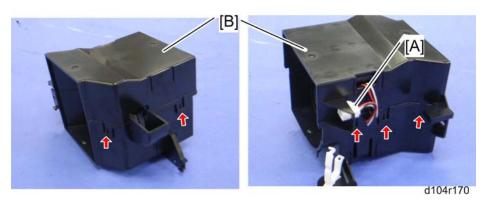
Make sure that the controller box fan is installed with its decal facing upward.

Fusing Rear Fan

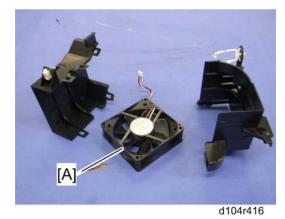
- 1. Rear cover (**p**.168)
- 2. Open the controller box (*** p.294 "Controller Box").



3. Fusing rear fan with the bracket [A] ($\mbox{\em x} \times \mbox{\em 2}$, $\mbox{\em x} \times \mbox{\em 1}$, $\mbox{\em x} \times \mbox{\em 1}$



- 4. Disconnect the connector [A].
- 5. Remove the bottom bracket [B] (hook \times 5).



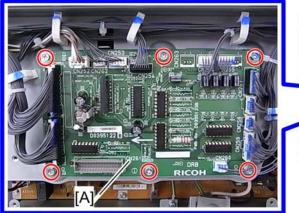
6. Fusing rear fan [A]

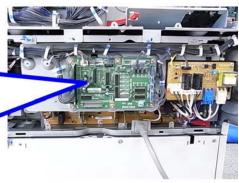
When installing the fusing rear fan

Make sure that the fusing rear fan is installed with its decal facing to the rear side.

DRB

- 1. Rear cover (**p.168)
- 2. Rear lower cover (** p.168)





d104r411

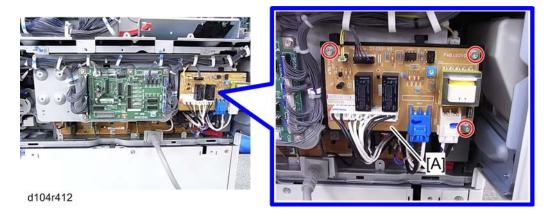
3. DRB [A] (🗗 x 6, 🗂 x all)

SDVDB

1. Rear cover (**p**.168)

4

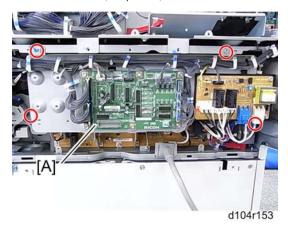
2. Rear lower cover (p.168)



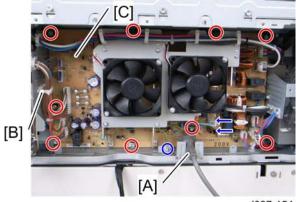
3. SDVDB [A] (🗗 x 3, 📬 x 5)

PSU

- 1. Rear cover (**P**p.168)
- 2. Rear lower cover (p.168)



3. DRB with the bracket [A] (→ x 4, 🗂 x all, 🖨 x all)

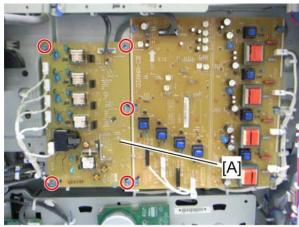


d037r154

- 4. Power cord [A] (Blue: ground screw x 1, 🗂 x 2)
- 5. Remove the clamp [B] from the bracket.
- 6. PSU board [C] (🗗 x 9, 🗐 x All, 📬 x All)

HVPS: TTS Board

- 1. Rear cover (**p**.168)
- 2. Open the controller box (**p.294 "Controller Box")

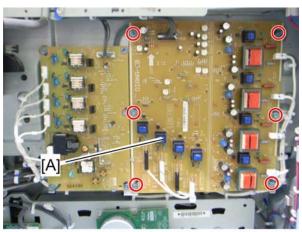


d104r155

3. HVPS: TTS board [B] (🗗 x 5, 📬 x all)

HVPS: CB Board

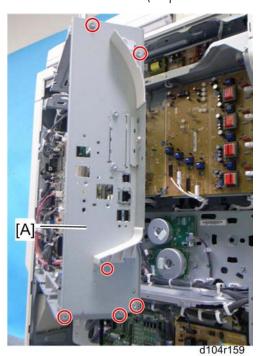
- 1. Rear cover (1 p. 168)
- 2. Open the controller box (**p.294 "Controller Box")



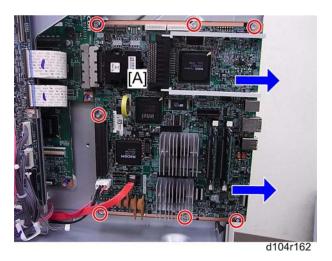
d104r155a

Controller Board

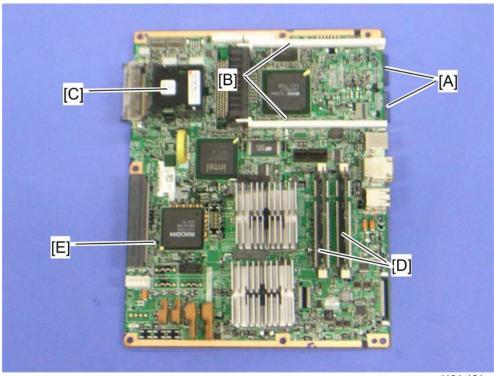
- 1. Rear cover (**p.168)
- 2. Open the controller box (**p.294 "Controller Box")
- 3. Controller box fan bracket (** p.298 "Controller Box Fan")



4. Controller box left bracket [A] (🗗 x 6)



5. Controller board assembly [A] (*x 7, 📬 x 2)



- d104r161
- 6. Remove the SD cards [A], interface rails [B], NVRAM [C] and RAM-DIMMs [D].
- 7. Controller board [E]

When installing a new controller board

- 1. Install the NVRAM from the old controller board on a new controller board.
- 2. Install the new controller board in the machine.
- 3. Disconnect the cables of the HDD from the controller board.



- Disconnecting the cables of the HDD is very important. Otherwise, the HDD is automatically formatted and all data in the HDD is lost due to the security limitation.
- 4. Reassemble the machine.
- 5. Turn on the main power of the machine.
- 6. Turn off the main power of the machine, and then connect the cables of the HDD again.



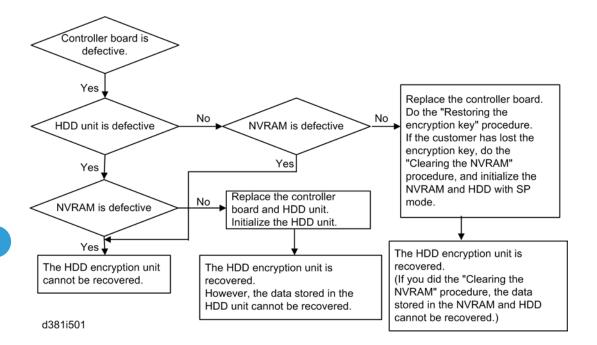
 Make sure you print out the SMC reports ("SP Mode Data" and "Logging Data") before you replace the NVRAM.

ACAUTION

- Keep NVRAMs away from any objects that can cause static electricity. Static electricity can damage NVRAM data.
- Make sure the NVRAM is correctly installed on the controller board.

HDD Encryption Recovery from a Device Problem

The flowchart below shows the recovery possibility of the HDD encryption if one of devices related with the HDD encryption is defective.



Restoring the Encryption key

When replacing the controller board for a model in which the HDD encryption unit has been installed, updating the encryption key is required.

- 1. Prepare an SD card which is initialized.
- 2. Make the "restore_key" folder in the SD card.
- 3. Make an "nyram_key.txt" file in the "restore_key" folder in the SD card.
- 4. Ask an administrator to input the encryption key (this has been printed out earlier by the user) into the "nvram_key.txt" file.
- 5. Remove only the HDD (**p.296 "HDD").
- 6. Turn on the main power switch.
- 7. Confirm that the prompt on the LCD tells you to install the SD card (storing the encryption key) in the machine.
- 8. Turn off the main power switch.
- 9. Remove the SD slot cover (* x 1).
- 10. Insert the SD card that contains the encryption key into SD slot 2.
- 11. Turn on the main power switch, and the machine automatically restores the encryption key in the flash memory on the controller board.
- 12. Turn off the main power switch after the machine has returned to normal status.
- 13. Remove the SD card from SD slot 2, and then attach the SD slot cover ($\mathcal{F} \times 1$).

14. Reinstall the HDD.

Clearing the NVRAM

When replacing the controller board and a customer has lost the encryption key, clearing the NVRAM is required to recover the HDD encryption unit.

- 1. Prepare an SD card which is initialized.
- 2. Make the "restore_key" folder in the SD card.
- 3. Make an "nvram_key.txt" file in the "restore_key" folder in the SD card.
- 4. Input "nvclear" into the "nvram_key.txt" file.
- 5. Turn on the main power switch.
- 6. Confirm that the prompt on the LCD tells you to install the SD card (storing the encryption key) in the machine.
- 7. Turn off the main power switch.
- 8. Insert the SD card that contains "nvclear" into SD slot 2.
- 9. Turn on the main power switch, and the machine automatically restores the encryption key in the flash memory on the controller board.
- 10. Turn off the main power switch after the machine has returned to normal status.
- 11. Remove the SD card from slot 2.
- 12. Turn on the main power switch.
- 13. Initialize the NVRAM (SP5801-001) and HDD unit (SP5832-001) with SP mode.
- 14. The user must enable the HDD encryption unit with a user tool.

NVRAM Replacement Procedure

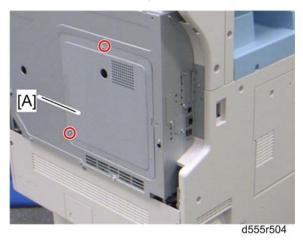
NVRAM on the BCU

- 1. Make sure that you have the SMC report (factory settings). This report comes with the machine (p.49 "Initialize the Developer").
- 2. Output the SMC data (SP5-990-001) if possible.
- 3. Turn the main switch off.
- 4. Install an SD card into SD card slot 2. Then turn the main power on.
- 5. Copy the NVRAM data to an SD card (SP5-824-001) if possible.
- 6. Turn off the main switch. Then unplug the power cord.
- 7. Replace the NVRAM on the BCU and reassemble the machine.

- 8. Plug in the power cord. Then turn the main switch on.
- 9. SC195 occurs.
- 10. Copy the data from the SD card to the NVRAM (** SP5-825-001) if you have successfully copied them to the SD card.
- 11. Turn the main switch off. Then remove the SD card from SD card slot 2.
- 12. Turn the main switch on.
- 13. Specify the SP and UP mode settings.
- 14. Do the process control self-check.
- 15. Do ACC for the copier application program.
- 16. Do ACC for the printer application program.

NVRAM on the Controller

- 1. Make sure that you have the SMC report (factory settings). This report comes with the machine (p.49 "Initialize the Developer").
- 2. Output the SMC data (** SP5-990-001) if possible.
- 3. Turn the main switch off. Then unplug the power cord.
- 4. Remove the rear cover (p. 168)



- 5. Remove the controller cover [A] (F x 2).
- 6. Disconnect the cables of the HDD from the controller board.



- Disconnecting the cables of the HDD is very important. Otherwise, the HDD is automatically formatted and all data in the HDD is lost due to the security limitation.
- 7. Install a New NVRAM on the controller. Then reassemble the machine.

- 8. Remove the SD slot cover (x 1).
- 9. Remove the Security SD from SD slot 1.
- 10. Install a new Security SD in SD slot 1.
- 11. Turn the main switch on.
- 12. SC995-02 occurs.
- 13. Turn the machine off.
- 14. Connect the cables of the HDD to the controller board.
- 15. Reassemble the machine, and then turn on the machine.
- 16. Do the process control self-check.
- 17. Do ACC for the copier application program.
- 18. Do ACC for the printer application program.
- 19. Do SP5-878-001 to install the DataOverwriteSecurity application.
- 20. Do SP5878-002 to install the HDD Encryption application.
- 21. Merge all applications in a one SD card in SD slot 1 if necessary (**p.132 "SD Card Appli Move").

5. System Maintenance

Service Program Mode

ACAUTION

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.

SP Tables

There are most commonly used SP codes in the "Main SP Tables - 1 to - 9" of "Main Chapters".

See "Appendices" for the following information:

- System SP Tables (all SP codes)
- Printer SP Tables
- Scanner SP Tables

Types of SP Modes

- System SP: SP modes related to the engine functions
- Printer SP: SP modes related to the controller functions
- Scanner SP: SP modes related to the scanner functions
- Fax SP: SP modes related to the fax functions

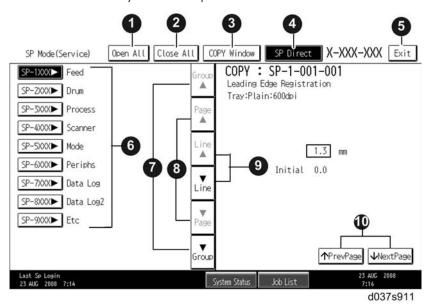
Select one of the Service Program modes (System, Printer, Scanner, or Fax) from the touch panel as shown in the diagram below after you access the SP mode. This section explains the functions of the System/Printer/Scanner SP modes. Refer to the Fax service manual for the Fax SP modes.



d037s910

SP Mode Button Summary

Here is a short summary of the touch-panel buttons.



0 Opens all SP groups and sublevels. 0 Closes all open groups and sublevels and restores the initial SP mode display. Opens the copy window (copy mode) so you can make test copies. Press SP Mode (highlighted) 0 in the copy window to return to the SP mode screen,

Enter the SP code directly with the number keys if you know the SP number. Then press. (The 4 required SP Mode number will be highlighted when pressing. If not, just press the required SP Mode number.) Θ Press two times to leave the SP mode and return to the copy window to resume normal operation. 0 Press any Class 1 number to open a list of Class 2 SP modes. Ø Press to scroll the show to the previous or next group. 0 Press to scroll to the previous or next display in segments the size of the screen display (page). 0 Press to scroll the show the previous or next line (line by line). ❿ Press to move the highlight on the left to the previous or next selection in the list.

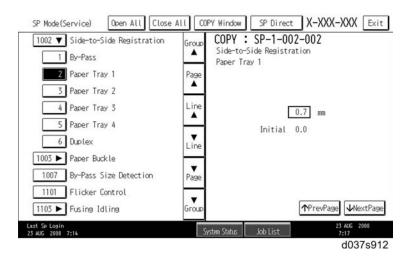
Switching Between SP Mode and Copy Mode for Test Printing

- 1. In the SP mode, select the test print. Then press "Copy Window".
- 2. Use the copy window (copier mode), to select the appropriate settings (paper size, etc.) for the test print.
- 3. Press Start 💇 to start the test print.
- 4. Press SP Mode (highlighted) to return to the SP mode screen and repeat from step 1.

Selecting the Program Number

Program numbers have two or three levels.

- 1. Refer to the Service Tables to find the SP that you want to adjust before you begin.
- 2. Press the Group number on the left side SP Mode window that contains the SP that you want to adjust.
- 3. Use the scrolling buttons in the center of the SP mode window to show the SP number that you want to open. Then press that number to expand the list.
- 4. Use the center touch-panel buttons to scroll to the number and title of the item that you want to set and press it. The small entry box on the right activates and shows the below default or the current settings.





- Refer to the SP Tables for the range of allowed settings.
- 5. Do this procedure to enter a setting:
 - Press to toggle between plus and minus and use the keypad to enter the appropriate number.
 The number you enter writes over the previous setting.
 - Press ## to enter the setting. (The value is not registered if you enter a number that is out of range.)
 - Press "Yes" when you are prompted to complete the selection.
- 6. If you need to perform a test print, press Copy Window to open the copy window and select the settings for the test print. Press Start and then press SP Mode (highlighted) in the copy window to return to the SP mode display.
- 7. Press Exit two times to return to the copy window when you are finished.

Service Mode Lock/Unlock

At locations where the machine contains sensitive data, the customer engineer cannot operate the machine until the Administrator turns the service mode lock off. This function makes sure that work on the machine is always done with the permission of the Administrator.

1. If you cannot go into the SP mode, ask the Administrator to log in with the User Tool and then set "Service Mode Lock" to OFF after he or she logs in:

User Tools > System Settings > Administrator Tools > Service Mode Lock > OFF

- This unlocks the machine and lets you get access to all the SP codes.
- The CE can service the machine and turn the machine off and on. It is not necessary to ask the Administrator to log in again each time the machine is turned on.
- 1. Go into the SP mode and set SP5169 to "1" if you must use the printer bit switches.
- 2. After machine servicing is completed:

- Change SP5169 from "1" to "0".
- Turn the machine off and on. Tell the administrator that you have completed servicing the machine.
- The Administrator will then set the "Service Mode Lock" to ON.

Remarks

Display on the Control Panel Screen

The maximum number of characters which can show on the control panel screen is limited to 30 characters. For this reason, some of the SP modes shown on the screen need to be abbreviated. The following are abbreviations used for the SP modes for which the full description is over 30 characters.

Paper Weight

Thin paper: 52-59 g/m² (14-16lb. Bond)

Plain Paper 1: 60-74 g/m² (16-20lb. Bond)

Plain Paper2: 75-81 g/m² (20lb. Bond)

Middle Thick: 82-105 g/m² (20-28lb. Bond)

Thick Paper 1: 106-169 g/m² (28lb. Bond-90lb. Index)

Thick Paper 2: 170-210 g/m² (65lb. Cover-54lb. Bond)

Thick Paper 3: 211-256 g/m² (65lb. Cover-54lb. Bond)

Paper Type

N: Normal paper

MTH: Middle thick paper

TH: Thick paper

Paper Feed Station

P: Paper tray

B: By-pass table

Color Mode [Color]

[K]: Black in B&W mode

[Y], [M], or [C]: Yellow, Magenta, or Cyan in Full Color mode

[YMC]: Only for Yellow, Magenta, and Cyan

[FC]: Full Color mode

[FC, K], [FC, Y], [FC, M], or [FC, C]: Black, Yellow, Magenta, or Cyan in full color mode

Print Mode	Process Speed
S: Simplex	L: Low speed (60 mm/s)
D: Duplex	M: Middle speed (120 mm/s)

The following symbols are used in the SP mode tables.

FA: Factory setting

(Data may be adjusted from the default setting at the factory. Refer to the factory setting sheets enclosed. You can find it under the jammed paper removal decal.)

DFU: Design/Factory Use only

Do not touch these SP modes in the field.

A sharp (#) to the right hand side of the mode number column means that the main switch must be turned off and on to effect the setting change.

An asterisk (*) to the right hand side of the mode number column means that this mode is stored in the NVRAM. 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

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



• If "Alphanumeric" is written to the right of the bracket as shown above, the setting of the SP mode shows on the screen using alphanumeric characters instead of only numbers. However, the settings in the bracket in the SP mode table are explained by using only the numbers.

SSP: This denotes a "Special Service Program" mode setting.

Main SP Tables-1

SP1-XXX (Feed)

	[Leading Edge Registration] Leading Edge Registration Adjustment			
	(Tray Location, Paper Type, Color Mode), Paper Type -> Plain, Thick 1, Thick 2 or Thick3			
Adjusts the leading edge registration by changing the registration motor operat for each mode.			ging the registration motor operation timing	
	Increasing a value: an image is mov	ved to the t	railing edge of paper.	
	Decreasing a value: an image is mo	oved to the	leading edge of paper.	
001	Tray:Plain:600dpi	*ENG		
002	Tray:Thick1:600dpi	*ENG		
003	Tray:M-Thick:600dpi	*ENG		
004	By-pass:Plain:600dpi	*ENG		
005	By-pass:Thick 1:600dpi	*ENG	[-9 to 9 / 0.0 / 0.1 mm/step]	
006	By-pass:Thick2:600dpi	*ENG	[-7 10 7 / 0.0 / 0.1 mm/siep]	
007	By-pass:Thick3:600dpi	*ENG		
008	By-pass: M-Thick:600dpi	*ENG		
009	Duplex:Plain:600dpi	*ENG		
010	Duplex:M-Thick:600dpi	*ENG		

011	Tray:Thick 1:1200dpi	*ENG	
012	Tray:M-Thick:1200dpi	*ENG	
013	By-pass:Plain:1200dpi	*ENG	
014	By-pass:Plain:1200dpi	*ENG	
015	By-pass:Thick1:1200dpi	*ENG	[0 +
016	By-pass:Thick2:1200dpi	*ENG	[-9 to 9 / 0.0 / 0.1 mm/step]
017	By-pass:Thick3:1200dpi	*ENG	
018	By-pass:M-Thick: 1200dpi	*ENG	
019	Duplex:Plain: 1 200dpi	*ENG	
020	Duplex:M-Thick:1200dpi	*ENG	

	[Side-to-Side Registration]			
Adjusts the side-to-side registration by changing the laser main scan start position mode and tray.				
Increasing a value: an image is moved to the rear edge of paper.			ear edge of paper.	
Decreasing a value: an image is moved to the front edge of paper.			front edge of paper.	
001	By-pass	*ENG		
002	Paper Tray 1	*ENG		
003	Paper Tray 2	*ENG	[-4 to 4 / 0.0 / 0.1 mm/step]	
004	Paper Tray 3	*ENG	[-4104/ 0.0 / 0.1 mm/step]	
005	Paper Tray 4	*ENG		
006	Duplex	*ENG		

		[Paper Buckle] Paper Buckle Adjustment	
1003 (Tray	(Tray Location, Paper Type), Paper Type: M-Thick: Middle Thick		
	1003	Adjusts the amount of paper buckle at the registration roller by changing the paper feed timing.	

			1
001	Tray 1 : Plain: 600 dpi	*ENG	
002	Tray 1: Thick 1:600dpi	*ENG	[-5 to 5 / 2 / 1 mm/step]
003	Tray 1:M-Thick:600dpi	*ENG	
004	Tray234:Plain:600dpi	*ENG	
005	Tray234:Thick1:600dpi	*ENG	
006	Tray234:M-Thick:600dpi	*ENG	
007	By-pass:Plain:600dpi	*ENG	
008	By-pass:Thick1:600dpi	*ENG	1.5. 5 /0 /1 /. 1
009	By-pass:Thick2:600dpi	*ENG	[-5 to 5 / 0 / 1 mm/step]
010	By-pass:Thick3:600dpi	*ENG	
011	By-pass:M-Thick:600dpi	*ENG	
012	Duplex:Plain:600dpi	*ENG	
013	Duplex:M-Thick:600dpi	*ENG	
014	Tray 1: Plain: 1200dpi	*ENG	
015	Tray1:Thick1:1200dpi	*ENG	[-5 to 5 / 2 / 1 mm/step]
016	Tray1:M-Thick:1200dpi	*ENG	
017	Tray234:Plain: 1 200dpi	*ENG	
018	Tray234:Thick1:1200dpi	*ENG	
019	Tray234:M-Thick:1200dpi	*ENG	
020	By-pass:Plain:1200dpi	*ENG	
021	By-pass:Thick1:1200dpi	*ENG	[5 , 5 / 0 / 1
022	By-pass:Thick2:1200dpi	*ENG	[-5 to 5 / 0 / 1 mm/step]
023	By-pass:Thick3:1200dpi	*ENG	
024	By-pass:M-Thick: 1200dpi	*ENG	
025	Duplex:Plain:1200dpi	*ENG	
026	Duplex:M-Thick:1200dpi	*ENG	

1007	[By-Pass Size Detection] By-Pass Size Detection Display		
	0:LT SEF/ 1:LG	*ENG	-
001	Enables or disables the automatic paper size detection function of the by-pass tray.		tection function of the by-pass tray.
	This SP determines what paper size the machine detects if the detected size is less than 8.5".		
	0: LT SEF (default), 1: LG		

	[Reload Permit Setting]			
1101	Specifies the settings of the reload permit for cold temperature in color mode.			
	Destination: NA; North Americ	a, TWN; T	aiwan, EU; Europe, AA; Asia Pasific	
001	Pre-rotation Start Temp.	*ENG	[0 to 75 / 50 / 1 deg/step]	
	Specifies the pre-rotation start	temperatur	e.	
002	Reload Target Temp.:Center	*ENG	[135 to 145 / 135 / 1 deg/step]	
002	Specifies the reload target tem	perature o	the heating roller.	
003	Reload Target Temp.:Press	*ENG	[0 to 200 / 20 / 1 deg/step]	
003	Specifies the reload target tem	perature o	the pressure roller.	
	Temp.:Delta:Cold: Center	*ENG	[0 to 100 / 10 / 1 deg/step]	
004	Specifies the temperature correction of the heating roller (center) when the fusing unit is determined as cold state.			
	Temp.:Delta:Cold:End	*ENG	[0 to 100 / 45 / 1 deg/step]	
005	Specifies the temperature correction of the heating roller (end) when the fusing unit is determined as cold state.			
	Temp.:Delta:Cold: Press	*ENG	[0 to 100 / 0 / 1 deg/step]	
006	Specifies the temperature correction of the pressure roller when the fusing unit is determined as cold state.			
	Rotation Time:Cold	*ENG	[0 to 200 / 2 / 1 sec/step]	
007	Specifies the threshold time for the fusing unit heating when the fusing unit is determined as cold state.			

	Temp.:Delta:Warm: Center	*ENG	[0 to 100 / NA: 10, EU/AA: 5 / 1 deg/step]	
Specifies the temperature correction of the heating roller (center) when the fusion determined as warm state.			e heating roller (center) when the fusing unit is	
	Temp.:Delta:Warm:End	*ENG	[40 to 200 / NA: 45, EU/AA: 35 / 1 deg/step	
009	Specifies the temperature corredetermined as warm state.	ection of the	e heating roller (end) when the fusing unit is	
	Temp.:Delta:Warm:Press	*ENG	[0 to 200 / 0 / 1 deg/step]	
010	Specifies the temperature correas warm state.	ection of the	e pressure roller when the fusing unit is determine	
	Time:Warm	*ENG	[0 to 100 / 2 / 1 sec/step]	
011	Specifies the threshold time for warm state.	the fusing	unit heating when the fusing unit is determined a	
	Temp.:Delta:Hot: Center	*ENG	[0 to 100 / NA: 10, EU/AA: 5 / 1 deg/step	
012	Specifies the temperature correction of the heating roller (center) when the fusing unit is determined as hot state.			
	Temp.:Delta:Hot:End	*ENG	[0 to 100 / NA: 45, EU/AA: 35 / 1 deg/ste	
013	Specifies the temperature correction of the heating roller (end) when the fusing unit is determined as hot state.			
	Temp.:Delta:Hot:Press	*ENG	[0 to 200 / 0 / 1 deg/step]	
014	Specifies the temperature correction of the pressure roller when the fusing unit is determined as hot state.			
	Time:Hot	*ENG	[0 to 200 / 2 / 1 sec/step]	
015	Specifies the threshold time for hot state.	the fusing	unit heating when the fusing unit is determined c	
	Temp.:Delta:Cold:BW:Center	*ENG	[0 to 100 / NA: 10, EU/AA: 5 / 1 deg/step	
016	Specifies the temperature correction of the heating roller (center) in the black and white mode when the fusing unit is determined as cold state.			
	Temp.:Delta:Cold:BW:End	*ENG	[0 to 100 / NA: 45, EU/AA: 35 / 1 deg/ste	
017	Specifies the temperature correwhen the fusing unit is determine		e heating roller (end) in the black and white mod I state.	

018	Temp.Delta:Cold:BW:Press	*ENG	[0 to 200 / 0 / 1 deg/step]
	Specifies the temperature correction of the pressure roller in the black and white mode whe the fusing unit is determined as cold state.		
019	Rotation Time:BW:Cold	*ENG	[0 to 200 / 2 / 1 sec/step]
	Specifies the threshold time for the fusing unit heating in black and white mode when the fusing unit is determined as cold state.		
020	Temp.:Delta:Warm:BW:Cent	*ENG	[0 to 100 / 10 / 1 deg/step]
	Specifies the temperature correction of the heating roller (center) in the black and white mode when the fusing unit is determined as warm state.		
	Temp.:Delta:Warm:BW:End	*ENG	[0 to 100 / 45 / 1 deg/step]
021	Specifies the temperature correction of the heating roller (end) in the black and white more when the fusing unit is determined as warm state.		
	Temp.Delta:Warm:BW:Press	*ENG	[0 to 200 / 0 / 1 deg/step]
022	Specifies the temperature correction of the pressure roller in the black and white mode whether the fusing unit is determined as warm state.		
	Rotation Time:BW:Warm	*ENG	[0 to 200 / 2 / 1 sec/step]
023	Specifies the threshold time for the fusing unit heating in black and white mode when the fusing unit is determined as warm state.		
	Temp.:Delta:Hot:BW:Center	*ENG	[0 to 100 / 10 / 1 deg/step]
024	Specifies the temperature correction of the heating roller (center) in the black and white mo when the fusing unit is determined as hot state.		
	Temp.:Delta:Hot:BW: End	*ENG	[0 to 100 / 45 / 1 deg/step]
025	Specifies the temperature correction of the heating roller (end) in the black and white more when the fusing unit is determined as hot state.		
	Temp.:Delta:Hot:BW: Press	*ENG	[0 to 200 / 0 / 1 deg/step]
026	Specifies the temperature correction of the pressure roller in the black and white mode where the fusing unit is determined as hot state.		

	Rotation Time:BW:Hot	*ENG	[0 to 200 / 2 / 1 sec/step]		
Specifies the threshold time for the fusing unit heating in black and white mode fusing unit is determined as hot state.					
030	Flicker Control	*ENG	[0 or 1 / 0 / -]		
101	Temp.:Delta:Cold: BW2:Center	*ENG	[0 to 100 / 65 / 1 deg/step]		
102	Temp.:Delta:Cold: BW2:End	*ENG	[0 to 100 / 80 / 1 deg/step]		
103	Temp.:Delta:Cold:BW2:Press	*ENG	[0 to 200 / 0 / 1 deg/step]		
104	Rotation Time: BW2:Cold	*ENG	[0 to 200 / 2 / 1 sec/step]		
105	Temp.:Delta:Warm: BW2:Center	*ENG	[0 to 100 / 65 / 1 deg/step]		
106	Temp.:Delta:Warm: BW2:End	*ENG	[0 to 100 / 80 / 1 deg/step]		
107	Temp.:Delta:Warm: BW2:Press	*ENG	[0 to 200 / 0 / 1 deg/step]		
108	Rotation Time: BW2:Warm	*ENG	[0 to 200 / 2 / 1 sec/step]		
109	Temp.:Delta:Hot: BW2:Center	*ENG	[0 to 100 / 65 / 1 deg/step]		
110	Temp.:Delta:Hot: BW2:End	*ENG	[0 to 100 / 80 / 1 deg/step]		
111	Temp.:Delta:Hot: BW2:Press	*ENG	[0 to 200 / 0 / 1 deg/step]		
112	Rotation Time: BW2:Hot	*ENG	[0 to 200 / 2 / 1 sec/step]		

	[Feed Permit Setting]				
1102	Specified the settings of the paper feeding timing. Destination: NA; North America, TWN; Taiwan, EU; Europe, AA; Asia Pasific				
001	Temp.:Lower Delta:Center	*ENG	[0 to 100 / NA: 30, EU/AA: 25 / 1 deg/step]		
002	Temp.:Lower Delta:End	*ENG	[0 to 100 / NA: 65, EU/AA: 55 / 1 deg/step]		
003	Temp.:Upper Delta:Center	*ENG	[0 to 50 / NA: 15, EU/AA: 25 / 1 deg/step]		
004	Temp.:Upper Delta:End	*ENG	[0 to 50 / 15 / 1 deg/step]		

005	Temp.:Lower Delta:Press	*ENG	[0 to 200 / 65 / 1 deg/step]
006	Rotation Time	*ENG	[0 to 200 / 0 / 1 sec/step]
007	Temp.:Lower Delta:Center:Sp.1	*ENG	[0 to 100 / 35 / 1 deg/step]
800	Temp.:Lower Delta:End:Sp.1	*ENG	[0 to 100 / 35 / 1 deg/step]
009	Temp.:Upper Delta:Center:Sp.1	*ENG	[0 to 50 / 15 / 1 deg/step]
010	Temp.:Upper Delta:End:Sp.1	*ENG	[0 to 50 / 15 / 1 deg/step]
011	Temp.:Lower Delta:Press:Sp.1	*ENG	[0 to 200 / 30 / 1 deg/step]
012	Rotation Time:Sp.1	*ENG	[0 to 200 / 0 / 1 sec/step]
013	Temp.:Lower Delta:Center:Sp.2	*ENG	[0 to 100 / 30 / 1 deg/step]
014	Temp.:Lower Delta:End:Sp.2	*ENG	[0 to 100 / 30 / 1 deg/step]
015	Temp.:Upper Delta:Center:Sp.2	*ENG	[0 to 50 / 20 / 1 deg/step]
016	Temp.:Upper Delta:End:Sp.2	*ENG	[0 to 50 / 20 / 1 deg/step]
017	Temp.:Lower Delta:Press:Sp.2	*ENG	[0 to 200 / 60 / 1 deg/step]
018	Rotation Time:Sp2	*ENG	[0 to 200 / 0 / 1 sec/step]
019	Feed Permit Time	*ENG	[0 to 200 / 60 / 1 sec/step]
020	Temp.:Lower Delta:Center:Sp.3	*ENG	[0 to 100 / 25 / 1 deg/step]
021	Temp.:Lower Delta:End:Sp.3	*ENG	[0 to 100 / 25 / 1 deg/step]
022	Temp.:Upper Delta:Center:Sp.3	*ENG	[0 to 50 / 10 / 1 deg/step]
023	Temp.:Upper Delta:End:Sp.3	*ENG	[0 to 50 / 10 / 1 deg/step]
024	Temp.:Lower Delta:Press:Sp.3	*ENG	[0 to 200 / 30 / 1 deg/step]
025	Rotation Time:Sp3	*ENG	[0 to 200 / 0 / 1 sec/step]

1105	[Print Target Temp]				
	(Printing Mode, Roller Type, [Color], Simplex/Duplex)				
	Roller Type -> Center and End	ds: Heating	roller, Pressure -> Pressure roller		
	Paper Type -> Plain, Thin, Thic	k, OHP, M	iddle Thick, Special		
	Destination: NA; North Americ	ca, TWN; 1	「aiwan, EU; Europe, AA; Asia Pasific		
001	Plain 1:FC:Center	*ENG	[100 to 160 / NA: 150, EU/AA: 141 / 1 deg/ step]		
	Specifies the heating roller targ	get temper	ature for the ready condition in full color printing.		
000	Plain 1:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]		
002	Specifies the pressure roller tar	get temper	rature for the ready condition in full color printing		
003	Plain 1:BW:Center	*ENG	[100 to 160 / NA : 140 , EU/AA : 131 / 1 deg/ step]		
	Specifies the heating roller targ	get temper	ature for the ready condition in BW printing.		
004	Plain 1:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]		
004	Specifies the pressure roller target temperature for the ready condition in BW printing.				
005	Plain2:FC:Center	*ENG	[100 to 160 / NA : 155 , EU/AA : 146 / 1 deg/ step]		
	Specifies the heating roller target temperature for the ready condition in full color printing.				
004	Plain2:FC:Press	*ENG	[0 to 200 / 120 / 1 deg/step]		
006	Specifies the pressure roller target temperature for the ready condition in full coloe printing.				
007	Plain2:BW:Center	*ENG	[100 to 160 / NA : 145 , EU/AA : 136 / 1 deg/ step]		
	Specifies the heating roller target temperature for the ready condition in BW printing.				
000	Plain2:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]		
008	Specifies the pressure roller target temperature for the ready condition in BW printing.				
009	Thin:FC:Center	*ENG	[100 to 160 / 145 / 1 deg/step]		
010	Thin:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]		
011	Thin:BW:Center	*ENG	[100 to 160 / 135 / 1 deg/step]		

012	Thin:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
013	M-thick:FC:Center	*ENG	[100 to 170 / 160 / 1 deg/step]
014	M-thick:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
015	M-thick:BW:Center	*ENG	[100 to 170 / 150 / 1 deg/step]
016	M-thick:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
017	Thick1:FC:Center	*ENG	[100 to 200 / 155 / 1 deg/step]
018	Thick 1:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
019	Thick1:BW:Center	*ENG	[100 to 200 / 165 / 1 deg/step]
020	Thick 1:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
021	Thick2:FC:Center	*ENG	[100 to 200 / 165 / 1 deg/step]
022	Thick2:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
023	Thick2:BW:Center	*ENG	[100 to 200 / 155 / 1 deg/step]
024	Thick2:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
025	Thick3:FC:Center	*ENG	[100 to 200 / 170 / 1 deg/step]
026	Thick3:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
027	Thick3:BW:Center	*ENG	[100 to 200 / 160 / 1 deg/step]
028	Thick3:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
029	Special 1:FC:Center	*ENG	[100 to 170 / 160 / 1 deg/step]
030	Special 1:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
031	Special 1:BW:Center	*ENG	[100 to 170 / 150 / 1 deg/step]
032	Special 1:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
033	Special2:FC:Center	*ENG	[100 to 175 / 165 / 1 deg/step]
034	Special2:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
035	Special2:BW:Center	*ENG	[100 to 175 / 155 / 1 deg/step]
036	Special2:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
037	Special3:FC:Center	*ENG	[100 to 175 / 155 / 1 deg/step]
		-	

038	Special3:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
039	Special3:BW:Center	*ENG	[100 to 175 / 145 / 1 deg/step]
040	Special3:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
041	Envelop:Center	*ENG	[100 to 200 / 175 / 1 deg/step]
042	Envelop:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
101	Plain 1:FC:Center:Low Speed	*ENG	[100 to 200 / 125 / 1 deg/step]
102	Plain1:FC:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
103	Plain 1:BW:Center:Low Speed	*ENG	[100 to 200 / 120 / 1 deg/step]
104	Plain1:BW:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
105	Plain2:FC:Center:Low Speed	*ENG	[100 to 200 / 130 / 1 deg/step]
106	Plain2:FC:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
107	Plain2:BW:Center:Low Speed	*ENG	[100 to 200 / 125 / 1 deg/step]
108	Plain2:BW:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
109	Thin:FC:Center:Low Speed	*ENG	[100 to 200 / 125 / 1 deg/step]
110	Thin:FC:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
111	Thin:BW:Center:Low Speed	*ENG	[100 to 200 / 120 / 1 deg/step]
112	Thin:BW:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
113	M-Thick:FC:Center:Low Speed	*ENG	[100 to 200 / 135 / 1 deg/step]
114	M-Thick:FC:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
115	M-Thick:BW:Center:Low Speed	*ENG	[100 to 200 / 130 / 1 deg/step]
116	M-Thick:BW:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
117	Special 1:FC:Center:Low Speed	*ENG	[100 to 200 / 135 / 1 deg/step]
116	M-Thick:BW:Press:Low Speed Special 1:FC:Center:Low	*ENG	[0 to 200 / 100 / 1 deg/step]

118	Special 1:FC:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
119	Special 1:BW:Center:Low Speed	*ENG	[100 to 200 / 130 / 1 deg/step]
120	Special 1:BW:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
121	Special2:FC:Center:Low Speed	*ENG	[100 to 200 / 140 / 1 deg/step]
122	Special2:FC:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
123	Special2:BW:Center:Low Speed	*ENG	[100 to 200 / 135 / 1 deg/step]
124	Special2:BW:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
125	Special3:FC:Center:Low Speed	*ENG	[100 to 200 / 130 / 1 deg/step]
126	Special3:FC:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
127	Special3:BW:Center:Low Speed	*ENG	[100 to 200 / 125 / 1 deg/step]
128	Special3:BW:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
131	OHP:Center	*ENG	[100 to 200 / 165 / 1 deg/step]
132	OHP:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
133	Envelop:Center:Low Speed	*ENG	[100 to 200 / 160 / 1 deg/step]
134	Envelop:Press:Low Speed	*ENG	[0 to 200 / 100 / 1 deg/step]
135	Plain 1: Grossy: Center	*ENG	[100 to 200 / 130 / 1 deg/step]
136	Plain 1: Grossy: Press	*ENG	[0 to 200 / 100 / 1 deg/step]
137	Plain2:Grossy:Center	*ENG	[120 to 200 / 135 / 1 deg/step]
138	Plain2:Grossy:Press	*ENG	[0 to 200 / 100 / 1 deg/step]

139	M-thick:Grossy:Center	*ENG	[120 to 200 / 140 / 1 deg/step]
140	M-thick:Grossy:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
141	Special4:FC:Center	*ENG	[120 to 200 / 155 / 1 deg/step]
142	Special4:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
143	Special4:BW:Center	*ENG	[100 to 200 / 145 / 1 deg/step]
144	Special4:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
145	Special5:FC:Center	*ENG	[100 to 200 / 165 / 1 deg/step]
146	Special5:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
147	Special5:BW:Center	*ENG	[100 to 200 / 155 / 1 deg/step]
148	Special5:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
149	Specialó:FC:Center	*ENG	[100 to 200 / 150 / 1 deg/step]
150	Specialó:FC:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
151	Specialó:BW:Center	*ENG	[100 to 200 / 140 / 1 deg/step]
152	Specialó:BW:Press	*ENG	[0 to 200 / 100 / 1 deg/step]
153	Envelop:Center:Thick 1	*ENG	[100 to 200 / 150 / 1 deg/step]
154	Envelop:Press:Thick1	*ENG	[0 to 200 / 165 / 1 deg/step]
155	Envelop:Center:Thick2	*ENG	[100 to 200 / 165 / 1 deg/step]
156	Envelop:Press:Thick2	*ENG	[0 to 200 / 100 / 1 deg/step]
157	Envelop:Center:Thick3	*ENG	[100 to 200 / 170 / 1 deg/step]
158	Envelop:Press:Thick3	*ENG	[0 to 200 / 100 / 1 deg/step]

1106	106	[Fusing Temp. Display] Fusing Temperature Display (Heating or Pressure)					
Displays the current temperature of the heating and pressure rollers.				heating and pressure rollers.			
	001	Center	-	[-10 to 250 / 0 / 1 deg/step]			
	002	End	-	[-10 to 250 / 0 / 1 deg/step]			

	The heating roller has two lamps. One heats the center of the heating roller and the other heats both ends of the heating roller.			
003	Pressure Center	-	[-10 to 250 / 0 / 1 deg/step]	
005	Thermister Atmosphere - [-10 to 250 / 0 / 1 deg/step]			
	The pressure roller has no lamp.			

1107	[Standby Target Temp. Setting]				
001	Stanby/Preheat1: Center	*ENG	[100 to 150 / 135 / 1 deg/step]		
001	Specifies the temperature of the	e heating ro	oller for the ready or energy save 1 mode.		
002	Stanby/Preheat1: Press	*ENG	[0 to 200 / 0 / 1 deg/step]		
002	Specifies the temperature of the	e pressure r	roller for the ready or energy save 1 mode.		
003	Preheat2: Center	*ENG	[0 to 200 / 130 / 1 deg/step]		
003	Specifies the temperature of the	e heating ro	oller for the energy save 2 mode.		
004	Preheat2:Press *ENG [0 to 200 / 0 / 1 deg/step]				
004	Specifies the temperature of the pressure roller for the energy save 2 mode.				
005	Low Power:Center	*ENG	[0 to 200 / 0 / 1 deg/step]		
003	Specifies the temperature of the heating roller for the low power mode.				
006	Low Power:Press	*ENG	[0 to 200 / 0 / 1 deg/step]		
000	Specifies the temperature of the pressure roller for the low power mode.				
007	Print Ready:Center	*ENG	[120 to 150 / 130 / 1 deg/step]		
007	Specifies the temperature of the heating roller for the print ready condition.				
008	Print Ready:Press	*ENG	[0 to 200 / 10 / 1 deg/step]		
008	Specifies the temperature of the pressure roller for the print ready condition.				

	1108	[After Reload/Job Target Temp.]			
*ENG [120 to 150 / 130 / 1 deg/ste				[120 to 150 / 130 / 1 deg/step]	
	001	Specifies the temperature of the heating roller after re-load or job.			

002	Press	*ENG	[0 to 200 / 5 / 1 deg/step]
002	Specifies the temperature of the	e pressure r	oller after re-load or job.

1111	[Environment Correction:Fusing]				
	Temp.: Threshold: Low	*ENG	[0 to 100 / 17 / 1 deg/step]		
001	Specifies the threshold temperature for low temperature. If the fusing temperature is 17°C or less, the machine executes the fusing mode for low temperature.				
	Temp.: Threshold: High	*ENG	[0 to 100 / 30 / 1 deg/step]		
002	Sepcifies the threshold temperature for high temperature. If the fusing temperature is 30°C or more, the machine executes the fusing mode for high temperature.				
	Low Temp. Correction	*ENG	[0 to 15 / 5 / 1 deg/step]		
003	Specifies the additional temperature for the target temperature. If the fusing temperature is in low temperature condition, this temperature is added to the taraget temperature.				
	High Temp. Correction	*ENG	[0 to 15 / 0 / 1 deg/step]		
004	Specifies the additional temperature for the target temperature. If the fusing temperature is in high temperature condition, this temperature is added to the taraget temperature.				
005	Job Low Temp. Correction	*ENG	[0 to 100 / 5 / 0.1 deg/step]		
006	Job High Temp. Correction	*ENG	[0 to 100 / 0 / 0.1 deg/step]		
007	Job Low Temp. Correction:Sp.	*ENG	[0 to 100 / 10 / 0.1 deg/step]		
008	Job High Temp. Correction:Sp.	*ENG	[0 to 100 / 0 / 0.1 deg/step]		

1112	[Image Process Temp. Correction]				
	These SPs are used for the fusing temperature control for variable job images. This control saves the power comsumption when the machine copies or prints a job text image in black and white mode.				
	Temp.:Normal:Center:Level 1	*ENG	[-10 to 10 / 0 / 1 /step]		
001	Specifies the subtractive temperature level 1 of the fusing temperature control for variable job images.				

	Temp.:Normal:Center:Level2	*ENG	[-25 to 10 / -10 / 1 /step]				
002	Specifies the subtractive temperature level 2 of the fusing temperature control for variable job images.						
003- 006	[Envir. Correct:Fusing]						
003	Low Temp. Correction	*ENG	[0 to 15 / 5 / 1 deg/step]				
003	Specifies the temperature correction in the low temperature condition.						
004	High Temp. Correction	*ENG	[0 to 15 / 5 / 1 deg/step]				
004	Specifies the temperature correction in the high temperature condition.						
	Offset Temp:Low	*ENG	[0 to 15 / 6.5 / 0.1 deg/step]				
005	Specifies the temperature correction of the paper feeding taraget in the low temperature condition.						
	Offset Temp:High	*ENG	[0 to 15 / 5 / 0.1 deg/step]				
006	Specifies the temperature correction.	ection of the	e paper feeding taraget in the high temperature				

1113	[Curl Correction]					
001	Execute Pattern	*ENG	[0 to 2 / 0 / 1 /step] 0: Off, 1: On			
	Selects the curl correction type	Selects the curl correction type.				
002	Humidity:Threshold:M- humid	*ENG	[0 to 100 / 65 / 1 %/step]			
	Specifies the threshold between low and middle humidity.					
000	Humidity:Threshold:H-humid	*ENG	[0 to 100 / 80 / 1 %/step]			
003	Specifies the threshold between middle and high humidity.					
004	Permit Temp.:Delta:Press:M- humid	*ENG	[0 to 200 / 100 / 1 deg/step]			
	Specifies the threshold temperature for the curl control in middle humidity.					

005	Permit Temp.:Delta:Press:H- humid	*ENG	[0 to 200 / 100 / 1 deg/step]			
	Specifies the threshold temper	ature for th	ne curl control in high humidity.			
	[Stand-by Mode Setting]	[Stand-by Mode Setting]				
006	P-Roll Thresh AF Job	*ENG	[0 to 160 / 100 / 1 deg/step]			
	CPM:M-humid	*ENG	[0 to 100 / 80 / 1 %/step]			
008	Specifies the CPM ratio of the decurl control against to the normal operation in middle humidity.					
000	CPM:H-humid	*ENG	[0 to 100 / 65 / 1 %/step]			
009	Specifies the CPM ratio of the a	decurl cont	rol against to the normal operation in high humidity.			

1115	[Target Temp. Correction]				
001	Temp.:Delta:End	*ENG	[-10 to 100 / 0 / 1 deg/step]		
001	Specifies the different temperature between end and center of the heating roller.				

1132	[Maximum Duty Switch]				
001	Control Method Switch	*ENG	[0 to 2 / 0 / 1 /step] 0: Fixed Duty, 1: Power Control		
001	Selects the heater control method. Use "1: Power Contro" if hot offset occurs after power-on and input voltage is relatively hight.				

1141	[Fusing SC Issue Time Info]				
001	SC Number	*ENG	Displays the issued SC number.		
	SC Cause	*ENG	[0 to 9 / - / 1 / step]		
002	Shows the SC cause				
	0: Timeout 1, 1: Timeout 2, 2: Timeout 3, 4 to 9: Not used				
101	Htg Roller:Ctr Diff1 *ENG [-20 to 260 / - / 1 deg/step]				
101	Displays the calculated temperature at the center of the heating roller when an SC was issued.				

104	Htg Roller:End Diff1	*ENG	[-100 to 260 / - / 1 deg/step]				
104	Displays the calculated temperature at	the end of	the heating roller when an SC was issued.				
105	Htg Roller:End Det1	*ENG	[-10 to 260 / - / 1 deg/step]				
103	Displays the detected temperature at the end of the heating roller when an SC was issued.						
106	Htg Roller:End Corr1	*ENG	[-10 to 260 / - / 1 deg/step]				
100	Displays the ambient temperature at th	e end of th	e heating roller when an SC was issued.				
107	Press Roller Temp Value1	*ENG	[-10 to 260 / - / 1 deg/step]				
107	Displays the temperature at the pressur	e roller wh	nen an SC was issued.				
100	Press Roller:End Temp Value 1	*ENG	[-10 to 260 / - / 1 deg/step]				
108	Displays the temperature at the end of the pressure roller when an SC was issued.						
1.51	Htg Roller:Ctr Diff2	*ENG	[-200 to 260 / - / 1 deg/step]				
151	SPs from -151 to -157 show previous fusing SC information.						
152	Htg Rolloer:Ctr Det2	*ENG					
153	Htg Roller:Ctr Corr2	*ENG					
154	Htg Roller:End Diff2	*ENG	[10+240//14-4/+]				
155	Htg Roller:End Det2	*ENG	[-10 to 260 / - / 1 deg/step]				
156	Htg Roller:End Corr2	*ENG					
157	Press Roller Temp Value2	*ENG					
001	Htg Roller:Ctr Diff3	*ENG	[-20 to 260 / - / 1 deg/step]				
201	SPs from -201 to -207 show fusing SC information before previous fusing SC.						
202	Htg Rolloer:Ctr Det3	*ENG					
203	Htg Roller:Ctr Corr3	*ENG					
204	Htg Roller:End Diff3	*ENG					
205	Htg Roller:End Det3	*ENG	[-10 to 260 / - / 1 deg/step]				
206	Htg Roller:End Corr3	*ENG					
207	Press Roller Temp Value3	*ENG					

1142	[Fusing Jam Detection]				
001	SC Display	*ENG	[0 or 1 / 0 / -] 0: ON, 1: OFF		
	Enables or disables the fusing consecutive jam (three times) SC detection.				

1153 [Low Temp. Start Up]					
001	Temp.:Threshold Value 1	* ENG	[-10 to 100 / 5 / 1°C./step]		
	Sepcifies the threshold temperature 1 for the warming up in the low temperature co				
000	Temp.:Threshold Value2	* ENG	[-10 to 100 / 15 / 1°C./step]		
002	Sepcifies the threshold temper	ature 2 for	the warming up in the low temperature condition.		
000	Temp.:Target	* ENG	[0 to 100 / 100 / 1°C./step]		
003	Sepcifies the target temperature for the warming up in the low temperature condition.				
005	Temp.: Rotation Threshold Value 1	* ENG	[-10 to 100 / 30 / 1°C./step]		
003	Sepcifies the threshold temperature 1 for the warming up rotation in the low temperature condition.				
010	Time:Heat Storage Devision 1	* ENG	[0 to 250 / 60 / 1 sec./step]		
	Sepcifies the execution time 1 for the warming up in the low temperature condition				
011	Time:Heat Storage Devision2	* ENG	[0 to 250 / 30 / 1 sec/step]		
	Sepcifies the execution time 2 for the warming up in the low temperature condition.				

1801	[Motor Speed Adjust]		
001	Regist Mot:60:Thick	*ENG	[44- 4 / 02 / 0.05 % / 44- 1]
002	Regist Mot: 120	*ENG	[-4 to 4 / 0.3 / 0.05 %/step]
003	Bk OpcDevMot: 120	*ENG	[-4 to 4 / -0.1 / 0.01 %/step]
004	Bk OpcDevMot:60:Thick	*ENG	[-4 to 4 / -0.4 / 0.01 %/step]

005	Color OpcMot:120	*ENG	[-15 to 15 / 0 / 1 %/step]
006	Color OpcMot:60	*ENG	[-13 10 13 / 0 / 1 /// siep]
007	Fusing Mot:120	*ENG	[-6 to 6 / -0.4 / 0.01 %/step]
008	Fusing Mot:60:Thick	*ENG	[-6 to 6 / -0.05 / 0.01 %/step]
009	Transfer Mot: 120	*ENG	[-4 to 4 / 0 / 0.01 %/step]
010	TransferMot:60:Thick	*ENG	[-4 to 4 / 0 / 0.01 %/step]
011	Feed1:CW60:Thick	*ENG	
012	Feed1:CW120	*ENG	
013	Feed1:CCW60:Thick	*ENG	
014	Feed1:CCW120	*ENG	
015	Feed 12:CW60:Thick	*ENG	[0 . 0 / 0 0 / 0 0 5 0 / .]
016	Feed12:CW120	*ENG	[-2 to 2 / 0.3 / 0.05 %/step]
017	Feed 12:CCW60:Thick	*ENG	
018	Feed12:CCW120	*ENG	
019	By-pass:60:Thick	*ENG	
020	By-pass:120	*ENG	
021	Inverter:CW60:Thick	*ENG	
022	Inverter:CW120	*ENG	[0 . 0 / 0 / 0 0 5 0 / / .]
023	Inverter:CCW60:Thick	*ENG	[-2 to 2 / 0 / 0.05 %/step]
024	Inverter:CCW120	*ENG	
025	Duplex Entrance:60	*ENG	
026	Duplex Entrance:120	*ENG	[0.0/02/0058//.]
027	Duplex Exit:60	*ENG	[-2 to 2 / 0.3 / 0.05 %/step]
028	Duplex Exit:120	*ENG	
029	R-Tray Exit Motor	*ENG	[-2 to 2 / 0 / 0.05 %/step]
030	Fine Adj. Control	*ENG	[0 to 1 / 1 / 1]

031	Offset: 120:Color	*ENG	[7, 7/0/1,]
032	Offset:60:Color	*ENG	[-7 to 7 / 0 / 1 step]
033	Regist Mot:60:1200dpi	*ENG	[-4 to 4 / 0.3 / 0.05 %/step]
034	Feed1:CW60:1200dpi	*ENG	
035	Feed1:CCW60:1200dpi	*ENG	
036	Feed2:CW60:1200dpi	*ENG	[-2 to 2 / 0.3 / 0.05 %/step]
037	Feed2:CCW60:1200dpi	*ENG	
038	By-pass:60:1200dpi	*ENG	
039	Inverter:CW60:1200dpi	*ENG	[2 - 2 / 0 / 0 05 9 /]
040	Inverter:CCW60:1200dpi	*ENG	[-2 to 2 / 0 / 0.05 %/step]
041	FusingMot:60:1200dpi	*ENG	[-6 to 6 / -0.05 / 0.01 %/step]
042	BkOpcDevMot:60:1200dpi	*ENG	[-4 to 4 / -0.4 / 0.01 %/step]
043	TransferMot:60:1200dpi	*ENG	[-4 to 4 / 0 / 0.01 %/step]

	[Sub Mag ADJ]			
1803	These SPs can adjust the sub-scan magnification error. However, first read the "Sub-scan Magnification Error" in the "Troubleshooting Guide" (Main Chapters) to execute these NEVER EXECUTE these SPs before reading the "Sub-scan Magnification Error". Other color registration errors occur on outputs and this cannot be recovered by the line post adjustment.			
001	Plain:600dpi:input	*ENG		
002	Plain: 1 200dpi:input	*ENG	[-1 to 1 / 0 / 0.1 %/step]	
003	Thick:input	*ENG		
004	Plain:600dpi:result	*ENG		
005	Plain: 1 200dpi:result	*ENG	[0 to 1 / 0 / 1 /step] 0: Success, 1: Failure	
006	Thick:result	*ENG	5. 5555555, diis.o	

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Main SP Tables-2

SP2-XXX (Drum)

2013	[Envir. Correct:PCU]		
001	Envir. Range:FC:Display	*ENG	Displays the environmental condition, which is measured in absolute humidity. [1 to 5 / - / 1 / step] 1: LL (LL <= 4.3 g/m³) 2: ML (4.3 < ML <= 11.3 g/m³) 3: MM (11.3 < MM <= 18.0 g/m³) 4: MH (18.0 < MH <= 24.0 g/m³) 5: HH (24.0 g/m³ < HH)
007	Current Temp.: Display	*ENG	Displays the current temperature. [0 to 100 / 0 / 1 deg/step]
008	Relative Humidity: Display	*ENG	Displays the current relative humidity. [0 to 100 / 0 / 1%RH/step]
009	Absolute Humidity: Display	*ENG	Displays the absolute humidity. [0 to 100 / 0 / 0.01 g/m ³ /step]
010	Envir. Range:Bk:Display	*ENG	Displays the previous environmental condition, which is measured in absolute humidity. [1 to 5 / - / 1 /step] 1: LL, 2: ML, 3: MM, 4: MH, 5: HH
011	Previous Temp.: Display	*ENG	Displays the previous temperature. [0 to 100 / 0 / 1 deg/step]
012	Relative Humidity: Display	*ENG	Displays the previous relative humidity. [0 to 100 / 0 / 1%RH/step]
013	Absolute Humidity: Display	*ENG	Displays the previous absolute humidity. [0 to 100 / 0 / 0.01 g/m ³ /step]

	[Color Regist Adjust]		
2101	These values are the parameters for the automatic line position adjustment and are adjusted at the factory. However, you must input a value for SP2101-001 after replacing the laser optics housing unit. For details, see "Laser Optics Housing Unit" in the "Replacement and Adjustment" section. The value should be provided with the new laser optics housing unit.		
001	Bk: Main Scan: Dot	*ENG	
002	C Main Scan: Dot	*ENG	[-512 to 511 / 0 / 1 dot/step]
003	M Main Scan: Dot	*ENG	[-31210311 / 0 / 1 doi/siep]
004	Y Main Scan: Dot	*ENG	
013	Bk: Sub Scan: Line	*ENG	
014	C: Sub Scan: Line	*ENG	[-16384 to 16383 / 0 / 1 line/step]
015	M: Sub Scan: Line	*ENG	[-10304 to 10303 / 0 / 1 liftle/ step]
016	Y: Sub Scan: Line	*ENG	

	[Magnification Adjust]		
2102	These values are the parameters for the automatic line position adjustment and are ad at the factory. These SPs must be input only when a new laser unit is installed.		
001	Main Mag.: Bk:High Spd	*ENG	
003	Main Mag.: Bk:Low Spd	*ENG	
004	Main Mag.: C:High Spd	*ENG	
006	Main Mag.: C:Low Spd	*ENG	[0 to 560 / 280 / 1 /step]
007	Main Mag.: M:High Spd	*ENG	[0 10 300 / 200 / 1 / siep]
009	Main Mag.: M:Low Spd	*ENG	
010	Main Mag.: Y:High Spd	*ENG	
012	Main Mag.: Y:Low Spd	*ENG	

2103	[Erase Margin Adjust] (Area, Paper Size)	
2103	Adjusts the erase margin by deleting image data at the margins.	

001	Lead Edge	*ENG	[0+-00/42/01/]
002	Trailing Edge	*ENG	[0 to 9.9 / 4.2 / 0.1 mm/step]
003	Left	*ENG	[0+-00/2/01/+]
004	Right	*ENG	[0 to 9.9 / 2 / 0.1 mm/step]
006	Duplex Trail. L Size	*ENG	[0 to 4 / 1 / 0.1 mm/step]
007	Duplex Trail. M Size	*ENG	[0 to 4 / 0.8 / 0.1 mm/step]
800	Duplex Trail. S Size	*ENG	[0 to 4 / 0.6 / 0.1 mm/step]
009	Duplex Left Edge	*ENG	[0 + 4 / 0 2 / 0] /]
010	Duplex Right Edge	*ENG	[0 to 4 / 0.3 / 0.1 mm/step]
011	Duplex Trail. L Size:Thick	*ENG	[0 to 4 / 1 / 0.1 mm/step]
012	Duplex Trail. M Size:Thick	*ENG	[0 to 4 / 0.8 / 0.1 mm/step]
013	Duplex Trail. S Size:Thick	*ENG	[0 to 4 / 0.6 / 0.1 mm/step]
014	Duplex Left Edge:Thick	*ENG	[0+-4/02/01/]
015	Duplex Right Edge:Thick	*ENG	[0 to 4 / 0.3 / 0.1 mm/step]

2104	[LD Initial Power Adjust]			
2104	Adjusts the LD initial power. These SPs must be input only when a new laser unit is i			
001	Bk	*ENG		
002	С	*ENG	[00 + 100 / 100 / 19// +]	
003	М	*ENG	[80 to 120 / 100 / 1 %/step]	
004	Υ	*ENG		

2109	[Test Pattern]
2109	Generates the test pattern using "COPY Window" tab in the LCD.

	Pattern Selection	-	[0 to 23 / 0 / 1/step]
	0 None	1	
	1: Vertical Line (1 dot)		12. Independent Pattern (2dot)
	2: Vertical Line (2dot)		13. Independent Pattern (4dot)
	3: Horizontal (1 dot)		14. Trimming Area
	4: Horizontal (2dot)		16: Hound's Tooth Check (Horizontal)
003	5: Grid Vertical Line		17: Band (Horizontal)
	6: Grid Horizontal Line		18: Band (Vertical)
	7: Grid pattern Small		19: Checker Flag Pattern
	8: Grid pattern Large		20: Grayscale Vertical Margin
	9: Argyle Pattern Small		21: Grayscale Horizontal Margin
	10: Argyle Pattern Large		23: Full Dot Pattern
	11. Independent Pattern (1dot)		
			Specifies the color for the test pattern.
005	Color Selection	-	[1 to 4 / 1 / 1/step]
			1: All colors, 2: Magenta, 3: Yellow, 4: Cyan
006	Density: Bk	-	Specifies the color density for the test pattern.
007	Density: C	-	[0 to 15 / 15 / 1 /step]
008	Density: M	-	0: Lightest density
009	Density: Y	-	15: Darkest density

2111	[Line Pos. Ajust]		
001	Execute: Mode a	-	Executes the fine line position adjustment twice. If this SP is not completed (NG is displayed), do SP2111-003 first and then try this SP again.
002	Execute:Mode b	-	Executes the fine line position adjustment once. If this SP is not completed, do SP2111-003 first and then try this SP again.

003 Execute:Mode c	-	Executes the rough line position adjustment once. After doing this SP, make sure to execute SP2111-001 or -002. Otherwise, the line position adjustment is not perfectly done.
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2112	[TM/P Sensor Test] ID Sensor Check FA		
001	Execute	This SP is used to check the ID sensors at the factory. The results of this SP are displayed in SP2140 to SP2145.	

		[Skew Adjustment]				
Specifies a skew adjustment value for the skew motor M, C or Y. These SPs must be used when a new laser optics housing unit is installed, see		optics housing unit is installed, see "Laser Optics				
		Housing Unit" in the "Replacement and Adjustment" section.				
	001	Pulse: C	*ENG			
	002	Pulse: M	*ENG	[-75 to 75 / 0 / 1 pulse/step]		
	003	Pulse: Y	*ENG			

2118	[Skew Adjustment]		
001	Execute: C	*ENG	Changes the current skew adjustment values to the
002	Execute: M	*ENG	values specified with SP2117. These SPs must be used when a new laser optics
003	Execute: Y	*ENG	housing unit is installed. For details, see "Laser Optics Housing Unit" in the "Replacement and Adjustment" section.

2119	[Skew Adjustment Display]		
Displays the current skew adjustment value for each skew motor.		e for each skew motor.	
001	С	*ENG	
002	М	*ENG	[-75 to 75 / 0 / 1 pulse/step]
003	Υ	*ENG	

	[P-Sensor Test]			
Displays the maximum result values of the ID sensor check.		ID sensor check.		
	Front, Center, Rear: ID sensors for the automatic line position adjustment and the p control			
001	PWM	*ENG		
[TM-Senso	or Test]	,		
005	PWM: Front	*ENG	[0 to 1024 / 0 / 1/step]	
006	PWM: Center	*ENG		
007	PWM: Rear	*ENG		

	[P-Sensor Test]				
2141	Displays the maximum result values of the ID sensor check.				
	Front, Center, Rear: ID sensors for the automatic line position adjustment and the control				
001	Average *ENG				
[TM-Sensor Test]					
005	Average: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]		
006	Average: Center	*ENG			
007	Average: Rear	*ENG			

	[P-Sensor Test]
2142	Displays the maximum result values of the ID sensor check. Front, Center, Rear: ID sensors for the automatic line position adjustment and the process control

001	Maximum	*ENG	
[TM-Senso	or Test]		
005	Maximum: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]
006	Maximum: Center	*ENG	
007	Maximum: Rear	*ENG	

	[P-Sensor Test]			
2143	ID sensor check.			
	Front, Center, Rear: ID sensors for the automatic line position adjustment and the procontrol			
001	Minimum *ENG			
[TM-Sensor Test]				
005	Minimum: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]	
006	Minimum: Center	*ENG		
007	Minimum: Rear	*ENG		

	[P-Sensor Test]				
Displays the maximum result 2 values of the ID sensor check.					
	Front, Center, Rear: ID sensors for the automatic line position adjustment and the process control				
001	Maximum 2: *ENG				
[TM-Senso	or Test]				
005	Maximum 2: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]		
006	Maximum 2: Center	*ENG			
007	Maximum 2: Rear	*ENG			

	[P-Sensor Test]					
2145	Displays the minimum result 2 values of the ID sensor check.					
	Front, Center, Rear: ID sensors for the automatic line position adjustment and the p control					
001	Minimum 2	*ENG				
[TM-Sensor Test]						
005	Minimum 2: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]			
006	Minimum 2: Center	*ENG				
007	Minimum 2: Rear	*ENG				

2193	[MUSIC Condition] Line Position Adjustment: Condition Setting					
000	Page: Job End: FC	*ENG	[0 to 999 / 200 / 1 page/step]			
003	Adjusts the threshold of the line position adjustment for color printing mode after job end.					
	Page: Interrupt: BW+FC	*ENG	[0 to 999 / 300 / 1 page/step]			
004	Adjusts the threshold of the line position adjustment for BW and color printing mode during job.					

2194	[MUSIC Exe Result] Line Position Adjustment: Execution Result			
001	Year	*ENG	[0 to 99 / 0 / 1 year/step]	
002	Month	*ENG	[1 to 12 / 1 / 1 month/step]	
003	Date	*ENG	[1 to 31 / 1 / 1 day/step]	
004	Hour	*ENG	[0 to 23 / 0 / 1 hour/step]	
005	Minute	*ENG	[0 to 59 / 0 / 1 minute/step]	
006	Temperature	*ENG	[0 to 100 / 0 / 1 deg/step]	
007	Execution Result	*ENG	[0 or 1 / 0 / 1 /step] 0: Completed successfully, 1: Failed	
008	Number of Execution	*ENG	[0 to 999999 / 0 / 1 times/step]	

009	Number of Failure	*ENG	[0 to 999999 / 0 / 1 times/step]
010	Error Counter: C	*ENG	[0 to 9 / 0 / 1 /step]
011	Error Counter: M	*ENG	0: Not done
			1: Completed successfully
	Error Counter: Y	*ENG	2: Cannot detect patterns
012			3: Fewer lines on the pattern than the target
			4: Out of the adjustment range
			5 to 9: Not used

	[Skew Origin Set]					
Resets the value of the skew adjustment motor for each color. These SPs must be executed when a new laser optics housing unit is installed. For d						
	stment" section.					
001	C:Skew Motor	*ENG				
002	M:Skew Motor	*ENG	-			
003	Y:Skew Motor	*ENG				

[Ambient Temp/Hum:Display]				
2241	Displays the environment temperature and humidity.			
001	Temperature -		[-5 to 45 / - / 0.1 deg/step]	
002	Relative Humidity	-	[0 to 100 / - / 0.1 %RH/step]	
003	Absolute Humidity	-	[0 to 100 / - / 0.1 g/m ³ /step]	

0004	[Transfer Roller CL: Bias]				
2326	Transfer Roller Cleaning: Bias Adjustment				
001	Positive:befor and after JOB	*ENG	[0 to 2100 / 250 / 10 V /step]		
001	Adjusts the positive voltage of the paper transfer roller for cleaning the paper transfer roller.				
002	Negative:befor and after JOB	*ENG	[10 to 400 / 100 / 10 %/step]		
	Adjusts the negative current of the paper transfer roller for cleaning the paper transfer roller.				

	Positive:after JAM	*ENG	[0 to 2100 / 2000 / 10 V/step]		
003	Adjusts the negative current limit of the paper transfer roller for cleaning the paper transfer.				
004	Negative:after JAM	*ENG	[10 to 400 / 100 / 10 %/step]		

	[Common: BW: Bias]				
2351	Image Transfer Belt: B/W: Bias Adjustment				
Normal: 120 mm/sec, Low: 60 mm/sec					
001	Image Transfer:Normal Speed	*ENG	[0 to 60 / 25 / 1 µA]		
001	Adjusts the current for the image transfer belt in B/W mode for plain paper.				
000	Image Transfer:Low Speed	*ENG	[0 to 60 / 13 / 1 µA]		
003	Adjusts the current for the image transfer belt in B/W mode for thick 1 paper.				

2357	[Common: FC: Bias] Image Transfer Belt: Full Color: Bias Adjustment Normal: 120 mm/sec, Low: 60 mm/sec				
001	Image Transfer: Normal Spd:Bk	*ENG	[0 to 60 / 23 / 1 µA]		
001	Adjusts the current for the image transfer be	lt for Black	in full color mode for plain paper.		
002	Image Transfer:: Normal Spd:C	*ENG	[0 to 60 / 22 / 1 µA]		
002	Adjusts the current for the image transfer bel	for Mage	nta in full color mode for plain paper.		
003	Image Transfer: Normal Spd:M	*ENG	[0 to 60 / 25 / 1 µA]		
003	Adjusts the current for the image transfer belt for Cyan in full color mode for plain paper.				
004	Image Transfer: Normal Spd:Y	*ENG	[0 to 60 / 29 / 1 µA]		
004	Adjusts the current for the image transfer belt for Yellow in full color mode for plain paper.				
009	Image Transfer: Low Speed:Bk	*ENG	[0 to 60 / 13 / 1 µA]		
009	Adjusts the current for the image transfer belt for Black in full color mode for thick 1 paper.				
010	Image Transfer: Low Speed:C	*ENG	[0 to 60 / 12 / 1 µA]		
010	Adjusts the current for the image transfer belt for Magenta in full color mode for thick 1 paper.				

011	Image Transfer: Low Speed:M	*ENG	[0 to 60 / 13 / 1 µA]		
011	Adjusts the current for the image transfer belt for Cyan in full color mode for thick 1 paper.				
012	Image Transfer: Low Speed:Y	*ENG	[0 to 60 / 14 / 1 µA]		
012	Adjusts the current for the image transfer belt for Yellow in full color mode for thick 1 paper.				

	[Plain: Bias: BW]			
2403	Adjusts the current for the paper transfer roller for plain paper in black-and-white more Normal: 120 mm/sec, Low: 60mm/sec			
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 20 / 1 - µA /step]	
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 23 / 1 - µA / step]	
003	Paper Transfer: Low: 1st	*ENG	[0., 200 / 10 / 1 11 / 1]	
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 12 / 1 – µA / step]	

	[Plain: Bias: FC]			
2407	Adjusts the current for the paper transfer roller for plain paper in full color mode. Normal: 120 mm/sec, Low: 60mm/sec			
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 25 / 1 - µA / step]	
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 28 / 1 - µA / step]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 13 / 1 - #A /step]	
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 - µA / step]	

	[Plain-T:SizeCorrect:BW]
2411	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2403 and SP2407 are multiplied by these SP values.
	Normal: 120 mm/sec, Low: 60mm/sec

001	Paper Transfer: Normal: 1st: S1	*ENG	
002	Paper Transfer: Normal: 2nd: S1	*ENG	[100 to 4000 / 100 / 5%/step]
003	Paper Transfer: Low: 1st: S1	*ENG	S1 size > 290 mm (Paper width)
004	Paper Transfer: Low: 2nd: S1	*ENG	
005	Paper Transfer: Normal: 1st: S2	*ENG	[100 to 4000 / 140 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
006	Paper Transfer: Normal: 2nd: S2	*ENG	[100 to 4000 / 165 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
007	Paper Transfer: Low: 1st: S2	*ENG	[100 to 4000 / 150 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
008	Paper Transfer: Low : 2nd:S2	*ENG	[100 to 4000 / 190 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
009	Paper Transfer: Normal: 1st: S3	*ENG	[100 to 4000 / 175 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
010	Paper Transfer: Normal: 2nd: S3	*ENG	[100 to 4000 / 230 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
011	Paper Transfer: Low: 1st: S3	*ENG	[100 to 4000 / 190 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
012	Paper Transfer: Low 2nd:S3	*ENG	[100 to 4000 / 290 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)

014	Paper Transfer: Normal: 2nd: S4	*ENG	[100 to 4000 / 285 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
015	PaperTransfer: Low: 1 st:S4	*ENG	[100 to 4000 / 210 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
016	Paper Transfer: Low 2nd: S4	*ENG	[100 to 4000 / 360 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[100 to 4000 / 200 / 5%/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[100 to 4000 / 340 / 5%/step] 150 mm > S5 size (Paper width)
019	Paper Transfer: Low: 1st: S5	*ENG	[100 to 4000 / 210 / 5%/step] 150 mm > S5 size (Paper width)
020	Paper Transfer: Low 2nd: S5	*ENG	[100 to 4000 / 420 / 5%/step] 150 mm > S5 size (Paper width)

	[Plain-T:SizeCorrect:FC] Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2403 and SP2407 are multiplied by these SP values. Normal: 120 mm/sec, Low: 60mm/sec			
2412				
001	Paper Transfer: Normal: 1st: S1	*ENG		
002	Paper Transfer: Normal: 2nd: S1	*ENG	[100 to 4000 / 100 / 5%/step]	
003	Paper Transfer: Low: 1 st: S1	*ENG	S1 size > 290 mm (Paper width)	
004	Paper Transfer: Low: 2nd: S1	*ENG		
005	Paper Transfer: Normal: 1st: S2	*ENG	[100 to 4000 / 130 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)	

			[100 to 4000 / 160 / 5%/step]
006	Paper Transfer: Normal: 2nd: S2	*ENG	290 mm > S2 size > 250 mm (Paper width)
			[100 to 4000 / 140 / 5%/step]
007	Paper Transfer: Low: 1st: S2	*ENG	290 mm > S2 size > 250 mm (Paper width)
			[100 to 4000 / 215 / 5%/step]
008	Paper Transfer: Low : 2nd:S2	*ENG	290 mm > S2 size > 250 mm (Paper width)
			[100 to 4000 / 160 / 5%/step]
009	Paper Transfer: Normal: 1st: S3	*ENG	250 mm > S3 size > 194 mm (Paper width)
			[100 to 4000 / 215 / 5%/step]
010	Paper Transfer: Normal: 2nd: S3	*ENG	250 mm > S3 size > 194 mm (Paper width)
			[100 to 4000 / 175 / 5%/step]
011	Paper Transfer: Low: 1st: S3	*ENG	250 mm > S3 size > 194 mm (Paper width)
			[100 to 4000 / 320 / 5%/step]
012	Paper Transfer: Low 2nd:S3	*ENG	250 mm > S3 size > 194 mm (Paper width)
			[100 to 4000 / 190 / 5%/step]
013	Paper Transfer: Normal: 1st: S4	*ENG	194 mm > S4 size > 150 mm (Paper width)
			[100 to 4000 / 285 / 5%/step]
014	Paper Transfer: Normal: 2nd: S4	*ENG	194 mm > S4 size > 150 mm (Paper width)
			[100 to 4000 / 190 / 5%/step]
015	Paper Transfer: Low: 1st: S4	*ENG	194 mm > S4 size > 150 mm (Paper width)

016	Paper Transfer: Low: 2st Side: S4	*ENG	[100 to 4000 / 465 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[100 to 4000 / 220 / 5%/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[100 to 4000 / 355 / 5%/step] 150 mm > S5 size (Paper width)
019	Paper Transfer: Low: 1st: S5	*ENG	[100 to 4000 / 230 / 5%/step] 150 mm > S5 size (Paper width)
020	Paper Transfer: Low 2nd: S5	*ENG	[100 to 4000 / 565 / 5%/step] 150 mm > S5 size (Paper width)

	[Thin: Bias: BW]			
2453	Adjusts the current for the paper transfer roller for thin paper in black-and-white mode. Normal: 120 mm/sec, Low: 60 mm/sec			
001	Paper Transfer: Normal: 1st			
003	Paper Transfer: Low: 1st	*ENG	[0 to 250 / 12 / 1 – µA /step]	

	[Thin: Bias: FC]			
2457	Adjusts the current for the paper transfer roller for thin paper in full color mode. Normal: 120 mm/sec, Low: 60 mm/sec			
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 25 / 1 – µA /step]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 13 / 1 – µA /step]	

2482	[Gloss: Bias: BW]		
	Paper Transfer: 1st	*ENG	[0 to 200 / 15 / 1 - µA / step]
001	Adjusts the transfer current of the paper transfer roller for the 1st side of gloss paper in black and white mode.		

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	Paper Transfer: 1 st	*ENG	[0 to 200 / 15 / 1 - µA / step]
001	Adjusts the transfer current of the pap color mode.	er transfer	roller for the 1st side of gloss paper in full

	[Thick 1: Bias: BW]				
2502	Adjusts the current for the paper transfer roller for thick 1 paper in black-and-white mode. Thick: 60 mm/sec				
001	Paper Transfer: 1st	*ENG	[0 to 200 / 15 / 1 - µA /step]		
002	Paper Transfer: 2nd	*ENG	Not used		

	[Thick 1: Bias: FC]				
Adjusts the current for the paper transfer roller for thick 1 paper in Thick: 60 mm/sec		thick 1 paper in full color mode.			
001	Paper Transfer: 1st	*ENG	[0 to 200 / 15 / 1 - µA /step]		
002	Paper Transfer: 2nd	*ENG	Not used		

	[Thick-T:Size Correct:BW]				
2511	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2502 and SP2507 are multiplied by these SP values. Thick: 60 mm/sec				
001	Paper Transfer: 1st: S1	*ENG	[100 to 4000 / 100 / 5%/step] S1 size > 290 mm (Paper width)		
002	Paper Transfer: 2nd: S1	*ENG	Not used		
005	Paper Transfer: 1st: S2	*ENG	[100 to 4000 / 125 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
006	Paper Transfer: 2nd: S2	*ENG	Not used		
009	Paper Transfer: 1st: S3	*ENG	[100 to 4000 / 150 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)		

010	Paper Transfer: 2nd: S3	*ENG	Not used
013	Paper Transfer: 1st: S4	*ENG	[100 to 4000 / 275 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: 2nd: S4	*ENG	Not used
017	Paper Transfer: 1st: S5	*ENG	[100 to 4000 / 400 / 5%/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: 2nd: S5	*ENG	Not used

	[Thick-T:Size Correct:FC]					
2512	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2502 and SP2507 are multiplied by these SP values.					
	Thick: 60 mm/sec					
001	Paper Transfer: 1st: S1	*ENG	[100 to 4000 / 100 / 5%/step] S1 size > 290 mm (Paper width)			
002	Paper Transfer: 2nd: S1	*ENG	Not used			
005	Paper Transfer: 1st: S2	*ENG	[100 to 4000 / 110 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)			
006	Paper Transfer: 2nd: S2	*ENG	Not used			
009	Paper Transfer: 1st: S3	*ENG	[100 to 4000 / 115 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)			
010	Paper Transfer: 2nd: S3	*ENG	Not used			
013	Paper Transfer: 1st: S4	*ENG	[100 to 4000 / 405 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)			
014	Paper Transfer: 2nd: S4	*ENG	Not used			
017	Paper Transfer: 1st: S5	*ENG	[100 to 4000 / 690 / 5%/step] 150 mm > S5 size (Paper width)			

018 Paper Transfer:: 2nd: S5	*ENG	Not used
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	[Thick 2: Bias: BW]				
2553	Adjusts the current for the paper transfer roller for thick2 paper in black-and-white mode. Thick: 60 mm/sec				
001	Paper Transfer: 1st	*ENG	[0 to 200 / 10 / 1 - µA /step]		
002	Paper Transfer: 2nd	*ENG	Not used		

	[Thick 2: Bias: FC]				
2558	Adjusts the current for the paper transfer roller for thick2 paper in full color mode. Thick: 60 mm/sec				
001	Paper Transfer: 1st	*ENG	[0 to 200 / 13 / 1 – µA / step]		
002	Paper Transfer: 2nd	*ENG	Not used		

2603	[OHP: Bias: BW]		
2003	Adjusts the current for the paper transfer roller for OHP in black-and-white mode		transfer roller for OHP in black-and-white mode.
001	Paper Transfer	*ENG	[0 to 200 / NA: 15 , EU/AA: 13 / 1 – µA /step]

	2608	[OHP: Bias: FC]			
Adjusts the current for the paper transfer roller for OHP in full color mode.		transfer roller for OHP in full color mode.			
	001	Paper Transfer	*ENG	[0 to 200 / NA: 24 , EU/AA: 20 / 1 – µA /step]	

2630	[OHP: Env. Correct Table]		
00	Paper Transfer: BW: 1st	*ENG	[1 to 50 / NA: 39, EU/AA: 26 / 1 /step]
00	Paper Transfer: FC: 1st	*ENG	[1 to 50 / NA: 7, EU/AA: 47 / 1 /step]

	[Thick 3: Bias: BW]
2651	Adjusts the current for the paper transfer roller for thick paper 3 in black-and-white mode.
	Thick: 60 mm/sec

001	Paper Transfer: 1st	*ENG	[0 to 200 / 10 / 1 – µA /step]
002	Paper Transfer: 2nd	*ENG	Not used

	[Thick 3: Bias: FC]			
2652	Adjusts the current for the paper transfer roller for thick paper 3 in full color mode. Thick: 60 mm/sec			
001	Paper Transfer: 1st			
002	Paper Transfer: 2nd	*ENG	Not used	

2703	[M-Thick:Bias:BW] Middle Thick: Bias: BW Normal: 120mm/sec, Low: 60mm/sec Adjusts the current for the paper transfer roller for middle thick in black-and-white mode.				
001	Paper Transfer:Normal: 1 st	*ENG	[0 to 200 / 20 / 1 - µA /step]		
002	Paper Transfer:Normal:2nd	*ENG			
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]		
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 13 / 1 - µA /step]		

2707	[M-Thick:Bias:FC] Middle Thick: Bias: BW Normal: 120mm/sec, Low: 60mm/sec					
	Adjusts the current for the paper transfer roller for middle thick in full color mode.					
001	Paper Transfer:Normal: 1 st					
002	Paper Transfer:Normal:2nd	*ENG	[0 to 200 / 28 / 1 - µA / step]			
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]			
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 - µA / step]			

		[SP 1: Bias: BW]
	2753	Adjusts the current for the paper transfer roller for special paper 1 in black-and-white mode.
		Normal: 120mm/sec, Low: 60mm/sec

001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 20 / 1 u/A /1	
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 20 / 1 – µA /step]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 – µA /step]	
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 13 / 1 - µA /step]	

	[SP 1: Bias: FC]				
2757	ial paper 1 in full color mode.				
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 25 / 1 - µA /step]		
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 28 / 1 - µA /step]		
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]		
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 – µA /step]		

	[SP1,2,3-T:Size Correct:BW]				
2761	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2753 and SP2757 are multiplied by these SP values. Normal: 120mm/sec, Low: 60mm/sec				
001	Paper Transfer: Normal: 1st: S1	*ENG	ENG		
002	Paper Transfer: Normal: 2nd: S1	*ENG	[100 to 4000 / 100 / 5%/step]		
003	Paper Transfer:Low: 1 st:S1	*ENG	S1 size > 290 mm (Paper width)		
004	Paper Transfer:Low:2nd:S1	*ENG			
005	Paper Transfer: Normal: 1st: S2	*ENG	[100 to 4000 / 140 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
006	Paper Transfer: Normal: 2nd: S2	*ENG	[100 to 4000 / 165 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		

007	Paper Transfer:Low: 1 st:S2	*ENG	[100 to 4000 / 150 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
008	Paper Transfer:Low:2nd:S2	*ENG	[100 to 4000 / 190 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
009	Paper Transfer: Normal: 1st: S3	*ENG	[100 to 4000 / 175 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
010	Paper Transfer: Normal: 2nd: S3	*ENG	[100 to 4000 / 230 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
011	PaperTransfer:Low:1st:S3	*ENG	[100 to 4000 / 190 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
012	PaperTransfer:Low:2nd:S3	*ENG	[100 to 4000 / 290 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: Normal: 2nd: S4	*ENG	[100 to 4000 / 285 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
015	PaperTransfer:Low: 1 st:S4	*ENG	[100 to 4000 / 210 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
016	PaperTransfer:Low:2nd:S4	*ENG	[100 to 4000 / 360 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[100 to 4000 / 200 / 5%/step] 150 mm > S5 size (Paper width)

018	Paper Transfer: Normal: 2nd: S5	*ENG	[100 to 4000 / 340 / 5%/step] 150 mm > S5 size (Paper width)
019	PaperTransfer:Low:1st:S5	*ENG	[100 to 4000 / 210 / 5%/step] 150 mm > S5 size (Paper width)
020	PaperTransfer:Low:2nd:S5	*ENG	[100 to 4000 / 420 / 5%/step] 150 mm > S5 size (Paper width)

	[SP1,2,3-T:Size Correct:FC]				
2762	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2753 and SP2757 are multiplied by these SP values. Normal: 120 mm/sec, Low: 60 mm/sec				
001	, .	*ENG			
	Paper Transfer: Normal: 1st: S1				
002	Paper Transfer: Normal: 2nd: S1	*ENG	[100 to 4000 / 100 / 5%/step]		
003	Paper Transfer:Low:1st:S1	*ENG	S1 size > 290 mm (Paper width)		
004	Paper Transfer:Low:2nd:S1	*ENG			
005	Paper Transfer: Normal: 1st: S2	*ENG	[100 to 4000 / 130 / 5%/step] 290 mm > S2 size > 250 mm (Paper		
			width)		
006	Paper Transfer: Normal: 2nd: S2	*ENG	[100 to 4000 / 160 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
007	Paper Transfer:Low:1st:S2	*ENG	[100 to 4000 / 140 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
008	Paper Transfer:Low:2nd:S2	*ENG	[100 to 4000 / 215 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
009	Paper Transfer: Normal: 1st: S3	*ENG	[100 to 4000 / 160 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)		

010	Paper Transfer: Normal: 2nd: S3	*ENG	[100 to 4000 / 215 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
011	PaperTransfer:Low: 1 st:S3	*ENG	[100 to 4000 / 175 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
012	PaperTransfer:Low:2nd:S3	*ENG	[100 to 4000 / 320 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: Normal: 2nd: S4	*ENG	[100 to 4000 / 285 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
015	PaperTransfer:Low:1st:S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
016	PaperTransfer:Low:2nd:S4	*ENG	[100 to 4000 / 465 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[100 to 4000 / 220 / 5%/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[100 to 4000 / 355 / 5%/step] 150 mm > S5 size (Paper width)
019	PaperTransfer:Low: 1 st:S5	*ENG	[100 to 4000 / 230 / 5%/step] 150 mm > S5 size (Paper width)
020	PaperTransfer:Low:2nd:S5	*ENG	[100 to 4000 / 565 / 5%/step] 150 mm > S5 size (Paper width)

	[SP 4: Bias: BW]				
2783	Adjusts the current for the paper transfer roller for special paper 1 in black-and-white mode.				
	Normal: 120 mm/sec, Low: 60 mm/sec				
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 15 / 1 – µA /step]		

	[SP 4: Bias: FC]				
2787	Adjusts the current for the paper transfer r	oller for spec	ial paper 1 in full color mode.		
	Normal: 120 mm/sec, Low: 60 mm/sec				
001	Paper Transfer	*ENG	[0 to 200 / 15 / 1 – µA /step]		

	[SP4,5,6-T:Size Correct:BW]				
2791	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2783 and SP2787 are multiplied by these SP values.				
	Normal: 120 mm/sec, Low: 60 mm/	['] sec			
001	Paper Transfer: S1	*ENG	[100 to 4000 / 100 / 5%/step] S1 size > 290 mm (Paper width)		
005	Paper Transfer: S2 *ENG		[100 to 4000 / 125 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
009	Paper Transfer: S3	*ENG	[100 to 4000 / 150 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)		
013	3 Paper Transfer: S4 *ENG		[100 to 4000 / 275 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)		
017	Paper Transfer: S5	*ENG	[100 to 4000 / 400 / 5%/step] 150 mm > S5 size (Paper width)		

	[SP4,5,6-T:Size Correct:FC]				
2792	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2783 and SP2787 are multiplied by these SP values. Normal: 120 mm/sec, Low: 60 mm/sec				
001	Paper Transfer: S1	*ENG	[100 to 4000 / 100 / 5%/step] S1 size > 290 mm (Paper width)		
005	Paper Transfer: S2	*ENG	[100 to 4000 / 110 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
009	Paper Transfer: S3	*ENG	[100 to 4000 / 115 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)		
013	Paper Transfer: S4	*ENG	[100 to 4000 / 405 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)		
017	Paper Transfer: S5	*ENG	[100 to 4000 / 690 / 5%/step] 150 mm > S5 size (Paper width)		

	[SP 2: Bias: BW]				
2803	Adjusts the current for the paper transfer roller for special paper 2 in black-and-white mode. Normal: 120mm/sec, Low: 60mm/sec				
001	Paper Transfer: Normal: 1st	*ENG	[0.1, 200 / 20 / 1, 114 / 1, 11]		
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 20 / 1 - µA /step]		
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]		
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 13 / 1 – µA /step]		

	[SP2: Bias: FC]				
2807	Adjusts the current for the paper transfer roller for special paper 2 in full color mode.				
	Normal: 120mm/sec, Low: 60mm/sec				
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 25 / 1 – µA /step]		

002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 28 / 1 – µA /step]
003	Paper Transfer: Low: 1 st	*ENG	[0 to 200 / 11 / 1 - µA /step]
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 – µA /step]

	[SP 5: Bias: BW]			
2833	Adjusts the current for the paper transfer roller for special paper 5 in black-and-white mode.			
	Normal: 120mm/sec, Low: 60mm/sec			
001	Paper Transfer	*ENG	[0 to 200 / 15 / 1 – µA /step]	

	[SP 5: Bias: FC]			
2837	Adjusts the current for the paper transfer roller for special paper 5 in full color mode.			
	Normal: 120 mm/sec, Low: 60 mm/sec			
001	Paper Transfer	*ENG	[0 to 200 / 15 / 1 – µA /step]	

	[SP3: Bias: BW]				
2852	Adjusts the current for the paper transfer roller for special paper 3 in black-and-white mode Normal: 120mm/sec, Low: 60mm/sec				
001	Paper Transfer: Normal: 1st	*ENG	[0.4-200/20/1 4/41		
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 20 / 1 – µA /step]		
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]		
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 13 / 1 - µA /step]		

[Special 3: Bias: FC]				
2857	Adjusts the current for the paper transfer roller for special paper 3 in full color mode. Normal: 120mm/sec, Low: 60mm/sec			
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 25 / 1 – µA /step]	
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 28 / 1 – µA /step]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]	

004 Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 – µA /step]
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	[SP 6: Bias: BW]			
2883	Adjusts the current for the paper transfer roller for special paper 6 in black-and-white mode			
Normal: 120mm/sec, Low: 60mm/sec				
001	Paper Transfer	*ENG	[0 to 200 / 15 / 1 – µA /step]	

	[SP 6: Bias: FC]			
2887	Adjusts the current for the paper transfer roller for special paper 6 in full color mode. Normal: 120mm/sec, Low: 60mm/sec			
001	Paper Transfer	*ENG	[0 to 200 / 15 / 1 - µA /step]	

2940	[Charge Bias On Timing]		
001	T1:Standard Speed DFU	*ENG	[-500 to 1000 / 0 / 10 msec /step]
	T1:Low Speed	*ENG	[-500 to 1000 / -80 / -80 msec /step]
002	If a horizontal white band at 40 mm from the leading edge occurs in the low speed mode change this setting from "-80" to "-500".		
[Side Effect]:			
	"580 msec" is added to the first o	opy/ print	time when using the low speed mode.

Main SP Tables-3

SP3-XXX (Process)

3011	[Process Cont. Manual Execution]		
001	Normal Procon	-	Executes the normal process control manually (potential control). Check the result with SP3-325-001 after executing this SP.
002	Toner Density Adjst	-	Executes the toner density adjustment manually. Check the result with SP3-325-001 after executing this SP.
003	Procon BF-ACC	-	Executes the process control that is normally done before ACC. The type of process control is selected with SP3-041-004.
004	With Full MUSIC	-	Executes the process control that is normally done at the same time as MUSIC. This SP does the MUSIC (line position adjustment) twice.
005	With Normal MUSIC	-	Executes the process control that is normally done at the same time as MUSIC. This SP does the MUSIC (line position adjustment) once.

-	[Process Cont. Check Result] Process Control Self-check Result
	Displays the result of the latest process control self-check.
3012	All colors are displayed. The results are displayed in the order "Y C M K"
	e.g., 11 (Y) 99 (C) 11 (M) 11 (K): The self-check for Cyan failed but the others were successful.
	See the "Error Condition Tables" in the Process Control Error section for details.

001	History: Latest	*ENG	
002	Result: Latest 1	*ENG	
003	Result: Latest 2	*ENG	
004	Result: Latest 3	*ENG	
005	Result: Latest 4	*ENG	[1111] 4- 00000000 / /1/44]
006	Result: Latest 5	*ENG	[1111 to 99999999 / - / 1/step]
007	Result: Latest 6	*ENG	
008	Result: Latest 7	*ENG	
009	Result: Latest 8	*ENG	
010	Result: Latest 9	*ENG	

3013	[TD Sen Initial Setting] Developer Initialization Setting		
001	Execution: ALL	-	
002	Execution: COL	-	
003	Execution: Bk	-	Executes the TD sensor initialization for each
004	Execution: C	-	color.
005	Execution: M	-	
006	Execution: Y	-	

3014	[TD Sen Initial Set Result] Developer Initialization Result: Display		
	Display: YMCK *ENG		[0 to 9999 / - / 1 /step] 1: Success 2 to 9: Failure
001	Control Error section for details All colors are displayed. Value	s on the mear s are display	

3015	[Forced Toner Supply] Forced Toner Supply ([Color])		
001	Execution: ALL	-	
002	Execution: COL (MCY)	-	
003	Execution: Bk	-	Executes the manual toner supply to the
004	Execution: C	-	development unit.
005	Execution: M	-	
006	Execution: Y	-	

2014	[Forced Toner Supply Cntl] Forced Toner Supply Setting ([Color])				
3016	Specifies the manual toner supply time for each color.				
001	Supply Time: Bk	*ENG			
002	Supply Time: C	*ENG	[020/4/1/]		
003	Supply Time: M	*ENG	[0 to 30 / 4 / 1 sec/step]		
004	Supply Time: Y	*ENG			

3020	[Vt Limit Error]		
001-	DFU		
005			
001	Delta Vt Threshold	*ENG	[0 to 5 / 5 / 0.01 V/step]
002	Upper Threshold	*ENG	[0 to 5 / 4.7 / 0.01 V/step]
003	Upper Error Thresh	*ENG	[0 to 99 / 20 / 1 time/step]
004	Lower Threshold	*ENG	[0 to 5 / 0.5 / 0.01 V/step]
005	Lower Error Thresh	*ENG	[0 to 99 / 10 / 1 times/step]

006	Upper Counter: Bk	*ENG	
007	Upper Counter: C	*ENG	
008	Upper Counter: M	*ENG	
009	Upper Counter: Y	*ENG	Displays the total times of the Vt upper or lower limit error.
010	Lower Counter: Bk	*ENG	[0 to 99 / 0 / 1 times/step]
011	Lower Counter: C	*ENG	
012	Lower Counter: M	*ENG	
013	Lower Counter: Y	*ENG	

3021	[TD Sensor Initial Set] Developer Initialization Setting				
3021	Specifies the developer agitation time for each color at the developer initialization.				
001	Agitation Time: Bk	*ENG			
002	Agitation Time: C	*ENG	[0. 000 / 20 / 1 / . 1		
003	Agitation Time: M	*ENG	[0 to 200 / 30 / 1 sec/step]		
004	Agitation Time: Y	*ENG			
005- 008	Sets the execution flag of the developer initialization for each color.				
005	Execution Flag: Bk	*ENG	[0 or 1 / 0 / 1/step]		
006	Execution Flag: C	*ENG	0: Flag OFF, 1: Flag ON		
007	Execution Flag: M	*ENG	This flag is cleared after executing TD sensor		
008	Execution Flag: Y	*ENG	initialization.		
009	Initial Setting Off	*ENG	Enables or disables developer initialization. DFU [0 or 1 / 0 / 1/step] 0: Enable, 1: Disable		

3022	[Toner Replenishment Mode]	
3022	Sets the toner supply flag of each color.	

005	Execution Flag: Bk	*ENG	[0 or 1 / 0 / 1/step]
006	Execution Flag: C	*ENG	0: Flag OFF, 1: Flag ON
007	Execution Flag: M	*ENG	This flag is cleared after executing TD sensor
008	Execution Flag: Y	*ENG	initialization.

3041	[Process Control Type]				
001	Bias Control	*ENG	[0 or 1 / 1 / 1/step] Alphanumeric 0: FIXED (Use the fixed values for the charge DC bias and development DC bias set with SP2-005 and SP2-229.) 1: CONTROL		
	Enables or disables the pro	ocess contr	ol.		
002	LD Power Control	*ENG	[0 or 1 / 1 / 1/step] Alphanumeric 0: FIXED (at the value in SP2221-xxx) 1: CONTROL (adjusted by process control)		
	Selects the LD power control mode.				
003	AutoControl Prohibition Set	*ENG	[O or 1 / 0 / 1/step] Alphanumeric O: Permit 1: Forbid		
	Enables or disables the automatic process control at power-on or door opening.				
004	Pre-ACC Process Control	*ENG	[0 to 2 / 2 / 1/step] 0: Not Execute 1: Process Control 2: TC Control		
	Selects the process control mode that is done before ACC.				
005	P-Pattern Selection	*ENG	[0 to 2 / 2 / 1 / step] 0: FIXED 1: INITIALIZED 2: CALCULATED		

3044	[Toner Supply Type] Toner Supply Type ([Color])				
3044	Selects the toner supply m	ly method type.			
001	Bk	*ENG	[0 to 4 / 4 / 1/step] Alphanumeric		
002	С	*ENG	0: FIXED (with the supply rates stored with SP 3401)		
003	М	*ENG	1: PID (Vtref_Fixed) 2: PID (Vtref_Control)		
004	Y	*ENG	3: MBD (Vtref_Fixed) 4: MBD (Vtref_Control)		

20.45	[Toner End Detection: Set]			
3045	Enables/disables the toner alert display on the LCD.			
001	ON/OFF	DFU [0 or 1 / 0 / 1 / step] 0: Detect, 1: Not Detect		
002	NE Detection	*ENG	[0 or 1 / 0 / 1/step] 0: ALL (Calculation and TE sensor) 1: TE Sensor	

3101	[Toner End/Near End]					
3101	Displays the amount of each color toner.					
001	Toner Replenishment: Bk	*ENG				
002	Toner Replenishment: C	*ENG	[1 + 400 / 225 / 1 - / +]			
003	Toner Replenishment: M	*ENG	[1 to 600 / 235 / 1 g/step]			
004	Toner Replenishment: Y	*ENG				
005-008	Displays the consumed amount of	each col	or toner.			
005	Toner Consumption: Bk	*ENG				
006	Toner Consumption: C	*ENG	[0+-2000 / 0 / 0 001 - /-+]			
007	Toner Consumption: M	*ENG	[0 to 3000 / 0 / 0.001 g/step]			
008	Toner Consumption: Y	*ENG				

009-012	Displays the remaining amount of each color toner. These are calculated by the operating times of the toner supply pumps.					
009	Toner Remaining: Bk	*ENG				
010	Toner Remaining: C	*ENG	[500	000 +- 400 / 0 / 0 001 /-+1		
011	Toner Remaining: M	*ENG	[-300	000 to 600 / 0 / 0.001 g/step]		
012	Toner Remaining: Y	*ENG				
013-016	Adjusts the threshold of toner near end for each color. The toner near end message appears on the LCD when the remaining toner amount reaches this threshold. When one of these SPs (SP3-101-009 to 012 or -032 to -035) reaches this threshold, toner near end is detected.					
013	Near End Thresh: Bk	*ENG	[0 to 6	500 / 5 / 1 g/step]		
014	Near End Thresh: C	*ENG				
015	Near End Thresh: M	*ENG	[0 to 6	600 / 0 / 1 g/step]		
016	Near End Thresh: Y	*ENG				
	Delta Vt Threshold *E		[0 to 5 / 0.5 / 0.01 V/step]			
021	This SP is the threshold for toner e	nd. Delta	Vt: Vt-V	tref		
	When both this SP and SP3-101-	026 оссі	ır at sam	ne time, toner end is determined.		
022-025	Displays the total delta Vt (Vt-Vtre counting.	f) value fo	or each	color.These are calculated by pixel		
022	Delta Vt Sum: Bk	*	ENG			
023	Delta Vt Sum: C	*	ENG	[0 to 655 / 0 / 0 01 \		
024	Delta Vt Sum: M	*	ENG	[0 to 655 / 0 / 0.01 V/step]		
025	Delta Vt Sum: Y	*	ENG			
026	Delta Vt Sum Threshold		ENG	[0 to 255 / 10 / 1 V/step]		
028-031	Displays the consumed toner amount calculated with the pixel count for each color.					

028	Pixel: Consumption: Bk	*ENG			
029	Pixel: Consumption: C	*ENG	[0 to 3000 / 0 / 0.001 g/step]		
030	Pixel: Consumption: M	*ENG	[0 to 3000 / 0 / 0.001 g/step]		
031	Pixel: Consumption: Y	*ENG			
032-035	Displays the remaining toner amount for each color, using pixel count.				
032	Pixel: Remaining : Bk	*ENG			
033	Pixel: Remaining : C	*ENG	[50000+-400/ 0 /0001/]		
034	Pixel: Remaining : M	*ENG	[-50000 to 600 / 0 / 0.001 g/step]		
035	Pixel: Remaining : Y	*ENG			
040-043	Displays the pixel M/A for eac	h color.			
040	Pixel M/A: Bk	*ENG			
041	Pixel M/A: C	*ENG	[0 to 1 / 0.05 / 0.001 mg/cm ² /step]		
042	Pixel M/A: M	*ENG			
043	Pixel M/A: Y	*ENG	[0 to 1 / 0.6 / 0.001 mg/cm ² /step]		
044	Delta Vt Thresh BF NE	*ENG	Adjusts the delta Vt (Vt – Vtref) of toner end before toner near end is detected. [0 to 5 / 0.5 / 0.01 V/step]		
045	Delta Vt Sum Thresh BF NE	*ENG	Adjusts the total delta Vt (Vt – Vtref) of toner end before toner near end is detected. [0 to 255 / 10 / 1 V/step]		
046-049	Displays the latest mohno off time.				
046	Mohno Off Time: Bk	*ENG			
047	Mohno Off Time: C	*ENG	[0. 0. FFFFFFF / 0 /1 /.]		
048	Mohno Off Time: M	*ENG	[0 to 0 x FFFFFFFF / 0 / 1 sec/step]		
049	Mohno Off Time: Y	*ENG			
050-053	Adjusts the threshold of the remaining toner for the toner near-end detection. DFU				

050	TE Sn Detect Thresh:Bk	*ENG	
051	TE Sn Detect Thresh:C	*ENG	[1400 / 57 / 1/]
052	TE Sn Detect Thresh:M	*ENG	[1 to 600 / 57 / 1 g/step]
053	TE Sn Detect Thresh:Y	*ENG	

3131	[TE Count: Display]				
3131	Display the number of toner end detections for each color.				
001	Bk	*ENG			
002	С	*ENG	[0, 00 /0 /1: /,]		
003	М	*ENG	[0 to 99 / 0 / 1 time/step]		
004	Υ	*ENG			

2201	[TD Sensor: Vt Display]				
3201	Display the current voltage of the TD sensor for each color.				
001	Current: Bk	*ENG			
002	Current: C	*ENG	[0+-55/001/001//+]		
003	Current: M	*ENG	[0 to 5.5 / 0.01 / 0.01 V/step]		
004	Current: Y	*ENG			

3221	[Vtcnt: Display/Set]				
3221	Displays or adjusts the current Vtcnt value for each color.				
001	Current: Bk	*ENG			
002	Current: C	*ENG	[0.5 / 4 / 0.01 \		
003	Current: M	. -	[2 to 5 / 4 / 0.01 V/step]		
004	Current: Y	*ENG			
005- 008 Displays or adjusts the Vtcnt value for each color at developer initialization.			ch color at developer initialization.		

005	Initial: Bk	*ENG	
006	Initial: C	*ENG	[2 + 5 / 4 / 0 01 \ / / + - 1
007	Initial: M	*ENG	[2 to 5 / 4 / 0.01 V/step]
800	Initial: Y	*ENG	

2000	[Vtcnt: Display/Set]		
Displays or adjusts the current Vtref value for each cold		for each color.	
001	Current: Bk	*ENG	
002	Current: C	*ENG	[0. 55/ 2 /001V/.]
003	Current: M	*ENG	[0 to 5.5 / 3 / 0.01 V/step]
004	Current: Y	*ENG	
005- 008	Displays or adjusts the Vtref va	lue for each color at developer initialization.	
005	Initial: Bk	*ENG	
006	Initial: C	*ENG	
007	Initial: M	*ENG	[0 to 5.5 / 3 / 0.01 V/step]
800	Initial: Y	*ENG	
009- 012	Displays or adjusts Vtref correc	ction by pixel coverage for each color.	
009	Pixel Correction: Bk	*ENG	[[., [., [., [., [.]]]]]]]
010	Pixel Correction: C	*ENG	[-5 to 5.5 / 0 / 0.01 V/step]
011	Pixel Correction: M	*ENG	[5+-5/0/001//]
012	Pixel Correction: Y	*ENG	[-5 to 5 / 0 / 0.01 V/step]

3223	[Vtref U/L-Limit Set]
	Adjusts the lower or upper limit value of Vtref for each color.

TD Thresh M/L TENG TENG TENG Teng Teng Teng Teng Teng Teng Teng Teng				
10 to 5 / 2 / 0.01 V/step	001	Lower: Bk	*ENG	
1003 Lower: M	002	Lower: C	*ENG	[0.4-5/2/0.01\//.41
005 Upper: Bk	003	Lower: M	*ENG	[U to 5 / 2 / U.U I V / step]
10	004	Lower: Y	*ENG	
1007 Upper: M	005	Upper: Bk	*ENG	
007 Upper: M *ENG 008 Upper: Y *ENG 009 Initial TC *ENG 010 Upper: TC *ENG 010 Upper: TC *ENG 011 Lower: TC *ENG 012 Upper Sensitivity *ENG 013 Lower Sensitivity *ENG 014 TD Thresh H/M *ENG 015 TD Thresh M/L *ENG 016 UpperTC:K *ENG	006	Upper: C	*ENG	[0. 5 / 4 / 0 01) / / . 1
Adjusts the initial toner concentration.	007	Upper: M	*ENG	[U to 5 / 4 / U.UT V/step]
009 Initial TC *ENG [1 to 15 / 7 / 0.1 wt%/step] 010 Upper: TC *ENG Adjusts the upper limit of the toner concentration [1 to 15 / 8.5 / 0.1 wt%/step] 011 Lower: TC *ENG Adjusts the lower limit of the toner concentration [1 to 15 / 4 / 0.1 wt%/step] 012 Upper Sensitivity *ENG Adjusts the upper limit of the TD sensor sensitiving [0.2 to 0.5 / 0.44 / 0.001 V/wt% / step] 013 Lower Sensitivity *ENG Adjusts the lower limit of the TD sensor sensitiving [0.2 to 0.5 / 0.209 / 0.001 V/wt% / step] 014 TD Thresh H/M *ENG [1 to 10 / 3.5 / 0.1 wt%/step] 015 TD Thresh M/L *ENG [1 to 10 / 3.5 / 0.1 wt%/step] 016 UpperTC:K *ENG	008	Upper: Y	*ENG	
TD Thresh M/L TENG TENG TENG Teng Teng Teng Teng Teng Teng Teng Teng	009	Initial TC	*ENG	·
011 Lower: TC *ENG [1 to 15 / 4 / 0.1 wt%/step] 012 Upper Sensitivity *ENG Adjusts the upper limit of the TD sensor sensitiving [0.2 to 0.5 / 0.44 / 0.001 V/wt% / step] Adjusts the lower limit of the TD sensor sensitiving [0.2 to 0.5 / 0.209 / 0.001 V/wt% / step] 014 TD Thresh H/M *ENG [1 to 10 / 3.5 / 0.1 wt%/step] 015 TD Thresh M/L *ENG [1 to 10 / 3.5 / 0.1 wt%/step] 016 UpperTC:K *ENG	010	Upper: TC	*ENG	Adjusts the upper limit of the toner concentration. [1 to 15 / 8.5 / 0.1 wt%/step]
012 Upper Sensitivity *ENG [0.2 to 0.5 / 0.44 / 0.001 V/wt% / step] 013 Lower Sensitivity *ENG Adjusts the lower limit of the TD sensor sensitivity 014 TD Thresh H/M *ENG [1 to 10 / 3.5 / 0.1 wt% / step] 015 TD Thresh M/L *ENG [1 to 10 / 3.5 / 0.1 wt% / step] 016 UpperTC:K *ENG	011	Lower: TC	*ENG	Adjusts the lower limit of the toner concentration. [1 to 15 / 4 / 0.1 wt%/step]
013 Lower Sensitivity *ENG [0.2 to 0.5 / 0.209 / 0.001 V/wt% / step] 014 TD Thresh H/M *ENG [1 to 10 / 3.5 / 0.1 wt% / step] 015 TD Thresh M/L *ENG [1 to 10 / 3.5 / 0.1 wt% / step] 016 UpperTC:K *ENG	012	Upper Sensitivity	*ENG	Adjusts the upper limit of the TD sensor sensitivity. [0.2 to 0.5 / 0.44 / 0.001 V/wt% / step]
015 TD Thresh M/L *ENG [1 to 10 / 3.5 / 0.1 wt%/step] 016 UpperTC:K *ENG	013	Lower Sensitivity	*ENG	Adjusts the lower limit of the TD sensor sensitivity. [0.2 to 0.5 / 0.209 / 0.001 V/wt% /step]
016 UpperTC:K *ENG	014	TD Thresh H/M	*ENG	[1 to 10 / 3.5 / 0.1 wt%/step]
	015	TD Thresh M/L	*ENG	[1 to 10 / 3.5 / 0.1 wt%/step]
017 UpperTC:C *FNC [1 to 15 / 8.5 / 0.1 wt%/step]	016	UpperTC:K	*ENG	
orr opperion	017	UpperTC:C	*ENG	
018 UpperTC:M *ENG Adjusts the upper limit of the toner concentration for each color.	018	UpperTC:M	*ENG	Adjusts the upper limit of the toner concentration for each color.
019 UpperTC:Y *ENG	019	UpperTC:Y	*ENG	

3224	[Vtref Correct: Pixel]	
3224	Adjusts the coefficient of Vtref correction for each coverage and color.	

001	Low Coverage Coeff. Bk	*ENG	
002	Low Coverage Coeff.C	*ENG	[0, 5 /00 /01 /, 1
003	Low Coverage Coeffi.M	*ENG	[0 to 5 / 0.2 / 0.1 /step]
004	Low Coverage Coeff. Y	*ENG	
005	High Coverage Coeff, Bk	*ENG	
006	High Coverage Coeff, C	*ENG	[0. 5 /00 /00] \
007	High Coverage Coeff, M	*ENG	[0 to 5 / 0.3 / 0.01 V/step]
008	High Coverage Coeff, Y	*ENG	
009	Low Coverage: Thresh	*ENG	Adjusts the threshold of the low coverage. [0 to 20 / 3 / 0.1 %/step]
010	High Coverage: Thresh:M	*ENG	Adjusts the threshold of the high coverage. [0 to 100 / 60 / 1 %/step]
011	TC Upper Limit Correction	*ENG	[0 to 5 / 0.5 / 0.1 wt%/step]
012	TC Upper Limit:Display:Bk	*ENG	
013	TC Upper Limit:Display: C	*ENG [1 to 15 / 8	[], 15 / 0.5 /0.1 , 10/ /,]
014	TC Upper Limit:Display: M	*ENG	[1 to 15 / 8.5 / 0.1 wt% /step]
015	TC Upper Limit:Display: Y	*ENG	
016	Process Control Threshold:M	*ENG	[0 to 255 / 50 / 1 time/step]
017	High Coverage: Threshold:H	*ENG	Adjusts the threshold of the high
018	High Coverage: Threshold:L	*ENG	coverage. [0 to 100 / 20 / 1 %/step]
019	Process Control Thresh:H	*ENG	[0 to 255 / 14 / 1 time /stem]
020	Process Control Thresh:L	*ENG	[0 to 255 / 14 / 1 time/step]
021	Initial ProCon Thresh	*ENG	[0 to 255 / 6 / 1 time/step]
022	High Coverage Thresh:LS	*ENG	[0 to 100 / 10 / 1 %/step]

023 Process Control Thresh:LS *ENG [0 to 255 / 4 / 1 time/step]

3236	[Toner Supply Consum.: Displo	ıy]			
3230	Displays the toner amount of the latest toner supply for each color.				
001	Latest: Bk	*ENG			
002	Latest: C	*ENG	[0, 40000 / 0 / 0]		
003	Latest: M	*ENG	[0 to 40000 / 0 / 0.1 mg/step]		
004	Latest: Y	*ENG			

3237	[Developer Agitation Setting]				
323/	Displays the toner amount of the latest toner supply for each color.				
001	001 Agitation Time *ENG		[0 to 200 / 5 / 1 sec/step]		

3238	[Vt Target: Setting]				
3230	Displays the Vt target value at developer initialization.				
001	Bk	*ENG			
002	С	*ENG	[0.5 / 0.7 / 0.01 \ / \]		
003	М	*ENG	[0 to 5 / 2.7 / 0.01 V/step]		
004	Υ	*ENG			

3241	[Background Potential Setting]		
001	Coefficient: Bk	*ENG	These are parameters for calculating the charge
002	Coefficient: C	*ENG	bias referring to the development bias at process control.
003	DC charg	[-1000 to 1000 / 0 / 1 /step]	
004		*ENG	DC charge bias = Development bias x (1 + 0.001 x these vales) + SP3-241-005 to -008

005	Offset: Bk	*ENG	These are additional values for calculating the
006	Offset: C	*ENG	charge bias referring to the development bias at process control.
007	Offset: M	*ENG	[0 to 255 / 140 / 1 V/step]
008	Offset: Y	*ENG	DC charge bias = Development bias x (1 + 0.001 x SP3-241-001 to -004) + these values

2051	[Coverage]				
3251	These (-001 to -016) are coefficients for SP3-222-009 to -012.				
001	Latest: Pixcel Bk	*ENG			
002	Latest: Pixcel C	*ENG	Displays the latest coverage for each color.		
003	Latest: Pixcel M	*ENG	[0 to 9999 / 0 / 1 cm ² /step]		
004	Latest: Pixcel Y	*ENG			
005-008	Displays the average coverage of each color for the Vtref correction. "Average S" is defined when the number of developed pages does not reach the number specified with SP3251-017.				
005	Average S: Bk	*ENG			
006	Average S: C	*ENG	[0 to 100 / 5 / 0.01 %/step]		
007	Average S: M	*ENG			
008	Average S: Y	*ENG			
009-012	Displays the average coverage of each color for the Vtref correction. "Average M" is defined when the number of developed pages does not reach the number specified with SP3251-018.				
009	Average M: Bk	*ENG			
010	Average M: C	*ENG	[0 to 100 / 5 / 0.01 %/step]		
011	Average M: M	*ENG			
012	Average M: Y	*ENG			
013-016	Displays the average coverage of each color for the Vtref correction. 3-016 "Average L" is defined when the number of developed pages does not reach the nur specified with SP3-251-019.				

013	Average L: Bk	*ENG			
014	Average L: C	*ENG	[0 to 100 / 5 / 0.01 %/step]		
015	Average L: M	*ENG	[0 10 100 / 3 / 0.01 %/siep]		
016	Average L: Y	*ENG			
017-019	Adjusts the threshold for SP3-251-005 to -016.				
017	Total Page Setting: S	*ENG	[1 to 100 / 10 / 1 sheet/step]		
018	Total Page Setting: M	*ENG	[1 to 500 / 10 / 1 sheet/step]		
019	Total Page Setting: L	*ENG	[1 to 999 / 50 / 1 sheet/step]		
020-022	Adjusts the threshold for SP3-251-024 to -027.				
020	Total Page Setting: S2	*ENG	[1 to 100 / 20 / 1 sheet/step]		
021	Total Page Setting: M2	*ENG	[1 to 500 / 10 / 1 sheet/step]		
022	Total Page Setting: L2	*ENG	[1 to 999 / 50 / 1 sheet/step]		
024-027	Displays the latest coverage rat	io for each	color.		
024	Latest Coverage: Bk	*ENG			
025	Latest Coverage: C	*ENG	[0 to 100 / - / 0.01 %/step]		
026	Latest Coverage: M	*ENG	[[o lo 100 / - / o.o i /o/siep]		
027	Latest Coverage: Y	*ENG			
028	Displays the threshold of whether to perform developer churning or not.				
020	DevAgi. Theresh BF ProCon	*ENG	[0 to 100 / 20 / 1 %/step]		

3311	[ID Sn Detection Value]				
3311	Displays the ID sensor (regular) offset voltage for Vsg adjustments.				
001	Voffset reg: Bk	*ENG	[0 to 5 / 0 / 0.01 V/step]		
002	Voffset reg: C	*ENG			
003	Voffset reg: M	*ENG	[0 to 5.5 / 0 / 0.01 V/step]		
004	Voffset reg: Y	*ENG			

005-007	Displays the ID sensor (diffusion) offset voltage for Vsg adjustments.		
005	Voffset dif: C	*ENG	
006	Voffset dif: M	*ENG	[0 to 5.5 / 0 / 0.01 V/step]
007	Voffset dif: Y	*ENG	
008-010	-010 Displays the ID sensor offset voltage for Vsg adjustments.		sg adjustments.
008	Voffset TM (Front)	*ENG	
009	Voffset TM (Center)	*ENG	[0 to 5.5 / 0 / 0.01 V/step]
010	Voffset TM (Rear)	*ENG	

3321	[ID/TM Sensor All]		
010	P/TM Sensor All	-	Execute the ID sensor initialization setting for all sensors

3322	[Vsg Adjust. Result: Vsg]				
3322	Displays the result value of the Vsg adjustment for each sensor.				
001	Vsg reg: Bk	*ENG			
002	Vsg reg: C	*ENG			
003	Vsg reg: M	*ENG			
004	Vsg reg: Y	*ENG			
005	Vsg dif: C	*ENG	[0 + 5 5 / 0 / 0 0] \//stanl		
006	Vsg dif: M	*ENG	[0 to 5.5 / 0 / 0.01 V/step]		
007	Vsg dif: Y	*ENG			
800	Vsg TM (Front)	g TM (Front) *ENG			
009	Vsg TM (Center)	*ENG			
010	Vsg TM (Rear)	*ENG			

3323	[Vsg Adjust. Result: Ifsg]	
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001	Ifsg: Bk	*ENG	
002	Ifsg: C	*ENG	[0 +- 50 / 0 / 0] =-
003	Ifsg: M	*ENG	[0 to 50 / 0 / 0.1 mA/step]
004	Ifsg: Y	*ENG	
005	Ifsg TM (Front)	*ENG	
006	Ifsg TM (Center)	*ENG	[0 to 50 / 0 / 0.1 mA/step]
007	Ifsg TM (Rear)	*ENG	

3324	[Vsg Adjustment: Set]		
003	Vsg Error Counter	*ENG	[0 to 99 / 0 / 0.1 time/step]
004	Vofset Threshold	*ENG	[0 to 5 / 1 / 0.01 V/step]
005	Vsg Upper Threshold	*ENG	[0 to 5 / 4.5 / 0.01 V/step]
006	Vsg Lower Threshold	*ENG	[0 to 5 / 3.5 / 0.01 V/step]

[Vsg Adjustment Result] Displays the result of the Vsg adjustment.		[Vsg Adjustment Result]
		Displays the result of the Vsg adjustment.
		The displayed numbers mean the result of each sensor (sensor for Front, sensor for Bk, sensor for Cyan, sensor for Center, sensor for Magenta, sensor for Yellow and sensor for Rear).

			2
001	Latest	*ENG	
002	Latest 1	*ENG	
003	Latest 2	*ENG	
004	Latest 3	*ENG	[111 to 999 / 999 / 1 /step]
005	Latest 4	*ENG	9: Unexpected error
006	Latest 5	*ENG	3: Offset voltage error 2: Vsg adjustment value error
007	Latest 6	*ENG	1: O.K
008	Latest 7	*ENG	
009	Latest 8	*ENG	
010	Latest 9	*ENG	

3363	[ID Pattern Timing Setting]		
001	Scan YCMBk	*ENG	Adjusts the detection timing for the process control pattern. [-500 to 500 / 0 / 1 mm/step]
002	Detection Delay Time	*ENG	Adjusts the timing when the paper transfer unit is kept away from the image transfer belt. [0 to 2500 / 400 / 1 msec/step]
003	Delay Time	*ENG	Adjusts the processing timing for the process control pattern. [0 to 2500 / 1335 / 1 msec/step]
004	MUSIC Delay Time	*ENG	Adjusts the processing timing for the pattern that is used for the line position adjustment. [-2500 to 2500 / 300 / 1 msec/step]

3411	[Toner Supply Rate: Display]
3411	Displays the current toner supply rate.

001	Latest: Bk	*ENG	
002	Latest: C	*ENG	[0.4-100 / /1.9//.4]
003	Latest: M	*ENG	[0 to 100 / - / 1 %/step]
004	Latest: Y	*ENG	

3421	[Toner Supply Range]		
001	Upper Limit: Bk	*ENG	
002	Upper Limit: C	*ENG	Adjusts the toner supply rate during printing.
003	Upper Limit: M	*ENG	[0 to 100 / 100 / 1%/step]
004	Upper Limit: Y	*ENG	
005	Minimum Supply Time: Bk	*ENG	
006	Minimum Supply Time: C	*ENG	Adjusts the minimum toner supply time.
007	Minimum Supply Time: M	*ENG	[0 to 1000 / 0 / 1 msec/step]
008	Minimum Supply Time: Y	*ENG	

3501	[Process Control Target M/A]				
3301	Adjusts the target M/A of the full coverage in single color printer mode.				
001	Maximum M/A: Bk	*ENG	[0 to 1 / 0.45 / 0.001 mg/cm ² /step]		
002	Maximum M/A: C	*ENG			
003	Maximum M/A: M	*ENG	[0 to 1 / 0.445 / 0.001 mg/cm ² /step]		
004	Maximum M/A: Y	*ENG			

3510	[Image Adj. Counter:Display]
3310	Displays the total page counter for each adjustment mode.

