Model AL-C2 Machine Code: D129/D130

Field Service Manual

Safety Notices

Important Safety Notices

Prevention of Physical Injury

- 1. Before disassembling or assembling parts of the copier and peripherals, make sure that the copier power cord is unplugged.
- 2. The wall outlet should be near the copier and easily accessible.
- 3. Note that some components of the copier 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 copier completes the warm-up period (the Start key starts blinking red and green alternatively), keep hands away from the mechanical and the electrical components as the copier starts making copies as soon as the warm-up period is completed.
- 6. The inside and the metal parts of the fusing unit become extremely hot while the copier is operating. Be careful to avoid touching those components with your bare hands.

⚠ WARNING

 To prevent a fire or explosion, keep the machine away from flammable liquids, gases, and aerosols.

Health Safety Conditions

- Toner and developer are non-toxic, but if you get either of them in your eyes by accident, it may cause temporary eye discomfort. Immediately wash eyes with plenty of water. If unsuccessful, get medical attention.
- This machine, which uses a high voltage power source, can generate ozone gas. High ozone density is harmful to human health. Therefore, the machine must be installed in a well-ventilated room.

Observance of Electrical Safety Standards

- 1. This machine and its peripherals must be serviced 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.

Handling Toner

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

WARNING

• Do not use the cleaner to suck spilled toner (including used toner). Sucked toner may cause firing or explosion due to electrical contact flickering inside the cleaner. However, it is possible to use the cleaner designed for dust explosion-proof purpose. If toner is spilled over the floor, sweep up spilled toner slowly and clean remainder with wet cloth.

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, the maintenance unit which includes developer or the organic photoconductor 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.

Laser Safety

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

WARNING

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

WARNING

• 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:

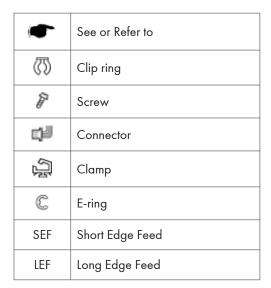


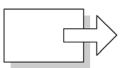
3d-laser_decal

Conventions in this Manual

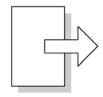
Symbols and Abbreviations

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









Long Edge Feed (LEF)

Cautions, Notes, etc.

The following headings provide special information:

MARNING

 FAILURE TO OBEY WARNING INFORMATION COULD RESULT IN SERIOUS INJURY OR DEATH.

ACAUTION

• Obey these guidelines to ensure safe operation and prevent minor injuries.

Note

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

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1. Product Information

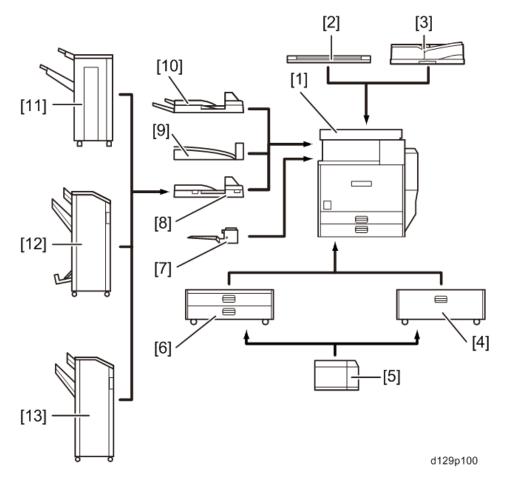
Specifications

See "Appendices" for the following information:

- General Specifications
- Optional Equipment

П

Copier



Key: Symbol: U: Unique option, C: Option also used with other products

	Item	Callout	Key	Machine Code
	D129/D130	[1]	-	D129/D130
	Platen Cover (See Note 1)	[2]	С	D593
	ARDF (See Note 1)	[3]	С	D630
	2000-sheet LCT	[4]	С	D581
	1200-sheet LCT	[5]	С	D631
	Two-Tray Paper Feed Unit	[6]	С	D580
	1-Bin Tray	[7]	U	D632
	Bridge Unit	[8]	С	D634
	Internal Shift Tray	[9]	U	D633
Copier	Side Tray	[10]	U	D635
	1000-sheet Finisher (See Note 2)	[11]	С	D588
	2000-Sheet Booklet Finisher (See Note 2)	[12]	С	D637
	3000-Sheet Finisher (See Note 2)	[13]	С	D636
	-Punch Unit (See Note 3)	-	С	D570-00 (2/3-hole) NA
	-Punch Unit (See Note 3)	-	С	D570-01 (2/4-hole) EU
	-Punch Unit (See Note 3)	-	С	D570-02 (4-hole) Scandinavia
	Key Counter Bracket	-	С	A674
	HDD (for basic model only)	-	U	D640
	Copy Data Security Unit	-	С	B829

	Item	Callout	Key	Machine Code
Fax	Fax Option	-	U	D629
	G3 Interface Unit	-	U	D629
	SAF Memory	-	С	G578
	Handset	-	С	D645
	Fax Communication Unit	-	U	D629
	Printer/Scanner Unit	-	U	D641
	Printer Unit	-	U	D641
	Scanner Upgrade Unit	-	U	D641
	PostScript3 Unit	-	U	D641
	IPDS Unit	-	U	D641
	Gigabit Ethernet	-	С	G874
Printer/ Scanner	IEEE 1284	-	С	B679
	IEEE 802.11a/g, g	-	С	D377
	Bluetooth	-	С	D566
	Memory Unit 512 MB	-	С	D594
	File Format Converter	-	С	D377
	Browser Unit	-	U	D640
	VM Card	-	С	D640
	Netware	-	U	D629

NOTE:

- 1. The ARDF and platen cover cannot be installed together.
- 2. The finisher requires the bridge unit and two-tray paper feed unit or 2000-sheet LCT. The 1000-sheet finisher and 2000/3000-sheet (Booklet) finisher cannot be installed together.
- 3. The punch unit requires the 2000/3000-sheet (Booklet) finisher.

Guidance for Those Who are Familiar with Predecessor Products

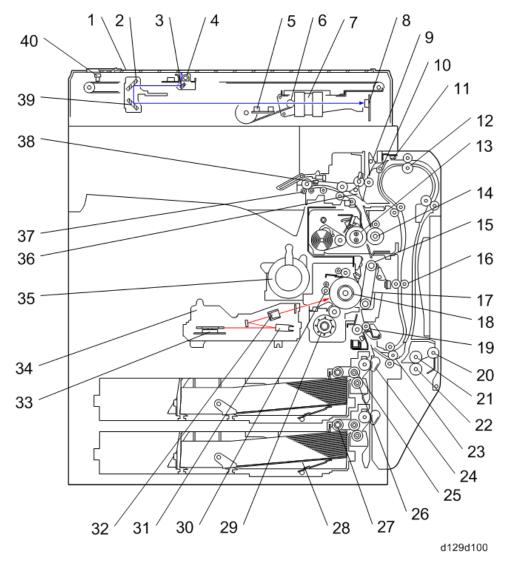
The D129/D130 series are successor models to the D091/D092 series. If you have experience with the predecessor products, the following information will be of help when you read this manual.

Different Points from Predecessor Products

	D129/D130	D091/D092
Controller Type	GW+ Controller	GW Controller
Operation Panel	Tilt Operation Panel Type Includes USB/SD slot (not all functions can be used in Basic models)	Stationary Operation Panel Type
Scanner Lamp	LED	Xenon
Safety Shut Down Function	Available	Not Available
PDF Direct	Standard (SP model only) Included in Printer/Scanner.	Option
Арр2Ме	Standard (SP model only) Included in Printer/Scanner, Printer SD Card. Users who bought the VM card can download App2Me from the Web Site.	Standard (SP model only) Included in VM SD Card.
Data Overwrite Security	Standard	Option
HDD Encryption	Standard	Option

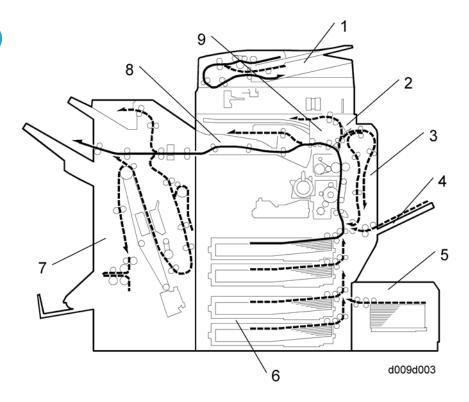
Overview

Component Layout

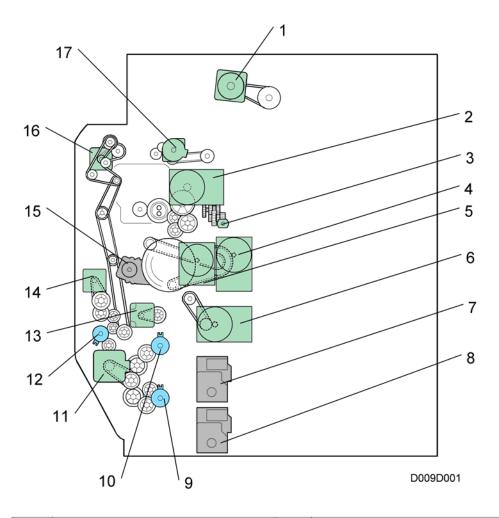


1	Exposure Glass	21	By-pass Feed Roller
2	2nd Mirror	22	By-pass Separation Roller
3	1 st Mirror	23	Duplex/by-pass transport roller
4	Exposure Lamp	24	Upper Relay Belt

5 Original Length Sensors 25 Feed Roller 6 Scanner Motor 26 Separation Roller 7 Lens 27 Pick-up Roller 8 SBU 28 Bottom Plate 9 Junction Gate 2 29 Development Unit 10 Duplex Inverter Gate 30 Charge Roller 11 Duplex Entrance Sensor 31 Fθ Mirror 12 Duplex Inverter Roller 32 Barrel Toroidal Lens (BTL) 13 Hot Roller 33 Polygonal Mirror Motor 14 Pressure Roller 34 Laser Unit 15 Transfer Belt Cleaning Blade 35 Toner Bottle Holder 16 Duplex Transport Roller 36 Junction Gate 1 17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror 20 By-pass Pick-up Roller 40 Scanner HP Sensor				
7 Lens 27 Pick-up Roller 8 SBU 28 Bottom Plate 9 Junction Gate 2 29 Development Unit 10 Duplex Inverter Gate 30 Charge Roller 11 Duplex Entrance Sensor 31 Fθ Mirror 12 Duplex Inverter Roller 32 Barrel Toroidal Lens (BTL) 13 Hot Roller 33 Polygonal Mirror Motor 14 Pressure Roller 34 Laser Unit 15 Transfer Belt Cleaning Blade 35 Toner Bottle Holder 16 Duplex Transport Roller 36 Junction Gate 1 17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	5	Original Length Sensors	25	Feed Roller
8 SBU 28 Bottom Plate 9 Junction Gate 2 29 Development Unit 10 Duplex Inverter Gate 30 Charge Roller 11 Duplex Entrance Sensor 31 Fθ Mirror 12 Duplex Inverter Roller 32 Barrel Toroidal Lens (BTL) 13 Hot Roller 33 Polygonal Mirror Motor 14 Pressure Roller 34 Laser Unit 15 Transfer Belt Cleaning Blade 35 Toner Bottle Holder 16 Duplex Transport Roller 36 Junction Gate 1 17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	6	Scanner Motor	26	Separation Roller
9 Junction Gate 2 29 Development Unit 10 Duplex Inverter Gate 30 Charge Roller 11 Duplex Entrance Sensor 31 Fθ Mirror 12 Duplex Inverter Roller 32 Barrel Toroidal Lens (BTL) 13 Hot Roller 33 Polygonal Mirror Motor 14 Pressure Roller 34 Laser Unit 15 Transfer Belt Cleaning Blade 35 Toner Bottle Holder 16 Duplex Transport Roller 36 Junction Gate 1 17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	7	Lens	27	Pick-up Roller
10 Duplex Inverter Gate 11 Duplex Entrance Sensor 12 Duplex Inverter Roller 13 Barrel Toroidal Lens (BTL) 13 Hot Roller 14 Pressure Roller 15 Transfer Belt Cleaning Blade 16 Duplex Transport Roller 17 Transfer Belt 18 OPC Drum 19 Registration Roller 30 Charge Roller 31 F\$\theta\$ Mirror 31 F\$\theta\$ Mirror 32 Barrel Toroidal Lens (BTL) 33 Polygonal Mirror Motor 34 Laser Unit 35 Toner Bottle Holder 36 Junction Gate 1 37 Exit Roller 38 Paper Exit Sensor 39 3rd Mirror	8	SBU	28	Bottom Plate
11 Duplex Entrance Sensor 12 Duplex Inverter Roller 13 Barrel Toroidal Lens (BTL) 13 Hot Roller 14 Pressure Roller 15 Transfer Belt Cleaning Blade 16 Duplex Transport Roller 17 Transfer Belt 18 OPC Drum 19 Registration Roller 31 F Mirror 32 Barrel Toroidal Lens (BTL) 33 Polygonal Mirror Motor 34 Laser Unit 35 Toner Bottle Holder 36 Junction Gate 1 37 Exit Roller 38 Paper Exit Sensor 39 3rd Mirror	9	Junction Gate 2	29	Development Unit
12 Duplex Inverter Roller 32 Barrel Toroidal Lens (BTL) 13 Hot Roller 33 Polygonal Mirror Motor 14 Pressure Roller 34 Laser Unit 15 Transfer Belt Cleaning Blade 35 Toner Bottle Holder 16 Duplex Transport Roller 36 Junction Gate 1 17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	10	Duplex Inverter Gate	30	Charge Roller
13 Hot Roller 33 Polygonal Mirror Motor 14 Pressure Roller 34 Laser Unit 15 Transfer Belt Cleaning Blade 35 Toner Bottle Holder 16 Duplex Transport Roller 36 Junction Gate 1 17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	11	Duplex Entrance Sensor	31	Fθ Mirror
14 Pressure Roller 34 Laser Unit 15 Transfer Belt Cleaning Blade 35 Toner Bottle Holder 16 Duplex Transport Roller 36 Junction Gate 1 17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	12	Duplex Inverter Roller	32	Barrel Toroidal Lens (BTL)
15 Transfer Belt Cleaning Blade 35 Toner Bottle Holder 16 Duplex Transport Roller 36 Junction Gate 1 17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	13	Hot Roller	33	Polygonal Mirror Motor
16 Duplex Transport Roller 36 Junction Gate 1 17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	14	Pressure Roller	34	Laser Unit
17 Transfer Belt 37 Exit Roller 18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	15	Transfer Belt Cleaning Blade	35	Toner Bottle Holder
18 OPC Drum 38 Paper Exit Sensor 19 Registration Roller 39 3rd Mirror	16	Duplex Transport Roller	36	Junction Gate 1
19 Registration Roller 39 3rd Mirror	17	Transfer Belt	37	Exit Roller
	18	OPC Drum	38	Paper Exit Sensor
20 By-pass Pick-up Roller 40 Scanner HP Sensor	19	Registration Roller	39	3rd Mirror
	20	By-pass Pick-up Roller	40	Scanner HP Sensor



1	ARDF
2	Interchange Unit
3	Duplex Unit
4	By-pass Tray
5	Large Capacity Tray (LCT: 1200-sheet)
6	Paper Tray Unit
7	Two-Tray Finisher
8	Bridge Unit
9	1-Bin Tray



1	Scanner Motor	10	Paper Feed Clutch 1
2	Fusing Motor	11	Feed Motor
3	Web Motor	12	By-pass Paper Feed Clutch
4	Transfer/Development Motor	13	Registration Motor
5	Drum Motor	14	Duplex/By-pass Motor
6	Development Paddle Motor	15	Transfer Belt Contact Motor
7	Tray Lift Motor 1	16	Duplex Inverter Motor

8	Tray Lift Motor 2	17	Paper Exit Motor
9	Paper Feed Clutch 2		

2. Installation

Installation Requirements

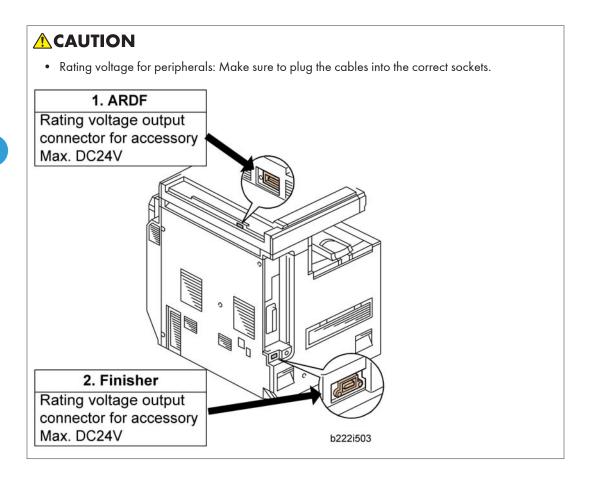
ACAUTION

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

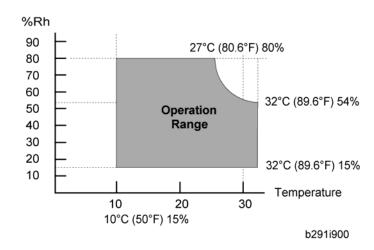
- Install the machine in a safe place for keeping security.
- Make sure that the operation instructions are kept at a customer's hand.



• The main power LED lights or flashes while the platen cover or ARDF is open, while the main machine is communicating with a facsimile or the network server, or while the machine is accessing the hard disk or memory for reading or writing data.



Environment



Temperature Range:	10°C to 32°C (50°F to 90°F)
Humidity Range:	15% to 80% RH
Ambient Illumination:	Less than 1,500 lux (do not expose to direct sunlight.)
Ventilation:	Room air should turn at least 30 m3/hr/person
Ambient Dust:	Less than 0.10 mg/m3 (2.7 x 10/6 oz/yd3)

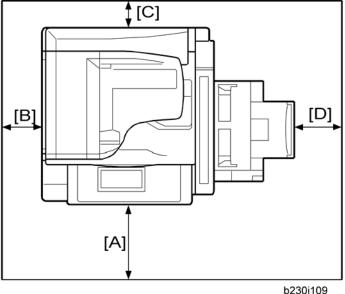
- 1. Avoid areas exposed to sudden temperature changes:
 - 1) Areas directly exposed to cool air from an air conditioner.
 - 2) Areas directly exposed to heat from a heater.
- 2. Do not place the machine where it will be exposed to corrosive gases.
- 3. Do not install the machine at any location over 2,000 m (6,500 ft.) above sea level.
- 4. Place the main machine on a strong and level base. Inclination on any side should be no more than 5 mm (0.2").
- 5. Do not place the machine where it may be subjected to strong vibrations.

Machine Level

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

Minimum Space Requirements

Place the main machine near the power source, providing clearance as shown:



0230110

- Front [A]: Over 75 cm (29.6")
- Left [B]: 10 cm (4")
- Rear [C]: 10 cm (4")
- Right [D]: 55 cm (21.7")



• The 75 cm (29.6") recommended for the space at the front is for pulling out the paper tray only. If the operator stands at the front of the main machine, more space is required.

Power Requirements

ACAUTION

- Make sure that the wall outlet is near the main machine and easily accessible. Make sure the plug
 is firmly inserted in the outlet.
- · Avoid multi-wiring.
- Be sure to ground the machine.
- 1. Input voltage level:

North America 120 V, 60 Hz: More than 12.5 A

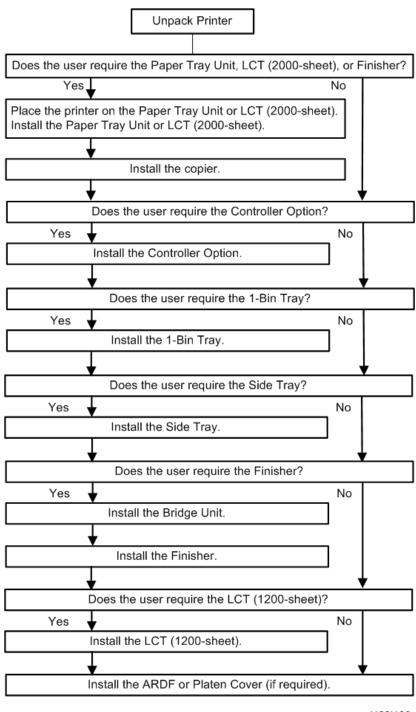
Europe/Asia 220 V to 240V, 50 Hz/60 Hz: more than 7 A

- 2. Permissible voltage fluctuation: 10% to 15%
- 3. Never set anything on the power cord.

9

Installation Flow Chart

The following flow chart shows how to install the optional units more efficiently.



d129i100

Bridge Unit: Needed for the finishers.

Paper Tray Unit or LCT 2000-sheet: Needed for the LCT 1200-sheet and finishers.

Main Machine Installation

Accessory Check

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

	Description	Q'ty
1	Decal – Energy Save (-91, -61, -17, -57, -18, -58, -27, -67, -29, -69, -19, -59, -28, -68)	1
2	Rating plate (-17, -18, -19, -21, -27, -28, -29, -57, -58, -59, -61, -67, -69, -68)	1
3	Decal – VERMONT (-91, -17, -57, -18, -58)	1
4	Model Name Decal (-91, -92, 17, -57)	1
5	Decal – WEEE (-27, -67)	1
6	Main SW Decal	1
7	Decal – Eco Label (-21, -61)	1
8	Decal – Rohs (-21, -61)	1
9	Decal – Rohs date(-21, -61)	1
10	Decal – Certificates (-21, -61)	2
11	Decal – LASERCLASS1 (-19, -59, -28, -68, -21, -61)	1
12	Decal – Impoter (-19, -59)	1
13	Decal – SDK (-57, -58, -67, -69, -59, -68, -61)	1
14	Decal – Caution - Copy	1
15	Emblem Cover	1
16	Emblem	1
17	Decal – Brand	1
18	Warranty (-21, -61)	1
19	Quick Reference Guide – Safety (-27, -67)	1

	Description	Q'ty
20	Sheet – Communication management – Blank (-27, -67, -19, -59)	1
21	Decal — Paper Tray (-91, -17, -57, -18, -58, -27, -67, -29, -69, -19, -59, -28, -68, -21, -61)	1
22	Decal – Caution – Original (-91, -17, -57, -18, -58)	1
23	Sheet – EMC – Traceability (-27, -67)	1
24	Sheet - Name - Tel (-21, -61)	1
25	Stamp (-91, -17, -57, -18, -58, -)	1
26	Exposure Glass Cleaning Cloth	1
27	Cloth Holder	1
28	Ferrite Core	1
29	Sheet – Exposure Glass (-91, -17, -18, -19, -21, -27, -28, -29, -57, -58, -59, -61, -67, -69, -68)	1
30	Power Supply Cord	1
31	CD-ROM: Operation Instruction (-91, -92, -17, -18, -21, -27, -28, -29, -57, -58, -67, -69, -68)	1
32	CD-ROM: Driver (-57, -58, -67, -69, -68)	1
33	CD-ROM: Operation Instruction/Driver (-19, -59, -21, -61)	1
34	Operation Instruction – Read This First (-91, -92, -17, -18, -19, -21, -27, -29, -57, -58, -59, -61, -67, -69)	1
35	Operation Instruction – User Guide (-91, -92, -17, -18, -19, -21, -27, -29, -57, -58, -59, -61, -67, -69)	1
36	Sheet – EULA (-57, -58, -67, -68, -69, -19, -59, -21, -61)	1
37	Sheet – Caution (-57, -58, -67, -68, -69, -68, -61)	1
38	CD-ROM: Operation Instruction - App 2 Me (-57, -58, -67, -69, -59)	1

	Description	Q'ty
39	Quick Reference Guide - App 2 Me (-57, -58, -69, -59)	1
40	Quick Reference Guide – Start Up (-27, -67)	1
41	Sheet – Notes – Manual – CD (-19, -59, -21, -61)	1

Installation Procedure

Preliminary Procedures

Put the machine on the paper feed unit or the LCT first if you will install an optional paper feed unit or the optional LCT 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.



d129i102

- 1. Remove all the tapes and retainers on the machine.
- 2. Remove all the tapes and retainers in trays 1 and 2, and then take out the power cord from tray 1 (if applicable).



3. Open the right door [A].

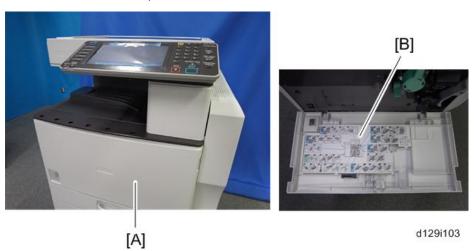


4. Remove the two stoppers [A] from the fusing unit.

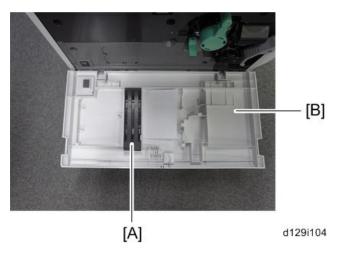


d129i101

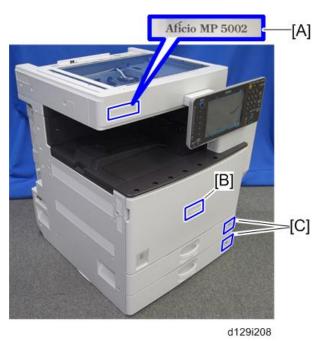
5. Remove the scanner unit stay [A].



6. Open the front door [A], and then remove the jam location sheet [B].



- 7. Keep the scanner unit stay [A] inside the front door [B].
- 8. Reattach the jam location sheet.
- 9. Close the front door.

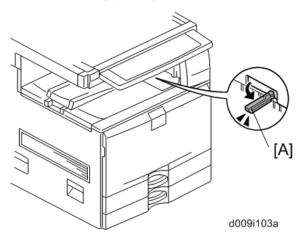


- 10. Attach the correct brand decal to the machine [A].
- 11. Attach the correct emblem and the cover to the front door [B] of the machine, if the emblem is not attached.



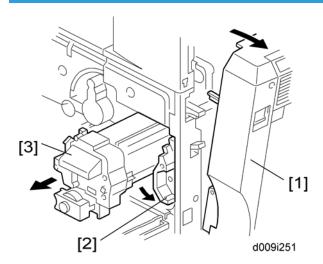
 If you want to change the emblem that has been already attached, remove the panel with a small screwdriver, and then install the correct emblem.





13. Pull out the feeler [A] for the output tray full detection mechanism.

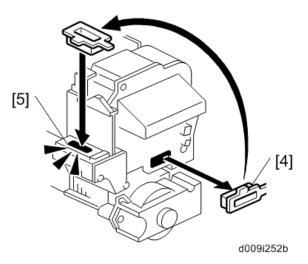
PCDU (Photoconductor and Development Unit)



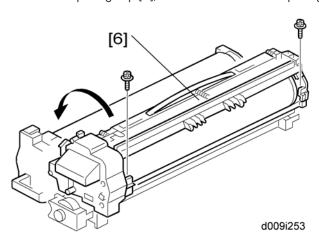
- 1. Open the front door.
- 2. Open the right door [1].
- 3. Release the lock lever [2].
- 4. Pull out the PCDU [3] and place it on a clean flat surface.
- 5. Spread a large piece of paper on a flat surface.



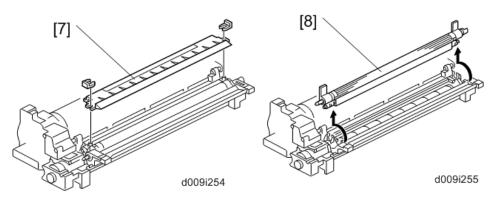
• Make sure the area is free of pins, paper clips, staples, etc. to avoid attraction to the magnetic development roller.



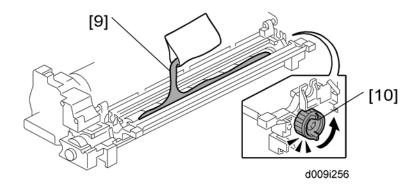
6. Remove the opening cap [4], and then install it in the opening [5] of the PCDU.



7. Open the PCDU [6] (** x 2).



- 8. Remove the entrance seal plate [7] ($() \times 2)$.
- 9. Remove the development roller unit [8], and set it on the paper.

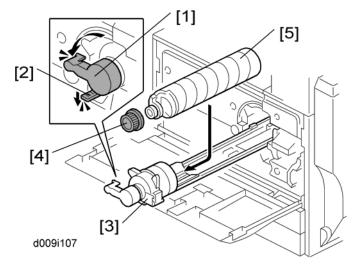


10. Pour the developer [9] into the development unit.



- The developer lot number is embossed on the end of the developer package. Do not discard
 the package until you have recorded the lot number. (*p.177 "Developer")
- 1) Pour approximately 1/3 of the developer evenly along the length of the development unit.
- 2) Rotate the drive gear [10] to work the developer into the unit.
- 3) Repeat until all the developer is in the development unit.
- 4) Continue to turn the drive gear until the developer is even with the top of the unit.
- 11. Put the opening cap [4] back in its original place.
- 12. Reassemble the PCDU.
- 13. Re-install the PCDU.

Toner Bottle



- 1. Open the front door.
- 2. Turn the toner bottle holder lever [1] counterclockwise, push down the lever [2], and then pull out the toner bottle holder [3].
- 3. Hold the toner bottle [5] horizontally, and shake it 5 or 6 times.
- 4. Unscrew the bottle cap [4] and set the bottle [5] in the holder.
- 5. Push the toner bottle holder into the main machine until it locks in place.
- 6. Turn the toner bottle holder lever [1] clockwise to lock it.
- 7. Close the front door.

Paper Trays

- 1. Open the 1st paper tray, and then press down on the right side of the lock switch to unlock the side fences.
- 2. Press in on the sides of the fence release, and slide the side fences to the appropriate mark for the paper size.
- 3. Pinch the sides of the end fence and move it to the appropriate mark for the paper size, then load the paper.
- 4. Check the position of the stack.
 - Confirm that there is no gap between the stack and the side fences. If you see a gap, adjust
 the position of the side fences.
- 5. Press down the lock to lock the side fences.
- 6. Repeat this procedure to load paper in the 2nd paper tray.

Initialize TD Sensor and Developer

- 1. Connect the main machine to the power outlet, switch on the main machine, and wait for the fusing unit to warm up.
- 2. Enter Copy SP Mode.
- 3. Press SP Direct to highlight "SP Direct", enter 2801, and then press .
- 4. When the message prompts you to enter the lot number of the developer, enter the 7-digit lot number, press on the touch-panel. Press [Yes], and then press [Execute]. This initializes the TD sensor. It takes 60 to 90 sec.



- The lot number is printed on the end of the developer package. Recording the lot number could help troubleshoot problems later. If the lot number is unavailable, enter any seven-digit number.
- 5. Press SP Direct to highlight "SP Direct" and enter 2805, press , and then press "Execute" on the touch-panel. This initializes the developer.
- 6. Press "Exit" twice to return to the copy window.

Set Paper Size for Paper Trays

- 1. Press User Tools/Counter 🕪.
- 2. On the touch panel, press "System Settings".
- 3. Press the "Tray Paper Settings" tab.
- 4. Press the button for the tray to change.
- 5. Change the setting and press the [OK] button.
- 6. Repeat for each tray installed.
- 7. Press Exit twice to return to the main display
 - The 1st, 2nd, 3rd, and 4th paper trays are provided with the paper size switches. The detected paper size by the paper size switches has priority over the UP settings. However, if you change the "Auto Detect" with the UP setting, you can select the paper size.
- 8. Check the copy quality and machine operation.

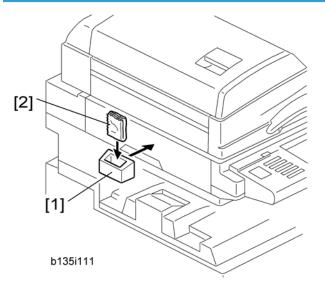
Electrical Total Counter

The electrical total counter no longer requires initialization. The new incrementing counter is set to "0" at the factory.

RTB 29

Energy saver setting needs changing in some machines (should be 0 but was set to 2 in the factory).

Exposure Glass Cleaner



- 1. Attach the exposure glass cleaner holder [1] to the left side of the machine.
- 2. Place the exposure glass cleaner [2] inside the holder.



• The exposure glass cleaner is used to clean the ARDF exposure glass, the glass strip to the left of the large exposure glass.

Settings Relevant to the Service Contract

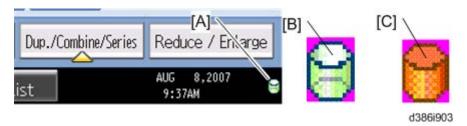
Change the necessary settings for the following SP modes if the customer has made a service contract.

Item	SP No.	Function	Default
A3/11" x 17" double counting	SP5-104-001 (SSP)	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
Service Tel. No. Setting	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.	

Data Overwrite Security

Do the following procedure if a customer wants to use this function.

- 1. Do SP5-878-1 (Option Setup Data Overwrite Security) and touch [EXECUTE].
- 2. Go out of the SP mode, turn off the operation switch, then turn off the main power switch.
- 3. Turn the machine power on.
- Press [User Tools] and select System Setting > Administrator Tools > Auto Erase Memory Setting >
 On
- 5. Exit from User Tools mode.



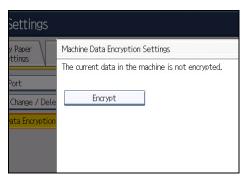
- 6. Check the display and make sure that the overwrite erase icon [A] is displayed.
- 7. Make a Sample Copy.
- 8. Check the overwrite erase icon.
 - The icon [B] changes to [C] when job data is stored in the hard disk.
 - The icon goes back to its usual shape [B] after this function has completed a data overwrite operation to the hard disk.
- 9. Do SP5990-005 (SP print mode Diagnostic Report).
- 10. Look at the report:
 - Under "[ROM No./Firmware Version]" check the number and version number listed for "HDD Format Option".
 - Under "[Loading Program]" check the option number and version number listed for "GW_zoffy".
 - These two version numbers should be identical.
- 11. Exit SP mode.

HDD Encryption

Do the following procedure if a customer wants to use this function.

- 1. Do SP5-878-2 (Option Setup Encryption Option) and touch [EXECUTE]
- 2. Go out of the SP mode, turn off the operation switch, then turn off the main power switch.
- 3. Turn the machine power on.

4. Push [User Tools] and select System Setting > Administrator Tools > Machine Data Encryption Setting.



5. Press [Encrypt].



6. Select the data to be carried over to the hard disk and not to be reset

To carry all of the data over to the hard disk, select [All data]. To carry over only the machine setting data, select [File System Data Only]. To reset all of the data, select [Format All Data].



7. Press the [Start] Key.

The encryption key for backup data is printed.

App 2 Me Setting (SP model only)

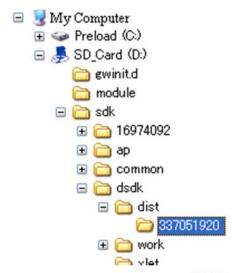
SP models have VM and "App 2 Me" built in. Do the following procedure if a customer wants to use "App 2 Me".

1. Press "User Tools" key on the operation panel.

- 2. Touch the "Extended Feature Settings" button twice.
- 3. Touch the "App 2 Me" line in the Startup Setting tab.
- 4. Touch the "Extended Feature Info" tab on the LCD.
- 5. Touch the "App 2 Me" line.
- 6. Set the setting of "Auto Start" to "On".
- 7. Touch the "Exit" button.
- 8. Exit the "User Tools" settings.

Update Procedure for App 2 Me Provider

- 1. Push the "User/Tools" key.
- 2. If an administrator setting is registered for the machine, steps 2 and 3 are required. Otherwise, skip to step 4.
- 3. Push the "Login/Logout" key.
- 4. Login with the administrator user name and password.
- 5. Touch "Extended Feature Settings" twice on the LCD.
- 6. Touch all the applications. Then, the status will be changed to "Stop".
- 7. Turn off the machine. And then remove the VM Card.



d377i501

- 8. Prepare newer App 2 Me Provider zip file from Firmware Download Center. Unzip the zip file. (The folder name is "337051920".) And then copy the App 2 Me Provider folder in the specified path of VM card. The path is "SD_Card Drive\sdk\dsdk\dist\337051920" as shown above.
- 9. Turn the SD card label face to the rear of the machine. Then push it slowly into Slot 2 (Lower Slot) until you hear a click.
- 10. Turn on the main power switch.

- 11. Press the "User Tools" key on the operation panel.
- 12. Touch the "Extended Feature Settings" button twice.
- 13. Touch the "Extended Feature Info" tab on LCD.
- 14. Touch the "App2Me" line.
- 15. Set the setting of the "Auto Start" to "On".
- 16. Touch the "Exit" button.
- 17. Exit the "User Tools/Counter" settings.

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.

1. Remove all trays from the optional paper feed unit or LCT.

Transporting the Machine

- 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.

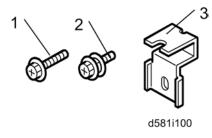
2

Paper Feed Unit Installation (D580)

Accessory Check

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

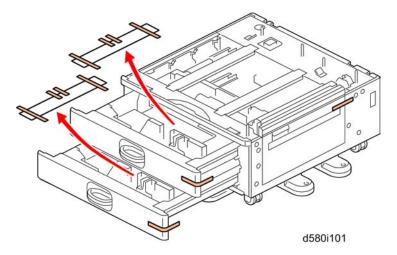
No.	Description	Q'ty
1	Screw (M4x10)	2
2	Screw with Spring Washer (M4x10)	1
3	Securing Bracket	2



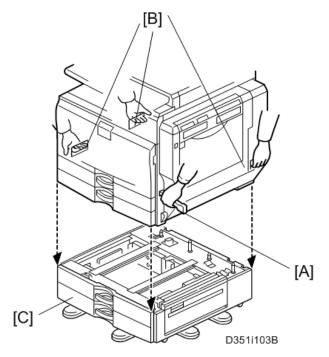
Installation Procedure

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 all tape on the paper feed unit.
- 2. Remove the paper trays and remove all tape and padding.



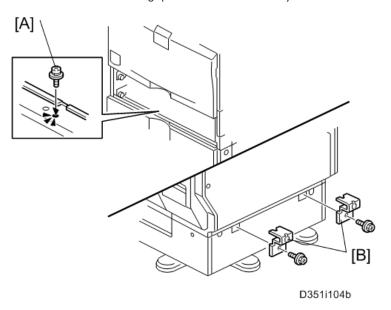
- 3. Grasp the handle [A] and grips [B] of the machine.
- 4. Lift the copier and install it on the paper feed unit [C].



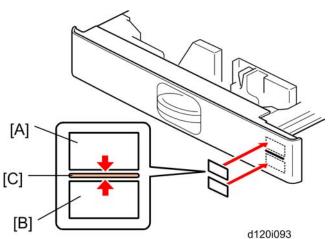
• You need two or more persons to lift the copier.



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



- 5. Remove trays 1 and 2 of the machine.
- 6. Fasten the spring washer screw [A].
- 7. Reinstall all trays.
- 8. Attach the securing brackets [B] (x 1 each; M4x10).



9. Attach the appropriate paper tray number decal [A] and paper size decal [B] to the line [C] on each tray of the paper feed unit.



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

- 10. Lock the caster stoppers for the front two casters under the paper feed unit.
- 11. Load paper into the paper feed unit.
- 12. Turn on the main power switch of the machine.
- 13. Check the paper feed unit operation and copy quality.

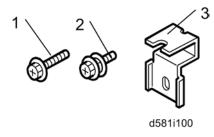
2

2000-sheet LCT Installation (D581)

Accessory Check

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

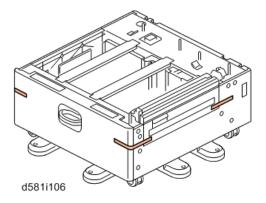
No.	Description	Q'ty
1	Screw (M4x10)	2
2	Screw with Spring washer (M4x10)	1
3	Securing bracket	2



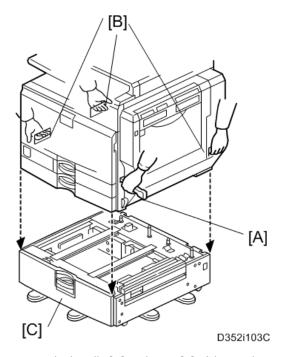
Installation Procedure

CAUTION

- 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.



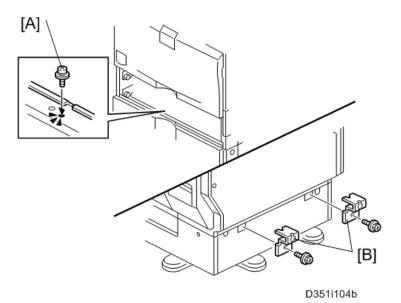
- 2. Grasp the handle [A] and grips [B] of the machine.
- 3. Lift the copier and install it on the LCT [C].



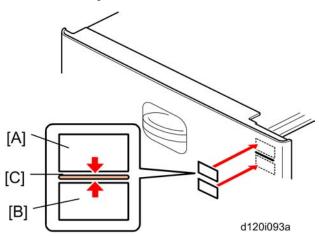
• You need two or more persons to lift the copier.



• Hold the handle [A] and grips [B] of the machine when you lift and move the machine.



- 4. Remove trays 1 and 2 of the machine.
- 5. Fasten the Spring Washer Screw [A].
- 6. Reinstall all trays.
- 7. Attach the securing brackets [B] (x 1 each; M4x10).



8. Attach the appropriate paper tray number decal [A] and paper size decal [B] to the line [C] on the tray of the LCT.



- The paper tray number and size sheet is in the accessory box of the main machine.
- 9. Lock the caster stoppers for the front two casters under the paper feed unit.
- 10. Load paper into the LCT.

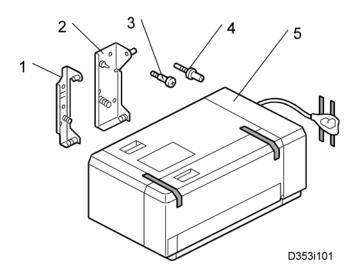
- 11. Turn on the main power switch of the machine.
- 12. Check the LCT operation and copy quality.

1200-sheet LCT Installation (D631)

Component Check

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

No.	Description	Q'ty
1	Front Bracket	1
2	Rear Bracket	1
3	Stud Screw	4
4	Joint Pin	2
5	LCT	1



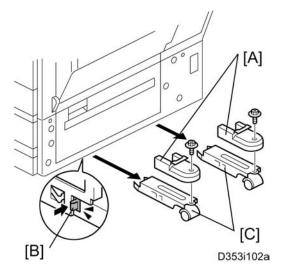
Installation Procedure

ACAUTION

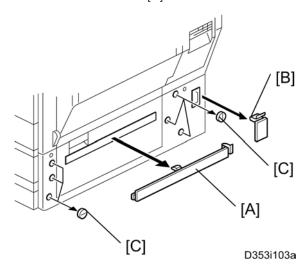
• Unplug the main machine power cord before starting the following procedure.



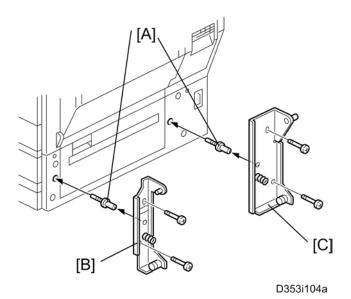
• The Paper Tray Unit (D580) or LCT 2000-sheet (D581) must be installed before installing this 1200-sheet LCT.



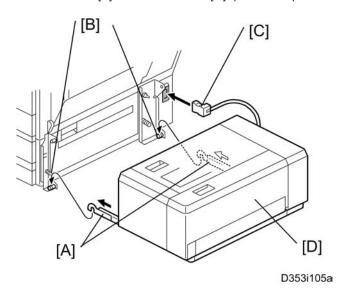
- 1. Unpack the LCT and remove the tapes.
- 2. Remove the stand covers [A].
- 3. Release the locks [B] of the front and rear caster stands.
- 4. Remove the caster stands [C].



5. Remove the paper path cover [A], connector cover [B] and six hole covers [C].



- 6. Insert the joint pins [A].
- 7. Attach the front [B] and rear brackets [C]. ($\ensuremath{\widehat{\mathcal{F}}}$ x2 each)



- 8. Pull out the front and rear rails [A], and then hang them on each bracket [B].
- 9. Connect the LCT cable [C] to the main machine.
- 10. Slide the LCT [D] into the main machine.
- 11. Make sure that the front and rear sides of the LCT are closely attached to the main machine.

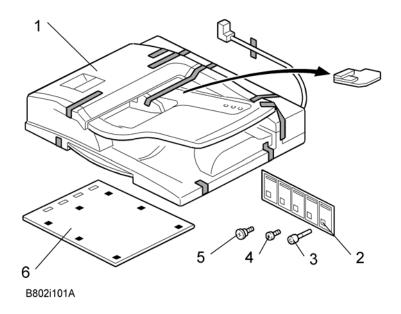
2

ARDF Installation (D630)

Component Check

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

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

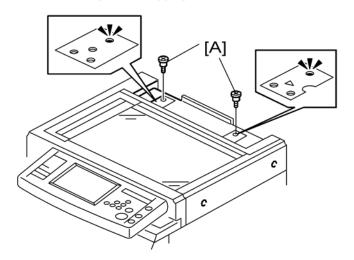


Installation Procedure

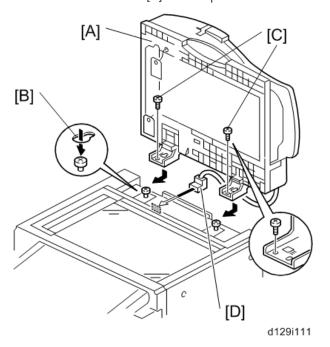
ACAUTION

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

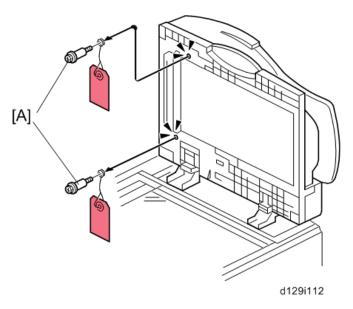
1. Remove the all tapes and shipping retainers.



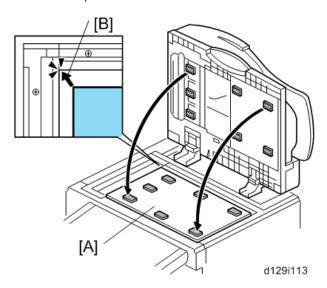
2. Insert the two stud screws [A] on the top of the machine.



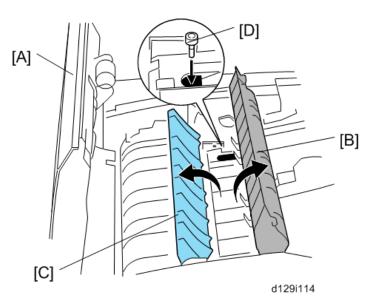
- 3. Mount the ARDF [A] by aligning the screw keyholes [B] of the ARDF support plate over the stud screws.
- 4. Slide the ARDF toward the front of the machine.
- 5. Secure the ARDF with the two knob screws [C].
- 6. Connect the I/F cable [D] to the machine.



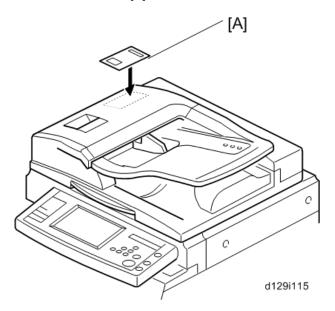
- 7. Remove two screws [A] from the bottom of the ARDF.
- 8. Remove all tapes on the ARDF.



- 9. Place the platen sheet [A] on the exposure glass.
- 10. Align the rear left corner (of the platen sheet) with the corner [B] on the exposure glass.
- 11. Close the ARDF.
- 12. Open the ARDF and check that the platen sheet is correctly attached.



- 13. Open the ARDF cover [A].
- 14. Open the feed-in guide plate [B] and feed-out guide plate [C].
- 15. Install the stamp [D] into the ARDF.
- 16. Close two guide plates [C] [B].
- 17. Close the ARDF cover [A].



- 18. Attach the decal [A] to the top cover as shown. Choose the language you want.
- 19. Plug in and turn on the main power switch of the machine, and then check the ARDF operation.

2

20. 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 referring to the "Copy Adjustments" in the section of the "Replacements and Adjustments".

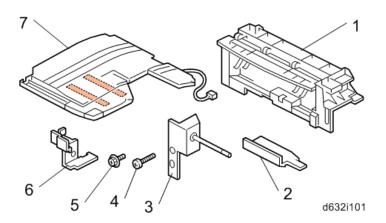
2

1-Bin Tray Unit Installation (D632)

Component Check

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

No.	Description	Q'ty
1	1 Bin Tray Unit	1
2	End-fence	1
3	Tray Support Bar	1
4	Screws (M3 x 16)	2
5	Screws (M3 x 8)	1
6	Harness Cover	1
7	Tray	1



Installation Procedure

ACAUTION

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

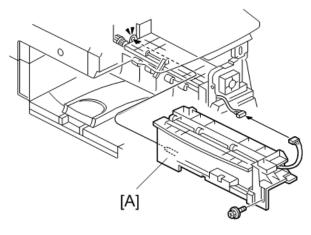
If the bridge unit (D634) or side tray (D635) has already been installed in the machine, remove it before installing 1-bin tray unit (D632). This will make it easier for you to do the following procedure.

1. Remove all tapes.

- 2. Open the right door of the machine.
- 3. Remove the front right cover (p.133).
- 4. Remove the paper exit cover (p.135).

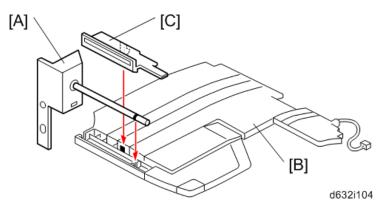


• Keep the screw removed in step 4 for step 5.

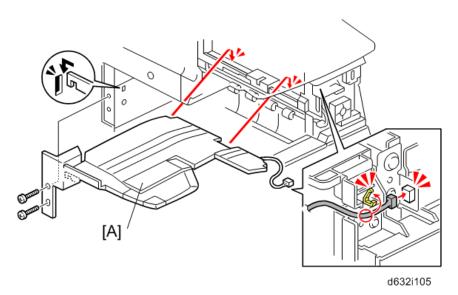


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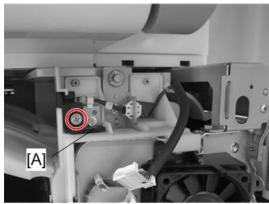
5. Install the 1 bin tray unit [A] ($\mathbb{P} \times 1, \mathbb{P} \times 1$ [This screw was removed in step 4]).



6. Attach the tray support bar [A] to the tray [B] as shown, and then attach the end-fence [C].



- 7. Install the tray [A] with the tray support bar in the machine (M3 x 16: \Re x 2).
- 8. Connect the harness to the connector of the 1-bin tray unit ($\mathbb{Z}^2 \times 1$).



d632i106a

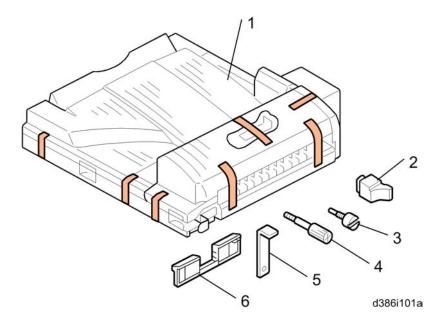
- 9. Attach the harness cover [A] (\mathscr{F} x 1; M3 x 8).
- 10. Reinstall the front right cover on the machine, and then close the right door of the machine.
- 11. Turn on the main power switch of the machine.
- 12. Check the 1-bin tray unit operation.

Bridge Unit Installation (D634)

Component Check

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

No.	Description	Q'ty
1	Bridge Unit	1
2	Frame Cover	1
3	Knob Screw	1
4	Long Knob Screw	1
5	Holder Bracket Cover	1
6	Guide	2



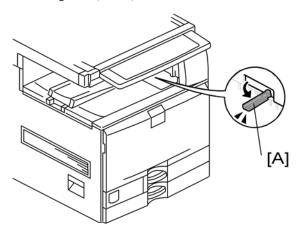
Installation Procedure

ACAUTION

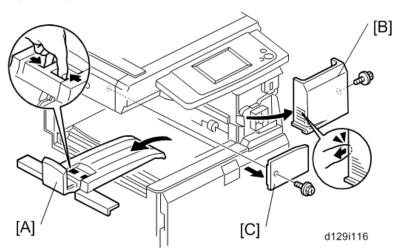
• Unplug the copier power cord before starting the following procedure.



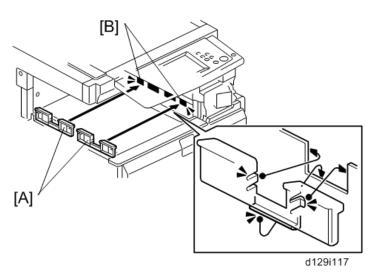
- If you will install the 1-bin tray (D632) on the machine, install the 1-bin tray first before installing the bridge unit (D634). This makes it easy to do the following procedure.
- If you will install the finisher unit (D588, D636 or D637) on the machine, install it after installing the bridge unit (D634).



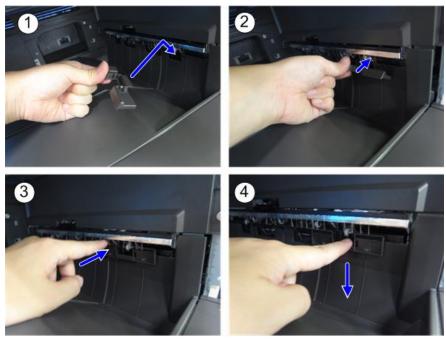
- 1. Remove all tapes.
- 2. If the sensor feeler [A] is out, fold it into the machine.
- 3. Open the right door of the machine.



- 4. Remove the upper inner tray [A].
- 5. Remove the front right cover [B] (x 1).
- 6. Remove the connector cover [C] (x 1).

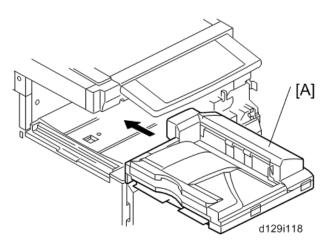


7. Attach the two guides [A] to the cutouts [B] in the inner tray.

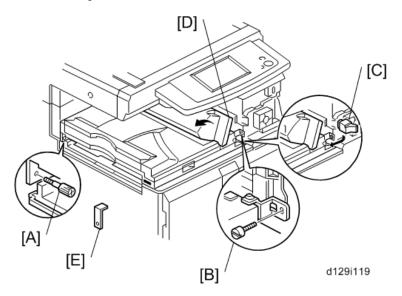


d129i209

- 1) Place the lower hook of the guide in the cutout of the paper exit.
- 2) Attach the guide as shown until the two side hooks hold the paper exit.
- 3) Press the guide.
- 4) Press down the guide as shown.



8. Install the bridge unit [A] in the machine.



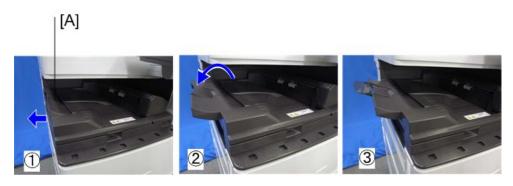
- 9. Secure the bridge unit with the long knob screw [A] and knob screw [B].
- 10. Attach the frame cover [C].
- 11. Reinstall the front right cover on the machine, and then close the right door of the machine.



- Open the bridge unit cover [D] when installing the front right cover. Otherwise, you cannot reinstall it.
- 12. Install the optional finisher (refer to the finisher installation procedure).



Holder bracket [E] is used in the installation procedure of the finisher (D588, D636 or D637).
 Do not install it at this time.



d129i200

- 13. Pull out the extension tray [A] only if the 1000-sheet finisher (D588) will be installed on the main machine.
- 14. Turn on the main power switch of the machine.
- 15. Check the bridge unit operation.

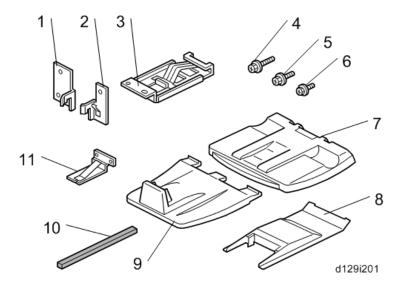
2

3000/2000-sheet (Booklet) Finisher (D636/ D637)

Accessory Check

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

No.	Description	Q'ty
1	Rear joint bracket	1
2	Front joint bracket	1
3	Ground (earth) plate	1
4	Tapping screws - M4 x14	4
5	Tapping screws - M3 x 8	1
6	Tapping screws - M3 x 6	6
7	Upper output tray	1
8	Support Tray	1
9	Lower output tray (D637 only)	1
10	Cushion (with double-sided tape)	1
11	Small Ground (earth) plate	2



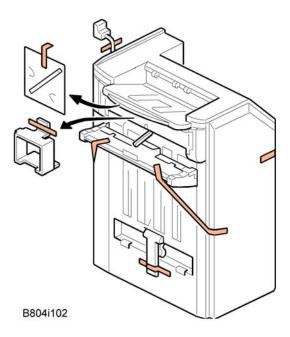
Installation Procedure

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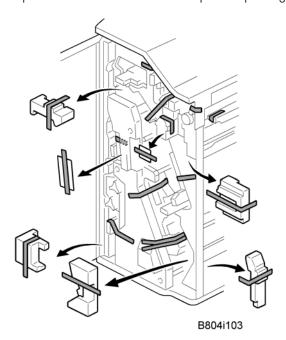
• Unplug the main machine power cord before starting the following procedure.