001	Process Control: BW	*ENG	
002	Process Control: FC	*ENG	
003	Power ON: BW	*ENG	
004	Power ON: FC	*ENG	
005	MUSIC: BW	*ENG	[0 to 2000 / 0 / 1 nage /sten]
006	MUSIC: FC	*ENG	[0 to 2000 / 0 / 1 page/step]
007	Vsg Adj.	*ENG	
008	Charge AC Control	*ENG	
009	MUSIC: Power ON: BW	*ENG	
010	MUSIC: Power ON: FC	*ENG	

3511	[Execution Interval: Setting]				
3311	Adjusts the threshold for each adjustment mode.				
001	Job End: Process Control: BW	*ENG	[0 to 2000 / 250 / 1 page/step]		
002	Job End: Process Control: FC	*ENG	[0 to 2000 / 100 / 1 page/step]		
003	Interrupt: Process Control: BW	*ENG	[0 to 2000 / 500 / 1 page/step]		
004	Interrupt: Process Control: FC	*ENG	[0 to 2000 / 200 / 1 page/step]		
005	Initial: Potential Control: BW	*ENG	[0 to 2000 / 250 / 1 page/step]		
006	Initial: Potential Control: FC	*ENG	[0 to 2000 / 100 / 1 page/step]		
007	Vsg Adj. Counter	*ENG	[0 to 2000 / 0 / 1 page/step]		
008	Charge AC Control Counter	*ENG	[0 to 2000 / 500 / 1 page/step]		
019	Envir.Correction:ON/OFF	*ENG	[0 or 1 / 1 / 1 / step]		
020	Gamma Correction: ON/OFF	*ENG	0: Not Correct (OFF),		
021	Non-use Time Correct:ON/OFF	*ENG	1: Correct (ON)		
022	Correction Coeff. 1: JE: BW	*ENG	[0 to 1 / 0.2 / 0.01 /step]		
023	Correction Coeff. 2: JE: BW	*ENG	[0 to 1 / 1 / 0.01/step]		

024	Correction Coeff. 1: JE: FC	*ENG	[0 to 1 / 0.5 / 0.01/step]
025	Correction Coeff. 2: JE: FC	*ENG	[0 to 1 / 1 / 0.01/step]
026	Correction Coeff. 1: Interrupt: BW	*ENG	[0 to 1 / 0.1 / 0.01/step]
027	Correction Coeff. 2: Interrupt: BW	*ENG	[0 to 1 / 1 / 0.01/step]
028	Correction Coeff. 1: Interrupt: FC	*ENG	[0 to 1 / 0.25 / 0.01/step]
029	Correction Coeff. 2: Interrupt: FC	*ENG	[0 to 1 / 1 / 0.01/step]
030	Max. Number Correction Threshold	*ENG	[0 to 99 / 2 / 1/step]
031	Max. Number Correction Counter	*ENG	[0 to 255 / 0 / 1/step]

	[Image Adj.: Interval]			
3512	Adjusts the timing for execution of process control and line position adjustment during por copying.			
001	During Job	*ENG	[0 to 100 / 5 / 1 page/step]	
002	During Stand-by	*ENG	[0 to 100 / 10 / 1 minute/step]	

	[PCU Motor Stop Time: Bk]				
Displays the last time that the PCU motors stopped.					
	These are used for process control execution timing.				
001	Year	*ENG	[0 to 99 / 0 / 1/step]		
002	Month	*ENG	[1 to 12 / 1 / 1/step]		
003	Date	*ENG	[1 to 31 / 1 / 1/step]		
004	Hour	*ENG	[0 to 23 / 0 / 1/step]		
005	Minute	*ENG	[0 to 59 / 0 / 1/step]		

	[Environmental Displ: Job End]			
Displays the environmental conditions at the last job.				
	These are used for process control execution timing.			
001	Temperature	*ENG	[-1280 to 1270 / 0 / 0.1°C/step]	

002	Relative Humidity	*ENG	[0 to 1000 / - / 0.1%RH/step]
003	Absolute Humidity	*ENG	[0 to 1000 / - / 0.1 g/cm ³ /step]

	[Execution Interval: Display]				
3515	Displays the current interval for process control execution. When the machine calculates the timing for process control, it uses a number of conditions. These are the results after considering all the conditions.				
001	Job End: Process Control: BW	*ENG	[0 to 2000 / 250 / 1 page/step]		
002	Job End: Process Control: FC	*ENG	[0 to 2000 / 100 / 1 page/step]		
003	Interrupt: Process Control: BW	*ENG	[0 to 2000 / 500 / 1 page/step]		
004	Interrupt: Process Control: FC	*ENG	[0 to 2000 / 200 / 1 page/step]		

	[Refresh Mode]				
3516	While making prints with low coverage, the developer is agitated with less toner consumption and the toner carrier attraction tends to increase. This may cause low image density or poor transfer (white dots). To prevent this, the coagulated toner or overcharged toner has to be consumed by performing the refresh mode.				
001	Dev. Motor Rotation: Display: Bk	*ENG			
002	Dev. Motor Rotation: Display: C	*ENG	[0. 1000 / 0 / 0 1 / . 1		
003	Dev. Motor Rotation: Display: M	*ENG	[0 to 1000 / 0 / 0.1 m/step]		
004	Dev. Motor Rotation: Display: Y	*ENG			
005	Rotation Threshold	*ENG	[0 to 1000 / 0.1 / 1 m/step]		

006	Pixel Coverage Sum: Bk	*ENG	
007	Pixel Coverage Sum: C	*ENG	
008	Pixel Coverage Sum: M	*ENG	
009	Pixel Coverage Sum: Y	*ENG	[0. 45505 (0.41 2/.]
010	Required Area: Bk	*ENG	[0 to 65535 / 0 / 1 cm ² /step]
011	Required Area: C	*ENG	
012	Required Area: M	*ENG	
013	Required Area: Y	*ENG	
014	Refresh Threshold: Bk	*ENG	[0 to 255 / 49 / 1 cm ² /m/step]
015	Refresh Threshold: C	*ENG	
016	Refresh Threshold: M	*ENG	[0 to 255 / 25 / 1 cm ² /m/step]
017	Refresh Threshold: Y	*ENG	
018	Pattern Number: Bk	*ENG	
019	Pattern Number: C	*ENG	
020	Pattern Number: M	*ENG	[0 to 255 / 0 / 1 time/step]
021	Pattern Number: Y	*ENG	
022	Pattern Number: Upper limit	*ENG	
023	Toner Consumption Pattern Area	*ENG	[10 to 2550 / 280 / 10 cm ² / step]
024	Supply Coefficient	*ENG	[0 to 2.55 / 1 / 0.01/step]
025	Job End Area Coefficient	*ENG	[0.1 to 25.5 / 1 / 0.1/step]
026	Job End Vb Coefficient	*ENG	[0 to 100 / 30 / 1%/step]
027	Job End Length	*ENG	[0 to 100 / 19 / 1 mm/step]
028	Job End Supply Amt	*ENG	[0 to 1 / 0.45 / 0.001 mg/cm ² / step]

029	Refresh:Page Thresh	*ENG	
030	Mode Counter:Bk	*ENG	[0 to 1000 / 0 / 1 page/step]
031	Mode Counter:FC	*ENG	

	[Blade Damage Prevention]				
3517	Adjusts the threshold temperature for preventing the cleaning blade in the transfer belt cleaning unit from being damaged. If the temperature is above this value, toner is applied to the transfer belt at set intervals during the job to prevent the blade from flipping over.				
001	Execution Temp. Thresh	*ENG	[0 to 50 / 40 / 1°C/step]		

3518	[Image Adj. Execution Flag] DFU	J	
001	Toner End Recovery: Bk	*ENG	
002	Toner End Recovery: C	*ENG	
003	Toner End Recovery: M	*ENG	[0 or 1 / 0 / 1/step]
004	Toner End Recovery: Y	*ENG	0: OFF. 1: ON
005	Vsg Adjustment	*ENG	
006	Developer Agitation	*ENG	
007	Process Control	*ENG	[0 to 2 / 0 / 1/step] 0: OFF. 1: ON (once), 2: ON (twice)
008	MUSIC	*ENG	[0 to 2 / 0 / 1/step] 0: OFF. 1: ON (once), 2: ON (twice)
009	Drum Phase Adj.	*ENG	
010	Charge AC Control	*ENG	[0 or 1 / 0 / 1/step] 0: OFF, 1: ON
011	Blade Damage Prevention	*ENG	0.011.1.014
012	Vsg Average Error	*ENG	[0 or 1 / 0 / 1/step] Sets "1", when the following values shows. Vsg_reg_ave: 3.5 < Vsg_reg_ave < 4.5 or Vsg_dif_ave: 0.0 < Vsg_dif_ave < 0.5

2510	[Toner End Prohibition Setting]			
3519	Enables or disables each adjustment at toner end.			
001	Process Control	*ENG	[0 or 1 / 1 / 1/step]	
002	MUSIC	*ENG	0: Permit (adjustment is done even toner end condition)	
003	TC Adjustment	*ENG	Forbid (adjustment is not done at toner end condition)	

3520	[ITB Idle Rotation]				
001	Temperature: High	*ENG			
002	Temperature: Medium	*ENG	Specifies the idle rotation times of the ITB after the process control.		
003	Temperature: Low	*ENG	[0 or 3 / 0 / 1 revolution/step]		
004	Temp.: L: Power ON	*ENG			
005 to	Adjusts the threshold temperature for entering the ITB idle rotation after the process control.				
005	Temp. Range Thresh:T2	*ENG	[20 or 30 / 30 / 1 deg/step]		
006	Temp. Range Thresh:T1	*ENG	[0 or 15 / 15 / 1 deg/step]		
010	Temp. Thresh:High	*ENG	[0 or 50 / 30 / 1 deg/step]		
011	Temp. Thresh:Low	*ENG	[0 or 50 / 15 / 1 deg/step]		

	[Initial Process Control Setting]			
3522	Adjusts the threshold for the process control at power on. When the current condition has changed by more than the values of these SPs when compared with the conditions at the previous operation, the process control at power on is executed.			
002	Non-use Time Setting	*ENG	[0 to 1440 / 360 / 1 minute/step]	
003	Temp. Change Thresh	*ENG	[0 to 99 / 10 / 1 °C/step]	
004	Relative Humidity Range	*ENG	[0 to 99 / 50 / 1 %RH/step]	
005	Absolute Humidity Range	*ENG	[0 to 99 / 6 / 1 g/m ³ /step]	

[Rapi Timer]			
100 Time Setting *ENG [0 to 255 / 30 / 1 sec/step]		[0 to 255 / 30 / 1 sec/step]	
	Adjusts the time-out time to get the Rapi timer.		

	[Non-use Time Process Control Setting]				
3531	Adjusts the threshold for the process control at stand-by. When the current condition has changed by more than the values of these SPs when compared with the conditions at the previous operation, the process control at stand-by is executed.				
001	Non-use Time Setting	*ENG	[0 to 1440 / 360 / 1 minute/step]		
002	Temp. Change Thresh	*ENG	[0 to 99 / 10 / 1°C/step]		
003	Relative Humidity Change	*ENG	[0 to 99 / 50 / 1 %RH/step]		
004	Absolute Humidity Change	*ENG	[0 to 99 / 6 / 1 g/m ³ /step]		
005	Maximum Execution Number	*ENG	Adjusts the maximum execution time for the process control at stand-by. [0 to 99 / 10 / 1 time/step]		

3611	[Dev. Gamma: Display/Set]		
001	Bk (Current)	*ENG	Displays the current development gamma for Bk [0 to 5 / 0.9 / 0.01 mg/cm ² /kV /step]
002	C (Current)	*ENG	Displays the current development gamma for C/
003	M (Current)	*ENG	M/Y.
004	Y (Current)	*ENG	[0 to 5 / 0.8 / 0.01 mg/cm ² /kV /step]
005	Bk (Target Display)	*ENG	Displays the target development gamma for Bk. [0 to 5 / 0.9 / 0.01 mg/cm ² /kV /step]
006	C (Target Display)	*ENG	Displays the target development gamma for C/
007	M (Target Display)	*ENG	M/Y.
008	Y (Target Display)	*ENG	[0 to 5 / 0.8 / 0.01 mg/cm ² /kV /step]

009	Bk (Standard Target Set)	*ENG	Displays the standard target development gamma for each color. [0 to 5 / 0.9 / 0.01 mg/cm ² /kV /step]
010	C (Standard Target Set)	*ENG	
011	M (Standard Target Set)	*ENG	[0 to 5 / 0.8 / 0.01 mg/cm ² /kV /step]
012	Y (Standard Target Set)	*ENG	
013	Environmental Correction	*ENG	Turns on or off the environmental correction for target development gamma. [0 or 1 / 1 / -] 0: Not Correct, 1: Correct
014	K (Max Correction)	*ENG	
015	C (Max Correction)	*ENG	[0.4-5./0.1./0.01/2.///-t]
016	M (Max Correction)	*ENG	[0 to 5 / 0.1 / 0.01 mg/cm2/kv/step]
017	Y (Max Correction)	*ENG	
018	K (Max Abs Hum)	*ENG	
019	C (Max Abs Hum)	*ENG	[] to 00 / 15 /] a /m2 /stan]
020	M (Max Abs Hum)	*ENG	[1 to 99 / 15 / 1 g/m3/step]
021	Y (Max Abs Hum)	*ENG	

3612	[Vk Display]		
3012	Displays Vk for each color.		
001	Bk	*ENG	
002	С	*ENG	[200+200 / /1 //]
003	М	*ENG	[-300 to 300 / - / 1 V/step]
004	Υ	*ENG	

3621	[Dev. DC Control:Display] Normal: 120 mm/sec, Low: 70 mm/sec			
3021	Displays the development DC bias adjusted with the process control for each line speed color.			
001	Normal Speed:Bk	*ENG		
002	Normal Speed:C	*ENG		
003	Normal Speed:M	*ENG		
004	Normal Speed:Y	*ENG	[0 700 / FFO / 1. V/]	
009	Low Speed:Bk	*ENG	[0 to 700 / 550 / 1 -V/step]	
010	Low Speed:C	*ENG		
011	Low Speed:M	*ENG		
012	Low Speed:Y	*ENG		

3631	[Charge DC Control: Display] Normal: 120 mm/sec, Low: 60 mm/sec			
3031	Displays the charge DC voltage adjusted with the process control for each line sp color.			
001	Normal Speed:Bk	*ENG		
002	Normal Speed:C	*ENG		
003	Normal Speed:M	*ENG		
004	Normal Speed:Y	*ENG		
009	Low Speed:Bk	*ENG	[0 to 2000 / 690 / 1 -V/step]	
010	Low Speed:C	*ENG		
011	Low Speed:M	*ENG		
012	Low Speed:Y	*ENG		

3641	[Charge DC Control: Display] Normal: 120 mm/sec			
	Displays the charge AC voltage adjusted with the process control for each color.			
001	Normal Speed:Bk	*ENG		
002	Normal Speed:C	*ENG	[0. 0 /1 75 /001]V/.]	
003	Normal Speed:M	*ENG	[0 to 3 / 1.75 / 0.01 kV/step]	
004	Normal Speed:Y	*ENG		

3651	[LD Power Control: Display] Normal: 120 mm/sec, Low: 60 mm/sec		
	Displays the LD power adjuste	d for each en	vironment.
001	Normal Speed:Bk	*ENG	
002	Normal Speed:C	*ENG	
003	Normal Speed:M	*ENG	
004	Normal Speed:Y	*ENG	[0.1. 200 / 100 / 1.9/ / 1]
009	Low Speed:Bk	*ENG	[0 to 200 / 100 / 1 %/step]
010	Low Speed:C	*ENG	
011	Low Speed:M	*ENG	
012	Low Speed:Y	*ENG	

0711	[HST Control: Bk]		
3711	Displays the factory settings of the black PCU.		
001	Vcnt	*ENG	[0 to 5 / 4 / 0.1 V/step]
002	Vt	*ENG	[0 to 5 / 2.5 / 0.1 V/step]
003	Sensitivity: HL	*ENG	[1.22 to 3.77 / 2.5 / 0.01 V/step]
004	Sensitivity: HM	*ENG	[0 to 2.55 / 1.3 / 0.01 V/step]
005	Sensitivity: ML	*ENG	[0 to 2.55 / 1.2 / 0.01 V/step]

006	Set Detection	*ENG	[0 to 5 / 1 / 0.1 V/step]
007	Without Developer	*ENG	[0 to 5 / 1.2 / 0.1 V/step]
008	With Developer	*ENG	[0 to 5 / 1.3 / 0.1 V/step]
009	Serial Number 1	*ENG	[0.5.055 / /1.1//.5]
010	Serial Number 2	*ENG	[0 to 255 / - / 1 V/step]
011	Adjustment: Vt	*ENG	[0+5/2/01//+]
012	Adjustment: Vtref	*ENG	[0 to 5 / 3 / 0.1 V/step]
013	Adjustment: Vtcnt	*ENG	[0 to 5 / 4 / 0.01 V/step]
014	Adjustment: Gamma	*ENG	[0 to 2.55 / 0 / 0.01 mg/cm ² /kV /step]
015	Adjustment: Vcnt Result	*ENG	[0 to 9 / 9 / 1 /step]

3712	[HST Control: C]		
	Displays the factory settings of the magenta PCU.		
001	Vcnt	*ENG	[0 to 5 / 4 / 0.1 V/step]
002	Vt	*ENG	[0 to 5 / 2.5 / 0.1 V/step]
003	Sensitivity: HL	*ENG	[1.22 to 3.77 / 2.5 / 0.01 V/step]
004	Sensitivity: HM	*ENG	[0 to 2.55 / 1.3 / 0.01 V/step]
005	Sensitivity: ML	*ENG	[0 to 2.55 / 1.2 / 0.01 V/step]
006	Set Detection	*ENG	[0 to 5 / 1 / 0.1 V/step]
007	Without Developer	*ENG	[0 to 5 / 1.2 / 0.1 V/step]
008	With Developer	*ENG	[0 to 5 / 1.3 / 0.1 V/step]
009	Serial Number 1	*ENG	[0 to 255 / - / 1 V/step]
010	Serial Number 2	*ENG	
011	Adjustment: Vt	*ENG	[0 to 5 / 3 / 0.1 V/step]
012	Adjustment: Vtref	*ENG	
013	Adjustment: Vtcnt	*ENG	[0 to 5 / 4 / 0.01 V/step]

014	Adjustment: Gamma	*ENG	[0 to 2.55 / 0 / 0.01 mg/cm ² /kV /step]
015	Adjustment: Vcnt Result	*ENG	[0 to 9 / 9 / 1 /step]

2712	[HST Control: M]				
3 <i>7</i> 13	Displays the factory settings of the cyan PCU.				
001	Vcnt	*ENG	[0 to 5 / 4 / 0.1 V/step]		
002	Vt	*ENG	[0 to 5 / 2.5 / 0.1 V/step]		
003	Sensitivity: HL	*ENG	[1.22 to 3.77 / 2.1 / 0.01 V/step]		
004	Sensitivity: HM	*ENG	[0 to 2.55 / 1.3 / 0.01 V/step]		
005	Sensitivity: ML	*ENG	[0 to 2.55 / 1.2 / 0.01 V/step]		
006	Set Detection	*ENG	[0 to 5 / 1 / 0.1 V/step]		
007	Without Developer	*ENG	[0 to 5 / 1.2 / 0.1 V/step]		
008	With Developer	*ENG	[0 to 5 / 1.3 / 0.1 V/step]		
009	Serial Number 1	*ENG	[0, 055 / /1)//,]		
010	Serial Number 2	*ENG	[0 to 255 / - / 1 V/step]		
011	Adjustment: Vt	*ENG	[0, 5/2/01//,]		
012	Adjustment: Vtref	*ENG	[0 to 5 / 3 / 0.1 V/step]		
013	Adjustment: Vtcnt	*ENG	[0 to 5 / 4 / 0.01 V/step]		
014	Adjustment: Gamma	*ENG	[0 to 2.55 / 0 / 0.01 mg/cm ² /kV /step]		
015	Adjustment: Vcnt Result	*ENG	[0 to 9 / 9 / 1 /step]		

3714	[HST Control:Y]			
3/14	Displays the factory settings of the yellow PCU.			
001	Vcnt	*ENG	[0 to 5 / 4 / 0.1 V/step]	
002	Vt	*ENG	[0 to 5 / 2.5 / 0.1 V/step]	
003	Sensitivity: HL	*ENG	[1.22 to 3.77 / 2.5 / 0.01 V/step]	
004	Sensitivity: HM	*ENG	[0 to 2.55 / 1.3 / 0.01 V/step]	

005	Sensitivity: ML	*ENG	[0 to 2.55 / 1.2 / 0.01 V/step]
006	Set Detection	*ENG	[0 to 5 / 1 / 0.1 V/step]
007	Without Developer	*ENG	[0 to 5 / 1.2 / 0.1 V/step]
008	With Developer	*ENG	[0 to 5 / 1.3 / 0.1 V/step]
009	Serial Number 1	*ENG	[0+- 255 / /1 \//+]
010	Serial Number 2	*ENG	[0 to 255 / - / 1 V/step]
011	Adjustment: Vt	*ENG	[0+5/2/01//+]
012	Adjustment: Vtref	*ENG	[0 to 5 / 3 / 0.1 V/step]
013	Adjustment: Vtcnt	*ENG	[0 to 5 / 4 / 0.01 V/step]
014	Adjustment: Gamma	*ENG	[0 to 2.55 / 0 / 0.01 mg/cm ² /kV /step]
015	Adjustment: Vcnt Result	*ENG	[0 to 9 / 9 / 1 /step]

3800	[Toner Collection Bttl Full]			
3600	Displays/adjusts the PCDU toner collection bottle detection settings.			
	Condition	*CTL	[0 to 4 / 0 / 1 /step]	
001	Displays the current condition of t	he PCDU to	oner collection bottle.	
	0: Factory default, 1: Before near	full, 2; Ne	ar full, 3: Full, 4: Reserved	
002	Detection Times	*CTL	Not used	
002		CIL	[0 to 50 / - / 1 /step]	
003	Print Page AF Near Full	*CTL	Not used	
003			[0 to 2000 / 0 / 1 sheet/step]	
004	Pixel Count AF Near Full	*CTL	Not used	
004	Tixer Coolii Ai Tivedi Toli	CIL	[0 to 200000 / - / 1 cm ² /step]	
Not used		Not used		
005	Pixel Count AF Replacement	*CTL	Displays the pixel counter after replacement of toner collection bottle.	
			[0 to 200000 / - / 1 cm ² /step]	

008	Coefficient	*ENG	[0.1 to 1 / 1 / 0.1 /step]		
008	Adjusts the toner amount between	Adjusts the toner amount between near full and full. (0.1 indicates 10%.)			
011	Alarm Setting	*ENG	Enables or disables the calling for @Remote. [0 or 1 / 1 / -] 0: Enable @Remote calling 1: Disable @Remote calling		
	NOTE:				
	If the PCDU toner collection bottle has been replaced before the machine detects used toner near full when this setting is set to "0", the machine cannot detect toner collection bottle near full. In that case, set SP3-902-017 to "1".				
	Day Thresh:NF	*ENG	[1 to 30 / 10 / 1 day/step]		
012	Sets the threshold days for the near-full display. The near-full of the PCDU toner collection bottle is displayed after the toner collection full sensor has detected the actuator in the PC toner collection bottle.				
013	Total Collected Toner	*ENG	Displays the total amount from the near full detection. [0 to 999999999 / 1 / 1]		
014	Full Detection Date	*ENG	Displays the date of the near full detection for the PCDU toner collection bottle.		

3810	[ITB T-Collection Bttl Full]				
	Condition	*CTL	[0 to 4 / 0 / 1 /step]		
001	Displays the current condition of the ITB toner collection bottle. O: Factory default, 1: Before near full, 2; Near full, 3: Full, 4: Reserved				
002	Detection Times	*CTL	Not used [0 to 50 / - / 1 /step]		
003	Print Page AF Near Full	*CTL	Not used [0 to 2000 / 0 / 1 sheet/step]		
004	Pixel Count AF Near Full	*CTL	Not used [0 to 200000 / - / 1 cm ² /step]		

005	Pixel Count AF Replacement	*CTL	Not used Displays the pixel counter after replacement of toner collection bottle. [0 to 200000 / - / 1 cm²/step]	
000	Coefficient	*ENG	[0.1 to 1 / 1 / 0.1 /step]	
800	Adjusts the toner amount betwe	een near fu	ll and full. (0.1 indicates 10%.)	
011	Alarm Setting	*ENG	Enables or disables the calling for @Remote. [O or 1 / 1 / -] O: Enable @Remote calling 1: Disable @Remote calling	
	NOTE: If the toner collection bottle has been replaced before the machine detects used toner near full when this setting is set to "0", the machine cannot detect toner collection bottle near full. In that case, set SP3-902-017 to "1".			
	Day Thresh:NF	*ENG	[1 to 30 / 10 / 1 day/step]	
012	Sets the threshold days for the near-full display. The near-full of the IT toner collection is displayed after the toner collection full sensor has detected the actuator in the ITB t collection bottle.			
013	Total Collected Toner	*ENG	Displays the total amount from the near full detection. [0 to 999999999 / 1 / 1]	
014	Full Detection Date	*ENG	Displays the date of the near full detection fot the ITB toner collection bottle.	

3901	[New Unit Detection]				
3901	Turns new PCU detection on or off.				
001	ON/OFF Setting	*ENG	[0 or 1 / 1 / -] 0: OFF, 1: ON		

	[Manual New Unit Set]			
3902	Turns the new unit detection flag for each PM unit on or off. The use of these counters is explained in the PM section and in the relevant parts of section 3 (Replacement and Adjustment).			
001	Development Unit: Bk	*ENG		
002	Development Unit: C	*ENG	[0 or 1 / 0 / -]	
003	Development Unit: M	*ENG	0: OFF, 1: ON	
004	Development Unit: Y	*ENG		
005	Developer: Bk	*ENG		
006	Developer: C	*ENG	Not used [0 or 1 / 0 / -]	
007	Developer: M	*ENG	0: OFF, 1: ON	
008	Developer: Y	*ENG		
009	PCU: Bk	*ENG		
010	PCU: C	*ENG	[0 or 1 / 0 / -]	
011	PCU: M	*ENG	0: OFF, 1: ON	
012	PCU: Y	*ENG		
013	ITB Unit	*ENG	[0 or 1 / 0 / -]	
014	Fusing Unit	*ENG	0: OFF, 1: ON	
015	Fusing Pad	*ENG	Do not use 3902-013 if you only change the cleaning unit.	
016	Fusing Belt	*ENG	3902-017: This is for the image transfer belt	
017	ITB Cleaning Unit	*ENG	cleaning unit.	
018	PTR Unit	*ENG	[O 1 / O / 1	
019	PCU Toner Collection Bottle	*ENG	[0 or 1 / 0 / -] 0: OFF, 1: ON	
020	ITB Toner Collection Bottle	*ENG	,	

Main SP Tables-4

SP4-XXX (Scanner)

4008	[Sub Scan Mag. Adjustment]			
	Adjusts the sub-scan magnification by changing the scanner motor speed.			
001	SScan Mag.Adjust	*ENG	[-1.0 to 1.0 / 0 / 0.1%/step] FA	

	[L-Edge Regist Adjustment]			
Adjusts the leading edge registration by changing the scanning start timing in the direction.				
001	LE Regist Adjust	*ENG	[-2.0 to 2.0 / 0 / 0.1 mm/step] FA	

	[S-to-S Regist Adjustment]				
4011	Adjusts the side-to-side registration by changing the scanning start timing in the main scan direction.				
001	StoS Rgst Adjust	*ENG	[-2.5 to 2.5 / 0 / 0.1 mm/step] FA		

	[Scanner Erase Margin: Scale] Scanner: Erase Margin: Scale				
4012	Sets the blank margin at each side for erasing the original shadow caused by the between the original and the scale.				
001	Book: Leading Edge				
002	Book: Trailing Edge	*5.10			
003	Book: Left	*ENG	[0 to 3.0 / 0 / 0.1 mm/step] FA		
004	Book: Right				
005	ADF: Leading Edge				
007	ADF: Left	*ENG	[0 to 3.0 / 0 / 0.1 mm/step] FA		
008	ADF: Right				

	[Scanner Free Run]			
4013	Performs the scanner free run with the exposure lamp on or off in the following mode. Full color mode / Full Size / A3 or DLT			
001	Lamp: OFF	*ENG	[0 or 1 / 0 / -]	
002	Lamp: ON	LING	0: OFF, 1: ON	

4014	[Scan]				
4014	Execute the scanner free fun with each mode.				
001	HP Detection Enable	-	Scanner free run with HP sensor check.		
002	HP Detection Disable	-	Scanner free run without HP sensor check.		

4020	[Dust Check]		
001	Detection: ON/OFF	*ENG	Turns the ADF scan glass dust check on/ off. [0 or 1 / 1 / 1 /step] 0: OFF, 1: ON
002	Dust Detection: Level	*ENG	Selects the detect level. [0 to 8 / 4 / 1 /step] 0: lowest detection level 8: highest detection level
003	Correction Level	*ENG	Selects the level of the sub scan line correction when using the ARDF. [0 to 4 / 0 / 1 / step] 0: Off 1: Weakest 2: Weak 3: Strong 4: Strongest

	[APS Operation Check]				
4301	Displays a code that represents the original size detected by the original sensors. (See "Inpu Check Table".)				
001	APS Operation Check	-	-		

4303	[APS Min Size]		
4303	Specifies the result of the detection when the outputs from the original sensors are all OFF.		
001			[0 to 1 / 0 / 1 /step] 0: No Original
	7 ti o iviini. Gizo		1: A5-Lengthwise (16K SEF if 4305 is set to 3)

4305	[8K/16K Detection]	*ENG	[0 to 3 / 0 / 1 /step] 0: Normal Detection (the machine detects A4/LT size as A4 or LT, depending on the paper size setting) 1: A4-Sideways LT-Lengthwise 2: LT-Sideways A4-Lengthwise 3: 8K 16K
001	This program enables the machine to automatically recognize the 8K/16K size.		

4308	[Scan Size Detection]		
001	Detect: ON/OFF	*ENG	[0 or 1 / 0 / 1 /step] 0: ON, 1: OFF

4309	[Scan Size Detect Setting] DFU		
001	Original Density Thresh	*ENG	[0 to 255 / 32 / 1 digit /step]
002	Detection Time	*ENG	[20 to 100 / 60 / 20 msec /step]
003	Lamp ON:Delay Time	*ENG	[0 to 200 / 40 / 20 msec /step]

	[Scanner Erase Margin]	*ENG		
4400	Set the Mask for Original. These SPs set the area to be masked	ed during platen (book) mode scanning.		
001	Book: Leading Edge			
002	Book: Trailing Edge			
003	Book: Left	[0 to 3.0 / 0 / 0.1 mm/step]		
004	Book: Right			
005	ADF: Leading Edge			
007	ADF: Left			
008	ADF: Right			

4417	[IPU Test Pattern]				
4417	Selects the IPU test pattern.				
001	1 Test Pattern Selection [0 to 24 / 0 / 1/step]				
	0: Scanned image 1: Gradation main scan A 2: Gradation main scan B 3: Gradation main scan C 4: Gradation main scan D 5: Gradation sub scan (1) 6: Grid pattern 7: Slant grid pattern 8: Gradation RGBCMYK 9: UCR pattern 10: Color patch 16 (1) 11: Color patch 64	13: Grid pattern CMYK 14: Color patch CMYK 15: Gray pattern (1) 16: Gray pattern (2) 17: Gray Pattern (3) 18: Shading pattern 19: Thin line pattern 20: Scanned + Grid pattern 21: Scanned + Gray scale 22: Scanned + Color patch 23: Scanned + Slant Grid C 24: Scanned + Slant Grid D			

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001	Сору		
002	Scanner	*ENG	[0 to 3 / 3 / 1 /step]
003	Fax		

4440	[Saturation Adjustment]				
4440	Adjusts the level of saturation for copying.				
			[0 to 5 / 3 / 1 /step]		
			0: High		
			1: Lowest		
001	001 - *E		2: Lower		
			3: Default		
			4: Higher		
			5: Highest		

4450	[Scan Image Path Selection]		
001	Black Subtraction ON/OFF	[0 or 1 / 1 / -] 0: OFF, 1: ON	
001	Uses or does not use the black reduction image path.		
002	SH ON/OFF	0N/OFF [0 or 1 / 0 / 1 /step] 0: ON, 1: OFF	
002	Uses or does not use the shading image path.		

	[Digital AE Set] DFU	[Digital AE Set] DFU					
4460	Specifies the level of deleting the background in the ADS mode. You can adjust its level for each scanning method (platen, ADF).						
001	Lower Limit	*ENG [0 to 1023 / 364 / 4 digit/step]					
002	Background Level	*ENG	[512 to 1532 / 932 / 1 digit/step]				

4501	[ACC Target Density]	
4501	Selects the ACC target.	

001	Copy: Bk: Text	*ENG	
002	Copy: C: Text	*ENG	
003	Copy: M: Text	*ENG	
004	Copy: Y: Text	*ENG	[0 to 10 / 5 / 1 /step]
005	Copy: Bk: Photo	*ENG	10: Darkest density
006	Copy: C: Photo	*ENG	
007	Copy: M: Photo	*ENG	
008	Copy: Y: Photo	*ENG	

4505	[ACC Correction:Bright]							
Adjusts the offset correction for light areas of the ACC pattern.								
001	Master:K	*ENG						
002	Master:C	*ENG	[-128 to 127 / 0 / 1 /step]					
003	Master:M	*ENG	[-12616127 / 0 / 1 / siep]					
004	Master:Y	*ENG						
005	Slave:K	*ENG						
006	Slave:C	*ENG	Reserved					
007	Slave:M	*ENG	reserveu					
008	Slave:Y	*ENG						

4504	[ACC Correction: Dark]							
4500	s of the ACC pattern.							
001	Master:K	*ENG						
002	Master:C	*ENG	[100 + 107 / 0 / 1 / + - 1					
003	Master:M	*ENG	[-128 to 127 / 0 / 1 /step]					
004	Master:Y	*ENG						

005	Slave:K	*ENG	
006	Slave:C	*ENG	Pasawad
007	Slave:M	*ENG	Reserved
008	Slave:Y	*ENG	

4550	[Scanner Appl.:Text/Chart]				
4551	[Scanner Appl.: Text]				
4552	[Scanner Appl.:Txt Dropout]				
4553	[Scanner Appl.:Text/Photo]				
4554	[Scanner Appl.: Photo]				
4565	[Scanner Appl.: GrayScale]				
4570	[Scan Appl.: Color: Text-Photo]				
4571	[Scan Appl.: Color: Glossy Photo]				
4572	[Scan Appl.: Color: AutoColor]				
-005	MTF: 0 (Off), 1-15 (Strong)				
-003	Sets the MTF level (Modulation Transfer Function) designed to improve image contrast. Set higher for stronger effect, lower for weaker effect.				
007	Smoothing: 0 (x1), 1-7 (Strong)	*ENG	[0 to 7 /	4 / 1 /step]	
-006	Use to remove "jaggies" if they appear. S	et higher for	smoother ir	nages.	
007	Brightness: 1–255 *ENG [1 to 255 / 128 / 1 /step]				
-007	Set higher for darker, set lower for lighter				
-008	Contrast: 1-255				
-006	Set higher for more contrast, set lower for less contrast.				
	I-Dot Erase :0 (x1) 1-7 (Strong)		*ENG	[0 to 7 / 0 / 1 /step]	
-009	Sets the erasure level of Irregular Dots. Set higher for stronger effect, lower for weaker effect. O: Not activated				

4580	[FAX Appl.: Text/Chart]					
4582	[FAX Appl.: Text/Photo]					
4583	[FAX Appl.: Photo]					
-005	MTF: 0 (Off), 1-15 (Strong)		[0 to 15 / 8 / 1 /step] 0: MTF Off			
	Sets the MTF level (Modulation Transfer Function) designed to improve image contrast. Set higher for stronger effect, lower for weaker effect.					
006	Smoothing: 0 (x1), 1-7 (Strong) *ENG [0 to 7 / 4 / 1 / step]					
-000	Use to remove "jaggies" if they appear. Set higher for smoother images.					
-007	Brightness: 1–255	*ENG	[1 to 255 / 128 / 1 /step]			
-007	Set higher for darker, set lower for lighter.					
-008	Contrast: 1–255	*ENG	[1 to 255 / 128 / 1 /step]			
-006	Set higher for more contrast, set lower for less contrast.					
	I-Dot Erase:0 (x1), 1-7 (Strong)	*ENG	[0 to 7 / 0 / 1 /step]			
-009	Selects the contrast level for B/W the Text mode. Sets the erasure level of Irregular Dots. Set higher for stronger effect, lower for weaker effect. O: Not activated					
	Texture Erase:0 (Fix), 1-2	*ENG	[0 to 2 / 0 / 1 /step]			
Sets the erasure level of textures. Set higher for stronger effect, lower for weaker SP (suffix "-010") only exists in SP4580, 4582 and 4583. O: Not activated						

4581	[FAX Appl.: Text]					
4584	[FAX Appl.: Original 1]					
4585	[FAX Appl.: Original 2]					
-005	MTF: 0 (Off), 1-15 (Strong) *ENG [0 to 15 / 8 / 1 / step] 0: MTF Off					
003	Sets the MTF level (Modulation Transfer Function) designed to improve image contrast. Set higher for stronger effect, lower for weaker effect.					

-006	Smoothing: 0 (x1), 1-7 (Strong	*ENG	[0 to	7 / 4 / 1 /step]			
-000	Use to remove "jaggies" if they appear. Set higher for smoother images.						
-007	Brightness: 1–255	*ENG	[1 t	to 255 / 128 / 1 /step]			
-007	Set higher for darker, set lower for lighter.						
-008	Contrast: 1–255	*ENG	[1 t	o 255 /	55 / 128 / 1 /step]		
-006	Set higher for more contrast, set lower for less contrast.						
	I-Dot Erase:0 (x1), 1-7 (Strong)				ENG	[0 to 7 / 0 / 1 /step]	
-009	Selects the contrast level for B/W the Text mode. Sets the erasure level of Irregular Dots. Se higher for stronger effect, lower for weaker effect. O: Not activated						

4647	[Scanner Hard Error]			
4047	Displays the result of the SBU connection check.			
001	Power-ON	-	[0 to 65535 / 0 / 1 /step] 0: OK, Other: SBU connection check failure If the SBU connection check fails, SC144 occurs.	

	[DF: Density Adjustment]		
4688	Adjusts the white shading parameter when scanning an image with the ARDF.		
	Adjusts the density level if the ID of outputs made in the DF and Platen mode is different.		
001	-	*ENG	[50 to 150 / 107 / 1%/ step]

4802	[DF Shading FreeRun]		
00	Lamp OFF		Executes the scanner free run of shading movement
		_	with exposure lamp on or off.
002	Lamp ON		Press "OFF" to stop this free run. Otherwise, the free run lasts.

4804	[Home Position Opetation]		
001	-	-	Executes the scanner HP detection.

4806	[Carriage Move]		
			Moves the carriage from the scanner home position.
001	-	-	Dust may fall through the DF exposure glass. Therefore, do this SP when you transport the machine a long distance.

4807	[SBU Test Pattern Change]			
	-	-	[0 to 255 / 0 / 1 /step]	
	Selects the SBU test pattern.			
	0: Normal output			
001	1: Fixed value output			
	2: Main scan gradation			
	3: Sub scan gradation			
	4: Grid pattern			

	[ACC Data Display]			
4902	This SP outputs the final data read at the end of ACC execution.			
4752	A zero is returned if there was an error reading the data.			
[0 to 255 / 0 / 1 /step]				
001	R DATA1	*ENG	Photo C Patch Level 1 (8-bit)	
002	G DATA1	*ENG	Photo M Patch Level 1 (8-bit)	
003	B DATA1	*ENG	Photo Y Patch Level 1 (8-bit)	
004	R DATA2	*ENG	Photo C Patch Level 17 (8-bit)	
005	G DATA2	*ENG	Photo M Patch Level 17(8-bit)	
006	B DATA2	*ENG	Photo Y Patch Level 17 (8-bit)	

4904

	1			
			BitO: TAURUS register	
			Bit1: ORION register	
			Bit2: LUPUS register	
	Test1	-	Bit3 to 11: Not used	
001			Bit12: Ri20	
			Bit 13 to 15: Not used	
			0: OK, 1: Error	
	Performs a write and read check of the ASICs on the BCU board and displays the result.			
			BitO: Image path from SBU to TAURUS	
			Bit 1 : Image path from TAURUS to ORION	
			Bit2: Image path from ORION to TAURUS	
			Bit3: Image path from TAURUS to LUPUS	
	Test2	-	Bit4 to 11: Not used	
002			Bit 1 2: Image path from LUPUS to Ri20	
			Bit 1 3: Image path from Ri20 to GAVD	
			Bit14 and 15: Not used	
			0: OK, 1: Error	
	Performs an image path check on the BCU board and displays the result.			

4918	[Man Gamma Adj]		
009	-	-	Adjusts the manual gamma for Copy/Photo or Copy/Text with the soft keys on the operation panel.

4993	[High Light Correction]		
001	Sensitivity Selection	*ENG	Selects the Highlight correction level. [0 to 9 / 4 / 1 /step] 0: weakest sensitivity 9: strongest sensitivity

002	Range Selection	*ENG	Selects the range level of Highlight correction. [0 to 9 / 4 / 1 / step] 0: weakest skew correction, 9: strongest skew correction
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4994	[Text/Photo Detection Level Adj.]			
	Selects the definition level between Text and Photo for high compression PDF.			
001	High Compression PDF	*ENG	[0 to 2 / 1 / 1 /step] 0: Text priority 1: Normal 2: Photo priority	

	[White Paper Detect Level]				
Selects the threshold level of the original background density. Increasing this t machine easily judge that an original is white.					
001	-	*ENG	[0 to 6 / 3 / 1 /step] 0: lightest 6: Darkest		

SP5-XXX (Mode)

Main SP Tables-5

5024	[mm/inch Display Selection]			
3024	Display units (mm or inch) for a	aper sizes.		
001	0:mm 1:inch	*CTL	0: mm (Europe/Asia) 1: inch (USA)	

	[Accounting Counter]		
5045	Selects the counting method. NOTE: The counting method can be changed only once, regardless of whether the counter value is negative or positive.		
00	Counter Method	*CTL	[0 or 1 / 0 / -] 0: Developments 1: Prints

	5047	[Paper Display]		
3047		Turns on or off the printed paper display on the LCD.		
	001	Backing Paper	*CTL	[0 or 1 / 0 / -] 0: OFF, 1: ON

5051	[Toner Refill Detection Display]			
3031	Enables or disables the toner refill detection display.			
			[0 or 1 / 0 / -] Alphanumeric	
50511	-	*CTL	0: ON	
			1: OFF	

5055	[Display IP Address]			
5055	Display or does not display the IP address on the LCD.			

5

001 -	*C	JIL	[0 or 1 / 0 / -] 0: OFF 1: ON	
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5056	[Coverage Counter Display]		
3030	Display or does not display the coverage counter on the LCD.		
001	-	*CTL	[0 or 1 / 0 / -] 0: Not display, 1: Display

5061	[Toner Remaining Icon Display Change]		
3001	Display or does not display the remaining toner display icon on the LCD.		
001	-	*CTL	[0 or 1 / 0 / -] 0: Not display, 1: Display

5040	[Parts PM System Setting]					
5062	Display or does not display the PM part yield on the LCD.					
001	PCU:Bk	*CTL				
002	PCU:M	*CTL				
003	PCU:C	*CTL				
004	PCU:Y	*CTL				
005	Dev Unit:Bk	*CTL				
006	Dev Unit:M	*CTL	[0 or 1 / 0 / -]			
007	Dev Unit:C	*CTL	0: Not display, 1: Display			
800	Dev Unit:Y	*CTL				
009	Fusing Unit	*CTL				
010	Fusing Roller	*CTL				
011	Fusing Belt	*CTL				
012	PCU Toner Collection Bottle	*CTL				

5066	[Parts PM Menu Display Setting] Not used		
001	-	^/ 11	[0 or 1 / 0 / -] 0: Not display, 1: Display

	[Parts PM System Setting]					
5067	Selects the service maintenance or user maintenance for each PM parts.					
	If the user service is selected, PM alart is displayed on the LCD.					
001	PCU:Bk	*CTL				
002	PCU:M	*CTL	[0, 0,			
003	PCU:C	*CTL	[0: Service] or [1: User]			
004	PCU:Y	*CTL				
005	Dev Unit:Bk	*CTL				
006	Dev Unit:M	*CTL	[0, 0,			
007	Dev Unit:C	*CTL	[0: Service] or [1: User]			
008	Dev Unit:Y	*CTL				
009	Fusing Unit	*CTL				
010	Fusing Roller	*CTL	[O. Sandar] at [1, 11,]			
011	Fusing Belt	*CTL	[0: Service] or [1: User]			
012	PCU Toner Collection Bottle	*CTL				

5104	[A3/DLT Double Count] SSP				
001	PCU:Bk	*CTL	[0 to 2 / 0 / 1/step] 0: No 1: Yes 2: Yes except By-pass		
	Specifies whether the counter is doubled for A3/DLT. "Yes" counts except from the bypass tray. When "Yes" is selected, A3 and DLT paper are counted twice, that is A4 x2 and LT x2 respectively.				

5113	[Optional Counter Type]		
001	Default Optional Counter Type	*CTL	This program specifies the counter type. O: None, 1: Key card (RK 3, 4) 2: Key card (down), 3: Prepaid card 4: Coin rack, 5: MF key card 8: Key counter + Vendor 9: Bar-code Printer
002	External Optional Counter Type	*CTL	This program specifies the external counter type. 0: None 1: Expansion Device 1 2: Expansion Device 2 3: Expansion Device 3

5114	[Optional Counter I/F]				
001	MF Key Card Extension	*CTL	[0: Not installed/ 1: Installed (scanning accounting)]		
5118	[Disable Copying] *CTL [0: Not disabled/ 1: Disabled]				
001	This program disables copying.				
5120	[Mode Clear Opt. Counter Removal]	*CTL	[0: Yes (removed)/ 1: Standby (installed but not used)/ 2: No (not removed)]		
001	This program updates the information on the optional counter. When you install or remaining an aptional counter, check the settings				

5121	[Counter Up Timing]	*CTL	[0: Feed/ 1: Exit]
001	This program specifies when the counter goes up. The settings refer to "paper feed" of "paper exit" respectively.		er goes up. The settings refer to "paper feed" and

an optional counter, check the settings.

5126	[F Size Original Setting]	*ENG	[0 to 2 / 0 / 1 /step] 0: 8 1/2" x 13" (Foolscap) 1: 8 1/4" x 13" (Folio) 2: 8" x 13" (F)
001	Selects F size original setting.		

5127	[APS Mode]	*CTL	[0: Not disabled/ 1: Disabled]
001	This program disables the APS		

	5150	[By-Pass Length Setting]	*CTL	[0: OFF/ 1: ON]
Determines whether the transfer sheet from the by-pass tray is used or not.				pass tray is used or not.
Normally the paper length for sub scanning paper from the by-pass tray is limited to 60 mm, but this can be extended with this SP to 1260 mm.				, , ,

5162	[App. Switch Method]	*CTL	[0: Soft Key Set/ 1: Hard Key Set]	
001	This program specifies the switch that selects an application program.			

	[Fax Printing Mode at Optional Counter Off]				
5167	Enables or disables the automatic print out without an accounting device. This SP is used when the receiving fax is accounted by an external accounting device.				
001	Fax Printing Mode at Optional Counter Off	*CTL	[0 or 1 / 0 / -] 0: Automatic printing 1: No automatic printing		

	[CE Login]				
5169	If you will change the printer bit switches, you must 'log in' to service mode with this you go into the printer SP mode.				
001	-	*CTL	[0 or 1 / 0 / -] 0: Disabled 1: Enabled		

5101	[Size Adjust]					
5181	Adjusts the paper size for each tray.					
001	Tray 1:1	*ENG	[0 to 1 / 0 (EU/ASIA), 1 (NA) / 1 /step] 0: A4 LEF, 1: LT LEF			
002	Tray 1: 2	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A3, 1: DLT			
003	Tray 1: 3	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B4, 1: LG			
004	Tray 1: 4	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B5 LEF, 1: Exe LEF			
005	Tray 2: 1	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A4 LEF, 1: LT LEF			
006	Tray 2: 2	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A3, 1: DLT			
007	Tray 2: 3	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B4, 1: LG			
008	Tray 2: 4	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B5 LEF, 1: Exe LEF			
009	Tray 3: 1	*ENG	[O or 1 / O (EU/ASIA), 1 (NA) / -] O: A4 LEF, 1: LT LEF			
010	Tray 3: 2	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A3, 1: DLT			
011	Tray 3: 3	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B4, 1: LG			
012	Tray 3: 4	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B5 LEF, 1: Exe LEF			
013	Tray 4: 1	*ENG	[0 to 2 / 0 (EU/ASIA), 1 (NA) / -] 0: A4LEF, 1: LTLEF			

014	Tray 4: 2	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A3, 1: DLT
015	Tray 4: 3	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B4, 1: LG
016	Tray 4: 4	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B5 LEF, 1: Exe LEF

5186	[RK 4 Disconnect Operation]				
	Enables or disables the prevention for RK4 (accounting device) disconnection.				
	If the RK4 is disconnected for 10 seconds when this SP is set to "1 (Enable)", the ma- automatically jams a sheet of paper and stops.				
	[0 or 1 / 0 / 1/step]		[0 or 1 / 0 / 1/step]		
001	-	*ENG	0: Disable		
			1: Enable		

5188	[Copy NV Version]			
3100	Displays the version number of the NVRAM on the controller board.			
001	-	*CTL	-	

5196	[90 degree rotation (copy)]	
001	-	Not used

5212	[Page Numbering]	*CTL		
	This program adjusts the position of the second side page numbers.			
	A "- value" moves the page number positions to the left edge.			
	A "+ value" moves the page number positions to the right edge.			
003	J 7		[-10 to 10 / 0 / 1 mm/step]	
004	Duplex Printout High/Low Po	osition	[-10 to 10 / 0 / 1 mm/ step]	

	[Set Time]				
	Adjusts the RTC (real time clock) time setting for the local time zone.				
	Examples: For Japan (+9 GMT), enter 540 (9 hours x 60 min.)				
	DOM: +540 (Tokyo)				
5302	02 NA: -300 (New York) EU: + 60 (Paris) CH: +480 (Peking) TW: +480 (Taipei)				
	AS: +480 (Hong Kong)				
002	Time Difference	*CTL#	[-1440 to 1440 / Area / 1 min./step]		

5307	[Summer Time]		
001	Setting	[0 to 1 / NA, EU, ASIA / 1 /step] 0: Disabled 1: Enabled NA and EUR: 1, ASIA: 0	
	Enables or disables the summer time mode. 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". 		

	Rule Set (Start)	-			
	Specifies the start setting for the summer time mode.				
	There are 8 digits in this SP. For months 1 to 9, the "0" cannot be input in the first digit, so the eight-digit setting for -2 or -3 becomes a seven-digit setting.				
	1st and 2nd digits: The month. [1 to 12]				
	3rd digit: The week of the mon	th. [1 to 5]			
003	4th digit: The day of the week.	[0 to 6 = S]	unday to Saturday]		
003	5th and 6th digits: The hour. [C	00 to 23]			
	7th digit: The length of the adv	anced time	. [0 to 9 / 1 hour /step]		
	8th digit: The length of the adv	anced time	. [0 to 5 / 10 minutes /step]		
	For example: 3500010 (EU default)				
	The timer is advanced by 1 hour at am 0:00 on the 5th Sunday in March				
	The digits are counted from the left.				
	Make sure that SP5-307-1 is set to "1".				
	Rule Set (End)	-	-		
	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]			
004	3rd digit: The week of the month. [0 to 5]				
004	4th digit: The day of the week.	[0 to 7 = S]	unday to Saturday]		
	5th and 6th digits: The hour. [C	00 to 23]			
	The 7th and 8 digits must be se	et to "00".			
	The digits are counted fro	m the left.			
	Make sure that SP5-307-	1 is set to "	1".		

5404	[User Code Counter Clear]		
001	-	*CTL	Clears all counters for users.

5411	[LDAP Certification]		
004	Easy Certification	*CTL	Determines whether easy LDAP certification is done. [0 to 1 / 1 / 1] 1: On, 0: Off

005 Password Null Not Permit *CTL	This SP is referenced only when SP5411-4 is set to "1" (On). [0 to 1 / 0 / 1] 0: Password NULL not permitted. 1: Password NULL permitted.
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5413	[Lockout Setting]		
001	Lockout On/Off	*CTL	Switches on/off the lock on the local address book account. [0 to 1 / 0 / 1] 0: Off, 1: On
002	Lockout Threshold	*CTL	Sets a limit on the frequency of lockouts for account lockouts. [1 to 10 / 5 / 1]
003	Cancellation On/Off	*CTL	Determines whether the system waits the prescribed time for input of a correct user ID and password after an account lockout has occurred. [0 to 1 / 0 / 1] 0: Off (no wait time, lockout not cancelled) 1: On (system waits, cancels lockout if correct user ID and password are entered.
004	Cancellation Time	*CTL	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). [1 to 999 / 60 / 1 min.]
005	Counter Clear Time	*CTL	Not Used

5414	[Access Mitigation]
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001	Mitigation On/Off	*CTL	Switches on/off masking of continuously used IDs and passwords that are identical. [0 to 1 / 0 / 1] 0: Off 1: On
002	Mitigation Time	*CTL	Sets the length of time for excluding continuous access for identical user IDs and passwords. [0 to 60 / 15 / 1 min.]

5415	[Password Attack]		
001	Permissible Number	*CTL	Sets the number of attempts to attack the system with random passwords to gain illegal access to the system. [0 to 100 / 30 / 1 attempt]
002	Detect Time	*CTL	Sets the time limit to stop a password attack once such an attack has been detected. [1 to 10 / 5 / 1 sec.]

5416	[Access Information]		
001	Access User Max Num	*CTL	Limits the number of users used by the access exclusion and password attack detection functions. [50 to 200 / 200 / 1 users]
002	Access Password Max Num	*CTL	Limits the number of passwords used by the access exclusion and password attack detection functions. [50 to 200 / 200 / 1 passwords]
003	Monitor Interval	*CTL	Sets the processing time interval for referencing user ID and password information. [1 to 10 / 3 / 1 sec.]

5417	[Access Attack]
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001	Access Permissible Number	*CTL	Sets a limit on access attempts when an excessive number of attempts are detected for MFP features. [0 to 500 / 100 / 1]
002	Attack Detect Time	*CTL	Sets the length of time for monitoring the frequency of access to MFP features. [10 to 30 / 10 / 1 sec.]
003	Productivity Fall Wait	*CTL	Sets the wait time to slow down the speed of certification when an excessive number of access attempts have been detected. [0 to 9 / 3 / 1 sec.]
004	Attack Max Num	*CTL	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. [50 to 200 / 200 / 1 attempt]

	[User Authentication]		
5420	These settings should be done with the System Administrator. Note: These functions are enabled only after the user access feature has been enabled.		
001	Сору	*CTL	Determines whether certification is required before a user can use the copy applications. [0 to 1 / 0 / 1] 0: On, 1: Off

	Color Security Setting	*CTL	-		
	Enables or disables the color copy limitation for each copy mode when the user authentication is "ON".				
002	O: Enable (default), 1: Disable BitO: B/W mode				
002	Bit1: Mono color mode				
	Bit2: Two colors mode				
	Bit3: Full color mode				
	Bit4: Automatic color mode				
	Bit5 to 7: Reserved				
			Determines whether certification is required before a user can use the document server.		
011	Document Server	*CTL	[0 to 1 / 0 / 1]		
			0: On, 1: Off		
021	Fax	*CTL	Determines whether certification is required before a user can use the fax application. [0 to 1 / 0 / 1] 0: On, 1: Off		
031	Scanner	*CTL	Determines whether certification is required before a user can use the scan applications. [0 to 1 / 0 / 1] 0: On, 1: Off		
041	Printer	*CTL	Determines whether certification is required before a user can use the printer applications. [0 to 1 / 0 / 1] 0: On, 1: Off		
051	SDK1		[0 or 1 / 0 / 1] 0: ON. 1: OFF		
061	SDK2	*CTL	Determines whether certification is required		
071	SDK3		before a user can use the SDK application.		

5.401	[Authentication Error Code]			
5481	These SP codes determine how the authentication failures are displayed.			
001	System Log Disp	*CTL	Determines whether an error code appears in the system log after a user authentication failure occurs. [0 to 1 / 0 / 1] 0: Off, 1: On	
002	Panel Disp	*CTL	Determines whether an error code appears on the operation panel after a user authentication failure occurs. [0 to 1 / 1 / 1] 1: On, 0: Off	

5490	[MF Key Card (Japan only)]		
001	Job Permit Setting	*CTL	Sets up operation of the machine with a keycard. [0 to 1 / 0 / 1] 0: Disabled. Cancels operation without a user code. 1: Enabled. Allows operation without a user code.
002	Count Mode Setting	*CTL	-

5501	[PM Alarm]		
001	PM Alarm Level	*CTL	[0 to 9999 / 0 / 1 / step] 0: Alarm off 1 to 9999: Alarm goes off when Value (1 to 9999) x 1000 > PM counter
002	Original Count Alarm	*CTL	[0 or 1 / 1 / -] 0: No alarm sounds 1: Alarm sounds after the number of originals passing through the ARDF > 10,000

5504	[Jam Alarm]	*CTL	-
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Sets the alarm to sound for the specified jam level (document misfeeds are not included).

[0 to 3 / 3 / 1 /step]

0: Zero (Off)

1: Low (2.5K jams)

2: Medium (3K jams)

3: High (6K jams)

	[Error Alarm]		
Sets the error alarm level.			
5505	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 (for example, default 1500 sheets). The error alarm occurs when the SC error alarm counter reaches "5".		
001	-	*CTL	[0 to 255 / 20 / 100 copies /step]

5507	[Supply Alarm]	*CTL	-		
3307	Enables or disables the notifying a supply call via the @Remote.				
001	Paper Supply Alarm	0: Off, 1: On			
002	Staple Supply Alarm	0: Off, 1: On			
003	Toner Supply Alarm	0: Off, 1: On			
080	Toner Call Timing	Changes the timing of the "Toner Supply Call" via the @Remote, when the following conditions occur. O: At replacement 1: At near end			

128	Interval :Others	
132	Interval :A3	
133	Interval :A4	
134	Interval :A5	
141	Interval :B4	[250 to 10000 / 1000 / 1 /step]
142	Interval :B5	[230 to 10000 / 1000 / 1 / step]
160	Interval :DLT	
164	Interval :LG	
166	Interval :LT	
172	Interval :HLT	

5508*	[CC Call]	*CTL	-		
001*	Jam Remains	0: Disable,	1: Enable		
001	Enables/disables initiating a co	all for an una	tended paper jam.		
002*	Continuous Jams	0: Disable,	1: Enable		
002	Enables/disables initiating a co	all for consec	utive paper jams.		
003*	Continuous Door Open		0: Disable, 1: Enable		
003	Enables/disables initiating a call when the front door remains open.				
011*	Jam Detection: Time Length		[3 to 30 / 10 / 1 minute /step]		
011	Sets the time a jam must remain before it becomes an "unattended paper jam".				
010*	Jam Detection: Continuous Cou	ınt	[2 to 10 / 5 / 1 /step]		
012	O12* Sets the number of consecutive paper jams required to initiate a call.				
013*	Door Open: Time Length		[3 to 30 / 10 / 1 /step]		
013	Sets the length of time the door remains open before the machine initiates a call.				

	[SC/Alarm Setting] 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			
001	SC Call		
002	Service Parts Near End Call	[0 or 1 / 1 / -]	
003	Service Parts End Call	0: Off 1: On	
004	User Call		
006	Communication Test Call		
007	Machine Information Notice		
008	Alarm Notice	[0 or 1 / 1 / -]	
009	Non Genuin Tonner Alarm	O: Off	
010	Supply Automatic Ordering Call	1: On	
011	Supply Manegement Report Call		
012	Jam/Door Open Call		

5610	[Base Gamma Cntl P: Command]		
004	Recall Factory Setting	-	
Recalls the factory settings of the base gamma control points.		na control points.	
005	Restore Factory Setting	-	
003	Overwrites the current values onto the factory settings of the base gamma control points.		
006	Restore Prev. Setting	-	
000	Recalls the previous settings of the base gan	nma control points.	

5611	[Toner Color in 2C]		
001	B-C	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density
	Adjusts the Cyan correction value of the blue signal in two-color mode.		

002	В-М	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density	
	Adjusts the Magenta corre	ction value	e of the blue signal in two-color mode.	
003	G-C	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density	
	Adjusts the Cyan correction	n value of	the blue signal in two-color mode.	
004	G-Y	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density	
	Adjusts the Yellow correction value of the blue signal in two-color mode.			
005	R-M	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density	
	Adjusts the Magenta correction value of the blue signal in two-color mode.			
006	R-Y	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density	
	Adjusts the Yellow correction value of the blue signal in two-color mode.			

5618	[Color Mode Display Selection]		
001	-	*CTL	[0 or 1 / 1 / -] 0: ACS, Colour, Black & White, Two Colour, Single colour 1: ACD, Full Colour, Black & White
	Selects the color selection display on the LCD.		



- Memory Clear (SP5-801)
- The following tables list the items that are cleared. The serial number information, meter charge setting and meter charge counters (SP8-581, 582, 583, 584, and 586) are not cleared.

5801	[Memory Clear]	
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Resets all correction data for process control and all software counters, and returns all modes and adjustments to their default values. OD2 Engine [ENG] Clears the engine settings. OD3 SCS Initializes default system settings, SCS (System Control Service) settings, operation display coordinates, and ROM update information. OD4 IMH Memory Clr Initializes the IMH settings. OD5 MCS Initializes the Mcs settings. OD6 Copier application Initializes the fax reset time, job login ID, all TX/RX settings, local storage file numbers, and off-hook timer. The following service settings: • Bit switches • Gamma settings (User & Service) • Toner Limit The following user setting of Energy Saver • I/F Setup (I/O Buffer and I/O Timeout) • PCL Menu OD9 Scanner application OI1 Web Service Deletes the network file application management files and thumbnails, and initializes the job login ID. All setting of Network Setup (User Menu) (NCS: Network Control Service) Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.			
Initializes default system settings, SCS (System Control Service) settings, operation display coordinates, and ROM update information. Initializes the IMH settings. Initializes the Mcs settings. Ooc Copier application Initializes all copier application settings. Initializes the fax reset time, job login ID, all TX/RX settings, local storage file numbers, and off-hook timer. The following service settings: Bit switches Gamma settings (User & Service) Toner Limit The following user settings: Tray Priority Menu Protect System Setting except for setting of Energy Saver I/F Setup (I/O Buffer and I/O Timeout) PCL Menu Oog Scanner application Web Service Deletes the network file application management files and thumbnails, and initializes the job login ID. All setting of Network Setup (User Menu) (NCS: Network Control Service) Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.	001	All Clear	software counters, and returns all modes and adjustments to
Service) settings, operation display coordinates, and ROM update information. OVA IMH Memory Clr Initializes the IMH settings. OVA Copier application Initializes the Mcs settings. OVA Copier application Initializes all copier application settings. OVA Fax application Initializes the fax reset time, job login ID, all TX/RX settings, local storage file numbers, and off-hook timer. The following service settings: • Bit switches • Gamma settings (User & Service) • Toner Limit The following user settings: • Tray Priority • Menu Protect • System Setting except for setting of Energy Saver • I/F Setup (I/O Buffer and I/O Timeout) • PCL Menu OVA Scanner application Initializes the scanner defaults for the scanner and all the scanner SP modes. OLIO Web Service Deletes the network file application management files and thumbnails, and initializes the job login ID. All setting of Network Setup (User Menu) (NCS: Network Control Service) Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.	002	Engine [ENG]	Clears the engine settings.
O05 MCS	003	scs	Service) settings, operation display coordinates, and ROM
O06 Copier application Initializes all copier application settings.	004	IMH Memory Clr	Initializes the IMH settings.
Initializes the fax reset time, job login ID, all TX/RX settings, local storage file numbers, and off-hook timer. The following service settings: Bit switches Gamma settings (User & Service) Toner Limit The following user settings: Tray Priority Menu Protect System Setting except for setting of Energy Saver I/F Setup (I/O Buffer and I/O Timeout) PCL Menu Scanner application Initializes the scanner defaults for the scanner and all the scanner SP modes. Deletes the network file application management files and thumbnails, and initializes the job login ID. All setting of Network Setup (User Menu) (NCS: Network Control Service) Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.	005	MCS	Initializes the Mcs settings.
local storage file numbers, and off-hook timer. The following service settings: Bit switches Gamma settings (User & Service) Toner Limit The following user settings: The following user settings: The following user settings: Tray Priority Menu Protect System Setting except for setting of Energy Saver I/F Setup (I/O Buffer and I/O Timeout) PCL Menu Initializes the scanner defaults for the scanner and all the scanner SP modes. Deletes the network file application management files and thumbnails, and initializes the job login ID. All setting of Network Setup (User Menu) (NCS: Network Control Service) Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.	006	Copier application	Initializes all copier application settings.
Printer application Printer and I/O Timeout) 007	Fax application	, , ,	
one Scanner application scanner SP modes. Deletes the network file application management files and thumbnails, and initializes the job login ID. All setting of Network Setup (User Menu) (NCS: Network Control Service) Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.	008	Printer application	 Bit switches Gamma settings (User & Service) Toner Limit The following user settings: Tray Priority Menu Protect System Setting except for setting of Energy Saver I/F Setup (I/O Buffer and I/O Timeout)
thumbnails, and initializes the job login ID. All setting of Network Setup (User Menu) (NCS: Network Control Service) Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.	009	Scanner application	
011 NCS (NCS: Network Control Service) Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.	010	Web Service	
O12 R-FAX Admin, job history, and local storage file numbers.	011	NCS	
O14 Clear DCS Setting Initializes the DCS (Delivery Control Service) settings.	012	R-FAX	
	014	Clear DCS Setting	Initializes the DCS (Delivery Control Service) settings.

015	Clear UCS Setting	Initializes the UCS (User Information Control Service) settings.
016	MIRS Setting	Initializes the MIRS (Machine Information Report Service) settings.
017	CCS	Initializes the CCS (Certification and Charge-control Service) settings.
018	SRM Memory Clr	Initializes the SRM (System Resource Manager) settings.
019	LCS	Initializes the LCS settings.
020	Web Uapli	Initializes the web user application settings.
021	ECS	Initializes the ECS settings.

5803	[Input Check]	See "Input Check Table" in this section.
5804	[Output Check]	See "Output Check Table" in this section.

5806	[RFID CONT.READING]			
001	TIMES	-	Displays the read times of RFID.	
002	NOT 0	-		
003	RET.	-		
004	EXE.ALL			
005	EXE.K			
006	EXE.M			
007	EXE.C			
008	EXE.Y			

[SC Reset] Resets a type A service call condition. Note Turn the main switch off and on after resetting the SC code. O01 Fusing SC Reset - -

5811	[Machine Serial] Machine Serial Number Display		
002	Display	*ENG	Displays the machine serial number.
004	-	-	Inputs the serial number.

5812	[Service Tel. No. Setting]			
001	Service	*CTL	-	
	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).			
	Facsimile	*CTL	-	
002	Sets the fax or telephone number for a service representative. This number is printed on the Counter List. This can be up to 20 characters (both numbers and alphabetic characters can be input).			
	Supply	*CTL	-	
003	Use this to input the telephone and press #.	e number o	f your supplier for consumables. Enter the number	
004	Operation	*CTL	-	
	Use this to input the telephoner.	e number c	of your sales agency. Enter the number and press	

5816	[Remote Service]	*CTL	-	
	I/F Setting			
001	Selects the remote service setting. [0 to 2 / 2 / 1 / step]			
	O: Remote service off			
	1: CSS remote service on			
	2: @Remote service on			

	CE Call
	Performs the CE Call at the start or end of the service.
002	[0 or 1 / 0 / 1 /step]
	0: Start of the service
	1: End of the service
	NOTE: This SP is activated only when SP 5816-001 is set to "2".
	Function Flag
	Enables or disables the remote service function.
003	[0 to 1 / 0 / 1 /step]
	0: Disabled, 1: Enabled
	NOTE: This SP setting is changed to "1" after @Remote registor has been completed.
	SSL Disable
	Uses or does not use the RCG certification by SSL when calling the RCG.
007	[0 to 1 / 0 / 1 /step]
	0: Uses the RCG certification
	1: Does no use the RCG certification
	RCG Connect Timeout
008	Specifies the connect timeout interval when calling the RCG.
	[1 to 90 / 10 / 1 second /step]
	RCG Write Timeout
009	Specifies the write timeout interval when calling the RCG.
	[1 to 100 / 60 / 1 second /step]
	RCG Read Timeout
010	Specifies the read timeout interval when calling the RCG.
	[1 to 100 / 60 / 1 second /step]
	Port 80 Enable
011	Enables/disables access via port 80 to the SOAP method.
OTT	[O or 1 / O / -]
	0: Disabled, 1: Enabled

	RFU (Remote Frimware Update) Timing
010	Selects the RFU timing.
013	[0 or 1 / 1 / –]
	O: RFU is executed whenever update request is received.
	1: RFU is executed only when the machine is in the sleep mode.
	RCG – C Registed
021	This SP displays the Embedded RC Gate installation end flag.
021	O: Installation not completed
	1: Installation completed
	RCG – C Regist Detail
	This SP displays the Embedded RC Gate installation status.
022	0: RCG device not registered
	1: RCG device registered
	2: Device registered
	Connect Type (N/M)
	This SP displays and selects the Embedded RC Gate connection method.
023	[0 or 1 / 0 / 1 /step
	0: Internet connection
	1: Dial-up connection
	Use Proxy
062	This SP setting determines if the proxy server is used when the machine communicates with the service center.
	Proxy Host
063	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.
	↓ Note
	 The address display is limited to 128 characters. Characters beyond the 128 character are ignored.
	• This address is customer information and is not printed in the SMC report.

Proxy Port Number 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. 064 **Note** • This port number is customer information and is not printed in the SMC report. Proxy User Name This SP sets the HTTP proxy certification user name. **Note** 065 • The length of the name is limited to 31 characters. Any character beyond the 31st character is ignored. • This name is customer information and is not printed in the SMC report. Proxy Password This SP sets the HTTP proxy certification password. **Note** 066 • The length of the password is limited to 31 characters. Any character beyond the 31st character is ignored. • This name is customer information and is not printed in the SMC report.

	CERT: Up State			
	Displays the status of the certification update.			
	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.		
067	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, and the certification is being stored.		
	15	The certification has been stored, and the GW URL is being notified of the successful completion of this event.		
	16	The storing of the certification has failed, and the GW URL is being notified of the failure of this event.		
	17	The certification update request has been received from the GW URL, the GW URL was notified of the results of the update after it was completed, but a certification error has been received, and the rescue certification is being recorded.		
	18	The rescue certification of No. 17 has been recorded, and the GW URL is being notified of the failure of the certification update.		

	CERT	: Error			
	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.			
068	2	An SSL error notification has been issued. Issued after the certification has expired.			
	3	Notification of shift from a common authentication to an individual certification.			
	4	Notification of a commo	Notification of a common certification without ID2.		
	5	Notification that no certi	fication was issued.		
	6	Notification that GW UI	RL does not exist.		
069	CERT	: Up ID	The ID of the request for certification.		
083	Firmv	vare Up Status	Displays the status of the firmware update.		
084	Non-HDD Firm Up		This setting determines if the firmware can be updated, even without the HDD installed.		
			0: Not allowed update 1: Allowed update		
085	Firm Up User Check		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.		
086	Firmware Size		Allows the service technician to confirm the size of the firmware data files during the firmware update execution.		
087	CERT: Macro Ver.		Displays the macro version of the @Remote certification.		
088	CERT: PAC Ver.		Displays the PAC version of the @Remote certification.		
089	CERT: ID2 Code		Displays ID2 for the @Remote certification. Spaces are displayed as underscores (_). Asteriskes (*) indicate that no @Remote certification exists. "000000" indicates "Common certification".		

090	CERT: Subject	Displays the common name of the @Remote certification subject. CN = the following 17 bytes. Spaces are displayed as underscores (_). Asterisks (*) indicate that no @Remote certification exists. "000000" indicates "Common certification".		
091	CERT: Serial No. Displays serial number for the @Remote certification. Asterisks (*) indicate that no @Remote certification ex			
092	CERT: Issuer	Displays the common name of the issuer of the @Remote certification. CN = the following 30 bytes. Asteriskes () indicate that no @Remote certification exists.		
093	CERT: Valid Start	Displays the start time of the period for which the current @Remote certification is enabled.		
094	CERT: Valid End Displays the end time of the period for which the current @Remote certification is enabled.			
1.50	Selection Country			
150	Not used			
151	Line Type Automatic Judgment			
131	Not used			
152	Line Type Judgment Result			
132	Not used			
153	Selection Dial/Push			
133	Not used			
154	Outside Line/Outgoing Number			
Not used				
156	Dial Up User Name			
130	• Not used			
1.57	Dial Up Password			
157	• Not used			

1/1	Local Phone Number				
161	Not used				
	Connection Timing Adjustment: Incoming				
162	Not used				
1.40	Access Point				
163	Not used				
144	Line Connecting				
164	Not used				
173	Modem Serial Number	Not use	ed		
174	Retransmission Limit				
1/4	Not used				
107	FAX TX Priority -				
187	Not used				
200	Manual Polling	-	Not used		
	Regist: Status				
	Displays a number that indicates the status of the @Remote service device.				
	0: Neither the @Remote device nor Embedded RCG Gate is set.				
201	1: The Embedded RCG Gate is being set. Only Box registration is completed. In this status, @Remote device cannot communicate with this device.				
	2: The Embedded RCG Gate is set. In this status, the @Remote device cannot communicate with this device.				
	3: The @Remote device is being set. In this status the Embedded RCG Gate cannot be set.				
	4: The @Remote module has	not starte	ed.		
202	Letter Number Allows entry of the request number needed for the Embedded RCG Gate.				
203	Confirm Execute Executes the confirmation request to the @Remote Gateway.				
204	Confirm Result				

	Displays a number that indicates the result of the confirmation executed with SP5816-203.		
	0: Succeeded		
	1: Confirmation number error		
	2: Registration in progress		
	3: Proxy error (proxy enabled	1)	
	4: Proxy error (proxy disabled	4)	
	5: Proxy error (Illegal user na	me or password)	
	6: Communication error		
	7: Certification update error		
	8: Other error		
	9: Confirmation executing		
	Confirm Place Displays the result of the notification sent to the device from the Gateway in answer to the confirmation request. Displayed only when the result is registered at the Gateway.		
205			
206	Register Execute	Executes "Embedded RCG Registration".	
	Register Result		
	Displays a number that indicates the registration result.		
	0: Succeeded		
	2: Registration in progress		
	3: Proxy error (proxy enabled	I)	
207	4: Proxy error (proxy disabled)		
	5: Proxy error (Illegal user name or password)		
	6: Communication error		
	7: Certification update error		
	8: Other error		
	9: Registration executing		
	Error Code		
208	Displays a number that describ or SP5816-207 was executed	pes the error code that was issued when either SP5816-204 d.	

	Cause	Code	Meaning
		-11001	Chat parameter error
	Illegal Modem Parameter	-11002	Chat execution error
		-11003	Unexpected error
		-12002	Inquiry, registration attempted without acquiring device status.
	Operation Error, Incorrect Setting	-12003	Attempted registration without execution of an inquiry and no previous registration.
		-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.
		-12008	Update certification failed because mainframe was in use.
		-2385	Attempted dial up overseas without the correct international prefix for the telephone number.
		-2387	Not supported at the Service Center
	Error Caused by Response	-2389	Database out of service
	from GW URL	-2390	Program out of service
		-2391	Two registrations for same device
		-2392	Parameter error

		-2393	RCG device not managed
		-2394	Device not managed
		-2395	Box ID for RCG device is illegal
		-2396	Device ID for RCG device is illegal
		-2397	Incorrect ID2 format
		-2398	Incorrect request number format
209	Instl Clear	Releases the machine from its Embedded RCG Gate setup. NOTE: Turn off and on the main power switch after this setting has been changed.	
250	CommLog Print	Prints the communication log.	

5821	[Remote Service Address]		
002	RCG IP Address	*CTL	Sets the IP address of the RCG (Remote Communication Gate) destination for call processing at the remote service center.

	[NV-RAM Data Upload]		
5824	Uploads the UP and SP mode data (except for counters and the serial number) from the NVRAM to an SD card. For details, see the "NVRAM Data Upload/Download" in the "System Maintenance Reference" of the Field Service Manual.		
001	-	#	-

	[NV-RAM Data Download]		
5825	Downloads the UP and SP mode data from an SD card to the NVRAM. For details, see the "NVRAM Data Upload/Download" in the "System Maintenance Reference" of the Field Service Manual.		
001	- # -		

050	1284 Compatibility (Centro)	Enables or disables 1284 Compatibility. [O or 1 / 1 / 1 / step] O: Disabled, 1: Enabled
052	ECP (Centro)	Enables or disables ECP Compatibility. [0 or 1 / 1 / 1 / step] 0: Disabled, 1: Enabled • Note • This SP is activated only when SP5-828-50 is set to "1".
065	Job Spooling	Enables/disables Job Spooling. [0 or 1 / 0 / 1 / step] 0: Disabled, 1: Enabled
066	Job Spooling Clear: Start Time	Treatment of the job when a spooled job exists at power on. 0: ON (Data is cleared) 1: OFF (Automatically printed)
069	Job Spooling (Protocol)	Validates or invalidates the job spooling function for each protocol. 0: Validates 1: Invalidates bit0: LPR bit1: FTP bit2: IPP bit3: SMB bit4: BMLinkS bit5: DIPRINT bit6: sftp bit7: (Reserved)
090	TELNET (0: OFF 1: ON)	Enables or disables the Telnet protocol. [0 or 1 / 1 / –] 0: Disable, 1: Enable

091	Web (0: OFF 1: ON)	Enables or disables the Web operation. [0 or 1 / 1 / -]
		0: Disable, 1: Enable
145	Active IPv6 Link Local Address	This is the IPv6 local address link referenced on the Ethernet or wireless LAN (802.11b) in the format: "Link Local Address" + "Prefix Length" The IPv6 address consists of a total 128 bits configured
		in 8 blocks of 16 bits each.
147	Active IPv6 Stateless Address	
149	Active IPv6 Stateless Address 2	These SPs are the IPv6 status addresses (1 to 5) referenced on the Ethernet or wireless LAN (802.11b) in the format:
151	Active IPv6 Stateless Address	"Status Address" + "Prefix Length"
153	Active IPv6 Stateless Address	The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.
155	Active IPv6 Stateless Address	
		This SP is the IPv6 manually set address referenced on the Ethernet or wireless LAN (802.11b) in the format:
156	IPv6 Manual Address	"Manual Set Address" + "Prefix Length"
		The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.
158	IPv6 Gateway Address	This SP is the IPv6 gateway address referenced on the Ethernet or wireless LAN (802.11b). The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.
161	IPv6 Stateless Auto Setting	Enables or disables the automatic setting for IPv6 stateless. [O or 1 / 1 / 1 / step] O: Disable, 1: Enable

Web Item visible	Displays or does not display the Web system items. [0 x 0000 to 0 x ffff / 0 x fffff] 0: Not displayed, 1: Displayed bit0: Net RICOH bit1: Consumable Supplier bit2-15: Reserved (all)
Web shopping link visible	Displays or does not display the link to Net RICOH on the top page and link page of the web system. [0 to 1 / 1 / 1] 0: Not display, 1:Display
Web supplies Link visible	Displays or does not display the link to Consumable Supplier on the top page and link page of the web system. [0 to 1 / 1 / 1] O: Not display, 1:Display
Web Link1 Name	This SP confirms or changes the URL1 name on the link page of the web system. The maximum characters for the URL name are 31 characters.
Web Link1 URL	This SP confirms or changes the link to URL1 on the link page of the web system. The maximum characters for the URL are 127 characters.
Web Link1 visible	Displays or does not display the link to URL1 on the top page of the web system. [0 to 1 / 1 / 1] 0: Not display, 1:Display
Web Link2 Name	Same as "-239"
Web Link2 URL	Same as "-240"
Web Link2 visible	Same as "-241"
	Web shopping link visible Web supplies Link visible Web Link1 Name Web Link1 URL Web Link2 Name Web Link2 URL

5832	[HDD] HDD Initialization	*CTL
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001	HDD Formatting (ALL)	
002	HDD Formatting (IMH)	
003	HDD Formatting (Thumbnail)	
004	HDD Formatting (Job Log)	
005	HDD Formatting (Printer Fonts)	
006	HDD Formatting (User Info)	Initializes the hard disk. Use this SP mode only if there is a hard disk error.
007	Mail RX Data	
008	Mail TX Data	
009	HDD Formatting (Data for a Design)	
010	HDD Formatting (Log)	
011	HDD Formatting (Ridoc I/F)	

5836	[Capture Settings]	*CTL	
	Capture Function (0:Off 1:On)	0: Disable, 1: Enable	
001	With this function disabled, the settings related to the capture feature cannot be initial displayed, or selected.		
002	Panel Setting	0: Displayed, 1: Not displayed	
002	Displays or does not display the capture	function buttons.	
	5836-71 to 5836-76, Copier and Printer Document Reduction		
	The following 6 SP modes set the default reduction for stored documents sent to the		
	document management server via the MLB. Enabled only when optional MLB (Media Link Board) is installed.		
071	Reduction for Copy Color	0: 1to-1, 1: 1/2, 2: 1/3 , 3: 1/4	
072	Reduction for Copy B&W Text	0: 1to-1 , 1: 1/2, 2: 1/3, 3: 1/4	
073	Reduction for Copy B&W Other	0: 1to-1 , 1: 1/2, 2: 1/3, 3: 1/4	
074	Reduction for Printer Color	0: 1to-1, 1: 1/2, 2: 1/3 , 3: 1/4	
075	Reduction for Printer B&W	0: 1to-1 , 1: 1/2, 2: 1/3, 3: 1/4	

076	Reduction for Printer B&W HQ	0: 1to-1 , 1: 1/2, 2: 1/3, 3: 1/4
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5836-81 to 5836-86, Stored document format

The following 6 SP modes set Sets the default format for stored documents sent to the document management server via the MLB.

Enabled only when optional MLB (Media Link Board) is installed.

	Format for Copy Color		0: JFIF/JPEG, 1: TIFF/MMR,		
081					
			Note		
			• This SP is not used in this model. 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR 0: JFIF/JPEG, 1: TIFF/MR 0: JFIF/JPEG, 1: TIFF/MR 2: TIFF/MH, 3: TIFF/MR		
000	5 (0 0000		O: JFIF/JPEG, 1: TIFF/MMR,		
082	Format for Copy B&W Text		2: TIFF/MH, 3: TIFF/MR • This SP is not used in this model. 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR • This SP is not used in this model. 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR • This SP is not used in this model. 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR 0: JFIF/JPEG, 1: TIFF/MMR, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR		
000	- (O: JFIF/JPEG, 1: TIFF/MMR,		
083	Format for Copy B&W Othe	r	2: TIFF/MH, 3: TIFF/MR		
			O: JFIF/JPEG, 1: TIFF/MMR,		
	Format for Printer Color		2: TIFF/MH, 3: TIFF/MR		
084			₩Note		
			This SP is not used in this model.		
005	Format for Printer B&W		O: JFIF/JPEG, 1: TIFF/MMR,		
085			2: TIFF/MH, 3: TIFF/MR		
004	- ,		0: JFIF/JPEG, 1: TIFF/MMR,		
086	Format for Printer B&W HQ		2: TIFF/MH, 3: TIFF/MR		
	Default for JPEG	[5 to 95 / 50 / 1 /step]			
091	Sets the JPEG format default for documents sent to the document management server via				
	the MLB with JPEG selected as the format.				
	Enabled only when optional MLB (Media Link Board) is installed.				
101	Primary srv IP address	Sets the IP address for the primary capture server. This is basically adjusted by the remote system.			
102	Primary srv scheme	This is basically adjusted by the remote system.			
103	Primary srv port number	This is basically adjusted by the remote system.			

104	Primary srv URL path	This is basically adjusted by the remote system.	
111	Secondary srv IP address	Sets the IP address for the secondary capture server. This is basically adjusted by the remote system.	
112	Secondary srv scheme	This is basically adjusted by the remote system.	
113	Secondary srv port number	This is basically adjusted by the remote system.	
114	Secondary srv URL path	This is basically adjusted by the remote system.	
120	Default Reso Rate Switch	This is basically adjusted by the remote system.	
	Reso: Copy (Color)	[0 to 3 / 2 / 1/step]	
121	Selects the resolution for color copy mode. This is basically adjusted by the remote system. 0: 600dpi/ 1: 300dpi/ 2: 150dpi/ 3: 75dpi		
	Reso: Copy (Mono)	[0 to 5 / 3 / 1/step]	
122	Selects the resolution for BW copy mode. This is basically adjusted by the remote system. 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi		
123	Reso: Print (Color)	This is basically adjusted by the remote system. [0 to 3 / 2 / 1/step]	
123	Selects the resolution for color print mode. This is basically adjusted by the remote system. 0: 600dpi/ 1: 300dpi/ 2: 150dpi/ 3: 75dpi		
104	Reso: Print (Mono)	This is basically adjusted by the remote system. [0 to 5 / 3 / 1/step]	
124		/ print mode. This is basically adjusted by the remote system. 800dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi	

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006	Channel MAX	*CTL	[1 to 11 or 13 / 11 or 13 / 1 /step] Europe/Asia: 1 to 13 NA/ Asia: 1 to 11	
	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. • Note • Do not change the setting.			
			[1 to 11 or 13 / 1 / 1 / step]	
	Channel MIN	*CTL	Europe: 1 to 13	
			NA/ Asia: 1 to 11	
007	Sets the minimum 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 minimum end of the range for each area. Adjust the lower 4 bits to set the minimum number of channels. • Note • Do not change the setting.			
			[0 x 00 to 0 x FF / 0 x FF to Auto / -]	
			0 x FF to Auto [Default]	
			0 x 11 – 55M Fix	
			0 x 10 – 48M Fix	
			0 x 0F – 36M Fix	
			0 x 0E – 18M Fix	
			0 x 0D – 12M Fix	
800	Transmission Speed	*CTL	0 x 0B – 9M Fix	
			0 x 0A – 6M Fix	
			0 x 07 – 11M Fix	
			0 x 05 – 5.5M Fix	
			0 x 08 = 1M Fix	
			0 x 13 - 0 x FE (reserved)	
			0 x 12 – 72M (reserved) 0 x 09 – 22M (reserved)	
			O X O / - ZZIVI (I escived)	

011	WEP key Select	*CTL	Selects the WEP key. [00 to 11 / 00 / 1 binary] 00: Key #1 01: Key #2 (Reserved) 10: Key #3 (Reserved) 11: Key #4 (Reserved)
042	Fragment Thresh	*CTL	Adjusts the fragment threshold for the IEEE802.11 card. [256 to 2346 / 2346 / 1] This SP is displayed only when the IEEE802.11 card is installed.
043	11g CTS to Self	*CTL	Determines whether the CTS self function is turned on or off. [0 to 1 / 1 / 1] 0: Off, 1: On This SP is displayed only when the IEEE802.11 card is installed.
044	11g Slot Time	*CTL	Selects the slot time for IEEE802.11. [0 to 1 / 0 / 1] 0: 20 µm, 1: 9 µm
045	WPA Debug Lvl	*CTL	Selects the debug level for WPA authentication application. [1 to 3 / 3 / 1] 1: Info, 2: warning, 3: error This SP is displayed only when the IEEE802.11 card is installed.

5841	[Supply Name Setting]
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001	Toner Name Setting: Black		
002	Toner Name Setting: Cyan		
003	Toner Name Setting: Yellow		
004	Toner Name Setting: Magenta		Specifies supply names. These
007	OrgStamp	*CTL	appear on the screen when the user presses the Inquiry button in the user
011	Staple Std 1		tools screen.
012	Staple Std2		
013	Staple Std3		
014	Staple Std4		

5844	[USB]		
001	Transfer Rate	*CTL	0x01: Full speed 0x04: Auto Change
	Adjusts the USB transfer rate.		
100	Notify Unsupport	*CTL	Displays a message of the unspported USB device for the USB host slot. [O or 1 / 1 / -] O: Not displayed, 1: Displayed

5845	[Delivery Server Setting]	*CTL -		
	Provides items for delivery server settings.			
001	FTP Port No.	0 to 65535 / 3670 /	l /step]	
001	Sets the FTP port number used when image files to the Scan Router Server.			
	IP Address (Primary)	Range: 000.000.000. (000 to 255.255.255	
002	Use this SP to set the Scan Router Server address. The IP address under the transfer tab can be referenced by the initial system setting.			

	Delivery Error Display Time	[0 to 999 / 300 / 1 second /step]				
006	Use this setting to determine the length of time the prompt message is displayed when a test error occurs during document transfer with the NetFile application and an external device.					
	IP Address (Secondary)	Range: 000.000.000.000 to 255.255.255.255				
008	Specifies the IP address assigned to the computer designated to function as the secondary delivery server of Scan Router. This SP allows only the setting of the IP address without reference to the DNS setting.					
	Delivery Server Model	[0 to 4/0/1/step]				
009	Allows changing the model of the delivery server registered by the I/O device. 0: Unknown 1: SG1 Provided					
	2: SG1 Package					
	3: SG2 Provided					
	4: SG2 Package					
	Delivery Svr Capability	[0 to 255 / 0 / 1 /step]				
	Changes the capability of the registered that the I/O device registered.					
	Bit7 = 1 Comment information exits					
	Bit6 = 1 Direct specification of mail a	ddress possible				
010	Bit5 = 1 Mail RX confirmation setting possible					
010	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 Sender exists					
	BitO = 1 Sender specification required (if set to 1, Bit6 is set to "0")					

	Delivery Svr Capability (Ext)	[0 to 255 / 0 / 1 /step]	
	Changes the capability of the registered that the I/O device registered.		
011	Bit7 = 1 Address book usage limitation (Limitation for each authorized user) Bit6 = 1 RDH authorization link Bit5 to 0: Not used		
	Rapid Sending Control		
022	Enables or disables the prevention function for the continuous data sending error. [0 to 1 / 0 / -] 0: Disable, 1: Enable		

5846	[UCS Settings]	*CTL	-			
	Machine ID (For Delivery Ser	ver)			Displays ID	
001	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.					
	Machine ID Clear (For Delive	ry Server)		Clears ID		
002	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. After clearing the ID, the ID will be established again automatically by cycling the machine off and on.			rver is unstable. After clearing the		
	Maximum Entries			[2000 to 20000/ 2000 / 1 /step]		
003	Changes the maximum number of entries that UCS can handle.					
	If a value smaller than the present value is set, the UCS managed data is cleared, and the data (excluding user code information) is displayed.					
	Delivery Server Retry Timer			[0 to 255 / 0 / 1 /step]		
006	Sets the interval for retry attempts when the delivery server fails to acquire the delivery server address book.			ver fails to acquire the delivery		
	Delivery Server Retry Times			[0 to 25	55 / 0 / 1 /step]	
007	Sets the number of retry attempts when the delivery server fails to acquire the delivery server address book.					

	Delivery Server Maximum Entries	[2000 to 50000 / 2000 / 1/step]			
008	Sets the maximum number account entries of the delivery server user information managed by UCS.				
010	LDAP Search Timeout	[1 to 255 / 60 / 1 /step]			
010	Sets the length of the timeout for the search of	the LDAP server.			
020	WSD Maximum Entries				
2.12	Addr Book Migration (SD => HDD)				
040	Not used in this machine.				
	Fill Addr Acl Info.				
	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.				
041	Procedure				
041	1. Turn the machine off.				
	2. Install a new HDD.				
	3. Turn the machine on.				
	4. The address book and its initial data are created on the HDD automatically.				
	5. However, at this point the address book can be accessed by only the system administrator or key operator.				
	6. Enter the SP mode and do SP5846-041. After this SP executes successfully, any user can access the address book.				

		Displays the slot number where an address book data is in.		
		[0 to 30 / - /1]		
		0: Unconfirmed		
043	Addr Book Media	1: SD Slot 1		
		2: SD Slot 2		
		4: USB Flash ROM		
		20: HDD		
		30: Nothing		
047	Initialize Local Addr Book	Clears the local address book information, including the user code.		
048	Initialize Delivery Addr Book	Clears the distribution address book information, except the user code.		
049	Initialize LDAP Addr Book	Clears the LDAP address book information, except the user code.		
050	Initialize All Addr Book	Clears all directory information managed by UCS, including all user codes.		
051	Backup All Addr Book	Uploads all directory information to the SD card.		
052	Restore All Addr Book	Downloads all directory information from the SD card.		
		Deletes the address book data from the SD card in the service slot.		
	Clear Backup Info	Deletes only the files that were uploaded from this machine.		
0.50		This feature does not work if the card is write-protected.		
053		 Note		
		After you do this SP, go out of the SP mode, and then turn the power off.		
		Do not remove the SD card until the Power LED stops flashing.		

	Search Option			
	This SP uses bit switches to set up the fuzzy search options for the UCS local address book.			
	Bit: Meaning			
060	0: Checks both upper/lower case characters			
	1: Japan Only			
	2: Japan Only			
	3: Japan Only			
	4 to 7: Not Used			
	Complexity Option 1			
	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.			
062	[0 to 32 / 0 / 1 /step]			
	U 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. 			
091	FTP Auth Port Setting	Specifies the FTP port for getting a distribution server address book that is used in the identification mode.		
	J	[0 to 65535 / 3671 / 1 /step]		
094	Encryption Stat	Shows the status of the encryption function for the address book data.		

	[Rep Resolution Reduction]	*CTL	-		
	SP5847-1 through SP5847-8 changes the default settings of image data transferred externally by the Net File page reference function.				
5847	[0 to 5 / 2 / 1 /step]				
	SP5847-21 sets the default for JPEG image quality of image files handled by NetFile.				
	"Net files" are jobs to be printed from the document server using a PC and the DeskTopBinder software.				

001	Rate for Copy Color	0: 1x	
002	Rate for Copy B&W Text	1: 1/2x	
003	Rate for Copy B&W Other	2: 1/3x 3: 1/4x 4: 1/6x	
004	Rate for Printer Color	4: 1/6x	
005	Rate for Printer B&W	5: 1/8x	
	Network Quality Default for JPEG		
021	Sets the default value for the quality of JPEG images sent as NetFile pages. This function is available only with the MLB (Media Link Board) option installed. [5 to 95 / 50 / 1 /step]		

	[Web Service]	*CTL	-	
5848	SP5848-2 sets the 4-bit switch assignment for the access control setting. Setting of 000 has no effect on access and delivery from Scan Router. 5848 100 sets the maximum size allowed for downloaded images. The default is equal to 1 minutes.			
	to 1 gigabyte.			
002	Access Ctrl: Repository (only Lower 4 bits)	0001: D	lo access control enies access to DeskTop Binder. lo writing control	
003	Access Ctrl: Doc. Svr. Print (Lower 4 bits)			
004	Access Ctrl: user Directory (only Lower 4 bits)	-		
007	Access Ctrl: Comm. Log Fax (Lower 4 bits)	Switches	access control on and off.	
009	Access Ctrl: Job Ctrl (Lower 4 bits)	0001: Denies access to DeskTop Binder.		
011	Access Ctrl: Device management (Lower 4 bits)			
021	Access Ctrl: Delivery (Lower 4 bits)			
022	Access Ctrl: uadministration (Lower 4bits)			

5849	[Installation Date]	*CTL	-	
5849 1	Display	The "Counter Clear Day" has been changed to "Installation Date" or "Inst. Date".		
	Switch to Print	Determines whether the installation date is printed on the printout for the total counter.		
5849 2		[0 or 1 / 1 / -]		
		0: OFF (No Print)		
		1: ON (Pr	int)	
003	Total Counter	-		

Bluetooth Mode]
Sets the operation mode for the Bluetooth Unit. Press either key. O:Public] [1: Private]
Se

5853	[Stamp Data Download]
	Use this SP to download the fixed stamp data stored in the firmware of the ROM and copy it to the HDD. This SP can be executed as many times as required. This SP must be executed after replacing or formatting the hard disks.
	♣ Note
	This SP can be executed only with the hard disks installed.

	[Remote ROM Update]			
5856	Allows the technician to upgrade the firmware using a local port (IEEE1284) when updating the remote ROM.			
			[0 to 1 / 0 / 1/step]	
002	Local Port	*CTL	0: Disable	
			1: Enable	

5857	[Save Debug Log]	*CTL	-		
	On/Off (1:ON 0:OFF)				
001	Switches the debug log feature on and off. The debug log cannot be captured until this feature is switched on.				
	Target (2: HDD 3: SD)	2: HDD, 3: SD Card			
002	Selects the storage device to save debug logs information when the conditions set with SP5-858 are satisfied. [2 to 3 / 2 / 1 / step]				
	Save to HDD				
005	Saves the debug log of the input SC number in memory to the HDD. A unique file name is generated to avoid overwriting existing file names on the SD Co Up to 4MB can be copied to an SD Card. 4 MB segments can be copied one by one each SD Card.				
006	Save to SD Card				
	Saves the debug log of the input SC number in memory to the SD card.				
009	Copy HDD to SD Card (Latest 4	MB)			
010	Copy HDD to SD Card (Latest 4	MB Any K	ey)		
011	Erase HDD Debug Data				
012	Erase SD Card Debug Data				
013	Free Space on SD Card				
014	Copy SD to SD (Latest 4 MB)				
015	Copy SD to SD (Latest 4 MB Any Key)				
016	Make HDD Debug				
017	Make SD Debug				

	[Debug Save When] *CTL -			
5858	selected by SP5857-002.		ng information to be saved to the destination er. Refer to Section 4 for a list of SC error codes.	

001	Engine SC Error	Turns on/off the debug save for SC codes generated by copier engine errors. [0 or 1 / 0 / 1 / step] 0: OFF, 1: ON
002	Controller SC Error	Turns on/off the debug save for SC codes generated by GW controller errors. [0 or 1 / 0 / 1 / step] 0: OFF, 1: ON
003	Any SC Error	[0 to 65535 / 0 / 1 /step]
004	Jam	Turns on/off the debug save for jam errors. [0 or 1 / 0 / 1 / step] 0: OFF, 1: ON

5859	[Debug Save Key No.]	*CTL	-		
001	Key 1				
002	Key 2				
003	Key 3				
004	Key 4				
005	Key 5	These SPs allow you to set up to 10 keys for log file functions that use common memory on the controller			
006	Кеу б	board.			
007	Key 7	[-99999	99 to 9999999 / 0 / –]		
008	Key 8				
009	Key 9				
010	Key 10				

5860	[SMTP/POP3/IMAP4]	*CTL	-	
020	Partial Mail Receive Timeout			[1 to 168 / 72 / –]

	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.			
021	MDN Response RFC2298 Compliance [0 to 1 / 1 / -]			[0 to 1 / 1 / -]
	Determines whether RFC2298 compliance is switched on for MDN reply mail. 0: No 1: Yes			
022	SMTP Auth. From Field Replacen	nent		[0 to 1 / 0 / -]
	Determines whether the FROM item of the mail header is switched to the validated account after the SMTP server is validated. O: No. "From" item not switched. 1: Yes. "From item switched.			
025	SMTP Auth. Direct Setting [0 o			[0 or 1 / 0 / -]
	Selects the authentication method Bit switch: Bit 0: LOGIN Bit 1: PLAIN Bit 2: CRAM MD5 Bit 3: DIGEST MD5 Bit 4 to 7: Not used Note This SP is activated only wh			tion is enabled by UP mode.
026	S/MIME: MIME Header Setting	-	by S/N [0 to 2 0: Micr 1: Intern	the MIME header type of an E-mail sent AIME. / 0 / 1] osoft Outlook Express standard net Draft standard standard

5866	[E-mail Report] Not Used
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001	Report Validity	*CTL	Enables or disables the e-mail alert. [0 or 1 / 0 / -] 0: Enable, 1: Disable
005	Add Date Field	*CTL	Adds or does not add the date field to the header of the alert mail. [0 or 1 / 0 / -] 0: Not added, 1: Added

5870	[Common Key Info Writing]				
001	Writing	*CTL	Rewrites the common certification used for the @Remote.		
	Initialize	*CTL	-		
003	Initializes the set certification. When the GW controller board is replaced with a new one for repair, you must execute the "Initiralize (-003)" and "Writing (-001)" just after the new board replacement.				
	NOTE: Turn off and on the main power switch after the "Initiralize (-003)" and "Writing (-001)" have been done.				

5873	[SD Card Appli Move]		
001	This SP copies the application programs from the original SD SD card slot 2 to an SD card in SD card slot 1.		
002	Undo Exec	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

001	Reboot Setting	*CTL	Enables or disables the automatic reboot function when an SC error occurs. [0 or 1/0/-] 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. The reboot is not executed for Type A or C SC codes.
002	Reboot Type	*CTL	Selects the reboot method for SC. [0 or 1 / 0 / -] 0: Manual reboot, 1: Automatic reboot

5878	[Option Setup]				
001	Overwrite Security	-	Enables the Data Overwrite Security unit. Press "EXECUTE" on the operation panel. Then turn the machine off and on.		
002	HDD Encryption	-	Installs the HDD Encryption unit.		

5881	[Fixed Phrase Block Erasing]		
001	-	*ENG	Deletes the fixed phrase.

5001	[Plain 1/2 Setting]				
5884	Select the paper type (plain 1 or plain 2) for each tray.				
001	By-pass Table	*ENG			
002	Tray 1	*ENG	[0 or 1 / 1 / -]		
003	Tray 2	*ENG	0: Plain Paper 1		
004	Tray 3	*ENG	1: Plain Paper 2		
005	Tray 4	*ENG			

5005	[Set WIM Function] Web Image Monitor Settings				
5885	Close or disclose the functions	of web ima	age monitor.		
020	Document Server ACC Ctrl	*CTL	O: OFF, 1: ON Bit Meaning O: Forbid all document server access (1) 1: Forbid user mode access (1) 2: Forbid print function (1) 3: Forbid fax TX (1) 4: Forbid scan sending (1) 5: Forbid downloading (1) 6: Forbid delete (1) 7: Reserved		
050	DocSvr Format	*CTL	Selects the display type for the document box list. [0 to 2 / 0 / 1] 0: Thumbnail, 1: Icon, 2: Details		
051	DocSvr Trans	*CTL	Sets the number of documents to be displayed in the document box list. [5 to 20 / 10 / 1]		
100	Set Signature	*CTL	[0 to 2 / 0 / 1/step] 0: Signature for each e-mail 1: Signature for all e-mails 2: No signature		
	Selects whether the signature is added to the scanned documents with the WIM ware transmitted by an e-mail.				
101	Set Encryption	*CTL	Determines whether the scanned documents with the WIM are encrypted when they are transmitted by an e-mail. [0 or 1 / 0 / 1] 0: Not encrypted, 1:Encryption		
200	Detect Mem Leak	*CTL	Not used		
201	DocSur Timeout	*CTL	Not used		

5007	[SD Get Counter]				
5887	This SP determines whether the ROM can be updated.				
001	-	*CTL	This SP sends a text file to an SD card inserted in SD card Slot 2 (lower slot). 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]. 3. Touch [Execute] in the message when you are prompted.		

5888	[Personal Information Protect]				
001	-	*CTL	Selects the protection level for logs. [0 to 1 / 0 / 1] 0: No authentication, No protection for logs 1: No authentication, Protected logs (only an administrator can see the logs)		

5894	[External Counter Setting]				
3094	-				
001	Switch Charge Mode	*ENG	[0 to 2 / 0 / 1/step]		

5896		[Copy/PrinterPriority]			
001		-		[0 or 1 / 0 / -]	
	01	Selects the priority memory type. The larger memory is used for the selected mode (copy or printer).			
		0: Copy priority, 1: Printer priority			

5907	[Plug & Play Maker/Model Name]
------	--------------------------------

Selects the brand name and the production name for Windows Plug & Play. This information is stored in the NVRAM. If the NVRAM is defective, these names should be registered again.

After selecting, press the "Original Type" key and "#" key at the same time. When the setting is completed, the beeper sounds five times.

5913	[Switchover Permission Time]		
	Print Application Timer	*CTL	[3 to 30 / 3 / 1 second /step]
002	Sets the amount of time to elapse while t panel keys have not been used) before o		e is in standby mode (and the operation plication can gain control of the display.

5967	[Copy Server Set Function]	*CTL	0: ON, 1: OFF
001	Enables and disables the document ser data from being left in the temporary ar switch the main switch off and on to en	ea of the H	IDD. After changing this setting, you must

5974	[Cherry Server]				
3974	Specifies which version of ScanRouter, "Lite" or "Full", is installed.				
001	Cherry Server	*CTL	[0 or 1 / 0 / -] 0: Lite, 1: Full		

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 into the controller board, these SP codes must be set to "1".	
001	On Board NIC	[0 to 2 / 0 / 1 /step] 0: Disable, 1: Enable, 2: Function limitation When the "Function limitation" is set, "On board NIC" is limited only for the NRS or LDAP/NT authentication. Note • Other network applications than NRS or LDAP/NT authentication are not available when this SP is set to "2". Even though you can change the initial settings of those network applications, the settings do not work.

003	002 On Board USB	[0 or 1 / 0 / 1/step]	
002		0: Disable, 1: Enable	

5987	[Mech. Counter Protection]			
001	0: OFF / 1: ON	This SP detects that a mechanical counter device is removed. If it is detected, SC610 occurs.		

5000	[SP print mode]	
5990	Prints out the SMC sheets.	
001	All (Data List)	-
002	SP (Mode Data List)	-
003	User Program	-
004	Logging Data	-
005	Diagnostic Report	-
006	Non-Default	-
007	NIB Summary	-
008	Capture Log	-
021	Copier User Program	-
022	Scanner SP	-
023	Scanner User Program	-

001	This SP detects that a mechanical counter device is removed. If it is detected, SC610 occurs.

5997	[Fusing Cont mode]		
001	fast/silent	-	[0 or 1 / 1 / -] 0: Off, 1: On

5

Turns on or off the fusing unit preceding mode.

The machine turns on the fusing unit first by default after power-on or recovery from the energy save mode.

If a customer does not want the fusing unit to rotate before sending a job to the machine, change this setting to "O". In this case, the first print time or recovery time may be little bit longer than before.

Main SP Tables-6

SP6-XXX (Peripherals)

6006	[ADF Adjustment]			
	Adjusts the side-to-side and leading registration of originals with the ARDF.			
001	S-to-S Registration 1st		[-3.0 to 3.0 / 0 / 0.1 mm/step]	
002	S-to-S Registration 2nd	*ENG		
003	Leading Edge Registration		[-5.0 to 5.0 / 0 / 0.1 mm/step]	
	Adjusts the amount of paper buckle to correct original skew for the front and rear sides.			
005	Buckle: Duplex: 1st	*ENIC	[5 0 to 5 0 / 0 / 0 1 mm / storn]	
006	Buckle: Duplex: 2nd	EING	[-5.0 to 5.0 / 0 / 0.1 mm/step]	
	Adjusts the erase margin at the original trailing edge.			
007	Trailing Edge Erase	*ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]	

	[ADF INPUT Check]
6007	Displays the signals received from the sensors and switches of the ARDF. Only Bit 0 is used for ADF input check (IIII "lutput Check Table" in this section").

	[ADF OUTPUT Check]
6008	Activates the electrical components for functional check. It is not possible to activate more than one component at the same time (III "Output Check")
	Table" in this section")

6009	[ADF Free Run]				
0009	Performs a DF free run in simplex, duplex mode or stamp mode.				
002	Free Run Duplex Mode	-			

6010	[Stamp Position Adj.] Fax Stamp Position Adjustment				
6010	Adjusts the horizontal position of the stamp on the scanned originals.				
001	-	*ENG	[-5.0 to 5.0 / 0 / 1 mm/step]		

	[Original Size Detection Priority] Original Size Detection Priority					
6016	Specifies the original size for a size detected by the original sensor, since original sensors cannot recognize all sizes.					
		*ENG	[0 or 1 / 0 / -] 0: Setting 1 1: Setting 2			
	-	NA	Setting 1	Setting 2		
			DLT SEF	Folio SEF 11" x 15"		
001			LG SEF	Foolscap SEF		
			LT SEF	US EXE 8" x 10"		
			LT LEF	US EXE LEF		
		EU/ ASIA	DLT SEF	8K 267 x 390 mm		
			LT SEF	16K 195 x 267 mm		
			LT LEF	16K 267 x 195 mm		

4	01 <i>7</i>	[DF Magnification Adj.] DF Magnification Adjustment				
0	017	Adjusts the magnification in the sub-scan direction for the ARDF.				
	001	1 - *CTL [-5.0 to 5.0 / 0 / 0.1 %/step		[-5.0 to 5.0 / 0 / 0.1 %/step]		

	[Staple Position Adjustment]				
6101	Adjusts the staple position for finisher.				
	+ Value: Moves the staple position to the rear side. - Value: Moves the staple position to the front side.				
001	-	ENG	[-2 to 2 / 0 / 0.2mm/step]		

6102	[Punch Position Adjustment]			
0102	Adjusts the punching position in the sub scan direction.			
001	Leading Edge Adjustment	ENG	[-1.5 to 1.5 / 0 / 0.1 mm/step]	

6103	[Jogger Position Adjustment]			
0103	Adjusts the jogger position			
001	-	ENG	[-4 to 4 / 0 / 0.1 mm/step]	

6104	[Punch Position Adjustment]			
0104	Adjusts the punching position in the main scan direction.			
001	Side-to-Side Adjustment	ENG	[-2.0 to 2.0 / 0 / 0.2mm/step]	

	[Finisher Input Check] Finisher (D429)
6120	Displays the signals received from sensors and switches of the finisher. (In this section)

	[Finisher Output Check] Finisher (D429)
6121	Displays the signals received from sensors and switches of the finisher. (**Dutput Check Table" in this section")

Main SP Tables-7

SP7-XXX (Data Log)

7401	[Total SC Counter]			
7401	Displays the number of SC codes detected.			
001	-	*CTL	[0 to 9999 / 0 / 1/step]	

	[SC History]				
The 10 most recently detected SC Codes are not displayed on the screen, but can be on the SMC (logging) outputs.					
				001	Latest
002	Latest 1				
003	Latest 2				
004	Latest 3				
005	Latest 4	*CTL	_		
006	Latest 5	CIL	-		
007	Latest 6				
800	Latest 7				
009	Latest 8				
010	Latest 9				

7502	[Total Paper Jam Counter]			
	Displays the total number of jams detected.			
001	-	* CTL	[0 to 9999 / 0 / 1 sheet/step]	

<i>75</i> 03	[Total Original Jam Counter]			
7503	Displays the total number of original jams.			
001	-	*CTL	[0 to 9999 / 0 / 1 original/step]	

	[Paper Jam Location] ON: On check, OFF: Off Check				
7504	Displays the number of jams according to the location where jams were detected. NOTE: The LCT is counted as the 3rd feed station.				
001	At Power On	*CTL			
003	Tray 1: ON	*CTL			
004	Tray 2: ON	*CTL			
005	Tray 3: ON	*CTL			
006	Tray 4: ON	*CTL			
008	Bypass: ON	*CTL			
009	Duplex: ON	*CTL			
011	Vertical Transport 1: ON	*CTL	For details, p.693 "Jam Detection"		
012	Vertical Transport 2: ON	*CTL			
017	Registration: ON	*CTL			
018	Fusing Entrance: ON	*CTL			
019	Fusing Exit: ON	*CTL			
020	Paper Exit: ON	*CTL			
025	Duplex Exit: ON	*CTL			
027	Duplex Entrance: ON	*CTL			

028	1-Bin Exit Sensor	*CTL	
051	SEF Sensor 1	*CTL	
052	SEF Sensor 2	*CTL	
053	Bank SEF Sensor 1	*CTL	
057	Regist Sensor	*CTL	For details, p.693 "Jam Detection"
059	Fusing Exit Sensor	*CTL	
060	Exit Sensor	*CTL	
065	Duplex Exit Sensor	*CTL	
068	1-Bin Exit: ON	*CTL	
240	Finisher Entrance	*CTL	
241	Finisher Shift Tray Exit	*CTL	
242	Finisher Staple	*CTL	
243	Finisher Exit	*CTL	
244	Finisher Drive Motor	*CTL	
245	Finisher Tray Lift Motor	*CTL	For details, 📂 p.693 "Jam
246	Finisher Jogger Motor	*CTL	Detection"
247	Finisher Shift Motor	*CTL	
248	Finisher Staple Motor	*CTL	
249	Finisher Exit Motor	*CTL	
250	Finisher Entrance	*CTL	
251	Finisher Proof Exit	*CTL	

7505	[Original Jam Detection]
7505	Displays the total number of original jams by location.

001	At Power On		
003	Skew Correction: ON		
004	Registration: ON		
005	Paper Exit: ON	*CTL	For details, p.693 "Jam Detection"
053	Skew Correction: OFF		
054	Registration: OFF		
055	Paper Exit: OFF		

7506	[Jam Count by Paper Size]			
7306	Displays the number of jams according to the paper size.			
005	A4 LEF			
006	A5 LEF			
014	B5 LEF			
038	LT LEF			
044	HLT LEF			
132	A3 SEF			
133	A4 SEF			
134	A5 SEF	*CTL	[0 to 9999 / 0 / 1 sheet/step]	
141	B4 SEF			
142	B5 SEF			
160	DLT SEF			
164	LG SEF			
166	LT SEF			
172	HLT SEF			
255	Others			

7507	[Plotter Jam History]			
7507	Displays the 10 most recently detected paper jams.			
001	Latest			
002	Latest 1			
003	Latest 2			
004	Latest 3			
005	Latest 4	*CTL		
006	Latest 5	CIL	-	
007	Latest 6			
008	Latest 7			
009	Latest 8			
010	Latest 9			

7508	[Original Jam History]		
7506	Displays the 10 most recently detected original jams.		
001	Latest		
002	Latest-1		
003	Latest-2		
004	Latest-3		
005	Latest-4	*CTL	
006	Latest-5	CIL	-
007	Latest-6		
008	Latest-7		
009	Latest-8		
010	Latest-9		

7624	[Parts PM Use Setting]
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001	PCU:Bk	*CTL	
002	PCU:M	*CTL	
003	PCU:C	*CTL	
004	PCU:Y	*CTL	
005	Dev Unit:Bk	*CTL	
006	Dev Unit:M	*CTL	[0 or 1 / 1 / -]
007	Dev Unit:C	*CTL	0: No (Not PM maintenance)
008	Dev Unit:Y	*CTL	1: Yes (PM maintenance)
009	Image Transfer Belt	*CTL	
010	ITB Cleaning Unit	*CTL	
011	Fusing Unit	*CTL	
012	PTR Unit	*CTL	
013	PCU Toner Collection Bottle	*CTL	

<i>7</i> 801	[ROM No./Firmware Version]		
255	-	*CTL	Displays all versions and ROM numbers in the machine.

7803	[PM Counter Display]
	(Page, Unit, [Color])
	Displays the number of sheets printed for each current maintenance unit.
	PM counters click up based on the number of A4 (LT) LEF size sheets printed. Therefore, the A3 (DLT) Double Count is activated. The Double Count cannot be deactivated.
-001 to -021	When a unit is replaced, the machine automatically detects that the new unit is installed. Then, the current PM counter value is automatically moved to the PM Counter - Previous (SP7-906-1 to 21) and is reset to "0".
	The total number of sheets printed with the last unit replaced can be checked with SP7-906-1 to 21.
001	Paper

002	Page: PCU: Bk
003	Page: PCU: C
004	Page: PCU: M
005	Page: PCU: Y
006	Page: Development Unit: Bk
007	Page: Development Unit: C
008	Page: Development Unit: M
009	Page: Development Unit: Y
010	Page: Developer: Bk
011	Page: Developer: C
012	Page: Developer: M
013	Page: Developer: Y
014	Page: ITB Unit
015	Page: ITB Cleaning Unit
016	Page: Fusing Unit
017	Page:Fusing Pad
018	Page: Fusing Belt
019	Page:PTR Unit
020	Page:ITB T-Collect Bottle
021	Page:PCU T-Collect Bottle
001	Displays the number of revolutions of motors or clutches for each current maintenance unit. [0 to 9999999 / 0 / 1 revolution/step]
-031 to -048	When a unit is replaced, the machine automatically detects that the new unit is installed. Then, the current PM counter value is automatically moved to the PM Counter - Previous (SP7-906-31 to 48) and is reset to "0". The total number of revolutions made with the last unit replaced can be checked with SP7-906-31 to 48.
031	Rotation: PCU: Bk

032	Rotation: PCU: C
033	Rotation: PCU: M
034	Rotation: PCU: Y
035	Rotation: Development Unit: Bk
036	Rotation: Development Unit: C
037	Rotation: Development Unit: M
038	Rotation: Development Unit: Y
039	Rotation: Developer: Bk
040	Rotation: Developer: C
041	Rotation: Developer: M
042	Rotation: Developer: Y
043	Rotation:ITB Unit
044	Rotation: ITB Cleaning Unit
045	Rotation: Fusing Unit
046	Rotation: Fusing Pad
047	Rotation: Fusing Belt
048	Rotation: PTR Unit
-049 to	[0 to 99999999 / - / 1 mg/step]
-050	Displays the total amount of each toner collection bottle.
049	Amount:ITB T-Collect Bottle
050	Amount:PCU T-Collect Bottle

	[0 to 255 / - / 1 %/step]
	Displays the value given by the following formula:
-061 to	(Current revolution Target revolution) · 100. This shows how much of the unit's expected lifetime has been used up.
-078	The Rotation% counter is based on rotations, not prints. If the number of rotations reaches the limit, the machine enters the end condition for that unit. If the print count lifetime is reached first, the machine also enters the end condition, even though the R% counter is still less than 100%.
061	Rotation (%): PCU: Bk
062	Rotation (%): PCU: C
063	Rotation (%): PCU: M
064	Rotation (%): PCU: Y
065	Rotation (%): Development Unit: Bk
066	Rotation (%): Development Unit: C
067	Rotation (%): Development Unit:M
068	Rotation (%): Development Unit: Y
069	Rotation (%): Developer: Bk
070	Rotation (%): Developer: C
071	Rotation (%): Developer: M
072	Rotation (%): Developer: Y
073	Rotation (%): ITB Unit
074	Rotation (%): ITB Cleaning Unit
075	Rotation (%): Fusing Unit
076	Rotation (%): Fusing Pad
077	Rotation (%): Fusing Belt
078	Rotation (%):PTR Unit
-079 to	[0 to 255 / - / 1 %/step]
-080	Displays how much of the unit's expected lifetime has been used up.

079	Amt(%):ITB T-Collect Bottle		
080	Amt(%):PCU T-Collect Bottle		
-091 to -108	Displays the value given by the following formula: (Current printouts Target printouts) · 100. This shows how much of the unit's expected lifetime has been used up. The Page% counter is based on printouts, not revolutions. If the number of printouts reaches the limit, the machine enters the end condition for that unit. If the revolution count lifetime is reached first, the machine also enters the end condition, even though the Page% counter is still less than 100%.		
091	Page (%): PCU: Bk		
092	Page (%): PCU: C		
093	Page (%): PCU: M		[0 to 255 / - / 1 %/step]
094	Page (%): PCU: Y	*ENG	
095	Page (%): Development Unit: Bk		
096	Page (%): Development Unit: C		
097	Page (%): Development Unit: M		
098	Page (%): Development Unit: Y		
099	Page (%): Developer: Bk		
100	Page (%): Developer: C		
101	Page (%): Developer: M		
102	Page (%): Developer: Y		
103	Page (%): ITB Unit		
104	Page (%): ITB Cleaning Unit	*ENG	[0 to 255 / - / 1 %/step]
105	Page (%): Fusing Unit		
106	Page (%): Fusing Pad		
107	Page (%): Fusing Belt		
108	Page (%): PTR Unit		

7004	[PM Counter Reset] PM Counter Clear
7804	(Unit, [Color])
	Clears the PM counter. Press the Enter key after the machine asks "Execute?", which will store the PM counter value in SP7-906 (PM Counter - Previous) and reset the value of the current PM counter (SP7-803) to "0".
001	Paper
002	PCU: Bk
003	PCU: C
004	PCU: M
005	PCU: Y
006	PCU: All
007	Development Unit: Bk
008	Development Unit: C
009	Development Unit: M
010	Development Unit: Y
011	Development Unit: All
012	Developer: Bk
013	Developer: C
014	Developer: M
015	Developer: Y
016	Developer: All
017	ITB Unit
018	ITB Cleaning Unit
019	Fusing Unit
020	Fusing Pad
021	Fusing Belt

022	PTR Unit
023	ITB T-Collect Bottle
024	PCU T-Collect Bottle
100	All

7807	[SC/Jam Counter Reset]			
7607	Clears the counters related to SC codes and paper jams.			
001	-	*CTL	-	

7826	[MF Error Counter] Japan Onl	у	
001	Error Total	*CTL	-
002	Error Staple	*CTL	-

7827	[MF Error Counter Clear] Japan Only		
	-	*CTL	-

7832	[Self-Diagnose Result Display]			
7032	Displays the result of the diagn	ostics.		
001	-	*CTL	-	

7835	[ACC Counter]		
001	Сору АСС	-	Displays the ACC exectuion times for each mode.
002	Printer ACC		Displays the ACC execution times for each mode.

<i>7</i> 836	Total Memory Size (CTL)			
7630	Displays the memory capacity of the controller system.			
001	-	*CTL	-	

	[DF Glass Dust Check]				
7852	Counts the number of occurrences (0 to 65,535) when dust was detected on the scanning glass of the ADF or resets the dust detection counter. Counting is done only if SP4-020-(ADF Scan Glass Dust Check) is switched on.				
001	Dust Detection Counter *CTL				
002	Dust Detection Clear Counter	*CTL	[0 to 65535 / - / 1 /step]		

70.50	[Replacement Counter]			
7853	Displays the PM parts replacement number.			
001	PCU: Bk	*CTL		
002	PCU: C	*CTL		
003	PCU: M	*CTL		
004	PCU: Y	*CTL		
005	Development Unit: Bk	*CTL		
006	Development Unit: C	*CTL		
007	Development Unit: M	*CTL		
008	Development Unit: Y	*CTL		
009	Developer: Bk	*CTL	[0 to 255 / - / 1 /step]	
010	Developer: C	*CTL		
011	Developer: M	*CTL		
012	Developer: Y	*CTL		
013	ITB Unit	*CTL		
014	ITB Cleaning Unit	*CTL		
015	Fusing Unit	*CTL		
016	Fusing Pad	*CTL		
017	Fusing Belt	*CTL		

018	PTR Unit	*CTL	
019	ITB T-Collect Bottle	*CTL	[0 to 255 / - / 1 /step]
020	PCU T-Collect Bottle	*CTL	

	[Coverage Range]		
	Sets the color coverage threshold		
	Coverage rate = Coverage per pe	age / A4 f	ull coverage (dots) x 100
	There are three coverage counter	s: Color 1,	Color 2, and Color 3
	• [A] 5% (default) is adjustable	e with SP78	355-001.
	• [B] 20% (default) is adjustab	le with SP7	7855-002.
7855	♥ Note		
	The setting value [B] must be	set larger t	han [A].
	The total numbers of printouts (BW are displayed with the following S		lus color printing) for each coverage range
	Color1 counter: SP8601-02	1	
	Color2 counter: SP8601-02	2	
	Color3 counter: SP8601-02	3	
001	Coverage Range 1	*CTL	[1 to 200 / 5 / 1]
002	Coverage Range 2	*CTL	[1 to 200 / 20 /1]

7004	[Prev. Unit PM Counter]	
7906	(Page or Rotations, Unit, [Color]), Dev.: Development Unit	*ENG
-001 to	Displays the number of sheets printed with the previous maintenance units. [0 to 9999999 / 0 / 1 page/step]	
001	Page: PCU: Bk	
002	Page: PCU: C	
003	Page: PCU: M	
004	Page: PCU: Y	
005	Page: Development Unit: Bk	

006	Page: Development Unit: C
007	Page: Development Unit: M
008	Page: Development Unit: Y
009	Page: Developer: Bk
010	Page: Developer: C
011	Page: Developer: M
012	Page: Developer: Y
013	Page: ITB Unit
014	Page: ITB Cleaning Unit
015	Page: Fusing Unit
016	Page: Fusing Pad
017	Page: Fusing Belt
018	Page: PTR Unit
019	Page:ITB T-Collect Bottle
020	Page:PCU T-Collect Bottle
-031 to	Displays the number of revolutions for motors or clutches in the previous maintenance units.
-050	[0 to 9999999 / 0 / 1 mm/step]
031	Rotation: PCU: Bk
032	Rotation: PCU: C
033	Rotation: PCU: M
034	Rotation: PCU: Y
035	Rotation: Development Unit: Bk
036	Rotation: Development Unit: C
037	Rotation: Development Unit: M
038	Rotation: Development Unit: Y
039	Rotation: Developer: Bk

040	Rotation: Developer: C
041	Rotation: Developer: M
042	Rotation: Developer: Y
043	Rotation: ITB Unit
044	Rotation: ITB Cleaning Unit
045	Rotation: Fusing Unit
046	Rotation: Fusing Pad
047	Rotation: Fusing Belt
048	Rotation: PTR Unit
049	Rotation:ITB T-Collect Bottle
050	Rotation:PCU T-Collect Bottle
-061 to	Displays the number of sheets printed with the previous maintenance unit or toner cartridge.
-080	[0 to 255 / 0 / 1 %/step]
061	Rotation %: PCU: Bk
062	Rotation %: PCU: C
063	Rotation %: PCU: M
064	Rotation %: PCU: Y
065	Rotation %: Development Unit: Bk
066	Rotation %: Development Unit: C
067	Rotation %: Development Unit: M
068	Rotation %: Development Unit: Y
069	Rotation %: Developer: Bk
070	Rotation %: Developer: C
071	Rotation %: Developer: M
072	Rotation %: Developer: Y
073	Rotation %: ITB Unit

074	Rotation %: ITB Cleaning Unit
075	Rotation %: Fusing Unit
076	Rotation %: Fusing Pad
077	Rotation %: Fusing Belt
078	Rotation %: PTR Unit
079	Rotation %:ITB T-Collect Bottle
080	Rotation %:PCU T-Collect Bottle
-091 to -108	Displays the value given by the following formula: $ \label{lower} \mbox{(Current count Yield count)} \times 100, \mbox{ where "Current count" is the current values in the counter for the part, and "Yield count" is the recommended yield. \\ \mbox{[0 to 255 / 0 / 1 %/step]} $
091	Page (%): PCU: Bk
092	Page (%): PCU: C
093	Page (%): PCU: M
094	Page (%): PCU: Y
095	Page (%): Development Unit: Bk
096	Page (%): Development Unit: C
097	Page (%): Development Unit: M
098	Page (%): Development Unit: Y
099	Page (%): Developer: Bk
100	Page (%): Developer: C
101	Page (%): Developer: M
102	Page (%): Developer: Y
103	Page (%): ITB Unit
104	Page (%): ITB Cleaning Unit
105	Page (%): Fusing Unit

106	Page (%): Fusing Pad
107	Page (%): Fusing Belt
108	Page (%): PTR Unit

7001	[Toner Bottle Bk]	
<i>7</i> 931	Displays the toner bottle inform	nation for Bk.
001	Machine Serial ID	*ENG
002	Cartridge Ver	*EGN
003	Brand ID	*EGN
004	Area ID	*EGN
005	Product ID	*EGN
006	Color ID	*EGN
007	Maintenance ID	*EGN
008	New Product Information	*EGN
009	Recycle Counter	*EGN
010	Date	*EGN
011	Serial No.	*EGN
012	Toner Remaining	*EGN

013	EDP Code	*EGN
014	End History	*EGN
015	Refill Information	*EGN
016	Attachment: Total Counter	*EGN
017	Attachment: Color Counter	*EGN
018	End: Total Counter	*EGN
019	End: Color Counter	*EGN
020	Attachment Date	*EGN
021	End Date	*EGN

7932	[Toner Bottle M]	
	Displays the toner bottle information for M.	
001	Machine Serial ID	*ENG
002	Cartridge Ver	*EGN
003	Brand ID	*EGN
004	Area ID	*EGN
005	Product ID	*EGN
006	Color ID	*EGN
007	Maintenance ID	*EGN
008	New Product Information	*EGN
009	Recycle Counter	*EGN
010	Date	*EGN
011	Serial No.	*EGN
012	Toner Remaining	*EGN

013	EDP Code	*EGN
014	End History	*EGN
015	Refill Information	*EGN
016	Attachment: Total Counter	*EGN
017	Attachment: Color Counter	*EGN
018	End: Total Counter	*EGN
019	End: Color Counter	*EGN
020	Attachment Date	*EGN
021	End Date	

7022	[Toner Bottle C]	
<i>7</i> 933	Displays the toner bottle information	for C.
001	Machine Serial ID	*ENG
002	Cartridge Ver	*EGN
003	Brand ID	*EGN
004	Area ID	*EGN
005	Product ID	*EGN
006	Color ID	*EGN
007	Maintenance ID	*EGN
008	New Product Information	*EGN
009	Recycle Counter	*EGN
010	Date	*EGN
011	Serial No.	*EGN
012	Toner Remaining	*EGN

013	EDP Code	*EGN
014	End History	*EGN
015	Refill Information	*EGN
016	Attachment: Total Counter	*EGN
017	Attachment: Color Counter	*EGN
018	End: Total Counter	*EGN
019	End: Color Counter	*EGN
020	Attachment Date	*EGN
021	End Date	*EGN

7024	[Toner Bottle Y]	
7934	Displays the toner bottle informa	ation for Y.
001	Machine Serial ID	*ENG
002	Cartridge Ver	*EGN
003	Brand ID	*EGN
004	Area ID	*EGN
005	Product ID	*EGN
006	Color ID	*EGN
007	Maintenance ID	*EGN
008	New Product Information	*EGN
009	Recycle Counter	*EGN
010	Date	*EGN

011	Serial No.	*EGN
012	Toner Remaining	*EGN
013	EDP Code	*EGN
014	End History	*EGN
015	Refill Information	*EGN
016	Attachment: Total Counter	*EGN
017	Attachment: Color Counter	*EGN
018	End: Total Counter	*EGN
019	End: Color Counter	*EGN
020	Attachment Date	*EGN
021	End Date	*EGN

7935	[Toner Bottle Log 1: Bk]		
001	Serial No.	*ENG	
002	Attachment Date		Displays the toner bottle information log
003	Attachment: Total Counter		1 for Bk.
004	Refill Information		
005	Serial No.		Displays the toner bottle information log
006	Attachment Date	*ENG	
007	Attachment: Total Counter		2 for Bk.
008	Refill Information		
009	Serial No.		
010	Attachment Date	*5510	Displays the toner bottle information log
011	Attachment: Total Counter	*ENG	3 for Bk.
012	Refill Information		

013	Serial No.	*ENG	
014	Attachment Date		Displays the toner bottle information log
015	Attachment: Total Counter	EING	4 for Bk.
016	Refill Information		
017	Serial No.		
018	Attachment Date	*ENG	Displays the toner bottle information log
019	Attachment: Total Counter	EING	5 for Bk.
020	Refill Information		

7936	[Toner Bottle Log 1: M]		
001	Serial No.		Displays the toner bottle information log
002	Attachment Date	*ENG	
003	Attachment: Total Counter	ENG	1 for M.
004	Refill Information		
005	Serial No.		
006	Attachment Date	*ENG	Displays the toner bottle information log 2 for M.
007	Attachment: Total Counter	ENG	
008	Refill Information		
009	Serial No.		Displays the toner bottle information log
010	Attachment Date	*ENG	
011	Attachment: Total Counter	ENG	3 for M.
012	Refill Information		
013	Serial No.		
014	Attachment Date	*ENG	Displays the toner bottle information log
015	Attachment: Total Counter	EING	4 for M.
016	Refill Information		

017	Serial No.			
018	Attachment Date	*ENG	Displays the toner bottle information log	
019	Attachment: Total Counter	EING	5 for M.	
020	Refill Information			

7937	[Toner Bottle Log 1: C]		
001	Serial No.	*ENG	Displays the toner bottle information log 1 for C.
002	Attachment Date		
003	Attachment: Total Counter		
004	Refill Information		
005	Serial No.		
006	Attachment Date	*ENG	Displays the toner bottle information log
007	Attachment: Total Counter	ENG	2 for C.
008	Refill Information		
009	Serial No.		Displays the toner bottle information log 3 for C.
010	Attachment Date	*ENG	
011	Attachment: Total Counter	ENG	
012	Refill Information		
013	Serial No.		Displays the toner bottle information log 4 for C.
014	Attachment Date	*ENG	
015	Attachment: Total Counter	ENG	
016	Refill Information		
017	Serial No.		Displays the toner bottle information log 5 for C.
018	Attachment Date	* = > 1 0	
019	Attachment: Total Counter	*ENG	
020	Refill Information		

7938	[Toner Bottle Log 1: Y]		
001	Serial No.	*ENG	Displays the toner bottle information log 1 for Y.
002	Attachment Date		
003	Attachment: Total Counter		
004	Refill Information		
005	Serial No.		
006	Attachment Date	*ENG	Displays the toner bottle information log
007	Attachment: Total Counter	ENG	2 for Y.
008	Refill Information		
009	Serial No.		Displays the toner bottle information log 3 for Y.
010	Attachment Date	*ENG	
011	Attachment: Total Counter	ENG	
012	Refill Information		
013	Serial No.		Displays the toner bottle information log
014	Attachment Date	*ENG	
015	Attachment: Total Counter	LING	4 for Y.
016	Refill Information		
017	Serial No.		
018	Attachment Date	*ENG	Displays the toner bottle information log
019	Attachment: Total Counter	EING	5 for Y.
020	Refill Information		

7950	[Unit Replacement Date]
' '	Displays the replacement date of each PM unit.

001	ITB Unit	*ENG
002	ITB Cleaning Unit	*EGN
003	PTR Unit	*EGN
004	Fusing Unit	*EGN
005	Fusing Pad	*EGN
006	Fusing Belt	*EGN
013	PCU: Bk	*EGN
014	PCU: C	*EGN
015	PCU: M	*EGN
016	PCU: Y	*EGN
017	Development Unit:Bk	*EGN
018	Development Unit:C	*EGN
019	Development Unit:M	*EGN
020	Development Unit:Y	*EGN
021	Developer:Bk	*EGN
022	Developer:C	*EGN
023	Developer:M	*EGN
024	Developer:Y	*EGN

	[Remaining Day Counter]	*ENG	
<i>7</i> 951	Displays the remaining unit life of each PM unit. [0 to 255 / 255 / 1 day/step]		
001	Page: PCU: Bk		
002	Page: PCU: C		
003	Page: PCU: M		
004	Page: PCU: Y		

005	Page: Development Unit: Bk
006	Page: Development Unit: C
007	Page: Development Unit: M
008	Page: Development Unit: Y
009	Page: Developer: Bk
010	Page: Developer: C
011	Page: Developer: M
012	Page: Developer: Y
013	Page: ITB Unit
014	Page: ITB Cleaning Unit
015	Page: Fusing Unit
016	Page: Fusing Pad
017	Page: Fusing Belt
018	Page: PTR Unit
031	Rotation: PCU: Bk
032	Rotation: PCU: C
033	Rotation: PCU: M
034	Rotation: PCU: Y
035	Rotation: Development Unit: Bk
036	Rotation: Development Unit: C
037	Rotation: Development Unit: M
038	Rotation: Development Unit: Y
039	Rotation: Developer: Bk
040	Rotation: Developer: C
041	Rotation: Developer: M
042	Rotation: Developer: Y

043	Rotation: ITB Unit
044	Rotation: ITB Cleaning Unit
045	Rotation: Fusing Unit
046	Rotation: Fusing Pad
047	Rotation: Fusing Belt
048	Rotation:PTR Unit
049	Rotation:ITB T-Collect Bottle
050	Rotation:PCU T-Collect Bottle

7050	[PM Yield Setting]				
7952	Adjusts the unit yield of each PM unit.				
001	Rotation: ITB Unit	*EGN	[0 to 999999999 / 172177000 / 1000 mm/ step]		
002	Rotation: ITB Cleaning Unit	*EGN	[0 to 999999999 / 129133000 / 1 mm/step]		
003	Rotation: Fusing Unit	*EGN			
004	Rotation: Fusing Roller	*EGN	[0 to 999999999 / 87264000 / 1000 mm/ step]		
005	Rotation: Fusing Belt	*EGN			
006	Rotation:PTR Unit	*EGN	[0 to 999999999 / 172177000 / 1000 mm/ step]		
007	Amount:ITB T-Collect Bottle				
008	Amount:PCU T-Collect Bottle	*EGN	[0 to 99999999 / 300000 / 1000 mg/step]		
011	Page: ITB Unit	*EGN	[0 to 999999 / 240000 / 1000 sheet/step]		
012	Page: ITB Cleaning Unit	*EGN	[0 to 999999 / 180000 / 1 sheet/step]		
013	Page: Fusing Unit	*EGN			
014	Page: Fusing Pad	*EGN	[0 to 999999 / 144000 / 1 sheet/step]		
015	Page: Fusing Belt	*EGN			

016	Page: PTR Unit	*EGN	[0 to 999999 / 240000 / 1 sheet/step]	
021	Day Threshold: PCU: Bk	*EGN		
022	Day Threshold: PCU: C	*EGN		
023	Day Threshold: PCU: M	*EGN		
024	Day Threshold: PCU: Y	*EGN	Adjusts the threshold day of the near end for each	
025	Day Threshold: Development Unit: Bk	*EGN	PM unit. [1 to 30 / 15 / 1 day/step]	
026	Day Threshold: Development Unit: C	*EGN	These threshold days are used for @Remote alarms.	
027	Day Threshold: Development Unit: M	*EGN		
028	Day Threshold: Development Unit: Y	*EGN		
029	Day Threshold: Developer: Bk	*EGN		
030	Day Threshold: Developer: C	*EGN		
031	Day Threshold: Developer: M	*EGN	Adjusts the threshold day of the near end for each	
032	Day Threshold: Developer: Y	*EGN	PM unit. [1 to 30 / 15 / 1 day/step]	
033	Day Threshold: ITB Unit	*EGN	These threshold days are used for @Remote	
034	Day Threshold: ITB Cleaning Unit	*EGN	alarms.	
035	Day Threshold: Fusing Unit	*EGN		
036	Day Threshold: Fusing Roller	*EGN		
037	Day Threshold: Fusing Belt	*EGN		

038	Rotation: PCU: Bk	*EGN	
039	Rotation: PCU: C	EGIN	[0 to 999999999 / 0 / 1 mm/step]
040	Rotation: PCU: M		[0 10 99999999 / 0 / 1 mm/ siep]
041	Rotation: PCU: Y		
042	Rotation: Development Unit: Bk	*EGN	
043	Rotation: Development Unit: C	*EGN *EGN *EGN	[0 to 999999999 / 0 / 1 mm/step]
044	Rotation: Development Unit: M		[0 10 99999999 / 0 / 1 mm/ siep]
045	Rotation: Development Unit: Y		
046	Rotation: Developer: Bk	*EGN	
047	Rotation: Developer: C		[0. 000000000 / 0 / 1 / . 1
048	Rotation: Developer: M		[0 to 999999999 / 0 / 1 mm/step]
049	Rotation: Developer: Y		
050	Page: PCU: Bk		
051	Page: PCU: C	*ECN	[0 to 999999 / 0 / 1 sheet/step]
052	Page: PCU: M	*EGN	[O IO AAAAAA / O / I sueei/sieb]
053	Page: PCU: Y		
054	Page: Development Unit: Bk	*EGN	
055	Page: Development Unit: C		[0 to 999999 / 0 / 1 sheet/step]
056	Page: Development Unit: M		[O IO 777777 / O / I sileel/ siep]
057	Page: Development Unit: Y		

058 Page: Developer: Bk	
OSO Branco Devalences C	
059 Page: Developer: C	
060 Page: Developer: M *EGN [0 to 999999 / 0 / 1 sheet/step]	
061 Page: Developer: Y	
062 Day Threshold:PTR Unit Adjusts the threshold day of the near end	for each
063 Day Thresh:ITB T-Collect Bttl *EGN PM unit. [1 to 30 / 15 / 1 day/step]	
Day Thresh:PCU T-Collect Bttl Day Thresh:PCU T-Collect	note

7953	[Operation Env. Log: PCU: Bk]				
	Displays the PCU rotation distance in each specified operation environment. T: Temperature (°C), H: Relative Humidity (%)				
001	T<=0	, (,			
002	0 <t<=5:0<=h<30< td=""><td rowspan="9">*CTL</td><td rowspan="9">[0 to 99999999 / - / 1 mm/step]</td></t<=5:0<=h<30<>	*CTL	[0 to 99999999 / - / 1 mm/step]		
003	0 <t<=5:30<=h<70< td=""></t<=5:30<=h<70<>				
004	T<=5: 70<=H<=100				
005	5 <t<15: 0<="H<30</td"></t<15:>				
006	5 <t<15: 30<="H<55</td"></t<15:>				
007	5 <t<15: 55<="H<80</td"></t<15:>				
008	5 <t<15: 80<="H<=100</td"></t<15:>				
009	15<=T<25: 0<=H<30				
010	15<=T<25: 30<=H<55				

011	15<=T<25: 55<=H<80		
012	15<=T<25: 80<=H<=100		
013	25<=T<30: 0<=H<30		
014	25<=T<30: 30<=H<55		
015	25<=T<30: 55<=H<80	*CTL	[0.4-00000000 / /1/.4]
016	25<=T<30: 80<=H<=100	CIL	[0 to 99999999 / - / 1 mm/step]
017	30<=T: 0<=H<30		
018	30<=T: 30<=H<55		
019	30<=T: 55<=H<80		
020	30<=T: 80<=H<=100		

7954	[Operation Env. Log Clear]
/954	Clears the operation environment log.
001	-

Main SP Tables-8

Input and Output Check Tables

Input Check Table

When entering the Input Check mode, 8 digits display the result for a section. Each digit corresponds to a different device as shown in the table.

Bit No.	7	6	5	4	3	2	1	0	
Result	0 or 1								

Copier

5000	D	Re	ading
5803	Description	0	1
5803 1	C-Dev. Mtr:LOCK	Normal	Lock
5803 2	C-Drum Mtr:LOCK	Normal	Lock
5803 3	Bk-Drum/Dev. Mtr:LOCK	Normal	Lock
5803 4	ITB Mtr:LOCK	Normal	Lock
5803 5	Fusing/P-Exit Mtr:LOCK	Normal	Lock
5803 6	Electrical FAN:LOCK	Normal	Lock
5803 7	Fusing Fan:LOCK	Normal	Lock
5803 8	Dev. Front Fan:LOCK	Normal	Lock
5803 9	Dev. Rear Fan:LOCK	Normal	Lock
5803 10	Fusing Exit Fan:LOCK	Normal	Lock
5803 11	LD Unit FAN:LOCK	Normal	Lock
5803 12	Jun. Gate SOL Fan:LOCK	Normal	Lock
5803 13	Fusing:New Detection	New	Not new
5803 14	Fusing:Area Detection	-	-

5803 15	Zero Cross	Not detected	Detected
5803 16	Regist Sensor	Paper detected	No paper detected
5803 17	Drum Phase Sn:Bk	Actuator not detected	Actuator detected
5803 18	Drum Phase Sn:Color	Actuator not detected	Actuator detected
5803 19	Inverter Sensor	Inverter gate open	Inverter gate close
5803 20	Duplex Exit Sensor	Paper detected	No paper detected
5803 21	Duplex Entrance Sensor	Paper detected	No paper detected
5803 22	ID/MUSIC Sn Shutter HP Sn (PTR Contact Sensor)	НР	Not HP
5803 23	HVPS:CB	-	-
5803 24	HVPS:T	-	-
5803 25	Right Door Open SW	Door close	Door open
5803 26	Right Lower Cover OP SW	Cover close	Cover open
5803 27	Mechanical Counter:Bk	Not set	Set
5803 28	Mechanical Counter:FC	Not set	Set
5803 29	Key Counter Set Sensor	Set	Not set
5803 30	Key Card Set Sensor	Set	Not set
5803 31	Toner End Sensor: K	End	Not end
5803 32	Toner End Sensor: C	End	Not end
5803 33	Toner End Sensor: M	End	Not end
5803 34	Toner End Sensor: Y	End	Not end
5803 35	Fusing Entrance Sensor	Paper detected	No paper detected
5803 36	Fusing Exit Sensor	Paper detected	No paper detected
5803 37	Paper Exit Sensor	Paper detected	No paper detected
5803 38	ITB Contact HP Sensor	HP (Contact)	Not HP (not contact)

5803 39	ITB T-Collect Bttl:Set SW	Set	Not set
5803 40	PCU T-Collect Bttl:Set SW	Set	Not set
5803 41	PCU T-Collect Bttl Full Sn	Full	Not full
5803 42	Vertical Transport 1 Sn	Paper detected	No paper detected
5803 43	Vertical Transport 2 Sn	Paper detected	No paper detected
5803 44	Tray1 Size Detection SW	See "Tabl	e 1" below.
5803 45	Tray2 Size Detection SW	See "Tabl	e 1" below.
5803 46	Bypass Size Detection SW	See "Tabl	e 2" below.
5803 47	Bypass Length Detection Sn	Detected	Not detect
5803 48	Bypass HP Sensor	HP	Not HP
5803 49	Tray 1 Paper End Sensor	Not end	End
5803 50	Tray2 Paper End Sensor	Not end	End
5803 51	Bypass Paper End Sensor	Not end	End
5803 52	Tray1 Set SW	Set	Not set
5803 53	Tray2 Set SW	Set	Not set
5803 54	Interlock SW 1	Door close	Door open
5803 55	Interlock SW 2	Door close	Door open
5803 56	DIP SW	-	-
5803 57	BCU Version	-	-
5803 58	PCU T-Collect Motor Set	Not set	Set
5803 59	Reserve Fan:LOCK	Lock	Normal
5803 70	R-Tray Paper Exit Sensor	Paper detected	No paper detected
5803 71	R-Tray Set Sensor	Set	Not set
5803 72	1-Bin:Transport Sensor	Paper detected	No paper detected
5803 73	1-Bin:Paper Sensor	Paper detected	No paper detected
5803 74	1-Bin Set Detection	Set	Not set

5803 75	Shift Tray:Half Turn Sn	Not HP	HP	
5803 76	Shift Tray Set Detection	Not set	Set	
5803 77	1T PFU:Size Sensors	See "Tabl	e 4".	
5803 78	1T PFU:Paper Lift Sn	Not upper limit	Upper limit	
5803 79	1T PFU:Paper Height Sn	-	-	
5803 80	1T PFU:Right Cover SW	Open	Close	
5803 81	1T PFU:Set Detection	Not set	Set	
5803 82	1T PFU:Paper End Sn	Not end	End	
5803 83	2T PFU:Upper Size Sns	S "T - 1 - 4	"	
5803 84	2T PFU:Lower Size Sns	See "Table 4" below.		
5803 85	2T PFU:Upper Paper Lift Sn	Not upper limit	Upper limit	
5803 86	2T PFU:Lower Paper Lift Sn	Not upper limit	Upper limit	
5803 87	2T PFU:Upper Paper Height Sn	-	-	
5803 88	2T PFU:Lower Paper Height Sn	-	-	
5803 89	2T PFU:Right Cover SW	Open	Close	
5803 90	2T PFU:Upper PE Sn	Not end	End	
5803 91	2T PFU:Lower PE Sn	Not end	End	
5803 92	2T PFU:V-Transport Sn	Paper detected	No paper detected	
5803 94	LD OFF Check:Factory	-	-	
5803 200	Scanner HP Sensor	Not HP	НР	
5803 201	Platen Cover Sensor	Open	Close	

Table 1: Paper Size Switch (Tray 1/2):

Switch 1 is used for tray set detection.

0: Pushed, 1: Not pushed

Мо	Bit			
North America	Europe/Asia	2	1	0

11" x 17" SEF* ¹ (A3 SEF)	A3 SEF* ¹ (11" x 17" SEF)	1	0	0
8.5" x 14" SEF *2 (B4 SEF)	B4 SEF *2 (8.5" x 14" SEF)	0	0	0
A4 SEF	A4 SEF	0	1	1
8.5" x 11" SEF	8.5" x 11" SEF	1	1	1
B5 SEF	B5 SEF	1	1	0
11" x 81/2" LEF* ³ (A4 LEF)	A4 LEF* ³ (11" x 81/2" LEF)	0	0	1
10.5" x 7.25" LEF* ⁴ (B5 LEF)	B5 LEF* ⁴ (10.5" x 7.25" LEF)	0	1	0
A5 LEF	A5 LEF	1	0	1

 $^{^*}$ 1: The machine detects either 11" x 17" SEF or A3 SEF, depending on the setting of SP 5-181-002 (Tray 1) or SP 5-181-006 (Tray 2).

Table 2: Paper Size (By-pass Table):

0: ON, 1: OFF

Ву	-pass Pape	r Size Sens	sor	Lameth Canasa	South Course NIA		
bit3	Bit2	Bit1	BitO	Length Sensor	NA	EU/ASIA	
1	1	0	0	1	HLT SEF	B6 SEF	
1	1	1	1	1	HLT SEF	A5 SEF	
1	1	1	0	1	HLT SEF	A5 SEF	
0	0	1	1	0	LT/LG SEF*1	A4 SEF	

 $^{^*}$ 2: The machine detects either 8.5" x 14" SEF or B4 SEF, depending on the setting of SP 5-181-003 (Tray 1) or SP 5-181-007 (Tray 2).

^{*3}: The machine detects either 11" x 81/2" LEF or A4 LEF, depending on the setting of SP 5-181-001 (Tray 1) or SP 5-181-005 (Tray 2).

 $^{^*4}$: The machine detects either B5 LEF or 10.5" x 7.25" LEF, depending on the setting of SP 5-181-004 (Tray 1) or SP 5-181-008 (Tray 2).

Ву	-pass Pape	r Size Sens	sor	Innah Canan	NIA	ELL/ACIA
bit3	Bit2	Bit1	BitO	Length Sensor	NA NA	EU/ASIA
0	0	1	1	1	LT/LG SEF*1	A5 LEF
1	0	0	1	0	DLT SEF	A3 SEF
1	0	0	1	1	LT LEF	A4 LEF

^{*1:} The paper size (LT or LG) can be selected with SP1-007-001.

Table 3: APS Original Size Detection:

Original Siz	W	Width Sensor			Sensor	SP4-301	
Metric version	Inch version	W1	W2	W3	L1	L2	display
А3	11" x 17"	0	0	0	0	0	00000011
B4	10" x 14"	0	0	Х	0	0	00000011
F4 8.5" x 13", 8.25" x 13", or 8" x 13" SP 5126 controls the size that is detected	8.5" x 14"	0	X	X	0	0	00000011
A4 LEF	8.5" x 11"	0	0	0	Х	Х	00000000
B5 LEF	-	0	0	Х	Х	Х	00000000
A4 SEF	11" x 8.5"	0	Х	Х	0	Х	00000010
B5 SEF	-	Х	Х	Х	0	Х	00000010
A5 LEF/ SEF	5.5" x 8.5", 8.5" x 5.5"	Х	Х	Х	Х	Х	00000000

Table 4: Paper Size Switch (Tray 3/4):

"Bit 0" is used for tray set detection. 0: Set, 1: Not set

0: Not Interrupted, 1: Interrupted

Models		Bit			
North America	Europe/Asia	3	2	1	0

11" x 17" SEF* ¹ (A3 SEF)	A3 SEF* ¹ (11" x 1 <i>7</i> " SEF)	0	1	1	0
8.5" x 14" SEF *2 (B4 SEF)	B4 SEF *2 (8.5" x 14" SEF)	1	1	1	0
A4 SEF	A4 SEF	1	0	0	0
B5 SEF	B5 SEF	0	0	1	1
8.5" x 11" SEF	8.5" x 11" SEF	0	0	0	0
11" x 81/2" LEF* ³ (A4 LEF)	A4 LEF* ³ (11" x 81/2" LEF)	1	1	0	1
10.5" x 7.25" LEF* ⁴ (B5 LEF)	B5 LEF* ⁴ (10.5" x 7.25" LEF)	1	0	1	0
A5 LEF	A5 LEF	0	1	0	0
A5 SEF	A5 SEF	1	1	0	1

^{*}1: The machine detects either 11" x 17" SEF or A3 SEF, depending on the setting of SP 5-181-010 (Tray 3) or SP 5-181-014 (Tray 4).

ARDF (D366)

6007			ding
8007	Description	0	1
6007 1	Original Length Sn1 (B5 Sn)	Paper not detected	Paper detected
6007 2	Original Length Sn2 (A4 Sn)	Paper not detected	Paper detected
6007 3	Original Length Sn3 (LG Sn)	Paper not detected	Paper detected
6007 4	Original Width Sn:S	Paper not detected	Paper detected

 $^{^*}$ 2: The machine detects either 8.5" x 14" SEF or B4 SEF, depending on the setting of SP 5-181-011 (Tray 3) or SP 5-181-015 (Tray 4).

^{*3}: The machine detects either 11" x 81/2" LEF or A4 LEF, depending on the setting of SP 5-181-009 (Tray 3) or SP 5-181-013 (Tray 4).

 $^{^*}$ 4: The machine detects either B5 LEF or 10.5" x 7.25" LEF, depending on the setting of SP 5-181-012 (Tray 3) or SP 5-181-016 (Tray 4).

	î .		
6007 5	Original Width Sn:M	Paper not detected	Paper detected
6007 6	Original Width Sn:L	Paper not detected	Paper detected
60077	Original Width Sn:LL	Paper not detected	Paper detected
6007 9	Original Set Sn	Paper not detected	Paper detected
6007 10	Trailing Edge Sn	Paper not detected	Paper detected
6007 11	Skew Correction Sn	Paper not detected	Paper detected
6007 13	Registration Sn	Paper not detected	Paper detected
6007 14	Exit Sn	Paper not detected	Paper detected
6007 15	Feed Cover SW	ADF cover close	ADF cover open
6007 16	Lift Up Sn	HP	Not HP

Internal Finisher (D429)

6120	Danadaka	Rea	ding
0120	Description	0	1
6120 1	Staple Slide HP Sensor	Not HP	HP
61202	Punch Slide HP Sensor	Not HP	HP
61203	Staple HP Sensor	Not HP	HP
6120 4	Paper T-Edge Sensor	Paper not detected	Paper detected
61205	Pick Roller Lift Sensor	Up	Down
61206	Paper Detection Sensor	Paper not detected	Paper detected
61207	Belt Roller Lift Sensor	Down	Up
61208	Entrance Sensor	Paper not detected	Paper detected
61209	Rear Jogger HP Sensor	НР	Not HP
6120 10	Front Jogger HP Sensor	НР	Not HP
6120 11	Fan Lock Signal	Normal	Lock
6120 12	Finisher Open Switch	Close	Open

6120 13	Punch Unit:Area Detect2	See "Table 5" below.	
6120 14	Punch Unit:Area Detect 1		
6120 15	Paper Stack Sensor 2	HP	Not HP
6120 16	Paper Stack Sensor 1	HP	Not HP
6120 17	Punch Position Sensor	Not HP	HP
6120 18	Paper Width Sensor:A3	Paper not detected	Paper detected
6120 19	Paper Width Sensor:LD	Paper not detected	Paper detected
6120 20	Paper Width Sensor:B4	Paper not detected	Paper detected
6120 21	Paper Width Sensor:A4	Paper not detected	Paper detected
6120 22	Paper Width Sensor: 16K	Paper not detected	Paper detected
6120 23	Paper Width Sensor:B5	Paper not detected	Paper detected
6120 24	Punch Hopper Full Sensor	Full	Not full
6120 25	Tray Upper Sensor	Upper	Not upper
6120 26	Relay Sensor	Paper not detected	Paper detected
6120 27	Tray Lower Sensor	Lower	Not lower
6120 28	Jogger HP Sensor	Not HP	HP
6120 29	Punch HP Sensor	Not rear	Rear Position
6120 30	Stapler Safety Sensor	No staple	Staple detected
612031	Staple Empty Sensor	No staple	Staple detected
6120 32	Punch Unit Sensor	Not set	Set

Table 5: Area Display:

The bit 0 of these SPs shows the punch unit type.

2: 2 Holes, 2/3: 2/3 Holes, 4 (EU): 4 Holes Europe,

4 (Scan.): 4 Holes Scandinavia

SP		2	2/3	4 (EU)	4 (Scan.)
6120-013	Punch Unit:Area Detect2	0	0	1	1

6120-014 Punch Unit:Area Detect2	0	1	0	1	
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Output Check Table

Copier

5804	Display	Description
5804 1	Paper Feed M1:CW:190mm/s	-
5804 2	Paper Feed M1:CW:120mm/s	-
5804 3	Paper Feed M1:CW:60mm/s	-
5804 4	P-Feed M1:CW:60mm/s:Thick	-
5804 5	Paper Feed M1:CCW:190mm/s	-
5804 6	Paper Feed M1:CCW:120mm/s	-
58047	Paper Feed M1:CCW:60mm/s	-
5804 8	P-Feed M1:CCW:60mm/s:Thick	-
5804 9	Paper Feed M2:CW:190mm/s	-
5804 10	Paper Feed M2:CW:120mm/s	-
5804 11	Paper Feed M2:CW:60mm/s	-
5804 12	P-Feed M2:CW:60mm/s:Thick	-
5804 13	Paper Feed M2:CCW:190mm/s	-
5804 14	Paper Feed M2:CCW:120mm/s	-
5804 15	Paper Feed M2:CCW:60mm/s	-
5804 16	P-Feed M2:CCW:60mm/s:Thick	-
5804 17	Bypass M:CW:190mm/s	-
5804 18	Bypass M:CW:120mm/s	-
5804 19	Bypass M:CW:60mm/s:400mA	-
5804 20	Bypass M:CW:60mm/s:300mA	-
5804 21	Bypass M:CCW:190mm/s	-

5804 22 Bypass M:CCW:120mm/s - 5804 23 Bypass M:CCW:60mm/s - 5804 24 Registration M:120mm/s - 5804 25 Registration M:60mm/s - 5804 26 Regist M:60mm/s:Thick - 5804 27 Inverter M:CW:280mm/s - 5804 29 Inverter M:CW:120mm/s - 5804 31 Inverter M:CW:60mm/s - 5804 33 Inverter M:280mm/s - 5804 35 Inverter M:120mm/s -	
5804 24 Registration M:120mm/s - 5804 25 Registration M:60mm/s - 5804 26 Regist M:60mm/s:Thick - 5804 27 Inverter M:CW:280mm/s - 5804 29 Inverter M:CW:120mm/s - 5804 31 Inverter M:CW:60mm/s - 5804 33 Inverter M:280mm/s -	
5804 25 Registration M:60mm/s - 5804 26 Regist M:60mm/s:Thick - 5804 27 Inverter M:CW:280mm/s - 5804 29 Inverter M:CW:120mm/s - 5804 31 Inverter M:CW:60mm/s - 5804 33 Inverter M:280mm/s -	
5804 26 Regist M:60mm/s:Thick - 5804 27 Inverter M:CW:280mm/s - 5804 29 Inverter M:CW:120mm/s - 5804 31 Inverter M:CW:60mm/s - 5804 33 Inverter M:280mm/s -	
5804 27 Inverter M:CW:280mm/s - 5804 29 Inverter M:CW:120mm/s - 5804 31 Inverter M:CW:60mm/s - 5804 33 Inverter M:280mm/s -	
5804 29 Inverter M:CW:120mm/s - 5804 31 Inverter M:CW:60mm/s - 5804 33 Inverter M:280mm/s -	
5804 31 Inverter M:CW:60mm/s - 5804 33 Inverter M:280mm/s -	
5804 33 Inverter M:280mm/s -	
,	-
5804 35 Inverter M:120mm/s -	
5804 37 Inverter M:60mm/s -	
5804 39 Duplex Exit M:280mm/s -	
5804 40 Duplex Exit M:120mm/s -	
5804 41 Duplex Exit M:60mm/s -	
5804 42 Duplex Ent. M:280mm/s -	
5804 43 Duplex Ent. M:120mm/s -	
5804 44 Duplex Ent. M:60mm/s -	
5804 45 Color Dev. M:120mm/s -	
5804 46 Color Dev. M:60mm/s -	
5804 47 Color Drum. M:120mm/s -	
5804 48 Color Drum. M:60mm/s -	
5804 49 Bk Drum M:120mm/s -	
5804 50 Bk Drum M:60mm/s -	
5804 51 ITB Motor:120mm/s -	
5804 52 ITB Motor:60mm/s -	
5804 53 Fusing/P-Exit M:120mm/s -	

5804 54	Fusing/P-Exit M:60mm/s	-
5804 55	Electrical FAN:H	-
5804 56	Electrical FAN:L	-
5804 57	Fusing Fan:H	-
5804 58	Fusing Fan:L	-
5804 59	Dev. Front FAN:H	-
5804 60	Dev. Front FAN:L	-
5804 61	Dev. Rear FAN:H	-
5804 62	Dev. Rear FAN:L	-
5804 63	Fusing Exit Fan:H	-
5804 64	Fusing Exit Fan:L	-
5804 65	LD Unit Fan:H	-
5804 67	PSU Fan:H	-
5804 69	Junc. Gate SOL Fan:H	-
5804 70	Junc. Gate SOL Fan:L	-
580471	Toner Supply M:Bk	-
5804 72	Toner Supply M:C	-
5804 73	Toner Supply M:M	-
5804 74	Toner Supply M:Y	-
5804 75	PCU T-Collect Motor	-
5804 76	ID/MUSIC Sn Shutter Motor	PTR Contact Motor
5804 77	ITB Contact Motor	-
5804 78	Bk Dev. Clutch	-
5804 79	Junction Gate SOL	-
5804 80	PWM:Potential Sn:Bk	-
5804 81	PWM:Potential Sn:C	-

500105	DATA D	
5804 82	PWM:Potential Sn:M	-
5804 83	PWM:Potential Sn:Y	-
5804 84	HVPS:Charge AC:Bk:H	-
5804 85	HVPS:Charge AC:Bk:L	-
5804 86	HVPS:Charge AC:C:H	-
5804 87	HVPS:Charge AC:C:L	-
5804 88	HVPS:Charge AC:M:H	-
5804 89	HVPS:Charge AC:M:L	-
5804 90	HVPS:Charge AC:Y:H	-
5804 91	HVPS:Charge AC:Y:L	-
5804 92	HVPS:Charge DC:Bk	-
5804 93	HVPS:Charge DC:C	-
5804 94	HVPS:Charge DC:M	-
5804 95	HVPS:Charge DC:Y	-
5804 96	HVPS:Dev. Bias:Bk	-
5804 97	HVPS:Dev. Bias:C	-
5804 98	HVPS:Dev. Bias:M	-
5804 99	HVPS:Dev. Bias:Y	-
5804 100	HVPS:PTR Bias:- PWM	-
5804 101	HVPS:PTR Bias:+ PWM	-
5804 102	HVPS:ITR Bias:Bk	-
5804 103	HVPS:ITR Bias:Bk	-
5804 104	HVPS:ITR Bias:Bk	-
5804 105	HVPS:ITR Bias:Bk	-
5804 106	MUSIC Sensor:R:PWM	-
5804 107	MUSIC Sensor:C:PWM	-

5804 108	MUSIC Sensor:F:PWM	-
5804 109	Reserve Fan:H	-
5804 110	Reserve Fan:LOCK	-
5804 111	Toner End Sn Power	-
5804 120	R-Tray M:280mm/s	-
5804 121	R-Tray M:120mm/s	-
5804 122	R-Tray SOL	-
5804 123	Shift Motor	_
5804 124	1T PFU:Tray Lift M	_
5804 125	1T PFU:Paper Feed M	_
5804 126	1T PFU:Paper Feed CL	-
5804 127	2T PFU:Relay CL	_
5804 128	2T PFU:Upper Feed CL	
		-
5804 129	2T PFU:Lower Feed CL	-
5804 130	2T PFU:P-Feed M:190mm/s	-
5804 131	2T PFU:P-Feed M:120mm/s	-
5804 132	2T PFU:P-Feed M:60mm/s	-
5804 133	2T PFU:Upper Tray Lift M	-
5804 134	2T PFU:Lower Tray Lift M	-
5804 192	RFID ON/OFF: Bk	-
5804 193	RFID ON/OFF: C	-
5804 194	RFID ON/OFF: M	-
5804 195	RFID ON/OFF: Y	-
5804 196	RFID COM ON: Bk	-
5804 197	RFID COM ON: C	-
5804 198	RFID COM ON: M	-

5804 199 | RFID COM ON: Y

Internal Finisher (D429)

6121	Description	Description
61211	Transport Motor	-
61212	Front Jogger Motor	-
61213	Rear Jogger Motor	-
6121 4	Stapler Slide Motor	-
6121 5	Stuck Feed-out Motor	-
61216	Pick Roller Lift Motor	-
61217	Staple Motor	-
61218	Tray Lift Motor	-
6121 9	Paper Detection SOL	-
6121 10	Paddle Rotation SOL	-
6121 11	Belt Roller SOL	-
6121 12	Junction Gate SOL	-
6121 13	Fan Motor	-
6120 14	Punch Motor	-
6120 15	Punch Slide Motor	-
6120 16	Inverter Roller SOL	-

5

ARDF (D366)

6008	Display	Description
6008 3	Feed Motor: Forward	Feed Motor-Forward rotation
6008 4	Feed Motor: Reverse	Feed Motor-Reverse rotation
6008 5	Transport Motor: Forward	Transport Motor- Forward rotation
6008 6	Transport Motor: Forward	Transport Motor- Forward rotation
6008 9	Feed Clutch	-
6008 10	Pick-up Solenoid	-
6008 11	Junction Gate Solenoid	-
6008 12	Stamp Solenoid	Stamp Solenoid

Main SP Tables-9

Printer Service Mode

SP1-XXX (Service Mode)

1001	Bit Swi	Bit Switch			
001	Bit Swi	tch 1	0	1	
	bit 0	DFU	-	-	
	bit 1	DFU	-	-	
	bit 2	DFU	-	-	
	bit 3	No I/O Timeout	0: Disable	1: Enable	
		Enable: The MFP I/O Timeout setting will have no effect. I/O Timeouts will never occur.			
	bit 4	SD Card Save Mode	0: Disable	1: Enable	
		Enable: Print jobs will be saved to an SD Card in the Save Function").	GW SD slot (I	₽ p.560 "Card	
	bit 5	DFU	-	-	
	bit 6	DFU	-	-	
	bit 7	[RPCS,PCL]: Printable area frame border	0: Disable	1: Enable	
		Enable: The machine prints all RPCS and PCL jobs w printable area.	ith a border on	the edges of the	

1001	Bit Switch	
------	------------	--

002	Bit Swit	Bit Switch 2		1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	Applying a collation Type	Shift Collate	Normal Collate
		A collation type (shift or normal) will be applied to a 'Collate Type' configured.	ll jobs that do r	ot already have a
		●Note		
		• If #5-0 is enabled, this Bit Switch has no effect.		
	bit 3	[PCL5e/c,PS]: PDL Auto Switching	0: Enable	1: Disable
		Disable: The MFPs ability to change the PDL processor mid-job.		
		Some host systems submit jobs that contain both PS ar is disabled, these jobs will not be printed properly.	nd PCL5e/c. If /	Auto PDL switching
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001 Bit Switch

003	Bit Swit	Bit Switch 3		1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	[PCL5e/c]: Legacy HP compatibility	0: Disable	1: Enable
		Enable: Uses the same left margin as older HP models such as HP4000/HP8000. In other words, the left margin defined in the job (usually " <esc>*r0A") will be changed to "<esc>*r1A"</esc></esc>		
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	Bit Switch				
004	Bit Switch 4 DFU		0	1	
	bit 0	DFU	-	-	
	bit 1	DFU	-	-	
	bit 2	DFU	-	-	
	bit 3	IPDS print-side reversal	0: Disable	1: Enable	
		If enabled, the simplex pages of IPDS jobs will be printed on the front side because printing on the back side of the page. This might reduce printing speed.			
	bit 4	DFU	-	-	
	bit 5	DFU	-	-	
	bit 6	DFU	-	-	
	bit 7	DFU	-	-	

1001	Bit Switch		
005	Bit Switch 5	0	1

		Show "Collate Type", "Staple Type" and "Punch Type" buttons on the operation panel.	Disable	Enable	
	bit 0 If enabled, users will be able to configure a Collate Type, Staple Type, and Pu from the operation panel. The available types will depend on the device and cooptions.				
		After enabling the function, the settings will appear u	under:		
		"User Tools > Printer Features > System"			
	bit 1	Multiple copies if a paper size or type mismatch occurs	0: Disable (Single copy)	1: Enable (Multiple copy)	
		If a paper size or type mismatch occurs during the p single copy is output by default. Using this BitSw, the all copies even if a paper mismatch occurs.		. ,	
	bit 2	DFU	-	-	
	bit 3	[PS] PS Criteria	Pattern3	Pattern 1	
		Change the number of PS criterion used by the PS ir job is PS data or not.	nterpreter to de	termine whether a	
		Pattern3: includes most PS commands.			
		Pattern 1: A small number of PS tags and headers			
	bit 4	Increase max number of the stored jobs to 1000 jobs.	Disable (100)	Enable (1000)	
		Enable: Changes the maximum number of jobs that can be stored on the HDD via Job Type settings to 1000. The default is 100.			
	bit 5	Face-up output	Disable	Enable	
		Enable: All print jobs will be output face-up in the de	estination tray.		
	bit 6	Method for determining the image rotation for the edge to bind on.	0: Disable	1: Enable	
		If enabled, the image rotation will be performed as they were in the specifications of older models for the binding of pages of mixed orientation jobs.			
	The old models are below: - PCL: Pre-04A models				
		- PS/PDF/RPCS:Pre-05S models			

	bit 7	Letterhead mode printing	0: Disable	1: Enable (Duplex)
			l	I
1001	Bit Swit	tch		
006	Bit Swit	rch 6 DFU	-	-
1001	Bit Swit	tch		
007	Bit Swit	rch 7	0	1
		Print path	0: Disable	1: Enable
	bit 0	If enabled, simplex pages (in mixed simplex/duplex page of an odd paged duplex job (PS, PCL5, PCL6) duplex unit. Not having to switch paper paths increase.	, are always ro	outed through the
	bit 1 to 7	DFU	-	-
1001	Bit Swit	reh		
1001	DII SWII	CII		
008	Bit Swit	rch 8	0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	[PCL,PS]: Allow BW jobs to print without requiring User Code	Disable	Enable

Enable: BW jobs submitted without a user code will be printed even if usercode

• Color jobs will not be printed without a valid user code.

authentication is enabled.

U Note

DFU

DFU

DFU

DFU

bit 4

bit 5

bit 6

bit 7

1001	Bit Switch			
005	Bit Swi	tch 9	0	1
	bit 0	PDL Auto Detection timeout of jobs submitted via USB or Parallel Port (IEEE 1284).	"Disabled (Immediatel y)"	"Enabled (10 seconds)"
	Sil C	To be used if PDL auto-detection fails. A failure of PDL autodetection 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	DFU	-	-
	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 conditions might result in problems: - Job submission via USB or Parallel Port - Spool printing (WIM >Configuration > Device Settings > System)		
	bit 3	PCL/PS bypass tray paper rotation (SEF/LEF)	0: Disable	1: Enable
		This bitsw causes the device to revert to the behavior of previous generations. It only takes effect if "Bypass Tray Setting Priority" = "Driver/Command". Previous spec (bitsw=1): If a standard sized paper mismatch occurred in the bypass tray, the MFP always prompted for SEF paper. If this bitsw=0 (default) then in the event of a standard sized paper mismatch, the MFP will always prompt for paper of the rotation (SEF/LEF) determined by the MFP bypass tray paper setting or by the bypass tray sensor.		
	Bit 4 to 7	DFU	-	-

1003 [Clear Setting]	
1002 1	Initialize Printer System
1003 1	Initializes settings in the "System" menu of the user mode.
1003 3	Delete Program

1004	[Print Summary]
10041	Print Summary
1004 1	Prints the service summary sheet (a summary of all the controller settings).

1005 [Display Version]	
1005.1	Disp. Version
1005 1	Displays the version of the controller firmware.

1006	[Sample/Locked Print]	*CTL	0 : Linked, 1: On
1006 1	enabled or disabled in accord	ance with	er. When you select "0," the document server is Copy Service Mode SP5-967. When you select ardless of Copy Service Mode SP5-967.

	[Data Recall]		
1101	Recalls a set of gamma settings. This can be either a) the factory setting, b) the previous setting, or c) the current setting.		
11011	Factory		
1101 2	Previous	*CTL	
11013	Current		
1101 4	ACC		

	1102	[Resolution Setting]
		Selects the printing mode (resolution) for the printer gamma adjustment.
2400x600 Photo, 1800x600 Photo, 600 x 600 Photo, 2400x600 Text, 18 600x600 Text		2400x600 Photo , 1800x600 Photo, 600 x 600 Photo, 2400x600 Text, 1800x600, Text, 600x600 Text

1103	[Test Page]
1103	Prints the test page to check the color balance before and after the gamma adjustment.
1103 1	Color Gray Scale
1103 2	Color Pattern

1104	[Gamma Adjustment]		
1104	Adjusts the printer gamma for t	selected in the "Mode Selection" menu.	
11041	Black: Highlight		
11042	Black: Shadow		
11043	Black: Middle		
11044	Black: IDmax	*CTL	[0 20 / 15 / 1 /]
1104 21	Cyan: Highlight	CIL	[0 to 30 / 15 / 1/step]
1104 22	Cyan: Shadow		
1104 23	Cyan: Middle		
1104 24	Cyan: IDmax		
1104 41	Magenta: Highlight		[0 to 30 / 15 / 1/step]
1104 42	Magenta: Shadow		
1104 43	Magenta: Middle		
1104 44	Magenta: IDmax	*CTL	
110461	Yellow: Highlight	CIL	
1104 62	Yellow: Shadow		
1104 63	Yellow: Middle		
1104 64	Yellow: IDmax		

	[Save Tone Control Value]
1105	Stores the print gamma adjusted with the "Gamma Adj." menu item as the current setting. Before the machine stores the new "current setting", it moves the data currently stored as the "current setting" to the "previous setting" memory storage location.
1105 1	Save Tone Control Value

1106	[Toner Limit]	
1100	Adjusts the maximum toner amount for image development.	

1106 1 Toner Limit Value	*CTL	[100 to 400 / 260 / 1 %/step]
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Scanner SP Mode

SP1-xxx (System and Others)

1001	[Scan Nv Version]		
1001 5	-	*CTL	-

1004	[Compression Type]				
1004	Selects the compression type for binary picture processing.				
1004 1	Compression Type	*CTL	[1 to 3 / 1 / 1/step] 1: MH, 2: MR, 3: MMR		

	[Erase margin]				
1005	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.				
1005 1	Range from 0 to 5 mm	*CTL	[0 to 5 / 0 / 1 mm/step]		

1009	[Remote scan disable]	*CTL	[0 or 1 / 0 / -] 0: enable, 1: disable
1009 1	Enable or disable remote scan.		

1010	[Non Display Clear Light PDF]	*CTL	[0 or 1 / 0 / -] 0: Display, 1: No display
1010 1	Enable or disable remote scan.		

1011	[Org count Disp]	*CTL	[0 or 1 / 0 / -]

Selects the original counter display.

1011 1

O: Displays remaining memory for the original scanning.

1: Displays original counter.

1012	[UserInfo release]	*CTL	[0 or 1 / 1 / -] 0: No, 1: Yes
1012 1	Clear the following settings: Address, Sender, Text / Subject, Filename		ne

1013	[Multimedia Function Setting]	*CTL	[0 or 1 / 0 / -] 0: OFF, 1: ON
1013 1	On or off multimedia function		

SP2-XXX (Scanning-image quality)

	[Compression Level (Grayscale)]				
2021	Selects the compression ratio for grayscale processing mode (JPEG) for the three settings that can be selected at the operation panel.				
2021 1	Comp 1: 5-95		[5 to 95 / 20 / 1 /step]		
2021 2	Comp 2: 5-95		[5 to 95 / 40 / 1 /step]		
2021 3	Comp 3: 5-95	*CTL	[5 to 95 / 65 / 1 /step]		
2021 4	Comp 4: 5-95		[5 to 95 / 80 / 1 /step]		
2021 5	Comp 5: 5-95		[5 to 95 / 95 / 1 /step]		

	[Compression ratio of ClearLight PDF]			
Selects the compression ratio for clearlight PDF for the two setting the operation panel.		settings that can be selected at		
2024 1	Compression Ratio (Normal)	*CTL	[5 to 95 / 25 / 1 /step]	
2024 2	Compression Ratio (High)	*CIL	[5 to 95 / 20 / 1 /step]	

Firmware Update

To update the firmware for this machine, you must have the new version of the firmware downloaded onto an SD (Secure Digital) Card. The SD Card is inserted into SD Card Slot 2 on the left rear side of the controller box.

Type of Firmware

Type of firmware	Function	Location of firmware	Message shown
Engine	Printer engine control	BCU Flash ROM	Engine
System/Copy Application Operating system		Flash ROM on the controller board	System/Copy
Printer Application	Feature application	Flash ROM on the controller board	Printer
Scanner Application	Feature application	Flash ROM on the controller board	Scanner
Fax Application	Feature application	Flash ROM on the controller board	Fax
NIB	Network Interface	Flash ROM on the controller board	Network Support
Operation Panel	Panel control	Operation Panel	Lcdc.
Fax FCU	Fax control	FCU	GWFCU-4(ww)-1-1
Remote Fax	Fax control	Flash ROM on the controller board	Remote Fax
	Language firmware		Language 1
Language	Two languages can be selected from 16 languages.	Operation Panel	Language 2
WebDocBox Document server application		Flash ROM on the controller board	Web Uapl
WebSys Web Service application		Flash ROM on the controller board	Web Support

PS/ PDF	Page description language (PostScript3)	PS3 SD card	PS3/ PDF
PictBridge	PictBridge control	PictBridge SD card	PctBrgd
ARDF	ARDF control	ARDF	ADF
Finisher (D429)	Finisher control	Finisher (D429)	Finisher
Java VM	SDK application	Java VM SD card	SDK
Data Overwrite Security	Security application	Security SD card	HDD Format Option

Before You Begin

An SD card is a precision device. Always observe the following precautions when you handle SD cards:

- Always switch the machine off before you insert an SD card. Never insert the SD card into the slot with the power on.
- Do not remove the SD card from the service slot after the power has been switched on.
- Never switch the machine off while the firmware is downloading from the SD card.
- Keep SD cards in a safe location where they are not exposed to high temperature, high humidity, or exposure to direct sunlight.
- Always handle SD cards with care. Do not bend or scratch them. Do not let the SD card get exposed to shock or vibration.
- Make sure that the write protection of an SD card is unlocked when you download an application to
 it. If not, downloading fails and a download error (e.g. Error Code 44) occurs during a firmware
 upgrade.

Keep the following points in mind when you use the firmware update software:

- "Upload" means to send data from the machine to the SD card. "Download" means to send data from the SD card to the machine.
- To select an item on the LCD, touch the appropriate button on the soft touch-screen of the LCD, or, press the appropriate number key on the 10-key pad of the operation panel. For example, when "Exit (0)" shows on the screen you can touch the Exit button on the screen, or, press the ¹ button on the operation panel of the copier.
- Make sure that the machine is disconnected from the network to prevent a print job for arriving while
 the firmware update is in progress before you start the firmware update procedure.

Preparation

- If the SD card is blank, copy the entire "romdata" folder onto the SD card.
- If the card already contains the "romdata" folder, copy the "D104" folder onto the card.

If the card already contains folders up to "D104", copy the necessary firmware files (e.g. D104xxxx.fwu) into this folder.



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

Updating Procedure

- 1. Turn the main power switch off.
- 2. Remove the slot cover (F x 1).
- 3. Remove the Java VM card from SD slot 2
- 4. Insert the SD card into SD slot 2. Make sure the label on the SD card faces the rear side of the machine.
- 5. Slowly push the SD card into the slot so it locks in place. You will hear it click. Make sure the SD card locks in place.



- To remove the SD, push it in to unlock the spring lock. Then release it so it pops out of the slot.
- 6. Disconnect the network cable from the copier if the machine is connected to a network.
- Switch the main power switch on. After about 45 seconds, the initial version update screen appears on the LCD in English.
- 8. On the screen, touch the button or press the corresponding number key on the operation panel to select the item in the menu that you want to update.

ROM/NEW	What it means		
ROM:	Tells you the number of the module and name of the version currently installed. The first line is the module number, the second line the version name.		
NEW:	Tells you the number of the module and name version on the SD card. The first line is the module number, the second line the version name.		



- Controller, engine and operation panel firmware cannot be updated at the same time. It is recommended to update firmware modules one by one.
- 9. Touch "UpDate (#)" (or[®]) to start the update.



- The progress bar does not show for the operation panel firmware after you touch "OpPanel".
 The power on key flashes on and off at 0.5 s intervals when the LCDC firmware is updating. The power key flashes on and off at 3 s intervals when the update is finished.
- 10. The "Update is Done" message appears on the operation panel after completing the updating. The message differs depending on the firmware that has been updated.
- 11. Switch the copier main power switch off when you see the "Update is Done" message or follow the procedure that is displayed on the operation panel.
- 12. Press in the SD card to release it. Then remove it from the slot.
- 13. Install the Java card in SD slot 2, and then attach the SD slot cover (x 1).
- 14. Switch the copier on for normal operation.

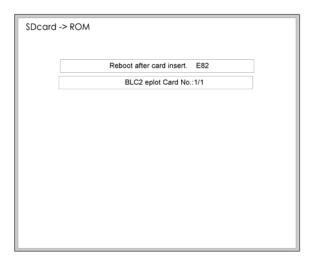
Error Messages

An error message shows in the first line if an error occurs during the download.

The error code consists of the letter "E" and a number. The example above shows error "E24" displayed. For details, refer to the Error Message Table. (** "Handling Firmware Update Error")

Firmware Update Error

If a firmware update error occurs, this means the update was cancelled during the update because the module selected for update was not on the SD card.



Recovery after Power Loss

If the ROM update is interrupted as a result of accidental loss of power while the firmware is updating, then the correct operation of the machine cannot be guaranteed after the machine is switched on again. If the ROM update does not complete successfully for any reason, then in order to ensure the correct operation of the machine, the ROM update error will continue to show until the ROM is updated successfully.

In this case, insert the card again and switch on the machine to continue the firmware download automatically from the card without the menu display.

Updating the LCDC for the Operation Panel

Do the following procedure to update the LCDC (LCD Control Board).

- 1. Turn the copier main switch off.
- 2. Remove the SD slot cover (* x 1).
- 3. Remove the Java VM card from SD slot 2.
- 4. Insert the SD card into SD slot 2.
- 5. Switch the copier main switch on.
- 6. The initial screen opens in English after about 45 seconds.
- 7. Touch "Ope Panel.xx".
- 8. "xx" differs depending on the destination.
- 9. Touch "UpDate(#) or (#) to start the update.
- 10. Downloading starts after about 9 seconds.
- 11. The operation panel goes off and the main power on key flashes in red at 0.5 s intervals when the data is downloading. The same key starts flashing in green at 1 s intervals when the update is finished.

- 12. Press the "Exit" button.
- 13. Switch the copier main power switch off and remove the SD card from SD slot 2
- 14. Install the Java VM card in SD slot 2.
- 15. Attach the SD slot cover (F x 1).
- 16. Switch the copier on.
- 17. Then turn the copier off and on again.

Handling Firmware Update Errors

An error message shows in the first line if an error occurs during a download. The error code consists of the letter "E" and a number ("E20", for example).

Error Message Table

Code	Meaning	Solution
20	Cannot map logical address	Make sure the SD card is inserted correctly.
21	Cannot access memory	HDD connection incorrect or replace hard disks.
22	Cannot decompress compressed data	Incorrect ROM data on the SD card, or data is corrupted.
23	Error occurred when ROM update program started	Controller program abnormal. If the second attempt fails, replace controller board.
24	SD card access error	Make sure SD card inserted correctly, or use another SD card.
30	No HDD available for stamp data download	HDD connection incorrect or replace hard disks.
31	Data incorrect for continuous download	Insert the SD card with the remaining data required for the download, the re-start the procedure.
32	Data incorrect after download interrupted	Execute the recovery procedure for the intended module download, then repeat the installation procedure.
33	Incorrect SD card version	Incorrect ROM data on the SD card, or data is corrupted.
34	Module mismatch - Correct module is not on the SD card)	SD update data is incorrect. Acquire the correct data (Japan, Overseas, OEM, etc.) then install again.

35	Module mismatch – Module on SD card is not for this machine	SD update data is incorrect. The data on the SD card is for another machine. Acquire correct update data then install again.
36	Cannot write module – Cause other than E34, E35	SD update data is incorrect. The data on the SD card is for another machine. Acquire correct update data then install again.
40	Engine module download failed	Replace the update data for the module on the SD card and try again, or replace the BCU board.
42	Operation panel module download failed	Replace the update data for the module on the SD card and try again, or replace the LCDC.
43	Stamp data module download failed	Replace the update data for the module on the SD card and try again, or replace the hard disks.
44	Controller module download failed	Replace the update data for the module on the SD card and tray again, or replace controller board.
49	Firmware update is prohibited	Set the setting of "Update Firmware" under the "Administrator Tools" to "Do not Prohibit". (Administrator Tools > Extended Security > Update Firmware)
50	Electronic confirmation check failed	SD update data is incorrect. The data on the SD card is for another machine. Acquire correct update data then install again.

Java VM Updating Procedure

- 1. Turn the main power off, then remove the SD slot cover (** x 1), and remove the Java VM card from SD slot 2.
- 2. Insert the Java VM card to the SD card writer that is connected to PC.
- 3. Make sure which drive is assigned for the SD card.
- 4. Decompress the downloaded update file, then two files exist that one file is ".exe" file extension and the other is ".bat" file extension.
- 5. Double click the ".bat" file then command prompt screen is appeared.
- 6. The first command line is shown as
 - "Please input drive letter of SD card [a x]:"

Then enter the SD card drive name, and press "Enter" key.

- 7. "Press any key to continue..." is appeared, then press "Enter" key again. The updating to the SD card starts.
- 8. "Press any key to continue..." is appeared again, then press "Enter" key. The command prompt screen is disappeared automatically if the updating is successful.
- Remove the Java VM card from the SD card writer after going off the access lamp on the SD card writer.
- 10. Insert the Java VM card in the SD slot 2 of the machine and turn the main power on.

App2Me Updating Procedure

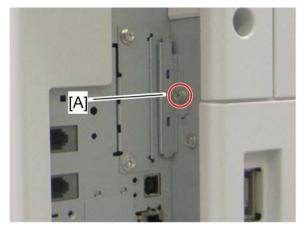
Follow this procedure to update App2Me if a new version is available.

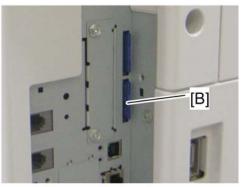
- 1. Push the [User/Tools] key on the operation panel.
- 2. If an administrator setting is registered for the machine, Step 3 and Step 4 are required. Otherwise, skip to step 5.
- 3. Push [Login/Logout] on the operation panel.
- 4. Login with the administrator user name and password.
- 5. Touch "Extended Feature Settings" twice on the LCD.
- 6. Touch each of the applications until the status changes to "Stop".
- 7. Turn the machine off.
- 8. Remove the SD slot cover (x 1), and then remove the Java VM card from SD slot 2.
- 9. Prepare the newer App2Me file from the Firmware Download Center, and then unzip the zip file. (The folder name is "337051920".)



- Copy the App2Me Provider folder into the specified path for the VM card. The path is:
 "SD_Card Drive\ sdk\dsdk\dist\337051920"
- 11. Turn the SD card label face to the rear of the machine, and then push it slowly into SD slot 2 (lower slot) until you hear a click.
- 12. Attach the SD slot cover (🗗 x 1).
- 13. Turn the main power switch on.
- 14. Press [User Tools] on the operation panel.
- 15. Touch the "Extended Feature Settings" button twice.
- 16. Touch the "Extended Feature Info" tab on the LCD.
- 17. Touch the "App2Me" line.
- 18. Set the setting of the "Auto Start" to "On".
- 19. Touch the "Exit" button.
- 20. Exit the [User Tools/Counter] settings.

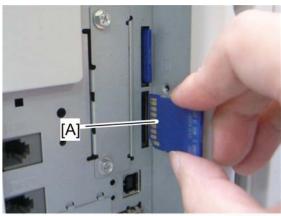
Brower Unit Updating Procedure





d104i119a

- 1. Remove the SD slot cover [A] for SD cards (\mathcal{F} x 1).
- 2. Remove the VM card [B] from the SD slot 2.



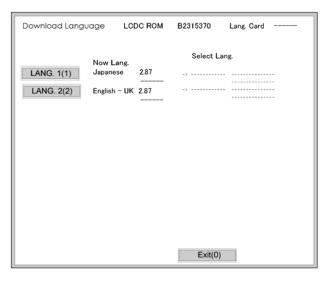
d104i204

- 3. Turn the SD-card label face of the latest version Brower Unit [A] to the front of the machine. Then push it slowly into SD slot 2 until you hear a click.
- 4. Plug in and turn on the main power switch.
- 5. Push the "User Tools" key.
 - If an administrator setting is registered for the machine, step 5 and 6 are required. Otherwise, skip to step 7
- 6. Push the "Login/Logout" key.
- 7. Login with the administrator user name and password.
- 8. Touch "Extended Feature Settings" twice on the LCD.
- 9. Touch "Uninstall" on the LCD.
- 10. Touch the "Browser" line
- 11. Confirmation message appears on the LCD.
- 12. Touch "Yes" to proceed.
- 13. Reconfirmation message appears on the LCD.
- 14. Touch "Yes" to uninstall the browser unit.
- 15. You will see "Uninstalling the extended feature... Please wait.", and then "Completed".
- 16. Touch "Exit" to go back to the setting screen.
- 17. Exit "User/Tools" setting, and then turn off the main power switch.
- 18. Remove the SD card from SD card slot 2.
- 19. Overwrite the updated program in the "sdk" folder of the browser unit application with PC.
- 20. Do the "Installation Procedure" to install the browser unit.
- 21. Remove the SD card of the latest version Brower Unit from SD slot 2.
- 22. Reinstall the VM card in the SD slot 2.
- 23. Attach the SD slot cover [A] (F x 1).

Installing Another Language

Many languages are available. But you can only switch between two languages at a time. Do the following procedure to select the two languages you want. You can select both of the languages you want from the user interface on the operation panel.

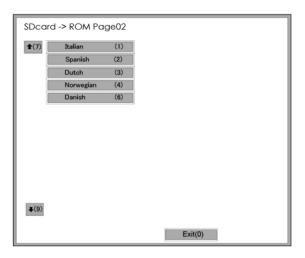
- 1. Switch the copier main power switch off.
- 2. Remove the SD slot cover (🗗 x 1).
- 3. Insert the SD card with the language data into SD Card Slot 2.
- 4. Switch the copier main power switch on. The initial screen opens after about 45 seconds.
- 5. Touch "Language Data (2)" on the screen (or press ②).



6. Touch "LANG. 1(1)" or "LANG. 2(2)"

Key	What it does
LANG. 1(1)	Touch this button on the screen (or press ① on the 10-key pad) to open the next screen so you can select the 1st language.
LANG. 1(2)	Touch this button on the screen (or press ^② on the 10-key pad) to open the next screen so you can select the 2nd language.
Exit(O)	Touch this key on the screen (or press © on the 10-key pad) to quit the update procedure and return to normal screen.

7. Touch "LANG 1(1)" to select the 1st Language. Touch "LANG (2)" to select the 2nd Language.



- 8. Touch the appropriate button on the screen (or press the number on the 10-keypad) to select a language as the 1st (or 2nd) language.
 - If a language is already selected, it will show in reverse.
 - Touching "Exit (0)" returns you to the previous screen.
- 9. If you do not see the language that you want to select, touch " ↑ (7)" or " ↓ (9)" on the screen (or press O or) to show more choices.

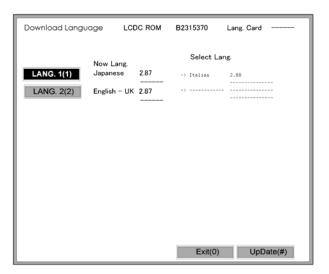
The Download Screen opens after you select a language.

The 1st or 2nd language selected for updating shows.

The following show to right of the selection:

- 1. The first column shows the language currently selected.
- 2. The 2nd column shows the language selected to replace that language.

The example below shows that the download will replace "Japanese" with "Italian" as the 1st language.



10. Touch "Update(#)" on the screen (or press[®]) to start the download.

Another screen with a progress bar does not show when the language is downloading.

The following occur at the time the language is downloading:

- The operation panel switches off.
- The LED on the power on key flashes rapidly.
- 11. After the message of installation completed has shown on the LCD, switch the copier main power switch off. Then remove the SD card from the slot.
- 12. Switch the copier main power switch on to resume normal operation.

Reboot/System Setting Reset

Software Reset

You can reboot the software with one of the following two procedures:

- 1. Turn the main power switch off and on.
- 2. Press and hold down (**) (**) together for over 10 seconds. When the machine beeps once, release both buttons. After "Now loading. Please wait" shows for a few seconds, the copy window will open. The machine is ready for normal operation.

System Settings and Copy Setting Reset

System Setting Reset

The system settings in the UP mode can be reset to their defaults. Use the following procedure.

- 1. Press User Tools/Counter
- 2. Hold down @ and then press System Settings.



You must press

first.



- 3. Press yes when the message prompts you to confirm that you want to reset the system settings.
- 4. Press exit when the message tells you that the settings have been reset.

Copier Setting Reset

Use the following procedure to reset the copy settings in the UP mode to their defaults.

- 2. Hold down @ and then press Copier/Document Server Settings.





• You must press # first.



- 3. Press "Yes" when the message prompts you to confirm that you want to reset the Copier Document Server settings.
- 4. Press exit when the message tells you that the settings have been reset.

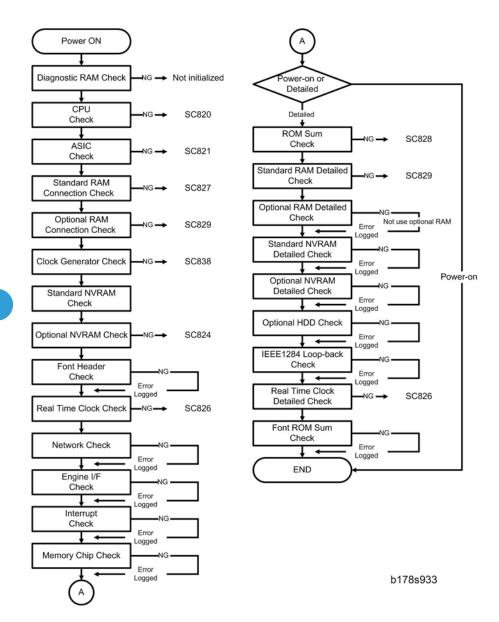
Controller Self-Diagnostics

Overview

There are three types of self-diagnostics for the controller.

- 1. Power-on self-diagnostics: The machine automatically starts the self-diagnostics just after the power has been turned on.
- 2. SC detection: The machine automatically detects SC conditions at power-on or during operation.

The following shows the workflow of the power-on and detailed self-diagnostics.



SD Card Appli Move

Overview

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

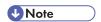
Slot 1 and Slot 2 are used to store application programs. However, more than two optional applications are supplied for this machine. In that case, you can move application programs from Slot 2 to Slot 1 with the following procedure.

Consider the following limitations when you try to merge SD cards.

- PostScript3 cannot be moved to the other SD card.
- The destination SD card should have the largest memory size of all the application SD cards. Refer
 to the following table for the memory size of each SD card.

Outline of SD Card Appli Move:

1. Choose a SD card with enough space.



- Do not use an SD card if it has been used on a computer. Normal operation is not guaranteed when such an SD card is used.
- Enter SP5873 "SD Card Appli Move". Then move the application from the SD Card in Slot 2 to the card in slot 1.
- 3. Exit the SP mode

Use caution when you do the SD Card Appli Move procedure:



 The data necessary for authentication is transferred with the application program from an SD card to another SD card. Authentication fails if you try to use the SD card after you copy the application program from one card to another card.





d037s118

- 4. Remove the inner cover (p.172 "Inner Cover").
- 5. Keep the SD card in the place [A] inside the inner cover after you have copied the application program from one card to another card. This is done for the following reasons:
 - 1) The SD card can be the only proof that the user is licensed to use the application program.
 - 2) You may need to check the SD card and its data to solve a problem in the future.

Move Exec

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

Important

- Do not turn ON the write protect switch of an application SD card on the machine. If the write protect switch is ON, a download error (e.g. Error Code 44) occurs during a firmware upgrade or application merge.
- 1. Turn the main switch off.
- 2. Make sure that an SD card is in SD Card Slot 1. The application program is copied into this SD card.
- 3. Insert the SD card (having stored the application program) to SD Card Slot 2. The application program is copied from this SD card.
- 4. Turn the main switch on.
- 5. Start the SP mode.
- 6. Select SP5-873-001 "Move Exec."
- 7. Follow the messages shown on the operation panel.
- 8. Turn the main switch off.
- 9. Remove the SD card from SD Card Slot 2.
- 10. Turn the main switch on.

11. Check that the application programs run normally.

Undo Exec

The menu "Undo Exec" (SP5-873-002) lets you copy back application programs from an SD card to the original SD card. You can use this program when, for example, you have mistakenly copied some programs by using Move Exec (SP5-873-001).



- Do not turn ON the write protect switch of an application SD card on the machine. If the write protect switch is ON, a download error (e.g. Error Code 44) occurs during a firmware upgrade or application merge.
- 1. Turn the main switch off.
- 2. Insert the original SD card in SD Card Slot 2. The application program is copied back into this card.
- 3. Insert the SD card (having stored the application program) to SD Card Slot 1. The application program is copied back from this SD card.
- 4. Turn the main switch on.
- 5. Start the SP mode.
- 6. Select SP5-873-002 "Undo Exec."
- 7. Follow the messages shown on the operation panel.
- 8. Turn the main switch off.
- 9. Remove the SD card from SD Card Slot 2.



- This step assumes that the application programs in the SD card are used by the machine.
- 10. Turn the main switch on.
- 11. Check that the application programs run normally.

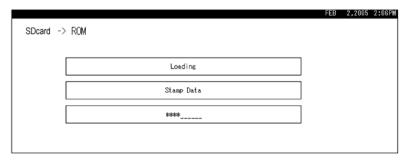
Downloading Stamp Data

The stamp data should be downloaded from the controller firmware to the hard disks at the following times:

• After the hard disks have been replaced.

The print data contains the controller software. Execute SP 5853 to download the fixed stamp data required by the hard disks.

- 1. Enter the SP mode.
- 2. Select SP5853 and then press "EXECUTE". The following screen opens while the stamp data is downloading.



The download is finished when the message prompts you to close.



3. Press the "Exit" button. Then turn the copier off and on again.

NVRAM Data Upload/Download

Uploading Content of NVRAM to an SD card

Do the following procedure to upload SP code settings from NVRAM to an SD card.



- This data should always be uploaded to an SD card before the NVRAM is replaced.
- · Make sure that the write protection of an SD card is unlocked
- Do SP5990-001 (SMC Print) before you switch the machine off. You will need a record of the NVRAM settings if the upload fails.
- 2. Switch the copier main power switch off.
- 3. Remove the SD slot cover (x 1).
- 4. Insert the SD card into SD card slot 2. Then switch the copier on.
- 5. Execute SP5824-001 (NVRAM Data Upload) and then press the "Execute" key.
- 6. The following files are copied to an NVRAM folder on the SD card when the upload procedure is finished. The file is saved to the path and the following filename:

NVRAM\<serial number>.NV

Here is an example with Serial Number "K5000017114":

NVRAM\K5000017114.NV

7. In order to prevent an error during the download, be sure to mark the SD card that holds the uploaded data with the number of the machine from which the data was uploaded.



You can upload NVRAM data from more than one machine to the same SD card.

Downloading an SD Card to NVRAM

Do the following procedure to download SP data from an SD card to the NVRAM in the machine.

- The NVRAM data download may fail if the SD card with the NVRAM data is damaged, or if the connection between the controller and BCU is defective.
- Do the download procedure again if the download fails.
- Do the following procedure if the second attempt fails:
- Enter the NVRAM data manually using the SMC print you created before uploading the NVRAM data.
- 1. Switch the copier main power switch off.

- 2. Remove the SD slot cover (x 1).
- 3. Insert the SD card with the NVRAM data into SD Card Slot 2.
- 4. Switch the copier main power switch on.
- 5. Do SP5825-001 (NVRAM Data Download) and press the "Execute" key.



 The serial number of the file on the SD card must match the serial number of the machine for the NVRAM data to download successfully. The download fails if the serial numbers do not match.

This procedure does not download the following data to the NVRAM:

- Total Count
- C/O, P/O Count

Address Book Upload/Download

Information List

The following information is possible to be uploaded and downloaded.

Information		
Registration No.	Select Title	
User CodeE-mail	• Folder	
Protection Code	Local Authentication Folder Authentication	
Fax DestinationFax Option	Account ACL	
Group Name	New Document Initial ACL LDAP Authentication	
 Key Display 		

Download

- 1. Prepare a formatted SD card.
- 2. Make sure that the write-protection on the SD card is off.
- 3. Turn off the main power switch of the main machine.
- 4. Remove the SD slot cover at the left rear side of the machine ($\mathcal{F} \times 1$).
- 5. Install the SD card into the SD card slot 2 (for service use).
- 6. Turn on the main power switch.
- 7. Enter the SP mode.
- 8. Do SP5-846-051 (Backup All Addr Book).
- 9. Exit the SP mode, and then turn off the main power switch.
- 10. Remove the SD card form the SD card slot 2.
- 11. Install the SD slot cover.



- If the capacity of SD card is not enough to store the local user information, an error message is displayed.
- Carefully handle the SD card, which contains user information. Do not take it back to your location.

Upload

- 1. Turn off the main power switch of the main machine.
- 2. Remove the SD slot cover at the left rear side of the machine (\mathcal{F} x 1).
- 3. Install the SD card, which has already been uploaded, into the SD card slot 2.
- 4. Turn on the main power switch.
- 5. Enter the SP mode.
- 6. Do SP5-846-052 (Restore All Addr Book).
- 7. Exit the SP mode, and then turn off the main power switch.
- 8. Remove the SD card form the SD card slot 2.
- 9. Install the SD slot cover.

U Note

- The counter in the user code information is initialized after uploading.
- The information of an administrator and supervisor cannot be downloaded nor uploaded.
- If there is no data of address book information in the SD card, an error message is displayed.

Using the Debug Log

Overview

This machine provides a Save Debug Log feature that allows the Customer Engineer to save and retrieve error information for analysis.

Every time an error occurs, debug information is recorded in volatile memory. But this information is lost when the machine is switched off and on.

To capture this debug information, the Save Debug Log feature provides two main features:

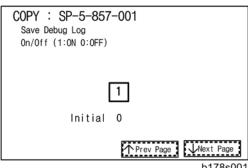
- Switching on the debug feature so error information is saved directly to the HDD for later retrieval.
- Copying the error information from the HDD to an SD card.

Do the following procedure below to set up the machine so the error information is saved automatically to the HDD when a user has problems with the machine. Then ask the user to reproduce the problem.

Switching ON and Setting UP Save Debug Log

The debug information cannot be saved until the "Save Debug Log" function has been switched on and a target has been selected.

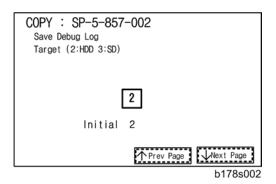
- 1. Enter the SP mode and switch the Save Debug Log feature on.
 - Enter "System SP".
 - On the LCD panel, open SP5857.
- 2. Under "5857 Save Debug Log", touch "1 On/Off".



On the control panel keypad, press "1". Then press[®]. This switches the Save Debug Log feature on.



 The default setting is "0" (OFF). This feature must be switched on in order for the debug information to be saved.



4. Select the target destination where the debug information will be saved. Under "5857 Save Debug Log", touch "2 Target", enter "2" with the operation panel key to select the hard disk as the target destination. Then press.



- Select "3 SD Card" to save the debug information directly to the SD card if it is inserted in the service slot.
- 5. Now touch "5858" and specify the events that you want to record in the debug log. SP5858 (Debug Save When) provides the following items for selection.

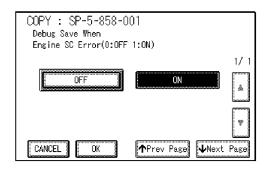
1	Engine SC Error	Saves data when an engine-related SC code is generated.
2	Controller SC Error	Saves debug data when a controller-related SC Code is generated.
3	Any SC Error	Saves data only for the SC code that you specify by entering code number.
4	Jam	Saves data for jams.



• More than one event can be selected.

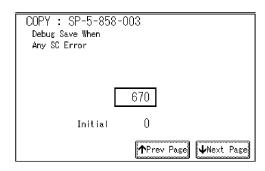
Example 1: To Select Items 1, 2, 4

Touch the appropriate items(s). Press "ON" for each selection. This example shows "Engine SC Error" selected.



Example 2: To Specify an SC Code

Touch "3 Any SC Error", enter the 3-digit SC code number with the control panel number keys. Then press. This example shows an entry for SC670.



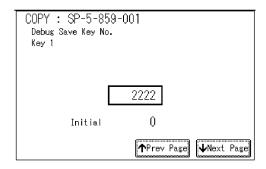


- For details about SC code numbers, please refer to the SC tables in Section 4. "Troubleshooting".
- Select one or more memory modules for reading and recording debug information. Touch "5859".
 Under "5859" press the necessary key item for the module that you want to record.
 Enter the appropriate 4-digit number. Then press[®].



• Refer to the two tables below for the 4-digit numbers to enter for each key.

The example below shows "Key 1" with "2222" entered.



The following keys can be set with the corresponding numbers. (The initials in parentheses indicate the names of the modules.)

4-Digit Entries for Keys 1 to 10

Key No.	Сору	Printer	Scanner	Web	
1		2222 (S	SCS)		
2		14000 (SRM)		
3		256 (IN	ΛH)		
4		1000 (ECS)			
5		1025 (MCS)			
6	4848 (COPY)	4848 (COPY) 4400 (GPS) 5375 (Scan) 5682 (NFA)			
7	2224 (BCU)	4500 (PDL)	5682 (NFA)	6600 (WebDB)	
8		4600 (GPS-PM) 3000 (UCS) 3300 (PTS)			
9		2000 (NCS)	2000 (NCS)	6666 (WebSys)	
10		2224 (BCU)	4126 (DCS)	2000 (NCS)	



• The default settings for Keys 1 to 10 are all zero ("0").

Key to Acronyms

tey to Actoriyins				
Acronym	Meaning	Acronym	Meaning	
ECS	Engine Control Service	NFA	Net File Application	
GPS	GW Print Service	PDL	Printer Design Language	
GSP-PM	GW Print Service – Print Module	PTS	Print Server	
IMH	Image Memory Handler	SCS	System Control Service	
MCS	Memory Control Service	SRM	System Resource Management	
NCS	Network Control Service	WebDB	Web Document Box (Document Server)	

1. The machine is now set to record the debugging information automatically on the HDD (the target selected with SP5857-002) for the events that you selected with SP5858 and the memory modules selected with SP5859.

Please keep the following important points in mind when you do this setting:

- Note that the number entries for Keys 1 to 5 are the same for the Copy, Printer, Scanner, and Web memory modules.
- The initial settings are all zero.
- These settings remain in effect until you change them. Be sure to check all the settings, especially the settings for Keys 6 to 10. To switch off a key setting, enter a zero for that key.
- You can select any number of keys from 1 to 10 (or all) by entering the corresponding 4-digit numbers from the table.
- You cannot mix settings for the groups (COPY, PRINTER, etc.) for 006 to 010. For example, if you
 want to create a PRINTER debug log you must select the settings from the 9 available selections for
 the "PRINTER" column only.
- One area of the disk is reserved to store the debug log. The size of this area is limited to 4 MB.

Retrieving the Debug Log from the HDD

Retrieve the debug log by copying it from the hard disk to an SD card.

- 1. Insert the SD card into slot 2 (service slot) of the copier.
- 2. Enter the SP mode and execute SP5857-009 (Copy HDD to SD Card (Latest 4 MB)) to write the debugging data to the SD card.
- 3. Use a card reader to copy the file and send it for analysis to your local Ricoh representative by email. You can also send the SD card by regular mail if you want.

Recording Errors Manually

SC errors and jams only are recorded to the debug log automatically. Please instruct the user to do the following immediately after occurrence to save the debug data for any other errors that occur while the customer engineer is not on site. Such problems also include a controller or panel freeze.



- You must previously switch on the Save Debug Feature (SP5857-001) and select the hard disk as the save destination (SP5857-002) if you want to use this feature.
- 1. Press (Clear Modes).on the operation panel when the error occurs.
- 2. On the control panel, enter "01". Then hold down of for at least 3 seconds until the machine beeps and then release it. This saves the debug log to the hard disk for later retrieval with an SD card by the service representatives.
- 3. Switch the machine off and on to resume operation.
 - The debug information for the error is saved on the hard disk. This lets the service representative retrieve it on their next visit by copying it from the HDD to an SD card.

Card Save Function

Overview

Card Save:

- The Card Save function is used to save print jobs received by the printer on an SD card with no print
 output. Card Save mode is toggled using printer Bit Switch #1 bit number 4. Card Save will remain
 enabled until the SD card becomes full, or until all file names have been used.
- Captures are stored on the SD card in the folder /prt/cardsave. File names are assigned sequentially
 from PRT00000.prn to PRT99999.prn. An additional file PRT.CTL will be created. This file contains a
 list of all files created on the card by the card save function.
- Previously stored files on the SD card can be overwritten or left intact. Card Save SD has "Add" and
 "New" menu items.
 - Card Save (Add): Appends files to the SD Card. Does not overwrite existing files. If the card
 becomes full or if all file names are used, an error will be displayed on the operation panel.
 Subsequent jobs will not be stored.
 - Card Save (New): Overwrites files in the card's /prt/cardsave directory.

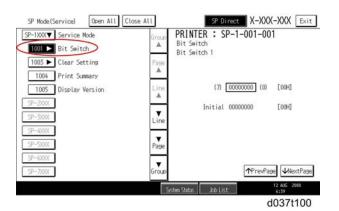
Limitation:

Card Save cannot be used with PJL Status Readback commands. PJL Status Readbacks will not work.
 In addition they will cause the Card Save to fail.

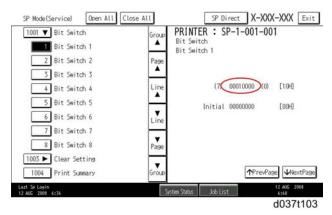
Procedure

- 1. Turn the main power switch OFF.
- 2. Insert the SD card into slot 2. Then turn the power ON.
- 3. Enter SP mode.
- 4. Select the "Printer SP".
- 5. Select SP-1001 "Bit Switch".

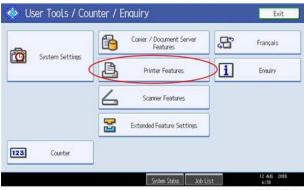




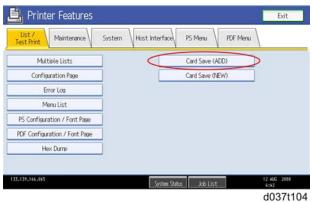
6. Select "Bit Switch 1 Settings" and use the numeric keypad to turn bit 4 ON and then press the "#" button to register the change. The result should look like: 00010000. By doing this, Card Save option will appear in the "List/Test Print" menu.



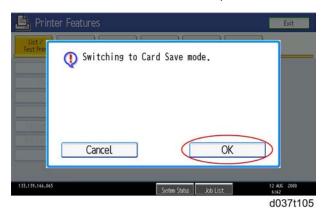
- 7. Press "Exit" to exit SP Mode.
- 8. Press the "User Tools/Counter" button.
- 9. Select "Printer Features".



d037t101



11. Press "OK" and then exit the "User Tools/Counter" menu.



- 12. Press the "Printer" button.
- 13. Card Save should be displayed in the top left of the display panel.



14. Send a job to the printer. The Communicating light should start blinking as shown below.



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- 15. As soon as the printer receives the data, it will be stored on the SD card automatically with no print output. Nothing is displayed on the screen, indicating that a Card Save operation was successful.
- 16. Press "Offline" and then the "Clear/Stop" button to exit Card Save mode.



- 17. Change the Bit Switch Settings back to the default **0000000**. Press the "#" button in the numeric keypad to register the changes.
- 18. Remove the SD card after the main power switch is turned off.

Error Messages

Card Save error messages:

- Init error: A card save process (i.e. card detection, change to kernel mode) failed to initialize.
- Card not found: Card cannot be detected in the slot.
- No memory: Insufficient working memory to process the job.
- Write error: Failed to write to the card.
- Other error: An unknown error occurred.

If an error occurs, pressing "OK" will cause the device to discard the job and return to the ready state.

6. Troubleshooting

SC Tables

Service Call Conditions

Summary

The 'SC Table' section shows the SC codes for controller errors and other errors. The latter (not controller errors) are put into four types. The type is determined by their reset procedures. The table shows the classification of the SC codes.

	Key	Definition	Reset Procedure
Controller errors	CTL	The error has occurred in the controller.	See "Troubleshooting Procedure" in the table.
	A	The error involves the fusing unit. The machine operation is disabled. The user cannot reset the error.	Turn the main switch off and on. Reset the SC (set SP5-810-1). Turn the main switch off and on.
	В	The error involves one or some specific units. The machine operates as usual, excluding the related units.	Turn the operation switch off and on.
Other errors	С	The error is logged. The SC-code history is updated. The machine operates as usual.	The SC will not show. Only the SC history is updated.
	D	The machine operation is disabled. You can reset the machine by turning the operation switch or main switch off and on. If the error occurs again, the same SC code is displayed.	Turn the operation switch or main power switch off and on.

After you turn the main power switch off, wait for one second or more before you turn the main power switch on (IIIT SC 672). All SCs are logged. The print log data (SP5-990-004) in SP mode can check the latest 10 SC codes detected and total counters when the SC code is detected.



• If the problem concerns electrical circuit boards, first disconnect then reconnect the connectors before you replace the PCBs.

• If the problem concerns a motor lock, first check the mechanical load before you replace motors or sensors.

SC Code Classification

The table shows the classification of the SC codes:

Class 1	Section	SC Code	Detailed section
1XX	Committee	100 -	Scanner
177	Scanning	190 -	Unique for a specific model
		200 -	Polygon motor
		220 -	Synchronization control
2XX	Laser exposure	230 -	FGATE signal related
		240 -	LD control
		280 -	Unique for a specific model
	Image development 1	300 -	Charge
3XX		330 -	Drum potential
3//		350 -	Development
		380 -	Unique for a specific model
	Image development 2	400 -	Image transfer
		420 -	Paper separation
4XX		430 -	Cleaning
4^^		440 -	Around drum
		460 -	Unit
		480 -	Others
	Paper feed / Fusing	500 -	Paper feed
5XX		515 -	Duplex
		520 -	Paper transport

Class 1	Section	SC Code	Detailed section
	Paper feed / Fusing	530 -	Fan motor
5XX		540 -	Fusing
344		560 -	Others
		570 -	Unique for a specific model
		600 -	Electrical counters
		620 -	Mechanical counters
		630 -	Account control
6XX	Communication	640 -	CSS
		650 -	Network
		670 -	Internal data processing
		680 -	Unique for a specific model
	Peripherals	700 -	Original handling
7XX		720 -	Two-tray finisher
		740 -	Booklet finisher
	Controller	800 -	Error after ready condition
8XX		820 -	Diagnostics error
0//		860 -	Hard disk
		880 -	Unique for a specific model
	Others	900 -	Counter
9XX		920 -	Memory
		990 -	Others

SC1xx: Scanning

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)		
		Exposure lamp error		
		The peak white level is less than 64/255 digits (8 bits) when scanning the shading plate.		
		Exposure lamp defective		
		Lamp stabilizer defective		
		Exposure lamp connector defective		
101	D	Standard white plate dirty		
		Scanner mirror or scanner lens out of position or dirty		
		Check and clean the scanner mirror(s) and scanner lens.		
		2. Check and clean the shading plate.		
		3. Replace the exposure lamp.		
		4. Replace the lamp stabilizer.		
		5. Replace the scanner mirror(s) or scanner lens.		

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)		
		Scanner home position error 1		
		The scanner home position sensor does not detect the "OFF" condition during operation.		
		Scanner motor driver defective		
		Scanner motor defective		
120	D	D	Harness between BCU and scanner motor disconnected	
120	D	Scanner HP sensor defective		
		Harness between BCU and HP sensor disconnected		
		Check the cable connection between the BCU and scanner motor.		
		2. Check the cable connection between the BCU and HP sensor.		
		3. Replace the scanner motor.		
		4. Replace the scanner HP sensor.		

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)		
		Scanner home position error 2		
		The scanner home position sensor does not detect the "ON" condition during operation.		
		Scanner motor driver defective		
		Scanner motor defective		
121	D	Harness between BCU and scanner motor disconnected		
121	U	Scanner HP sensor defective		
		Harness between BCU and HP sensor disconnected		
		Check the cable connection between the BCU board and scanner motor.		
		2. Check the cable connection between the BCU and HP sensor.		
		3. Replace the scanner motor.		
		4. Replace the scanner HP sensor.		

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
141 D		Black level detection error
		The black level cannot be adjusted within the target value during the zero clamp.
	D	Harness disconnected Defective SBU
		Check the cable connection Replace the SBU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		White level detection error
		The white level cannot be adjusted within the target during auto gain control.
		Dirty exposure glass or optics section
	D	SBU board defective
		Exposure lamp defective
		Lamp stabilizer defective
142		Scanner motor defective
		1. Clean the exposure glass, white plate, mirrors, and lens.
		2. Check if the exposure lamp is lit during initialization.
		3. Check the harness connection between SBU and BCU.
		4. Replace the exposure lamp.
		5. Replace the scanner motor.
		6. Replace the SBU board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
144	D	SBU communication error
		The SBU connection cannot be detected at power on or recovery from the energy save mode.
		Defective SBU
		Defective harness
		Defective detection port on the BCU
		1. Replace the harness.
		2. Replace the SBU.
		3. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
161	D	IPU error

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	The error result of self-diagnostic by the ASIC on the IPU is detected.
-001		Defective IPU or BCU Defective connection between IPU (or BCU) and SBU
-001		 Check the connection between IPU and SBU. Replace the IPU board. Replace the BCU.
-002	D	An error is detected during an access to the IPU. • Defective IPU or BCU
-002		Replace the IPU board. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
165	D	Copy Data Security Unit error
		The copy data security board is not detected when the copy data security function is set "ON" with the initial setting.
		A device check error occurs when the copy data security function is set "ON" with the initial setting.
		 Incorrect installation of the copy data security board Defective copy data security board
		 Reinstall the copy data security board. Replace the copy data security board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
195	D	Serial Number Mismatch
		Serial number stored in the memory does not have the correct code.
		NVRAM defective
		BCU replaced without original NVRAM
		1. Reinstall the original NVRAM in the replaced BCU.
		Turn off and on the main power switch of the copier if a new NVRAM is installed in the BCU.

SC 2xx: Exposure

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Polygon motor error 1: ON timeout
		The polygon mirror motor does not reach the targeted operating speed within the specified time after turning on or changing speed
		Defective or disconnected harness to polygon motor driver board
		Defective polygon motor driver board
202		Defective polygon motor.
		1. Replace the polygon motor.
		2. Replace the laser unit.
		3. Replace the harness.
		4. Replace the IPU board.
		5. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Polygon motor error 2: OFF timeout
203		The polygon mirror motor does leave the READY status within 3 seconds after the polygon motor switches off.
		 Disconnected or defective harness to polygon motor driver board Defective polygon motor driver board Defective polygon motor
		 Check or replace the harness. Replace the polygon motor. Replace the IPU board. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
204	D	Polygon motor error 3: XSCRDY signal error
		The polygon ready (SCRDY_N) signal goes HIGH (inactive) while the laser diode is firing.
		 Disconnected or defective harness to polygon motor driver board Defective polygon motor Defective polygon motor driver board
		 Check or replace the harness. Replace the polygon motor. Replace the IPU board. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
220	D	Laser synchronizing detection error: start position [K]: LD1
222	D	Laser synchronizing detection error: start position [Y]: LD1

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	-	The laser synchronizing detection signal for the start position of the LDB [K], [Y], is not output for two seconds after LDB unit turns on while the polygon motor is rotating normally.
		Disconnected cable from the laser synchronizing detection unit or defective connection
		Defective laser synchronizing detector
-		Defective LDB
		Defective BCU
		1. Check the connectors.
		2. Replace the laser unit.
		3. Replace the IPU board.
		4. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	FGATE ON error: K
230		The PFGATE ON signal does not assert within 5 seconds after processing the image in normal job or MUSIC for start position [K].
		Defective ASIC
		Poor connection between IPU and BCU.
		Defective BCU
		Check the connection between the controller board and the BCU.
		2. Replace the BCU.
		3. Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
231	D	FGATE OFF error: K
		 The PFGATE ON signal still asserts within 5 seconds after processing the image in normal job or MUSIC (line position adjustment) for end position [K]. The PFGATE ON signal still asserts when the next job starts.
		See SC 230 for troubleshooting details.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
232	D	FGATE ON error: Y
		The PFGATE ON signal does not assert within 5 seconds after processing the image in normal job or MUSIC (line position adjustment) for start position [Y].
		See SC 230 for troubleshooting details.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	FGATE OFF error: Y
233		 The PFGATE ON signal still asserts within 5 seconds after processing the image in normal job or MUSIC (line position adjustment) for end position [Y]. The PFGATE ON signal still asserts when the next job starts.
		See SC 230 for troubleshooting details.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
234	D	FGATE ON error: M
		The PFGATE ON signal does not assert within 5 seconds after processing the image in normal job or MUSIC (line position adjustment) for start position [M].
		See SC 230 for troubleshooting details.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	FGATE OFF error: M
235		 The PFGATE ON signal still asserts within 5 seconds after processing the image in normal job or MUSIC (line position adjustment) for end position [M]. The PFGATE ON signal still asserts when the next job starts.
		See SC 230 for troubleshooting details.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	FGATE OFF error: C
237		 The PFGATE ON signal still asserts within 5 seconds after processing the image in normal job or MUSIC (line position adjustment) for end position [C]. The PFGATE ON signal still asserts when the next job starts.
		See SC 230 for troubleshooting details.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
240	С	LD error: K
241	С	LD error: Y
-	-	The BCU detects LDB error a few times consecutively when LDB unit turns on after LDB initialization.
		Worn-out LD Disconnected or broken harness of the LD
		Replace the harness of the LD. Replace the laser unit.
		3. Replace the IPU board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Line position adjustment (MUSIC) error
		Line position adjustment fails four consecutive times.
		Pattern sampling error (insufficient image density)
		Defective ID sensors for the line position adjustment
		Defective image transfer belt unit
		Defective PCDU(s)
285		Defective laser unit
		 Check and reinstall the image transfer belt unit and PCDU(s).
		2. Check if each toner bottle has enough toner.
		3. Replace the ID sensor.
		4. Replace the image transfer belt unit.
		5. Replace the PCDU(s).
		6. Replace the laser unit.

SC3xx: Image Processing – 1

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
312	D	AC charge output error [K]
313	D	AC charge output error [C]
314	D	AC charge output error [M]
315	D	AC charge output error [Y]
		The measured voltage is not proper when BCU measures the charge output for each color.
-	-	 Disconnected or broken high voltage cable Defective or not installed PCDU Defective HVPS-CB board 1. Check or replace the connectors. 2. Replace the PCDU for the affected color. 3. Replace the HVPS-CB board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
325	D	Color development motor error
		The motor LOCK signal is not detected for more than two seconds while the motor START signal is on.
		 Color development motor slip due to an increase in the torque caused by connected components. Defective motor.
		 Adjust the torque properly by replacing or cleaning the development unit. Replace the development unit. Replace the development motor: CMY if load torque is normal.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
360	D	TD sensor (Vt high) error 1: K
361	D	TD sensor (Vt high) error 1: M
362	D	TD sensor (Vt high) error 1: C
363	D	TD sensor (Vt high) error 1: Y
	-	 The Vt value of the black, magenta, cyan, or yellow TD sensor exceeds the specified value (default: 4.7V) with SP3020-002 twenty counts. The [Vt - Vtref] value of the black, magenta, cyan, or yellow TD sensor exceeds the specified value (default: 5.0V) with SP3020-001.
-		 Black, magenta, cyan, or yellow TD sensor disconnected Harness between TD sensor and development unit defective Defective TD sensor.
		Check the black, magenta, cyan, or yellow TD sensor connector and harness between the TD sensor and development unit for damage.
		2. Check the drawer connector of the PCDU.
		3. Replace the development unit.
		4. Replace the PCDU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
364	D	TD sensor (Vt low) error 2: K

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
365	D	TD sensor (Vt low) error 2: M
366	D	TD sensor (Vt low) error 2: C
367	D	TD sensor (Vt low) error 2: Y
		The Vt value of the black, magenta, cyan, or yellow TD sensor is below the specified value with SP3020-004 (default: 0.5V) ten counts.
_	_	TD sensor harness disconnected, loose, defective A drawer connector disconnected, loose, defective TD sensor defective
		Check the black, magenta, cyan, or yellow TD sensor connector and harness between the TD sensor and development unit for damage.
		2. Check the drawer connector of the PCDU.
		3. Replace the development unit.
		4. Replace the PCDU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
372	D	TD sensor adjustment error: K
373	D	TD sensor adjustment error: M
374	D	TD sensor adjustment error: C
375	D	TD sensor adjustment error: Y

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		SC is issued only if one of followings is satisfied.
		 During TD sensor initialization, the output value of the black, magenta, cyan, or yellow TD sensor is not within the range of the specified value with SP3238-001 to -004 (default: 2.7V) ± 0.2V.
		The TD sensor output is 0.7 V or more when the Vcnt is 4.3 v.
		The adjusted Vcnt is 4.7 V or less.
		Heat seal not removed from a new developer pack
-	-	TD harness sensor disconnected, loose or defective
		TD sensor defective
		Harness between TD sensor and drawer disconnected, defective
		Different developer density from initial developer density
		Remove the heat seal from each PCDU.
		2. Replace the development unit.
		3. Replace the PCDU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
380	С	Drum gear position sensor error: K
381	С	Drum gear position sensor error: M, C, Y
		The machine does not detect a change signal (H → L or L → H) for 2.4 seconds at the drum phase adjustment.
		Dirty or defective drum gear position sensor
-	-	1. Check the harnesses.
		2. Clean or replace the drum gear position sensor.
		3. Replace the PCDU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
396	D	Drum/Development motor error: K

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		The machine detects a High signal from the drum/development motor: K for 2 seconds after the drum/development motor: K turned on.
		Overload on the drum/development motor: K
	-	Defective drum/development motor: K
		Defective harness
		Shorted 24 V fuse on the PSU
-		Defective interlock system
		1. Check or replace the harness.
		Check if torque output value for drum/development motor is proper if not replace the unit.
		3. Replace the drum/development motor: K.
		4. Replace the 24V fuse on the PSU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
397	D	Drum motor error: CMY
		The machine detects a High signal from the drum motor: CMY for 2 seconds after the drum motor: CMY turned on.
		Overload on the drum motor: CMY
-	-	Defective drum motor: CMY
		Defective harness
		Shorted 24 V fuse on the PSU
		Defective interlock system
		1. Check or replace the harness.
		2. Check if torque output value for drum motor is proper if not replace the unit.
		3. Replace the drum motor: CMY.
		4. Replace the 24V fuse on the PSU.

SC4xx: Image Processing - 2

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	ID sensor adjustment error
400		When the Vsg error counter reaches "3", the machine detects "SC400".
400		The Vsg error counter counts "1" when the Vsg detected by ID sensor is more than the value (default: 4.5V) specified with SP3324-005 or less than the value (default: 3.5V) specified with SP3324-006.
		Dirty or defective ID sensor
		ID sensor detection surface dirty
		Check the harness of the ID sensor. RTB 28: Recovery method was changed
		2. Clean or replace the ID sensor.
		Note
		 After replacing the ID sensor, input the ID sensor correction coefficient with SP3362-013 and -016. For details, refer to "ID sensor board" in the Replacement and Adjustment section.
		3. Check the spring at the PTR unit contact lever. (See "PTR Unit Contact Motor" in the chapter "Replacement and Adjustment".)
		4. Replace the BCU.
		5. Replace the ITB unit.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	ITB unit motor error
		The motor LOCK signal is not detected for more than two seconds while the motor START signal is on.
		Motor overload
		Defective ITB unit motor
441		Defective or disconnected connector
		Check the operation of the ITB unit motor with SP5804-051.
		No operation:
		1. Check the harness of the ITB unit motor.
		2. Check if the cleaning blade of the ITB cleaning unit is rolled up.
		3. Replace the ITB unit motor.
		4. Replace the ITB unit.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	ITB contact motor error
		The ITB contact sensor does not detect the movement of actuator at the sensor while the polygon motor rotates.
		Dirty ITB contact sensor ITB contact motor overload.
		Defective ITB contact motor
		Disconnected connector of ITB contact sensor or motor
442		Shorted 24 V fuse on the PSU.
772		Disconnected cable
		Check the operation of the ITB unit motor with SP5804-077.
		No operation:
		Check the harness connection of the ITB contact motor.
		2. Replace the ITB contact motor.
		Operation:
		Check the harness connection of the ITB contact sensor.
		2. Replace the ITB contact sensor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	С	ITB unit error
		The machine detects the encoder sensor error.
		Disconnect or defective harness
		Defective ITB rotation sensor
		ITB unit installation error
443		Defective ITB unit motor
440		ITB unit motor overload
		1. Check the harness connection of the ITB rotation sensor.
		2. Check the trash or scratch on the encoder disc surface of the ITB rotation sensor.
		3. Check if the ITB unit is correctly set.
		4. Replace the ITB unit motor.
		5. Replace the ITB unit.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		PTR (Paper Transfer Roller) contact error
		The PTR contact sensor does not detect the movement of actuator at the sensor while the polygon motor rotates.
		Defective PTR contact sensor
	D	Defective PTR contact motor
		PTR contact motor overload
		Broken +24V fuse on PSU
452		Defective or disconnected harness.
		Defective BCU
		Check the operation of the PTR contact motor with SP5804-076.
		No operation:
		1. Check the harness connection of the PTR contact motor.
		2. Replace the PTR contact motor.
		Operation:
		1. Replace the PTR contact sensor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		High voltage power: Drum/ development bias output error
		An error signal is detected for 0.2 seconds when charging the drum or development.
		High voltage leak
		Broken harness
491	D	Defective drum unit or development unit
		Defective HVPS-CB board
		1. Check or replace the harness.
		2. Replace the drum unit or paper transfer unit.
		3. Replace the HVPS-CB board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
		High voltage power: Image transfer/ paper transfer bias output error	
		An error signal is detected for 0.2 seconds when charging the separation, image transfer belt or paper transfer roller.	
		High voltage leak	
	С	Broken harness	
		Defective image transfer belt unit or paper transfer unit	
		Defective HVPS-TTS board	
492		Input "OV" in the following SP settings:	
		• SP2-326-001	
		• SP2-326-003	
		• SP2-407-001	
		2. Execute the "Process Control" with SP3011-001.	
		3. Replace the ITB unit if an SC occurs after the Process Control.	
		4. Replace the PTR unit if an SC does not occur after the Process Control.	
		5. Replace the HVPS-TTS board.	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
	D	PCDU toner collection motor error	
		The machine detects that the PCDU toner collection bottle is not set for one second when the PCDU toner collection motor is turned off.	
		PCDU toner collection bottle motor damaged	
		Disconnect or defective harness	
495		Defective DRB board	
4/3		Defective BCU	
		1. Check or replace the harness.	
		2. Replace the PCDU toner collection bottle motor.	
		3. Replace the DRB board	
		4. Replace the BCU	
		5. Check and retry the connecting procedure.	

SC5xx: Paper Feed and Fusing

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
503	В	3rd paper tray lift motor malfunction (optional Paper Tray Unit)	
504	В	4th paper tray lift motor malfunction (optional Paper Tray Unit)	
		The paper lift sensor did not activate within 18 sec. (for PTU) or 8 sec. (for LCT) after the tray lift motor switched on.	
	An obstruction (jammed paper, paper scraps, etc.) has blocked the motor and caused an overload.		
		 Paper lift sensor connection loose, disconnected, or damaged 	
_	_	Paper lift sensor defective	
		 Tray lift motor connection loose, disconnected, or damaged 	
		Tray lift motor defective	
		1. Check or replace the harness.	
		2. Replace the tray lift motor.	
		3. Replace the BCU.	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
	В	Paper tray feed motor lock (optional Paper Tray Unit)	
506		A motor lock signal is not detected for more than 1.5 s at power-on or the lock signal is not detected for more than 1.0 s during rotation.	
		An obstruction (jammed paper, paper scraps, etc.) has blocked the feed motor drive and caused an overload.	
		Paper tray feed motor connection loose, disconnected, or damaged	
		Paper tray feed motor defective	
		1. Check or replace the harness.	
		2. Replace the feed motor.	
		3. Replace the BCU	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)		
		By-pass bottom plate error		
		The signal from the by-pass tray HP sensor does not change for 1.0 second after the by-pass motor has rotated counterclockwise. If this condition occurs three consecutive times, the SC is generated.		
508	В	 Disconnect or defective harness of the by-pass motor Defective or disconnected connection for the by-pass motor. Defective by-pass motor Disconnect or defective harness of the by-pass HP sensor Defective or disconnected connection for the by-pass HP sensor. Defective by-pass HP sensor 		

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Check the operation of the by-pass motor with SP5804-023.
		No operation:
		1. Check the harness connection of the by-pass tray and duplex unit.
		2. Replace the by-pass motor.
		Operation:
		Check the operation of the by-pass HP sensor with SP5803-048 while the by-pass motor is rotating.
		No change of Bit O
		1. Check the harness connection of the by-pass HP sensor.
		2. Replace the by-pass HP sensor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
530	D	Ventilation fan: front error	
531	D	Ventilation fan: rear error	
		The motor lock signal error is detected for 10 seconds after the motor lock signal was first detected.	
		Defective ventilation fan: front or rear	
		Disconnected or defective harness	
		Defective DRB	
		Defective BCU	
		Check or replace the harness.	
		2. Replace the ventilation fan: front (SC530) or rear (SC531).	
		3. Replace the DRB.	
		4. Replace the BCU.	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
	D	Laser unit fan error	
		The motor lock signal error is detected for 10 seconds after the motor lock signal was first detected.	
		Defective laser unit fan	
		Disconnected or defective harness	
532		Defective drive board	
332		Defective BCU	
		1. Check or replace the harness.	
		2. Replace the laser unit fan.	
		3. Replace the laser unit fan motor.	
		4. Replace the DRB.	
		5. Replace the BCU.	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
	D	Fusing front fan error	
		The motor lock signal error is detected for 10 seconds after the motor lock signal was first detected.	
		Defective fusing front fan	
533		Disconnected or defective harness	
		Defective DRB	
		Defective BCU	
		1. Check or replace the harness.	
		2. Replace the fusing front fan.	
		3. Replace the DRB.	
		4. Replace the BCU.	

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No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
535	D	Controller box fan error	
		The motor lock signal error is detected for 10 seconds after the motor lock signal was first detected.	
		Defective controller box fan	
		Disconnected or defective harness	
		Defective BCU	
		1. Check or replace the harness.	
		2. Replace the controller box fan.	
		3. Replace the BCU.	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
536	D	Junction gate solenoid fan error	
		The motor lock signal error is detected for 10 seconds after the motor lock signal was first detected.	
		Defective junction gate solenoid fan	
		Disconnected or defective harness	
		Defective BCU	
		1. Check or replace the harness.	
		2. Replace the junction gate solenoid fan.	
		3. Replace the BCU.	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Fusing/Paper exit motor error
540		The BCU receives the lock signal 2.0 seconds after turning on the fusing/paper exit motor.
		 Motor overload Defective fusing/paper exit motor Defective or disconnected connection for the fusing/paper exit motor
		 Replace the fusing/paper exit motor. Check or replace connector and harness for the fusing/paper exit motor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
541	A	Heating roller error 1
		The temperature detected by the thermopile does not reach 0°C for 3 seconds.
		Loose connection of the thermopile Defective thermopile
		Check that the thermopile is firmly connected. Replace the thermopile.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Heating roller warm-up error 1
		The heating roller temperature does not reach 50°C for 4 seconds after the heating lamp on.
542	A	The heating roller temperature does not reach the ready temperature for 43 seconds after the fusing unit has rotated.
		The heating roller temperature does not reach 100°C for 24 seconds in the low temperature condition after the heating lamp on.
		Dirty or defective thermopile
		Defective thermopile.
		Trash on the surface of the thermopile lens.
		Defective thermostat
		Broken harness of thermostat
		Input voltage is over guaranteed value
		Defective heating roller lamp
		Check if the thermopile is firmly connected.
		2. Clean the surface of the thermopile lens.
		3. Test the conductance for the thermopile and the heating roller.
		4. Replace the thermopile.
		5. Replace the harness of thermostat or thermostat.
		6. Replace the heating roller lamp.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	А	Heating roller fusing lamp overheat 1 (software error)
		The detected fusing temperature stays at 230°C for 1 second.
543		Defective PSU
		Defective BCU
		1. Replace the PSU.
		2. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	Α	Heating roller fusing lamp overheat 1 (hardware error)
		During stand-by mode or a print job, the detected heating roller temperature reaches 250°C.
544		Defective PSU
344		Defective BCU
		Defective fusing control system
		1. Replace the PSU.
		2. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
545	Α	Heating roller fusing lamp consecutive full power 1
		When the fusing unit is not running in the ready condition, the heating roller fusing lamp keeps on full power for 37 seconds.
		 Broken heating roller thermostat Broken heating roller fusing lamp
		 Replace the heating roller thermostats. Replace the heating roller fusing lamp.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Zero cross error
		The zero cross signal is detected for 0.05 seconds three times even though the heater relay is off when turning on the main power.
547		The zero cross signal is not detected for 2 seconds even though the heater relay is on after turning on the main power or closing the front door.
		The detection error occurs twice or more in the 11 zero cross signal detections. This error is defined when the detected zero cross signal is less than 45.
04/		Defective fusing lamp relay
		Defective fusing lamp relay circuit
		Unstable power supply
		Check the power supply source.
		2. Replace the shorted 24V fuse on the PSU.
		3. Replace the PSU

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
551	А	Heating roller thermistor (end) error 2
		 The temperature measured by the heating roller thermistor (end) does not reach 0°C for 150 seconds when the machine's inside temperature is 5°C or more. The temperature measured by the heating roller thermistor (end) is -5°C or less for 8 seconds.
		Loose connection of heating roller thermistor (end) Defective heating roller thermistor (end)
		Check that the heating roller thermistor (end) is firmly connected. Replace the heating roller thermistor (end).

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	A	Heating roller warm-up error 2
		The heating roller temperature does not reach the ready temperature for 65 seconds after the fusing unit has rotated.
		The heating roller temperature does not reach 100°C for 25 seconds in the low temperature condition after the heating lamp on.
5.50		Dirty or defective thermistor (end)
552		Heating roller fusing lamp broken
		Defected thermostat
		Defective heating roller fusing lamp
		Check if the heating roller thermistor (end) is firmly connected.
		2. Replace the heating roller thermistor (end).
		3. Replace the heating roller fusing lamp.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	А	Heating roller fusing lamp overheat 2 (software error)
		The detected pressure roller temperature stays at 230°C or more for 1 second.
553		Defective PSU
		Defective BCU
		1. Replace the PSU.
		2. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Heating roller fusing lamp overheat 2 (hardware error)
		The heating roller thermistor (end) detects 250°C or more.
		Defective PSU
554	A	Defective BCU
		Defective fusing control system
		1. Replace the PSU.
		2. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
555	А	Heating roller lamp consecutive full power 2
		When the fusing unit is not running in the ready condition, the pressure roller-fusing lamp keeps ON full power for 130 seconds or more.
		Broken heating roller thermostat Broken heating roller fusing lamp
		Replace the heating roller thermostat. Replace the heating roller fusing lamp.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	С	Zero cross frequency error
557		When the zero cross signal is 66 or more and it is detected 10 times or more in 11 detections, the machine determines that input 60 Hz and SC557 occurs.
		Noise (High frequency)
		Check the power supply source.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Consecutive fusing jam
		The paper jam counter for the fusing unit reaches 3 times. The paper jam counter is cleared if the paper is fed correctly.
559	A	This SC is activated only when SP1142-001 is set to "1" (default "0").
		Paper jam in the fusing unit.
		Remove the paper that is jammed in the fusing unit. Then make sure that the fusing unit is clean and has no obstacles in the paper feed path.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	A	Pressure roller thermister error 3
		The temperature measured by the pressure roller thermistor (center) does not reach 0°C for 45 seconds.
561		 Loose connection of pressure roller thermistor (center) Defective pressure roller thermistor (center)
		 Check that the pressure roller thermistor (center)is firmly connected. Replace the pressure roller thermistor (center).

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Pressure roller overheat 3 (software error)
		The detected fusing roller temperature stays at 230°C or more for 1 second.
563	A	Defective PSU Defective BCU
		Replace the PSU. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	A	Pressure roller overheat 3 (hardware error)
		The pressure roller thermistor (center) detects 250°C or more.
		Defective PSU
564		Defective BCU
		Defective fusing control system
		1. Replace the PSU.
		2. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	A	Pressure roller thermister error 4
571		The temperature measured by the pressure roller thermistor (end) does not reach 0 °C for 45 seconds.
		 Loose connection of pressure roller thermistor (end) Defective pressure roller thermistor (end)
		Check that the pressure roller thermistor (end) is firmly connected.
		2. Replace the pressure roller thermistor (end).

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	A	Pressure roller overheat 4 (software error)
		The detected pressure roller temperature stays at 230°C or more for 1 second.
573		Defective PSU Defective BCU
		Replace the PSU. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	A	Pressure roller overheat 4 (hardware error)
		The pressure roller thermistor (end) detects 250°C or more.
		Defective PSU
574		Defective BCU
		Defective fusing control system
		1. Replace the PSU.
		2. Replace the BCU.

SC6xx: Device Communication

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
610	D	Mechanical counter error: K
611	D	Mechanical counter error: FC
-	-	This SC is only for NA models. The machine detects the mechanical counter error when SP5987-001 is set to "1". • Disconnected mechanical counter • Defective mechanical counter • Defective BCU 1. Check or replace the mechanical counter. 2. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	ARDF communication error
		After the ARDF is detected, the break signal occurs or communication timeout occurs.
		Incorrect installation of ARDF
		ARDF defective
620		IPU defective
		External noise
		1. Check the cable connection of the ARDF.
		2. Shut out the external noise.
		3. Replace the ARDF.
		4. Replace the IPU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
621	D	Finisher communication error

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		While the BCU communicates with an optional unit, an SC code is displayed if one of following conditions occurs.
		 The BCU receives the break signal which is generated by the peripherals only just after the main switch is turned on.
		 When the BCU does not receive an OK signal from a peripheral 100ms after sending a command to it. The BCU resends the command. The BCU does not receive an OK signal after sending the command 3 times.
		Cable problems
_	_	BCU problems
_		PSU problems in the machine
		Main board problems in the peripherals
		Defective main board of peripherals.
		Disconnected peripherals.
		Check if the cables of peripherals are correctly connected.
		2. Replace the PSU if no power is supplied to peripherals.
		3. Replace the main board of peripherals.
		4. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
632	CTL B	Counter device error 1
		After 3 attempts to send a data frame to the optional counter device via the serial communication line, no ACK signal was received within 100 ms.
		Serial line between the optional counter device, the relay board and copier control board is disconnected or damaged
		Make sure that SP5113 is set to enable the optional counter device.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
633	CTL B	Counter device error 2
		After 3 attempts to send a data frame to the optional counter device via the serial communication line, no ACK signal was received within 100 ms.
		Serial line between the optional counter device, the relay board and copier control board is disconnected or damaged
		Make sure that SP5113 is set to enable the optional counter device.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	Counter device error 3
634		A backup RAM error was returned by the counter device.
		Counter device control board defective
		Backup battery of counter device defective

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	Counter device error 4
635		A backup battery error was returned by the counter device.
		Counter device control board defective
		Backup battery of counter device defective

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
636	CTL	SD Card Error

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
01	D	Expanded authentication module error
		There is no expanded authentication module in the machine. The SD card or the file of the expanded authentication module is broken. There is no DESS module in the machine.
		 No expanded authentication module Defective SD card No DESS module
		 Install the expanded authentication module. Install the SD card. Install the DESS module.
	D	Version error
02		The version of the expanded authentication module is not correct.
		Incorrect module version
		Install the correct file of the expanded authentication module.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
641	CTL D	BCU control data transfer abnormal A sampling of the control data sent from the BCU reveals an abnormality. Controller board defective External noise BCU board defective Check the connection between the controller board and BCU. Replace the controller board.
		3. Replace the BCU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
650	CTL	Communication error of the remote service modem (RCG-M)
030	В	Communication error of the remote service modelii (KCG-M)

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Authentication error
		The authentication for the RCG-M fails at a dial up connection.
		Incorrect SP settings
-001	-	Disconnected telephone line
		Disconnected modem board
		Disconnected Local Area Network card
		Check and set the correct user name (SP5816-156) and password (SP5816-157).
	-	Incorrect modem setting
-004		Dial up fails due to the incorrect modem setting.
-004		Same as -001
		Check and set the correct AT command (SP5819-160).
	-	Communication line error
-005		The supplied voltage is not sufficient due to the defective communication line or defective connection.
		Same as -001
		Consult with the user's local telephone company.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
651	CTL C	Incorrect dial up connection
		-001: Program parameter error
		-002: Program execution error
		An unexpected error occurs when the modem (RCG-M) tries to call the center with a dial up connection.
		Caused by a software bug
		No action required because this SC does not interfere with operation of the machine.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Engine start up error
670		The ready signal from the engine board is not detected.
		Defective engine board.
		Replace the engine board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Engine board mismatch error
671		Engine board and controller mismatch detected.
		Wrong engine board installed.
		Wrong controller board installed.
		Check the type of engine board and controller board.
		1. Replace the BCU.
		2. Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Controller-to-operation panel communication error at startup
672		After powering on the machine, the communication circuit between the controller and the operation panel is not opened, or communication with controller is interrupted after a normal startup.
		Controller stall
		Controller board installed incorrectly
		Controller board defective
		Operation panel connector loose or defective
		1. Check the harness connection.
		2. Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
681	D	RFID: Communication error
001-005		Communication error occurs when the RFID starts to communicate with the RFID receptor.
		 Noise No memory chip on the toner cartridge Defective RFID reader and writer Disconnected RFID controller board I/F
		 Turn the main power off and on. Replace the toner cartridge. Replace the RFID controller board.
		Retry of RFID communication fails three times after the machine has detected the RFID communication error.
061	-164	 Defective RFID reader and writer No memory chip on the toner cartridge Noise
		 Replace the toner cartridge. Turn the main power off and on. Replace the RFID-R/W controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Memory chip at TD sensor: Communication error
682		Retry of memory chip communication fails three times after the machine has detected the memory chip communication error.
		Damaged memory chip data
		Disconnected inter face
		No memory chip on the development unit
		Noise
		Replace the development unit.
		2. Replace the PCDU.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
683	С	RFID: Unit check error
		The machine gets RFID communication error even the toner cartridges have not been installed in the machine.
		Caused by noise
		Turn the main power switch off and on.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Memory address command error
		The BCU does not receive a memory address command from the controller for the prescribed time after the paper has reached the registration sensor.
		Harness disconnection at BCU
		Controller board loose or broken
		Defective HDD
687		Defective BCU
007		Defective controller
		Check if the controller is firmly connected to the BCU.
		2. Update the firmware of the IPU.
		3. Replace the HDD.
		4. Update the firmware of the BCU.
		5. Replace the BCU.
		6. Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
No.	Type D	Details (Symptom, Possible Cause, Troubleshooting Procedures) GAVD communication error The I2C bus device ID is not identified during initialization. A device-status error occurs during I2C bus communication. The I2C bus communication is not established due to an error other than a buffer shortage. Loose connection Defective BCU Defective LD controller board Turn the main switch off and on. Check the cable connection.
		3. Replace the laser unit.4. Replace the BCU board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
730	В	Shift tray motor error
		The shift tray HP sensor does not activate within 1.86 seconds after the shift tray motor starts to move at power on or copying. The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		 Defective shift tray motor Defective shift tray HP sensor.
		Replace the shift tray motor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Finisher stapler motor error
		The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		Staple jam
		Motor overload
740		Defective stapler motor
		Defective stapler safety sensor
		Check the connections and cables for the components mentioned above.
		2. Replace the stapler unit
		3. Replace the finisher main board.

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No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Finisher stapler movement motor error
		Motor overload
		Loose connection of the stapler unit HP sensor
		Loose connection of the stapler unit movement motor
7.40		Defective stapler unit HP sensor
742		Defective stapler movement motor
		Check the connection of the stapler movement motor.
		2. Check the connection of the stapler unit HP sensor.
		3. Replace the stapler unit HP sensor.
		4. Replace the stapler unit movement motor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
750	D	Finisher: Tray lift motor error
		 Motor overload Loose connection of the tray lift motor Defective tray lift motor
		Check the connections to the tray lift motor. Replace the tray lift motor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
760	D	Finisher punch motor error
		The punch HP sensor is not activated within the specified time after the punch motor turned on. The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		 Punch HP sensor disconnected, defective Punch motor disconnected or defective Punch motor overload due to obstruction
		 Check the connections and cables for the punch motor and HP sensor. Check for blockages in the punch motor mechanism. Replace the punch slider unit. Replace the punch unit. Replace the finisher main board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
763	В	Finisher: Punch registration motor error
		The punch unit moves but is not detected at the home position within the specified time. The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		Motor harness disconnected, loose, defective Defective registration motor
		 Check the connections to the punch registration motor. Replace the punch unit slider. Replace the punch unit.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Finisher: Paper edge detection sensor error
		The machine does not detect correct voltage from the paper edge detection sensor.
		Defective connector
787	D	Defective paper edge detection sensor.
		Defective DA or AD converter.
		1. Replace the punch slider unit.
		2. Replace the punch unit.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
788	D	Finisher: Paper size sensor error without side tray
789	В	Finisher: Paper size sensor error with side tray
		The machine does not detect correct voltage from the paper size sensors.
		Defective connector
		Defective paper size sensors
		Defective DA or AD converter.
		1. Replace the punch slider unit.
		2. Replace the punch unit.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
790	D	Finisher: Front jogger motor error without side tray
793	В	Finisher: Front jogger motor error with side tray

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		The machine does not detect a correct signal from the front jogger fence HP sensor at power-on. The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		Defective front jogger motor
		Loosen connection
		Motor overload
		Defective front jogger fence HP sensor
		Replace the front jogger fence HP sensor.
		2. Replace the front jogger motor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
791	D	Finisher: Rear jogger motor error without side tray
794	В	Finisher: Rear jogger motor error with side tray
		The machine does not detect a correct signal from the rear jogger fence HP sensor at power-on. The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		 Defective rear jogger motor Loosen connection Motor overload Defective rear jogger fence HP sensor
		Replace the rear jogger fence HP sensor. Replace the rear jogger motor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
792	D	Pick-up roller contact motor error without side tray
795	В	Pick-up roller contact motor error with side tray

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		The machine does not detect a correct signal from the pick-up roller HP sensor at power-on. The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		Defective pick-up roller contact motor
		Loosen connection
		Motor overload
		Defective pick-up roller HP sensor
		Replace the pick-up contact motor.
		2. Replace the pick-up roller HP sensor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Belt roller solenoid error
		Disconnected harness
		Defective belt roller position sensor
796	В	Defective belt roller solenoid
		1. Check the harness connection.
		2. Replace the belt roller position sensor.
		3. Replace the belt roller solenoid.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
797	D	NVRAM data error
		Defective NVRAM on the main board of the internal finisher
		1. Check the harness connection.
		2. Replace the main board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Front Fan error
		The machine detects the fan lock signal (ON) consecutively 200 ms.
		Front fan damaged
798	D	Disconnect or defective the harness
		Front fan overload
		1. Check or replace the harness.
		2. Replace the front fan.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	D	Output tray motor error • Output tray motor damaged
799		 Output tray motor overload Loose connection of the output tray motor Defective output tray motor
		Replace the output tray unit.

SC8xx: Overall System

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Energy saving I/O sub-system error
816		The energy saving I/O sub-system detects an error.
		Controller board defective
		Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Monitor Error
817		This is a file detection and electronic file signature check error when the boot loader attempts to read the self-diagnostic module, system kernel, or root system files from the OS Flash ROM, or the items on the SD card in the controller slot are false or corrupted.
		OS Flash ROM data defective; change the controller firmware SD card data defective; use another SD card

No.	Туре	Details (Symptom, Possib	le Cause, Troubleshooting Procedures)
	CTL C	Fatal kernel error	
819			or, a RAM overflow occurred during system processing. One sages was displayed on the operation panel.
[0x5032]		HAIC-P2 error	System program defective
[0x696	e]	init died	Controller board defective
[0x7666	d]	vm_pageout: VM is full	Optional board defective
[554C]		USB error	Replace controller firmware

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
820	CTL D	Self-diagnostics error: CPU [XXXX]: Detailed error code
[0001] to [06FF]		CPU error During the self-diagnostic, the controller CPU detects an error. There are 47 types of error code (0001 to 4005) depending on the cause of the error. The CPU detects an error and displays the specific error code with the program address where the error occurs.
		System firmware problemDefective controller

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		1. Turn the main switch off and on.
		2. Reinstall the controller system firmware.
		3. Replace the controller.
		When the problem cannot be fixed with the above procedure, the following information displayed on the screen needs to be fed back to a technical support center.
		• SC code
		Detailed error code
		Program address
		CPU/Memory Error
		System firmware problem
[0702]		Defective RAM-DIMM
[0709]		Defective controller
[070A]		Reinstall the controller system software.
		2. Replace the RAM-DIMM.
		3. Replace the controller.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
821	CTL	Self-diagnostics error: ASIC
021	D	[XXXX]: Detailed error code
		ASIC error
[OBOO]		The write-&-verify check error has occurred in the ASIC.
[ОВОО]		Defective ASIC device
		Replace the controller.
		ASIC detection error
		The I/O ASIC for system control is not detected.
[OBO6]		Defective ASIC
		Defective North Bridge and PCI I/F
		Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Self-diagnosis error: ASIC
		The CPU checks if the ASIC timer works correctly compared with the CPU timer. If the ASIC timer does not function in the specified range, this SC code is displayed.
		System firmware problem
[0D05]		Defective RAM-DIMM
		Defective controller
		Reinstall the controller system firmware.
		2. Replace the RAM-DIMM.
		3. Replace the controller board.
		Video bridge device (ASIC) error 1
[50A1]		The CPU does not detect the video bridge device.
[JUA1]		Defective I/F between the video bridge device and controller
		Replace the controller board.
		Video bridge device (ASIC) register error 1
[50A2]		The CPU detects the video bridge device, but detects error data from the video bridge device.
		Defective I/F between the video bridge device and controller
		Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
822	CTL B	Self-diagnostic error: HDD (Hard Disk Drive) [XXXX]: Detailed error code
[3003]		Timeout error
[3004]		Command error
-	-	When the main switch is turned on or starting the self-diagnostic, the HDD stays busy for the specified time or more.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
-	-	 Loose connection Defective HDD Defective controller
-	-	 Check that the HDD is correctly connected to the controller. Replace the HDD. Replace the controller.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
823	CTL	Self-diagnostic error: NIB
023	В	[XXXX]: Detailed error code
		MAC address check sum error
[6101]		The result of the MAC address check sum does not match the check sum stored in ROM.
[4104]		PHY IC error
[6104]		The PHY IC on the controller cannot be correctly recognized.
[6105]		PHY IC loop-back error
[6103]		An error occurred during the loop-back test for the PHY IC on the controller.
-		Replace the controller.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
824	CTL D	[1401] Self-diagnosis error: Standard NVRAM The controller cannot recognize the standard NVRAM installed or detects that the NVRAM is defective. • Loose connection • Defective standard NVRAM • Defective controller
		 Check the standard NVRAM is firmly inserted into the socket. Replace the NVRAM. Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
826	CTL D	Self-diagnostic Error: RTC/optional NVRAM
		The one second counted by the RTC is different from the one second counted by the CPU on the controller.
[1501]		Defective the RTC device
		Replace the RTC device
		The RTC device is not detected.
		Defective RTC device
[15FF]		NVRAM without RTC installed
		Discharged backup battery
		Replace the NVRAM with another NVRAM with an RTC device.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
007	CTL	Self-diagnostic error: Standard SDRAM DIMM
827	D	[XXXX]: Detailed error code

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
'		Verification error
		Error detected during a write/verify check for the standard RAM (SDRAM DIMM).
[0201]		Loose connection Defective SDRAM DIMM Defective controller
		 Turn the main switch off and on. Replace the SDRAM DIMM. Replace the controller.
		Resident memory error
		The SPD values in all RAM DIMM are incorrect or unreadable.
[0202]		Defective RAM DIMM Defective SPD ROM on RAM DIMM Defective 12C bus
		1. Replace the RAM DIMM.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
000	CTL	Self-diagnostic error: ROM
828	D	[XXXX]: Detailed error code
[0101]		Check sum error 1 The boot monitor and OS program stored in the ROM DIMM is checked. If the check sum of the program is incorrect, this SC code is displayed.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
829	CTL B	Self-diagnosis error: optional RAM [XXXX]: Detailed error code
[0401]		Verification error (Slot 1) The data stored in the optional RAM in Slot 1 does not match the data when reading.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		 Not specified RAM DIMM installed Defective RAM DIMM
		Replace the RAM DIMM.
		2. Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
833	CTL C	Self-diagnostic error 8: Engine I/F ASIC
[OF30]		ASIC (Mandolin) for system control could not be detected. After the PCI configuration, the device ID for the ASIC could not be checked.
[OF31]		Replace the BCU.
[OF41]		ASIC (Mandolin) for system control could not be detected. After the PCI configuration, the device ID for the ASIC could not be checked.
		Replace the BCU.
		Could not initialize or read the bus connection.
[50B1]		Check for loose connections at the mother board.
		Replace the mother board.
		Value of the SSCG register is incorrect.
[50B2]		Check for loose connections at the mother board.
		Replace the mother board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
838	CTL	Self-diagnostic Error: Clock Generator
	D	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		A verify error occurred when setting data is read from the clock generator on the controller.
[2701]		Defective clock generator
		Defective controller board
		Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
839	CTL C	USB NAND Flash ROM error
		The ID of the USB NAND Flash ROM cannot be read.
[9101]		Defective controller board
		Replace the controller board.
		The USB NAND Flash ROM is disconnected.
[9110]		Defective controller board
		Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	IEEE1394 interface error
851		The 1394 interface is unusable.
		Defective IEEE1394
		Defective controller.
		1. Turn the main switch off and on.
		2. Replace the IEEE1394 interface board.
		3. Replace the controller.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	Wireless LAN card not detected
853		The wireless LAN card is not detected before communication is established, though the wireless LAN board is detected.
		Loose connection
		Check the connection.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	Wireless LAN/Bluetooth card not detected
854		The wireless LAN/Bluetooth card is not detected after communication is established, but the wireless LAN board is detected.
		Loose connection
		Check the connection.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Wireless LAN/Bluetooth card error
		An error is detected in the wireless LAN/Bluetooth card.
855	CTL	Loose connection
856	В	Defective wireless LAN/Bluetooth card
		1. Check the connection.
		2. Replace the wireless LAN/Bluetooth card.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
857	CTL B	USB interface error The USB interface cannot be used due to a driver error. • Defective USB driver • Loose connection 1. Check the connection. 2. Replace the USB board.