If this finisher is installed on this machine, the following options must be installed before installing this finisher.

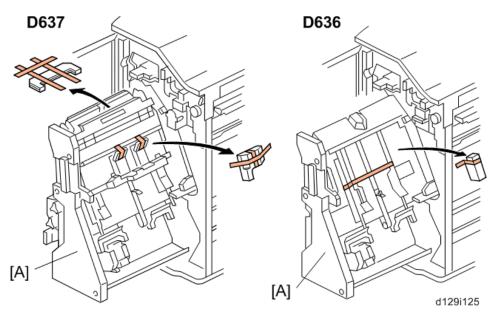
- Bridge Unit (D634)
- Paper Feed Unit (D580) or LCIT (D581)



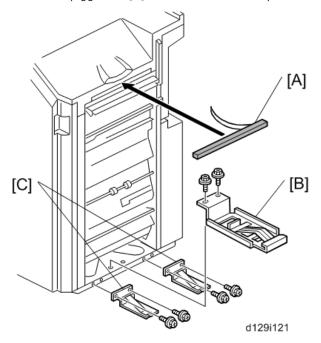
1. Unpack the finisher and remove all tapes and packing materials from the finisher.



2. Open the front door, and then remove all tapes and packing materials from the inside of the finisher.



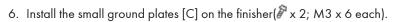
3. Pull out the jogger unit [A], and then remove all tapes and retainers.

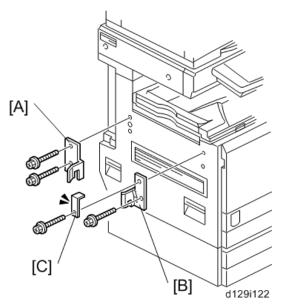


4. Attach the cushion [A] to the finisher.



- Make sure that the cushion is placed within 0 to 1 mm from the edge of the cover.
- 5. Install the ground plate [B] on the finisher (\mathscr{F} x 2; M3 x 6).

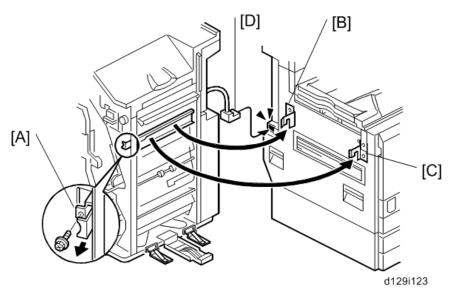




- 7. Attach the rear joint bracket [A] (*x 2; M4 x 14).
- 8. Attach the front joint bracket [B] and the holder bracket [C] (\mathscr{F} x 2; M4 x 14).

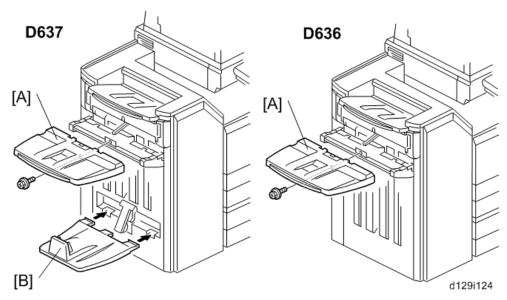


• Holder bracket [C] must be placed outside the front joint bracket [B]. This bracket is provided with the Bridge Unit (D634).



9. Pull the lock lever [A] (x 1).

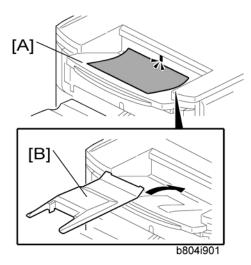
- Slowly push the finisher to the left side of the machine, keeping its front door open until the brackets
 [B] [C] go into their slots.
- 11. Push the lock lever [A], and then secure it (\mathscr{F} x 1).
- 12. Close the front door of the finisher.
- 13. Connect the finisher connector [D] to the machine.



- 14. Install the upper output tray [A] (*x 1; M3 x 8).
- 15. Only for D637, install the lower output tray [B].
- 16. Turn on the main power switch of the machine.
- 17. Check the finisher operation.

2

Support Tray Installation



If a stacking problem occurs several times on the upper output tray [A], put the support tray [B] on the tray as shown.



• Keep this tray in the manual pocket if this tray does not need to be installed.

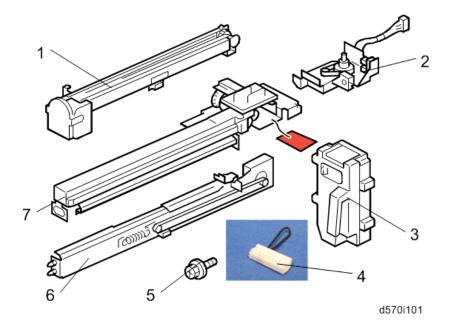
Punch Unit Installation (D570)

The Punch Unit D570 can be installed in the 3000/2000-Sheet (Booklet) Finisher D636/D637.

Component Check

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

No.	Description	Q'ty
1	Punch-out Waste Unit	1
2	Slide Drive Unit	1
3	Punch Waste Hopper	1
4	Wire harness: short-circuit	1
5	Screws (M3 x 6)	5
6	Side-to-Side Detection Unit	1
7	Punching Unit	1



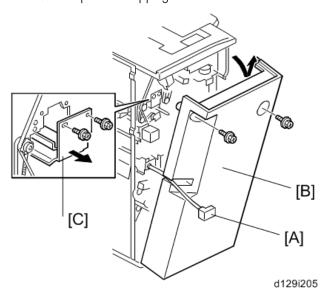
2

2

Installation Procedure

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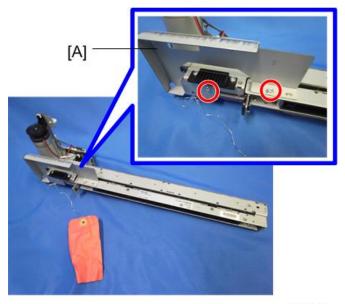
- Unplug the main machine power cord before starting the following procedure. If the 2000/3000-sheet booklet finisher has been installed, disconnect it and pull it away from the machine.
- 1. Remove all tapes and shipping retainers.



- 2. If the finisher is connected to the copier, disconnect the power connector [A] and separate the finisher from the copier.
- 3. Remove the rear cover [B] ($\mathscr{F} \times 2$) and open the front door.

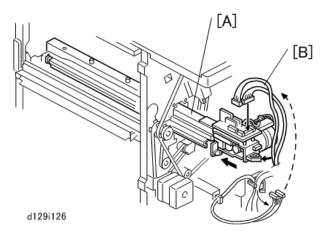


- At the base of the back cover, be sure to disconnect the tabs that fasten the cover to the frame.
- 4. Remove the guide plate [C] (x 2).

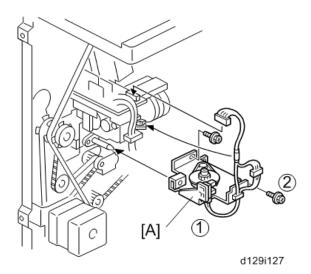


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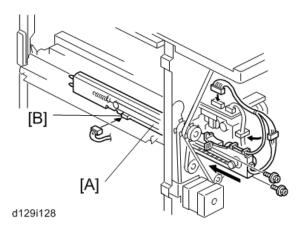
5. Remove the shipping retainer [A] ($\slash\hspace{-0.6em}P \times 2)$ from the punch unit.



- 6. Move the punch unit [A] along its rails into the finisher. Make sure that the pin engages correctly at the front and rear.
- 7. Connect the cables [B] of the finisher to the connectors (CN601 and CN602) on the punch unit board ($^{\sim}$ x 2, $^{\sim}$ x 1).
 - The cables [B] are coiled and attached to the PCB.



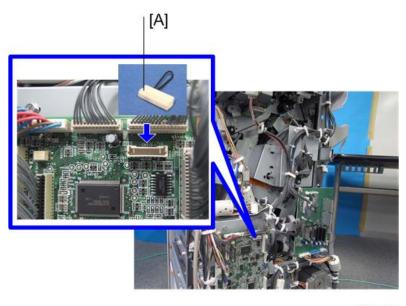
- 8. Attach the slide drive unit [A] to the finisher and connect it to the punch unit (x 2, 1). Push in the slide drive unit at 1 when you attach the screw 2.
- 9. Make sure that the punch unit moves freely and is not blocked by the screws.



- Put the side-to-side detection unit [A] in the machine. Make sure that the two pins are engaged correctly at the front.
- 11. Make sure that the side-to-side detection unit moves smoothly on its rails. If it does not, make sure that the rails are aligned with their grooves.
- 12. Attach the side-to-side detection unit and connect it at the rear ($\mathscr{F} \times 2$, $\overset{\smile}{\Longrightarrow} \times 1$, $\overset{\smile}{\Longrightarrow} \times 1$).
- 13. Pull the short connector out of the connector [B], then connect the cable of the finisher ($\mathbb{Z}^{2} \times 1$).

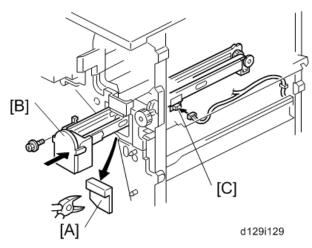


• This is the 3-pin connector.



d129i133

14. Connect "Wire harness: short-circuit" [A] to the CN110 connector.

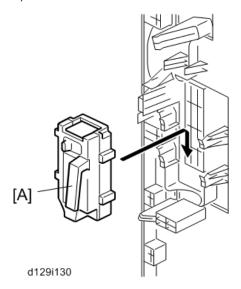


- 15. At the front, use a pair of wire cutters to remove the part [A] of the cover.
- 16. Install the punch-waste transport unit [B] in the finisher.
- 17. Make sure that the punch-waste transport unit moves smoothly on its rails. If it does not, make sure that the rails are aligned with the grooves.
- 18. Remove the short connector from the connector [C].



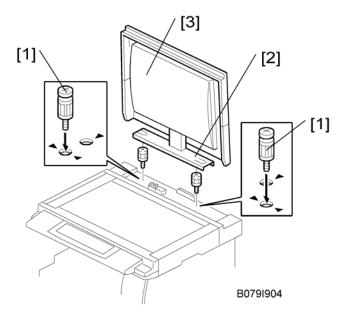
• This is the 4-pin connector.

19. Connect the cable to connector [C] and attach the punch-waste transport unit ($\mathscr{F} \times 1$, $\overset{\square}{\Longrightarrow} \times 1$).



- 20. Set the hopper [A] in its holder.
- 21. Reassemble the finisher, and then install it on the main machine.
- 22. Connect the power cord to the outlet, and then turn the main power switch on.
- 23. Check the punch unit operation.

Platen Cover (D593)



- 1. Install screws [1] (\mathscr{F} x 2) on the top cover as shown.
- 2. Position the platen cover bracket [2] on the heads of the stud screws, and slide the platen cover [3] to the left.

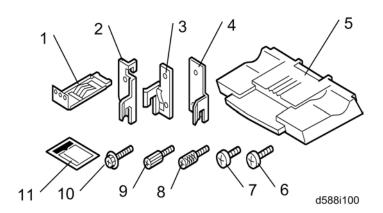
9

1000-sheet Finisher (D588)

Accessory Check

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

No.	Description	Q'ty	For this model
1	Grounding Plate	1	Yes
2	Rear Joint Bracket	1	Not used
3	Front Joint Bracket	1	Yes
4	Rear Joint Bracket	1	Yes
5	Сору Тгау	1	Yes
6	Screw - M3 x 8	1	Yes
7	Screw - M4 x 13	4	Yes
8	Knob Screw - M3 x 8	1	Yes
9	Knob Screw - M4 x 10	1	Yes
10	Screw - M4 x 25	3	Not used
11	Staple Position Decal	1	Yes

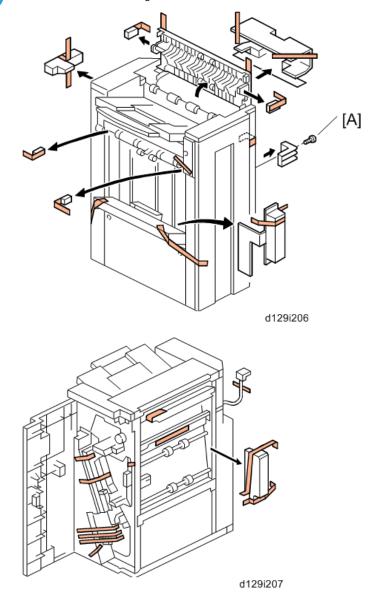


Installation Procedure

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• Unplug the main machine power cord before starting the following procedure.

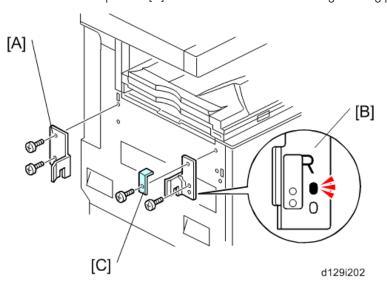
If this finisher is installed, the Bridge Unit (D634) and Paper Feed Unit (D580) or LCT (D581) must be installed before installing this finisher.



1. Unpack the finisher and remove the tapes.



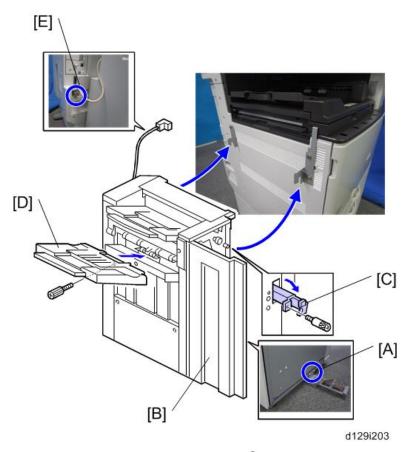
• Be sure to keep screw [A]. It will be needed to secure the grounding plate in step 3.



2. Install the rear joint bracket [A] (\mathscr{F} x 2; M4 x 13) and front joint bracket [B] (\mathscr{F} x 2; M4 x 13).



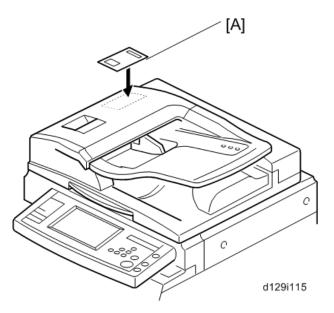
• Holder bracket [C] must be placed outside the front joint bracket [B]. This bracket is provided with the Bridge Unit (D634).



3. Install the grounding plate [A] on the finisher ($\mathscr{F} \times 2; \, \text{M3} \times 8)$



- Use the screw removed in step 1 and the screw from the accessory box.
- 4. Open the front door [B]. Then pull the locking lever [C].
- 5. Align the finisher on the joint brackets, and lock it in place by pushing the locking lever.
- 6. Secure the locking lever (F x 1; knob M3 x 8) and close the front door.
- 7. Install the copy tray [D] (\mathscr{F} x 1; knob M4 x 10).
- 8. Connect the finisher cable [E] to the main machine as shown above.



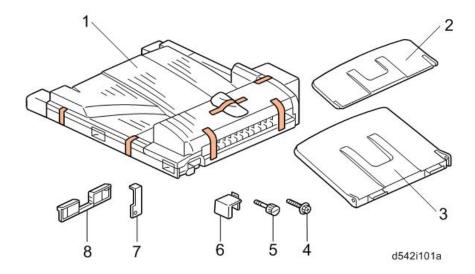
- 9. Attach the staple position decal [A] to the ARDF as shown.
- 10. Turn on the main power switch and check the finisher operation.

Side Tray (D635)

Component Check

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

No.	Description	Q'ty
1	Side Tray Unit	1
2	Sub Output Tray	1
3	Main Output Tray	1
4	Screw	1
5	Knob Screw	1
6	Frame Cover	1
7	Holder Bracket Cover	1
8	Guide	1



2

Installation Procedure

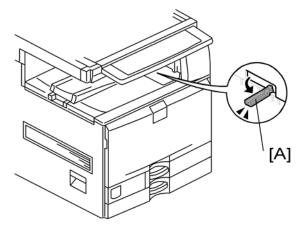


ACAUTION

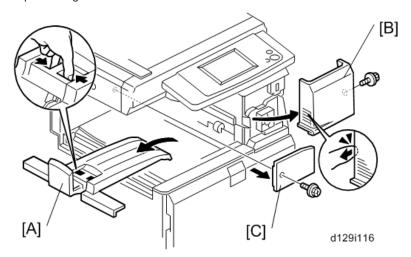
• Turn off the main switch of the copier and unplug the power cord before you start the installation procedure.



• If you will install the 1-bin tray (D632) on the machine, install the 1-bin tray first before installing the side tray (D635). This makes it easier to do the following procedure.

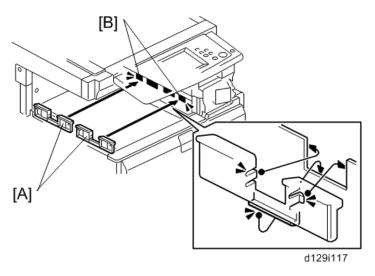


- 1. Remove all tapes.
- 2. If the sensor feeler [A] is out, fold it into the machine.
- 3. Open the right door of the machine.

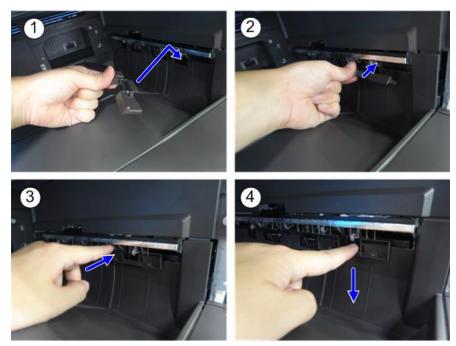


- 4. Remove the inner tray [A].
- 5. Remove the front right cover [B] (x 1).

6. Remove the connector cover [C] (x 1).

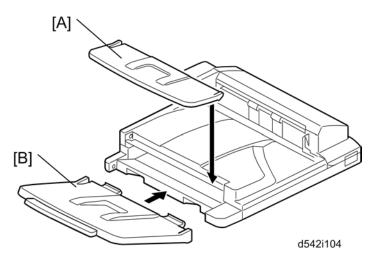


7. Attach the two guides [A] to the cutouts [B] in the inner tray.

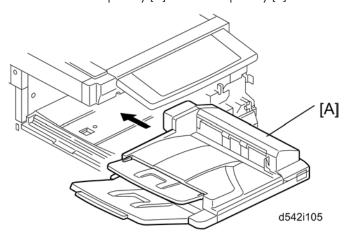


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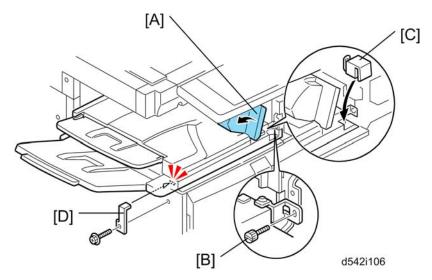
- 1) Place the lower hook of the guide in the cutout of the paper exit.
- 2) Attach the guide as shown until the two side hooks hold the paper exit.
- 3) Press the guide.
- 4) Press down the guide as shown.



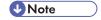
 $8. \ \, \text{Attach the main output tray [A] and sub output tray [B] to the side tray unit.}$



9. Install the side tray unit [A] in the machine.



- 10. Open the side tray cover [A].
- 11. Secure the side tray unit with the knob screw [B].
- 12. Attach the frame cover [C].
- 13. Reinstall the front right cover on the machine, and then close the right door of the machine.



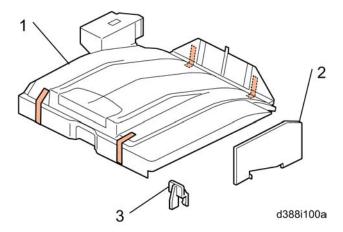
- Open the side tray cover [A] when installing the front right cover. Otherwise, you cannot reinstall it.
- 14. Install the holder bracket [D] (*x 1).
- 15. Turn on the main power switch of the machine.
- 16. Check the side tray operation.

Internal Shift Tray (D633)

Component Check

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

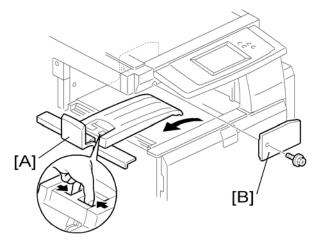
No.	Description	Q'ty
1	Shift Tray Unit	1
2	Paper Guide - Small	2
3	Connector Cover	1



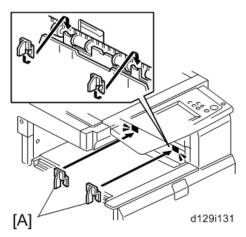
Installation Procedure

ACAUTION

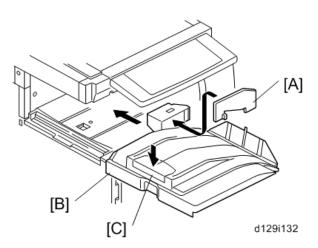
• Unplug the copier power cord before starting the following procedure.



- 1. Remove all tapes.
- 2. Remove the standard tray [A].
- 3. Remove the inner cover [B] (\nearrow x 1).



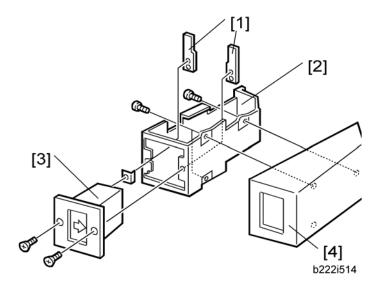
4. Install the small paper guides [A].



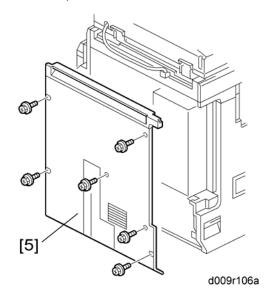
- 5. Attach the connector cover [A] to the shift tray unit [B].
- 6. Install the shift tray unit [B] in the machine.
- 7. Push down the left edge [C] of the shift tray.
- 8. Turn on the main power switch of the machine.
- 9. Check the shift tray unit operation.

Key Counter Installation

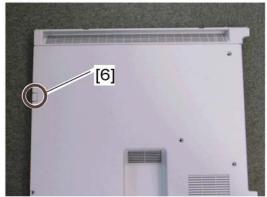
Installation Procedure



- 1. Hold the key counter plate nuts [1] on the inside of the key counter bracket [2] and insert the key counter holder [3].
- 2. Secure the key counter holder to the bracket ($\slash\hspace{-0.6em}P \times 2$).
- 3. Install the key counter cover [4] (x 2).

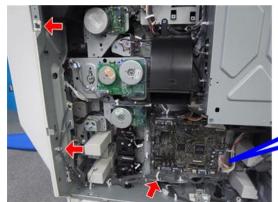


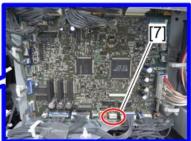
4. Rear cover [5] (x 5)



d009i514

5. Cut off the part [6] of the rear cover.





d129i210

6. Connect the harness to CN211 [7] on the IOB ($\stackrel{\frown}{\bowtie}$ x 3).



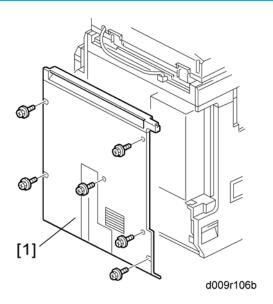
d129i211

- 7. Peel off the double-sided tape on the key counter bracket and attach the key counter to the scanner right cover [8].
- 8. Reassemble the machine.

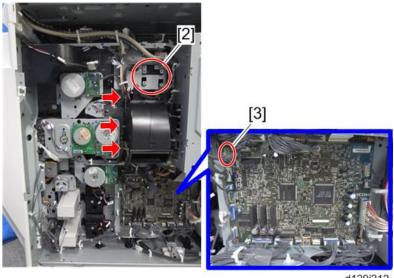
2

Key Counter Interface Unit Installation

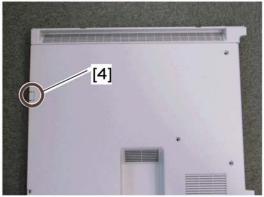
Installation Procedure



1. Rear cover [1] (*\bar{\bar{\rho}} x 6)

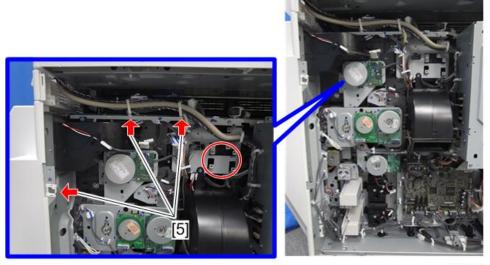


- d129i212
- 2. Install the key counter interface board in the location [2] (\mathscr{F} x 4).
- 3. Connect the harness to CN3 on the key counter interface board.
- 4. Connect the other terminal of the harness to CN214 [3] on the IOB ($\stackrel{\leftarrow}{\bowtie}$ x 3).



d009i514a

5. Cut off the part [4] of the rear cover.

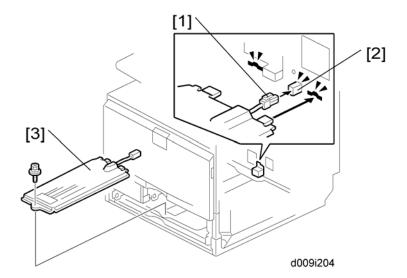


d129i213

- 6. Connect the harness from the counter device to CN4 on the key counter interface board and clamp it with three clamps [5].
- 7. Reassemble the machine.

Tray Heater

Installation Procedure



- 1. Remove trays 1 and 2 from the machine.
- 2. Connect the connector [1] of the heater to the connector [2] of the main machine.
- 3. Install the heater [3] inside the machine ($\mathcal{F} \times 1$).



d129i217

4. Remove the connector cover [4] ($\mathscr{F} \times 1$).



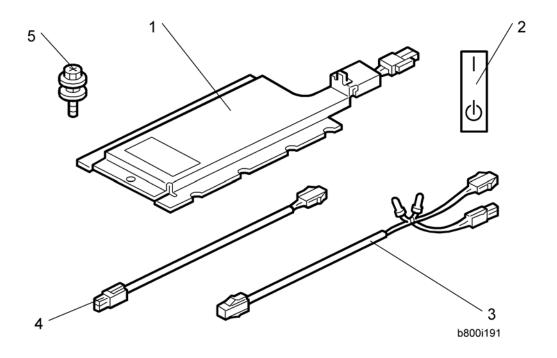
d129i218

- 5. Release the heater relay connector [5] (🛱 x 1).
- 6. Connect the heater relay connector to the connector [6] (front side) of the main frame ($\cancel{\square} \times 1$).
- 7. Reassemble the machine.

Tray Heater (Optional Paper Feed Unit)

Component Check

No.	Description	Q'ty
1	Tray heater	1
2	On-standby decal	1
3	Harness 2	1
4	Harness 1	1
5	Screw M4 x 10	2
-	Installation procedure	1



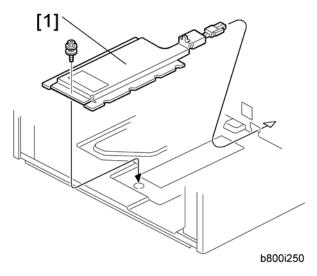
Installation Procedure

ACAUTION

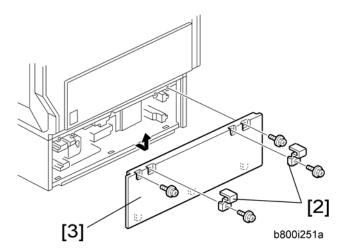
• Unplug the machine power cord before starting the following procedure.

For installing the tray heater in the D580 (Two-tray paper feed unit)

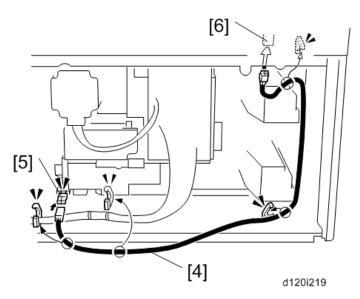
1. Pull out the two trays from the optional paper feed unit.



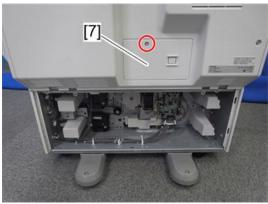
2. Install the tray heater [1] in the optional paper feed unit (\mathscr{F} x 1).



3. Remove the two securing brackets [2] (x 1 each), and then the rear cover [3] of the optional paper feed unit (x 2).



- 4. Connect the harness [4] to the connector [5] of the tray heater.
- 5. Route the harness [4] as shown and clamp it with four clamps ($\stackrel{\frown}{\bowtie} \times 4$).
- 6. Connect the harness [4] to the connector [6] of the mainframe.



d129i220

7. Remove the connector cover [7] (\mathscr{F} x 1).



d129i221

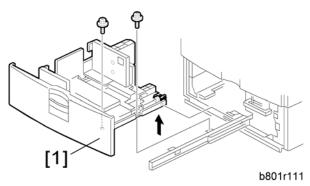
- 8. Release the optional heater relay connector [8] $(\stackrel{\frown}{\bowtie} \times 1)$.
- 9. Connect the optional heater relay connector to the connector [9] (rear side) of the main frame (x 1).
- 10. Reassemble the mainframe and optional paper feed unit.

For installing the tray heater in the D581 (LCT)

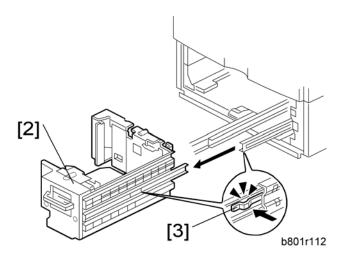
- 1. Remove the rear cover of the mainframe ($\mathscr{F} \times 6$).
- 2. Pull out the LCT drawer.



• If the right tray comes out with the left tray, push the right tray into the LCT.



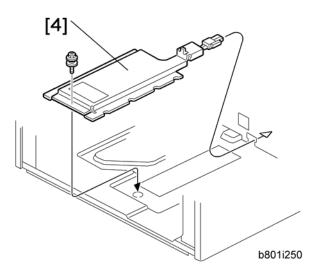
3. Left tray [1] (x 2)



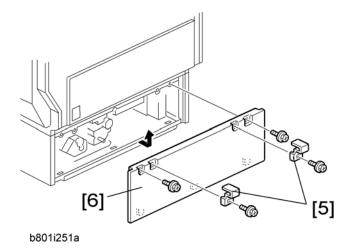
4. Remove the right tray [2] while pressing down the stopper [3].



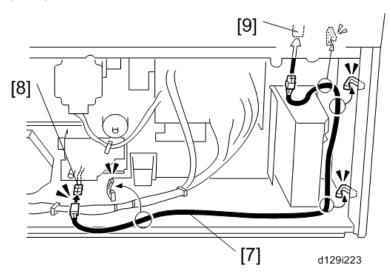
• When reinstalling the right tray, set the right tray on the guide rail and carefully push the tray in, making sure to keep the tray level.



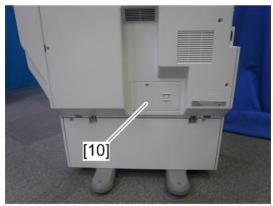
5. Install the tray heater [4] in the optional LCT (\mathcal{F} x 1).



6. Remove the two securing brackets [5] ($\mathscr{F} \times 1$ each), and then the rear cover [6] of the optional LCT ($\mathscr{F} \times 2$).

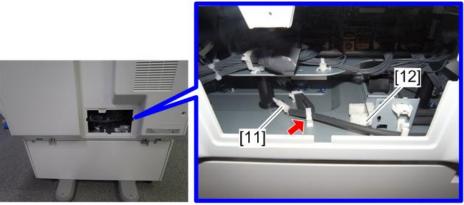


- 7. Connect the harness [7] to the connector [8] of the tray heater.
- 8. Route the harness [7] as shown and clamp it with four clamps ($\stackrel{\frown}{\bowtie}$ x 4).
- 9. Connect the harness [7] to the connector [9] of the mainframe.
- 10. Reassemble the rear cover of the optional LCT.



d129i224

11. Remove the connector cover [10] (x 1).



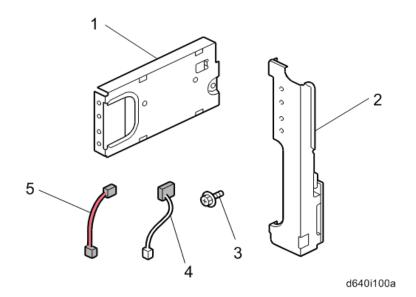
d129i225

- 12. Release the optional heater relay connector [11] ($\frac{\cite{11}}{\cite{11}}$ x 1).
- 13. Connect the optional heater relay connector to the connector [12] (rear side) of the main frame (x 1).
- 14. Reassemble the mainframe and optional LCT.

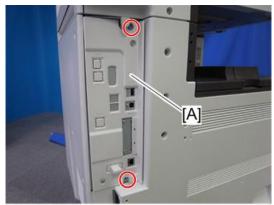
HDD Installation (D640-11)

Component Check

No.	Description	Q'ty
1	HDD Unit	1
2	Connecting Board Unit	1
3	Screw - M3 x 6	5
4	Harness 1	1
5	Harness 2	1



Installation Procedure



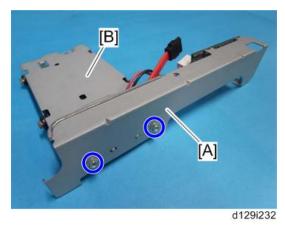
d129i231

1. Remove the controller board unit [A] ($\hspace{-0.8em}\not\hspace{-0.8em} P \times 2$).

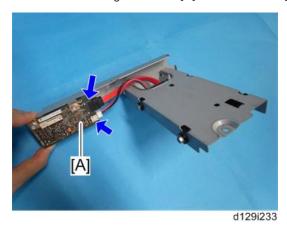


d129i300

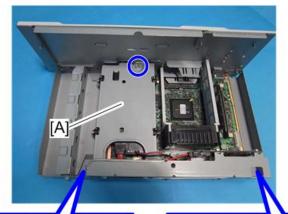
2. Connect the two harnesses to the HDD unit [A] ($\mathbb{H}^{2}\times 2$).



3. Install the connecting board unit [A] on the HDD unit [B] ($\ensuremath{\slash\hspace{-0.4em}P} \times 2$).



4. Connect the two harnesses from the HDD unit to the connecting board [A] ($^{\square}$ x 2).







d129i234

- 5. Install the HDD unit [A] on the controller board unit (\mathscr{F} x 3).
- 6. Reinstall the controller board unit in the machine.

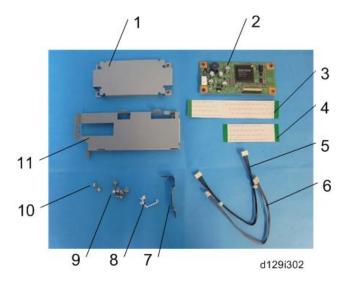
After Installing the HDD

- 1. Do SP5832-001 to format the hard disk.
- 2. Do SP5853-001 to copy the preset stamp data from the firmware to the hard disk.
- 3. Do SP5846-040 to copy the address book to the hard disk from the controller board.
- 4. Do SP5846-041 to let the user get access to the address book.
- 5. Turn the main power switch off/on.

Copy Data Security Unit (B829)

Component Check

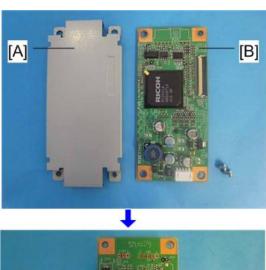
No.	Description	Q'ty	For this model
1	Bracket 1	1	Yes
2	ICIB-3	1	Yes
3	Flexible cable: Long	1	Not used
4	Flexible cable: Short	1	Not used
5	Harness with bands	1	Not used
6	Harness	1	Not used
7	Small Bracket	1	Not used
8	Saddle Clamp	1	Not used
9	Screws: M3x6	6	Yes
10	Screws: M3x4	2	Yes
11	Bracket 2	1	Not used



Installation Procedure

ACAUTION

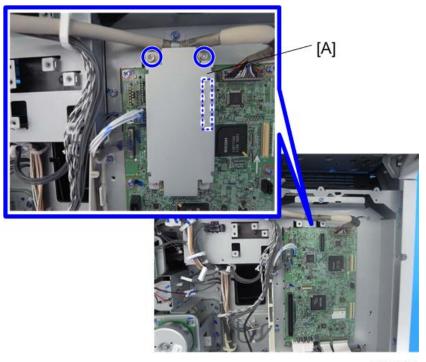
- Unplug the main machine power cord before you do the following procedure.
- 1. Rear cover (p.132)
- 2. Controller unit (p.230)
- 3. Controller box (p.236 "Mother Board")





d129i303

4. Attach bracket 1 [A] to the ICIB-3 [B] (** x 2; M3 x 4).



d129i304

- 5. Connect the ICIB-3 with bracket 1 [A] to CN 505 on the IPU (F x 2; M3 x 6).
- 6. Reassemble the machine.

User Tool Setting

- 1. Plug in and turn on the main power switch.
- Go into the User Tools mode, and select System Settings > Administrator Tools > Data Security for Copying > "On".
- 3. Exit the User Tools.
- 4. Check the operation.



- The machine will issue an SC165 error if the machine is powered on with the ICIB-1 removed and the "Data Security for Copying" feature is set to "ON".
- When you remove this option from the machine, first set the setting to "OFF" with the user tool
 before removing this board. If you forget to do this, "Data Security for Copying" feature
 cannot appear in the user tool settings. And then SC165 will appear every time the machine is
 switched on, and the machine cannot be used.

Check All Connections

Make sure that the machine can recognize the option.

- 1. Plug in the power cord.
- 2. Turn on the main switch.
- Enter the printer user mode. Then print the configuration page.
 User Tools > Printer Features > List Test Print > Configuration Page
- 4. All installed options are shown sin the "System Reference" column.

Browser Unit Type I

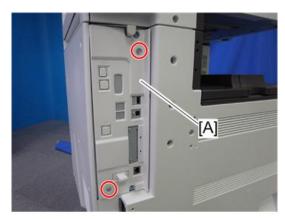
Installation Procedure

This option requires a HDD unit.

Browser RTB 1
Replace the entire procedure.

ACAUTION

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



d129i230

1. Remove the controller cover [A] (\mathscr{F} x 2).



d641i117

- 2. Turn the SD-card label face to the rear of the machine. Then push it slowly into Slot 1 (Upper Slot) [A] until you hear a click.
- 3. Plug in and turn on the main power switch.
- 4. Push the "User Tools" key.

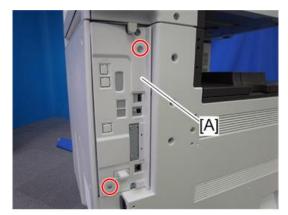
If an administrator setting is registered for the machine, steps 5 and 6 are required. Otherwise, skip to step 7.

- 5. Push the "Login/Logout" key.
- 6. Login with the administrator user name and password.
- 7. Touch "Extended Feature Settings" twice on the LCD.
- 8. Touch "Install" on the LCD.
- 9. Touch "SD Card".
- 10. Touch the "Browser" line.
- 11. Under "Install to", touch "Machine HDD" and touch "Next".
- 12. When you see "Ready to Install", check the information on the screen to confirm your previous selection.
- 13. Touch "OK". You will see "Installing the extended feature... Please wait.", and then "Completed".
- 14. Touch "Exit" to go back to the setting screen.
- 15. Touch "Change Allocation".
- 16. Touch the "Browser" line.
- 17. Press one of the hard keys, which you want to use for the Browser Unit. By default, this function is assigned to the "Other Functions" key (bottom key of the function keys).
- 18. Touch "OK".
- 19. Touch "Exit" twice to go back to the copy screen.
- 20. Turn off the main power switch.
- 21. Install the key for "Browser Unit" to the place where you want it.
- 22. Turn on the main power switch.
- 23. When the machine reaches the Ready condition, press the key that you installed in Step 22 above. A message will be displayed confirming that the browser option was successfully installed.
- 24. Turn off the main power switch.
- 25. Remove the SD card from Slot 1 (Upper Slot) [A].
- 26. Attach the controller cover [A] (x 1).
- Tell a customer to keep the SD card in a safe place after you have installed the application program from the card to the HDD.

This is because:

- The SD card is 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.

Update Procedure



d129i230

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



d641i117

- Turn the SD-card label face to the rear of the machine. Then push it slowly into Slot 1 (Upper Slot)
 [A] until you hear a click.
- 3. Plug in and turn on the main power switch.
- 4. 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.

- 5. Push the "Login/ Logout" key.
- 6. Login with the administrator user name and password.
- 7. Touch "Extended Feature Settings" twice on the LCD.
- 8. Touch "Uninstall" on the LCD.
- 9. Touch the "Browser" line

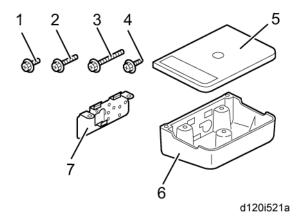
- 10. A confirmation message appears on the LCD.
- 11. Touch "Yes" to proceed.
- 12. A reconfirmation message appears on the LCD.
- 13. Touch "Yes" to uninstall the browser unit.
- 14. You will see "Uninstalling the extended feature... Please wait.", and then "Completed".
- 15. Touch "Exit" to go back to the setting screen.
- 16. Exit "User/Tools" setting, and then turn off the main power switch.
- 17. Remove the SD card from Slot 1 (Upper Slot).
- 18. Overwrite the updated program in the "sdk" folder of the browser unit application with PC.
- 19. Do the "Installation Procedure" to install the browser unit.

Card Reader Bracket Type C3352 (D593)

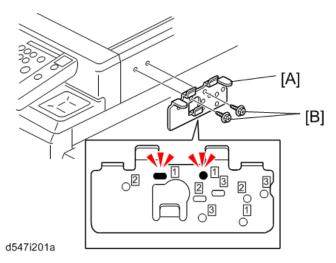
Component Check

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

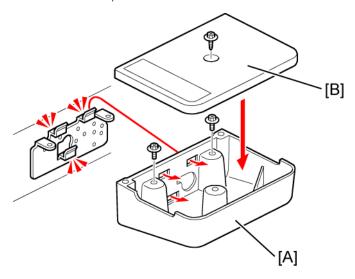
No	Description	Q'ty	For This Model
1	Screw: M3 x 8	5	Yes
2	Screw: M3 x 14	1	Not used
3	Screw: M4 x 25	1	Not used
4	Tapping Screw: M3 x 10	3	Yes
5	Upper Tray	1	Yes
6	Lower Tray	1	Yes
7	Tray Bracket	1	Yes



Installation Procedure



- 1. Attach the tray bracket [A] to the scanner right cover (F [B] x 2: M3x 8
 - For this model, use the screw holes marked "1" on the table bracket.



d120i577

- 2. Attach the lower tray [A] to the tray bracket ($\widehat{\!\mathscr{F}} \times 2\colon M3x8$).
- 3. Attach the upper tray [B] to the tray bracket (Fx 1: M3x8).
- 4. Connect the cable to the designated connector (the connector to use depends on the type of device to be connected).

3. Preventive Maintenance

PM Tables

See "Appendices" for the following information:

• PM Tables

4. Replacement and Adjustment

General Cautions

ACAUTION

 To avoid damage to the transfer belt, drum, or development unit when it is removed or re-installed, never turn off power switch while electrical components are active.

CAUTION

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

Laser Unit

- 1. Do not loosen the screws that secure the LD drive board to the laser diode casing. Doing so would throw the LD unit out of adjustment.
- 2. Do not adjust the variable resistors on the LD unit, as they are adjusted in the factory.
- 3. The polygon mirror and F-theta lenses are very sensitive to dust. Do not open the optical housing unit.
- 4. Do not touch the glass surface of the polygon mirror motor unit with bare hands.
- 5. After replacing the LD unit, do the laser beam pitch adjustment.

Used Toner

Dispose of used toner in accordance with local regulations. Never throw toner into an open flame, for toner dust may ignite.

Special Tools and Lubricants

Special Tools

Part Number	Description	Q'ty
A0069104	Scanner Positioning Pin (4 pc./set)	1
A2929500	Test Chart – S5S (10 pc./set)	1
A2309003	Adjustment Cam – Laser Unit	1
A2309004	Positioning Pin – Laser Unit	1
B6455010	SD Card	1
G0219350	Loop Back Connector	1

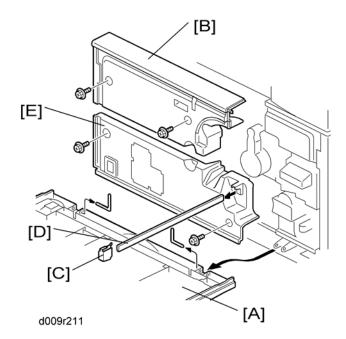
Lubricants

Part Number	Description	Q'ty
A2579300	Grease Barrierta S552R	1
52039502	Silicone Grease G-501	1

Exterior Covers

Front Door, Upper and Lower Inner Cover

1. Left Cover (p.132)



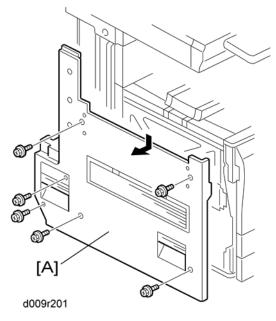
2. Open and remove the front door [A] (pin x 2).

Upper Inner Cover

- 1. Open the front door [A].
- 2. Upper inner cover [B] (x 2)

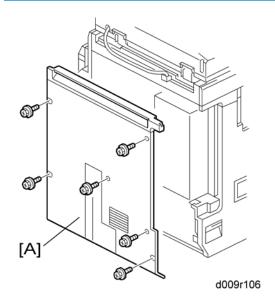
Lower Inner Cover

- 1. Remove the front door [A] (pin x 2)
- 2. Shield glass cover [C]
- 3. Shield glass [D] (*\begin{align*} x 2)
- 4. Lower inner cover [E]



1. Left cover [A] (x 6)

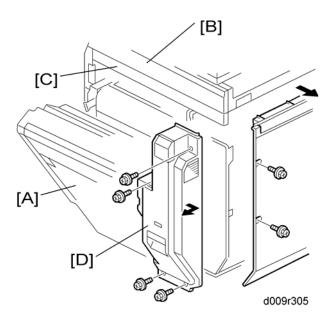
Rear Cover



1. Rear cover [A] (*\bar{\rho} x 6)

Right Rear Cover

1. Rear cover(p.132)



- 2. Open the right door [A].
- 3. Scanner right cover [B] (* x 2)
- 4. Right top cover [C] (*x 1)
- 5. Right rear cover [D] (* x 4)

Front Right Cover



d129r800





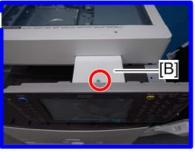
d129r820

2. Front right cover [A] (x 1)

Operation Panel

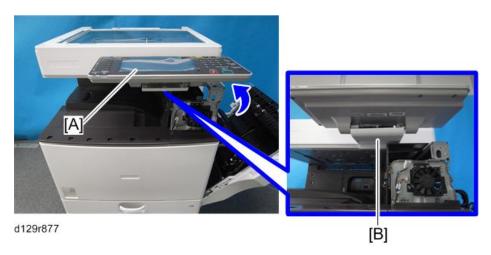
1. Front right cover (p.133)



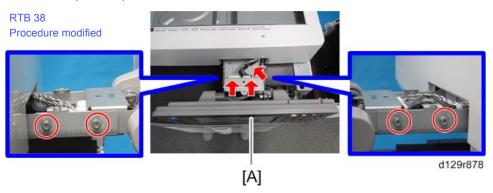


d129r876

- 2. Position the operation panel [A] as shown above.
- 3. Operation panel connector upper cover [B] ($\widetilde{\mathscr{F}} \times 1$)



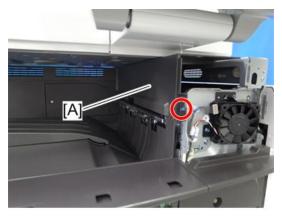
- 4. Position the operation panel [A] as shown above.
- 5. Remove the operation panel connector lower cover [B].



Paper Exit Cover

1. Front right cover (p.133)

Operation panel LCD replacement procedures RTB 38



d129r803

2. Paper exit cover [A] (x 1)

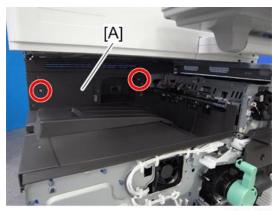
Inner Tray

- 1. Left cover (p.132)
- 2. Upper inner cover (p.131 "Front Door, Upper and Lower Inner Cover")
- 3. Paper exit cover (p.135)



d129r819

4. Connector cover [A]



d129r804

5. Inner rear cover [A]

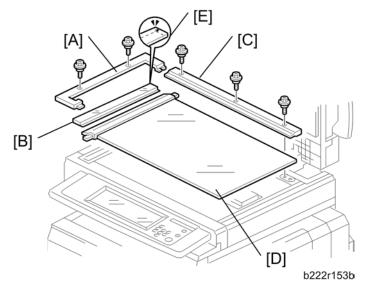


d129r805

6. Inner tray [A]

Scanner

Exposure Glass



- 1. Glass cover [A] (x 2)
- 2. ARDF exposure glass [B]
- 3. Rear scale [C] (x 3)
- 4. Exposure glass with left scale [D]



• Position the white marker [E] at the rear-left corner and the black or blue marker at the front-left corner when you reattach the ARDF exposure glass.

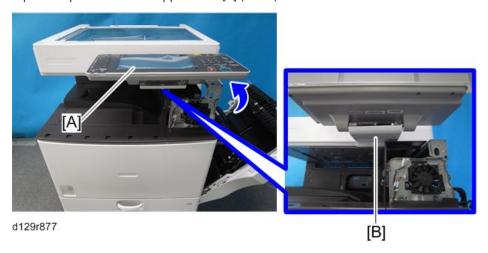
Scanner Exterior Panels and Operation Panel

Operation panel

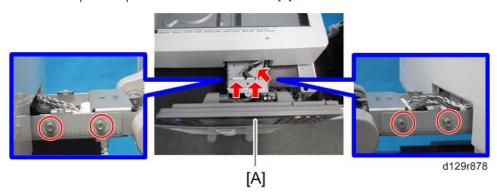
1. Front right cover (p.133)



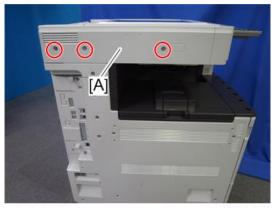
- 2. Position the operation panel [A] as shown above.
- 3. Operation panel connector upper cover [B] (*x 1)



- 4. Position the operation panel [A] as shown above.
- 5. Remove the operation panel connector lower cover [B].



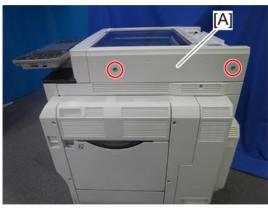
6. Operation panel [A] (x 4, 1 x 3)



d129r821

1. Scanner left cover [A] (Fx 3)

Scanner right cover



d129r856

1. Scanner right cover [A] (*x 2)

Scanner front cover

1. Operation panel (p.134)



d129r857

2. Scanner front cover [A] (x 2)

Scanner rear cover

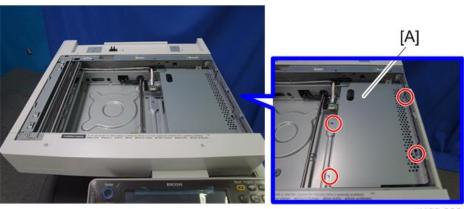


d129r858

1. Scanner rear cover [A] (x 1)

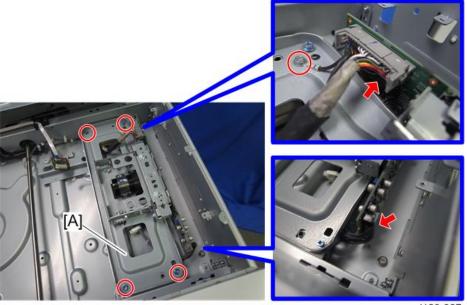
Lens Block Assembly

- 1. Exposure glass (p.138)
- 2. Scanner right cover (p.138 "Scanner Exterior Panels and Operation Panel")



d129r826

- 3. SBU cover [A] (x 4)
- 4. Original size sensor bracket (p.143 "Original Size Sensor")



d129r827

5. Lens block assembly [A] (F x 4, Grand screw x 1, 📫 x 2)

• Do not remove the other screws on the lens block unit.

When reassembling

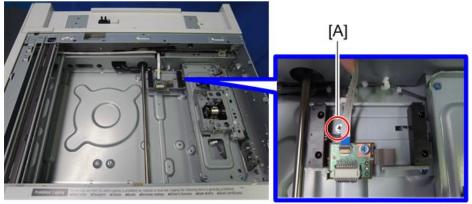
Adjust the following SP modes after you replace the lens block assembly:

• SP4-008 (Sub Scan Mag): ("Scanning" in "Copy Adjustments: Printing/Scanning")

- SP4-010 (Sub Mag Reg.): (Scanning in "Copy Adjustments: Printing/Scanning")
- SP4-011 (Main Scan Reg): ("Scanning" in "Copy Adjustments: Printing/Scanning")
- SP4-688 (DF: Density Adjustment): Use this to adjust the density level if the ID of outputs made in the DF and Platen mode is different.

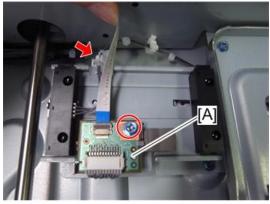
Original Size Sensor

- 1. Exposure glass with left scale (p.138 "Exposure Glass")
- 2. Scanner right cover (p.138 "Scanner Exterior Panels and Operation Panel")
- 3. SBU cover (p.141 "Lens Block Assembly")



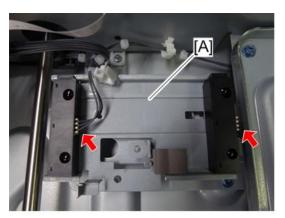
d129r828

4. Remove the screw [A] on the sensor board bracket.



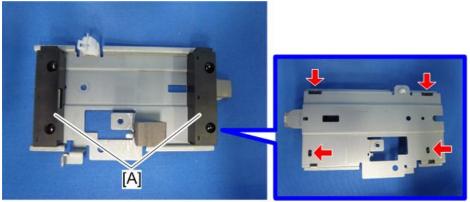
d129r829

5. Circuit chip [A] (x 1, x 1)



d129r830

6. Original size sensor bracket [A] (🗐 x 2)



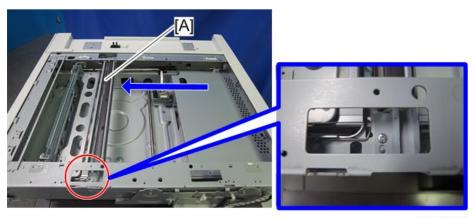
d129r831

7. Original size sensors [A] (hooks)

Exposure Lamp

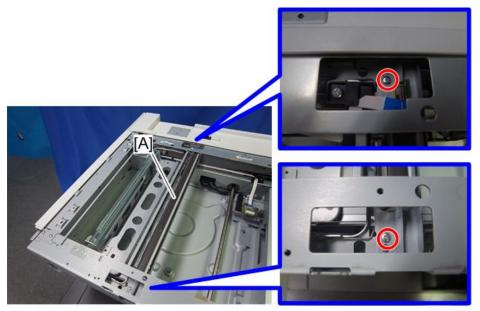
Mportant (

- Before replacing the scanner lamp, check and note the first three digits in the bar-code on the new scanner lamp ("Chromaticity rank adjustment" in this section).
- 1. Operation panel (p.134)
- 2. Exposure glass (p.138)
- 3. Scanner front cover (p.138 "Scanner Exterior Panels and Operation Panel")



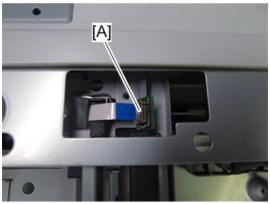
d129r832

4. Move the first scanner carriage [A] to the position shown above.



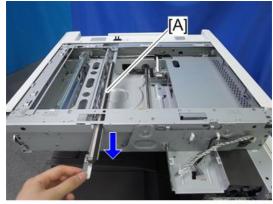
d129r833

5. Remove the two screws on the scanner lamp [A].



d129r834

6. Disconnect the connector [A] on the scanner lamp.

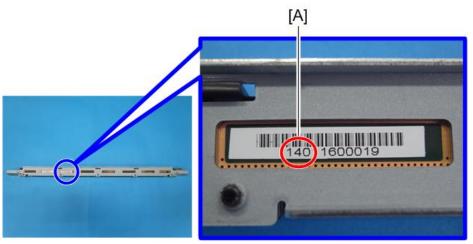


d129r835

7. Pull out the scanner lamp [A].

Chromaticity rank adjustment

Each scanner lamp has a specific chromaticity rank. The chromaticity rank is indicated by the bar-code on the new scanner lamp. After replacing the lamp, adjust the chromaticity rank to correspond to the new scanner lamp.



d129r879

- 1. Check the first three digits [A] in the bar-code on the new scanner lamp before installing the new lamp.
- 2. After installing the new lamp, go to SP4-954-005 and enter the SP setting number referring to the table below.

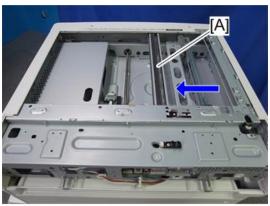
1 st Three Digits	SP Setting (SP4-954-005)	1 st Three Digits	SP Setting (SP4-954-005)
139	3	166	12
140	2	167	11
141	1	168	10
142	6	169	15
143	5	170	14
144	4	171	13
145	9	172	18
146	8	173	17
147	7	174	16
148	12	204	3
149	11	205	2
150	10	206	1
151	15	207	6

1 st Three Digits	SP Setting (SP4-954-005)	1 st Three Digits	SP Setting (SP4-954-005)
152	14	208	5
153	13	209	4
154	18	210	9
155	17	211	8
156	16	212	7
157	3	213	12
158	2	214	11
159	1	215	10
160	6	216	15
161	5	217	14
162	4	218	13
163	9	219	18
164	8	220	17
165	7	221	16

Scanner HP Sensor/Platen Cover Sensor

Scanner HP Sensor

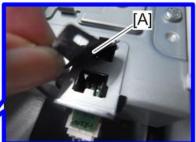
- 1. Scanner rear cover (p.138 "Scanner Exterior Panels and Operation Panel")
- 2. Exposure glass (p.138)



d129r836

3. Move the 1st scanner carriage [A] to the right side.

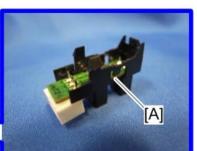




d129r837

4. Remove the mylar [A].





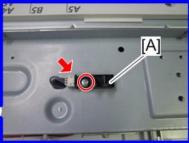
d129r838

5. Remove the scanner HP sensor [A] (\mathbb{H} x 1, three snaps)

Platen Cover Sensor

1. Scanner rear cover (p.138 "Scanner Exterior Panels and Operation Panel")



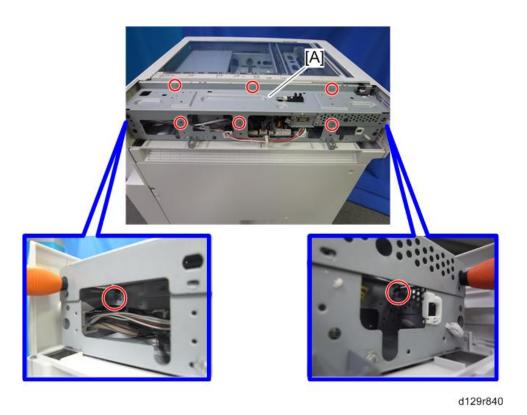


d129r839

2. Platen cover sensor [A] (x 1, x 1)

Scanner Motor

1. Scanner rear cover (p.138 "Scanner Exterior Panels and Operation Panel")

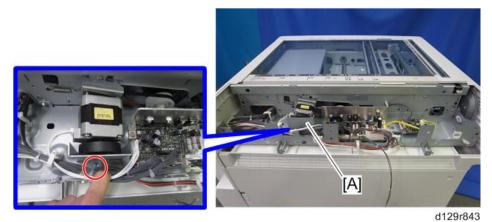


2. Remove the 8 screws of the scanner rear frame [A].

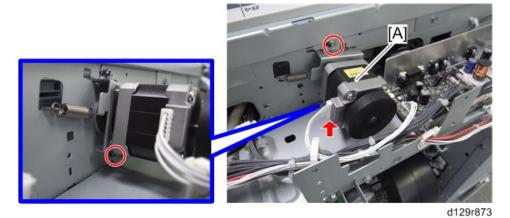


3. Disconnect the two connectors.

4. Pull over the scanner rear stay [A] and remove it ($\mathbb{Z}^2 \times 2$, $\mathbb{Z} \times 3$).



5. Scanner motor bracket [A] (*x 1)



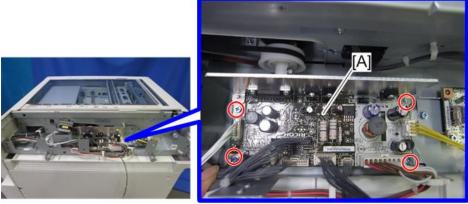
6. Scanner motor [A] (♠x 2, ♣x 1, spring x 1, belt x 1)



 After replacing the scanner motor, do the image adjustments in the following section of the manual ("" "Scanning" in "Copy Adjustments: Printing/Scanning").

Scanner Motor Drive Board

- 1. Scanner rear cover (p.138 "Scanner Exterior Panels and Operation Panel")
- 2. Scanner rear stay. (p.150 "Scanner Motor")

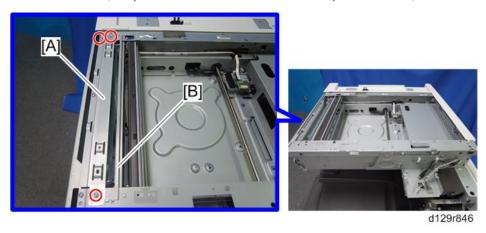


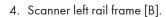
d129r845

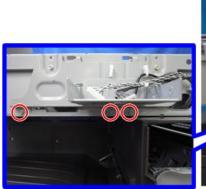
3. SIO [A] (* x 4, * x All)

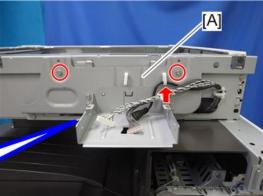
Front Scanner Wire

- 1. Scanner front cover (p.138 "Scanner Exterior Panels and Operation Panel")
- 2. Scanner left cover (p.138 "Scanner Exterior Panels and Operation Panel")









d129r847

5. Operation panel stay [A] (x 5, x 1)

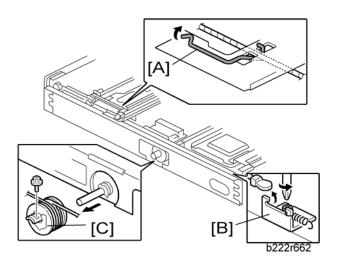






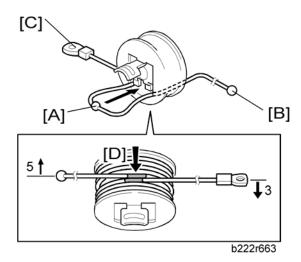
d129r849

- 6. Scanner front stay [A] (F x 5)
- 7. To make reassembly easy, slide the 1st scanner carriage to the right.



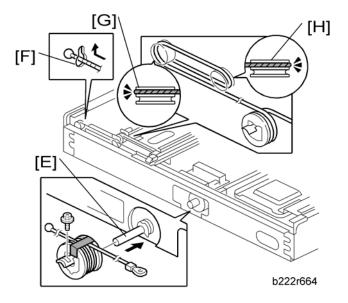
- 8. Front scanner wire clamp [A]
- 9. Front scanner wire bracket [B] (x 1)
- 10. Front scanner wire and scanner drive pulley [C] (x 1)

Reassembling 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) [C] through the notch.
- 3. Wind the right end counterclockwise (shown from the machine's front) five times. Wind the left end clockwise twice.

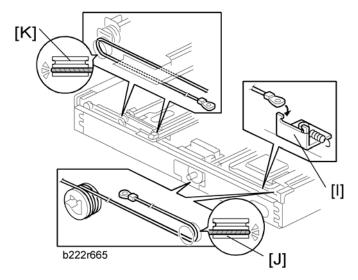
• The two red marks [D] come together when you have done this. Stick the wire to the pulley with tape. This lets you easily handle the assembly at the time of installation.



4. Install the drive pulley on the shaft [E].



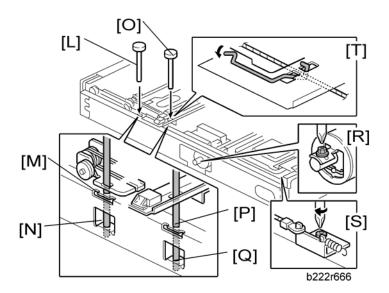
- · Do not attach the pulley to the shaft with the screw at this time.
- 5. Insert the left end into the slit [F]. The end should go via the rear track of the left pulley [G] and the rear track of the movable pulley [H].



6. Hook the right end onto the front scanner wire bracket [I]. The end should go via the front track of the right pulley [J] and the front track of the movable pulley [K].



• 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 [L] through the 2nd carriage hole [M] and the left holes [N] in the front rail. Insert another scanner positioning pin [O] through the 1st carriage hole [P] and the right holes in the front rail [Q].
- 9. Insert two more scanner positioning pins through the holes in the rear rail.
- 10. Screw the drive pulley to the shaft [R].
- 11. Screw the scanner wire bracket to the front rail [S].
- 12. Install the scanner wire clamp [T].
- 13. Pull out the positioning pins.

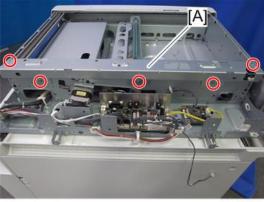


- Make sure the 1st and 2nd carriages move smoothly after you remove the positioning pins.
 Do steps 8 through 13 again if they do not.
- After replacing the scanner wire, do the image adjustments in the following section of the manual ("Scanning" in "Copy Adjustments: Printing/Scanning").

Rear Scanner Wire

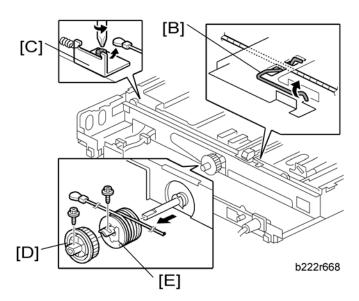
1. Scanner front cover (p.138 "Scanner Exterior Panels and Operation Panel")

- 2. Scanner left cover (p.138 "Scanner Exterior Panels and Operation Panel")
- 3. Scanner left stay (p.153 "Front Scanner Wire")
- 4. Scanner left rail frame (p.153 "Front Scanner Wire")
- 5. Scanner rear cover (p.138 "Scanner Exterior Panels and Operation Panel")
- 6. Scanner rear stay (p.150 "Scanner Motor")



d129r851

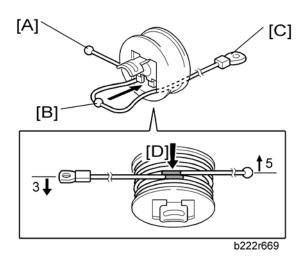
- 7. Rear rail frame [A] (** x 5)
- 8. SIO (p.153 "Scanner Motor Drive Board")



- 9. To make reassembly easy, slide the first scanner to the center.
- 10. Rear scanner wire clamp [B]
- 11. Rear scanner wire bracket [C] (x 1)
- 12. Scanner motor gear [D] (*\bar{\mathbb{E}} \times 1)

13. Rear scanner wire and scanner drive pulley [E] (** x 1)

Reassembling the Rear Scanner Wire



- 1. Position the center ball [B] in the middle of the forked holder.
- 2. Pass the end with the ball [A] through the right square hole from the front.
- 3. Position the center ball [B] in the middle of the notch, as shown by the arrow.
- 4. Pass the ball end [A] through the drive pulley notch.
- Wind the end with the ring [C] clockwise (shown from the machine's front) three times; wind the ball end [A] clockwise (shown from the machine's front) five times.



- The two red marks [D] should meet when you have done this.
- 6. Stick the wire to the pulley with tape, so you can easily handle the pulley and wire during installation.
- 7. Install the drive pulley on the shaft.



- Do not screw the pulley onto the shaft yet.
- 8. 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. 4

9. Perform steps 8 through 13 in "Reassembling the Front Scanner Wire".



 After replacing the scanner wire, do the image adjustments in the following section of the manual ("Scanning" in "Copy Adjustments: Printing/Scanning").

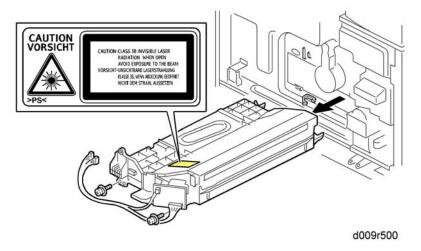
Laser Unit

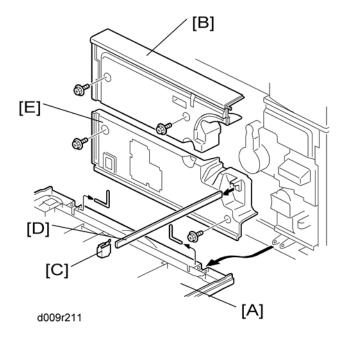
MARNING

• Turn off the main power switch and unplug the machine before attempting any of the procedures in this section. Laser beams can seriously damage your eyes.

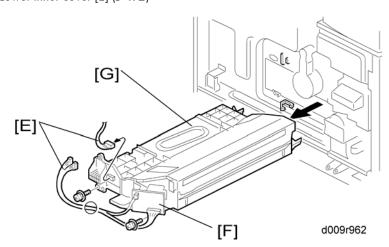
Caution Decal Locations

Two caution decals are located in the laser section as shown below. (See the next page for removal instructions.)





- 1. Open the front door.
- 2. Front door [A] (pins x 2)
- 3. Upper inner cover [B] (x 2)
- 4. Glass cap [C]
- 5. Shield glass [D]
- 6. Lower inner cover [E] (Fx 2)



7. Laser unit connectors [E] (x 3, x 1)

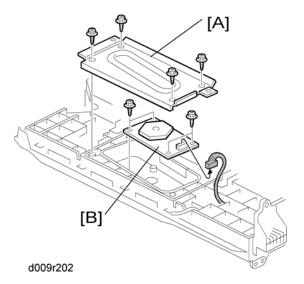


- Do not disconnect the harnesses on the LD board [F] unless the LD unit has to be replaced. This board is precisely adjusted in the factory.
- 8. Laser unit [G] (x 2)



• When sliding out the laser unit, do not hold the LD board. Hold the laser unit.

Polygon Mirror Motor

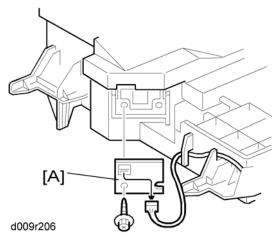


- 1. Laser unit (p.162)
- 2. Laser unit cover [A] (x 4)
- 3. Polygon mirror motor [B] (F x 4, III x 1)
- 4. After replacing the polygon mirror motor, do the image adjustment (p.243 "Copy Adjustments: Printing/Scanning").

Laser Synchronization Detector

1. Laser unit (p.162)

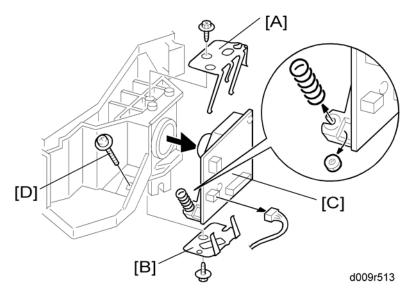




2. Laser synchronization detector [A] (x1, 1)

LD Unit

1. Laser unit (p.162)

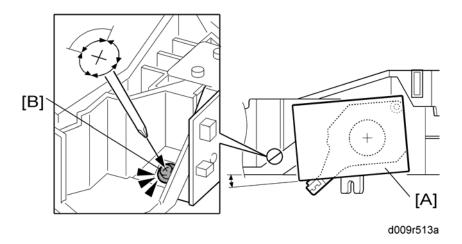


- 2. Upper spring plate [A] (Fx 1)
- 3. Lower spring plate [B] (x 1)

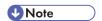


 To avoid damaging the LD board, hold it securely when disconnecting the connectors. Hold the laser unit casing. 5. After replacing the LD board, do the "Laser Beam Pitch Adjustment" (described in the following section). Keep the lower inner cover removed before doing this adjustment because you need to adjust the adjustor screw [D] on the LD unit with a screwdriver.

Laser Beam Pitch Adjustment

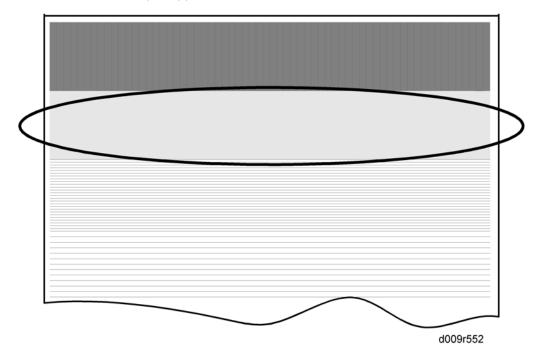


- 1. Install a (new) LD unit [A] with the left side of the LD unit being lower than the right side. (This makes this adjustment easier.)
- 2. Print the test pattern "Hounds Tooth Check (2-Dot Horizontal)" (No. 16 in SP2109-001).
- Check if the vertical stripes appear on the second pattern (counted from the leading edge) of the printout.
 - Correct: No vertical stripes appear (see the sample following this procedure.)
 - Wrong: Vertical stripes appear (see the sample following this procedure.)
- 4. Turn the adjustor screw [B] by 90 degrees clockwise (counterclockwise).

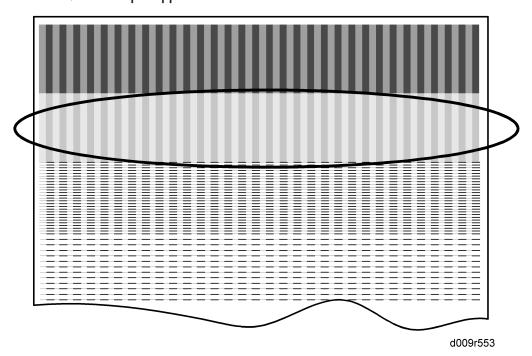


- If the image of the printout is getting worse, try reverse rotation (clockwise ←→ counterclockwise)
- 5. Print the test pattern and check it out.
- 6. Try steps 2 to 4 again until you get an image with no vertical stripes.
- 7. Reassemble the machine after completing this adjustment.

Correct: No vertical stripes appear



Incorrect: Vertical stripes appear

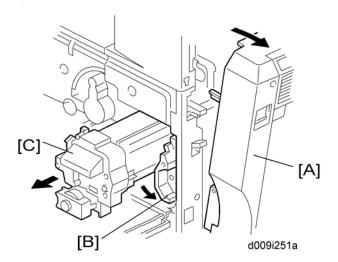


4

PCDU

PCDU (Photoconductor and Development Unit)

1. Open the front door.



- 2. Open the right door [A].
- 3. Release the lock lever [B].
- 4. Pull out the PCDU [C] and place it on a clean flat surface.
- 5. Spread a large piece of paper on a flat surface.



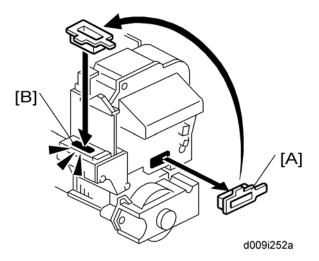
 Make sure the area is free of pins, paper clips, staples, etc. to avoid attraction to the magnetic development roller.

Reinstallation

Open the right cover before you install the PCDU in the machine.

Drum

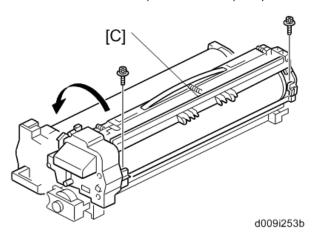
1. Remove the PCDU (p.167)



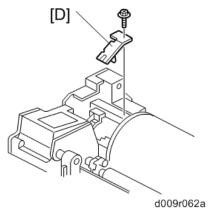
- 2. Toner cap [A]
- 3. Insert cap [A] into the opening of the PCDU [B].



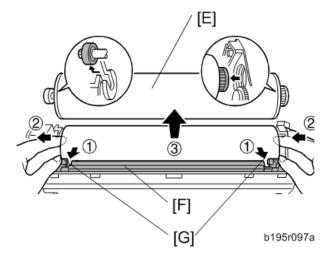
• Make sure that the cap is inserted completely into the opening.



4. Open the PCDU [C] ($\ensuremath{\widehat{\mathcal{F}}}$ x 2).



5. Bracket [D] (x 1)



6. Pull the drum [E] towards the front ② (the left side in the illustration) while releasing the charge roller [F] using the release levers ③ [G], and then remove the drum ③.

ACAUTION

• Never touch the drum surface with bare hands.

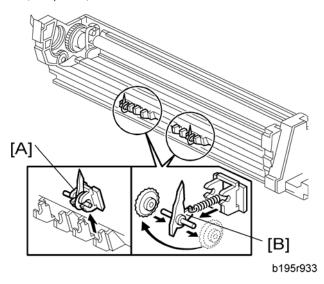
Re-installation

- 1. Replace the drum and close the PCDU ($\rat{P} \times 2$).
- 2. Put the opening cap [A in the previous procedure] back in its original place.
- 3. After replacing the drum, do these SPs:
 - SP 2001: Charge Bias Setting make sure that this is at the default setting
 - SP 3001-2: P Sensor Initial Setting (P sensor = ID Sensor)
 - SP 2805: Process Setting

• SP 2810-1: Grayscale Setting

Pick-off Pawls

1. Drum (p.167)



- 2. Pawl assembly [A]
- 3. Pick-off pawl [B] (spring x 1, spur x 1)

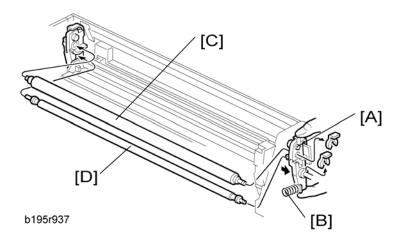
Pick-off Pawl Position Adjustment

If the pick-off pawl has marked the drum with a line, the pick-off pawl position can be adjusted using either method:

- Changing the spur position
- Changing the pick-off pawl assembly position

Charge Roller and Cleaning Roller

1. Drum (p.167)



- 2. Push the charge roller holder [A] toward the front of the drum ($(() \times 2)$ and remove the spring [B].
- 3. Charge roller [C].



- Disengage the charge roller on the right side to remove it. Try to avoid touching the charge roller.
- 4. Cleaning roller [D]



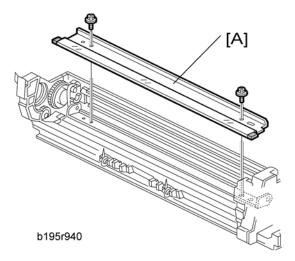
- Disengage the cleaning roller on the left to remove it.
- 5. After replacing the charge roller and cleaning roller, check the value of SP2001-001. If it is not at the standard value (1500), set SP2001-001 to "1500".



• If this is not done, the carrier will be attracted to the drum because the charge roller voltage will be too high.

Drum Cleaning Blade

- 1. Drum (p.167)
- 2. Charge roller and cleaning roller (p.170)



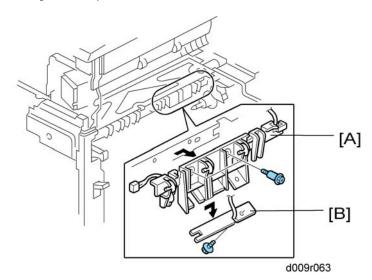
3. Remove drum cleaning blade [A] (*F x 2)

Re-installation

Put toner on the edge of cleaning blade and the mylar at the back side of cleaning blade before reinstalling this blade.

ID Sensor

- 1. PCDU (p.167)
- 2. Fusing unit (p.192)



4. ID sensor [B] (x 1)

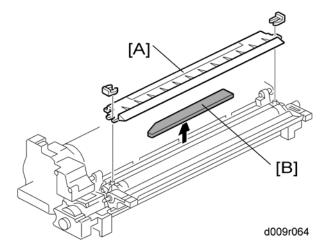


• Do SP3-001-002 to initialize the ID sensor after replacing.

Development

Development Filter

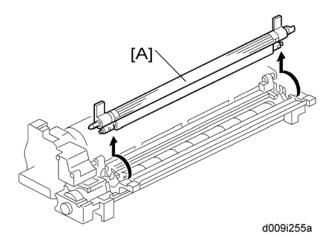
- 1. PCDU (p.167)
- 2. Open the PCDU. (p.167 "Drum")



- 3. Upper development cover [A] ((() x2)
- 4. Development filter [B]

Development Roller

- 1. PCDU (p.167)
- 2. Open the PCDU. (p.167 "Drum")
- 3. Upper development cover (p.174 "Development Filter")



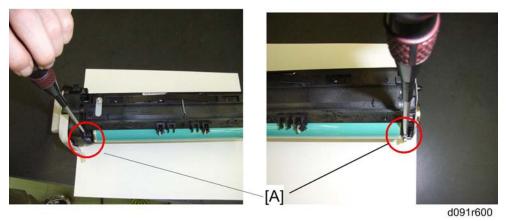
4. Development roller [A]



• Work carefully to avoid scratching or nicking the development roller.

Cleaning Procedure

1. PCDU (p.167)



2. Remove the two screws [A] and open the PCDU as shown above.





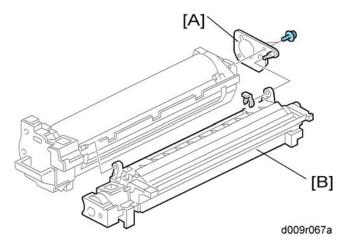
- 4. Fold up a sheet of copy paper [A] to fit the width of the uncovered area of the development roller, as shown below.
- 5. Slide the paper [A] along the length of the roller to clean the toner off the surface.



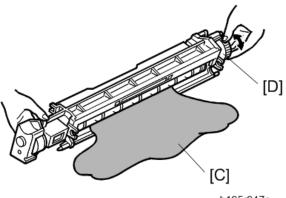
- 6. Rotate the development roller [A] in the direction of the arrow until the section you cleaned is no longer visible.
- 7. Repeat steps 5 and 6 until you have cleaned the entire surface of the roller.
- 8. Reassemble the PCDU and install the PCDU into the machine.

Developer

- 1. PCDU (p.167)
- 2. Open the PCDU. (p.167 "Drum")
- 3. Development roller (p.174)



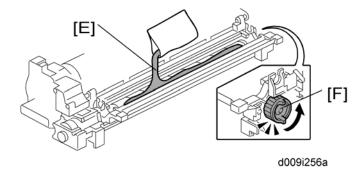
- 4. Joint bracket [A] (₹ x 2, ∅ x 1)
- 5. Development unit [B]



- b195r947a
- 6. Tip out the old developer [C].
- 7. Turn drive gear [D] to ensure that no developer remains in the unit or on the developer roller.



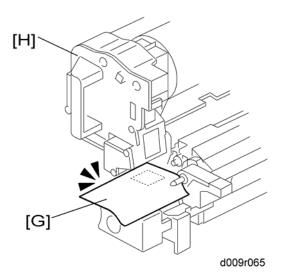
- Dispose of the used developer in accordance with local regulations. Work carefully to avoid scratching or nicking the development roller.
- 8. Clean the development roller with a dry cloth.



- 9. Pour approximately 1/3 of the developer [E] evenly along the length of the development unit.
- 10. Rotate the drive gear [F] to work the developer into the unit.
- 11. Repeat steps 8 and 9 until all toner is in the unit and level with the edges.
- 12. Re-install the development roller.



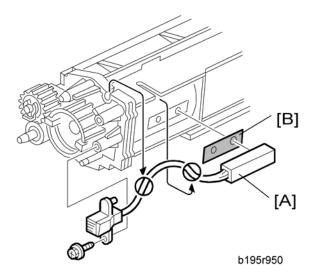
 Make sure that the seals at the both sides of the development roller are set inside the case after you re-install the development roller.



- 13. Place a piece of paper [G] over the toner entrance hole. This prevents used toner falling from the drum into the development unit during the TD sensor initial setting and interfering with the Vref setting (toner density reference voltage)
- 14. Secure the drum [H] to the development unit, to close the PCDU (\mathscr{F} x 2).
- 15. Install the PCDU in the machine and close the front and right doors.
- 16. Turn on the main power switch, and wait for the machine to warm up.
- 17. Do SP2801 to initialize the TD sensor and enter the developer lot number.
- 18. After performing the TD sensor initial setting, remove the sheet of paper from the PCDU.

TD Sensor

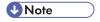
- 1. PCDU (p.167)
- 2. Empty all developer from the development unit. (p.177 "Developer")



- 3. Seal
- 4. TD sensor [A] (x1)



- The TD sensor is attached to the casing with double-sided tape [B]. Pry it off with the flat head of a screwdriver. Use fresh double-sided tape to re-attach the sensor.
- 5. Pour new developer into the development unit and perform the TD sensor initial setting using SP2-801.



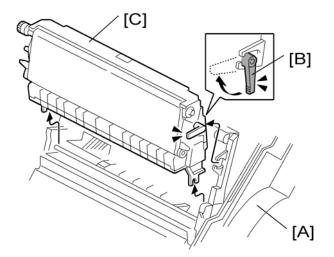
 When performing the TD sensor initial setting, cover the toner entrance hole with a piece of paper.

Transfer

Transfer Belt Unit

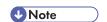


• To avoid exposing the drum to strong light, cover it with paper if the right cover will be open for a long period.



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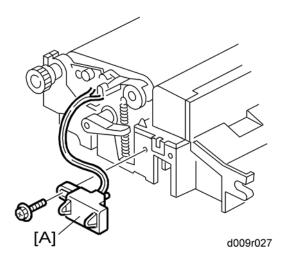
- 1. Open the right door [A].
- 2. Release the lever [B].
- 3. Transfer belt unit [C]



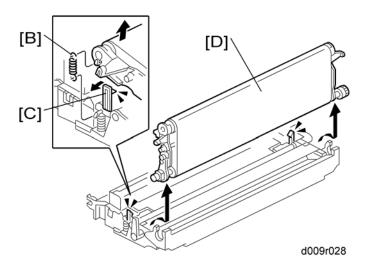
• Avoid touching the transfer belt surface.

Transfer Belt

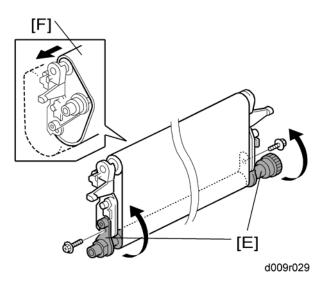
1. Transfer belt unit (p.181)



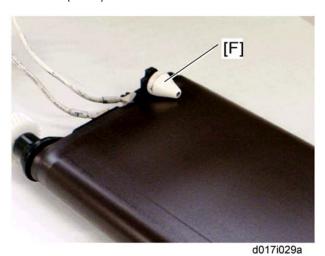
2. Connector [A] (x 1)



- 3. Remove the springs (front and rear) [B].
- 4. Release the hooks (front and rear) [C].
- 5. Transfer belt with rollers [D]



6. Lay the transfer belt with rollers on a flat clean surface, and fold the unit [E] to release the tension on the belt ($\mathcal{F} \times 2$).



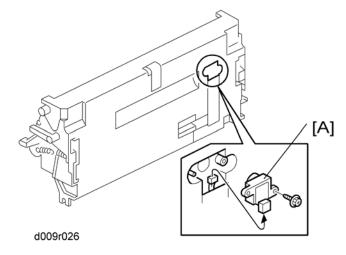
7. Transfer belt [F]



- Avoid touching the transfer belt surface.
- Before installing the new transfer belt, clean all the rollers and shafts with alcohol to prevent the belt from slipping.
- When reinstalling the transfer belt, make sure that the belt is under the pin [F].
- To avoid damaging the transfer belt during installation, manually turn the rollers and make sure that the new transfer belt is not running over the edges of any of the rollers.

Toner Overflow Sensor

1. Transfer belt unit (p.181)

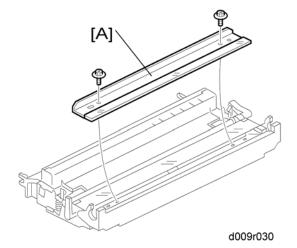


2. Toner overflow sensor [A] (\mathscr{F} x 1, $\overset{\blacksquare}{\square}$ x 1)

Transfer Belt Cleaning Blade/Toner Overflow Sensor

Transfer Belt Cleaning Blade

- 1. Transfer belt unit (p.181)
- 2. Transfer belt (p.181)



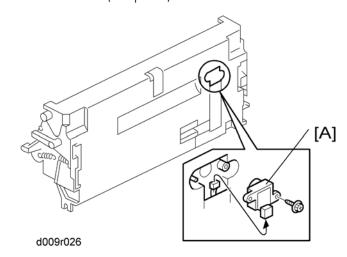
3. Transfer belt cleaning blade [A] (F x 2)



• Avoid touching the edge of the new blade. Check the new blade for dust or damage.

Toner Overflow Sensor

1. Transfer belt unit (🖛 p.181)



2. Toner overflow sensor [A] (F x 1, 🟴 x 1)

Paper Feed

Paper Feed Unit

Tray 1 and Tray 2

- 1. Right rear cover (p.133)
- 2. Duplex unit (p.208)
- 3. Pull out tray 1 and tray 2.

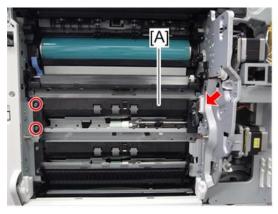


4. Paper guide plate [A] (hook x 2)



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5. Harness cover [A] (x 1)



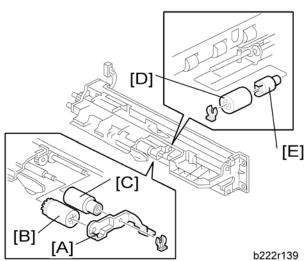
d129r807

6. Paper feed unit [A] (₹ x 2, ■ x 1)

Pick-Up, Feed and Separation Rollers

Tray 1 and Tray 2

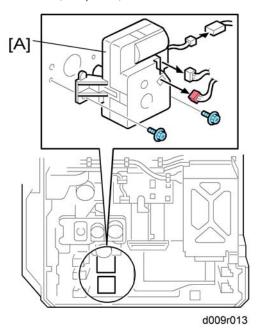
1. Paper feed unit (p.186 "Paper Feed Unit")



- 2. Roller holder [A] (((() x 1)
- 3. Pick-up roller [B]
- 4. Feed roller [C]
- 5. Separation roller [D] and torque limiter [E] ((() x 1)

Tray Lift Motor

1. Rear cover (p.132)

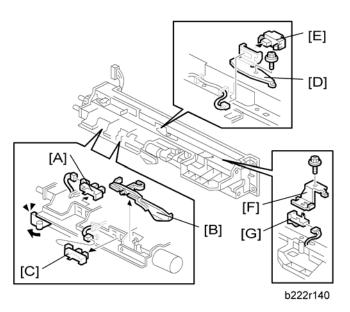


2. Tray lift motor 1 or 2 [A] (x 2, 1 x 3)

Relay, Tray Lift, Paper End and Paper Feed Sensors

Tray 1 and Tray 2

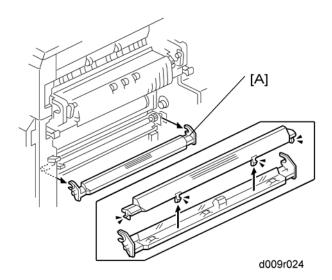
- 1. Right rear cover (p.133)
- 2. Duplex unit (p.208)
- 3. Paper feed unit (p.186)



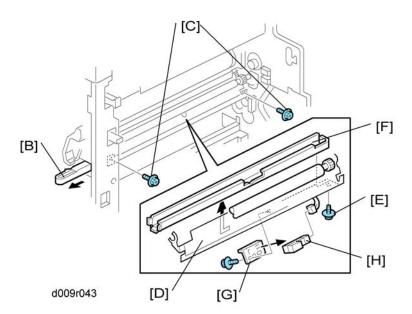
- 4. Tray lift sensor [A] (x 1)
- 5. Paper end feeler [B] and paper end sensor [C] (hook, 🚅 x 1 each)
- 6. Relay sensor bracket [D] (*x 1)
- 7. Relay sensor [E] (🕶 x 1, hook)
- 8. Paper feed sensor bracket [F] (F x 1)
- 9. Paper feed sensor [G] (🚅 x 1, hook)

Registration Sensor

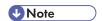
- 1. Right rear cover (p.133)
- 2. Duplex unit (p.208)
- 3. Paper feed unit for tray 1 (p.186 "Paper Feed Unit")
- 4. Paper Trays 1 and 2



5. Paper dust box [A]



- 6. Open the front door.
- 7. Pull out the paper dust container [B].
- 8. Remove two screws [C].



- This makes the paper guide [D] tilt a little bit. Now you can access the screw [E].
- 9. Dust container rail [F] ([E] x 1)
- 10. Sensor bracket [G] (x 1)



- You can only access the screw on the sensor bracket from the inside (paper tray location) of the machine.
- 11. Registration sensor [H] (🔎 x 1, hooks)

Reinstall the registration sensor

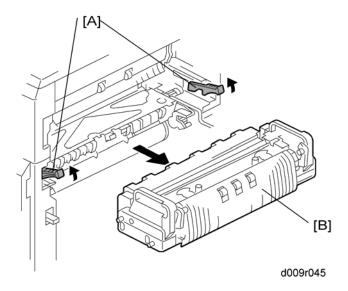
It is very difficult to secure the sensor bracket to the frame. First attach the sensor bracket with tape temporarily.

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. Turn off the main power switch.
- 2. Open the right door.



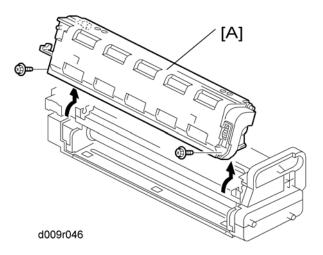
- 3. Pull up the lock levers [A].
- 4. Pull the fusing unit [B] until you hear a click.



- The lock levers lock the fusing unit again at this time to prevent the fusing unit from falling down.
- 5. Pull up the lock levers [A] again, and then remove the fusing unit [B].

Web Roller Unit

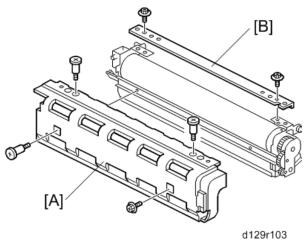
1. Fusing unit (p.192)



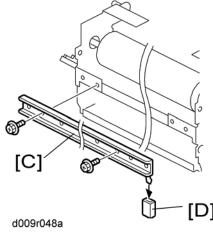
2. Web roller unit [A] (** x 2)

Brake Pad

1. Web roller unit (p.192)



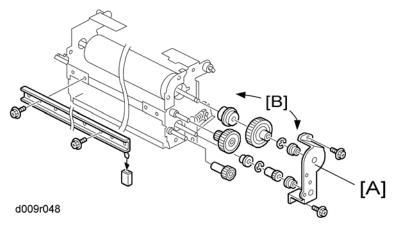
- 2. Web left cover [A] (x 1, stepped screw x 3)
- 3. Web top frame [B] (\$\begin{align*} x 2 \)



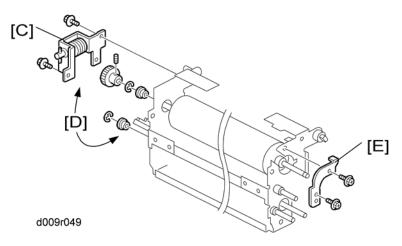
- 4. Web left frame [C] (* x 2)
- 5. Brake pad [D]

Web Holder Roller and Web Rollers

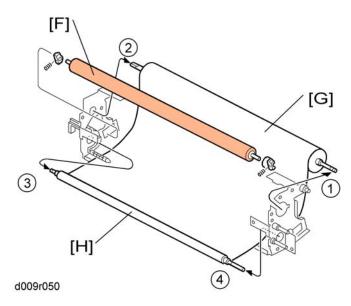
- 1. Web roller unit (p.192)
- 2. Web left cover (p.193 "Brake Pad")
- 3. Web top frame (p.193 "Brake Pad")
- 4. Web left frame (p.193 "Brake Pad")



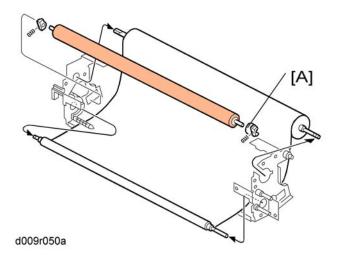
- 5. Front gear bracket [A] (Fx 2)
- 6. All gears and bushings (rear side) [B] (© x 2)



- 7. Rear gear bracket [C] (*x 2)
- 8. All gear and bushings (rear side) [D] (\mathbb{C} x 2, spring x 1)
- 9. Front bracket [E] (🗗 x 2)

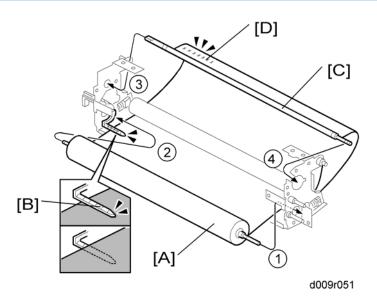


- 10. Web holder roller [F] (holder x 2, spring x 2)
- 11. Web take up roller [G] ($\textcircled{1} \rightarrow \textcircled{2}$)
- 12. Web supply roller [H] ($^{3} \rightarrow _{)}$



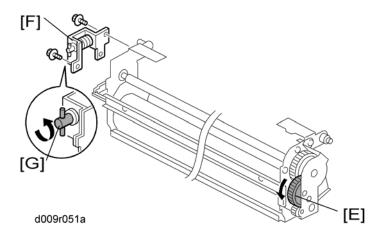
The holder [A] has a one-way clutch. Make sure that the holder [A] is set at the front side.

Installing new web rollers



- 1. Install the web supply roller [A] first ($^{\textcircled{1}} \rightarrow ^{\textcircled{2}}$). Make sure that the web sheet is under the pin [B].
- 2. Install the web take up roller [C] ($^{\textcircled{3}} \rightarrow ^{\textcircled{4}}$). Make sure that the printed number [D] is outside the web take up roller.
- 3. Reinstall the rear gear bracket (p.194 "Web Holder Roller and Web Rollers").
- 4. Reinstall the front and rear gears and bushings (p.194 "Web Holder Roller and Web Rollers").

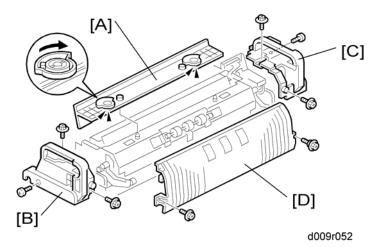
5. Reinstall the rear gear bracket (p.194 "Web Holder Roller and Web Rollers").



- 6. Turn the rear gear [E] in the arrow direction to remove the slack in the web sheet.
- 7. Reinstall the front gear bracket [F] (p.194 "Web Holder Roller and Web Rollers").
- 8. Turn the coupling [G] in the arrow direction to remove the slack in the web sheet.
- 9. Reinstall the web unit.
- 10. If you install a new cleaning web, reset SP 7806-008 (press "Execute" on the LCD).

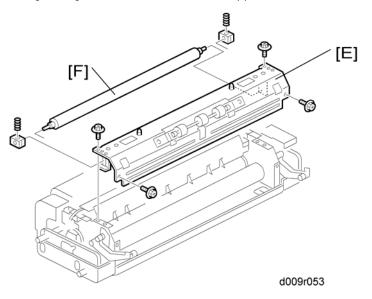
Pressure Roller Cleaning Roller

1. Fusing unit (p.192)



- 2. Fusing exit guide [A] (lock x 2)
- 3. Fusing front upper cover [B] (Fx 3)

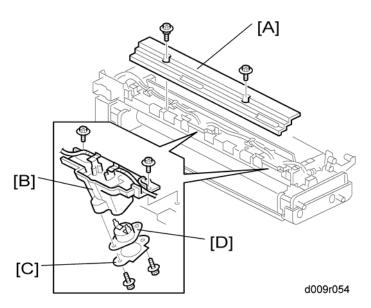
- 4. Fusing rear upper cover [C] (x 3)
- 5. Fusing outer guide [D] (front: Fx 1, rear: stepped screw x 1)



- 6. Cleaning roller unit [E] (*F x 4)
- 7. Pressure roller cleaning roller [F] (spring x 2, holder x 2)

Thermostats

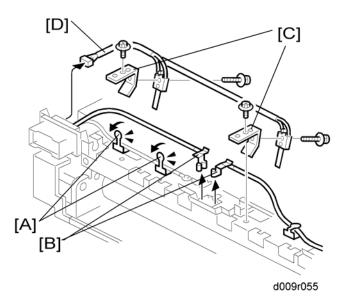
- 1. Fusing unit (p.192)
- 2. Web roller unit (p.192)



- 3. Fusing top cover [A] (front: $\mathscr{F} \times 1$, rear: stepped screw x 1)
- 4. Thermostat holder [B] (x 2)
- 5. Thermostat cover [C] (x 2)
- 6. Thermostat [D] (terminal x 2)

Thermistor

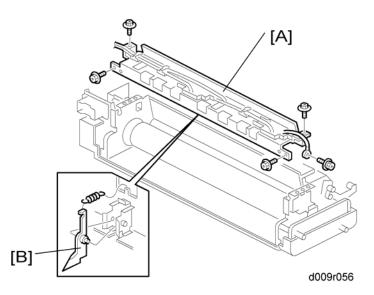
- 1. Fusing unit (p.192)
- 2. Web roller unit (p.192)
- 3. Fusing top cover (p.198 "Thermostats")



- 4. Pull the two tabs [A].
- 5. Disconnect the two terminals [B].
- 6. Sensor stays [C] (x 1 each)
- 7. Thermistors [D] (*\begin{align*} x 2, \bullet \bullet x 1)

Hot Roller Strippers

- 1. Fusing unit (p.192)
- 2. Web roller unit (p.192)
- 3. Fusing top cover (p.198 "Thermostats")



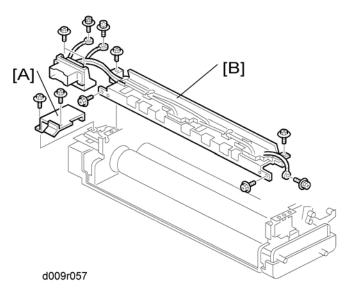
4. Fusing top frame [A] (x 5)



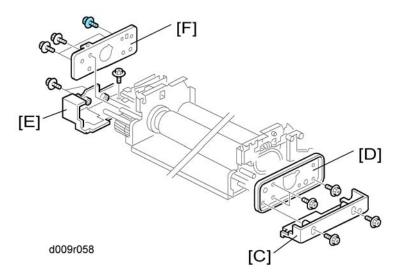
- The cords on this frame are still connected to the fusing unit at this time. Be careful not to damage the cords when removing the hot roller stripper [B].
- 5. Hot roller stripper [B] (spring x 1)

Fusing Lamps

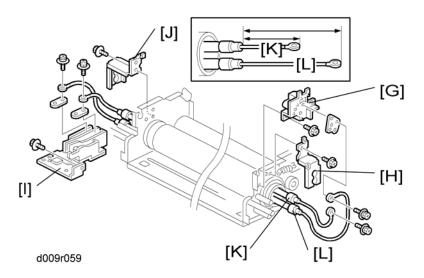
- 1. Fusing unit (p.192)
- 2. Web roller unit (p.192)
- 3. Fusing top cover (p.198 "Thermostats")



- 4. Connector cover [A] (x 2)
- 5. Fusing top frame with connector [B] ($\mathscr{F} \times 9$)



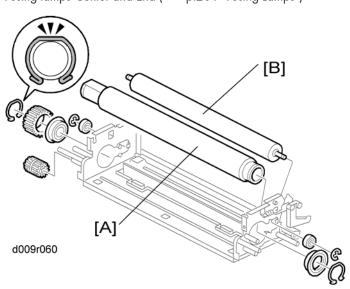
- 6. Fusing front lower cover [C] (x 2)
- 7. Fusing front frame [D] (Fx 3)
- 8. Fusing rear lower cover [E] ($\mathscr{F} \times 2$)
- 9. Fusing rear frame [F] (F x 5)



- 10. Terminal bracket [G] (*F x 4)
- 11. Front holder bracket [H] (x 1)
- 12. Terminal base [I] (x 3)
- 13. Rear holder bracket [J] (* x 1)
- 14. Fusing lamp-Center (550W) [K]
- 15. Fusing lamp-End (750W) [L]

Hot Roller and Pressure Roller

1. Fusing lamps-Center and End (p.201 "Fusing Lamps")



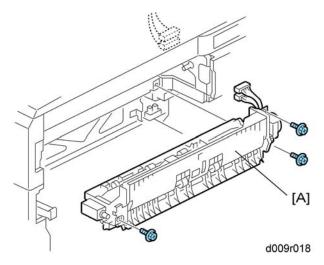
- 2. Hot roller [A] (snap ring \times 2, gear \times 2, bushing \times 2)
- 3. Pressure roller [B] (© x 2, bushing x 2)

4

Paper Exit

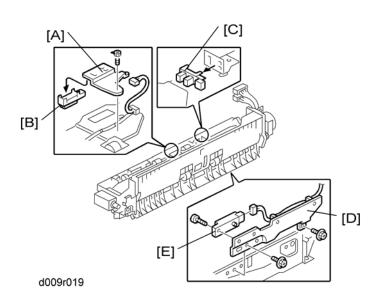
Paper Exit Unit

- 1. Fusing unit (p.192)
- 2. Fusing exhaust fan duct (p.241 "Fusing Exhaust Fan")



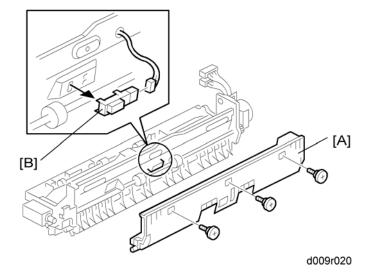
3. Paper exit unit [A] (> x 3, 💵 x 2)

Fusing Exit, Paper Overflow, and Paper Exit Sensors



- 1. Paper exit unit (p.205)
- 2. Sensor bracket [A] (x 1)
- 3. Paper exit sensor [B] (🚅 x 1, hooks)
- 4. Paper overflow sensor [C] (🕮 x 1, hooks)
- 5. Sensor bracket [D] (x 2)
- 6. Fusing exit sensor [E] ($F \times 1$, I = 1

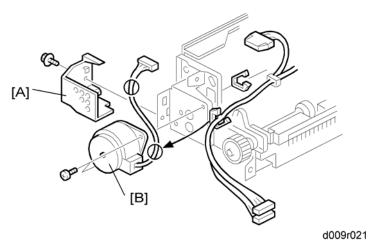
Junction Jam Sensor



- 1. Paper exit unit (p.205)
- 2. Paper guide [A] (** x 3)
- 3. Junction jam sensor [B] (🕮 x 1)

Paper Exit Motor

1. Paper exit unit (p.205)

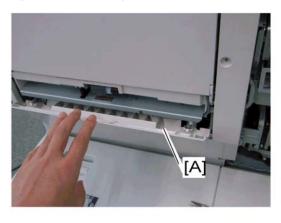


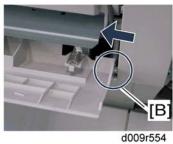
- 2. Motor cover [A] (🖟 x 1)

Duplex

Duplex Unit

1. Right rear cover (p.133)





- 2. Open the lower right cover [A] at the duplex unit.
- 3. Release the tab [B] and remove the lower door (spring x 2).
- 4. Open the right door.





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5. Release the front link [C] (\heartsuit x 1).



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6. Keep the right door fully open.

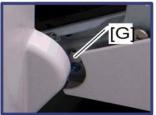


7. Push up the duplex unit a little bit, while pressing the bracket [D] to lock the spring [E].



• Do not let the duplex unit open fully before releasing the wire (step 9). Otherwise, the lock for the spring [E] is released.

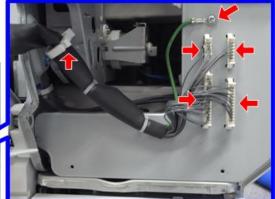




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- 8. Wire [F] (🖾 x 1)
- 9. Push the projection [G].

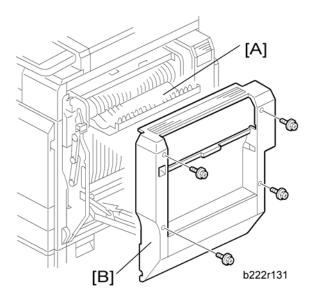




d129r813

10. Duplex unit (🟴 x 3, 🖨 x 1, ground cable x 1)

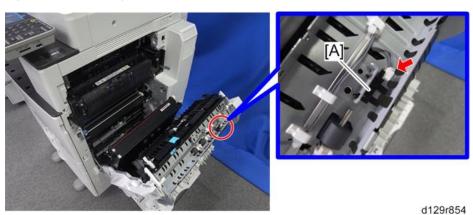
Right Door Cover



- 1. Open the duplex door [A] and by-pass tray.
- 2. Right door cover [B] (x 4)

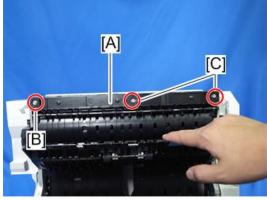
Duplex Door Sensor

1. Right door cover (p.211)



2. Duplex door sensor [A] (🚅 x 1, hook)

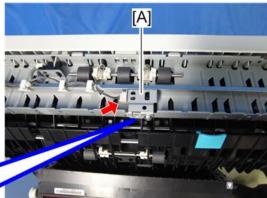
- 1. Right door cover (p.211)
- 2. Open the right door.



d129r81

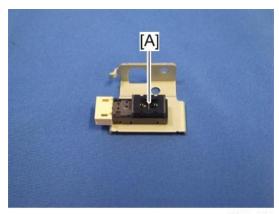
3. Duplex entrance guide [A] ([B]: $P \times 1$, [C]: Stepped screw $\times 2$)





d129r815

4. Duplex entrance sensor bracket [A] (x 1, x 1)

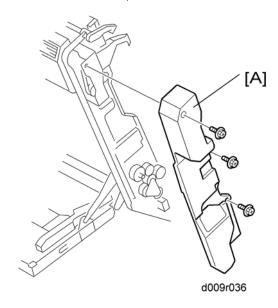


d129r816

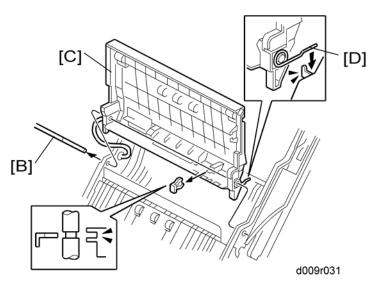
5. Duplex entrance sensor [A] (hooks)

Duplex Exit Sensor

1. Transfer belt unit (p.181)



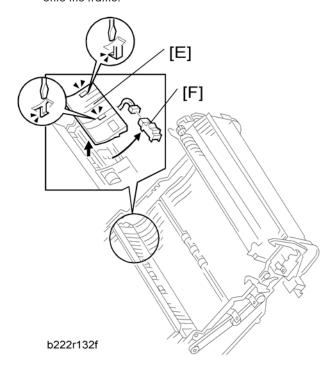
2. Right door rear cover [A] (*\bar{\mathbb{E}} \times 3)



- 4. Transfer belt unit holder [C] (🕶 x 1, 🖨 x 1)



• When re-installing the transfer belt unit holder, make sure that the spring [D] correctly hooks onto the frame.

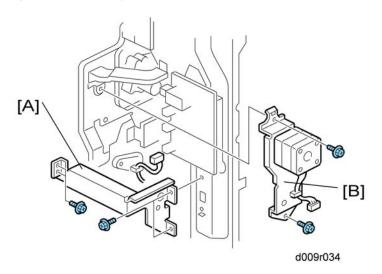


5. Guide plate [E] (two hooks)

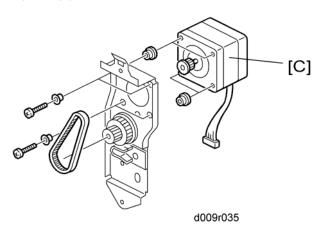
6. Duplex exit sensor [F] (🗐 x 1, hooks)

Duplex/By-pass Motor

- 1. Rear cover (p.132)
- 2. Right rear cover (p.133)



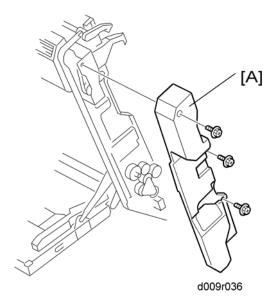
- 3. Frame [A] (x 4)
- 4. Duplex/By-pass motor bracket [B] (F x 2, 💵 x 1)



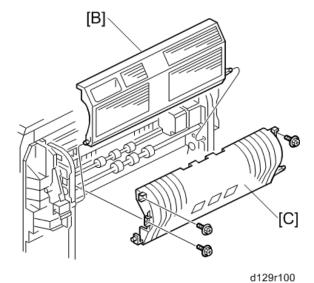
5. Duplex/By-pass motor [C] ($\mathscr{F} \times 4$, bushing x 8, timing belt x 1)

Duplex Inverter Motor

- 1. Right door cover (p.211)
- 2. Open the right door.

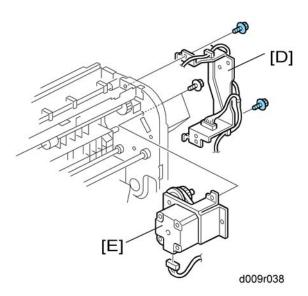


3. Right door rear cover [A] (*\bar{p} x 3)



- 4. Duplex door [B]
- 5. Duplex guide plate [C] (x 3)

4



- 6. Bracket [D] (Fx 2)
- 7. Duplex inverter motor [E] (x 3, 1 x 1)

By-pass Paper Size Sensor/By-pass Paper Length Sensor



d129r871

1. Open the lower right cover [A].



d129r808

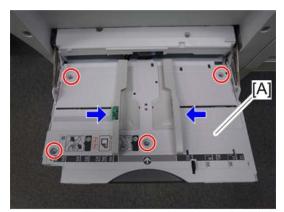
2. Disconnect the connector and clamp.