No.	Туре		Details (Symptom, Possible Cause, Troubleshooting Procedures)		
	CTL C	HDD Encryption unit error 1			
			ous error occurs when data is encrypted to update an encryption key with the encryption unit.		
		[0]	Encryption key acquisition error: The controller fails to get a new encryption key.		
			Defective controller board Replace the controller board.		
		[1]	Encryption key setting for HDD error: The controller fails to copy a new encryption key to the HDD.		
			Defective SATA chip on the controller board Replace the controller board.		
858		[2]	NVRAM data encryption error 1: An error occurs while the NVRAM data is encrypted.		
			Defective NVRAM on the controller board Replace the NVRAM.		
		[30]	NVRAM data encryption error 2: An error occurs before the NVRAM data is encrypted.		
			Defective controller board Replace the controller board.		
		[30]	Other error: A serious error occurs while the data is encrypted.		
			Same as SC991		

No.	Туре		Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL C	HDD E	ncryption unit error 2
			us error occurs when the HDD data is encrypted to update an encryption key e HDD encryption unit.
		[8]	HDD check error: The HDD is not correctly installed.
			No HDD installed Unformatted HDD
			The encryption key on the controller is different from the one on the HDD
859			Install the HDD correctly. Initialize the HDD.
		[9]	Power failure during the data encryption:
			The data encryption (NVRAM and HDD) has not been completed.
			Power failure during the data encryption Initialize the HDD.
		[10]	Data read/write error: The DMAC error is detected twice or more.
			Same as SC863

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	HDD: Initialization error
		The controller detects that the hard disk fails.
860		HDD not initializedDefective HDD
		Reformat the HDD. Replace the HDD.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Bad sector number error
		The number of bad sectors in the HDD (image data area) goes over 101.
862		Defective HDD
		1. Format the HDD with SP5-832-002.
		2. Replace the HDD.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	HDD: Read error
		The data stored in the HDD cannot be read correctly.
863		Defective HDD
		Defective controller
		1. Replace the HDD.
		2. Replace the controller.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	HDD: CRC error
864		While reading data from the HDD or storing data in the HDD, data transmission fails.
		Defective HDD
		Replace the HDD.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	HDD: Access error
865		An error is detected while operating the HDD.
		Defective HDD
		Replace the HDD.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	SD card authentication error
866		A correct license is not found in the SD card.
800		SD-card data is corrupted.
		Store correct data in the SD card.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
867	CTL D	SD card error
		The SD card is ejected from the slot.
007		1. Install the SD card.
		2. Turn the main switch off and on.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
868	CTL D	SD card access error • -13 to -3: File system error • Other number: Device error An error report is sent from the SD card reader. • An error is detected in the SD card. 1. For a file system error, format the SD card on your PC. 2. For a device error, turn the mains switch off and on. 3. Replace the SD card. 4. Replace the controller.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	Address book error
		An error is detected in the data copied to the address book over a network.
		Defective software program
		Defective HDD
870		Incorrect path to the server
		 Back up the address book data (** "Address Book Upload/Download" in the Appendices) and Initialize the address book data (SP5-846-046) and the user information.
		(Restore the address book data if possible.)
		2. Replace the HDD.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	HDD mail data error
		An error is detected in the HDD at machine initialization.
		Defective HDD
872		Power failure during an access to the HDD
		1. Turn the main switch off and on.
		2. Initialize the HDD partition (SP5-832-007).
		3. Replace the HDD.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL B	HDD mail transfer error
		An error is detected in the HDD at machine initialization.
873		Defective HDD
		Power failure during an access to the HDD
		1. Initialize the HDD partition (SP5-832-008).
		2. Replace the HDD.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Delete All error 1: HDD
874		An error is detected while all of the HDD or NVRAM are formatted physically by the DataOverwriteSecurity Unit (D362).
		DataOverwriteSecurity Unit (SD card) not installedDefective HDD
		 Install the DataOverwriteSecurity Unit (D362). Replace the HDD.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Delete All error 2: Data area
875		An error is detected while all of the HDD or NVRAM are formatted logically by the DataOverwriteSecurity Unit (D362).
		The logical format for the HDD fails.
		Turn the main switch off/on and try the operation again

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Log Data Error
876		An error was detected in the handling of the log data at power on or during machine operation. This can be caused by switching the machine off while it is operating.
		Log Data Error 1
	-001	Damaged log data file in the HDD
		Initialize the HDD with SP5832-004.
		Log Data Error 2
	-002	An encryption module not installed
		1. Disable the log encryption setting with SP9730-004 ("0" is off.)
		2. Install the DESS module.
		Log Data Error 3
	-003	Invalid log encryption key due to defective NVRAM data
		1. Initialize the HDD with SP5832-004.
		2. Disable the log encryption setting with SP9730-004 ("0" is off.)
		Log Data Error 4
	-004	Unusual log encryption function due to defective NVRAM data
		Initialize the HDD with SP5832-004.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
		Log Data Error 5
	-005	Installed NVRAM or HDD which is used in another machine
	000	1. Reinstall the previous NVRAM or HDD.
		2. Initialize the HDD with SP5832-004.
	-099	Log Data Error 99
		Other than the above causes
		Ask your supervisor.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	HDD Data Overwrite Security SD card error
877		The 'all delete' function cannot be executed but the DataOverwriteSecurity Unit (D362) is installed and activated.
		Defective SD card (D362)SD card (D362) not installed
		1. Replace the NVRAM and then install the new SD card (D362).
		2. Check and reinstall the SD card (D362).

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	TPM system authentication error
		The system firmware is not authenticated by TPM (security chip).
878		Incorrect updating for the system firmware
		Defective flash ROM on the controller board
		Replace the controller board.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	File format converter error
000		The file format converter does not respond.
880		Defective file format converter
		Replace the file format converter.

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SC9xx: Miscellaneous

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Electric counter error
		Abnormal data in the counters.
		Defective NVRAM
900		Defective controller
		Check the connection between the NVRAM and controller.
		2. Replace the NVRAM.
		3. Replace the controller.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Printer application error
		An error is detected in the printer application program.
		Defective software
920		Unexpected hardware resource (e.g., memory shortage)
		Software defective; switch off/on, or change the controller firmware if the problem is not solved
		2. Insufficient memory

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
	CTL D	Printer font error
		A necessary font is not found in the SD card.
921		A necessary font is not found in the SD card.
		The SD card data is corrupted.
		Check that the SD card has the correct data.

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
	CTL D	Software performance error	
		The software makes an unexpected operation.	
		Defective software	
		Defective controller	
990		Software error	
		1. Turn the main switch off and on.	
		2. Reinstall the controller and/or engine main firmware.	
		Note	
		See Note 1 at the end of the SC table.	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)
991	CTL C	Software continuity error
		The software has attempted to perform an unexpected operation. However, unlike SC 990, the object of the error is continuity of the software.
		Software program error Internal parameter incorrect, insufficient working memory.
		This SC is not displayed on the LCD (logging only).

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
992	CTL D	Undefined error	
		Defective software program	
		An error undetectable by any other SC code occurred	
		Print the "Logging Data" with SP5990-004 and then check the SP7990.	
		If 498-Engine is found in the SP7990;	
		1. Check the harness connection of the temperature/humidity sensor.	
		2. Replace the temperature/humidity sensor.	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
995	995 D CPM setting error		
		Defective BCU	
	-001	1. Input the serial number with SP5811-004, and turn the main power switch off/on.	
		Defective NVRAM on the controller Defective controller	
	-002	Install a new NVRAM, and turn off and on the main power switch after SC995-002 has occurred.	
		Reinstall the previous NVRAM or download the information with SP5825-001, after that turn the main power off and on.	
-003		Incorrect type controller installedDefective controller	
		Replace the controller board with the correct type.	
	-004	Incorrect model controller installed.	
	-004	Replace the controller board with the correct model.	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
997	CTL B	 Application function selection error The application selected by the operation panel key does not start or ends abnormally. Software (including the software configuration) defective An option required by the application (RAM, DIMM, board) is not installed Nesting of the fax group addresses is too complicated 	
,,,		 Check the devices necessary for the application program. If necessary devices have not been installed, install them. Check that application programs are correctly configured. For a fax operation problem, simplify the nesting of the fax group addresses. Take necessary countermeasures specific to the application program. If the logs can be displayed on the operation panel, see the logs. 	

No.	Туре	Details (Symptom, Possible Cause, Troubleshooting Procedures)	
	CTL D	Application start error	
		No applications start within 60 seconds after the power is turned on.	
		Loose connection of RAM-DIMM, ROM-DIMM	
		Defective controller	
998		Software problem	
		1. Check the setting of SP5875-001. If the setting is set to "1 (OFF)", change it to "0 (OFF)".	
			2. Check if the RAM-DIMM and ROM-DIMM are correctly connected.
		3. Reinstall the controller system firmware.	
		4. Replace the controller.	

Note 1

If a problem always occurs in a specific condition (for example. printer driver setting, image file), the problem may be caused by a software error. In this case, the following data and information needs to be sent back to your product specialist. Please understand that it may take some time to get a reply on how to solve the problem, because in some cases the design staff in Japan must analyze the data.

- Symptom / Possible Causes / Action taken
- Summary sheet (SP mode "Printer SP", SP1-004 [Print Summary])

- SMC All (SP5-990-001)
- SMC Logging (SP5-990-004)
- Printer driver settings used when the problem occurs
- All data displayed on the screen (SC code, error code, and program address where the problem is logged.)
- Image file which causes the problem, if possible

6

Process Control Error Conditions

Developer Initialization Result

Displayed number shows results of each developer initialization result.

0000 = YMCK

SP-3-014-001 (Developer Initialization Result)

No.	Result	Description Possible Causes/Action	
1	Successfully completed	Developer initialization is successfully completed.	-
2	Forced termination	Developer initialization was forcibly terminated.	 A cover was opened or the main switch was turned off during the initialization. Do the developer initialization again when done in SP mode. Reinstall the engine main firmware if the result is the same. Turn the main switch off and on when done at unit replacement.
6	Vt error	Vt is less than 0.7V when Vcnt is 4.3V.	1. Defective TD sensor
7	Vcnt error 1	Vcnt is more than 4.7V when Vcnt is Vt target ±0.2V.	 Defective TD sensor Vt target settings are not correct. Toner density error
8	Vcnt error 2	Vt is less than 0.7V when Vcnt is 4.3V and Vcnt is more than 4.7V when Vcnt is Vt target ±0.2V.	1. Defective TD sensor
9	9 Vcnt error 3 Vcnt is Vt target ± over 0.2V.		 Defective TD sensor Vt target settings are not correct. Toner density error



• The machine starts developer initialization after you set "1" in SP3-902-005, 006, 007, or 008. Developer initialization automatically resumes when you open and close the front door or turn the main switch off and on if an error other than Error 8 occurs.

Process Control Self-Check Result

 $\label{thm:process} \mbox{Displayed number shows results of each Process Control Self-Check}.$

00000000 = YYMMCCKK

SP3-012-001 to -010 (Process Control Self-check Result)

No.	Result	Description	Possible Causes/Action
11	Successfully Process control self-check successfully completed.		-
41	Vt error	Vt maximum or minimum error is detected.	Defective development unit Vt maximum error and an image is faint: 1. Replace the toner hopper unit. Vt maximum error and an image is O.K: 1. Replace the development unit. 2. Replace the BCU board. Vt minimum error: 1. Replace the development unit.
			2. Replace the BCU board.
53	ID sensor coefficient (K5) detection error	Not enough data can be sampled.	 Solid image is not sufficient density: Retry the process control. Replace the ID sensors. Replace the BCU board. Solid image is O.K. Replace the ID sensors. Replace the BCU board. ID sensor is dirty: Clean the ID sensors. Retry the process control.
54	ID sensor coefficient (K5) maximum/ minimum error	When the K5 is more than the value of SP3-362-003 or less than the value of SP3-362-004, the error 54 is displayed.	ID sensor pattern density is too high or low.

No.	Result	Description	Possible Causes/Action
55	Gamma error: Maximum	Gamma is out of range. 5.0 < Gamma	ID sensor pattern density is too high.Hardware defective.Same as 53
56	Gamma error: Minimum	Gamma is out of range. Gamma < 0.15	 ID sensor pattern density is too low. Hardware defective. Same as 53 Replace the toner hopper unit.
57	Vk error: Maximum	Vk is out of range. 300 < Vk	ID sensor pattern density is too low.Hardware defective.Same as 53
58	Vk error: Minimum	Vk is out of range. Vk < -300	 ID sensor pattern density is too high. Background dirty Hardware defective Same as 53
59	Sampling data error during gamma correction	Not enough data can be sampled during the gamma correction.	 ID sensor pattern density is too high or low. Hardware defective Same as 53
99	Unexpected error	Process control fails.	Power Failure Check the power source.

Vsg Adjustment Result

Displayed number shows results of each sensor check.

000 = FCR

SP3-325-001 to -010 (Vsg Adjustment Result)

No.	Result	Description	Possible Causes/Action
1	O.K	Vsg adjustment is correctly done.	-

No.	Result	Description	Possible Causes/Action
2	ID sensor adjustment error	Vsg cannot be adjusted within 4.0 ±0.5V.	 Dirty ID sensors (toner, dust, or foreign material) Dirty image transfer belt Scratched image transfer belt Defective ID sensors Poor connection Defective BCU Clean the ID sensors. Check the ITB cleaning unit. Clean or replace the image transfer belt. Replace the image transfer belt. Replace the ID sensors. Check the connection. Replace the BCU board.
3	ID sensor output error	ID sensor output is more than "Voffset Threshold" (SP3-32 4-004)	 Defective ID sensors Poor connection Defective BCU Replace the ID sensors. Check the connection. Replace the BCU board.
9	Vsg Adjustment error	Vsg adjustment has not been completed.	Other cases Retry SP3-321-010.

Line Position Adjustment Result

SP2-194-010 to -012 (Line Position Adjustment Result: M, C, Y)

This SP shows the number as a line position adjustment result on the LCD. It shows which color has an error (M, Y or C).

No.	Result	Description	Note
0	Not done	Line position adjustment has not been done.	-

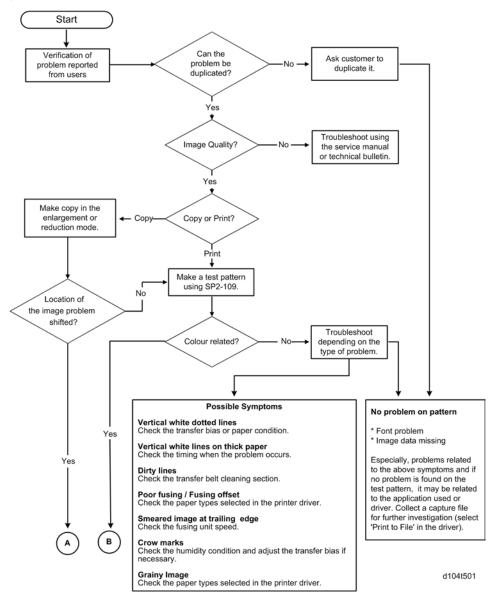
No.	Result	Description	Note
1	Completed successfully	Line position adjustment has correctly been done,	-
2	Cannot detect patterns	ID sensors have not detected the patterns for line position adjustment.	See Note
3	Fewer lines on the pattern than the target	The patterns, which ID sensors have detected, are not enough for line position adjustment.	See Note
4	More lines on the pattern than the target	Not used in this machine.	-
5-9	Not used	-	-



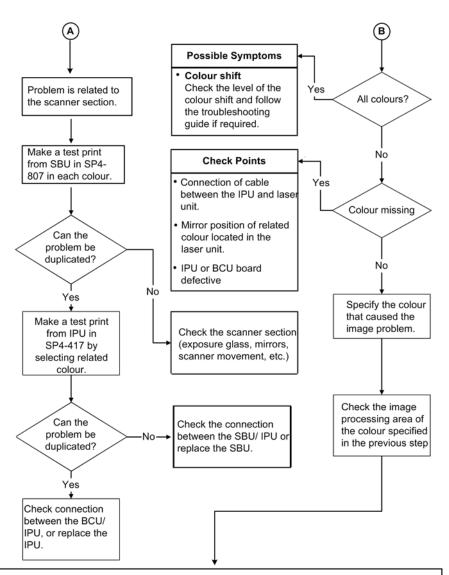
• For details, see the "Troubleshooting Guide - Line Position Adjustment" section.

Image Quality

The following work-flow shows the basic troubleshooting steps for the image quality problems on this product.



0



Considerable Symptoms

Toner blasting

Check which colour is blasting and adjust the toner limit or transfer bias.

· Image density change

Check when the problem is reported and follow the necessary steps.

Dirty Background

Check in which condition the problem is reported, and follow the required procedure.

Colour vertical bands/lines/dirty background

Check the OPC drum and/or development unit.

Colour shift

Check the level of the colour shift and follow the troubleshooting guide if required.

· Colour lines/bands/dirty background

When the PCDU is close to its life end, the developer or the cleaning blade of the drum unit wears out, causing vertical colour lines, bands, or dirty background. Check the related colour unit and replace it if necessary.

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Line Position Adjustment

When there are color registration errors on the output, do the line position adjustment as follows.



• Use A3/DLT size paper for this adjustment.

Test

- 1. Do SP2-111-003 (Mode c: rough adjustment).
- Use SP2-194-007 to check if the result of the line position adjustment is correct (0: Completed successfully, 1: Not completed). If the result is "1", refer to 'Countermeasure list for color registration errors'.
- 3. Do SP2-111-001 (Mode a: fine adjustment twice).
- 4. Use SP2-194-007 to check if the result of the line position adjustment is correct (0: Completed successfully, 1: Not completed). If the result is "1", refer to 'Countermeasure list for color registration errors'.
- 5. Put some A3/DLT paper on the by-pass tray.



- When you print a test pattern, use the by-pass tray to feed the paper.
- 6. Print out test pattern "7" with SP2-109-003.
- 7. Check the printed output with a loupe.
- 8. If there are no color registration errors on the output, the line position adjustment is correctly done. If not, refer to the countermeasure list for color registration errors.

Countermeasure list for color registration errors

After Executing SP2-111-003

- Result: "1" in SP2-194-007
- Result: "2" or "3" (Line pattern detection failure) in SP2-194-010, -011, -012

Test pattern check	Possible cause/Countermeasure
White image, Abnormal image, Low density	 Defective image processing unit Low density of test pattern Defective controller Replace the high voltage power supply unit. Do the forced process control (SP3-011-001) or supply some toner (SP3-015-xxx). Replace the BCU.
Normal image, but with color registration errors	 Defective ID sensors Defective BCU Replace the ID sensor. Replace the BCU.

After Executing SP2-111-003

- Result: "1" in SP2-194-007
- One of results: "4" (Out of adjustable range) in SP2-194-010, -011, -012.

Test pattern check	Possible cause/Countermeasure
The main scan registrations of M, C, Y are shifted by more than ±15 mm from the main scan registration of K.	 Defective laser unit Defective BCU Replace the laser unit. Replace the BCU.
The sub scan registrations of M, C, Y are shifted by more than ±20 mm from the sub scan registration of K.	 Defective image transfer belt Defective drive units Defective BCU Replace the image transfer belt. Replace the drum motor. Replace the BCU.

Test pattern check	Possible cause/Countermeasure
The main scan registration is shifted by more than ±0.66 mm, but only at the central area of the image on the output.	 Defective ID sensor at center Deformed center area on the image transfer belt Defective BCU Replace the ID sensor. Replace the image transfer belt. Replace the BCU.
The skew for M, C, Y is more than ±0.75 mm from the main scan registration of K	 Defective PCU Defective laser unit Defective BCU Reinstall or replace the BCU. Replace the laser unit. Replace the BCU.
Others	 Skew correction upper limit error Defective BCU Defective laser unit Replace the BCU. Replace the laser unit.

After Executing SP2-111-003

• Result: "1" in SP2-194-007

• Result: "0" in SP2-194-010, -011, -012.

Test pattern check	Possible cause/Countermeasure
	Do SP2-111-001 or -002.

After Executing SP2-111-001

• Result: "1" in SP2-194-007

• Result: "2" or "3" (Line pattern detection failure) in SP2-194-010, -011, -012

Test pattern check	Possible cause/Countermeasure
White image, Abnormal image,	Defective image processing unit
Low density	Low density of test pattern
	Defective BCU
	1. Replace the high voltage power supply unit.
	Do the forced process control (SP3-011-001) or supply some toner (SP3-015-xxx).
	3. Replace the BCU.
Normal image, but with color	Defective ID sensor
registration errors	Defective BCU
	1. Replace the ID sensor.
	2. Replace the BCU.

After Executing SP2-111-001

- Result: "1" in SP2-194-007
- Result: "4" (Out of adjustable range) in SP2-194-010, -011, -012

Test pattern check	Possible cause/Countermeasure
Low image density on the output	• Low pattern density Do the forced process control (SP3-011-001) or supply some toner (SP3-015-xxx).
The main scan registrations of M, C, Y are shifted by more than ±1.4 mm from the main scan registration of K.	 No defective component Defective laser optics housing unit Defective BCU Do SP2-111-003 again. Replace the laser unit. Replace the BCU.

Test pattern check	Possible cause/Countermeasure
The sub scan registrations of M, C, Y are shifted by more than ±1.4mm from the sub scan registration of K.	 No defective component Defective image transfer belt Defective drive units Defective BCU Do SP2-111-003 again. Replace the image transfer belt. Replace the drum motor.
The main scan registration is shifted by more than ±0.66 mm, but only at the central area of the image on the output.	 4. Replace the BCU. Defective ID sensor at center Deformed center area on the image transfer belt Defective BCU 1. Replace the ID sensor. 2. Replace the image transfer belt. 3. Replace the BCU.
The skew for M, C, Y is more than ± 0.75 mm from the main scan registration of K. – at the end of the scan line?	 Defective PCDU Defective laser unit Defective BCU Reinstall or replace the PCDU. Replace the laser unit. Replace the BCU.
Others	 Skew correction upper limit error Defective BCU Defective laser unit Replace the BCU. Replace the laser unit.

After Executing SP2-111-001

- Result: "0" in SP2-194-007
- Result: No color registration errors in SP2-194-010, -011, -012

Test pattern check	Possible cause/Countermeasure	
The main scan registration of K is shifted.	Abnormal SP setting value of main scan: K Adjust the value with SP2-101-001.	
The main scan length of K is shifted.	Abnormal SP setting value of main scan length detection: K	
	Adjust the value with SP2-102-001 and -003.	
	Note:	
	The setting value of these SPs should be same.	

After Executing SP2-111-001

• Result: "0" in SP2-194-007

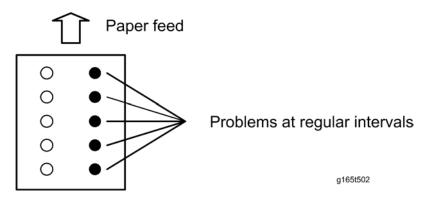
• Result: Color registration errors in SP2-194-010, -011, -012

Test pattern check	Possible cause/Countermeasure	
Low image density on the output	Low pattern density	
	Do the forced process control (SP3-011-001) or supply some toner (SP3-015-xxx).	
The main scan registration is shifted, but	Defective ID sensor at center	
only at the central area of the image on	Deformed center area on the image transfer belt	
the output.	Defective BCU	
	1. Replace the ID sensor.	
	2. Replace the image transfer belt.	
	3. Replace the BCU.	
The main scan registrations of M, C, Y	Defective laser optics housing unit	
are shifted.	Defective ID sensor	
	Defective BCU	
	Incorrect SP value	
	 Replace the laser optics housing unit. 	
	2. Replace the ID sensor.	
	3. Replace the BCU.	
	4. Adjust the value with SP2-182-004 to -021.	

Test pattern check	Possible cause/Countermeasure
The sub scan registrations of M, C, Y are shifted.	 Defective image transfer belt Defective drive units Defective ID sensor Defective BCU Incorrect SP value Replace the image transfer belt. Replace the ID sensor. Replace the drum motor. Replace the BCU. Adjust the value with SP2-182-022 to -039.
The skew of M, C, Y is different.	 Defective PCDU Defective laser optics housing unit Defective BCU Reinstall or replace the PCDU. Replace the laser optics housing unit. Replace the BCU.
The sub scan lines are shifted. Shifted lines appear cyclically.	 Defective PCDU Defective drive unit Drum phase adjustment error 1. Do SP1-902-001 (Drum phase adjustment); see Replacement and Adjustment – Drive Unit – Gear Unit for details. 2. Reinstall or replace the PCDU. 3. Check or replace the drive unit.

Image Problems at Regular Intervals

If a defect occurs in the image at one of these intervals, the related component may be defective.



• Development roller: 32 mm

• PTR (Paper Transfer Roller): 75.0 mm

Drum: 94.2 mm

Fusing belt: 157.1 mm

Sub-scan Magnification Error

If a sub-scan magnification error of an image occurs on an output, follow the procedure below to adjust the sub-scan magnification.

Sub-scan Magnification Adjustment Procedure

1. Adjust the sub-scan magnification for each paper type and print mode with the following SPs.



- Input the same value in these SP settings. Otherwise, color registration errors occur on outputs
 and this cannot be recovered by the line position adjustment.
- SP1-803-001: Plain paper/ 600 dpi Input
- SP1-803-002: Plain paper/ 1200 dpi Input
- SP1-803-003: Thick paper Input
- 2. Turn the main power of the machine off and on.
- 3. Check if all settings of the following SPs are "0" (success).
 - SP1-803-004: Plain paper/ 600 dpi Result
 - SP1-803-005: Plain paper/ 1200 dpi Result
 - SP1-803-006: Thick paper Result

- If one of the settings of SP1-803-004 to 006 is "1" (error), return to step 1 and then input a value
 which is closer to "0" compared with the previously input value.
- For example, if "+0.9" is input in the settings of SP1-803-001 to 003 and an error occurs, input "+0.8" or less with SP1-803-001 to 003.
- For example, if "-0.9" is input in the settings of SP1-803-001 to 003 and an error occurs, input "-0.8" or more with SP1-803-001 to 003.
- If an error still remains, refer to "Motor Speed Adjustment".
- 4. Execute the line position adjustment (rough) with SP2-111-003.
- 5. Execute the line position adjustment (fine) with SP2-111-001.
- 6. Make sample copies and check if the outputs are satisfactory.

Motor Speed Adjustment

If "Sub-scan Magnification Adjustment Procedure" does not solve the sub-scan magnification error, the setting of the motor speed adjustment may be out of adjustable range. Check the following three points.

1. An error ("1") occurs in SP1-803-004.

[Setting values of the following SPs + input value with SP1-803-001] > motor speed adjustable range e.g.) 3.5 (SP1-801-002) + 1 (SP1-803-001 to -003) = 4.5

In this case, "4.5" is over the maximum adjustable value ("4") of the SP1-801-002. As a result, the result of the motor speed adjustment issues "1" (error).

 Adjust the settings of the SP1-830-001 to -003 so that the total value (motor speed setting value + input value) is within the adjustable range for each motor described below.

SP No.	Max.	Min.	Title
SP1-801-002	4	-4	Regist Mot: 120 (0.3 default)
SP1-801-003	4	-4	Bk OpcDevMot:120 (-0.1 default)
SP1-801-007	6	-6	Fusing Mot:120 (0.1 default)
SP1-801-009	4	-4	Transfer Mot: 120 (0 default)
SP1-801-012	2	-2	Feed1:CW120 (0.3 default)
SP1-801-014	2	-2	Feed1:CCW120 (0.3 default)
SP1-801-016	2	-2	Feed2:CW120 (0.3 default)
SP1-801-018	2	-2	Feed2:CCW120 (0.3 default)

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SP No.	Max.	Min.	Title
SP1-801-020	2	-2	By-pass:120 (0.3 default)
SP1-801-022	2	-2	Inverter:CW120 (0 default)
SP1-801-024	2	-2	Inverter:CCW120 (0 default)
SP1-801-026	2	-2	Duplex Entrance: 120 (0.3 default)
SP1-801-028	2	-2	Duplex Exit: 120 (0.3 default)

2. An error ("1") occurs in SP1-803-005.

[Setting values of the following SPs + input value with SP1-803-001] > motor speed adjustable range e.g.) 1.5 (SP1-801-025) + 1 (SP1-803-001 to -003) = 2.5

In this case, "2.5" is over the maximum adjustable value ("2") of the SP1-801-025. As a result, the result of the motor speed adjustment issues "1" (error).

Adjust the settings of SP1-830-001 to -003 so that the total value (motor speed setting value + input value) is within the adjustable range for each motor described below.

SP No.	Max.	Min.	Title
SP1-801-025	2	-2	Duplex Entrance:60
SP1-801-027	2	-2	Duplex Exit:60
SP1-801-033	4	-4	Regist Mot:60:1200dpi
SP1-801-034	2	-2	Feed1:CW60:1200dpi
SP1-801-035	2	-2	Feed1:CCW60:1200dpi
SP1-801-036	2	-2	Feed2:CW60:1200dpi
SP1-801-037	2	-2	Feed2:CCW60:1200dpi
SP1-801-038	2	-2	By-pass:60:1200dpi
SP1-801-039	2	-2	Inverter:CW60:1200dpi
SP1-801-040	2	-2	Inverter:CCW60:1200dpi
SP1-801-041	6	-6	FusingMot:60:1200dpi
SP1-801-042	4	-4	BkOpcDevMot:60:1200dpi
SP1-801-043	4	-4	TransferMot:60:1200dpi

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3. An error ("1") occurs in the SP1-803-006.

[Setting values of the following SPs + input value with SP1-803-001] > motor speed adjustable range e.g.) 3.5 (SP1-801-001) + 1 (SP1-803-001 to -003) = 4.5

In this case, "4.5" is over the maximum adjustable value ("4") of the SP1-801-025. As a result, the result of the motor speed adjustment issues "1" (error).

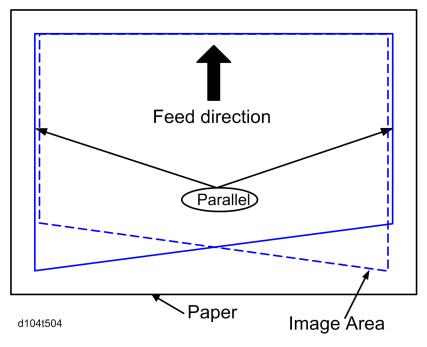
Adjust the settings of SP1-830-001 to -003 so that the total value (motor speed setting value + input value) is within the adjustable range for each motor described below.

SP No.	Max.	Min.	Title
SP1-801-001	4	-4	Regist Mot:60:Thick
SP1-801-004	4	-4	Bk OpcDevMot:60:Thick
SP1-801-008	6	-6	Fusing Mot:60:Thick
SP1-801-010	4	-4	TransferMot:60:Thick
SP1-801-011	2	-2	Feed 1:CW60:Thick
SP1-801-013	2	-2	Feed 1:CCW60:Thick
SP1-801-015	2	-2	Feed2:CW60:Thick
SP1-801-017	2	-2	Feed2:CCW60:Thick
SP1-801-019	2	-2	By-pass:60:Thick
SP1-801-021	2	-2	Inverter:CW60:Thick
SP1-801-023	2	-2	Inverter:CCW60:Thick

Trapezoid Image Adjustment

Before Adjusting the Trapezoid Image

1. Enter SP2-109 and print out the test pattern 14 (Trimming Area).



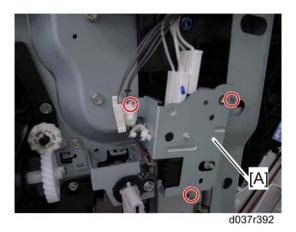
2. Make sure the horizontal lines are parallel.

"Parallel": The gap between horizontal lines is 1.8 mm or less.

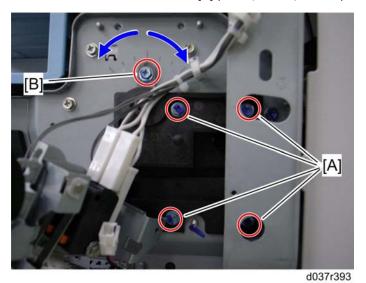
- 3. If the lines are not parallel, check the following and apply corrections as necessary:
 - Make sure that the side fences of the tray are set neatly against the sides of the paper.
 - Make sure that the PTR unit is connected to the bracket correctly.
 - Make sure that the shafts of the duplex unit are not bent nor damaged.

Adjusting the Trapezoid Image

- 1. Remove the following items:
 - Fusing unit (**P**p.242)
 - Front right cover (**p.172)
 - PCDU toner collection bottle (**p.165)
 - Inner cover (**p.172)
 - Inner right cover (IPp.171)



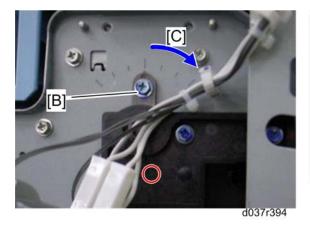
2. Remove the interlock switch bracket [A] ($\mbox{\it P} \times 3$, $\mbox{\it P} \times 1$, $\mbox{\it CM} \times 2$).

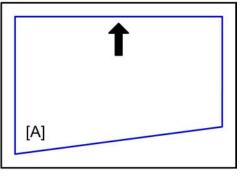


- 3. Loosen the four screws [A] on the front fusing guide.
- 4. Remove the screw [B] on the adjustor lever.



• This screw is not necessary after tightening the front fusing guide.

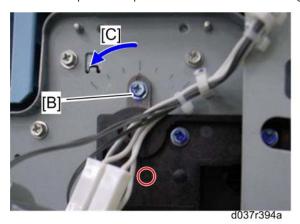


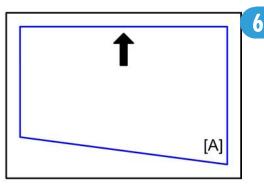


5. If the horizontal lines slope down to the left [A], move the front fusing guide upward. To do this, turn the adjustor lever [B] of the fusing front guide clockwise [C].



• One step of the adjustor lever moves the front fusing guide by 1 mm.





6. If the horizontal lines slope down to the right [A], move the fusing front guide downward. To do this, turn the adjustor lever [B] of the front fusing guide counterclockwise [C].



- One step of the adjustor lever moves the front fusing guide by 1 mm.
- 7. Retighten the four screws for the front fusing guide.
- 8. Print out the test pattern and check the image quality.
- 9. If the symptom still occurs, repeat the above steps.

Loud Squeaking Noise from PCDU

Symptom:

A loud squeaking noise can be heard when two of the following conditions are met:

- High image coverage
- High original-to-copy ratio (1-to-x)
- · Printing at half speed

Cause:

Normally, silica inside the toner is deposited on the drum surface over a long period of time, some of which is removed by the cleaning blade. However, when two or more of the conditions above are met, the rate of deposit accelerates, and eventually the blade cannot run across the drum surface smoothly.

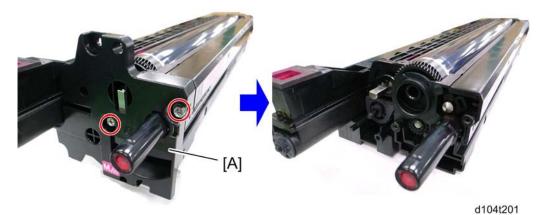
Solution:

If this problem is reported, replace the standard spring with the modified spring (P/N AA063690).

Side Effect:

The part life of the PCU may be shortened.

Replacement Procedure



1. Remove the front cover [A] from the PCDU ($\rat{p} \times 2$).

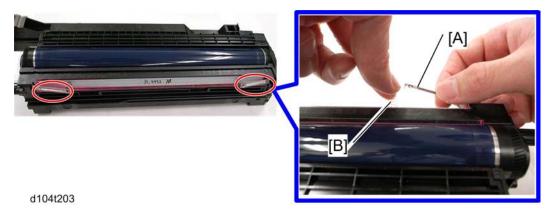


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2. Slide the upper cover [A] of the drum unit as shown and remove it.

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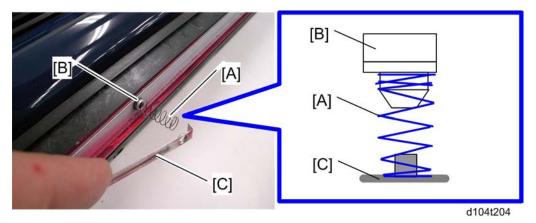




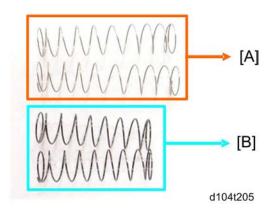
3. Carefully lift up the metal plate [A], and then remove the spring [B] at the front side and rear side.



• Be careful not to bend the metal plate.



- 4. Attach the modified spring [A] to the boss [B] on the lubricant holder.
- 5. Install the metal plate [C] in the spring [A] so that the modified spring is kept between the boss [B] on the lubricant holder and the metal plate.



• [B]: Modified spring (P/N: AA063690)

The modified spring [B] is black, and about 3 mm shorter than the old spring.

- 6. Reattach the upper cover of the drum unit.
- 7. Reattach the front cover to the PCDU (Fx 2), and then reinstall the PCDU in the machine.

Loud Noise from the Paper Tray

Symptom:

A loud vibration can be heard while the paper is being fed from the paper tray.

Cause:

The excessive pressure between the feed roller and friction pad of the paper tray causes a loud vibration due to the incorrect position of the maylar at the friction pad.

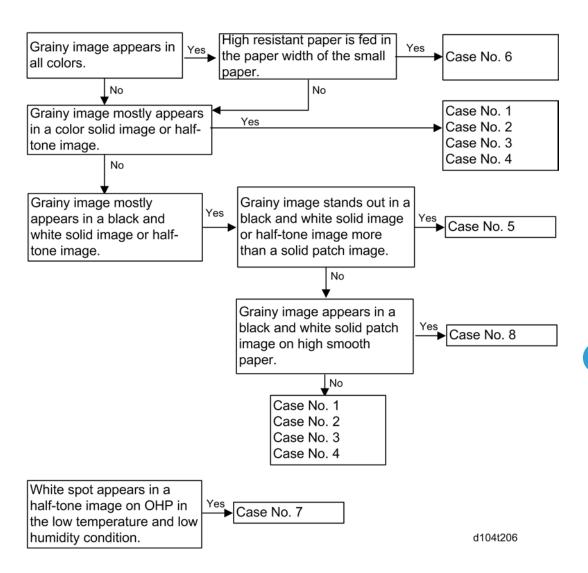
Solution:

Reinstall the friction pad in the correct position. For details, see "Friction Pad" in the section "Replacement and Adjustment".

Grainy Image

If grainy images are reported from the field, use the following flowchart to take action in response to the eight conditions.





Possible Cause List

Cause 1: Grainy Image on Rough Surface Paper

When the surface of the paper is relatively rough, the strength of the electrical field between the ITB and the "sunken" areas in the paper weakens, causing low image density only in these areas.

Action Procedure

- 1. If the grainy images only appear in black image areas with Printer Full Color mode, select "CMY +K" with the PCL printer driver. For details, see "Action 1" described below.
- 2. Change the paper transfer bias. For details, see "Action 2A" described below.
- 3. Increase the amount of the toner per area (M/A). For details, see "Action 3" described below.
- 4. Ask a customer to change paper from high resistant paper to more smooth paper.

Cause 2: Grainy Image on Humid Paper

The surface resistance of paper such as humid paper is low, and the electrical field for the paper transfer is weak.

Action Procedure

- 1. Ask a customer to keep paper in dry condition.
- 2. Turn on the tray heater if it has already been installed or ask a customer to install the optional tray heater.
- 3. If the grainy images only appear in black image areas with Printer Full Color mode, select "CMY +K" with the PCL printer driver. For details, see "Action 1" described below.
- 4. Change the paper transfer bias. For details, see "Action 2A" described below.
- 5. Increase the amount of the toner per area (M/A). For details, see "Action 3" described below.

Cause 3: Grainy Image on 2nd Side of Paper

This may be caused by the resistance value difference from 1 st side and 2nd side paper. The resistance of the 2nd side paper is changed after the paper has passed the fusing unit. As a result, the resistance of 2nd side paper which has passed the fusing unit is out of the range for the standard resistance of paper.

Action Procedure

- If the grainy images only appear in black image areas with Printer Full Color mode, select "CMY +K" with the PCL printer driver. For details, see "Action 1" described below.
- 2. Change the paper transfer bias. For details, see "Action 2B" described below.
- 3. Increase the amount of the toner per area (M/A). For details, see "Action 3" described below.
- 4. Ask a customer to change paper from rough surface paper to more smooth paper.

Cause 4: Grainy Image on Small Size Paper

The transfer current tends to leak at the non paper area of the paper transfer roller. As a result, insufficient transfer current causes a grainy image when using small size paper in the high temperature and high humidity condition.

Action Procedure

- 1. If the grainy images only appear in black image areas with Printer Full Color mode, select "CMY +K" with the PCL printer driver. For details, see "Action 1" described below.
- 2. Use the A4 LEF paper. If A4 LEF paper does not solve the grainy image, check the other causes (Cause 1, 2 and 3)
- 3. Change the paper size correction coefficient. For details, see "Action 4" described below.
- 4. Increase the amount of the toner per area (M/A). For details, see "Action 3" described below.
- 5. Ask a customer to change paper from high resistant paper to more smooth paper.

Cause 5: Blur Uneven Black Image

The resistance difference between the image transfer roller and image transfer belt causes the blur uneven black image when printing a high coverage image. This symptom tends to occur especially just after initial machine installation.

Action Procedure

- 1. Leave a machine for several hours if this symptom appears just after initial machine installation.
- 2. If the grainy images only appear in black image areas with Printer Full Color mode, select "CMY +K" with the PCL printer driver. For details, see "Action 1" described below.
- 3. Decrease the target development gamma. For details, see "Action 5" described below.
- 4. Decrease the image transfer roller current for black and paper transfer roller current. For details, see "Action 6" described below.

Cause 6: Grainy Image on High Resistance Small Paper

The transfer current tends to leak at the non paper area of the paper transfer roller. As a result, insufficient transfer current causes a grainy image when using high resistance paper such as photo paper and OHP.

Action Procedure

- 1. Change the feeding direction from SEF to LEF.
- 2. Change the paper size correction coefficient. For details, see "Action 4" described below.

Cause 7: Grainy Image on OHP

The grainy image, which includes white dots, occurs when using OHP in the low temperature and low humidity condition.

Action Procedure

Change the environmental correction table of the paper transfer roller for OHP. For details, see
 "Action 8" described below.

The black solid image may become grainy on the high smoothness paper when the black solid area is printed in the full color printing mode. This is because the transfer current for the full color printing is excessive for the high smoothness paper. (Basically the transfer current for the monochrome printing is lower than the transfer current for the full color printing.)

Action Procedure

Select "CMY+K" with the PCL printer driver. For details, see "Action 1" described below.

Action List

Action 1

With this setting for PCL, all BW images are printed using process black, including text.

Action Procedure

 Select "CMY+K" with the PCL printer driver. (Print Quality -> Color: Manual -> Gray reproduction -> CMY+K)

Action 2A

Changing the PTR current for each paper type can solve the grainy image for the 1st side of paper.

Action Procedure

- 1. Increase the PTR current for the 1st side of paper in steps of 2 µA until +6 µA from the default value.
 - B/W mode/ Normal speed: SP2-403-001
 - B/W mode/Low speed: SP2-403-003
 - Full Color mode/Normal speed: SP2-407-001
 - Full Color mode/Low speed: SP2-407-003
- 2. If the grainy images get worse, decrease the PTR current in steps of 2 µA until -6 µA from the default value.
- 3. If the grainy images only occur when using a specific type of paper, set the Paper Type setting to one of the Special Paper settings as follows.
 - If the current Paper Type setting is one of the following, change it to Special Paper 1.
 - Plain Paper 1, Plain Paper 2, Middle Thick, Thin Paper, Coated Paper: Gloss Select Special Paper 1, then adjust the settings of the following SP modes:
 - B/W mode/ Normal speed: SP2-753-001
 - B/W mode/ Low speed: SP2-753-003

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Full Color mode/ Normal speed: SP2-757-001
 Full Color mode/ Low speed: SP2-757-003

- If the current Paper Type setting is one of the following, change it to Special Paper 4.
 - Thick Paper 1, Thick Paper 2, Thick Paper 3

Select Special Paper 4, then adjust the settings of the following SP modes:

B/W mode: SP2-783-001Full Color mode: SP2-787-001

Action 2B

Changing the PTR current for each paper type can solve the grainy image for the 2nd side of paper.

Action Procedure

1. Increase the PTR current for the 2nd side of paper in steps of 2 HA until +6 HA from the default value.

• B/W mode/Normal speed: SP2-403-002

• B/W mode/Low speed: SP2-403-004

• Full Color mode/ Normal speed: SP2-407-002

• Full Color mode/Low speed: SP2-407-004

- 2. If the grainy images get worse, decrease the PTR current in steps of 2 µA until -6 µA from the default value.
- 3. If the grainy images only occur when using a specific type of paper, set the Paper Type setting to one of the Special Paper settings as follows.
 - If the current Paper Type setting is one of the following, change it to Special Paper 1.
 - Plain Paper 1, Plain Paper 2, Middle Thick, Thin Paper, Coated Paper: Gloss
 Select Special Paper 1, then adjust the settings of the following SP modes:
 - B/W mode/ Normal speed: SP2-753-002
 - B/W mode/ Low speed: SP2-753-004
 - Full Color mode/ Normal speed: SP2-757-002

Full Color mode/Low speed: SP2-757-004

- If the current Paper Type setting is one of the following, change it to Special Paper 4.
 - Thick Paper 1, Thick Paper 2, Thick Paper 3

Select Special Paper 4, then adjust the settings of the following SP modes:

• B/W mode: SP2-783-001

• Full Color mode: SP2-787-001



Basically, there are different setting values for 1st side and 2nd side of thick paper when using the
by-pass printing mode. When using thick paper in the by-pass printing mode, adjust the PTR current
of Special Paper 4 for the 2nd side of thick paper. Always use the adjusted setting of Special Paper
4 when the 2nd side of thick paper is fed from the by-pass tray.

Action 3

Increase the amount of the toner per area (M/A). However, too much toner may cause the toner blasting.

Action Procedure

- 1. Set the following SP modes to the values highlighted in bold.
 - Set the setting of SP3-501-001 to **0.500** mg/cm² for Maximum M/A: Bk.
 - Set the setting of SP3-501-002 to **0.495** mg/cm² for Maximum M/A: C.
 - Set the setting of SP3-501-003 to **0.495** mg/cm² for Maximum M/A: M.
 - Set the setting of SP3-501-004 to **0.495** mg/cm² for Maximum M/A: Y.
- 2. Execute Process Control with SP3-011-001.

Action 4

Changing the correction value of the PTR current for each paper size can solve the grainy image.

The paper size correction coefficient setting for non-special paper types is applied to several different paper types at once. This can create side effects for paper types on which the symptom is not occurring. Therefore, if you only want to change the setting for one type, use the Special Paper settings.

Action Procedure

- 1. Increase the correction value of the PTR current for each paper size in steps of 10% against the default setting for each SP mode until +30% against the default setting of each SP mode.
 - If the current Paper Type setting is one of the following, change it to Special Paper 1, 2 or 3.
 - Plain Paper 1, Plain Paper 2, Middle Thick, Thin Paper, Coated Paper: Gloss
 Select Special Paper 1, 2 or 3, then adjust the settings of the following SP modes:
 - B/W mode for Plain Paper: SP2-411-001 to -020
 - Full Color mode for Plain Paper: SP2-412-001 to -020
 - If the current Paper Type setting is one of the following, change it to Special Paper 4, 5 or 6.
 - Thick Paper 1, Thick Paper 2, Thick Paper 3

Select Special Paper 4, 5 or 6, then adjust the settings of the following SP modes:

- B/W mode for Thick Paper: SP2-511-001 to -017
- Full Color mode for Thick Paper: SP2-512-001 to -017.

2. If the grainy images get worse, decrease the correction value of the PTR current for each paper size in steps of -10% against the default setting for each SP mode until -30% against the default setting of each SP mode.

If the special paper setting which is proper for this action procedure has already been used for the other paper setting, change the following SPs of non-special paper types.

- B/W mode for Special 1, 2 and 3: SP2-761-005 to -020
- Full Color mode for Special 1, 2 and 3: SP2-762-005 to -020
- B/W mode for Special 4, 5 and 6: SP2-791-005 to -020
- Full Color mode for Special 4, 5 and 6: SP2-792-005 to -020

Action 5

Decreasing the target gamma for the developer can solve the grainy image.

Action Procedure

- 1. Change the setting of SP3-611-009 from "0.90" to "0.85".
- 2. Execute the SP3-011-001.

Action 6

Decreasing the transfer current values for the ITB roller and PTR can solve the grainy image in the BW printing mode. However, decreasing the transfer current of the ITB roller affects other settings (paper type and size) and may cause a light toner image for some paper type and size.

Action Procedure

Change the settings of SP2-351-001 by -2 μ A or SP2-351-003 by -1 μ A.

- Decrease the transfer current of the PTR for each paper type by 1 µA until -4 µA from the default setting.
 - B/W mode/ Normal or low speed for Plain Paper: SP2-403-001 to -004
 - B/W mode/ Normal or low speed for Thin Paper: SP2-453-001 and -003
 - B/W mode/Low speed for Glossy Paper: SP2-482-001
 - B/W mode/Low speed for Thick 1: SP2-502-001
 - B/W mode/ Low speed for Thick 2: SP 2-553-001
 - B/W mode/Low speed for OHP: SP 2-603-001
 - B/W mode/ Low speed for Thick 3: SP 2-651-001
 - B/W mode/ Normal or low speed for Middle Thick Paper: SP2-703-001 to -004
 - B/W mode/ Normal or low speed for Special 1 Paper: SP2-753-001 to -004
 - B/W mode/ Normal or low speed for Special 2 Paper: SP2-803-001 to -004

6

• B/W mode/ Normal or low speed for Special 3 Paper: SP2-852-001 to -004

• B/W mode/Low speed for Special 4 Paper: SP2-783-001

• B/W mode/Low speed for Special 5 Paper: SP2-833-001

• B/W mode/Low speed for Special 6 Paper: SP2-883-001

If the result of step 2 is not satisfactory, change the settings of SP2-351-001 by -2 μ A or SP2-351-003 by -1 μ A again and then decrease the transfer current of the PTR for each paper type by 1 μ A until -4 μ A from the default setting again.

Action 7

Increasing the transfer current for the PTR can solve the grainy image on small size paper. Use Special 4, Special 5 or Special 6 for the small size paper setting. It is because the adjusted transfer current for small size paper is very different from the transfer current for normal paper.

Action Procedure

1. Increase the settings of the PTR transfer current corrections for each paper size until a grainy image on small size paper is solved.

• B/W mode: SP2-791-005 to -017

• Full color mode: SP2-791-005 to -017

Action 8

Increasing the transfer current for the PTR can solve the grainy image on OHP in the full color printing.

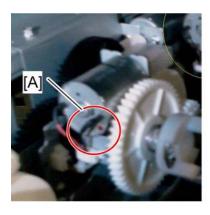
Action Procedure

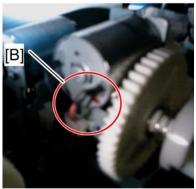
- 1. Change the setting of SP2-608-001 from 20 μ A to 18 μ A.
- 2. Change the setting of SP2-630-003 from 47 to 11.
- 3. If the result of steps 1 and 2 are not satisfactory, decrease the setting of SP2-608-001 by 1 µA until a grainy image on OHP in the full color printing.

Toner Supply Error

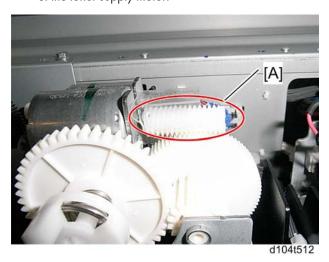
If the toner end message is displayed even though the toner bottle still has toner in itself, check the following points.

- 1. Check if the setting of SP3044-001 to -004 is set to "4".
- 2. Check if the toner supply motor for each color works correctly with SP5804-071 to -074.
 - Replace the toner supply motor with a new motor if it is defective.





- d104t511
- 3. Check if the red mark is painted besides the black cord of the toner supply motor. The left picture [A] shows a correct motor and right picture [B] shows a malfunction motor.
 - Replace the toner supply motor with a new motor if the red mark is painted besides the red cord
 of the toner supply motor.



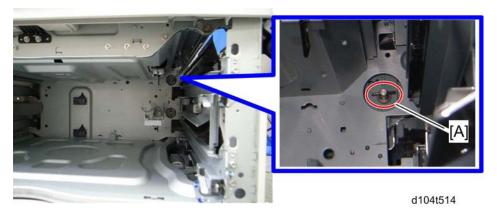
- 4. Check if the gear [A] of the toner supply motor is attached to the motor shaft.
 - Replace the toner supply motor with a new motor if the gear of the toner supply motor is not attached to the motor shaft.
- 5. Check if the toner supply drive shaft is correctly installed.
 - Install the tone supply drive shaft correctly if not.

Paper Jam Troubleshooting

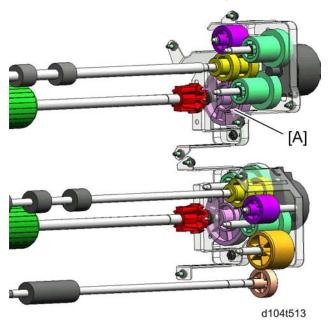
This explains the troubleshooting for each paper jam code; Jam code 3, 4, 8, 11, 12, 17, 19, 51, 52 and 59. Refer to the following troubleshooting procedure corresponding to the paper jam code.

Jam 3: Paper is not fed from Tray 1.

- 1. Pull out the tray 1 and tray 2 from the machine ($\mbox{\ensuremath{\not\sim}}\xspace x 2 each).$
- 2. Turn on the paper feed motor using SP5-804-005 (Output check: Paper Feed M1:CCW:190mm/s).

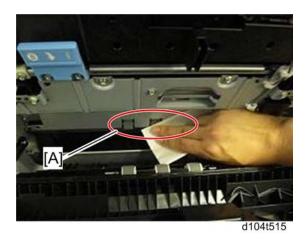


3. Check if the feed roller shaft [A] for the tray 1 rotates.

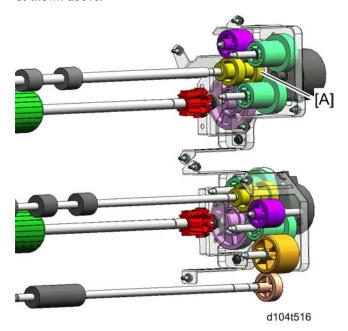


4. Replace the one-way clutch [A] with P/N D1051164 if the feed roller shaft does not rotate.

6

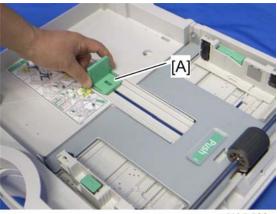


- 5. Open the duplex unit with the paper feed motor rotating.
- 6. Press the surface of the vertical transport roller [A] for the tray 1 gently with a small piece of paper, as shown above.



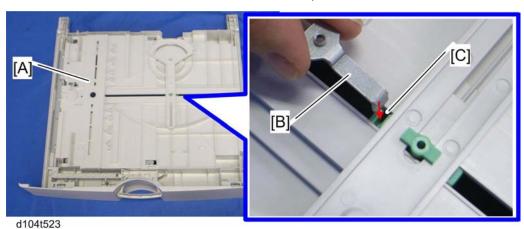
- 7. Replace the one-way clutch [A] with P/N D1051166 if the roller stops easily.
- 8. Ask a customer to fix the end fence and side fences in the tray 1 with the end fence stopper and screws installed in the tray 1.
 - For details about fixing the end fence of the paper tray, see "Fixing the End Fence of the Paper Tray" described below.
- 9. Instruct the customer to press down the paper stack until the bottom plate of the tray 1 is locked when loading paper in the paper tray.

Fixing the End Fence of the Paper Tray

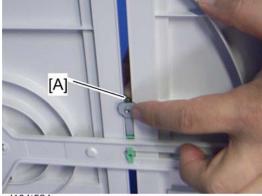


d104t522

2. Hold the sides of the end fence [A], and then move it to the position as shown above.

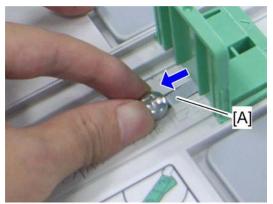


- 3. Turn over the paper tray [A].
- 4. Install the end fence stopper [B] in the notch [C] of the end fence.



d104t524

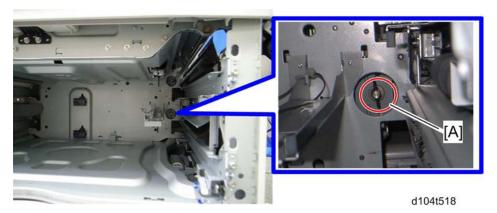
- 5. Install the screw [A] loosely in the end fence stopper.
- 6. Turn over the paper tray, and then adjust the end fence for the paper size to be used.



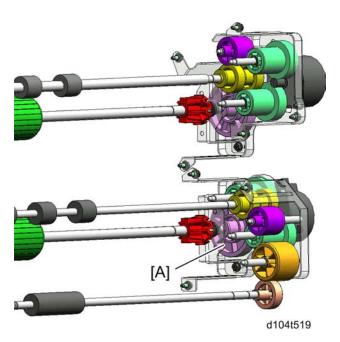
- d104t525
- 7. Pull the end fence stopper [A], and then tighten the screw.
- 8. Make sure that the end fence is firmly fixed.

Jam 4: Paper is not fed from Tray 2.

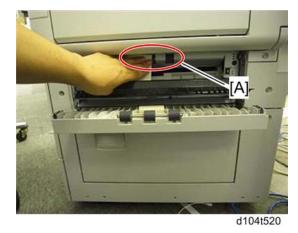
- 1. Pull out the tray 1 and tray 2 from the machine (\mathcal{F} x 2 each).
- 2. Turn on the paper feed motor using SP5-804-013 (Output check: Paper Feed M2:CCW:190mm/s).



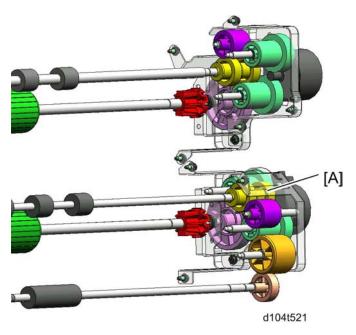
3. Check if the feed roller shaft [A] for the tray 2 rotates.



4. Replace the one-way clutch [A] with P/N D1051164 if the feed roller shaft does not rotate.



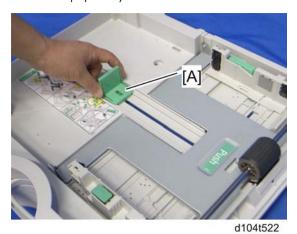
- 5. Open the lower right door with the paper feed motor rotating.
- 6. Press the surface of the vertical transport roller [A] for the tray 2 gently with a small piece of paper, as shown above.



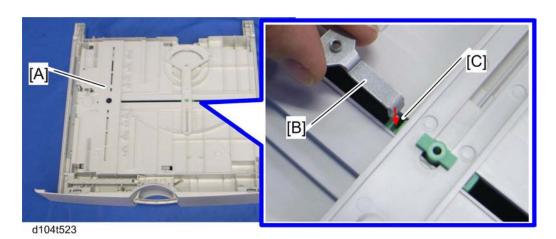
- 7. Replace the one-way clutch [A] with P/N D1051166 if the roller stops easily.
- 8. Ask a customer to fix the end fence and side fences in the tray 1 with the end fence stopper and screws installed in the tray 1.
 - For details about fixing the end fence of the paper tray, see "Fixing the End Fence of the Paper Tray" described below.
- 9. Instruct the customer to press down the paper stack until the bottom plate of the tray 1 is locked when loading paper in the paper tray.

Fixing the End Fence of the Paper Tray

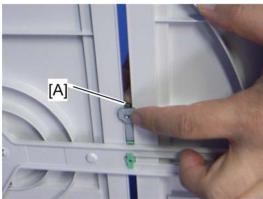
1. Pull out the paper tray from the machine.



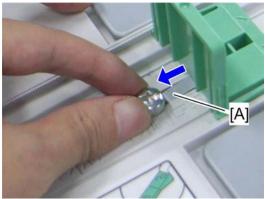
2. Hold the sides of the end fence [A], and then move it to the position as shown above.



- 3. Turn over the paper tray [A].
- 4. Install the end fence stopper [B] in the notch [C] of the end fence.



- d104t524
- 5. Install the screw [A] loosely in the end fence stopper.
- 6. Turn over the paper tray, and then adjust the end fence for the paper size to be used.

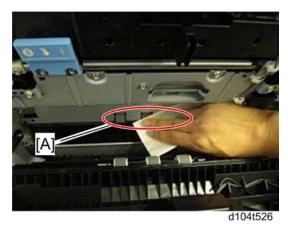


d104t525

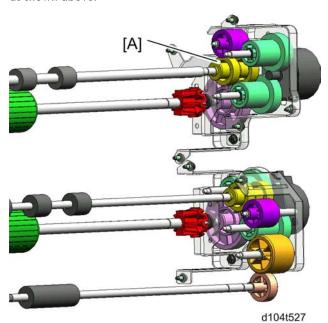
- 7. Pull the end fence stopper [A], and then tighten the screw.
- 8. Make sure that the end fence is firmly fixed.

Jam 8: Paper is not fed from the by-pass tray.

- 1. Remove the paper from the trays 1 and 2.
- 2. Open the duplex unit.
- Turn on the paper feed motor on using SP5-804-001 (Output check: Paper Feed M2:CW:190mm/s).



4. Press the surface of the vertical transport roller [A] for the tray 1 gently with a small piece of paper, as shown above.



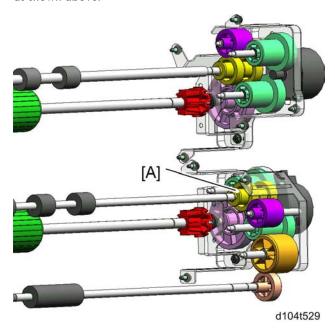
5. Replace the one-way clutch [A] with P/N D1051166 if the roller stops easily.

Jam 11: Vertical transport sensor 1 does not detect paper from the tray 1.

- 1. Remove the paper from the trays 1 and 2.
- 2. Open the lower right door.
- Turn on the paper feed motor on using SP5-804-009 (Output check: Paper Feed M2:CW:190mm/s).

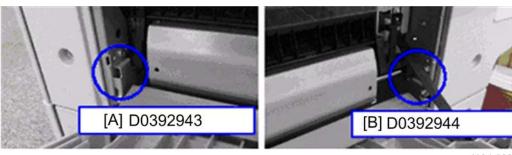


4. Press the surface of the vertical transport roller [A] for the tray 2 gently with a small piece of paper, as shown above.



5. Replace the one-way clutch with P/N D1051166 if the roller stops easily.



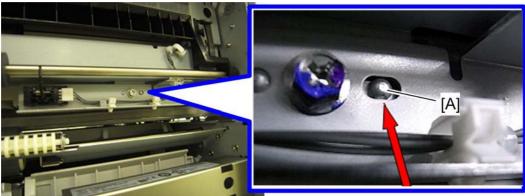


d104t530

 If Jam 11 still occurs, replace the brackets [A] [B] for the vertical transport covers (Front: P/N D0392943, Rear: P/N D0392944).

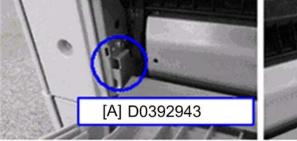
Jam 12: Vertical transport sensor 2 does not detect paper from Tray 2.

1. Remove the lower guide bracket (*** p.268 "Vertical Transport Sensor ")



d104t531

- 2. Press down on the vertical transport sensor bracket in the area around the emboss (bead) [A] as shown above.
- 3. If there is a gap between this area of the bracket and the frame underneath it, replace the bracket with P/N D0392929.



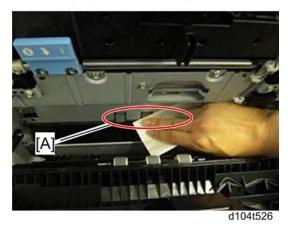


d104t530

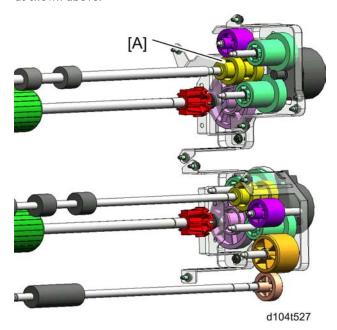
4. If Jam 11 still occurs, replace the brackets [A] [B] for the vertical transport covers (Front: P/N D0392943, Rear: P/N D0392944).

Jam 17: Registration sensor does not detect paper.

- 1. Remove the paper from the trays 1 and 2.
- 2. Open the duplex unit.
- 3. Turn on the paper feed motor using SP5-804-001 (Output check: Paper Feed M2:CW:190mm/s).



4. Press the surface of the vertical transport roller [A] for the tray 1 gently with a small piece of paper, as shown above.

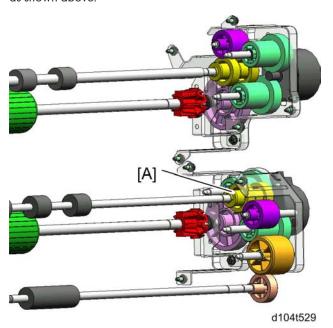


5. Replace the one-way clutch [A] with P/N D1051166 if the roller stops easily.

 If Jam 17 still occurs, turn on the paper feed motor using SP5-804-009 (Output check: Paper Feed M2:CW:190mm/s).



7. Press the surface of the vertical transport roller [A] for the tray 2 gently with a small piece of paper, as shown above.



8. Replace the one-way clutch [A] with P/N D1051166 if the roller stops easily.

Jam 51/ Jam 52: Vertical transport sensor 1/2 does not turn off.

1. Open the lower right door.



d104t530

Replace the brackets for the vertical transport covers (Front: P/N D0392943, Rear: P/N D0392944).

Jam 59: Fusing exit sensor does not turn off.

If Jam 59 occurs frequently, replace the fusing exit sensor bracket (D0394952) (**p.274 "Fusing Exit Sensor").

No Feed Paper Jam from PFU

Symptom:

A non-feed paper jam occurs when the machine tries to feed relatively heavy weight paper from the PFU.

Cause

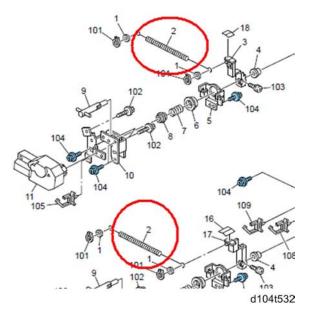
There is not enough pressure on the top sheet of paper stack to separate it from the other sheets.

Solution:

1. Instruct a customer to adjust the amount of paper stuck in the PFU when using heavy weight paper types.

If the customer wants to use the heavy weight paper in the full load condition, try step 2.

6



Side Effect:

These "special springs" will increase the paper feed pressure. Therefore, if a customer uses thin paper types after installing "special springs", multi-feeds may occur.

Setting for Special Paper 4, 5 and 6 Mode

Default Settings for Special Paper Modes

	D T (C)	Fusing Temperature		
	Paper Transfer Current	600 dpi	1200 dpi	
Special Paper 1	Same as Middle Thick	Same as Middle Thick (155°C)	Same as Middle Thick (130°C)	
Special Paper 2	Same as Middle Thick	160°C	135°C	
Special Paper 3	Same as Middle Thick	150°C	125°C	
Special Paper 4	Same as Thick Paper 1	Same as Thick Paper 1 (150°C)	-	

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Special Paper 5	Same as Thick Paper 1	Same as Thick Paper 1 (160°C)	-
Special Paper 6	Same as Thick Paper 1	145°C	-

- Special Paper 1-3 are designed for plain paper and Middle Thick paper types.
- Special Paper 4-6 are designed for paper types equivalent to Thick paper 1 or thicker.
- Special Paper 2-3 and 5-6 are intended to solve specific types of image problems, and Special Paper
 1 and 4 are intended to be used as a customized mode if modes 2-6 are ineffective.

Special Paper 1:

Use this mode if the issue occurs only with a specific type of Plain Paper of Middle Thick Paper, and you need to change (customize) the paper transfer current and/or fusing temperature settings. The default settings for this mode are exactly the same as those for Middle Thick.

Special Paper 2:

Use this mode if poor fusing occurs only with a specific type of Plain Paper or Middle Thick Paper.

Special Paper 3:

Use this mode if blistered images occur only with a specific type of Plain Paper of Middle Thick Paper.

Special Paper 4:

Use this mode if the issue occurs only with a specific type of Thick Paper, and you need to change (customize) the paper transfer current and/or fusing temperature settings. The default settings for this mode are exactly the same as those for Thick Paper 1.

Special Paper 5:

Use this mode if poor fusing occurs only with a specific type of Thick Paper.

Special Paper 6:

Use this mode if blistered images occur only with a specific type of Thick Paper.

How to select the proper Special Paper mode

With this model, you cannot select Special Paper 4, 5, and 6 from the operation panel or inside the printer driver. Therefore, if you want to use these modes, select the following instead:

Copy Mode

1. In User Tools, set the "Paper Type" and "Paper Thickness" for the target tray as follows:

Equivalent to	Paper Type	Paper Thickness
Special Paper 1	Special Paper 1	Plain Paper or Middle Thick
Special Paper 2	Special Paper 2	Plain Paper or Middle Thick

Special Paper 3	Special Paper 3	Plain Paper or Middle Thick
Special Paper 4	Special Paper 1	Thick Paper 1, 2 or 3
Special Paper 5	Special Paper 2	Thick Paper 1, 2 or 3
Special Paper 6	Special Paper 3	Thick Paper 1, 2 or 3

2. Select the target tray and make copies.

Printer Mode

Refer to the following table of recommended settings.

System Setting (Tray Paper Setting)				
	Paper Tray	Paper Type	Paper Thickness	
Special Paper 1 to 3	Tray 1 to 4	Tray 1 to 4 Special Paper 1 to 3		
	Bypass Tray (Driver/ Command Priority)	Any setting	Any setting	
	Bypass Tray (Machine Setting Priority)	Special Paper 1 to 3	Plain Paper or Middle Thick	
	Tray 1 to 2			
Special Paper 4 to 6	Tray 3 to 4	Special Paper 4 to 6	Thick Paper 1, 2 or 3	
	Bypass Tray			

Printer Driver Setting				
	Paper Tray	Paper Source Tray	Paper Type	
Special Paper 1 to 3	Tray 1 to 4	Target Tray		
	Bypass Tray (Driver/ Command Priority)	D T	Special Paper 1 to 3	
	Bypass Tray (Machine Setting Priority)	Bypass Tray		

Special Paper 4 to 6	Tray 1 to 2	Target Tray None	
	Tray 3 to 4	Not Available (Tray 3 and 4 do not have thick paper capability.)	
	Bypass Tray	Bypass Tray	None

Special Paper 1 to 3

Paper Trays (Trays 1-4)

1. In User Tools, set the "Paper Type" and "Paper Thickness" for the target tray.

Equivalent to	Paper Type	Paper Thickness
Special Paper 1	Special Paper 1	Plain Paper or Middle Thick
Special Paper 2	Special Paper 2	Plain Paper or Middle Thick
Special Paper 3	Special Paper 3	Plain Paper or Middle Thick

2. Inside the printer driver, set the "Paper Source Tray" and "Paper Type" to the same tray and paper type that you selected in Step 1 above.

Bypass Tray

"Driver/Command" Priority (default)

• Inside the printer driver, set the "Paper Source Tray" to the bypass tray, and the "Paper Type" to Special Paper 1, 2, or 3.



• The machine will ignore the "Paper Type" setting in User Tools.

"Machine Setting" Priority

1. In User Tools, set the "Paper Type" and "Paper Thickness" for the bypass tray.

Equivalent to	Paper Type	Paper Thickness
Special Paper 1	Special Paper 1	Plain Paper or Middle Thick
Special Paper 2	Special Paper 2	Plain Paper or Middle Thick
Special Paper 3	Special Paper 3	Plain Paper or Middle Thick

2. Inside the printer driver, set the "Paper Source Tray" to the bypass tray, and the "Paper Type" to the same paper type that you selected in Step 1 above.

Special Paper 4 to 6

1. In User Tools, set the "Paper Type" and "Paper Thickness" for the target tray.

Equivalent to	Paper Type	Paper Thickness
Special Paper 4	Special Paper 1	Thick Paper 1, 2 or 3
Special Paper 5	Special Paper 2	Thick Paper 1, 2 or 3
Special Paper 6	Special Paper 3	Thick Paper 1, 2 or 3

2. Inside the printer driver, set the "Paper Source Tray" to the target tray (from Step 1 above), and Paper Type to "None".

SP Modes for Setting the Paper Type

RTR Current (μ A) = RTR standard current (μ A) x Paper size correction co-efficient (%) x X

Plain Paper

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
	600dpi	Face side	2-403-001	2-411-005(S2),009(S3),013(S4), 017(S5)
DVA	(120mm/s)	Back side	2-403-002	2-411-006(S2),010(S3),014(S4), 018(S5)
BVV	1200dpi (60mm/s)	Face side	2-403-003	2-411-007(\$2),011(\$3),015(\$4), 019(\$5)
		Back side	2-403-004	2-411-008(S2),012(S3),016(S4), 020(S5)
	600dpi (120mm/s)	Face side	2-407-001	2-412-005(S2),009(S3),013(S4), 017(S5)
Color		Back side	2-407-002	2-412-006(S2),010(S3),014(S4), 018(S5)
1200dpi	1200dpi	Face side	2-407-003	2-412-007(\$2),011(\$3),015(\$4), 019(\$5)
	(60mm/s)	Back side	2-407-004	2-412-008(S2),012(S3),016(S4), 020(S5)

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
	600dpi	Face side	2-703-001	
BW	(120mm/s)	Back side	2-703-002	Community of a District Down of 1
DVV	1200dpi (60mm/s)	Face side	2-703-003	Common with the Plain Paper 1
		Back side	2-703-004	
	600dpi	Face side	2-707-001	
Calan	(120mm/s)	Back side	2-707-002	Common wish she Dlatin Dayson 1
Color	1200dpi	Face side	2-707-003	Common with the Plain Paper 1
	(60mm/s)	Back side	2-707-004	

Thin Paper

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
BW	600dpi (120mm/s)	Face side Only	2-453-001	Camana an cuista sha Dhaire Danna a 1
DVV	1200dpi (60mm/s)	Face side Only	2-453-003	Common with the Plain Paper 1
Color	600dpi (120mm/s)	Face side Only	2-457-001	Camana an cuista sha Dhaire Danna a 1
	1200dpi (60mm/s)	Face side Only	2-457-003	Common with the Plain Paper 1

Coated Paper Gloss

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
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BW	60mm/s Only	Face side Only	2-482-001	Common with the Plain Paper 1	
Color	60mm/s Only	Face side Only	2-483-001	Common with the Flath raper 1	

Thick Paper 1

Mode	Resolution (Process Speed)	Print side	RTR standard current	Paper size correction co-efficient (%)
BW	60mm/s Only	Face side Only	2-502-001	2-511-005(S2), 009(S3), 013(S4), 017(S5)
Color	60mm/s Only	Face side Only	2-507-001	2-512-005(S2), 009(S3), 013(S4), 017(S5)

Thick Paper 2

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
BW	60mm/s Only	Face side Only	2-553-001	Common with the Think Down of 1
Color	60mm/s Only	Face side Only	2-558-001	Common with the Thick Paper 1

Thick Paper 3

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
BW	60mm/s Only	Face side Only	2-651-001	
Color	60mm/s Only	Face side Only	2-652-001	Common with the Thick Paper 1

OHP

Mode	Resolution (Process Speed)	Print side	RTR standard current	Paper size correction co-efficient (%)
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BW	60mm/s Only	Face side Only	2-603-001	Common with the Thickl Paper 1
Color	60mm/s Only	Face side Only	2-608-001	Common with the thick raper 1

Special Paper 1

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
	600dpi	Face side	2-753-001	2-761-005(S2), 009(S3), 013(S4), 017(S5)
BW	(120mm/s)	Back side	2-753-002	2-761-006(S2), 010(S3), 014(S4), 018(S5)
BVV	1200dpi	Face side	2-753-003	2-761-007(S2), 011(S3), 015(S4), 019(S5)
	(60mm/s)	Back side	2-753-004	2-761-008(S2), 012(S3), 016(S4), 020(S5)
	600dpi (120mm/s)	Face side	2-757-001	2-762-005(S2), 009(S3), 013(S4), 017(S5)
Calan		Back side	2-757-002	2-762-006(S2), 010(S3), 014(S4), 018(S5)
Color	1200dpi (60mm/s)	Face side	2-757-003	2-762-007(S2), 011(S3), 015(S4), 019(S5)
		Back side	2-757-004	2-762-008(S2), 012(S3), 016(S4), 020(S5)

Special Paper 2

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
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BW	600dpi (120mm/s)	Face side	2-803-001	
		Back side	2-803-002	Common with the Special Paper 1
	1200dpi	Face side	2-803-003	Common with the Special Paper 1
	(60mm/s)	Back side	2-803-004	
	600dpi (120mm/s)	Face side	2-807-001	
Color		Back side	2-807-002	Common with the Special Paper 1
Color	1200dpi (60mm/s)	Face side	2-807-003	Common with the Special raper 1
		Back side	2-807-004	

Special Paper 3

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
DVV	600dpi (120mm/s)	Face side	2-852-001	
BW	1200dpi (60mm/s)	Face side	2-852-003	Commencial de Social Borres 1
Calar	600dpi (120mm/s)	Face side	2-857-001	Common with the Special Paper 1
Color	1200dpi (60mm/s)	Face side	2-857-003	

Special Paper 4

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
BW	60mm/s Only	Face side Only	2-783-001	2-791-005(S2), 009(S3), 013(S4), 017(S5)
Color	60mm/s Only	Face side Only	2-787-001	2-792-005(S2), 009(S3), 013(S4), 017(S5)

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
BW	60mm/s Only	Face side Only	2-833-001	
Color	60mm/s Only	Face side Only	2-837-001	Common with the Special Paper 4

Special Paper 6

Mode	Resolution (Process Speed)	Print side	RTR standard current (µA)	Paper size correction co-efficient (%)
BW	60mm/s Only	Face side Only	2-883-001	C
Color	60mm/s Only	Face side Only	2-887-001	Common with the Special Paper 4

6

Jam Detection

Paper Jam Display

SP7-507 shows the paper jam history.

CODE :011 SIZE :05h TOTAL:000034

DATE :Fri Feb 15 11:44:50 2008

d037t503

• CODE: Indicates the jam code.

• SIZE: Indicates the paper Size Code.

• TOTAL: Indicates the total counter (SP7-502-001).

• DATE: indicates the date when the jam occurred.

Paper Size Code

Size Code	Paper Size	Size Code	Paper Size
05	A4 LEF	141	B4 SEF
06	A5 LEF	142	B5 SEF
14	B5 LEF	160	DLT SEF
38	LT LEF	164	LG SEF
44	HLT LEF	166	LT SEF
132	A3 SEF	172	HLT SEF
133	A4 SEF	255	Others
134	A5 SEF	-	-

Jam Codes and Display Codes

Mainframe

SP7-504 shows how many jams occurred at each location.

Jam Code SP	Display	Description	LCD Display
7504 1	At Power On	Paper is stack at power-on.	I Note
75043	Tray 1: ON	Paper is not fed from tray 1.	A2
7504 4	Tray 2: ON	Paper is not fed from tray 2.	A1
7504 5	Tray 3: ON	Paper is not fed from tray 3 (one-tray paper feed unit).	Y
7504 6	Tray 4: ON	Paper is not fed from tray 4.	Y
75048	Bypass: ON	Paper is not fed from the by-pass tray.	A2
7504 9	Duplex: ON	Paper is jammed at the duplex unit.	Z
7504 11	Vertical Transport 1: ON	Vertical transport sensor 1 does not detect paper from tray 1.	A1
7504 12	Vertical Transport 2: ON	Vertical transport sensor 2 does not detect paper from tray 2.	Y
7504 17	Registration: ON	Registration sensor does not detect paper.	A2
7504 18	Fusing Entrance: ON	Fusing entrance sensor does not detect paper.	В
7504 19	Fusing Exit: ON	Fusing exit sensor does not detect paper.	С
7504 20	Paper Exit: ON	Paper exit sensor does not detect paper.	С
7504 21	Relay Exit: ON	Tray exit sensor (bridge unit) does not detect paper.	D
7504 24	Inverter Sn: ON	Inverter sensor does not detect paper.	С
7504 25	Duplex Exit: ON	Duplex exit sensor does not detect paper.	Z
7504 27	Duplex Entrance: ON	Duplex entrance sensor does not detect paper.	Z
7504 28	1-Bin Exit Sensor	1-bin tray exit sensor does not detect paper.	С

Jam Code SP	Display	Description	LCD Display
7504 29	R-tray Paper Exit: ON	Paper exit sensor of the side tray does not detect paper.	С
7504 51	Vertical Transport Sensor 1	Vertical transport sensor 1 does not turn off.	A1, A2
7504 52	Vertical Transport Sensor2	Vertical transport sensor 2 does not turn off.	Y
7504 53	Vertical Transport Sensor3	Vertical transport sensor 3 does not turn off.	Y
7504 57	Registration Sensor	Registration sensor does not turn off.	В
7504 58	Fusing Entrance Sensor	Fusing entrance sensor does not turn off.	С
7504 59	Fusing Exit Sensor	Fusing exit sensor does not turn off.	С
7504 60	Exit Sensor	Paper exit sensor does not turn off.	С
7504 64	Inverter Sensor	Inverter sensor does not turn off.	С
7504 65	Duplex Exit Sensor	Duplex exit sensor does not turn off.	Z
7504 67	Duplex Entrance Sensor	Duplex entrance sensor does not turn off.	Z
7504 68	1-Bin Exit: ON	1-bin tray exit sensor does not turn off.	R
7504 69	R-tray Paper Exit Sensor	Paper exit sensor of the side tray does not turn off.	W
7504 230	FIN:Paper Exit Error	The machine does not get paper exit data from the internal finisher.	R1, R2
7504 231	FIN:Command Error	The machine gets a command error from the internal finisher.	R1, R2
7504 240	Fin. Entrance: ON	Entrance sensor of the internal finisher does not detect paper.	C, R1, R2
7504 241	Fin. Entrance Sensor	Entrance sensor of the internal finisher does not turn off.	R1, R2
7504 242	Feed-Out Belt Motor	The mainframe detects the lock signal from the paper transport motor of the internal finisher.	R1, R2

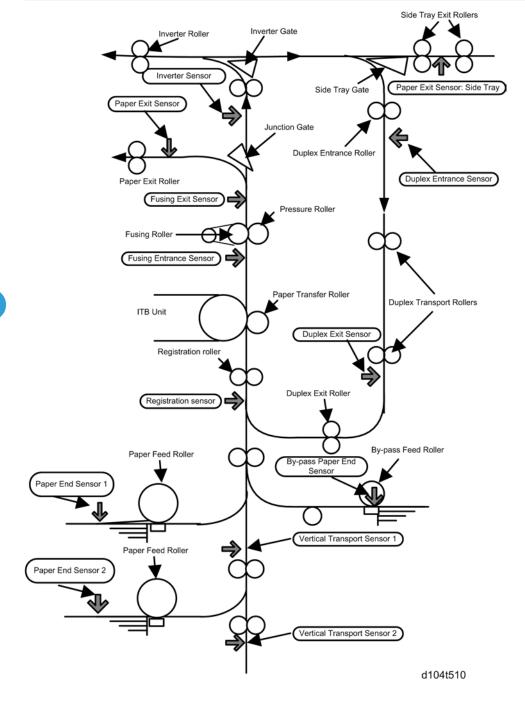
Jam Code SP	Display	Description	LCD Display
7504 243	Stapler Motor	The mainframe detects the lock signal from the staple motor of the internal finisher.	R1, R2
7504 244	Jogger Motor	The mainframe detects the lock signal from the front or rear jogger motor of the internal finisher.	R1, R2
7504 245	Pick-Up Roller Lift Motor	The mainframe detects the lock signal from the pick-up roller contact motor of the internal finisher.	R1, R2
7504 246	Stapler Unit Drive Motor	The mainframe detects the lock signal from the stapler unit movement motor of the punch unit.	R1, R2
7504 247	Output Tray Motor	The mainframe detects the lock signal from the feed motor of the internal finisher.	R1, R2
7504 248	Belt Lift Solenoid	The mainframe detects the belt lift solenoid error from the internal finisher.	R1, R2
7504 249	Finisher Fan	The mainframe detects the finisher fan error from the internal finisher.	R1, R2
7504 250	Punch Motor	The mainframe detects the lock signal from the punch motor.	R1, R2
7504 251	Finisher Proof Exit	The mainframe detects the lock signal from the registration motor of the punch unit.	R1, R2
7504 252	FIN:Stapler Position Error	The stapler unit stays on the jogger end fence so that stapling is disabled.	R1, R2
7504 253	FIN:Job Data Error	Unexpected job data is sent to the internal finisher from the mainframe.	R1, R2



• The jam location display depends on where a paper jam is detected at power-on.

ARDF (Original Jam)

Jam Code SP	Display	Description	LCD Display
7505 1	At Power On	Original is stack at power-on.	Р
7505 3	Skew Correction: ON	Skew correction sensor does not detect paper.	Р
7505 4	Registration: ON	Registration sensor does not detect paper.	Р
7505 5	Paper Exit: ON	Exit Sensor does not detect paper.	Р
7505 53	Skew Correction: OFF	Skew correction sensor does not turn off.	Р
7505 54	Registration: OFF	Registration sensor does not turn off.	Р
7505 55	Paper Exit: OFF	Exit Sensor does not turn off.	Р



Electrical Component Defects

Sensors



 $\bullet\,$ The CN numbers in the following table are the connector numbers on the BCU.

No.	Sensor Name/ Sensor Board Name	Activ e	CN	Condition	Symptom
				Open	"Open Cover" is displayed.
SW4	Duplex Unit Open Switch	L	CN232/2	Shorted	"Open cover" cannot be detected.
	ID Sensor: Front	Α	CN214/8, 9	Open/ Shorted	SC400
\$5	ID Sensor: Center	Α	CN214/6, 7	Open/ Shorted	SC400
	ID Sensor: Rear	А	CN214/2, 3	Open/ Shorted	SC400
S19	PTR Contact Sensor	Н	CN232/4	Open/ Shorted	SC452
S6	Danishankian Canan	L	CNI214/11	Open	Jam A2 (Jam17)
30	Registration Sensor	L	CN214/11	Shorted	Jam B (Jam57)
S35	Drum Phase Sensor: K	Н	CN220/2	Open/ Shorted	SC380/SC396
\$36	Drum Phase Sensor: CMY	Н	CN220/17	Open/ Shorted	SC381/SC397
S21 S22	Toner End Sensor - Y Toner End Sensor - M		CN234/14,	Open	Toner end cannot be detected.
S23 S24	Toner End Sensor - C Toner End Sensor - K	L	17, 20, 23	Shorted	Toner end is detected when there is enough toner.

No.	Sensor Name/ Sensor Board Name	Activ e	CN	Condition	Symptom
S12	ITB Rotation Sensor	H/L	CN219/20	Open/ Shorted	SC443
\$10	Vertical Transport Sensor	L	CN219/10	Open	Jam A1 (Jam11)
310	1	L	CN219/10	Shorted	Jam A1, A2 (Jam51)
S8	Paper End	L	CN214/17,	Open	Paper end is not detected when there is no paper in the paper tray.
\$9			19	Shorted	Paper end is detected when there is paper in the paper tray.
S11	Vertical Transport Sensor	L	CN219/15	Open	Jam Y (Jam 12)
311	2	L		Shorted	Jam Y (Jam52)
SW6	C) () () () () () () () () () (L	CN211/11, 12, 13, 15	Open/ Shorted	Paper size error
0,10	Tray 1 Paper Size Switch	L		Shorted	Tray 1 is detected when tray 1 is not set.
S13	By-pass Paper Size Sensor	L	CN221/9, 10, 12, 13	Open/ Shorted	Paper size error
S15	By-pass Paper End	1	CN221/18	Open	Paper on the by-pass tray is not detected when paper is set.
313	Sensor	L	CINZZI/10	Shorted	Paper on the by-pass tray is detected when paper is not set.
S14	By-pass Paper Length	ı	CN221 /15	Open	Papar siza arrar
514	Sensor	L	CN221/15	Shorted	Paper size error
S16	By-pass HP Sensor	Н	CN221/21	Open/ Shorted	SC508

No.	Sensor Name/ Sensor Board Name	Activ e	CN	Condition	Symptom
6.7	Fuir Future Conse		CN1014/14	Open	Jam B (Jam 18)
S7	Fusing Entrance Sensor	L	CN214/14	Shorted	Jam C (Jam58)
S17	Duplex Entrance Sensor	L	CN221/24	Open	Jam Z (Jam27)
317	Duplex Efficience Sellson	L	CIN221/24	Shorted	Jam Z (Jam67)
S18	Duplex Exit Sensor	L	CN221/27	Open	Jam Z (Jam25)
310	Duplex Exil Sellsol	L	CNZZ1/Z/	Shorted	Jam Z (Jam65)
S34	TD Sensor - K	A	CN212/B9, B11	Open/ Shorted	SC372
S32	TD Sensor - M	А	CN212/A9, A11	Open/ Shorted	SC373
S33	TD Sensor - C	А	CN212/B3, B5	Open/ Shorted	SC374
S31	TD Sensor - Y	А	CN212/A3, A5	Open/ Shorted	SC375
607	F : F :: C		CN 1007 /10	Open	Jam C (Jam 19)
S26	Fusing Exit Sensor	L	CN227/18	Shorted	Jam C (Jam59)
\$30	PCDU Toner Collection	Н	CN211 /0	Open	Used toner near full indicated when it is not near full.
330	Bottle Full Sensor	П	CN211/9	Shorted	Used toner near full cannot be detected when the waste toner bottle is nearly full.
	PCDU Toner Collection	L	CN211/7	Open	Toner collection bottle is not detected when the waste toner bottle is set.
SW5	Bottle Set Switch			Shorted	Toner collection bottle is detected when the waste toner bottle is not set.

No.	Sensor Name/ Sensor Board Name	Activ e	CN	Condition	Symptom
S29	ITB Toner Collection	Н	CN011/4	Open	Used toner near full indicated when it is not near full.
329	Bottle Full Sensor	П	CN211/4	Shorted	Used toner near full cannot be detected when the waste toner bottle is nearly full.
SW7	Tray 2 Paper Size Switch	L	CN211/16,	Open/ Shorted	Paper size error
3447	Truy 2 Tuper Size Switch	_	17, 18, 20	Shorted	Tray 2 is detected when the tray 2 is not set.
S37	Temperature/ Humidity Sensor	Α	CN222/15,	Open/ Shorted	Printed image has some problems such as rough image, dirty background, weak image or poor fusing.
S28	Thermopile	A	CN237/14	Open/ Shorted	SC541
TH1	Heating Roller Thermistor	А	CN233/4	Open/ Shorted	SC551
TH2	Pressure Roller Thermistor 1 (Center)	А	CN233/11	Open/ Shorted	SC561
TH3	Pressure Roller Thermistor 2 (Ends)	А	CN233/9	Open/ Shorted	SC571
S27	Paper Exit Sensor	L	CN227/21	Open	Jam C (Jam20)
527	Taper Exil Delisor		C1422//21	Shorted	Jam C (Jam60)
S1	Original Length Sensor 1	А	CN206/2	Open/ Shorted	Original paper size cannot be detected.
S2	Original Length Sensor 2	А	CN206/5	Open/ Shorted	Original paper size cannot be detected.

No.	Sensor Name/ Sensor Board Name	Activ e	CN	Condition	Symptom
S3	Scanner HP Sensor	Н	CN205/2	Open	SC120
33	Scanner Fir Sensor	П	CIN203/ 2	Shorted	SC121
S4	Platen Cover Sensor	L	CN205/5	Open/ Shorted	Platen cover open cannot be detected.
S20	ITB Contact Sensor	L	CN234/5	Open/ Shorted	SC442
S25	Inverter Sensor	L	CN227/15	Open	Jam C (Jam 24)
323	inverier Sensor	L	CN22//13	Shorted	Jam C (Jam64)
	Diabatana Daar Oran			Open	"Open Cover" is displayed.
SW2	Right Lower Door Open Switch	L	CN219/13	Shorted	"Open cover" cannot be detected.

Blown Fuse Conditions

Power Supply Unit

F	Rating		Complement of the second of th
Fuse	120V	220V - 240V	Symptom when turning on the main switch
FU101	15A/125V	8A/250V	The controller works, but SC547 is issued. (5V power to the fusing unit is not supplied.)
FU102	10A/125V	5A/250V	No response. (5V power to the PSU is not supplied.)
FU103	2A/250V	2A/250V	AC power to the scanner heater and tray heater is not supplied.
FU5	5A/250V	5A/250V	5V power to the BCU is not supplied.
FU6	5A/250V	5A/250V	5VS power to the controller is not supplied.
FU7	10A/125V	10A/250V	24VS power to the BCU is not supplied.

E	Rating		Company of the transfer of the marin of the	
Fuse	120V	220V - 240V	Symptom when turning on the main switch	
FU8	10A/125V	10A/250V	24VS power to the BCU is not supplied.	
FU9	10A/125V	10A/250V	24V power to the DRB and controller is not supplied.	

ACAUTION

• For continued protection against risk of fire, replace only with same type and rating of fuse.

6

Scanner Test Mode

SBU Test Mode

Output the SBU test pattern with SP4-807-001 to make sure the scanner SBU control operates correctly. The SBU test pattern prints out after you have set the SP mode settings and pressed the start key.

- The CCD on the SBU board may be defective if the copy is abnormal and the SBU test pattern is normal.
- The followings can be the cause if the copy is normal and the SBU test pattern is abnormal:
 - The harness may not be correctly connected between the SBU and the IPU.
 - The IPU or SBU board may be defective.

IPU Test Mode

You can check the IPU board with the SP mode menu, SP4-904-1.

If no error is detected, the test ends. Then the completion code shows in the operation panel display. If an error is detected, the test is interrupted. Then an error code shows. The table below lists the completion and error codes.

SP4-904-1 Register Access

There are 16 bits switches in this SP. Each bit indicates a different CPU. The error result is displayed on the operation panel as a decimal number.

0: Normal, 1: Error

SP4-904-2 Image Path

There are 16 bits switches in this SP. Each bit indicates a different CPU path. The error result is displayed on the operation panel as a decimal number.

0: Normal, 1: Error

Errors may be caused by the following problems:

- 1. Short circuit on the signal lines
 - When the IPU board is installed, a pin or two on the ASIC is damaged.
 - · Some conductive matter or object is trapped among the pins.
 - Condensation
- 2. Destruction of circuit elements

- Over current or a defective element breaks the circuit.
- 3. Abnormal power supply
 - The required voltage is not supplied to the devices.
- 4. Overheat/overcooling
 - The environment is inappropriate for the board (the scanner unit).
- 5. Static electricity
 - Static electricity of a high voltage occurs during the test.
- 6. Others
 - The scanner and IPU are incorrectly connected.

When you have completed a check, turn the main switch off and on before you do another check. When you have completed all necessary checks, turn the main switch off and on.

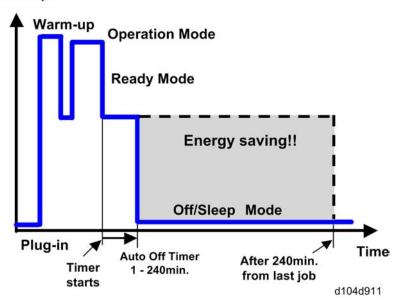
7. Energy Saving

Energy Save

Energy Saver Modes

Customers should use energy saver modes properly, to save energy and protect the environment.

Power Consump.



The area shaded grey in this diagram represents the amount of energy that is saved when the timers are at the default settings. If the timers are changed, then the energy saved will be different. For example, if the timers are all set to 240 min., the grey area will disappear, and no energy is saved before 240 min. expires.

Timer Settings

The user can set these timers with User Tools (System settings > Timer setting)

• Auto off timer (1 – 240 min): Off/Sleep Mode

Default settings: 1 min.

Return to Stand-by Mode

Off/Sleep Mode

Recovery time.

DI-C1.5: Min. 10 sec.

Recommendation

We recommend that the default settings should be kept.

- If the customer requests that these settings should be changed, please explain that their energy costs could increase, and that they should consider the effects on the environment of extra energy use.
- If it is necessary to change the settings, please try to make sure that the Auto Off timer is not too long.
 Try with a shorter setting first, such as 30 min., then go to a longer one (such as 60 min.) if the customer is not satisfied.
- If the timers are all set to the maximum value, the machine will not begin saving energy until 240
 minutes has expired after the last job. This means that after the customer has finished using the machine
 for the day, energy will be consumed that could otherwise be saved.
- If you change the settings, the energy consumed can be measured using SP8941, as explained below.

Energy Save Effectiveness

SP 8941 (Machine Status) keeps a record of the amount of time that the machine spends in each mode.

- 8941-001: Operating mode
- 8941-002: Standby mode
- 8941-003: Panel off mode (Not used in this model)
- 8941-004: Low power mode (Not used in this model)
- 8941-005: Off/sleep mode

With this data, and the power consumption values from the specifications, we can estimate the amount of energy that is used by the machine.

This should only be used as a reference value, because the power consumption specifications are measured in a controlled environment with a constant power supply.

To get an exact measurement at the customers site, a watt meter must be used to measure the actual energy consumed.

To use SP8941 to calculate the energy consumed:

- At the start of the measurement period, read the values of SP8941 001 to 005.
- At the end of the measurement period, read the values of SP8941 001 to 005 again.

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- Find the amount of time spent in each mode (subtract the earlier measurement from the later measurement).
- Multiply this by the power consumption spec for each mode.
- Convert the result to kWh (kilowatt hours)

Here is an example calculation.

Machine Date	Power Consumption (W): Data: a	SP8941: Machine Status	Start Time: (min.) Data: b	End Time: (min.) Data: c	Time Differences (Data:b - Data: c) (min.) Data: d	Power Consumptio n (Data:a x Data:d) (Wmin.) Data: e
Operatin g mode	1081.8	001: Operatin g Time	21089.0	21386.0	297.0	321294.6
Ready mode (stand by)	214.0	002: Standby Time	306163.0	308046.0	1883.0	402962.0
Energy mode (Panel off)	214.0	003: Energy Save Time	71386.0	75111.0	3725.0	797150.0
Low power mode	153.0	004: Low power Time	154084.0	156340.0	2256.0	345168.0
Off/ Sleep mode	7.0	005: Off mode Time	508776.0	520377.0	11601.0	81207.0
Total Time	19762.0					
Total Time	329.37					
Total Power Consumption of Data: e (Wmin.)						1947781.6 0
Total Power Consumption of Data: e /60min./1000W (KWH)						32.46

Paper Save

Effectiveness of Duplex/Combine Function

Duplexing and the combine functions reduce the amount of paper used. This means that less energy overall is used for paper production, which improves the environment.

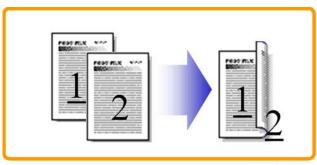
1. Duplex:



d062d100

Reduce paper volume in half!

2. Combine mode:

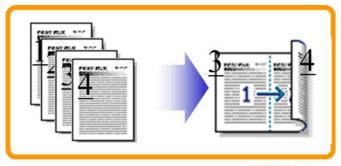


d062d102

Reduce paper volume in half!

7

3. Duplex + Combine:



d062d101

Using both features together can further reduce paper volume by 3/4!

To check the paper consumption, look at the total counter and the duplex counter.

The total counter counts all pages printed.

- For one duplex page, the total counter goes up by 2.
- For a duplex job of a three-page original, the total counter goes up by 3.

The duplex counter counts pages that have images on both sides.

- For one duplex page, the duplex counter goes up by 1.
- For a duplex job of a three-page original, the duplex counter will only increase by 1, even though two sheets are used.

Recommendation

Please explain the above features to the customers, so that they can reduce their paper usage.

Model DI-C1.5

• Total counter: SP 8581-001

• Duplex counter: SP 8411-001

Single-sided with combine mode: SP 8421-004

• Duplex with combine mode: SP 8421-005

The following table shows paper savings and how the counters increase for some simple examples of single-sided and duplex jobs

Duplex mode:

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter SP8501-001	Duplex counter SP8411-001
1	1	1	0	1	0

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter SP8501-001	Duplex counter SP8411-001
2	2	1	1	2	1
3	3	2	1	3	1
4	4	2	2	4	2
5	5	3	2	5	2
10	10	5	5	10	5
20	20	10	10	20	10

If combine mode is used, the total and duplex counters work in the same way as explained previously. The following table shows paper savings and how the counters increase for some simple examples of duplex/combine jobs.

2 in 1 mode:

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter SP8501-001	Duplex counter SP8421-004
1	1	1	0	1	1
2	2	1	1	1	1
3	3	2	1	2	2
4	4	2	2	2	2
5	5	3	2	3	2
10	10	5	5	5	5
20	20	10	10	10	10

Duplex + 2 in 1 mode:

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter SP8501-001	Duplex counter SP8421-005
1	1	1	0	1	1
2	2	1	1	1	1

I

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter SP8501-001	Duplex counter SP8421-005
3	3	1	2	2	2
4	4	1	3	2	2
5	5	2	3	3	3
6	6	2	4	3	3
7	7	2	5	4	4
8	8	2	6	4	4
9	9	3	6	5	5
10	10	3	7	5	5
11	11	3	8	6	6
12	12	3	9	6	6

Model DI-C1.5 Machine Code: D104/D106

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1. Appendix: Specifications

General Specifications

Copier

Configuration:	Desktop
Print Process:	Laser beam scanning & Dry electrostatic transfer system 4 drums tandem method
Resolution:	Scan: 600 dpi Print: 600 dpi/ 1200 dpi
Gradation:	Scan: 8 bits/pixel each for RGB/ 600 dpi 1 bit/pixel Print: 600dpi / 4 bits/pixel
Original type:	Sheets, book, objects
Maximum original size:	A3/11" x 17"

	ADF 1 to 1, LT/ A4 LEF		
	Thin (59 g/m ² or less)		
	C1.5a: 20 cpm (color/black & white)		
	C1.5c: 25 cpm (color/black & white)		
	Plain 1 (74 g/m ² or less)/ 2 (81 g/m ² or less)		
	C1.5a: 20 cpm (color/black & white)		
	C1.5c: 25 cpm (color/black & white)		
	Middle Thick (105 g/m² or less)		
	C1.5a: 20 cpm (color/black & white)		
	C1.5c: 25 cpm (color/black & white)		
C 1	Thick 1 (169 g/m ² or less)		
Copy speed:	C1.5a: 12.5 cpm (color/black & white)		
	C1.5c: 12.5 cpm (color/black & white)		
	Thick 2 (210 g/m ² or less)		
	C1.5a: 12.5 cpm (color/black & white)		
	C1.5c: 12.5 cpm (color/black & white)		
	Thick 3 (256 g/m ² or less)		
	C1.5a: 12.5 cpm (color/black & white)		
	C1.5c: 12.5 cpm (color/black & white)		
	OHP, Glossy (1200 dpi)		
	C1.5a: 12.5 cpm (color/black & white)		
	C1.5c: 12.5 cpm (color/black & white)		
	Color:		
	9.2 seconds or less (A4/LT LEF)		
First copy (normal mode):	Black & white:		
	6.4 seconds or less (A4/LT LEF) for NA model		
	6.3 seconds or less (A4/LT LEF) for EU/AA model		
Warm-up time:	Less than 22 seconds (20°C)		
	Standard tray: 250 sheets x 2 + 100		
Print Paper Capacity:	By-pass tray: 100 sheets (Plain), 40 sheets (Thick 1: 106 - 169g/m²), 20		
(80 g/m², 20 lb)	sheets (Thick 2/3: 170 - 256 g/m ²), 35 sheets (Postcard)		
	Optional paper feed tray: 500 sheets x 2		

	(Refer to "Supported Paper Sizes".)			
Print Paper Size:	-	Minimum	Maximum	
	Tray 1 / Tray 2 A5 (LEF) / 8.5" x 11"		A3/11" x 17"	
	By-pass	90 x 148 mm	305 x 600 mm	
	Optional Tray	A5 (LEF)/ 8.5" x 11"	A3/11" x 17"	
Printing Paper Weight:	Standard tray 1: 60 to 256 g/m² (16 to 68 lb.) Standard tray 2: 60 to 169 g/m² (16 to 45 lb.) Optional paper tray: 60 to 105 g/m² (16 to 28 lb.) By-pass tray: 52 to 256 g/m² (14 to 68 lb.) Duplex unit: 60 to 105 g/m² (16 to 28 lb.)			
Output Paper Capacity:	Standard exit tray: 500 sheets or more (face down)*1 Shift tray: 250 sheets (80 g/m²) 1-bin tray: 100 (80 g/m²) Side tray: 50 (80 g/m²) Internal finisher 500 (80 g/m²) *1: T6200, A4 LEF			
Continuous copy:	Up to 999 sheets			

	Arbitrary: From 25 to 400% (1% step)					
	NA		Europe			
	25%			25%		
	50	%		50%		
	65	%	65%			
	73	%		71%		
	78	%		75%		
Zoom:	85	%	82%			
	93%		93%			
	100%		100%			
	121%			115%		
	129%			122%		
	155%			141%		
	200%		200%			
	400)%	400%			
Memory:	Standard: 1.5 GB					
Power Source:	120 V - 127 V, 60 Hz: 12A or more (for North America)			th America)		
Tower obsides.	220 V - 240 V, 50/60 Hz: 8A or more (for Europe/ASIA)			urope/ASIA)		
	-	120V		220 - 240V		
Power Consumption:	Maximum	1600 W or less		1680 W or less		
	Sleep Mode	2.0 W or less		2.0 W or less		

^(* 1) The complete system consists of mainframe, ARDF, finisher, and LCT.

The above measurements were made in accordance with Ricoh standard methodology.

Dimensions (W \times D \times H):

Copier: 587 x 676 x 725 mm (23.1" x 26.7" x 28.5")

Copier + PFU + Right tray + Internal finisher: $1009 \times 676 \times 1117 \text{ mm}$ ($39.7" \times 26.7" \times 44.0"$)

\\/_:_h	Less than 85 kg (187 lb.) [without ARDF excluding toner]
Weight:	Less than 100 kg (220 lb.) [with ARDF excluding toner]

Printer

Printer Languages:	PCL 5c/6 (standard)
	Adobe PostScript 3 (optional)
	PDF Direct (optional)
	PictBridge (optional)
	PCL 5c/6:
	300 x 300 dpi : Available only in B/W mode
Resolution and	600 x 600 dpi : Fast (1 bit), Standard (2 bits), Fine (4 bit)
Gradation:	PS3:
	600 x 600 dpi : Fast (1 bit), Standard (2 bits), Fine (4 bit)
	1200 dpi x 1200 dpi
	C1.5a:
	20 ppm in Plain/Middle Thick mode
	12.5 ppm in Thick/OHP mode (depending on paper type)
Printing speed:	C1.5c:
	25 ppm in Plain/Middle Thick mode
	12.5 ppm in Thick/OHP mode (depending on paper type)
	PCL 5c/6 (Standard):
	45 Compatible fonts
Resident Fonts:	13 International fonts
	Adobe PostScript 3 (Optional):
	136 fonts (24 Type 2 fonts, 112 Type 14 fonts)
	USB2.0: Standard
	Ethernet (100 Base-TX/10 Base-T): Standard
Host Interfaces:	Gigabit Ethernet (1000 Base-T): Optional
	IEEE1284 parallel x 1: Optional
	IEEE802.11a/g, g (Wireless LAN): Optional

Network Protocols:	TCP/IP (IPv4, IPv6), IPX/SPX, AppleTalk (Auto Switching)	
HDD	160 GB (standard)	

Scanner

Standard Scanner Resolution:	Main scan/Sub scan 600 dpi
Available scanning Resolution Range:	Twain Mode: 100 to 1200 dpi Delivery Mode: 100/200/300/400/600 dpi
Grayscales:	1 bit or 8 bits/pixel
Scanning Throughput (ARDF mode):	Scan to E-mail / Folder: BW: 44 ipm (A4LEF / BW Text (Print) / 200dpi / Compression: On (MH)) FC: 44 ipm (A4LEF / FC Text / Photo / 200dpi / Compression: Standard)
Interface:	Ethernet (100 Base-TX/10 Base-T/1000 Base-T for TCP/IP), Wireless LAN, USB2.0/SD Slot
Compression Method:	B&W: TIFF (MH, MR, MMR) Gray Scale, Full Color: JPEG

Supported Paper Sizes

Paper Feed

North America

BT: By-pass Tray, T1/2: Tray 1/2 (standard), T3/4: Tray 3/4 (option), DU: Duplex Unit

Paper	Size (W x L)	ВТ	T1/2	T3/4	DU
A3 W	12" x 18"	М	-	-	-
A3 SEF	297 x 420mm	М	S ¹	S ¹	М
A4 SEF	210 x 297mm	М	А	Α	М
A4 LEF	297 x 210mm	М	S ³	S ³	М
A5 SEF	148 x 210mm	М	-	М	М
A5 LEF	210 x 148mm	М	А	А	М
A6 SEF	105 x 148mm	М	-	-	-
B4 SEF	257 x 364mm	М	S ²	S ²	М
B5 SEF	182 x 257mm	М	А	А	М
B5 LEF	257 x 182mm	М	S ⁴	S ⁴	М
B6 SEF	128 x 182mm	М	-	-	-
Ledger	11" x 17"	А	A ¹	A ¹	М
Letter SEF	8.5" x 11"	А	А	А	М
Letter LEF	11" x 8.5"	А	A ³	A^3	М
Legal SEF	8.5" x 14"	М	A ²	A ²	М
Government Legal SEF	8.25" x 14"	М	М	М	М
Half Letter SEF	5.5" x 8.5"	А	-	-	-

Paper	Size (W x L)	ВТ	T1/2	T3/4	DU
Executive SEF	7.25" x 10.5"	М	М	М	М
Executive LEF	10.5" x 7.25"	М	A ⁴	A ⁴	М
F SEF	8" x 13"	М	М	М	М
Foolscap SEF	8.5" x 13"	М	М	М	М
	8.25" x 13"	М	М	М	М
Folio SEF	11" x 15"	М	М	М	М
FOIIO SEF	10" x 14"	М	М	М	М
	8" x 10"	М	М	М	М
8K	267 x 390mm	М	М	М	М
16K SEF	195 x 267mm	М	М	М	М
16K LEF	267 x 195mm	М	М	М	М
Custom		М	М	М	-
Com 10 Env.	4.125" x 9.5"	М	-	-	-
Monarch Env.	3.875" x 7.5"	М	-	-	-
C6 Env.	114 x 162mm	М	-	-	-
C5 Env.	162 x 229mm	М	-	-	-
DL Env.	110 x 220mm	М	-	-	-

А	Supported: the sensor detects the paper size.
М	Supported: the user specifies the paper size.
S	Supported: depends on a technician adjustment Paper size which has same superscript number can be changeable with SP setting. (eg. Ledger: A ¹ <=> A3 SEF: S ¹)
-	Not supported

Europe/ Asia

BT: By-pass Tray, T1/2: Tray 1/2 (standard), T3/4: Tray 3/4 (option), DU: Duplex Unit

Paper	Size (W x L)	ВТ	T1/2	T3/4	DU
A3 W	12" x 18"	М	-	-	-
A3 SEF	297 x 420mm	Α	Α ¹	S1	М
A4 SEF	210 x 297mm	А	А	А	М
A4 LEF	297 x 210mm	Α	A ³	A ³	М
A5 SEF	148 x 210mm	А	-	А	М
A5 LEF	210 x 148mm	А	А	А	М
A6 SEF	105 x 148mm	М	-	-	-
B4 SEF	257 x 364mm	М	A ²	A ²	М
B5 SEF	182 x 257mm	М	А	А	М
B5 LEF	257 x 182mm	М	A ⁴	A ⁴	М
B6 SEF	128 x 182mm	М	-	-	-
Ledger	11" x 17"	М	S ¹	S ¹	М
Letter SEF	8.5" x 11"	М	А	А	М
Letter LEF	11" x 8.5"	М	S ³	S ³	М
Legal SEF	8.5" x 14"	М	S ²	S ²	М
Government Legal SEF	8.25" x 14"	М	М	М	М
Half Letter SEF	5.5" x 8.5"	М	-	-	-
Executive SEF	7.25" x 10.5"	М	М	М	М
Executive LEF	10.5" x 7.25"	М	S ⁴	S ⁴	М
F SEF	8" x 13"	М	М	М	М
Foolscap SEF	8.5" x 13"	М	М	М	М

Paper	Size (W x L)	ВТ	T1/2	T3/4	DU
	8.25" x 13"	М	М	М	М
F. P. CEE	11" x 15"	М	М	М	М
Folio SEF	10" x 14"	М	М	М	М
	8" x 10"	М	М	М	М
8K	267 x 390mm	М	М	М	М
16K SEF	195 x 267mm	М	М	М	М
16K LEF	267 x 195mm	М	М	М	М
Custom		М	М	М	-
Com 10 Env.	4.125" x 9.5"	М	-	-	-
Monarch Env.	3.875" x 7.5"	М	-	-	-
C6 Env.	114 x 162mm	М	-	-	-
C5 Env.	162 x 229mm	М	-	-	-
DL Env.	110 x 220mm	М	-	-	-

А	Supported: the sensor detects the paper size.
М	Supported: the user specifies the paper size.
S	Supported: depends on a technician adjustment Paper size which has same superscript number can be changeable with SP setting. (eg. Ledger: S ¹ <=> A3 SEF: A ¹)
-	Not supported

Paper Exit

Mainframe and optional trays

Main: Mainframe/ 1-bin: 1-bin tray/ Shift: Shift Tray/ Side: Side Tray

1	1	
П	٦	
П	٦	
ш	1	

Paper	Size (W x L)	Main	1-bin	Shift	Side
A3 W	12" x 18"	Y	-	-	-
A3 SEF	297 x 420 mm	Y	Y	Y	Y
A4 SEF	210 x 297 mm	Υ	Y	Y	Y
A4 LEF	297 x 210 mm	Υ	Y	Y	Y
A5 SEF	148 x 210 mm	Υ	Y	Y	Y
A5 LEF	210 x 148 mm	Υ	Y	Y	Y
A6 SEF	105 x 148 mm	Υ	-	Y	-
B4 SEF	257 x 364 mm	Υ	Υ	Y	Y
B5 SEF	182 x 257 mm	Υ	Υ	Y	Y
B5 LEF	257 x 182 mm	Υ	Υ	Y	Y
B6 SEF	128 x 182 mm	Υ	-	Y	-
Ledger	11" x 17"	Υ	Υ	Y	Y
Letter SEF	8.5" x 11"	Υ	Y	Y	Y
Letter LEF	11" x 8.5"	Υ	Υ	Y	Y
Legal SEF	8.5" x 14"	Υ	Υ	Y	Y
Government Legal SEF	8.25" x 14"	Y	Y	Y	Y
Half Letter SEF	5.5" x 8.5"	Υ	Υ	Y	Y
Executive SEF	7.25" x 10.5"	Υ	Υ	Y	Y
Executive LEF	10.5" x 7.25"	Y	Y	Y	Y
F SEF	8" x 13"	Υ	Υ	Y	Y
Foolscap SEF	8.5" x 13"	Y	Y	Y	Y

Paper	Size (W x L)	Main	1-bin	Shift	Side
	8.25" x 13"	Y	Y	Y	Y
Folio SEF	11" x 15"	Y	Y	Y	Y
FOIIO SEF	10" x 14"	Υ	Y	Y	Y
	8" x 10"	Υ	Y	Y	Y
8K	267 x 390 mm	Υ	Y	Y	Y
16K SEF	195 x 267 mm	Υ	Υ	Y	Y
16K LEF	267 x 195 mm	Υ	Y	Y	Y
Custom		Y	-	Y	-
Com 10 Env.	4.125" x 9.5"	Υ	-	Y	-
Monarch Env.	3.875" x 7.5"	Y	-	Y	-
C6 Env.	114 x 162 mm	Y	-	Y	-
C5 Env.	162 x 229 mm	Υ	-	Y	-
DL Env.	110 x 220 mm	Y	-	Y	-

Υ	Supported
-	Not supported

Internal Finisher

Str: Straight Feed Out/ Inv: Inverter Path/ Srt; Sort/ Stp: Staple/ 2/3P: 2/3 Holes Punch/ 4P: 4 Holes Punch/ S4P: Scandinavia 4 Holes Punch/ RT: Right Tray

D		Internal finisher							
Paper	Size (W x L)	Str	Inv	Srt	Stp	2/3P	4 P	S4P	
A3 W	12" x 18"	-	-	-	-	-	-	-	
A3 SEF	297 x 420 mm	Y	Y	10	30	Y	Υ	Y	
A4 SEF	210 x 297 mm	Υ	Y	20	50	Y*	-	Y	

_		Internal finisher							
Paper	Size (W x L)	Str	lnv	Srt	Stp	2/3P	4P	S4P	
A4 LEF	297 x 210 mm	Y	Υ	20	50	Y	Υ	Y	
A5 SEF	148 x 210 mm	Υ	Υ	-	-	-	-	-	
A5 LEF	210 x 148 mm	Υ	Υ	-	-	-	-	-	
A6 SEF	105 x 148 mm	Υ	Υ	-	-	-	-	-	
B4 SEF	257 x 364 mm	Υ	Υ	10	30	-	-	-	
B5 SEF	182 x 257 mm	Υ	Υ	20	50	-	-	-	
B5 LEF	257 x 182 mm	Υ	Υ	20	50	-	-	-	
B6 SEF	128 x 182 mm	Υ	Υ	-	-	-	-	-	
Ledger	11" x 17"	Υ	Υ	10	30	Υ	Υ	Υ	
Letter SEF	8.5" x 11"	Υ	Υ	20	50	Υ*	-	Υ	
Letter LEF	11" x 8.5"	Υ	Υ	20	50	Υ	Υ	Υ	
Legal SEF	8.5" x 14"	Υ	Υ	10	30	Υ*	-	Υ	
Government Legal SEF	8.25" x 14"	Y	Y	10	30	-	-	-	
Half Letter SEF	5.5" x 8.5"	Υ	Υ	-	-	-	-	-	
Executive SEF	7.25" x 10.5"	Υ	Υ	20	50	-	-	-	
Executive LEF	10.5" x 7.25"	Υ	Υ	20	50	-	-	-	
F SEF	8" x 13"	Υ	Υ	-	-	-	-	-	
Foolscap SEF	8.5" x 13"	Υ	Υ	10	30	Y*	-	Υ	
	8.25" x 13"	Υ	Υ	10	30	-	-	-	
F 1: CFF	11" x 15"	Υ	Y	10	30	-	-	-	
Folio SEF	10" x 14"	Υ	Υ	-	-	-	-	-	
	8" x 10"	Υ	Υ	-	-	-	-	-	
8K	267 x 390 mm	Υ	Υ	10	30	-	-	-	

Doman	S:== (\A/ 1)			li	nternal fi	inisher		
Paper	Size (W x L)	Str	lnv	Srt	Stp	2/3P	4 P	S4P
16K SEF	195 x 267 mm	Υ	Υ	-	-	-	-	-
16K LEF	267 x 195 mm	Υ	Υ	20	50	-	-	-
Custom		-	-	-	-	-	-	-
Com 10 Env.	4.125" x 9.5"	-	-	-	-	-	-	-
Monarch Env.	3.875" x 7.5"	-	-	-	-	-	-	-
C6 Env.	114 x 162 mm	-	-	-	-	-	-	-
C5 Env.	162 x 229 mm	-	-	-	-	-	-	-
DL Env.	110 x 220 mm	-	-	-	-	-	-	-

Y	Supported (* 1: 2 holes punch only)
30	Output up to 30 sheets
50	Output up to 50 sheets
-	Not supported

Platen/ARDF Original Size Detection

Size	Platen	ARDF	Platen	ARDF
(width x length) [mm]	Inches	Inches	Metric	Metric
A3 (297 x 420) L	-	Y	γ*3	Y
B4 (257 x 364) L	-	-	γ*3	Y
A4 (210 x 297) L	γ*1	Y	γ*3	Y
A4 (297 x 210) S	γ*3	Y	γ*3	Y
B5 (182 x 257) L	-	-	γ*3	Y
B5 (257 x 182) S	-	-	γ*3	Y

^{* 1:} Use SP4-303 to detect original sizes as A5 lengthwise/HLT when the message "Can-t detect original size" shows.

^{*2:} The machine can detect the paper size depending on the setting of SP6-016-1.

^{*3:} The machine can detect the paper size depending on the setting of SP4-305-1.

^{*4:} The machine can detect the paper size depending on the setting of SP5-126-1.

Software Accessories

The printer drivers and utility software are provided as following two CD-ROMs

- 1: Printer Drivers and Utilities CD-ROM
- 2: Scanner Drivers and Utilities CD-ROM.

An auto-run installer lets you to select the components you want to install.

Printer and LAN Fax Drivers

Printer Language	Windows 2000, XP, Server 2003, Vista, Server 2008, 7	MacOS8.6 to 9.x, MacOSX10.1 or later
PCL5c / PCL6	Yes	No
PS3	Yes	Yes
RPCS	No	No



- The PCL5c/6 and PS3 drivers are provided on the printer drivers CD-ROM
- The PS3 drivers are all genuine Adobe PS drivers, except for Windows 2000/XP/2003/Vista/7.
 Windows 2000 uses Microsoft PS. A PPD file for each operating system is provided with the driver.
- The PPD installer for Macintosh supports Mac OS X 10.1 or later versions.
- The LAN Fax driver lets you fax documents directly form your PC. Address Book Editor and Cover Sheet Editor are to be installed as well. (These require the optional fax unit.)

Scanner Driver

Printer Language	Windows 2000, XP, Server 2003, Vista, 7	MacOS8.6 to 9.x, MacOSX10.1 or later
Network TWAIN	Yes	No



• The Network TWAIN driver is provided on the scanner drivers CD-ROM.

Utility Software

Software	Description
Font Manager (2000/XP/Server 2003/7)	A font management utility with screen fonts for the printer This is provided on the printer drivers CD-ROM
Printer Utility for Mac (Mac)	A utility for peer-to-peer printing over a NetBEUI or TCP This software provides several convenient functions for printing from Macintosh clients. This is provided on the scanner drivers CD-ROM

Optional Equipment

ARDF (D541)

Simplex	Size	A3 to A5, DLT to HLT
	Weight	40 to 128 g/m² (10 to 34 lb.)
Duplex	Size	A3 to A5, DLT to HLT
	Weight	52 to 105 g/m² (14 to 28 lb.)
50 sheets (80 g/m², 20 lb)		
Rear left corner		
Feed belt and separation roller		
Roller transport		
From the top original		
Сору	-	32 to 200 %
Fax	Color	32.6 to 200 %
	Black & white	48.9 to 200 %
DC 24V, 5V from the scanner unit		
50 W or less		
550 mm x 491 mm x 120 mm (21.7" x 19.3" x 4.7")		
10 kg (22 lb.)		
	Duplex 50 sheets (Rear left co Feed belt a Roller trans From the to Copy Fax DC 24V, 5 50 W or le 550 mm x	Simplex Weight Size Weight 50 sheets (80 g/m², 20) Rear left corner Feed belt and separation Roller transport From the top original Copy Color Fax Black & white DC 24V, 5V from the sca 50 W or less 550 mm x 491 mm x 120

Paper Feed Unit (D425)

Paper Feed System:	Feed Roller and Friction Pad
Paper Height Detection:	4 steps (100%, 70%, 30%, Near end)
Capacity:	500 sheets
Paper Weight:	80 g/m ² (21 lb.)

Paper Size:	A3 SEF to A5, DLT SEF to HLT
Power Source:	DC 24V, 5V (from the main frame)
Power Consumption:	15 W
Dimensions (W x D x H):	550 mm x 520 mm x 137 mm (22" x 20.8" x 5.48")
Weight:	Less than 12 kg (26.4 lbs)

Paper Feed Unit (D331)

Paper Size:	A5 to A3, $5^{1}/_{2}$ " x $8^{1}/_{2}$ " SEF to 11" x 17"	
Paper Weight:	60 - 105 g/m², 16 - 28 lb	
Tray Capacity:	500 sheets (80 g/m², 20 lb) x 2 trays	
Paper Feed System:	Feed roller and friction pad	
Paper Height Detection:	4 steps (100%, 70%, 30%, Near end)	
Power Source:	 24 Vdc and 5Vdc (from the copier/printer) 120 Vac (120 V version) from the copier/printer when the optional tray heater is installed 220 – 240 Vac (230 V version) from the copier/printer when the optional tray heater is installed 	
Power Consumption:	35 W (Copying/printing)	
Weight:	25 kg (55 lb)	
Size (W x D x H):	550 mm x 520 mm x 271 mm	

Internal Finisher (D429) and Punch Unit (D390)

	No punch mode:
	A3/11" x 17" to B6/5.5" x 8.5" (SEF)
	Punch mode:
	2 holes:
	A3, A4 or 11" x 17", 8.5" x 14" (SEF), 8.5" x 13" (SEF), 8.5" x 11"
	3 holes:
Print Paper Size:	A3, A4 (LEF) or 11" x 17", 8.5" x 11" (LEF)
Triiii rupei size.	4 holes (Europe):
	A3, A4 (LEF) or 11" x 17", 8.5" x 11" (LEF)
	4 holes (Scandinavia):
	A3, A4 or 11" x 17", 8.5" x 14" (SEF), 8.5" x 13" (SEF), 8.5" x 11", 7.25" x 10.5"
	Staple mode:
	A3/11" x 17" to B5/8.5" x 11"
	No punch mode:
	52 to 256 g/m² (14 to 68 lb.)
	Punch mode:
Paper Weight:	52 to 105 g/m ² (14 to 28 lb.)
	Staple mode:
	52 to 128 g/m² (14 to 34 lb.)
	Label/Thick paper/OHP cannot be stapled
T 0 1	500 sheets: A4, 8.5" x 11" or less
Tray Capacity:	250 sheets: B4, 8.5" x 14" or more
C. 1	50 sheets: A4, 8.5" x 11" or smaller
Staple capacity:	30 sheets: B4, 8.5" x 14" or larger
	3 positions
Staple position:	1-staple: 2 positions (Top/ Bottom)
	2-staples: 1 position
Staple replenishment:	Cartridge (5000 staples)

Power consumption:	50 W + 12 W (Punch Unit)	
	Finisher:	
D:(M D H).	535 x 525 x 205 mm (21.1" x 20.7" x 8.1")	
Dimensions (W x D x H):	Punch Unit:	
	98 x 500 x 165 mm (3.9" :	x 19.7" x 6.5")
Weight:	Without punch unit:	13 kg (28.6 lb.)
	With punch unit:	16.2 Kg (35.6 lb.)