Δ



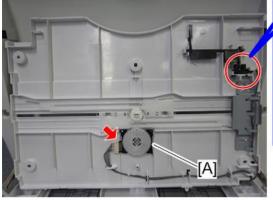
d129r874

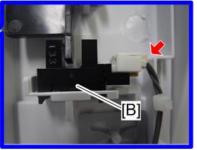
3. Open the by-pass tray [A].



d129r875

- 4. Move the side fences to the center.
- 5. By-pass tray cover [A] (** x 4)

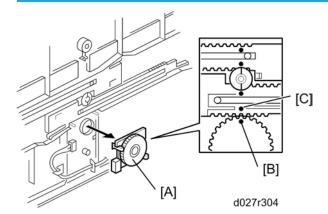




d129r852

- 6. By-pass paper size sensor [A] (🗐 x 1)
- 7. By-pass paper length sensor [B] (🕮 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 SP5803-024 (By-pass: Paper Size Sensor< Input Check).

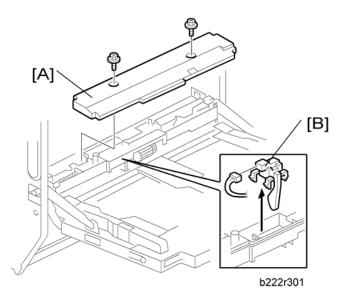
- Display on the LCD -

Paper Size	Display	Paper Size	Display
A3 SEF	00001110	A5 SEF	00001011
B4 SEF	00001100	B6 SEF	00000011
A4 SEF	00001101	A6 SEF	00000111
B5 SEF	00001001	Smaller A6 SEF	00001111

By-pass Paper End Sensor

1. Right door cover (p.211)

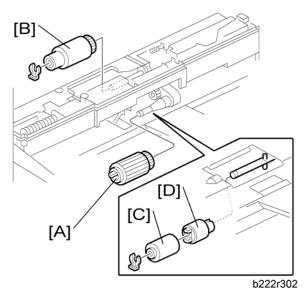
4



- 2. By-pass feed unit cover [A] (x 2).
- 3. By-pass paper end sensor [B] (🗐 x 1, hooks)

By-pass Pick-up, Feed and Separation Roller, Torque Limiter

- 1. Right door cover (p.211)
- 2. By-pass feed unit cover (p.220 "By-pass Paper End Sensor")

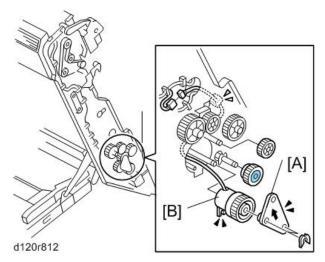


3. By-pass pick-up roller [A] (hook)

- 4. By-pass feed roller [B] (🖾 x 1)
- 5. By-pass separation roller [C] ((() x 1)
- 6. Torque limiter [D]

By-pass Feed Clutch

- 1. Open the right door.
- 2. Right door rear cover (p.213 "Duplex Exit Sensor")
- 3. Transfer belt unit (p.181)
- 4. Transfer belt unit holder (p.213 "Duplex Exit Sensor")



- 6. By-pass feed clutch [B] (♥ x 1, ♠ x 1)

4

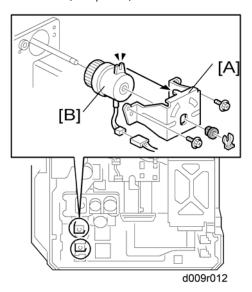
4

Drive Area

Paper Feed Clutch

Tray 1 and Tray 2

1. Rear cover (p.132)

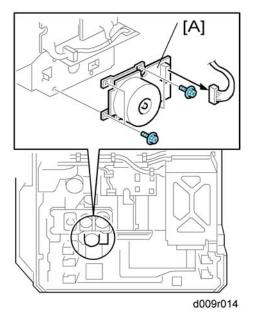


- 2. Clutch bracket [A] (\mathscr{F} x 2, $\langle \overline{\mathbb{O}} \times \mathbb{1}$, bushing x 1)
- 3. Paper feed clutch [B] (🕮 x 1)

Development Paddle Motor

1. Rear cover (p.132)

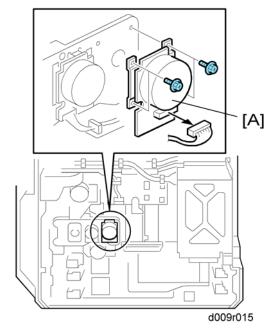




2. Development paddle motor [A] (*x 4, * 1)

Transfer/Development Motor

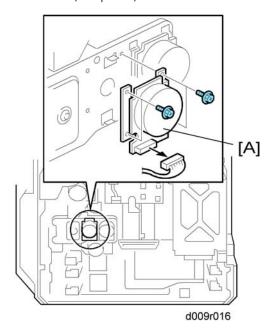
1. Rear cover (p.132)



2. Transfer/development motor [A] (** x 4, ** x 1)

Drum Motor

1. Rear cover (p.132)

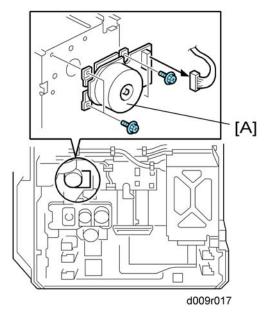


2. Drum motor [A] (x 4, 1 x 1)

Fusing Motor

1. Rear cover (p.132)

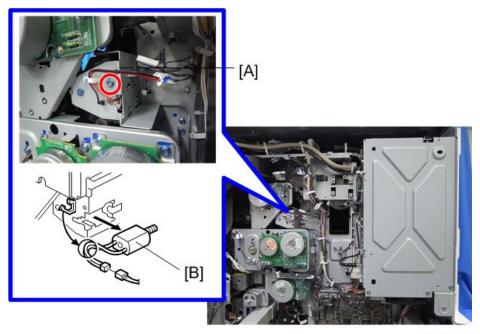




2. Fusing motor [A] (** x 4, *** x 1)

Web Motor

1. Rear cover (p.132)

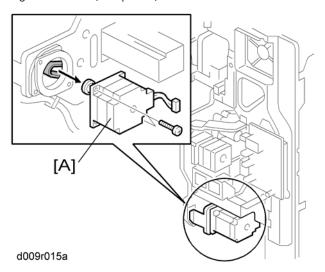


d129r102

- 2. Bracket [A] (x 1)
- 3. Web motor [B] (♥ x 1, ♠ x 1)

Paper Feed Motor

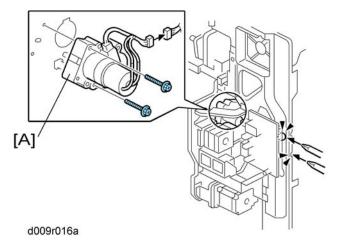
- 1. Rear cover (p.132)
- 2. Right rear cover (p.133)



3. Paper feed motor [A] (** x 2, *** x 1)

Transfer Belt Contact Motor

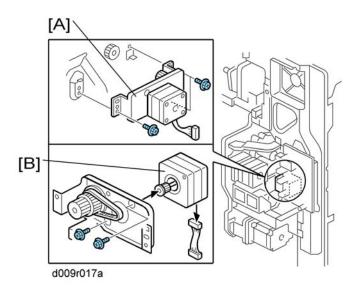
- 1. Rear cover (p.132)
- 2. Right rear cover (p.133)



3. Transfer belt contact motor [A] (*x 2, * x 1)

Registration Motor

- 1. Rear cover (p.132)
- 2. Right rear cover (p.133)

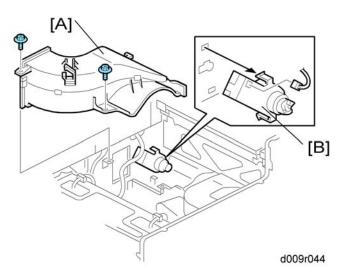


- 3. Registration motor bracket [A] (*\begin{align*} x 3, \quad \quad x 1)
- 4. Registration motor [B] (x 2, 1

4

Toner Supply Motor

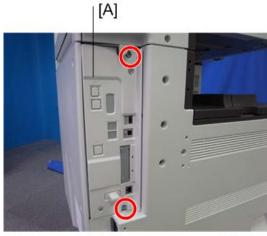
- 1. Left cover (p.132)
- 2. Upper inner cover (p.131 "Front Door, Upper and Lower Inner Cover")
- 3. Inner Tray (p.136)



- 4. Exhaust duct [A] (🗗 x 2)
- 5. Toner supply motor [B] (hooks, 🔎 x 1)

Electrical Components

Controller Unit



d129r110

1. Controller unit [A] (x 2)

HDD Unit

Before Replacing the HDD Unit

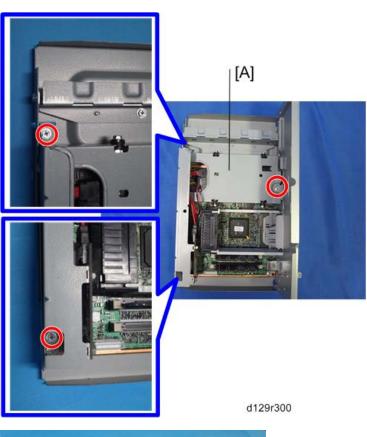
Copy the address book data to an SD card from the HDD with SP5846-051 if possible.

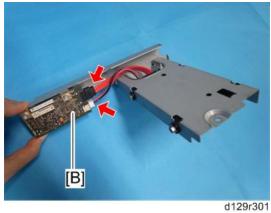
Replacement Procedure

1. Controller unit (p.230)

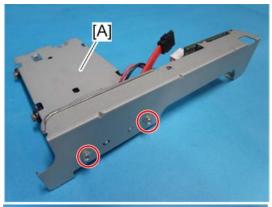
4







2. HDD unit [A] with connecting board [B] ($\mathscr{F}\times 3$, $^{\blacksquare\!\!\square}\times 2)$





d129r880

3. HDD unit [A] (* x 2, * x 2)

After installing the new HDD unit

- 1. Do SP5832-001 to format the hard disk.
- 2. Do SP5853-001 to copy the preset stamp data from the firmware to the hard disk.
- 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. Turn the main power switch off/on.

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.

Reinstallation

- Explain to the customer that the following information stored on the HDD is lost when the HDD is replaced: document server documents, fixed stamps, document server address book
- The address book and document server documents (if needed) must be input again.

Controller Board



- The battery on the control board can explode if replaced incorrectly.
- Dispose of the old battery in accordance with the instructions.

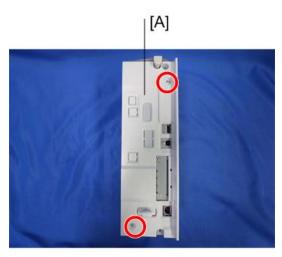
Before Replacing the Controller Board in the Model without HDD

When you replace the controller board in a model without a HDD, address book data can be copied from an old controller board to a new controller board using an SD card.

Copy the address book data to an SD card from the flash ROM on the controller board with SP5846-051 if possible.

Replacement Procedure

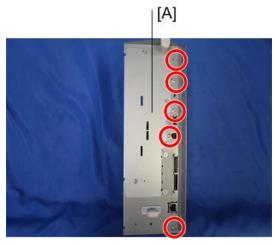
- 1. Controller unit (p.230)
- 2. HDD unit (if it has been installed.) (p.230)



d129r112

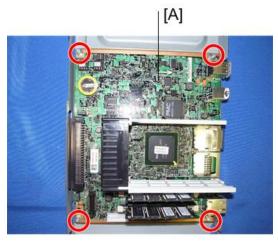
3. Controller cover [A] (x 2)





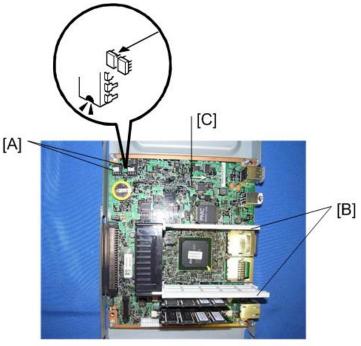
d129r113

4. Controller right bracket [A] (*\begin{align*} x 5 \)



d129r115

5. Controller board assembly [A] (x 4, connector caps)



d129r116

- 6. NVRAMs [A]
- 7. Interface rails [B] (hooks each)
- 8. DIMM-RAM (If it is installed.)
- 9. Controller board [C]

When Installing the New Controller Board

- 1. Remove the NVRAMs from the old controller board.
- 2. Install them on the new controller board after you replace the controller board.
- 3. Replace the NVRAMs if the NVRAM on the old controller board is defective.



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

CAUTION

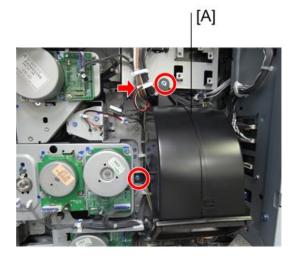
- Keep NVRAMs away from any objects that can cause static electricity. Static electricity can damage NVRAM data.
- Make sure the NVRAMs are correctly installed on the controller board.
- Make sure that the DIP-switch settings on the old controller board are the same for the new controller board. Do not change the DIP switches on the controller board in the field.

After Installing the Controller Board

- For a model without a HDD, do SP5846-052 to copy back the address book to the flash ROM on the controller board from the SD card to which you have already copied the address book data if possible.
- 2. If the customer is using the data encryption feature, the encryption key must be restored.
- 3. Turn the main power switch off/on.

Mother Board

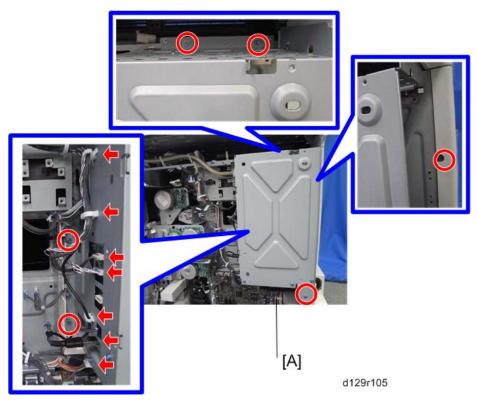
- 1. Rear cover (p.132)
- 2. Controller unit (p.230)



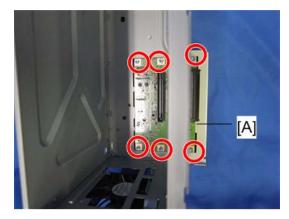
d129r104

3. Exhaust fan duct [A] (* x 2, * 1)

4



4. Controller box [A] (x 6, 🚅 x 4, 🛱 x 3)



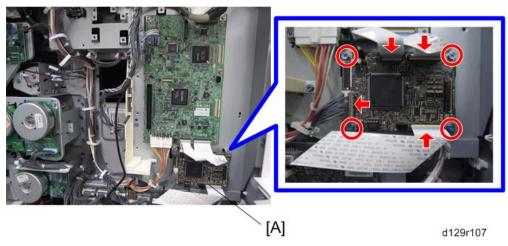
d129r106

5. Mother board [A] (* x 6)

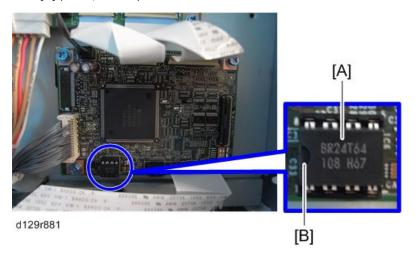
BCU

1. Controller box (p.236 "Mother Board")

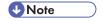




2. BCU [A] (x 4, 4 x 4)



- 3. Remove the NVRAM [A] from the old board and install it on the new board.
- 4. Set the DIP switches on the new BCU board to the same settings as the old board.



 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 left 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 switch.

- 5. "SC995-01" occurs.
- 6. Enter the serial number with SP5-811-004.
- 7. Turn the main power switch off and on.



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

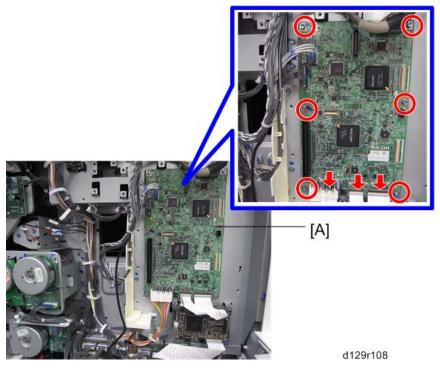
ACAUTION

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

RTB 45: How to replace the NVRAM on the BCU

IPU

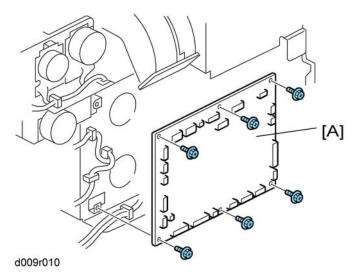
1. Controller box (p.236 "Mother Board")



2. IPU[[A] (🗗 x 6, 📫 x all)

IOB

1. Rear cover (p.132)



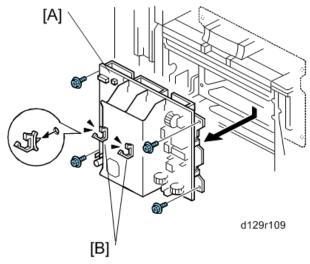
2. IOB [A] (x 6, x 6, x all)

When installing a new IOB

Set the bit switches on the new IOB to the same settings as the old IOB.

PSU

1. Left cover (p.132)

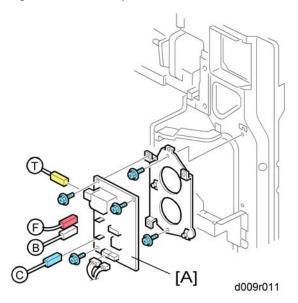


- 2. PSU [A] (x 4, x all)
- 3. Two clamps [B] (These clamps will be used for the new PSU.)

RTB 56 Some components remain charged for some time after the power is disconnected.

High Voltage Power Supply

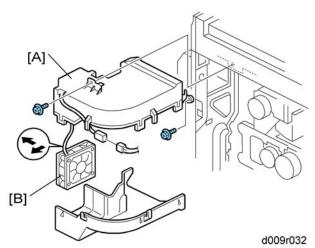
- 1. Rear cover (p.132)
- 2. Right rear cover (p.133)



3. High voltage power supply board [A] ($\slash\hspace{-0.6em}P \times 5, \slash\hspace{-0.6em}P \times all)$

Fusing Exhaust Fan

1. Rear cover (p.132)



2. Fusing exhaust duct [A] (\mathscr{F} x 2, $\overset{\square}{\longrightarrow}$ x 1)

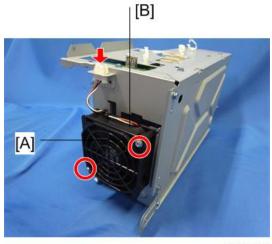
- 3. Separate the duct (hooks).
- 4. Fusing exhaust fan [B]

When installing the fusing exhaust fan

Make sure that the fusing fan is installed with its decal facing the right side of the machine.

Controller Fan

1. Controller box (p.236 "Mother Board")



d129r117

- 2. Fan cover [A] (x 2)
- 3. Controller fan [B] (🕮 x 1)

When installing the controller fan

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

Λ

Copy Adjustments: Printing/Scanning

Overview

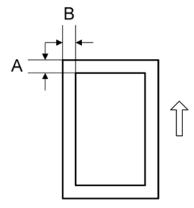
Perform these adjustments after replacing any of the following:

- Scanner Wire
- Lens Block/SBU Assembly
- Scanner Drive Motor
- Polygon Mirror Motor
- Paper Side Fence
- Memory All Clear

Printing

- 1. Make sure paper is installed correctly in each paper tray before you start these adjustments.
- 2. Use the Trimming Area Pattern (SP2-109-1, No. 14) to print the test pattern for the following procedures.

Registration - Leading Edge/Side-to-Side



b195r827

1. Check the leading edge registration [A] for each paper type and paper feed station, and adjust it with following SP modes.

	SP No.	Specification
Tray: Plain	SP1-001-1	
Tray: Thick 1	SP1-001-2	
Tray: Thick 2	SP1-001-3	
By-pass: Plain	SP1-001-4	0.100
By-pass: Thick 1	SP1-001-5	0 ±9.0 mm
By-pass: Thick 2	SP1-001-6	
Duplex: Plain	SP1-001-7	
Duplex: Thick 1	SP1-001-8	

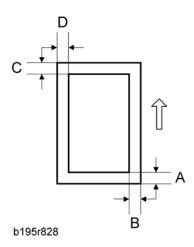
2. Check side-to-side registration [B] for each paper feed station, and adjust with the following SP modes.

	SP No.	Specification
By-pass	SP1-002-1	
Tray 1	SP1-002-2	
Tray 2	SP1-002-3	
Tray 3	SP1-002-4	0 ±4.0 mm
Tray 4	SP1-002-5	
LCT	SP1-002-6	
Duplex	SP1-002-7	

Blank Margin



• If the leading edge/side-to-side registration cannot be adjusted within specifications, adjust the leading/left side edge blank margin.



1. Check the trailing edge [A], right edge [B], leading edge [C] and left edge [D] blank margins, and adjust them with the following SP modes.

	SP No.	Specification
Leading Edge	SP2-103-1	3.0 mm [0.0 to 9.0 mm]
Trailing Edge	SP2-103-2	
Left	SP2-103-3	
Right	SP2-103-4	2.0 mm [0.0 to 9.0 mm]
Duplex: Trailing Edge: L Size: Plain	SP2-103-5	1.0 mm [0.0 to 4.0 mm]
Duplex: Trailing Edge: M Size: Plain	SP2-103-6	0.8 mm [0.0 to 4.0 mm]
Duplex: Trailing Edge: S Size: Plain	SP2-103-7	0.6 mm [0.0 to 4.0 mm]
Duplex: Left: Plain	SP2-103-8	0.3 mm [0.0 to 1.5 mm]
Duplex: Right: Plain	SP2-103-9	
Duplex: Trailing Edge: L Size: Thick	SP2-103-10	0.8 mm [0.0 to 4.0 mm]
Duplex: Trailing Edge: M Size: Thick	SP2-103-11	0.6 mm [0.0 to 4.0 mm]

	SP No.	Specification
Duplex: Trailing Edge: S Size: Thick	SP2-103-12	0.4 mm [0.0 to 4.0 mm]
Duplex: Left: Thick	SP2-103-13	0.1 mm [0.0 to 1.5 mm]
Duplex: Right: Thick	SP2-103-14	

• L Size: Paper length is 297.1 mm or more.

• M Size: Paper length is 216.1 to 297 mm

• S Size: Paper length is 216 mm or less.

Main Scan Magnification

1. Use SP2-109-001 no 5 (Grid Pattern) to print a single dot pattern.

 Check magnification, and then SP2-102 (Magnification Adjustment Main Scan) to adjust magnification if required. Specification: ±2%.

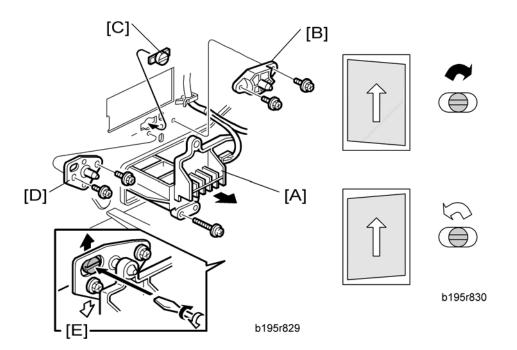
Parallelogram Image Adjustment

Do the following procedure if a parallelogram prints while adjusting the printing registration or printing margin using a trimming area pattern.

The following procedure should be done after adjusting the side-to-side registration for each paper tray station.

Use SP2-109-1 No. 14 (Trimming Area) to determine whether a parallelogram image appears. If the parallelogram pattern appears, perform the following procedure.





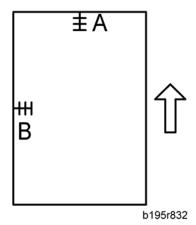
- 1. Laser unit [A]
- 2. Bracket [B] (x2)
- 3. Install adjustment cam [C] (P/N: A2309003).
- 4. Secure positioning pin [D] (P/N A2309004) with the two screws removed with the bracket [B]. Do not tighten the screws at this time.
- 5. To adjust the position of the laser unit [E]
 - 1) Adjust the laser unit position by turning the adjustment cam. (See the illustration above.)
 - 2) Tighten the adjustment bracket.
 - 3) Print the trimming area pattern to check the image. If the results are not satisfactory, repeat steps 5-1) to 5-3).

Scanning

Before doing the following scanner adjustments, perform or check the printing registration/side-to-side adjustment and the blank margin adjustment.



• Use the S5S test chart to perform the following adjustments.



- 1. Place the test chart on the exposure glass and make a copy from one of the feed stations.
- 2. Check the leading edge [A] and side-to-side [B] registration, and adjust them with the following SP modes if necessary.

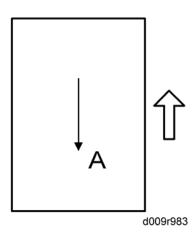
	SP No.	Specification
Leading Edge	SP4-010-1	0 ±2.0 mm
Side-to-side	SP4-011-1	0 ±2.5 mm

Magnification

Use the S5S test chart to perform the following adjustment.

Sub Scan Magnification

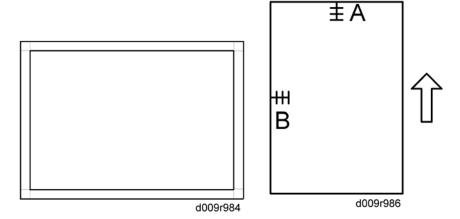




- 1. Place the test chart on the exposure glass and make a copy from one of the feed stations.
- 2. Check the magnification ratio. Use SP4-008 (Scanner Sub Scan Magnification) to adjust if necessary. Specification: ±0.9%.

ADF

Registration



- 1. Make a temporary test chart as shown above using A3/DLT paper.
- 2. Place the temporary test chart on the ADF and make a copy from one of the feed stations.
- 3. Check the registration, and adjust using the following SP modes if necessary.

	SP No.	Specification
Side-to-side: 1st side	SP6-006-1	0.0 mm ±3 mm
Side-to-side: 2nd side	SP6-006-2	
Leading Edge	SP6-006-3	0.0 mm ±5 mm
Leading Edge: 1st side	SP6-006-5	0.0 mm ±3 mm
Leading Edge: 2nd side	SP6-006-6	0.0 mm ±2.5 mm
Trailing Erase edge:	SP6-006-7	0.0 mm ±10.0 mm

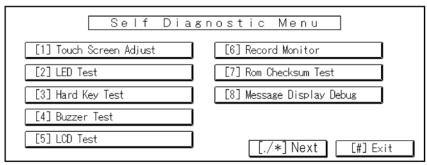
Touch Screen Calibration

After clearing the memory, or if the touch panel detection function is not working correctly, follow this procedure to calibrate the touch screen.

RTB 32: Modified this sentence

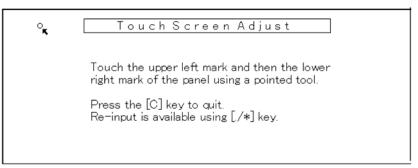


• Do not attempt to use items [2] to [7] on the Self-Diagnostic Menu. These items are for design use only.



b195r834

- 1. Press , "1", "9", "9", "3", and then press 5 times to open the Self-Diagnostics menu.
- 2. On the touch screen press "Touch Screen Adjust" (or press "1").



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- 3. Use a pointed (not sharp!) tool to press the upper left mark $^{\circ}$.
- 4. Press the lower right mark after it appears.
- 5. Touch a few spots on the touch panel to confirm that the marker (+) appears exactly where the screen is touched.

If the + mark does not appear where the screen is touched, press Cancel and repeat from Step 2.

- 6. When you are finished, press [#] OK on the screen (or press ^(#)).
- 7. Touch [#] Exit on the screen to close the Self-Diagnostic menu and save the calibration settings.

5. Service Tables

Service Program Mode

ACAUTION

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



The main power LED lights or flashes while the platen cover or ARDF is open, while the main
machine is communicating with a facsimile or the network server, or while the machine is accessing
the hard disk or memory for reading or writing data.

Service Program Mode Operation

The service program (SP) mode is used to check electrical data, change modes, and adjust values.

ACAUTION

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

Service Mode Lock/Unlock

At locations where the machine contains sensitive data, the customer engineer cannot operate the machine until the Administrator turns the service mode lock off. This function makes sure that work on the machine is always done with the permission of the Administrator.

 If you cannot go into the SP mode, ask the Administrator to log in with the User Tool and then set "Service Mode Lock" to OFF. After he or she logs in:

[User Tools] > System Settings > Administrator Tools > Service Mode Lock > OFF

- This unlocks the machine and lets you get access to all the SP codes.
- The service technician can do servicing on the machine and turn the machine off and on. It is
 not necessary to ask the Administrator to log in again each time the machine is turned on.
- 2. If you must use the printer bit switches, go into the SP mode and set SP5169 to "1".
- 3. After machine servicing is completed:
 - Change **SP5169** from "1" to "0".
 - Turn the machine off and on.

- Tell the administrator that you completed servicing the machine.
- The administrator will then set the "Service Mode Lock" to ON.

Service Program Mode Tables

Please note these general changes in this section:

- Group 8(Data Log 2) is a new group of counters.
- Along with the addition of Group 8, many of the Group 7 counters have been removed.

Service Table Key

Notation	What it means
[range / default / step]	Example: [-9 to $+9$ / 0 / 0.1 mm step]. The setting can be adjusted in the range ± 9 , value reset to $+3.0$ after an NVRAM reset, and the value can be changed in 0.1 mm steps with each key press.
*	Value stored in NVRAM. After a RAM reset, this default value (factory setting) is restored.
DFU	Denotes "Design or Factory Use". Do not change this value.
Japan only	The feature or item is for Japan only. Do not change this value.
C2b	D129
C2c	D130
SSP	This denotes a "Special Service Program" mode.

Service Program Mode Tables

SP Tables

There are the 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
- Printer SP Tables
- Scanner SP Tables

Main SP Tables-1

SP1-xxx: Feed

	Leading Edge Registration Adjusts the leading edge registration by changing the registration clutch operation timing.	
1001*		
001	Tray: Plain	
002	Tray: Thick 1	
003	Tray: Thick 2	
004	By-pass: Plain	[-9 to 9/ 0 / 0.1 mm step]
005	By-pass: Thick 1	[-9 10 9/ 0 / 0.1 mm siep]
006	By-pass: Thick 2	
007	Duplex: Plain	
008	Duplex: Thick 1	

	Side-to-Side Registration Adjusts the side to side registration by changing the laser main scan start position for each mode.	
1002*		
001	By-pass	
002	Tray 1	
003	Tray 2	
004	Tray 3	[-4 to 4/0/0.1 mm step]
005	Tray 4	
006	LCT	
007	Duplex	

Registration Buckle Adjustment		ent
1003*	Adjusts the paper feed motor timing. Paper feed motor timing determines the amount paper buckle at Registration. (A "+" setting causes more buckling.)	
001	Tray 1: Plain	
002	Tray 1: Thick 1	
003	Tray 1: Thick 2	
004	Tray 2, 3, 4: Plain	[-9 to 5 / -4 / 1 mm step]
005	Tray 2, 3, 4: Thick1	
006	Tray 2, 3, 4: Thick2	
007	By-pass: Plain	
008	By-pass: Thick 1	[-9 to 5 / -2 / 1 mm step]
009	By-pass: Thick 2	
010	Duplex: Plain	[-9 to 5 / -4 / 1 mm step]
011	Duplex: Thick 1	[-9 to 5 / -3 / 1 mm step]
012	LCT: Plain	
013	LCT: Thick 1	[-9 to 5 / -4 / 1 mm step]
014	LCT: Thick2	

By-pass Paper Size Detection		By-pass Paper Size Detection	
	1007	Controls paper size detection for the by-pass feed table.	
	001	Detection Timing	[-15 to 15 / 0 / 5 mm step]
	002	LG Detection	[0 to 1 / 0 / 1] 0: LTSEF, 1: LG

	Fusing Temperature Adjustment			
1105*	Allows adjustment of the hot roller temperature at the center and ends of the roller for the quality or thickness of the paper. The hot roller in this machine has two fusing lamps: one heats the center of the roller, the other heats both ends. Each fusing lamp can be adjusted separately. The "re-load temperature" is the "print ready temperature". When the fusing temperature exceeds this setting, the machine can operate. Do not set up a re-load temperature (Reload Temp. = Fusing. Temp – SP Value.) that is higher than the SP1-105-2 setting.		s machine has two fusing lamps: one ds. Each fusing lamp can be adjusted ature". When the fusing temperature of set up a re-load temperature (Re-	
001	Roller Center		_	70 / 140 / 1 deg] 70 / 150 / 1 deg]
	Adjusts the fusing temperature at the	e cente	r of the ho	ot roller.
002	Roller Ends			70 / 145 / 1 deg] 70 / 155 / 1 deg]
	Adjusts the fusing temperature at the	e ends	of the hot	roller.
	Re-load Temp. Minus: Roller Center	r		[0 to 60 / 0 / 1 deg]
003	Sets the reload temperature for the center of the hot roller. This setting depends on the target temperature. Reload temp. = Target Temp – This SP Setting			
	Note			
	Do not set a temperature that i Trays)	s highe	er than the	setting for SP1105 1 (Roller Center:
	Re-load Temp. Minus: Roller Ends			[0 to 60 / 0 / 1 deg]
	Sets the reload temperature for the target temperature.	ends of	f the hot ro	oller. This setting depends on the
004	Reload temp. = Target Temp – This SP Setting			
	 Note Do not set a temperature that is higher than the setting for SP1105 2 (Roller Ends: Trays) 		setting for SP1105 2 (Roller Ends:	
005 to 022	The following SPs adjust the fusing t each paper type.	emper	ature at the	e center or ends of the hot roller for
005	C2b: [100 to 170 / 145 / 1 deg] C2c: [100 to 170 / 155 / 1 deg]			

006	Roller Ends: M-Thick	C2b: [100 to 170 / 150 / 1 deg] C2c: [100 to 170 / 160 / 1 deg]
007	Roller Center: Thick 1	[100 170 /100 /1 1
008	Roller Ends: Thick 1	[100 to 170 / 130 / 1 deg]
009	Roller Center: Thick 2	[100 to 170 / 150 / 1 do o
010	Wait Temp: Center Minus	[100 to 170 / 150 / 1 deg]
011	Wait Temp: Ends Minus	C2b: [100 to 170 / 130 / 1 deg] C2c: [100 to 170 / 140 / 1 deg]
012	Roller Ends: Thin	C2b: [100 to 170 / 135 / 1 deg] C2c: [100 to 170 / 145 / 1 deg]
013	Roller Center: OHP: Plain	[100 to 170 / 150 / 1 deg]
014	Roller Ends: OHP: Plain	[100+ 170 / 155 / 1]
015	Roller Center: OHP: Thick	[100 to 170 / 155 / 1 deg]
016	Roller Ends: OHP: Thick	[100 to 170 / 160 / 1 deg]
017	Roller Center: Special 1	C2b: [100 to 170 / 140 / 1 deg] C2c: [100 to 170 / 150 / 1 deg]
018	Roller Ends: Special 1	C2b: [100 to 170 / 145 / 1 deg] C2c: [100 to 170 / 155 / 1 deg]
019	Roller Center: Special 2	C2b: [100 to 170 / 140 / 1 deg] C2c: [100 to 170 / 150 / 1 deg]
020	Roller Ends: Special 2	C2b: [100 to 170 / 145 / 1 deg] C2c: [100 to 170 / 155 / 1 deg]
021	Roller Center: Special 3	C2b: [100 to 170 / 140 / 1 deg] C2c: [100 to 170 / 150 / 1 deg]
022	Roller Ends: Special 3	C2b: [100 to 170 / 145 / 1 deg] C2c: [100 to 170 / 155 / 1 deg]

023	Feed Waiting: Plain	Turns the feed waiting mode on or off for each
024	Feed Waiting: M-Thick	paper type. [0 to 1 / 0 / 1]
025	Feed Waiting: Thick 1	0=Off, 1=On
026	Feed Waiting: Thick 2	The paper waits at the registration roller until
027	Feed Waiting: Thin	the fusing temperature reaches the prescribed temperature (adjustable with SP1105-028 to -37). If you enable this feature, also set SP 1105-38 to a convenient value for the customer.
028	Feed Wait: Center Minus: Plain	
029	Feed Wait: Ends Minus: Plain	
030	Feed Wait: Center Minus: M-Thick	
031	Feed Wait: Ends Minus: M-Thick	
032	Feed Wait: Center Minus: Thick 1	Adjusts the offset value for each re-load
033	Feed Wait: Ends Minus: Thick 1	temperature to exit the feed waiting mode. [0 to 60 / 0 / 1 deg]
034	Feed Wait: Center Minus: Thick 2	
035	Feed Wait: Ends Minus: Thick 2	
036	Feed Wait: Center Minus: Thin	
037	Feed Wait: Ends Minus: Thin	
		Sets the maximum feed waiting time.
		[0 to 30 / 0 / 1 sec]
038	Feed Waiting: Maximum Time	The paper is fed when the time specified with this SP has passed even though the fusing temperature has not reached the prescribed temperature.
		0: Disabled.

1106	Fusing Temperature Display	
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001	Roller Center	Displays the temperature of the fusing unit.
002	Roller Ends	[-20 to 250 / 0 / 1 deg]
003	Machine Inside at Power On	Displays the temperature inside the machine.
004	Machine Inside	[-20 to 250 / 0 / 1 deg]

MotorSpeedAdjust			
	Adjusts the speeds of each motor. Each step decreases or increases motor speed in 0.05% increments		
	Regist: Registration motor, Feed: Feed motor,		
1801*	Duplex: Duplex/By-pass motor, Inverter: Duplex inverter motor,		
Exit: Paper exit motor, Bridge: Bridge un		e unit drive motor,	
	OpcMot: Drum motor, TransferMot:	Transfer/Development Motor,	
	FusingMot: Fusing motor,		
	DevPuddleMot: Development Paddle	e motor	
001	Regist: 90: Thick 2		
002	Regist: 154: Thick 1	[-2 to 2 / 0.4 / 0.05 %]	
003	Regist: 180: Plain	[-2 10 2 / 0.4 / 0.03 %]	
004	Regist: 230: Plain		
005	Feed: 90: Thick 2	[-2 to 2 / -0.4 / 0.05 %]	
006	Feed: 154: Thick 1	[-2 10 2 / -0.4 / 0.03 %]	
007	Feed: 180: Plain	[-2 to 2 / -1 / 0.05 %]	
008	Feed: 230: Plain	[-2 10 2 / -1 / 0.03 %]	
009	Duplex_CW: 90: Thick 2	[-4 to 4 / 0.4 / 0.1 %]	
010	Duplex_CW: 154: Thick 1	[-410 4 / 0.4 / 0.1 %]	
011	Duplex_CW: 180: Plain	[-4 to 4 / -2.3 / 0.1 %]	
012	Duplex_CW: 230: Plain	[-4 10 4 / -2.3 / 0.1 /0]	
013	Duplex_CCW: 90: Thick 2	[-4 to 4 / 0.4 / 0.1 %]	
014	Duplex_CCW: 154: Thick 1	[-4 10 4 / 0.4 / 0.1 / ₀]	

015	Duplex_CCW: 180: Plain	[4-4/02/01%]
016	Duplex_CCW: 230: Plain	[-4 to 4 / -0.2 / 0.1 %]
017	Inverter_CW: 90: Thick 2	
018	Inverter_CW: 154: Thick 1	
019	Inverter_CW: 180: Plain	
020	Inverter_CW: 230: Plain	
021	Inverter_CCW: 90: Thick 2	
022	Inverter_CCW: 154: Thick 1	
023	Inverter_CCW: 180: Plain	
024	Inverter_CCW: 230: Plain	
025	Exit_CW: 90: Thick 2	[-4 to 4 / 0 / 0.1 %]
026	Exit_CW: 154: Thick 1	
027	Exit_CW: 180: Plain	
028	Exit_CW: 230: Plain	
029	Bridge: 90: Thick 2	
030	Bridge: 154: Thick 1	
031	Bridge: 180: Plain	
032	Bridge: 230: Plain	

033	OpcMot:90	
034	OpcMot:154	
035	OpcMot:180	
036	OpcMot:230	
037	TransferMot:90	
038	TransferMot: 154	[-4 to 4 / 0 / 0.01 %]
039	TransferMot: 180	[-41047 0 7 0.01 %]
040	TransferMot:230	
041	FusingMot:90	
042	FusingMot:154	
043	FusingMot:180	
044	FusingMot:230	
045	DevPuddleMot	[-4 to 4 / 0 / 0.1 %]

1902*	Cleaning Web Setting	
001	Web Consumption	[0 to 120 / 0 / 1 %]
001	Displays the consumed amount of the	e web roll.
	Web Motor Interval	C2b: [3 to 130 / 8.4 / 0.1 sec]
002	Web Mofor Interval	C2c: [3 to 130 / 6.7 / 0.1 sec]
	Adjusts the interval for web motor rotation.	
003	Web Motor Time	[0.3 to 10 / 4.2 / 0.1 sec]
003	Adjusts the rotation time of the web motor.	
		C2b: EU [0 to 100 / 90 / 1 %]
	Web Near End Setting	C2b: ASIA/NA [0 to 100 / 92 / 1 %]
004		C2c: EU [0 to 100 / 90 / 1 %]
		C2c: ASIA/NA [0 to 100 / 92 / 1 %]
	Adjusts the threshold for web near end.	

005	Web Motor Interval: Thick 1	[3 t	ro 130 / 11.2 / 0.1 sec]
003	Adjusts the interval for web motor rotation (thick 1).		
007	Web Motor Interval: Thick 2	[3 t	ro 130 / 16.8 / 0.1 sec]
006	Adjusts the interval for web motor rote	ation	(thick 2).
	Paper Interval Time	[0 to 10 / 5 / 1 sec]	
007	Adjusts the threshold for paper feeding. When the time between trailing edge detection and leading edge detection is within the value of this setting, the machine determines that the paper is still being fed.		vithin the value of this setting, the machine
008	Web Motor Setting: Web End		[0 to 60 / 27 / 1 sec]
008	Adjusts the motor rotation time after the web end.		
000	Web Motor Rotation: Power On		[0 to 10 / 0 / 1 times]
009	Adjusts the number of web motor rotations at the re-load state.		
010	Web Motor Interval: Pre-idle		[0 to 30 / 0 / 1 sec]
010	Adjusts the motor waiting time after the fusing motor idling.		
011	Web Motor Rotation: Pre-idle		[0 to 10 / 0 / 1 times]
	Adjusts the number of web motor rotations at the fusing idling state.		

1950*	Tray Lock at Jam	[0 or 1 / 0 / 1] 0= OFF, 1= ON
1930	Not used	

Main SP Tables-2

SP2-xxx: Drum

2005*	Bias Control	
	Bias Correction 1	[0.1 to 1 / 0.85 / 0.05 step]
001	Adjusts the lower threshold value for the charge roller correction. When the value of VSDP/VSG is greater than this value, the charge roller voltage increases by 30 V (e.g., from -500 to -530).	
	Bias Correction 2	[0.1 to 1 / 0.9 / 0.05 step]
002	Adjusts the upper threshold value for the charge roller correction. When the value of VSDP/VSG is greater than this value, the charge roller voltage decreases by 30 V (absolute value).	
	Bias Adjustment 1	[1000 to 2000 / 1500 / 10 vol]
003	Adjusts the lower limit value for charge roller voltage correction.	
004	Bias Adjustment 2	[1000 to 2000 / 2000 / 10 vol]
	Adjusts the upper limit value for charge roller voltage correction.	
005	Bias Adjustment 3	[0 to 100 / 30 / 10 vol]
	Adjusts the correction voltage adjustment step size.	

	Erase Margin Adjustment	
	Adjusts the erase margin by deleting image data at the margins.	
2103*	L Size: 297.1 mm or more (length)	
	M Size: 216.1 to 297 mm (length)	
	S Size: 216 mm or less (length)	
001	Leading Edge	[0+-0/2/0]]
002	Trailing Edge	[0 to 9 / 3 / 0.1 mm]
003	Left	[0 to 9 / 2 / 0.1 mm]
004	Right	[0 10 7 / 2 / 0.1111111]

005	Duplex Trail.: L Size: Plain	[0 to 4 / 1 / 0.1 mm]
006	Duplex Trail.: M Size: Plain	[0 to 4 / 0.8 / 0.1 mm]
007	Duplex Trail.: S Size: Plain	[0 to 4 / 0.6 / 0.1 mm]
008	Duplex Left: Plain	[0 to 1.5 / 0.3 / 0.1mm]
009	Duplex Right: Plain	[0 10 1.5 / 0.3 / 0.1mm]
010	Duplex Trail.: L Size: Thick	[0 to 4 / 0.8 / 0.1 mm]
011	Duplex Trail.: M Size: Thick	[0 to 4 / 0.6 / 0.1 mm]
012	Duplex Trail.: S Size: Thick	[0 to 4 / 0.4 / 0.1 mm]
013	Duplex Left: Thick	[0 to 1.5 / 0.1 / 0.1mm]
014	Duplex Right: Thick	[O IO 1.3 / O.1 / O.11nm]

	LD Power Adjustment		
Adjusts the LD power for each mode. Each LD power setting is decided by the process control.			
001	LD1: Copy	[50 to 70 / 24 (C2h) 5 (C2h) /1]	
002	LD2: Copy	[-50 to 79 / -24 (C2b), 5 (C2c) / 1]	
003	LD1: Printer/Fax	[50 to 70 / 44 (C2h) 25 (C2a)/1]	
004	LD2: Printer/Fax	[-50 to 79 / -44 (C2b), -25 (C2c) /1]	

2109

	Pattern Selection	[0 to 24 / 0 / 1 Test pattern of the	
001	0: None 1: Vertical Line (1 dot) 2: Vertical Line (2 dot) 3: Horizontal Line (1 dot) 4: Horizontal Line (2 dot) 5: Grid Vertical Line 6: Grid Horizontal Line 7: Grid pattern small 8: Grid Pattern Large 9: Argyle Pattern Small 10: Argyle Pattern Large 11: Independent pattern 12: Independent Pattern	(1 dot)	13: Independent Pattern (4 dot) 14: Trimming Area 15: Hound's Tooth Check (Vertical) 16: Hound's Tooth Check (Horizontal) 17: Black Band (Horizontal) 18: Black band (Vertical) 19: Checker Flag Pattern 20: Grayscale (Vertical Margin) 21: Grayscale (Horizontal Margin) 22: Two Beam Density Pattern 23: Full Dot Pattern 24:All white Pattern
002	Density	,	f the test pattern which is output in a SP is not used for the Grayscale patterns.

Adjusts the TD sensor reference voltage (Vref). Change this value after replacing the development unit with another development unit that contains toner. [1 to 5 / 4 / 0.01] 1. Check the value of SP2-220 in both the machine containing the test unit and the machine that you are going to move it to. 2. Install the test development unit, and then input the VREF for this unit into SP2-220. 3. After the test, put back the old development unit, and change SP2-220 back to the original value.

	Reverse Interval Drum, Transfer	[0 to 2000 / 0 / 1 sheets]	
2221*	Adjusts the threshold for the reverse rotation of the drum and development/transfer motors. This helps the drum and transfer belt cleaning operations. This reverse rotation will interrupt a multiple printing job.		
	TD Sensor Initial Setting	Initialization	
2801	Performs the TD sensor initial setting and allows the service technician to enter the lot number of the developer. (The lot number is embossed on the edge of the developer package.) This SP mode controls the voltage applied to the TD sensor to make the TD sensor output about 3.0 V. Press "Execute" to start. After finishing this, the TD sensor output voltage is displayed.		
	Use this mode only after installing the machine, changing the TD sensor, or adding new developer.		
2960*	Toner Overflow Sensor	[0 = OFF, 1= ON]	
	Selects whether or not the toner overflow sensor is activated.		
	Grayscale Limit (SSP)		
2972* Controls the halftone density level to prevent deterioration of the OPC. The		prevent deterioration of the OPC. The halftone	

	Grayscale Limit (SSP)		
2972*	Controls the halftone density level to prevent deterioration of the OPC. The halftone density is detected by the ID sensor, and the machine adjusts the intensity of the LD beam according to the upper/lower limit setting.		
	Upper Limit	[0 to 100 / 58 (C2b), 63 (C2c) / 1vol]	
001	Defines the upper limit for grayscale. A larger value allows a wider range of halftones at the pale end of the scale. If the image contains pale areas with fuzzy borders surrounded by dark areas, reduce this value to make the borders clearer.		
002	Lower Limit	[0 to 100 / 52 (C2b), 57 (C2c) / 1vol]	
	Defines the lower limit for grayscale. A smaller value allows a wider range of halftones at the dark end of the scale.		

	Grayscale Cycle (SSP)	[0 to 1000 / 100 / 10 sheets]
2973*		erval in order to prevent deterioration of the OPC. If the setting, at the end of the job, or if the door is opened is executed.

2974*	Image Density	
	Adjustment Mode	[1 to 5 / 3 / 1]
001	Adjusts image density. Changing this setting adjusts development bias and ID sensor output voltage that in turn raises or lowers image density.	

	Charge Counter	[0 to 1000000 / 0 / 1 sheets]
2980*	Set the number of pages to print after toner and carrier initialization before the charge input is increased to compensate for deterioration over time in the polarity of the carrier.	
	The strength in the polarity of the carrier in the toner will eventually decrease and cause lower charge output. Setting the charge output to increase after a specified number of copies can compensate for this effect.	

Main SP Tables-3

SP3-xxx: Process

3001	P Sensor Setting	
	Current	[0 to 43 / 13 / 0.1 mA]
001*	Allows you to reset the PWM of the ID sensor LED to avoid a service call error after clearing NVRAM or replacing the NVRAM. The PWM data is stored by executing SP-3001-2.	
	Initialization	-
002	Performs the ID sensor initial setting. ID sensor output for the bare drum (VSG) is adjusted automatically to 4.0 ±0.2 V.	
	Press "Execute" to start. Perform this setting after replacing or cleaning the ID sensor, replacing the drum, or clearing NVRAM.	

3045*	Toner End Setting DFU	
001	ON/OFF	[0 to 1 / 0 / 1] 0=Off, 1=On

3902*	New PCU Detection (Not used)	
001	ON/OFF Setting	[0 to 1 / 0 / 1] 0: On, 1: Off
	Turns on or off the new unit detection for the transfer belt unit and fusing unit.	

Main SP Tables-4

SP4-xxx: Scanner

	Sub Scan Mag. Adjustment
4008*	Adjusts the magnification of the sub scan direction during scanning. Changing this value changes the scanner motor speed.
	[-1 to 1 / 0 / 0.1%]

	L-Edge Regist Adjustment
4010*	Adjusts the leading edge registration for scanning.
	As you enter a negative value, the image moves toward the leading edge.

Scanner Erase Margin: Scale Adjusts scanning margins for the leading and trailing edges (sub scan) and right and left edge (main scan). ■ Note 4012* • Do not adjust unless the customer desires a scanner margin greater than the printer margin. • These settings are adjusted to erase shadows caused by the gap between the original and the scale of the scanner unit. 001 Book: Leading Edge [0 to 3 / 1 / 0.1 mm]002 Book: Trailing Edge [0 to 3 / 0 / 0.1 mm]003 Book: Left [0 to 3 / 1 / 0.1 mm]004 Book: Right [0 to 3 / 0 / 0.1 mm]005 ADF: Leading Edge [0 to 3 / 0 / 0.1 mm]007 [0 to 3 / 0 / 0.1 mm]ADF: Right 800 ADF: Left [0 to 3 / 0 / 0.1 mm]

4013	Scanner Free Run	
4013	Performs a scanner free run with the exposure lamp on or off.	
001	Lamp: OFF	[0 to 1 / 0 / 1]
002	Lamp: ON	0=Off, 1=On

4014	Scan	
001	HP Detection Enable	Scanner free run with HP sensor check.
002	HP Detection Disable	Scanner free run without HP sensor check.

	Dust Check
4020*	This function checks the narrow scanning glass of the ADF for dust that can cause black lines in copies. If dust is detected a system banner message is displayed, but processing does not stop.
	Dust Detect: On/Off
	Issues a warning if there is dust on the narrow scanning glass of the ADF when the original size is detected before a job starts. This function can detect dust on the white plate above the scanning glass, as well as dust on the glass. Sensitivity of the level of detection is adjusted with SP4020-2.
001	[0 to 1 / 1 / 1]
	0: Off. No dust warning.
	1: On. Dust warning. This warning does not stop the job.
	↓ Note
	Before switching this setting on, clean the ADF scanning glass and the white plate above the scanning glass.

	Dust Detect: Lvl
	Adjusts the sensitivity for dust detection on the ADF scanning glass. This SP is available only after SP4020-1 is switched on.
	[0 to 8 / 4 / 1]
002	If you see black streaks in copies when no warning has been issued, raise the setting to increase the level of sensitivity. If warnings are issued when you see not black streaks in copies, lower the setting.
	Note
	 Dust that triggers a warning could move be removed from the glass by the originals in the feed path. If the dust is removed by passing originals, this is not detected and the warning remains on.
	Dust Reject: Lvl
003	Selects the level of the sub scan line correction when using the ARDF.
003	[0 to 4 / 0 / 1]
	0: OFF, 1: Weakest, 2: Weak, 3: Strong, 4: Strongest

4301	Displays a code that represents the original size detected by the original sensors. (*** "Input Check Table" in "Main SP Tables-9")
	APS Min. Size
	Determines whether an original of non-standard size is detected as A5/HLT size by the APS sensor.
4303	0: No original
	1: A5 - lengthwise (SEF)
	2: A5 - Sideways (LEF)
	If "O" is selected, "Cannot detect original size" will be displayed.

APS Operation Check

4305	8K/16K Detection
	[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-Lenghtwise
	3: 8K 16K

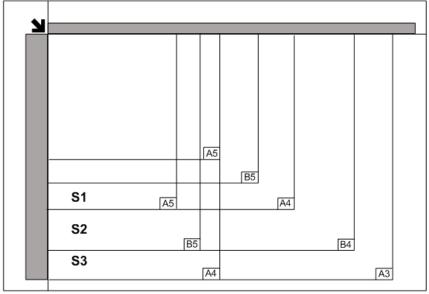
4308*	Scan Size Detection
	Detection ON/OFF
	Selects whether the machine detects the original size.
001	[0 to 1 / 1 / 1 step]
	0: OFF
	1: ON

4309*	Scan Size Detect: Setting	
	Original Density Thresh	
001	Adjust the density for the scan size detection. [0 to 255 / 18 / 1 step]	
	Detection Time	
002	Adjust the detection time for scan size detection. [20 to 100 / 60 / 20 msec]	
	Lamp ON: Delay Time	
003	Adjust the timing when to lamp on for the scan size detection. [0 to 200 / 40 / 20 msec]	
	LED PWM Duty	
004	Adjust the light value for the scan size detection. [0 to 100 / 60 / 1 %]	

4210	Scan Size Detect Value	[0 to 255 / 0 / 1 digit]
4310	Displays the scanned data for the original width detection.	
001	S1: R	
002	\$1: G	
003	S1: B	
004	S2: R	
005	\$2: G	
006	S2: B	
007	S3: R	
008	\$3: G	
009	S3: B	



• Each detection point (S1, S2, S3) in SP4310 is as follows.



d120s001

	IPU Test Patte	ern		
	Selects the IPU test Pattern.			
		[0 to 28 / 0 / 1]		
		0: Scanned image	15: Gray pattern (1)	
		1: Gradation main scan A	16: Gray pattern (2)	
		2: Gradation main scan B	17: Gray pattern (3)	
	Test Pattern	3: Gradation main scan C	18: Shading pattern	
		4: Gradation main scan D	19: Thin line pattern	
4417		5: Gradation sub scan (1)	20: Scanned + Grid pattern	
4417		6: Grid pattern (1)	21: Scanned + Gray scale	
		7: Slant grid pattern	22: Scanned + Color patch	
		8: Gradation K	23: Scanned + Slant Grid C	
		9: Gray patch 16	24: Scanned + Slant Grid D	
		10: Gray patch 16 (1)	25: Gray Scale 18 text	
		11: Gray patch 16 (2)	26: Gray Scale 18 photo	
		12: Gray patch 64	27: Gray Scale 256 text	
		13: Grid pattern (2)	28: Gray Scale 256 photo	
		14: Color patch K		

4429*	Select Copy Data Security	
001	Copying	Adjusts the density of the embedded message with
002	Scanning	the copy data security unit. [0 to 3 / 3 / 1]
003	Fax Operation	3: Darkest density

4450	Scan Image Path Selection
------	---------------------------

001	Black Subtraction ON/OFF	[0 to 1 / 1 / 1] 0=OFF, 1=ON	
	001	Uses or does not use the black reduction image path.	
	002	SH ON/OFF	[0 to 1 / 0 / 1] 0=OFF, 1=ON
		Uses or does not use the shading image path.	

	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	Specifies the printer vector correction value. [0 to 255 / 0 / 1]	
025-028	CB Phase: Option/R/G/B		
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		

4600	SBU Version	
001	Displays the ID of the SBU.	
002	GASBU-N ID	Displays the ID of the GASBU.
003	VSP5100 ID	Displays the ID of the VSP5100.

4602	Scanner Memory Access
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001	Scanner Memory Access	Enables the read and write check for the SBU	
	,	registers.	

4603	AGC Execution	
001	HP Detection Enable Executes the AGC with the scanner detection.	
002	HP Detection Disable	Executes the AGC with the scanner detection.

	4609*	4609* Gray Balance Set: R	
	001	Book Scan	[-384 to 255 / -46 / 1 digit]
		Displays the scanning level value (adjustment) for the red signal in Book Scan.	
	002	DF Scan	[-384 to 255 / -46 / 1 digit]
		Displays the scanning level value (adjus	tment) for the red signal in DF Scan.

4610*	Gray Balance Set: G	
001	Book Scan	[-384 to 255 / -20 / 1 digit]
001	Displays the scanning level value (adjustment) for the green signal in Book Scan.	
002	DF Scan	[-384 to 255 / -20 / 1 digit]
002	Displays the scanning level value (adjus	stment) for the green signal in DF Scan.

4611*	k	Gray Balance Set: B	
	001	Book Scan	[-384 to 255 / -28 / 1 digit]
Displays the scanning level value (adjustment) for the		Displays the scanning level value (adjus	tment) for the blue signal in Book Scan.
	002	DF Scan	[-384 to 255 / -28 / 1 digit]
		Displays the scanning level value (adjus	tment) for the blue signal in DF Scan.

4623 Black Level Adj. Di		Black Level Adj. Display	
		Latest: RE Color	[0 to 16383 / 0 / 1 digit]
	001	Displays the black offset value (rough adjustment) for the even red signal in the SBU (color printing speed).	

	Latest: RO Color	[0 to 16383 / 0 / 1 digit]
002	Displays the black offset value (rough adjuprinting speed).	ustment) for the odd red signal in the SBU (color

U Note

• RE: Red Even signal, RO: Red Odd signal

4624	Black Level Adj. Display
	Latest: GE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the black offset value (rough adjustment) for the even green signal in the SBU (color printing speed).
	Latest: GO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the black offset value (rough adjustment) for the odd green signal in the SBU (color printing speed).

UNote

• GE: Green Even signal, GO: Green Odd signal

4625	Black Level Adj. Display
	Latest: BE Color
001	[0 to 16383 / 0 / 1 digit] Displays the black offset value (rough adjustment) for the even blue signal in the SBU (color printing speed).
	Latest: BO Color
002	[0 to 16383 / 0 / 1 digit] Displays the black offset value (rough adjustment) for the odd blue signal in the SBU (color printing speed).



• BE: Blue Even signal, BO: Blue Odd signal

	Analog Gain Adjust	
4628	Displays the gain value of the amplifiers on the controller for Red. Only for the color scanner	
001	01 Latest: R Color [0 to 7 / 0 / 1 digit]	

	4629	Analog Gain Adjust	
		Displays the gain value of the amplifiers on the controller for Green.	
		SP4629-003 and -004 are used o	nly for the color scanner model.
	001	Latest: G Color	[0 to 7 / 0 / 1 digit]

	4630	Analog Gain Adjust	
		Displays the gain value of the amplifiers on the controller for Blue.	
	001	1 Latest: B Color [0 to 7 / 0 / 1 digit]	

4631	Digital Gain Adjust	
4031	Displays the gain value of the amplifiers on the controller for RE or RO.	
001	Latest: RE Color	[0 to 1023 / 0 / 1 digit]
002	Latest RO Color	[0 to 1023 / 0 / 1 digit]

4632	Digital Gain Adjust		
4032		Displays the gain value of the amplifiers on the controller for GE or GO.	
	001	Latest: GE Color	[0 to 1023 / 0 / 1 digit]
	002	Latest: GO Color	[0 to 1023 / 0 / 1 digit]

4633	Digital Gain Adjust	
4033	Displays the gain value of the amplifiers on the controller for BE or BO.	
001	Latest: BE Color	[0 to 1023 / 0 / 1 digit]
002	Latest: BO Color	[0 to 1023 / 0 / 1 digit]

4645	Scan Adjust Error	
Displays the error value of the white level or black level adjustment.		e level or black level adjustment.
001	White level	[0 to 65535 / 0 / 1 digit]
002	Black level	[0 to 65535 / 0 / 1 digit]

	Scanner Hard Error	
	Displays the result of the SBU connection check.	
4647	Power-ON	[0 to 35535 / 0 / 1]
		0: OK, 1: SBU connection check failure
		If the SBU connection check fails, SC144-001, -002 or -003
		occurs.

4654*	Black Level Adj. Display
	Latest Correct Value: RE Color
001	[0 to 16383 / 0 / 1 digit] Displays the previous black offset value (rough adjustment) for the even red signal in the SBU (color printing speed).
	Last Correct Value: RO Color
002	[0 to 16383 / 0 / 1 digit] Displays the previous black offset value (rough adjustment) for the odd red signal in the SBU (color printing speed).

₩Note

• RE: Red Even signal, RO: Red Odd signal

4655*	Black Level Adj. Display
	Last Correct Value: GE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the previous black offset value (rough adjustment) for the even green signal in the SBU (color printing speed).

Last Correct Value: GO Color

[0 to 16383 / 0 / 1 digit]

Displays the previous black offset value (rough adjustment) for the even green signal in the SBU (color printing speed).



• GE: Green Even signal, GO: Green Odd signal

4656*	Black Level Adj. Display
	Last Correct Value: BE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the previous black offset value (rough adjustment) for the even blue signal in the SBU (color printing speed).
	Last Correct Value: BO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the previous black offset value (rough adjustment) for the odd blue signal in the SBU (color printing speed).

U Note

001

• BE: Blue Even signal, BO: Blue Odd signal

Last Correct Value: G Color

4658*	Analog Gain Adjust	
	Displays the previous gain value of the amplifiers on the controller for Red.	
001	Last Correct Value: R Color [0 to 7 / 0 / 1 digit]	
	Analog Gain Adjust	
4659*	Displays the previous gain value of the amplifiers on the controller for Green.	
	SP4659-003 and -004 are used only for the color scanner model.	

4660*	Analog Gain Adjust	
4000	Displays the previous gain value of the amplifiers on the controller for Blue.	

[0 to 7 / **0** / 1 digit]

001 Last Correct Value: B Color	[0 to 7 / 0 / 1 digit]
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4661*	Digital Gain Adjust
	Last Correct Value: RE Color
001	[0 to 1023 / 0 / 1 digit]
	Displays the previous 2nd black offset value (rough adjustment) for the even red signal in the SBU (color printing speed).
	Last Correct Value: RO Color
002	[0 to 1023 / 0 / 1 digit]
	Displays the previous 2nd black offset value (rough adjustment) for the odd red signal in the SBU (color printing speed).



• RE: Red Even signal, RO: Red Odd signal

4662*	Digital Gain Adjust
	Last Correct Value: GE Color
001	[0 to 1023 / 0 / 1 digit]
	Displays the previous 2nd black offset value (rough adjustment) for the even green signal in the SBU (color printing speed).
	Last Correct Value: GO Color
002	[0 to 1023 / 0 / 1 digit]
	Displays the previous 2nd black offset value (rough adjustment) for the odd green signal in the SBU (color printing speed).



• GE: Green Even signal, GO: Green Odd signal

4663*	Digital Gain Adjust
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Last Correct Value: BE Color
[0 to 1023 / 0 / 1 digit]
Displays the previous 2nd black offset value (rough adjustment) for the even blue signal in the SBU (color printing speed).
Last Correct Value: BO Color
[0 to 1023 / 0 / 1 digit] Displays the previous 2nd black offset value (rough adjustment) for the odd blue signal in the SBU (color printing speed).



• BE: Blue Even signal, BO: Blue Odd signal

4673 Black Level Adj. Display	
	Factory Setting: RE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the factory setting value of the 2nd black offset level rough adjustment for the even red signal in the SBU (color printing speed).
	Factory Setting: RO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the factory setting values of the 2nd black offset level rough adjustment for the odd red signal in the SBU (color printing speed).

UNote

• RE: Red Even signal, RO: Red Odd signal

4674	Black Level Adj. Display
	Factory Setting: GE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the factory setting value of the 2nd black offset level rough adjustment for the even green signal in the SBU (color printing speed).

Factory Setting: GO Color

[0 to 16383 / 0 / 1 digit]

Displays the factory setting values of the 2nd black offset level rough adjustment for the odd green signal in the SBU (color printing speed).



• GE: Green Even signal, GO: Green Odd signal

4675	Black Level Adj. Display
	Factory Setting: BE Color
001	[0 to 16383 / 0 / 1 digit] Displays the factory setting value of the 2nd black offset level rough adjustment for the
	even blue signal in the SBU (color printing speed).
	Factory Setting: BO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the factory setting values of the 2nd black offset level rough adjustment for the odd blue signal in the SBU (color printing speed).

UNote

• BE: Blue Even signal, BO: Blue Odd signal

	Analog Gain Adjust	
4677	Displays the factory setting values of the gain adjustment for Red. SP4677-003 and -004 are used only for the color scanner model.	
	or for and out are used only i	or me color ocalmer measi.
001	Factory Setting: R	[0 to 7 / 0 / 1 digit]

4678	Analog Gain Adjust	
	Displays the factory setting values of the gain adjustment for Green. SP4678-003 and -004 are used only for the color scanner model.	
001	Factory Setting: G	[0 to 7 / 0 / 1 digit]

4470	4679	Analog Gain Adjust	
	40/9	Displays the factory setting values of the gain adjustment for Blue.	
	001	Factory Setting: B	[0 to 7 / 0 / 1 digit]

4680*	Digital Gain Adjust
	Factory Setting: RE Color
001	[0 to 1023 / 0 / 1 digit]
	Displays the gain value of the amplifiers on the controller for Red.
	Factory Setting: RO Color
002	[0 to 1023 / 0 / 1 digit]
	Displays the gain value of the amplifiers on the controller for odd Red.

4681*	Digital Gain Adjust
	Factory Setting: GE Color
001	[0 to 1023 / 0 / 1 digit] Displays the gain value of the amplifiers on the controller for Green.
	Factory Setting: GO Color
002	[0 to 1023 / 0 / 1 digit] Displays the gain value of the amplifiers on the controller for odd Green.

4682*	Digital Gain Adjust
	Factory Setting: BE Color
001	[0 to 1023 / 0 / 1 digit]
	Displays the gain value of the amplifiers on the controller for Blue.
002	Factory Setting: BO Color
002	Displays the gain value of the amplifiers on the controller for odd Blue.

	Scan Image Density Adjustment
4688*	Adjusts the white shading parameter when scanning an image with the ARDF.
4000	Adjusts the density level if the ID of outputs made in the DF and Platen mode is different.
	[80 to 120 / 98 / 1 %]

4690	White Level Peak Read	
4090	Displays the peak level of the white level scanning.	
001	RE	[0 to 1002 / 0 / 1 both
002	RO	[0 to 1023 / 0 / 1 digit]

4691	White Level Peak Read	
4091	Displays the peak level of the white level scanning.	
001	GE	[01022 / 0 / 1
002	GO	[0 to 1023 / 0 / 1 digit]

4692	White Level Peak Read	
4092	Displays the peak level of the white level scanning.	
001	BE	[01022 / 0 / 1
002	ВО	[0 to 1023 / 0 / 1 digit]

4693	Black Level Peak Read	
4093	Displays the peak level of the black level scanning.	
001	RE	[0 to 1023 / 0 / 1 digit]
002	RO	[0 10 1023 / 0 / 1 digit]

4404	Black Level Peak Read
4694	Display the peak level of the black level scanning.

001	GE	[0 to 1023 / 0 / 1 digit]
002		[0 10 1023 / 0 / 1 digit]

4695	Black Level Peak Read	
4093	Display the peak level of the black level scanning.	
001	BE	[0 - 1002 / 0 / 1 - 1:-::1]
002	ВО	[0 to 1023 / 0 / 1 digit]

4802	DF Shading FreeRun	
001	Lamp OFF	[0 to 1 / 0 / 1]
002	Lamp ON	Executes the scanner free run of the shading movement with exposure lamp on or off. Press "OFF" to stop this free run. Otherwise, the free run
		continues.

4804 Home Position	Moves the exposure lamp a short distance and immediately returns it to its home position. Touch [Execute] > "Completed" > [Exit]
--------------------	---

Carriage Save Moves the exposure lamp a short distance away from the home position and stops. Touch [Execute] > "Completed" > [Exit] Do SP4804 to return the exposure lamp to its home position. Note • This SP is done before shipping the machine to another location. • Cycling the machine power off/on also returns the exposure lamp to its home position.

	SBU Test Pattern Change
	[0 to 255 / 0 / 1 /step]
4807	1: Grid pattern
	2: Gradation main scan
	3: Gradation sub scan
	4 to 250: Default (Scanning Image)

4808	Factory Setting Input
002*	Execution Flag

4	4918	Man Gamma Adj (DFU)
		Adjusts the offset data of the printer gamma for black in Photo mode or Letter mode.
		Touch [Change] to open the printer gamma screen.
		Enter the manual gamma adjustment screen.

4954	Read/Restore Std	
001	Read New Chart	
001	Execute the scanning of the A4 chart.	
002	Recall Prev Chart	
002	Clear the data of the scanned A4 chart.	
003	Read Std Chart	
003	Execute the scanning of the A4 standard ch	art.
004	Set Std Chart	
004	Overwrite the standard data.	
	Read/Restore Std	[0 to 255 / 0 / 1]
005*	Adjusts chromaticity rank. When replacing to according to the barcode on the new scann	

	RGB	Frame Memory
	Selec	cts the image path. Enter the number to be selected using the 10-key pad.
	[0 to	11 / 2/ 1]
	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
001	4	Inner pattern data: Gray scale
	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	
001	Sensitivity Selection	Selects the Highlight correction level. [0 to 9 / 4 / 1 / step] 0: weakest sensitivity 9: strongest sensitivity
002	Range Selection	Selects the Highlight correction level. [0 to 9 / 4 / 1 / step] 0: weakest skew correction, 9: strongest skew correction

4994*	Text/Photo Detect Level Adj.
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High Compression PDF

Selects the definition level between Text and Photo for high compression PDF.

001

[0 to 2 / 1 / 1]

- 0: Text priority
- 1: Normal
- 2: Photo priority

5

Main SP Tables-5

SP5-xxx: Mode

5024*	mm/inch Display Selection	0: Europe/Asia (mm) 1: North America (inch)
3024	Selects the unit of measurement. After selection, turn the main power switch off and on.	

5047*	Paper Display	
	Turns on or off the printed paper display on the LCD.	
	[0 to 1 / 0 / 1]	
	0: Not displayed, 1: Displayed	

5055*	Display IP Address	
	Display or does not display the IP address on the LCD.	
	[0 to 1 / 0 / 1]	
	0: OFF, 1: ON	

5056*	Coverage Counter Display
	Display or does not display the coverage counter on the LCD.
	[0 to 1 / 0 / 1]
	0: Not displayed, 1: Displayed

5061* Toner Remaining Icon Display Change	
	Display or does not display the remaining toner display icon on the LCD.
	[0 to 1 / 0 / 1]
	0: Not display, 1: Display

Set Bypass Paper Size Display

Turn on or off the paper size confirmation pop-up on the LED. This pop-up prevents mismatching between a paper size selected by the operation panel and an actual paper size on the by-pass tray.

[0 or 1 / 0 / -]

0: Off, 1: On

5104* A3/DLT Double Count (SSP)

RTB 42
SP5104: Information added

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 Default Optional Counter Type Selects the type of counter: 0: None 1: Key Card (RK3, 4) Japan only 2: Key Card Down 001 3: Pre-paid Card 4: Coin Rack 5: MF Key Card 11: Exp. Key Card (Add) 12: Exp. Key Card (Deduct) External Optional Counter Type Enables the SDK application. This lets you select a number for the external device for user access control. Note: "SDK" refers to software on an SD card. 002 [0 to 3 / **0** / 1] 0: None 1: Expansion Device 1 2: Expansion Device 2 3: Expansion Device 3

5114* Optional Counter I/F

	MF Key Card Extension
001	Use this SP and change the setting to "1" only when the "5" (MF Key Card) is selected with SP5113-001.
	[0: Not installed/ 1: Installed (scanning accounting)]

	Disable Copying
	Temporarily denies access to the machine. Japan Only
5118*	[0 to 1 / 0 / 1]
	0: Release for normal operation [Default]
	1: Prohibit access to machine

5		Mode Clear Opt. Counter Removal
	5120*	Selects if mode clear is done for an optional counter when an optional counter is removed.
		0: Yes. (Always mode clear)
		1: StandBy. (Mode clear before/after a job)
		2: No. (No mode clear)

	Counter Up Timing
5121*	Determines whether the optional key counter counts up at paper feed-in or at paper exit.
	[0 to 1 / 0 / 1]
	0: Feed, 1: Exit

	F Size Original Setting
	Selects F size original setting.
5126*	[0 to 2 / 0 / 1 step]
0.20	0: 8 1/2 x 13 (Foolscap)
	1: 8 1/4 x 13 (Folio)
	2: 8 x 13 (F)

	APS Mode
5127*	Selects whether the APS function is enabled or disabled with the contact of a pre-paid card or coin lock.
	0: Disable (APS active) [Default], 1: Enable (APS not active)

	Paper Size Type Selection
	Selects the paper size (type) for both originals and copy paper.
5131*	[0 to 2 / - / 1 step]
	0: Japan, 1: North America, 2: Europe
	After changing the setting, turn the copier off and on. If the paper size of the archive files stored on the HDD is different, abnormal copies could result.

	Bypass Length Setting
	Sets up the by-pass tray for long paper.
5150	[0 to 1 / 0 / 1]
0100	0: Off [Default]
	1: On. Sets the tray for feeding paper up to 600 mm long.
	With this SP selected on, paper jams are not detected in the paper path.

App. Switch Method
Determines whether the application screen is switched with a hardware switch or software switch.
0: Soft Key Set
1: Hard Key Set

	5167*	Fax Printing Mode at Optional Counter Off
		Enables or disables the automatic print out without an accounting device. This SP is used when the receiving fax is accounted for by an external accounting device.
		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 SP before you go into the printer SP mode.
2104	[0 to 1 / 0 / 1]
	0: Off. Printer bit switches cannot be adjusted.
	1: On. Printer bit switches can be adjusted.

5181*	Paper Size Setting	
3161	Adjusts the paper size for each tray. [0 to 1 / - / 1]	
001	Tray 1: 1	0: A4 LEF, 1: LT LEF
002	Tray 1: 2	0: A3, 1: DLT
003	Tray 1: 3	0: B4, 1: LG
004	Tray 1: 4	0: B5 LEF, 1: Exe LEF
005	Tray 2: 1	0: A4 LEF, 1: LT LEF
006	Tray 2: 2	0: A3, 1: DLT
007	Tray 2: 3	0: B4, 1: LG
008	Tray 2: 4	O: B5 LEF, 1: Exe LEF
009	Tray 3: 1 (Tandem)	0: A4 LEF, 1: LT LEF
010	Tray 3: 2	0: A3, 1: DLT
011	Tray 3: 3	0: B4, 1: LG
012	Tray 3: 4	O: B5 LEF, 1: Exe LEF
013	Tray 4: 1	0: A4 LEF, 1: LT LEF
014	Tray 4: 2	0: A3, 1: DLT
015	Tray 4: 3	0: B4, 1: LG
016	Tray 4: 4	O: B5 LEF, 1: Exe LEF
017	LCT	[0 to 2 / - / 1] O: A4 LEF, 1: LT LEF, 2: B5 LEF

	RK4: Setting (Japan only)
5186	Enable or distance the prevention for RK4 (Accounting device) Disconnection. If the RK4 is disconnected for 10 seconds when this SP is set to "1 (Enable)", the machine automatically jams a sheet of paper and stops.
	[0 to 1 / 0 / 1]

5188*	Copy Nv Version	
	3188	Displays the NV version on the controller.

5193	External Controller Info. Settings
3193	DFU

5195*	Limitless SW
3193	DFU

	Paper Exit After Staple End
5100	This SP determines whether a machine can continue to output paper if staple supply runs cannot continue to operate.
5199	[0 to 1 / 0 / 1]
	0: OFF. Paper cannot exit if no staples are available.
	1: ON. Paper can exit with no staples.

5212* Page Numbering		
003	Duplex Printout Left/Right Position	Horizontally positions the page numbers printed on both sides during duplexing. [-10 to 10/0/1 mm] O is center, minus is left, + is right.
004	Duplex Printout High/Low Position	Vertically positions the page numbers printed on both sides during duplexing. [-10 to 10/0/1 mm] O is center, minus is down, + is up.

5302*	Set Time
	Time Difference
	Sets the time clock for the local time. This setting is done at the factory before delivery. The setting is GMT expressed in minutes.
	[-1440 to 1440 / - / 1 min.]
	Japan: +540 (Tokyo)
002	NA: -300 (NY)
	EU: +60 (Paris)
	CH: +480 (Peking)
	TW: +480 (Taipei)
	AS: +480 (Hong Kong)
	KO: +540 (Korea)

5307	Summer Time	
		[0 to 1 / 1 (NA/EU), 0 (ASIA) / 1 /step]
	Setting	0: Disabled
		1: Enabled
001	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 month. [1 to 5]
003	4th digit: The day of the week. [0 to 6 = Sunday to Saturday]
003	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
	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]
	4th digit: The day of the week. [0 to 7 = Sunday to Saturday]
	5th and 6th digits: The hour. [00 to 23]
	The 7th and 8 digits must be set to "00".
	The digits are counted from the left.
	Make sure that SP5-307-1 is set to "1".

	User Code Count Clear	
5404	Clears the counts of the user codes assigned by the key operator to restrict the use of the machine. Press [Execute] to clear.	

	5413	Lockout Setting	
	001	Lockout On/Off	[0 to 1 / 0 / 1] 0: OFF, 1:ON
		Turns on or off the account	ccount lock for the local address book account.

002	Lockout Threshold	[1 to 10 / 5 / 1]
002	Sets the maximum trial times for accessing the address book account.	
	Cancellation On/Off	[0 to 1 / 0 / 1] 0: OFF (Lockout is not cancelled.)
003		1: ON (Lockout is cancelled if a user ID and password are correctly entered after the lockout function has been executed and a specific time has passed.)
	Turns on or off the cancellation function of the account lockout.	
	Cancellation Time	[1 to 9999 / 60 / 1 min]
004	Sets the interval of the retry for accessing the local address book account after the lockout function has been executed.	
	This setting is enabled only	if SP5413-3 is set to "1" (ON).

5414	Access Mitigation
	Mitigation ON / OFF
	Permits or does not permit consecutive access to the machine with the same ID and password.
001	[0 to 1 / 0 / 1]
	0: OFF (Permitted)
	1: ON (Not permitted)
	Mitigation Time
002	Sets the prohibiting time for consecutive access to the machine with the same ID and password.
	[0 to 60 / 15 / 1 min]

5415*	Password Attack	
	Permissible Number	[0 to 100 / 30 / 1 times]
001	Sets the threshold number of attempts to attack the system with random passwords to gain illegal access to the system.	

002	Detect Time	[0 to 10 / 5 / 1 sec]
	Sets a detection time to count a password attack.	

5416*	Access Information	
	Access User Max Num	[50 to 200 / 200 / 1]
001	Sets the number of users for the access exclusion and password attack detection function.	
	Access Password Num	[50 to 200 / 200 / 1]
002	Sets the number of passwords for the access exclusion and password attack detection function.	
003	Monitor interval	[1 to 10 / 3 / 1 sec]
003	Sets the interval of watching out for	user information and passwords.

5417	Access Attack		
001	Access Permissible number	[0 to 500 / 100 / 1]	
001	Sets a limit on access attempts to prevent password cracking.		
002	Access Detect Time	[10 to 30 / 10 / 1 sec]	
002	Sets a detection time to count password cracking.		
	Productivity Fall Weight	[0 to 9 / 3 / 1 sec]	
003	Sets the wait time to slow down the speed of certification when an excessive number of access attempts have been detected.		
	Attack Max Num	[50 to 200 / 200 / 1]	
004	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.		

	User Authentication		
5420*	These settings should be done with the System Administrator. • Note		
	These functions are enabled a	only after the user access feature has been enabled.	
001	Сору	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the copy application.	
011	Document Server	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the document server.	
021	Fax	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the fax application.	
031	Scanner	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the scanner application.	
041	Printer	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the printer application.	
051	SDK1	[0 or 1/ 0 /1] 0: ON. 1: OFF	
061	SDK2	Determines whether certification is required before	
071	SDK3	a user can use the SDK application.	
081	Browser	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the browser application.	

5481	Authentication Error Code	
3461	These SP codes determine how the authentication failures are displayed.	

			[0 or 1 / 0 / -]
001	System Log Disp	0: OFF [Default], 1: ON	
	001	oysiem tog bisp	Determines whether an error code appears in the system log after a user authentication failure occurs.
			[0 or 1 / 1 / 1]
002	Panel Disp	0: OFF, 1: ON [Default]	
	002	Tallel Disp	Determines whether an error code appears on the operation panel after a user authentication failure occurs.

	MF KeyCard (Japan only)
	Sets up operation of the machine with a keycard.
5490	[0 to 1 / 0 / 1]
	0: Disabled. Cancels operation without a user code.
	1: Enabled. Allows operation without a user code.

5501*	PM Alarm
	PM Alarm Level
001	Sets the PM alarm interval.
	[0 to 9999 / 0 / 1 k copies/step]
	0: No PM alarm
	Original Count Alarm (DFU)
002	Selects whether the PM alarm for the number of scans is enabled or not.
002	If this is "1", the PM alarm function is enabled.
	[0 = No / 1 = Yes]

	Jam Alarm
	Sets the alarm to sound for the specified jam level (document misfeeds are not included).
5504*	[0 to 3 / 3 / 1 step]
3304	0: Zero (Off)
	1: Low (2.5K jams)
	2: Medium (3K jams)
	3: High (6K jams)

5505*	Error Alarm		
		Sets the number of sheets to clear the error alarm counter.	
	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 5000 (C1b) or 10000 (C1c) sheets). The error alarm occurs when the SC error alarm counter reaches "5".		
	[0 to 255 / 45 (C2b), 50 (C1b/C1.5b), 60 (C2c), 100 (C1c/C1.5c) / 100 copies / step]		

5508	CC Call	
001	Jam Remains	Enables/disables initiating a call.
002	Continuous Jams	[0 to 1 / 1 / 1]
003	Continuous Door Open	0: Disable 1: Enable
011	Jam Detection: Time Length	Sets the length of time to determine the length of an unattended paper jam. [3 to 30 / 10 / 1 minute]
012	Jam Detection Continuous Count	Sets the number of continuous paper jams required to initiate a call. [2 to 10 / 5 / 1 time]
013	Door Open: Time Length	Sets the length of time the remains opens to determine when to initiate a call. [3 to 30/10/1 minute]

	SC/Alarm Setting		
5515*	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.		
001	SC Call		
002	Service Parts Near End Call		
003	Service Parts End Call		
004	User Call		
006	Communication Information Test Call	[0 or 1 / 1 / 1] 0: OFF	
007	Machine Information Notice	1: ON	
008	Alarm Notice		
010	Supply Automatic Ordering Call		
011	Supply Management Report Call		
012	Jam/Door Open Call		

	Individual PM Part Alarm Call		
5516	With @Remote in use, these SP codes can be set to issue an PM alarm call when one of the 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]	

	Memory Clear	
Resets NVRAM data to the default settings. Before executing any of these SP cooprint an SMC Report.		he default settings. Before executing any of these SP codes,
001	All Clear	Initializes items 2 to 15 below.
002	Engine	Initializes all registration settings for the engine and copy process 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 image file system.
		(IMH: Image Memory Handler)
005	MCS	Initializes the automatic delete time setting for stored documents.
		(MCS: Memory Control Service)
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	Initializes the printer defaults, programs registered, the printer SP bit switches, and the printer CSS counter.
009	Scanner Application	Initializes the defaults for the scanner and all the scanner SP modes.
010	Web Service	Deletes the Netfile (NFA) management files and thumbnails, and initializes the Job login ID. Netfiles: Jobs to be printed from the document server using a
		PC and the DeskTopBinder software
011	NCS	Initializes the system defaults and interface settings (IP addresses also), the SmartDeviceMonitor for Admin settings, WebStatusMonitor settings, and the TELNET settings. (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 (Log Count Service) settings.
020	Web Uapli	Initializes the web user application settings.
021	ECS	Initializes ECS (Engine Control Service).
023	AICS	Initializes the AICS settings.

	FreeRun	
5802*	Performs a free run on the copier engine. The correct paper should be loaded in the 1st tray or 2nd tray, but paper is not fed. The main switch has to be turned off and on after using the free run mode for a test.	
001	TRAY1:A4LEF	-
002	TRAY2:A3	-
003	TRAY2:A4SEF	-

	Input Check
5803	Displays the signals received from sensors and switches. ("Input Check Table" in "Main SP Tables-9")

		Output Check
5804	1	Turns on the electrical components individually for test purposes. ("Output Check Table" in "Main SP Tables-9")

	Anti-Condensation Heater	
5805	[0 or 1 / 0 / -]	
	0:OFF / 1:ON	

5810		SC Reset	
(001	Fusing SC Reset	Resets all level A service call conditions, such as fusing errors. To clear the service call, touch "Execute" on the LCD, then turn the main power switch off/on.

5811	MachineSerial
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002	Display	Displays the machine serial number.
003	BCU	Inputs the serial number.
005	FRAM	Displays the FRAM serial number.

5812*	Service Tel. No. Setting		
001	Service	Inputs the telephone number of the CE (displayed when a service call condition occurs.)	
002 Facsimile		Use this to input the fax number of the CE printed on the Counter Report (UP mode).	
OO3 Supply Inputs the telepho mode screen.		Inputs the telephone number of the supplier displayed on the user mode screen.	
004	Operation	Allows the service center contact telephone number to be displayed on the user mode screen.	

5816	Remote Service	
	I/F Setting	
	Selects the remote service setting.	
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 start or end of the service.	
002	[0 or 1 / 0 / 1 /step]	
002	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 registration has been completed.
	Communication Test Call
004	This SP issues a test call from a GW machine to determine whether it can communicate successfully with the call center after it has been set up for NRS. Successful return will be in the range 0 to 99.
	Device Information Call
005	This SP issues a call to notify the NRS device information to the call center. Successful return will be in the range 0 to 99.
	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 / 30 / 1 second /step]
	RCG Write Timeout
009	Specifies the write timeout interval when calling the RCG.
	[0 to 100 / 60 / 1 second /step]
	RCG Read Timeout
010	Specifies the read timeout interval when calling the RCG.
	[0 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
	@Remote Communication Permission
	[0 to 2 / 1 / 1]
012	0: Not permitted
	1: Permitted
	2: Partially limited
	RFU (Remote Firmware Update) Timing
	Selects the RFU timing.
013	[0 or 1 / 1 / -]
	0: RFU is executed whenever update request is received.
	1: RFU is executed only when the machine is in the sleep mode.
	RCG Error Cause
	[0 or 1 / 0 / –]
014	0: Normal
	1: Fails to reflect the client/server certificate settings by network failure to reboot. Transition to 0 on restarting the machine.
	RCG-C Registed
021	This SP displays the Embedded RC Gate installation end flag.
021	0: Installation not completed
	1: Installation completed
	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

	Cert. Expire Timing DFU
061	
	Proximity of the expiration of the certification.
	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
064	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. ••• Note
	This port number is customer information and is not printed in the SMC report.
	Proxy User Name
065	This SP sets the HTTP proxy certification user name. 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.
	Proxy Password
066	 This SP sets the HTTP proxy certification password. 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.

	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	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 UF	RL does not exist.	
069	CERT	: Up ID	The ID of the request for certification.	
083	Firm	Up Status	Displays the status of the firmware update.	
085 Firm Up User Check		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		: 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: SerialNo.		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.	
004	Server CN Check		
096	Not used		
004	GW Host		
096	Not used		
007	GW URL Path		
097	Not used		
099	Debug RescueG/WURL Set		
099	Not used		
	CERT: Encrypt Level		
	Displays the encryption level for the NRS certificate.		
102*	[1 or 2 / 1 / -]		
	1: Indicates that the certificate encryption level is 512 bits.		
	2: Indicates that the certificate encryption level is 2048 bits.		
150	Selection Country		
150	Not used		
151	Line Type Automatic Judgment		
131	Not used		
150	Line Type Judgment Result		
152	Not used		

153	Selection Dial / Push
153	Not used
154	Outside Line Outgoing Number
134	Not used
156	Dial Up User Name
130	Not used
157	Dial Up Password
137	Not used
161	Local Phone Number
101	Not used
162	Connection Timing Adjustment Incoming
102	Not used
163	Access Point
100	Not used
164	Line Connecting
104	Not used
173	Modem Serial No.
170	Not used
174	Retransmission Limit
174	Not used
186	RCG-C M DebugBitSW
100	Not used
187	FAX TX Priority
107	Not used
200	Manual Polling
200	Executes the manual polling.

	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 communicate with this device	e is set. In this status, the @Remote device cannot e.	
	3: The @Remote device is be set.	eing set. In this status the Embedded RCG Gate cannot be	
	4: The @Remote module has	not started.	
202	Allows entry of the request number needed for the Embedded RCG Gate.		
203 Confirm Execute Executes the confirmation request to the @Rem Gateway.		Executes the confirmation request to the @Remote Gateway.	
204	Confirm Result		
Displays a number that indicates the result of the confirmation executed wit SP5816-203.		ates the result of the confirmation executed with	
	0: Succeeded		
	1: Confirmation number error		
	2: Registration in progress		
	3: Proxy error (proxy enabled)		
	4: Proxy error (proxy disabled)		
	5: Proxy error (Illegal user name or password)		
	6: Communication error		
	7: Certification update error		
	8: Other error		
	9: Confirmation executing		
	Confirm Place		
205	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.		
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)
- 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

Displays a number that describes the error code that was issued when either SP5816-204 or SP5816-207 was executed.

	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.
		-12003	Attempted registration without execution of an inquiry and no previous registration.
208		-12004	Attempted setting with illegal entries for certification and ID2.
	Operation Error, Incorrect Setting	-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.
		-12009	ID2 mismatch between an individual certification and NVRAM
		-12010	Certification area is not initialized.

	Error Caused by Response from GW URL	-2385	Attempted dial up overseas without the correct international prefix for the telephone number.	
		-2387	Not supported at the Service Center	
		-2389	Database out of service	
		-2390	Program out of service	
		-2391	Two registrations for same device	
		-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	
		Releases the machine from its Embedded RCG Gate s		
209	Instl Clear	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	Sets the IP address of the RCG (Remote Communication Gate) destination for call processing at the remote service center. [00000000h to FFFFFFFFh / 0000000h / 1]
003	RCG Port	Sets the port number of the RCG (Remote Communication Gate) destination for call processing at the remote service center. [0 to 65535 / 443 / 1]

O04 RCG URL Path Gate) destination for call processing at the remote service center. [0 to 16 characters / /RCG/services/ /-]	004		
---	-----	--	--

	NV-RAM Data Upload	
5824	Uploads the NVRAM data to an SD card. Push Execute.	
	Note: When uploading data in this SP mode, the front door must be open.	

	NV-RAM Data Download	
5825	Downloads data from an SD card to the NVRAM in the machine. After downloading is completed, remove the card and turn the machine power off and on.	

5828	Network Setting				
	IPv4 Address (Ethernet/IEEE 802.11)				
001	This SP allows you to check and reset the IPv4 address for Ethernet and wireless LAN (802.11): aaa.bbb.ccc.ddd				
	IPv4 Subnet Mask (Ethernet/IEEE 802.11)				
002	This SP allows you to check and reset the IPv4 subnet mask for Ethernet and wireless LAN (802.11): aaa.bbb.ccc.ddd				
	IPv4 Default Gateway (Ethernet/IEEE 802.11)				
003	This SP allows you to check and reset the IPv4 default gateway used by the network for Ethernet and wireless LAN (802.11): aaa.bbb.ccc.ddd				
	DHCP (Ethernet/IEEE 802.11)				
006	This SP code allows you check and change the setting that determines whether the IP address is used with DHCP on an Ethernet or wireless (802.11) LAN network. [0 to 1 / 1 / 1]				
	0: Not used (manual setting)				
	1: Used				

	Active IPv4 Address			
021	e IPv4 address that was used when the machine started			
	Active IPv4 Subnet Mask			
022	This SP allows you to check the IPv4 subnet mask setting that was used when the machine started up with DHCP.			
	Active IPv4 Gateway Address			
023	This SP allows you to check the IPv4 default gateway setting that was used when the machine started up with DHCP.			
050	1284 Compatibility (Centro)	Enables and disables bi-directional communication on the parallel connection between the machine and a computer. [0 to 1 / 1 / 1] 0:Off, 1: On		
052	ECP (Centro)	Disables and enables the ECP feature (1284 Mode) for data transfer. [0 to 1 / 1 / 1] 0: Disabled, 1: Enabled		
065	Job Spooling	Switches the job spooling on and off. [0 to 1 / 0 / 1] 0: No spooling, 1: Spooling enabled		
066	Job Spooling Clear: Start Time	This SP determines whether the job interrupted at power off is resumed at the next power on. This SP operates only when SP5828-065 is set to "1". [0 to 1 / 1 / 1] 1: OFF Resumes printing spooled jog. 0: ON Clears spooled job.		

	Job Spooling (Protocol) O69 O LPR 1 FTP (Not Used) 2 IPP		This SP determines whether job spooling is enabled or disabled for each protocol. This is a 8-bit setting. [0 to 1 / 1 / 1]			
			0: No spooling, 1: Spooling enabled			
069				4	BMLinks (Japan Only)	
				5	DIPRINT	
				6	Reserved (Not Used)	
	3	3 SMB		7	Reserved (Not Used)	
000	TELNET (0:OFF 1:ON)		Disables or enables Telnet operation. If this SP is disabled, the Telnet port is closed.			
090			[0 to 1			
			0: Disa	ble,	1: Enable	
001	Web (0:OFF 1:ON)		Disables or enables the Web operation.			
091			[0 to 1 / 1 / 1] 0: Disable, 1: Enable			
145	Active IPvó Link Local Address		This is the IPv6 local address referenced on the Ethernet or wireless LAN (802.11) 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. These notations can be abbreviated. See "Note: IPV6 Addresses " below this table.			
147	Act	tive IPv6 Stateless Address				
149	Act	tive IPv6 Stateless Address	These SPs are the IPv6 stateless addresses (1 to 5) referenced on the Ethernet or wireless LAN (802.1			
151	Active IPvó Stateless Address		in the format: "Stateless Address" + "Prefix Length"			
153	Act	tive IPv6 Stateless Address	in 8 blocks of 16 bits each.			
155	Act	tive IPv6 Stateless Address				

1.56	IPv6 Manual Address
	This SP is the IPv6 manually set address referenced on the Ethernet or wireless LAN (802.11) in the format:
100	"Manual Set Address" + "Prefix Length"
	The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each. These notations can be abbreviated. See "Note: IPV6 Addresses" below this table.
	IPv6 Gateway Address
158	This SP is the IPv6 gateway address referenced on the Ethernet or wireless LAN (802.11). The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each. These notations can be abbreviated. See "Note: IPV6 Addresses" below this table.

Note: IPV6 Addresses

Ethernet and the Wireless LAN (802.11) reference the IPV6 "Link-Local address + Prefix Length". The IPV6 address consists of 128 bits divided into 8 blocks of 16 bits: aaaa:bbbb:cccc:ddd:eeee:ffff:gggg:hhhh:

The prefix length is inserted at the 17th byte (Prefix Range: 0x0 to 0x80). The initial setting is 0x40 (64).

For example, the data: "2001123456789012abcdef012345678940h" is expressed:

"2001:1234:5678:9012:abcd:ef01:2345:6789": prefixlen 64

However, the actual IPV6 address display is abbreviated according to the following rules.

Rules for Abbreviating IPV6 Addresses

1. The IPV6 address is expressed in hexadecimal delimited by colons (:) with the following characters:

0123456789abcdefABCDEF

2. A colon is inserted as a delimiter every 4th hexadecimal character.

fe80:0000:0000:0000:0207:40ff:0000:340e

3. The notations can be abbreviated by eliminating zeros where the MSB and digits following the MSB are zero. The example in "2" above, then, becomes

fe80:0:0:0207:40ff:0:340e

4. Sections where only zeros exist can be abbreviated with double colons (::). This abbreviation can be done also where succeeding sections contain only zeros (but this can be done only at one point in the address). The example in "2" and "3" above then becomes:

fe80::207:40ff:0:340e (only the first null sets zero digits are abbreviated as "::")

fe80:0:0:0:207:40ff::340e (only the last null set before "340e" is abbreviated as "::")

161	IPv6 Stateless Auto Setting	Enable or disables the automatic setting for IPv6 stateless.	
		[0 or 1 / 1 / 1]	
		1: Enable, 0: Disable	
	Web Item visible		
	Displays or does not display the Web system items.		
236	[0 x 0000 to 0 x ffff / 0 x ffff] 0: Not displayed, 1: Displayed		
200	bit0: Net RICOH		
	bit1: Consumable Supplier		
	bit2-15: Reserved (all)		
	Web shopping link visible		
237	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		
238	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		
	Web Link 1 Name		
239	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 Link 1 URL		
240	his 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 Link 1 visible		
241	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"		
	DHCPv6 DUID		
249	Sets DHCPv6 DUID. [000000000000000000000000000000000000	00000000h to Fh / 000000000000000000000000 h / -]	

	HDD
Enter the SP number for the partition to initialize, then press #. When the executends, cycle the machine off and on.	
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
008	Mail TX Data
009	HDD Formatting (Data for Design)
010	HDD Formatting (Log)
011	HDD Formatting (Ridoc I/F) (for Ridoc Desk Top Binder)

5836*	Capture Setting		
001	Capture Function (0:Off 1:On)		
	With this function disabled, the settings related to the capture feature cannot be initialized, displayed, or selected.		
	[0 to 1 / 0 / 1]		
	0: Disable, 1: Enable		
	Panel Setting		
002	Determines whether each capture related setting can be selected or updated from the initial system screen. [0 to 1 / 0 / 1] 0: Disable, 1: Enable		
	The setting for SP5836-001 has priority.		
072	Reduction for Copy B&W Text	[0 to 6 / 0 / 1]	
072	Reduction for Copy Bavv Text	0:1, 1:1/2, 2:1/3, 3:1/4, 6:2/3	
073	Reduction for Copy B&W Other	[0 to 6 / 0 / 1]	
0/3		0:1, 1:1/2, 2:1/3, 3:1/4, 6:2/3	
075	Reduction for Printer B&W	[0 to 6 / 0 / 1]	
075		0 1, 1:1/2, 2:1/3, 3:1/4, 6:2/3	
078	Reduction for Printer B&W 1200	1: 1/2 , 3: 1/4, 4: 1/6, 5: 1/8	

082	Format for Copy B&W Text		[0 to 3 / 1 / 1] O: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
083	Format Copy B&W Other		[0 to 3 / 1 / 1] 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
085	Format for Printer B&W		[0 to 3 / 1 / 1] O: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
	Default for JPEG		[5 to 95 / 50 / 1]
091	Sets the JPEG format default for documents sent to the document manageme with the MLB, with JPEG selected as the format. Enabled only when optional Format Converter (MLB: Media Link Board) is installed.		ormat. Enabled only when optional File
101	Primary srv IP address	Sets the IP address for the primary capture serve 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 b	pasically adjusted by the remote system.
104	Primary srv URL path This is k		pasically adjusted by the remote system.
111	Secondary sry IP address		e IP address for the secondary capture server. casically 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.	
122	Reso: Copy (Mono)	[0 to 255 / 3 / 1/step]	
	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		
124	Reso: Print (Mono)		pasically adjusted by the remote system.

	Selects the resolution for BW print mode. This is basically adjusted by the remote system.		
	0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi		
126	Reso: Fax (Mono)	This is basically adjusted by the remote system. [0 to 255 / 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: 200dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi		
127	Reso: Scan (Color) This is basically adjusted by the remote system. [0 to 255 / 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		
128	Reso: Scan (Mono)	This is basically adjusted by the remote system. [0 to 255 / 3 / 1/step]	
	Selects the resolution for BW scanning mode. This is basically adjusted by the remote system. 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi		
141	All Addr Info Switch	[0 or 1 / 1 / -] 0: Off, 1: On	
	Turns on or off all the address information transmission for the captured resources.		
142	Stand-by Doc Max Number	[10 to 9999 / 2000 / 1/step]	
	Selects the maximum number of captured documents to be transmitted to the document server.		

5840*	IEEE 802.11
Channel MAX	
006	Sets the maximum range of the bandwidth for the wireless LAN. This bandwidth setting varies for different countries.
	[1 to 14 / 11 (NA), 13 (EU), 14 (JPN) / 1]
	JPN: 1 to 14, NA: 1 to 11, EU: 1 to 13

	Channel MIN		
007	Sets the minimum range of the bandwidth for operation of the wireless LAN bandwidth setting varies for different countries. [1 to 14 / 1 / 1] JPN: 1 to 14, NA: 1 to 11, EU: 1 to 13		
	Transmission speed	[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 07 - 11M Fix	
	0 x 10 - 48M Fix	0 x 05 - 5.5M Fix	
008	0 x 0F - 36M Fix	0 x 08 - 1M Fix	
	0 x 0E - 18M Fix	0 x 13 - 0 x FE (reserved)	
	0 x 0D - 12M Fix	0 x 12 - 72M (reserved)	
	0 x 0B - 9M Fix	0 x 09 - 22M (reserved)	
	0 x 0A - 6M Fix		
	WEP Key Select		
	Selects the WEP key.		
011	Bit 1 and 0		
	00: Key1, 01: Key2 (Reserved),		
	10: Key3 (Reserved), 11: Key4(Reserved)		
	This SP is displayed only when the IEEE802.11 card is installed.		
	RTS/CTS Thresh		
013	Adjusts the RTS/CTS threshold for the IEEE802.11 card.		
	[0 to 3000 / 2432 / 1]		
	This SP is displayed only when the IEEE802.11 card is installed.		
	Fragment Thresh		
042	Adjusts the fragment threshold for the IEEE802.11 card.		
0-12	[256 to 2346 / 2346 / 1]		
	This SP is displayed only when the IEEE802.11 card is installed.		

043	
	0-10
044	
044	
045	
	044

	Supply Name Setting	
5841*	Press the User Tools key. These names appear when the user presses the Inquiry button on the User Tools screen.	
001	Toner Name Setting: Black	
007	OrgStamp	
011	StapleStd 1	
012	StapleStd2	
013	StapleStd3	
014	StapleStd4	
021	StapleBind 1	
022	StapleBind2	
023	StapleBind3	

5844	USB
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	Transfer Rate
001	Sets the speed for USB data transmission.
	[0 x 01 or 0 x 04 / 0 x 04 /-]
	0 x 01 [Full Speed], 0 x 04 [Auto Change]
	Vendor ID
002	Sets the vendor ID:
	Initial Setting: 0x05A Ricoh Company
	[0x0000 to 0xFFFF/1] (DFU)
	Product ID
003	Sets the product ID.
	[0x0000 to 0xFFFF/1] (DFU)
	Device Release No.
	Sets the device release number of the BCD (binary coded decimal) display.
004	[0000 to 9999 / 100 / 1] (DFU)
	Enter as a decimal number. NCS converts the number to hexadecimal number recognized as the BCD.
005	Fixed USB Port
	This SP standardizes for common use the model name and serial number for USB PnP (Plug & Play). It determines whether the driver requires re-installation.
	[0 to 2 / 0 / 1]
	0: OFF
	1: Level 1 2: Level 2
006	PnP Model Name
	This SP sets the model name to be used by the USB PnP when "Function Enable (Level 2) is set so the USB Serial No. can have a common name (SP5844-5).
	Default: Laser Printer (up to 20 characters allowed).
007	PnP Serial Number

This SP sets the serial number to be used by the USB PnP when "Function Enable (Level set so the USB Serial No. can have a common name (SP5844-5). Default: None (up to 12 characters allowed for entry). • Make sure that this entry is the same as the serial number in use. • At initialization the serial number generated from the model name is used, not the setting of this SP code. • At times other than initialization, the value set for this SP code is used. 100 Notify Unsupport This SP determines whether an alert message appears on the control panel when a USB device (unsupported device) that cannot use an A-connector is connected. [0 to 1 / 1 / 1] 0: Function enable 1: Function disable • An unsupported device is a device that cannot use the functions of the USB device. For example, a USB mouse cannot be used even if it connected. • If the PictBridge option is not mounted, even if a digital camera is connected it cannot be used because it is an unsupported device.

5845*	Delivery Server Setting
3643	These are delivery server settings.
001	FTP Port No.
001	[0 to 65535 / 3670 / 1]
002	IP Address (Primary)
	Use this SP to set the Scan Router Server address. The IP address under the transfer tab can be used with the initial system setting.
	[Range: 000.000.000.000 to 255.255.255.255]
	Delivery Error Display Time
006	Use this setting to set the length of time that the message is shown when a test error occurs during document transfer with the NetFile application and an external device. [0 to 999 / 300 / 1 sec]

	IP Address (Secondary)				
008	Sets the IP address that is given to the computer that is the secondary delivery server for Scan Router. This SP lets you set only the IP address, and does not refer to the DNS setting.				
	[Range: 000.000.000.000 to 255.255.255]				
	Delivery Server Model				
	Lets you change the model of the delivery server that is registered by the I/O device.				
	[0 to 4 / 0 / 1 step]				
009	0: Unknown				
007	1: SG1 Provided				
	2: SG1 Package				
	3: SG2 Provided				
	4: SG2 Package				
	Delivery Svr. Capability				
	Changes the functions that the registered I/O device can do.				
	[0 to 255 / 0 / 1 step]				
	Bit7 = 1 Comment information exits				
	Bit6 = 1 Direct specification of mail address possible				
010	Bit5 = 1 Mail RX confirmation setting possible				
	Bit4 = 1 Address book automatic update function exists				
	Bit3 = 1 Fax RX delivery function exists				
	Bit2 = 1 Sender password function exists				
	Bit1 = 1 Function to link MK-1 user and Sender exists				
	BitO = 1 Sender specification required (if set to 1, Bitó is set to "0")				
	Delivery Svr.Capability (Ext)				
011	These settings are for future use. They will let you increase the number of registered devices (in addition to those registered for SP5845 010).				
	There are eight bits (Bit 0 to Bit 7). All are unused at this time.				
013	Server Scheme (Primary)				
014	Server port Number (Primary)	[1 to 65535 / 80 / 1]			
015	Server URL Path (Primary)				

016	Server Scheme (Secondary)	
017	Server Port Number(Secondary)	[1 to 65535 / 80 / 1]
018	Server URL Path (Secondary)	
022	Rapid Sending Control [O to 1 / 1 / -] O: Disable, 1: Enable	
	Enables or disables the prevention function for the continuous data sending error.	

5846*	UCS Setting
	Machine ID (for Delivery Server)
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 Delivery Server)
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.
	Maximum Entries
003	Changes the maximum number of entries that UCS can handle. [2000 to 20000 / 2000 / 1 step]
	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
006	Sets the interval for retry attempts when the delivery server fails to acquire the delivery server address book.
	[0 to 255 / 0 / 1 step]
	0: No retries

	Delivery Server Retry Times
007	Sets the number of retry attempts when the delivery server fails to acquire the delivery server address book.
	[0 to 255 / 0 / 1 step]
	Delivery Server Maximum Entries
008	Lets you set the maximum number of account entries and information about the users of the delivery server controlled by UCS. [2000 to 20000 / 2000 / 1 step]
	LDAP Search Timeout
010	
010	Sets the length of the time-out for the search of the LDAP server.
	[1 to 255 / 60 /1 step]
	WSD Maximum Entries
020	WSD (Web Services on Devices) is the Microsoft standard for connectivity to webservice enabled devices.
	[50 to 250 / 250 / 1]
	Folder Auth Change
	This SP determines whether the user login information (Login User name and Password) or address (destination setting in the address book for Scan-to-SMB) is used to permit folder access. The machine must be cycled off/on for this setting to take effect if it is changed.
021	[0 to 1 / 0 / 1]
	0: Login User
	Uses operator login information (initial value of main machine)
	1: Destination
	Uses address authorization information
022	Initial Value of Upper Limit Count
022	[0 to 999999 / 500 / 1]

Addr Book Migration (USB -> HDD)

This SP moves the address book data from the SD card or flash ROM on the controller board to the HDD. You must cycle the machine off and on after executing this SP.

- 1. Turn the machine off.
- 2. Install the HDD.
- 3. Turn the machine on.
- 4. Do SP5846 040.

040 5. Turn the machine off/on.



- Executing this SP overwrites any address book data already on the HDD with the data from the flash ROM on the controller board.
- We recommend that you back up all directory information to an SD card with SP5846-051 before you execute this SP.
- After the address book data is copied to HDD, all the address book data is deleted from the flash ROM. If the operation fails, the data is not erased from the flash ROM.

041 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

- 1. Turn the machine off.
- 2. Install the new HDD.
- 3. Turn the machine on.
- 4. The address book and its initial data are created on the HDD automatically. However, at this point the address book can be accessed by only the system administrator or key operator.
- 5. Enter the SP mode and do SP5846 041. After this SP executes successfully, any user can access the address book.

	Addr Book Media		
	Displays the slot number where an address book data is in.		
	[0 to 30 / - /1]		
043	0: Unconfirmed		
	1: SD Slot 1	20: HDD	
	2: SD Slot 2	30: Nothing	
	4: USB Flash ROM		
046	Initialize All Setting & Addr Book		
040	Initializes all settings and the address book.		
	Initialize Local Address Book		
047	Clears all of the address information from the local address book of a machine managed with UCS.		
	Initialize Delivery Addr Book		
048	Push [Execute] to delete all items (this does not include user codes) in the delivery address book that is controlled by UCS.		
	Initialize LDAP Addr Book		
049	Push [Execute] to delete all items (this does not include user codes) in the LDAP address book that is controlled by UCS.		
Initialize All Addr Book			
050	Clears everything (including users codes) in the directory information managed by UCS. However, the accounts and passwords of the system administrators are not deleted.		
	Backup All Addr Book		
051	Copies all directory information to the SD card. Do this SP before replacing the controller board or HDD. The operation may not succeed if the controller board or HDD is damaged.		
	Restore All Addr Book		
052	Copies back all directory information from the SD card to the flash ROM or HDD. Upload the address book from the old flash ROM or HDD with SP5846-51 before removing it. Do SP5846 52 after installing the new HDD.		

	Clear Backup Info			
053	Deletes the address book uploaded from the SD card in the slot 2. Deletes only the files uploaded for that machine. This feature does not work if the card is write-protected.			
		Note: After you do this SP, go out of the SP mode, turn the power off. Do not remove the SD card until the Power LED stops flashing.		
	Searc	ch Option		
	This S	P uses bit switches to set up the fuzzy search options for the UCS local address		
	Bit	Meaning		
	0	Checks both upper/lower case characters		
	1			
060	2	Japan Only		
	3			
	4	Not Used		
	5	Not Used		
	6	Not Used		
	7	Not Used		
	Comp	plexity 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 / 1step]			
	♥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.		

Complexity Option 2

Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to lower case and defines the length of the password.

063 [0 to 32 / **0** / 1step]



- 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.

Complexity Option 3

Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to numbers and defines the length of the password.

064 [0 to 32 / **0** / 1step]



- 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.

Complexity Option 4

Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to symbols and defines the length of the password.

065 [0 to 32 / **0** / 1step]



091

- 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.

FTP Auth Port Setting

Sets the FTP port to get the delivery server address book that is used in the individual authorization mode.

[0 to 65535 / **3671** / 1step]

	Encryption Start		
094		Shows the status of the encryption function of the address book on the LDAP server.	
		[0 to 255 / 1] No default	

	Rep Resolution Reduction				
5847*	5847-2 through 5847-6 changes the default settings of image data sent externally by the Net File page reference function.				
3047	5847-21 sets the default for JPEG image quality of image files controlled by NetFile.				
	"NetFile" refers to jobs to be printed from the document server with a PC and the DeskTopBinder software.				
002	Rate for Copy B&W Text	[0 to 6 / 0 / 1]	0: 1x		
003	Rate for Copy B&W Other	[0 to 6 / 0 / 1]	1: 1/2x		
005	Rate for Printer B&W	[0 to 6 / 0 / 1]	2: 1/3x		
007	Rate for Printer B&W 1200dpi	[0 to 6 / 1 / 1]	3: 1/4x 4: 1/5x 5: 1/8x 6: 2/3x1		
	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 / 1step]				

5848*		Web Service		
	5848*	5848-2 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 of images that can be downloaded. The default is equal to 1 gigabyte.			
	002	Acc. Ctrl.: Repository (only Lower 4 Bits)	0000: No access control 0001: Denies access to DeskTop Binder.	

003	Acc. Ctrl.: Doc. Svr. Print (Lower 4 Bits)		
004	Acc. Ctrl.: User Directory (Lower 4 Bits)		
007	Acc. Ctrl Comm. Log Fax (Lower 4 Bits)		
009	Acc. Ctrl.: Job Control (Lower 4 Bits)	Switches access control on and off.	
011	Acc. Ctrl: Device Management (Lower 4 Bits)	0000: OFF, 0001: ON	
021	Acc. Ctrl: Delivery (Lower 4 Bits)		
022	Acc. Ctrl: User Administration (Lower 4 Bits)		
099	Repository: Download Image Setting		
100 Repository: Download Image Max. Size		Specified the max size of the image data that the machine can download/	
		[1 to 2048 / 2048 / 1 MB]	
210	Setting: Log Type: Job 1		
	No information is available at this time.		
211	Setting: Log Type: Job 2		
	No information is available at this time.		
212	Setting: Log Type: Access		
212	No information is available at this time.		
213	Setting: Primary Srv		
213	No information is available at this time.		
214	Setting: Secondary Srv		
214	No information is available at this time.		
215	Setting: Start Time		
213	No information is available at this time.		
216	Setting: Interval Time		
210	No information is available at this time.		
·			

	17	Setting: Timing	
2	17	No information is available at this time.	

5849	Installation Date	
3649	Displays or prints the i	nstallation date of the machine.
001	Display	The "Counter Clear Day" has been changed to "Installation Date" or "Inst. Date".
		Determines whether the installation date is printed on the printout for the total counter.
002	Switch to Print	[0 to 1 / 1 / -]
		0: OFF (No Print)
		1: ON (Print)
003	Total Counter	When the total number of pages that are made reaches this value, the current date becomes the 'official' installation date for this machine.
		[0 to 99999999 / 0 / 1]

5850*	Address Book Function Japan Only	
	Replacement of Circuit Classification	
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.	