Shift Tray (D428)

Paper Capacity:	250 sheet (A4/ 8 _{1/2} " x 11 _{1/2} " or smaller: 80g/m ² / 20 lbs)
	Standard sizes
	A6 SEF to A3, HLT to DLT
Paper Size:	Non-standard sizes
	Width: 90 to 305 mm
	Length: 148 to 600 mm
Paper Weight:	52-256 g/m ² / 14 - 68 lbs
Power Consumption:	Max 13 W (Power is supplied from the mainframe.)
Dimension (W x D x H):	431 x 477.5 x 107mm (17.2" x 19.1" x 4.3")
Weight:	Approx. 2kg (4.4lbs)

1-bin Tray Unit (D426)

Paper Size:	Standard Size: A3 /DLT to A5/ HLT SEF
Paper Weight:	60 to 105 g/m ² , 16 to 28 lb.
Tray Capacity:	100 sheets (80 g/m², 20 lb., A4)
Power Source:	DC 24 V, 5 V (from the copier)
Power Consumption:	Less than 1 W

Weight:	Less than 2kg (4.4lbs)
Size (W x D x H):	455 x 530 x 226mm (18.2" x 21.2" x 9")

Side Tray (D427)

Paper Size:	Standard Size: A3 /DLT to A5/ HLT SEF
Paper Weight:	60 to 105 g/m ² , 16 to 28 lb.
Tray Capacity:	50 sheets (80 g/m², 20 lb., A4)
Power Source:	DC 24 V, 5 V (from the copier)
Power Consumption:	Less than 40 W
Weight:	1.5 kg
Size (W x D x H):	480 x 480 x 170mm (19.2"x19.2"x6.8")

Envelope Feeder EF3010 (D559)

Paper Size:	A3, A4, A5, A6, B4, B5, B6, DLT (11x17), Legal (8.5x14), Foolscap (8.5x13), Letter (8.5x11), GovernmentLG (8.25x14), Folio (8.25x13), F/GL(8x13), Eng Quatro (8x10), Executive(7.25x10.5), Half Letter(5.5x8.5), Com10(4.125x9.5), Monarch(3.875x7.5), C5, C6, DL Env, 11x15, 10x14				
Paper Weight:	60 - 256 g/m2/ 14 - 68 Bond lbs.				
Tray Capacity:	250 sheets 150 sheets (A5SEF/ A6SEF/ B6SEF/ Half Letter SEF)				
Power Source:	-				
Power Consumption:	-				
Weight:	2 or less kg/ 4.4 or less lbs.				
Size (W x D x H):	495.8 × 550 × 94 mm/ 19.5" × 21.7" × 3.7"				

2. Appendix: Preventive Maintenance Tables

Maintenance Tables

Preventive Maintenance Items

A4 (LT) long-edge feed

5% image coverage ratio

Color ratio: 20%

2 print/job

Environment: Normal temperature and humidity

Yield may change depending on circumstances and print conditions.



• Symbol keys: C: Clean, R: Replace, L: Lubricant, I: Inspect

Mainframe

ltem	60K	120K	240K	EM	Remarks	
Scanner						
Reflector	С				Optics cloth	
1st/2nd/3rd Mirrors	С				Optics cloth	
Front and Rear Rails	С				Dry cloth	
Exposure Glass	С			С	Dry cloth	
ADF Exposure Glass	С			С	Dry cloth	
APS Sensor	С				Dry cloth	
PCDU						
Drum Unit-K, C, M, Y	R					
PCDU Toner Collection Bottle	R					

Item	60K	120K	240K	EM	Remarks
ITB and PTR unit					
ITB Cleaning Unit	R				
ID Sensors				С	Alcohol
Fusing			1	1	
Pressure Roller	C*			С	Alcohol *: Clean it if dirty.
Heating Roller Thermistor	С			С	Dry cloth
Pressure Roller Thermistor	С			С	Dry cloth
Entrance Guide Plate	С			С	Alcohol
Exit Guide Plate	С			С	Alcohol
Stripper Plate	С			С	Alcohol
Thermopile	С			С	Dry cloth
Fusing Gear Shafts	L				S552R
Cleaning Unit (Option)*NOTE	С	R			Dry cloth
Others			,		
Dust Filter		R			

Note

• The cleaning unit prevents the pressure roller from getting dirty due to paper dust.

Item	60K	120K	240K	EM	Remarks
Paper Feed					
Feed Roller: Tray 1/2		R		С	Damp cloth
Friction Pad: Tray 1/2		R		С	Dry cloth
Registration Roller	C*1			С	Damp cloth Never use alcohol.
Registration Sensor				С	Dry cloth

ltem	60K	120K	240K	EM	Remarks
Vertical Transport Roller				С	Damp cloth
Vertical Transport Sensor				С	Dry cloth
By-pass Feed Roller				С	Damp cloth
By-pass Friction Pad				С	Dry cloth
By-pass HP Sensor				С	Dry cloth
Paper Dust Container				С	Vacuum
Duplex					
Duplex Transport Roller				С	Damp cloth
Duplex Exit Sensor				С	Dry cloth
Paper Exit					
Paper Exit Roller				С	Damp cloth
Inverter Roller				С	Damp cloth
Inverter Relay Roller				С	Damp cloth
Inverter Sensor				С	Dry cloth
Fusing Exit Sensor				С	Dry cloth

^{* 1:} The registration roller requires a cleaning maintenance every 60 K (total count).

Others Yield Parts

The parts mentioned in these tables have a target yield. However, the total copy/print volume made by the machine will not reach the target yield within the machine's targeted lifetime if the machine is used under the target usage conditions (ACV, color ratio, P/J, and C/O). So, these parts are categorized not as PM parts but as yield parts (EM parts).

Mainframe

ltem	240K	EM	Remarks
PCDU			

Development Unit-K, C, M, Y	R		
ITB and PTR unit			
Image Transfer Belt	R		
PTR unit	R		
Fusing		,	
Fusing Unit	R		

ARDF (D366)

Item	80K	EM	Remarks
Pick-up Roller	R		Number of originals
Feed Belt	R		Number of originals
Separation Roller	R		Number of originals
Sensors		С	Blower brush
Platen Sheet Cover		С	Damp cloth; alcohol (Replace if required.)
White Plate		С	Dry or damp cloth
Drive Gear		L	Grease G501
Transport Roller		С	Damp cloth; alcohol
Exit Roller		С	Damp cloth; alcohol
Inverter Roller		С	Damp cloth; alcohol
Idle Rollers		С	Damp cloth; alcohol

One-tray Paper Feed Unit (D425)

ltem	60K	120K	EM	Remarks
Feed Roller		R	С	Dry cloth
Bottom Plate Pad	С		С	Dry cloth

Paper Feed Guide	С		С	Dry cloth
Friction Pad		R	С	Dry cloth
Paper Feed Clutch		I		

Two-tray Paper Feed Unit (D331)

Item	60K	120K	EM	Remarks
Paper Feed Roller		R	С	Dry cloth
Friction Pad		R	С	Dry cloth
Paper Feed Guides		С	С	Dry cloth
Relay Rollers		С	С	Dry cloth
Bottom Plate Pad		С	С	Dry cloth
Relay Clutch		I		Replace if necessary
Paper Feed Clutch		I		Replace if necessary

1 Bin Tray (D426)

Items	150K	EM	Remarks
Exit Rollers	С	С	Damp or Dry cloth
Idle Rollers	С		Damp or Dry cloth
Tray		С	Damp cloth
Exit Sensor	С	С	Blower brush
Paper Sensor		С	Blower brush
Bearing		С	S552R

Shift Tray (D427)

المسمدا	E & 4	Dama andra
irems	E/VI	Kemarks

Tray	С	Damp cloth	
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3. Appendix: SP Mode Tables

System SP1-xxx

SP1-XXX (Feed)

	[Leading Edge Registration] Leading Edge Registration Adjustment (Tray Location, Paper Type, Color Mode), Paper Type -> Plain, Thick 1, Thick 2 or Thick3			
1001	Adjusts the leading edge registration by changing the registration motor operation timing for each mode.			
	Increasing a value: an image is mov	ed to the t	railing edge of paper.	
	Decreasing a value: an image is mo	ved to the	leading edge of paper.	
001	Tray:Plain:600dpi	*ENG		
002	Tray:Thick1:600dpi	*ENG		
003	Tray:M-Thick:600dpi	*ENG		
004	By-pass:Plain:600dpi	*ENG		
005	By-pass:Thick1:600dpi	*ENG	[04- 0 / 00 / 0] /]	
006	By-pass:Thick2:600dpi	*ENG	[-9 to 9 / 0.0 / 0.1 mm/step]	
007	By-pass:Thick3:600dpi	*ENG		
008	By-pass: M-Thick:600dpi	*ENG		
009	Duplex:Plain:600dpi	*ENG		
010	Duplex:M-Thick:600dpi	*ENG		

011	Tray:Thick1:1200dpi	*ENG	
012	Tray:M-Thick:1200dpi	*ENG	
013	By-pass:Plain:1200dpi	*ENG	
014	By-pass:Plain:1200dpi	*ENG	
015	By-pass:Thick1:1200dpi	*ENG	[0 to 0 / 0.0 / 0.1 mm /ston]
016	By-pass:Thick2:1200dpi	*ENG	[-9 to 9 / 0.0 / 0.1 mm/step]
017	By-pass:Thick3:1200dpi	*ENG	
018	By-pass:M-Thick:1200dpi	*ENG	
019	Duplex:Plain: 1 200 dpi	*ENG	
020	Duplex:M-Thick:1200dpi	*ENG	

	[Side-to-Side Registration]			
1002	Adjusts the side-to-side registration by changing the laser main scan start position for each mode and tray.			
	Increasing a value: an image is mov	ed to the re	ear edge of paper.	
	Decreasing a value: an image is mo	front edge of paper.		
001	By-pass	*ENG		
002	Paper Tray 1	*ENG		
003	Paper Tray 2	*ENG	[44.4/00/01/20/42]	
004	Paper Tray 3	*ENG	[-4 to 4 / 0.0 / 0.1 mm/step]	
005	Paper Tray 4	*ENG		
006	Duplex	*ENG		

	[Paper Buckle] Paper Buckle Adjustment (Tray Location, Paper Type), Paper Type: M-Thick: Middle Thick
1003	Adjusts the amount of paper buckle at the registration roller by changing the paper feed timing.

001	Tray 1: Plain: 600 dpi	*ENG	
002	Tray 1:Thick 1:600dpi	*ENG	[-5 to 5 / 2 / 1 mm/step]
003	Tray 1:M-Thick:600dpi	*ENG	[- · · · · / - / · · ····/, · · · [
004	Tray234:Plain:600dpi	*ENG	
005	Tray234:Thick1:600dpi	*ENG	
006	Tray234:M-Thick:600dpi	*ENG	
007	By-pass:Plain:600dpi	*ENG	
800	By-pass:Thick1:600dpi	*ENG	[-5 to 5 / 0 / 1 mm/step]
009	By-pass:Thick2:600dpi	*ENG	
010	By-pass:Thick3:600dpi	*ENG	
011	By-pass:M-Thick:600dpi	*ENG	
012	Duplex:Plain:600dpi	*ENG	
013	Duplex:M-Thick:600dpi	*ENG	
014	Tray 1:Plain: 1200dpi	*ENG	
015	Tray1:Thick1:1200dpi	*ENG	[-5 to 5 / 2 / 1 mm/step]
016	Tray 1: M-Thick: 1200dpi	*ENG	
017	Tray234:Plain:1200dpi	*ENG	
018	Tray234:Thick1:1200dpi	*ENG	
019	Tray234:M-Thick:1200dpi	*ENG	
020	By-pass:Plain:1200dpi	*ENG	
021	By-pass:Thick1:1200dpi	*ENG	
022	By-pass:Thick2:1200dpi	*ENG	[-5 to 5 / 0 / 1 mm/step]
023	By-pass:Thick3:1200dpi	*ENG	
024	By-pass:M-Thick: 1200dpi	*ENG	
025	Duplex:Plain: 1 200dpi	*ENG	
026	Duplex:M-Thick:1200dpi	*ENG	

1007	[By-Pass Size Detection] By-Pass Size Detection Display				
	0:LT SEF/ 1:LG	*ENG	-		
Enables or disables the automatic paper size detection function of the by-pass tray. This SP determines what paper size the machine detects if the detected size is less that 0: LT SEF (default), 1: LG		per size de	tection function of the by-pass tray.		
		detects if the detected size is less than 8.5".			

	[Reload Permit Setting] DFU				
1101	Specifies the settings of the reload permit for cold temperature in color mode. However, these SPs are desgined for the factory use only. Do not change the adjusted setting.				
	Destination: NA; North Americ	a, TWN; T	aiwan, EU; Europe, AA; Asia Pasific		
001	Pre-rotation Start Temp.	*ENG	[0 to 75 / 50 / 1 deg/step]		
001	Specifies the pre-rotation start	reload permit for actory use only. The reload	e.		
002	Reload Target Temp.:Center	*ENG	[135 to 145 / 135 / 1 deg/step]		
002	Specifies the reload target tem	perature o	f the heating roller.		
002	Reload Target Temp.:Press	*ENG	[0 to 200 / 75 / 1 deg/step]		
003	Specifies the reload target tem	perature o	the pressure roller.		
	Temp.:Delta:Cold: Center	*ENG	[0 to 100 / 20 / 1 deg/step]		
004	Specifies the temperature corredetermined as cold state.	ection of the	e heating roller (center) when the fusing unit is		
	Temp.:Delta:Cold:End	*ENG	[0 to 100 / NA: 55, EU/AA: 45 / 1 deg/step]		
005	Specifies the temperature corredetermined as cold state.	ection of the	e heating roller (end) when the fusing unit is		
	Temp.:Delta:Cold: Press	*ENG	[0 to 100 / 0 / 1 deg/step]		
Specifies the temperature correction of the pressure roller when the fusing unit as cold state.		e pressure roller when the fusing unit is determined			
	Rotation Time:Cold	*ENG	[0 to 200 / 2 / 1 sec/step]		
007	Specifies the threshold time for state.	the fusing	reload when the fusing unit is determined as cold		

	Temp.:Delta:Warm: Center	*ENG	[0 to 100 / NA: 10, EU/AA: 15 / 1 deg/step]
800	Specifies the temperature corredetermined as warm state.	ection of the	e heating roller (center) when the fusing unit is
	Temp.:Delta:Warm:End	*ENG	[40 to 200 / 45 / 1 deg/step]
Specifies the temperature correction of the headetermined as warm state. Temp.:Delta:Warm:Press *ENG [0 Specifies the temperature correction of the preas warm state. Time:Warm *ENG [0 Specifies the temperature correction of the preasure state.		e heating roller (end) when the fusing unit is	
	Temp.:Delta:Warm:Press	*ENG	[0 to 200 / 55 / 1 deg/step]
010	·	ction of the	e pressure roller when the fusing unit is determined
	Time:Warm	*ENG	[0 to 200 / 2 / 1 sec/step]
011	Specifies the threshold time for state.	the fusing r	reload when the fusing unit is determined as warm
	Temp.:Delta:Hot: Center	*ENG	[0 to 100 / NA: 10, EU/AA: 15 / 1 deg/step]
012	Specifies the temperature corredetermined as hot state.	ection of the	e heating roller (center) when the fusing unit is
	Temp.:Delta:Hot:End	*ENG	[0 to 100 / 45 / 1 deg/step]
013	Specifies the temperature corredetermined as hot state.	ection of the	e heating roller (end) when the fusing unit is
	Temp.:Delta:Hot:Press	*ENG	[0 to 200 / 55 / 1 deg/step]
014	Specifies the temperature corre	ction of the	e pressure roller when the fusing unit is determined
	Time:Hot	*ENG	[0 to 200 / 2 / 1 sec/step]
015	Specifies the threshold time for hot state.	the fusing	unit heating when the fusing unit is determined as
	Temp.:Delta:Cold:BW:Center	*ENG	[0 to 100 / NA: 20, EU/AA: 15 / 1 deg/step]
016	Specifies the temperature corre when the fusing unit is determin		heating roller (center) in the black and white mode state.
	Temp.:Delta:Cold:BW:End	*ENG	[0 to 100 / NA: 55, EU/AA: 45 / 1 deg/step]
017	Specifies the temperature correwhen the fusing unit is determine		e heating roller (end) in the black and white mode state.

	Temp.Delta:Cold:BW:Press	*ENG	[0 to 200 / 0 / 1 deg/step]	
018	Specifies the temperature corre the fusing unit is determined as		pressure roller in the black and white mode when	
	Rotation Time:BW:Cold	*ENG	[0 to 200 / 2 / 1 sec/step]	
019	Specifies the threshold time for fusing unit is determined as col	the fusing und state. *ENG the fusing und state. *ENG the fusing und state. *ENG ction of the head as warm *ENG ction of the part of the fusing und state. *ENG the fusing und state. *ENG ction of the head as hot state.	unit heating in black and white mode when the	
020	Temp.:Delta:Warm:BW:Cent	*ENG	[0 to 100 / 10 / 1 deg/step]	
020	Specifies the temperature corre when the fusing unit is determine		heating roller (center) in the black and white mode m state.	
	Temp.:Delta:Warm:BW:End	*ENG	[0 to 100 / 45 / 1 deg/step]	
021	Specifies the temperature correwhen the fusing unit is determine	rection of the heating roller (end) in the black and white mode		
	Temp.Delta:Warm:BW:Press	*ENG	[0 to 200 / 55 / 1 deg/step]	
022	Specifies the temperature corre the fusing unit is determined as		pressure roller in the black and white mode when	
	Rotation Time:BW:Warm	*ENG	[0 to 200 / 2 / 1 sec/step]	
023	Specifies the threshold time for fusing unit is determined as wa	the threshold time for the fusing unit heating in black and white modit is determined as warm state.		
	Temp.:Delta:Hot:BW:Center	*ENG	[0 to 100 / 10 / 1 deg/step]	
024		Specifies the temperature correction of the heating roller (center) in the black and white mode when the fusing unit is determined as hot state.		
	Temp.:Delta:Hot:BW: End	*ENG	[0 to 100 / 45 / 1 deg/step]	
Specifies the temperature correction of the heating roller (end) in the black and white when the fusing unit is determined as hot state.				
	Temp.:Delta:Hot:BW: Press	*ENG	[0 to 200 / 55 / 1 deg/step]	
026	Specifies the temperature corre		pressure roller in the black and white mode when	

027	Rotation Time:BW:Hot	*ENG	[0 to 200 / 2 / 1 sec/step]
	Specifies the threshold time for the fusing unit heating in black and white mode when the fusing unit is determined as hot state.		
030	Flicker Control	*ENG	[0 or 1 / 0 / -]
101	Temp.:Delta:Cold: BW2:Center	*ENG	[0 to 100 / NA: 20, EU/AA: 15 / 1 deg/step]
102	Temp.:Delta:Cold: BW2:End	*ENG	[0 to 100 / NA: 55, EU/AA: 45 / 1 deg/step]
103	Temp.:Delta:Cold:BW2:Press	*ENG	[0 to 200 / 0 / 1 deg/step]
104	Rotation Time: BW2:Cold	*ENG	[0 to 200 / 2 / 1 sec/step]
105	Temp.:Delta:Warm: BW2:Center	*ENG	[0 to 100 / 10 / 1 deg/step]
106	Temp.:Delta:Warm: BW2:End	*ENG	[0 to 100 / 45 / 1 deg/step]
107	Temp.:Delta:Warm: BW2:Press	*ENG	[0 to 200 / 55 / 1 deg/step]
108	Rotation Time: BW2:Warm	*ENG	[0 to 200 / 2 / 1 sec/step]
109	Temp.:Delta:Hot: BW2:Center	*ENG	[0 to 100 / 10 / 1 deg/step]
110	Temp.:Delta:Hot: BW2:End	*ENG	[0 to 100 / 45 / 1 deg/step]
111	Temp.:Delta:Hot: BW2:Press	*ENG	[0 to 200 / 55 / 1 deg/step]
112	Rotation Time: BW2:Hot	*ENG	[0 to 200 / 2 / 1 sec/step]

	[Feed Permit Setting]				
1102	Specified the settings of the paper feeding timing. Destination: NA; North America, TWN; Taiwan, EU; Europe, AA; Asia Pasific				
-001	DFU				
to -005	These SPs are desgined for the factory use only. Do not change the adjusted setting.				
001	Temp.:Lower Delta:Center	*ENG	[0 to 100 / NA: 30, EU/AA: 20 / 1 deg/step]		
002	Temp.:Lower Delta:End	*ENG	[0 to 100 / NA: 65, EU/AA: 50 / 1 deg/step]		

003	Temp.:Upper Delta:Center	*ENG	[0 to 50 / NA: 15, EU/AA: 25 / 1 deg/step]		
004	Temp.:Upper Delta:End	*ENG	[0 to 50 / NA: 15, EU/AA: 25 / 1 deg/step]		
005	Temp.:Lower Delta:Press	*ENG	[0 to 200 / 60 / 1 deg/step]		
006	Rotation Time	*ENG	[0 to 200 / 0 / 1 sec/step]		
-007	DFU				
to -011	These SPs are desgined for the factory use only. Do not change the adjusted setting.				
007	Temp.:Lower Delta:Center:Sp.1	*ENG	[0 to 100 / NA: 20, EU/AA: 11 / 1 deg/step]		
800	Temp.:Lower Delta:End:Sp.1	*ENG	[0 to 100 / NA: 40, EU/AA: 31 / 1 deg/step]		
009	Temp.:Upper Delta:Center:Sp.1	*ENG	[0 to 50 / 15 / 1 deg/step]		
010	Temp.:Upper Delta:End:Sp.1	*ENG	[0 to 50 / 15 / 1 deg/step]		
011	Temp.:Lower Delta:Press:Sp.1	*ENG	[0 to 200 / 60 / 1 deg/step]		
	Rotation Time:Sp.1	*ENG	[0 to 200 / 3 / 1 sec/step]		
012	Usage Limitation:				
	Use 3 seconds or more for this setting.				
-013	DFU				
to -017	These SPs are desgined for the factory use only. Do not change the adjusted setting.				
013	Temp.:Lower Delta:Center:Sp.2	*ENG	[0 to 100 / 30 / 1 deg/step]		
014	Temp.:Lower Delta:End:Sp.2	*ENG	[0 to 100 / 30 / 1 deg/step]		
015	Temp.:Upper Delta:Center:Sp.2	*ENG	[0 to 50 / 20 / 1 deg/step]		
016	Temp.:Upper Delta:End:Sp.2	*ENG	[0 to 50 / 20 / 1 deg/step]		
017	Temp.:Lower Delta:Press:Sp.2	*ENG	[0 to 200 / 60 / 1 deg/step]		
018	Rotation Time:Sp2	*ENG	[0 to 200 / 0 / 1 sec/step]		
-019	DFU				
to -024	These SPs are desgined for the factory use only. Do not change the adjusted setting.				

019	Feed Permit Time	*ENG	[0 to 200 / 60 / 1 sec/step]
020	Temp.:Lower Delta:Center:Sp.3	*ENG	[0 to 100 / 25 / 1 deg/step]
021	Temp.:Lower Delta:End:Sp.3	*ENG	[0 to 100 / 25 / 1 deg/step]
022	Temp.:Upper Delta:Center:Sp.3	*ENG	[0 to 50 / 10 / 1 deg/step]
023	Temp.:Upper Delta:End:Sp.3	*ENG	[0 to 50 / 10 / 1 deg/step]
024	Temp.:Lower Delta:Press:Sp.3	*ENG	[0 to 200 / 30 / 1 deg/step]
	Rotation Time:Sp3	*ENG	[0 to 200 / 3 / 1 sec/step]
025	Usage Limitation:		
	Use 3 seconds or more for this setting.		

1105	[Print Target Temp]			
	(Printing Mode, Roller Type, [Color], Simplex/Duplex)			
	Roller Type -> Center and Ends: Heating roller, Pressure -> Pressure roller Paper Type -> Plain, Thin, Thick, OHP, Middle Thick, Special Destination: NA; North America, TWN; Taiwan, EU; Europe, AA; Asia Pasific			
	Plain 1:FC:Center	*ENG	[100 to 160 / NA: 150, EU/AA: 141 / 1 deg/ step]	
001	Specifies the heating roller target temperature for the ready condition in full color printing. Usage Limitation:			
	+5°C against the default value for each destination is the upper limit for this setting.			
	Plain1:FC:Press (DFU)	*ENG	[0 to 200 / 95 / 1 deg/step]	
002	Specifies the pressure roller target temperature for the ready condition in full color printing.			
	DFU:			
	This SP is desgined for the factory use only. Do not change the adjusted setting.			

	Plain1:BW:Center	*ENG	[100 to 160 / NA: 140, EU/AA: 131 / 1 deg/ step]	
003	Usage Limitation:	,	ature for the ready condition in BW printing.	
	-		· · · · · · · ·	
004	Plain 1:BW:Press (DFU) Specifies the pressure roller tar DFU:	*ENG get temper	[0 to 200 / 95 / 1 deg/step] rature for the ready condition in BW printing.	
	This SP is desgined for the factor	ory use only	y. Do not change the adjusted setting.	
	Plain2:FC:Center	*ENG	[100 to 160 / NA: 155, EU/AA: 146 / 1 deg/ step]	
005	Specifies the heating roller target temperature for the ready condition in full color printing. Usage Limitation: +5°C against the default value for each destination is the upper limit for this setting.			
	Plain2:FC:Press (DFU)	*ENG	[0 to 200 / 95 / 1 deg/step]	
006	Specifies the pressure roller tar	get temper	ature for the ready condition in full coloe printing.	
	This SP is desgined for the factory use only. Do not change the adjusted setting.			
	Plain2:BW:Center	*ENG	[100 to 160 / NA: 145, EU/AA: 136 / 1 deg/ step]	
007	Specifies the heating roller target temperature for the ready condition in BW printing. Usage Limitation: +5°C against the default value for each destination is the upper limit for this setting.			
	Plain2:BW:Press (DFU)	*ENG	[0 to 200 / 95 / 1 deg/step]	
008	Specifies the pressure roller target temperature for the ready condition in BW printing. DFU: This SP is desgined for the factory use only. Do not change the adjusted setting.			
	Thin:FC:Center	*ENG	[100 to 160 / 135 / 1 deg/step]	
009	Usage Limitation: +5°C against the default value	is the uppo	er limit for this setting.	

010	Thin:FC:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]	
	Thin:BW:Center	*ENG	[100 to 160 / 125 / 1 deg/step]	
011	Usage Limitation:	ı		
	+5°C against the default value	is the upp	er limit for this setting.	
012	Thin:BW:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]	
	M-thick:FC:Center	*ENG	[100 to 170 / 150 / 1 deg/step]	
013	Usage Limitation: +10°C against the default value	ue is the up	per limit for this setting.	
014	M-thick:FC:Press (DFU)	*ENG	[0 to 200 / 120 / 1 deg/step]	
	M-thick:BW:Center	*ENG	[100 to 170 / 140 / 1 deg/step]	
015	Usage Limitation: +10°C against the default value is the upper limit for this setting.			
016	M-thick:BW:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]	
	Thick 1:FC:Center	*ENG	[100 to 200 / 135 / 1 deg/step]	
017	Usage Limitation: +5°C against the default value is the upper limit for this setting.			
018	Thick 1:FC:Press (DFU)	*ENG	[0 to 200 / 135 / 1 deg/step]	
	Thick1:BW:Center	*ENG	[100 to 200 / 125 / 1 deg/step]	
019	Usage Limitation: +5°C against the default value is the upper limit for this setting.			
020	Thick 1:BW:Press (DFU)	*ENG	[0 to 200 / 110 / 1 deg/step]	
	Thick2:FC:Center	*ENG	[100 to 200 / 145 / 1 deg/step]	
021	Usage Limitation: +5°C against the default value is the upper limit for this setting.			
022	Thick2:FC:Press (DFU)	*ENG	[0 to 200 / 165 / 1 deg/step]	

	Thick2:BW:Center	*ENG	[100 to 200 / 135 / 1 deg/step]		
023	Usage Limitation:	ı			
	+5°C against the default value	e is the upp	er limit for this setting.		
024	Thick2:BW:Press (DFU)	*ENG	[0 to 200 / 140 / 1 deg/step]		
	Thick3:FC:Center	*ENG	[100 to 200 / 150 / 1 deg/step]		
025	Usage Limitation:				
	+5°C against the default value	is the upp	er limit for this setting.		
026	Thick3:FC:Press (DFU)	*ENG	[0 to 200 / 178 / 1 deg/step]		
	Thick3:BW:Center	*ENG	[100 to 200 / 140 / 1 deg/step]		
027	Usage Limitation:	!			
	+5°C against the default value	is the upp	er limit for this setting.		
028	Thick3:BW:Press (DFU)	*ENG	[0 to 200 / 150 / 1 deg/step]		
	Special 1:FC:Center	*ENG	[100 to 170 / 150 / 1 deg/step]		
029	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				
030	Special1:FC:Press (DFU)	*ENG	[0 to 200 / 150 / 1 deg/step]		
	Special1:BW:Center	*ENG	[100 to 170 / 140 / 1 deg/step]		
031	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				
032	Special1:BW:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
	Special2:FC:Center	*ENG	[100 to 175 / 155 / 1 deg/step]		
033	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				
034	Special2:FC:Press (DFU)	*ENG	[0 to 200 / 160 / 1 deg/step]		
	Special2:BW:Center	*ENG	[100 to 175 / 145 / 1 deg/step]		
035	Usage Limitation:				
	+5°C against the default value	is the upp	er limit for this setting.		

036	Special2:BW:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			
	Special3:FC:Center	*ENG	[100 to 175 / 145 / 1 deg/step]			
037	Usage Limitation:					
	+5°C against the default value	is the upp	er limit for this setting.			
038	Special3:FC:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			
	Special3:BW:Center	*ENG	[100 to 175 / 135 / 1 deg/step]			
039	Usage Limitation:					
	+5°C against the default value	is the upp	er limit for this setting.			
040	Special3:BW:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			
	Envelop:Center	*ENG	[100 to 200 / 150 / 1 deg/step]			
041	Usage Limitation:					
	+5°C against the default value	is the upp	er limit for this setting.			
042	Envelop:Press (DFU)	*ENG	[0 to 200 / 172 / 1 deg/step]			
	Plain 1:FC:Center:Low Speed	*ENG	[100 to 200 / 105 / 1 deg/step]			
101	Usage Limitation:	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.					
102	Plain 1:FC:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			
	Plain1:BW:Center:Low Speed	*ENG	[100 to 200 / 100 / 1 deg/step]			
103	Usage Limitation:					
	+5°C against the default value is the upper limit for this setting.					
104	Plain 1:BW:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			
	Plain2:FC:Center:Low Speed	*ENG	[100 to 200 / 110 / 1 deg/step]			
105	Usage Limitation:					
	+5°C against the default value	is the upp	er limit for this setting.			
106	Plain2:FC:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			

107	Plain2:BW:Center:Low Speed	*ENG	[100 to 200 / 105 / 1 deg/step]		
107	Usage Limitation:				
	+5°C against the default value	is the upp	er limit for this setting.		
108	Plain2:BW:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
	Thin:FC:Center:Low Speed	*ENG	[100 to 200 / 105 / 1 deg/step]		
109	Usage Limitation:				
	+5°C against the default value	is the upp	er limit for this setting.		
110	Thin:FC:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
	Thin:BW:Center:Low Speed	*ENG	[100 to 200 / 100 / 1 deg/step]		
111	Usage Limitation:				
	+5°C against the default value	is the upp	er limit for this setting.		
112	Thin:BW:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
	M-Thick:FC:Center:Low Speed	*ENG	[100 to 200 / 115 / 1 deg/step]		
113	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				
114	M-Thick:FC:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
115	M-Thick:BW:Center:Low Speed	*ENG	[100 to 200 / 110 / 1 deg/step]		
115	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				
116	M-Thick:BW:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		

	Special 1:FC:Center:Low Speed	*ENG	[100 to 200 / 115 / 1 deg/step]		
117	Usage Limitation: +5°C against the default value	e is the upp	er limit for this setting.		
118	Special 1:FC:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
110	Special 1:BW:Center:Low Speed	*ENG	[100 to 200 / 110 / 1 deg/step]		
119	Usage Limitation: +5°C against the default value	e is the upp	er limit for this setting.		
120	Special 1:BW:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
101	Special2:FC:Center:Low Speed	*ENG	[100 to 200 / 120 / 1 deg/step]		
121	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				
122	Special2:FC:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
100	Special2:BW:Center:Low Speed	*ENG	[100 to 200 / 115 / 1 deg/step]		
123	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				
124	Special2:BW:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
	Special3:FC:Center:Low Speed	*ENG	[100 to 200 / 110 / 1 deg/step]		
125	Usage Limitation: +5°C against the default value is the upper limit for this setting.				
126	Special3:FC:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		

	Special3:BW:Center:Low Speed	*ENG	[100 to 200 / 105 / 1 deg/step]			
127	Usage Limitation:					
	+5°C against the default value	is the upp	er limit for this setting.			
128	Special3:BW:Press:Low Speed (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			
	OHP:Center	*ENG	[100 to 200 / 145 / 1 deg/step]			
131	Usage Limitation:					
	+5°C against the default value	is the upp	er limit for this setting.			
132	OHP:Press (DFU)	*ENG	[0 to 200 / 165 / 1 deg/step]			
	Envelop:Center:Low Speed	*ENG	[100 to 200 / 140 / 1 deg/step]			
133	Usage Limitation:					
	+5°C against the default value	is the upp	er limit for this setting.			
134	Envelop:Press:Low Speed (DFU)	*ENG	[0 to 200 / 150 / 1 deg/step]			
	Plain 1: Grossy: Center	*ENG	[100 to 200 / 110 / 1 deg/step]			
135	Usage Limitation:					
	+5°C against the default value is the upper limit for this setting.					
136	Plain 1: Grossy: Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			
	Plain2:Grossy:Center	*ENG	[120 to 200 / 115 / 1 deg/step]			
137	Usage Limitation:					
	+5°C against the default value is the upper limit for this setting.					
138	Plain2:Grossy:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			
	M-thick:Grossy:Center	*ENG	[120 to 200 / 120 / 1 deg/step]			
139	Usage Limitation:					
	+5°C against the default value	is the upp	er limit for this setting.			
140	M-thick:Grossy:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]			

	Special4:FC:Center	*ENG	[120 to 200 / 135 / 1 deg/step]		
141	Usage Limitation:	,			
	+5°C against the default value	is the upp	er limit for this setting.		
142	Special4:FC:Press (DFU)	*ENG	[0 to 200 / 140 / 1 deg/step]		
	Special4:BW:Center	*ENG	[100 to 200 / 125 / 1 deg/step]		
143	Usage Limitation:				
	+5°C against the default value	is the upp	er limit for this setting.		
144	Special4:BW:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
	Special5:FC:Center	*ENG	[100 to 200 / 145 / 1 deg/step]		
145	Usage Limitation:				
	+5°C against the default value	e is the upp	er limit for this setting.		
146	Special5:FC:Press (DFU)	*ENG	[0 to 200 / 165 / 1 deg/step]		
	Special5:BW:Center	*ENG	[100 to 200 / 135 / 1 deg/step]		
147	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				
148	Special5:BW:Press (DFU)	*ENG	[0 to 200 / 140 / 1 deg/step]		
	Special6:FC:Center	*ENG	[100 to 200 / 130 / 1 deg/step]		
149	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				
150	Specialó:FC:Press (DFU)	*ENG	[0 to 200 / 110 / 1 deg/step]		
	Specialó:BW:Center	*ENG	[100 to 200 / 120 / 1 deg/step]		
151	Usage Limitation:				
	+5°C against the default value	is the upp	er limit for this setting.		
152	Specialó:BW:Press (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]		
	Envelop:Center:Thick1	*ENG	[100 to 200 / 115 / 1 deg/step]		
153	Usage Limitation:				
	+5°C against the default value is the upper limit for this setting.				

154	Envelop:Press:Thick1 (DFU)	*ENG	[0 to 200 / 135 / 1 deg/step]	
	Envelop:Center:Thick2	*ENG	[100 to 200 / 145 / 1 deg/step]	
155	Usage Limitation:			
	+5°C against the default value	is the upp	er limit for this setting.	
156	Envelop:Press:Thick2 (DFU)	*ENG	[0 to 200 / 165 / 1 deg/step]	
	Envelop:Center:Thick3	*ENG	[100 to 200 / 150 / 1 deg/step]	
157	Usage Limitation:			
	+5°C against the default value	is the upp	er limit for this setting.	
158	Envelop:Press:Thick3 (DFU)	*ENG	[0 to 200 / 178 / 1 deg/step]	
	Postcard:Center:Thick1	*ENG	[100 to 200 / 105 / 1 deg/step]	
159	Usage Limitation:			
	+5°C against the default value is the upper limit for this setting.			
160	Postcard:Press:Thick1 (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]	
	Postcard:Center:Thick2	*ENG	[100 to 200 / 115 / 1 deg/step]	
161	Usage Limitation:			
	+5°C against the default value is the upper limit for this setting.			
162	Postcard:Press:Thick2 (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]	
	Postcard:Center:Thick3	*ENG	[100 to 200 / 120 / 1 deg/step]	
163	Usage Limitation:			
	+5°C against the default value	is the upp	er limit for this setting.	
164	Postcard:Press:Thick3 (DFU)	*ENG	[0 to 200 / 100 / 1 deg/step]	

1106	[Fusing Temp. Display] Fusing Temperature Display (Heating or Pressure)				
	Displays the current temperature of the heating and pressure rollers.				
001	Center - [-10 to 250 / 0 / 1 deg/step]				
002	End	-	[-10 to 250 / 0 / 1 deg/step]		
	The heating roller has two lamps. One heats the center of the heating roller and the other heats both ends of the heating roller.				

003	Pressure Center	-	[-10 to 250 / 0 / 1 deg/step]
005	Thermister Atmosphere	-	[-10 to 250 / 0 / 1 deg/step]
006	Pressure End	-	[-10 to 250 / 0 / 1 deg/step]
	The pressure roller has no lamp.		

1107	[Standby Target Temp. Setting]				
001	Stanby/Preheat1: Center	*ENG	[100 to 150 / 135 / 1 deg/step]		
001	Specifies the temperature of th	e heating ro	oller for the ready or energy save 1 mode.		
-002	DFU				
to -006	These SPs are desgined for the	factory use	e only. Do not change the adjusted setting.		
002	Stanby/Preheat1: Press	*ENG	[0 to 200 / 0 / 1 deg/step]		
002	Specifies the temperature of the	e pressure i	roller for the ready or energy save 1 mode.		
003	Preheat2: Center	*ENG	[0 to 200 / 130 / 1 deg/step]		
003	Specifies the temperature of th	e heating ro	oller for the energy save 2 mode.		
004	Preheat2:Press	*ENG	[0 to 200 / 0 / 1 deg/step]		
004	Specifies the temperature of the pressure roller for the energy save 2 mode.				
005	Low Power:Center	*ENG	[0 to 200 / 0 / 1 deg/step]		
003	Specifies the temperature of the heating roller for the low power mode.				
006	Low Power:Press	*ENG	[0 to 200 / 0 / 1 deg/step]		
006	Specifies the temperature of the pressure roller for the low power mode.				
007	Print Ready:Center	*ENG	[120 to 150 / 130 / 1 deg/step]		
007	Specifies the temperature of the heating roller for the print ready condition.				
	Print Ready:Press (DFU)	*ENG	[0 to 200 / 10 / 1 deg/step]		
008	Specifies the temperature of the pressure roller for the print ready condition.				
	DFU				
	This SP is desgined for the factory use only. Do not change the adjusted setting.				

1108	[After Reload/Job Target Temp.]				
001	Center	*ENG	[120 to 150 / 130 / 1 deg/step]		
001	Specifies the temperature of the heating roller after re-load or job.				
	Press (DFU)	*ENG	[0 to 200 / 5 / 1 deg/step]		
002	Specifies the temperature of the pressure roller after re-load or job.				
002	DFU				
	This SP is desgined for the factory use only. Do not change the adjusted setting.				

1111	[Environment Correction:Fusing] DFU These SPs are desgined for the factory use only. Do not change the adjusted setting.			
	Temp.: Threshold: Low	*ENG	[0 to 100 / 17 / 1 deg/step]	
001	Specifies the threshold temperor or less, the machine executes t		w temperature. If the fusing temperature is 17°C ode for low temperature.	
	Temp.: Threshold: High	*ENG	[0 to 100 / 30 / 1 deg/step]	
002	Sepcifies the threshold tempero	_	gh temperature. If the fusing temperature is 30°C mode for high temperature.	
	Low Temp. Correction	*ENG	[0 to 15 / 5 / 1 deg/step]	
003	Specifies the additional temperature for the target temperature. If the fusing temperature is in low temperature condition, this temperature is added to the taraget temperature.			
	High Temp. Correction	*ENG	[0 to 15 / 0 / 1 deg/step]	
004	Specifies the additional temperature for the target temperature. If the fusing temperature is in high temperature condition, this temperature is added to the taraget temperature.			
	Job Low Temp. Correction	*ENG	[0 to 100 / 5 / 0.1 deg/step]	
005	Specifies the additional temperature for the target temperature when the environmental condition is determined as low temperature.			
006	Job High Temp. Correction	*ENG	[0 to 100 / 0 / 0.1 deg/step]	
	Specifies the additional temperature for the target temperature when the environmental condition is determined as high temperature.			
007	Job Low Temp. Correction:Sp.	*ENG	[0 to 100 / 10 / 0.1 deg/step]	
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008	High Temp. rection:Sp.	*ENG	[0 to 100 / 0 / 0.1 deg/step]
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1112	[Image Process Temp. Correction]				
	These SPs are used for the fusing temperature control for variable job images. This co saves the power comsumption when the machine copies or prints a job text image in and white mode.				
	Temp.:Normal:Center:Level 1 (DFU)	*ENG	[-10 to 10 / 0 / 1 /step]		
001	Specifies the subtractive temper job images.	erature leve	el 1 of the fusing temperature control for variable		
	DFU				
	This SP is desgined for the fact	ory use onl	ly. Do not change the adjusted setting.		
	Temp.:Normal:Center:Level2	*ENG	[-25 to 10 / NA: -10, EU/AA: -12 for C1.5a/ NA: -3, EU/AA: -10 for C1.5c / 1 /step]		
002	Specifies the subtractive temperature level 2 of the fusing temperature control for variable job images.				
	Usage Limitation:				
	Use 0°C or less for this setting.				
-003 to	[Envir. Correct:Fusing] DFU These SPs are desgined for the	factory us	se only. Do not change the adjusted setting.		
	Low Temp. Correction	*ENG	[0 to 15 / 5 / 1 deg/step]		
003	Specifies the temperature correction in the low temperature condition.				
004	High Temp. Correction	*ENG	[0 to 15 / 5 / 1 deg/step]		
004	Specifies the temperature correction in the high temperature condition.				
	Offset Temp:Low	*ENG	[0 to 15 / 6.5 / 0.1 deg/step]		
005	Specifies the temperature correction of the paper feeding taraget in the low temperature condition.				
	Offset Temp:High	*ENG	[0 to 15 / 5 / 0.1 deg/step]		
006	Specifies the temperature correction of the paper feeding taraget in the high temperature condition.				

1113	[Curl Correction]				
001	Execute Pattern	*ENG	[0 to 2 / 0 / 1 /step] 0: OFF, 1: ON		
	Selects the curl correction type	∋.			
-002 to -006, -008, -009	DFU These SPs are desgined for the factory use only. Do not change the adjusted setting.				
002	Humidity:Threshold:M- humid	*ENG	[0 to 100 / 65 / 1 %/step]		
	Specifies the threshold between	en low and	l middle humidity.		
000	Humidity:Threshold:H-humid	*ENG	[0 to 100 / 80 / 1 %/step]		
003	Specifies the threshold between middle and high humidity.				
004	Permit Temp.:Delta:Press:M- humid	*ENG	[0 to 200 / 100 / 1 deg/step]		
	Specifies the threshold temperature for the curl control in middle humidity.				
005	Permit Temp.:Delta:Press: H- humid	*ENG	[0 to 200 / 100 / 1 deg/step]		
	Specifies the threshold temperature for the curl control in high humidity.				
	[Stand-by Mode Setting]				
006	P-Roll Thresh AF Job	*ENG	[0 to 160 / 100 / 1 deg/step]		
	Specifies the temperature of the pressure roller for the stand-by mode.				
	CPM:M-humid	*ENG	[0 to 100 / 80 / 1 %/step]		
008	Specifies the CPM ratio of the decurl control against to the normal operation in middle humidity.				
222	CPM:H-humid	*ENG	[0 to 100 / 65 / 1 %/step]		
009	Specifies the CPM ratio of the o	decurl cont	trol against to the normal operation in high humidity.		

1114	[Heat Storage Status] DFU These SPs are desgined for the factory use only. Do not change the adjusted setting.		
001	Temp.:Threshold: Press	*ENG	[0 to 200 / 80 / 1 deg/step]
	Specifies the threshold temperature of the pressure roller for the heat storage status.		
002	Temp.:Threshold: Atmosphere	*ENG	[0 to 200 / 80 / 1 deg/step]
	Specifies the threshold temperature inside the machine for the heat storage feedback control.		

1115	[Target Temp. Correction] DFU				
1113	This SP is desgined for the factory use only. Do not change the adjusted setting.				
001	Temp.:Delta:End	*ENG	[-10 to 100 / 0 / 1 deg/step]		
	Specifies the different temperature between end and center of the heating roller.				

1116	[Press Temp. FB Control]				
	Execution mode	*ENG	[0 to 2 / 1 / 1 /step] 0: OFF, 1: ON: BW, 2: ON: BW/FC		
001	Selects the heat storage FB control mode. Usage Limitation: Use "0: OFF" or "1: ON: BW" only.				
-011 to -106	DFU The following SPs below are desgined for the factory use only. Do not change the adjusted setting.				
011	Time Out	*ENG	[0 to 500 / 5 / 1 sec/step]		
021	Delay:Standard Speed:FC:1	*ENG	[0 to 20,000 / 0 / 1 msec/step]		
022	Delay:Standard Speed:BW:	*ENG	[0 to 20,000 / 0 / 1 msec/step]		
025	Delay:Low Speed:FC:1	*ENG	[0 to 20,000 / 0 / 1 msec/step]		
026	Delay:Low Speed:BW:1	*ENG	[0 to 20,000 / 0 / 1 msec/step]		
031	Delay:Standard Speed:FC:2	*ENG	[0 to 20,000 / 0 / 1 msec/step]		

032	Delay:Standard Speed:BW:	*ENG	[0 to 20,000 / 0 / 1 msec/step]
035	Delay:Low Speed:FC:2	*ENG	[0 to 20,000 / 0 / 1 msec/step]
036	Delay:Low Speed:FC:2	*ENG	[0 to 20,000 / 0 / 1 msec/step]
041		*ENG	
	Press Reference Temp.		[0 to 200 / 0 / 1 deg/step]
042	Temp. Correction Lower Limit	*ENG	[-30 to 0 / -2 / 1 deg/step]
043	Temp. Correction Upper Limit	*ENG	[0 to 30 / 0 / 1 deg/step]
051	Paper Thickness Coefficient:Plain 1	*ENG	[0 to 100 / 20 / 1 /step]
052	Paper Thickness Coefficient:Plain2	*ENG	[0 to 100 / 20 / 1 /step]
053	Paper Thickness Coeff.:Thin	*ENG	[0 to 100 / 0 / 1 /step]
054	Paper Thickness Coeff.:M- thick	*ENG	[0 to 100 / 0 / 1 /step]
055	Paper Thickness Coeff.:Thick 1	*ENG	[0 to 100 / 0 / 1 /step]
056	Paper Thickness Coeff.:Thick2	*ENG	[0 to 100 / 0 / 1 /step]
057	Paper Thickness Coeff.:Thick3	*ENG	[0 to 100 / 0 / 1 /step]
058	Paper Thickness Coeff.:Special 1	*ENG	[0 to 100 / 0 / 1 /step]
059	Paper Thickness Coeff.:Special2	*ENG	[0 to 100 / 0 / 1 /step]
060	Paper Thicknes Coeff.:Special3	*ENG	[0 to 100 / 0 / 1 /step]
061	Paper Thickness Coeff.:Envelop	*ENG	[0 to 100 / 0 / 1 /step]
071	Paper Thickness Coeff.:Plain 1:Low Speed	*ENG	[0 to 100 / 0 / 1 /step]

072	Paper Thickness Coeff.:Plain2:Low Speed	*ENG	[0 to 100 / 0 / 1 /step]
073	Paper Thickness Coeff.:Thin:Low Speed	*ENG	[0 to 100 / 0 / 1 /step]
074	Paper Thickness Coeff.:M- thick:Low Speed	*ENG	[0 to 100 / 0 / 1 /step]
075	Paper Thickness Coeff.:Special 1:Low Speed	*ENG	[0 to 100 / 0 / 1 /step]
076	Paper Thickness Coeff.:Special2:Low Speed	*ENG	[0 to 100 / 0 / 1 /step]
077	Paper Thickness Coeff.:Special3:Low Speed	*ENG	[0 to 100 / 0 / 1 /step]
078	Paper Thickness Coeff.:Plain 1:Glossy	*ENG	[0 to 100 / 0 / 1 /step]
079	Paper Thickness Coeff.:Plain2:Glossy	*ENG	[0 to 100 / 0 / 1 /step]
080	Paper Thickness Coeff.:M- thick:Glossy	*ENG	[0 to 100 / 0 / 1 /step]
081	Paper Thickness Coeff.:OHP	*ENG	[0 to 100 / 0 / 1 /step]
082	Paper Thickness Coeff.:Envelop:Low Speed	*ENG	[0 to 100 / 0 / 1 /step]
101	Paper Thickness Coeff.:Special4	*ENG	[0 to 100 / 200 / 1 /step]
102	Paper Thickness Coeff.:Special5	*ENG	[0 to 100 / 200 / 1 /step]
103	Paper Thicknes Coeff.:Special6	*ENG	[0 to 100 / NA: 75, EU/AA: 70 / 1 /step]
104	Paper Thickness Coeff.:Envelop:Thick1	*ENG	[0 to 100 / 0 / 1 /step]
105	Paper Thickness Coeff.:Envelop:Thick2	*ENG	[0 to 100 / 0 / 1 /step]

106	Paper Thickness Coeff.:Envelop:Thick3	*ENG	[0 to 100 / 0 / 1 /step]	
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111 <i>7</i>	[Time Control] DFU The following SPs below are deserting.	sgined for	the factory use only. Do not change the adjusted
001	Control Time 1	*ENG	[0 to 1000 / 1 / 1 sec./step]
002	Control Time2	*ENG	[0 to 1000 / 29 / 1 sec./step]
003	Temp:Plain:Center1	*ENG	[-35 to 35 / NA: 0, EU/AA: 9 / 1 °C/step]
004	Temp:Plain:Press. 1	*ENG	[-35 to 35 / NA: -2, EU/AA: 9 for C1.5a/ NA: 0, EU/AA: 9 for C1.5c / 1°C/step]
005	Temp:Plain:Center2	*ENG	[-35 to 35 / NA: 1, EU/AA: 10 / 1°C/step]
006	Temp:Plain:Press.2	*ENG	[-35 to 35 / NA: 1, EU/AA: 10 / 1°C/step]
007	Temp:M-Thick:Center1	*ENG	[-35 to 35 / 10 / 1°C/step]
800	Temp:M-Thick:Press. 1	*ENG	[-35 to 35 / 10 / 1°C/step]
009	Temp:M-Thick:Center2	*ENG	[-35 to 35 / 10 / 1°C/step]
010	Temp:M-Thick:Press.2	*ENG	[-35 to 35 / 10 / 1°C/step]
011	Temp:Other:Center 1	*ENG	[-35 to 35 / 10 / 1°C/step]
012	Temp:Other:Press. 1	*ENG	[-35 to 35 / 10 / 1°C/step]
013	Temp:Other.Center2	*ENG	[-35 to 35 / 10 / 1°C/step]
014	Temp:Other:Press.2	*ENG	[-35 to 35 / 10 / 1°C/step]
015	Temp:Plain:BW: Center1	*ENG	[-35 to 35 / NA: 0, EU/AA: 9 / 1°C/step]
016	Temp:Plain:BW:End 1	*ENG	[-35 to 35 / NA: 0, EU/AA: 9 / 1°C/step]
017	Temp:Plain:Center2	*ENG	[-35 to 35 / NA: 0, EU/AA: 9 / 1°C/step]
018	Temp:Plain:BW:End2	*ENG	[-35 to 35 / NA: 0, EU/AA: 9 / 1°C/step]
019	Temp:Other:Center 1:LowSpee d	*ENG	[-35 to 35 / 20 / 1°C/step]
020	Temp:Other:End1:LowSpeed	*ENG	[-35 to 35 / 20 / 1°C/step]

021	Temp:Other.Center2:LowSpee d	*ENG	[-35 to 35 / 20 / 1°C/step]
022	Temp:Other:End2:LowSpeed	*ENG	[-35 to 35 / 20 / 1°C/step]
023	Temp:Envelop:Center1	*ENG	[-35 to 35 / 15 / 1°C/step]
024	Temp:Envelop:End1	*ENG	[-35 to 35 / 15 / 1°C/step]
025	Temp:Envelop:Center2	*ENG	[-35 to 35 / 15 / 1 ° C/step]
026	Temp:Envelop:End2	*ENG	[-35 to 35 / 15 / 1°C/step]

1121	[Switch:Rotation Start/Stop]		
001	Time:After Reload	*ENG	[0 to 100 / 100 / 1 sec./step]
	Specifies the interval of the re-	load mode	
-002 to -010	DFU The following SPs below are d setting.	esgined foi	the factory use only. Do not change the adjusted
002	Time:After Recovery	*ENG	[0 to 100 / 10 / 1 sec./step]
003	Time:After Job	*ENG	[0 to 100 / 10 / 1 sec./step]
004	Press Temp.:After Reload	*ENG	[0 to 160 / 160 / 1°C/step]
005	End Uniform Start Temp.:B4	*ENG	[0 to 250 / 200 / 1°C/step]
006	End Uniform Start Temp.:B5	*ENG	[0 to 250 / 200 / 1°C /step]
007	End Uniform Start Temp.:A5	*ENG	[0 to 250 / 190 / 1°C /step]
008	Overshoot Prevent Temp.	*ENG	[0 to 250 / 200 / 1°C /step]
009	Overshoot Prevent Time	*ENG	[0 to 100 / 10 / 1 sec./step]
010	Overshoot Prevent Temp.:End	*ENG	[0 to 250 / 200 / 1°C /step]

	[Standby Rotation Setting] DFU			
1122	The following SPs below are desgined for the factory use only. Do not change the adjuste setting.			
001	Rotation Interval	*ENG	[0 to 240 / 60 / 1 min./step]	

002 Rotation Time

	[CPM Down Setting] DFU				
1124	Specifies the settings for the CPM down mode. DFU				
	The following SPs below are setting.	desgined fo	or the factory use only. Do not change the adjusted		
001	Low:Down Temp.	*ENG	[-50 to 0 / -20 / 1 deg/step]		
	Specifies the CPM down threshold temperature for the low temperature condition. If the fusing temperature decreases -20°C (adjustable) below the target temperature, the machine enters the CPM down mode.				
002	Low:Up Temp.	*ENG	[-50 to 0 / -15 / 1 deg/step]		
	Specifies the CPM up threshold temperature for the low temperature condition. If the fusing temperature increases -15°C (adjustable) below the target temperature, the machine enter the CPM up mode.				
003	Low:1st CPM	*ENG	[10 to 100 / 80 / 5 %/step]		
	Specifies the 1st CPM down r	ation again	st the normal CPM in the low temperature condition.		
004	Low :2nd CPM	*ENG	[10 to 100 / 65 / 5 %/step]		
	Specifies the 2nd CPM down	ration agair	nst the normal CPM in the low temperature condition.		
005	Low :3rd CPM	*ENG	[10 to 100 / 50 / 5 %/step]		
	Specifies the 3rd CPM down	ration again	st the normal CPM in the low temperature condition.		
006	High:1st CPM	*ENG	[10 to 100 / 75 / 5 %/step]		
	Specifies the 1st CPM down re	ation agains	st the normal CPM in the high temperature condition.		
007	High:2nd CPM	*ENG	[10 to 100 / 50 / 5 %/step]		
	Specifies the 3rd CPM down ration against the normal CPM in the high temperature condit				
008	High:3rd CPM	*ENG	[10 to 100 / 25 / 5 %/step]		
	Specifies the 1st CPM down re	Specifies the 1st CPM down ration against the normal CPM in the high temperature condition.			
009	High: 1st CPM Down Temp.:A3	*ENG	[100 to 225 / 200 / 1 deg/step]		

	Specifies the heating roller temperature for 1st CPM down of A3 paper size.		
010	High:2nd CPM Down Temp.:A3	*ENG	[100 to 225 / 205 / 1 deg/step]
	Specifies the heating roller ten	nperature f	or 2nd CPM down of A3 paper size.
011	High:3rd CPM Down Temp.:A3	*ENG	[100 to 225 / 210 / 1 deg/step]
	Specifies the heating roller ten	nperature f	or 3rd CPM down of A3 paper size.
012	High: 1 st CPM Down Temp.:A4	*ENG	[100 to 225 / 175 / 1 deg/step]
	Specifies the heating roller ten	nperature f	or 1st CPM down of A4 paper size.
013	High:2nd CPM Down Temp.:A4	*ENG	[100 to 225 / 177 / 1 deg/step]
	Specifies the heating roller ten	nperature f	or 2nd CPM down of A4 paper size.
014	High:3rd CPM Down Temp.:A4	*ENG	[100 to 225 / 179 / 1 deg/step]
	Specifies the heating roller ten	nperature f	or 3rd CPM down of A4 paper size.
015	High: 1 st CPM Down Temp.:B5:Press	*ENG	[100 to 225 / 177 / 1 deg/step]
	Specifies the pressure roller te	mperature	for 1st CPM down of B5 paper size.
016	High:2nd CPM Down Temp.:B5:Press	*ENG	[100 to 225 / 186 / 1 deg/step]
	Specifies the pressure roller te	mperature	for 2nd CPM down of B5 paper size.
017	High:3rd CPM Down Temp.:B5:Press	*ENG	[100 to 225 / 225 / 1 deg/step]
	Specifies the pressure roller te	mperature	for 3rd CPM down of B5 paper size.
018	High: 1 st CPM Down Temp.:A5:Press	*ENG	[100 to 225 / 178 / 1 deg/step]
	Specifies the pressure roller temperature for 1st CPM down of A5 paper size.		
019	High:2nd CPM Down Temp.:A5:Press	*ENG	[100 to 225 / 185 / 1 deg/step]

	Specifies the pressure roller te	mperature	for 2nd CPM down of A5 paper size.
020	High:3rd CPM Down Temp.:A5:Press	*ENG	[100 to 225 / 225 / 1 deg/step]
	Specifies the pressure roller te	mperature	for 3rd CPM down of A5 paper size.
021	High: 1 st CPM Down Temp.:A6: Press	*ENG	[100 to 225 / 191 / 1 deg/step]
	Specifies the pressure roller te	mperature	for 1st CPM down of A6 paper size.
022	High:2nd CPM Down Temp.:A6:Press	*ENG	[100 to 225 / 225 / 1 deg/step]
	Specifies the pressure roller te	mperature	for 2nd CPM down of A6 paper size.
023	High:3rd CPM Down Temp.:A6:Press	*ENG	[100 to 225 / 225 / 1 deg/step]
	Specifies the pressure roller te	mperature	for 3rd CPM down of A6 paper size.
024	Judging Interval	*ENG	[1 to 250 / 10 / 1 sec/step]
024	Specifies the interval for CPM	down jud	gement.
025	High: 1 st CPM Down Temp.:Env.M-t:Press	*ENG	[100 to 225 / 137 / 1 deg /step]
026	High:2nd CPM Down Temp.:Env.M-t:Press	*ENG	[100 to 225 / 142 / 1 deg /step]
027	High:3rd CPM Down Temp.:Env.M-t:Press	*ENG	[100 to 225 / 187 / 1 deg /step]
028	High:1st CPM Down Temp.:Narrow-Thick:Press	*ENG	[100 to 225 / 125 / 1 deg /step]
029	High:2nd CPM Down Temp::Narrow-Thick:Press	*ENG	[100 to 225 / 137 / 1 deg /step]
030	High:3rd CPM Down Temp::Narrow-Thick:Press	*ENG	[100 to 225 / 145 / 1 deg /step]

1131	[Continues Print Mode Switch]
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001	Feed Permit Condition	*ENG	[0 to 2 / 0 / 1 /step] 0: Productivity Priority mode 1: Quality Priority mode 1 2: Quality Priority mode 1	
	Selects the feed permission type. O: No paper feed permission			
	1: Paper feed permission is done when changing the paper size from smaller one to larger one.			
	2: Paper feed permission is done when changing the paper size from smaller one to larger one and changing the copy/print mode from duplex mode to simplex mode.			

1132	[Maximum Duty Switch] DFU The following SPs below are desgined for the factory use only. Do not change the adjusted setting.		
001	Control Method Switch	*ENG	[0 or 1 / 1 / 1 / step] 0: FIXED, 1: CONTROL
	Selects the heater control method. Use "1: CONTORL" if hot offset occurs after power-on and input voltage is relatively hight.		
003	[PowerControl] Power Offset	*ENG	[-4 to 4 / 0 / 1 /step]
012	Voltage Detection	*ENG	[0 to 350 / 0 / 1 V/step]
013	[Voltage Detection] Temp.:Threshold Value	*ENG	[0 to 200 / 80 / 1 °C/step]

	[Last Paper Heater OFF Control]				
1133	DFU				
1100	The following SPs below are desgined for the factory use only. Do not change the adjusted setting.				
001	Heater OFF Time: Normal Speed: FC	*ENG	[0 to 20000 / 2400 / 1 msec./step]		

002	Heater OFF Time: Normal Speed: BW	*ENG	[0 to 20000 / 1200 / 1 msec./step]
005	Heater OFF Time:Low Speed:FC	*ENG	[0 to 20000 / 6300 / 1 msec./step]
006	Heater OFF Time:Low Speed:BW	*ENG	[0 to 20000 / 1400 / 1 msec./step]
007	Heater OFF Time: After State Shift	*ENG	[0 to 20000 / 17000 / 1 msec./step]

1141	[Fusing SC Issue Time Info] DFU The following SPs below are desgined for the factory use only. Do not change the adjusting.					
001	SC Number	*ENG	Displays the issued SC number.			
	SC Cause	*ENG	[0 to 9 / - / 1/step]			
002	Shows the SC cause 0: Timeout 1, 1: Timeout 2, 2: Timeout 3, 4 to 9: Not used					
101	Htg Roller:Ctr Diff1	*ENG	[-20 to 260 / - / 1 deg/step]			
101	Displays the calculated temperature at the center of the heating roller when an SC was issued.					
104	Htg Roller:End Diff1	*ENG	[-100 to 260 / - / 1 deg/step]			
104	Displays the calculated temperature at the end of the heating roller when an SC was issued.					
105	Htg Roller:End Det1	*ENG	[-10 to 260 / - / 1 deg/step]			
105	Displays the detected temperature at the end of the heating roller when an SC was issued.					
106	Htg Roller:End Corr1	*ENG	[-10 to 260 / - / 1 deg/step]			
100	Displays the ambient temperature at the end of the heating roller when an SC was issued.					
107	Press Roller Temp Value 1	*ENG	[-10 to 260 / - / 1 deg/step]			
107	Displays the temperature at the pressure roller when an SC was issued.					
100	Press Roller:End Temp Value 1	*ENG	[-10 to 260 / - / 1 deg/step]			
108	Displays the temperature at the end of the pressure roller when an SC was issued.					

1.5.1	Htg Roller:Ctr Diff2	*ENG	[-200 to 260 / - / 1 deg/step]				
151	SPs from -151 to -157 show previous fusing SC information.						
154	Htg Roller:End Diff2	*ENG					
155	Htg Roller:End Det2	*ENG					
156	Htg Roller:End Corr2	*ENG	[-10 to 260 / - / 1 deg/step]				
157	Press Roller Temp Value2	Value2 *ENG					
158	Press Roller:End Temp Value2	*ENG					
201	Htg Roller:Ctr Diff3	*ENG	[-20 to 260 / - / 1 deg/step]				
201	SPs from -201 to -207 show fusing SC information before previous fusing SC.						
204	Htg Roller:End Diff3	*ENG					
205	Htg Roller:End Det3	*ENG					
206	Htg Roller:End Corr3	*ENG	[-10 to 260 / - / 1 deg/step]				
207	Press Roller Temp Value3	*ENG					
208	Press Roller.End Temp Value3	*ENG					

1142	[Fusing Jam Detection] DFU				
	This SP is desgined for the factory use only. Do not change the adjusted setting.				
001	SC Display	*ENG	[0 or 1 / 0 / -] 0: ON, 1: OFF		
	Enables or disables the fusing consecutive jam (three times) SC detection.				

[Fusing Nip Band Check] DFU The following SPs below are desgined for the factory use only. Do not change the adjusted setting.

	Execute	-	-		
001	Executes the nip band measurement between heating roller and pressure roller.				
	If the nip band width is not 8 mm, and fusing is not good, replace the pressure roller or install a new fusing unit.				
000	Pre-Idling Time	*ENG	[0 to 999 / 600 / 1 sec/step]		
002	Specifies the fusing rotation time before executing SP1152-001.				
003	Stop Time	* ENG	[0 to 100 / 20 / 1 sec/step]		
003	Specifies the time for paper staying at the nip.				
004	Feed Time	* ENG	[0 to 10000 / 5000 / 1 msec./step]		
004	Specifies the feeding time from	the tray to t	the fusing unit at the fusing nip band check.		

1153	[Low Temp. Start Up] DFU The following SPs below are d setting.	esgined for	the factory use only. Do not change the adjusted		
001	Temp.:Threshold Value 1	* ENG	[-10 to 100 / 5 / 1°C./step]		
001	Sepcifies the threshold temper	ature 1 for	the warming up in the low temperature condition.		
002	Temp.:Threshold Value2	* ENG	[-10 to 100 / 17 / 1°C./step]		
002	Sepcifies the threshold temperature 2 for the warming up in the low temperature condition.				
003	Temp.:Target	* ENG	[0 to 100 / 100 / 1°C./step]		
003	Sepcifies the target temperature for the warming up in the low temperature condition.				
005	Temp.: Rotation Threshold Value 1	* ENG	[-10 to 100 / 30 / 1°C./step]		
003	Sepcifies the threshold temperature 1 for the warming up rotation in the low temperature condition.				
010	Time:Heat Storage Devision 1	* ENG	[0 to 250 / 60 / 1 sec./step]		
010	Sepcifies the execution time 1	for the war	ming up in the low temperature condition.		

011	Time:Heat Storage Devision2	* ENG	[0 to 250 / 30 / 1 sec/step]	
OII	Sepcifies the execution time 2 for the warming up in the low temperature condition.			

1801	[Motor Speed Adjust]		
001	Regist Mot:60:Thick	*ENG	[-4 to 4 / 0.3 / 0.05 %/step]
002	Regist Mot: 120	*ENG	[-4 to 4 / 0.3 / 0.03 %/ step]
003	Bk OpcDevMot: 120	*ENG	[-4 to 4 / -0.1 / 0.01 %/step]
004	Bk OpcDevMot:60:Thick	*ENG	[-4 to 4 / -0.4 / 0.01 %/step]
005	Color OpcMot:120	*ENG	[-15 to 15 / 0 / 1 %/step]
006	Color OpcMot:60	*ENG	[-13 to 13 / 0 / 1 //siep]
007	Fusing Mot:120	*ENG	[-6 to 6 / -0.4 / 0.01 %/step]
800	Fusing Mot:60:Thick	*ENG	[-6 to 6 / -0.05 / 0.01 %/step]
009	Transfer Mot: 120	*ENG	[-4 to 4 / 0 / 0.01 %/step]
010	TransferMot:60:Thick	*ENG	[-4 to 4 / 0 / 0.01 %/step]
011	Feed 1:CW60:Thick	*ENG	
012	Feed1:CW120	*ENG	
013	Feed 1:CCW60:Thick	*ENG	
014	Feed1:CCW120	*ENG	
015	Feed 12:CW60:Thick	*ENG	[-2 to 2 / 0.3 / 0.05 %/step]
016	Feed12:CW120	*ENG	[-2 10 2 / 0.3 / 0.03 /6/ step]
017	Feed 12:CCW60:Thick	*ENG	
018	Feed12:CCW120	*ENG	
019	By-pass:60:Thick	*ENG	
020	By-pass: 120	*ENG	

021	Inverter:CW60:Thick	*ENG	
022	Inverter:CW120	*ENG	
023	Inverter:CCW60:Thick	*ENG	[-2 to 2 / 0 / 0.05 %/step]
024	Inverter:CCW120	*ENG	
025	Duplex Entrance:60	*ENG	
026	Duplex Entrance:120	*ENG	
027	Duplex Exit:60	*ENG	[-2 to 2 / 0.3 / 0.05 %/step]
028	Duplex Exit: 120	*ENG	
029	R-Tray Exit Motor	*ENG	[-2 to 2 / 0 / 0.05 %/step]
030	Fine Adj. Control	*ENG	[0 to 1 / 1 / 1]
031	Offset: 120:Color	*ENG	
032	Offset:60:Color	*ENG	[-7 to 7 / 0 / 1 step]
033	Regist Mot:60:1200dpi	*ENG	[-4 to 4 / 0.3 / 0.05 %/step]
034	Feed1:CW60:1200dpi	*ENG	
035	Feed1:CCW60:1200dpi	*ENG	
036	Feed2:CW60:1200dpi	*ENG	[-2 to 2 / 0.3 / 0.05 %/step]
037	Feed2:CCW60:1200dpi	*ENG	
038	By-pass:60:1200dpi	*ENG	
039	Inverter:CW60:1200dpi	*ENG	[24-2/0/068//44-1
040	Inverter:CCW60:1200dpi	*ENG	[-2 to 2 / 0 / 0.05 %/step]
041	FusingMot:60:1200dpi	*ENG	[-6 to 6 / -0.05 / 0.01 %/step]
042	BkOpcDevMot:60:1200dpi	*ENG	[-4 to 4 / -0.4 / 0.01 %/step]
043	TransferMot:60:1200dpi	*ENG	[-4 to 4 / 0 / 0.01 %/step]

	[Sub Mag ADJ]				
1803	These SPs can adjust the sub-scan magnification error. However, first read the "Sub-scan Magnification Error" in the "Troubleshooting Guide" (Main Chapters) to execute these SPs. NEVER EXECUTE these SPs before reading the "Sub-scan Magnification Error". Otherwise, color registration errors occur on outputs and this cannot be recovered by the line position adjustment.				
001	Plain:600dpi:input	*ENG			
002	Plain: 1 200dpi:input	*ENG	[-1 to 1 / 0 / 0.1 %/step]		
003	Thick:input	*ENG			
004	Plain:600dpi:result	*ENG			
005	Plain: 1 200dpi:result	*ENG	[0 to 1 / 0 / 1 /step] O: Success, 1: Failure		
006	Thick:result	*ENG	- 0. 0000000, 1. 1 dilio10		

1902	[Drum Phase Adj.] DFU				
001	Execute	-	[0 or 1 / 0 / 1] Execute drum phase adjustment.		
002	Result	*ENG	[0 to 3 / 0 / 1] Displays the result of drum phase adjustment. 0: Successfully done 2: Sampling failure 3: Insufficient detection number		
003	Auto Execution	*ENG	[0 or 1 / 1 / 1] Turns the automatic drum phase adjustment on or off. 0: Off, 1: On		

1907	[Inverter Timing Adj]		
001	Inverter Position Adj.	*ENG	[-10 to 10 / 0 / 1 mm/step]
[Feed Timing Adj]			

002	R-Tray J-Gate SOL:ON	*ENG	[-10 to 10 / 0 / 1 mm/step]	
003	R-Tray J-Gate SOL:OFF	*ENG		

1950	[Fan Cooling Time Set] DFU		
001	Development Fan 1	*ENG	
002	Development Fan2	*ENG	
003	LD Unit Fan	*ENG	
004	Fusing Exit Sn Fan	*ENG	[0 + 400 / 0 / 1 /]
005	Fusing Exit Fan	*ENG	[0 to 600 / 0 / 1 sec/step]
006	Electrical Fan	*ENG	
007	PSU Fan	*ENG	
800	Junction Gate SOL Fan	*ENG	

1051	[Fan Start Time Set]			
1951	Adjust the start time for each fo	ın motor aft	ter a job end.	
001	Development Fan 1			
002	Development Fan2	*ENG		
003	Imaging Fan	*ENG		
004	Fusing Exit Sensor Cooling Fan	*ENG	[0 to 900 / 0 / 1 sec/step]	
005	Fusing Exit Fan	*ENG	SP 1951	
006	Electrical Unit Fan	*ENG	RTB 1c: Defaults changed (ver 1.09:03)	
007	PSU Fan	*ENG		
008	Solenoid Cooling Fan	*ENG		

1952	[Fan Control Off Mode Time Set]		
001	-	*ENG	[0 to 60 / 0 / 1 min./step]

SP 1952

RTB 1c: Default changed (ver 1.09:03)

1953	[Extra Fan Control]			
001	State	*ENG	[0 or 1 / 0 / 1 /step] 0: Off, 1: On	
	Displays the extra fan cooling i	s On or Ol	ff.	
002	Time: Threshold	*ENG	[0 to 60 / 60 / 1 min./step]	
002	Specifies the threshold time for	the extra fo	an control.	
003	Rotat: Threshold	*ENG	[0 to 999999999 / 0 / 1 mm/step]	
004	Start Date	*ENG	Displays the execution time and date of the extra fan cooling.	
005	Time	*ENG	[0 to 7200 / 0 / 1 sec./step:	
003	Specifies the execution time for the extra fan cooling.			
006	Development Fan 1	*ENG		
007	Development Fan2	*ENG		
800	Imaging Fan	*ENG		
009	Fusing Exit Sensor Cooling Fan	*ENG	[0 to 7200 / 1 / 1 sec./step] Specifies the execution time of the extra fan	
010	010 Fusing Exit Fan *EN	*ENG	rotation for each fan.	
011	Electrical Unit Fan	*ENG		
012	PSU Fan	*ENG		
013	Solenoid Cooling Fan	*ENG		

1954	[Fan Start Time Initial]
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001	Development Fan 1	*ENG	
002	Development Fan2	*ENG	
003	Imaging Fan	*ENG	
004	Fusing Exit Sensor Cooling Fan	*ENG	[0 to 600 / 1 /.1 sec. /step] Specifies the initial execution time of the extra
005	Fusing Exit Fan	*ENG	fan rotation for each fan.
006	Electrical Unit Fan	*ENG	
007	PSU Fan	*ENG	
800	Solenoid Cooling Fan	*ENG	

System SP2xxx

SP2-XXX (Drum)

	[Charge DC V:Fixed] DFU (Paper Type, Process Speed, Color)			
2005				
	Paper Type -> Plain, Thick 1, Thick 2			
	Adjusts the DC component of t	he charge rol	ller bias in the various print modes.	
	Charge bias (DC component) is automatically adjusted during process control; therefore, adjusting these settings does not effect while process control mode (SP3-041-1 Default: ON) is activated. When deactivating process control mode with SP3-041-1, the values in these SP modes are used for printing.			
001	Plain: Bk	*ENG		
002	Plain: C	*ENG		
003	Plain: M	*ENG		
004	Plain: Y	*ENG	[0 to 1000 / 600 / 10 -V/step]	
009	Thick 2&FINE: Bk	*ENG	[0 10 1000 / 000 / 10 = v/ siep]	
010	Thick 2&FINE: C	*ENG		
011	Thick 2&FINE: M	*ENG		
012	Thick 2&FINE: Y	*ENG		

		[Charge DC V:Fixed] DFU
		(Paper Type, Process Speed, Color)
	2006	Paper Type -> Plain, Thick 1, Thick 2
20	2000	Adjusts the AC component of the charge roller bias in the various print modes.
		Charge bias (AC component) is adjusted by environment correction (SP2-007-xxx to SP2-011-xxx). These SPs are activated only when SP2-012-1 is set to "1: manual control".

001	Plain: Bk	*ENG	
002	Plain: C	*ENG	
003	Plain: M	*ENG	
004	Plain: Y	*ENG	[0 to 2000 / 2100 / 10V /stan]
009	Thick 2&FINE: Bk	*ENG	[0 to 3000 / 2100 / 10V/step]
010	Thick 2&FINE: C	*ENG	
011	Thick 2&FINE: M	*ENG	
012	Thick 2&FINE: Y	*ENG	

	[Charge AC Current: LL] DFU				
	Charge Roller AC Current Adjustment for LL				
2007	(Color)				
	Displays/sets the AC current target of the charge roller for LL environment (Low temperature and Low humidity).				
001	Environmental Target: Bk	*ENG	[0 to 3000 / 610 / 10 µA/step]		
002	Environmental Target: C	*ENG	[0 to 3000 / 630 / 10 µA/step]		
003	Environmental Target: M	*ENG	[0 to 3000 / 610 / 10 µA/step]		
004	Environmental Target: Y	*ENG	[0 to 3000 / 670 / 10 µA/step]		

2008	[Charge AC Current: ML] DFU Charge Roller AC Current Adjustment for MM (Color)		
2000	Displays/sets the AC current target of the charge roller for ML environment (Meda temperature and Low humidity).		
001	Environmental Target: Bk	*ENG	[0 to 3000 / 610 / 10 µA/step]
002	Environmental Target: C	*ENG	[0 to 3000 / 630 / 10 µA/step]
003	Environmental Target: M	*ENG	[0 to 3000 / 610 / 10 µA/step]
004	Environmental Target: Y	*ENG	[0 to 3000 / 660 / 10 µA/step]

2009	[Charge AC Current: MM] DFU Charge Roller AC Current Adjustment for MM (Color)			
Displays/sets the AC current target of the charge roller for MM environment temperature and Middle humidity).		harge roller for MM environment (Middle		
001	Environmental Target: Bk	*ENG	[0 to 3000 / 610 / 10 µA/step]	
002	Environmental Target: C	*ENG	[0 to 3000 / 630 / 10 µA/step]	
003	Environmental Target: M	*ENG	[0 to 3000 / 600 / 10 µA/step]	
004	Environmental Target: Y	*ENG	[0 to 3000 / 640 / 10 µA/step]	

2010	[Charge AC A: MH] DFU Charge Roller AC Current Adjustment for MH (Color)			
2010	Displays/sets the AC current target temperature and High humidity).	nt target of the charge roller for MH environment (Middle idity).		
001	Environmental Target: Bk	*ENG	[0 to 3000 / 820 / 10 µA/step]	
002	Environmental Target: C	*ENG	[0 10 3000 / 620 / 10 MA/ step]	
003	Environmental Target: M	*ENG	[0 to 3000 / 840 / 10 µA/step]	
004	Environmental Target: Y	*ENG	[0 to 3000 / 880 / 10 µA/step]	

[Charge AC A: HH] DFU Charge Roller AC Current Adjustment for HH (Color)		H (Color)	
Displays/sets the AC current target of the charge roller for HH environment (Hig temperature and High humidity).			
001	Environmental Target: Bk	*ENG	[0 to 3000 / 860 / 10 µA/step]
002	Environmental Target: C	*ENG	[0 10 3000 / 600 / 10 MA/ Siep]
003	Environmental Target: M	*ENG	[0 to 3000 / 840 / 10 µA/step]
004	Environmental Target: Y	*ENG	[0 to 3000 / 940 / 10 µA/step]

2012	[Charge Output Control] DFU
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001	AC Voltage	*ENG	Selects the AC voltage control type. [0 or 1 / 0 / 1 /step] 0: Process control 1: Manual control (AC voltages are decided with SP2006.)
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2013	[Envir. Correct:PCU]		
001	Envir. Range:FC:Display	*ENG	Displays the environmental condition, which is measured in absolute humidity. [1 to 5 / - / 1 / step] 1: LL (LL <= 4.3 g/m³) 2: ML (4.3 < ML <= 11.3 g/m³) 3: MM (11.3 < MM <= 18.0 g/m³) 4: MH (18.0 < MH <= 24.0 g/m³)
			5: HH (24.0 g/m ³ < HH)
002	Forced Setting	*ENG	Selects the environmental condition manually. DFU [0 to 5 / 0 / 1 / step] 0: The environmental condition is determined automatically. 1: LL, 2: ML, 3: MM, 4: MH, 5: HH
003	Absolute Humidity: Thresh 1	*ENG	Changes the humidity threshold between LL and ML. DFU [0 to 100 / 4.3 / 0.01 g/m ³ /step]
004	Absolute Humidity: Thresh 2	*ENG	Changes the humidity threshold between ML and MM. DFU [0 to 100 / 11.3 / 0.01 g/m ³ /step]
005	Absolute Humidity: Thresh 3	*ENG	Changes the humidity threshold between MM and MH. DFU [0 to 100 / 18.0 / 0.01 g/m ³ /step]
006	Absolute Humidity: Thresh 4	*ENG	Changes the humidity threshold between MH and HH. DFU [0 to 100 / 24.0 / 0.01 g/m ³ /step]

007	Current Temp.: Display	*ENG	Displays the current temperature. [0 to 100 / 0 / 1 deg/step]
008	Relative Humidity: Display	*ENG	Displays the current relative humidity. [0 to 100 / 0 / 1%RH/step]
009	Absolute Humidity: Display	*ENG	Displays the absolute humidity. [0 to 100 / 0 / 0.01 g/m ³ /step]
010	Envir. Range:Bk:Display	*ENG	Displays the previous environmental condition, which is measured in absolute humidity. [1 to 5 / - / 1 / step] 1: LL, 2: ML, 3: MM, 4: MH, 5: HH
011	Previous Temp.: Display	*ENG	Displays the previous temperature. [0 to 100 / 0 / 1 deg/step]
012	Relative Humidity: Display	*ENG	Displays the previous relative humidity. [0 to 100 / 0 / 1%RH/step]
013	Absolute Humidity: Display	*ENG	Displays the previous absolute humidity. [0 to 100 / 0 / 0.01 g/m ³ /step]

2014	[Charge AC Control: Setting] DFU		
001	Main Interval: Power ON	*ENG	[0 to 2000 / 500 / 1 mmm / storn]
002	Main Interval: Print	*ENG	[0 to 2000 / 500 / 1 page/step]
003	Sub: Interval	*ENG	[0 to 500 / 10 / 1 page/step]
004	Sub:Thresh Temp	*ENG	[0 to 99 / 25 / 1 deg/step]
005	Sub:R-Humid Thresh	*ENG	[0 to 99 / 50 / 1 %RH/step]
006	Sub:A-Humid Thresh	*ENG	[0 to 99 / 12 / 1 g/m ³ /step]
007	Main:Temp Change Thresh	*ENG	[0 to 99 / 10 / 1 deg/step]
008	Main:RH Change Thresh	*ENG	[0 to 99 / 50 / 1 %RH/step]
009	Main:AH Change Thresh	*ENG	[0 to 99 / 6 / 1 g/m ³ /step]
010	Sub:Temp Change Thresh	*ENG	[0 to 20 / 1 / 0.1 deg/step]

011	Sub:RH Change Thresh	*ENG	[0 to 50 / 5 / 1 %RH/step]
012	Sub:AH Change Thresh	*ENG	[0 to 20 / 1 / 0.1 g/m ³ /step]
013	Non-use Time	*ENG	[0 to 1440 / 360 / 10 min/step]
014	Correction Coeff.	*ENG	[0 to 2 / 1 / 0.01 kV/mA/step]

2015	[Charge AC Adj: Result]		
001	Bk	*ENG	
002	С	*ENG	[0+0/0/1/+]
003	М	*ENG	[0 to 9 / 0 / 1 /step]
004	Υ	*ENG	

2016	[ZnSt Application Mode]			
	The drum lubrication mode interrupts the copy/print job to prevent the drum filming or cleaning problem after the high coverage image printing if some conditions are met. The following SPs can be adjusted for the drum lubrication mode.			
	Temperature Threshold	*ENG	[0 to 50 / 15 / 1 deg/step]	
001	Specifies the threshold temperature during the multiple printing job.	for the lov	v temperature mode of the drum lubrication	
	Execution Interval: Setting:1	*ENG	[0 to 999 / 0 / 1 page/step]	
002	Specifies the reference number of the outputs for the high coverage image job in the low speed mode.			
	Execution Interval: Setting:2	*ENG	[0 to 999 / 0 / 1 page/step]	
003	Specifies the reference number of the outputs for the high coverage image printing job in the low temperature condition.			
004	Execution Interval: Setting:3	*ENG	[0 to 999 / 0 / 1 page/step]	
Specifies the reference number of the outputs for the low coverage image in		for the low coverage image job.		
	High Coverage Threshold:1	*ENG	[0 to 100 / 10 / 0.01%/step]	
005	Specifies the threshold for the high coverage image to the drum lubrication mode handled by the setting 1 (SP2-016-002).			

	High Coverage Threshold:2	*ENG	[0 to 100 / 20 / 0.01%/step]		
Specifies the threshold for the high coverage image to the drum lubrication mod by the setting 2 (SP2-016-003).		image to the drum lubrication mode handled			
	High Coverage Threshold:3	*ENG	[0 to 100 / 0.5 / 0.01%/step]		
007	Specifies the threshold for the low oby the setting 3 (SP2-016-004).	coverage ir	mage to the drum lubrication mode handled		
000	Application Time: 1	*ENG	[0 to 99 / 0 / 1 sec./step]		
008	Specifies the execution time for the	drum lubri	cation mode of the setting 1 (SP2-016-002).		
000	Application Time:2	*ENG	[0 to 99 / 0 / 1 sec./step]		
009	Specifies the execution time for the	drum lubri	cation mode of the setting 2 (SP2-016-003).		
010	Application Time:3	*ENG	[0 to 99 / 0 / 1 sec./step]		
010	Specifies the execution time for the	drum lubri	cation mode of the setting 3 (SP2-016-004).		
011	Average Coverage:1:K	*ENG	[0 to 100 / 0.05 / 0.01%/step]		
011	Displays the average coverage of black color for the setting 1.				
010	Average Coverage: 1:M	*ENG	[0 to 100 / 0.05 / 0.01%/step]		
012	Displays the average coverage of magenta color for the setting 1.				
012	Average Coverage: 1:C	*ENG	[0 to 100 / 0.05 / 0.01%/step]		
013	Displays the average coverage of cyan color for the setting 1.				
014	Average Coverage: 1:Y	*ENG	[0 to 100 / 0.05 / 0.01%/step]		
014	Displays the average coverage of	yellow cold	or for the setting 1.		
015	Average Coverage:2:K	*ENG	[0 to 100 / 0.05 / 0.01%/step]		
016	Average Coverage:2:M	*ENG	[0 to 100 / 0.05 / 0.01%/step]		
017	Average Coverage:2:C	*ENG	[0 to 100 / 0.05 / 0.01%/step]		
018	Average Coverage:2:Y	*ENG	[0 to 100 / 0.05 / 0.01%/step]		
019	Average Coverage:3:K	*ENG	[0 to 100 / 0.05 / 0.01%/step]		
020	Average Coverage:3:M	*ENG	[0 to 100 / 0.05 / 0.01%/step]		

021	Average Coverage:3:C	*ENG	[0 to 100 / 0.05 / 0.01%/step]
022	Average Coverage:3:Y	*ENG	[0 to 100 / 0.05 / 0.01%/step]
000	Mode Counter:K	*ENG	[0 to 999 / - / 1 page/step]
023	Displays the black print counter after the previous drum lubrication.		
024	Mode Counter:CMY	*ENG	[0 to 999 / - / 1 page /step]
	Displays the color print counter after	er the previ	ous drum lubrication.

	[Color Regist Adjust]		
2101	These values are the parameters for the automatic line position adjustment and are adjusted at the factory. However, you must input a value for SP2101-001 after replacing the laser optics housing unit. For details, see "Laser Optics Housing Unit" in the "Replacement and Adjustment" section. The value should be provided with the new laser optics housing unit.		
001	Bk: Main Scan: Dot	*ENG	
002	C Main Scan: Dot	*ENG	[-512 to 511 / 0 / 1 dot/step]
003	M Main Scan: Dot	*ENG	[-31210-311 / 0 / 1 doi/siep]
004	Y Main Scan: Dot	*ENG	
013	Bk: Sub Scan: Line	*ENG	
014	C: Sub Scan: Line	*ENG	[-16384 to 16383 / 0 / 1 line/step]
015	M: Sub Scan: Line	*ENG	
016	Y: Sub Scan: Line	*ENG	

	[Magnification Adjust]
2102	These values are the parameters for the automatic line position adjustment and are adjusted at the factory. These SPs must be input only when a new laser unit is installed.

001	Main Mag.: Bk:High Spd	*ENG	
003	Main Mag.: Bk:Low Spd	*ENG	
004	Main Mag.: C:High Spd	*ENG	
006	Main Mag.: C:Low Spd	*ENG	[0.4-540 / 200 / 1 / 44-7]
007	Main Mag.: M:High Spd	*ENG	[0 to 560 / 280 / 1 /step]
009	Main Mag.: M:Low Spd	*ENG	
010	Main Mag.: Y:High Spd	*ENG	
012	Main Mag.: Y:Low Spd	*ENG	

0100	[Erase Margin Adjust] (Area, Paper Size)		
2103	Adjusts the erase margin by deleting image data at the margins.		
001	Lead Edge	*ENG	[0. 00 /40 /01 /.]
002	Trailing Edge	*ENG	[0 to 9.9 / 4.2 / 0.1 mm/step]
003	Left	*ENG	[0. 00 /0 /01 /.]
004	Right	*ENG	[0 to 9.9 / 2 / 0.1 mm/step]
006	Duplex Trail. L Size	*ENG	[0 to 4 / 1 / 0.1 mm/step]
007	Duplex Trail. M Size	*ENG	[0 to 4 / 0.8 / 0.1 mm/step]
800	Duplex Trail. S Size	*ENG	[0 to 4 / 0.6 / 0.1 mm/step]
009	Duplex Left Edge	*ENG	[0.4-4/0.2/0.1/-+]
010	Duplex Right Edge	*ENG	[0 to 4 / 0.3 / 0.1 mm/step]
011	Duplex Trail. L Size:Thick	*ENG	[0 to 4 / 1 / 0.1 mm/step]
012	Duplex Trail. M Size:Thick	*ENG	[0 to 4 / 0.8 / 0.1 mm/step]
013	Duplex Trail. S Size:Thick	*ENG	[0 to 4 / 0.6 / 0.1 mm/step]
014	Duplex Left Edge:Thick	*ENG	[04/0.2/0.1/]
015	Duplex Right Edge:Thick	*ENG	[0 to 4 / 0.3 / 0.1 mm/step]

2104	[LD Initial Power Adjust]		
2104	Adjusts the LD initial power. These SPs must be input only when a new laser unit is installed.		
001	Bk	*ENG	
002	С	*ENG	[00, 100 /100 /10//, 1
003	М	*ENG	[80 to 120 / 100 / 1 %/step]
004	Υ	*ENG	

	[LD Power Adjust] DFU (Process Speed, Color)			
2105	Adjusts the LD power of each color for each process speed. Each LD power setting is decided by process control. High Speed: 120 mm/sec, Low Speed: 60 mm/sec			
001	Bk: High Speed	*ENG		
002	C: High Speed	*ENG		
003	M: High Speed	*ENG	[50 to 120 / 100 / 1%/step]	
004	Y: High Speed	*ENG	Decreasing a value makes lines thinner on	
009	Bk: Low Speed	*ENG	the output. Increasing a value makes lines thicker on the	
010	C: Low Speed	*ENG	output.	
011	M: Low Speed	*ENG		
012	Y: Low Speed	*ENG		

2106	[Polygon Rotation Time] DFU			
2100	Adjusts the time of the polygon motor rotation.			
001	Warming-Up	*ENG	[0 to 60 / 10 / 1 sec/step]	
002	Job End	*ENG	[0 to 60 / 0 / 1 sec/step]	

2107	[Image Parameter]
2107	DFU

001	Image Gamma Flag	*ENG	[0 or 1 / 1 / 1 / step]
002	Shading Correction Flag	*ENG	[0 01 1 / 1 / 1 / 31eb]

0100	[Test Pattern]			
2109	Generates the test pattern using "COPY Wind		ndow" tab in the LCD.	
	Pattern Selection	-	[0 to 23 / 0 / 1/step]	
	0 None			
	1: Vertical Line (1 dot)		12. Independent Pattern (2dot)	
	2: Vertical Line (2dot)		13. Independent Pattern (4dot)	
	3: Horizontal (1 dot)		14. Trimming Area	
	4: Horizontal (2dot)		16: Hound's Tooth Check (Horizontal)	
003	5: Grid Vertical Line		17: Band (Horizontal)	
	6: Grid Horizontal Line		18: Band (Vertical)	
	7: Grid pattern Small		19: Checker Flag Pattern	
	8: Grid pattern Large		20: Grayscale Vertical Margin	
	9: Argyle Pattern Small		21: Grayscale Horizontal Margin	
	10: Argyle Pattern Large		23: Full Dot Pattern	
	11. Independent Pattern (1dot)			
			Specifies the color for the test pattern.	
005	Color Selection	-	[1 to 4 / 1 / 1/step]	
			1: All colors, 2: Magenta, 3: Yellow, 4: Cyan	
006	Density: Bk	-	Specifies the color density for the test pattern.	
007	Density: C	-	[0 to 15 / 15 / 1 / step]	
008	8 Density: M -	-	0: Lightest density	
009	Density: Y	_	15: Darkest density	

2111	[Line Pos. Ajust]		
001	Execute: Mode a	-	Executes the fine line position adjustment twice. If this SP is not completed (NG is displayed), do SP2111-003 first and then try this SP again.

002	Execute:Mode b	-	Executes the fine line position adjustment once. If this SP is not completed, do SP2111-003 first and then try this SP again.
003	Execute:Mode c	-	Executes the rough line position adjustment once. After doing this SP, make sure to execute SP2111-001 or -002. Otherwise, the line position adjustment is not perfectly done.

2112	[TM/P Sensor Test] ID Sensor Check FA	
001	Execute	This SP is used to check the ID sensors at the factory. The results of this SP are displayed in SP2140 to SP2145.

	[Skew Adjustment]		
2117	Specifies a skew adjustment value for the skew motor M, C or Y. These SPs must be used when a new laser optics housing unit is installed, see "Laser Optic Housing Unit" in the "Replacement and Adjustment" section.		
001	Pulse: C	C *ENG	
002	Pulse: M	*ENG	[-75 to 75 / 0 / 1 pulse/step]
003	Pulse: Y	*ENG	

2118	[Skew Adjustment]		
001	Execute: C	*ENG	Changes the current skew adjustment values to the
002	Execute: M	*ENG	values specified with SP2117. These SPs must be used when a new laser optics
003	Execute: Y	*ENG	housing unit is installed. For details, see "Laser Optics Housing Unit" in the "Replacement and Adjustment" section.

2119	[Skew Adjustment Display]
2119	Displays the current skew adjustment value for each skew motor.

001	С	*ENG	
002	М	*ENG	[-75 to 75 / 0 / 1 pulse/step]
003	Υ	*ENG	

	[P-Sensor Test]				
2140	Displays the maximum result values of the ID sensor check.				
	Front, Center, Rear: ID sensors for the automatic line position adjustment and the process control				
001	PWM *ENG				
[TM-Sensor Test]					
005	PWM: Front	*ENG	[0 to 1024 / 0 / 1/step]		
006	PWM: Center	*ENG			
007	PWM: Rear	*ENG			

	[P-Sensor Test]				
2141	Displays the maximum result values of the ID sensor check.				
	Front, Center, Rear: ID sensors for the automatic line position adjustment and the process control				
001	Average *ENG				
[TM-Sensor Test]					
005	Average: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]		
006	Average: Center	*ENG			
007	Average: Rear	*ENG			

[P-Sensor Test] Displays the maximum result values of the ID sensor check.		[P-Sensor Test]			
		Displays the maximum result values of the ID sensor check.			
		Front, Center, Rear: ID sensors for the automatic line position adjustment and the process control			

001	Maximum	*ENG	
[TM-Senso	or Test]		
005	Maximum: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]
006	Maximum: Center	*ENG	
007	Maximum: Rear	*ENG	

	[P-Sensor Test]				
2143	Displays the minimum result values of the ID sensor check.				
	Front, Center, Rear: ID sensors for the automatic line position adjustment and the process control				
001	Minimum *ENG				
[TM-Senso	or Test]				
005	Minimum: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]		
006	Minimum: Center	*ENG			
007	Minimum: Rear	*ENG			

	[P-Sensor Test]				
2144	Displays the maximum result 2 values of the ID sensor check. Front, Center, Rear: ID sensors for the automatic line position adjustment and the process control				
001	Maximum 2: *ENG				
[TM-Senso	or Test]	,			
005	Maximum 2: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]		
006	Maximum 2: Center	*ENG			
007	Maximum 2: Rear	*ENG			

[P-Sensor Test]					
2145	Displays the minimum result 2 values of the ID sensor check.				
	Front, Center, Rear: ID sensors for the automatic line position adjustment and the process control				
001	Minimum 2 *ENG				
[TM-Sensor Test]		'			
005	Minimum 2: Front	*ENG	[0 to 5.5 / 0 / 0.01V/step]		
006	Minimum 2: Center	*ENG			
007	Minimum 2: Rear	*ENG			

	[Area Mag. Correction] LD Pulse Area Correction (Color, Area) FA				
2150	Adjusts the magnification for each area. The main scan (297 mm) is divided into 8 areas. Area 1 is at the front side of the machine (left side of the image) and area 8 is at the rear side of the machine (right side of the image).				
	Decreasing a value makes th	ne image s	hift to the left side on the print.		
	Increasing a value makes the	e image sh	ift to the right side on the print.		
	1 pulse = 1/16 dot				
027	Bk: Area0	*ENG	[-256 to 255 / 0 / 1sub-dot/step]		
028	Bk: Area 1	*ENG			
029	Bk: Area2	*ENG			
030	Bk: Area3	*ENG			
031	Bk: Area4	*ENG	Adjusts the area magnification for LD 0.		
032	Bk: Area5	*ENG	[-256 to 255 / 0 / 1 sub-dot/step]		
033	Bk: Area6	*ENG			
034	Bk: Area7	*ENG			
035	Bk: Area8	*ENG			
079	C: Area0	*ENG	[-256 to 255 / 0 / 1 sub-dot/step]		

080 C: Area1 081 C: Area2	*ENG	
081 C: Area2		1
	*ENG	
082 C: Area3	*ENG	
083 C: Area4	*ENG	Adjusts the area magnification for LD 0. [–255 to
084 C: Area5	*ENG	255 / 0 / 1 sub-dot/step]
085 C: Area6	*ENG	
086 C: Area7	*ENG	
087 C: Area8	*ENG	
131 M: Area0	*ENG	[-256 to 255 / 0 / 1 sub-dot/step]
132 M: Area1	*ENG	
133 M: Area2	*ENG	
134 M: Area3	*ENG	
135 M: Area4	*ENG	Adjusts the area magnification for LD 0.
136 M: Area5	*ENG	[-256 to 255 / 0 / 1 sub-dot/step]
137 M: Area6	*ENG	
138 M: Area7	*ENG	
139 M: Area8	*ENG	
183 Y: Area0	*ENG	[-256 to 255 / 0 / 1 sub-dot/step]
184 Y: Area1	*ENG	
185 Y: Area2	*ENG	
186 Y: Area3	*ENG	
187 Y: Area4	*ENG	Adjusts the area magnification for LD 0.
188 Y: Area5	*ENG	[-256 to 255 / 0 / 1 sub-dot/step]
189 Y: Area6	*ENG	
190 Y: Area7	*ENG	
191 Y: Area8	*ENG	

	[Shading Correct Setting] FA					
	Adjusts the area correction value for each LD power.					
2152	The main scan is divided into 16 areas. However, the image areas are limited from area 1 to area 14.					
	For BK and Magenta, area 1 is at the rear side of the machine (left side of the image) and area 14 is at the front side of the machine (right side of the image).					
	For Cyan and Yellow, area area 14 is at the rear side of		ront side of the machine (right side of the image) and ne (left side of the image).			
001	Bk: Area 0	*ENG				
002	Bk: Area 1	*ENG				
003	Bk: Area 2	*ENG				
004	Bk: Area 3	*ENG				
005	Bk: Area 4	*ENG				
006	Bk: Area 5	*ENG				
007	Bk: Area 6	*ENG				
800	Bk: Area 7	*ENG	This is for the synchronizing detection board. [50 to 150 / 100 / 1 %/step]			
009	Bk: Area 8	*ENG	, , , , , , , , , , , , , , , , , , , ,			
010	Bk: Area 9	*ENG				
011	Bk: Area 10	*ENG				
012	Bk: Area 11	*ENG				
013	Bk: Area 12	*ENG				
014	Bk: Area 13	*ENG				
015	Bk: Area 14	*ENG				
016	Bk: Area 15	*ENG	This is out of the image area.			
			[50 to 150 / 100 / 1 %/step]			

033	C: Area 0	*ENG	
034	C: Area 1	*ENG	
035	C: Area 2	*ENG	
036	C: Area 3	*ENG	
037	C: Area 4	*ENG	
038	C: Area 5	*ENG	
039	C: Area 6	*ENG	-1
040	C: Area 7	*ENG	This is for the synchronizing detection board. [50 to 150 / 100 / 1 %/step]
041	C: Area 8	*ENG	[[[]]]
042	C: Area 9	*ENG	
043	C: Area 10	*ENG	
044	C: Area 11	*ENG	
045	C: Area 12	*ENG	
046	C: Area 13	*ENG	
047	C: Area 14	*ENG	
048	C: Area 15	*ENG	This is out of the image area. [50 to 150 / 100 / 1 %/step]
065	M: Area 0	*ENG	This is for the synchronizing detection board. [50 to 150 / 100 / 1 %/step]

066	M: Area 1	*ENG	
067	M: Area 2	*ENG	
068	M: Area 3	*ENG	
069	M: Area 4	*ENG	
070	M: Area 5	*ENG	
071	M: Area 6	*ENG	
072	M: Area 7	*ENG	[50 to 150 / 100 / 1 % /stan]
073	M: Area 8	*ENG	[50 to 150 / 100 / 1 %/step]
074	M: Area 9	*ENG	
075	M: Area 10	*ENG	
076	M: Area 11	*ENG	
077	M: Area 12	*ENG	
078	M: Area 13	*ENG	
079	M: Area 14	*ENG	
080	M: Area 15	*ENG	This is out of the image area. [50 to 150 / 100 / 1 %/step]
097	Y: Area 0	*ENG	This is for the synchronizing detection board. [50 to 150 / 100 / 1 %/step]

098	Y: Area 1	*ENG	
099	Y: Area 2	*ENG	
100	Y: Area 3	*ENG	
101	Y: Area 4	*ENG	
102	Y: Area 5	*ENG	
103	Y: Area 6	*ENG	
104	Y: Area 7	*ENG	[50 to 150 / 100 / 1 % / store]
105	Y: Area 8	*ENG	[50 to 150 / 100 / 1 %/step]
106	Y: Area 9	*ENG	
107	Y: Area 10	*ENG	
108	Y: Area 11	*ENG	
109	Y: Area 12	*ENG	
110	Y: Area 13	*ENG	
111	Y: Area 14	*ENG	
112	Y: Area 15	*ENG	This is out of the image area.

2160	[Vertical Line Width] DFU				
001	600dpi:Bk	*ENG			
002	600dpi:C	*ENG			
003	600dpi:M	*ENG			
004	600dpi:Y	*ENG	[10], 15 /15 /1 /]		
005	1200dpi:Bk	*ENG	[10 to 15 / 15 / 1 /step]		
006	1200dpi:C	*ENG			
007	1200dpi:M	*ENG			
800	1200dpi:Y	*ENG			

009	600dpi:Indet.:Bk	*ENG	
010	1200dpi:Indet.:Bk	*ENG	[10 to 15 / 15 / 1 /step]
011	600dpi:Multivalued:Bk (2bit)	*ENG	

2180	[Line Pos. Adj. Clear] DFU		
001	Color Regist.	-	
003	MUSIC Result	-	
004	Area Mag. Correction	-	

2181	[Line Pos. Adj. Result] DFU			
	Displays the values for each correction.			
	 "Paper Int. Mag: Subdot" indicates the magnification correction value between two sheets of paper. 			
	"Mag.Cor. Subdot" indicates the magnification correction value.			
	"M. Scan Erro." indicates the shift correction value in the main scan direction.			
	"S. Scan Erro." Indicates the shift correction value in the sub scan direction.			
	• "M. Cor.: Dot" indicates the	dot correc	tion value in the main scan direction.	
	• "M. Cor.: Subdot" indicates	the sub do	t correction value in the main scan direction.	
	Bk: Black, M: Magenta, C:	Cyan, Y: Y	ellow	
001	Paper Int. Mag: Subdot: Bk	*ENG	[-32768 to 32767 / 0 / 1 pulse/step]	
002	Mag.Cor. Subdot: Bk	*ENG	[-32768 to 32767 / 0 / 1 pulse/step]	

003	Skew: C	*ENG	
004	Bent: C	*ENG	
005	M. Scan Shift: Left: C	*ENG	
006	M. Scan Shift: Center: C	*ENG	
007	M. Scan Shift: Rlght: C	*ENG	[-5000 to 5000 / 0 / 0.001 µm/step]
008	S. Scan Shift: Left: C	*ENG	
009	S. Scan Shift: Center: C	*ENG	
010	S. Scan Shift: Rlght: C	*ENG	
011	M. Cor.: Dot: C	*ENG	[-512 to 511 / 0 / 1 dot/step]
012	M. Cor.: Subdot: C	*ENG	[-15 to 15 / 0 / 1 pulse/step]
013	Paper Int. Mag: Subdot: C	*ENG	
014	Mag.Cor. Subdot: C	*ENG	[007/0 · 007/7 / 0 / 1 · 1 · / · 1
015	M. Left Mag.: Subdot: C	*ENG	[-32768 to 32767 / 0 / 1 pulse/step]
016	M. Right Mag.: Subdot: C	*ENG	
017	S. Cor.: 600 Line: C	*ENG	[-16384 to 16383 / 0 / 1 line/step]
018	S. Cor.: 600 Subdot: C	*ENG	[-1 to 1 / 0 / 0.001 line/step]
019	S. Cor.: 1200 Line: C	*ENG	[-16384 to 16383 / 0 / 1 line/step]
020	S. Cor.: 1200 Subdot: C	*ENG	[-1 to 1 / 0 / 0.001 line/step]
021	Skew: M	*ENG	
022	Bent: M	*ENG	
023	M. Scan Shift: Left: M	*ENG	
024	M. Scan Shift: Center: M	*ENG	[5000 to 5000 / 0 / 0 001 to / to 1
025	M. Scan Shift: Right: M	*ENG	[-5000 to 5000 / 0 / 0.001 µm/step]
026	S. Scan Shift: Left: M	*ENG	
027	S. Scan Shift: Center: M	*ENG	
028	S. Scan Shift: Right: M	*ENG	

029	M. Cor.: Dot: M	*ENG	[-512 to 511 / 0 / 1 dot/step]
030	M. Cor.: Subdot: M	*ENG	[-15 to 15 / 0 / 1 pulse/step]
031	Paper Int. Mag: Subdot: M	*ENG	
032	Mag.Cor. Subdot: M	*ENG	[-32768 to 32767 / 0 / 1 pulse/step]
033	M. Left Mag.: Subdot: M	*ENG	[-32/06 to 32/0/ / 0 / 1 pulse/slep]
034	M. Right Mag.: Subdot: M	*ENG	
035	S. Cor.: 600 Line: M	*ENG	[-16384 to 16383 / 0 / 1 line/step]
036	S. Cor.: 600 Subdot: M	*ENG	[-1 to 1 / 0 / 0.001 line/step]
037	S. Cor.: 1200 Line: M	*ENG	[-16384 to 16383 / 0 / 1 line/step]
038	S. Cor.: 1200 Subdot: M	*ENG	[-1 to 1 / 0 / 0.001 line/step]
039	Skew: Y	*ENG	
040	Bent: Y	*ENG	
041	M. Scan Shift: Left: Y	*ENG	
042	M. Scan Shift: Center: Y	*ENG	[5000
043	M. Scan Shift: Right: Y	*ENG	[-5000 to 5000 / 0 / 0.001 µm/step]
044	S. Scan Shift: Left: Y	*ENG	
045	S. Scan Shift: Center: Y	*ENG	
046	S. Scan Shift: Right: Y	*ENG	
047	M. Cor.: Dot: Y	*ENG	[-512 to 511 / 0 / 1 dot/step]
048	M. Cor.: Subdot: Y	*ENG	[-15 to 15 / 0 / 1 pulse/step]
049	Paper Int. Mag: Subdot: Y	*ENG	
050	Mag.Cor. Subdot: Y	*ENG	[007/0, 007/7 / 2 / 1 1 / 2
051	M. Left Mag.: Subdot: Y	*ENG	[-32768 to 32767 / 0 / 1 pulse/step]
052	M. Right Mag.: Subdot: Y	*ENG	
053	S. Cor.: 600 Line: Y	*ENG	[-16384 to 16383 / 0 / 1 line/step]
054	S. Cor.: 600 Subdot: Y	*ENG	[-1 to 1 / 0 / 0.001 line/step]

055	S. Cor.: 1200 Line: Y	*ENG	[-16384 to 16383 / 0 / 1 line/step]
056	S. Cor.: 1200 Subdot: Y	*ENG	[-1 to 1 / 0 / 0.001 line/step]
057	S. Cor.: 600 Subdot	*ENG	[-1 to 1 / 0 / 0.001 line/step]
058	Drum Cor.:600:Subdot	*ENG	[-7 to 7 / 0 / 1 /step]
059	S. Cor.:1200 Subdot	*ENG	[-1 to 1 / 0 / 0.001 line/step]
060	Drum Cor.:1200:Subdot	*ENG	[-7 to 7 / 0 / 1 /step]

	[Line Pos. Adj. Offset] DFU			
2182	(Color) M. Scan: Main scan, S. Scan: Sub-scan			
	High / Medium: 120 mm/sec, Low: 6	0 mm/sec		
001	C Magnification	*ENG	Adjusts the line position manually.	
002	M Magnification	*ENG	[-1 to 1 / 0 / 0.001%/step]	
			When line shifts are not corrected by the automatic line position adjustment, do this SP.	
003	Y Magnification	*ENG	Increasing a value reduces the image in the main scan direction.	
			Decreasing a value enlarges the image in the main scan direction.	
004	M. Scan: High: Dot: C	*ENG	[-512 to 511 / 0 / 1 dot/step]	
005	M. Scan: High: Subdot: C	*ENG	[-15 to 15 / 0 / 1 pulse/step]	
008	M. Scan: Low: Dot: C	*ENG	[-512 to 511 / 0 / 1 dot/step]	
009	M. Scan: Low: Subdot: C	*ENG	[-15 to 15 / 0 / 1 pulse/step]	
010	M. Scan: High: Dot: M	*ENG	[-512 to 511 / 0 / 1 dot/step]	
011	M. Scan: High: Subdot: M	*ENG	[-15 to 15 / 0 / 1 pulse/step]	
014	M. Scan: Low: Dot: M	*ENG	[-512 to 511 / 0 / 1 dot/step]	
015	M. Scan: Low: Subdot: M	*ENG	[-15 to 15 / 0 / 1 pulse/step]	
016	M. Scan: High: Dot: Y	*ENG	[-512 to 511 / 0 / 1 dot/step]	
017	M. Scan: High: Subdot: Y	*ENG	[-15 to 15 / 0 / 1 pulse/step]	

020	M. Scan: Low: Dot: Y	*ENG	[-512 to 511 / 0 / 1 dot/step]
021	M. Scan: Low: Subdot: Y	*ENG	[-15 to 15 / 0 / 1 pulse/step]
022	S. Scan: High: Dot: C	*ENG	[-16384 to 16383 / 0 / 1 line]
023	S. Scan: High: Subdot: C	*ENG	[-1 to 1 / 0 / 0.001 /line]
026	S. Scan: Low: Dot: C	*ENG	[-16384 to 16383 / 0 / 1 line]
027	S. Scan: Low: Subdot: C	*ENG	[-1 to 1 / 0 / 0.001 /line]
028	S. Scan: High: Dot: M	*ENG	[-16384 to 16383 / 0 / 1 line]
029	S. Scan: High: Subdot: M	*ENG	[-1 to 1 / 0 / 0.001 /line]
032	S. Scan: Low: Dot: M	*ENG	[-16384 to 16383 / 0 / 1 line]
033	S. Scan: Low: Subdot: M	*ENG	[-1 to 1 / 0 / 0.001 /line]
034	S. Scan: High: Dot: Y	*ENG	[-16384 to 16383 / 0 / 1 line]
035	S. Scan: High: Subdot: Y	*ENG	[-1 to 1 / 0 / 0.001 /line]
038	S. Scan: Low: Dot: Y	*ENG	[-16384 to 16383 / 0 / 1 line]
039	S. Scan: Low: Subdot: Y	*ENG	[-1 to 1 / 0 / 0.001 /line]
040	C:Skew	*ENG	
041	M:Skew	*ENG	[-50 to 50 / 0 / 1 µm]
042	Y:Skew	*ENG	

2190	[Line Pos. Adj. Mode] DFU		
001	Paper Int. Mag.: Subdot: Bk	*ENG	
002	Paper Int. Mag.: Subdot: C	*ENG	[0 1 / 1 / 1 /]
003	Paper Int. Mag.: Subdot: M	*ENG	[0 or 1 / 1 / 1 boolean/step]
004	Paper Int. Mag.: Subdot: Y	*ENG	
005	M. Scan Mag.: Subdot: C	*ENG	[0 or 1 / 1 / 1 boolean /step]
006	M. Scan Mag.: Subdot: M	*ENG	0: Disable correction
007	M. Scan Mag.: Subdot: Y	*ENG	1: Enable correction

008	Area Mag.: Subdot: C	*ENG	
009	Area Mag.: Subdot: M	*ENG	[0 or 1 / 1 / 1 boolean /step]
010	Area Mag.: Subdot: Y	*ENG	
011	S. Scan Cor. Setting	*ENG	[0 or 1 / 0 / 1 boolean /step] 0: Adjusted with Bk 1: Adjusted in minimum shift among four colors
012	Detection Error Level	*ENG	[0 to 3500 / 200 / 1 µm/step]

	[MUSIC Coeff Setting] DFU						
2191	Position Adjustment: Coefficient Setting						
	ch 0: ID sensor at rear, ch 1: ID sensor at center, ch 2: ID sensor at front						
001	ch 0: Filter: Front: a1	*ENG	[-131071 to 131071 / 125869 / 1 bit/step]				
002	ch 0: Filter: Front: a2	*ENG	[-131071 to 131071 / -60488 / 1 bit/step]				
003	ch 0: Filter: Front: b0	*ENG	[-131071 to 131071 / 39 / 1 bit/step]				
004	ch 0: Filter: Front: b1	*ENG	[-131071 to 131071 / 77 / 1 bit/step]				
005	ch 0: Filter: Front: b2	*ENG	[-131071 to 131071 / 39 / 1 bit/step]				
006	ch 0: Filter: Rear: a1	*ENG	[-131071 to 131071 / 128596 / 1 bit/step]				
007	ch 0: Filter: Rear: a2	*ENG	[-131071 to 131071 / -63398 / 1 bit/step]				
008	ch 0: Filter: Rear: b0	*ENG	[-131071 to 131071 / 84 / 1 bit/step]				
009	ch 0: Filter: Rear: b1	*ENG	[-131071 to 131071 / 168 / 1 bit/step]				
010	ch 0: Filter: Rear: b2	*ENG	[-131071 to 131071 / 84 / 1 bit/step]				
011	ch 1: Filter: Front: a1	*ENG	[-131071 to 131071 / 125869 / 1 bit/step]				
012	ch 1: Filter: Front: a2	*ENG	[-131071 to 131071 / -60488 / 1 bit/step]				
013	ch 1: Filter: Front: b0	*ENG	[-131071 to 131071 / 39 / 1 bit/step]				
014	ch 1: Filter: Front: b1	*ENG	[-131071 to 131071 / 77 / 1 bit/step]				
015	ch 1: Filter: Front: b2	*ENG	[-131071 to 131071 / 39 / 1 bit/step]				

016	ch 1: Filter: Rear: a1	*ENG	[-131071 to 131071 / 128596 / 1 bit/step]
017	ch 1: Filter: Rear: a2	*ENG	[-131071 to 131071 / -63398 / 1 bit/step]
018	ch 1: Filter: Rear: b0	*ENG	[-131071 to 131071 / 84 / 1 bit/step]
019	ch 1: Filter: Rear: b1	*ENG	[-131071 to 131071 / 168 / 1 bit/step]
020	ch 1: Filter: Rear: b2	*ENG	[-131071 to 131071 / 84 / 1 bit/step]
021	ch 2: Filter: Front: a1	*ENG	[-131071 to 131071 / 125869 / 1 bit/step]
022	ch 2: Filter: Front: a2	*ENG	[-131071 to 131071 / -60488 / 1 bit/step]
023	ch 2: Filter: Front: b0	*ENG	[-131071 to 131071 / 39 / 1 bit/step]
024	ch 2: Filter: Front: b1	*ENG	[-131071 to 131071 / 77 / 1 bit/step]
025	ch 2: Filter: Front: b2	*ENG	[-131071 to 131071 / 39 / 1 bit/step]
026	ch 2: Filter: Rear: a1	*ENG	[-131071 to 131071 / 128596 / 1 bit/step]
027	ch 2: Filter: Rear: a2	*ENG	[-131071 to 131071 / -63398 / 1 bit/step]
028	ch 2: Filter: Rear: b0	*ENG	[-131071 to 131071 / 84 / 1 bit/step]
029	ch 2: Filter: Rear: b1	*ENG	[-131071 to 131071 / 168 / 1 bit/step]
030	ch 2: Filter: Rear: b2	*ENG	[-131071 to 131071 / 84 / 1 bit/step]
031	Q Format Selection	*ENG	[0 to 3 / 3 / 1/step]

	[MUSIC Coeff Setting] DFU	
2192	Line Position Adjustment: Threshold Setting	
	ch 0: ID sensor at rear, ch 1: ID sensor at center, ch 2: ID sensor at front	

001	ch 0: 1st	*ENG	
002	ch 0: 2nd	*ENG	
003	ch 0: 3rd	*ENG	
004	ch 0: 4th	*ENG	
005	ch 1: 1st	*ENG	
006	ch 1: 2nd	*ENG	[0.5 to 2. / 1.4 / 0.1 \/ /to ==]
007	ch 1: 3rd	*ENG	[0.5 to 3 / 1.4 / 0.1 V/step]
008	ch 1: 4th	*ENG	
009	ch 2: 1st	*ENG	
010	ch 2: 2nd	*ENG	
011	ch 2: 3rd	*ENG	
012	ch 2: 4th	*ENG	

2193	[MUSIC Condition] DFU Line Position Adjustment: Condition Setting				
001	Auto Execution	*ENG	[0 or 1 / 1 / 1] 0: OFF, 1: ON		
001	Enables/disables the automatic lin	e position o	adjustment.		
	Page: Job End: BW+FC	*ENG	[0 to 999 / 200 / 1 page/step]		
002	Adjusts the threshold of the line position adjustment for BW and color printing mode after job end.				
003	Page: Job End: FC	*ENG	[0 to 999 / 200 / 1 page/step]		
003	Adjusts the threshold of the line position adjustment for color printing mode after job end.				
	Page: Interrupt: BW+FC	*ENG	[0 to 999 / 300 / 1 page/step]		
004	Adjusts the threshold of the line position adjustment for BW and color printing mode during job.				
005	Page: Interrupt: FC	*ENG	[0 to 999 / 300 / 1 page/step]		
003	Adjusts the threshold of the line position adjustment for color printing mode during jobs.				

	Page: Standby: BW + FC	*ENG	[0 to 999 / 100 / 1 page/step]				
006	Adjusts the threshold of the line position adjustment for BW printing mode in stand-by mode. The line position adjustment is done when the number of outputs in BW printing mode reaches the value specified with this SP and the condition of SP2-193-008 or SP2-193-009 is satisfied.						
	Page: Standby: FC	*ENG	[0 to 999 / 100 / 1 page/step]				
007	Adjusts the threshold of the line position adjustment for BW printing mode in stand-by mode. The line position adjustment is done when the number of outputs in color printing mode reaches the value specified with this SP and the condition of SP2-193-008 or SP2-193-is satisfied.						
	Temp Change	*ENG	[0 to 100 / 5 / 1deg/step]				
008	Adjust the temperature change threshold for the line position adjustment (Mode b: adjustment once). The timing for line position adjustment depends on the combinations of several conditions. Section Descriptions" section.						
	Elapse Time	*ENG	[1 to 1440 / 300 / 1 minute/step]				
009	•	•	djustment (Mode b: adjustment once). The the combinations of several conditions.				
	Temp Change 2	*ENG	[0 to 100 / 10 / 1deg/step]				
011	Adjust the temperature change threshold for the line position adjustment (Mode a: adjutwice). The timing for line position adjustment depends on the combinations of several conditions.						
016	Page: Power ON:BW+FC	*ENG	[0 to 999 / 200 / 1 page/step]				

2194	[MUSIC Exe Result] Line Position Adjustment: Execution Result				
001	Year	*ENG	[0 to 99 / 0 / 1 year/step]		
002	Month	*ENG	[1 to 12 / 1 / 1 month/step]		
003	Date	*ENG	[1 to 31 / 1 / 1 day/step]		
004	Hour	*ENG	[0 to 23 / 0 / 1 hour/step]		
005	Minute	*ENG	[0 to 59 / 0 / 1 minute/step]		
006	Temperature	*ENG	[0 to 100 / 0 / 1 deg/step]		

007	Execution Result	*ENG	[0 or 1 / 0 / 1 /step] 0: Completed successfully, 1: Failed
800	Number of Execution	*ENG	[0 to 999999 / 0 / 1 times/step]
009	Number of Failure	*ENG	[0 to 999999 / 0 / 1 times/step]
010	Error Counter: C	*ENG	[0 to 9 / 0 / 1 /step]
011	Error Counter: M	*ENG	0: Not done
012	Error Counter: Y	*ENG	1: Completed successfully 2: Cannot detect patterns 3: Fewer lines on the pattern than the target 4: Out of the adjustment range 5 to 9: Not used

2197	[MUSIC Exe Time]		
Z17/	DFU		
001	Execution Time	*ENG	[10 to 40 / 20 / 10 ms/step]
002	TM Sensor Position	*ENG	[48.2 to 500 / 48.2 / 0.1 mm/step]

2198	[Music A/D Interval] DFU			
001	ADC Trigger	*ENG	[7.5 to 20 / 10 / 0.1 µs/step]	

2199	[Music Time Setting] DFU		
001	Error Time Set	*ENG	[0.1 to 9.9 / 4 / 0.1 sec /step]

[Skew Origin Set] Resets the value of the skew adjustment motor for each color.					
			for each color.		
	These SPs must be executed when a new laser optics housing unit is installed. For details, see "Laser Unit" in the "Replacement and Adjustment" section.				
001	C:Skew Motor *ENG				
002	M:Skew Motor	*ENG	-		
003	Y:Skew Motor	*ENG			

	[LD Power: Fixed] DFU					
2221	Adjusts the fixed LD power for each line speed and color. These SPs are activated only when SP3-041-002 is set to "0". Normal: 120 mm/sec, Low: 60 mm/sec					
001	Bk:Normal Spd	*ENG				
001	bk.inormai spa	LING				
002	C:Normal Spd	*ENG				
003	M:Normal Spd	*ENG				
004	Y:Normal Spd	*ENG	[0 to 200 / 100 / 1%/step]			
009	Bk:Low Spd	*ENG	Increasing this value makes the image density darker.			
010	C:Low Spd	*ENG				
011	M:Low Spd	*ENG				
012	Y:Low Spd	*ENG				

	[Dev. DC Bias:Fixed] DFU Development DC Bias Adjustment
Adjusts the development bias.	
2229	Development bias is automatically adjusted during process control; therefore, adjusting these settings has no effect while Process Control (SP3-041-001 Default: ON) is activated.
	After deactivating Process Control with SP3-041-001, the values in these SP modes are used for printing.
	Normal: 120 mm/sec, Low: 60 mm/sec

001	Plain: Bk	*ENG	
002	Plain: M	*ENG	
003	Plain: C	*ENG	
004	Plain: Y	*ENG	[0 0.00 / 450 / 10]
009	Thick 2: Bk	*ENG	[0 to 800 / 450 / 10 –V/step]
010	Thick 2: M	*ENG	
011	Thick 2: C	*ENG	
012	Thick 2: Y	*ENG	

2241	[Ambient Temp/Hum:Display]				
Displays the environment temperature and humidity.					
001	Temperature -		[-5 to 45 / - / 0.1 deg/step]		
002	Relative Humidity	-	[0 to 100 / - / 0.1 %RH/step]		
003	Absolute Humidity	-	[0 to 100 / - / 0.1 g/m ³ /step]		

2302	[Env. Correct:Transfer] DFU Environmental Correction: Image Transfer Belt Unit					
	Forced Setting *ENG [0 to 6 / 0 / 1 /step]					
002	Sets the environment condition manually. 0: Automatic environment control 1: LL (Low temperature/ Low humidity) 2: ML (Middle temperature/ Low humidity) 3: MM (Middle temperature/ Middle humidity) 4: MH (Middle temperature/ High humidity) 5: HH (High temperature/ High humidity) 6: SLL (Super low temperature/ low humidity)					
Absolute Humidity: Threshold 1 *ENG [0 to 100 / 4 / 0.01 g/m ²						
003	Adjusts the threshold value between LL and ML.					

004	Absolute Humidity: Threshold 2	*ENG	[0 to 100 / 8 / 0.01 g/m ³ /step]			
004	Adjusts the threshold value between ML and MM.					
005	Absolute Humidity: Threshold 3	*ENG	[0 to 100 / 16 / 0.01 g/m ³ /step]			
003	Adjusts the threshold value between MM and MH.					
006	Absolute Humidity: Threshold 4	*ENG	[0 to 100 / 24 / 0.01 g/m ³ /step]			
000	Adjusts the threshold value between MH and HH.					
	Temperature:Threshold	*ENG	[-5 to 30 / 5 / 1 deg/step]			
007	Adjusts the threshold temperature for SLL. If detected temperature is less than a value specified by this SP, SLL condition is determined regardless of humidity.					

2308	[Paper Size Correction] DFU			
2306	Adjusts the threshold value for the paper size correction.			
001	Threshold 1	*ENG	[0 to 350 / 290 / 1 mm/step] Threshold 1 < paper: Paper is detected as "S1" size.	
002	Threshold 2	*ENG	[0 to 350 / 250 / 1 mm/step] Threshold 2 < paper < Threshold 1: Paper is detected as "S2" size.	
003	Threshold 3	*ENG	[0 to 350 / 194 / 1 mm/step] Threshold 3 < paper < Threshold 2: Paper is detected as "S3" size.	
004	Threshold 4	[0 to 350 / 150 / 1 mm/step] Threshold 4 < paper < Threshold 3: *ENG Paper is detected as "S4" size. Paper < Threshold 4: Paper is detected as "S5" size.		

2311	[Non Image Area: Bias] DFU
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001	Image Transfer	*ENG	Adjusts the bias of the image transfer belt between images. This value is added to the value of the image transfer belt bias. [10 to 250 / 100 / 5 %/step]
002	Paper Transfer	*ENG	Adjusts the bias of the paper transfer roller between images. [0 to 2100 / 0 / 100V/step]

2316	[Power ON:Bias] DFU			
001	Image Transfer	*ENG	[0 to 60 / 5 / 1 µA /step]	
001	Adjusts the bias of the image transfer roller at power-on or a closed cover.			

2326	[Transfer Roller CL: Bias] DFU Transfer Roller Cleaning: Bias Adjustment				
001	Positive:befor and after JOB	*ENG	[0 to 2100 / 250 / 10 V /step]		
001	Adjusts the positive voltage o	of the pape	r transfer roller for cleaning the paper transfer roller.		
002	Negative:befor and after JOB	*ENG	[10 to 400 / 100 / 10 %/step]		
	Adjusts the negative current of the paper transfer roller for cleaning the paper transfer roller.				
	Positive:after JAM	*ENG	[0 to 2100 / 2000 / 10 V/step]		
003	Adjusts the negative current limit of the paper transfer roller for cleaning the paper transfer roller.				
004	Negative:after JAM *ENG [10 to 400 / 100 / 10 %/step]				

	[Common: BW: Bias]			
2351	Image Transfer Belt: B/W: Bias Adjustment			
Normal: 120 mm/sec, Low: 60 mm/sec				
001	Image Transfer:Normal Speed	*ENG	[0 to 60 / 25 / 1 µA]	
Adjusts the current for the image transfer belt in B/W mode for plain paper			node for plain paper.	

003	Image Transfer:Low Speed	*ENG	[0 to 60 / 13 / 1 µA]
003	Adjusts the current for the image transfer be	t in B/W n	node for thick 1 paper.