		Bluetooth
	5851*	Sets the operation mode for the Bluetooth Unit. Press either key.
		[0: Public] / [1: Private]

5853	Stamp Data Download
	Push [Execute] to download the fixed stamp data from the machine ROM onto the hard disk. Then these stamps can be used by the system. If this is not done, the user will not have access to the fixed stamps ("Confidential", "Secret", etc.).
	You must always execute this SP after replacing the HDD or after formatting the HDD. Always switch the machine off and on after executing this SP.

5856	Remote ROM Update	
	When set to "1" allows reception of firmware data via the local port (IEEE 1284) during a remote ROM update. This setting is reset to zero after the machine is cycled off and on. Allows the technician to upgrade the firmware using a parallel cable	
002	[0 to 1 / 0 / 1 step] 0: Not allowed	
	0: Not allowed	
	1: Allowed	

5857	Save Debug Log	
	On/Off (1:ON 0:OFF)	
001	Switches on the debug log feature. The debug log cannot be captured until this feature is switched on.	
	[0 to 1 / 0 / 1]	
	0: OFF, 1: ON	
	Target (2: HDD 3: SD)	
002	Selects the destination where the debugging information generated by the event selected by SP5858 will be stored if an error is generated	
	[2 to 3 / 2 / 1]	
	2: HDD, 3: SD Card	
005	Save to HDD	
003	Specifies the decimal key number of the log to be written to the hard disk.	
006	Save to SD Card	
006	Specifies the decimal key number of the log to be written to the SD Card.	

	Copy HDD to SD Card (Latest 4 MB)
009	Takes the most recent 4 MB of the log written to the hard disk and copies them to the SD Card.
	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.
	Copy HDD to SD Card Latest 4 MB Any Key)
010	Takes the log of the specified key from the log on the hard disk and copies it to the SD Card.
010	A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4 MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card. This SP does not execute if there is no log on the HDD with no key specified.
011	Erase HDD Debug Data
011	Erases all debug logs on the HDD
	Erase SD Card Debug Data
012	Erases all debug logs on the SD Card. If the card contains only debugging files generated by an event specified by SP5858, the files are erased when SP5857 010 or 011 is executed.
	To enable this SP, the machine must be cycled off and on.
013	Free Space on SD Card
013	Displays the amount of space available on the SD card.
	Copy SD to SD (Latest 4MB)
014	Copies the last 4MB of the log (written directly to the card from shared memory) onto an SD card.
	Copy SD to SD (Latest 4MB Any Key)
015	This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number.
016	Make HDD Debug
016	This SP creates a 32 MB file to store a log on the HDD.

017	Make SD Debug	
017	This SP creates a 4 MB file to store a log on an SD card.	

	Debug Save When	
5858*	These SPs select the content of the debugging information to be saved to the destination selected by SP5857-002. SP5858-003 stores one SC specified by number.	
001*	Engine SC Error (0:OFF 1:ON)	Stores SC codes generated by copier engine errors.
002*	Controller SC Error (0:OFF 1:ON)	Stores SC codes generated by GW controller errors.
003*	Any SC Error	[0 to 65535 / 0 / 1 step]
004*	Jam (0:OFF 1:ON)	Stores jam errors.

5859*	Debug Save k	Key No.
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 files for functions that use common memory on the controller board.
006	Key 6	[0 to 9999999 / 0 / 1]
007	Key 7	
008	Key 8	
009	Key 9	
010	Key 10	

5860*	SMTP/POP3/IMAP4
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	Partial Mail Receive Timeout
000	[1 to 168 / 72 / 1 hour]
020	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.
	MDN Response RFC2298 Compliance
021	Determines whether RFC2298 compliance is switched on for MDN reply mail. [0 to 1 / 1 / 1] 0: No, 1: Yes
	SMTP Auth. From Field Replacement
022	Determines whether the FROM item of the mail header is switched to the validated account after the SMTP server is validated.
022	[0 to 1 / 0 / 1]
	0: No. "From" item not switched.
	1: Yes. "From" item switched.
	SMTP Auth Direct Sending
	Select the authentication method for SMPT.
	Bit 0: LOGIN
	Bit 1: PLAIN
025	Bit 2: CRAM_MD5
	Bit 3: DIGEST_MD5
	Bit 4 to Bit 7: Not Used
	Note
	This SP is activated only when SMTP authentication is enabled by UP mode.
	S/MIME: MIME Header Setting
	Selects the MIME header type of an E-mail sent by S/MIME.
026	[0 to 2 / 0 / 1]
	0: Microsoft Outlook Express standard
	1: Internet Draft standard
	2: RFC standard

028	S/MIME: Authentication Check
	When sending S/MIME mail, specifies whether to check the destination authentication.
	[0 to 1 / 0 / 1]
	0: Not checked
	1: Checked

5870	Common Key Info Writing	
001	Writing	Writes to flash ROM the common proof for validating the device for @Remote specifications.
003	Initialize	Initializes the data area of the common proof for validating.
004	Writing: 2048bit	Writes to flash ROM the common proof (2048-bit) for validating the device for @Remote specifications.

5873 All		SD Card Appli	Move
		,	move applications from one SD card another. For more, see "SD Card the chapter "System Maintenance (Main Chapters).
	001	Move Exec Executes the move from one SD card to another.	
	002	Undo Exec	This is an undo function. It cancels the previous execution.

5875	SC Auto Reboot	
	This SP determines whether the machine reboots automatically when an SC error occurs.	
	Note	
	The reboot does not occur for Type A SC codes.	
001	Reboot Setting	[0 to 1/0/1] 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.
002	Reboot Type	[0 to 1 / 0 / 1] 0: Manual reboot, 1: Automatic reboot

5	878	Option Setup	
	001	Data Overwrite Security	Press [Execute] to initialize the Data Overwrite Security option for the copier. For more, see "DataOverwriteSecurity Unit" in the chapter "Installation".

5881	E001	Fixed Phase Block Erasing	
	3001	Detects the Fixed phrase.	

5885*	Set WIM Function		
		Allows or disallows the functions of web image monitor.	
		0: OFF, 1: ON	
		Bit:	
		0: Forbid all document server access	
		1: Forbid user mode access	
020	DocSvr Acc Ctrl	2: Forbid print function	
		3: Forbid Fax	
		4: Forbid scan sending	
		5: Forbid download	
		6: Forbid delete	
		7: Forbid guest user	
	DocSvr Format		
50	Selects the display type for the document box list.		
30	[0 to 2 / 0 / 1]		
	O: Thumbnail, 1: Icon, 2: Details		
	DocSvr Trans		
51	Sets the number of docum [5 to 20 / 10 / 1]	ents to be displayed in the document box list.	

	Set Signature		
	[0 to 2 / 0 / 1/step]		
	0: Signature for each e-mail		
100	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.		
	Set Encryption		
101	Determines whether the scanned documents with the WIM are encrypted when they are transmitted by an e-mail. $[0 \text{ to } 1 / 0 / 1]$		
	0: Not encrypted, 1:Encryption		
200	Detect Mem Leak	Not used	
201	DocSvr Timeout	Not used	

5007	SD Get Counter
5887	This SP determines whether the ROM can be updated.
001	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.
	 Insert the SD card in SD card Slot 2 (lower slot). Select SP5887 then touch [EXECUTE].
	Touch [Execute] in the message when you are prompted.

	Personal Information Protect
5888*	Selects the protection level for logs.
3000	[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	
3093	Displays the counter name of each SDK application.	
1	SDK-1	
2	SDK-2	
3	SDK-3	
4	SDK-4	
5	SDK-5	
6	SDK-6	

	Plug & Play Maker/Model Name
5907	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	[3 to 30 / 3 / 1 second step]
Sets the length of time to elapse before allowing another application to take the display when the application currently controlling the display is not open because a key has not been pressed.		

	Copy Server: Set Function	0: ON, 1: OFF
5967*		his is a security measure that prevents image of the HDD. After changing this setting, you nable the new setting.

	Cherry Server
5074*	Selects which version of the Scan Router application program, "Light" or "Full" (Professional) is installed.
5974*	[0 or 1 / 0 / -]
	0: Light
	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".		
		[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.	
001	On Board NIC	 Other network applications than @Remote 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*	Counter Falsification Prevention	
		This SP detects that a mechanical counter device is removed. If it is detected, SC610 occurs.	
[0 or 1 / 1 / 1/step]		[0 or 1 / 1 / 1/step]	
		0: OFF. 1: ON	

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	
026	Print SP	

Main SP Tables-6

SP6-xxx: Peripherals

	ADF Registration Adjust		
6006*	Adjusts the side-to-side and leading edge registration for simplex and duplex original feeding in ARDF mode. SP6006-5 sets the maximum setting allowed for rear edge erase.		
001	Side-to-Side Regist: Front	[24 2 / 0 / 0] / 44]	
002	Side-to-Side Regist: Rear	[-3 to 3 / 0 / 0.1 mm / step]	
003	Leading Edge Registration	[-5 to 5 / 0 / 0.1 mm / step]	
005	Buckle: Duplex Front	[-3 to 3 / 0 / 0.1 mm / step]	
006	Buckle: Duplex Rear	[-2.5 to 2.5 / 0 / 0.1 mm / step]	
007	Rear Edge Erase	[-10 to 10 / 0 / 0.1 mm / step]	

6007

001	Original Length 1 (B5 Detection Sensor)		
002	Original Length 2 (A4 Detection Sensor)		
003	Original Length 3 (LG Detection Sensor)		
004	Original Width Sensor 1		
005	Original Width Sensor 2		
006	Original Width Sensor 3	0: Paper not detected	
007	Original Width Sensor 4	1: Paper detected	
008	Original Width Sensor 5		
009	Original Set Sensor		
010	Separation Sensor		
011	Skew Correction Sensor		
012	Scan Entrance Sensor		
013	Registration Sensor		
014	Exit Sensor		
015	Feed Cover Sensor	0: ADF cover closed 1: ADF cover open	
016	Lift Up Sensor	0: ADF closed 1: ADF open	
017	Inverter Sensor	0: Paper not detected 1: Paper detected	
018	Pick-up Roller HP Sensor	0: HP (Pick-up roller: Up) 1: Not HP (Pick-up roller: Down)	
019	Original Set HP Sensor	0: HP (Stopper: UP) 1: Not HP (Stopper: Down)	

6008	ADF Output Check
001	Pick-up Motor Forward
002	Pick-up Motor Reserve
003	Feed Motor Forward
004	Feed Motor Reserve
005	Relay Motor Forward
007	Inverter Motor Forward
008	Inverter Motor Reserve
011	Inverter Solenoid
012	Stamp
013	Fan Motor

	ADF FreeRun	
6009	Performs an ARDF free run in duplex mode. Press [ON] to start, press [OFF] to stop.	
	Note: This is a general free run controlled from the copier.	
001	Free Run: Simplex Motion	
002	Free Run: Duplex Motion	
003	Free Run: Stamp Motion	

6010*	ADF Stamp Position Adjust.	[-5 to 5 / 0 / 0.1 mm step]
	Adjusts the horizontal position of the stamp on the scanned originals.	

6016*	Original	Original Size Detect Setting			
	Specifies the original size for a size detected by the original sensor, since original sensors cannot recognize all sizes. (7) 0000 0000 (0)				
	Different bits are used for detection, depending on the location as shown below.				
	Bit	Size		Location	
	7	A4 (L)/LT (L)		1	
	6	11" x 15"/DLT (L)		Japan only	
	5	DLT (L)/ 11" x 15"			
	4	LT (S)/ US Exec (S)			
	3	LT (L)/ 8" x 10" (L) LG (L)/ F4 (L)		NA only	
	2				
	1	A4 (L)/ 16K (L)		EU/AA only	
	0	8K (L)/ DLT (L)			
	DF Magnification Adj. [-5		[–5	to 5 / 0 / 0.1% step]	
6017*	Adjusts the magnification in the sub-scan direction for ADF mode.				
	Use the key to toggle between + and - before entering the value				
	Skew Correction Moving Setting				
	Turns the original skew correction in the ARDF for all original sizes on or off.				
6020*	[0 to 1 / 0 / 1]				

Adjusts the punching position in the sub scan direction. (For D636/D637)

0: Off (only for small original sizes)

1: On (for all original sizes)

Punch Position: Sub Scan

6128

001	2-Hole: DOM (Japan)	
002	3-Hole: NA	
003	4-Hole: EU	[-7.5 to 7.5 / 0 / 0.5 mm]
004	5-Hole: SCAN	
005	2-Hole: NA	

(100	Punch Position: Main Scan		
6129	Adjusts the punching position in the main scan direction. (For D636/D637)		
001	2-Hole: DOM (Japan)		
002	3-Hole: NA		
003	4-Hole: EU	[-2 to 2 / 0 / 0.4 mm]	
004	4-Hole: SCAN		
005	2-Hole: NA		

6130*	Skew Correction: Buckle Adj.
	Adjusts the paper buckle at the punch unit for each paper size. (For D636/D637)

001	A3 SEF	
002	B4 SEF	
003	A4 SEF	
004	A4 LEF	
005	B5 SEF	
006	B5 LEF	[-5 to 5 / 0 / 0.25 mm]
007	DLT SEF	[-3 10 3 / 0 / 0.23 mm]
008	LG SEF	
009	LT SEF	
010	LT LEF	
011	12" x 18"	
012	Other	

6131*	Skew Correction Control	
	Selects the skew correction control for each paper size. (For D636/D637)	

001	A3 SEF	
002	B4 SEF	
003	A4 SEF	
004	A4 LEF	
005	B5 SEF	
006	B5 LEF	[0 to 1 / 1 / 1 mm]
007	DLT SEF	
008	LG SEF	
009	LT SEF	
010	LT LEF	
011	12" x 18"	
012	Other	

	Jogger Fence Fine Adj.
6132*	This SP adjusts the distance between the jogger fences and the sides of the stack on the finisher stapling tray in the (Booklet) Finisher D636/D637. The adjustment is done perpendicular to the direction of paper feed.

001	A3 SEF	
002	B4 SEF	
003	A4 SEF	
004	A4 LEF	
005	B5 SEF	
006	B5 LEF	[-1.5 to 1.5 / 0 / 0.5 mm]
007	DLT SEF	[-1.5 to 1.5 / 0 / 0.5 fillin]
008	LG SEF	
009	LT SEF	
010	LT LEF	
011	12" x 18"	
012	Other	

	Staple Position Adjustment
	Adjusts the staple position for each finisher (D636/D637).
6133*	+ Value: Moves the staple position to the rear side.
	- Value: Moves the staple position to the front side.
	[-3.5 to 3.5 / 0 / 0.5 mm]

		Saddle Stitch Position Adj.
	6134*	Use this SP to adjust the stapling position of the booklet stapler when paper is stapled and folded in the Booklet Finisher (D637).

001	A3 SEF	
002	B4 SEF	[-3 to 3 / 0 / 0.2 mm]
003	A4 SEF	+ Value: Shifts staple position toward the crease.
004	B5 SEF	- Value: Shifts staple position away from the crease
005	DLT SEF	Feed Out
006	LG SEF	J
007	LT SEF	
008	12" x 18"	$\bigoplus \longleftarrow \rightarrow \bigcirc$
009	Other	

Folder Position Adj.		lį.
6135*	This SP corrects th Finisher D637.	e folding position when paper is stapled and folded in the Booklet
001	A3 SEF	
002	B4 SEF	[-3 to 3 / 0 / 0.2 mm]
003	A4 SEF	+ Value: Shifts staple position toward the crease.
004	B5 SEF	- Value: Shifts staple position away from the crease.
005	DLT SEF	Feed Out
006	LG SEF	
007	LT SEF	$\bigoplus \leftarrow \rightarrow \ominus$
008	12" x 18"	
009	Other	

	Book Fold Repeat
6136*	Sets the number of times that folding is done in the Booklet Finisher D637.
	[2 to 30 / 2 / 1 time/step]

6139	Entrance Sensor		
	. ,	Display the signals received from sensors and switches of the (booklet) finisher. (D588) (** "Input Check Table" in "Main SP Tables-9")	
	FIN (EUP) INPUT Check	FIN (EUP) INPUT Check	
6140	Display the signals received from sensors and switches of the (booklet) finisher. (D636/D637) ("Input Check Table" in "Main SP Tables-9")		
	FIN (KIN) OUPUT Check		
6144	Display the signals received from sensors and switches of the (booklet) finisher. (D588)		
	FIN (EUP) OUPUT Check		
6145	Display the signals received from sensors and switches of the (booklet) finisher. (D636/D637) (** "Output Check Table" in "Main SP Tables-9")		
	Max. Pre-Stack Sheet	[0 to 3 / 3 / 1 sheets step]	
6149*	This SP sets the number of sheets sent to the pre-stack tray.		
	Note		
	You may need to adjust this sett paper.	ing or switch it off when feeding thick or slick	

5

Main SP Tables-7

SP7-xxx: Data Log

7401*	Total SC Counter
	SC Counter
001	Displays the total number of service calls that have occurred. This SC counter can be reset by executing SP7807 (SC/Jam Counter Reset).
	Total SC Counter
002	Displays the cumulative sum of service calls that have occurred. This SC counter cannot be reset by executing SP7807 (SC/Jam Counter Reset).

7403*	SC History	
001	Latest	
002	Latest 1	
003	Latest 2	
004	Latest 3	
005	Latest 4	Displays the most recent 10 service calls.
006	Latest 5	Displays the most recent to service calls.
007	Latest 6	
008	Latest 7	
009	Latest 8	
010	Latest 9	

7502*	Total Paper Jam	
001	Jam Counter	
001	Displays the total number of paper jams.	

002	Total Jam Counter	
002	Displays the cumulative sum of paper jams.	

7503* Total Original Jam	
001	Original Jam Counter
001	Displays the total number of original jams.
000	Total Original Counter
002	Displays the cumulative sum of original jams.

013	Bank: Transport Sn 1: On
	Total Jams Location
7504*	These SPs display the total number of paper jams by location. A "Check-in" (paper late) error occurs when the paper fails to activate the sensor at the precise time. A "Checkout" ("paper lag") paper jam occurs when the paper remains at the sensor for longer than the prescribed time.
001	At power On
003	Tray 1: On
004	Tray 2: On
005	Tray 3: On
006	Tray 4: On
007	LCT: On
008	Bypass: On
009	Duplex: On
011	Vertical Transport 1: On
012	Vertical Transport 2: On
014	Bank: Transport Sn 2: On
017	Registration: On
019	Fusing Exit: On

013	Bank: Transport Sn 1: On
020	Paper Exit: On
021	Bridge Exit On
022	Bridge Transport: On
024	Junction Gate Sensor: On
025	Duplex Exit: On
026	Duplex Entrance: On (In)
027	Duplex Entrance: On (Out)
051	Vertical Transport 1: Off
052	Vertical Transport 2: Off
053	Bank Transport 1: Off
054	Bank Transport 2: Off
057	Registration Sensor: Off
058	LCT Feed Sensor: Off
060	Paper Exit: Off
061	Bridge: Exit: Off
062	Bridge: Transport: Off
064	Junction Gate Sensor: Off
065	Duplex Exit: Off
066	Duplex Entrance: Off (In)
067	Duplex Entrance: Off (Out)
100	Finisher Entrance: KIN
101	Finisher Shift Tray Exit: KIN
102	Finisher Staple: KIN
103	Finisher Exit: KIN
105	Finisher Tray Lift Motor: KIN

012	D T
013	Bank: Transport Sn 1: On
106	Finisher Jogger Motor: KIN
107	Finisher Shift Motor: KIN
108	Finisher Staple Motor: KIN
109	Finisher Exit Motor: KIN
191	Finisher Entrance: EUP
192	Finisher Proof Exit: EUP
193	Finisher Shift Tray Exit: EUP
194	Finisher Staple Exit: EUP
195	Finisher Exit: EUP
198	Finisher Folder: EUP
199	Finisher Tray Motor: EUP
200	Finisher Jogger Motor: EUP
201	Finisher Shift Motor: EUP
202	Finisher Staple Moving Motor: EUP
203	Finisher Staple Motor: EUP
204	Finisher Folder Motor: EUP
206	Finisher Punch Motor:EUP

	Original Jam Detection		
7505	Displays the total number of original jams by location. These jams occur when the original does not activate the sensors. A Check-in ("paper late") error occurs when the paper fails to activate the sensor at the precise time. A Check-out ("paper lag") paper jam occurs when the paper remains at the sensor for longer than the prescribed time.		
001	At Power: On		
003	Separation Sensor: On		
004	Skew Correction Sensor: On		

005	Interval Sensor: On
006	Registration Sensor: On
007	Inverter Sensor: On
008	Original Exit Sensor: On
053	Separation Sensor: Off
054	Skew Correction Sensor: Off
055	Interval Sensor: Off
056	Registration Sensor: Off
057	Inverter Sensor: Off
058	Original Exit Sensor: Off

7506*	Jam Count by Paper Size
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005	A4 LEF	
006	A5 LEF	
014	B5 LEF	
038	LT LEF	
044	HLT LEF	
132	A3 SEF	
133	A4 SEF	
134	A5 SEF	Displays the total number of copy jams by paper size.
141	B4 SEF	
142	B5 SEF	
160	DLT SEF	
164	LG SEF	
166	LT SEF	
172	HLT SEF	
255	Others	

7507*	Plotter Jam History
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201					
001	Last	Diamles the cons	iam history	Itha mast recent 10 icms	١
002	Latest 1		Jam misiory	(the most recent 10 jams	1
003	Latest 2	Sample Display:			
	Edicol Z	CODE:007			
004	Latest 3	SIZE:05h			
005	Latest 4	TOTAL:0000334			
006	Latest 5	DATE: Mon Mar	15 11:44:50	0 2000	
000	Latest 5	where:			
007	Latest 6	CODE is the SP75	504-*** nu	mber (see above.	
008	Latest 7	SIZE is the ASAP p	oaper size c	ode in hex.	
009	Latest 8	TOTAL is the total	jam error co	ount (SP7502)	
	Edicaro	DATE is the date t	ne jams occ	urred.	
010	Latest 9				
Size	Code	Size	Code	Size	Code
A4 (S)	05	A3 (L)	84	DLT (L)	A0
A5 (S)	06	A4 (L)	85	LG (L)	A4
B5 (S)	OE	A5 (L)	86	LT (L)	A6
LT (S)	26	B4 (L)	8D	HLT (L)	AC
HLT (S)	2C	B5 (L)	8E	Others	FF

7508*	Original Jam History
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001 002 003 004 005 006 007 008	Last 1 Last 2 Last 3 Last 4 Last 5 Last 6 Last 7 Last 8	Displays the original jam history (the most recent 10 jams). Sample Display: CODE:007 SIZE:05h TOTAL:0000334 DATE: Mon Mar 15 11:44:50 2000 where: CODE is the SP7505*** number (see above. SIZE is the ASAP paper size code in hex. TOTAL is the total jam error count (SP7503)			
010 Size	Last 9 Code	Size	Code	Size	Code
A4 (S)	05	A3 (L)	84	DLT (L)	A0
A5 (S)	06	A4 (L)	85	LG (L)	A4
B5 (S)	OE	A5 (L)	86	LT (L)	A6
LT (S)	26	B4 (L)	8D	HLT (L)	AC
HLT (S)	2C	B5 (L)	8E	Others	FF

	ROM No./Firmware Version
7801	This SP codes display the firmware versions of all ROMs in the system, including the mainframe, the ARDF, and peripheral devices.

7803*	PM Counter Display		
7803	Displays the PM counter since the last PM.		
001	Paper	[0 to 999999 / 0 / 1 page]	
001	Displays the paper counter (pages)		
002	Page: PCD	[0 to 999999 / 0 / 1 page]	
	Displays the PCD (Drum and Development unit) counter (pages)		

Page: Transfer	[0 to 999999 / 0 / 1 page]	
Displays the transfer unit counter (pages).		
Page: Fuser	[0 to 999999 / 0 / 1 page]	
Displays the fusing unit counter (page	es).	
Rotation: PCD	[0 to 999999999 / 0 / 1 mm]	
Displays the PCD rotation counter (di	stance).	
Rotation: Transfer	[0 to 999999999 / 0 / 1 mm]	
Displays the transfer unit rotation counter (distance).		
Rotation: Fuser	[0 to 999999999 / 0 / 1 mm]	
Displays the fuser unit rotation counter (distance).		
Rotation(%): PCD	[0 to 255 / 0 / 1 %]	
Displays the PCD (%) rotation counter (Distance/PM).		
Rotation(%):Transfer	[0 to 255 / 0 / 1 %]	
Displays the transfer unit (%) rotation counter (distance/PM).		
Rotation(%):Fuser	[0 to 255 / 0 / 1 %]	
Displays the fuser unit (%) rotation counter (distance/PM).		
Rotation(%):Web	[0 to 255 / 0 / 1 %]	
Displays the web unit (%) rotation counter (distance/PM).		
	Displays the transfer unit counter (page Page: Fuser Displays the fusing unit counter (page Rotation: PCD Displays the PCD rotation counter (di Rotation: Transfer Displays the transfer unit rotation counter (action: Fuser Displays the fuser unit rotation counter (action: Fuser) Displays the fuser unit rotation counter (action) Rotation(%): PCD Displays the PCD (%) rotation counter (action) Rotation(%): Transfer Displays the transfer unit (%) rotation (action) Rotation(%): Fuser Displays the fuser unit (%) rotation counter (%): Web	

	PM Counter Reset
7804	Resets the PM counter. Touch [Execute] two times > "Completed" > [Exit]
001	Рарег
001	Resets the PM counter of the paper.
000	PCD
002	Resets the PM counter of the PCD (Drum and Development unit except developer).

003	Transfer
003	Resets the PM counter of the transfer unit.
004	Fuser
004	Resets the PM counter of the fuser unit.
005	Web
005	Reset the PM counter of the web unit.
004	All Clear
006	Resets all PM counter

	SC/Jam Counter Reset	
7807	Resets the SC and jam counters. To reset, press Execute on the touch panel.	
	This SP does not reset the jam history counters: SP7507, SP7508.	

	Self-Diagnose Result Display
7832	Execute to open the "Self-Diagnostics Result Display" to view details about errors. Use the keys in the display on the touch-panel to scroll through all the information. If no errors have occurred, you will see the "No Error" message on the screen.

7024	Total Memory Size
7630	Displays the memory capacity of the controller system.

	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 (Dust Check) is switched on.	
001	Dust Detection Counter	[0 to 65535 / 0 / 1 /step]
002	Dust Detection Clear Counter	[0 to 65535 / 0 / 1 /step]

7853	Replacement Counter
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001	PCD	[0 to 255 / 0 / 1]
001	Displays the replacement counter of the PCD (Drum and Development unit).	
002	Transfer	[0 to 255 / 0 / 1]
002	Displays the replacement counter of the transfer unit.	
003	Fuser	[0 to 255 / 0 / 1]
003	Displays the replacement counter of the fusing unit.	
004	Web	[0 to 255 / 0 / 1]
004	Displays the replacement counter of the cleaning web.	

7906	Prev Counter	
001	Page: PCD	[0 to 999999 / 0 / 1 page]
001	Displays the counter (pages) of the p	revious PCD
002	Page: Transfer	[0 to 999999 / 0 / 1 page]
002	Displays the previous counter (pages) of the previous transfer unit.
003	Page: Fuser	[0 to 999999 / 0 / 1 page]
003	Displays the previous counter (pages) of the previous fusing unit.	
004	Rotation: PCD	[0 to 999999999 / 0 / 1 mm]
004	Displays the previous counter (rotations) of the previous PCD	
005	Rotation: Transfer	[0 to 999999999 / 0 / 1 mm]
003	Displays the previous counter (rotations) of the previous transfer unit.	
004	Rotation: Fuser	[0 to 999999999 / 0 / 1 mm]
006	Displays the previous counter (rotations/PM %) of the previous fusing unit.	
0.5-	Rotation(%):PCD	[0 to 255 / 0 / 1 mm]
007	Displays the previous counter (rotations/PM %) of the previous PCD	
008	Rotation(%):Transfer	[0 to 255 / 0 / 1 mm]
008	Displays the previous counter (rotations/PM %) of the previous transfer unit.	

	009	Rotation(%):Fuser	[0 to 255 / 0 / 1 mm]
		Displays the previous counter (rotations/PM %) of the previous fusing unit.	
	010	Rotation(%):Web	[0 to 255 / 0 / 1 %]
		Displays the previous counter (rotations/PM %) of the previous cleaning web.	

7950	Replacement Date	
001	PCD	
001	Displays the replacement date of the PCD.	
000	Transfer	
002	Displays the replacement date of the transfer unit.	
003	Fuser	
	Displays the replacement date of the fusing unit.	
004	Web	
	Displays the replacement date of the web unit.	

7951	Remaining Counter	
001	PCD(Page)	[0 to 255 / 255 / 1 days]
001	Displays the remaining counter (pages) of the PCD.	
002	Transfer(Page)	[0 to 255 / 255 / 1 days]
002	Displays the remaining counter (pages) of the transfer unit.	
003	Fuser(Page)	[0 to 255 / 255 / 1 days]
003	Displays the remaining counter (pages) of the fusing unit.	
005	PCD(Rotation)	[0 to 255 / 255 / 1 days]
005	Displays the remaining counter (rotations) of the PCD.	
006	Transfer(Rotation)	[0 to 255 / 255 / 1 days]
	Displays the remaining counter (rotations) of the transfer unit.	

007	Fuser(Rotation)	[0 to 255 / 255 / 1 days]
	Displays the remaining counter (rotations) of the fusing unit.	
000	PCD (%)	[0 to 255 / 100 / 1 %]
009	Displays the remaining counter (%) of the PCD.	
0.1.0	Transfer (%)	[0 to 255 / 100 / 1 %]
010	Displays the remaining counter (%) of the transfer unit.	
011	Fuser (%)	[0 to 255 / 100 / 1 %]
	Displays the remaining counter (%) of the fusing unit.	
013	Web (%)	[0 to 255 / 100 / 1 %]
	Displays the remaining counter (%) of the cleaning web.	

7952	PM Yield Setting	
7932	Sets the each yield of the following.	
0.01	PCD(Page)	[0 to 99999999 / 160000 / 1 sheet]
001	Sets the PM yield of the PCD (Pages).	
002	Transfer(Page)	[0 to 9999999 / 160000 / 1 sheet]
002	Sets the PM yield of the transfer unit (Pages).	
003	Fuser(Page)	[0 to 9999999 / 160000 / 1 sheet]
003	Sets the PM yield of the fusing unit (Pages).	
005	PCD(Rotation)	C2b: [0 to 999999999 / 71990000 / 1 mm] C2c: [0 to 999999999 / 75500000 / 1 mm]
	Sets the PM yield of the PCD (Rotations).	
006	Transfer(Rotation)	C2b: [0 to 999999999 / 62770000 / 1 mm] C2c: [0 to 999999999 / 65420000 / 1 mm]
	Sets the PM yield of the transfer unit (Rotations).	

007	Fuser(Rotation)	C2b: [0 to 999999999 / 54880000 / 1 mm] C2b: [0 to 999999999 / 55800000 / 1 mm]
	Sets the PM yield of the fusing unit (Re	otations).
009	Web (%)	[0 to 255 / 92 / 1 %]
009	Sets the PM yield (%) of the web unit.	
001	Day Threshold: PCD	[1 to 30 / 15 / 1 days]
021	Adjusts the threshold day for the near end for the PCD.	
022	Day Threshold: Transfer Unit	[1 to 30 / 15 / 1 days]
022	Adjusts the threshold day for the near end for the transfer unit.	
023	Day Threshold: Fusing Unit	[1 to 30 / 15 / 1 days]
	Adjusts the threshold day for the near end for the fusing unit.	

7953	Operation Env Log	
001	T<10	[0 to 99999999 / 0 / 1 mm]
001	Displays the PCU rotation distance in	the environment: T<10°C
002	10<=T<=17	[0 to 99999999 / 0 / 1 mm]
002	Displays the PCU rotation distance in	the environment: 10°C<=T<=17°C
003	17 <t<23< td=""><td>[0 to 99999999 / 0 / 1 mm]</td></t<23<>	[0 to 99999999 / 0 / 1 mm]
003	Displays the PCU rotation distance in the environment: 17<=T<=23	
004	23<=T<=27	[0 to 99999999 / 0 / 1 mm]
004	Displays the PCU rotation distance of the environment: 23<=T<=27	
005	27<=T<=32	[0 to 99999999 / 0 / 1 mm]
003	Displays the PCU rotation distance of the environment: 27<=T<=32	
006	32 <t< td=""><td>[0 to 99999999 / 0 / 1 mm]</td></t<>	[0 to 99999999 / 0 / 1 mm]
000	Displays the PCU rotation distance of the environment: 32 <t< td=""></t<>	

7054	Env Log Clear
7754	Resets the environment logs (SP7953).

5

Main SP Tables-8

SP8-xxx: Data Log 2

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 8codes that when used in combination with others, can provide useful information.

SP Numbers	What They Do
SP8211 to SP8216	The number of pages scanned to the document server.
SP8401 to SP8406	The number of pages printed from the document server.
SP8691 to SP8696	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 the job was not stored on the document server.
P:	Print application.	
S:	Scan application.	

L:	Local storage (document server)	Totals (jobs, pages, etc.) for the document server. The L: counters work differently case by case. Sometimes, they count jobs/pages stored on the document server; this can be in document server mode (from the document server window), or from another mode, such as from a printer driver or by pressing the Store File button in the Copy mode window. Sometimes, they include occasions when the user uses a file that is already on the document server. Each counter will be discussed case by case.
O:	Other applications (external network applications, for example)	Refers to network applications such as Web Image Monitor. Utilities developed with the SDK (Software Development Kit) will also be counted with this group in the future.

The Group 8 SP codes are limited to 17 characters, forced by the necessity of displaying them on the small LCDs of printers and faxes that also use these SPs. Read over the list of abbreviations below and refer to it again if you see the name of an SP that you do not understand.

Key for Abbreviations

Abbreviation	What It Means	
/	"By", e.g. "T:Jobs/Apl" = Total Jobs "by" Application	
>	More (2> "2 or more", 4> "4 or more"	
AddBook	Address Book	
Apl	Application	
B/W	Black & White	
Bk	Black	
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 count up. For jobs larger than 10 pages, this counter counts up by the number that is in excess of 10 (e.g., for an 11-page job, the counter counts up 11-10=1)	
IFax	Internet Fax	
ImgEdt	Image Edit performed on the original with the copier GUI, e.g. border removal, adding stamps, page numbers, etc.	
K	Black (YMCK)	
LS	Local Storage. Refers to the document server.	
LSize	Large (paper) Size	
Mag	Magnification	
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	

Abbreviation	What It Means	
Palm 2	Print Job Manager/Desk Top Editor: A pair of utilities that allows print jobs to be distributed evenly among the printers on the network, and allows files to moved around, combined, and converted to different formats.	
PC	Personal Computer	
PGS	Pages. A page is the total scanned surface of the original. Duplex pages count as two pages, and A3 simplex count as two pages if the A3/DLT counter SP is switched ON.	
PJob	Print Jobs	
Ppr	Paper	
PrtJam	Printer (plotter) Jam	
PrtPGS	Print Pages	
R	Red (Toner Remaining). Applies to the wide format model A2 only. This machine is under development and currently not available.	
Rez	Resolution	
SC	Service Code (Error SC code displayed)	
Scn	Scan	
Sim, Simplex	Simplex, printing on 1 side.	
S-to-Email	Scan-to-E-mail	
SMC	SMC report printed with SP5990. All of the Group 8counters 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	



• All of the Group 8 SPs are reset with SP5 801-1 Memory All Clear.

8001	T:Total Jobs	These SPs count the number of times each application is
8002	C:Total Jobs	used to do a job.
8003	F:Total Jobs	[0 to 9999999 / 0 / 1] Note: The L: counter is the total number of times the other
8004	P:Total Jobs	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.
8005	S:Total Jobs	
8006	L:Total Jobs	

- 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.

8011	T:Jobs/LS	
8012	C:Jobs/LS	These SPs count the number of jobs stored to the document server
8013	F:Jobs/LS	by each application, to reveal how local storage is being used for
8014	P:Jobs/LS	input. [0 to 9999999 / 0 / 1] The L: counter counts the number of jobs stored from within the document server mode screen at the operation panel.
8015	S:Jobs/LS	
8016	L:Jobs/LS	
8017	O:Jobs/LS	

- 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.

8021	T:Pjob/LS	
8022	C:Pjob/LS	
8023	F:Pjob/LS	These SPs reveal how files printed from the document server were stored on the document server originally.
8024	P:Pjob/LS	[0 to 9999999 / 0 / 1]
8025	S:Pjob/LS	The L: counter counts the number of jobs stored from within the document server mode screen at the operation panel.
8026	L:Pjob/LS	accomon con , con mode con con an mode con con paner.
8027	O:Pjob/LS	

 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.

8031	T:Pjob/DesApl	
8032	C:Pjob/DesApl	
8033	F:Pjob/DesApl	These SPs reveal what applications were used to output documents from the document server.
8034	P:Pjob/DesApl	[0 to 9999999 / 0 / 1]
8035	S:Pjob/DesApl	The L: counter counts the number of jobs printed from within the document server mode screen at the operation panel.
8036	L:Pjob/DesApl	accomon server mode serven armo operation panel.
8037	O:Pjob/DesApl	

- When documents already stored on the document server are printed, the count for the application that started the print job is incremented.
- When the print job is started from a network application (Desk Top Binder, Web Image Monitor, etc.) the L: counter increments.

8041	T:TX Jobs/LS	
8042	C:TX Jobs/LS	These SPs count the applications that stored files on the document server that were later accessed for transmission over
8043	F:TX Jobs/LS	the telephone line or over a network (attached to an e-mail, or
8044	P:TX Jobs/LS	as a fax image by I-Fax). [0 to 9999999 / 0 / 1] Note: Jobs merged for sending are counted separately. The L: counter counts the number of jobs scanned from within the document server mode screen at the operation panel.
8045	S:TX Jobs/LS	
8046	L:TX Jobs/LS	
8047	O:TX Jobs/LS	

- When a stored copy job is sent from the document server, the C: counter increments.
- When images stored on the document server by a network application or Palm2 are sent as an email, the O: counter increments.

8051	T:TX Jobs/DesApl	
8052	C:TX Jobs/DesApl	These SPs count the applications used to send files from
8053	F:TX Jobs/DesApl	the document server over the telephone line or over a network (attached to an e-mail, or as a fax image by I-
8054	P:TX Jobs/DesApl	Fax). Jobs merged for sending are counted separately. [0 to 9999999 / 0 / 1] The L: counter counts the number of jobs sent from within the document server mode screen at the operation panel.
8055	S:TX Jobs/DesApl	
8056	L:TX Jobs/DesApl	
8057	O:TX Jobs/DesApl	

• If the send is started from Desk Top Binder or Web Image Monitor, for example, then the O: counter increments.

	T:FIN Jobs	[0 to 9999999 / 0 / 1]	
8061	These SPs total the finishing methods. The finishing method is specified by the application.		
	C:FIN Jobs	[0 to 9999999 / 0 / 1]	
8062	These SPs total finishing methods for copy jobs only. The finishing method is specified by the application.		

	F:FIN Jobs		[0 to 9999999 / 0 / 1]
8063	These SPs total finishing methods for fax jobs only. The finishing method is by the application.		
	Note: Finishing feature	es for fax jobs	are not available at this time.
	P:FIN Jobs		[0 to 9999999 / 0 / 1]
8064	These SPs total finishin by the application.	g methods for	print jobs only. The finishing method is specified
	S:FIN Jobs		[0 to 9999999 / 0 / 1]
8065	by the application.		s scan jobs only. The finishing method is specified
	L:FIN Jobs	'	[0 to 9999999 / 0 / 1]
8066	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		[0 to 9999999 / 0 / 1]
8067	These SPs total finishing methods for jobs executed by an external application, over the network. The finishing method is specified by the application.		
806x 1	Sort	job is set for	obs started in Sort mode. When a stored copy Sort and then stored on the document server, the crements. (See SP8066 1)
806x 2	Stack	Number of j	obs started out of Sort mode.
806x 3	Staple Number of jobs s		obs started in Staple mode.
806x 4	Booklet Number of jobs started in Booklet mode. If the machine is staple mode, the Staple counter also increments.		
806x 5	Z-Fold		obs started In any mode other than the Booklet et for folding (Z-fold).
806x 6	Punch	Number of jobs started in Punch mode. When Punch is set for a print job, the P: counter increments. (See SP8064 6.)	
806x 7	Other	Reserved. N	lot used

806x 8	Inside-Fold	Number of jobs started In any mode other than the Booklet mode and set for folding (Inside-fold).
806x 9	Three-IN-Fold	Letter Fold-in Not Used
806x 10	Three-OUT-Fold	Letter Fold-out Not Used
806x 11	Four-Fold	Double Parallel Fold Not Used
806x 12	KANNON-Fold	Gate Fold Not Used
806x 13	Perfect-Bind	Perfect Binder Not Used
806x 14	Ring-Bind	Ring Binder Not Used

8071	T:Jobs/PGS [0 to 9999999 / 0 / 1]			
	These SPs count the number of jobs broken down by the number of pages in the job, regardless of which application was used.			
	C:Jobs/PGS	[0 to 9999999 / 0 / 1]		
8072	These SPs count and calculate the number of copy jobs by size based on the number of pages in the job.			
	F:Jobs/PGS	[0 to 9999999 / 0 / 1]		
8073	These SPs count and calculate the number of fax jobs by size based on the number of pages in the job.			
	P:Jobs/PGS	[0 to 9999999 / 0 / 1]		
8074	These SPs count and calculate the number of print jobs by size based on the number of pages in the job.			
	S:Jobs/PGS	[0 to 9999999 / 0 / 1]		
8075	These SPs count and calculate the number of scan jobs by size based on the number of pages in the job.			
8076	L:Jobs/PGS	[0 to 9999999 / 0 / 1]		
	These SPs count and calculate the number of jobs printed from within the document server mode window at the operation panel, by the number of pages in the job.			

	O:Jobs/PGS [0 to 9999999 / 0 / 1]		9999 / 0 / 1]		
8077	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.				
807x 1	1 Page	807x 8	21 to 50 Pages		
807x 2	2 Pages	807x 9	51 to 100 Pages		
807x 3	3 Pages	807x 10	101 to 300 Pages		
807x 4	4 Pages	807x 11	301 to 500 Pages		
807x 5	5 Pages	807x 12	501 to 700 Pages		
807x 6	6 to 10 Pages	807x 13	701 to 1000 Pages		
807x 7	11 to 20 Pages	807x 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.

	T:FAX TX	T:FAX TX Jobs [0 to 9999999 / 0 / 1]		
8111		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: Co	Note: Color fax sending is not available at this time.		
001	B/W	Black TX		

		F:FAX TX Jobs [0 to 9999999 / 0 / 1]			
8113		These SPs count the total number of jobs (color or black-and-white) sent by fax directly on a telephone line.			
		Note: Co	ote: Color fax sending is not available at this time.		
C	001	B/W	Black TX		

- 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 (812x) also increments.
- The fax job is counted when the job is scanned for sending, not when the job is sent.

		T:IFAX TX	Jobs	[0 to 9999999 / 0 / 1]	
8121		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: Co	Note: Color fax sending is not available at this time.		
	001	B/W	Black TX		
		F:IFAX TX Jobs		[0 to 9999999 / 0 / 1]	
These SPs count the number of jobs (color or black-and-white) sent (not document server), as fax images using I-Fax. Note: Color fax sending is not available at this time.			g I-Fax.		
	001	B/W	Black TX		

- 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		[0 to 9999999 / 0 / 1]
8131	These SPs count the total number of jobs scanned and attached to an e-mail, regardless of whether the document server was used or not.		
001	B/W Black TX		

00	2 Color	Color Color TX			
00	3 ACS	Color TX			
	S:S-to-En	S:S-to-Email Jobs			
These SPs count the number of jobs scanned and attached to an e-mail, wi storing the original on the document server.					
00	1 B/W	Black TX			
00	2 Color	Color TX			
00	3 ACS	CS Color TX			

- These counters count jobs, not pages.
- If the job is stored on the document server, after the job is stored it is determined to be color or black-and-white then counted.
- If the job is cancelled during scanning, or if the job is cancelled while the document is waiting to be sent, the job is not counted.
- If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
- If several jobs are combined for sending to the Scan Router, Scan-to-Email, or Scan-to-PC, or if one job is sent to more than one destination. each send is counted separately. For example, if the same document is sent by Scan-to-Email as well as Scan-to-PC, then it is counted twice (once for Scan-to-Email and once for Scan-to-PC).

8141		T:Deliv Jo	bs/Svr	[0 to 9999999 / 0 / 1]	
		These SPs	These SPs count the total number of jobs scanned and sent to a Scan Router server.		
	001	B/W Black Deliv			
	002	Color	Color Deliv		
	003	ACS	Color Deliv		
8145		S:Deliv Jobs/Svr			
8145		These SPs count the number of jobs scanned and sent to a Scan Router server.			
	001	B/W Black Deliv			
	002	Color	Color Deliv		
	003	ACS	Color Deliv		

- These counters count jobs, not pages.
- The jobs are counted even though the arrival and reception of the jobs at the Scan Router server cannot be confirmed.
- If even one color image is mixed with black-and-white images, then the job is counted as a "Color" job.
- If the job is cancelled during scanning, or if the job is cancelled while the document is waiting to be delivered, the job is not counted.
- If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
- Even if several files are combined for sending, the transmission counts as one job.

		T:Deliv Jo	obs/PC [0 to 9999999 / 0 / 1]		
These SPs count the total number of jobs scanned and sent to a foto-PC). Note: At the present time, 8151 and 8155 perform identical countries.					
	001	B/W	Black Deliv	·	
		,			
	002	Color	Color Deliv		
	003	ACS	Color Deliv		
8155		S:Deliv Jobs/PC			
8133		These SPs count the total number of jobs scanned and sent with Scan-to-PC.			
	001	B/W	Black Deliv		
	002	Color	Color Deliv		
	003	ACS	Color Deliv		

- 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.

8161	T:PCFAX TX Jobs	These SPs count the number of PC Fax transmission jobs.
8163		A job is counted from when it is registered for sending, not when it is sent.
	F:PCFAX TX Jobs	[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.

8171	T:Deliv Jobs/WSD		These SPs count the pages scanned by WSD.
8175	S:Deliv Jobs	s/WSD	[0 to 9999999 / 0 / 1]
001	B/W	Black Deliv	
002	Color	Color Deliv	
003	ACS	Color Deliv	

8181	T:Scan to Media Jobs		These SPs count the pages scanned to media by the
8185	S:Scan to M	1edia Jobs	scanner application. [0 to 9999999 / 0 / 1]
001	B/W	Black Deliv	
002	Color	Color Deliv	
003	ACS	Color Deliv	

8191	T:Total Scan PGS		
8192	C:Total Scan PGS	These SPs count the pages scanned by each application	
8193	F:Total Scan PGS	that uses the scanner to scan images.	
8195	S:Total Scan PGS	[0 to 9999999 / 0 / 1]	
8196	L:Total Scan PGS		

- SP 8191 to 8196 count the number of scanned sides of pages, not the number of physical pages.
- These counters do not count reading user stamp data, or reading color charts to adjust color.
- Previews done with a scanner driver are not counted.

- A count is done only after all images of a job have been scanned.
- Scans made in SP mode are not counted.

Examples

- If 3 B5 pages and 1 A3 page are scanned with the scanner application but not stored, the S: count is 4.
- If both sides of 3 A4 sheets are copied and stored to the document server using the Store File button in the Copy mode window, the C: count is 6 and the L: count is 6.
- If both sides of 3 A4 sheets are copied but not stored, the C: count is 6.
- If you enter document server mode then scan 6 pages, the L: count is 6.

8201	T:LSize Scan PGS [0 to 9999999 / 0 / 1]	
8203	F Lsize Scan PGS [0 to 9999999 / 0 / 1]	
	S:LSize Scan PGS	[0 to 9999999 / 0 / 1]
These SP codes count the total number of large pages input with the sca jobs only. Large size paper (A3/DLT) scanned for fax transmission are r Note: These counters are displayed in the SMC Report, and in the User		r (A3/DLT) scanned for fax transmission are not counted.

8211	T:Scan PGS/LS	These SPs count the number of pages scanned into the document server. [0 to 9999999 / 0 / 1]	
8212	C:Scan PGS/LS		
8213	F:Scan PGS/LS	The L: counter counts the number of pages stored from	
8215	S:Scan PGS/LS	within the document server mode screen at the operation panel, and with the Store File button from within the Copy	
8216	L:Scan PGS/LS	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		[0 to 9999999 / 0 / 1]	
8221	These SPs count the number of pages fed through the ADF for front and back side scanning.			
001	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.)		
002	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		[0 to 9999999 / 0 / 1]	
8231	These SPs count the number of pages scanned by each ADF mode to determine the work load on the ADF.			
001	Large Volume	Selectable. Large copy jobs that cannot be loaded in the ADF at one time.		
002	SADF	Selectable. Feeding pages one by one through the ADF.		
003	Mixed Size	Selectable. Select "Mixed Sizes" on the operation panel.		
004	Custom Size	Selectable. Originals of non-standard size.		
005	Platen	Book mode. Raising the ADF and placing the original directly on the platen.		
006	Mixed 1 side/2 side	Selectable. Select "Simplex/Duplex" on the operation panel.		

- 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		[0 to	9999999 / 0	/ 1]		
8241		These SPs count the total number of scanned pages by original type for all jobs, regardless of which application was used.					
	C:Scan PGS/Org	n PGS/Org [0 to 9999999 / 0 / 1]					
8242	These SPs count th	ne num	ber of	pages scannec	by original ty	pe for Copy jo	bs.
	F:Scan PGS/Org		[0 to	9999999 / 0	/ 1]		
8243	These SPs count th	ne num	ber of	pages scannec	by original ty	pe for Fax job	S.
0045	S:Scan PGS/Org	I	[0 to	9999999 / 0	/ 1]		
8245	These SPs count th	ne num	ber of	pages scannec	by original ty	pe for Scan jo	bs.
	L:Scan PGS/Org	L:Scan PGS/Org [0 to		[0 to 9999999 / 0 / 1]			
8246	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						
		82	41	8242	8243	8245	8246
824x 1: Text		Υe	es	Yes	Yes	Yes	Yes
824x 2: Text/Photo		Υe	es	Yes	Yes	Yes	Yes
824x 3: Photo		Υe	es	Yes	Yes	Yes	Yes
824x 4: GenCopy, Pale		Yes		Yes	No	Yes	Yes
824x 5: Map 824x 6: Normal/Detail		Yes Yes		Yes	No	No	Yes
				No	Yes	No	No
824x 7: Fine/Super Fine		Υe	es	No	Yes	No	No
824x 8: Binary		Υe	es	No	No	Yes	No

824x 9: Grayscale	Yes	No	No	Yes	No
824x 10: Color	Yes	No	No	Yes	No
824x 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.

8251	T:Scan PGS/ImgEdt	These SPs show how many times Image Edit features have
8252	C:Scan PGS/ImgEdt	been selected at the operation panel for each application. Some examples of these editing features are:
8255	S:Scan PGS/ImgEdt	Erase> Border
8256	L:Scan PGS/ImgEdt	Erase> Center
	O:Scan PGS/ImgEdt	Image Repeat
		Centering
		Positive/Negative
8257		[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.

8281	T:Scan PGS/TWAIN	These SPs count the number of pages scanned using a
		TWAIN driver. These counters reveal how the TWAIN driver is used for delivery functions.
8285	S:Scan PGS/TWAIN	[0 to 9999999 / 0 / 1] Note: At the present time, these counters perform identical counts.

8291	T:Scan PGS/Stamp	These SPs count the number of pages stamped with the	
8293	F:Scan PGS/Stamp	stamp in the ADF unit. [0 to 9999999 / 0 / 1]	
8295	S:Scan PGS/Stamp	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	

	T:Scan PGS/Size	[0 to 9999999 / 0 / 1]	
8301	These SPs count by size the total number of pages scanned by all applications. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-441].		
	C:Scan PGS/Size	[0 to 9999999 / 0 / 1]	
8302	These SPs count by size the total number of pages scanned by the Copy application. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-442].		
	F:Scan PGS/Size	[0 to 9999999 / 0 / 1]	
8303	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	[0 to 9999999 / 0 / 1]	
8305	,	e total number of pages scanned by the Scan application. e original page size (scanning) and output page size [SP	
	L:Scan PGS/Size	[0 to 9999999 / 0 / 1]	
8306	These SPs count by size the total number of pages scanned and stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen. Use these totals to compare original page size (scanning) and output page size [SP 8-446].		

830x 1	A3
830x 2	A4
830x 3	A5
830x 4	B4
830x 5	B5
830x 6	DLT
830x 7	LG
830x 8	LT
830x 9	HLT
830x 10	Full Bleed
830x 254	Other (Standard)
830x 255	Other (Custom)

	T:Scan PGS/Rez	[0 to 9999999 / 0 / 1]	
8311	These SPs count by resolution setting the total number of pages scanned by applications that can specify resolution settings.		
	S:Scan PGS/Rez	[0 to 9999999 / 0 / 1]	
8315	These SPs count by resolution setting the total number of pages scanned by applications that can specify resolution settings. Note: At the present time, 8311 and 8315 perform identical counts.		
831x 1	1200dpi to		
831x 2	600dpito 1 199dpi		
831x3	400dpito599dpi		
831x 4	200dpito399dpi		
831x 5	to 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.

8381	T:Total PrtPGS	
8382	C:Total PrtPGS	These SPs count the number of pages printed by the customer. The counter for the application used for storing
8383	F:Total PrtPGS	the pages increments.
8384	P:Total PrtPGS	[0 to 9999999 / 0 / 1] The L: counter counts the number of pages stored from
8385	S:Total PrtPGS	within the document server mode screen at the operation
8386	L:Total PrtPGS	panel. Pages stored with the Store File button from within the Copy mode screen go to the C: counter.
8387	O:Total PrtPGS	

- 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	[0 to 9999999 / 0 / 1]
8391	These SPs count pages printed on paper sizes A3/DLT and larger.	
	Note: In addition to being displayed in the User Tools d	splayed in the SMC Report, these counters are also isplay on the copy machine.

8401	T:PrtPGS/LS	
8402	C:PrtPGS/LS	These SPs count the number of pages printed from the
8403	F:PrtPGS/LS	document server. The counter for the application used to print the pages is incremented.
8404	P:PrtPGS/LS	The L: counter counts the number of jobs stored from within the document server mode screen at the operation panel.
8405	S:PrtPGS/LS	[0 to 9999999 / 0 / 1]
8406	L:PrtPGS/LS	

- 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.

8411	Prints/Duplex	This SP counts the amount of paper (front/back counted as 1 page) used for duplex printing. Last pages printed only on one side are not counted. [0 to 9999999 / 0 / 1]
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8421	T:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]	
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing. This is the total for all applications.		
	C:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]	
8422	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the copier application.		
	F:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]	
8423	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the fax application.		
	P:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]	
8424	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the printer application.		
8425	S:PrtPGS/Dup Comb [0 to 9999999 / 0 / 1]		
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the scanner application.		

	L:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]	
8426	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	[0 to 9999999 / 0 / 1]	
8427	These SPs count by binding o	and combine, and n-Up settings the number of pages ner applications	
842x 1	Simplex> Duplex		
842x 2	Duplex> Duplex		
842x 3	Book> Duplex		
842x 4	Simplex Combine		
842x 5	Duplex Combine		
842x 6	2in1	2 pages on 1 side (2-Up)	
842x 7	4in1	4 pages on 1 side (4-Up)	
842x 8	óin1	6 pages on 1 side (6-Up)	
842x 9	8in1	8pages on 1 side (8-Up)	
842x 10	9in1	9 pages on 1 side (9-Up)	
842x 11	16in1	16 pages on 1 side (16-Up)	
842x 12	Booklet		
842x 13	Magazine		
842x 14	2in1 + Booklet		
842x 15	4in1 + Booklet		
842x 16	6in1 + Booklet		
842x 17	8in1 + Booklet		
842x 18	9in1 + Booklet		
842x 19	2in1 + Magazine		
842x 20	4in1 + Magazine		

842x 21	6in1 + Magazine	
842x 22	8in1 + Magazine	
842x 23	9in1 + Magazine	
842x 24	16in1 + Magazine	

- These counts (SP8421 to SP8427) are especially useful for customers who need to improve their compliance with ISO standards for the reduction of paper consumption.
- Pages that are only partially printed with the n-Up functions are counted as 1 page.
- Here is a summary of how the counters work for Booklet and Magazine modes:

Booklet		Magazine	
Original Pages	Count	Original Pages	Count
1	1	1	1
2	2	2	2
3	2	3	2
4	2	4	2
5	3	5	4
6	4	6	4
7	4	7	4
8	4	8	4

	T:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
8431	These SPs count the total number of pages output with the three features below, regardless of which application was used.		
	C:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
8432	These SPs count the total number of pages output with the three features below with the copy application.		
	P:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
8434	These SPs count the total number of pages output with the three features below with the print application.		

	L:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
8436	These SPs count the total number of pages output from within the document server mode window at the operation panel with the three features below.		
	O:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
8437	These SPs count the total number of pages output with the three features belo Other applications.		
843x 1	Cover/Slip Sheet	/Slip Sheet Total number of covers or slip sheets inserted. The count for a cover printed on both sides counts 2.	
843x 2	Series/Book	The number of pages printed in series (one side) or printed as a book with booklet right/left pagination.	
843x 3	User Stamp	The number of pages printed where stamps were applied, including page numbering and date stamping.	

0.4.4.1	T:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8441	These SPs count by print paper size the number of pages printed by all applications.		
	C:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8442	These SPs count by print paper size the number of pages printed by the copy application.		
	F:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8443	These SPs count by print paper size the number of pages printed by the fax application.		
	P:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8444	These SPs count by print paper size the number of pages printed by the printer application.		
	S:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8445	These SPs count by print paper size the number of pages printed by the scanner application.		
8446	L:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
	These SPs count by print paper size the number of pages printed from within the document server mode window at the operation panel.		

0.4.47	O:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]
8447	These SPs count by print paper size the number of pages printed by Other app	
844x 1	A3	
844x 2	A4	
844x 3	A5	
844x 4	B4	
844x 5	B5	
844x 6	DLT	
844x 7	LG	
844x 8	LT	
844x 9	HLT	
844x 10	Full Bleed	
844x 254	Other (Standard)	
844x 255	Other (Custom)	

• These counters do not distinguish between LEF and SEF.

0.451	PrtPGS/Ppr Tray		[0 to 9999999 / 0 / 1]
8451	These SPs count the	These SPs count the number of sheets fed from each paper feed station.	
001	Bypass Tray	Bypass Tray	
002	Tray 1	Copier	
003	Tray 2	Tray 2 Copier	
004	Tray 3	ray 3 Paper Tray Unit (Option)	
005	Tray 4	Paper Tray Unit (Option)	
006	Tray 5	LCT (Option)	
007	Tray 6	Currently not used.	
008	Tray 7	Currently not used.	

009	Tray 8	Currently not used.
010	Tray 9	Currently not used.
011	Tray 10	Currently not used.
012	Tray 11	Currently not used.
013	Tray 12	Currently not used.
014	Tray 13	Currently not used.
015	Tray 14	Currently not used.
016	Tray 15	Currently not used.

	T:PrtPGS/Ppr Type	[0 to 9999999 / 0 / 1]		
	These SPs count by paper type the number pages printed by all applications.			
8461	These counters are not the same as the PM counter. The PM counter is based on feed timing to accurately measure the service life of the feed rollers. However, these counts are based on output timing.			
	Blank sheets (covers, chapter covers, slip	sheets) are also counted.		
	During duplex printing, pages printed on both sides count as 1, and a page printed on one side counts as 1.			
8462	C:PrtPGS/Ppr Type	[0 to 9999999 / 0 / 1]		
6402	These SPs count by paper type the number pages printed by the copy application.			
8463	F:PrtPGS/Ppr Type	[0 to 9999999 / 0 / 1]		
6403	These SPs count by paper type the number pages printed by the fax application.			
8464	P:PrtPGS/Ppr Type	[0 to 9999999 / 0 / 1]		
0404	These SPs count by paper type the number pages printed by the printer application.			
	L:PrtPGS/Ppr Type	[0 to 9999999 / 0 / 1]		
8466	These SPs count by paper type the number pages printed from within the document server mode window at the operation panel.			
846x 1	Normal			
846x 2	Recycled			

846x 3	Special
846x 4	Thick
846x 5	Normal (Back)
846x 6	Thick (Back)
846x 7	OHP
846x 8	Other

8471	PrtPGS/Mag	[0 to 9999999 / 0 / 1]	
0471	These SPs count by magnification rate the number of pages printed.		
001	to 49%		
002	50% to 99%		
003	100%		
004	101% to 200%		
005	201% to		

- 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%.

8481	T:PrtPGS/TonSave
8484	P:PrtPGS/TonSave

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]

	I		
8511	T:PrtPGS/Emul	[0 to 9999999 / 0 / 1]	
0311	These SPs count by printer emulation mode the total number of pages printed.		
8514	P:PrtPGS/Emul		[0 to 9999999 / 0 / 1]
0314	These SPs coun	t by printer emulation mode the total number of pages printed.	
001	RPCS		
002	RPDL		
003	PS3		
004	R98		
005	R16		
006	GL/GL2		
007	R55		
008	RTIFF		
009	PDF		
010	PCL5e/5c		
011	PCL XL		
012	IPDL-C		
013	BM-Links	Japan Only	
014	Other		
015	IPDS		

- SP8511 and SP8514 return the same results as they are both limited to the Print application.
- Print jobs output to the document server are not counted.

	T:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
8521	These SPs count by finishing mode the total number of pages printed by all applications.			
	C:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
8522	These SPs count by finishing mode the total application.	I number of pages printed by the Copy		
	F:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
8523	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	[0 to 9999999 / 0 / 1]		
8524	These SPs count by finishing mode the total number of pages printed by the Print application.			
	S:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
8525	These SPs count by finishing mode the total number of pages printed by the Scanner application.			
	L:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
These SPs count by finishing mode the total number of pages printed from document server mode window at the operation panel.				
852x 1	Sort			
852x 2	Stack			
852x 3	Staple			
852x 4	Booklet			
852x 5	Z-Fold			
852x 6	Punch			
852x 7	Other			
852x 8	Inside-Fold			

852x 9	Three-IN-Fold
852x 10	Three-OUT-Fold
852x 11	Four-Fold
852x 12	KANNON-Fold
852x 13	Perfect-Bind
852x 14	Ring-Bind



- If stapling is selected for finishing and the stack is too large for stapling, the unstapled pages are still counted.
- The counts for staple finishing are based on output to the staple tray, so jam recoveries are counted.

8531	Staples	This SP counts the amount of staples used by the machine.
		[0 to 9999999 / 0 / 1]

8551	T:PrtBooks/FIN	
8552	C:PrtBooks/FIN	
8554	P:PrtBooks/FIN	
8556	L:PrtBooks/FIN	
001	Perfect-Bind	Not Used
002	Ring-Bind	Not Used

8561	T:A Sheet Of Paper	[0 to 9999999 / 0 / 1]
8562	C:A Sheet Of Paper	[0 to 9999999 / 0 / 1]
8563	F:A Sheet Of Paper	[0 to 9999999 / 0 / 1]
8564	P:A Sheet Of Paper	[0 to 9999999 / 0 / 1]
8566	L:A Sheet Of Paper	[0 to 9999999 / 0 / 1]

8567	O:A Sheet Of Paper		[0 to 9999999 / 0 / 1]
6307	These SPs count the totals number of duplex pages printed.		
001	Total: Over A3/DLT		
002	Total: Under A3/DLT		
003	Duplex: Over A3/DLT		
004	Duplex: Under A3/DLT		

	T: Counter	[0 to 9999999 / 0 / 1]		
8581	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.			
	Note: This SP is expanded for color MFP and color LP machines. For this machine, the count is done for black only.			

	O: Counter		[0 to 9999999 / 0 / 1]
These SPs count the totals for A3/DLT paper use, number of duplex pages pand the number of staples used. These totals are for Other (O:) applications			
001	A3/DLT		
002	Duplex		

8601		T:Coverage Counter			
		These SPs count the total coverage for each color and printout pages.		color and printout pages.	
	001	B/W [0 to 21474836		647 / 0 / 1]	
	011	B/W Printing Pages [0 to 9999999 /		(0/1]	
8602		C:Coverage Counter		[0 to 2147483647 / 0 / 1]	
		These SPs count the total coverage for B/W		<i>I</i> .	
8603		F:Coverage Counter [0 to 2147483647 / 0 / 1]		[0 to 2147483647 / 0 / 1]	
		These SPs count the total coverage for B/W.			

8604	P:Coverage Counter	[0 to 2147483647 / 0 / 1]
	These SPs count the total coverage for B/W.	
8606	L:Coverage Counter	[0 to 2147483647 / 0 / 1]
	These SPs count the total coverage for B/W.	

0417	SDK Apli Counter		[0 to 9999999 / 0 / 1]
These SPs count the total printout pages for each S		each SDK applicaion.	
001	SDK-1		
002	SDK-2		
003	SDK-3		
004	SDK-4		
005	SDK-5		
006	SDK-6		

		T:FAX TX PGS		[0 to 9999999 / 0 / 1]
8631		These SPs count by color mode the number of pages sent by fax to a telephone number.		
	001	B/W Black TX		
		F:FAX TX PGS [0 to 999999 / 0 / 1]		[0 to 999999 / 0 / 1]
8633		These SPs count by color mode the number of pages sent by fax to a telephone number.		
	001	B/W Black TX		

- 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:FAX TX PGS		[0 to 9999999 / 0 / 1]
8641		These SPs count by color mode the number of pages sent by fax to as fax images using I-Fax.		
	001	B/W	Black TX	
		F:FAX TX PGS [0 o 9999999 / 0 / 1]		[0 0 9999999 / 0 / 1]
8643		These SPs count by color mode the number of pages sent by Fax as fax images using I-Fax.		
	001	B/W	Black TX	

- 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	[0 to 9999999 / 0 / 1]	
8651		These SPs count by color mode the total number of pages attached to an e-mail for both the Scan and document server applications.		
	001	B/W		
	002	Color		
		S:S-to-Email PGS	[0 to 9999999 / 0 / 1]	
8655		These SPs count by color mode the total number of pages attached to an e-mail fo the Scan application only.		
	001	B/W		
	002	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).

8661		T:Deliv PGS/Svr [0 to 9999999 / 0 / 1]		
		These SPs count by color mode the total number of pages sent to a Scan Router server by both Scan and LS applications.		
	001	B/W		
	002	Color		
		S:Deliv PGS/Svr	[0 to 9999999 / 0 / 1]	
8665	These SPs count by color mode the total number of pages sent to a Scan server by the Scan application.		al number of pages sent to a Scan Router	
	001	B/W		
	002	Color		



- 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 [0 to 9999999 / 0 / 1]	
These SPs count by color mode the total number of pages sent to a (Scan-to-PC) with the Scan and LS applications.		
001	B/W	

00	02	Color		
	S: Deliv PGS/PC [0 to 9999999 / 0 / 1]		[0 to 9999999 / 0 / 1]	
8675		These SPs count by color mode the total number of pages sent with Scan-to-PC with the Scan application.		
00	01	B/W		
00	02	Color		

8681	T:PCFAX TXPGS	These SPs count the number of pages sent by PC Fax.	
8683	F:PCFAX TXPGS	These SPs are provided for the Fax application only, so the counts for SP8681 and SP8683 are the same. [0 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.)

8691	T:TX PGS/LS	These SPs count the number of pages sent from the document
8692	C:TX PGS/LS	server. The counter for the application that was used to store the pages is incremented.
8693	F:TX PGS/LS	[0 to 9999999 / 0 / 1]
8694	P:TX PGS/LS	The L: counter counts the number of pages stored from within the document server mode screen at the operation panel. Pages stored with the Store File button from within the Copy
8695	S:TX PGS/LS	
8696	L:TX PGS/LS	mode screen go to the C: 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		[0 to 9999999 / 0 / 1]
8701	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 ISDN (G3, G4) is 12.		
001	PSTN-1		
002	PSTN-2		
003	PSTN-3		
004	ISDN (G3,G4)		
005	Network		

	T:Scan PGS/Comp		[0 to 9999999 / 0 / 1]
8711	These SPs count the number of compressed pages scanned into the document server, counted by the formats listed below.		
001	JPEG/JPEG2000		
002	TIFF (Multi/Single)		
003	PDF		
004	Other		
005	PDF/Comp		
006	PDF/A		

	S:Scan PGS/Comp		[0 to 9999999 / 0 / 1]
8715	These SPs count the number of compressed pages scanned by the scan application, counted by the formats listed below.		
001	JPEG/JPEG2000		
002	TIFF (Multi/Single)		
003	PDF		
004	004 Other		
005	5 PDF/Comp		

006	PDF/A		
8721	T:Deliv PGS/WSD		[0 to 9999999 / 0 / 1]
	S:Deliv PGS/WSD		[0 to 9999999 / 0 / 1]

8721	T:Deliv PGS/WSD	[0 to 9999999 / 0 / 1]
8725	S:Deliv PGS/WSD	[0 to 9999999 / 0 / 1]
6723	These SPs count the number of pa	ges scanned by each scanner mode.
001	B/W	
002	Color	

8731	T:Scan PGS/Media		[0 to 9999999 / 0 / 1]
	S:Scan PGS/Media		[0 to 9999999 / 0 / 1]
8735	These SPs count the number of pages scanned and saved in a meia by each scanned mode.		d and saved in a meia by each scanner
001	B/W		
002	Color		

RX PGS/Port [0to9999999/ 0 / 1] These SPs count the number of pages received by the physical port used them.			[0to9999999/ 0 / 1]
		red by the physical port used to receive	
001	PSTN-1		
002	PSTN-2		
003	PSTN-3		
004	04 ISDN (G3,G4)		
005	005 Network		

		Dev Counter	[0to9999999/ 0 /1]
These SPs count the frequency of use (number of rotations of to for black and other color toners. Note: For machines that do not support color, the Black toner Total count.		mber of rotations of the development rollers)	
		color, the Black toner count is the same as the	

	Toner_Botol_Info.
8781	This SP displays the number of toner bottles used. The count is done based on the equivalent of 1,000 pages per bottle.

8791 LS Memory Remain	This SP displays the percent of space available on the document server for storing documents. [0 to 100 / 0 / 1]
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	Toner Remain	[0 to 100 / 0 / 1]		
	This SP displays the percent of toner rem to check the toner supply at any time.	This SP displays the percent of toner remaining for each color. This SP allows the user to check the toner supply at any time.		
8801	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).			
	This SP is expanded for color MFP and color LP machines. For this machine, the count is done for black only.			

8811	Eco Counter		
001	Eco Total	[0 to 9999999 / 0 / 1]	
001	Displays the number of p	ages reduced by ι	using the duplex and the combine function.
004	Duplex	[0 to 9999999 /	/0/1]
004	Displays the number of p	ages reduced by ι	using the duplex function.
005	Combine	[0 to 9999999 / 0 / 1]	
005	Displays the number of pages reduced by using the combine function.		
008	Duplex(%)	[0 to 100 / 0 / 1]	
008	Displays the utilization ratio of the duplex function.		
009	Combine(%)	[0 to 100 / 0 / 1]	
009	Displays the utilization ra	tio of the duplex fu	unction.
010	Paper Cut(%)	[0 to 100 / 0 / 1]	
010	Displays the paper reduction ratio.		

0051	Cvr Cnt:0-10%	[0 to 9999999 / 0 / 1]
These SPs count the percentage of dot coverage for black oth		rage for black other color toners.
011	011 0 to 2%: BK	
021	021 3 to 4%: BK	
031	5 to 7%: BK	
041	041 8 to 10%: BK	

	8861	Cvr C	Cnt: 11-20%	[0 to 9999999 / 0 / 1]
1		These	se SPs count the percentage of dot coverage for black other color toners.	
	001	ВК	BK Black toner	

8871		Cvr Cnt:21-30%		[0 to 9999999 / 0 / 1]
8871		These	These SPs count the percentage of dot coverage for black other color toners.	
001		BK	Black toner	

8881	0001	Cvr Cnt:31%-		[0 to 9999999 / 0 / 1]
	0001	These	hese SPs count the percentage of dot coverage for black other color toners.	
001 BK Black toner				

	8891	Page,	Page/Toner Bottle [0 to 9999999 / 0 / 1]	
0091	0071	These	These SPs display the amount of the remaining current toner.	
	001	ВК	Black toner	

	8901	Page,	Page/Toner_Prev1 [0 to 9999999 / 0 / 1]	
8901	6901	These SPs display the amount of the remaining previous toner.		
	001	ВК	Black toner	

8911	Page/Toner_Prev2		[0 to 9999999 / 0 / 1]
0911	These	SPs display the amount of the re	maining 2nd previous toner.
001	ВК	Black toner	

8921	Cvr Cnt/Total [0 to 9999999 / 0 / 1]				
0921	Displays the total coverage and total printout number for each color.				
001	Coverage (%) BK				
011	Coverage/P:BK				

	Machine Status	[0 to 9999999 / 0 / 1]		
8941	ount of time the machine spends in each operation mode. customers who need to investigate machine operation for mpliance with ISO Standards.			
001	Operation Time	Engine operation time. Does not include time while controller is saving data to HDD (while engine is not operating).		
002	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.		
003	Energy Save Time	Includes time while the machine is performing background printing.		
004	Low Power Time	Includes time in Energy Save mode with Engine on. Includes time while machine is performing background printing.		
005	Off Mode Time	Includes time while machine is performing background printing. Does not include time machine remains powered off with the power switches.		
006	SC	Total down time due to SC errors.		
007	PrtJam	Total down time due to paper jams during printing.		
008	OrgJam	Total down time due to original jams during scanning.		
009	Supply PM Unit End	Total down time due to supply unit end.		

0051	AddBook Register						
8951	These SPs count the number of events when the machine manages data registration.						
001	User Code /User ID	User code registrations.					
002	Mail Address Mail address registrations.						
003	Fax Destination	Fax destination registrations.	[0 to 9999999 / 0 / 1]				
004	Group destination registrations.		[0 10 9999999 / 0 / 1]				
005	Transfer Request Fax relay destination registrations for relay TX.						
006	F-Code box registrations.						
007	Copy application registration with the Program (job setting feature.						
008	Fax Program	Fax application registrations with the Program (job settings) feature.	[0 255 / 0 / 255]				
009	Printer application registrations Printer Program with the Program (job settings) feature.		[0 to 255 / 0 / 255]				
010 Scanner Program		Scanner application registrations with the Program (job settings) feature.					

8999	Adomin. Counter List	[0 to 9999999 / 0 / 1]			
0777	Display the total coverage and total printout number for each color.				
001	Total	Total			
003	Copy: BW				
007	Printer: BW				
010 Fax Print: BW					
012	A3/DLT				

013	Duplex
023	Copy: BW (%)
027	Printer: BW (%)
030	Fax Print: BW (%)
101	Transmission Total: Color
102	Transmission Total: BW
103	Fax Transmission
104	Scanner Transmission: Color
105	Scanner Transmission: BW

Main SP Tables-9

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

Input Check 5803 Reading Description 0 1 001 Tray 1: Paper Size Sensor See the table 1 following this table. 002 Tray 1: Tray Set Sensor Set Not set 003 Tray 1: Paper Lift Sensor Not upper limit Upper limit 004 Tray 1: Paper End Sensor No paper Paper remaining Tray 1: 005 Paper Height Sensor 1 See the table 2 following this table. Tray 1: 006 Paper Height Sensor 2 007 Tray 2: Paper Size Sensor See the table 1 following this table. 800 Set Tray 2: Tray Set Sensor Not set 009 Tray 2: Paper Lift Sensor Not upper limit Upper limit 010 Tray 2: Paper End Sensor No paper Paper remaining

5

011	Tray 2: Paper Height Sensor 1	See the table 2 following	y this table.		
012	Tray 2: Paper Height Sensor 2				
013	Tray 1: Paper Feed Sensor	Paper detected	No paper detected		
014	Tray 2: Paper Feed Sensor	Paper detected	No paper detected		
015	Tray 3: Paper Feed Sensor	Paper detected	No paper detected		
016	Tray 4: Paper Feed Sensor	Paper detected	No paper detected		
017	LCT: Paper Feed Sensor	No paper detected	Paper detected		
018	Relay Sensor 1	Paper detected	No paper detected		
019	Relay Sensor 2	Paper detected	No paper detected		
020	Relay Sensor 3	No paper detected	Paper detected		
021	Relay Sensor 4	No paper detected	Paper detected		
022	Relay Sensor: LCT	No paper detected	Paper detected		
023	By-pass: Paper End Sensor	Not end	Paper end		
024	By-pass: Paper Size Sensor	See the table 3 following this table.			
025	Registration Sensor	Paper detected No paper detected			
026	Fusing Exit Sensor	No paper detected	Paper detected		
027	Fusing Entrance Sensor	Paper detected	No paper detected		
028	Junction Gate Relay Sensor	Paper detected	No paper detected		
029	Exit Sensor	Paper detected	No paper detected		
030	Paper Overflow Sensor	Not full	Full		
031	Right Cover Open/Close	Close	Open		
032	Duplex Unit Open/Close	Open	Close		
033	Duplex Entrance Sensor	Paper detected	No paper detected		
034	Duplex Exit Sensor	Paper detected	No paper detected		

035 Bank Right Cover Open/Close Close Open 036 Tray Cover Open/Close Close Open 037 LCT Set Set Not set 038 Bridge/Exit Tray: Exit Sensor Paper detected No paper detected 039 Bridge/Exit Tray: Relay Sensor Paper detected No paper detected 040 Bridge/Exit Tray: Relay Sensor Set Not set 041 Bridge/Exit Tray: Left Guide Open/Close Close Open 042 Bridge/Exit Tray: Right Guide Open/Close Close Open 043 Transfer Belt Unit HP Sensor Not HP HP 046 Fusing Unit Set Set (Bit1) Not set (Bit1) 047 Toner Overflow Sensor Not full Full 048 Interlock Detection 1 Right or front door is open. Right or front door is close. 049 Interlock Detection 2 Right or front door is open. Right or front door is close. 050 Key Card Set Set Not set 051 Key Counter Set Set Not set 052 Mechanical Counter Set Not set Not set 053 1-Bin Unit: Paper Set Paper detected No paper detected 056 Shiff Sensor </th <th></th> <th></th> <th></th> <th></th>				
O37 LCT Set Set Not set O38 Bridge/Exit Tray: Exit Sensor Paper detected No paper detected O39 Bridge/Exit Tray: Relay Sensor Paper detected No paper detected O40 Bridge/Exit Tray: Relay Sensor Paper detected No paper detected O40 Bridge/Exit Tray: Left Guide Open/Close Open O41 Close Open O42 Bridge/Exit Tray: Right Guide Open/Close Open O43 Transfer Belt Unit HP Sensor Not HP HP O44 Fusing Unit Set Set (Bit1) Not set (Bit1) O47 Toner Overflow Sensor Not full Full O48 Interlock Detection 1 Right or front door is open. O49 Interlock Detection 2 Right or front door is open. O50 Key Card Set Set Not set O51 Key Counter Set Set Not set O52 Mechanical Counter Set Not set O53 1-Bin Unit Set Set Not set O54 1-Bin Unit: Paper Set Paper detected O57 Cleaning Web End No paper detected O64 Shift Tray Sensor Stay at trear Stay at front	035	Bank Right Cover Open/Close	Close	Open
038 Bridge/Exit Tray: Exit Sensor Paper detected No paper detected 039 Bridge/Exit Tray: Relay Sensor Paper detected No paper detected 040 Bridge/Exit/Shift: Set Detection Set Not set 041 Bridge/Exit Tray: Left Guide Open/Close Close Open 042 Bridge/Exit Tray: Right Guide Open/Close Close Open 043 Transfer Belt Unit HP Sensor Not HP HP 046 Fusing Unit Set Set (Bit1) Not set (Bit1) 047 Toner Overflow Sensor Not full Full 048 Interlock Detection 1 Right or front door is open. Right or front door is close. 049 Interlock Detection 2 Right or front door is open. Right or front door is close. 050 Key Card Set Set Not set 051 Key Counter Set Set Not set 052 Mechanical Counter Set Not set set 053 1-Bin Unit Set Set Not set 054 1-Bin Unit: Paper Set Paper detected No paper detected 057 Cleaning Web End	036	Tray Cover Open/Close	Close	Open
039 Bridge/Exit Tray: Relay Sensor Paper detected No paper detected 040 Bridge/Exit/Shift: Set Detection Set Not set 041 Bridge/Exit Tray: Left Guide Open/Close Close Open 042 Bridge/Exit Tray: Right Guide Open/Close Close Open 043 Transfer Belt Unit HP Sensor Not HP HP 046 Fusing Unit Set Set (Bit1) Not set (Bit1) 047 Toner Overflow Sensor Not full Full 048 Interlock Detection 1 Right or front door is open. Right or front door is close. 049 Interlock Detection 2 Right or front door is open. Right or front door is close. 050 Key Card Set Set Not set 051 Key Counter Set Set Not set 052 Mechanical Counter Set Not set set 053 1-Bin Unit Set Set Not set 054 1-Bin Unit: Paper Set Paper detected No paper detected 057 Cleaning Web End No paper detected Paper detected 060 Shift Sensor No paper detected Paper detected	037	LCT Set	Set	Not set
040 Bridge/Exit/Shift: Set Detection Set Not set 041 Bridge/Exit Tray: Left Guide Open/Close Close Open 042 Bridge/Exit Tray: Right Guide Open/Close Close Open 043 Transfer Belt Unit HP Sensor Not HP HP 046 Fusing Unit Set Set (Bit1) Not set (Bit1) 047 Toner Overflow Sensor Not full Full 048 Interlock Detection 1 Right or front door is open. Right or front door is close. 049 Interlock Detection 2 Right or front door is open. Right or front door is close. 050 Key Card Set Set Not set 051 Key Counter Set Set Not set 052 Mechanical Counter Set Not set set 053 1-Bin Unit Set Set Not set 054 1-Bin Unit: Paper Set Paper detected No paper detected 057 Cleaning Web End No end End 060 Shift Sensor No paper detected Paper detected 064 Shift Tray Sensor Stay at rear Stay at front	038	Bridge/Exit Tray: Exit Sensor	Paper detected	No paper detected
Description	039	Bridge/Exit Tray: Relay Sensor	Paper detected	No paper detected
Close Cl	040	Bridge/Exit/Shift: Set Detection	Set	Not set
Open/Close	041	, ,	Close	Open
O46 Fusing Unit Set Set (Bit1) Not set (Bit1) O47 Toner Overflow Sensor Not full Full O48 Interlock Detection 1 Right or front door is open. Right or front door is close. O49 Interlock Detection 2 Right or front door is open. Right or front door is close. O50 Key Card Set Set Not set O51 Key Counter Set Set Not set O52 Mechanical Counter Set Not set set O53 1-Bin Unit Set Set Not set O54 1-Bin Unit: Paper Set Paper detected No paper detected O57 Cleaning Web End Not end End O60 Shift Sensor No paper detected Paper detected O64 Shift Tray Sensor Stay at rear Stay at front	042	, -	Close	Open
047Toner Overflow SensorNot fullFull048Interlock Detection 1Right or front door is open.Right or front door is close.049Interlock Detection 2Right or front door is open.Right or front door is close.050Key Card SetSetNot set051Key Counter SetSetNot set052Mechanical Counter SetNot setset0531-Bin Unit SetSetNot set0541-Bin Unit: Paper SetPaper detectedNo paper detected057Cleaning Web EndNot endEnd060Shift SensorNo paper detectedPaper detected064Shift Tray SensorStay at rearStay at front	043	Transfer Belt Unit HP Sensor	Not HP	HP
048Interlock Detection 1Right or front door is open.Right or front door is close.049Interlock Detection 2Right or front door is open.Right or front door is close.050Key Card SetSetNot set051Key Counter SetSetNot set052Mechanical Counter SetNot setset0531-Bin Unit SetSetNot set0541-Bin Unit: Paper SetPaper detectedNo paper detected057Cleaning Web EndNot endEnd060Shift SensorNo paper detectedPaper detected064Shift Tray SensorStay at rearStay at front	046	Fusing Unit Set	Set (Bit1)	Not set (Bit1)
Interlock Detection 1 open. close. O49 Interlock Detection 2 Right or front door is open. close. O50 Key Card Set Set Not set O51 Key Counter Set Set Not set O52 Mechanical Counter Set Not set O53 1-Bin Unit Set Set Not set O54 1-Bin Unit: Paper Set Paper detected O57 Cleaning Web End Not end End O60 Shift Sensor Stay at rear Stay at front	047	Toner Overflow Sensor	Not full	Full
O49 Interlock Detection 2 Open. close. O50 Key Card Set Set Not set O51 Key Counter Set Set Not set O52 Mechanical Counter Set Not set O53 1-Bin Unit Set Set Not set O54 1-Bin Unit: Paper Set Paper detected No paper detected O57 Cleaning Web End Not end End O60 Shift Sensor No paper detected O64 Shift Tray Sensor Stay at rear Stay at front	048	Interlock Detection 1		
051 Key Counter Set Set Not set 052 Mechanical Counter Set Not set set 053 1-Bin Unit Set Set Not set 054 1-Bin Unit: Paper Set Paper detected No paper detected 057 Cleaning Web End Not end End 060 Shift Sensor No paper detected Paper detected 064 Shift Tray Sensor Stay at rear Stay at front	049	Interlock Detection 2		
052 Mechanical Counter Set Not set set 053 1-Bin Unit Set Set Not set 054 1-Bin Unit: Paper Set Paper detected No paper detected 057 Cleaning Web End Not end End 060 Shift Sensor No paper detected Paper detected 064 Shift Tray Sensor Stay at rear Stay at front	050	Key Card Set	Set	Not set
053 1-Bin Unit Set Set Not set 054 1-Bin Unit: Paper Set Paper detected No paper detected 057 Cleaning Web End Not end End 060 Shift Sensor No paper detected Paper detected 064 Shift Tray Sensor Stay at rear Stay at front	051	Key Counter Set	Set	Not set
054 1-Bin Unit: Paper Set Paper detected No paper detected 057 Cleaning Web End Not end End 060 Shift Sensor No paper detected Paper detected 064 Shift Tray Sensor Stay at rear Stay at front	052	Mechanical Counter Set	Not set	set
057 Cleaning Web End Not end End 060 Shift Sensor No paper detected Paper detected 064 Shift Tray Sensor Stay at rear Stay at front	053	1-Bin Unit Set	Set	Not set
060 Shift Sensor No paper detected Paper detected 064 Shift Tray Sensor Stay at rear Stay at front	054	1-Bin Unit: Paper Set	Paper detected	No paper detected
064 Shift Tray Sensor Stay at rear Stay at front	057	Cleaning Web End	Not end	End
	060	Shift Sensor	No paper detected	Paper detected
065 Bypass Tray Paper Length Detection Paper detected No paper detected	064	Shift Tray Sensor	Stay at rear	Stay at front
	065	Bypass Tray Paper Length Detection	Paper detected	No paper detected
200 Scanner HP Sensor Not HP HP	200	Scanner HP Sensor	Not HP	НР

201 Platen Cover Sensor	Open	Close	
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Table 1: Paper Height Sensor

0: Deactivated, 1: Activated (actuator inside sensor)

Remaining paper	Paper height sensor 1	Paper height sensor 2
Full	0	0
Nearly full	1	0
Near end	1	1
Almost empty	0	1

Table 2: Paper Size Switch

Switch 1 is used for the tray set detection.

0: Pushed, 1: Not pushed

Мо	Models			on
North America	Europe/Asia	4	3	2
11" x 17" SEF*1 (A3 SEF)	A3 SEF*1 (11" x 17" SEF)	0	0	1
8.5" x 14" SEF *2 (B4 SEF)	B4 SEF *2 (8.5" x 14" SEF)	0	0	0
A4 SEF	A4 SEF	1	1	0
8.5" x 11" SEF	8.5" x 11" SEF	1	1	1
B5 SEF	B5 SEF	0	1	1
11" x 81/2" LEF*3 (A4 LEF)	A4 LEF*3 (11" x 81/2" LEF)	1	0	0
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 -006 (Tray 2).
- * 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 -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 -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 -008 (Tray 2)..

Table 3: Paper Size (By-pass Table)

0: Pushed, 1: Not pushed

Models	Bit No.				
North America	Europe/Asia	3	2	1	0
11" x 17" SEF*1 (11" x 8.5" LEF)	A3 SEF*1 (A4 LEF)	1	1	1	0
11" x 17" SEF*1 (11" x 8.5" LEF)	A3 SEF* 1 (A4 LEF)	1	1	0	0
8.5" x 11" SEF*1 (8.5" x 11" SEF*2)	A4 SEF* 1 (A5 LEF)	1	1	0	1
8.5" x 11" SEF*1 (8.5" x 11" SEF*2)	A4 SEF* 1 (B5 LEF)	1	0	0	1
5.5" x 8.5" SEF	A5 SEF	1	0	1	1
5.5" x 8.5" SEF	A5 SEF	0	0	1	1
5.5" x 8.5" SEF	A6 SEF	0	1	1	1
5.5" x 8.5" SEF	A6 SEF	1	1	1	1



• *1: When the machine determines that the paper feed direction is "LEF", it considers that the paper size is bracketed size.

5

APS Original Size Detection

Original S	Ler	Length Sensor		Width Sensor		SP4-301		
Metric version	Inch version	L3	L2	L1	W1	W2	display	
A3	11" x 17"	0	0	0	0	0	00011111	
B4	10" x 14"	0	0	0	0	Х	00011110	
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	0	0	Х	Х	00011100	
A4 LEF	8.5" x 11"	Х	Х	Х	0	0	00000011	
B5 LEF	-	Х	Х	Х	0	Х	00000010	
A4 SEF	11" x 8.5"	Х	0	0	Х	Х	00001100	
B5 SEF	-	Х	Х	0	Х	Х	00000100	
A5 LEF/ SEF	5.5" x 8.5", 8.5" x 5.5"	Х	Х	Х	Х	Х	00000000	

3000/2000-Sheet (Booklet) Finisher (D636/D637)

4140	6140 Bit Description		Dia Description		Read	ing
6140			0	1		
001	Entro	ince Sensor	No paper detected	Paper detected		
002	Proo	f Exit Sensor	No paper detected	Paper detected		
003	Proo	f Full Detection Sensor	Not Full	Full		
004	Upp	er Tray Exit Sensor	No paper detected* 1	Paper detected* 1		
005	Stap	le Exit Sensor	No paper detected	Paper detected		
006	Shift	Roller HP Sensor	Not HP	HP		

			Read	ing
6140	Bit	Description	0	1
007	Shift	Exit Sensor	No paper detected	Paper detected
008	Exit (Guide Plate HP Sensor	Not HP	HP
009	Lowe	er Tray Height Sensor	No paper detected	Paper detected
010	Uppe	er Tray Height Sensor	No paper detected	Paper detected
011	Uppe	er Tray Full Sensor	Not Full	Full
012	Stack	k Roller HP Sensor	Not HP	HP
013	Jogg	er HP Sensor	Not HP	HP
014	Feed	Out Belt HP Sensor	HP	Not HP
015	Stap	ling Tray Paper Sensor	No paper detected	Paper detected
016	Corn	er Stapler HP Sensor	Not HP	HP
017	Stap	ler Rotation HP Sensor	Not HP	HP
018	Uppe	er Tray Limit SW	Not Limit	Limit
019	Door	Switch	Closed	Open
020	Corn	er Stapler Operation	Not HP	HP
021	Stap	le Detection	No staple detected	Staple detected
022	Stap	le Dip Detection	No staple detected	Staple detected
023	Punc	h Movement HP Sensor	Not HP	HP
024	Pape	er Position Slide HP Sensor	Not HP	HP
025	Pape	er Position Sensor	No paper detected	Paper detected
026	Punc	h Full Sensor	Not Full	Full
027	Punc	h HP Sensor	Not HP	HP
028	Punc	h DIP SW 1	See * 1	
029	Punc	h DIP SW 2	See * 1	
030	Stack	k Junction Gate HP Sensor	Not HP	НР

			Read	ing
6140	Bit	Description	0	1
031	Stack	CPresent Sensor	No paper detected	Paper detected
032	Clar	np Roller HP Sensor	Not HP	HP
033	Fold	Entrance Sensor	No paper detected	Paper detected
034	Botto	m Fence HP Sensor	Not HP	HP
035	Fold	Cam HP Sensor	Not HP	HP
036	Fold	Plate HP Sensor	Not HP	HP
037	Fold	Unit Exit Sensor	No paper detected	Paper detected
038	Lowe	er Tray Full Sensor: Front	No paper detected*2	Paper detected*2
039	Lowe	er Tray Full Sensor: Rear	No paper detected*2	Paper detected*2
040	Book Front	elet Stapler 1: Operation (Rotation/	Not HP	HP
041	Book	let Stapler 1: Staple In (Front)	No staple detected	Staple detected
042		elet Stapler 1: Staple In (Leading e/Front)	No staple detected	Staple detected
043	Book Rear	let Stapler 1: Operation (Rotation/	Not HP	HP
044	Booklet Stapler 1: Staple In (Rear)		No staple detected	Staple detected
045		elet Stapler 1: Staple In (Leading	No staple detected	Staple detected
046	Uppe	er Tray Full Sensor: 3000	Not Full	Full

* 1: Combination of DIP SW 1 and SW 2

ı	DIP SW 1	DIP SW 2	Punch Type	
	0	0	Japan	

1	0	Europe
0	1	North America
1	1 North Europe	

 $^{^*}$ 2: Please refer to "Lower Tray (D637 Only)" in the Service Manual for the "3000/2000-Sheet (Booklet) Finisher ".

1000-Sheet Finisher (D588)

4120	D:s	Describe	Read	ling
6139	Bit	Description	0	1
001	Entra	ince Sensor	Paper detected	No paper detected
002		Exit Sensor er Tray Exit Sensor)	No paper detected	Paper detected
003		le Entrance Sensor bler Tray Entrance Sensor)	Paper detected	No paper detected
004	Staple Moving HP Sensor (Stapler HP Sensor)		Not HP	НР
005	Jogger HP Sensor (Jogger Fence HP Sensor)		Not HP	НР
006	Stack	k Feed-out Belt HP Sensor	HP	Not HP
007	Stap	le Tray Paper Sensor	No paper detected	Paper detected
008		le Rotation Sensor ble Rotation HP Sensor)	Not HP	НР
009	Stap	le Sensor	Staple detected	No staple detected
010	Staple READY Detection		Staple detected	No staple detected
011		Guide Plate HP Guide Plate HP Sensor)	Not HP	НР
012	Shift	HP Sensor	Not HP	НР

6139	Bit Description	Reading		
		0	1	
013		er Sensor ek Height Sensor)	No output tray detected	Output tray detected
014	Tray Lower Sensor (Lower Tray Lower Limit Sensor)		Lower limit	Not lower limit
015		f Full Sensor er Limit Sensor)	Not full	Full

Output Check Table

Copier

5804	Output Check		
001	Exit Motor: 350		
002	Exit Motor: 175		
003	Exit Motor: 230		
004	Exit Motor: 180	Paper exit motor (Mainframe)	
005	Exit Motor: 154		
006	Exit Motor: 90		
007	Feed Motor: 300		
008	Feed Motor: 255		
009	Feed Motor: 230		
010	Feed Motor: 215	Paper feed motor (Mainframe)	
011	Feed Motor: 180		
012	Feed Motor: 154		
013	Feed Motor: 90		

5804	Output Check		
014	Bank: Feed Motor: 300		
015	Bank: Feed Motor: 255		
016	Bank: Feed Motor: 230	Paper feed motor (Optional paper feed unit)	
017	Bank: Feed Motor: 215		
018	Bank: Feed Motor: 180		
019	Bank: Feed Motor: 154		
020	Bank: Feed Motor: 90		
021	LCT: Feed Motor: 300		
022	LCT: Feed Motor: 255		
023	LCT: Feed Motor: 230		
024	LCT: Feed Motor: 215	Paper feed motor (Optional LCT)	
025	LCT: Feed Motor: 180		
026	LCT: Feed Motor: 154		
027	LCT: Feed Motor: 90		
028	Paper Feed Clutch 1	Down and for all always 1/2 (AA aris for areas)	
029	Paper Feed Clutch 2	Paper feed clutch 1/2 (Mainframe)	
030	Bank: Paper Feed Clutch 3	Paper feed clutch 3/4 (Optional paper	
031	Bank: Paper Feed Clutch 4	feed unit)	
032	LCT: Paper Feed Clutch	Paper feed clutch (Optional LCT)	
033	Pick-up Solenoid 1	Did C. L 1.1 /2 /AA .: . f	
034	Pick-up Solenoid 2	Pick-up Solenoid 1/2 (Mainframe)	
035	Bank: Pick-up Solenoid 3	Pick-up Solenoid 3/4 (Optional paper	
036	Bank: Pick-up Solenoid 4	feed unit)	
037	LCT: Pick-up Solenoid	Pick-up Solenoid (LCT)	

5804	Output Check	
038	Tray Lift Motor 1: Up	
039	Tray Lift Motor 1: Down	
040	Tray Lift Motor 2: Up	-
041	Tray Lift Motor 2: Down	
042	Paper Tray Lock Solenoid	Not used
043	Bank: Paper Tray Lock Solenoid	Tray lock solenoid (Optional paper feed unit)
044	Registration Motor: 230	
045	Registration Motor: 180	
046	Registration Motor: 154] -
047	Registration Motor: 90	
048	Exit: Junction Gate Solenoid	Junction gate 1 solenoid
049	Duplex: Inverter Gate Solenoid	Not used
050	Duplex Inverter Motor: Fwd: 230	
051	Duplex Inverter Motor: Fwd: 180	
052	Duplex Inverter Motor: Fwd: 154	
053	Duplex Inverter Motor: Fwd: 90	
054	Duplex Inverter Motor: Rev: 230	-
055	Duplex Inverter Motor: Rev: 180	
056	Duplex Inverter Motor: Rev: 154	
057	Duplex Inverter Motor: Rev: 90	

5804	Output Check	
058	Duplex/By-pass Motor: Fwd: 230	
059	Duplex/By-pass Motor: Fwd: 180	
060	Duplex/By-pass Motor: Fwd: 154	
061	Duplex/By-pass Motor: Fwd: 90	
062	Duplex/By-pass Motor: Rev: 230	-
063	Duplex/By-pass Motor: Rev: 180	
064	Duplex/By-pass Motor: Rev: 154	
065	Duplex/By-pass Motor: Rev: 90	
066	By-pass Feed Clutch	-
067	By-pass Pick-up Solenoid	-
068	Bridge/Exit Tray: Drive Motor: 230	
069	Bridge/Exit Tray: Drive Motor: 180	Deive makes (Bridge weit)
070	Bridge/Exit Tray: Drive Motor: 154	Drive motor (Bridge unit)
071	Bridge/Exit Tray: Drive Motor: 90	
072	Bridge/Exit Tray: Junction Gate Solenoid	Junction Gate Solenoid (Bridge unit)
073	Bridge/Exit Tray: Drive Motor: Reset	-
074	Bridge/Exit Tray: Drive Motor: Enable	-
075	Bridge: Cooling Fan Motor	Not used
076	Transfer Belt Contact Motor	-
077	OPC Motor: 230	
078	OPC Motor: 180	Downwater
079	OPC Motor: 154	- Drum motor
080	OPC Motor: 90	

5804	Output Check	
081	Transfer/Development Motor: 230	
082	Transfer/Development Motor: 180	
083	Transfer/Development Motor: 154] -
084	Transfer/Development Motor: 90	
085	Fusing Motor: 230	
086	Fusing Motor: 180	
087	Fusing Motor: 154] -
088	Fusing Motor: 90	
089	Development Paddle Motor	-
090	PTL Control	-
091	Fusing Fan Motor: High	Eusing subgust fan motor
092	Fusing Fan Motor: Low	Fusing exhaust fan motor
093	Exhaust Fan Motor: High	Exhaust fan motor
094	Exhaust Fan Motor: Low	Exhausi idii moloi
095	Duct Fan Motor	Cooling fan motor
096	Exit Fan Motor: High	Denos ovit cooling for motor
097	Exit Fan Motor: Low	Paper exit cooling fan motor
098	PSU Fan Motor	-
099	1-Bin Junction Gate Solenoid	Junction gate 2 solenoid (1-bin unit)
100	Polygon Motor: 230	
101	Polygon Motor: 180	
102	Polygon Motor: 154	-
103	Polygon Motor: 90	
104	LD 1	
105	LD 2	-

5804	Output Check	
106	Toner Bottle Motor: Fwd	Toner supply motor
107	Quenching Lamp	-
108	Charge Bias	-
109	Development Bias	-
110	Transfer Belt Voltage	-
111	ID Sensor LED	-
115	Cleaning Web Motor	Web motor
116	Shift Tray Motor	Not used
117	CTL Cooling FAN	Controller fan
202	Scanner Lamp	-

1000-Sheet Finisher (D588)

6144	Output Check		
0144	Display	Description	
001	Upper Relay Motor	Upper Transport Motor	
002	Lower Relay Motor	Lower Transport Motor	
003	Exit Motor	-	
004	Proof Junction Gate SOL	Tray Junction Gate Solenoid	
005	Lower Tray Lift Motor	-	
006	Jogger Fence Motor	-	
007	Stapler Motor	-	
008	Stapler Hammer	-	
009	Stapler Junction Gate Solenoid	-	
010	Positioning Roller Solenoid	-	

011	Stack Feed-out Motor	-
012	Shift Motor	-
013	Exit Guide Plate Motor	-

3000 / 2000-Sheet (Booklet) Finisher (D636/D637)

6145	Output	
0145	Display	Description
001	Entrance Motor	-
002	Upper Transport Motor	-
003	Lower Transport Motor	-
004	Upper/Proof Tray Exit Motor	-
005	Clamp Roller Retraction Motor	-
006	Shift Roller Motor	-
007	Exit Guide Plate Motor	-
008	Upper Tray Lift Motor	-
009	Stacking Sponge Roller Motor	-
010	Jogger Fence Motor	-
011	Feed Out Belt Motor	-
012	Corner Stapler Movement Motor	-
013	Corner Stapler Rotation Motor	-
014	Corner Stapler	-
015	Proof Junction Gate Solenoid	-
016	Stapling Tray Junction Gate Solenoid	-
017	Stapling Edge Pressure Plate Solenoid	-
018	Positioning Roller Solenoid	-

019	Booklet Pressure Roller Solenoid	-
020	Stack Junction Gate Motor	-
021	Fold Unit Bottom Fence Lift Motor	-
022	Booklet Stapler: Front	-
023	Booklet Stapler: Rear	-
024	Fold Plate Motor	-
025	Fold Roller Motor	-
026	Positioning Roller Motor	-
027	Punch Drive Motor	-
028	Punch Movement Motor	-
029	Paper Position Sensor Slide Motor	-

Printer Service Tables

SP1-XXX (Service Mode)

1001	Bit Switch
------	------------

	1			
001	Bit Switch 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 GW SD slot.		
	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 B	Rit Switch
1001 0	DII SWIICII

002	Bit Swit	rch 2	0	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 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 of switching is disabled, these jobs will not be printed p	-	f Auto PDL
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	I │ Bit Switch	
------	----------------	--

003	Bit Swi	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 Swit	Bit Switch					
004	Bit Swit	ch 4	0	1			
	bit 0	DFU	-	-			
	bit 1	DFU	-	-			
	bit 2	DFU	-	-			
	bit 3	IPDS print-side reversal	0: Disable	1: Enable			
	Enable: Increases printing speed but simplex pages may be printed on to of the sheet.						
	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 Type from the operation panel. The available types will depend on the device of 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 Bit Switch to print 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.			
		Pattern1: 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 Job Type settings to 1000. The default is 100.	t can be store	d on the HDD via	
	bit 5	DFU	-	-	
	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 specific 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)
	Routes all pages through the duplex unit. If this is disabled, simplex pages or the last page of not routed through the duplex unit. This could result printed pages. Only affects pages specified as Letterhead paper.		

1001	Bit Switch		
006	Bit Switch 6 DFU	-	-

1001	Bit Swi	Bit Switch				
007	Bit Swi	Bit Switch 7 0 1				
		Print path	0: Disable	1: Enable		
	bit 0 If enabled, simplex pages (in mixed simplex/duplex PS/PCL5 jobs only) and the page 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	DFU	-	-		

1001	Bit Switch		
008	Bit Switch 8 DFU	-	-

1001	Bit Switch				
009	Bit Swi	Bit Switch 9		1	
	bit 0	PDL Auto Detection timeout of jobs submitted via USB or Parallel Port (IEEE 1284).	"Disabled (Immediatel y)"	"Enabled (10 seconds)"	
	511 0	To be used if PDL auto-detection fails. A failure of PD necessarily mean that the job can't be printed. This be to time-out immediately (default) upon failure or to v	it switch tells th	e device whether	
	bit 1	DFU	-	-	

bi	oit 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 follo problems:	wing condition	s might result in
		- Job submission via USB or Parallel Port		
		- Spool printing (WIM >Configuration > Device Setti	ngs > System)	
bi	it 3	PCL/PS bypass tray paper rotation (SEF/LEF)	0: Disable	1: Enable
		This bitsw causes the device to revert to the behavior takes effect if "Bypass Tray Setting Priority" = "Driver,		enerations. It only
		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.		
bi	it 4	Response to PJL USTATUS when multiple collated copies are printed	0: Disable	1: Enable
		When enabled, if multiple collated copies are printer responds to PJL USTATUS with the number of pages device will return the total number of pages for all co	in the current c	-
-	it 5 5 7	DFU	-	-

1001	Bit Swit	Bit Switch			
010	Bit Swit	Bit Switch 10		1	
	bit 0 to 4	DFU	-	-	
	bit 5	List / Test Print Lock	0: Disable	1: Enable	
		If enabled, you can lock or unlock the [List/Test Print] items under the Pinter Features menu when the Store and Skip Errored Job Function is on.			

Bit 6	Optional charge machines	-	-
	If enabled, you can use the optional charge machines when the Store and Skip Errored Job Function is on.	0: Disable	1: Enable
Bit 7	DFU	-	-

1001	Bit Swit	Bit Switch		
011	Bit Switch 11		0	1
	bit 0 List / Test Print menu		0: Disable	1: Enable
		When enabled, [Multiple Lists] menu is displayed in Features menu.	[List / Test Prin	t] under the Printer
	bit 1	Interrupt printing	0: Job	1: Page
		Selects the interrupt unit for the interrupt printing fund When you select "0," you can interrupt the printing of When you select "1," you can interrupt the printing of	of a job while b	
	Bit 2 to 7	DFU	-	-

1001	Bit Swit	Bit Switch		
012	Bit Swit	Bit Switch 12		1
	bit 0 to 7	DFU	-	-

1003	[Clear Setting]
1003 001	Initialize Printer System
1003 001	Initializes settings in the "System" menu of the user mode.
1003 003	Delete Program

1004

1004 001	Print Printer Summary		
1004 001	Prints the service summary sheet (a summary of all the controller settings).		
1006	[Sample/Locked Print] *CTL 0: Linked, 1: On		
1006 001	Enables and disables the document server. When you select "0," the document server is enabled or disabled in accordance with Copy Service Mode SP5-967. When you		

select "1," the document server is enabled regardless of Copy Service Mode SP5-967.

Scanner Service Tables

SP1-xxx (System and Others)

	[Erase margin (Remote Scan)]		
1005	Creates an erase margin for all edg If the machine has scanned the edg activated only when the machine u	ge of the orig	jinal, create a margin. This SP is
1005 1	Range from 0 to 5 mm		
		*CTL	[0 or 1 / 0 / -]
1009	[Remote scan disable]		0: enable, 1: disable
1009 1	Enable or disable remote scan.		
			[0 or 1 / 0 / -]

1010	[Non Display Clear Light PDF]	*CTL	[0 or 1 / 0 / -] 0: Display, 1: Non display
10101	Enable or disable remote scan.		

SP2-XXX (Scanning-image quality)

	[Compression Level (Gray-scale)]
2021	Selects the compression ratio for grayscale processing mode (JPEG) for the three settings that can be selected at the operation panel.

2021 1	Comp1: 5-95		[5 to 95 / 20 / 1 /step]
2021 2	Comp2: 5-95		[5 to 95 / 40 / 1 /step]
2021 3	Comp3: 5-95	*CTL	[5 to 95 / 65 / 1 /step]
2021 4	Comp4: 5-95	*	[5 to 95 / 80 / 1 /step]
2021 5	Comp5: 5-95		[5 to 95 / 95 / 1 /step]

	[Compression ratio of ClearLight PDF]			
2024	Selects the compression ratio for clearlight PDF for the two settings that can be se at the operation panel.			
2024 1	Compression Ratio (Normal)		[5 to 95 / 25 / 1 /step]	
2024 2	Compression Ratio (High comp	*CTL	[5 to 95 / 20 / 1 /step]	

Updating the Firmware

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 (Lower Slot) on the controller box.

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 "0" 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.

Updating Firmware

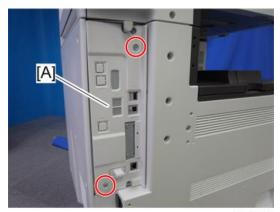
Preparation

- 1. If the SD card is blank, copy the entire "romdata" folder onto the SD card.
- 2. If the card already contains the "romdata" folder, copy the "D129" folder onto the card.

5

Updating Procedure

1. Turn the main power switch off.



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2. Remove the controller cover (Fx 2).



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- 3. Insert the SD card into SD Card Slot 2 (Lower Slot) [A]. Make sure the label on the SD card faces the rear side of the machine.
- 4. 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.
- 5. Disconnect the network cable from the copier if the machine is connected to a network.
- 6. Switch the main power switch on. After about 45 seconds, the initial version update screen appears on the LCD in English.
- 7. 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.
- 8. Touch "UpDate (#)" (or ^(#)) to start the update.



- While downloading is in progress, the LCD will display "Loading". When downloading has been completed, the panel will display "update done".
- For operation panel software, the Start key lights red while downloading is in progress, and then lights green again after downloading is completed.
- 9. 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.
- 10. 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.
- 11. Press in the SD card to release it. Then remove it from the slot.
- 12. Switch the copier on for normal operation.

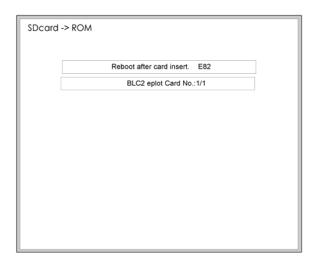
Error Messages

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 Errors" in this section)

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.

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 installed correctly, or use a different SD card.
21	Cannot access memory	HDD connection incorrect or replace HDD.
22	Cannot decompress compressed data	Incorrect ROM data on the SD card, or data is damaged.

Code	Meaning	Solution
23	Error occurred when ROM update program started	Controller program defective. If the second attempt fails, replace controller board.
24	SD card access error	Make sure the SD card is inserted correctly, or use a different SD card.
30	No HDD available for stamp data download	HDD connection incorrect or replace HDD.
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.
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.

Uploading/Downloading NVRAM Data

The content of the NVRAM can be uploaded to and downloaded from an SD card.

Uploading NVRAM Data (SP5-824)

1. Turn off the main switch.



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



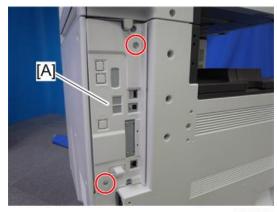
d641i115

- 3. Insert the SD card into SD card slot 2 (Lower Slot) [A].
- 4. Turn on the main switch.
- 5. Execute SP5-824.
- 6. Press "1" to start uploading the NVRAM data.

Downloading NVRAM Data (SP5-825)

The following data are not downloaded from the SD card:

- Total counter
- C/O, P/O Counter
- Duplex, A3/DLT/Over 420 mm, Staple and Scanner application scanning counters (system settings).
- Engine SP data
- 1. Turn off the main switch.



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





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- 3. Plug the SD card into SD card slot 2 (Lower Slot) [A].
- 4. Turn on the main switch.
- 5. Execute SP5-825.
- 6. Press "1" to start downloading the NVRAM data.

Note that the following errors could occur during downloading:

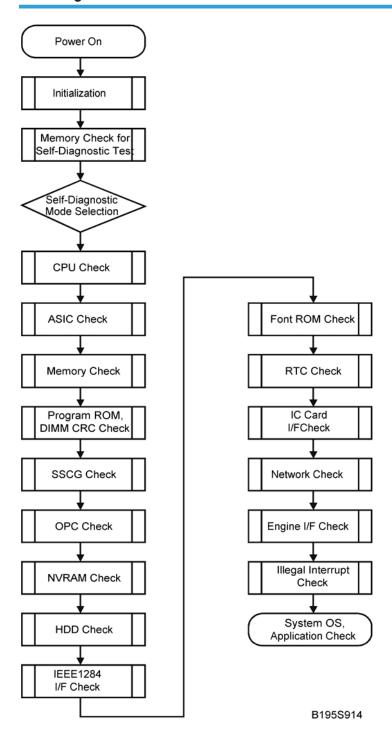
- If a card is not installed in the card slot and a message tells you that downloading cannot proceed, you cannot execute downloading, even by pressing "1".
- If the correct card for the NVRAM data is not inserted in the card slot, after you press "1" a message will tell you that downloading cannot proceed because the card is abnormal and the execution will halt.

Self-Diagnostic Mode

Self-Diagnostic Mode at Power On

As soon as the main machine is powered on, the controller waits for the initial settings of the copy engine to take effect and then starts an independent self-diagnostic test program. The self-diagnostic test follows the path of the flow chart shown below and checks the CPU, memory, HDD, and so on. An SC code is displayed in the touch panel if the self-diagnostic program detects any malfunction or abnormal condition.