2357	[Common: FC: Bias] DFU Image Transfer Belt: Full Color: Bias Adjustment Normal: 120 mm/sec, Low: 60 mm/sec			
001	Image Transfer: Normal Spd:Bk	*ENG	[0 to 60 / 23 / 1 µA]	
001	Adjusts the current for the image transfer be	lt for Black	in full color mode for plain paper.	
002	Image Transfer:: Normal Spd:C	*ENG	[0 to 60 / 22 / 1 µA]	
002	Adjusts the current for the image transfer beli	t for Mager	nta in full color mode for plain paper.	
003	Image Transfer: Normal Spd:M	*ENG	[0 to 60 / 25 / 1 µA]	
003	Adjusts the current for the image transfer belt for Cyan in full color mode for plain paper.			
004	Image Transfer: Normal Spd:Y	*ENG	[0 to 60 / 29 / 1 µA]	
004	Adjusts the current for the image transfer belt for Yellow in full color mode for plain paper.			
009	Image Transfer: Low Speed:Bk	*ENG	[0 to 60 / 13 / 1 µA]	
009	Adjusts the current for the image transfer belt for Black in full color mode for thick 1 paper.			
010	Image Transfer: Low Speed:C	*ENG	[0 to 60 / 12 / 1 µA]	
010	Adjusts the current for the image transfer belt for Magenta in full color mode for thick 1 paper.			
011	Image Transfer: Low Speed:M	*ENG	[0 to 60 / 13 / 1 µA]	
011	Adjusts the current for the image transfer belt for Cyan in full color mode for thick 1 paper.			
010	Image Transfer: Low Speed:Y	*ENG	[0 to 60 / 14 / 1 µA]	
012	Adjusts the current for the image transfer belt for Yellow in full color mode for thick 1 paper.			

2360	[Common: BW Env. Correction Table] DFU		
001	Image Transfer: Normal	*ENG	[1 to 50 / 42 / 1 /step]
003	Image Transfer: Low	*ENG	[1 to 50 / 38 / 1 /step]
[Common: FC Env. Correction Table] DFU			

004	Image Transfer: Normal Spd:BK	*ENG	[1 to 50 / 25 / 1 /step]
005	Image Transfer: Normal Spd: C	*ENG	[1 to 50 / 46 / 1 /step]
006	Image Transfer: Normal Spd:M	*ENG	[1 to 50 / 43 / 1 /step]
007	Image Transfer:: Normal Spd:Y	*ENG	[1 to 50 / 45 / 1 /step]
012	Image Transfer: Low Speed:Bk	*ENG	[1 to 50 / 26 / 1 /step]
013	Image Transfer: Low Speed:C	*ENG	[] to 50 / 20 / 1 /-to]
014	Image Transfer: Low Speed:M	*ENG	[1 to 50 / 38 / 1 /step]
015	Image Transfer: Low Speed:Y	*ENG	[1 to 50 / 45 / 1 /step]

	[Plain: Bias: BW]		
Adjusts the current for the paper transfer roller for plain paper in black-and-white mo			
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 20 / 1 - µA / step]
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 23 / 1 – µA /step]
003	Paper Transfer: Low: 1st	*ENG	[0.4-200 / 12 / 1 114 /]
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 12 / 1 - µA /step]

	[Plain: Bias: FC]		
2407	Adjusts the current for the paper transfer roller for plain paper in full color mode. Normal: 120 mm/sec, Low: 60mm/sec		
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 23 / 1 – µA / step]
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 28 / 1 – µA /step]
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 13 / 1 - µA / step]
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 – µA /step]

	[Plain-T:SizeCorrect:BW]		
2411	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2403 and SP2407 are multiplied by these SP values. Normal: 120 mm/sec, Low: 60mm/sec		
001	Paper Transfer: Normal: 1st: S1	*ENG	
002	Paper Transfer: Normal: 2nd: S1	*ENG	[100 to 4000 / 100 / 5%/step]
003	Paper Transfer: Low: 1st: S1	*ENG	S1 size > 290 mm (Paper width)
004	Paper Transfer: Low: 2nd: S1	*ENG	
005	Paper Transfer: Normal: 1st: S2	*ENG	[100 to 4000 / 140 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
006	Paper Transfer: Normal: 2nd: S2	*ENG	[100 to 4000 / 165 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
007	Paper Transfer: Low: 1st: S2	*ENG	[100 to 4000 / 150 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
008	Paper Transfer: Low : 2nd:S2	*ENG	[100 to 4000 / 190 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
009	Paper Transfer: Normal: 1st: S3	*ENG	[100 to 4000 / 175 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
010	Paper Transfer: Normal: 2nd: S3	*ENG	[100 to 4000 / 230 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
011	Paper Transfer: Low: 1st: S3	*ENG	[100 to 4000 / 190 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)

012	Paper Transfer: Low 2nd:S3	*ENG	[100 to 4000 / 290 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: Normal: 2nd: S4	*ENG	[100 to 4000 / 285 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
015	PaperTransfer: Low: 1 st:S4	*ENG	[100 to 4000 / 210 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
016	Paper Transfer: Low 2nd: S4	*ENG	[100 to 4000 / 360 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[100 to 4000 / 200 / 5%/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[100 to 4000 / 340 / 5%/step] 150 mm > S5 size (Paper width)
019	Paper Transfer: Low: 1st: S5	*ENG	[100 to 4000 / 210 / 5%/step] 150 mm > S5 size (Paper width)
020	Paper Transfer: Low 2nd: S5	*ENG	[100 to 4000 / 420 / 5%/step] 150 mm > S5 size (Paper width)

	[Plain-T:SizeCorrect:FC]
2412	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2403 and SP2407 are multiplied by these SP values. Normal: 120 mm/sec, Low: 60mm/sec

001	Paper Transfer: Normal: 1st: S1	*ENG	
002	Paper Transfer: Normal: 2nd: S1	*ENG	[100 to 4000 / 100 / 5%/step]
003	Paper Transfer: Low: 1st: S1	*ENG	S1 size > 290 mm (Paper width)
004	Paper Transfer: Low: 2nd: S1	*ENG	
005	Paper Transfer: Normal: 1st: S2	*ENG	[100 to 4000 / 130 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
006	Paper Transfer: Normal: 2nd: S2	*ENG	[100 to 4000 / 160 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
007	Paper Transfer: Low: 1st: S2	*ENG	[100 to 4000 / 140 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
008	Paper Transfer: Low : 2nd:S2	*ENG	[100 to 4000 / 215 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
009	Paper Transfer: Normal: 1st: S3	*ENG	[100 to 4000 / 160 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
010	Paper Transfer: Normal: 2nd: S3	*ENG	[100 to 4000 / 215 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
011	Paper Transfer: Low: 1st: S3	*ENG	[100 to 4000 / 175 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
012	Paper Transfer: Low 2nd:S3	*ENG	[100 to 4000 / 320 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)

014	Paper Transfer: Normal: 2nd: S4	*ENG	[100 to 4000 / 285 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
015	Paper Transfer: Low: 1st: S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
016	Paper Transfer: Low: 2st Side: S4	*ENG	[100 to 4000 / 465 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[100 to 4000 / 220 / 5%/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[100 to 4000 / 355 / 5%/step] 150 mm > S5 size (Paper width)
019	Paper Transfer: Low: 1st: S5	*ENG	[100 to 4000 / 230 / 5%/step] 150 mm > S5 size (Paper width)
020	Paper Transfer: Low 2nd: S5	*ENG	[100 to 4000 / 565 / 5%/step] 150 mm > S5 size (Paper width)

	[Pain-T:Size-Env.Correct:BW] DFU		
2413	Adjusts the size correction coefficient table for the paper transfer roller current for each paper size. SP2403 and SP2407 are multiplied by these SP values. Normal: 120 mm/sec, Low: 60 mm/sec		
	TNOTHIGI. 120 Hilli/ sec, Low. 60 Hilli/ sec		
001	Paper Transfer: Normal: 1st: S1	*ENG	
002	Paper Transfer: Normal: 2nd: S1	*ENG	[1 to 50 / 30 / 1/step]
003	Paper Transfer: Low: 1 st: S1	*ENG	S1 size > 290 mm (Paper width)
004	Paper Transfer: Low: 2nd: S1	*ENG	
005	Paper Transfer: Normal: 1st: S2	*ENG	[1 to 50 / 23 / 1/step] 290 mm > S2 size > 250 mm (Paper width)

			[1 to 50 / 9 / 1/step]
006	Paper Transfer: Normal: 2nd: S2	*ENG	290 mm > S2 size > 250 mm (Paper width)
007	Paper Transfer: Low: 1st: S2	*ENG	[1 to 50 / 34 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
008	Paper Transfer: Low : 2nd:S2	*ENG	[1 to 50 / 26 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
009	Paper Transfer: Normal: 1st: S3	*ENG	[1 to 50 / 10 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
010	Paper Transfer: Normal: 2nd: S3	*ENG	[1 to 50 / 15 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
011	Paper Transfer: Low: 1st: S3	*ENG	[1 to 50 / 12 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
012	Paper Transfer: Low 2nd:S3	*ENG	[1 to 50 / 13 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[1 to 50 / 10 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: Normal: 2nd: S4	*ENG	[1 to 50 / 15 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
015	Paper Transfer: LowSpeed: 1st Side: S4	*ENG	[1 to 50 / 35 / 1/step] 194 mm > S4 size > 150 mm (Paper width)

016	Paper Transfer: Low: 2nd Side: S4	*ENG	[1 to 50 / 13 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[1 to 50 / 29 / 1/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[1 to 50 / 15 / 1/step] 150 mm > S5 size (Paper width)
019	Paper Transfer: Low: 1st: S5	*ENG	[1 to 50 / 41 / 1/step] 150 mm > S5 size (Paper width)
020	Paper Transfer: Low 2nd: S5	*ENG	[1 to 50 / 13 / 1/step] 150 mm > S5 size (Paper width)

	[Pain-T:Size-Env.Correct:FC] DFU			
2414	Adjusts the size correction coefficient table for the paper transfer roller current for each pap size. SP2403 and SP2407 are multiplied by these SP values. Normal: 120 mm/sec, Low: 60 mm/sec			
001	Paper Transfer: Normal: 1st: S1	*ENG		
002	Paper Transfer: Normal: 2nd: S1	*ENG	[1 to 50 / 30 / 1/step]	
003	Paper Transfer: Low: 1 st: S1	*ENG	S1 size > 290 mm (Paper width)	
004	Paper Transfer: Low: 2nd: S1	*ENG		
005	Paper Transfer: Normal: 1st: S2	*ENG	[1 to 50 / 37 / 1/step] 290 mm > S2 size > 250 mm (Paper width)	
006	Paper Transfer: Normal: 2nd: S2	*ENG	[1 to 50 / 16 / 1/step] 290 mm > S2 size > 250 mm (Paper width)	
007	Paper Transfer: Low: 1st: S2	*ENG	[1 to 50 / 32 / 1/step] 290 mm > S2 size > 250 mm (Paper width)	

008	Paper Transfer: Low : 2nd:S2	*ENG	[1 to 50 / 24 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
009	Paper Transfer: Normal: 1st: S3	*ENG	[1 to 50 / 36 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
010	Paper Transfer: Normal: 2nd: S3	*ENG	[1 to 50 / 9 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
011	Paper Transfer: Low: 1st: S3	*ENG	[1 to 50 / 29 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
012	Paper Transfer: Low 2nd:S3	*ENG	[1 to 50 / 18 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[1 to 50 / 29 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: Normal: 2nd: S4	*ENG	[1 to 50 / 7 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
015	Paper Transfer: Low: 1st: S4	*ENG	[1 to 50 / 22 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
016	Paper Transfer: Low: 2st: S4	*ENG	[1 to 50 / 4 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[1 to 50 / 12 / 1/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[1 to 50 / 7 / 1/step] 150 mm > S5 size (Paper width)

019	Paper Transfer: Low: 1 st: S5	*ENG	[1 to 50 / 27 / 1/step] 150 mm > S5 size (Paper width)
020	Paper Transfer: Low 2nd: S5	*ENG	[1 to 50 / 4 / 1/step] 150 mm > S5 size (Paper width)

	[Plain:L-Edge Correction] DFU				
	Adjusts the correction to the paper transfer roller current at the paper leading edge in each mode. SP2403 and SP2407 are multiplied by these SP values.				
2421 Normal: 120 mm/sec, Low: 60 mm/sec					
	●Note				
	The paper leading edge area can be adjusted with SP2422.				
001	Paper Transfer: Normal: 1st	*ENG			
002	Paper Transfer: Normal: 2nd	*ENG	[0.4400./100./5%/.4-m]		
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5%/step]		
004	Paper Transfer: Low: 2nd	*ENG			

	[Plain: Switch Timing: L-Edge] DFU			
2422	Adjusts the bias/voltage switch timing of the paper leading edge between the erase margi	ng of the paper transfer roller/ discharge plate at the ase margin area and the image area.		
Normal: 120 mm/sec, Low: 60 mm/sec				
001	Paper Transfer: Normal: 1st	*ENG		
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 30 / 0 / 2 mm/step]	
003	Paper Transfer: Low: 1st	*ENG		
004	Paper Transfer: Low: 2nd	*ENG		

	[Plain: T-Edge Correction] DFU Plain Paper: Trailing Edge Correction				
2423	Adjusts the correction coefficient to the paper transfer roller current for the paper trailing edge in each mode. SP2403 and SP2407 are multiplied by these SP values.				
	Normal: 120 mm/sec, Low: 60 mm/sec				
	↓ Note				
	The paper trailing edge area can be adjusted with SP2424.				
001	Paper Transfer: Normal: 1st	*ENG			
002	Paper Transfer: Normal: 2nd	*ENG	[0. 400 / 100 / 59/ / .]		
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5%/step]		
004	Paper Transfer: Low: 2nd	*ENG			

	[Plain: Switch Timing: T-Edge] DFU		
2424	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area. Normal: 120 mm/sec, Low: 60 mm/sec		
001	Paper Transfer: Normal: 1st	*ENG	
002	Paper Transfer: Normal: 2nd	*ENG	[00 to 0 / 0 / 2 /stow]
003	Paper Transfer: Low: 1st	*ENG	[-98 to 0 / 0 / 2 mm/step]
004	Paper Transfer: Low: 2nd	*ENG	

2430	[Plain: Env. Correct Table] DFU		
003	Paper Transfer: BW: Normal: 1st	*ENG	[1 to 50 / 39 / 1 /step]
004	Paper Transfer: BW: Normal: 2nd	*ENG	[1 to 50 / 26 / 1 /step]
005	Paper Transfer: FC: Normal:1st	*ENG	[1 to 50 / 39 / 1 /step]
006	Paper Transfer: FC: Normal:2nd	*ENG	[1 to 50 / 33 / 1 /step]
009	PaperTransfer:BW:Low:1st	*ENG	[] + FO / OF / 1 / + - 1
010	Paper Transfer: BW:Low:2nd	*ENG	[1 to 50 / 25 / 1 /step]

011	Paper Transfer: FC: Low: 1 st	*ENG	[1 to 50 / 45 / 1 /step]
012	Paper Transfer: FC: Low:2nd	*ENG	[1 to 50 / 31 / 1 /step]

	[Thin: Bias: BW]			
2453	Adjusts the current for the paper transfer roller for thin paper in black-and-white mode. Normal: 120 mm/sec, Low: 60 mm/sec			
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 20 / 1 - µA / step]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 250 / 12 / 1 - µA / step]	

	[Thin: Bias: FC]			
2457	Adjusts the current for the paper transfer roller for thin paper in full color mode. Normal: 120 mm/sec, Low: 60 mm/sec			
001	D1 Paper Transfer: Normal: 1st			
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 13 / 1 – µA /step]	

	[Thin: L-Edge Correction] DFU Thin Paper: Leading Edge Correction				
2471	Adjusts the correction to the paper transfer roller current at the paper leading edge is mode. SP2453 and SP2457 are multiplied by these SP values. Normal: 120 mm/sec, Low: 60 mm/sec				
Note					
	The paper leading edge area can be adjusted with SP2472.				
001	Paper Transfer: Normal: 1st	*ENG			
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5%/step]		

[Thin: Switch Timing: L-Edge] DFU Adjusts the bias/ voltage switch timing of the paper transfer roller/ discharge plate at the paper leading edge between the erase margin area and the image area. Normal: 120 mm/sec, Low: 60 mm/sec

001	Paper Transfer: Normal: 1st	*ENG	[0 to 30 / 0 / 2 mm/step]
003	Paper Transfer: Low: 1st	*ENG	

	[Thin: T-Edge Correct] DFU Thin Paper: Trailing Edge Correction			
2473	Adjusts the correction coefficient to the paper transfer roller current for the paper trailing edge in each mode. SP2453 and SP2457 are multiplied by these SP values.			
Normal: 120 mm/sec, Low: 60 mm/sec				
	↓ Note			
	vith SP2474.			
001	Paper Transfer: Normal: 1st	*ENG	[0. 400 / 100 / 50/ / .]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5%/step]	

	[Thin: Switch Timing: T-Edge] DFU			
2474	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area. Normal: 120 mm/sec, Low: 60 mm/sec			
001			[100+-0/0/2/]	
003 Paper Transfer: Low: 1st *ENG [-100 to 0 / 0 / 2 m		[-100 to 0 / 0 / 2 mm/step]		

2480	[Thin: Env. Correct Table] DFU			
003	Paper Transfer: BW: Normal: 1st	*ENG	[1 to 50 / 24 / 1 /step]	
005	Paper Transfer: FC: Normal: 1st	*ENG	[1 to 50 / 38 / 1 /step]	
009	Paper Transfer: BW: Normal: 1st	*ENG	[1 to 50 / 32 / 1 /step]	
011	Paper Transfer: FC: Normal: 1st	*ENG	[1 to 50 / 44 / 1 /step]	

2482	[Gloss: Bias: BW]			
	Paper Transfer: 1st	*ENG	[0 to 200 / 15 / 1 - µA / step]	
001	roller for the 1st side of gloss paper in black			

2483	[Gloss: Bias: FC]		
	Paper Transfer: 1st	*ENG	[0 to 200 / 15 / 1 – µA /step]
001	Adjusts the transfer current of the paper transfer roller for the 1st side of gloss paper in full color mode.		

2485	[Gross: L-Edge Correct] DFU		
001	Paper Transfer: 1st	*ENG	[10 to 400 / 100 / 5%/step]

248	6	[Gross: Switch Timing: L-Edge] DFU		
	001	Paper Transfer: 1st	*ENG	[0 to 30 / 0 / 2 mm/step]

2487	[Gross: T-Edge Correct] DFU		
001	Paper Transfer: 1st	*ENG	[0 to 400 / 100 / 5 %/step]

2488	[Gloss:Switch Timing:T-Edge] DFU		
001	Paper Transfer: 1st	*ENG	[-100 to 0 / 0 / 2 mm/step]

2489	[Glossy: Env. Correct Table] DFU		
003	Paper Transfer: BW: 1st	*ENG	[1 to 50 / 17 / 1 /step]
005	Paper Transfer: FC: 1st	*ENG	[1 to 50 / 21 / 1 /step]

	[Thick 1: Bias: BW]		
2502	Adjusts the current for the paper transfer roller for thick 1 paper in black-and-white mode. Thick: 60 mm/sec		
001 Paper Transfer: 1st		[0 to 200 / 15 / 1 - µA / step]	
002	Paper Transfer: 2nd	*ENG	Not used

	[Thick 1: Bias: FC]
2507	Adjusts the current for the paper transfer roller for thick 1 paper in full color mode.
	Thick: 60 mm/sec

001	Paper Transfer: 1st	*ENG	[0 to 200 / 15 / 1 - µA /step]
002	Paper Transfer: 2nd	*ENG	Not used

	[Thick-T:Size Correct:BW]					
2511	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2502 and SP2507 are multiplied by these SP values.					
	Thick: 60 mm/sec					
001	Paper Transfer: 1st: S1	*ENG	[100 to 4000 / 100 / 5%/step] S1 size > 290 mm (Paper width)			
002	Paper Transfer: 2nd: S1	*ENG	Not used			
005	Paper Transfer: 1st: S2	*ENG	[100 to 4000 / 125 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)			
006	Paper Transfer: 2nd: S2	*ENG	Not used			
009	Paper Transfer: 1st: S3	*ENG	[100 to 4000 / 150 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)			
010	Paper Transfer: 2nd: S3	*ENG	Not used			
013	Paper Transfer: 1st: S4	*ENG	[100 to 4000 / 275 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)			
014	Paper Transfer: 2nd: S4	*ENG	Not used			
017	Paper Transfer: 1st: S5	*ENG	[100 to 4000 / 400 / 5%/step] 150 mm > S5 size (Paper width)			
018	Paper Transfer: 2nd: S5	*ENG	Not used			

	[Thick-T:Size Correct:FC]
2512	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2502 and SP2507 are multiplied by these SP values. Thick: 60 mm/sec

001	Paper Transfer: 1st: S1	*ENG	[100 to 4000 / 100 / 5%/step] S1 size > 290 mm (Paper width)
002	Paper Transfer: 2nd: S1	*ENG	Not used
005	Paper Transfer: 1st: S2	*ENG	[100 to 4000 / 110 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
006	Paper Transfer: 2nd: S2	*ENG	Not used
009	Paper Transfer: 1st: S3	*ENG	[100 to 4000 / 115 / 5%/step] 250 mm > S3 size > 194 mm (Paper width)
010	Paper Transfer: 2nd: S3	*ENG	Not used
013	Paper Transfer: 1st: S4	*ENG	[100 to 4000 / 405 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: 2nd: S4	*ENG	Not used
017	Paper Transfer: 1st: S5	*ENG	[100 to 4000 / 690 / 5%/step] 150 mm > S5 size (Paper width)
018	Paper Transfer:: 2nd: S5	*ENG	Not used

	[Thick:Size-Env.Correct:BW] DFU		
2513	Adjusts the size correction coefficient table for the paper transfer roller current for each paper size. SP2502 and SP2507 are multiplied by these SP values.		
Thick: 60 mm/sec			
001	01 Paper Transfer: 1st: S1 *ENG		[1 to 50 / 30 / 1/step] S1 size > 290 mm (Paper width)
002	Paper Transfer: 2nd: S1	*ENG	Not used
005	Paper Transfer: 1st: S2	*ENG	[1 to 50 / 36 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
006	Paper Transfer: 2nd: S2	*ENG	Not used

009	Paper Transfer: 1st: S3	*ENG	[1 to 50 / 40 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
010	Paper Transfer: 2nd: S3	*ENG	Not used
013	Paper Transfer: 1st: S4	*ENG	[1 to 50 / 27 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: 2nd: S4	*ENG	Not used
017	Paper Transfer: 1st: S5	*ENG	[1 to 50 / 20 / 1/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: 2nd: S5	*ENG	Not used

	[Thick:Size-Env.Correct:FC] DFU		
2514	Adjusts the size correction coefficient table for the paper transfer roller current for each paper size. SP2502 and SP2507 are multiplied by these SP values.		
	Thick: 60 mm/sec		
001	Paper Transfer: 1st: S1	*ENG	[1 to 50 / 30 / 1/step] S1 size > 290 mm (Paper width)
002	Paper Transfer: 2nd: S1	*ENG	Not used
005	Paper Transfer: 1st: S2	*ENG	[1 to 50 / 49 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
006	Paper Transfer: 2nd: S2	*ENG	Not used
009	Paper Transfer: 1st: S3	*ENG	[1 to 50 / 50 / 1/step] 250 mm > S3 size > 194 mm (Paper width)
010	Paper Transfer: 2nd: S3	*ENG	Not used
013	Paper Transfer: 1st: S4	*ENG	[1 to 50 / 35 / 1/step] 194 mm > S4 size > 150 mm (Paper width)

014	Paper Transfer: 2nd: S4	*ENG	Not used
017	Paper Transfer: 1st: S5	*ENG	[1 to 50 / 6 / 1/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: 2nd: S5	*ENG	Not used

	[Thick 1:L-Edge Correct] DFU Thick 1 Paper: Leading Edge Correct	ion	
2521	Adjusts the correction to the paper transfer roller current at the paper leading edge in each mode. SP2502 and SP2507 are multiplied by these SP values.		
	Thick: 60 mm/sec		
	 Note		
	The paper leading edge area co	an be adjuste	d with SP2522.
001 Paper Transfer: 1st *ENG [0 to 400		[0 to 400 / 100 / 5%/step]	
002	Paper Transfer: 2nd	*ENG	Not used

	[Thick 1: Switch Timing: L-Edge] DFU		
2522	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper leading edge between the erase margin area and the image area. Thick: 60 mm/sec		
001	Paper Transfer: 1st	*ENG	[0 to 30 / 0 / 2 mm/step]
002	Paper Transfer: 2nd	*ENG	Not used

	[Thick 1: T-Edge Correct] DFU Thick 1 Paper: Trailing Edge Correction		
Adjusts the correction coefficient to the paper transfer roller current for the paper to edge in each mode. SP2502 and SP2507 are multiplied by these SP values.			
	Thick: 60 mm/sec		
	Note		
	 The paper trailing edge area can be adjusted with SP2524. 		ted with SP2524.
001	Paper Transfer: 1st	*ENG	[0 to 400 / 100 / 5%/step]

002 Paper Transfer: 2nd	*ENG Not used	
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	[Thick 1: Switch Timing: T-Edge] DFU		
2524	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area. Thick: 60 mm/sec		. 5 1
001	Paper Transfer: 1st	*ENG	[0 to -100 / 0 / 2 mm/step]
002	Paper Transfer: 2nd	*ENG	Not used

2530	[Thick 1: Env. Correct Table] DFU		
003	Paper Transfer: BW: 1st	*ENG	[1 to 50 / 17 / 1 /step]
004	Paper Transfer: BW:2nd	*ENG	Not used
005	Paper Transfer: FC: 1st	*ENG	[1 to 50 / 29 / 1 /step]
006	Paper Transfer: FC:2nd	*ENG	Not used

	[Thick 2: Bias: BW]		
2553	Adjusts the current for the paper transfer roller for thick2 paper in black-and-white mode. Thick: 60 mm/sec		
001	Paper Transfer: 1st	*ENG	[0 to 200 / 10 / 1 - µA / step]
002	Paper Transfer: 2nd	*ENG	Not used

		[Thick 2: Bias: FC]		
25	558	Adjusts the current for the paper transfer roller for thick2 paper in full color mode. Thick: 60 mm/sec		or thick2 paper in full color mode.
	001	Paper Transfer: 1st	*ENG	[0 to 200 / 13 / 1 - µA /step]
	002	Paper Transfer: 2nd	*ENG	Not used

[Thick 2: L-Edge Correct] DFU Thick 2 Paper: Leading Edge Correction Adjusts the correction to the paper transfer roller current at the paper leading edge in each mode. SP2553 and SP2558 are multiplied by these SP values. 2571 Thick: 60 mm/sec **Note** • The paper leading edge area can be adjusted with SP2572. *ENG 001 [0 to 400 / 100 / 5%/step] Paper Transfer: 1st 002 Paper Transfer: 2nd *ENG Not used

	[Thick 2: Switch Timing: L-Edge] DF	U	
2572	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper leading edge between the erase margin area and the image area. Thick: 60 mm/sec		
001	Paper Transfer: 1st	*ENG	[0 to 30 / 0 / 2mm/step]
002	Paper Transfer: 2nd	*ENG	Not used

	[Thick 2: T-Edge Correction] DFU Thick 2 Paper: Trailing Edge Correction	ction	
Adjusts the correction to the paper transfer roller current for the paper trailing edg mode. SP2553 and SP2558 are multiplied by these SP values.			
	Thick: 60 mm/sec		
Note			
	The paper trailing edge area can be adjusted with SP2574.		ted with SP2574.
001	Paper Transfer: 1st	*ENG	[0 to 400 / 100 / 5%/step]
002	Paper Transfer: 2nd	*ENG	Not used

	[Thick2:T-Edge Correct] DFU
2574	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area. Thick: 60 mm/sec

001	Paper Transfer: 1st	*ENG	[0 to -100 / 0 / 2 mm/step]
002	Paper Transfer: 2nd	*ENG	Not used

2580	[Thick 2 Env. Correct Table] DFU		
003	Paper Transfer: BW: 1st	*ENG	[0 to 50 / 36 / 1 /step]
004	Paper Transfer: BW: 2nd	*ENG	Not used
005	Paper Transfer: FC: 1st	*ENG	[0 to 50 / 23 / 1 /step]
006	Paper Transfer: FC: 2nd	*ENG	Not used

2603	[OHP: Bias: BW]				
2003	Adjusts the current for the paper transfer roller for OHP in black-and-white mode				
001	Paper Transfer	*ENG	[0 to 200 / NA: 15 , EU/AA: 13 / 1 –µA /step]		

2608	[OHP: Bias: FC]				
2006	Adjusts the current for the paper transfer roller for OHP in full color mode.				
001	Paper Transfer *ENG		[0 to 200 / NA: 24 , EU/AA: 20 / 1 –µA /step]		

[OHP: L-Edge Correct] DFU
OHP: Leading Edge Correction

Adjusts the correction to the paper transfer roller current at the paper leading edge in each mode. SP2603 and SP2608 are multiplied by these SP values.

Note

The paper leading edge area can be adjusted with SP2622.

Paper Transfer

*ENG [0 to 400 / 100 / 5%/step]

	[OHP: Switch Timing: L-Edge] DFU		
2622	, ,	ch timing of the paper transfer roller/ discharge plate at the the erase margin area and the image area.	
001	Paper Transfer	*ENG	[0 to 30 / 0 / 2 mm/step]

[OHP: T-Edge Correct] DFU OHP: Trailing Edge Correction Adjusts the correction to the paper transfer roller current for the paper trailing edge in each mode. SP2603 and SP2608 are multiplied by these SP values. • The paper trailing edge area can be adjusted with SP2624. O01 Paper Transfer *ENG [0 to 400 / 100 / 5%/step]

	[OHP: T-Edge Correction] DFU			
2624	, ,	n timing of the paper transfer roller/discharge plate at the		
001	Paper Transfer	*ENG	[-98 to 0 / 0 / 2 mm/step]	

2630	[OHP: Env. Correct Table]		
002	Paper Transfer: BW: 1st	*ENG	[1 to 50 / NA: 39, EU/AA: 26 / 1 /step]
003	Paper Transfer: FC: 1st	*ENG	[1 to 50 / NA: 7, EU/AA: 47 / 1 /step]

	[Thick 3: Bias: BW]				
2651	Adjusts the current for the paper Thick: 60 mm/sec	r transfer roller for thick paper 3 in black-and-white mode.			
001	Paper Transfer: 1st	*ENG	[0 to 200 / 10 / 1 – µA /step]		
002	Paper Transfer: 2nd	*ENG	Not used		

	[Thick 3: Bias: FC]				
2652	Adjusts the current for the paper Thick: 60 mm/sec	transfer rol	ler for thick paper 3 in full color mode.		
001	Paper Transfer: 1st	*ENG	[0 to 200 / 13 / 1 – µA /step]		
002	Paper Transfer: 2nd	*ENG	Not used		

[Thick 3: L-Edge Correct] DFU Thick 3 Paper: Leading Edge Correction Adjusts the correction to the paper transfer roller current at the paper leading edge in each mode. SP2651 and SP2652 are multiplied by these SP values. 2654 Thick: 60 mm/sec **U** Note • The paper leading edge area can be adjusted with SP2655. *ENG [0 to 400 / **100** / 5%/step] 001 Paper Transfer: 1st 003 Paper Transfer: 2nd *ENG Not used

	[Thick 3: Switch Timing: L-Edge] DFU				
2655	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper leading edge between the erase margin area and the image area. Thick: 60 mm/sec				
001	Paper Transfer: 1st	*ENG	[0 to 30 / 0 / 2 mm/step]		
003	Paper Transfer: 2nd	*ENG	Not used		

	[Thick 3: T-Edge Correct] DFU Thick 3 Paper: Trailing Edge Correction			
Adjusts the correction to the paper transfer roller current for the paper trailing ed mode. SP2651 and SP2652 are multiplied by these SP values.				
	Thick: 60 mm/sec			
	₩Note			
The paper trailing edge area can be adjusted with SP2657.			h SP2657.	
001	Paper Transfer: 1st	*ENG	[0 to 400 / 100 / 5%/step]	
002	Paper Transfer: 2nd	*ENG	Not used	

	[Thick 3: TrailingEdge Correction] DFU
2657	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area. Thick: 60 mm/sec

001	Paper Transfer: 1st	*ENG	[-98 to 0 / 0 / 2 mm/step]
002	Paper Transfer: 2nd	*ENG	Not used

	[Thick 3: Env. Correct Table] DFU			
2660 Thick 3 Paper: MM Environment Coefficient Adjustment			nt	
	Thick: 60 mm/sec			
003	Paper Transfer:BW:1st			
004	Paper Transfer:BW:2nd	Not used		
005	Paper Transfer: FC: 1st	*ENG	[1 to 50 / 23 / 1 /step]	
006	Paper Transfer: FC: 2nd	*ENG	Not used	

2703	[M-Thick:Bias:BW] Middle Thick: Bias: BW Normal: 120mm/sec, Low: 60mm/sec Adjusts the current for the paper transfer roller for middle thick in black-and-white mode.			
001	Paper Transfer:Normal: 1 st	*ENG	[0 to 200 / 20 / 1 A / to]	
002	Paper Transfer:Normal:2nd	*ENG	[0 to 200 / 20 / 1 - µA /step]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA / step]	
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 13 / 1 - µA / step]	

2707	[M-Thick:Bias:FC] Middle Thick: Bias: BW Normal: 120mm/sec, Low: 60mm/sec				
	Adjusts the current for the paper transfer roller for middle thick in full color mode.				
001	Paper Transfer:Normal:1st				
002	2 Paper Transfer:Normal:2nd *ENG [0 to 200 / 28 / 1 -μΑ /				
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]		
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 - µA / step]		

[M-Thick:L-Edge Correct] DFU Normal: 120mm/sec, Low: 60mm/sec Adjusts the correction to the paper transfer roller current at the paper leading edge in each 2721 mode. SP2703 and SP2707 are multiplied by these SP values. **Note** • The paper leading edge area can be adjusted with SP2722. *ENG 001 Paper Transfer: Normal: 1st 002 Paper Transfer:Normal:2nd *ENG [0 to 400 / 100 / 5 %/step] 003 Paper Transfer: Low: 1st *ENG *ENG 004 Paper Transfer: Low: 2nd

2722	[M-Thick:SwTiming:L-Edge] DFU Normal: 120mm/sec, Low: 60mm/sec			
2,72	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper leading edge between the erase margin area and the image area.			
001	Paper Transfer:Normal: 1 st	*ENG		
002	Paper Transfer:Normal:2nd	*ENG	[0.1. 20 / 0 / 2 / 1]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 30 / 0 / 2 mm /step]	
004	Paper Transfer: Low: 2nd	*ENG		

[M-Thick:T-Edge Correct] DFU Normal: 120mm/sec, Low: 60mm/sec Adjusts the correction to the paper transfer roller current for the paper trailing edge in each mode. SP2703 and SP2707 are multiplied by these SP values. Note • The paper trailing edge area can be adjusted with SP2724.

001	Paper Transfer:Normal: 1 st	*ENG	
002	Paper Transfer:Normal:2nd	*ENG	[0.1-400/100/5%/]
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5 %/step]
004	Paper Transfer: Low: 2nd	*ENG	

2724	[M-Thick:SwTiming:T-Edge] DFU Normal: 120mm/sec, Low: 60mm/sec Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area.			
001	Paper Transfer:Normal: 1 st	*ENG		
002	Paper Transfer:Normal:2nd	*ENG	[0. 100 / 0 / 0 / 1	
003	Paper Transfer: Low: 1st	*ENG	[0 to -100 / 0 / 2 mm/step]	
004	Paper Transfer: Low: 2nd	*ENG		

2730	[M-Thick:Env.Correct Table] DFU Normal: 120mm/sec, Low: 60mm/sec		
003	Paper Transfer:BW:Normal:1st	*ENG	[1 to 50 / 23 / 1 /step]
004	Paper Transfer:BW:Normal:2nd	*ENG	[1 to 50 / 26 / 1 /step]
005	Paper Transfer:FC:Normal:1st	*ENG	[1 to 50 / 38 / 1 /step]
006	Paper Transfer:FC:Normal:2nd	*ENG	[1 to 50 / 33 / 1 /step]
009	Paper Transfer:BW:Low:1st	*ENG	[1 to 50 / 32 / 1 /step]
010	Paper Transfer:BW:Low:2nd	*ENG	[1 to 50 / 21 / 1 /step]
011	Paper Transfer:FC:Low:1st	*ENG	[1 to 50 / 48 / 1 /step]
012	Paper Transfer:FC:Low:2nd	*ENG	[1 to 50 / 28 / 1 /step]

		[SP 1: Bias: BW]
	2753	Adjusts the current for the paper transfer roller for special paper 1 in black-and-white mode.
		Normal: 120mm/sec, Low: 60mm/sec

001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 20 / 1 UA /otom]
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 20 / 1 – µA /step]
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 – µA /step]
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 13 / 1 – µA /step]

	[SP 1: Bias: FC]		
Adjusts the current for the paper transfer roller for special paper 1 in full color mode Normal: 120mm/sec, Low: 60mm/sec			
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 25 / 1 – µA /step]
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 28 / 1 - µA /step]
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 - µA /step]

	[SP1,2,3-T:Size Correct:BW]			
2761	Adjusts the size correction coefficient for the paper transfer roller current for each paper s SP2753 and SP2757 are multiplied by these SP values. Normal: 120mm/sec, Low: 60mm/sec			
001	Paper Transfer: Normal: 1st: S1	*ENG		
002	Paper Transfer: Normal: 2nd: S1	*ENG	[100 to 4000 / 100 / 5%/step]	
003	Paper Transfer:Low: 1 st:S1	*ENG	S1 size > 290 mm (Paper width)	
004	Paper Transfer:Low:2nd:S1	*ENG		
005	Paper Transfer: Normal: 1st: S2	*ENG	[100 to 4000 / 140 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)	
006	Paper Transfer: Normal: 2nd: S2	*ENG	[100 to 4000 / 165 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)	

007	Paper Transfer:Low:1st:S2	*ENG	[100 to 4000 / 150 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
008	Paper Transfer:Low:2nd:S2	*ENG	[100 to 4000 / 190 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)
009	Paper Transfer: Normal: 1st: S3	*ENG	[100 to 4000 / 175 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
010	Paper Transfer: Normal: 2nd: S3	*ENG	[100 to 4000 / 230 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
011	PaperTransfer:Low:1st:S3	*ENG	[100 to 4000 / 190 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
012	PaperTransfer:Low:2nd:S3	*ENG	[100 to 4000 / 290 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: Normal: 2nd: S4	*ENG	[100 to 4000 / 285 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
015	PaperTransfer:Low: 1 st:S4	*ENG	[100 to 4000 / 210 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
016	PaperTransfer:Low:2nd:S4	*ENG	[100 to 4000 / 360 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[100 to 4000 / 200 / 5%/step] 150 mm > \$5 size (Paper width)

018	Paper Transfer: Normal: 2nd: S5	*ENG	[100 to 4000 / 340 / 5%/step] 150 mm > S5 size (Paper width)
019	PaperTransfer:Low:1st:S5	*ENG	[100 to 4000 / 210 / 5%/step] 150 mm > S5 size (Paper width)
020	PaperTransfer:Low:2nd:S5	*ENG	[100 to 4000 / 420 / 5%/step] 150 mm > S5 size (Paper width)

	[SP1,2,3-T:Size Correct:FC]				
2762	Adjusts the size correction coefficient for the paper transfer roller current for each paper tra				
	Normal: 120 mm/sec, Low: 60 mm/	/sec			
001	Paper Transfer: Normal: 1st: S1	*ENG			
002	Paper Transfer: Normal: 2nd: S1	*ENG	[100 to 4000 / 100 / 5%/step]		
003	Paper Transfer:Low: 1 st:S1	*ENG	S1 size > 290 mm (Paper width)		
004	Paper Transfer:Low:2nd:S1	*ENG			
		*ENG	[100 to 4000 / 130 / 5%/step]		
005	Paper Transfer: Normal: 1st: S2		290 mm > S2 size > 250 mm (Paper width)		
006	Paper Transfer: Normal: 2nd: S2	*ENG	[100 to 4000 / 160 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
007	Paper Transfer:Low: 1 st:S2	*ENG	[100 to 4000 / 140 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
008	Paper Transfer:Low:2nd:S2	*ENG	[100 to 4000 / 215 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
009	Paper Transfer: Normal: 1st: S3	*ENG	[100 to 4000 / 160 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)		

010	Paper Transfer: Normal: 2nd: S3	*ENG	[100 to 4000 / 215 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
011	PaperTransfer:Low:1st:S3	*ENG	[100 to 4000 / 175 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
012	PaperTransfer:Low:2nd:S3	*ENG	[100 to 4000 / 320 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: Normal: 2nd: S4	*ENG	[100 to 4000 / 285 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
015	PaperTransfer:Low: 1 st:S4	*ENG	[100 to 4000 / 190 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
016	PaperTransfer:Low:2nd:S4	*ENG	[100 to 4000 / 465 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[100 to 4000 / 220 / 5%/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[100 to 4000 / 355 / 5%/step] 150 mm > S5 size (Paper width)
019	PaperTransfer:Low: 1 st:S5	*ENG	[100 to 4000 / 230 / 5%/step] 150 mm > S5 size (Paper width)
020	PaperTransfer:Low:2nd:S5	*ENG	[100 to 4000 / 565 / 5%/step] 150 mm > S5 size (Paper width)

	[SP1,2,3-T:Size Env.Correct:BW] DFU				
2763	Adjusts the size correction coefficient table for the paper transfer roller current for each paper size. SP2753 and SP2757 are multiplied by these SP values.				
	Normal: 120 mm/sec, Low: 60 mm/	/sec			
001	Paper Transfer: Normal: 1st: S1	*ENG			
002	Paper Transfer: Normal: 2nd: S1	*ENG	[1 to 50 / 30 / 1/step]		
003	Paper Transfer:Low: 1 st:S1	*ENG	S1 size > 290 mm (Paper width)		
004	Paper Transfer:Low:2nd:S1	*ENG			
			[1 to 50 / 23 / 1/step]		
005	Paper Transfer: Normal: 1st: S2	*ENG	290 mm > S2 size > 250 mm (Paper width)		
			[1 to 50 / 9 / 1/step]		
006	Paper Transfer: Normal: 2nd: S2	*ENG	290 mm > S2 size > 250 mm (Paper width)		
			[1 to 50 / 34 / 1/step]		
007	Paper Transfer:Low:1st:S2	*ENG	290 mm > S2 size > 250 mm (Paper width)		
			[1 to 50 / 26 / 1/step]		
800	Paper Transfer:Low:2nd:S2	*ENG	290 mm > S2 size > 250 mm (Paper width)		
			[1 to 50 / 10 / 1/step]		
009	Paper Transfer: Normal: 1st: S3	*ENG	250 mm > S2 size > 194 mm (Paper width)		
			[1 to 50 / 15 / 1/step]		
010	Paper Transfer: Normal: 2nd: S3	*ENG	250 mm > S2 size > 194 mm (Paper width)		
			[1 to 50 / 12 / 1/step]		
011	PaperTransfer:Low:1st:S3	*ENG	250 mm > S2 size > 194 mm (Paper width)		

012	PaperTransfer:Low:2nd:S3	*ENG	[1 to 50 / 13 / 1/step] 250 mm > S2 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[1 to 50 / 10 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
014	Paper Transfer: Normal: 2nd: S4	*ENG	[1 to 50 / 15 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
015	PaperTransfer:Low: 1 st:S4	*ENG	[1 to 50 / 35 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
016	PaperTransfer:Low:2nd:S4	*ENG	[1 to 50 / 13 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[1 to 50 / 29 / 1/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[1 to 50 / 15 / 1/step] 150 mm > S5 size (Paper width)
019	PaperTransfer:Low: 1 st:S5	*ENG	[1 to 50 / 41 / 1/step] 150 mm > S5 size (Paper width)
020	PaperTransfer:Low:2nd:S5	*ENG	[1 to 50 / 13 / 1/step] 150 mm > S5 size (Paper width)

	[SP1,2,3-T:Size Env.Correct:FC] DFU
2764	Adjusts the size correction coefficient table for the paper transfer roller current for each paper size. SP2753 and SP2757 are multiplied by these SP values.
	Normal: 120 mm/sec, Low: 60 mm/sec

001	Paper Transfer: Normal: 1st: S1	*ENG	
002	Paper Transfer: Normal: 2nd: S1	*ENG	[1 to 50 / 30 / 1/step]
003	Paper Transfer:Low: 1 st:S1	*ENG	S1 size > 290 mm (Paper width)
004	Paper Transfer:Low:2nd:S1	*ENG	
005	Paper Transfer: Normal: 1st: S2	*ENG	[1 to 50 / 37 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
006	Paper Transfer: Normal: 2nd: S2	*ENG	[1 to 50 / 16 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
007	Paper Transfer:Low:1st:S2	*ENG	[1 to 50 / 32 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
008	Paper Transfer:Low:2nd:S2	*ENG	[1 to 50 / 24 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
009	Paper Transfer: Normal: 1st: S3	*ENG	[1 to 50 / 36 / 1/step] 250 mm > S2 size > 194 mm (Paper width)
010	Paper Transfer: Normal: 2nd: S3	*ENG	[1 to 50 / 9 / 1/step] 250 mm > S2 size > 194 mm (Paper width)
011	PaperTransfer:Low:1st:S3	*ENG	[1 to 50 / 29 / 1/step] 250 mm > S2 size > 194 mm (Paper width)
012	PaperTransfer:Low:2nd:S3	*ENG	[1 to 50 / 18 / 1/step] 250 mm > S2 size > 194 mm (Paper width)
013	Paper Transfer: Normal: 1st: S4	*ENG	[1 to 50 / 29 / 1/step] 194 mm > S4 size > 150 mm (Paper width)

014	Paper Transfer: Normal: 2nd: S4	*ENG	[1 to 50 / 7 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
015	PaperTransfer:Low:1st:S4	*ENG	[1 to 50 / 22 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
016	PaperTransfer:Low:2nd:S4	*ENG	[1 to 50 / 4 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: Normal: 1st: S5	*ENG	[1 to 50 / 12 / 1/step] 150 mm > S5 size (Paper width)
018	Paper Transfer: Normal: 2nd: S5	*ENG	[1 to 50 / 7 / 1/step] 150 mm > S5 size (Paper width)
019	PaperTransfer:Low: 1 st:S5	*ENG	[1 to 50 / 27 / 1/step] 150 mm > S5 size (Paper width)
020	PaperTransfer:Low:2nd:S5	*ENG	[1 to 50 / 4 / 1/step] 150 mm > S5 size (Paper width)

	[SP1: L-Edge Correct] DFU				
	Special 1 Paper: Leading Edge Correction				
2771	Adjusts the correction to the paper transfer roller current at the paper leading edge in each mode. SP2753 and SP2757 are multiplied by these SP values.				
	Normal: 120mm/sec, Low: 60mm/sec				
	↓ Note				
	The paper leading edge area can	be adjuste	ed with SP2772.		
001	Paper Transfer: Normal: 1st	*ENG			
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 400 / 100 / 5% /stan]		
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5%/step]		
004	Paper Transfer: Low: 2nd	*ENG			

	[SP 1:SwTiming:L-Edge] DFU		
2772	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper leading edge between the erase margin area and the image area. Normal: 120mm/sec, Low: 60mm/sec		
001	Paper Transfer: Normal: 1st	*ENG	
002	Paper Transfer: Normal: 2nd	*ENG	[0. 20 (0. (.)
003	Paper Transfer: Low: 1st	*ENG	[0 to 30 / 0 / 2 mm/step]
004	Paper Transfer: Low: 2nd	*ENG	

	[SP1: T-Edge Correct] DFU Special 1 Paper: Trailing Edge Correction				
2773	Adjusts the correction to the paper transfer roller current for the paper trailing edge in each mode. SP2753 and SP2757 are multiplied by these SP values.				
	Normal: 120 mm/sec, Low: 60 mm/sec				
	₩Note				
	The paper trailing edge area can be	adjusted v	with SP2774.		
001	Paper Transfer: Normal: 1st	*ENG			
002	Paper Transfer: Normal: 2nd	*ENG	[0.1. 400 / 100 / 59 / 4.1]		
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5%/step]		
005	Paper Transfer: Low: 2nd	*ENG	-		

	[SP 1:SwTiming:T-Edge] DFU				
2774	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area.				
Normal: 120mm/sec, Low: 60mm/sec					
001	Paper Transfer: Normal: 1st	*ENG			
002	Paper Transfer: Normal: 2nd	*ENG	[004.0/0/2/4]		
003	Paper Transfer: Low: 1st	*ENG	[-98 to 0 / 0 / 2 mm/step]		
004	Paper Transfer: Low: 2nd	*ENG			

2780	[SP 1: Env. Correct Table] DFU Normal: 120mm/sec, Low: 60mm/sec		
003	Paper Transfer:BW:Normal:1st	*ENG	[1 to 50 / 23 / 1 /step]
004	Paper Transfer:BW:Normal:2nd	*ENG	[1 to 50 / 26 / 1 /step]
005	Paper Transfer:FC:Normal:1st	*ENG	[1 to 50 / 38 / 1 /step]
006	Paper Transfer:FC:Normal:2nd	*ENG	[1 to 50 / 33 / 1 /step]
009	Paper Transfer:BW:Low:1st	*ENG	[1 to 50 / 32 / 1 /step]
010	Paper Transfer:BW:Low:2nd	*ENG	[1 to 50 / 21 / 1 /step]
011	Paper Transfer:FC:Low:1st	*ENG	[1 to 50 / 48 / 1 /step]
012	Paper Transfer:FC:Low:2nd	*ENG	[1 to 50 / 28 / 1 /step]

	2783	[SP 4: Bias: BW]			
	2/03	Adjusts the current for the paper transfer roller for special paper 1 in black-and-white mode.			
	001	Paper Transfer	*ENG	[0 to 200 / 15 / 1 – µA /step]	

2787	[SP 4: Bias: FC]				
2/0/	Adjusts the current for the paper transfer roller for special paper 1 in full color mode.				
001	DO 1 Paper Transfer *ENG [0 to 200 / 15 / 1 –μA /ste		[0 to 200 / 15 / 1 – µA /step]		

	[SP4,5,6-T:Size Correct:BW]			
2791	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2783 and SP2787 are multiplied by these SP values.			
001	Paper Transfer: S1	*ENG	[100 to 4000 / 100 / 5%/step] S1 size > 290 mm (Paper width)	
005	Paper Transfer: S2	*ENG	[100 to 4000 / 125 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)	

009	Paper Transfer: S3	*ENG	[100 to 4000 / 150 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)
013	Paper Transfer: S4	*ENG	[100 to 4000 / 275 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: S5	*ENG	[100 to 4000 / 400 / 5%/step] 150 mm > S5 size (Paper width)

	[SP4,5,6-T:Size Correct:FC]				
2792	Adjusts the size correction coefficient for the paper transfer roller current for each paper size. SP2783 and SP2787 are multiplied by these SP values.				
001	Paper Transfer: S1	*ENG	[100 to 4000 / 100 / 5%/step] S1 size > 290 mm (Paper width)		
005	5 Paper Transfer: S2 *ENG		[100 to 4000 / 110 / 5%/step] 290 mm > S2 size > 250 mm (Paper width)		
009	Paper Transfer: S3	*ENG	[100 to 4000 / 115 / 5%/step] 250 mm > S2 size > 194 mm (Paper width)		
013	aper Transfer: S4 *ENG		[100 to 4000 / 405 / 5%/step] 194 mm > S4 size > 150 mm (Paper width)		
017	Paper Transfer: S5	*ENG	[100 to 4000 / 690 / 5%/step] 150 mm > S5 size (Paper width)		

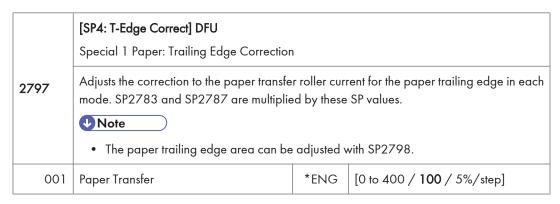
	[SP4,5,6-T:Size Env.Correct:BW] DFU		
2793	Adjusts the size correction coefficient table for the paper transfer roller current for each paper size. SP2783 and SP2787 are multiplied by these SP values.		
001	001 Paper Transfer: S1 *ENG		[1 to 50 / 30 / 1/step] S1 size > 290 mm (Paper width)

005	Paper Transfer: S2	*ENG	[1 to 50 / 36 / 1/step] 290 mm > S2 size > 250 mm (Paper width)
009	Paper Transfer: S3	*ENG	[1 to 50 / 40 / 1/step] 250 mm > S2 size > 194 mm (Paper width)
013	Paper Transfer: S4	*ENG	[1 to 50 / 27 / 1/step] 194 mm > S4 size > 150 mm (Paper width)
017	Paper Transfer: S5	*ENG	[1 to 50 / 20 / 1/step] 150 mm > S5 size (Paper width)

	[SP4,5,6-T:Size Env.Correct:FC] DFU				
2794	Adjusts the size correction coefficient table for the paper transfer roller current for each paper size. SP2783 and SP2787 are multiplied by these SP values.				
001	Paper Transfer: S1	*ENG	[1 to 50 / 30 / 1/step] S1 size > 290 mm (Paper width)		
005	Paper Transfer: S2	*ENG	[1 to 50 / 49 / 1/step] 290 mm > S2 size > 250 mm (Paper width)		
009	Paper Transfer: S3	*ENG	[1 to 50 / 50 / 1/step] 250 mm > S2 size > 194 mm (Paper width)		
013	Paper Transfer: S4	*ENG	[1 to 50 / 35 / 1/step] 194 mm > S4 size > 150 mm (Paper width)		
017	Paper Transfer: S5	*ENG	[1 to 50 / 6 / 1/step] 150 mm > S5 size (Paper width)		

[SP4: L-Edge Correct] DFU Special 4 Paper: Leading Edge Correction Adjusts the correction to the paper transfer roller current at the paper leading edge in each mode. SP2783 and SP2787 are multiplied by these SP values. • The paper leading edge area can be adjusted with SP2796. O01 Paper Transfer *ENG [0 to 400 / 100 / 5%/step]

	[SP 4: Switch Timing: L-Edge] DFU		
Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plat paper leading edge between the erase margin area and the image area.			- ,
001	Paper Transfer	*ENG	[0 to 30 / 0 / 2 mm/step]



	[SP 4: Sw Timing: T-Edge] DFU		
2798	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area.		
001	Paper Transfer	*ENG	[-98 to 0 / 0 / 2 mm/step]

2799	[SP 4: Env. Correct Table] DFU		
003	Paper Transfer:BW: 1st	*ENG	[1 to 50 / 17 / 1 /step]
005	Paper Transfer:FC: 1st	*ENG	[1 to 50 / 29 / 1 /step]

	[SP 2: Bias: BW]			
2803	Adjusts the current for the paper transfer roller for special paper 2 in black-and-white mode. Normal: 120mm/sec, Low: 60mm/sec			
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 20 / 1 A /-to1	
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 20 / 1 - µA /step]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]	
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 13 / 1 - µA /step]	

	[SP2: Bias: FC]		
Adjusts the current for the paper transfer roller for special paper 2 in full color m Normal: 120mm/sec, Low: 60mm/sec			ecial paper 2 in full color mode.
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 25 / 1 – µA /step]
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 28 / 1 – µA /step]
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 – µA /step]

	[SP 2: L-Edge Correct] DFU Special 2 Paper: Leading Edge Correction			
2821	Adjusts the correction to the paper transfer roller current at the paper leading edge in each mode. SP2803 and SP2807 are multiplied by these SP values.			
Normal: 120mm/sec, Low: 60mm/sec				
	₩ Note			
	The paper leading edge area can be adjusted with SP2822.			
001	Paper Transfer: Normal: 1st	*ENG		
002	Paper Transfer: Normal: 2nd	*ENG	[0.4-400 / 100 / 5% / 44-1]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5%/step]	
004	Paper Transfer: Low: 2nd	*ENG	-	

	[SP 2: SW Timing: L-Edge] DFU			
Adjusts the bias/voltage switch timing of the paper transfer roller/discharge paper leading edge between the erase margin area and the image area. Normal: 120mm/sec, Low: 60mm/sec				
001	Paper Transfer: Normal: 1st	*ENG		
002	Paper Transfer: Normal: 2nd	*ENG	[0+, 20 / 0 / 2 / + - 1	
003	Paper Transfer: Low: 1st	*ENG	[0 to 30 / 0 / 2 mm/step]	
004	Paper Transfer: Low: 2nd	*ENG		

	[SP 2: T-Edge Correct] DFU Special 2 Paper: Trailing Edge Correcti	on		
2823	Adjusts the correction to the paper transfer roller current for the paper trailing edge in each mode. SP2803 and SP2807 are multiplied by these SP values.			
	Normal: 120mm/sec, Low: 60mm/sec	:		
	₩Note			
	The paper trailing edge area can be adjusted with SP2824.			
001	Paper Transfer: Normal: 1st	*ENG		
002	Paper Transfer: Normal: 2nd	*ENG	[0. 400 / 100 / 50/ / .]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5%/step]	
004	Paper Transfer: Low: 2nd	*ENG		

	[SP 2: SwTiming: T-Edge] DFU			
Adjusts the bias/voltage switch timing of the paper transfer roller/discharge paper trailing edge between the erase margin area and the image area			- ,	
	Normal: 120mm/sec, Low: 60mm/sec			
001	Paper Transfer: Normal: 1st	*ENG	[00.0.0.40.40.40.1	
002	Paper Transfer: Normal: 2nd	*ENG		
003	Paper Transfer: Low: 1st	*ENG	[-98 to 0 / 0 / 2 mm/step]	
004	Paper Transfer: Low: 2nd	*ENG		

2830	[SP 2: Env. Correct Table] DFU Normal: 120mm/sec, Low: 60mm/sec		
003	Paper Transfer:BW:Normal:1st	*ENG	[1 to 50 / 23 / 1 /step]
004	Paper Transfer:BW:Normal:1st	*ENG	[1 to 50 / 26 / 1 /step]
005	Paper Transfer:FC:Normal:1st	*ENG	[1 to 50 / 38 / 1 /step]
006	Paper Transfer:FC:Normal:2nd	*ENG	[1 to 50 / 33 / 1 /step]
009	Paper Transfer:BW:Low:1st	*ENG	[1 to 50 / 32 / 1 /step]
010	Paper Transfer:BW:Low:2nd	*ENG	[1 to 50 / 21 / 1 /step]
011	Paper Transfer:FC:Low:1st	*ENG	[1 to 50 / 48 / 1 /step]
012	Paper Transfer:FC:Low:2nd	*ENG	[1 to 50 / 28 / 1 /step]

[SP 5: Bias: BW]				
	2033	Adjusts the current for the paper transfer roller for special paper 5 in black-and-white mode		
	001	Paper Transfer	*ENG	[0 to 200 / 15 / 1 - µA /step]

2837	SP 5: Bias: FC]			
203/	Adjusts the current for the paper transfer roller for special paper 5 in full color mode			
001	Paper Transfer	*ENG	[0 to 200 / 15 / 1 - µA /step]	

	[SP5: L-Edge Correct] DFU Special 5Paper: Leading Edge Correction			
2845	Adjusts the correction to the paper transfer roller current at the paper leading edge in eac mode. SP2833 and SP2837 are multiplied by these SP values.			
 Note The paper leading edge area can be adjusted with SP2846. 			d with SP2846.	
001	Paper Transfer *ENG [0 to 400 / 100 / 5%/step]			

	[SP 5: SwTiming: L-Edge] DFU			
2846	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at to paper leading edge between the erase margin area and the image area.			
001	Paper Transfer	*ENG	[0 to 30 / 0 / 2 mm/step]	

[SP5: T-Edge Correct] DFU Special 5 Paper: Trailing Edge Correction Adjusts the correction to the paper transfer roller current for the paper trailing edge in each mode. SP2833 and SP2837 are multiplied by these SP values. Note • The paper trailing edge area can be adjusted with SP2848. Do 1 Paper Transfer *ENG [0 to 400 / 100 / 5%/step]

	[SP 5: Sw Timing: T-Edge] DFU		
2848	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area.		
001	Paper Transfer	*ENG	[-98 to 0 / 0 / 2 mm/step]

2849	[SP 5: Env. Correct Table] DFU		
003	Paper Transfer:BW: 1st	*ENG	[1 to 50 / 17 / 1 /step]
005	Paper Transfer:FC: 1st	*ENG	[1 to 50 / 29 / 1 /step]

	[SP3: Bias: BW]			
2852	Adjusts the current for the paper transfer Normal: 120mm/sec, Low: 60mm/sec	for the paper transfer roller for special paper 3 in black-and-white mode. 'sec, Low: 60mm/sec		
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 20 / 1 A / to 1	
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 20 / 1 – µA /step]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]	
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 13 / 1 - µA /step]	

	[Special 3: Bias: FC]		
Adjusts the current for the paper transfer roller for spec Normal: 120mm/sec, Low: 60mm/sec		ecial paper 3 in full color mode.	
001	Paper Transfer: Normal: 1st	*ENG	[0 to 200 / 25 / 1 - µA / step]
002	Paper Transfer: Normal: 2nd	*ENG	[0 to 200 / 28 / 1 - µA / step]
003	Paper Transfer: Low: 1st	*ENG	[0 to 200 / 11 / 1 - µA /step]
004	Paper Transfer: Low: 2nd	*ENG	[0 to 200 / 14 / 1 – µA /step]

	[SP 3: L-Edge Correct] DFU Special 3 Paper: Leading Edge Correct	ion		
Adjusts the correction to the paper transfer roller current at the paper mode. SP2852 and SP2857 are multiplied by these SP values.				
	Normal: 120mm/sec, Low: 60mm/sec	: 120mm/sec, Low: 60mm/sec		
	♦ Note			
	with SP2872.			
001	Paper Transfer: Normal: 1st	*ENG		
002	Paper Transfer: Normal: 2nd	*ENG	[0.4- 400 / 100 / 5% /-4]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 400 / 100 / 5% /step]	
004	Paper Transfer: Low: 2nd	*ENG		

	[Special 3: Sw Timing: Lead. Edge] DFU			
Adjusts the bias/voltage switch timing of the paper to paper leading edge between the erase margin area of Normal: 120mm/sec, Low: 60mm/sec				
001	Paper Transfer: Normal: 1st	*ENG		
002	Paper Transfer: Normal: 2nd	*ENG	[0. 20 / 0 /0 /.]	
003	Paper Transfer: Low: 1st	*ENG	[0 to 30 / 0 / 2 mm/step]	
004	Paper Transfer: Low: 2nd	*ENG		

[SP 3: T-Edge Correct] DFU Special 3 Paper: Trailing Edge Correction Adjusts the correction to the paper transfer roller current for the paper trailing edge in each mode. SP2852 and SP2857 are multiplied by these SP values. 2873 Normal: 120mm/sec, Low: 60mm/sec **U** Note • The paper trailing edge area can be adjusted with SP2874. *ENG 001 Paper Transfer: Normal: 1st Paper Transfer: Normal: 2nd *ENG 002 [0 to 400 / 100 / 5%/step] 003 Paper Transfer: Low: 1st *ENG *ENG 004 Paper Transfer: Low: 2nd

[SP 3: Sw Timing: T-Edge] DFU			
2874	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate paper trailing edge between the erase margin area and the image area. Normal: 120mm/sec, Low: 60mm/sec		
001	Paper Transfer: Normal: 1st	*ENG	
002	Paper Transfer: Normal: 2nd	*ENG	
003	Paper Transfer: Low: 1st	*ENG	[-98 to 0 / 0 / 2 mm/step]
004	Paper Transfer: Low: 2nd	*ENG	

2880	[SP 3: Env. Correct Table] DFU Normal: 120mm/sec, Low: 60mm/sec		
003	Paper Transfer:BW:Normal:1st	*ENG	[1 to 50 / 23 / 1 /step]
004	Paper Transfer:BW:Normal:1st	*ENG	[1 to 50 / 26 / 1 /step]
005	Paper Transfer:FC:Normal:1st	*ENG	[1 to 50 / 38 / 1 /step]
006	Paper Transfer:FC:Normal:2nd	*ENG	[1 to 50 / 33 / 1 /step]
009	Paper Transfer:BW:Low:1st	*ENG	[1 to 50 / 32 / 1 /step]
010	Paper Transfer:BW:Low:2nd	*ENG	[1 to 50 / 21 / 1 /step]

011	Paper Transfer:FC:Low:1st	*ENG	[1 to 50 / 48 / 1 /step]
012	Paper Transfer:FC:Low:2nd	*ENG	[1 to 50 / 28 / 1 /step]

2883	[SP 6: Bias: BW]			
2003	Adjusts the current for the paper transfer ro	oller for spe	cial paper 6 in black-and-white mode.	
001	Paper Transfer *ENG [0 to 200 / 15 / 1 –μA /step]			

	2887	[SP 6: Bias: FC]		
Adjusts the current for the paper transfer roller for special paper 6 in full cold				ecial paper 6 in full color mode.
	001	*ENG [0 to 200 / 15 / 1 - µA /step]		[0 to 200 / 15 / 1 – µA /step]

	[SP6: L-Edge Correct] DFU			
	Special 5Paper: Leading Edge Correction			
2895	Adjusts the correction to the paper transfer roller current at the paper leading ed mode. SP2883 and SP2887 are multiplied by these SP values.			
	 ♦ Note			
	The paper leading edge area can be adjusted with SP2896.			
001	Paper Transfer	*ENG	[0 to 400 / 100 / 5%/step]	

	[SP 6: Sw Timing: L-Edge] DFU			
2896	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper leading edge between the erase margin area and the image area.			
001	Paper Transfer	*ENG	[0 to 30 / 0 / 2 mm/step]	

[SP6: T-Edge Correct] DFU Special 5 Paper: Trailing Edge Correction Adjusts the correction to the paper transfer roller current for the paper trailing edge in each mode. SP2883 and SP2887 are multiplied by these SP values. Note • The paper trailing edge area can be adjusted with SP2898.

001 Paper Transfer	*ENG [0 to 400 / 100 / 5%/step]	
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	[SP 6: Sw Timing: T-Edge] DFU			
2898	Adjusts the bias/voltage switch timing of the paper transfer roller/discharge plate at the paper trailing edge between the erase margin area and the image area.			
001	Paper Transfer	*ENG	[-98 to 0 / 0 / 2 mm/step]	

2899	[SP 6: Env. Correct Table] DFU		
003	Paper Transfer:BW: 1st	*ENG	[1 to 50 / 17 / 1 /step]
005	Paper Transfer:FC: 1st	*ENG	[1 to 50 / 29 / 1 /step]

2900	[Drum Idling Time]			
2900	Specifies the drum idling time at job end for each line speed.			
001	Normal Speed	*ENG	[0 to 60 / 5 / 1 sec / step]	
002	Low Speed	*ENG	[0 to 120 / 5 / 1 sec / step]	

	[Fus.Reload:DrumIdleTimeOffset] DFU				
2901	e at the re-load temperature in the half speed				
001	Coverage:0-6%	*ENG	[-60 to 300 / 0 / 1 sec/step]		
002	Coverage:6-10%	*ENG	[-60 to 300 / 0 / 1 sec/step]		
003	Coverage: 10-20%	*ENG	[-60 to 300 / 0 / 1 sec/step]		
004	Coverage:20-40%	*ENG	[-60 to 300 / 0 / 1 sec/step]		
005	Coverage:40%over	*ENG	[-60 to 300 / 0 / 1 sec/step]		

2902	[OPC Drum Rev Time] DFU		
Adjusts the time for how long the drum motor reverses after job end.			reverses after job end.
001	All: BW	*ENG	[0 to 200 / 60 / 10 msec/step]
002	All: FC	*ENG	[0 to 200 / 50 / 10 msec/step]

003	DevRev: FC	*ENG	[0 to 200 / 70 / 10 msec/step]
004	DevRev: Bk	*ENG	[0 to 200 / 200 / 10 msec/step]
005	All	*ENG	[0 to 400000 / 0 / 10/step]
006	К	*ENG	
007	С	*ENG	[0 to 999999999 / - / 1 / step]
800	М	*ENG	[0 to 44444444 / - / 1 / step]
009	Υ	*ENG	

	[Brake Time] DFU				
Adjusts the time when the image transfer by rotation after job end.		e transfer bel	t motor and drum motors reverses from normal		
001	Bk OPC Drum & Intermediate Transfer	*ENG			
002	FC OPC Drum	*ENG	[290 to 5000 / 290 / 10 msec/step]		
003	FC Development	*ENG			

2904	[ImageTrunsferRevTime] DFU			
2904	Adjusts the time for how long the image transfer belt motor reverses after job end.			
003	All	*ENG	[0 to 200 / 50 / 10 msec/step]	

2906	[Drum Stop Angle] DFU		
001	Color	*ENG	[0.4-250 / 0 / 1 don/stan]
002	Bk	*ENG	[0 to 359 / 0 / 1 deg/step]

2908	[GainAdj:TransferM] DFU				
Gain Adjustment of Image Transfer Belt Motor					
001	120 mm/sec	*ENG	[0 or 1 / 0 / 1/step] 0: GAIN: High speed		
	,	2. (3	1: GAIN: Low speed		

002	60 mm/sec	*ENG	[0 or 1 / 1 / 1 / step] 0: GAIN: High speed
			1: GAIN: Low speed

2915	[GainAdj:BkOpcDevM] DFU		
001	120 mm/sec	*ENG	[0 or 1 / 0 / 1/step] 0: GAIN: High speed 1: GAIN: Low speed
002	60 mm/sec	*ENG	[0 or 1 / 1 / 1 / step] 0: GAIN: High speed 1: GAIN: Low speed

2916	[GainAdj:ColorOpcM] DFU		
001	120 mm/sec	*ENG	[0 or 1 / 0 / 1/step] 0: GAIN: High speed 1: GAIN: Low speed
002	60 mm/sec	*ENG	[0 or 1 / 1 / 1 / step] 0: GAIN: High speed 1: GAIN: Low speed

2920	[Transfer Motor Ctrl]		
001	TransferMotorCtrl	*ENG	DFU [0 or 1 / 1 / 1 / step] 0: FG Control 1: ENC Control
002	SC443 Count	*ENG	[0 to 10 / 0 / 1 /step]
	Displays the detection times of SC443.		

	[P-Transfer:Bias Limit] DFU				
2930	Paper Transfer Roller Feed-back: Threshold Adjustment				
2730	Adjusts the threshold between high resistance (division 1) and low resistance (division the paper transfer roller. This SP affects SP2931 to SP2939.				
001	Bias	*ENG	[0 to 7000 / 6000 / 10 -V/step]		

2931	[Transfer Roller CL:Timing]			
001	T15:Standard Speed	*ENG	[-1000 to 1000 / 0 / 10 msec /step]	
001	Specifies the timing for the transfer roller cleaning after job end in the normal speed mode.			
000	T15:Low Speed	*ENG	[-2000 to 2000 / 0 / 10 msec /step]	
003	Specifies the timing for the transfer roller cleaning after job end in the low speed mode.			

2940	[Charge Bias On Timing]		
001	T1:Standard Speed DFU	*ENG	[-500 to 1000 / 0 / 10 msec /step]
	T1:Low Speed	*ENG	[-500 to 1000 / -80 / -80 msec /step]
If a horizontal white band at 40 mm from the leading edge occurs in the low speed change this setting from "-80" to "-500". [Side Effect]:			

2941	[Dev. Bias Down Mode] DFU		
001	T5:Bk:Normal	*ENG	[-140 to 140 / 0 / 10 msec /step]
002	T7:FC:Normal	*ENG	[-140 to 140 / 0 / 10 msec /step]
003	T5:Bk:Low	*ENG	[-210 to 210 / 0 / 10 msec /step]
004	T7: FC: Low	*ENG	[-210 to 210 / 0 / 10 msec /step]

2960	[Process Interval] DFU		
001	Additional Time	*ENG	[0 to 10 / 0 / 1 sec/step]

2971	[BW Non-Image:Bias ON]			
001	T1 BW:Bias On:Normal	*ENG	[-360 to 80 / 0 / 10 msec/step]	
	Adjusts the timing for the non-image area bias of the image transfer roller in the normal speed.			
000	T1 BW:Bias On:Low	*ENG	[-780 to 210 / 0 / 10 msec/step]	
003	Adjusts the timing for the non-image area bias of the image transfer roller in the low speed.			

2972	[BW Image Request Timing] DFU		
001	Fwait:K:Standard Speed	*ENG	[0 to 3000 / 0 / 10 msec /step]
002	Fwait:K:Low Speed	*ENG	[0 to 3000 / 0 / 10 msec /step]

2973	[Forced Process Down Threshold]		
	-	*ENG	[0 to 5000 / 0 / 1 page/step]
001	Specifies the threshold pages for the forced processing stop at a continuous printing job.		
	0: No forced processing stop (default)		

2974	[FC Image Request Timing]		
001	Fwait:Y:Standard Speed	*ENG	[0 to 3000 / 0 / 10 msec/step]
003	Fwait:Y:Low Speed	*ENG	[0 to 3000 / 0 / 10 msec/step]

2990	[Print Duty Control]				
001	Duty Control State	*ENG	[0 or 1 / 0 / 1 /step] 0: No limit, 1: Limit		
	Limit or does not limit the duty control for a continuous printing job.				
002	Duty Control Thresh Time	*ENG	[0 to 195 / 100 / 10 min./step]		
002	Specifies the judgment time for the duty control for a continuous printing job.				
	Duty Control Thresh	*ENG	[0 to 999999999 / 0 / 1 mm/step]		
003	Specifies the threshold for the duty control for a continuous printing job. 0: No duty control (default)				

004	Forced CPM Down Thresh: No Duty Control	*ENG	[0 to 5000 / 0 / 1 page/step]			
	Specifies the threshold page for the forced processing stop without the duty limit.					
005	Drum Stop Time: No Duty Control	*ENG	[300 to 1500 / 500 / 10 msec/step]			
	Specifies the drum brake time	without the d	uty limit.			
006	ITB Stop Time: No Duty Control	*ENG	[300 to 1500 / 500 / 10 msec/step]			
	Specifies the ITB brake time wi	thout the duty	/ limit.			
007	Forced CPM Down Thresh: Duty Control	*ENG	[0 to 5000 / 1 / 1 page/step]			
	Specifies the threshold page for the forced processing stop with the duty limit.					
008	Drum Stop Time: Duty Control	*ENG	[300 to 1500 / 1500 / 10 msec/step]			
000	Specifies the drum brake time with the duty limit.					
009	ITB Stop Time: Duty Control	*ENG	[300 to 1500 / 1500 / 10 msec/step]			
009	Specifies the ITB brake time with the duty limit.					
010	Duty Control: Start Time	*ENG	-			
010	Displays the execution time of the duty limit control.					
011	FC Development Stop Time: No Duty Control	*ENG	[290 to 5000 / 290 / 10 msec/step]			
	Specifies the development stop time without the duty limit.					
012	FC Development Stop Time: Duty Control	*ENG	[290 to 5000 / 1550 / 10 msec/step]			
	Specifies the development stop time with the duty limit.					
010	Duty Control Time	*ENG	[0 to 300 / 30 / 1 min/step]			
013	Specifies the duty control time.					

System SP3xxx

SP3-XXX (Process)

3011	[Process Cont. Manual Executi	ion]	
001	Normal Procon	-	Executes the normal process control manually (potential control). Check the result with SP3-325-001 after executing this SP.
002	Toner Density Adjst	-	Executes the toner density adjustment manually. Check the result with SP3-325-001 after executing this SP.
003	Procon BF-ACC	-	Executes the process control that is normally done before ACC. The type of process control is selected with SP3-041-004.
004	With Full MUSIC	-	Executes the process control that is normally done at the same time as MUSIC. This SP does the MUSIC (line position adjustment) twice.
005	With Normal MUSIC	-	Executes the process control that is normally done at the same time as MUSIC. This SP does the MUSIC (line position adjustment) once.

	[Process Cont. Check Result] Process Control Self-check Result		
	Displays the result of the latest process control self-check.		
3012	All colors are displayed. The results are displayed in the order "Y C M K"		
00.2	e.g., 11 (Y) 99 (C) 11 (M) 11 (K): The self-check for Cyan failed but the others were successful.		
	See the "Error Condition Tables" in the Process Control Error section for details.		

001	History: Latest	*ENG	
002	Result: Latest 1	*ENG	
003	Result: Latest 2	*ENG	
004	Result: Latest 3	*ENG	
005	Result: Latest 4	*ENG	[1111 to 99999999 / - / 1/step]
006	Result: Latest 5	*ENG	[
007	Result: Latest 6	*ENG	
008	Result: Latest 7	*ENG	
009	Result: Latest 8	*ENG	
010	Result: Latest 9	*ENG	

3013	[TD Sen Initial Setting] Developer Initialization Setting		
001	Execution: ALL	-	
002	Execution: COL	-	
003	Execution: Bk	-	Executes the TD sensor initialization for each
004	Execution: C	-	color.
005	Execution: M	-	
006	Execution: Y	-	

3014	[TD Sen Initial Set Result] Developer Initialization Result: Display		
	Display: YMCK	*ENG	[0 to 9999 / - / 1 /step] 1: Success 2 to 9: Failure
001	Displays the developer initialization result. See the "Error Condition Tables" in the Process Control Error section for details on the meaning of each code. All colors are displayed. Values are displayed in the order Y M C Bk. e.g., 1 (Y) 1 (M) 2 (C) 1 (Bk): Initialization of Cyan failed but the others succeeded.		

3015	[Forced Toner Supply] Forced Toner Supply ([Color])		
001	Execution: ALL	-	
002	Execution: COL (MCY)	-	
003	Execution: Bk	-	Executes the manual toner supply to the
004	Execution: C	-	development unit.
005	Execution: M	-	
006	Execution: Y	-	

2014	[Forced Toner Supply Cntl] Forced Toner Supply Setting ([Color])				
3016	Specifies the manual toner supply time for each color.				
001	Supply Time: Bk	*ENG			
002	Supply Time: C	*ENG	[0 += 20 / 4 / 1 -== /-+==1		
003	Supply Time: M	*ENG	[0 to 30 / 4 / 1 sec/step]		
004	Supply Time: Y	*ENG			

3020	[Vt Limit Error]		
001-	DFU		
005	БГО		
001	Delta Vt Threshold	*ENG	[0 to 5 / 5 / 0.01 V/step]
002	Upper Threshold	*ENG	[0 to 5 / 4.7 / 0.01 V/step]
003	Upper Error Thresh	*ENG	[0 to 99 / 20 / 1 time/step]
004	Lower Threshold	*ENG	[0 to 5 / 0.5 / 0.01 V/step]
005	Lower Error Thresh	*ENG	[0 to 99 / 10 / 1 times/step]

006	Upper Counter: Bk	*ENG	
007	Upper Counter: C	*ENG	
008	Upper Counter: M	*ENG	
009	Upper Counter: Y	*ENG	Displays the total times of the Vt upper or lower limit error.
010	Lower Counter: Bk	*ENG	[0 to 99 / 0 / 1 times/step]
011	Lower Counter: C	*ENG	
012	Lower Counter: M	*ENG	
013	Lower Counter: Y	*ENG	

3021	[TD Sensor Initial Set] Developer Initialization Setting				
3021	Specifies the developer agitation time for each color at the developer initialization.				
001	Agitation Time: Bk	*ENG			
002	Agitation Time: C	*ENG	[0. 000 / 20 / 1 / . 1		
003	Agitation Time: M	*ENG	[0 to 200 / 30 / 1 sec/step]		
004	Agitation Time: Y	*ENG			
005- 008	Sets the execution flag of the developer initialization for each color.				
005	Execution Flag: Bk	*ENG	[0 or 1 / 0 / 1/step]		
006	Execution Flag: C	*ENG	0: Flag OFF, 1: Flag ON		
007	Execution Flag: M	*ENG	This flag is cleared after executing TD sensor		
008	Execution Flag: Y	*ENG	initialization.		
009	Initial Setting Off	*ENG	Enables or disables developer initialization. DFU [0 or 1 / 0 / 1/step] 0: Enable, 1: Disable		

3022	[Toner Replenishment Mode]
	Sets the toner supply flag of each color.

005	Execution Flag: Bk	*ENG	[0 or 1 / 0 / 1/step]
006	Execution Flag: C	*ENG	0: Flag OFF, 1: Flag ON
007	Execution Flag: M	*ENG	This flag is cleared after executing TD sensor
008	Execution Flag: Y	*ENG	initialization.

3041	[Process Control Type]					
001	Bias Control	*ENG	[0 or 1 / 1 / 1/step] Alphanumeric 0: FIXED (Use the fixed values for the charge DC bias and development DC bias set with SP2-005 and SP2-229.) 1: CONTROL			
	Enables or disables the pro	ocess contr	ol.			
002	LD Power Control	*ENG	[0 or 1 / 1 / 1/step] Alphanumeric 0: FIXED (at the value in SP2221-xxx) 1: CONTROL (adjusted by process control)			
	Selects the LD power control mode.					
003	AutoControl Prohibition Set	*ENG	[O or 1 / 0 / 1/step] Alphanumeric O: Permit 1: Forbid			
	Enables or disables the automatic process control at power-on or door opening.					
004	Pre-ACC Process Control	*ENG	[0 to 2 / 2 / 1/step] 0: Not Execute 1: Process Control 2: TC Control			
	Selects the process control mode that is done before ACC.					
005	P-Pattern Selection	*ENG	[0 to 2 / 2 / 1 / step] 0: FIXED 1: INITIALIZED 2: CALCULATED			

3043	[TD Adjustment Mode]				
	Repeat Number: Power ON	*ENG	[0 to 9 / 4 / 1 time/step]		
001	Specifies the maximum number of repeats of the toner density adjustment at power on. O: Disabled, 1 to 3: Repeat number, 4: Repeat three times (No consumption mode) 5: Repeat three times (Toner is supplied only when the toner density is too low, and toner consumed only when the toner density is too dark.) 6 to 9: Disabled				
	Repeat Number: Initial	*ENG	[0 to 9 / 3 / 1 time/step]		
002	initialization. 0: Disabled, 1 to 3: Repeat number, 4: Repeat three times (No consumption	mode) only when	the toner density is too low, and toner is		
	Repeat Number: Non-use	*ENG	[0 to 9 / 0 / 1 time/step]		
003	0: Disabled, 1 to 3: Repeat number, 4: Repeat three times (No consumption	mode) only when	ner density adjustment in stand by mode. the toner density is too low, and toner is		
	Repeat Number: ACC	*ENG	[0 to 9 / 3 / 1 time/step]		
004	Specifies the maximum number of repeats of the toner density adjustment at ACC. 0: Disabled, 1 to 3: Repeat number, 4: Repeat three times (No consumption mode) 5: Repeat three times (Toner is supplied only when the toner density is too low, and toner is consumed only when the toner density is too dark.) 6 to 9: Disabled				

	Repeat Number: Recovery	*ENG	[0 to 9 / 3 / 1 time/step]			
005	Not used					
	Repeat Number: Job End	*ENG	[0 to 9 / 4 / 1 time/step]			
	Specifies the maximum number of repea	ats of the to	ner density adjustment at job end.			
	0: Disabled, 1 to 3: Repeat number,		, , , ,			
006	4: Repeat three times (No consumption	mode)				
	5: Repeat three times (Toner is supplied consumed only when the toner density i	,	•			
	6 to 9: Disabled					
	Repeat Number:Interrupt	*ENG	[0 to 9 / 0 / 1 time/step]			
007	Specifies the maximum number of repea	ats of the to	oner density adjustment during printing			
000	Toner Supply Coeff.	*ENG	[0 to 25.5 / 10 / 0.1 sec/step]			
800	Adjusts the time for the toner supply mo	de when a	toner density is detected to be low.			
	C-pattern: Bk	*ENG	[0 to 255 / 5 / 1 time/step]			
009	Specifies the belt mark generating time for checking the black toner density when toner density is detected to be low at the toner density adjustment.					
	C-pattern: C	*ENG	[0 to 255 / 5 / 1 time/step]			
010	Specifies the belt mark generating time for checking the magenta toner density when tone density is detected to be low at the toner density adjustment.					
	C-pattern: M	*ENG	[0 to 255 / 5 / 1 time/step]			
011	Specifies the belt mark generating time for checking the cyan toner density when tor is detected to be low at the toner density adjustment.					
	C-pattern: Y	*ENG	[0 to 255 / 5 / 1 time/step]			
012	Specifies the belt mark generating time density is detected to be low at the tone		- ,			
010	T1 Bias: Bk	*ENG	[0 to 80 / 10 / 1 µA/step]			
013	Adjusts the image transfer belt bias for Black.					

01.4	T1 Bias: C	*ENG	[0 to 80 / 10 / 1 µA/step]					
014	Adjusts the image transfer belt bias for Magenta.							
015	T1 Bias: M	*ENG	[0 to 80 / 10 / 1 µA/step]					
015	Adjusts the image transfer belt bias for Cyan.							
01/	T1 Bias: Y	*ENG	[0 to 80 / 10 / 1 µA/step]					
016	Adjusts the image transfer belt bias for	ellow.						
017	Developer Agitation Time	*ENG	[0 to 250 / 10 / 1 sec/step]					
017	Specifies the developer mixing time at t	he toner de	ensity adjustment.					
	C-Pattern: LD: DUTY: Bk	*ENG	[0 to 15 / 15 / 1 /step]					
010	Adjusts the LD duty for the toner consum	ption mod	e at the toner density adjustment.					
018	In toner consumption mode, toner is discharged when the detected development gamma values (SP3611-001) exceed the target values (SP3611-005) by more than the specified thresholds (SP3239-009).							
	C-Pattern: LD: DUTY: C	*ENG	[0 to 15 / 15 / 1 /step]					
010	Adjusts the LD duty for the toner consumption mode at the toner density adjustment.							
019	In toner consumption mode, toner is discharged when the detected development gamma values (SP3611-002) exceed the target values (SP3611-006) by more than the specified thresholds (SP3239-009).							
	C-Pattern: LD: DUTY: M	*ENG	[0 to 15 / 15 / 1 /step]					
000	Adjusts the LD duty for the toner consumption mode at the toner density adjustment.							
020	In toner consumption mode, toner is discharged when the detected development gamma values (SP3611-003) exceed the target values (SP3611-007) by more than the specified thresholds (SP3239-009).							
	C-Pattern: LD: DUTY: Y	*ENG	[0 to 15 / 15 / 1 /step]					
001	Adjusts the LD duty for the toner consum	ption mod	e at the toner density adjustment.					
021	In toner consumption mode, toner is discharged when the detected development gamma values (SP3611-004) exceed the target values (SP3611-008) by more than the specified thresholds (SP3239-009).							

3044	[Toner Supply Type] Toner Supply Type ([Color])				
3044	Selects the toner supply method type.				
001	Bk	*ENG	[0 to 4 / 4 / 1/step] Alphanumeric		
002	С	*ENG	0: FIXED (with the supply rates stored with SP 3401)		
003	М	*ENG	1: PID (Vtref_Fixed) 2: PID (Vtref_Control)		
004	Y	*ENG	3: MBD (Vtref_Fixed) 4: MBD (Vtref_Control)		

20.45	[Toner End Detection: Set]				
3045	Enables/disables the toner alert display on the LCD.				
001	ON/OFF	*ENG	DFU [0 or 1 / 0 / 1 / step] 0: Detect, 1: Not Detect		
002	NE Detection	*ENG	[0 or 1 / 0 / 1/step] 0: ALL (Calculation and TE sensor) 1: TE Sensor		

3101	[Toner End/Near End]					
3101	Displays the amount of each color toner.					
001	Toner Replenishment: Bk	*ENG				
002	Toner Replenishment: C	*ENG	[1400 / 225 / 1/]			
003	Toner Replenishment: M	*ENG	[1 to 600 / 235 / 1 g/step]			
004	Toner Replenishment: Y	*ENG				
005-008	Displays the consumed amount of	each col	or toner.			
005	Toner Consumption: Bk	*ENG				
006	Toner Consumption: C	*ENG	[0 to 2000 / 0 / 0 001 or /stan]			
007	Toner Consumption: M	*ENG	[0 to 3000 / 0 / 0.001 g/step]			
008	Toner Consumption: Y	*ENG				

009-012	Displays the remaining amount of each color toner. These are calculated by the operating times of the toner supply pumps.					
009	Toner Remaining: Bk	*ENG				
010	Toner Remaining: C	*ENG	[500	2004-400 / 2 / 0 001 - / 41		
011	Toner Remaining: M	*ENG	- [-300	000 to 600 / 0 / 0.001 g/step]		
012	Toner Remaining: Y	*ENG				
013-016	Adjusts the threshold of toner near end for each color. The toner near end message appears on the LCD when the remaining toner amount reaches this threshold. When one of these SPs (SP3-101-009 to 012 or -032 to -035) reaches this threshold, toner near end is detected.					
013	Near End Thresh: Bk	*ENG	[0 to 6	500 / 13 / 1 g/step]		
014	Near End Thresh: C	*ENG				
015	Near End Thresh: M	*ENG	[0 to 6	500 / 3 / 1 g/step]		
016	Near End Thresh: Y	*ENG	-			
	Delta Vt Threshold	*ENG	[0 to 5	5 / 0.5 / 0.01 V/step]		
021	This SP is the threshold for toner e					
022-025	Displays the total delta Vt (Vt-Vtre counting.	f) value fo	or each	color.These are calculated by pixel		
022	Delta Vt Sum: Bk	*	ENG			
023	Delta Vt Sum: C	*	ENG	[0.4-455 / 0./0.01.V/-4]		
024	Delta Vt Sum: M	*ENG		[0 to 655 / 0 / 0.01 V/step]		
025	Delta Vt Sum: Y	*ENG				
026	Delta Vt Sum Threshold	*ENG		[0 to 255 / 10 / 1 V/step]		
028-031	Displays the consumed toner amount calculated with the pixel count for each color.					

028	Pixel: Consumption: Bk	*ENG	
029	Pixel: Consumption: C	*ENG	[0. 2000 / 0 /0.001 /.]
030	Pixel: Consumption: M	*ENG	[0 to 3000 / 0 / 0.001 g/step]
031	Pixel: Consumption: Y	*ENG	
032-035	Displays the remaining toner ar	nount for e	ach color, using pixel count.
032	Pixel: Remaining : Bk	*ENG	
033	Pixel: Remaining : C	*ENG	[50000+-400/ 0 /0001/]
034	Pixel: Remaining : M	*ENG	[-50000 to 600 / 0 / 0.001 g/step]
035	Pixel: Remaining : Y	*ENG	
040-043	Displays the pixel M/A for eac	h color.	
040	Pixel M/A: Bk	*ENG	
041	Pixel M/A: C	*ENG	[0 to 1 / 0.05 / 0.001 mg/cm ² /step]
042	Pixel M/A: M	*ENG	
043	Pixel M/A: Y	*ENG	[0 to 1 / 0.6 / 0.001 mg/cm ² /step]
044	Delta Vt Thresh BF NE	*ENG	Adjusts the delta Vt (Vt – Vtref) of toner end before toner near end is detected. [0 to 5 / 0.5 / 0.01 V/step]
045	Delta Vt Sum Thresh BF NE	*ENG	Adjusts the total delta Vt (Vt – Vtref) of toner end before toner near end is detected. [0 to 255 / 10 / 1 V/step]
046-049	Displays the latest mohno off tin	ne.	
046	Mohno Off Time: Bk	*ENG	
047	Mohno Off Time: C	*ENG	[0 to 0 x FFFFFFFF / 0 / 1 sec/step]
048	Mohno Off Time: M	*ENG	[O O X FFFFFFF / O / 1 sec/siep]
049	Mohno Off Time: Y	*ENG	
050-053	Adjusts the threshold of the rem	aining tone	er for the toner near-end detection. DFU
	3		

050	TE Sn Detect Thresh:Bk	*ENG	
051	TE Sn Detect Thresh:C	*ENG	[14-400 / 57 / 1 m / 44-m]
052	TE Sn Detect Thresh:M	*ENG	[1 to 600 / 57 / 1 g/step]
053	TE Sn Detect Thresh:Y	*ENG	

	[Toner End Recovery]		
3102	Adjusts the number of times tor continues to detect toner end c	,	ENG [1 to 20 / 5 / 1 time/step]
001	Repeat: Bk	*ENG	
002	Repeat: C	*ENG	[] +- 20 / F /] time /]
003	Repeat: M	*ENG	[1 10 20 / 3 / 1 11me/step]
004	Repeat: Y	*ENG	

3131	[TE Count: Display]			
3131	Display the number of toner end detections for each color.			
001	Bk	*ENG		
002	С	*ENG	[0 += 00 / 0 / 1 **** - /]	
003	М	*ENG	[0 to 99 / 0 / 1 time/step]	
004	Υ	*ENG		

3201	[TD Sensor: Vt Display]		
3201	Display the current voltage of the TD sensor for each color.	or for each color.	
001	Current: Bk	*ENG	
002	Current: C	*ENG	[0.5.5.5./001./0.01.V/stan]
003	Current: M	*ENG	[0 to 5.5 / 0.01 / 0.01 V/step]
004	Current: Y	*ENG	

	[Vt Shift: Display/Set]			
3211	Adjusts the Vt correction value for each line speed.			
	Normal: 120 mm/sec, Low: 60 mm/sec			
001	Med Speed Shift:Bk	*ENG		
002	Med Speed Shift:C	*ENG	[0 5 / 0.00 / 0.01 \/ /]	
003	Med Speed Shift:M	*ENG	[0 to 5 / 0.29 / 0.01 V/step]	
004	Med Speed Shift:Y	*ENG		
005	Low Speed Shift:Bk	*ENG	[0 to 5 / 0.28 / 0.01 V/step]	
006	Low Speed Shift:C	*ENG		
007	Low Speed Shift:M	*ENG	[0 to 5 / 0.31 / 0.01 V/step]	
008	Low Speed Shift:Y	*ENG		
013	Low TCShift: K	*ENG		
014	Low TCShift: C	*ENG	[05ta05/ 0 /001V/stan]	
015	Low TCShift: M	*ENG	[-0.5 to 0.5 / 0 / 0.01 V/step]	
016	Low TCShift: Y	*ENG		

3221	[Vtcnt: Display/Set]			
3221	Displays or adjusts the current Vtcnt value for each color.			
001	Current: Bk	*ENG		
002	Current: C	*ENG	[0.5 / 4 / 0.01 \ V / 1]	
003	Current: M	*ENG	[2 to 5 / 4 / 0.01 V/step]	
004	Current: Y	*ENG		
005- 008	Displays or adjusts the Vtcnt vo	ılue for ead	ch color at developer initialization.	

005	Initial: Bk	*ENG	
006	Initial: C	*ENG	[2+5/4/0017/41
007	Initial: M	*ENG	[2 to 5 / 4 / 0.01 V/step]
800	Initial: Y	*ENG	

0000	[Vtcnt: Display/Set]		
3222	Displays or adjusts the current Vtref value for each color.		
001	Current: Bk	*ENG	
002	Current: C	*ENG	[0. 55/ 2 /001V/.]
003	Current: M	*ENG	[0 to 5.5 / 3 / 0.01 V/step]
004	Current: Y	*ENG	
005- 008	Displays or adjusts the Vtref value for each color at developer initialization.		
005	Initial: Bk	*ENG	
006	Initial: C	*ENG	[O. 5.5./2./O.01.V/]
007	Initial: M	*ENG	[0 to 5.5 / 3 / 0.01 V/step]
800	Initial: Y	*ENG	
009-	Displays or adjusts Vtref correc	tion by niv	val coverage for each color
012	Displays of dajosis viter correc	by pix	ei coverage for each color.
009	Pixel Correction: Bk	*ENG	[-5 to 5.5 / 0 / 0.01 V/step]
010	Pixel Correction: C	*ENG	[-3 10 3.3 / 0 / 0.01 v /siep]
011	Pixel Correction: M	*ENG	[-5 to 5 / 0 / 0.01 V/step]
012	Pixel Correction: Y	*ENG	[-3 10 3 / 0 / 0.01 v / siep]

3223	[Vtref U/L-Limit Set]
3223	Adjusts the lower or upper limit value of Vtref for each color.

001	Lower: Bk	*ENG	
002	Lower: C	*ENG	[0.5.5.42.40.01.1/4]
003	Lower: M	*ENG	[0 to 5 / 2 / 0.01 V/step]
004	Lower: Y	*ENG	
005	Upper: Bk	*ENG	
006	Upper: C	*ENG	[0. 5 / 4 / 0 0] \ \ / .]
007	Upper: M	*ENG	[0 to 5 / 4 / 0.01 V/step]
008	Upper: Y	*ENG	
009	Initial TC	*ENG	Adjusts the initial toner concentration. [1 to 15 / 7 / 0.1 wt%/step]
010	Upper: TC	*ENG	Adjusts the upper limit of the toner concentration. [1 to 15 / 8.5 / 0.1 wt%/step]
011	Lower: TC	*ENG	Adjusts the lower limit of the toner concentration. [1 to 15 / 4 / 0.1 wt%/step]
012	Upper Sensitivity	*ENG	Adjusts the upper limit of the TD sensor sensitivity. [0.2 to 0.5 / 0.44 / 0.001 V/wt% /step]
013	Lower Sensitivity	*ENG	Adjusts the lower limit of the TD sensor sensitivity. [0.2 to 0.5 / 0.209 / 0.001 V/wt% /step]
014	TD Thresh H/M	*ENG	[1 to 10 / 3.5 / 0.1 wt%/step]
015	TD Thresh M/L	*ENG	[1 to 10 / 3.5 / 0.1 wt%/step]
016	UpperTC:K	*ENG	
017	UpperTC:C	*ENG	[1 to 15 / 8.5 / 0.1 wt%/step]
018	UpperTC:M	*ENG	Adjusts the upper limit of the toner concentration for each color.
019	UpperTC:Y	*ENG	

3224	[Vtref Correct: Pixel]	
3222	Adjusts the coefficient of Vtref correction for each coverage and color.	

001	Low Coverage Coeff. Bk	*ENG	
002	Low Coverage Coeff.C	*ENG	[0.5/00/01/.]
003	Low Coverage Coeffi.M	*ENG	[0 to 5 / 0.2 / 0.1 /step]
004	Low Coverage Coeff. Y	*ENG	
005	High Coverage Coeff, Bk	*ENG	
006	High Coverage Coeff, C	*ENG	[0. 5 / 0.0 / 0.01 \ / / .]
007	High Coverage Coeff, M	*ENG	[0 to 5 / 0.3 / 0.01 V/step]
800	High Coverage Coeff, Y	*ENG	
009	Low Coverage: Thresh	*ENG	Adjusts the threshold of the low coverage. [0 to 20 / 3 / 0.1 %/step]
010	High Coverage: Thresh:M	*ENG	Adjusts the threshold of the high coverage. [0 to 100 / 60 / 1 %/step]
011	TC Upper Limit Correction	*ENG	[0 to 5 / 0.5 / 0.1 wt%/step]
012	TC Upper Limit:Display:Bk	*ENG	
013	TC Upper Limit:Display: C	*ENG	[] to 15 / 9.5 / O] with / store]
014	TC Upper Limit:Display: M	*ENG	[1 to 15 / 8.5 / 0.1 wt% /step]
015	TC Upper Limit:Display: Y	*ENG	
016	Process Control Threshold:M	*ENG	[0 to 255 / 50 / 1 time/step]
017	High Coverage: Threshold:H	*ENG	Adjusts the threshold of the high
018	High Coverage: Threshold:L	*ENG	coverage. [0 to 100 / 20 / 1 %/step]
019	Process Control Thresh:H	*ENG	[0 to 255 / 14 / 1 time/step]
020	Process Control Thresh:L	*ENG	[0 10 200 / 14 / 1 IIIIIe/ siep]
021	Initial ProCon Thresh	*ENG	[0 to 255 / 6 / 1 time/step]
022	High Coverage Thresh:LS	*ENG	[0 to 100 / 10 / 1 %/step]

023 Process Control Thresh:LS	*ENG	[0 to 255 / 4 / 1 time/step]	
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3230	[Toner Supply MBD] DFU		
001	ADD:TIME	*ENG	[0 to 2000 / 200 / 10 msec/step]
002	ADD:K	*ENG	
003	ADD:C	*ENG	[0.01 to 2./1./0.01./ston]
004	ADD:M	*ENG	[0.01 to 2 / 1 / 0.01 /step]
005	ADD:Y	*ENG	
007	ADD:LowSpd	*ENG	[0.01 to 5 / 1 / 0.01 /step]
008	MSEC_V	*ENG	[0 to 1 / 0.080 / 0.001/step]
009	N_Delay	*ENG	[0 to 200 / 27 / 1 /step]
030	PID:I:K	*ENG	
031	PID:I:C	*ENG	[0 to 100 / 0.4 / 0.01 /step]
032	PID:I:M	*ENG	[0.10.100 / 0.4 / 0.01 / siep]
033	PID:I:Y	*ENG	
034	PID:P:K	*ENG	
035	PID:P:C	*ENG	[0 to 100 / 8 / 0.01 /step]
036	PID:P:M	*ENG	[0 10 100 / 6 / 0.01 / siep]
037	PID:P:Y	*ENG	
039	PID:I:LowSpd	*ENG	[0 to 5 / 0.5 / 0.01 /ston1
041	PID:P:LowSpd	*ENG	[0 to 5 / 0.5 / 0.01 /step]
060	AWILOW:K	*ENG	
061	AWILOW:C	*ENG	[1] /0.125 /0.0001 /]
062	AWILOW:M	*ENG	[-1 to 1 / 0.125 / 0.0001 /step]
063	AWILOW:Y	*ENG	

	I I		
064	AWPUP:K	*ENG	
065	AWPUP:C	*ENG	[] to] /] /0.0001 /ston]
066	AWPUP:M	*ENG	[-1 to 1 / 1 / 0.0001 /step]
067	AWPUP:Y	*ENG	
070	AWILOW:LowSpd	*ENG	[0+ 100 / 2 / 0 01 / +1
071	AWPUP:LowSpd	*ENG	[0 to 100 / 2 / 0.01 /step]
090	SMITH:K	*ENG	
091	SMITH:C	*ENG	[04-2/004/001/44-1]
092	SMITH:M	*ENG	[0 to 2 / 0.06 / 0.01 /step]
093	SMITH:Y	*ENG	
095	SMITH:LowSpd	*ENG	[0 to 5 / 1.5 / 0.01 /step]
100	Int_conserve_I_K	*ENG	
101	Int_conserve_I_C	*ENG	[-1000 to 1000 / 0 / 0.0001 /step]
102	Int_conserve_I_M	*ENG	[-1000 to 1000 / 0 / 0.0001 / step]
103	Int_conserve_I_Y	*ENG	
110	ANC_ref_conserve_K	*ENG	
111	ANC_ref_conserve_C	*ENG	[1000+1000/ 0 /00001/+]
112	ANC_ref_conserve_M	*ENG	[-1000 to 1000 / 0 / 0.0001 /step]
113	ANC_ref_conserve_Y	*ENG	
120	ANC_A3_K	*ENG	
121	ANC_A3_C	*ENG	[0, 1/017/0001/: 1
122	ANC_A3_M	*ENG	[0 to 1 / 0.17 / 0.001 /step]
123	ANC_A3_Y	*ENG	

124	ANC_A4_K	*ENG	
125	ANC_A4_C	*ENG	[0.4-1/0.17/0.001/44-4]
126	ANC_A4_M	*ENG	[0 to 1 / 0.17 / 0.001 /step]
127	ANC_A4_Y	*ENG	
130	ANC_A3_LowSpd	*ENG	[0 to 1 / 0.44 / 0.001 /step]
131	ANCA4T_LowSpd	*ENG	[0 to 1 / 0.4 / 0.001 /step]
150	AWPNI_K	*ENG	
151	AWPNI_C	*ENG	[10, 10 / 00 / 000] / ,]
152	AWPNI_M	*ENG	[-10 to 10 / 0.2 / 0.001 /step]
153	AWPNI_Y	*ENG	
154	PID	*ENG	[0 to 5 / 1 / 0.01 /step]
180	ancla_k	*ENG	
181	ANCLA_C	*ENG	[0, 1/005/0001/, 1
182	ANCLA_M	*ENG	[0 to 1 / 0.25 / 0.001 /step]
183	ANCLA_Y	*ENG	
184	ancib_k	*ENG	
185	anclb_c	*ENG	[0+1/021/0001/+1
186	ancib_m	*ENG	[0 to 1 / 0.31 / 0.001 /step]
187	ANCLB_Y	*ENG	
190	ANCLA_LowSpd	*ENG	[0 to 5 / 0.36 / 0.01 /step]
191	ANCLB_LowSpd	*ENG	[0 to 5 / 0.29 / 0.01 /step]
210	PIX_TBL_1	*ENG	
211	PIX_TBL_2	*ENG	
212	PIX_TBL_3	*ENG	[0 to 5 / 1 / 0.01 /step]
213	PIX_TBL_4	*ENG	
214	PIX_TBL_5	*ENG	

215 F	PIX_TBL_6		
		*ENG	
216 F	PIX_TBL_7	*ENG	
217 F	PIX_TBL_8	*ENG	
218 F	PIX_TBL_9	*ENG	[0 to 5 / 1 / 0.01 /step]
219 F	PIX_TBL_10	*ENG	
220 F	PIX_TBL_1 1	*ENG	
221 F	PIX_TBL_12	*ENG	
222 F	PIX_COR_K	*ENG	
223 F	PIX_COR_C	*ENG	[0 to 5 / 1 / 0.01 /step]
224 F	PIX_COR_M	*ENG	[0 10 3 / 1 / 0.01 / siep]
225 F	PIX_COR_Y	*ENG	
226	SEL_PIX_AVE	*ENG	[1 to 5 / 2 / 1 /step]
231 F	PID_I_LIM1_Std	*ENG	[0 to 1 / 0.156 / 0.001 /step]
233 F	PID_I_LIM1_LowSpd	*ENG	[0 to 1 / 0.078 / 0.001 /step]
234 F	PID_I_LIM2_Std	*ENG	[0 to 1 / 0.156 / 0.001 /step]
236 F	PID_I_LIM2_LowSpd	*ENG	[0 to 1 / 0.078 / 0.001 /step]
237 F	PID_P_LIM1_Std	*ENG	[0 to 1 / 0.156 / 0.001 /step]
239 F	PID_P_LIM1_LowSpd	*ENG	[0 to 1 / 0.078 / 0.001 /step]
240 F	PID_P_LIM2_Std	*ENG	[0 to 1 / 0.156 / 0.001 /step]
242 F	PID_P_LIM2_LowSpd	*ENG	[0 to 1 / 0.078 / 0.001 /step]
243 F	PID_I_STDtoLOW	*ENG	[0 to 5 / 0.5 / 0.01 /step]
244 F	PID_I_LOWtoSTD	*ENG	[0 to 5 / 2 / 0.01 /step]

3231	[Toner Supply: Setting] DFU	
3231	Adjusts the coefficient of the toner supply time for each color.	

001	Conversion Coeff.:Bk	*ENG	
002	Conversion Coeff.:C	*ENG	[0.5], 0.00 / 2.22 / 0.01 /]
003	Conversion Coeff.:M	*ENG	[0.5 to 9.99 / 3.33 / 0.01 /step]
004	Conversion Coeff.:K	*ENG	

3232	[T-Supply Coeff.: Setting] DFU		
001	Vt Proportion: Bk	*ENG	
002	Vt Proportion: C	*ENG	[0 to 2550 / 50 / 1 /ston]
003	Vt Proportion: M	*ENG	[0 to 2550 / 50 / 1 /step]
004	Vt Proportion: Y	*ENG	
005	Pixel Proportion: Bk	*ENG	
006	Pixel Proportion: C	*ENG	[0 to 2.55 / 0.47 / 0.01 /step]
007	Pixel Proportion: M	*ENG	[0 10 2.33 / 0.47 / 0.01 / step]
008	Pixel Proportion: Y	*ENG	
009	Vt Integral Control: Bk	*ENG	
010	Vt Integral Control: C	*ENG	[0 to 2550 / 500 / 1 /step]
011	Vt Integral Control: M	*ENG	[0 10 2330 / 300 / 1 / siep]
012	Vt Integral Control: Y	*ENG	
013	Vt Sum Times: Bk	*ENG	
014	Vt Sum Times: C	*ENG	[1 to 255 / 20 / 1 time/step]
015	Vt Sum Times: M	*ENG	[1 10 522 / 50 / 1 lillie/ sieh]
016	Vt Sum Times: Y	*ENG	

3233	[Pixel-Prop. Coeff.2:Set] DFU		
001	Correction Coeff.: 1	*ENG	[0 to 2.55 / 1 / 0.01 /step]
002	Correction Coeff.:2	*ENG	[0 to 2.55 / 0.5 / 0.01 /step]
003	Correction Coeff.:3	*ENG	[0 to 2.55 / 0 / 0.01 /step]

004	Correction Coeff.:4	*ENG	[0 to 2.55 / 0.25 / 0.01 /step]
005	Correction Coeff.:5	*ENG	[0 to 2.55 / 0.5 / 0.01 /step]

3234	[Pixel-Prop. Coeff.3:Set] DFU		
001	Correction Value 1	*ENG	[-0.1 to 0 / -0.01 / 0.01 /step]
002	Correction Value 2	*ENG	[0 to 0.1 / 0.01 / 0.01 /step]

3235	[Toner Supply Coeff.: Display] DFU			
001	Pixel Proportion 2: Bk	*ENG		
002	Pixel Proportion 2: C	*ENG	[0+-255/1/001/++]	
003	Pixel Proportion 2: M	*ENG	[0 to 2.55 / 1 / 0.01 /step]	
004	Pixel Proportion 2: Y	*ENG		
005	Pixel Proportion 3: Bk	*ENG		
006	Pixel Proportion 3: C	*ENG	[0.7 to 1.2 / 1 / 0.01 /ston]	
007	Pixel Proportion 3: M	*ENG	[0.7 to 1.3 / 1 / 0.01 /step]	
008	Pixel Proportion 3: Y	*ENG		
009	Vt Integral Value: Bk	*ENG		
010	Vt Integral Value: C	*ENG	[255 to 255 / 0 / 0.01 /stop]	
011	Vt Integral Value: M	*ENG	[-255 to 255 / 0 / 0.01 /step]	
012	Vt Integral Value: Y	*ENG		

3236	[Toner Supply Consum.: Display]				
3230	Displays the toner amount of the latest toner supply for each color.				
001	Latest: Bk	*ENG			
002	Latest: C	*ENG	[0+-40000 / 0 / 0 1 /]		
003	Latest: M	*ENG	[0 to 40000 / 0 / 0.1 mg/step]		
004	Latest: Y	*ENG			

3237	[Developer Agitation Setting]				
3237	Displays the toner amount of the latest toner supply for each color.				
001	Agitation Time	*ENG	[0 to 200 / 5 / 1 sec/step]		

2020	[Vt Target: Setting]				
3238	Displays the Vt target value at developer initialization.				
001	Bk	*ENG			
002	С	*ENG	[0. 5 / 0.7 /0.01 \ / \ . 1		
003	М	*ENG	[0 to 5 / 2.7 / 0.01 V/step]		
004	Υ	*ENG			

3239	[Vtref Correction: Setting]				
3239	Adjusts the parameter for Vtref correction at the process control.				
001	(+)Consumption: Bk	*ENG			
002	(+)Consumption: C	*ENG			
003	(+)Consumption: M	*ENG			
004	(+)Consumption: Y	*ENG	[0+-1/005/001V/]		
005	(-)Consumption: Bk	*ENG	[0 to 1 / 0.05 / 0.01 V/step]		
006	(-)Consumption: C	*ENG			
007	(-)Consumption: M	*ENG			
008	(-)Consumption: Y	*ENG			
009-012	Threshold for development go	amma rank			
009	P Rank 1 Threshold	*ENG	[0 to 2 / 0.15 / 0.01 /step]		
010	P Rank 2 Threshold	*ENG	[0 to 2 / 0.05 / 0.1 /step]		
011	P Rank 3 Threshold	*ENG	[-2 to 0 / -0.05 / 0.1 /step]		
012	P Rank 4 Threshold	*ENG	[-2 to 0 / -0.15 / 0.01 /step]		
013-014	Threshold for image density rank on the image transfer belt.				

013	T Rank 1 Threshold	*ENG	[-1 to 0 / -0.2 / 0.01 V/step]
014	T Rank 2 Threshold	*ENG	[0 to 1 / 0.2 / 0.01 V/step]

3241	[Background Potential Setting]				
001	Coefficient: Bk	*ENG	These are parameters for calculating the charge		
002	Coefficient: C	*ENG	bias referring to the development bias at process control.		
003	Coefficient: M	*ENG	[-1000 to 1000 / 0 / 1 /step]		
004	Coefficient: Y	*ENG	DC charge bias = Development bias x (1 + 0.001 x these vales) + SP3-241-005 to -008		
005	Offset: Bk	*ENG	These are additional values for calculating the		
006	Offset: C	*ENG	charge bias referring to the development bias at process control.		
007	Offset: M	*ENG	[0 to 255 / 140 / 1 V/step]		
008	Offset: Y	*ENG	DC charge bias = Development bias x (1 + 0.001 x SP3-241-001 to -004) + these values		

3242	[LD Power Setting]				
3242	Adjusts the coefficient for LD power control value at the process control.				
001	Coefficient: Bk				
002	Coefficient: C	*ENG	[1000 to 1000 / 100 / 1 / to]		
003	Coefficient: M	*ENG	[-1000 to 1000 / 128 / 1 /step]		
004	Coefficient: Y	*ENG			
005	Offset: Bk	*ENG			
006	Offset: C	*ENG	[-1000 to 1000 / 27 / 1 /step]		
007	Offset: M	*ENG	[-1000 to 1000 / 27 / 1 / step]		
008	Offset: Y	*ENG			

017	Low Speed Coeff.:Bk	*ENG	
018	Low Speed Coeff.:C	*ENG	[1000 to 1000 / 100 / 1 / to]
019	Low Speed Coeff.:M	*ENG	[-1000 to 1000 / 128 / 1 /step]
020	Low Speed Coeff.:Y	*ENG	
021	Low Speed Offset:Bk	*ENG	
022	Low Speed Offset:C	*ENG	[-1000 to 1000 / 58 / 1 /step]
023	Low Speed Offset:M	*ENG	[-1000101000/ 36 / 1/siep]
024	Low Speed Offset:Y	*ENG	

20.42	[DevBias_SpdCorrectSetting]				
3243	Adjusts the coefficient or offset value for development bias correction for each speed.				
009	LowSpd:Coef:Bk	*ENG			
010	LowSpd:Coef:M	*ENG	[0.5 to 1.5 / 1 / 0.01 /step]		
011	LowSpd:Coef:C	*ENG	[0.5 to 1.5 / 1 / 0.01 / step]		
012	LowSpd:Coef:Y	*ENG			
013	LowSpd:offset:Bk	*ENG			
014	LowSpd:offset:M	*ENG	[0 to 200 / 0 / 1 V/step]		
015	LowSpd:offset:C	*ENG	[O 10 200 / U / 1 v/siep]		
016	LowSpd:offset:Y	*ENG			

3251	[Coverage]				
3231	These (-001 to -016) are coefficients for SP3-222-009 to -012.				
001	Latest: Pixcel Bk	*ENG			
002	Latest: Pixcel C	*ENG	Displays the latest coverage for each color.		
003	Latest: Pixcel M	*ENG	[0 to 9999 / 0 / 1 cm ² /step]		
004	Latest: Pixcel Y	*ENG			

	Displays the average coverage of each color for the Vtref correction.				
005-008	"Average S" is defined when the number of developed pages does not reach the number specified with SP3251-017.				
005	Average S: Bk	*ENG			
006	Average S: C	*ENG	[0100 / F / 0.01 % /1		
007	Average S: M	*ENG	[0 to 100 / 5 / 0.01 %/step]		
800	Average S: Y	*ENG			
009-012	Displays the average coverage of each color for the Vtref correction. "Average M" is defined when the number of developed pages does not reach the number specified with SP3251-018.				
009	Average M: Bk	*ENG			
010	Average M: C	*ENG	[0 100 / F / 0.01 % /]		
011	Average M: M	*ENG	[0 to 100 / 5 / 0.01 %/step]		
012	Average M: Y	*ENG			
013-016	Displays the average coverage of each color for the Vtref correction. "Average L" is defined when the number of developed pages does not reach the number specified with SP3-251-019.				
013	Average L: Bk	*ENG			
014	Average L: C	*ENG	[0 to 100 / 5 / 0.01 %/step]		
015	Average L: M	*ENG	[0 10 100 / 3 / 0.01 //siep]		
016	Average L: Y	*ENG			
017-019	Adjusts the threshold for SP3-25	51-005 to	-016.		
017	Total Page Setting: S	*ENG	[1 to 100 / 10 / 1 sheet/step]		
018	Total Page Setting: M	*ENG	[1 to 500 / 10 / 1 sheet/step]		
019	Total Page Setting: L	*ENG	[1 to 999 / 50 / 1 sheet/step]		
020-022	Adjusts the threshold for SP3-25	51-024 to	-027.		
020	Total Page Setting: S2	*ENG	[1 to 100 / 20 / 1 sheet/step]		

021	Total Page Setting: M2	*ENG	[1 to 500 / 10 / 1 sheet/step]
022	Total Page Setting: L2	*ENG	[1 to 999 / 50 / 1 sheet/step]
024-027	Displays the latest coverage rat	io for each	color.
024	Latest Coverage: Bk	*ENG	
025	Latest Coverage: C	*ENG	[0, 100 / /001 % / , 1
026	Latest Coverage: M	*ENG	[0 to 100 / - / 0.01 %/step]
027	Latest Coverage: Y	*ENG	
000	Displays the threshold of whether to perform developer churning or not.		
028	DevAgi. Theresh BF ProCon	*ENG	[0 to 100 / 20 / 1 %/step]

3311	[ID Sn Detection Value]		
Displays the ID sensor (regular) offset voltage for Vsg of		age for Vsg adjustments.	
001	Voffset reg: Bk	*ENG	[0 to 5 / 0 / 0.01 V/step]
002	Voffset reg: C	*ENG	
003	Voffset reg: M	*ENG	[0 to 5.5 / 0 / 0.01 V/step]
004	Voffset reg: Y	*ENG	
005-007	Displays the ID sensor (diffusion) offset voltage for Vsg adjustments.		
005	Voffset dif: C	*ENG	
006	Voffset dif: M	*ENG	[0 to 5.5 / 0 / 0.01 V/step]
007	Voffset dif: Y	*ENG	
008-010	Displays the ID sensor offset voltage for Vsg adjustments.		sg adjustments.
008	Voffset TM (Front)	*ENG	
009	Voffset TM (Center)	*ENG	[0 to 5.5 / 0 / 0.01 V/step]
010	Voffset TM (Rear)	*ENG	

3321	[ID/TM Sensor All]
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010 P/TM Sensor All	-	Execute the ID sensor initialization setting for all sensors
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2200	[Vsg Adjust. Result: Vsg]		
3322	Displays the result value of the Vsg adjustment for each sensor.		ent for each sensor.
001	Vsg reg: Bk	*ENG	
002	Vsg reg: C	*ENG	
003	Vsg reg: M	*ENG	
004	Vsg reg: Y	*ENG	
005	Vsg dif: C	*ENG	[0+-55/0/0017/+]
006	Vsg dif: M	*ENG	[0 to 5.5 / 0 / 0.01 V/step]
007	Vsg dif: Y	*ENG	
800	Vsg TM (Front)	*ENG	
009	Vsg TM (Center)	*ENG	
010	Vsg TM (Rear)	*ENG	

3323	[Vsg Adjust. Result: Ifsg]		
001	Ifsg: Bk	*ENG	
002	Ifsg: C	*ENG	[0.5.50 / 0.7.0.1 A / 55]
003	Ifsg: M	*ENG	[0 to 50 / 0 / 0.1 mA/step]
004	Ifsg: Y	*ENG	
005	Ifsg TM (Front)	*ENG	
006	Ifsg TM (Center)	*ENG	[0 to 50 / 0 / 0.1 mA/step]
007	Ifsg TM (Rear)	*ENG	

3324	[Vsg Adjustment: Set]		
003	Vsg Error Counter	*ENG	[0 to 99 / 0 / 0.1 time/step]

004	Vofset Threshold	*ENG	[0 to 5 / 1 / 0.01 V/step]
005	Vsg Upper Threshold	*ENG	[0 to 5 / 4.5 / 0.01 V/step]
006	Vsg Lower Threshold	*ENG	[0 to 5 / 3.5 / 0.01 V/step]

	[Vsg Adjustment Result]		
3325	Displays the result of the Vsg adjustment. The displayed numbers mean the result of each sensor (sensor for Front, sensor for Bk, sensor for Cyan, sensor for Center, sensor for Magenta, sensor for Yellow and sensor for Rear).		
001	Latest	*ENG	
002	Latest 1	*ENG	
003	Latest 2	*ENG	
004	Latest 3	*ENG	[111 to 999 / 999 / 1 /step]
005	Latest 4	*ENG	9: Unexpected error
006	Latest 5	*ENG	Offset voltage error State
007	Latest 6	*ENG	1: O.K
008	Latest 7	*ENG	
009	Latest 8	*ENG	
010	Latest 9	*ENG	

3361	[ID Sn Sensitivity: Display] DFU		
003	K2C (Latest)	*ENG	[0 to 10 / 0 / 0.01 /step]
004	K5C (Latest)	*ENG	[0 to 10 / 1.2 / 0.01 /step]

3362	[ID Sn Sensitivity: Display] DFU		
003	K5: Upper	*ENG	[0 to 10 / 5 / 0.01 /step]
004	K5: Lower	*ENG	[0 to 1 / 0.5 / 0.01 /step]
005	Kn: Upper	*ENG	[0 to 1 / 0.1 / 0.01 /step]
006	Kn: Lower	*ENG	[0 to 1 / 1 / 0.01 /step]

007	K5 Edit Point	*ENG	[0 to 1 / 0.15 / 0.01 /step]
008	K5 Target Voltage	*ENG	[0 to 5 / 1.63 / 0.01 V/step]
009	K5 Approximate Method	*ENG	[0 to 1 / 1 / 1 /step] 0:Linear, 1: Curve
010	K2: U/L Limit Coeff. 1	*ENG	[0 to 1 / 0 / 0.01 /step]
011	K2: Upper Limit Correction	*ENG	[-0.2 to 0.4 / 0.07 / 0.01 /step]
012	K2: Lower Limit Correction	*ENG	[-0.2 to 0.4 / -0.07 / 0.01 /step]
013	Diffusion Correction	*ENG	[0.75 to 1.35 / 1 / 0.01 /step]
016	K2: Check	*ENG	[0 to 1 / 0.25 / 0.001 /step]

3363	[ID Pattern Timing Setting]		
001	Scan YCMBk	*ENG	Adjusts the detection timing for the process control pattern. [-500 to 500 / 0 / 1 mm/step]
002	Detection Delay Time	*ENG	Adjusts the timing when the paper transfer unit is kept away from the image transfer belt. [0 to 2500 / 400 / 1 msec/step]
003	Delay Time	*ENG	Adjusts the processing timing for the process control pattern. [0 to 2500 / 1335 / 1 msec/step]
004	MUSIC Delay Time	*ENG	Adjusts the processing timing for the pattern that is used for the line position adjustment. [-2500 to 2500 / 300 / 1 msec/step]

3371	[M/A Calculation] DFU		
001	Correction Coeff.: Bk	*ENG	[0.5 to 2.0 / 0.99 / 0.01 /step]
002	Correction Coeff.: C	*ENG	[0.5 to 2.0 / 1 / 0.01 /step]
003	Correction Coeff.: M	*ENG	[0.5 to 2.0 / 1 / 0.01 /step]
004	Correction Coeff.: Y	*ENG	[0.5 to 2.0 / 1 / 0.01 /step]

005	Color Correct Coeff.:Bk	*ENG	[0.5 to 2.0 / 1 / 0.01 /step]
006	Color Correct Coeff.:C	*ENG	[0.5 to 2.0 / 0.95 / 0.01 /step]
007	Color Correct Coeff.:M	*ENG	[0.5 to 2.0 / 1 / 0.01 /step]
008	Color Correct Coeff.:Y	*ENG	[0.5 to 2.0 / 1.01 / 0.01 /step]

3401	[Fixed Toner Supply Mode]			
3401	Adjusts the toner supply rate in the fixed toner supply mode.			
001	Fixed Rate: Bk	*ENG		
002	Fixed Rate: C	*ENG	[0 to 100 / 5 / 1 %/step]	
003	Fixed Rate: M	*ENG	These SPs are used only when SP3-044 is set to "1".	
004	Fixed Rate: Y	*ENG		

3411	[Toner Supply Rate: Display]			
3411	Displays the current toner supply rate.			
001	Latest: Bk	*ENG		
002	Latest: C	*ENG	[0.1.100 / /1.9//]	
003	Latest: M	*ENG	[0 to 100 / - / 1 %/step]	
004	Latest: Y	*ENG		

3421	[Toner Supply Range]		
001	Upper Limit: Bk	*ENG	
002	Upper Limit: C	*ENG	Adjusts the toner supply rate during printing.
003	Upper Limit: M	*ENG	[0 to 100 / 100 / 1%/step]
004	Upper Limit: Y	*ENG	

005	Minimum Supply Time: Bk	*ENG	
006	Minimum Supply Time: C	*ENG	Adjusts the minimum toner supply time.
007	Minimum Supply Time: M	*ENG	[0 to 1000 / 0 / 1 msec/step]
008	Minimum Supply Time: Y	*ENG	

3451	[T-Supply Carry Over: Display]		
001	Bk	*ENG	
002	С	*ENG	Displays the toner supply time carried over from a previous toner supply mode for each color.
003	М	*ENG	[0 to 10000 / 0 / 1 msec/step]
004	Υ	*ENG	

3452	[T-Supply Carry Over: Display] DFU		
001	Maximum: Bk	*ENG	
002	Maximum: C	*ENG	Adjusts the maximum time carried over from a previous toner supply mode.
003	Maximum: M	*ENG	[0 to 10000 / 1000 / 1 msec/step]
004	Maximum: Y	*ENG	

2501	[Process Control Target M/A]			
3501	Adjusts the target M/A of the full coverage in single color printer mode.			
001	Maximum M/A: Bk	*ENG	[0 to 1 / 0.45 / 0.001 mg/cm ² /step]	
002	Maximum M/A: C	*ENG		
003	Maximum M/A: M	*ENG	[0 to 1 / 0.445 / 0.001 mg/cm ² /step]	
004	Maximum M/A: Y	*ENG		

3510	[Image Adj. Counter:Display]
3310	Displays the total page counter for each adjustment mode.

001	Process Control: BW	*ENG	
002	Process Control: FC	*ENG	
003	Power ON: BW	*ENG	
004	Power ON: FC	*ENG	
005	MUSIC: BW	*ENG	[0.4-2000 / 0./ 1/44-1]
006	MUSIC: FC	*ENG	[0 to 2000 / 0 / 1 page/step]
007	Vsg Adj.	*ENG	
800	Charge AC Control	*ENG	
009	MUSIC: Power ON: BW	*ENG	
010	MUSIC: Power ON: FC	*ENG	

0511	[Execution Interval: Setting]					
3511	Adjusts the threshold for each adjustment mode.					
001	Job End: Process Control: BW	*ENG	[0 to 2000 / 250 / 1 page/step]			
002	Job End: Process Control: FC	*ENG	[0 to 2000 / 100 / 1 page/step]			
003	Interrupt: Process Control: BW	*ENG	[0 to 2000 / 500 / 1 page/step]			
004	Interrupt: Process Control: FC	*ENG	[0 to 2000 / 200 / 1 page/step]			
005	Initial: Potential Control: BW	*ENG	[0 to 2000 / 250 / 1 page/step]			
006	Initial: Potential Control: FC	*ENG	[0 to 2000 / 100 / 1 page/step]			
007	Vsg Adj. Counter	*ENG	[0 to 2000 / 0 / 1 page/step]			
800	Charge AC Control Counter	*ENG	[0 to 2000 / 500 / 1 page/step]			
019	Envir.Correction:ON/OFF	*ENG	[0 or 1 / 1 / 1 / step]			
020	Gamma Correction: ON/OFF	*ENG	0: Not Correct (OFF),			
021	Non-use Time Correct:ON/OFF	*ENG	1: Correct (ON)			
022	Correction Coeff. 1: JE: BW	*ENG	[0 to 1 / 0.2 / 0.01 /step]			
023	Correction Coeff. 2: JE: BW	*ENG	[0 to 1 / 1 / 0.01/step]			

024	Correction Coeff. 1: JE: FC	*ENG	[0 to 1 / 0.5 / 0.01/step]
025	Correction Coeff. 2: JE: FC	*ENG	[0 to 1 / 1 / 0.01/step]
026	Correction Coeff. 1: Interrupt: BW	*ENG	[0 to 1 / 0.1 / 0.01/step]
027	Correction Coeff. 2: Interrupt: BW	*ENG	[0 to 1 / 1 / 0.01/step]
028	Correction Coeff. 1: Interrupt: FC	*ENG	[0 to 1 / 0.25 / 0.01/step]
029	Correction Coeff. 2: Interrupt: FC	*ENG	[0 to 1 / 1 / 0.01/step]
030	Max. Number Correction Threshold	*ENG	[0 to 99 / 2 / 1/step]
031	Max. Number Correction Counter	*ENG	[0 to 255 / 0 / 1/step]

	[Image Adj.: Interval]			
3512	Adjusts the timing for execution of process control and line position adjustment during printing or copying.			
001	During Job	*ENG	[0 to 100 / 5 / 1 page/step]	
002	During Stand-by	*ENG	[0 to 100 / 10 / 1 minute/step]	

	[PCU Motor Stop Time: Bk]			
Displays the last time that the PCU motors stopped.				
	These are used for process control execution timing.			
001	Year	*ENG	[0 to 99 / 0 / 1/step]	
002	Month	*ENG	[1 to 12 / 1 / 1/step]	
003	Date	*ENG	[1 to 31 / 1 / 1/step]	
004	Hour	*ENG	[0 to 23 / 0 / 1/step]	
005	Minute	*ENG	[0 to 59 / 0 / 1/step]	

	[Environmental Displ: Job End]				
Displays the environmental conditions at the last job.					
	These are used for process control execution timing.				
001	Temperature	*ENG	[-1280 to 1270 / 0 / 0.1°C/step]		

002	Relative Humidity	*ENG	[0 to 1000 / - / 0.1%RH/step]
003	Absolute Humidity	*ENG	[0 to 1000 / - / 0.1 g/cm ³ /step]

	[Execution Interval: Display]				
3515	Displays the current interval for process control execution. When the machine calculates the timing for process control, it uses a number of condi These are the results after considering all the conditions.				
001	Job End: Process Control: BW	*ENG	[0 to 2000 / 250 / 1 page/step]		
002	Job End: Process Control: FC	*ENG	[0 to 2000 / 100 / 1 page/step]		
003	Interrupt: Process Control: BW	*ENG	[0 to 2000 / 500 / 1 page/step]		
004	Interrupt: Process Control: FC	*ENG	[0 to 2000 / 200 / 1 page/step]		

	[Refresh Mode]				
3516	While making prints with low coverage, the developer is agitated with less toner consumption and the toner carrier attraction tends to increase. This may cause low image density or potransfer (white dots). To prevent this, the coagulated toner or overcharged toner has to be consumed by performing the refresh mode.				
001	Dev. Motor Rotation: Display: Bk	*ENG			
002	Dev. Motor Rotation: Display: C	*ENG			
003	Dev. Motor Rotation: Display: M	*ENG			
004	Dev. Motor Rotation: Display: Y	*ENG			
005	Rotation Threshold	*ENG	[0 to 1000 / 0.1 / 1 m/step]		

006	Pixel Coverage Sum: Bk	*ENG	
007	Pixel Coverage Sum: C	*ENG	
008	Pixel Coverage Sum: M	*ENG	
009	Pixel Coverage Sum: Y	*ENG	[0, 45525 (0 / 1 2 / 1 1
010	Required Area: Bk	*ENG	[0 to 65535 / 0 / 1 cm ² /step]
011	Required Area: C	*ENG	
012	Required Area: M	*ENG	
013	Required Area: Y	*ENG	
014	Refresh Threshold: Bk	*ENG	[0 to 255 / 49 / 1 cm ² /m/step]
015	Refresh Threshold: C	*ENG	
016	Refresh Threshold: M	*ENG	[0 to 255 / 25 / 1 cm ² /m/step]
017	Refresh Threshold: Y	*ENG	
018	Pattern Number: Bk	*ENG	
019	Pattern Number: C	*ENG	
020	Pattern Number: M	*ENG	[0 to 255 / 0 / 1 time/step]
021	Pattern Number: Y	*ENG	
022	Pattern Number: Upper limit	*ENG	
023	Toner Consumption Pattern Area	*ENG	[10 to 2550 / 280 / 10 cm ² / step]
024	Supply Coefficient	*ENG	[0 to 2.55 / 1 / 0.01/step]
025	Job End Area Coefficient	*ENG	[0.1 to 25.5 / 1 / 0.1/step]
026	Job End Vb Coefficient	*ENG	[0 to 100 / 30 / 1%/step]
027	Job End Length	*ENG	[0 to 100 / 19 / 1 mm/step]
028	Job End Supply Amt	*ENG	[0 to 1 / 0.45 / 0.001 mg/cm ² / step]

029	Refresh:Page Thresh	*ENG	
030	Mode Counter:Bk	*ENG	[0 to 1000 / 0 / 1 page/step]
031	Mode Counter:FC	*ENG	

	[Blade Damage Prevention]				
3517	Adjusts the threshold temperature for preventing the cleaning blade in the transfer belt cleaning unit from being damaged. If the temperature is above this value, toner is applied to the transfer belt at set intervals during the job to prevent the blade from flipping over.				
001	Execution Temp. Thresh	*ENG	[0 to 50 / 40 / 1°C/step]		

3518	[Image Adj. Execution Flag] DFU	J	
001	Toner End Recovery: Bk	*ENG	
002	Toner End Recovery: C	*ENG	
003	Toner End Recovery: M	*ENG	[0 or 1 / 0 / 1/step]
004	Toner End Recovery: Y	*ENG	0: OFF. 1: ON
005	Vsg Adjustment	*ENG	
006	Developer Agitation	*ENG	
007	Process Control	*ENG	[0 to 2 / 0 / 1/step] 0: OFF. 1: ON (once), 2: ON (twice)
008	MUSIC	*ENG	[0 to 2 / 0 / 1/step] 0: OFF. 1: ON (once), 2: ON (twice)
009	Drum Phase Adj.	*ENG	
010	Charge AC Control	*ENG	[0 or 1 / 0 / 1/step] 0: OFF, 1: ON
011	Blade Damage Prevention	*ENG	0.011.1.014
012	Vsg Average Error	*ENG	[0 or 1 / 0 / 1/step] Sets "1", when the following values shows. Vsg_reg_ave: 3.5 < Vsg_reg_ave < 4.5 or Vsg_dif_ave: 0.0 < Vsg_dif_ave < 0.5

2510	[Toner End Prohibition Setting]				
3519	Enables or disables each adjustment at toner end.				
001	Process Control	*ENG	[0 or 1 / 1 / 1/step]		
002	MUSIC	*ENG	0: Permit (adjustment is done even toner end condition)		
003	TC Adjustment	*ENG	Forbid (adjustment is not done at toner end condition)		

3520	[ITB Idle Rotation]		
001	Temperature: High	*ENG	
002	Temperature: Medium	*ENG	Specifies the idle rotation times of the ITB after the process control.
003	Temperature: Low	*ENG	[0 or 3 / 0 / 1 revolution/step]
004	Temp.: L: Power ON	*ENG	
005 to	Adjusts the threshold temperature for	entering th	e ITB idle rotation after the process control.
005	Temp. Range Thresh:T2	*ENG	[20 or 30 / 30 / 1 deg/step]
006	Temp. Range Thresh:T1	*ENG	[0 or 15 / 15 / 1 deg/step]
010	Temp. Thresh:High	*ENG	[0 or 50 / 30 / 1 deg/step]
011	Temp. Thresh:Low	*ENG	[0 or 50 / 15 / 1 deg/step]

	[Initial Process Control Setting]			
3522	Adjusts the threshold for the process control at power on. When the current condition has changed by more than the values of these SPs when compared with the conditions at the previous operation, the process control at power on is executed.			
002	Non-use Time Setting	*ENG	[0 to 1440 / 360 / 1 minute/step]	
003	Temp. Change Thresh	*ENG	[0 to 99 / 10 / 1 °C/step]	
004	Relative Humidity Range	*ENG	[0 to 99 / 50 / 1 %RH/step]	
005	Absolute Humidity Range	*ENG	[0 to 99 / 6 / 1 g/m ³ /step]	

	[Rapi Timer]			
100 Time Setting		*ENG	[0 to 255 / 30 / 1 sec/step]	
	Adjusts the time-out time to get the Rapi timer.			

	[Non-use Time Process Control Setting]			
	Adjusts the threshold for the process control at stand-by.			
3531	When the current condition has changed by more than the values of these SPs when compared with the conditions at the previous operation, the process control at standexecuted.			
001	Non-use Time Setting *ENG		[0 to 1440 / 360 / 1 minute/step]	
002	Temp. Change Thresh	*ENG	[0 to 99 / 10 / 1°C/step]	
003	Relative Humidity Change	*ENG	[0 to 99 / 50 / 1 %RH/step]	
004	Absolute Humidity Change	*ENG	[0 to 99 / 6 / 1 g/m ³ /step]	
005	Maximum Execution Number	*ENG	Adjusts the maximum execution time for the process control at stand-by. [0 to 99 / 10 / 1 time/step]	

3611	[Dev. Gamma: Display/Set]		
001	Bk (Current)	*ENG	Displays the current development gamma for Bk [0 to 5 / 0.9 / 0.01 mg/cm ² /kV /step]
002	C (Current)	*ENG	Displays the current development gamma for C/
003	M (Current)	*ENG	M/Y.
004	Y (Current)	*ENG	[0 to 5 / 0.8 / 0.01 mg/cm ² /kV /step]
005	Bk (Target Display)	*ENG	Displays the target development gamma for Bk. [0 to 5 / 0.9 / 0.01 mg/cm ² /kV /step]
006	C (Target Display)	*ENG	Displays the target development gamma for C/
007	M (Target Display)	*ENG	M/Y.
800	Y (Target Display)	*ENG	[0 to 5 / 0.8 / 0.01 mg/cm ² /kV /step]

009	Bk (Standard Target Set)	*ENG	Displays the standard target development gamma for each color. [0 to 5 / 0.9 / 0.01 mg/cm ² /kV /step]
010	C (Standard Target Set)	*ENG	
011	M (Standard Target Set)	*ENG	[0 to 5 / 0.8 / 0.01 mg/cm ² /kV /step]
012	Y (Standard Target Set)	*ENG	
013	Environmental Correction	*ENG	Turns on or off the environmental correction for target development gamma. [0 or 1 / 1 / -] 0: Not Correct, 1: Correct
014	K (Max Correction)	*ENG	
015	C (Max Correction)	*ENG	[0 to 5 / 0.1 / 0.01 mg/gm2 //w/ston]
016	M (Max Correction)	*ENG	[0 to 5 / 0.1 / 0.01 mg/cm2/kv/step]
017	Y (Max Correction)	*ENG	
018	K (Max Abs Hum)	*ENG	
019	C (Max Abs Hum)	*ENG	[1 to 99 / 15 / 1 g/m3/step]
020	M (Max Abs Hum)	*ENG	[1 10 44 / 13 / 1 g/m3/step]
021	Y (Max Abs Hum)	*ENG	

3612	[Vk Display]				
3012	Displays Vk for each color.				
001	Bk	*ENG			
002	С	*ENG	[200+200 / /1 //]		
003	М	*ENG	[-300 to 300 / - / 1 V/step]		
004	Υ	*ENG			

3621	[Dev. DC Control:Display] Normal: 120 mm/sec, Low: 70 mm/sec				
	Displays the development DC bias adjusted with the process control for each line speed and color.				
001	Normal Speed:Bk	*ENG			
002	Normal Speed:C	*ENG			
003	Normal Speed:M	*ENG			
004	Normal Speed:Y	*ENG	[0.4-700 / 550 / 1 \//stanl		
009	Low Speed:Bk	*ENG	[0 to 700 / 550 / 1 -V/step]		
010	Low Speed:C	*ENG			
011	Low Speed:M	*ENG			
012	Low Speed:Y	*ENG			

3622	[Development DC Control] DFU		
3022	Adjusts the limit of VB.		
001	VB Limit	*ENG	[0 to 500 / 50 / 1 V/step]

	[Charge DC Control: Display]	
3631	Normal: 120 mm/sec, Low: 60 mm/sec	
3031	Displays the charge DC voltage adjusted with the process control for each line speed and color.	

001	Normal Speed:Bk	*ENG	
002	Normal Speed:C	*ENG	
003	Normal Speed:M	*ENG	
004	Normal Speed:Y	*ENG	[0 to 2000 / 400 / 1 \//stom]
009	Low Speed:Bk	*ENG	[0 to 2000 / 690 / 1 -V/step]
010	Low Speed:C	*ENG	
011	Low Speed:M	*ENG	
012	Low Speed:Y	*ENG	

2441	[Charge DC Control: Display]			
Displays the charge AC voltage adjusted with the process control for each col				
001	Normal Speed:Bk	*ENG		
002	Normal Speed:C	*ENG	[0 2 / 1.75 / 0.01 1//]	
003	Normal Speed:M	*ENG	[0 to 3 / 1.75 / 0.01 kV/step]	
004	Normal Speed:Y	*ENG		

3651	[LD Power Control: Display] Normal: 120 mm/sec, Low: 60 mm/sec				
	Displays the LD power adjuste	d for each en	vironment.		
001	Normal Speed:Bk	*ENG			
002	Normal Speed:C	*ENG			
003	Normal Speed:M	*ENG			
004	Normal Speed:Y	*ENG	[0 to 200 / 100 / 1 %/step]		
009	Low Speed:Bk	*ENG	[0 10 200 / 100 / 1 %/ siep]		
010	Low Speed:C	*ENG			
011	Low Speed:M	*ENG	-		
012	Low Speed:Y	*ENG			

	[HST Controll Setting]				
3710	TD Sensor: Toner Concentration Control Setting				
	Selects the toner concentration control method by HST memory, which is in the TD sensor.				
001	Control Selection	*ENG	[0 or 1 / 1 / -] 0: Not Use, 1: Use		

0711	[HST Control: Bk]				
3711	Displays the factory settings of the black PCU.				
001	Vcnt	*ENG	[0 to 5 / 4 / 0.1 V/step]		
002	Vt	*ENG	[0 to 5 / 2.5 / 0.1 V/step]		
003	Sensitivity: HL	*ENG	[1.22 to 3.77 / 2.5 / 0.01 V/step]		
004	Sensitivity: HM	*ENG	[0 to 2.55 / 1.3 / 0.01 V/step]		
005	Sensitivity: ML	*ENG	[0 to 2.55 / 1.2 / 0.01 V/step]		
006	Set Detection	*ENG	[0 to 5 / 1 / 0.1 V/step]		
007	Without Developer	*ENG	[0 to 5 / 1.2 / 0.1 V/step]		
800	With Developer	*ENG	[0 to 5 / 1.3 / 0.1 V/step]		
009	Serial Number 1	*ENG	[0 255 / /1 ///]		
010	Serial Number 2	*ENG	[0 to 255 / - / 1 V/step]		
011	Adjustment: Vt	*ENG	[0.5 / 2 / 0.1 \/ / 1]		
012	Adjustment: Vtref	*ENG	[0 to 5 / 3 / 0.1 V/step]		
013	Adjustment: Vtcnt	*ENG	[0 to 5 / 4 / 0.01 V/step]		
014	Adjustment: Gamma	*ENG	[0 to 2.55 / 0 / 0.01 mg/cm ² /kV /step]		
015	Adjustment: Vcnt Result	*ENG	[0 to 9 / 9 / 1 /step]		

3712	[HST Control: C]			
	3/12	Displays the factory settings of the magenta PCU.		
	001	Vcnt	*ENG	[0 to 5 / 4 / 0.1 V/step]

002	Vt	*ENG	[0 to 5 / 2.5 / 0.1 V/step]
003	Sensitivity: HL	*ENG	[1.22 to 3.77 / 2.5 / 0.01 V/step]
004	Sensitivity: HM	*ENG	[0 to 2.55 / 1.3 / 0.01 V/step]
005	Sensitivity: ML	*ENG	[0 to 2.55 / 1.2 / 0.01 V/step]
006	Set Detection	*ENG	[0 to 5 / 1 / 0.1 V/step]
007	Without Developer	*ENG	[0 to 5 / 1.2 / 0.1 V/step]
008	With Developer	*ENG	[0 to 5 / 1.3 / 0.1 V/step]
009	Serial Number 1	*ENG	[0+-255 / /1 \//+1
010	Serial Number 2	*ENG	[0 to 255 / - / 1 V/step]
011	Adjustment: Vt	*ENG	[0+5/2/01//]
012	Adjustment: Vtref	*ENG	[0 to 5 / 3 / 0.1 V/step]
013	Adjustment: Vtcnt	*ENG	[0 to 5 / 4 / 0.01 V/step]
014	Adjustment: Gamma	*ENG	[0 to 2.55 / 0 / 0.01 mg/cm ² /kV /step]
015	Adjustment: Vcnt Result	*ENG	[0 to 9 / 9 / 1 /step]

3713	[HST Control: M]			
3713	Displays the factory settings of the cyan PCU.			
001	Vcnt	*ENG	[0 to 5 / 4 / 0.1 V/step]	
002	Vt	*ENG	[0 to 5 / 2.5 / 0.1 V/step]	
003	Sensitivity: HL	*ENG	[1.22 to 3.77 / 2.1 / 0.01 V/step]	
004	Sensitivity: HM	*ENG	[0 to 2.55 / 1.3 / 0.01 V/step]	
005	Sensitivity: ML	*ENG	[0 to 2.55 / 1.2 / 0.01 V/step]	
006	Set Detection	*ENG	[0 to 5 / 1 / 0.1 V/step]	
007	Without Developer	*ENG	[0 to 5 / 1.2 / 0.1 V/step]	
008	With Developer	*ENG	[0 to 5 / 1.3 / 0.1 V/step]	

009	Serial Number 1	*ENG	[0+.255 / /1 \//+1
010	Serial Number 2	*ENG	[0 to 255 / - / 1 V/step]
011	Adjustment: Vt	*ENG	[0 to 5 / 3 / 0.1 V/step]
012	Adjustment: Vtref	*ENG	[0 10 3 / 3 / 0.1 v/siep]
013	Adjustment: Vtcnt	*ENG	[0 to 5 / 4 / 0.01 V/step]
014	Adjustment: Gamma	*ENG	[0 to 2.55 / 0 / 0.01 mg/cm ² /kV /step]
015	Adjustment: Vcnt Result	*ENG	[0 to 9 / 9 / 1 /step]

071.4	4 [HST Control:Y] Displays the factory settings of the yellow PCU.			
3714				
001	Vcnt	*ENG	[0 to 5 / 4 / 0.1 V/step]	
002	Vt	*ENG	[0 to 5 / 2.5 / 0.1 V/step]	
003	Sensitivity: HL	*ENG	[1.22 to 3.77 / 2.5 / 0.01 V/step]	
004	Sensitivity: HM	*ENG	[0 to 2.55 / 1.3 / 0.01 V/step]	
005	Sensitivity: ML	*ENG	[0 to 2.55 / 1.2 / 0.01 V/step]	
006	Set Detection	*ENG	[0 to 5 / 1 / 0.1 V/step]	
007	Without Developer	*ENG	[0 to 5 / 1.2 / 0.1 V/step]	
008	With Developer	*ENG	[0 to 5 / 1.3 / 0.1 V/step]	
009	Serial Number 1	*ENG	[0. 055 / /1)//.]	
010	Serial Number 2	*ENG	[0 to 255 / - / 1 V/step]	
011	Adjustment: Vt	*ENG	[0. 5 / 0 /0.1 V/. 1	
012	Adjustment: Vtref	*ENG	[0 to 5 / 3 / 0.1 V/step]	
013	Adjustment: Vtcnt	*ENG	[0 to 5 / 4 / 0.01 V/step]	
014	Adjustment: Gamma	*ENG	[0 to 2.55 / 0 / 0.01 mg/cm ² /kV /step]	
015	Adjustment: Vcnt Result	*ENG	[0 to 9 / 9 / 1 /step]	

0000	[Toner Collection Bttl Full]				
3800	Displays/ adjusts the PCDU toner collection bottle detection settings.				
	Condition	*CTL	[0 to 4 / 0 / 1 /step]		
001	Displays the current condition of t	he PCDU to	oner collection bottle.		
	0: Factory default, 1: Before near	full, 2; Ne	ar full, 3: Full, 4: Reserved		
002	Detection Times	*CTL	Not used		
002	Defection fillies	CIL	[0 to 50 / - / 1 /step]		
003	Print Page AF Near Full	*CTL	Not used		
			[0 to 2000 / 0 / 1 sheet/step]		
004	Pixel Count AF Near Full	*CTL	Not used		
	Tixol Coolii / II T (odi Toli		[0 to 200000 / - / 1 cm ² /step]		
			Not used		
005	Pixel Count AF Replacement	*CTL	Displays the pixel counter after replacement of toner collection bottle.		
			[0 to 200000 / - / 1 cm ² /step]		
000	Coefficient	*ENG	[0.1 to 1 / 1 / 0.1 /step]		
008	Adjusts the toner amount between near full and full. (0.1 indicates 10%.)				
		*ENG	Enables or disables the calling for @Remote.		
	Alarm Setting		[0 or 1 / 1 / -]		
	Admi Selling		0: Enable @Remote calling		
011			1: Disable @Remote calling		
	NOTE:				
	If the PCDU toner collection bottle has been replaced before the machine detects used toner near full when this setting is set to "0", the machine cannot detect toner collection bottle near full. In that case, set SP3-902-017 to "1".				
	Day Thresh:NF	*ENG	[1 to 30 / 10 / 1 day/step]		
012	,		ay. The near-full of the PCDU toner collection Jll sensor has detected the actuator in the PCDU		

013	Total Collected Toner	*ENG	Displays the total amount from the near full detection. [0 to 999999999 / 1 / 1]
014	Full Detection Date	*ENG	Displays the date of the near full detection for the PCDU toner collection bottle.

3810	[ITB T-Collection Bttl Full]			
	Condition	*CTL	[0 to 4 / 0 / 1 /step]	
001	Displays the current condition	of the ITB to	oner collection bottle.	
	0: Factory default, 1: Before n	ear full, 2;	Near full, 3: Full, 4: Reserved	
002	Detection Times	*CTL	Not used [0 to 50 / - / 1 /step]	
003	Print Page AF Near Full	*CTL	Not used [0 to 2000 / 0 / 1 sheet/step]	
004	Pixel Count AF Near Full	*CTL	Not used [0 to 200000 / - / 1 cm ² /step]	
005	Pixel Count AF Replacement	*CTL	Not used Displays the pixel counter after replacement of toner collection bottle. [0 to 200000 / - / 1 cm ² /step]	
000	Coefficient	*ENG	[0.1 to 1 / 1 / 0.1 /step]	
800	Adjusts the toner amount between near full and full. (0.1 indicates 10%.)			
011	Alarm Setting	*ENG	Enables or disables the calling for @Remote. [O or 1 / 1 / -] O: Enable @Remote calling 1: Disable @Remote calling	
011	NOTE: If the toner collection bottle has been replaced before the machine detects used toner near full when this setting is set to "0", the machine cannot detect toner collection bottle near full. In that case, set SP3-902-017 to "1".			

	Day Thresh:NF	*ENG	[1 to 30 / 10 / 1 day/step]		
012	Sets the threshold days for the near-full display. The near-full of the IT toner collection bottle s displayed after the toner collection full sensor has detected the actuator in the ITB toner collection bottle.				
013	Total Collected Toner	*ENG	Displays the total amount from the near full detection. [0 to 999999999 / 1 / 1]		
014	Full Detection Date	*ENG	Displays the date of the near full detection fot the ITB toner collection bottle.		

3901	[New Unit Detection]				
3901	Turns new PCU detection on or off.				
001	ON/OFF Setting	*ENG	[0 or 1 / 1 / -] 0: OFF, 1: ON		

	[Manual New Unit Set]				
3902	Turns the new unit detection flag for each PM unit on or off. The use of these counters is explained in the PM section and in the relevant parts of section 3 (Replacement and Adjustment).				
001	Development Unit: Bk	*ENG			
002	Development Unit: C	*ENG	[0 or 1 / 0 / -]		
003	Development Unit: M	*ENG	0: OFF, 1: ON		
004	Development Unit: Y	*ENG			
005	Developer: Bk	*ENG			
006	Developer: C	*ENG	Not used		
007	Developer: M	*ENG	[0 or 1 / 0 / -] 0: OFF, 1: ON		
008	Developer: Y	*ENG			

009	PCU: Bk	*ENG	
010	PCU: C	*ENG	[0 or 1 / 0 / -]
011	PCU: M	*ENG	0: OFF, 1: ON
012	PCU: Y	*ENG	
013	ITB Unit	*ENG	[0 or 1 / 0 / -]
014	Fusing Unit	*ENG	0: OFF, 1: ON
015	Fusing Pad	*ENG	Do not use 3902-013 if you only change the cleaning unit.
016	Fusing Belt	*ENG	3902-017: This is for the image transfer belt
017	ITB Cleaning Unit	*ENG	cleaning unit.
018	PTR Unit	*ENG	[0 1 /0 / 1
019	PCU Toner Collection Bottle	*ENG	[0 or 1 / 0 / -] 0: OFF, 1: ON
020	ITB Toner Collection Bottle	*ENG	J. 3.1., 1. 3.1.

3903	[Last Print Counter]	
	Displays the rotation counter of the black development unit at five minutes interval.	

001	Counter 1	*ENG	
002	Counter 2	*ENG	
003	Counter 3	*ENG	
004	Counter 4	*ENG	
005	Counter 5	*ENG	
006	Counter 6	*ENG	[0 to 999999999 / - / 1 mm/step]
007	Counter 7	*ENG	[[0.10 /////// / / mini/ step]
008	Counter 8	*ENG	
009	Counter 9	*ENG	
010	Counter 10	*ENG	
011-	C . 11. 40	*5.10	
040	Counter 11 to 40	*ENG	
101	Last Fixed Date	*ENG	Displays the time of the latest stored counter.
102	Last PM Counter Save Destination	*ENG	Displays the counter number of the latest stored counter.

System SP4xxx

SP4-XXX (Scanner)

4008	[Sub Scan Mag. Adjustment]			
4006	Adjusts the sub-scan magnification by changing the scanner motor speed.			
001	SScan Mag.Adjust	*ENG	[-1.0 to 1.0 / 0 / 0.1%/step] FA	

	[L-Edge Regist Adjustment]				
4010	Adjusts the leading edge registration by changing the scanning start timing in the sub-scan direction.				
001	LE Regist Adjust	*ENG	[-2.0 to 2.0 / 0 / 0.1 mm/step] FA		

	[S-to-S Regist Adjustment]				
4011	Adjusts the side-to-side registration by changing the scanning start timing in the main scan direction.				
001	StoS Rgst Adjust	*ENG	[-2.5 to 2.5 / 0 / 0.1 mm/step] FA		

	[Scanner Erase Margin: Scale] Scanner: Erase Margin: Scale				
4012	Sets the blank margin at each side for erasing the original shadow caused by the gap between the original and the scale.				
001	Book: Leading Edge	*ENG	[0 to 3.0 / 0 / 0.1 mm/step] FA		
002	Book: Trailing Edge				
003	Book: Left				
004	Book: Right				
005	ADF: Leading Edge				
007	ADF: Left	*ENG	[0 to 3.0 / 0 / 0.1 mm/step] FA		
008	ADF: Right				

	[Scanner Free Run]			
4013	Performs the scanner free run with the exposure lamp on or off in the following mode. Full color mode / Full Size / A3 or DLT			
001	Lamp: OFF	* [\	[0 or 1 / 0 / -]	
002	Lamp: ON	*ENG	0: OFF, 1: ON	

4014	[Scan]				
4014	Execute the scanner free fun with each mode.				
001	HP Detection Enable	-	Scanner free run with HP sensor check.		
002	HP Detection Disable	-	Scanner free run without HP sensor check.		

4020	[Dust Check]		
001	Detection: ON/OFF	*ENG	Turns the ADF scan glass dust check on/ off. [0 or 1 / 1 / 1 /step] 0: OFF, 1: ON
002	Dust Detection: Level	*ENG	Selects the detect level. [0 to 8 / 4 / 1 / step] 0: lowest detection level 8: highest detection level
003	Correction Level	*ENG	Selects the level of the sub scan line correction when using the ARDF. [0 to 4 / 0 / 1 /step] 0: Off 1: Weakest 2: Weak 3: Strong 4: Strongest

		[APS Operation Check]			
Displays a code that represents the original size detected by the original sensors. (S Check Table".)		inal size detected by the original sensors. (See "Input			
	001	APS Operation Check	-	-	

4303	[APS Min Size]		
4303	Specifies the result of the detection when the outputs from the original sensors are all OFF.		
001	APS Min. Size	*ENG	[0 to 1 / 0 / 1 /step] 0: No Original 1: A5-Lengthwise (16K SEF if 4305 is set to 3)

4305	[8K/16K Detection]	*ENG	[0 to 3 / 0 / 1 /step] 0: Normal Detection (the machine detects A4/LT size as A4 or LT, depending on the paper size setting) 1: A4-Sideways LT-Lengthwise 2: LT-Sideways A4-Lengthwise 3: 8K 16K
001	This program enables the machine to automatically recognize the 8K/16K size.		

4308	[Scan Size Detection]		
001	Detect: ON/OFF	*ENG	[0 or 1 / 1 / 1 /step] 0: OFF, 1: ON

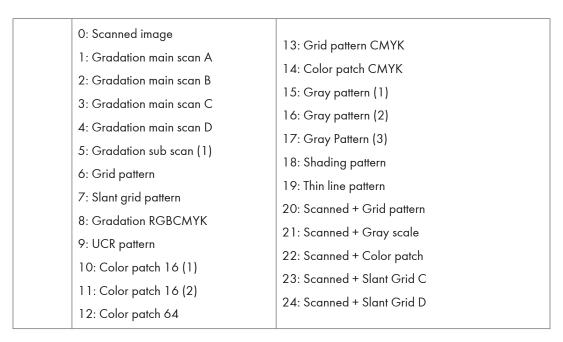
4309	[Scan Size Detect Setting] DFU		
001	Original Density Thresh	*ENG	[0 to 255 / 32 / 1 digit /step]
002	Detection Time	*ENG	[20 to 100 / 60 / 20 msec /step]
003	Lamp ON:Delay Time	*ENG	[0 to 200 / 40 / 20 msec /step]

[Scan Size Detect Value]	[Scan Size Detect Value]
4310	Displays the scanned data for the original width detection.

001	S1:R	-	
002	\$1:G	-	[0 to 255 / 0 / 1 digit /step]
003	S1:B	-	
004	S2:R	-	
005	\$2:G	-	[0 to 255 / 0 / 1 digit /step]
006	S2:B	-	
007	S3:R	-	
008	\$3:G	-	[0 to 255 / 0 / 1 digit /step]
009	S3:B	-	

	[Scanner Erase Margin]	*ENG	
4400 Set the Mask for Original.			
These SPs set the area to be masked during platen (book) mode scanning.		aten (book) mode scanning.	
001	Book: Leading Edge		
002	Book: Trailing Edge	[0 to 3.0 / 0 / 0.1 mm/step]	
003	Book: Left		
004	Book: Right		
005	ADF: Leading Edge		
007	ADF: Left		
008	ADF: Right		

4417	[IPU Test Pattern]		
4417	Selects the IPU test pattern.		
001	Test Pattern Selection	[0 to 24 / 0 / 1/step]	



4429	[Illegal Copy Output]		
001	Сору		
002	Scanner	*ENG	[0 to 3 / 3 / 1 /step]
003	Fax		

4440	[Saturation Adjustment]				
4440	Adjusts the level of saturation for copying.				
			[0 to 5 / 3 / 1 /step]		
			0: High		
			1: Lowest		
001	001 - *ENG		2: Lower		
			3: Default		
			4: Higher		
			5: Highest		

4450	[Scan Image Path Selection]
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001	Black Subtraction ON/OFF	[0 or 1 / 1 / -] 0: OFF, 1: ON		
001	Uses or does not use the black reduction image path.			
000	SH ON/OFF	[0 or 1 / 0 / 1 /step] 0: ON, 1: OFF		
002	Uses or does not use the shading image path.			

	[Digital AE Set] DFU				
Specifies the level of deleting the background in the ADS mode. Ye each scanning method (platen, ADF).		ground in the ADS mode. You can adjust its level for			
001	Lower Limit *ENG		[0 to 1023 / 364 / 4 digit/step]		
002	Background Level *ENG		[512 to 1532 / 932 / 1 digit/step]		

4501	[ACC Target Density]		
4501	Selects the ACC target.		
001	Copy: Bk: Text	*ENG	
002	Copy: C: Text	*ENG	
003	Copy: M: Text	*ENG	
004	Copy: Y: Text	*ENG	[0 to 10 / 5 / 1 /step]
005	Copy: Bk: Photo	*ENG	10: Darkest density
006	Copy: C: Photo	*ENG	
007	Copy: M: Photo	*ENG	
008	Copy: Y: Photo	*ENG	

4505	[ACC Correction:Bright]	
4505	Adjusts the offset correction for light areas of the ACC pattern.	

001	Text:K	*ENG	
002	Text:C	*ENG	[120 - 127 / 0 / 1 /]
003	Text:M	*ENG	[-128 to 127 / 0 / 1 /step]
004	Text:Y	*ENG	
005	Photo:K	*ENG	
006	Photo:C	*ENG	[120 + 127 / 0 / 1 / + - 1
007	Photo:M	*ENG	[-128 to 127 / 0 / 1 /step]
800	Photo:Y	*ENG	

4506	[ACC Correction: Dark]				
4306	Adjusts the offset correction for dark areas of the ACC pattern.				
001	Text:K	*ENG			
002	Text:C	*ENG	[120 + 127 / 0 / 1 / + + +]		
003	Text:M	*ENG	[-128 to 127 / 0 / 1 /step]		
004	Text:Y	*ENG			
005	Photo:K	*ENG			
006	Photo:C	*ENG	[-128 to 127 / 0 / 1 /step]		
007	Photo:M	*ENG	[-1201012/ U / 1 / siep]		
008	Photo:Y	*ENG			

	[Printer Vector Correction]	
4540	This SP corrects the printer coverage of 12 hues (RY, YR, YG, etc. x 4 Colors [R, G, B, Option]) for a total of 48 parameters.	

001-004	RY Phase: Option/R/G/B		
005-008	YR Phase: Option/R/G/B		
009-012	YG Phase: Option/R/G/B		
013-016	GY Phase: Option/R/G/B		
017-020	GC Phase: Option/R/G/B		
021-024	CG Phase: Option/R/G/B	*ENG	Specifies the printer vector correction value.
025-028	CB Phase: Option/R/G/B	LING	[0 to 255 / 0 / 1 /step]
029-032	BC Phase: Option/R/G/B		
033-036	BM Phase: Option/R/G/B		
037-040	MB Phase: Option/R/G/B		
041-044	MR Phase: Option/R/G/B		
045-048	RM Phase: Option/R/G/B		

4550	[Scanner Appl.:Text/Chart] DFU			
4551	[Scanner Appl.: Text] DFU			
4552	[Scanner Appl.:Txt Dropout] DFU			
4553	[Scanner Appl.:Text/Photo] DFU			
4554	[Scanner Appl.: Photo] DFU			
4565	[Scanner Appl.: GrayScale] DFU			
4570	[Scan Appl.: Color: Text-Photo] DFU			
4571	[Scan Appl.: Color: Glossy Photo] DFU			
4572	[Scan Appl.: Color: AutoColor] DFU			
-005	MTF: 0 (Off), 1-15 (Strong) *ENG [0 to 15 / 8 / 1 /step] 0: MTF Off			
	Sets the MTF level (Modulation Transfer Function) designed to improve image contrast. Set higher for stronger effect, lower for weaker effect.			

-006	Smoothing: 0 (x1), 1-7 (Strong)	*ENG	[0 to 7 /	4 / 1 /step]	
-000	Use to remove "jaggies" if they appear. Set higher for smoother images.				
-007	Brightness: 1–255	*ENG	[1 to 255	/ 128 / 1 /step]	
-007	Set higher for darker, set lower for lighter.				
-008	Contrast: 1–255	*ENG	[1 to 255	/ 128 / 1 /step]	
-006	Set higher for more contrast, set lower for less contrast.				
	I-Dot Erase :0 (x1) 1-7 (Strong)		*ENG	[0 to 7 / 0 / 1 /step]	
-009	Sets the erasure level of Irregular Dots. Set higher for stronger effect, lower for weaker effect.				
	0: Not activated				

4580	[FAX Appl.: Text/Chart] DFU				
4582	[FAX Appl.: Text/Photo] DFU				
4583	[FAX Appl.: Photo] DFU				
-005	MTF: 0 (Off), 1-15 (Strong)	*ENG	[0 to 15 / 8 / 1 /step] 0: MTF Off		
	Sets the MTF level (Modulation Transfer Function) designed to improve image contrast. Set higher for stronger effect, lower for weaker effect.				
004	Smoothing: 0 (x1), 1-7 (Strong)	*ENG	[0 to 7 / 4 / 1 /step]		
-006	Use to remove "jaggies" if they appear. Set higher for smoother images.				
007	Brightness: 1–255	*ENG	[1 to 255 / 128 / 1 /step]		
-007	Set higher for darker, set lower for lighter.				
000	Contrast: 1–255	*ENG	[1 to 255 / 128 / 1 /step]		
-008	Set higher for more contrast, set lower for less contrast.				
	I-Dot Erase:0 (x1), 1-7 (Strong)	*ENG	[0 to 7 / 0 / 1 /step]		
-009	Selects the contrast level for B/W the Text mode. Sets the erasure level of Irregular Dots. Set higher for stronger effect, lower for weaker effect. O: Not activated				

	Texture Erase:0 (Fix), 1-2	*ENG	[0 to 2 / 0 / 1 /step]
-010	Sets the erasure level of textures. Set higher for stronger effect, lower for weaker effect. Th SP (suffix "-010") only exists in SP4580, 4582 and 4583.		
	0: Not activated		

4581	[FAX Appl.: Text] DFU					
4584	[FAX Appl.: Original 1] DFU					
4585	[FAX Appl.: Original 2] DFU					
-005	MTF: 0 (Off), 1-15 (Strong)			*ENG	} │	15 / 8 / 1 /step]
Sets the MTF level (Modulation Transfer Function) designed to improve higher for stronger effect, lower for weaker effect.				nprove image contrast. Set		
-006	Smoothing: 0 (x1), 1-7 (Strong)		*ENC	(0 to	7/ 4 /1/step]
-006	Use to remove "jaggies" if they	appear. Se	t high	er for s	moother i	mages.
007	Brightness: 1–255	*ENG	[1 to	o 255	/ 128 /	l /step]
-007	Set higher for darker, set lower for lighter.					
000	Contrast: 1–255	*ENG	[1 to	o 255	/ 128 /	1 /step]
-008	Set higher for more contrast, set lower for less contrast.					
	I-Dot Erase:0 (x1), 1-7 (Strong) *ENG [0 to 7 / 0 / 1 / step]					[0 to 7 / 0 / 1 /step]
-009	Selects the contrast level for B/W the Text mode. Sets the erasure level of Irregular Dots. Set higher for stronger effect, lower for weaker effect. 0: Not activated					

4600	[SBU Version Display]		
001	SBU ID	-	[0 to 0xFF / 0 / 1 /step] Displays the ID of the SBU.
002	GASBU-N ID	-	[0 to 0xFF / 0 / 1 /step]
003	VSP5100 ID	-	[0 to 0xFF / 0 / 1 /step]

4602	[Scanner Memory Access]		
001	Scanner Memory Access	-	Enables the read and write check for the SBU registers.

4603	[AGC Execution]		
001	HP Detection Enable	-	[0 or 1 / 0 / 1/step] Executes the AGC.
002	HP Detection Disable	-	[0 or 1 / 0 / 1/step] DFU

4604	[FGATE Open/Close] DFU		
001	-	-	Opens or closes the FGATE signal. This SP automatically returns to the default status (close) after exiting this SP. [0 or 1 / 0 / 1/step]
			0: OFF, 1: ON

4609	[Gray Balance Set: R] DFU		
001	Book Scan	*ENG	[-512 to 511 / -46 / 1 digit/step]
002	DF Scan	*ENG	[-512 to 511 / -46 / 1 digit/step]

4610	[Gray Balance Set: G] DFU		
001	Book Scan	*ENG	[-512 to 511 / -20 / 1 digit/step]
002	DF Scan	*ENG	[-512 to 511 / -20 / 1 digit/step]

4611	[Gray Balance Set: B] DFU		
001	Book Scan	*ENG	[-512 to 511 / -28 / 1 digit/step]
002	DF Scan	*ENG	[-512 to 511 / -28 / 1 digit/step]

4623	[Black Level Adj. Display] DFU	
4023	RE: Red Even signal, RO: Red Odd signal	

001	Latest: RE Color	-	Displays the black offset value (rough adjustment) for the even red signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]
002	Latest: RO Color	-	Displays the black offset value (rough adjustment) for the odd red signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]

4624	[Black Level Adj. Display] DFU GE: Green Even signal, GO: G	[Black Level Adj. Display] DFU GE: Green Even signal, GO: Green Odd signal		
001	Latest: GE Color	Displays the black offset value (rough adjustment) for the even green signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]		
002	Latest: GO Color	Displays the black offset value (rough adjustment) for the odd green signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]		

4625	[Black Level Adj. Display] DFU BE: Blue Even signal, BO: Blue Odd signal		
001	Latest: BE Color	Displays the black offset value (rough adjustment) for the even blue signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]	
002	Latest: BO Color	Displays the black offset value (rough adjustment) for the odd blue signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]	

4628	[Analog Gain Adjust] DFU				
	Displays the gain value of the amplifiers on the controller for Red.				
001	Latest: R Color	-	[0 to 7 / 0 / 1 digit/step]		

4629	Analog Gain Adjust] DFU				
4029	Displays the gain value of the amplifiers on the controller for Green.				
001	Latest: G Color -		[0 to 7 / 0 / 1 digit/step]		

4630					
4030	Displays the gain value of the amplifiers on the controller for Blue.				
001	1 Latest: B Color -		[0 to 7 / 0 / 1 digit/step]		

4631	[Digital Gain Adjust] DFU				
4031	Displays the gain value of the amplifiers on the controller for Red.				
001	Latest: RE Color	-	[01002 / 0. / 1.		
002	Latest: RO Color	-	[0 to 1023 / 0 / 1 digit/step]		

4632	[Digital Gain Adjust] DFU					
4032	Displays the gain value of the amplifiers on the controller for Green.					
001	Latest: GE Color	-	[0 to 1023 / 0 / 1 digit/step]			
002	Latest: GO Color	-				

4633	[Digital Gain Adjust] DFU				
4033	Displays the gain value of the amplifiers on the controller for Blue.				
001	Latest: BE Color	-	[0 to 1023 / 0 / 1 digit/step]		
002	Latest: BO Color	-			

4645	[Scan Adjust Error] DFU				
4043	Displays the error value of the white level or black level adjustment.				
001	White Level	-	[0.5.45525 / 0 ./ 1.4554/3]		
002	Black Level	-	[0 to 65535 / 0 / 1 digit/step]		

4647	[Scanner Hard Error]				
404/	Displays the result of the SBU connection check.				
001	Power-ON	-	[0 to 65535 / 0 / 1 /step] 0: OK, Other: SBU connection check failure		
			If the SBU connection check fails, SC144 occurs.		

4654	[Black Level Adj. Display] DFU RE: Red Even signal, RO: Red Odd signal			
001	Last Correct Value: RE Color	*ENG	Displays the black offset value (rough adjustment) for the even red signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]	
002	Last Correct Value: RO Color	*ENG	Displays the black offset value (rough adjustment) for the odd red signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]	

4655	[Black Level Adj. Display] DFU GE: Green Even signal, GO: Green Odd signal		
001	Last Correct Value: GE Color	*ENG	Displays the black offset value (rough adjustment) for the even green signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]
002	Last Correct Value: GO Color	*ENG	Displays the black offset value (rough adjustment) for the odd green signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]

4656	[Black Level Adj. Display] DFU
4030	BE: Blue Even signal, BO: Blue Odd signal

001	Last Correct Value: BE Color	*ENG	Displays the black offset value (rough adjustment) for the even blue signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]
002	Last Correct Value: BO Color	*ENG	Displays the black offset value (rough adjustment) for the odd blue signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]

4658	[Analog Gain Adjust] DFU			
4036	Displays the previous gain value of the	revious gain value of the amplifiers on the controller for Red.		
001	001 Last Correct Value: RE Color		[0 to 7 / 0 / 1 digit/step]	

4659	[Analog Gain Adjust] DFU				
4039	Displays the previous gain value of the amplifiers on the controller for Green.				
001	Last Correct Value: GE Color	*ENG	[0 to 7 / 0 / 1 digit/step]		

4660	[Analog Gain Adjust] DFU				
4000	Displays the previous gain value of the amplifiers on the controller for Blue.				
001	Last Correct Value: BE Color	*ENG	[0 to 7 / 0 / 1 digit/step]		

4661	[Digital Gain Adjust] DFU			
4001	RE: Red Even signal, RO: Red Odd sigr			
001	Last Correct Value: RE Color	*ENG	[0 to 1023 / 0 / 1 digit/step]	
002	Last Correct Value: RO Color	*ENG	[0 10 1023 / 0 / 1 algli/step]	

4662	[Digital Gain Adjust] DFU				
4002	GE: Green Even signal, GO: Green Odd signal				
001	Last Correct Value: GE Color	*ENG	[0 to 1023 / 0 / 1 digit/step]		
002	Last Correct Value: GO Color	*ENG	[O IO IO23 / O / I digit/siep]		

	1662	[Digital Gain Adjust] DFU				
4663		BE: Blue Even signal, BO: Blue Odd signal				
	001	Last Correct Value: BE Color	*ENG	[0 to 1023 / 0 / 1 digit/step]		
	002	Last Correct Value: BO Color	*ENG	[0 to 1023 / 0 / 1 digit/step]		

4673	[Black Level Adj. Display] DFU RE: Red Even signal, RO: Red Odd signal		
001	Factory Setting: RE Color *ENG		Displays the factory setting values of the black level adjustment for the even red signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]
002	Factory Setting: RO Color	*ENG	Displays the factory setting values of the black level adjustment (rough adjustment) for the odd red signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]

4674	[Black Level Adj. Display] DFU					
4074	GE: Green Even signal, GO: Green Odd signal					
001	Factory Setting: GE Color	*ENG	Displays the factory setting values of the black level adjustment (rough adjustment) for the even green signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]			
002	Factory Setting: GO Color	*ENG	Displays the factory setting values of the black level adjustment (rough adjustment) for the odd green signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]			

4675	[Black Level Adj. Display] DFU
46/3	BE: Blue Even signal, BO: Blue Odd signal

001	Factory Setting: BE Color	*ENG	Displays the factory setting values of the black level adjustment (rough adjustment) for the even blue signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]
002	Factory Setting: BO Color	*ENG	Displays the factory setting values of the black level adjustment (rough adjustment) for the odd blue signal in the CCD circuit board (color printing speed). [0 to 16383 / 0 / 1 digit/step]

4677	[Analog Gain Adjust] DFU					
40//	Displays the factory setting values of the gain adjustment for Red.					
001	Factory Setting: RE Color	*ENG	[0 to 7 / 0 / 1 digit/step]			

4678	[Analog Gain Adjust] DFU					
40/6	Displays the factory setting values of the gain adjustment for Green.					
001	Factory Setting: GE Color	*ENG	[0 to 7 / 0 / 1 digit/step]			

4679	[Analog Gain Adjust] DFU			
40/9	Displays the factory setting values of the gain adjustment for Blue.			
001	Factory Setting: BE Color *ENG [0 to 7 / 0 / 1 digit/step]			

	4680	[Digital Gain Adjust] DFU					
	4000	Displays the gain value of the amplifiers on the controller for Red.					
	001	Factory Setting: RE Color	*ENG	[0 to 1023 / 0 / 1 digit/step]			
	002	Factory Setting: RO Color	*ENG				

4681	[Digital Gain Adjust] DFU	
4001	Displays the gain value of the amplifiers on the controller for Green.	

001	Factory Setting: GE Color	*ENG	[0 to 1023 / 0 / 1 digit/step]
002	Factory Setting: GO Color	*ENG	

4682	[Digital Gain Adjust] DFU					
4002	Displays the gain value of the amplifiers on the controller for Blue.					
001	Factory Setting: BE Color	*ENG	[0 to 1023 / 0 / 1 digit/step]			
002	Factory Setting: BO Color	*ENG	[0 10 1023 / 0 / 1 algit/step]			

	[DF: Density Adjustment]			
4688	Adjusts the white shading pa	rameter w	hen scanning an image with the ARDF.	
	Adjusts the density level if the	e ID of outp	outs made in the DF and Platen mode is different.	
001	-	*ENG	[50 to 150 / 107 / 1%/ step]	

	4690	[White Level Peak Read] DFU		
		Displays the peak level of the white level scanning.		
	001	RE	-	[0 to 1023 / 0 / 1 digit/step]
	002	RO	-	

4691	[White Level Peak Read] DFU				
4071	Displays the peak level of the white level scanning.				
001	GE	-	[0 1002 / 0 / 1 disit/]		
002	GO	-	[0 to 1023 / 0 / 1 digit/step]		

4692	[White Level Peak Read] DFU				
4072	Displays the peak level of the white level scanning.				
001	BE	-	[0 to 1023 / 0 / 1 digit/step]		
002	ВО	-	[0 10 1023 / 0 / 1 digit/step]		

4693	[Black Level Peak Read] DFU				
4093	Displays the peak level of the k	olack lev	el scanning.		
001	RE	-	[0., 1002 / 0 / 1 / 1:4/]		
002	RO	-	[0 to 1023 / 0 / 1 digit/step]		

4694	[Black Level Peak Read] DFU				
4094	Displays the peak level of the black level scanning.				
001	GE	-	[01002 / 0. / 1.		
002	GO	-	[0 to 1023 / 0 / 1 digit/step]		

4695	[Black Level Peak Read] DFU				
4093	Displays the peak level of the black level scanning.				
001	BE	-	[0 1002 / 0 / 1 divit/]		
002	ВО	-	[0 to 1023 / 0 / 1 digit/step]		

4802	[DF Shading FreeRun]		
001	Lamp OFF		Executes the scanner free run of shading movement
		_	with exposure lamp on or off.
002	Lamp ON		Press "OFF" to stop this free run. Otherwise, the free run lasts.

4804	[Home Position Opetation]		
001	-	-	Executes the scanner HP detection.

4806	[Carriage Move]		
001	-	-	Moves the carriage from the scanner home position. Dust may fall through the DF exposure glass. Therefore, do this SP when you transport the machine a long distance.

4807	[SBU Test Pattern Change]				
	-	-	[0 to 255 / 0 / 1 /step]		
	Selects the SBU test pattern.				
	0: Normal output				
001	1: Fixed value output				
	2: Main scan gradation				
	3: Sub scan gradation				
	4: Grid pattern				

4808	[Factory Setting Input] DFU			
002	Execution Flag	*ENG	[0 or 1 / 0 / 1 /step]	

	[ACC Data Display]				
4902	This SP outputs the final data read at the end of ACC execution.				
	A zero is returned if there was an error reading the data.				
	[0 to 255 / 0 / 1 /step]				
001	R DATA1	*ENG	Photo C Patch Level 1 (8-bit)		
002	G DATA1	*ENG	Photo M Patch Level 1 (8-bit)		
003	B DATA1	*ENG	Photo Y Patch Level 1 (8-bit)		
004	R DATA2	*ENG	Photo C Patch Level 17 (8-bit)		
005	G DATA2	*ENG	Photo M Patch Level 17(8-bit)		
006	B DATA2	*ENG	Photo Y Patch Level 17 (8-bit)		

4904	[IPU Board Test]	
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			BitO: TAURUS register		
			Bit1: ORION register		
			Bit2: LUPUS register		
	Test1	-	Bit3 to 11: Not used		
001			Bit12: Ri20		
			Bit 13 to 15: Not used		
			0: OK, 1: Error		
	Performs a write and read check of the ASICs on the BCU board and displays the result.				
			BitO: Image path from SBU to TAURUS		
			Bit 1 : Image path from TAURUS to ORION		
			Bit2: Image path from ORION to TAURUS		
			Bit3: Image path from TAURUS to LUPUS		
	Test2	-	Bit4 to 11: Not used		
002			Bit 12: Image path from LUPUS to Ri20		
			Bit 13: Image path from Ri20 to GAVD		
			Bit14 and 15: Not used		
			0: OK, 1: Error		
	Performs an image path check	on the B	CU board and displays the result.		

	4905	[Dither Selection] DFU				
	4703	Changes the parameters for error diffusion.				
	001	-	*ENG	[0 to 255 / 0 / 1 /step]		

4918	[Man Gamma Adj]		
009	-	-	Adjusts the manual gamma for Copy/Photo or Copy/Text with the soft keys on the operation panel.

4948	[ACC History:Latest]		
001	YY/MM/DD	*ENG	Displays the latest ACC execution date.
002	HH/MM/SS	*ENG	Displays the latest ACC execution time.

4949 [ACC History:Previous]				
	001	YY/MM/DD	*ENG	Displays the previous ACC execution date.
	002	HH/MM/SS	*ENG	Displays the previous ACC execution time.

4954	[Read/Restore Standard]		
001	Scan New Chart	-	Executes new chart scanning.
002	Recall Previous Chart	-	Recalls the previous scanned chart.
004	Set Standard Chart	-	Restores a new chart data as a standard chart data.

	[IPU Image Path Selection]				
4991	Selects the image path.				
	Enter the number to be selected using the 10-key pad.				
	RGB Frame Memory - [0 to 11 / 2 / 1 / step]				
	0: Scanner input RGB images				
	1: Scanner I/F RGB images				
	2: RGB images done by Shading correction (Shading ON, Black offset ON)				
	3: Shading data				
	4: Inner pattern data: Gray scale				
001	5: RGB images done by Line skipping correction				
	6: RGB images done by Digital AE				
	7: RGB images done by Vertical line correction				
	8: RGB image done by Scanner gamma correction				
	9: RGB image done by Filtering correction				
	10: RGB images done by Full color ADS				
	11: RGB image done by Color correction				

4993	[High Light Correction]
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001	Sensitivity Selection	*ENG	Selects the Highlight correction level. [0 to 9 / 4 / 1 /step] 0: weakest sensitivity 9: strongest sensitivity
002	Range Selection	*ENG	Selects the range level of Highlight correction. [0 to 9 / 4 / 1 /step] 0: weakest skew correction, 9: strongest skew correction

4994	[Text/Photo Detection Level Adj.]			
4774	Selects the definition level between Text and Photo for high compression PDF.			
	High Compression PDF	*ENG	[0 to 2 / 1 / 1 /step]	
001			0: Text priority	
			1: Normal	
			2: Photo priority	

	[White Paper Detect Level]				
Selects the threshold level of the original background density. Increasing this threshold machine easily judge that an original is white.					
001	-	*ENG	[0 to 6 / 3 / 1 /step] 0: lightest 6: Darkest		

System SP5xxx

SP5-XXX (Mode)

5024	[mm/inch Display Selection]			
5024	Display units (mm or inch) for custom paper sizes.			
001	0:mm 1:inch	*CTL	0: mm (Europe/Asia) 1: inch (USA)	

	[Accounting Counter]			
5045	Selects the counting method. NOTE: The counting method can be changed only once, regardless of whether the counter value is negative or positive.			
001	Counter Method	*CTL	[0 or 1 / 0 / -] 0: Developments 1: Prints	

5047	[Paper Display]			
3047	Turns on or off the printed paper display on the LCD.			
001	Backing Paper	*CTL	[0 or 1 / 0 / -] 0: OFF, 1: ON	

5051	[Toner Refill Detection Display]			
3031	Enables or disables the toner refill detection display.			
			[0 or 1 / 0 / -] Alphanumeric	
50511	-	*CTL	0: ON	
			1: OFF	

5055	[Display IP Address]
3033	Display or does not display the IP address on the LCD.

3

001 - *СТІ	[0 or 1 / 0 / -] 0: OFF 1: ON
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5056	[Coverage Counter Display]		
	Display or does not display the coverage counter on the LCD.		
001	-	*CTL	[0 or 1 / 0 / -] 0: Not display, 1: Display

5061	[Toner Remaining Icon Display Change]		
Display or does not display the remaining toner display icon on the LCD.		ing toner display icon on the LCD.	
001	-	*CTL	[0 or 1 / 0 / -] 0: Not display, 1: Display

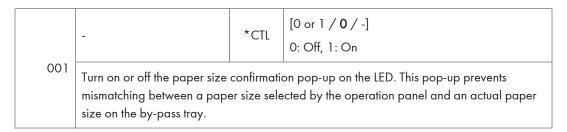
5062	[Parts PM System Setting]			
3062	Display or does not display the PM part yield on the LCD.			
001	PCU:Bk	*CTL		
002	PCU:M	*CTL		
003	PCU:C	*CTL		
004	PCU:Y	*CTL		
005	Development Unit:Bk	*CTL		
006	Development Unit:M	*CTL		
007	Development Unit:C	*CTL	[0 or 1 / 0 / -] 0: No Display, 1: Display	
008	Development Unit:Y	*CTL	G. No Bispidy, 1. Bispidy	
009	Image Transfer Belt	*CTL		
010	ITB Cleaning Unit	*CTL		
011	Fusing Unit	*CTL		
012	PTR Unit	*CTL		
013	PCU Toner Collection Bottle	*CTL		

5063	[Small Tray]		
001	-	*CTL	[0 or 1 / 0 / -] O: Normal Tray, 1: Envelope Feeder
	Changes the tray setting.		

5066	[Parts PM Menu Display Setting] Not used		
001	-		[0 or 1 / 0 / -] 0: No Display, 1: Display

	[Parts PM System Setting]			
5067	Selects the service maintenance or user maintenance for each PM parts. If the user service is selected, PM alart is displayed on the LCD.			
001	PCU:Bk	*CTL		
002	PCU:M	*CTL	[0, 6,	
003	PCU:C	*CTL	[0: Service] or [1: User]	
004	PCU:Y	*CTL		
005	Development Unit:Bk	*CTL		
006	Development Unit:M	*CTL	[0, 6,	
007	Development Unit:C	*CTL	[0: Service] or [1: User]	
800	Development Unit:Y	*CTL		
009	Image Transfer Belt	*CTL		
010	ITB Cleaning Unit	*CTL		
011	Fusing Belt	*CTL	[0: Service] or [1: User]	
012	PTR Unit	*CTL		
013	PCU Toner Collection Bottle	*CTL		

5071	[Set Bypass Paper Size]
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5104	[A3/DLT Double Count] SSP		
001	PCU:Bk	*CTL	[0 to 2 / 0 / 1/step] 0: No 1: Yes 2: Yes except By-pass
	Specifies whether the counter is doubled for A3/DLT. "Yes" counts except from the bypotray. When "Yes" is selected, A3 and DLT paper are counted twice, that is A4 x2 and LT respectively.		•

5113	[Optional Counter Type]		
001	Default Optional Counter Type	*CTL	This program specifies the counter type. O: None, 1: Key card (RK 3, 4) 2: Key card (down), 3: Prepaid card 4: Coin rack, 5: MF key card 8: Key counter + Vendor 9: Bar-code Printer
002	External Optional Counter Type	*CTL	This program specifies the external counter type. 0: None 1: Expansion Device 1 2: Expansion Device 2 3: Expansion Device 3

5114	[Optional Counter I/F]		
001	MF Key Card Extension	*CTL	[0: Not installed/ 1: Installed (scanning accounting)]

5118	[Disable Copying]	*CTL	[0: Not disabled/ 1: Disabled]
001	This program disables copying.		

5120	[Mode Clear Opt. Counter Removal]	*CTL	[0: Yes (removed)/ 1: Standby (installed but not used)/ 2: No (not removed)]
001	This program updates the information on the optional counter. When you install or remove an optional counter, check the settings.		

5121	[Counter Up Timing]	*CTL	[0: Feed/ 1: Exit]
001	This program specifies when the "paper exit" respectively.	e counte	er goes up. The settings refer to "paper feed" and

5126	[F Size Original Setting]	*ENG	[0 to 2 / 0 / 1 /step] 0: 8 1/2" x 13" (Foolscap) 1: 8 1/4" x 13" (Folio) 2: 8" x 13" (F)
001	Selects F size original setting.		

5127	[APS Mode]	*CTL	[0: Not disabled/ 1: Disabled]
001	This program disables the APS		

5128	[Code Mode With Key/Card Option]	*CTL	-
001	DFU		

5131	[Paper Size Type Selection]	*ENG	DFU [0: JP (Japan)/ 1: NA / 2: EU]
001	The program selects a paper size system the LT system (1), and the AF system (2)	m from the 1	following alternatives: the AB system (0),

5150	[By-Pass Length Setting]	*CTL	[0: OFF/ 1: ON]
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Determines whether the transfer sheet from the by-pass tray is used or not.

Normally the paper length for sub scanning paper from the by-pass tray is limited to 600 mm, but this can be extended with this SP to 1260 mm.

5162	[App. Switch Method]	*CTL	[0: Soft Key Set/ 1: Hard Key Set]
001	This program specifies the switch that selects an application program.		

	[Fax Printing Mode at Optional Counter Off]			
5167	Enables or disables the automatic print out without an accounting device. This SP is used when the receiving fax is accounted by an external accounting device.			
001	Fax Printing Mode at Optional Counter Off	*CTL	[0 or 1 / 0 / -] 0: Automatic printing 1: No automatic printing	

	[CE Login]				
If you will change the printer bit switches, you must 'log in' to service mode with this S you go into the printer SP mode.					
001	-	*CTL	[0 or 1 / 0 / -] 0: Disabled 1: Enabled		

5181	[Size Adjust]				
3101	Adjusts the paper size for each tray.				
001	Tray 1:1	*ENG	[0 to 1 / 0 (EU/ASIA), 1 (NA) / 1 /step] 0: A4 LEF, 1: LT LEF		
002	Tray 1: 2	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A3, 1: DLT		
003	Tray 1: 3	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B4, 1: LG		
004	Tray 1: 4	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B5 LEF, 1: Exe LEF		

005	Tray 2: 1	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A4 LEF, 1: LT LEF
006	Tray 2: 2	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A3, 1: DLT
007	Tray 2: 3	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B4, 1: LG
008	Tray 2: 4	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B5 LEF, 1: Exe LEF
009	Tray 3: 1	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A4 LEF, 1: LT LEF
010	Tray 3: 2	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A3, 1: DLT
011	Tray 3: 3	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B4, 1: LG
012	Tray 3: 4	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B5 LEF, 1: Exe LEF
013	Tray 4: 1	*ENG	[0 to 2 / 0 (EU/ASIA), 1 (NA) / -] 0: A4LEF, 1: LTLEF
014	Tray 4: 2	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: A3, 1: DLT
015	Tray 4: 3	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B4, 1: LG
016	Tray 4: 4	*ENG	[0 or 1 / 0 (EU/ASIA), 1 (NA) / -] 0: B5 LEF, 1: Exe LEF

[RK 4	Disconnect Operation]
If the F	es or disables the prevention for RK4 (accounting device) disconnection. RK4 is disconnected for 10 seconds when this SP is set to "1 (Enable)", the machine natically jams a sheet of paper and stops.

001 - *E		[0 or 1 / 0 / 1/step] 0: Disable 1: Enable
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[Copy NV Version]				
3100	Displays the version number of the NVRAM on the controller board.			
001	-	*CTL	-	

5195	[Limitless SW] DFU			
			[0 or 1 / 1 / -]	
	-	*CTL	0: Productivity priority	
			1: Tray priority	
	Selects the paper feed mode	ue paper feed mode.		
	Productivity priority:			
001	This changes the feeding tray	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 Selsct".			

5196	[Copier Vendor Mode]		
001	90 deg. Rotation	*CTL	Not used
002	Color and Tray Selection	*CTL	Not used

5199	[Paper Exit After Staple End.]		
001	-	*CTL	[0 or 1 / 0 / -] 0: OFF, 1: ON

Enables or disables the paper feeding out from the finisher without stapling.

- If this setting is "1: ON", paper is fed out without stapling at the maximum number of the finisher stapling when the machine gets a multiple printing job (over maximum number).
- If this setting is "0: OFF", paper is fed out with stapling at the maximum number of the finisher stapling when the machine gets a multiple printing job (over maximum number).

5212	[Page Numbering]	*CTL	
	This program adjusts the position of the second side page numbers.		
	A "- value" moves the page number positions to the left edge.		
	A "+ value" moves the page number positions to the right edge.		
003	Duplex Printout Right/Left Position		
004	Duplex Printout High/Low Po	[-10 to 10 / 0 / 1 mm/step]	

	[Set Time]			
	Adjusts the RTC (real time clock) time setting for the local time zone.			
	Examples: For Japan (+9 GMT), enter 540 (9 hours x 60 min.) DOM: +540 (Tokyo) NA: -300 (New York) EU: +60 (Paris)			
5302				
	CH: +480 (Peking)			
	TW: +480 (Taipei)			
	AS: +480 (Hong Kong)			
002	Time Difference	*CTL#	[-1440 to 1440 / Area / 1 min./step]	

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001	Setting	-	[0 to 1 / NA, EU, ASIA / 1 /step] 0: Disabled 1: Enabled NA and EUR: 1, ASIA: 0			
	Enables or disables the summer time mode.					
	Make sure that both SP5-	 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". 				
	Rule Set (Start)	-				
	Specifies the start setting for the	e summer ti	me mode.			
	There are 8 digits in this SP. For eight-digit setting for -2 or -3 b		o 9, the "0" cannot be input in the first digit, so the seven-digit setting.			
	1st and 2nd digits: The month.	1st and 2nd digits: The month. [1 to 12]				
	3rd digit: The week of the month. [1 to 5]					
003	4th digit: The day of the week. [0 to 6 = Sunday to Saturday]					
	5th and 6th digits: The hour. [00 to 23]					
	7th digit: The length of the advanced time. [0 to 9 / 1 hour /step]					
	8th digit: The length of the advanced time. [0 to 5 / 10 minutes /step]					
	For example: 3500010 (EU default)					
	The timer is advanced by 1 hour at am 0:00 on the 5th Sunday in March					
	 The digits are counted from the left. Make sure that SP5-307-1 is set to "1". 					
		- I is set to	1 °.			
	Rule Set (End)	-	-			
	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]					
004	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. [C					
	The 7th and 8 digits must be se					
	The digits are counted fro		13.0			
	Make sure that SP5-307-	- I is set to "	T".			

5.401	[Access Control]	Control]			
5401	When installing the SDK app	lication, S	AS (VAS) adjusts the following settings. DFU		
			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.		
			[0 to 3 / 0 / 1]		
103	Default Document ACL	*CTL	0: View		
			1: Edit		
			2: Edit/Delete		
			3: Full control		
			Note: This SP setting is ignored on a machine that is not using document server.		
	Authentication Time		[0 to 255 / 0 / 1 sec./step]		
		*CTL	0: 60 seconds		
104			1 to 250 seconds		
	Specifies the timeout of the a	uthenticatio	on.		
			Selects the log out type for the extend authentication device.		
162	Extend Certification Detail	*CTL	Bit 0: Log-out without an IC card		
			0: Not allowed (default)		
			1: Allowed		
200	SDK1 Unique ID	*CTL			
201	SDK1 Certification Method	*CTL			
210	SDK2 Unique ID	*CTL	"SDK" is the "Software Development Kit". This		
211	SDK2 Certification Method	*CTL	data can be converted from SAS (VAS) when installed or uninstalled. (DFU)		
220	SDK3 Unique ID	*CTL			
221	SDK3 Certification Method	*CTL			

	SDK certification device	*CTL	-	
230	 Bit 0: SDK authentication 0: Off (Default), 1: On (SDK authentication enabled) Selects the SDK authentication setting. Bit 2: Administrator log in setting 0: Off (Default), 1: On 			
	Detail Option	*CTL	-	
	Enables or disables the log out confirmation option.			
	Bit 0: Log out confirmation option			
240	0: Enable (default), 1: Disable			
	Selects the automatic log out time.			
	Bit 1 and 2: Automatic log out timer reduction			
	00: 60 seconds (default), 01: 10 seconds,			
	10: 20 seconds, 11: 30 seconds			

5404	[User Code Counter Clear]		
001	-	*CTL	Clears all counters for users.

5411	[LDAP Certification]		
004	Easy Certification	*CTL	Determines whether easy LDAP certification is done. [0 to 1 / 1 / 1] 1: On, 0: Off
005	Password Null Not Permit	*CTL	This SP is referenced only when SP5411-4 is set to "1" (On). [0 to 1 / 0 / 1] 0: Password NULL not permitted. 1: Password NULL permitted.
006	Detail Option	*CTL	Determines whether LDAP option (anonymous certification) is turned on or off. BitO O: OFF, 1: ON

5413	[Lockout Setting]		
001	Lockout On/Off	*CTL	Switches on/off the lock on the local address book account. [0 to 1 / 0 / 1] 0: Off, 1: On
002	Lockout Threshold	*CTL	Sets a limit on the frequency of lockouts for account lockouts. [1 to 10 / 5 / 1]
003	Cancellation On/Off	*CTL	Determines whether the system waits the prescribed time for input of a correct user ID and password after an account lockout has occurred. [0 to 1 / 0 / 1] 0: Off (no wait time, lockout not cancelled) 1: On (system waits, cancels lockout if correct user ID and password are entered.
004	Cancellation Time	*CTL	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). [1 to 999 / 60 / 1 min.]
005	Counter Clear Time	*CTL	Not Used

5414	[Access Mitigation]		
001	Mitigation On/Off	*CTL	Switches on/off masking of continuously used IDs and passwords that are identical. [0 to 1 / 0 / 1] 0: Off 1: On
002	Mitigation Time	*CTL	Sets the length of time for excluding continuous access for identical user IDs and passwords. [0 to 60 / 15 / 1 min.]

5415	[Password Attack]
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001	Permissible Number	*CTL	Sets the number of attempts to attack the system with random passwords to gain illegal access to the system. [O to 100 / 30 / 1 attempt]
002	Detect Time	*CTL	Sets the time limit to stop a password attack once such an attack has been detected. [1 to 10 / 5 / 1 sec.]

5416	[Access Information]		
001	Access User Max Num	*CTL	Limits the number of users used by the access exclusion and password attack detection functions. [50 to 200 / 200 / 1 users]
002	Access Password Max Num	*CTL	Limits the number of passwords used by the access exclusion and password attack detection functions. [50 to 200 / 200 / 1 passwords]
003	Monitor Interval	*CTL	Sets the processing time interval for referencing user ID and password information. [1 to 10 / 3 / 1 sec.]

541 <i>7</i>	[Access Attack]		
001	Access Permissible Number	*CTL	Sets a limit on access attempts when an excessive number of attempts are detected for MFP features. [0 to 500 / 100 / 1]
002	Attack Detect Time	*CTL	Sets the length of time for monitoring the frequency of access to MFP features. [10 to 30 / 10 / 1 sec.]
003	Productivity Fall Wait	*CTL	Sets the wait time to slow down the speed of certification when an excessive number of access attempts have been detected. [0 to 9 / 3 / 1 sec.]

004	Attack Max Num	*CTL	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. [50 to 200 / 200 / 1 attempt]
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	[User Authentication]			
5420	These settings should be done with the System Administrator.			
	Note: These functions are end	abled only	after the user access feature has been enabled.	
001	Сору	*CTL	Determines whether certification is required before a user can use the copy applications. [0 to 1 / 0 / 1] 0: On, 1: Off	
	Color Security Setting	*CTL	-	
002	Enables or disables the color copy limitation for each copy mode when the user authentication is "ON". O: Enable (default), 1: Disable Bit0: B/W mode Bit1: Mono color mode Bit2: Two colors mode Bit3: Full color mode Bit4: Automatic color mode Bit5 to 7: Reserved			
011	Document Server	*CTL	Determines whether certification is required before a user can use the document server. [0 to 1 / 0 / 1] 0: On, 1: Off	
021	Fax	*CTL	Determines whether certification is required before a user can use the fax application. [0 to 1 / 0 / 1] 0: On, 1: Off	

031	Scanner	*CTL	Determines whether certification is required before a user can use the scan applications. [0 to 1 / 0 / 1] 0: On, 1: Off
041	Printer	*CTL	Determines whether certification is required before a user can use the printer applications. [0 to 1 / 0 / 1] 0: On, 1: Off
051	SDK1	*CTL	[0 or 1 / 0 / 1] 0: ON. 1: OFF
061	SDK2		Determines whether certification is required
071	SDK3		before a user can use the SDK application.

5430	[Auth Dialog Message Change]		
001	Message Change On/Off	*CTL	Turns on or off the displayed message change for the authentication. [0 or 1 / 0 / -] 0: Off, 1: On
002	Message Text Download	*CTL	Executes the message download for the authentication.
003	Message Text ID	*CTL	Inputs message text for the authentication.

5431	[External Auth Preset]		
010	Tag Turns on or off the tag copy p	*CTL permission	[0 or 1 / 1 / -] 0: Not permit, 1: Permit In for the external authentication.
011	Entry *CTL [0 or 1 / 1 / -] 0: Not permit, 1: Permit Turns on or off the copy permission of the entry information for the external authentic		

012	Group	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit		
	Turns on or off the copy permi	ssion of t	he group information for the external authentication.		
020	Mail	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit		
	Turns on or off the copy perm	ission of	the mail information for the external authentication.		
030	Fax	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit		
	Turns on or off the copy perm	ission of	the fax information for the external authentication.		
031	FaxSub	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit		
031	Turns on or off the copy permission of the fax additional information for the external authentication.				
032	Folder	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit		
	Turns on or off the copy permission of the folder information for the external authentication.				
033	ProtectCode	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit		
	Turns on or off the copy permission of the protection code information for the external authentication.				
034	SmtpAuth	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit		
	Turns on or off the copy permission of the SMTP information for the external authentication.				
035	LdapAuth	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit		
	Turns on or off the copy permission of the LDAP information for the external authentication.				

036	Smb Ftp Auth	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
030	Turns on or off the copy perm authentication.	ission of	the SMB/FTP information for the external	
037	AcntAcl	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
007	Turns on or off the copy perm authentication.	ission of	the account ACL information for the external	
038	DocumentAcl *CTL	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
030	Turns on or off the copy perm authentication.	urns on or off the copy permission of the document ACL information for the external authentication.		
040	CertCrypt		[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
040	Turns on or off the copy perm authentication.	ission of	the authentication information for the external	
050	UserLimitCount	*CTL	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
030	Turns on or off the copy permission of the maximum number information for the external authentication.			

5481	[Authentication Error Code]		
3461	These SP codes determine how the authentication failures are displayed.		entication failures are displayed.
001	System Log Disp	*CTL	Determines whether an error code appears in the system log after a user authentication failure occurs. [0 to 1 / 0 / 1] 0: Off, 1: On

002	Panel Disp	*CTL	Determines whether an error code appears on the operation panel after a user authentication failure occurs. [0 to 1 / 1 / 1] 1: On, 0: Off
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5490	[MF Key Card (Japan only)]		
001	Job Permit Setting	*CTL	Sets up operation of the machine with a keycard. [0 to 1 / 0 / 1] 0: Disabled. Cancels operation without a user code. 1: Enabled. Allows operation without a user code.
002	Count Mode Setting	*CTL	-

5501	[PM Alarm]		
001	PM Alarm Level	*CTL	[0 to 9999 / 0 / 1 / step] 0: Alarm off 1 to 9999: Alarm goes off when Value (1 to 9999) x 1000 > PM counter
002	Original Count Alarm	*CTL	[0 or 1 / 1 / -] 0: No alarm sounds 1: Alarm sounds after the number of originals passing through the ARDF > 10,000

5504	[Jam Alarm]	*CTL	-
	Sets the alarm to sound for the specified jam level (document misfeeds are not inclu		jam level (document misfeeds are not included).
	[0 to 3 / 3 / 1 /step]		
001	0: Zero (Off) 1: Low (2.5K jams) 2: Medium (3K jams) 3: High (6K jams)		
001			

	[Error Alarm]		
Sets the error alarm level.			
5505	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 (for example, default 1500 sheets).		
	The error alarm occurs when the SC error alarm counter reaches "5".		
001	-	*CTL	[0 to 255 / 20 / 100 copies /step]

5507	[Supply Alarm]	*CTL	-	
3307	Enables or disables the notifyin	g a supply call via the @Remote.		
001	Paper Supply Alarm	0 : Off, 1:	On	
002	Staple Supply Alarm	0: Off, 1:	On	
003	Toner Supply Alarm	0: Off, 1:	On	
080	Toner Call Timing		the timing of the "Toner Supply Call" via the , when the following conditions occur. acement	
		1: At nea	r end	
128	Interval :Others			
132	Interval :A3			
133	Interval :A4			
134	Interval :A5			
141	Interval :B4	[250+0.1	0000 / 1000 / 1 /step]	
142	Interval :B5	[230 10 1	0000 / 1000 / 1 / siep]	
160	Interval :DLT			
164	Interval :LG			
166	Interval :LT			
172	Interval :HLT			

5508* [CC Call]	*CTL	-
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001*	Jam Remains	0: Disable, 1 :	Enable
001* Enables/disables initiating a call for an unattended paper jam.		nded paper jam.	
002*	Continuous Jams	0: Disable, 1 :	Enable
002	Enables/disables initiating a co	all for consecuti	ve paper jams.
003*	Continuous Door Open		0: Disable, 1: Enable
003	Enables/disables initiating a call when the front door remains open.		nt door remains open.
011*	Jam Detection: Time Length		[3 to 30 / 10 / 1 minute /step]
011	Sets the time a jam must remain before it becomes an "unattended paper jam".		mes an "unattended paper jam".
010*	Jam Detection: Continuous Cou	unt	[2 to 10 / 5 / 1 /step]
O12* Sets the number of consecutive paper jams rec		quired to initiate a call.	
013*	Door Open: Time Length		[3 to 30 / 10 / 1 /step]
013	Sets the length of time the door remains open before the machine initiates a call.		

[SC/Alarm Setting]		
5515	With @Remote in use, these SP codes can be set to issue an SC call when an SC e occurs. If this SP is switched off, the SC call is not issued when an SC error occurs.	
001	SC Call	
002	Service Parts Near End Call	[0 or 1 / 1 / -] 0: Off
003	Service Parts End Call	1: On
004	User Call	

006	Communication Test Call	
007	Machine Information Notice	
008	Alarm Notice	[0 or 1 / 1 / -]
009	Non Genuin Tonner Alarm	0: Off
010	Supply Automatic Ordering Call	1: On
011	Supply Manegement Report Call	
012	Jam/Door Open Call	

5516	[Individual PM Part Alarm Call]	*CTL	-
	With @Remote in use, these SP codes can be set to issue an PM alarm call when one of SP parts reaches its yield.		
001	Disable/Enable Setting (0: Not send, 1: Send)		[0 or 1 / 1 / -] 0: Not send, 1: Send
004	Percent yield for triggering PM alert		[1 to 255 / 75 / 1 %/step]

5610	[Base Gamma Cntl P: Command]		
004	Recall Factory Setting	-	
004	Recalls the factory settings of the base gamma control points.		
005	Restore Factory Setting	-	
005	Overwrites the current values onto the factory settings of the base gamma control points.		
006	Restore Prev. Setting	-	
	Recalls the previous settings of the base gan	nma control points.	

5611	[Toner Color in 2C]		
001	В-С	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density
	Adjusts the Cyan correction value of the blue signal in two-color mode.		

002	В-М	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density		
	Adjusts the Magenta corre	Adjusts the Magenta correction value of the blue signal in two-color mode.			
003	G-C	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density		
	Adjusts the Cyan correction	Adjusts the Cyan correction value of the blue signal in two-color mode.			
004	G-Y	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density		
	Adjusts the Yellow correction value of the blue signal in two-color mode.				
005	R-M	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density		
	Adjusts the Magenta correction value of the blue signal in two-color mode.				
006	R-Y	*ENG	[0 to 128 / 100 / 1 /step] 128: Darkest density		
	Adjusts the Yellow correction value of the blue signal in two-color mode.				

5618	[Color Mode Display Selection]		
001		*CTL	[0 or 1 / 1 / -] 0: ACS, Colour, Black & White, Two Colour, Single colour 1: ACD, Full Colour, Black & White
	Selects the color selection display on the LCD.		



- Memory Clear (SP5-801)
- The following tables list the items that are cleared. The serial number information, meter charge setting and meter charge counters (SP8-581, 582, 583, 584, and 586) are not cleared.

5730

Extended Function Setting

5731	[Counter Effect] JPN only
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001	Change Mk1 Cnt (Paper->Combine)	*CTL	[0 or 1 / 0 / -] 0: Disabled, 1: Enabled	
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5801	[Memory Clear]		
001	All Clear	Resets all correction data for process control and all software counters, and returns all modes and adjustments to their default values.	
002	Engine [ENG]	Clears the engine settings.	
003	SCS	Initializes default system settings, SCS (System Control Service) settings, operation display coordinates, and ROM update information.	
004	IMH Memory Clr	Initializes the IMH settings.	
005	MCS	Initializes the Mcs settings.	
006	Copier application	Initializes all copier application settings.	
007	Fax application	Initializes the fax reset time, job login ID, all TX/RX settings, local storage file numbers, and off-hook timer.	
008	Printer application	The following service settings: • Bit switches • Gamma settings (User & Service) • Toner Limit The following user settings: • Tray Priority • Menu Protect • System Setting except for setting of Energy Saver • I/F Setup (I/O Buffer and I/O Timeout) • PCL Menu	
009	Scanner application	Initializes the scanner defaults for the scanner and all the scanner SP modes.	
010	Web Service	Deletes the network file application management files and thumbnails, and initializes the job login ID.	

011	NCS	All setting of Network Setup (User Menu)	
		(NCS: Network Control Service)	
012	R-FAX	Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.	
014	Clear DCS Setting	Initializes the DCS (Delivery Control Service) settings.	
015	Clear UCS Setting	Initializes the UCS (User Information Control Service) settings.	
016	MIRS Setting	Initializes the MIRS (Machine Information Report Service) settings.	
017	CCS	Initializes the CCS (Certification and Charge-control Service) settings.	
018	SRM Memory Clr	Initializes the SRM (System Resource Manager) settings.	
019	LCS	Initializes the LCS settings.	
020	Web Uapli	Initializes the web user application settings.	
021	ECS	Initializes the ECS settings.	

5803	[Input Check]	See "Input Check Table" in this section.
5804	[Output Check]	See "Output Check Table" in this section.

5806	[RFID CONT.READING]			
001	TIMES	-	[0 to 65535 / - / 1 /step]	
001	Displays the counter for the RFID communication test.			
	NOT 0	-	[0 to 65535 / - / 1 /step]	
002	Displays the counter for the RFID communication failure.			
	RET.	-	[0 to 65535 / - / 1 /step]	
003	Displays the counter for the RFID communication retry.			
004	EXE.ALL	-	Execute the RFID communication test for all colors.	
005	EXE.K	-	Execute the RFID communication test for balck.	

006	EXE.M	-	Execute the RFID communication test for magenta.
007	EXE.C	-	Execute the RFID communication test for cyan.
800	EXE.Y	-	Execute the RFID communication test for yellow.

	[SC Reset]		
5810	Resets a type A service call condition. •• Note		
	Turn the main switch off	and on afte	er resetting the SC code.
001	Fusing SC Reset	-	-

5811	[Machine Serial] Machine Serial Number Display				
002	002 Display		Displays the machine serial number.		
004	BCU	-	Inputs the serial number.		
005	FRAM				

5812	[Service Tel. No. Setting]				
	Service	*CTL	-		
001	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).				
	Facsimile	*CTL	-		
002	Sets the fax or telephone number for a service representative. This number is printed on the Counter List. This can be up to 20 characters (both numbers and alphabetic characters can be input).				
	Supply	*CTL	-		
003	Use this to input the telephone and press #.	e number o	f your supplier for consumables. Enter the number		

	Operation	*CTL	-
004	Use this to input the telephon #.	e number c	f your sales agency. Enter the number and press

5816	[Remote Service]	*CTL	-			
	I/F Setting					
	Selects the remote service se	tting.				
001	[0 to 2 / 2 / 1 /step]					
001	O: Remote service off					
	1: CSS remote service on					
	2: @Remote service on					
	CE Call					
	Performs the CE Call at the st	art or end	of the service.			
002	[0 or 1 / 0 / 1 /step]					
	0: Start of the service					
	1: End of the service					
	NOTE: This SP is activated only when SP 5816-001 is set to "2".					
	Function Flag					
	Enables or disables the remo	te service f	unction.			
003	[0 to 1 / 0 / 1 /step]					
	0: Disabled, 1: Enabled					
	NOTE: This SP setting is char	iged to "1"	after @Remote registor has been completed.			
	SSL Disable					
	Uses or does not use the RCC	3 certificati	on by SSL when calling the RCG.			
007	[0 to 1 / 0 / 1 /step]					
	0: Uses the RCG certification					
	1: Does no use the RCG cert	fication				
	RCG Connect Timeout					
800	Specifies the connect timeout	interval w	hen calling the RCG.			
	[1 to 90 / 10 / 1 second /s	tep]				

	RCG Write Timeout
009	Specifies the write timeout interval when calling the RCG.
	[1 to 100 / 60 / 1 second /step]
	RCG Read Timeout
010	Specifies the read timeout interval when calling the RCG.
	[1 to 100 / 60 / 1 second / step]
	Port 80 Enable
011	Enables/disables access via port 80 to the SOAP method.
	[0 or 1 / 0 / -]
	0: Disabled, 1: Enabled
	RFU (Remote Frimware Update) Timing
013	Selects the RFU timing.
013	[0 or 1 / 1 / -] O: RFU is executed whenever update request is received.
	1: RFU is executed only when the machine is in the sleep mode.
	RCG – C Registed
021	This SP displays the Embedded RC Gate installation end flag.
021	0: Installation not completed
	1: Installation completed
	RCG – C Regist Detail
	This SP displays the Embedded RC Gate installation status.
022	0: RCG device not registered
	RCG device registered Device registered
	Connect Type (N/M)
023	This SP displays and selects the Embedded RC Gate connection method. [0 or 1 / 0 / 1 /step
	0: Internet connection
	1: Dial-up connection

061	Cert. Expire Timing DFU
	Proximity of the expiration of the certification.
U	Jse Proxy
	his SP setting determines if the proxy server is used when the machine communicates with he service center.
Р	Proxy Host
063 R	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. Note
	 The address display is limited to 128 characters. Characters beyond the 128 character are ignored.
	This address is customer information and is not printed in the SMC report.
Р	Proxy Port Number
064 R	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 information and is not printed in the SMC report.
Р	Proxy User Name
Т	his SP sets the HTTP proxy certification user name.
065	Note
	• The length of the name is limited to 31 characters. Any character beyond the 31st character is ignored.
	 This name is customer information and is not printed in the SMC report.
Р	Proxy Password
Т	his SP sets the HTTP proxy certification password.
066	Note
	• The length of the password is limited to 31 characters. Any character beyond the 31st character is ignored.
	This name is customer information and is not printed in the SMC report.

0.47	CERT: Up State		
067	Displ	ays the status of the certification update.	
	O 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.	
		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.	
The notification of the certification request has been received controller, and the certification is being stored.		The notification of the certification request has been received from the rescue GW controller, and the certification is being stored.	
	15	The certification has been stored, and the GW URL is being notified of the successful completion of this event.	
	16	The storing of the certification has failed, and the GW URL is being notified of the failure of this event.	
was notified of the results of the update after it was co		The certification update request has been received from the GW URL, the GW URL was notified of the results of the update after it was completed, but a certification error has been received, and the rescue certification is being recorded.	
	The rescue certification of No. 17 has been recorded, and the GW URL is notified of the failure of the certification update.		
	CERT: Error Displays a number code that describes the reason for the request for update of the certification.		
068			

	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.		
	3	Notification of shift from	a common authentication to an individual certification.	
	4	Notification of a commo	n certification without ID2.	
	5	Notification that no certi	fication was issued.	
	6	Notification that GW UR	RL does not exist.	
069	CERT	: Up ID	The ID of the request for certification.	
083	Firmv	vare Up Status	Displays the status of the firmware update.	
085	5 Firm Up User Check		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.	
086	Firmware Size		Allows the service technician to confirm the size of the firmware data files during the firmware update execution.	
087	CERT: Macro Ver.		Displays the macro version of the @Remote certification.	
088	CERT: PAC Ver.		Displays the PAC version of the @Remote certification.	
089	CERT: ID2 Code		Displays ID2 for the @Remote certification. Spaces are displayed as underscores (_). Asteriskes (*) indicate that no @Remote certification exists. "000000" indicates "Common certification".	
090	CERT: Subject		Displays the common name of the @Remote certification subject. CN = the following 17 bytes. Spaces are displayed as underscores (_). Asterisks (*) indicate that no @Remote certification exists. "000000" indicates "Common certification".	
091	CERT	: Serial No.	Displays serial number for the @Remote certification. Asterisks (*) indicate that no @Remote certification exists.	

092	CERT: Issuer	Displays the common name of the issuer of the @Remote certification. CN = the following 30 bytes. Asteriskes () indicate that no @Remote certification exists.			
093	CERT: Valid Start	Displays the start time of the period for which the current @Remote certification is enabled.			
094	CERT: Valid End	Displays the end time of the period for which the current @Remote certification is enabled.			
1.50	Selection Country				
150	Not used				
1.5.1	Line Type Automatic Judgment				
151	Not used				
1.50	Line Type Judgment Result				
152	Not used				
1.50	Selection Dial/Push				
153	Not used				
154	Outside Line/Outgoing Number				
154	Not used				
1.5.4	Dial Up User Name				
156	Not used				
157	Dial Up Password				
15/	Not used				
161	Local Phone Number				
101	Not used				
140	Connection Timing Adjustment: Incoming				
162	Not used				
1/0	Access Point				
163	Not used				

164	Line Connecting			
104	Not used			
173	Modem Serial Number Not used			
174	Retransmission Limit			
174	Not used			
107	FAX TX Priority	-		
187	Not used			
200	Manual Polling - Not used			
	Regist: Status			
	Displays a number that indicates the status of the @Remote service device.			
	0: Neither the @Remote device nor Embedded RCG Gate is set.			
201	1: The Embedded RCG Gate is being set. Only Box registration is completed. In this status, @Remote device cannot communicate with this device.			
	2: The Embedded RCG Gate is set. In this status, the @Remote device cannot communicate with this device.			
	3: The @Remote device is being set. In this status the Embedded RCG Gate cannot be set.			
	4: The @Remote module has	not starte	ed.	
202	Letter Number Allows entry of the request number needed for the Embedded RCG Gate.			
203	Confirm Execute Executes the confirmation request to the @Remote Gateway.			
204	Confirm Result			

	Displays a number that indicates the result of the confirmation executed with SP5816-203.		
	0: Succeeded		
	1: Confirmation number error		
	2: Registration in progress		
	3: Proxy error (proxy enabled	d)	
	4: Proxy error (proxy disable	d)	
	5: Proxy error (Illegal user no	ime or password)	
	6: Communication error		
	7: Certification update error		
	8: Other error		
	9: Confirmation executing		
	Confirm Place		
205	. ,	ication sent to the device from the Gateway in answer to the ed only when the result is registered at the Gateway.	
206	Register Execute	Executes "Embedded RCG Registration".	
	Register Result		
	Displays a number that indica	ates the registration result.	
	0: Succeeded		
	2: Registration in progress		
	3: Proxy error (proxy enabled	d)	
207	4: Proxy error (proxy disable	d)	
	5: Proxy error (Illegal user name or password)		
	6: Communication error		
	7: Certification update error		
	8: Other error		
	9: Registration executing		
	Error Code		
208	Displays a number that describes the error code that was issued when either SP5816-204 or SP5816-207 was executed.		

	Cause	Code	Meaning
	Illegal Modem Parameter	-11001	Chat parameter error
		-11002	Chat execution error
		-11003	Unexpected error
		-12002	Inquiry, registration attempted without acquiring device status.
	Operation Error, Incorrect Setting	-12003	Attempted registration without execution of an inquiry and no previous registration.
		-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.
	Operation Error, Incorrect Setting	-12007	The request number used at registration was different from the one used at confirmation.
		-12008	Update certification failed because mainframe was in use.
		-12009	ID2 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
	Error Caused by Response	-2389	Database out of service
	from GW URL	-2390	Program out of service
		-2391	Two registrations for same device
		-2392	Parameter error

		-2393	RCG device not managed
		-2394	Device not managed
		-2395	Box ID for RCG device is illegal
		-2396	Device ID for RCG device is illegal
		-2397	Incorrect ID2 format
		-2398	Incorrect request number format
209	Instl Clear	Releases the machine from its Embedded RCG Gate setup. NOTE: Turn off and on the main power switch after this setting has been changed.	
250	CommLog Print	Prints the communication log.	

5821	[Remote Service Address]		
002	RCG IP Address	*CTL	Sets the IP address of the RCG (Remote Communication Gate) destination for call processing at the remote service center.

	[NV-RAM Data Upload]		
5824	Uploads the UP and SP mode data (except for counters and the serial number) from the NVRAM to an SD card. For details, see the "NVRAM Data Upload/Download" in the "System Maintenance Reference" of the Field Service Manual.		
001	-	#	-

	[NV-RAM Data Download]		
5825	Downloads the UP and SP mode data from an SD card to the NVRAM. For details, see the "NVRAM Data Upload/Download" in the "System Maintenance Reference" of the Field Service Manual.		
001	- # -		
5828	[Network Setting] *CTL -		

050	1284 Compatibility (Centro)	Enables or disables 1284 Compatibility. [O or 1 / 1 / 1 / step] O: Disabled, 1: Enabled
052	ECP (Centro)	Enables or disables ECP Compatibility. [0 or 1 / 1 / 1 / step] 0: Disabled, 1: Enabled • Note • This SP is activated only when SP5-828-50 is set to "1".
065	Job Spooling	Enables/disables Job Spooling. [O or 1 / 0 / 1 / step] O: Disabled, 1: Enabled
066	Job Spooling Clear: Start Time	Treatment of the job when a spooled job exists at power on. 0: ON (Data is cleared) 1: OFF (Automatically printed)
069	Job Spooling (Protocol)	Validates or invalidates the job spooling function for each protocol. 0: Validates 1: Invalidates bit0: LPR bit1: FTP bit2: IPP bit3: SMB bit4: BMLinkS bit5: DIPRINT bit6: sftp bit7: (Reserved)
090	TELNET (0: OFF 1: ON)	Enables or disables the Telnet protocol. [O or 1 / 1 / -] O: Disable, 1: Enable

091	Web (0: OFF 1: ON)	Enables or disables the Web operation. [0 or 1 / 1 / -] 0: Disable, 1: Enable
145	Active IPv6 Link Local Address	This is the IPv6 local address link referenced on the Ethernet or wireless LAN (802.11b) in the format: "Link Local Address" + "Prefix Length" The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.
147	Active IPv6 Stateless Address	
149	Active IPv6 Stateless Address	These SPs are the IPv6 status addresses (1 to 5) referenced
151	Active IPv6 Stateless Address	on the Ethernet or wireless LAN (802.11b) in the format: "Status Address" + "Prefix Length"
153	Active IPv6 Stateless Address	The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.
155	Active IPv6 Stateless Address	
156	IPv6 Manual Address	This SP is the IPv6 manually set address referenced on the Ethernet or wireless LAN (802.11b) in the format: "Manual Set Address" + "Prefix Length" The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.
158	IPv6 Gateway Address	This SP is the IPv6 gateway address referenced on the Ethernet or wireless LAN (802.11b). The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.
161	IPv6 Stateless Auto Setting	Enables or disables the automatic setting for IPv6 stateless. [0 or 1 / 1 / 1 / step] 0: Disable, 1: Enable

	<u> </u>	1
		Displays or does not display the Web system items.
		[0 x 0000 to 0 x ffff / 0 x ffff] 0: Not displayed, 1: Displayed
236	Web Item visible	bit0: Net RICOH
		bit1: Consumable Supplier
		bit2-15: Reserved (all)
		Displays or does not display the link to Net RICOH on the top page and link page of the web system.
237	Web shopping link visible	[0 to 1 / 1 / 1]
		0: Not display, 1:Display
238	Web supplies Link visible	Displays or does not display the link to Consumable Supplier on the top page and link page of the web system. [0 to 1 / 1 / 1]
		0: Not display, 1:Display
239	Web Link1 Name	This SP confirms or changes the URL1 name on the link page of the web system. The maximum characters for the URL name are 31 characters.
240	Web Link1 URL	This SP confirms or changes the link to URL1 on the link page of the web system. The maximum characters for the URL are 127 characters.
241	Web Link 1 visible	Displays or does not display the link to URL1 on the top page of the web system. [0 to 1 / 1 / 1] 0: Not display, 1:Display
242	Web Link2 Name	Same as "-239"
243	Web Link2 URL	Same as "-240"
244	Web Link2 visible	Same as "-241"
244	vveb linkz visible	Sume as -241

5832	[HDD] HDD Initialization	*CTL
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001	HDD Formatting (ALL)
002	HDD Formatting (IMH)
003	HDD Formatting (Thumbnail)
004	HDD Formatting (Job Log)
005	HDD Formatting (Printer Fonts)
006	HDD Formatting (User Info)
007	Mail RX Data
800	Mail TX Data
009	HDD Formatting (Data for a Design)
010	HDD Formatting (Log)
011	HDD Formatting (Ridoc I/F)

Initializes the hard disk. Use this SP mode only if there is a hard disk error.

5836	[Capture Settings]	*CTL	
	Capture Function (0:Off 1:On)	0: Disable, 1: Enable	
001	With this function disabled, the settings rel displayed, or selected.	ated to the capture feature cannot be initialized,	
002	Panel Setting 0: Displayed, 1: Not displayed		
002	Displays or does not display the capture function buttons.		
	5836-71 to 5836-76, Copier and Printer Document Reduction		
	The following 6 SP modes set the default reduction for stored documents sent to the document management server via the MLB.		
	Enabled only when optional MLB (Media Link Board) is installed.		
071	Reduction for Copy Color	0: 1to-1, 1: 1/2, 2: 1/3 , 3: 1/4	
072	Reduction for Copy B&W Text	0: 1to-1 , 1: 1/2, 2: 1/3, 3: 1/4	
073	Reduction for Copy B&W Other	0: 1to-1 , 1: 1/2, 2: 1/3, 3: 1/4	
074	Reduction for Printer Color	0: 1to-1, 1: 1/2, 2: 1/3 , 3: 1/4	
075	Reduction for Printer B&W	0: 1to-1 , 1: 1/2, 2: 1/3, 3: 1/4	

076	Reduction for Printer B&W HQ	0: 1to-1 , 1: 1/2, 2: 1/3, 3: 1/4
077	Reduction for Printer Color 1200	1: 1/2, 3: 1/4, 4: 1/6 , 5: 1/8 (2: skipped) , 6: 2/3
078	Reduction for Printer B&W 1200	1: 1/2, 3: 1/4, 4: 1/6, 5: 1/8 (2: skipped), 6: 2/3

5836-81 to 5836-86, Stored document format

The following 6 SP modes set Sets the default format for stored documents sent to the document management server via the MLB.

Enabled only when optional MLB (Media Link Board) is installed.

081	Format for Copy Color	O: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR Note • This SP is not used in this model.
082	Format for Copy B&W Text	O: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
083	Format for Copy B&W Other	O: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
084	Format for Printer Color	O: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR Note • This SP is not used in this model.
085	Format for Printer B&W	O: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
086	Format for Printer B&W HQ	O: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
	Default for JPEG	[5 to 95 / 50 / 1 /step]
091	Sets the JPEG format default for documer the MLB with JPEG selected as the format Enabled only when optional MLB (Medic	

101	Primary srv IP address	Sets the IP address for the primary capture server. This is basically adjusted by the remote system.	
102	Primary srv scheme	This is basically adjusted by the remote system.	
103	Primary srv port number	This is basically adjusted by the remote system.	
104	Primary srv URL path	This is basically adjusted by the remote system.	
111	Secondary srv IP address	Sets the IP address for the secondary capture server. This is basically adjusted by the remote system.	
112	Secondary srv scheme	This is basically adjusted by the remote system.	
113	Secondary srv port number	This is basically adjusted by the remote system.	
114	Secondary srv URL path	This is basically adjusted by the remote system.	
120	Default Reso Rate Switch	This is basically adjusted by the remote system.	
	Reso: Copy (Color)	[0 to 3 / 2 / 1/step]	
121	Selects the resolution for color copy mode. This is basically adjusted by the remote system. 0: 600dpi/ 1: 300dpi/ 2: 150dpi/ 3: 75dpi		
	Reso: Copy (Mono)	[0 to 5 / 3 / 1/step]	
122	Selects the resolution for BW copy mode. This is basically adjusted by the remote system. 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi		
100	Reso: Print (Color)	This is basically adjusted by the remote system. [0 to 3 / 2 / 1/step]	
123	Selects the resolution for color print mode. This is basically adjusted by the remote system.		
	0: 600dpi/ 1: 300dpi/ 2: 150dpi/ 3: 75dpi		
	Reso: Print (Mono)	This is basically adjusted by the remote system.	
124		[0 to 5 / 3 / 1/step]	
		print mode. This is basically adjusted by the remote system. 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi	

125	Reso: Fax (Color) This is basically adjusted by the remote system. [0 to 6 / 4 / 1/step] Selects the resolution for color fax mode. This is basically adjusted by the remote system.		
	0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200	0dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi	
126	Reso: Fax (Mono)	This is basically adjusted by the remote system. [0 to 6 / 3 / 1/step]	
	Selects the resolution for BW fax mode. This	is basically adjusted by the remote system.	
	0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200	0dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi	
	Reso: Scan (Color)	This is basically adjusted by the remote system.	
127		[0 to 6 / 4 / 1 / step]	
	Selects the resolution for color scanning mode. This is basically adjusted by the remote system. 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi		
	Reso: Scan (Mono)	This is basically adjusted by the remote system. [0 to 6 / 3 / 1/step]	
128	Selects the resolution for BW scanning mode system.	e. This is basically adjusted by the remote	
	0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200	0dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi	
	All Addr Info Switch	[0 or 1 / 1 / -]	
141	7 II 7 III O OWNET	0: Off, 1: On	
	Turns on or off the all address information transmission for the captured resources.		
	Stand-by Doc Max Number	[10 to 10000 / 2000 / 1/step]	
142	Selects the maximum number of captured do server.	ocuments to be transmitted to the document	

5840

	i	1			
			[1 to 11 or 13 / 11 or 13 / 1 /step]		
	Channel MAX	*CTL	Europe/Asia: 1 to 13		
			NA/ Asia: 1 to 11		
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. DFU				
	UNote				
	Do not change the settir	ng.			
			[1 to 11 or 13 / 1 / 1 / step]		
	Channel MIN	*CTL	Europe: 1 to 13		
			NA/ Asia: 1 to 11		
007	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. DFU • Do not change the setting.				
			[0 x 00 to 0 x FF / 0 x FF to Auto / -]		
			0 x FF to Auto [Default]		
			0 x 11 – 55M Fix		
			0 x 10 – 48M Fix		
			0 x 0F – 36M Fix		
			0 x 0E – 18M Fix		
			0 x 0D – 12M Fix		
800	Transmission Speed	*CTL	0 x 0B – 9M Fix		
			0 x 0A – 6M Fix		
			0 x 07 – 11M Fix		
			0 x 05 – 5.5M Fix		
			0 x 08 – 1 M Fix		
			0 x 13 – 0 x FE (reserved)		
			0 x 12 – 72M (reserved)		
	İ	I			

011	WEP key Select	*CTL	Selects the WEP key. [00 to 11 / 00 / 1 binary] 00: Key #1 01: Key #2 (Reserved) 10: Key #3 (Reserved) 11: Key #4 (Reserved)
042	Fragment Thresh	*CTL	Adjusts the fragment threshold for the IEEE802.11 card. [256 to 2346 / 2346 / 1] This SP is displayed only when the IEEE802.11 card is installed.
043	11g CTS to Self	*CTL	Determines whether the CTS self function is turned on or off. [0 to 1 / 1 / 1] 0: Off, 1: On This SP is displayed only when the IEEE802.11 card is installed.
044	11g Slot Time	*CTL	Selects the slot time for IEEE802.11. [0 to 1 / 0 / 1] 0: 20 µm, 1: 9 µm
045	WPA Debug Lvl	*CTL	Selects the debug level for WPA authentication application. [1 to 3 / 3 / 1] 1: Info, 2: warning, 3: error This SP is displayed only when the IEEE802.11 card is installed.

5841	[Supply Name Setting]
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001	Toner Name Setting: Black		Specifies supply names. These appear on the screen when the user presses the Inquiry button in the user tools screen.
002	Toner Name Setting: Cyan		
003	Toner Name Setting: Yellow		
004	Toner Name Setting: Magenta		
007	OrgStamp	*CTL	
011	Staple Std 1		
012	Staple Std2		
013	Staple Std3		
014	Staple Std4		

5842	5842 [GWWS Analysis] DFU		
001	Setting 1	*CTL	Default: 00000000 – do not change Netfiles: Jobs to be printed from the document server using a PC and the DeskTopBinder software
002	Setting 2	*CTL	Adjusts the debug program modesetting. Bit7: 5682 mmseg-log setting O: Date/Hour/Minute/Second 1: Minute/Second/Msec. O to 6: Not used

5844	[USB]		
001	Transfer Rate	*CTL	0x01: Full speed 0x04: Auto Change
	Adjusts the USB transfer rate.		
002	Vendor ID	*CTL	Displays the vendor ID. DFU
003	Product ID	*CTL	Displays the product ID. DFU
004	Device Release Number	*CTL	Displays the development release version number. DFU

006	PnP Model Name	*CTL	Inputs the model name.
007	PnP Serial Number	*CTL	Inputs the serial number.
100	Notify Unsupport	*CTL	[0 or 1 / 1 / -] 0: Disable, 1: Enable
	Enables or disables the unsupported USB display.		

5045	[Delivery Server Setting]	*CTL -		
5845	Provides items for delivery server settings.			
001	FTP Port No.	[0 to 65535 / 3670 / 1 /step]		
001	Sets the FTP port number used when i	mage files to the Scan Router Server.		
	IP Address (Primary)	Range: 000.000.000.000 to 255.255.255.255		
002	Use this SP to set the Scan Router Ser can be referenced by the initial system	ver address. The IP address under the transfer tab m setting.		
	Delivery Error Display Time	[0 to 999 / 300 / 1 second /step]		
006	Use this setting to determine the length of time the prompt message is displayed when a test error occurs during document transfer with the NetFile application and an external device.			
	IP Address (Secondary)	Range: 000.000.000.000 to 255.255.255.255		
008	Specifies the IP address assigned to the computer designated to function as the secondary delivery server of Scan Router. This SP allows only the setting of the IP address without reference to the DNS setting.			
	Delivery Server Model	[0 to 4/0/1/step]		
	Allows changing the model of the delivery server registered by the I/O device.			
	0: Unknown			
009	1: SG1 Provided			
	2: SG1 Package			
	3: SG2 Provided			
<u> </u>	4: SG2 Package			

	Delivery Svr Capability	[0 to 255 / 0 / 1 /step]		
	Changes the capability of the registered that the I/O device registered.			
	Bit7 = 1 Comment information exits			
	Bit6 = 1 Direct specification of mail address possible			
	Bit5 = 1 Mail RX confirmation setting possible			
010	Bit4 = 1 Address book automatic upd	•		
	Bit3 = 1 Fax RX delivery function exist			
	Bit2 = 1 Sender password function ex	cists		
	Bit 1 = 1 Function to link MK-1 user ar	nd Sender exists		
	BitO = 1 Sender specification required	d (if set to 1, Bitó is set to "O")		
	Delivery Svr Capability (Ext)	[0 to 255 / 0 / 1 /step]		
	Changes the capability of the registered that the I/O device registered.			
011	Bit7 = 1 Address book usage limitation (Limitation for each authorized user)			
	Bit6 = 1 RDH authorization link			
	Bit5 to 0: Not used			
013	Server Scheme (Primary) DFU			
	This is used for the scan router program.			
014	Server Port Number (Primary) DFU			
014	This is used for the scan router progra	ım.		
015	Server URL Path (Primary) DFU			
013	This is used for the scan router progra	ım.		
016	Server Scheme (Secondary) DFU			
010	This is used for the scan router program.			
017	Server Port Number (Secondary) DFU	J		
017	This is used for the scan router program.			

Server URL Path (Secondary) DFU
This is used for the scan router program.
Rapid Sending Control
Enables or disables the prevention function for the continuous data sending error. [0 to 1 / 0 / -] 0: Disable, 1: Enable

5846	[UCS Settings]	*CTL	-		
	Machine ID (For Delivery Ser	ver)			Displays ID
001	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.				
	Machine ID Clear (For Delive	ry Server)			Clears ID
002	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. After clearing the ID, the ID will be established again automatically by cycling the machine off and on.			rver is unstable. After clearing the	
	Maximum Entries			[2000	to 20000/ 2000 / 1 /step]
003	Changes the maximum number of entries that UCS can handle. If a value smaller than the present value is set, the UCS managed data is cleared, and data (excluding user code information) is displayed.				
	Delivery Server Retry Timer			[0 to 23	55 / 0 / 1 /step]
006	Sets the interval for retry attempts when the delivery server fails to acquire the delivery server address book.			ever fails to acquire the delivery	
	Delivery Server Retry Times			[0 to 23	55 / 0 / 1 /step]
007	Sets the number of retry attempts when the delivery server fails to acquire the delivery ser address book.			er fails to acquire the delivery server	
	Delivery Server Maximum Ent	ries		[2000	to 50000 / 2000 / 1/step]
800	Sets the maximum number account entries of the delivery server user information managed by UCS.				

0.1.0	LDAP Search Timeout		[1 to 255 / 60 / 1 /step]
010	Sets the length of the timeout for the search of the LDAP server.		
020	WSD Maximum Entries		
021	Folder Auth Change 0: Login Use	er, 1: Destinat	ion
022	Initial Value of Upper Limit Count	500	
0.40	Addr Book Migration (SD => HD	D)	
040	Not used in this machine.		
	Fill Addr Acl Info.		
	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		
041	1. Turn the machine off.		
	2. Install a new HDD.		
	3. Turn the machine on.		
	4. The address book and its initia	l data are cre	eated on the HDD automatically.
	5. However, at this point the add administrator or key operator.	ress book cai	n be accessed by only the system
	6. Enter the SP mode and do SP5846-041. After this SP executes successfully, any user can access the address book.		
		is in.	slot number where an address book data
		[0 to 30 / -	
		0: Unconfirm	
043	Addr Book Media	1: SD Slot 1	
		2: SD Slot 2 4: USB Flas	
			n kuivi
		20: HDD	
		30: Nothing	9

047	Initialize Local Addr Book	Clears the local address book information, including the user code.	
048	Initialize Delivery Addr Book	Clears the distribution address book information, except the user code.	
049	Initialize LDAP Addr Book	Clears the LDAP address book information, except the user code.	
050	Initialize All Addr Book	Clears all directory information managed by UCS, including all user codes.	
051	Backup All Addr Book	Uploads all directory information to the SD card.	
052	Restore All Addr Book	Downloads all directory information from the SD card.	
053	Clear Backup Info	Deletes the address book data from the SD card in the service slot. Deletes only the files that were uploaded from this machine. This feature does not work if the card is write-protected. Note • After you do this SP, go out of the SP mode, and then turn the power off. • Do not remove the SD card until the Power LED stops flashing.	
	Search Option		
060	This SP uses bit switches to set up the fuzzy search options for the UCS local address book. Bit: Meaning 0: Checks both upper/lower case characters 1: Japan Only 2: Japan Only 3: Japan Only 4 to 7: Not Used		

	Complexity Option 1		
	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.		
062	[0 to 32 / 0 / 1 /step]		
	Note		
	This SP does not normally req	uire adjustment.	
	 This SP is enabled only after the system administrator has set up a group password policy to control access to the address book. 		
063	Complexity Option 2 DFU		
064	Complexity Option 3 DFU		
065	Complexity Option 4 DFU		
091	FTP Auth Port Setting	Specifies the FTP port for getting a distribution server address book that is used in the identification mode. [0 to 65535 / 3671 / 1 / step]	
094	Encryption Stat	Shows the status of the encryption function for the address book data.	

	[Rep Resolution Reduction]	*CTL	-
	SP5847-1 through SP5847-8 changes the default settings of image data transferred externally by the Net File page reference function.		
5847	[0 to 5 / 2 / 1 /step]		
	SP5847-21 sets the default for JPEG ima	age quality	y of image files handled by NetFile.
"Net files" are jobs to be printed from the document server DeskTopBinder software.			nt server using a PC and the
001	Rate for Copy Color		0: 1x
002	Rate for Copy B&W Text		1: 1/2x
003	Rate for Copy B&W Other		2: 1/3x 3: 1/4x
004	Rate for Printer Color		4: 1/6x
005	Rate for Printer B&W		5: 1/8x

006	Rate for Printer Color 1200dpi	0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x
007	Rate for Printer B&W 1200dpi	5: 1/8x 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x
021	Network Quality Default for JPEG Sets the default value for the quality of JPEG images sent as NetFile pages. This function is available only with the MLB (Media Link Board) option installed. [5 to 95 / 50 / 1 / step]	

	[Web Service]	*CTL	-	
5848	SP5848-2 sets the 4-bit switch assignment for the access control setting. Setting of 0001 has no effect on access and delivery from Scan Router.			
	5848 100 sets the maximum size allowed for downloaded images. The default is equal to 1 gigabyte.			
002	Access Ctrl: Repository (only Lower 4 bits)	UUUI: Denies access to Desklon Kinder		

003	Access Ctrl: Doc. Svr. Print (Lower 4 bits)	
004	Access Ctrl: user Directory (only Lower 4 bits)	
007	Access Ctrl: Comm. Log Fax (Lower 4 bits)	Switches access control on and off.
009	Access Ctrl: Job Ctrl (Lower 4 bits)	0000: No access control
011	Access Ctrl: Device management (Lower 4 bits)	0001: Denies access to DeskTop Binder.
021	Access Ctrl: Delivery (Lower 4 bits)	
022	Access Ctrl: uadministration (Lower 4bits)	
099	Repository: Download Image Setting	DFU
100	Repository: Download Image Max. Size	Specifies the max size of the image data that the machine can download. [1 to 1024 / 1024 / 1 MB / step]
210	Setting: LogType: Job 1	
211	Setting: LogType: Job2	
212	Setting: LogType: Access	
213	Setting: Primary Srv	DELL
214	Setting: Secondary Srv	DFU
215	Setting: Start Time	
216	Setting: Interval Time	
217	Setting: Timing	

5849	[Installation Date]	*CTL	-
5849 1	Display	The "Counter Clear Day" has been changed t "Installation Date" or "Inst. Date".	

5849 2	Switch to Print	Determines whether the installation date is printed on the printout for the total counter. [0 or 1 / 1 / -] 0: OFF (No Print) 1: ON (Print)
003	Total Counter	-

5850	[Address Book Function]	*CTL	-
	Replacement of Circuit Classification Japan Only		
003	The machine is sold ready to use with a G3 line. This SP allows you to switch all at once to convert to G4 after you add a G4 line. Conversely, if for some reason the G4 line becomes unusable, you can easily switch back to G3.		Conversely, if for some reason the G4 line

		[Bluetooth Mode]	
Sets the operation mode for the Bluetooth Unit. Press either ke		Sets the operation mode for the Bluetooth Unit. Press either key.	
		[O:Public] [1: Private]	

Use this SP to download the fixed stamp data stored in the firmware of the ROM and copy it to the HDD. This SP can be executed as many times as required. This SP must be executed after replacing or formatting the hard disks. Note This SP can be executed only with the hard disks installed.

	[Remote ROM Update]			
5856	Allows the technician to upgrade the firmware using a local port (IEEE128 updating the remote ROM.		re using a local port (IEEE1284) when	
002	Local Port	*CTL	[0 to 1 / 0 / 1/step] 0: Disable 1: Enable	
5857	[Save Debug Log]	*CTL	-	

	On/Off (1:ON 0:OFF)	0: OFF, 1: ON		
001	Switches the debug log feature on and off. The debug log cannot be captured until this feature is switched on.			
	Target (2: HDD 3: SD)	2: HDD, 3: SD Card		
002	Selects the storage device to save debug logs information when the conditions set with SP5-858 are satisfied. [2 to 3 / 2 / 1 / step]			
	Save to HDD			
	Saves the debug log of the input	SC number in memory to the HDD.		
005	A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card.			
006	Save to SD Card			
000	Saves the debug log of the input SC number in memory to the SD card.			
009	Copy HDD to SD Card (Latest 4	MB)		
010	Copy HDD to SD Card (Latest 4	MB Any Key)		
011	Erase HDD Debug Data			
012	Erase SD Card Debug Data			
013	Free Space on SD Card			
014	Copy SD to SD (Latest 4 MB)			
015	Copy SD to SD (Latest 4 MB Any	(Key)		
016	Make HDD Debug			
017	Make SD Debug			

	[Debug Save When]	*CTL	-
5858	selected by SP5857-002.		ng information to be saved to the destination er. Refer to Section 4 for a list of SC error codes.

001	Engine SC Error	Turns on/off the debug save for SC codes generated by copier engine errors. [0 or 1 / 0 / 1 / step] 0: OFF, 1: ON
002	Controller SC Error	Turns on/off the debug save for SC codes generated by GW controller errors. [0 or 1 / 0 / 1 / step] 0: OFF, 1: ON
003	Any SC Error	[0 to 65535 / 0 / 1 /step]
004	Jam	Turns on/off the debug save for jam errors. [0 or 1 / 0 / 1 / step] 0: OFF, 1: ON

5859	[Debug Save Key No.]	*CTL	-
001	Key 1		
002	Key 2		
003	Key 3		
004	Key 4	TI CD	
005	Key 5	These SPs allow you to set up to 10 keys for log files functions that use common memory on the controller	
006	Кеу б	board.	00 to 0000000 / 0 / 1
007	Key 7	[-99999	99 to 9999999 / 0 / –]
800	Key 8		
009	Key 9		
010	Key 10		

5860	[SMTP/POP3/IMAP4]	*CTL	-	
020	Partial Mail Receive Timeout			[1 to 168 / 72 / –]

	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.		
021	MDN Response RFC2298 Comp	oliance	[0 to 1 / 1 / -]
	Determines whether RFC2298 co	ompliance	is switched on for MDN reply mail.
	0: No		
	1: Yes		
022	SMTP Auth. From Field Replacen	nent	[0 to 1 / 0 / -]
	Determines whether the FROM it		nail header is switched to the validated account
	0: No. "From" item not switched.		
	1: Yes. "From item switched.		
025	SMTP Auth. Direct Setting		[0 or 1 / 0 / –]
	Selects the authentication method	d for SMPT	
	Bit switch:		
	Bit 0: LOGIN		
	Bit 1: PLAIN		
	Bit 2: CRAM MD5		
	Bit 3: DIGEST MD5		
	• Bit 4 to 7: Not used		
	Note		
	This SP is activated only wh	en SMTP a	uthorization is enabled by UP mode.
			Selects the MIME header type of an E-mail sent by S/MIME.
001	S/MIME: MIME Header		[0 to 2 / 0 / 1]
026	Setting	-	0: Microsoft Outlook Express standard
			1: Internet Draft standard
			2: RFC standard

5866	[E-mail Report] Not Used
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001	Report Validity	*CTL	Enables or disables the e-mail alert. [0 or 1 / 0 / -] 0: Enable, 1: Disable
005	Add Date Field	*CTL	Adds or does not add the date field to the header of the alert mail. [O or 1 / 0 / -] O: Not added, 1: Added

5870	[Common Key Info Writing]			
001	Writing	*CTL	Rewrites the common certification used for the @Remote.	
	Initialize	*CTL	-	
003	Initializes the set certification. When the GW controller board is replaced with a new one for repair, you must execute the "Initiralize (-003)" and "Writing (-001)" just after the new board replacement.			
	NOTE: Turn off and on the main power switch after the "Initiralize (-003)" and "Writing (-001)" have been done.			

5873	[SD Card Appli Move]		
001	Move Exec	This SP copies the application programs from the original SD card in SD card slot 2 to an SD card in SD card slot 1.	
002	Undo Exec	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

001	Reboot Setting	*CTL	Enables or disables the automatic reboot function when an SC error occurs. [0 or 1/0/-] O: 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. The reboot is not executed for Type A or C SC codes.
002	Reboot Type	*CTL	Selects the reboot method for SC. [0 or 1 / 0 / -] 0: Manual reboot, 1: Automatic reboot

5878	[Option Setup]		
001	Data Overwrite Security	-	Enables the Data Overwrite Security unit. Press "EXECUTE" on the operation panel. Then turn the machine off and on.
002	HDD Encryption	-	Installs the HDD Encryption unit.

5881	[Fixed Phrase Block Erasing]		
001	-	*ENG	Deletes the fixed phrase.

5884	[Plain 1/2 Setting]				
3004	Select the paper type (plain 1 or plain 2) for each tray.				
001	By-pass Table	*ENG			
002	Tray 1	*ENG	[0 or 1 / 1 / -]		
003	Tray 2	*ENG	0: Plain Paper 1		
004	Tray 3	*ENG	1: Plain Paper 2		
005	Tray 4	*ENG			

5005	[Set WIM Function] Web Image Monitor Settings			
5885	Close or disclose the functions of web image monitor.			
020	Document Server ACC Ctrl	*CTL	O: OFF, 1: ON Bit Meaning O: Forbid all document server access (1) 1: Forbid user mode access (1) 2: Forbid print function (1) 3: Forbid fax TX (1) 4: Forbid scan sending (1) 5: Forbid downloading (1) 6: Forbid delete (1) 7: Reserved	
050	DocSvr Format	*CTL	Selects the display type for the document box list. [0 to 2 / 0 / 1] 0: Thumbnail, 1: Icon, 2: Details	
051	DocSvr Trans	*CTL	Sets the number of documents to be displayed in the document box list. [5 to 20 / 10 / 1]	
100	Set Signature	*CTL	[0 to 2 / 0 / 1/step] 0: Signature for each e-mail 1: Signature for all e-mails 2: No signature	
	Selects whether the signature is added to the scanned documents with the WIM when they are transmitted by an e-mail.			
101	Set Encryption	*CTL	Determines whether the scanned documents with the WIM are encrypted when they are transmitted by an e-mail. [0 or 1 / 0 / 1] 0: Not encrypted, 1:Encryption	
200	Detect Mem Leak	*CTL	Not used	
201	DocSur Timeout	*CTL	Not used	

5007	[SD Get Counter]			
588 <i>7</i>	This SP determines whether the ROM can be updated.			
001	_ *	*CTL	This SP sends a text file to an SD card inserted in SD card Slot 2 (lower slot). 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].	
			Touch [Execute] in the message when you are prompted.	

5888	[Personal Information Protect]		
001	-	*CTL	Selects the protection level for logs. [0 to 1 / 0 / 1] 0: No authentication, No protection for logs 1: No authentication, Protected logs (only an administrator can see the logs)

5893	[SDK Application Counter]	*CTL	-	
3093	Displays the counter name of each SDK application.			
001	SDK-1			
002	SDK-2			
003	SDK-3 SDK-4 SDK-5			
004				
005				
006	SDK-6			

5894	[External Counter Setting]
3694	-

5907	[Plug & Play Maker/Model Name]	
001	Selects the brand name and the production name for Windows Plug & Play. This information is stored in the NVRAM. If the NVRAM is defective, these names should be registered again. After selecting, press the "Original Type" key and "#" key at the same time. When the setting is completed, the beeper sounds five times.	

5913	[Switchover Permission Time]		
Print Application Timer *CTL [3 to 30 / Sets the amount of time to elapse while the machine is in stands panel keys have not been used) before another application car		*CTL	[3 to 30 / 3 / 1 second /step]
		,	

5967	[Copy Server Set Function]	*CTL	0: ON, 1: OFF
001	Enables and disables the document ser data from being left in the temporary ar switch the main switch off and on to end	ea of the H	IDD. After changing this setting, you must

5974	[Cherry Server]			
3974	Specifies which version of ScanRouter, "Lite" or "Full", is installed.			
001	Cherry Server	*CTL	[0 or 1 / 0 / -] 0: Lite, 1: Full	

	[Device Setting]
5985	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 into the controller board, these SP codes must be set to "1".

001	On Board NIC	[0 to 2 / 0 / 1 /step] 0: Disable, 1: Enable, 2: Function limitation When the "Function limitation" is set, "On board NIC" is limited only for the NRS or LDAP/NT authentication. Note • Other network applications than NRS or LDAP/NT authentication are not available when this SP is set to "2". Even though you can change the initial settings of those network applications, the settings do not work.
002	On Board USB	[0 or 1 / 0 / 1/step] 0: Disable, 1: Enable

5987	[Mech. Counter Protection]	
001	0: OFF / 1: ON	This SP detects that a mechanical counter device is removed. If it is detected, SC610 occurs.

5990	[SP print mode]
3990	Prints out the SMC sheets.

001	All (Data List)	-
002	SP (Mode Data List)	-
003	User Program	-
004	Logging Data	-
005	Diagnostic Report	-
006	Non-Default	-
007	NIB Summary	-
008	Capture Log	-
021	Copier User Program	-
022	Scanner SP	-
023	Scanner User Program	-
024	SDK/J Summary	-
025	SDK/J Application Info	-

5997	[Fusing Cont mode]			
001	fast/silent	[0 or 1 / 1 / -] 0: Silent, 1: Fast		
	Turns on or off the fusing unit prece The machine turns on the fusing un energy save mode.	g unit preceding mode. e fusing unit first by default after power-on or recovery from the		
	If a customer does not want the fusing unit to rotate before sending a job to the machine, change this setting to "O". In this case, the first print time or recovery time may be little bit longer than before.			

System SP6xxx

SP6-XXX (Peripherals)

6006	[ADF Adjustment]			
	Adjusts the side-to-side and leading registration of originals with the ARDF.			
001	S-to-S Registration 1st		[-3.0 to 3.0 / 0 / 0.1 mm/step]	
002	S-to-S Registration 2nd	*ENG		
003	Leading Edge Registration		[-5.0 to 5.0 / 0 / 0.1 mm/step]	
	Adjusts the amount of paper buckle to correct original skew for the front and rear sides.			
005	Buckle: Duplex: 1st	*5510	[5 0 1 5 0 / 0 / 0 1 / 1]	
006	Buckle: Duplex: 2nd	*ENG	[-5.0 to 5.0 / 0 / 0.1 mm/step]	
	Adjusts the erase margin at the original trailing edge.			
007	7 Trailing Edge Erase *ENG [-5.0 to 5.0 / 0 / 0.1 mm/step]			

	[ADF INPUT Check]
6007	Displays the signals received from the sensors and switches of the ARDF. Only Bit 0 is used for ADF input check (*** p.377 "Input and Output Check Tables").

	[ADF OUTPUT Check]
6008	Activates the electrical components for functional check. It is not possible to activate more than one component at the same time (**p.377 "Input and Output Check Tables")

	6009	[ADF Free Run]			
Performs a DF free run in simplex, duplex mode or stamp mode.			stamp mode.		
	002	Free Run Duplex Mode	-		

6010	[Stamp Position Adj.] Fax Stamp Position Adjustment			
0010	Adjusts the horizontal position of the stamp on the scanned originals.			
001	-	*ENG	[-5.0 to 5.0 / 0 / 1 mm/step]	

	[Original Size Detection Priority] Original Size Detection Priority				
6016	Specifies the original size for a size detected by the original sensor, since original sensors cannot recognize all sizes.				
		*ENG	[0 or 1 / 0 / -] 0: Setting 1 1: Setting 2		
	-	NA	Setting 1	Setting 2	
			DLT SEF	Folio SEF 11" x 15"	
001			LG SEF	Foolscap SEF	
			LT SEF	US EXE 8" x 10"	
			LT LEF	US EXE LEF	
			DLT SEF	8K 267 x 390 mm	
		EU/ ASIA	LT SEF	16K 195 x 267 mm	
		AJIA	LT LEF	16K 267 x 195 mm	

6017	ustment			
0017	Adjusts the magnification in the sub-scan direction for the ARDF.			
001	-	*CTL	[-5.0 to 5.0 / 0 / 0.1 %/step]	

	[Staple Position Adjustment]		
6101	Adjusts the staple position for finish	er.	
	+ Value: Moves the staple position	side.	
	- Value: Moves the staple position to the front side.		
001	-	ENG	[-2 to 2 / 0 / 0.2mm/step]

	6102	[Punch Position Adjustment]			
'	5102	Adjusts the punching position in the sub scan direction.			
	001	Leading Edge Adjustment	ENG	[-1.5 to 1.5 / 0 / 0.1 mm/step]	

4102	[Jogger Position Adjustment]				
6103	Adjusts the jogger position				
001	-	ENG	[-4 to 4 / 0 / 0.1 mm/step]		

6104	[Punch Position Adjustment]				
0104	Adjusts the punching position in the main scan direction.				
001 Side-to-Side Adjustment ENG [-2.0 to 2.0 / 0 / 0.2mm/step]		[-2.0 to 2.0 / 0 / 0.2mm/step]			

	[Finisher Input Check] Finisher (D429)	
6120	Displays the signals received from sensors and switches of the finisher. (**p.377 "Input and Output Check Tables")	

		[Finisher Output Check] Finisher (D429)	
(3121	Displays the signals received from sensors and switches of the finisher. (**p.377**Input and Output Check Tables**)	

6830	[Extra Staples]	
	Not used in this model	

System SP7-xxx

SP7-XXX (Data Log)

	<i>74</i> 01	[Total SC Counter]				
	7401	Displays the number of SC codes detected.				
001 - *CTL [0 to 9999 / 0 /		[0 to 9999 / 0 / 1/step]				

	[SC History]					
7403	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.					
001	Latest					
002	Latest 1					
003	Latest 2					
004	Latest 3					
005	Latest 4	*CTL				
006	Latest 5	CIL	-			
007	Latest 6					
800	Latest 7					
009	Latest 8					
010	Latest 9					

	[SC991 History]	
7404	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.	

2

001	Latest		
002	Latest 1		
003	Latest 2		
004	Latest 3		
005	Latest 4	*CTL	
006	Latest 5	CIL	-
007	Latest 6		
800	Latest 7		
009	Latest 8		
010	Latest 9		

	7502	[Total Paper Jam Counter]		
	/302	Displays the total number of jams detected.		
	001	-	* CTL	[0 to 9999 / 0 / 1 sheet/step]

<i>75</i> 03	[Total Original Jam Counter]		
7503	Displays the total number of original jams.		
001	-	*CTL	[0 to 9999 / 0 / 1 original/step]

	[Paper Jam Location]
7504	ON: On check, OFF: Off Check
7504	Displays the number of jams according to the location where jams were detected.
	NOTE: The LCT is counted as the 3rd feed station.

001	At Power On	*CTL	
003	Tray 1: On	*CTL	
004	Tray 2: On	*CTL	
005	Tray 3: On	*CTL	
006	Tray 4: On	*CTL	
008	Bypass: On	*CTL	
009	Duplex: On	*CTL	
011	Vertical Transport 1: On	*CTL	For details, ** the "Jam Detection"
012	Vertical Transport 2: On	*CTL	in the Main Chapters
017	Registration: On	*CTL	
018	Fusing Entrance: On	*CTL	
019	Fusing Exit: On	*CTL	
020	Paper Exit: On	*CTL	
024	Junction Gate Sensor: On	*CTL	
025	Duplex Exit: On	*CTL	
027	Duplex Entrance: ON (Out)	*CTL	

028	1-Bin Tray Exit Sensor: On	*CTL	
029	Right Tray Exit Sensor: On	*CTL	
051	Vertical Transport 1: Off	*CTL	
052	Vertical Transport 2: Off	*CTL	
053	Bank SEF Sensor 1: Off	*CTL	
057	Registration Sensor: Off	*CTL	
058	Fusing Entrance Sensor: Off	*CTL	For details, ** the "Jam Detection"
059	Fusing Exit Sensor: Off	*CTL	in the Main Chapters
060	Paper Exit: Off	*CTL	
065	Duplex Exit Sensor: Off	*CTL	
068	1-Bin Tray Exit: Off	*CTL	
069	Right Tray Exit Sensor: Off	*CTL	
230	FIN: Paper Exit Data Error	*CTL	
231	FIN: Command Error	*CTL	

240	FIN: Entrance: On	*CTL	
241	FIN: Entrance: Off	*CTL	
242	FIN: Feed Motor	*CTL	
243	FIN: Staler Motor	*CTL	
244	FIN: Jogger Motors	*CTL	
245	FIN: PU Roller Contact Motor	*CTL	
246	FIN: Stapler Movement Motor	*CTL	For details, 📭 the "Jam Detection"
247	FIN: Output Tray Motor	*CTL	in the Main Chapters
248	FIN: Belt Roller Solenoid	*CTL	
249	FIN: Front Fan	*CTL	
250	FIN: Punch Motor	*CTL	
251	FIN: Registration Motor	*CTL	
252	FIN: Stapling Error	*CTL	
253	FIN: Mainframe Set Incorrect	*CTL	

7505	[Original Jam Detection]			
Displays the total number of original jams by location.				
001	At Power On			
003	Registration Sensor: On			
004	Registration Sensor: On			
005	Original Exit Sensor: On	*CTL	-	
053	Registration Sensor: Off	1		
054	Registration Sensor: Off			
055	Original Exit Sensor: Off			

7506	[Jam Count by Paper Size]		
	Displays the number of jams according to the paper size.		

		1	
005	A4 LEF		
006	A5 LEF		
014	B5 LEF		
038	LT LEF		
044	HLT LEF		
132	A3 SEF		
133	A4 SEF		
134	A5 SEF	*CTL	[0 to 9999 / 0 / 1 sheet/step]
141	B4 SEF		
142	B5 SEF		
160	DLT SEF		
164	LG SEF		
166	LT SEF		
172	HLT SEF		
255	Others		

7507	[Plotter Jam History]	
7507	Displays the 10 most recently detected paper jams.	

001	Latest			
002	Latest 1			
003	Latest 2		*CTL -	
004	Latest 3	*CTL		
005	Latest 4			
006	Latest 5			
007	Latest 6			
800	Latest 7			
009	Latest 8			
010	Latest 9			

<i>7</i> 508	[Original Jam History]			
7508	Displays the 10 most recently detected original jams.		original jams.	
001	Latest			
002	Latest-1			
003	Latest-2			
004	Latest-3			
005	Latest-4	*CTL		
006	Latest-5	CIL	-	
007	Latest-6			
008	Latest-7			
009	Latest-8			
010	Latest-9			

7624	[Parts PM Use Setting]
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001	PCU:Bk	*CTL	
002	PCU:M	*CTL	
003	PCU:C	*CTL	
004	PCU:Y	*CTL	
005	Development Unit:Bk	*CTL	
006	Development Unit:M	*CTL	[0 or 1 / 1 / -]
007	Development Unit:C	*CTL	0: No (Not PM maintenance)
800	Development Unit:Y	*CTL	1: Yes (PM maintenance)
009	Image Transfer Belt	*CTL	
010	ITB Cleaning Unit	*CTL	
011	Fusing Unit	*CTL	
012	PTR Unit	*CTL	
013	PCU Toner Collection Bottle	*CTL	

7 801	[ROM No./Firmware Version]		
255	-	*CTL	Displays all versions and ROM numbers in the machine.

7803	[PM Counter Display]			
	(Page, Unit, [Color])			
	Displays the number of sheets printed for each current maintenance unit.			
	PM counters click up based on the number of A4 (LT) LEF size sheets printed. Therefore, the A3 (DLT) Double Count is activated. The Double Count cannot be deactivated.			
-001 to -021	When a unit is replaced, the machine automatically detects that the new unit is installed. Then, the current PM counter value is automatically moved to the PM Counter - Previous (SP7-906-1 to 21) and is reset to "0".			
	The total number of sheets printed with the last unit replaced can be checked with SP7-906-1 to 21.			
001	Paper			

002	Page: PCU: Bk
003	Page: PCU: C
004	Page: PCU: M
005	Page: PCU: Y
006	Page: Development Unit: Bk
007	Page: Development Unit: C
008	Page: Development Unit: M
009	Page: Development Unit: Y
010	Page: Developer: Bk
011	Page: Developer: C
012	Page: Developer: M
013	Page: Developer: Y
014	Page: ITB Unit
015	Page: ITB Cleaning Unit
016	Page: Fusing Unit
017	Page:Fusing Pad
018	Page: Fusing Belt
019	Page:PTR Unit
020	Page:ITB T-Collect Bottle
021	Page:PCU T-Collect Bottle
027	Rotation: Half Speed PCU: Bk
028	Rotation: Half Speed PCU: C
029	Rotation: Half Speed PCU: M
030	Rotation: Half Speed PCU: Y

Displays the number of revolutions of motors or clutches for each current maintenance unit. [0 to 9999999 / 0 / 1 revolution/step] When a unit is replaced, the machine automatically detects that the new unit is installed. Then, the current PM counter value is automatically moved to the PM Counter - Previous (SP7-906-31 to 48) and is reset to "0". The total number of revolutions made with the last unit replaced can be checked with SP7-906-31 to 48. 031 Rotation: PCU: Bk 032 Rotation: PCU: C 033 Rotation: PCU: M 034 Rotation: Development Unit: Bk 036 Rotation: Development Unit: C 037 Rotation: Development Unit: Y 038 Rotation: Development Unit: Y 039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation: ITB Cleaning Unit 044 Rotation: Fusing Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Belt 047 Rotation: Fusing Belt 048 Rotation: PTR Unit 049 Amount:ITB T-Collect Bottle 049 Amount:ITB T-Collect Bottle			
-031 to -048 When a unit is replaced, the machine automatically detects that the new unit is installed. Then, the current PM counter value is automatically moved to the PM Counter - Previous (SP7-906-31 to 48) and is reset to "O". The total number of revolutions made with the last unit replaced can be checked with SP7-906-31 to 48. 031 Rotation: PCU: Bk 032 Rotation: PCU: M 034 Rotation: Development Unit: Bk 036 Rotation: Development Unit: C 037 Rotation: Development Unit: Y 039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: Y 043 Rotation: ITB Cleaning Unit 044 Rotation: Fusing Unit 045 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to -050 Displays the total amount of each toner collection bottle.		Displays the number of revolutions of motors or clutches for each current maintenance unit.	
Then, the current PM counter value is automatically moved to the PM Counter - Previous (SP7-906-31 to 48) and is reset to "0". The total number of revolutions made with the last unit replaced can be checked with SP7-906-31 to 48. O31 Rotation: PCU: Bk O32 Rotation: PCU: W O33 Rotation: PCU: Y O35 Rotation: Development Unit: Bk O36 Rotation: Development Unit: C O37 Rotation: Development Unit: Y O38 Rotation: Development Unit: Y O39 Rotation: Development Unit: Y O39 Rotation: Developer: Bk O40 Rotation: Developer: C O41 Rotation: Developer: M O42 Rotation: Developer: Y O43 Rotation: ITB Unit O44 Rotation: Fusing Unit O45 Rotation: Fusing Pad O47 Rotation: Fusing Belt O48 Rotation: FTR Unit O49 to O500 Displays the total amount of each toner collection bottle.		[0 to 9999999 / 0 / 1 revolution/step]	
032 Rotation: PCU: C 033 Rotation: PCU: M 034 Rotation: PCU: Y 035 Rotation: Development Unit: Bk 036 Rotation: Development Unit: C 037 Rotation: Development Unit: M 038 Rotation: Development Unit: Y 039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation: ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: FTR Unit -049 to -050 Displays the total amount of each toner collection bottle.		Then, the current PM counter value is automatically moved to the PM Counter - Previous (SP7-906-31 to 48) and is reset to "O". The total number of revolutions made with the last	
033 Rotation: PCU: M 034 Rotation: PCU: Y 035 Rotation: Development Unit: Bk 036 Rotation: Development Unit: C 037 Rotation: Development Unit: M 038 Rotation: Development Unit: Y 039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation:ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Belt 048 Rotation: Fusing Belt 049 to [0 to 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	031	Rotation: PCU: Bk	
034 Rotation: PCU: Y 035 Rotation: Development Unit: Bk 036 Rotation: Development Unit: C 037 Rotation: Development Unit: M 038 Rotation: Development Unit: Y 039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation: ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to 019 In Park State 010 To 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	032	Rotation: PCU: C	
Rotation: Development Unit: Bk 036 Rotation: Development Unit: C 037 Rotation: Development Unit: M 038 Rotation: Development Unit: Y 039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation: ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to -050 Displays the total amount of each toner collection bottle.	033	Rotation: PCU: M	
036 Rotation: Development Unit: C 037 Rotation: Development Unit: M 038 Rotation: Development Unit: Y 039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation: ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to -050 Displays the total amount of each toner collection bottle.	034	Rotation: PCU: Y	
037 Rotation: Development Unit: M 038 Rotation: Development Unit: Y 039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation:ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to -050 Displays the total amount of each toner collection bottle.	035	Rotation: Development Unit: Bk	
038 Rotation: Development Unit: Y 039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation:ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to [0 to 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	036	Rotation: Development Unit: C	
039 Rotation: Developer: Bk 040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation: ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to [0 to 99999999 / - / 1 mg/step] 050 Displays the total amount of each toner collection bottle.	037	Rotation: Development Unit: M	
040 Rotation: Developer: C 041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation: ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to	038	Rotation: Development Unit: Y	
041 Rotation: Developer: M 042 Rotation: Developer: Y 043 Rotation:ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to [0 to 999999999 / - / 1 mg/step] Displays the total amount of each toner collection bottle.	039	Rotation: Developer: Bk	
042 Rotation: Developer: Y 043 Rotation: ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to [0 to 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	040	Rotation: Developer: C	
043 Rotation: ITB Unit 044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to	041	Rotation: Developer: M	
044 Rotation: ITB Cleaning Unit 045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to [0 to 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	042	Rotation: Developer: Y	
045 Rotation: Fusing Unit 046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to [0 to 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	043	Rotation:ITB Unit	
046 Rotation: Fusing Pad 047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to [0 to 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	044	Rotation: ITB Cleaning Unit	
047 Rotation: Fusing Belt 048 Rotation: PTR Unit -049 to [0 to 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	045	Rotation: Fusing Unit	
048 Rotation: PTR Unit -049 to [0 to 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	046	Rotation: Fusing Pad	
-049 to [0 to 999999999 / - / 1 mg/step] -050 Displays the total amount of each toner collection bottle.	047	Rotation: Fusing Belt	
-050 Displays the total amount of each toner collection bottle.	048	Rotation: PTR Unit	
Displays the lotal allicent of each lotter concenent bothe.	-049 to	[0 to 99999999 / - / 1 mg/step]	
049 Amount:ITB T-Collect Bottle	-050	Displays the total amount of each toner collection bottle.	
	049	Amount:ITB T-Collect Bottle	

050	Amount:PCU T-Collect Bottle
	[0 to 255 / - / 1 %/step]
	Displays the value given by the following formula:
-061 to	(Current revolution Target revolution) · 100. This shows how much of the unit's expected lifetime has been used up.
-078	The Rotation% counter is based on rotations, not prints. If the number of rotations reaches the limit, the machine enters the end condition for that unit. If the print count lifetime is reached first, the machine also enters the end condition, even though the R% counter is still less than 100%.
061	Rotation (%): PCU: Bk
062	Rotation (%): PCU: C
063	Rotation (%): PCU: M
064	Rotation (%): PCU: Y
065	Rotation (%): Development Unit: Bk
066 Rotation (%): Development Unit: C	
067	Rotation (%): Development Unit:M
068	Rotation (%): Development Unit: Y
069 Rotation (%): Developer: Bk	
070	Rotation (%): Developer: C
071	Rotation (%): Developer: M
072	Rotation (%): Developer: Y
073	Rotation (%): ITB Unit
074	Rotation (%): ITB Cleaning Unit
075	Rotation (%): Fusing Unit
076	Rotation (%): Fusing Pad
077	Rotation (%): Fusing Belt
078	Rotation (%):PTR Unit

-079 to [0 to 255 / - / 1 %/step]			
-080	Displays how much of the unit's expected lifetime has been used up.		
079	Amt(%):ITB T-Collect Bottle		
080	Amt(%):PCU T-Collect Bottle		
	Displays the value given by the following for	mula:	
-091 to	(Current printouts Target printouts) · 100. T lifetime has been used up.	his shows l	now much of the unit's expected
-108	s. If the number of printouts reaches nit. If the revolution count lifetime is n, even though the Page% counter		
091	Page (%): PCU: Bk		
092	Page (%): PCU: C		
093	Page (%): PCU: M		
094	Page (%): PCU: Y		
095	Page (%): Development Unit: Bk	*ENG	[0 to 255 / - / 1 %/step]
096	Page (%): Development Unit: C		
097	Page (%): Development Unit: M		
098	Page (%): Development Unit: Y		
099	Page (%): Developer: Bk		

100	Page (%): Developer: C		
101	Page (%): Developer: M		
102	Page (%): Developer: Y		
103	Page (%): ITB Unit		
104	Page (%): ITB Cleaning Unit	*ENG	[0 to 255 / - / 1 %/step]
105	Page (%): Fusing Unit		
106	Page (%): Fusing Pad		
107	Page (%): Fusing Belt		
108	Page (%): PTR Unit		

7004	[PM Counter Reset] PM Counter Clear				
7804	(Unit, [Color])				
	Clears the PM counter. Press the Enter key after the machine asks "Execute?", which will store the PM counter value				
	in SP7-906 (PM Counter - Previous) and reset the value of the current PM counter (SP7-803) to "0".				
001	Paper				
002	PCU: Bk				
003	PCU: C				
004	PCU: M				
005	PCU: Y				
006	PCU: All				
007	Development Unit: Bk				
008	Development Unit: C				
009	Development Unit: M				
010	Development Unit: Y				
011	Development Unit: All				

012	Developer: Bk
013	Developer: C
014	Developer: M
015	Developer: Y
016	Developer: All
017	ITB Unit
018	ITB Cleaning Unit
019	Fusing Unit
020	Fusing Pad
021	Fusing Belt
022	PTR Unit
023	ITB T-Collect Bottle
024	PCU T-Collect Bottle
100	All

7807	[SC/Jam Counter Reset]		
Clears the counters related to SC codes and paper jams.			nd paper jams.
001	-	*CTL	-

7826	[MF Error Counter] Japan Only		
001	Error Total	*CTL	-
002	Error Staple	*CTL	-

7827	[MF Error Counter Clear] Japan Only		
	-	*CTL	-

7832	[Self-Diagnose Result Display]			
7032	Displays the result of the diagnostics.			
001	-	*CTL	-	

7835	[ACC Counter]		
001	Сору АСС	-	Disalas sub a ACC assaultian time of a same hand
002	Printer ACC		Displays the ACC exectuion times for each mode.

	7836	Total Memory Size (CTL)		
	7030	Displays the memory capacity	of the cont	roller system.
	001	-	*CTL	-

	[DF Glass Dust Check]				
7852	Counts the number of occurrences (0 to 65,535) when dust was detected on the scanning glass of the ADF or resets the dust detection counter. Counting is done only if SP4-020-1 (ADF Scan Glass Dust Check) is switched on.				
001	Dust Detection Counter	*CTL	[O to 65525 / / 1 /stan]		
002	Dust Detection Clear Counter	*CTL	[0 to 65535 / - / 1 /step]		

7853	[Replacement Counter]
7653	Displays the PM parts replacement number.

001	PCU: Bk	*CTL	
002	PCU: C	*CTL	
003	PCU: M	*CTL	
004	PCU: Y	*CTL	
005	Development Unit: Bk	*CTL	
006	Development Unit: C	*CTL	
007	Development Unit: M	*CTL	
800	Development Unit: Y	*CTL	
009	Developer: Bk	*CTL	[0 to 255 / - / 1 /step]
010	Developer: C	*CTL	
011	Developer: M	*CTL	
012	Developer: Y	*CTL	
013	ITB Unit	*CTL	
014	ITB Cleaning Unit	*CTL	
015	Fusing Unit	*CTL	
016	Fusing Pad	*CTL	
017	Fusing Belt	*CTL	
018	PTR Unit	*CTL	
019	ITB T-Collect Bottle	*CTL	[0 to 255 / - / 1 /step]
020	PCU T-Collect Bottle	*CTL	

[Coverage Range]

Sets the color coverage threshold.

Coverage rate = Coverage per page / A4 full coverage (dots) x 100

There are three coverage counters: Color 1, Color 2, and Color 3

- 5% (default) is adjustable with SP7855-001.
- 20% (default) is adjustable with SP7855-002.

7855

● Note

• The setting value of -002 must be set larger than the value of -001.

The total numbers of printouts (BW printing plus color printing) for each coverage range are displayed with the following SPs.

• Color1 counter: SP8601-021

• Color2 counter: SP8601-022

• Color3 counter: SP8601-023

001	Coverage Range 1	*CTL	[1 to 200 / 5 / 1]
002	Coverage Range 2	*CTL	[1 to 200 / 20 / 1]

	[Assert Info]			
<i>7</i> 901	Records the location where a problem is detected in the program. The data stored in this SP is used for problem analysis. DFU			
001	File Name			
002	Number of Lines	*CTL	-	
003	Location			

7004	[Prev. Unit PM Counter]			
7906	(Page or Rotations, Unit, [Color]), Dev.: Development Unit	*ENG		
-001 to	Displays the number of sheets printed with the previous maintenance units. [0 to 9999999 / 0 / 1 page/step]			
001	Page: PCU: Bk			
002	Page: PCU: C			
003	Page: PCU: M			

004	Page: PCU: Y
005	Page: Development Unit: Bk
006	Page: Development Unit: C
007	Page: Development Unit: M
008	Page: Development Unit: Y
009	Page: Developer: Bk
010	Page: Developer: C
011	Page: Developer: M
012	Page: Developer: Y
013	Page: ITB Unit
014	Page: ITB Cleaning Unit
015	Page: Fusing Unit
016	Page: Fusing Pad
017	Page: Fusing Belt
018	Page: PTR Unit
019	Page:ITB T-Collect Bottle
020	Page:PCU T-Collect Bottle
027	Rotation: Half Speed PCU: Bk
028	Rotation: Half Speed PCU: C
029	Rotation: Half Speed PCU: M
030	Rotation: Half Speed PCU: Y
-031 to	Displays the number of revolutions for motors or clutches in the previous maintenance units.
-050	[0 to 9999999 / 0 / 1 mm/step]
031	Rotation: PCU: Bk
032	Rotation: PCU: C
033	Rotation: PCU: M

034	Rotation: PCU: Y
035	Rotation: Development Unit: Bk
036	Rotation: Development Unit: C
037	Rotation: Development Unit: M
038	Rotation: Development Unit: Y
039	Rotation: Developer: Bk
040	Rotation: Developer: C
041	Rotation: Developer: M
042	Rotation: Developer: Y
043	Rotation: ITB Unit
044	Rotation: ITB Cleaning Unit
045	Rotation: Fusing Unit
046	Rotation: Fusing Pad
047	Rotation: Fusing Belt
048	Rotation: PTR Unit
049	Rotation:ITB T-Collect Bottle
050	Rotation:PCU T-Collect Bottle
-061 to	Displays the number of sheets printed with the previous maintenance unit or toner cartridge. [0 to 255 / 0 / 1 %/step]
061	Rotation %: PCU: Bk
062	Rotation %: PCU: C
063	Rotation %: PCU: M
064	Rotation %: PCU: Y
065	Rotation %: Development Unit: Bk
066	Rotation %: Development Unit: C
067	Rotation %: Development Unit: M

068	Rotation %: Development Unit: Y
069	Rotation %: Developer: Bk
070	Rotation %: Developer: C
071	Rotation %: Developer: M
072	Rotation %: Developer: Y
073	Rotation %: ITB Unit
074	Rotation %: ITB Cleaning Unit
075	Rotation %: Fusing Unit
076	Rotation %: Fusing Pad
077	Rotation %: Fusing Belt
078	Rotation %: PTR Unit
079	Rotation %:ITB T-Collect Bottle
080	Rotation %:PCU T-Collect Bottle
-091 to -108	Displays the value given by the following formula: (Current count Yield count) x 100, where "Current count" is the current values in the counter for the part, and "Yield count" is the recommended yield. [0 to 255 / 0 / 1 %/step]
091	Page (%): PCU: Bk
092	Page (%): PCU: C
093	Page (%): PCU: M
094	Page (%): PCU: Y
095	Page (%): Development Unit: Bk
096	Page (%): Development Unit: C
097	Page (%): Development Unit: M
098	Page (%): Development Unit: Y
099	Page (%): Developer: Bk

100	Page (%): Developer: C
101	Page (%): Developer: M
102	Page (%): Developer: Y
103	Page (%): ITB Unit
104	Page (%): ITB Cleaning Unit
105	Page (%): Fusing Unit
106	Page (%): Fusing Pad
107	Page (%): Fusing Belt
108	Page (%): PTR Unit

7021	[Toner Bottle Bk]		
<i>7</i> 931	Displays the toner bottle information for Bk.		
001	Machine Serial ID	*ENG	
002	Cartridge Ver	*EGN	
003	Brand ID	*EGN	
004	Area ID	*EGN	
005	Product ID	*EGN	
006	Color ID	*EGN	
007	Maintenance ID	*EGN	
008	New Product Information	*EGN	
009	Recycle Counter	*EGN	
010	Date	*EGN	
011	Serial No.	*EGN	
012	Toner Remaining	*EGN	

013	EDP Code	*EGN
014	End History	*EGN
015	Refill Information	*EGN
016	Attachment: Total Counter	*EGN
017	Attachment: Color Counter	*EGN
018	End: Total Counter	*EGN
019	End: Color Counter	*EGN
020	Attachment Date	*EGN
021	End Date	*EGN

7000	[Toner Bottle M]	
7932	Displays the toner bottle information for M.	
001	Machine Serial ID	*ENG
002	Cartridge Ver	*EGN
003	Brand ID	*EGN
004	Area ID	*EGN
005	Product ID	*EGN
006	Color ID	*EGN
007	Maintenance ID	*EGN
008	New Product Information	*EGN
009	Recycle Counter	*EGN
010	Date	*EGN
011	Serial No.	*EGN
012	Toner Remaining	*EGN

013	EDP Code	*EGN
014	End History	*EGN
015	Refill Information	*EGN
016	Attachment: Total Counter	*EGN
017	Attachment: Color Counter	*EGN
018	End: Total Counter	*EGN
019	End: Color Counter	*EGN
020	Attachment Date	*EGN
021	End Date	

7022	[Toner Bottle C]		
<i>7</i> 933	Displays the toner bottle information for C.		
001	Machine Serial ID	*ENG	
002	Cartridge Ver	*EGN	
003	Brand ID	*EGN	
004	Area ID	*EGN	
005	Product ID	*EGN	
006	Color ID	*EGN	
007	Maintenance ID	*EGN	
008	New Product Information	*EGN	
009	Recycle Counter	*EGN	
010	Date	*EGN	
011	Serial No.	*EGN	
012	Toner Remaining	*EGN	

013	EDP Code	*EGN
	LDT COUC	2011
014	End History	*EGN
015	Refill Information	*EGN
016	Attachment: Total Counter	*EGN
010	Andenment. Total Coolie	LOIV
017	Attachment: Color Counter	*EGN
018	End: Total Counter	*EGN
019	End: Color Counter	*EGN
020	Attachment Date	*EGN
021	End Date	*EGN

7024	[Toner Bottle Y]	
7934	Displays the toner bottle information for Y.	
001	Machine Serial ID	*ENG
002	Cartridge Ver	*EGN
003	Brand ID	*EGN
004	Area ID	*EGN
005	Product ID	*EGN
006	Color ID	*EGN
007	Maintenance ID	*EGN
800	New Product Information	*EGN
009	Recycle Counter	*EGN
010	Date	*EGN

011	Serial No.	*EGN
012	Toner Remaining	*EGN
013	EDP Code	*EGN
014	End History	*EGN
015	Refill Information	*EGN
016	Attachment: Total Counter	*EGN
017	Attachment: Color Counter	*EGN
018	End: Total Counter	*EGN
019	End: Color Counter	*EGN
020	Attachment Date	*EGN
021	End Date	*EGN

7935	[Toner Bottle Log 1: Bk]		
001	Serial No.	*ENG	Displays the toner bottle information log 1 for Bk.
002	Attachment Date		
003	Attachment: Total Counter	ENG	
004	Refill Information		
005	Serial No.	*ENG	Displays the toner bottle information log 2 for Bk.
006	Attachment Date		
007	Attachment: Total Counter		
008	Refill Information		
009	Serial No.		
010	Attachment Date	*5.10	Displays the toner bottle information log
011	Attachment: Total Counter	*ENG	3 for Bk.
012	Refill Information		

013	Serial No.	*ENG	
014	Attachment Date		Displays the toner bottle information log
015	Attachment: Total Counter	EING	4 for Bk.
016	Refill Information		
017	Serial No.		Displays the toner bottle information log 5 for Bk.
018	Attachment Date	*ENG	
019	Attachment: Total Counter	ENG	
020	Refill Information		

7936	[Toner Bottle Log 1: M]		
001	Serial No.	- *ENG	Displays the toner bottle information log 1 for M.
002	Attachment Date		
003	Attachment: Total Counter		
004	Refill Information		
005	Serial No.		Displays the toner bottle information log 2 for M.
006	Attachment Date	*ENG	
007	Attachment: Total Counter	ENG	
008	Refill Information		
009	Serial No.		Displays the toner bottle information log 3 for M.
010	Attachment Date	*ENG	
011	Attachment: Total Counter	ENG	
012	Refill Information		
013	Serial No.		Displays the toner bottle information log 4 for M.
014	Attachment Date	*ENG	
015	Attachment: Total Counter		
016	Refill Information		

	017	Serial No.		
	018	Attachment Date	*ENG	Displays the toner bottle information log
	019	Attachment: Total Counter		5 for M.
(020	Refill Information		

7937	[Toner Bottle Log 1: C]		
001	Serial No.	*ENG	Displays the toner bottle information log 1 for C.
002	Attachment Date		
003	Attachment: Total Counter		
004	Refill Information		
005	Serial No.	*ENG	Displays the toner bottle information log 2 for C.
006	Attachment Date		
007	Attachment: Total Counter		
008	Refill Information		
009	Serial No.	*ENG	Displays the toner bottle information log 3 for C.
010	Attachment Date		
011	Attachment: Total Counter		
012	Refill Information		
013	Serial No.	*ENG	Displays the toner bottle information log 4 for C.
014	Attachment Date		
015	Attachment: Total Counter		
016	Refill Information		
017	Serial No.	*ENG	Displays the toner bottle information log 5 for C.
018	Attachment Date		
019	Attachment: Total Counter		
020	Refill Information		

7938	[Toner Bottle Log 1: Y]		
001	Serial No.	*ENG	Displays the toner bottle information log 1 for Y.
002	Attachment Date		
003	Attachment: Total Counter		
004	Refill Information		
005	Serial No.	*ENG	Displays the toner bottle information log 2 for Y.
006	Attachment Date		
007	Attachment: Total Counter		
008	Refill Information		
009	Serial No.	*ENG	Displays the toner bottle information log 3 for Y.
010	Attachment Date		
011	Attachment: Total Counter		
012	Refill Information		
013	Serial No.	*ENG	Displays the toner bottle information log 4 for Y.
014	Attachment Date		
015	Attachment: Total Counter		
016	Refill Information		
017	Serial No.	- *ENG	Displays the toner bottle information log 5 for Y.
018	Attachment Date		
019	Attachment: Total Counter		
020	Refill Information		

7950	[Unit Replacement Date]
	Displays the replacement date of each PM unit.

001	ITB Unit	*ENG
002	ITB Cleaning Unit	*EGN
003	PTR Unit	*EGN
004	Fusing Unit	*EGN
005	Fusing Pad	*EGN
006	Fusing Belt	*EGN
013	PCU: Bk	*EGN
014	PCU: C	*EGN
015	PCU: M	*EGN
016	PCU: Y	*EGN
017	Development Unit:Bk	*EGN
018	Development Unit:C	*EGN
019	Development Unit:M	*EGN
020	Development Unit:Y	*EGN
021	Developer:Bk	*EGN
022	Developer:C	*EGN
023	Developer:M	*EGN
024	Developer:Y	*EGN

	[Remaining Day Counter]	*ENG	
<i>7</i> 951	Displays the remaining unit life of each PM unit. [0 to 255 / 255 / 1 day/step]		
001	Page: PCU: Bk		
002	Page: PCU: C		
003	Page: PCU: M		
004	Page: PCU: Y		

005	Page: Development Unit: Bk
006	Page: Development Unit: C
007	Page: Development Unit: M
008	Page: Development Unit: Y
009	Page: Developer: Bk
010	Page: Developer: C
011	Page: Developer: M
012	Page: Developer: Y
013	Page: ITB Unit
014	Page: ITB Cleaning Unit
015	Page: Fusing Unit
016	Page: Fusing Pad
017	Page: Fusing Belt
018	Page: PTR Unit
031	Rotation: PCU: Bk
032	Rotation: PCU: C
033	Rotation: PCU: M
034	Rotation: PCU: Y
035	Rotation: Development Unit: Bk
036	Rotation: Development Unit: C
037	Rotation: Development Unit: M
038	Rotation: Development Unit: Y
039	Rotation: Developer: Bk
040	Rotation: Developer: C
041	Rotation: Developer: M
042	Rotation: Developer: Y

043	Rotation: ITB Unit
044	Rotation: ITB Cleaning Unit
045	Rotation: Fusing Unit
046	Rotation: Fusing Pad
047	Rotation: Fusing Belt
048	Rotation:PTR Unit
049	Rotation:ITB T-Collect Bottle
050	Rotation:PCU T-Collect Bottle

7050	[PM Yield Setting]				
7952	Adjusts the unit yield of each PM unit.				
001	Rotation: ITB Unit	*EGN	[0 to 999999999 / 23976000 / 1000 mm/ step]		
002	Rotation: ITB Cleaning Unit	*EGN	[0 to 999999999 / 59940000 / 1 mm/step]		
003	Rotation: Fusing Unit	*EGN			
004	Rotation: Fusing Pad	*EGN	[0 to 999999999 / 17500000 / 1000 mm/ step]		
005	Rotation: Fusing Belt	*EGN			
006	Rotation:PTR Unit	*EGN	[0 to 999999999 / 23976000 / 1000 mm/ step]		
007	Amount:ITB T-Collect Bottle	*EGN			
008	Amount:PCU T-Collect Bottle		[0 to 99999999 / 300000 / 1000 mg/step]		
011	Page: ITB Unit	*EGN	[0 to 999999 / 240000 / 1000 sheet/step]		
012	Page: ITB Cleaning Unit	*EGN	[0 to 999999 / 60000 / 1 sheet/step]		
013	Page: Fusing Unit	*EGN			
014	Page: Fusing Pad	*EGN	[0 to 999999 / 150000 / 1 sheet/step]		
015	Page: Fusing Belt	*EGN			

016	Page: PTR Unit	*EGN	[0 to 999999 / 240000 / 1 sheet/step]
021	Day Threshold: PCU: Bk	*EGN	
022	Day Threshold: PCU: C	*EGN	
023	Day Threshold: PCU: M	*EGN	
024	Day Threshold: PCU: Y	*EGN	Adjusts the threshold day of the near end for each
025	Day Threshold: Development Unit: Bk	*EGN	PM unit. [1 to 30 / 15 / 1 day/step]
026	Day Threshold: Development Unit: C	*EGN	These threshold days are used for @Remote alarms.
027	Day Threshold: Development Unit: M	*EGN	
028	Day Threshold: Development Unit: Y	*EGN	
029	Day Threshold: Developer: Bk	*EGN	
030	Day Threshold: Developer: C	*EGN	
031	Day Threshold: Developer: M	*EGN	Adjusts the threshold day of the near end for each
032	Day Threshold: Developer: Y	*EGN	PM unit. [1 to 30 / 15 / 1 day/step]
033	Day Threshold: ITB Unit	*EGN	These threshold days are used for @Remote
034	Day Threshold: ITB Cleaning Unit	*EGN	alarms.
035	Day Threshold: Fusing Unit	*EGN	
036	Day Threshold: Fusing Pad	*EGN	
037	Day Threshold: Fusing Belt	*EGN	

038	Rotation: PCU: Bk		
039	Rotation: PCU: C	*EGN	
040	Rotation: PCU: M		[0 to 999999999 / 0 / 1 mm/step]
041	Rotation: PCU: Y		
042	Rotation: Development Unit: Bk	*EGN *EGN *EGN	
043	Rotation: Development Unit: C		[0 to 999999999 / 0 / 1 mm/step]
044	Rotation: Development Unit:		[O 10 44444444 / O / 1 mm/step]
045	Rotation: Development Unit: Y		
046	Rotation: Developer: Bk		
047	Rotation: Developer: C	*F@NI	
048	Rotation: Developer: M	*EGN	[0 to 999999999 / 0 / 1 mm/step]
049	Rotation: Developer: Y		
050	Page: PCU: Bk		
051	Page: PCU: C	*EGN	[0.4-000000 / 0 / 1 - 1-4 / 4-1]
052	Page: PCU: M	EGIN	[0 to 999999 / 0 / 1 sheet/step]
053	Page: PCU: Y		
054	Page: Development Unit: Bk		
055	Page: Development Unit: C	*E0NI	[0.4-000000 / 0 / 1 . 1 . 1 / 4 1
056	Page: Development Unit: M	*EGN	[0 to 999999 / 0 / 1 sheet/step]
057	Page: Development Unit: Y		

058	Page: Developer: Bk		
059	Page: Developer: C	*EGN	[0.4-000000 / 0 / 1 - 1/1
060	Page: Developer: M	EGN	[0 to 999999 / 0 / 1 sheet/step]
061	Page: Developer: Y		
062	Day Threshold:PTR Unit		Adjusts the threshold day of the near end for each
063	Day Thresh:ITB T-Collect Bttl	*EGN	PM unit. [1 to 30 / 15 / 1 day/step]
064	Day Thresh:PCU T-Collect Bttl	2311	These threshold days are used for @Remote alarms.

7953	[Operation Env. Log: PCU: Bk]				
	Displays the PCU rotation distance in each specified operation environment.				
	T: Temperature (°C), H: Relative Hu	midity (%)			
001	T<=0				
002	0 <t<=5:0<=h<30< td=""><td></td><td rowspan="8">[0 to 99999999 / - / 1 mm/step]</td></t<=5:0<=h<30<>		[0 to 99999999 / - / 1 mm/step]		
003	0 <t<=5:30<=h<70< td=""><td></td></t<=5:30<=h<70<>				
004	T<=5: 70<=H<=100	*CTL			
005	5 <t<15: 0<="H<30</td"></t<15:>				
006	5 <t<15: 30<="H<55</td"></t<15:>				
007	5 <t<15: 55<="H<80</td"></t<15:>				
008	5 <t<15: 80<="H<=100</td"></t<15:>				
009	15<=T<25: 0<=H<30				
010	15<=T<25: 30<=H<55				

011	15<=T<25: 55<=H<80		
012	15<=T<25: 80<=H<=100		
013	25<=T<30: 0<=H<30		
014	25<=T<30: 30<=H<55		
015	25<=T<30: 55<=H<80	*CTL	[0 to 99999999 / - / 1 mm/step]
016	25<=T<30: 80<=H<=100		
017	30<=T: 0<=H<30		
018	30<=T: 30<=H<55		
019	30<=T: 55<=H<80		
020	30<=T: 80<=H<=100		

7954	[Operation Env. Log Clear]
7934	Clears the operation environment log.
001	-

System SP8-xxx

SP8-xxx: Data Log2

Many of these counters are provided for features that are currently not available, such as sending color faxes, and so on. However, here are some Group 8 codes that when used in combination with others, can provide useful information.

SP Numbers	What They Do	
SP8 211 to SP8 216	The number of pages scanned to the document server.	
SP8 401 to SP8 406	The number of pages printed from the document server	
SP8 691 to SP8 696	The number of pages sent from the document server	

Specifically, the following questions can be answered:

- How is the document server actually being used?
- What application is using the document server most frequently?
- What data in the document server is being reused?

Most of the SPs in this group are prefixed with a letter that indicates the mode of operation (the mode of operation is referred to as an "application"). Before reading the Group 8 Service Table, make sure that you understand what these prefixes mean.

Prefixes	What it means	
T:	Total: (Grand Total).	Grand total of the items counted for all applications (C, F, P, etc.).
C:	Copy application.	
F:	Fax application.	Totals (pages, jobs, etc.) executed for each application when
P:	Print application.	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 8 SP codes are limited to 17 characters, forced by the necessity of displaying them on the small LCDs of printers and faxes that also use these SPs. Read over the list of abbreviations below and refer to it again if you see the name of an SP that you do not understand.

Key for Abbreviations

Abbreviation	What it means		
/	"By", e.g. "T:Jobs/ApI" = Total Jobs "by" Application		
>	More (2> "2 or more", 4> "4 or more"		
AddBook	Address Book		
Apl	Application		
B/W	Black & White		
Bk	Black		
С	Cyan		
ColCr	Color Create		
ColMode	Color Mode		
Comb	Combine		
Comp	Compression		
Deliv	Delivery		

Abbreviation	What it means			
DesApl	Designated Application. The application (Copy, Fax, Scan, Print) used to store the job on the document server, for example.			
Dev Counter	Development Count, no. of pages developed.			
Dup, Duplex	Duplex, printing on both sides			
Emul	Emulation			
FC	Full Color			
FIN	Post-print processing, i.e. finishing (punching, stapling, etc.)			
Full Bleed	No Margins			
GenCopy	Generation Copy Mode			
GPC	Get Print Counter. For jobs 10 pages or less, this counter does not counter. For jobs larger than 10 pages, this counter counts up by the number that is in excess of 10 (e.g., for an 11-page job, the counter counts up 11-10=1)			
IFax	Internet Fax			
ImgEdt	Image Edit performed on the original with the copier GUI, e.g. border removal, adding stamps, page numbers, etc.			
K	Black (YMCK)			
LS	Local Storage. Refers to the document server.			
LSize	Large (paper) Size			
Mag	Magnification			
МС	One color (monochrome)			
NRS	New Remote Service, which allows a service center to monitor machines remotely. "NRS" is used overseas, "CSS" is used in Japan.			
Org	Original for scanning			
OrgJam	Original Jam			
Palm 2	Print Job Manager/Desk Top Editor: A pair of utilities that allows print jobs to be distributed evenly among the printers on the network, and allows files to moved around, combined, and converted to different formats.			

Abbreviation	What it means			
PC	Personal Computer			
PGS	Pages. A page is the total scanned surface of the original. Duplex pages count as two pages, and A3 simplex count as two pages if the A3/DLT counter SP is switched ON.			
PJob	Print Jobs			
Ppr	Paper			
PrtJam	Printer (plotter) Jam			
PrtPGS	Print Pages			
R	Red (Toner Remaining). Applies to the wide format model A2 only. This machine is under development and currently not available.			
Rez	Resolution			
SC	Service Code (Error SC code displayed)			
Scn	Scan			
Sim, Simplex	Simplex, printing on 1 side.			
S-to-Email	Scan-to-E-mail			
SMC	SMC report printed with SP5990. All of the Group 8 counters are recorded in the SMC report.			
Svr	Server			
TonEnd	Toner End			
TonSave	Toner Save			
TXJob	Send, Transmission			
YMC	Yellow, Magenta, Cyan			
YMCK	Yellow, Magenta, Cyan, Black			



 $\bullet\,\,$ All of the Group 8 SPs are reset with SP5 801 1 Memory All Clear.

8 001	T:Total Jobs	*CTL
8 002	C:Total Jobs	*CTL
8 003	F:Total Jobs	*CTL
8 004	P:Total Jobs	*CTL
8 005	S:Total Jobs	*CTL
8 006	L:Total Jobs	*CTL

These SPs count the number of times each application is used to do a job.

[0 to 9999999/ 0 / 1]

Note: The L: counter is the total number of times the other applications are used to send a job to the document server, plus the number of times a 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.
- A job is counted as a fax job when the job is stored for sending.
- When a fax is received to fax memory, the F: counter increments but the L: counter does not (the document server is not used).
- A fax broadcast counts as one job for the F: counter (the fax destinations in the broadcast are not counted separately).
- A fax broadcast is counted only after all the faxes have been sent to their destinations. If one
 transmission generates an error, then the broadcast will not be counted until the transmission has been
 completed.
- A printed fax report counts as one job for the F: counter.
- The F: counter does not distinguish between fax sending or receiving.
- 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. However, for fax reports and reports executed from the fax application, the F: counter increments.

8 011	T:Jobs/LS	*CTL	
8 012	C:Jobs/LS	*CTL	These SPs count the number of jobs stored to the document
8 013	F:Jobs/LS	*CTL	server by each application, to reveal how local storage is
8 014	P:Jobs/LS	*CTL	being used for input. [0 to 9999999 / 0 / 1]
8 015	S:Jobs/LS	*CTL	The L: counter counts the number of jobs stored from within
8 016	L:Jobs/LS	*CTL	the document server mode screen at the operation panel.
8 017	O:Jobs/LS	*CTL	

- 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.
- When a fax is sent to the document server, the F: counter increments.

8 021	T:Pjob/LS	*CTL	
8 022	C:Pjob/LS	*CTL	These SPs reveal how files printed from the document
8 023	F:Pjob/LS	*CTL	server were stored on the document server originally.
8 024	P:Pjob/LS	*CTL	[0 to 9999999/ 0 / 1] The L: counter counts the number of jobs stored from
8 025	S:Pjob/LS	*CTL	within the document server mode screen at the
8 026	L:Pjob/LS	*CTL	operation panel.
8 027	O:Pjob/LS	*CTL	

- 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 increment.
- 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.
- When a fax on the document server is printed, the F: counter increments.

8 031	T:Pjob/DesApl	*CTL	
8 032	C:Pjob/DesApl	*CTL	These SPs reveal what applications were used to
8 033	F:Pjob/DesApl	*CTL	output documents from the document server.
8 034	P:Pjob/DesApl	*CTL	[0 to 9999999/ 0 / 1] The L: counter counts the number of jobs printed
8 035	S:Pjob/DesApl	*CTL	from within the document server mode screen at the
8 036	L:Pjob/DesApl	*CTL	operation panel.
8 037	O:Pjob/DesApl	*CTL	

- 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.

8 041	T:TX Jobs/LS	*CTL	These SPs count the applications that stored files
8 042	C:TX Jobs/LS	*CTL	on the document server that were later accessed for transmission over the telephone line or over a
8 043	F:TX Jobs/LS	*CTL	network (attached to an e-mail, or as a fax image by I-Fax).
8 044	P:TX Jobs/LS	*CTL	[0 to 9999999/ 0 / 1]
8 045	S:TX Jobs/LS	*CTL	Note: Jobs merged for sending are counted
8 046	L:TX Jobs/LS	*CTL	separately. The L: counter counts the number of jobs scanned
8 047	O:TX Jobs/LS	*CTL	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.

8 051	T:TX Jobs/DesApl	*CTL	These SDs sount the applications used to send files
8 052	C:TX Jobs/DesApl	*CTL	These SPs count the applications used to send files from the document server over the telephone line
8 053	F:TX Jobs/DesApl	*CTL	or over a network (attached to an e-mail, or as a fax image by I-Fax). Jobs merged for sending are
8 054	P:TX Jobs/DesApl	*CTL	counted separately.
8 055	S:TX Jobs/DesApl	*CTL	[0 to 9999999/ 0 / 1] The L: counter counts the number of jobs sent from
8 056	L:TX Jobs/DesApl	*CTL	within the document server mode screen at the operation panel.
8 057	O:TX Jobs/DesApl	*CTL	operation paties.

• If the send is started from Desk Top Binder or Web Image Monitor, for example, then the O: counter increments.

0.071	T:FIN Jobs	*CTL	[0 to 9999999/ 0 / 1]
8 061	These SPs total the finishing n	nethods. Th	ne finishing method is specified by the application.
	C:FIN Jobs	*CTL	[0 to 9999999/ 0 / 1]
8 062	These SPs total finishing methods for copy jobs only. The finishing method is specified the application.		
	F:FIN Jobs	*CTL	[0 to 9999999/ 0 / 1]
8 063	These SPs total finishing methods for fax jobs only. The finishing method is specified the application.		
	Note : Finishing features for f	ax jobs ar	e not available at this time.
	P:FIN Jobs	*CTL	[0 to 9999999/ 0 / 1]
8 064	These SPs total finishing methods for print jobs only. The finishing method is specified by the application.		
	S:FIN Jobs	*CTL	[0 to 9999999/ 0 / 1]
8 065	These SPs total finishing methods for scan jobs only. The finishing method is specified be the application.		
	Note: Finishing features for scan jobs are not available at this time.		

	L:FIN Jobs		*CTL	[0 to 9999999/ 0 / 1]	
8 066	These SPs total finishing methods for jobs output from within the document server mode screen at the operation panel. The finishing method is specified from the print window within document server mode.				
	O:FIN Jobs *CTL [0 to 9999999/ 0 / 1]				
8 067		•	•	bs executed by an external application, over the led by the application.	
8 06x 1	Sort	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 SP8 066 1)			
8 06x 2	Stack	Number of jobs started out of Sort mode.			
8 06x 3	Staple	Number of jobs started in Staple mode.			
8 06x 4	Booklet	Number of jobs started in Booklet mode. If the machine is in staple mode, the Staple counter also increments.			
8 06x 5	Z-Fold	Number of jobs started In any mode other than the Booklet mode and set for folding (Z-fold).			
8 06x 6	Punch	Number of jobs started in Punch mode. When Punch is set for a print job, the P: counter increments. (See SP8 064 6.)			
8 06x 7	Other	Reserved. Not used.			

	T:Jobs/PGS	*CTL	[0 to 9999999/ 0 / 1]	
8 071	These SPs count the number regardless of which applicat	en down by the number of pages in the job, d.		
	C:Jobs/PGS	*CTL	[0 to 9999999/ 0 / 1]	
8 072	These SPs count and calculate the number of copy jobs by size based on the number of pages in the job.			
	F:Jobs/PGS	*CTL	[0 to 9999999/ 0 / 1]	
These SPs count and calculate the number of fax pages in the job.		er of fax jobs by size based on the number of		

	P:Jobs/PGS *CTL [0 to 9999999/ 0 / 1]					
These SPs count and calculate the number pages in the job.			er of prin	nt jobs by size based on the number of		
	S:Jobs/PGS			999999/ 0 /1]		
8 075	These SPs count and calcula pages in the job.	ate the numb	er of sca	n jobs by size based on the number of		
	L:Jobs/PGS	*CTL	[0 to 9	999999/ 0 /1]		
8 076	These SPs count and calcula mode window at the operat	ate the number *CTL ate the number of the tion panel, by the the number of the tion panel of the tion panel of the tion panel of the number		printed from within the document server		
	O:Jobs/PGS	*CTL [0 to 9999999/ 0 / 1]				
8 077	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.					
8 07x 1	1 Page	8 07x	8	21 to 50 Pages		
8 07x 2	2 Pages	8 07x	9	51 to 100 Pages		
8 07x 3	3 Pages	8 07x	10	101 to 300 Pages		
8 07x 4	4 Pages	8 07x	11	301 to 500 Pages		
8 07x 5	5 Pages	8 07x	12	501 to 700 Pages		
8 07x 6	6 to 10 Pages	8 07x	13	701 to 1000 Pages		
8 07x 7	11 to 20 Pages	8 07x	14	1001 to Pages		

- For example: When a copy job stored on the document server is printed in document server mode, the appropriate L: counter (SP8076 0xx) increments.
- Printing a fax report counts as a job and increments the F: counter (SP 8073).
- 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 (SP 8072) and scan jobs (SP 8075), 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 (SP 8072).

• When printing the first page of a job from within the document server screen, the page is counted.

8 111	T:FAX TX Jobs	*CTL	[0 to 9999999/ 0 / 1]		
	These SPs count the total number of jobs (color or black-and-white) sent by fax, either directly or using a file stored on the document server, on a telephone line.				
	Note: Color fax sending is	not availab	le at this time.		
	F: FAX TX Jobs	*CTL	[0 to 9999999/ 0 / 1]		
8 113	These SPs count the total number of jobs (color or black-and-white) sent by fax directly on a telephone line.				
	Note: Color fax sending is not available at this time.				
8 11x 1	B/W				
8 11x 2	Color				

- These counters count jobs, not pages.
- This SP counts fax jobs sent over a telephone line with a fax application, including documents stored on the document server.
- If the mode is changed during the job, the job will count with the mode set when the job started.
- If the same document is faxed to both a public fax line and an I-Fax at a destination where both are available, then this counter increments, and the I-Fax counter (8 12x) also increments.
- The fax job is counted when the job is scanned for sending, not when the job is sent.

	T:IFAX TX Jobs	*CTL	[0 to 9999999/ 0 / 1]		
8 121	These SPs count the total number of jobs (color or black-and-white) sent, either directly or using a file stored on the document server, as fax images using I-Fax.				
	Note: Color fax sending is	not available	at this time.		
	F: IFAX TX Jobs	*CTL	[0 to 9999999/ 0 / 1]		
8 123	These SPs count the number of jobs (color or black-and-white) sent (not stored on the document server), as fax images using I-Fax. Note: Color fax sending is not available at this time.				
8 12x 1	B/W				
8 12x 2	Color				

• These counters count jobs, not pages.

- The counters for color are provided for future use; the color fax feature is not available at this time.
- The fax job is counted when the job is scanned for sending, not when the job is sent.

	T:S-to-Email Jobs	*CTL	[0 to 9999999/ 0 / 1]		
8 131	These SPs count the total number of jobs (color or black-and-white) scanned and attached to an e-mail, regardless of whether the document server was used or not.				
	S: S-to-Email Jobs	*CTL	[0 to 9999999/ 0 / 1]		
8 135	These SPs count the number of jobs (color or black-and-white) scanned and attached to e-mail, without storing the original on the document server.				
8 13x 1	B/W				
8 13x 2	Color				
8 13x 3	ACS				

- 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 blackand-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).

	T:Deliv Jobs/Svr	*CTL	[0 to 9999999/ 0 / 1]		
8 141	These SPs count the total number of jobs (color or black-and-white) scanned and sent to a Scan Router server.				
	S: Deliv Jobs/Svr	*CTL	[0 to 9999999/ 0 / 1]		
8 145	These SPs count the number of jobs (color or black-and-white) scanned in scanner mode and sent to a Scan Router server.				
8 14x 1	B/W				
8 14x 2	Color				

8 14x 3	ACS

- 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" iob.
- 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.

8 151	T:Deliv Jobs/PC	*CTL	[0 to 9999999/ 0 / 1]				
	These SPs count the total number of jobs (color or black-and-white) scanned and sent to a folder on a PC (Scan-to-PC).						
	Note: At the present time, 8 1.	Note: At the present time, 8 151 and 8 155 perform identical counts.					
	S:Deliv Jobs/PC	*CTL	[0 to 9999999/ 0 / 1]				
8 155	These SPs count the total number of jobs (color or black-and-white) scanned and sent with Scan-to-PC.						
8 15x 1	B/W						
8 15x 2	Color						
8 15x 3	ACS						

- 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.

8 161	T:PCFAX TX Jobs	*CTL	These SPs count the number of PC Fax transmission
8 163	F:PCFAX TX Jobs	*CTL	jobs. A job is counted from when it is registered for sending, not when it is sent. [0 to 9999999/0/1] Note: At the present time, these counters perform identical counts.

• This counts fax jobs started from a PC using a PC fax application, and sending the data out to the destination from the PC through the copier.

8 171	T: Deliv Jobs/WSD	*CTL	These SPs count the pages scanned by WS.
8 175	S: Dvliv Jobs/WSD	*CTL	[0 to 9999999/ 0 / 1]
x 1	B/W		
x 2	Color		
x 3	ACS		

8 181	T: Scan to Media Jobs	*CTL	These SPs count the scanned pages in a media
8 185	S: Scan to Media Jobs	*CTL	by the scanner application. [0 to 9999999/ 0 / 1]
x 1	B/W		
x 2	Color		
x 3	ACS		

8 191	T: Total Scan PGS	*CTL	
8 192	C: Total Scan PGS	*CTL	These SPs count the pages scanned by each
8 193	F: Total Scan PGS	*CTL	application that uses the scanner to scan images.
8 195	S: Total Scan PGS	*CTL	[0 to 9999999/ 0 / 1]
8 196	L: Total Scan PGS		

- SP 8 191 to 8 196 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.

8 201	T:LSize Scan PGS	*CTL	[0 to 9999999/ 0 / 1]		
	These SPs count the total number of large pages input with the scanner for scan and copy jobs. Large size paper (A3/DLT) scanned for fax transmission are not counted.				
	Note: These counters are dis	played in	the SMC Report, and in the User Tools display.		
	F: LSize Scan PGS	*CTL	[0 to 9999999/ 0 / 1]		
8 203	These SPs count the total number of large pages input with the scanner for fax transmission.				
	Note: These counters are displayed in the SMC Report, and in the User Tools display.				
	S:LSize Scan PGS	*CTL	[0 to 9999999/ 0 / 1]		
8 205	These SPs count the total number of large pages input with the scanner for scan jobs only. Large size paper (A3/DLT) scanned for fax transmission are not counted.				
	Note: These counters are dis	played in	the SMC Report, and in the User Tools display.		

8 211	T:Scan PGS/LS	*CTL	These SPs count the number of pages scanned into the
8 212	C:Scan PGS/LS	*CTL	document server . [0 to 9999999 / 0 / 1]
8 213	F:Scan PGS/LS	*CTL	The L: counter counts the number of pages stored from
8 215	S:Scan PGS/LS	*CTL	within the document server mode screen at the operation panel, and with the Store File button from
8 216	L:Scan PGS/LS	*CTL	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.

	ADF Org Feeds		*CTL [0 to 9999999/ 0 / 1]			
8 221	These SPs scanning.	Ps count the number of pages fed through the ADF for front and back side g.				
8 221 1	Front	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. With an ADF that cannot scan both sides simultaneously, the Front side count is the same as the number of pages fed for duplex front side scanning. (The front side is determined by which side the user loads face up.)				
8 221 2	Back	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.

	,				
	Scan PGS/Mode	*CTL	[0 to 9999999/ 0 / 1]		
These SPs count the number of pload on the ADF.			pages scanned by each ADF mode to determine the work		
8 231 1	Large Volume		able. Large copy jobs that cannot be loaded in the tone time.		
8 231 2	SADF	Selecto	able. Feeding pages one by one through the ADF.		
8 231 3	Mixed Size	Selectable. Select "Mixed Sizes" on the operation par			
8 231 4	Custom Size	Selecto	able. Originals of non-standard size.		
8 231 5	Platen	1	node. Raising the ADF and placing the original y on the platen.		
8 231 6	Mixed 1 side/2 side	Simple	Simplex and Duplex mode.		

- 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.
- The user cannot select mixed sizes or non-standard sizes with the fax application so if the original's page sizes are mixed or non-standard, these are not counted.
- 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.

	T:Scan PGS/Org		*CTL	[0 to 9999999/ 0 / 1]					
8 241	These SPs count the total number of scanned pages by original type for all jobs, regardless of which application was used.								
8 242	C:Scan PGS/Org	l	*CTL	[0 to 9999999/ 0 / 1]					
0 242	These SPs count th	These SPs count the number of pages scanned by original type for Copy jobs.							
8 243	F:Scan PGS/Org		*CTL	[0 to 999999	9/0/1]				
U 240	These SPs count th	ne number of po	ages scanned	d by original typ	e for Fax jobs				
8 245	S:Scan PGS/Org		*CTL	[0 to 999999	9/0/1]				
6 243	These SPs count th	ne number of po	ages scanned	d by original typ	e for Scan job	os.			
	L:Scan PGS/Org		*CTL	[0 to 999999	9/0/1]				
8 246	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								
		8 241	8 242	8 243	8 245	8 246			
8 24x 1: Text		Yes	Yes	Yes	Yes	Yes			
8 24x 2: Text/Photo		Yes	Yes	Yes	Yes	Yes			
8 24x 3: Phot	o	Yes	Yes	Yes	Yes	Yes			
8 24x 4: GenCopy, Pale		Yes	Yes	No	Yes	Yes			
8 24x 5: Map		Yes	Yes	No	-	Yes			
8 24x 6: Normal/Detail		Yes	No	Yes	No	No			
8 24x 7: Fine/Super Fine		Yes	No	Yes	No	No			
8 24x 8: Bino	ıry	Yes	No	No	Yes	No			

8 24x 9: Grayscale	Yes	No	No	Yes	No
8 24x 10: Color	Yes	No	No	Yes	No
8 24x 11: Other	Yes	Yes	Yes	Yes	Yes

• 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.

8 251	T:Scan PGS/ImgEdt	*CTL	These SPs show how many times Image Edit features
8 252	C:Scan PGS/ImgEdt	*CTL	have been selected at the operation panel for each application. Some examples of these editing features
8 255	S:Scan PGS/ImgEdt	*CTL	are:
8 256	L:Scan PGS/ImgEdt	*CTL	Erase> Border Erase> Center
8 257	O:Scan PGS/ImgEdt	*CTL	Image Repeat Centering Positive/Negative [0 to 9999999/0/1] Note: 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.

8 261	T:Scan PGS/ColCr	*CTL	-
8 262	C:Scan PGS/ ColCr	*CTL	-
8 266	L:Scn PGS/ColCr	*CTL	-
8 26x 1	Color Conversion		
8 26x 2	Color Erase	These SPs s	show how many times color creation features
8 26x 3	Background	have been	selected at the operation panel.
8 26x 4	Other		

8 281	T:Scn PGS/TWAIN	*CTL	These SPs count the number of pages scanned using
			a TWAIN driver. These counters reveal how the TWAIN driver is used for delivery functions.
8 285 S:Scn PGS/TWAIN	S:Scn PGS/TWAIN	*CTL	[0 to 9999999/ 0 / 1]
		Note : At the present time, these counters perform identical counts.	
8 291	T:Scan PGS/Stamp	*CTL	These SPs count the number of pages stamped w
8 293	F:Scan PGS/Stamp	*CTL	the stamp in the ADF unit. [0 to 9999999/ 0 / 1]
8 295	S:Scan PGS/Stamp	*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

		I				
	T:Scan PGS/Size	*CTL	[0 to 9999999/ 0 / 1]			
8 301	•		ges scanned by all applications. Use these and output (printing) page size [SP 8-441].			
	C:Scan PGS/Size	*CTL	[0 to 9999999/ 0 / 1]			
8 302	,		ges scanned by the Copy application. Use inning) and output (printing) page size [SP			
	F:Scan PGS/Size	*CTL	[0 to 9999999/ 0 / 1]			
8 303	These SPs count by size the total number of pages scanned by the Fax application. Use these totals to compare original page size (scanning) and output page size [SP 8-443].					
	S:Scan PGS/Size	*CTL	[0 to 9999999/ 0 / 1]			
8 305	•	-	ges scanned by the Scan application. Use inning) and output page size [SP 8-445].			
	L:Scan PGS/Size	*CTL	[0 to 9999999/ 0 / 1]			
8 306	document server mode screen at the	e operation	ges scanned and stored from within the panel, and with the Store File button from to compare original page size (scanning)			

8 30x 1	A3	
8 30x 2	A4	
8 30x 3	A5	
8 30x 4	B4	
8 30x 5	B5	
8 30x 6	DLT	
8 30x 7	LG	_
8 30x 8	LT	
8 30x 9	ніт	
8 30x 10	Full Bleed	
8 30x 254	Other (Standard)	
8 30x 255	Other (Custom)	

	T:Scan PGS/Rez	*CTL	[0 to 9999999/ 0 / 1]		
8 311	These SPs count by resolution setting the total number of pages scanned by applications that can specify resolution settings.				
	S: Scan PGS/Rez	*CTL	[0 to 9999999/ 0 / 1]		
8 315	These SPs count by resolution setting the total number of pages scanned by application that can specify resolution settings. Note: At the present time, SP8-311 and SP8-315 perform identical counts.				
8 31x 1	1200dpi <				
8 31x 2	600dpi to 1199dpi				
8 31x 3	400dpi to 599dpi				
8 31x 4	200dpi to 399dpi				
8 31x 5	< 199dpi				

• Copy resolution settings are fixed so they are not counted.

• The Fax application does not allow finely-adjusted resolution settings so no count is done for the Fax application.

8 381	T:Total PrtPGS	*CTL	TI CD I I I
8 382	C:Total PrtPGS	*CTL	These SPs count the number of pages printed by the customer. The counter for the application used for
8 383	F:Total PrtPGS	*CTL	storing the pages increments. [0 to 9999999/ 0 / 1]
8 384	P:Total PrtPGS	*CTL	The L: counter counts the number of pages stored from
8 385	S:Total PrtPGS	*CTL	within the document server mode screen at the operation panel. Pages stored with the Store File
8 386	L:Total PrtPGS	*CTL	button from within the Copy mode screen go to the C:
8 387	O:Total PrtPGS	*CTL	Cooner.

- When the A3/DLT double count function is switched on with SP5104, 1 A3/DLT page is counted as 2
- When several documents are merged for a print job, the number of pages stored 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 copier jam.

	LSize PrtPGS	*CTL	[0 to 9999999/ 0 / 1]		
8 391	These SPs count pages printed on paper sizes A3/DLT and larger.				
	Note : In addition to being displayed in the SMC Report, these counters are also displayed in the User Tools display on the copy machine.				

8 401	T:PrtPGS/LS	*CTL	
8 402	C:PrtPGS/LS	*CTL	These SPs count the number of pages printed from the document server. The counter for the application used
8 403	F:PrtPGS/LS	*CTL	to print the pages is incremented. The L: counter counts the number of jobs stored from
8 404	P:PrtPGS/LS	*CTL	within the document server mode screen at the
8 405	S:PrtPGS/LS	*CTL	operation panel. [0 to 9999999/ 0 / 1]
8 406	L:PrtPGS/LS	*CTL	[[

- Print jobs done with Web Image Monitor and Desk Top Binder are added to the L: count.
- Fax jobs done with Web Image Monitor and Desk Top Binder are added to the F: count.

8 411	Prints/Duplex	*CTL	This SP counts the amount of paper (front/back counts 1 page) used for duplex printing. Last pages pronly on one side are not counted. [0 to 9999999/0/1]		
	T:PrtPGS/Dup Comb		*CTL	[0 to 9999999/ 0 / 1]	
8 421	These SPs count by b	•		and n-Up settings the number of pages all applications.	
C:PrtPGS/Dup Comb		o	*CTL [0 to 9999999/ 0 / 1]		
8 422	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the copier application.				

*CTL

[0 to 9999999/ 0 / 1]

F:PrtPGS/Dup Comb

			I			
	L:PrtPGS/Dup Comb		*CTL	[0 to 9999999/ 0 / 1]		
8 426	These SPs 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.					
	O:PrtPGS/Dup Comb		*CTL	[0 to 9999999/ 0 / 1]		
8 427	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by Other applications					
8 42x 1	Simplex> Duplex					
8 42x 4	Simplex Combine					
8 42x 5	Duplex Combine					
8 42x 6	2>	2 pag	ges on 1 sid	de (2-Up)		
8 42x 7	4>	4 pages on 1 side (4-Up)				
8 42x 9	8>	8 pages on 1 side (8-Up)				
8 42x 12	Booklet					
8 42x 13	Magazine					

- These counts (SP8 421 to SP8 427) 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:

Book	klet	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	

7	4	7	4
8	4	8	4

	T:PrtPGS/ImgEdt		*CTL	[0 to 9999999/ 0 / 1]	
8 431	These SPs count the total number of pages output with the three features below, regardless of which application was used.				
	C:PrtPGS/ImgEdt		*CTL	[0 to 9999999/ 0 / 1]	
8 432	These SPs count the toto copy application.	al numk	per of pag	es output with the three features below with the	
	P:PrtPGS/ImgEdt		*CTL	[0 to 9999999/ 0 / 1]	
8 434	These SPs count the total number of pages output with the three features below with the print application.				
	L:PrtPGS/ImgEdt		*CTL	[0 to 9999999/ 0 / 1]	
8 436	These SPs count the total window at the operation			es output from within the document server mode three features below.	
	O:PrtPGS/ImgEdt		*CTL	[0 to 9999999/ 0 / 1]	
8 437	These SPs count the tot Other applications.	al num	ber of pag	ges output with the three features below with	
8 43x 1	Cover/Slip Sheet	Total number of covers or slip sheets inserted. The count for a cover printed on both sides counts 2.			
8 43x 2	Series/Book	The number of pages printed in series (one side) or printed as a book with booklet right/left pagination.			
8 43x 3	User Stamp	The number of pages printed where stamps were applied, including page numbering and date stamping.			

8 44 1	T:PrtPGS/Ppr Size	*CTL	[0 to 9999999/ 0 / 1]		
0 441	These SPs count by print paper size the number of pages printed by all applications.				
	C:PrtPGS/Ppr Size	*CTL	[0 to 9999999/ 0 / 1]		
8 442	These SPs count by print paper size the number of pages printed by the copy application.				

8 443	F:PrtPGS/Ppr Size	*CTL	[0 to 9999999/ 0 / 1]			
6 443	These SPs count by print paper size the number of pages printed by the fax application.					
	P:PrtPGS/Ppr Size	*CTL	[0 to 9999999/ 0 / 1]			
8 444	These SPs count by print pa application.	per size the	e number of pages printed by the printer			
	S:PrtPGS/Ppr Size	*CTL	[0 to 9999999/ 0 / 1]			
8 445	These SPs count by print pa application.	per size the	e number of pages printed by the scanner			
	L:PrtPGS/Ppr Size	*CTL	[0 to 9999999/ 0 / 1]			
8 446	These SPs count by print pa		e number of pages printed from within the operation panel.			
8 447	O:PrtPGS/Ppr Size	*CTL	[0 to 9999999/ 0 / 1]			
0 447	These SPs count by print pap	er size the	number of pages printed by Other applications.			
8 44x 1	A3					
8 44x 2	A4					
8 44x 3	A5					
8 44x 4	B4					
8 44x 5	B5					
8 44x 6	DLT					
8 44x 7	LG					
8 44x 8	LT					
8 44x 9	HLT					
8 44x 10	Full Bleed					
8 44x 254	Other (Standard)					
8 44x 255	Other (Custom)					

• These counters do not distinguish between LEF and SEF.

0.451	PrtPGS/Ppr Tray		*CTL	[0 to 9999999/ 0 / 1]		
8 451	These SPs count th	nt the number of sheets fed from each paper feed station.				
8 451 1	Bypass	Bypass 1	Ггау			
8 451 2	Tray 1	Copier				
8 451 3	Tray 2	Copier				
8 451 4	Tray 3	Paper Tr	ay Unit (O	otion)		
8 451 5	Tray 4	Paper Tr	ay Unit (O	otion)		
8 451 6	Tray 5	LCT (Option)				
8 451 7	Tray 6	Currently not used.				
8 451 8	Tray 7	Currently	y not used.			
8 451 9	Tray 8	Currently	y not used.			
8 451 10	Tray 9	Currently	y not used.			
8 451 11	Tray 10	Currently	y not used.			
8 451 12	Tray 11	Currently	y not used.			
8 451 13	Tray 12	Currently not used.				
8 451 14	Tray 13	Currently not used.				
8 451 15	Tray 14	Currently not used.				
8 451 16	Tray 15	Currently not used.				

	T:PrtPGS/Ppr Type	*CTL	[0 to 9999999/ 0 / 1]				
8 461	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.						
			, slip sheets) are also counted. on both sides count as 1, and a page printed				

8 462	C:PrtPGS/Ppr Type	*CTL	[0 to 9999999/ 0 / 1]			
0 402	These SPs count by paper type the number pages printed by the copy application.					
8 463	F:PrtPGS/Ppr Type	*CTL	[0 to 9999999/ 0 / 1]			
6 403	These SPs count by paper type	the numbe	er pages printed by the fax application.			
0.444	P:PrtPGS/Ppr Type	*CTL	[0 to 9999999/ 0 / 1]			
8 464	These SPs count by paper type	the numbe	er pages printed by the printer application.			
	L:PrtPGS/Ppr Type	*CTL	[0 to 9999999/ 0 / 1]			
8 466	These SPs count by paper type the number pages printed from within the doc server mode window at the operation panel.					
8 46x 1	Normal					
8 46x 2	Recycled	Recycled				
8 46x 3	Special					
8 46x 4	Thick					
8 46x 5	Normal (Back)					
8 46x 6	Thick (Back)					
8 46x 7	OHP					
8 46x 8	Other					

8 471	PrtPGS/Mag	*CTL	[0 to 9999999/ 0 / 1]
0 4/ 1	umber of pages printed.		
8 471 1	< 49%		
8 471 2	50% to 99%		
8 471 3	100%		
8 471 4	101% to 200%		
8 471 5	201% <		

- 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%.

8 481	T:PrtPGS/TonSave	*CTL	
8 484	P:PrtPGS/TonSave	*CTL	
	These SPs count the number of pages printed with the Toner Save feature switched on.		
	Note: These SPs return the same results as this SP is limited to the Print application.		
	[0 to 9999999/ 0 / 1]		

8 491	T:PrtPGS/Col Mode	*CTL	
8 492	C:PrtPGS/Col Mode	*CTL	
8 493	F:PrtPGS/Col Mode	*CTL	These SPs count the number of pages printed in the Color Mode by each application.
8 496	L:PrtPGS/Col Mode	*CTL	, , , , ,
8 497	O:PrtPGS/Col Mode	*CTL	
8 49x 1	B/W		
8 49x 2	Single Color		
8 49x 3	Two Color		
8 49x 4	Full Color		

8 501	T:PrtPGS/Col Mode	*CTL	These SPs count the number of pages
8 504	P:PrtPGS/Col Mode	*CTL	printed in the Color Mode by the print
8 057	O:PrtPGS/Col Mode	*CTL	application.

8 50x 1	B/W
8 50x 2	Mono Color
8 50x 3	Full Color
8 50x 4	Single Color
8 50x 5	Two Color

0.511	T:PrtPGS/Emul		*CTL	[0 to 9999999/ 0 / 1]
8 511	These SPs count by printer emulation mode the total number of pages printed.			
0.51.4	P:PrtPGS/Emul		*CTL	[0 to 9999999/ 0 / 1]
8 5 1 4	These SPs count by printer emulation mode the total number of pages printed.			de the total number of pages printed.
8 514 1	RPCS			
8 514 2	RPDL			
8 514 3	PS3			
8 514 4	R98			
8 514 5	R16			
8 514 6	GL/GL2			
8 514 7	R55			
8 514 8	RTIFF			
8 514 9	PDF			
8 514 10	PCL5e/5c			
8 514 11	PCL XL			
8 514 12	IPDL-C			
8 514 13	BM-Links	Japan O	nly	
8 514 14	Other			
8 514 15	IPDS			

• SP8 511 and SP8 514 return the same results as they are both limited to the Print application.

• Print jobs output to the document server are not counted.

8 521	T:PrtPGS/FIN	*CTL	[0 to 9999999 / 0 / 1]		
0 321	These SPs count by finishing mode the total number of pages printed by all applications.				
	C:PrtPGS/FIN	*CTL	[0 to 9999999 / 0 / 1]		
8 522	These SPs count by finishing mode the total number of pages printed by the Copy application.				
	F:PrtPGS/FIN	*CTL	[0 to 9999999 / 0 / 1]		
8 523	These SPs count by finishing mode the total number of pages printed by the Fax application.				
	NOTE: Print finishing options for	received	faxes are currently not available.		
	P:PrtPGS/FIN	*CTL	[0 to 9999999 / 0 / 1]		
8 524	These SPs count by finishing mode the total number of pages printed by the Print application.				
	S:PrtPGS/FIN	*CTL	[0 to 9999999 / 0 / 1]		
8 525	These SPs count by finishing mode the total number of pages printed by the Scanner application.				
	L:PrtPGS/FIN	*CTL	[0 to 9999999 / 0 / 1]		
8 526	These SPs count by finishing mode the total number of pages printed from within the document server mode window at the operation panel.				
8 52x 1	Sort				
8 52x 2	Stack				
8 52x 3	Staple				
8 52x 4	Booklet				
8 52x 5	Z-Fold				
8 52x 6	Punch				
8 52x 7	Other				
8 52x 8	Inside-Fold				
8 52x 9					

8 52x 10	
8 52x 11	
8 52x 12	
8 52x 13	
8 52x 14	

U Note

- 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.

8 531 Staples *	CTL	This SP counts the amount of staples used by the machine. [0 to 9999999 / 0 / 1]
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	T:Counter	*CTL	[0 to 9999999 / 0 / 1]	
8 581	These SPs count the total output broken down by color output, regardless of the application used. In addition to being displayed in the SMC Report, these counters are also displayed in the User Tools display on the copy machine.			
8 581 1	Total			
8 581 2	Total: Full Color			
8 581 3	B&W/Single Color	B&W/Single Color		
8 581 4	Development: CMY			
8 581 5	Development: K			
8 581 6	Copy: Color			
8 581 7	Copy: B/W			
8 581 8	Print: Color			
8 581 9	Print: B/W			
8 581 10	Total: Color			
8 581 11	Total: B/W			

8 581 12	Full Color: A3				
8 581 13	Full Color: B4 JIS or Smaller				
8 581 14	Full Color Print				
8 581 15	Mono Color Print				
8 581 16	Full Color GPC				
8 581 17	Twin Color Mode Print				
8 581 18	Full Color Print (Twin)				
8 581 19	Mono Color Print (Twin)				
8 581 20	Full Color Total (CV)				
8 581 21	Mono Color Total (CV)				
8 581 22	Full Color Print (CV)				
8 582	C:Counter *CTL [0 to 9999999/ 0 / 1]				
	These SPs count the total output of the copy application broken down by color output.				
8 582 1	B/W				
8 582 2	Single Color				
8 582 3	Two Color				
8 582 4	Full Color				
8 583	F:Counter	*CTL	[0 to 9999999/ 0 / 1]		
0 303					
0.500.1	These SPs count the total output of the fax application broken down by color output.				
8 583 1	B/W				
8 583 2	Single Color				
8 584	P:Counter	*CTL	[0 to 9999999/ 0 / 1]		
	These SPs count the total output of the print application broken down by color output.				
8 584 1	B/W				
	1				

8 584 2	Mono Color
8 584 3	Full Color
8 584 4	Single Color
8 584 5	Two Color

8 586	L:Counter	*CTL	[0 to 9999999/ 0 / 1]		
	These SPs count the total out	ese SPs count the total output of the local storage broken down by color output.			
8 582 1	B/W	B/W			
8 582 2	Single Color				
8 582 3	Two Color				
8 582 4	Full Color				

	O:Counter		*CTL	[0 to 9999999/ 0 / 1]
8 591	These SPs count the totals for A3/DLT paper use, number of duplex pages printed, the number of staples used. These totals are for Other (O:) applications only.			
8 591 1	A3/DLT			
8 591 2	Duplex	-		

	Coverage Counter		*CTL	[0 to 9999999/ 0 / 1]
8 601	These SPs count the total cov printing mode.	⁄era	ge for e	ach color and the total printout pages for each
8 601 1	B/W			
8 601 2	Color			
8 601 11	B/W Printing Pages			
8 601 12	Color Printing Pages		-	
8 601 21	Coverage Counter 1			
8 601 22	Coverage Counter 2			
8 601 23	Coverage Counter 3			

8 617	SDK Apli Counter	*CTL	[0 to 9999999/ 0 / 1]	
8 617 1	SDK1			
8 617 2	SDK2	These SPs count the total printout pages for each		
8 617 3	SDK3			
8 617 4	SDK4	applicaion.		
8 617 5	SDK5			
8 617 6	SDK6			

8 631	T:FAX TX PGS	*CTL	[0 to 9999999/ 0 / 1]		
0 03 1	These SPs count by color mode the number of pages sent by fax to a telephone number.				
0.422	F:FAX TX PGS	*CTL	[0 to 9999999/ 0 / 1]		
8 633	These SPs count by color mode the number of pages sent by fax to a telephone number.				
8 63x 1	B/W				
8 63x 2	Color				

- If a document has color and black-and-white pages mixed, the pages are counted separately as B/W or Color.
- At the present time, this feature is provided for the Fax application only so SP8631 and SP8633 are the same.
- The counts include error pages.
- If a document is sent to more than one destination with a Group transmission, the count is done for each destination.
- Polling transmissions are counted but polling RX are not.
- Relay, memory, and confidential mailbox transmissions and are counted for each destination.

	T:IFAX TX PGS	*CTL	[0 to 9999999/ 0 / 1]		
8 641	These SPs count by color mode the number of pages sent by fax to as fax implified.				
	F:IFAX TX PGS	*CTL	[0 to 9999999/ 0 / 1]		
8 643	These SPs count by color mode the number of pages sent by Fax as fax images using I-Fax.				

8 64x 1	B/W
8 64x 2	Color

- If a document has color and black-and-white pages mixed, the pages are counted separately as B/W or Color.
- At the present time, this feature is provided for the Fax application only so SP8641 and SP8643 are
 the same.
- The counts include error pages.
- If a document is sent to more than one destination with a Group transmission, the count is done for each destination.
- Polling transmissions are counted but polling RX are not.
- Relay, memory, and confidential mailbox transmissions and are counted for each destination.

	T:S-to-Email PGS	*CTL	[0 to 9999999/ 0 / 1]	
These SPs count by color mode the total number of pages attached to an e-mother the Scan and document server applications.				
S-to-Email PGS *CTL [0 to 9999999/ 0 / 1]		[0 to 9999999/ 0 / 1]		
8 655	These SPs count by color mode the total number of pages attached to an e-mail for Scan application only.			
8 65x 1	B/W			
8 65x 2	Color			



- 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.).

	T:Deliv PGS/Svr	*CTL	[0 to 9999999/ 0 / 1]		
These SPs count by color mode the total number of pages sent to a Scan Ro by both Scan and LS applications.					
	S:Deliv PGS/Svr	[0 to 9999999/ 0 / 1]			
8 665	number of pages sent to a Scan Router server				
8 66x 1	B/W				
8 66x 2	Color				

U 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.

	T:Deliv PGS/PC	*CTL	[0 to 9999999/ 0 / 1]			
8 671	,	ese SPs count by color mode the total number of pages sent to a folder on a PC (Scan PC) with the Scan and LS applications.				
S:Deliv PGS/PC *CTL			[0 to 9999999/ 0 / 1]			
8 675	These SPs count by color mode the total number of pages sent with Scan-to-PC w Scan application.					
8 67x 1	B/W					
8 67x 2	Color					

8 681	T:PCFAX TXPGS	*CTL	These SPs count the number of pages sent by PC Fax.
8 683	F:PCFAX TXPGS	*CTL	These SPs are provided for the Fax application only, so the counts for SP8 681 and SP8 683 are the same. [O to 9999999/ 0 / 1]

• This counts pages sent from a PC using a PC fax application, from the PC through the copier to the destination.

• When sending the same message to more than one place using broadcasting, the pages are only counted once. (For example, a 10-page fax is sent to location A and location B. The counter goes up by 10, not 20.)

8 691	T:TX PGS/LS	*CTL	These SPs count the number of pages sent from the
8 692	C:TX PGS/LS	*CTL	document server. The counter for the application that was used to store the pages is incremented.
8 693	F:TX PGS/LS	*CTL	[0 to 9999999/ 0 / 1]
8 694	P:TX PGS/LS	*CTL	The L: counter counts the number of pages stored from within the document server mode screen at the
8 695	S:TX PGS/LS	*CTL	operation panel. Pages stored with the Store File button from within the Copy mode screen go to the C:
8 696	L:TX PGS/LS	*CTL	counter.



- 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.
- When several documents are sent by a Fax broadcast, the F: count is done for the number of pages sent to each destination.

	TX PGS/Port	*CTL	[0 to 9999999/ 0 / 1]	
8 701	These SPs count the number of pages sent by the physical port used to send them. For example, if a 3-page original is sent to 4 destinations via ISDN G4, the count for ISD (G3, G4) is 12.			
8 701 1	PSTN-1			
8 701 2	PSTN-2			
8 701 3	PSTN-3			
8 701 4	ISDN (G3,G4)			
8 701 5	Network			

8 711	T:Scan PGS/Comp	*CTL	[0 to 9999999/ 0 / 1]
0.715	S:Scan PGS/Comp	*CTL	[0 to 9999999/ 0 / 1]
These SPs count the number of pa		ges sent by	y each compression mode.
8 7 1 5 1	JPEG/JPEG2000		

8 715 2	TIFF(Multi/Single)	
8 7 1 5 3	PDF	
8 715 4	Other	
8 715 5	PDF/Comp	

8 721	T: Deliv PGS/WSD	*CTL	[0 to 9999999/ 0 / 1]
8 725	S: Deliv PGS/WSD	*CTL	[0 10 4444444 0 / 1]
8 / 25	These SPs count the number of pages scanned by each scanner mode.		
x 1	B/W		
x 2	Color		

8 731	T: Scan PGS/Media	*CTL	[0 to 9999999/ 0 / 1]	
	S: Scan PGS/Media	*CTL	[0 10 9999999/ 0/ 1]	
8 735	These SPs count the number of pages scanned and saved in a meia by each scanner mode.			
x 1	B/W			
x 2	Color			

RX PGS/Port		*CTL	[0 to 9999999/ 0 / 1]
8 741 These SPs count the number of pages received by the ph			es received by the physical port used to receive them.
8 741 1	PSTN-1		
8 741 2	PSTN-2		
8 741 3	PSTN-3		
8 741 4	ISDN (G3,G4)		
8 741 5	Network		

	Dev Counter	*CTL	[0 to 9999999/ 0 / 1]	
8 77 1	These SPs count the frequency of use (number of rotations of the development rolle for black and other color toners.			
8 771 1	Total			
8 771 2	K			
8 771 3	Υ			
8 771 4	М			
8 771 5	С			

	Toner Bottle Info.	*CTL	[0 to 9999999/ 0 / 1]		
8 781	. ,	s display the number of already replaced toner bottles. ourrently, the data in SP7-833-011 through 014 and the data in SP8-781-001 output o			
8 781 1	Toner: BK	The number of black-toner bottles			
8 781 2	Toner: Y	The number of yellow-toner bottles			
8 781 3	Toner: M	The number of magenta-toner bottles			
8 781 4	Toner: C	The number of cyan-toner bottles			

8 791	LS Memory Remain	*CTL This SP displays the percent of space ava on the document server for storing document to the server for storing docu	
Toner Remain *CTL [0 to 100/0/1]			
8 801	These SPs display 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% steps) is better than other machines in the market that can only measure in increments of 10 (10 steps).			
8 801 1	K		
8 801 2	Υ		

8 801 3	М
8 801 4	С

	Cov Cnt: 0-10%	*CTL	[0 to 9999999/ 0 / 1]	
8 851	These SPs display the number of scanned sheets on which the coverage of each color is from 0% to 10%.			
8 851 11	O to 2%: BK	8 851 31	5 to 7%: BK	
8 851 12	0 to 2%: Y	8 851 32	2 5 to 7%: Y	
8 851 13	0 to 2%: M	8 851 33	5 to 7%: M	
8 851 14	0 to 2%: C	8 851 34	5 to 7%: C	
8 851 21	3 to 4%: BK	8 851 41	8 to 10%: BK	
8 851 22	3 to 4%: Y	8 851 42	8 to 10%: Y	
8 851 23	3 to 4%: M	8 851 43	8 to 10%: M	
8 851 24	3 to 4%: C	8 851 44	8 to 10%: C	

	Cov Cnt: 11-20%	*CTL	[0 to 9999999/ 0 / 1]
These SPs display the number of scanned sheets on which the coverage of each is from 11% to 20%.		s on which the coverage of each color	
8 861 1	ВК		
8 861 2	Υ		
8 861 3	М		
8 861 4	С		

	Cov Cnt: 21-30% *CTL [0 to 9999999/ 0 / 1]			
These SPs display the number of scanned sheets on which the coverage of edis from 21% to 30%.		s on which the coverage of each color		
8 871 1	ВК			
8 871 2	Υ			

8 871 3	M
8 871 4	. C

	Cov Cnt: 31%-	*CTL	[0 to 9999999/ 0 / 1]
These SPs display the number of scanned sheets on which the coverage of ed is 31% or higher.		s on which the coverage of each color	
8 881 1	BK		
8 881 2	Υ		
8 881 3	М		
8 881 4	С		

8 891	Page/Toner Bottle	*CTL	[0 to 9999999/ 0 / 1]
0 091	These SPs display the amount of the remaining current toner for each color.		
8 891 1	BK		
8 891 2	Υ		
8 891 3	М		
8 891 4	С		

8 901	Page/Toner – Prev1	*CTL	[0 to 9999999/ 0 / 1]
8 901	These SPs display the amount of the remaining previous toner for each color.		
8 901 1	ВК		
8 901 2	Υ		
8 901 3	М		
8 901 4	С		

8 91 1	Page/Toner – Prev2	*CTL	[0 to 9999999/ 0 / 1]
0 911	These SPs display the amount of the remaining 2nd previous toner for each c		nd previous toner for each color.
8 9 1 1 1	ВК		

8 911 2	Υ
8 911 3	М
8 911 4	С

8 92 1	Cov Cnt: Total	*CTL	[0 to 9999999/ 0 / 1]	
0 921	Displays the total coverage and t	nd total printout number for each color.		
8 921 1	Coverage (%): BK			
8 921 2	Coverage (%): Y			
8 921 3	Coverage (%): M			
8 921 4	Coverage (%): C			
8 921 14	Coverage/P: BK			
8 921 15	Coverage/P: Y			
8 921 16	Coverage/P: M			
8 921 17	Coverage/P: C			

	Machine Status	*CTL [0 to 9999999/ 0 / 1]				
8 941	SPs are useful for custom	ount of time the machine spends in each operation mode. These mers who need to investigate machine operation for ompliance with ISO Standards.				
8 941 1	Operation Time	Engine operation time. Does not include time while controller is saving data to HDD (while engine is not operating).				
8 941 2	Standby Time	Engine not operating. Includes time while controller saves data to HDD. Does not include time spent in Energy Save, Low Power, or Off modes.				
8 941 3	Energy Save Time	Includes time while the machine is performing background printing.				
8 941 4	Low Power Time	Includes time in Energy Save mode with Engine on. Include time while machine is performing background printing.				

8 941 5	Off Mode Time	Includes time while machine is performing background printing. Does not include time machine remains powered off with the power switches.
8 941 6	SC	Total time when SC errors have been staying.
8 941 7	PrtJam	Total time when paper jams have been staying during printing.
8 941 8	OrgJam	Total time when original jams have been staying during scanning.
8 941 9	Supply PM Unit End	Total time when toner end has been staying

8 951	AddBook Register	*CTL		
0 931	These SPs count the num	hen the machine	manages data registration.	
8 951 1	User Code/User ID	User code reç	gistrations.	
8 951 2	Mail Address	Mail address	registrations.	
8 951 3	Fax Destination	Fax destination	n registrations.	
8 951 4	Group	Group destinations.	ation	[0 to 9999999/ 0 / 1]
8 951 5	Transfer Request	Fax relay destination registrations for relay TX.		
8 951 6	F-Code	F-Code box registrations.		
8 951 7	Copy Program	.,	tion registrations am (job settings)	
8 951 8	Fax Program		on registrations am (job settings)	[0 255 / 0 / 255]
8 951 9	Printer Program	Printer application registrations with the Program (job settings) feature. Scanner application registrations with the Program (job settings) feature.		[0 to 255 / 0 / 255]
8 951 10	Scanner Program			

8 999	Adomin. Counter List	*CTL	[0 to 9	999999/ 0 /1]
8 999	Displays the total coverage and	d total print	tout numl	ber for each color.
8 999 1	Total			
8 999 2	Copy: Full Color			
8 999 3	Copy: BW			
8 999 4	Copy: Single Color			
8 999 5	Copy: Two Color			
8 999 6	Printer Full Color			
8 999 7	Printer BW			
8 999 8	Printer Single Color			
8 999 9	Printer Two Color			
8 999 10	Fax Print: BW			
8 999 11	Fax Print: Single Color			
8 999 12	A3/DLT			
8 999 13	Duplex			
8 999 14	Coverage: Color (%)			
8 999 15	Coverage: BW (%)			
8 999 16	Coverage: Color Print Page (%)		
8 999 17	Coverage: BW Print Page (%)			
8 999 101	Transmission Total: Color			
8 999 102	Transmission Total: BW			
8 999 103	FAX Transmission			
8 999 104	Scanner Transmission: Color			
8 999 105	Scanner Transmission: BW			

3

Input and Output Check Tables

Input Check Table

When entering the Input Check mode, 8 digits display the result for a section. Each digit corresponds to a different device as shown in the table.

Bit No.	7	6	5	4	3	2	1	0
Result	0 or 1	0 or 1	0 or 1	0 or 1	0 or 1	0 or 1	0 or 1	0 or 1

Copier

5000	D	Re	ading	
5803	Description	0	1	
5803 1	C-Dev. Mtr:LOCK	Normal	Lock	
5803 2	C-Drum Mtr:LOCK	Normal	Lock	
5803 3	Bk-Drum/Dev. Mtr:LOCK	Normal	Lock	
5803 4	ITB Mtr:LOCK	Normal	Lock	
5803 5	Fusing/P-Exit Mtr:LOCK	Normal	Lock	
5803 6	Electrical FAN:LOCK	Normal	Lock	
5803 7	Fusing Fan:LOCK	Normal	Lock	
5803 8	Dev. Front Fan:LOCK	Normal	Lock	
5803 9	Dev. Rear Fan:LOCK	Normal	Lock	
5803 10	Fusing Exit Fan:LOCK	Normal	Lock	
5803 11	LD Unit FAN:LOCK	Normal	Lock	
5803 12	Jun. Gate SOL Fan:LOCK	Normal	Lock	
5803 13	Fusing:New Detection	New	Not new	
5803 14	Fusing:Area Detection	-	-	
5803 15	Zero Cross	Not detected	Detected	

5803 16	Regist Sensor	Paper detected	No paper detected
5803 17	Drum Phase Sn:Bk	Actuator not detected	Actuator detected
5803 18	Drum Phase Sn:Color	Actuator not detected	Actuator detected
5803 19	Inverter Sensor	Inverter gate open	Inverter gate close
5803 20	Duplex Exit Sensor	Paper detected	No paper detected
5803 21	Duplex Entrance Sensor	Paper detected	No paper detected
5803 22	ID/MUSIC Sn Shutter HP Sn (PTR Contact Sensor)	НР	Not HP
5803 23	HVPS:CB	-	-
5803 24	HVPS:T	-	-
5803 25	Right Door Open SW	Door close	Door open
5803 26	Right Lower Cover OP SW	Cover close	Cover open
5803 27	Mechanical Counter:Bk	Not set	Set
5803 28	Mechanical Counter:FC	Not set	Set
5803 29	Key Counter Set Sensor	Set	Not set
5803 30	Key Card Set Sensor	Set	Not set
5803 31	Toner End Sensor: K	End	Not end
5803 32	Toner End Sensor: C	End	Not end
5803 33	Toner End Sensor: M	End	Not end
5803 34	Toner End Sensor: Y	End	Not end
5803 35	Fusing Entrance Sensor	Paper detected	No paper detected
5803 36	Fusing Exit Sensor	Paper detected	No paper detected
5803 37	Paper Exit Sensor	Paper detected	No paper detected
5803 38	ITB Contact HP Sensor	HP (Contact)	Not HP (not contact)
5803 39	ITB T-Collect Bttl:Set SW	Set	Not set

5002.40	DOLLT C. H Dul C . CVA/	C .	NI .
5803 40	PCU T-Collect Bttl:Set SW	Set	Not set
5803 41	PCU T-Collect Bttl Full Sn	Full	Not full
5803 42	Vertical Transport 1 Sn	Paper detected	No paper detected
5803 43	Vertical Transport 2 Sn	Paper detected	No paper detected
5803 44	Tray 1 Size Detection SW	See "Tabl	le 1" below.
5803 45	Tray2 Size Detection SW	See "Tab	le 1" below.
5803 46	Bypass Size Detection SW	See "Tab	le 2" below.
5803 47	Bypass Length Detection Sn	Detected	Not detect
5803 48	Bypass HP Sensor	HP	Not HP
5803 49	Tray1 Paper End Sensor	Not end	End
5803 50	Tray2 Paper End Sensor	Not end	End
5803 51	Bypass Paper End Sensor	Not end	End
5803 52	Tray1 Set SW	Set	Not set
5803 53	Tray2 Set SW	Set	Not set
5803 54	Interlock SW 1	Door close	Door open
5803 55	Interlock SW 2	Door close	Door open
5803 56	DIP SW	-	-
5803 57	BCU Version	-	-
5803 58	PCU T-Collect Motor Set	Not set	Set
5803 59	Reserve Fan:LOCK	Lock	Normal
5803 70	R-Tray Paper Exit Sensor	Paper detected	No paper detected
5803 71	R-Tray Set Sensor	Set	Not set
5803 72	1-Bin:Transport Sensor	Paper detected	No paper detected
5803 73	1-Bin:Paper Sensor	Paper detected	No paper detected
5803 74	1-Bin Set Detection	Set	Not set
5803 75	Shift Tray:Half Turn Sn	Not HP	HP

5803 76	Shift Tray Set Detection	Not set	Set	
5803 77	1T PFU:Size Sensors	See "Tabl	e 4".	
5803 78	1T PFU:Paper Lift Sn	Not upper limit	Upper limit	
5803 79	1T PFU:Paper Height Sn	-	-	
5803 80	1T PFU:Right Cover SW	Open	Close	
5803 81	1T PFU:Set Detection	Not set	Set	
5803 82	1T PFU:Paper End Sn	Not end	End	
5803 83	2T PFU:Upper Size Sns			
5803 84	2T PFU:Lower Size Sns	See "Table 4" below.		
5803 85	2T PFU:Upper Paper Lift Sn	Not upper limit	Upper limit	
5803 86	2T PFU:Lower Paper Lift Sn	Not upper limit	Upper limit	
5803 87	2T PFU:Upper Paper Height Sn	-	-	
5803 88	2T PFU:Lower Paper Height Sn	-	-	
5803 89	2T PFU:Right Cover SW	Open	Close	
5803 90	2T PFU:Upper PE Sn	Not end	End	
5803 91	2T PFU:Lower PE Sn	Not end	End	
5803 92	2T PFU:V-Transport Sn	Paper detected	No paper detected	
5803 94	LD OFF Check:Factory	-	-	
5803 200	Scanner HP Sensor	Not HP	HP	
5803 201	Platen Cover Sensor	Open	Close	

Table 1: Paper Size Switch (Tray 1/2)

Switch 1 is used for tray set detection.

0: Pushed, 1: Not pushed

	Models			Bit		
North America	Europe/Asia	2	1	0		

11" x 17" SEF* ¹ (A3 SEF)	A3 SEF* ¹ (11" x 17" SEF)	1	0	0
8.5" x 14" SEF *2 (B4 SEF)	B4 SEF *2 (8.5" x 14" SEF)	0	0	0
A4 SEF	A4 SEF	0	1	1
8.5" x 11" SEF	8.5" x 11" SEF	1	1	1
B5 SEF	B5 SEF	1	1	0
11" x 81/2" LEF* ³ (A4 LEF)	A4 LEF* ³ (11" x 81/2" LEF)	0	0	1
10.5" x 7.25" LEF* ⁴ (B5 LEF)	B5 LEF* ⁴ (10.5" x 7.25" LEF)	0	1	0
A5 LEF	A5 LEF	1	0	1

 $^{^*}$ 1: The machine detects either 11" x 17" SEF or A3 SEF, depending on the setting of SP 5-181-002 (Tray 1) or SP 5-181-006 (Tray 2).

Table 2: Paper Size (By-pass Table)

0: ON, 1: OFF

Ву	-pass Pape	r Size Sens	sor	Inneth Consor	NA	ELL/ACIA
bit3	Bit2	Bit1	BitO	Length Sensor	INA.	EU/ASIA
1	1	0	0	1	HLT SEF	B6 SEF
1	1	1	1	1	HLT SEF	A5 SEF
1	1	1	0	1	HLT SEF	A5 SEF
0	0	1	1	0	LT/LG SEF*1	A4 SEF

 $^{^*}$ 2: The machine detects either 8.5" x 14" SEF or B4 SEF, depending on the setting of SP 5-181-003 (Tray 1) or SP 5-181-007 (Tray 2).

^{*3}: The machine detects either 11" x 81/2" LEF or A4 LEF, depending on the setting of SP 5-181-001 (Tray 1) or SP 5-181-005 (Tray 2).

 $^{^*4}$: The machine detects either B5 LEF or 10.5" x 7.25" LEF, depending on the setting of SP 5-181-004 (Tray 1) or SP 5-181-008 (Tray 2).

Ву	-pass Pape	r Size Sens	sor	Lameth Caman	NIA	ELL/ACIA
bit3	Bit2	Bit1	BitO	Length Sensor	NA	EU/ASIA
0	0	1	1	1	LT/LG SEF*1	A5 LEF
1	0	0	1	0	DLT SEF	A3 SEF
1	0	0	1	1	LT LEF	A4 LEF

^{* 1:} The paper size (LT or LG) can be selected with SP1-007-001.

Table 3: APS Original Size Detection

Original Siz	Width Sensor			Length Sensor		SP4-301		
Metric version	Inch version	W1	W2	W3	L1	L2	display	
А3	11" x 17"	0	0	0	0	0	00000011	
B4	10" x 14"	0	0	Х	0	0	00000011	
F4 8.5" x 13", 8.25" x 13", or 8" x 13" SP 5126 controls the size that is detected	8.5" x 14"	0	X	Х	0	0	00000011	
A4 LEF	8.5" x 11"	0	0	0	Х	Х	00000000	
B5 LEF	-	0	0	Х	Х	Х	00000000	
A4 SEF	11" x 8.5"	0	Х	Х	0	Х	00000010	
B5 SEF	-	Х	Х	Х	0	Х	00000010	
A5 LEF/ SEF	5.5" x 8.5", 8.5" x 5.5"	Х	Х	Х	Х	Х	00000000	

Table 4: Paper Size Switch (Tray 3/4)

[&]quot;Bit 0" is used for tray set detection. 0: Set, 1: Not set

^{0:} Not Interrupted, 1: Interrupted

M	Models			Bit	
North America	Europe/Asia	3	2	1	0
11" x 17" SEF* ¹ (A3 SEF)	A3 SEF* ¹ (11" x 17" SEF)	0	1	1	0
8.5" x 14" SEF *2 (B4 SEF)	B4 SEF *2 (8.5" x 14" SEF)	1	1	1	0
A4 SEF	A4 SEF	1	0	0	0
B5 SEF	B5 SEF	0	0	1	1
8.5" x 11" SEF	8.5" x 11" SEF	0	0	0	0
11" x 81/2" LEF* ³ (A4 LEF)	A4 LEF* ³ (11" x 81/2" LEF)	1	1	0	1
10.5" x 7.25" LEF* ⁴ (B5 LEF)	B5 LEF*4 (10.5" x 7.25" LEF)	1	0	1	0
A5 LEF	A5 LEF	0	1	0	0
A5 SEF	A5 SEF	1	1	0	1

^{*1:} The machine detects either 11" \times 17" SEF or A3 SEF, depending on the setting of SP 5-181-010 (Tray 3) or SP 5-181-014 (Tray 4).

ARDF (D366)

6007 Description		Reading		
8007	Description	0	1	
6007 1	Original Length Sn1 (B5 Sn)	Paper not detected	Paper detected	

^{*2:} The machine detects either 8.5" x 14" SEF or B4 SEF, depending on the setting of SP 5-181-011 (Tray 3) or SP 5-181-015 (Tray 4).

 $^{^*}$ 3: The machine detects either 11" x 81/2" LEF or A4 LEF, depending on the setting of SP 5-181-009 (Tray 3) or SP 5-181-013 (Tray 4).

^{*4:} The machine detects either B5 LEF or 10.5" x 7.25" LEF, depending on the setting of SP 5-181-012 (Tray 3) or SP 5-181-016 (Tray 4).

6007 2	Original Length Sn2 (A4 Sn)	Paper not detected	Paper detected
6007 3	Original Length Sn3 (LG Sn)	Paper not detected	Paper detected
6007 4	Original Width Sn:S	Paper not detected	Paper detected
6007 5	Original Width Sn:M	Paper not detected	Paper detected
6007 6	Original Width Sn:L	Paper not detected	Paper detected
60077	Original Width Sn:LL	Paper not detected	Paper detected
6007 9	Original Set Sn	Paper not detected	Paper detected
6007 10	Trailing Edge Sn	Paper not detected	Paper detected
6007 11	Skew Correction Sn	Paper not detected	Paper detected
6007 13	Registration Sn	Paper not detected	Paper detected
6007 14	Exit Sn	Paper not detected	Paper detected
6007 15	Feed Cover SW	ADF cover close	ADF cover open
6007 16	Lift Up Sn	HP	Not HP

Internal Finisher (D429)

6120	Description	Rea	ading	
0120	Description	0	1	
61201	Staple Slide HP Sensor	Not HP	HP	
61202	Punch Slide HP Sensor	Not HP	HP	
61203	Staple HP Sensor	Not HP	HP	
61204	Paper T-Edge Sensor	Paper not detected	Paper detected	
61205	Pick Roller Lift Sensor	Up	Down	
61206	Paper Detection Sensor	Paper not detected	Paper detected	
61207	Belt Roller Lift Sensor	Down	Up	
61208	Entrance Sensor	Paper not detected	Paper detected	

6120 9	Rear Jogger HP Sensor	HP	Not HP
6120 10	Front Jogger HP Sensor	HP	Not HP
6120 11	Fan Lock Signal	Normal	Lock
6120 12	Finisher Open Switch	Close	Open
6120 13	Punch Unit:Area Detect2	C III I I	- C.I. I
6120 14	Punch Unit:Area Detect 1	See "lable	e 5" below.
6120 15	Paper Stack Sensor 2	НР	Not HP
6120 16	Paper Stack Sensor 1	HP	Not HP
6120 17	Punch Position Sensor	Not HP	HP
6120 18	Paper Width Sensor:A3	Paper not detected	Paper detected
6120 19	Paper Width Sensor:LD	Paper not detected	Paper detected
6120 20	Paper Width Sensor:B4	Paper not detected	Paper detected
612021	Paper Width Sensor:A4	Paper not detected	Paper detected
6120 22	Paper Width Sensor: 1 6K	Paper not detected	Paper detected
6120 23	Paper Width Sensor:B5	Paper not detected	Paper detected
6120 24	Punch Hopper Full Sensor	Full	Not full
6120 25	Tray Upper Sensor	Upper	Not upper
6120 26	Relay Sensor	Paper not detected	Paper detected
6120 27	Tray Lower Sensor	Lower	Not lower
6120 28	Jogger HP Sensor	Not HP	HP
6120 29	Punch HP Sensor	Not rear	Rear Position
6120 30	Stapler Safety Sensor	No staple	Staple detected
612031	Staple Empty Sensor	No staple	Staple detected
6120 32	Punch Unit Sensor	Not set	Set

Table 5: Area Display

The bit 0 of these SPs shows the punch unit type.

2: 2 Holes, 2/3: 2/3 Holes, 4 (EU): 4 Holes Europe,

4 (Scan.): 4 Holes Scandinavia

SP		2	2/3	4 (EU)	4 (Scan.)
6120-013	Punch Unit:Area Detect2	0	0	1	1
6120-014	Punch Unit:Area Detect2	0	1	0	1

Output Check Table

Copier

5804	Display	Description
5804 1	Paper Feed M1:CW:190mm/s	-
5804 2	Paper Feed M1:CW:120mm/s	-
5804 3	Paper Feed M1:CW:60mm/s	-
5804 4	P-Feed M1:CW:60mm/s:Thick	-
5804 5	Paper Feed M1:CCW:190mm/s	-
5804 6	Paper Feed M1:CCW:120mm/s	-
58047	Paper Feed M1:CCW:60mm/s	-
5804 8	P-Feed M1:CCW:60mm/s:Thick	-
5804 9	Paper Feed M2:CW:190mm/s	-
5804 10	Paper Feed M2:CW:120mm/s	-
5804 11	Paper Feed M2:CW:60mm/s	-
5804 12	P-Feed M2:CW:60mm/s:Thick	-
5804 13	Paper Feed M2:CCW:190mm/s	-
5804 14	Paper Feed M2:CCW:120mm/s	-

3

500415	D	
5804 15	Paper Feed M2:CCW:60mm/s	-
5804 16	P-Feed M2:CCW:60mm/s:Thick	-
5804 17	Bypass M:CW:190mm/s	-
5804 18	Bypass M:CW:120mm/s	-
5804 19	Bypass M:CW:60mm/s:400mA	-
5804 20	Bypass M:CW:60mm/s:300mA	-
5804 21	Bypass M:CCW:190mm/s	-
5804 22	Bypass M:CCW:120mm/s	-
5804 23	Bypass M:CCW:60mm/s	-
5804 24	Registration M:120mm/s	-
5804 25	Registration M:60mm/s	-
5804 26	Regist M:60mm/s:Thick	-
5804 27	Inverter M:CW:280mm/s	-
5804 29	Inverter M:CW:120mm/s	-
5804 31	Inverter M:CW:60mm/s	-
5804 33	Inverter M:280mm/s	-
5804 35	Inverter M:120mm/s	-
5804 37	Inverter M:60mm/s	-
5804 39	Duplex Exit M:280mm/s	-
5804 40	Duplex Exit M:120mm/s	-
5804 41	Duplex Exit M:60mm/s	-
5804 42	Duplex Ent. M:280mm/s	-
5804 43	Duplex Ent. M:120mm/s	-
5804 44	Duplex Ent. M:60mm/s	-
5804 45	Color Dev. M:120mm/s	-
5804 46	Color Dev. M:60mm/s	-

5804 47	Color Drum. M:120mm/s	-
5804 48	Color Drum. M:60mm/s	-
5804 49	Bk Drum M:120mm/s	-
5804 50	Bk Drum M:60mm/s	-
5804 51	ITB Motor:120mm/s	-
5804 52	ITB Motor:60mm/s	-
5804 53	Fusing/P-Exit M:120mm/s	-
5804 54	Fusing/P-Exit M:60mm/s	-
5804 55	Electrical FAN:H	-
5804 56	Electrical FAN:L	-
5804 57	Fusing Fan:H	-
5804 58	Fusing Fan:L	-
5804 59	Dev. Front FAN:H	-
5804 60	Dev. Front FAN:L	-
5804 61	Dev. Rear FAN:H	-
5804 62	Dev. Rear FAN:L	-
5804 63	Fusing Exit Fan:H	-
5804 64	Fusing Exit Fan:L	-
5804 65	LD Unit Fan:H	-
5804 67	PSU Fan:H	-
5804 69	Junc. Gate SOL Fan:H	-
5804 70	Junc. Gate SOL Fan:L	-
580471	Toner Supply M:Bk	-
5804 72	Toner Supply M:C	-
5804 73	Toner Supply M:M	-
5804 74	Toner Supply M:Y	-

580475	PCU T-Collect Motor	-
580476	ID/MUSIC Sn Shutter Motor	PTR Contact Motor
5804 77	ITB Contact Motor	-
5804 78	Bk Dev. Clutch	-
5804 79	Junction Gate SOL	-
5804 80	PWM:Potential Sn:Bk	-
5804 81	PWM:Potential Sn:C	-
5804 82	PWM:Potential Sn:M	-
5804 83	PWM:Potential Sn:Y	-
5804 84	HVPS:Charge AC:Bk:H	-
5804 85	HVPS:Charge AC:Bk:L	-
5804 86	HVPS:Charge AC:C:H	-
5804 87	HVPS:Charge AC:C:L	-
5804 88	HVPS:Charge AC:M:H	-
5804 89	HVPS:Charge AC:M:L	-
5804 90	HVPS:Charge AC:Y:H	-
5804 91	HVPS:Charge AC:Y:L	-
5804 92	HVPS:Charge DC:Bk	-
5804 93	HVPS:Charge DC:C	-
5804 94	HVPS:Charge DC:M	-
5804 95	HVPS:Charge DC:Y	-
5804 96	HVPS:Dev. Bias:Bk	-
5804 97	HVPS:Dev. Bias:C	-
5804 98	HVPS:Dev. Bias:M	-
5804 99	HVPS:Dev. Bias:Y	-
5804 100	HVPS:PTR Bias:- PWM	-

HVPS:PTR Bias:+ PWM	-
HVPS:ITR Bias:Bk	-
MUSIC Sensor:R:PWM	-
MUSIC Sensor:C:PWM	-
MUSIC Sensor:F:PWM	-
Reserve Fan:H	-
Reserve Fan:LOCK	-
Toner End Sn Power	-
R-Tray M:280mm/s	-
R-Tray M:120mm/s	-
R-Tray SOL	-
Shift Motor	-
1T PFU:Tray Lift M	-
1T PFU:Paper Feed M	-
1T PFU:Paper Feed CL	-
2T PFU:Relay CL	-
2T PFU:Upper Feed CL	-
2T PFU:Lower Feed CL	-
2T PFU:P-Feed M:190mm/s	-
2T PFU:P-Feed M:120mm/s	-
2T PFU:P-Feed M:60mm/s	-
2T PFU:Upper Tray Lift M	-
2T PFU:Lower Tray Lift M	-
	HVPS:ITR Bias:Bk HVPS:ITR Bias:Bk HVPS:ITR Bias:Bk MUSIC Sensor:R:PWM MUSIC Sensor:F:PWM MUSIC Sensor:F:PWM Reserve Fan:H Reserve Fan:LOCK Toner End Sn Power R-Tray M:280mm/s R-Tray M:120mm/s R-Tray SOL Shift Motor 1T PFU:Tray Lift M 1T PFU:Paper Feed M 1T PFU:Paper Feed CL 2T PFU:Upper Feed CL 2T PFU:Lower Feed CL 2T PFU:P-Feed M:190mm/s 2T PFU:P-Feed M:00mm/s 2T PFU:P-Feed M:00mm/s 2T PFU:P-Feed M:00mm/s

5804 192	RFID ON/OFF: Bk	-
5804 193	RFID ON/OFF: C	-
5804 194	RFID ON/OFF: M	-
5804 195	RFID ON/OFF: Y	-
5804 196	RFID COM ON: Bk	-
5804 197	RFID COM ON: C	-
5804 198	RFID COM ON: M	-
5804 199	RFID COM ON: Y	-
5804 202	Scanner Lamp	-
5804 210	Polygon Motor	-
5804 216	LD1: Bk	-
5804 218	LD1: M	
5804 220	LD1: C	-
5804 222	LD1: Y	-

Internal Finisher (D429)

6121	Description	Description
61211	Transport Motor	-
61212	Front Jogger Motor	-
61213	Rear Jogger Motor	-
6121 4	Stapler Slide Motor	-
61215	Stuck Feed-out Motor	-
61216	Pick Roller Lift Motor	-
61217	Staple Motor	-
61218	Tray Lift Motor	-

6121 9	Paper Detection SOL	-
6121 10	Paddle Rotation SOL	-
6121 11	Belt Roller SOL	-
6121 12	Junction Gate SOL	-
6121 13	Fan Motor	-
6120 14	Punch Motor	-
6120 15	Punch Slide Motor	-
6120 16	Inverter Roller SOL	-

ARDF (D366)

6008	Display	Description	
6008 3	Feed Motor: Forward	Feed Motor-Forward rotation	
6008 4	Feed Motor: Reverse	Feed Motor-Reverse rotation	
6008 5	Transport Motor: Forward	Transport Motor- Forward rotation	
6008 6	Transport Motor: Forward	Transport Motor- Forward rotation	
6008 9	Feed Clutch	-	
6008 10	Pick-up Solenoid	-	
6008 11	Junction Gate Solenoid	-	
6008 12	Stamp Solenoid	Stamp Solenoid	

Test Pattern Printing

Printing Test pattern: SP2-109

Some of these test patterns are used for copy image adjustments but most are used primarily for design testing.



- Do not operate the machine until the test pattern is printed out completely. Otherwise, an SC occurs.
- 1. Enter the SP mode and select SP2-109-003.
- 2. Enter the number for the test pattern that you want to print and press [#].
- 3. When you want to select the single color of Magenta, Yellow or Cyan for printing a test pattern, select the color with SP2-109-005 (2: Magenta, 3: Yellow, 4: Cyan).
- 4. When you want to change the density of printing a test pattern, select the density with SP2-109-006 to -009 for each color.



- If you select "0" with SP2-109-006 to -009, the color to be adjusted to "0" does not come up on a test pattern.
- 5. When you are prompted to confirm your selection, touch "Yes" to select the test pattern for printing.
- 6. Touch "Copy Window" to open the copy window, then select the settings for the test print (paper size etc.).



- If you want to use black and white printing, touch "Black & White" on the LCD. If you want to use color printing, touch "Full Colour" on the LCD.
- 7. Press the "Start" key to start the test print.
- 8. After checking the test pattern, touch "SP Mode" on the LCD to return to the SP mode display.
- 9. Reset all settings to the default values.
- 10. Touch "Exit" twice to exit SP mode.

No.	Pattern	No.	Pattern	
0	None	11 Independent Pattern (1dot)		
1	Vertical Line (1 dot)	12	12 Independent Pattern (2dot)	
2	Vertical Line (2dot)	13	13 Independent Pattern (4dot)	
3	Horizontal Line (1 dot)	14	Ttrimming Area	
4	Horizontal Line (2dot)	16	Hound's Tooth Check (Horizontal)	

5	Grid Vertical Line	17	Band (Horizontal)	
6	Grid Horizontal Line	18	18 Band (Vertical)	
7	Grid Pattern Small	19	Checkered Flag Pattern	
8	Grid Pattern Large	20	Grayscale (Vertical Margin)	
9	Argyle Patter Small	21	1 Grayscale (Horizontal Margin)	
10	Argyle Patter Large	23	Full Dot Pattern	

Printer Service Mode

SP1-XXX (Service Mode)

1001	Bit Switch			
001	Bit Swi	tch 1	0	1
	bit 0	bit 0 DFU		-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	No I/O Timeout	1: Enable	
	Enable: The MFP I/O Timeout setting will have no effect. I/O Timeouts will			ts will never occur.
	bit 4	SD Card Save Mode	0: Disable	1: Enable
	Enable: Print jobs will be saved to an SD Card in the GW SD slot (III "Ca Function" in "System Maintenance" chapter of the Field Service Manual).			
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	[RPCS,PCL]: Printable area frame border	0: Disable	1: Enable
	Enable: The machine prints all RPCS and PCL jobs with a border on the edges of printable area.			the edges of the

1001 Bit Switch

000	D. C. 1	. 1.0		2	
002	Bit Switch 2		0	I	
	bit 0	DFU	-	-	
	bit 1	DFU	-	-	
	bit 2	Applying a collation Type	Shift Collate	Normal Collate	
		A collation type (shift or normal) will be applied to all jobs that do not already have a 'Collate Type' configured.			
		Note			
		If #5-0 is enabled, this Bit Switch has no effect.			
	bit 3	[PCL5e/c,PS]: PDL Auto Switching	0: Enable	1: Disable	
		Disable: The MFPs ability to change the PDL processor mid-job.			
		Some host systems submit jobs that contain both PS ar is disabled, these jobs will not be printed properly.	nd PCL5e/c. If /	Auto PDL switching	
	bit 4	DFU	-	-	
	bit 5	DFU	-	-	
	bit 6	DFU	-	-	
	bit 7	DFU	-	-	

1001	Bit Switch
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003	Bit Swit	rch 3	0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	[PCL5e/c]: Legacy HP compatibility	0: Disable	1: Enable
		Enable: Uses the same left margin as older HP mode In other words, the left margin defined in the job (usual to " <esc>*r1A"</esc>		
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	Bit Switch				
004	Bit Switch 4 DFU		0	1	
	bit 0	bit 0 DFU		-	
	bit 1	DFU	-	-	
	bit 2	DFU	-	-	
	bit 3	IPDS print-side reversal	0: Disable	1: Enable	
		If enabled, the simplex pages of IPDS jobs will be printed on the front side because printing on the back side of the page. This might reduce printing speed.			
	bit 4	DFU	-	-	
	bit 5	DFU	-	-	
	bit 6	DFU	-	-	
	bit 7	DFU	-	-	

1001	Bit Switch		
005	Bit Switch 5	0	1

1	i e e e e e e e e e e e e e e e e e e e					
	Show "Collate Type", "Staple Type" and "Punch Type" buttons on the operation panel.	Disable	Enable			
bit 0	If enabled, users will be able to configure a Collate Type, Staple Type, and Punch Type from the operation panel. The available types will depend on the device and configured options.					
	After enabling the function, the settings will appear under:					
	"User Tools > Printer Features > System"					
bit 1	Multiple copies if a paper size or type mismatch occurs	0: Disable (Single copy)	1: Enable (Multiple copy)			
	If a paper size or type mismatch occurs during the p single copy is output by default. Using this BitSw, the all copies even if a paper mismatch occurs.					
bit 2	DFU	-	-			
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.					
	Pattern 1: A small number of PS tags and headers					
bit 4	Increase max number of the stored jobs to 1000 jobs.	Disable (100)	Enable (1000)			
	Enable: Changes the maximum number of jobs that can be stored on the HDD via Job Type settings to 1000. The default is 100.					
bit 5	Face-up output	Disable	Enable			
	Enable: All print jobs will be output face-up in the destination tray.					
bit 6	Method for determining the image rotation for the edge to bind on.	0: Disable	1: Enable			
	If enabled, the image rotation will be performed as to older models for the binding of pages of mixed orien		specifications of			
	The old models are below:					
	PCL: Pre-04A models					
	- PS/PDF/RPCS:Pre-05S models					

	bit 7	Letterhead mode printing	0: Disable	1: Enable (Duplex)
1001	Bit Swi	tch		
006	Bit Swi	tch 6 DFU	-	-
1001	Bit Swi	tch		
007	Bit Swi	Bit Switch 7		1
		Print path	0: Disable	1: Enable
	bit 0 If enabled, simplex pages (in mixed simplex/duplex PS/PCL5 jobs only) and the lopage of an odd paged duplex job (PS, PCL5, PCL6), are always routed through the duplex unit. Not having to switch paper paths increases the print speed slightly.			
	bit 1 to 7	DEII		-
1001	Bit Swi	tch		
800	Bit Swi	tch 8	0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	[PCL,PS]: Allow BW jobs to print without requiring User Code	Disable	Enable

Enable: BW jobs submitted without a user code will be printed even if usercode authentication is enabled.

• Color jobs will not be printed without a valid user code.

DFU -
DFU - -

bit 4

bit 5

bit 6

bit 7

DFU

DFU

1001	Bit Switch					
005	Bit Swi	tch 9	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 autodetection 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	DFU	-	-		
	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 conditions might problems:					
		- Job submission via USB or Parallel Port				
		- Spool printing (WIM >Configuration > Device Setti	ings > System)			
	bit 3	PCL/PS bypass tray paper rotation (SEF/LEF)	0: Disable	1: Enable		
		This bitsw causes the device to revert to the behavior of previous generations. It only takes effect if "Bypass Tray Setting Priority" = "Driver/Command".				
	Previous spec (bitsw=1): If a standard sized paper mismatch occurred in the bypass tray, the MFP always prompted for SEF paper.					
	If this bitsw=0 (default) then in the event of a standard sized paper mismatch, the MF will always prompt for paper of the rotation (SEF/LEF) determined by the MFP bypas tray paper setting or by the bypass tray sensor.					
	Bit 4 to 7	DFU RTB 21 Printer bit switch added	-	-		

1003	[Clear Setting]
1003 1	Initialize Printer System
	Initializes settings in the "System" menu of the user mode.
1003 3	Delete Program

1004	[Print Summary]		
1004 1	Print Summary		
	Prints the service summary sheet (a summary of all the controller settings).		

1005	[Display Version]	
1005 1	Disp. Version	
	Displays the version of the controller firmware.	

1006	[Sample/Locked Print]	*CTL	0: Linked, 1: On
1006 1	enabled or disabled in accord	ance with	er. When you select "0," the document server is Copy Service Mode SP5-967. When you select ardless of Copy Service Mode SP5-967.

	[Data Recall]		
1101	Recalls a set of gamma settings setting, or c) the current setting		be either a) the factory setting, b) the previous
11011	Factory		
1101 2	Previous	* CTI	
11013	Current	*CTL	
11014	ACC		

1102	[Resolution Setting]
	Selects the printing mode (resolution) for the printer gamma adjustment.
110	2400x600 Photo, 1800x600 Photo, 600 x 600 Photo, 2400x600 Text, 1800x600, Text, 600x600 Text

1103	[Test Page]
	Prints the test page to check the color balance before and after the gamma adjustment.
1103 1	Color Gray Scale
1103 2	Color Pattern

1104	[Gamma Adjustment]			
1104	Adjusts the printer gamma for t	ljusts the printer gamma for the mode selected in the "Mode Selection" menu.		
11041	Black: Highlight			
11042	Black: Shadow			
11043	Black: Middle	_		
11044	Black: IDmax	* (71	[0, 20 /15 /1/,]	
1104 21	Cyan: Highlight	*CTL	[0 to 30 / 15 / 1/step]	
1104 22	Cyan: Shadow	_		
1104 23	Cyan: Middle			
1104 24	Cyan: IDmax			
1104 41	Magenta: Highlight			
1104 42	Magenta: Shadow			
1104 43	Magenta: Middle			
1104 44	Magenta: IDmax	*CTL	[0 to 20 / 15 / 1 /stop]	
110461	Yellow: Highlight	CIL	[0 to 30 / 15 / 1/step]	
1104 62	Yellow: Shadow			
1104 63	Yellow: Middle			
1104 64	Yellow: IDmax			

	[Save Tone Control Value]
1105	Stores the print gamma adjusted with the "Gamma Adj." menu item as the current setting. Before the machine stores the new "current setting", it moves the data currently stored as the "current setting" to the "previous setting" memory storage location.
1105 1	Save Tone Control Value

1106	[Toner Limit]
1100	Adjusts the maximum toner amount for image development.

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1106 1 Toner Limit Value	*CTL	[100 to 400 / 260 / 1 %/step]
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Scanner SP Mode

SP1-xxx (System and Others)

1001	[Scan Nv Version]		
1001 5	-	*CTL	-

1004	[Compression Type]				
1004	Selects the compression type for binary picture processing.				
1004 1	Compression Type	*CTL	[1 to 3 / 1 / 1/step] 1: MH, 2: MR, 3: MMR		

	[Erase margin]		
1005 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.		
1005 1	Range from 0 to 5 mm	*CTL	[0 to 5 / 0 / 1 mm/step]

1009	[Remote scan disable]	*CTL	[0 or 1 / 0 / -] 0: enable, 1: disable
1009 1	Enable or disable remote scan.		

1010	[Non Display Clear Light PDF]	*CTL	[0 or 1 / 0 / -] 0: Display, 1: No display
1010 1	Enable or disable remote scan.		

	1011	[Org count Disp]	*CTL	[0 or 1 / 0 / -]
Selects the original counter display. 1011 1 0: Displays remaining memory for the original scanning. 1: Displays original counter.				
		iginal scanning.		

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1012	[UserInfo release]	*CTL	[0 or 1 / 1 / -] 0: No, 1: Yes
1012 1	Clear the following settings: Address, Sender, Text / Subject, Filename		

1013	[Multimedia Function Setting]	∣ *CTL	[0 or 1 / 0 / -] 0: OFF, 1: ON
1013 1	On or off multimedia function		

SP2-XXX (Scanning-image quality)

	[Compression Level (Grayscale)]					
2021	Selects the compression ratio for grayscale processing mode (JPEG) for the three settings that can be selected at the operation panel.					
2021 1	Comp 1: 5-95		[5 to 95 / 20 / 1 /step]			
2021 2	Comp 2: 5-95		[5 to 95 / 40 / 1 /step]			
2021 3	Comp 3: 5-95	*CTL	[5 to 95 / 65 / 1 /step]			
2021 4	Comp 4: 5-95		[5 to 95 / 80 / 1 /step]			
2021 5	Comp 5: 5-95		[5 to 95 / 95 / 1 /step]			

2024	[Compression ratio of ClearLight PDF]					
	Selects the compression ratio for clearlight PDF for the two settings that can be selected at the operation panel.					
2024 1	Compression Ratio (Normal)	*CTL	[5 to 95 / 25 / 1 /step]			
2024 2	Compression Ratio (High)	CIL	[5 to 95 / 20 / 1 /step]			