Self-Diagnostic Test Flow



Detailed Self-Diagnostic Mode

In addition to the self-diagnostic test initiated every time the main machine is powered on, you can set the machine in a more detailed diagnostic mode manually in order to test other components or conditions that are not tested during self-diagnosis after power on. The following device is required in order to put the machine in the detailed self-diagnosis mode.

No.	Name
G02119350	Parallel Loopback Connector

Executing Detailed Self-Diagnosis

Follow this procedure to execute detailed self-diagnosis.

- 1. Switch off the machine, and connect the parallel loopback device to the Centronics I/F port.
- 2. Hold down , press and hold down , and then while pressing both keys at the same time, switch on the machine.

You will see "Now Loading" on the touch-panel, and then you will see the results of the test.

A report is printed every time a detailed self-diagnostic test is executed, whether errors were detected or not.

5

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:

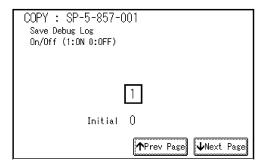
- Switching on the debug feature so error information is saved directly to the HDD for later retrieval.
- Copying the error information from the HDD to an SD card.

When a user is experiencing problems with the machine, follow the procedure below to set up the machine so the error information is saved automatically to the HDD. Then ask the user to reproduce the problem.

Switching On And Setting Up Save Debug Log

The debug information cannot be saved the until the "Save Debug Log" function has been switched on and a target has been selected.

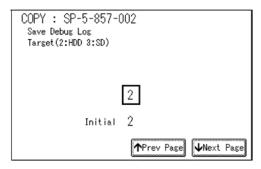
- 1. Enter the SP mode.
- 2. Under "5857 Save Debug Log", press "1".



3. 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. Next, 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 Slot 2 (Lower 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.

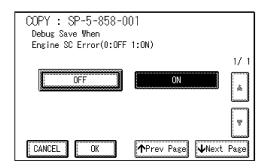
1	Engine SC Error	Saves data when an engine-related SC code is generated.	
2	Controller SC Error	Saves debug data when a controller-related SC Code is generated.	
3	Any SC Error	Saves data only for the SC code that you specify by entering code number.	
4	Jam	Saves data for jams.	



• More than one event can be selected.

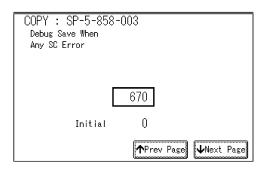
Example 1: To Select Items 1, 2, 4

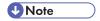
Touch the appropriate items(s). Press "ON" for each selection. This example shows "Engine SC Error" selected.



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"
- Next, select the one or more memory modules for reading and recording debug information. Touch "5859".

Under "5859" press the appropriate 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

Web Key No. Сору Printer Scanner 1 2222 (SCS) 2 2223 (SRM) 3 256 (IMH) 4 1000 (ECS) 5 1025 (MCS) 6 5375 (Scan) 5682 (NFA) 4848(COPY) 4400 (GPS) 7 2224 (BCU) 4500 (PDL) 5682 (NFA) 6600 (WebDB) 8 3000 (NCS) 4600 (GPS-PM) 3300 (PTS) 9 2000 (NCS) 2000 (NCS) 6666 (WebSys) 10 2000 (NCS) 2224 (BCU)

U Note

• The default settings for Keys 1 to 10 are all zero ("0").

Key to Acronyms

Acronym	Meaning	Acronym	Meaning	

5

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)

The machine is now set to record the debugging information automatically on the HDD (the target selected with SP5-857-002) for the events that you selected SP5-858 and the memory modules selected with SP5-859.

Please keep the following important points in mind when you are doing 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 006to010. 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

- 1. Insert the SD card into Slot 2 (Lower Slot).
- 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.



- The SD card can hold up to 4MB of data. If the debugging data is larger than 4MB, you can switch to another SD card.
- 3. Use a card reader to copy the file and send it for analysis to your local Ricoh representative by email, or just send the SD card by mail.

Since only SC errors and jams are recorded to the debug log automatically, for any other errors that occur while the customer engineer is not on site, please instruct customers to perform the following immediately after occurrence to save the debug data. Such problems would include a controller or panel freeze.



- In order to use this feature, the customer engineer must have previously switched on the Save Debug Feature (SP5857-001) and selected the hard disk as the save destination (SP5857-002).
- 1. When the error occurs, on the operation panel, press (Reset Key).
- 2. On the control panel, enter "01" then hold down for at least 3 sec. until the machine beeps then release. 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 so the service representatives can retrieve it on their next visit by copying it from the HDD to an SD card.

5

6. Troubleshooting

Service Call Conditions

Summary

There are 4 levels of service call conditions.

Level	Definition	Reset Procedure
A	To prevent damage to the machine, the main machine cannot be operated until the SC has been reset by a service representative (see the note below).	Enter SP mode, use SP 5810, touch [Execute], and then turn the main power switch off and on.
В	SCs that disable only the features that use the defective item. Although these SCs are not shown to the user under normal conditions, they are displayed on the operation panel only when the defective feature is selected.	Turn the operation switch or main switch off and on.
С	The SC history is updated. The machine can be operated as usual.	The SC will not be displayed. Only the SC history is updated.
D	Turning the main switch off then on resets SCs displayed on the operation panel. These are re-displayed if the error occurs again.	Turn the operation switch off and on. Also see below.

When a Level "D" SC code occurs

When a Level D SC occurs, a screen opens on the operation panel to tell the operator:

- An error occurred
- The job in progress will be erased
- The machine will reboot automatically after approximately 30 seconds.

The operator can wait until the machine reboots automatically or touch "Reset" on the screen to reset the machine immediately and go back to the copy screen.

If the operator does not touch "Reset"

The next message tells the operator that the machine will reset automatically and that the previous job was lost and must be started again. After reading the message, the operator touches "Confirm" on the screen. The next screen shows the number and title of the SC code, and stops until the operator turns the machine off and on.

If the operator touches "Reset"

If the operator touches "Reset" to bypass the 30-second interval for the machine to reboot, the machine reboots immediately and the operation panel displays the copy screen.



- Do not try to use the operation panel during an automatic reboot.
- If the Remote Service System is in use, the SC code is sent immediately to the Service Center.

SC Code Descriptions



- If a problem concerns a circuit board, disconnect and reconnect the connectors and then test the
 machine. Often a loose or disconnected harness is the cause of the problem. Always do this before
 you decide to replace the PCB.
- If a motor lock error occurs, check the mechanical load before you decide to replace the motor or sensors.
- When a Level "A" or "B" SC occurs while in an SP mode, the machine cannot display the SC number. If this occurs, check the SC number after leaving the SP mode.
- The machine reboots automatically when the machine issues a Level "D" SC code. This is done for Level "D" SC codes only.

ACAUTION

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



• The main power LED lights or flashes while the platen cover or ARDF is open, while the main machine is communicating with a facsimile or the network server, or while the machine is accessing the hard disk or memory for reading or writing data.

SC Tables: SC1xx

	D	Exposure lamp error	
		-001: Shading at AGC	
		-002: Shading at scanning	
		The standard white level was not detected properly when scanning the white plate	
		Exposure lamp defective	
		Lamp stabilizer defective	
101		Exposure lamp connector defective	
		Standard white plate dirty	
		Scanner mirror or scanner lens out of position or dirty	
		SBU defective	
		BCU defective	
		The peak white level is less than 64/255 digits (8 bits) when scanning the shading	
		plate. (The shading data peak does not reach the specified threshold)	

Scanner home position error 1 The scanner home position sensor does not detect the "OFF" condition during initialization or copying. SIB (B/W), SIB (Color) or scanner drive motor defective Scanner motor defective Harness between SIB and scanner drive motor disconnected Harness between SIB and scanner drive motor power source disconnected Scanner HP sensor defective Harness between SIB and HP sensor disconnected Scanner wire, timing belt, pulley, or carriage defective BCU defective

Scanner home position error 2 The scanner home position sensor does not detect the "ON" condition during initialization or copying. • SIB (B/W), SIB (Color) or scanner motor drive board defective • Scanner motor defective 121 D Harness between SIB and scanner drive motor disconnected • Harness between SIB and scanner drive motor power source disconnected Scanner HP sensor defective Harness between SIB and scanner HP sensor disconnected · Scanner wire, timing belt, pulley, or carriage defective BCU defective Black level detection error The black level cannot be adjusted within the target value during the zero clamp. 141 D Defective SBU BCU defective White level detection error The white level cannot be adjusted within the target during auto gain control. • Dirty exposure glass or optics section 142 D SBU board defective • Exposure lamp defective • Lamp stabilizer defective BCU defective SBU connection error

The SBU connection cannot be detected at power on or recovery from the energy save

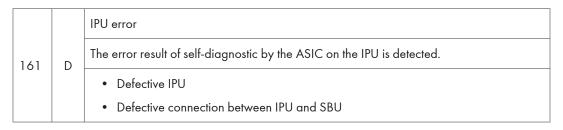
144

D

mode.

Defective SBUDefective harness

• Defective detection port on the BCU



	D	IPU PCIE Communication error
162		The link up interrupt did not proceed from the LYRA when the main switch was turned on or when recovering from the energy saver mode.
		Defective IPU
		Defective BCU

	D	Copy Data Security Unit error
165		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 to "ON" with the initial setting.
		 Incorrect installation of the copy data security board Defective copy data security board

SC Tables: SC2xx

202	D	Polygon motor error 1: ON timeout
		The polygon mirror motor does not reach the targeted operating speed within 10 sec. after turning on or changing speed
	D	Polygon motor error 2: OFF timeout
203		The polygon mirror motor does not leave the READY status within 3 sec. after the polygon motor switched off.

D	Polygon motor error 3: XSCRDY signal error
	The SCRDY_N signal remains HIGH for 200 ms while the LD unit is firing.
	Polygon motor/driver board harness loose or broken
	Polygon motor/driver board defective
	Laser optics unit defective
	IPU defective
	D

Laser synchronizing detection error: start position LDO The laser synchronizing detection signal for the start position of the LDB is not output for two seconds after LDB unit turns on while the polygon motor is rotating normally • The Copy Data Security Unit card not installed • The Copy Data Security Unit card is installed, but it is not the correct type for the machine.

	D	Laser synchronizing detection error: start position LD1
221		The laser synchronizing detection signal for the start position of the LDB is not output for two seconds after LDB unit turns on while the polygon motor is rotating normally.
221		 The Copy Data Security Unit card not installed The Copy Data Security Unit card is installed, but it is not the correct type for the machine.

	D	FGATE ON error
230		The FGATE signal does not assert within the prescribed time. (The IPU generates the FGATE signal and sends it to the LD unit when the registration sensor switches on.)
	D	FGATE OFF error
231		The FGATE signal does not assert within the prescribed time. (The IPU generates the FGATE signal and sends it to the LD unit when the registration sensor switches on.)
231		IPU defective
		IPU, Controller board harness loose or broken
		Controller board defective.

240 C LD error The IPU detected a problem at the LD unit. Worn-out LD Disconnected or broken harness of the LD.

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 IPU Defective LD controller board

SC Tables: SC3xx

		Charge roller bias leak
		A charge roller bias leak signal was detected.
302	D	Charge roller damaged
		High voltage supply board defective
		PCDU harness defective or disconnected

	D	Charge roller bias correction leak
304		The charge roller bias correction is performed twice even if the maximum charge roller bias (-2000V) is applied to the roller.
304		ID sensor defective
		Worn charge roller
		Charge roller damaged

6

SC324 RTB 55

ID sensor Vsg test error When the ID sensor was checked, the ID sensor output voltage is 5.0V while the LED current value is 0. ID sensor defective or dirty ID sensor connector defective Poor ID sensor connection I/O board (IOB) defective Scanning system defective High voltage supply board defective Defect at the ID sensor pattern writing area of the drum

Grayscale measurement error When the grayscale control result is the maximum and it does not operate correctly and these cases are detected 15 times. ID sensor defective or dirty The life of ID sensor or photo conductor Shield glass dirty

		TD sensor (Vt) error 1
360	D	The following condition occurs thirty times consecutively during printing. Vt is less than 0.5V or 4.8V or more
300	U	TD sensor disconnected
		Harness between TD sensor and PCDU defective
		Defective TD sensor.

	D	TD sensor adjustment error
		Vts is less than 1.8V or 4.8V or more during TD sensor initialization.
372		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

Drum motor error

The machine detects a lock signal error from the drum motor for 2 seconds after the drum motor turned on.

Overload on the motor
Defective drum motor
Defective harness
Defective IOB

SC Tables: SC4xx

Vsg adjustment error

	400	l D	
			Dirty or defective ID sensor
			Defective ID sensor shutter
_			
			Transfer belt bias error
			The feed back bias from the transfer belt is more than 4V for 60 msec while the transfer belt bias is output.
			The A /D

Vsg is more than 4.2V or 3.8V or less when the machine adjusts Vsg value.

The feed back bias from the transfer belt is more than 4V for 60 msec while the transfer belt bias is output.

The A/D conversion level is 20 or less for 60 msec.

The PWM duty is 24% or more for 60 msec.

Power pack broken

Defective harness

Disconnected connector

Transfer/Development motor error The machine detects a lock signal error from the transfer/development motor for a continuous 20 times after the transfer/development motor turned on. Overload on the motor Defective transfer/development motor Defective harness Defective IOB

Transfer belt contact motor error

The transfer belt HP sensor detects incorrect movement of the transfer belt after the transfer belt contact motor has turned on.

442

D

- Dirty transfer belt HP sensor
- Defective transfer belt contact motor
- Disconnected connector of the transfer belt HP sensor or motor
- Disconnected cable
- Defective IOB

SC Tables: SC5xx

1st tray lift malfunction

The tray lift sensor is not activated after the tray lift motor has been on for 10 seconds. If the main power switch is turned on when the paper is already at the feed height, the paper height position is detected again. At this time, the tray lift sensor should deactivate within 1.5 sec after the paper bottom plate starts to drop. If it does not deactivate within 1.5 sec., a message will prompt the user to reset Tray 1. After two attempts to release the error by re-setting the paper tray, if this does not solve the problem then this SC is displayed.

501

В

- An obstruction (jammed paper, paper scraps, etc.) has blocked the motor drive and caused an overload.
- Tray lift sensor connection loose, disconnected, or damaged
- Tray lift sensor defective
- Tray lift motor connection loose, disconnected, or damaged
- Tray lift motor defective

2nd tray lift malfunction The tray lift sensor is not activated after the tray lift motor has been on for 10 seconds. If the main power switch is turned on when the paper is already at the feed height, the paper height position is detected again. At this time, the tray lift sensor should deactivate within 1.5 sec. after the paper bottom plate starts to drop. If it does not deactivate within 1.5 sec., a message will prompt the user to reset Tray 2. After two attempts to re-set the paper tray, if this does not solve the problem then this SC is displayed. • An obstruction (jammed paper, paper scraps, etc.) has blocked the motor drive and caused an overload. • Tray lift sensor connection loose, disconnected, or damaged • Tray lift sensor defective • Tray lift motor connection loose, disconnected, or damaged

• Tray lift motor defective

503	В	3rd tray lift malfunction (optional paper feed unit or LCT)
		For the paper feed unit:
		 SC 503-01 occurs if the lift sensor does not turn on within 10 seconds after the tray lift motor has turned on.
		For the LCT:
		SC 503-01 occurs if the lift sensor does not turn on or turn off within 8 seconds after the tray lift motor has turned on to lift or lower the tray.
		For the paper feed unit:
-01	-	Defective tray lift motor or connector disconnection
		Defective lift sensor or connector disconnection
		For the LCT:
		Defective stack transport clutch or connector disconnection
		Defective tray motor or connector disconnection
		Defective end fence home position sensor or connector disconnection
		Defective upper limit sensor or connector disconnection
		Defective tray lift motor or connector disconnection

This SC is generated if the following condition occurs 3 consecutive times.

For the paper feed unit:

• When the tray lowers, the tray lift sensor does not go off within 1.5 sec.

For the LCT:

- When the main switch is turned on or when the LCT is set, if the end fence is not in its position (home position sensor ON), the tray lift motor stops.
- If the upper limit does not go off for 1.5 seconds even the tray lift motor turns on to lower the tray after the upper limit has been detected at power on.

-02

For the paper feed unit:

- Defective tray lift motor or connector disconnection
- Defective lift sensor or connector disconnection

For the LCT:

- Defective stack transport clutch or connector disconnection
- Defective tray motor or connector disconnection
- Defective end fence home position sensor or connector disconnection

504

В

4th tray lift malfunction (optional paper feed unit or LCT)

For the two-tray paper feed unit:

- When the tray lift motor is turned on, the upper limit is not detected within 15 seconds. If this condition occurs three consecutive times, the SC is generated.
- When the tray lowers, the tray lift sensor does not go off within 1.5 sec.

For the LCT:

- After the job is finished, if the end fence is not in the home position (home position sensor ON), the tray lift motor stops.
- When the main switch is turned on or when the paper feed unit is set, if the end
 fence is not in the home position (home position sensor ON), the tray lift motor
 stops. If this condition occurs three consecutive times, the SC is generated.
- If the upper or lower limit is not detected within 8 seconds when the tray lift motor is turned on to lift up or lower the tray.
- When the tray lowers, the tray lift sensor does not go off within 1.5 sec.

For the paper feed unit:

- Defective tray lift motor or connector disconnection
- Defective lift sensor or connector disconnection

For the LCT:

- Defective tray lift motor or connector disconnection
- Defective lift sensor or connector disconnection

5th tray lift malfunction (optional LCT)

For the two-tray paper feed unit:

- If the upper limit of the LCT 1200-sheet is not detected within 8 seconds when the tray lift motor is turned on to lift up the tray.
- When the tray lowers, the tray lift sensor does not go off within 1.5 sec.

For the LCT:

505 B

- If the upper limit of the LCT 1200-sheet is not detected within 8 seconds when the tray lift motor is turned on to lift up or lower the tray.
- The tray lift sensor of the LCT 1200-sheet does not go off within 1.5 seconds when the tray lowers. If this condition occurs three consecutive times, the SC is generated.
- Tray lift motor defective or disconnected
- · Upper limit sensor defective or disconnected

530	D	Fusing exhaust fan motor error
		The IOB does not receive the lock signal for 10 seconds after turning on the fusing exhaust fan.
		 Defective fusing exhaust fan motor or connector disconnection Defective IOB Disconnected harness

531	D	Exhaust fan motor error
		The IOB does not receive the lock signal for 10 seconds after turning on the exhaust fan motor.
		Defective exhaust fan motor or connector disconnection.
		Defective IOB
		Disconnected harness

532	D ·	Cooling fan motor error
		The machine does not detect the fan motor lock signal for 10 seconds after turning on the cooling fan motor.
		Defective cooling fan motor or connector disconnection.
		Disconnected harness
		Defective IOB

533	D	Paper exit cooling fan motor error
		The machine does not detect the fan motor lock signal for 10 seconds after turning on the paper exit cooling fan motor.
		Defective paper exit cooling fan motor or connector disconnection.
		Defective IOB
		Disconnected harness

Fusing motor error

• TRIAC short on PSU (PSU defective)



Fusing overheat error 1 (hardware detection) A fusing temperature (at the center) over 250°C is detected by the fusing temperature monitor circuit in the BCU board. I/O board (IOB) defective BCU defective

Fusing lamp consecutive full power 1 After warm-up the fusing lamp remains at full power for 15 seconds without the hot roller rotating. Disconnected or defective thermistors (center) Defective fusing lamp

Zero cross error The zero cross signal is detected three times even though the heater relay is off when turning on the main power. 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. Defective fusing lamp relay Defective fusing lamp relay circuit Unstable power supply

551	A	Fusing thermistor open (end)
		The thermistor (end) detects 0°C or less for 5 sec.
		 Fusing thermistor (end) disconnected Fusing thermistor (end) connector defective

		Fusing temperature warm-up error (end)
		This SC is generated if the following condition occurs:
552	A	• The thermistor (end) does not detect an 8°C increment in the fusing temperature for 1.5 sec. just after the fusing temperature reached 45°C.
		• The temperature of the end thermistor does not reach the target temperature for 31 seconds after the fusing lamps turned on.
		Thermistor warped or broken
		5
		Fusing overheat error 1 (software detection)
	А	A fusing temperature (at the end) of over 230°C (446°F) is detected for 1 second by the fusing thermistors at the center or at either end of the fusing roller.
553		Power supply unit defective
		I/O board (IOB) defective
		BCU defective
		TRIAC short on PSU (PSU defective)
	A	Fusing overheat error 1 (hardware detection)
554		A fusing temperature (at the end) over 250°C is detected by the fusing temperature monitor circuit in the BCU board.
		I/O board (IOB) defective
		BCU defective
	А	Fusing lamp consecutive full power 1
555		After warm-up, the fusing lamp remains at full power for 40 seconds without the hot roller rotating.
		Disconnected or defective thermistors (ends)
		Defective fusing lamp

	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)

Fusing unit jam

The fusing sensor detected a fusing unit paper late jam three times. The paper was late and the fusing exit sensor could not detect the paper three times.

Remove the paper that is stopped in the fusing unit.

Check that the fusing unit is clean and has no obstacles in the paper feed path.

If the error persists, replace the fusing unit.

- SC559 does not operate until SP1159 has been set to "1" (ON). This sets the machine to count the number of occurrences of paper late jams in the fusing unit. The default setting is "0" (OFF).
- SC559 is issued after the third occurrence of a paper late jam in the fusing unit. Once this SC has been issued, the machine cannot be used until the service technician removes the cause of the jam and restores it to normal operation.
- The jam counter is reset after a sheet of paper successfully passes the fusing exit sensor after the cause of the jam has been removed.

SC Tables: SC6xx

620

D

ADF communication error

610	D	Mechanical counter error: BK
		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

-01	-	Communication error between machine and ADF Communication error between machine and ADF with ASAP is detected.
		 Disconnected cable ARDF defective IPU board defective External noise
-02	-	Communication error between IPU and ADF After the ARDF is detected, the break signal occurs or communication timeout occurs. • Incorrect installation of ARDF
		ARDF defectiveIPU board defectiveExternal noise

621	D	Communication timeout error between IOB and finisher or mailbox
		A break (low) signal is received from the finisher or the mailbox.
		Disconnected cable
		Defective IOB
		Defective main board in the peripherals

	D	Paper feed unit communication error
		While the IOB communicates with a peripheral, an SC code is displayed if one of following conditions occurs.
622		The IOB receives the break signal which is generated by the peripheral only just after the main switch is turned on.
		The IOB receives the break signal which is generated by URAT.
		Defective main control board of the peripheral
		Defective BCU or IOB
		Disconnected peripheral

		2nd Paper Bank communication error
623	D	This SC is not issued for this machine when a communication error signal between the 1st paper bank and 2nd paper bank is received.
		Loose connector
		CSS communication error
630	С	A communication error occurred during communication with the CSS.
		Communication line error
		MF accounting device error 1
632	В	The controller sends data to the accounting device, but the device does not respond. This occurs three times.
		Loose connection between the controller and the accounting device
		MF accounting device error 2
633	В	After communication is established, the controller receives the brake signal from the accounting device.
		Loose connection between the controller and the accounting device
	В	MF accounting device error 3
634		The accounting device sends the controller the report that indicates a backup RAM error has occurred.
		Defective controller of the MF accounting device Battery error
		MF accounting device error 4
635	В	The accounting device sends the controller the report that indicates the battery voltage error has occurred.
		Defective controller of the MF accounting device Battery error

636	D	IC Card Error		
	D	External authentication module error		
-01		This SC is generated if the external authentication is enabled and following condition occurs: No external authentication module SD card error or external authentication module broken No DESS module		
	D	Version error		
-02		The version of the external authentication module is not correct.		
		Incorrect module version		
	D	OSM User Code File Error		
-11		The correct "usercode" file could not be found in the root folder of the SD card because the file is not present, or the existing file is corrupted or the wrong type file.		
		Make sure the eccm.mod file is in the root folder of the SD card.		
		Note: Check the eccm.mod file is in the root folder of the SD card.		
	D	Management area error		
-99		The management number of the external authentication module exceeds the maximum limit.		
		Software error		

637	D	racking Information Notice Error	
	D	Tracking Application Error	
		When the tracking information is lost, this SC is issued.	
-01		The machine failed to give notice the tracking information to the tracking SDK application.	
		Tracking information is lost, and the machine cannot count correctly.	

		Tracking Information Notice Error	
		When the tracking information is lost, this SC is issued.	
-02	D	The machine failed to give notice the tracking information to the management server.	
			Tracking information is lost, and the machine cannot count correctly.

641	D	BCU communication error
		The BCU does not respond to the frame transmitted from the controller.
		Defective controller
		Detective BCU

650	-	Communication error of the remote service modem (Embedded RCG-M)	
		Authentication error	
		The authentication for the Embedded RCG-M fails at a dial up connection.	
-001	-	Incorrect SP settings	
		Disconnected telephone line	
		Disconnected modem board	
		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 (SP5816-160).	
	-	Communication line error	
-005		The supplied voltage is not sufficient due to a defective communication line or defective connection.	
		• Same as -001	
		Consult with the user's local telephone company.	

		Modem board error 1
		The modem board does not work properly even though the setting of the modem board is installed with a dial up connection.
-013	-	• Same as -001
		1. Install the modem board.
		2. Check and reset the modem board setting with SP5816.
		3. Replace the modem board.
	-	Modem board error 2
-014		The modem board is installed even though the RCG-N is installed.
		1. Uninstall the modem board, if it is installed.
		2. Check that the Wireless LAN or Ethernet LAN is working properly.
		Incorrect dial up connection
	С	-001: Program parameter error
651		-002: Program execution error

		ID2 mismatching
	D	ID2 for @Remote certification is mismatching between the controller board and NVRAM.
		Used controller board installed
652		Used NVRAM installed
		An unexpected error occurs when the modem (Embedded RCG-M) tries to call the center with a dial up connection.
		Install the correct controller board or new controller board.
		2. Install the correct NVRAM or new NVRAM.

An unexpected error occurs when the modem (Embedded RCG-M) tries to call the $\,$

center with a dial up connection.

• Caused by a software bug

ú		

	D	ID2 error
		ID2 stored in the NVRAM is incorrect.
653		Used NVRAM installed
		An unexpected error occurs when the modem (Embedded RCG-M) tries to call the center with a dial up connection.
		Clear the ID2 in the NVRAM, and then input a correct ID2.

		[1]	Open communication error: ID error
		[2]	Open communication error: Channel error
		[3]	Open communication error: Device error
		[4]	Open communication error: Communication failed error
		[5]	Open communication error: Communication time error
		[6]	Open communication error: Communication suspended error
		[7]	Open communication error: Buffer full error
		[8]	Close communication error: No error code
		[9]	Close communication error: ID error
		[10]	Close communication error: No error code
		[11]	Data write error: ID error
-	-	[12]	Data write error: Channel error
		[13]	Data write error: Device error
		[14]	Data write error: Communication suspended error
		[15]	Data write error: Communication time over error
		[16]	Data write error: Communication suspended error
		[1 <i>7</i>]	Data write error: Buffer full error
		[18]	Data write error: No error code
		[19]	Data read error: ID error
		[20]	Data read error: Channel error
		[21]	Data read error: Device error
		[22]	Data read error: Communication failed error
		[23]	Data read error: Communication time over error

	[24]	Data read error: Communication suspended error
	[25]	Data read error: Buffer full error
	[26]	Data read error: No error code
	[27]	Device detection error: ID error
	[28]	Device detection error: Channel error
	[29]	Device detection error: Device error
_	[30]	Device detection error: Communication failed error
	[31]	Device detection error: Communication time over error
	[32]	Device detection error: Communication suspended error
	[33]	Device detection error: Buffer full error
	[34]	Device detection error: No error code
	1	of EEPROM communication fails three times after the machine has detected the DM error.
	• 0	Caused by noise

	D	Engine startup error
670		The BCU fails to respond with the prescribed time when the machine is turned on.
		Connections between BCU and controller board are loose, disconnected, or damaged
		1. Replace the BCU
		2. Replace the controller board

		Controller-to-operation panel communication error at startup
		 After the machine is powered on, the communication between the controller and the operation panel is not established, or communication with controller is interrupted after a normal startup.
		 After startup reset of the operation panel, the attention code or the attention acknowledge code is not sent from the controller within 30 seconds.
672	D	After the controller issues a command to check the communication line with the controller at 30-second intervals, the controller fails to respond twice.
		Controller stalled
		Controller board installed incorrectly
		Controller board defective
		Operation panel connector loose or defective
		The controller is not completely shutdown when you turn the main switch off.
		Check the setting of SP5875-001. If the setting is set to "1 (OFF)", change it to "0 (ON)".
		Transmission error in controller board
674	D	Video transmission error is detected in the controller board.
		Defective Controller Board
		Memory address (PER) 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.

SC Tables: SC7xx

D

687

700	D	Scanner feeding error 1	
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Harness Disconnection at BCUController board loose or broken

• Defective Controller Board

Defective BCU

01		Pick-up roller HP error
		When the pick-up motor turns on counterclockwise, the pick-up roller HP sensor does not detect the home position of the pick-up roller.
	-	 Defective pick-up roller HP sensor Defective pick-up motor Defective DF drive board
		Original stopper HP error
02	-	When the pick-up motor turns on clockwise, the original stopper HP sensor does not detect the home position of the original stopper.
		 Defective original stopper HP sensor Defective pick-up motor Defective DF drive board
12		DF fan motor 1 error
	-	DF fan motor lock signal is detected after the original transportation has finished.
		Turn the main switch off and on.

701	D	Scanner feeding error 2
	_	Pick-up motor driver error
00		The error flag of the pick-up motor driver IC is asserted when the jam error is issued.
02		Pick-up motor driver detected an error.
		Turn the main switch off and on.
03	_	Paper feed motor error
		The error flag of the paper feed motor driver IC is asserted when the jam error is issued.
		Pick-up motor driver detected an error.
		Turn the main switch off and on.

720	В	2000/3000-Sheet (booklet) Finisher Error
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Finisher exit guide plate motor error After moving away from the guide plate position sensor, the exit guide is not detected at the home position within the prescribed time. The 1st detection failure issues a jam error, and the 2nd failure issues this SC code. Guide plate motor overloaded due to obstruction Guide plate position sensor disconnected, defective 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 causes a jam error, and the 2nd failure causes this SC code. Punch HP sensor disconnected, defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code. Jogger HP sensor disconnected, defective			
at the home position within the prescribed time. The 1st detection failure issues a jam error, and the 2nd failure issues this SC code. Guide plate motor disconnected, defective Guide plate motor overloaded due to obstruction Guide plate position sensor disconnected, defective 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 causes a jam error, and the 2nd failure causes this SC code. Punch HP sensor disconnected, defective Punch motor disconnected or defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			Finisher exit guide plate motor error
Guide plate motor disconnected, defective Guide plate motor overloaded due to obstruction Guide plate position sensor disconnected, defective 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 causes a jam error, and the 2nd failure causes this SC code. Punch HP sensor disconnected, defective Punch motor disconnected or defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			
Guide plate motor overloaded due to obstruction Guide plate position sensor disconnected, defective 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 causes a jam error, and the 2nd failure causes this SC code. Punch HP sensor disconnected, defective Punch motor disconnected or defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.	-24	-	The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
Guide plate position sensor disconnected, defective 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 causes a jam error, and the 2nd failure causes this SC code. Punch HP sensor disconnected, defective Punch motor disconnected or defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			Guide plate motor disconnected, defective
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 causes a jam error, and the 2nd failure causes this SC code. Punch HP sensor disconnected, defective Punch motor disconnected or defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			Guide plate motor overloaded due to obstruction
The punch HP sensor is not activated within the specified time after the punch motor turned on. The 1st detection failure causes a jam error, and the 2nd failure causes this SC code. Punch HP sensor disconnected, defective Punch motor disconnected or defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			Guide plate position sensor disconnected, defective
turned on. The 1st detection failure causes a jam error, and the 2nd failure causes this SC code. Punch HP sensor disconnected, defective Punch motor disconnected or defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			Finisher punch motor error
Punch HP sensor disconnected, defective Punch motor disconnected or defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.		-	·
Punch motor disconnected or defective Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.	-25		The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
Punch motor overload due to obstruction Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			Punch HP sensor disconnected, defective
Finisher jogger motor error The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			Punch motor disconnected or defective
The jogger fences move out of the home position but the HP sensor output does not change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			Punch motor overload due to obstruction
change within the specified number of pulses. The 1st failure issues an original jam message, and the 2nd failure issues this SC code.			Finisher jogger motor error
-30 -	-30	-	
			The 1st failure issues an original jam message, and the 2nd failure issues this SC code.
			Jogger HP sensor disconnected, defective
Jogger motor disconnected, defective			Jogger motor disconnected, defective
Jogger motor overloaded due to obstruction			Jogger motor overloaded due to obstruction
Finisher main board and jogger motor			Finisher main board and jogger motor

		Stack feed-out motor error
		 The stack feed-out HP sensor does not detect the home position of the stack feed- out belt 3000ms after the stack feed-out belt has moved to its home position.
		 The stack feed-out HP sensor does not turn off 200 ms after the stack feed-out belt has moved from its home position.
-41	-	The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
		Defective stack feed-out HP sensor
		Overload on the stack feed-out motor
		Defective stack feed-out motor
		Defective main board
		Disconnected or defective harness
	-	Finisher stapler movement motor error
		Staple movement is not finished within a certain time.
		The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
-42		Motor overload
		Loose connection of the stapler home position sensor
		Loose connection of the stapler movement motor
		Defective stapler home position sensor
		Defective stapler movement motor
	-	Finisher corner stapler rotation motor error
-43		The stapler does not return to its home position within the specified time after stapling.
		The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
		Defective stapler rotation motor
		Overload on the stapler rotation motor
		Defective stapler rotation HP sensor

		Finisher corner stapler motor error
-44	-	 The 1st detection failure causes a jam error, and the 2nd failure causes this SC code. The stapler motor does not switch off within the prescribed time after operating. The HP sensor of the staple unit does not detect the home position after the staple unit moves to its home position. The HP sensor of the staple unit detects the home position after the staple unit moves from its home position.
		 Staple jam Motor overload Defective stapler motor
		Finisher folder plate motor error
-52	_	The folder plate moves but is not detected at the home position within the specified time. The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
-32	-	 Folder plate HP sensor disconnected, defective Folder plate motor disconnected, defective Folder plate motor overloaded due to obstruction.
	-	Folding unit bottom fence lift motor
-53		The folding unit bottom fence movement is not finished within a certain time. The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
-53		 Motor harness loose, broken Motor drive obstructed Motor defective
		Clamp roller retraction motor error
-55	-	The clamp roller movement is not finished within a certain time. The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
		 Motor harness loose, broken Motor drive obstructed Motor defective

		Stack junction gate motor error
		The stack junction gate motor moves but the stack junction gate is not detected at its position within a specific time.
-57	-	The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
		Motor broken
		Motor connection loose
		Motor overloaded
		Booklet stapler motor error 1
		The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
-60	_	The front stapler unit saddle-stitch motor does not start operation within the specified time.
		Motor overload
		Loose connection of the front stapler motor
		Defective front stapler motor
		Booklet staple motor error 2
	-	The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
-61		The rear stapler unit saddle-stitch motor does not start operation within the specified time.
		Motor overload
		Loose connection of the rear stapler motor
		Defective rear stapler motor
	-	Tray lift motor error
-70		The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
		The upper tray paper height sensor does not change its status with the specified time after the tray raises or lowers.
		Motor overload
		Loose connection of the tray lift motor
		Defective tray lift motor

		Finisher Tray 1 shift motor error
		The shift roller HP sensor of the upper tray does not activate within the prescribed time after the shift tray starts to move toward or away from the home position.
-71	-	The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		Shift tray HP sensor of the upper tray disconnected, defective
		Shift tray motor of the upper tray disconnected, defective
		Shift tray motor of the upper tray overloaded due to obstruction
		Shift jogger motor 1 error
		The side fence does not retract within the prescribed time after the shift jogger motor 1 switches on.
-72	-	The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		Shift jogger motor 1 disconnected, defective
		Shift jogger motor 1 overloaded due to obstruction
		Shift jogger 1 HP sensor disconnected, defective
		Shift jogger motor 2 error
	-	The side fence does not retract within the prescribed time after the shift jogger motor 2 switches on.
-73		The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		Shift jogger motor 2 disconnected, defective
		Shift jogger motor 2 overloaded due to obstruction
		Shift jogger 2 HP sensor disconnected, defective
	-	Shift jogger retraction motor error
-74		The side fences do not retract within the prescribed time after the retraction motor switches on.
		The 1st detection failure issues a jam error, and the 2nd failure issues this SC code.
		Shift jogger retraction motor broken
		Shift jogger retraction motor connection loose
		Shift jogger retraction motor overloaded
		Defective shift jogger retraction HP sensor
		Shift jogger retraction motor overloaded

		Return roller motor error
		This occurs during the operation of the lower tray pressure motor
-75	_	Motor harness disconnected, loose, defective
		Motor overloaded
		Home position sensor harness disconnected, loose, defective
		Home position defective
		Punch movement motor error
		The punch unit moves but is not detected at the home position within the specified time.
-80	-	The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
		Motor harness disconnected, loose, defective
		Defective motor
	-	Paper position sensor slide motor error
-81		The paper position sensor moves but is not detected at the home position within the specified time.
		The 1st detection failure causes a jam error, and the 2nd failure causes this SC code.
		Motor harness disconnected, loose, defective
		Defective motor

722	В	1000-Sheet Finisher Error
-10	-	Upper transport motor error
		The upper transport motor in the finisher is not operating.
		Upper transport motor drive is obstructed (jammed paper, paper scraps, etc.)
		The motor harness is loose or broken
		Upper transport motor defective
-14	-	Lower transport motor error
		The lower transport motor in the finisher is not operating.
		Lower transport motor drive is obstructed (jammed paper, paper scraps, etc.)
		The motor harness is loose or broken
		Lower transport motor defective

-17	-	Exit motor error
		The exit motor in the finisher is not operating.
		Exit motor drive is obstructed (jammed paper, paper scraps, etc.)
		The motor harness is loose or broken
		Exit motor defective
-24	-	Finisher exit guide plate motor error
		The exit guide plate HP sensor did not activate within the prescribed time after the exit guide plate motor turned on.
		Finisher exit guide plate motor drive is obstructed (jammed paper, paper scraps, etc.)
		Exit guide plate motor harness loose, broken
		Exit guide plate HP sensor harness loose, broken
		Exit guide plate motor defective
		Exit guide plate HP sensor defective
-30	-	Front fence motor error
		The jogger fence motor in the finisher is not operating.
		Jogger motor drive is obstructed (jammed paper, paper scraps, etc.)
		The motor harness is loose or broken
		Jogger fence HP sensor dirty, loose, defective
		Jogger fence motor defective
-41	-	Feed-out belt motor error
		The feed-out belt did not return to the home position within the prescribed time.
		Feed-out belt motor drive is obstructed (jammed paper, paper scraps, etc.)
		Motor harness loose or broken
		Feed-out belt HP sensor dirty, disconnected, broken
		Motor defective

-42	-	Stapler movement motor
		The 1st detection failure issues a jam error, and the 2nd failure causes this SC code. The stapler HP sensor is not activated within the specified time after the stapler motor
		Stapler or motor drive is blocked by obstruction Motor harness loose or broken Stapler HP sensor harness loose, broken Motor defective
		Stapler HP sensor defective
		Corner stapler motor error
-44	-	 The 1st detection failure issues a jam error, and the 2nd failure causes this SC code. The stapler motor does not switch off within the prescribed time after operating. The HP sensor of the staple unit does not detect the home position after the staple unit moves to its home position. The HP sensor of the staple unit detects the home position after the staple unit moves from its home position. Staple jam Number of sheets in stack exceeds allowed number of sheets for stapling Stapler motor obstructed
		Stapler motor defective
-70	-	Tray lift motor error The tray lift motor is not operating. • Motor harness loose, broken • Motor drive obstructed • Stack height sensor dirty, harness loose, broken • Motor defective
		Stack height sensor defective

Shift tray motor error

SC Tables: SC8xx

		Energy save I/O sub-system error
816	D	Energy saver sub-system detects an error.
		Defective controller board
		Monitor Error
817	D	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
		ALC: LL

Watchdog timer error The watchdog timer detect the error even if system processing normally. • System program defective • Controller board defective • Optional board defective

		Fatal kernel error	
		Due to a control error, a RAM over following messages was displayed	orflow occurred during system processing. One of the don the operation panel.
	С	0x6261	6261 6420 6469 7200 00 -> "bad dir"
		0x696e	0x69742064 -> "init died"
		0x766d	0x5f706167 -> "vm_pageout: VM is full"
819		554C	UL (USB error)
			Error in the OS
			"init died", "vm_pageout: VM is full", "Cache Error"
		System program defective	
		Controller board defective	
		Optional board defective	
		Replace controller firmware	



• For more details about this SC code error, execute SP5990 to print an SMC report so you can read the error code. The error code is not displayed on the operation panel.

0.0	`	CTL	Self-diagnostics error: CPU	
82)	D	[XXXX]: Detailed error code	

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 problem • Defective controller [0001] to [06FF] 1. Turn the main switch off and on. [0801] to 2. Reinstall the controller system firmware. [4005] 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 Defective RAM-DIMM [0701] to Defective controller [070A] 1. Reinstall the controller system software. 2. Replace the RAM-DIMM. 3. Replace the controller.

821	D	Self-diagnostics error: ASIC [XXXX]: Detailed error code
		ASIC error
[OBOO	1	The write-&-verify check error has occurred in the ASIC.
LODGO	1	Defective ASIC device
		Replace the controller board.

821	D	Self-diagnostics error: ASIC [XXXX]: Detailed error code
		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.
[0D05	5]	System firmware problem
		Defective RAM-DIMM
		Defective controller
		Replace the controller board.
		Video bridge device (ASIC) error 1
[50A1]	The CPU does not detect the video bridge device.
		Defective I/F between the video bridge device and controller
		Video bridge device (ASIC) register error 1
[50A2	2]	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

U Note

• For more details about this SC code error, execute SP5990 to print an SMC report so you can read the error code. The error code is not displayed on the operation panel.

822	В	Self-diagnostic error: HDD
[3003]	 Check performed only when HDD is installed: HDD device busy for over 31 s. After a diagnostic command is set for the HDD, but the device remains busy for over 6 s. HDD defective HDD harness disconnected, defective Controller board defective
[3004]	No response to the self-diagnostic command from the ASIC to the HDDs. • HDD defective

823	В	Self-diagnostic error: NIB [XXXX]: Detailed error code
[6101]	MAC address check sum error The result of the MAC address check sum does not match the check sum stored in ROM.
[6104	.]	PHY IC error The PHY IC on the controller cannot be correctly recognized.
[6105]		PHY IC loop-back error An error occurred during the loop-back test for the PHY IC on the controller.

	D	Self-diagnostic error : NVRAM
		NVRAM device does not exist, NVRAM device is damaged, or NVRAM socket damaged.
824		NVRAM defective
		Controller board defective
		NVRAM backup battery exhausted
		NVRAM socket damaged

826	D	Self-diagnostic Error: RTC/optional NVRAM
[1501]	The one second counted by the RTC is different from the one second counted by the CPU on the controller.
		Defective RTC device
		The RTC device is not detected.
[15FF]		 Defective RTC device NVRAM without RTC installed Discharged backup battery

827	_	Self-diagnostic error: Standard SDRAM DIMM
027	D	[XXXX]: Detailed error code

	Verification error
	Error detected during a write/verify check for the standard RAM (SDRAM DIMM).
[0201]	Loose connection
	Defective SDRAM DIMM
	Defective controller
	Resident memory error
	The SPD values in all RAM DIMM are incorrect or unreadable.
[0202]	Defective RAM DIMM
[0202]	Defective SPD ROM on RAM DIMM
	Defective 12C bus
	Replace the RAM DIMM.

828	D	Self-diagnostic error: ROM [XXXX]: Detailed error code
[0101]		• 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.
		1. Replace the controller board.

829	D	Self-diagnostic error: Optional RAM [XXXX]: Detailed error code
		Verification error
		Error detected during a write/verify check for the optional RAM (SDRAM DIMM).
[0301]	Loose connection Defective SDRAM DIMM Defective controller
		Turn the main switch off and on. Replace the SDRAM DIMM. Replace the controller.

	Memory structure data error
	The memory structure data error for the optional RAM (SDRAM DIMM) is detected when the self-diagnostic is executed.
[0302]	Defective RAM DIMM
	Defective SPD ROM on RAM DIMM
	Defective 12C bus
	Replace the RAM DIMM.

833	С	Self-diagnostic error 8: Engine I/F ASIC
[0F30]		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 IPU.
[0F41]		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 IPU.
		Could not initialize or read the bus connection.
[50B1]	Check for loose connections at the mother board.
		Replace the IPU.
		Value of the SSCG register is incorrect.
[50B2]	Check for loose connections at the mother board.
		Replace the IPU.

835	С	Self-diagnostic error: Centronic device
		Loopback connector is connected but check results in an error.
[1102]		IEEE1284 connector error
[52]		Centronic loopback connector defective
		Replace the controller board.

[110C]	Loopback connector is connected but check results in an error. ASIC device error IEEE 1284 connector error Centronic loopback connector defective Replace the controller board.
[1120]	Centronic loopback connector is not connected for detailed self-diagnostic test. Centronic loopback connector not connected correctly Centronic loopback connector defective ASIC device defective Replace the controller board.

838	В	Self-diagnostic Error: Clock Generator
		A verify error occurred when setting data was read from the clock generator via the 12C bus.
[2701]		Defective clock generator
[2/01]		Defective I2C bus
		Defective I2C port on the CPU
		Replace the controller board.

839	С	USB NAND Flash ROM error
100	0011	USB NAND Flash ROM cannot be read.
[9]	001]	Defective controller board
0.1	101]	The ID of the USB NAND Flash ROM cannot be read.
[9		Defective controller board
0]	1101	The USB NAND Flash ROM controller is disconnected.
[4	110]	Defective controller board

840	В	EEPROM error 1: EEPROM access
		During the I/O processing, a reading error occurred. The 3rd reading failure causes this SC code.
		During the I/O processing, a writing error occurred.
		Defective EEPROM
		EEPROM error 2: EEPROM read/write error
841	В	Mirrored data of the EEPROM is different from the original data in EEPROM.
		Data in the EEPROM is overwritten for some reason.
		Flash ROM verification error
		Verification error of the flash ROM on the controller board occurs.
0.40	В	₩Note
842		This SC is logged at 1st error detection.SC819 is issued at 2nd error detection.
		SC819 is issued at 2nd error detection.
		Defective flash ROM (controller board)
		IEEE 1394 I/F error
	В	Driver setting incorrect and cannot be used by the 1394 I/F.
851		Not supported by this machine
		NIB (PHY), LINK module defective; change the Interface Board
		Controller board defective
		Wireless LAN Error 1
853	В	During machine operation, the Wireless LAN device (Bluetooth) is inserted into the controller board.
		During machine operation, the Wireless LAN device (Bluetooth) is inserted into the

controller board.

854	В	Wireless LAN Error 2
		During machine operation, the Wireless LAN device (Bluetooth) is pulled out from the controller board.
		During machine operation, the Wireless LAN device (Bluetooth) is pulled out from the controller board.

855	В	Wireless LAN error 3
		An error is detected on the wireless LAN card (802.11a/g, g).
		Wireless LAN card defective
		Wireless LAN card connection incorrect

	857	В	USB I/F Error
			The USB driver is not stable and caused an error.
			Bad USB card connection
			Replace the controller board

858	С	HDD Encryption unit error 1
		A serious error occurs when data is encrypted to update an encryption key with the HDD encryption unit.
-00	-	Encryption key acquisition error: The controller fails to get a new encryption key. • Defective controller board Replace the controller board.
-01	-	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.

-02		NVRAM data encryption error 1: An error occurs while the NVRAM data is encrypted.
-02	_	Defective NVRAM on the controller board Replace the NVRAM.
-30		NVRAM data encryption error 2: An error occurs before the NVRAM data is encrypted.
-30	-	Defective controller board Replace the controller board.
-31	Other error: A serious error occurs while the data is encrypted. Same as SC991	

		HDD Encryption unit error 2	
859	С	A serious error occurs when the HDD data is encrypted to update an encryption key with the HDD encryption unit.	
-08	-	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 1. Install the HDD correctly. 2. Initialize the HDD.	
-09	-	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		

	HDD is not initialized Label data is corrupted Defective HDD	HDD startup error at main power on
860		HDD is not initialized
		Defective HDD
		Initialize the HDD with SP5832-001.

	HDD re-try failure	
	system has entered the energy save m the energy save mode, it does not retuen 861 D	At power on, the HDD is detected. Power supply to the HDD is interrupted after the system has entered the energy save mode, but after the HDD has been awakened from the energy save mode, it does not return to the ready status within 30 sec.
861		Harness between HDD and controller board disconnected, defective
HDD power connector disconnected	HDD power connector disconnected	
		HDD defective
		Controller board defective

		Bad sector number error
The number of bad s	The number of bad sectors in the HDD (image data area) goes over 101.	
862	862 D • Defective HDD	Defective HDD
		Format the HDD with SP5-832-002.
		Replace the HDD.

863	D	HDD data read failure
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	The data written to the HDD cannot be read normally, due to bad sectors generated during operation.		
Note: [0	Note: [001] to [017] indicate the type of partition where the error occurred. Enable display of these numbers with SP7902.		
[001]	An area which does not belong to a partition		
[002]	a partition		
[003]	b partition		
[004]	c partition		
[005]	d partition		
[006]	e partition		
[007]	f partition		
[800]	g partition		
 [009]	h partition		
[010]	i partition		
[011]	j partition		
[012]	k partition		
[013]	l partition		
[014]	m partition		
[015]	n partition		
[016]	o partition		
[017]	p partition		
[018]	q partition		
[019]	r partition		

		[020]	s partition
		[021]	q partition
		[022]	t partition
-	-	[023]	u partition
		Note: If the is written	D defective the bad sectors are generated at the image partition, the bad sector information to NVRAM, and the next time the HDD is accessed, these bad sectors will not sed for read/write operation.

864	D HDD data CRC error	
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During HDD operation, the HDD cannot respond to a CRC error quer does not execute normally while data is being written to the HDD. Note: [001] to [017] indicate the type of partition where the error oc			
Note: [0	Note: [001] to [017] indicate the type of partition where the error occurred. Enable display of these numbers with SP7902.		
[001]	An area which does not belong to a partition		
[002]	a partition		
[003]	b partition		
[004]	c partition		
[005]	d partition		
[006]	e partition		
[007]	f partition		
[800]	g partition		
[009]	h partition		
[010]	i partition		
[011]	j partition		
[012]	k partition		
[013]	I partition		
[014]	m partition		
[015]	n partition		
[016]	o partition		
[017]	p partition		
[018]	q partition		
[019]	r partition		
	Note: [0 display of di		

		[020]	s partition
	[021] q pari	q partition	
-	-	[022]	t partition
		[023]	u partition
		• HD[O defective

865

		HDD res SC863,	ponded to an error during operation for a condition other than those for 864.
			01] to [017] indicate the type of partition where the error occurred. Enable of these numbers with SP7902.
		[001]	An area which does not belong to a partition
		[002]	a partition
		[003]	b partition
		[004]	c partition
		[005]	d partition
		[006]	e partition
		[007]	f partition
		[800]	g partition
-	-	[009]	h partition
		[010]	i partition
		[011]	j partition
		[012]	k partition
		[013]	I partition
		[014]	m partition
		[015]	n partition
		[016]	o partition
		[017]	p partition
		[018]	q partition
		[019]	r partition

		[020]	s partition							
		[021]	q partition							
-	-	[022]	t partition							
								[023]	u partition	

SD card error 1: Confirmation The machine detects an electronic license error in the application on the SD card in the controller slot immediately after the machine is turned on. The program on the SD card contains electronic confirmation license data. If the program does not contain this license data, or if the result of the check shows that the license data in the program on the SD card is incorrect, then the checked program cannot execute and this SC code is displayed. Program missing from the SD card Download the correct program for the machine to the SD card

		SD card error 2: SD card removed
867	867 D	The SD card in the slot is removed while the machine is on.
		Insert the SD card, then turn the machine off and on.

	868	D	SD card error 3: SC card access
			An error occurs while an SD card is used.
			SD card not inserted correctly
			SD card defective
			Controller board defective
			Note: If you want to try to reformat the SC card, use SD Formatter Ver 1.1.

Address book data error

The address book data cannot be read from the HDD, SD card or flash ROM on the controller where it is stored, or the data read from the media is defective.

• Software defective:

870 B

Turn the machine off/on. If this is not the solution for the problem, then replace the controller firmware.

HDD defective.

More Details

- Do SP5846-046 (Initialize All Setting & Addr Book) to reset all address book
- Reset the user information with SP5832-006 (HDD Formatting- User Information).
- Replace the HDDs.

HDD mail receive data error

872

В

• The machine detects that the HDD is not operating correctly at power on.

• The machine detects that the HDD is not operating correctly (can neither read nor write) while processing incoming email.

- HDD defective
- The machine is turned off while the HDD is being accessed.

Do SP5832-008 to format the mail RX data on the HDD.

HDD mail send data error

873

В

An error is detected on the HDD immediately after the machine has been turned on, or power has been turned off while the machine has used the HDD.

- 1. Do SP5832-008 (Format HDD Mail TX Data) to initialize the HDD.
- 2. Replace the HDD

	D	Delete All error 1: HDD
874		A data error is detected for the HDD/NVRAM after the Delete All option has been used. Note: The source of this error is the DataOverwriteSecurity Unit running from an SD card.
		 Turn the main switch off/on and try the operation again. Install the DataOverwriteSecurity Unit again. For more, see "Installation". HDD defective

	D	Delete All	error 2: Data area
		An error occurs while the machine deletes data from the HDD. Note: The source of this error is the DataOverwriteSecurity Unit (D362) running from an SD card.	
875		-001	An error occurs in hddchack-i.
		-002	Failed to delete data from the HDD.
		-003	
		Turn the m	ain switch off/on and try the operation again

	D	Log Data Error
876		An error is 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
-01	-	Damaged log data file in the HDD
		Initialize the HDD with SP5832-004.
	-	Log Data Error 2
		HDD encryption unit not installed
-02		Ask the customer's administrator to disable the HDD encryption setting with a user tool.
		2. Install the HDD encryption unit.

		Log Data Error 3
		Invalid log encryption key due to defective NVRAM data
-03	-	1. Initialize the HDD with SP5832-004.
		Ask the customer's administrator to disable the HDD encryption setting with a user tool.
		Log Data Error 4
-04	-	Unusual HDD encryption function due to defective NVRAM data
		Initialize the HDD with SP5832-004.
	-	Log Data Error 5
-05		Installed a NVRAM or HDD which was used in another machine
		1. Reinstall the previous NVRAM or HDD.
		2. Initialize the HDD with SP5832-004.
		Log Data Error 99
-99	-	Other than the above causes
		Ask your supervisor.

877	В	HDD DataOverwriteSecurity SD card error
		The 'all delete' function cannot be executed but the DataOverwriteSecurity Unit is installed and activated.
		Defective SD card
		SD card not installed
		1. Replace the NVRAM and then install the new SD card.
		2. Check and reinstall the SD card.

|--|

		TPM system authentication error
		The system firmware is not authenticated by TPM (security chip).
-00	-	Incorrect updating for the system firmware
		Defective flash ROM on the controller board
		Replace the controller board.
		USB Flash Error
		File system in the USB flash device is defective.
-01	_	Cannot mount partition 3 in the USB flash device.
		Encryption key does not exist.
		 Cannot find the file for KMMD to be operated.
		Replace the controller board.
		TPM Error
-02		An error occurred in TPM or in TPM driver.
-02	-	TPM defective
		Replace the controller board.
	-	TCSD Error
-03		An error occurred in TPM or in TPM driver.
-03		TPM defective
		Replace the controller board.
		File Format Converter (MLB) error
880	В	A request to get access to the MLB is not answered within the specified time.
		MLB defective, replace the MLB
		Authentication area error
881	D	Authentication application error is detected.
		Error data in an authentication application reaches the management limit.

6

SC899 RTB 28

	D	Software performance error
899		If the processing program shows abnormal performance and the program is abnormally ended, this SC is issued.
		Controller board defective
		Software defective

SC Tables: SC9xx

	D	Electrical total counter error
900		The total counter contains something that is not a number.
		NVRAM incorrect type
		NVRAM defective
		NVRAM data scrambled
		Unexpected error from external source

920	В	Printer error
-01		Timeout error during the PM operation
-02		Working memory error
-03	-	Cannot start-up the filtering process
-04		Abnormal exit from the filtering process
		An internal application error was detected and operation cannot continue.
-	-	Software defective; turn the machine off/on, or change the controller firmware
		Insufficient memory

921	D	Printer font error
-01	-	Resident font is not found
-02	-	Option font is not found

925	В	Net File function error
-00	-	HDD is defective
-01	-	NetFile management file is broken
-	-	The NetFile file management on the HDD cannot be used, or a NetFile management file is corrupted and operation cannot continue. The HDDs are defective and they cannot be debugged or partitioned, so the Scan Router functions (delivery of received faxes, document capture, etc.), Web services, and other network functions cannot be used. HDD status codes are displayed below the SC code. • Refer to the four procedures below (Recovery from SC 925).

Here is a list of HDD status codes:

Display	Meaning
(-1)	HDD not connected
(-2)	HDD not ready
(-3)	No label
(-4)	Partition type incorrect
(-5)	Error returned during label read or check
(-6)	Error returned during label read or check
(-7)	"filesystem" repair failed
(-8)	"filesystem" mount failed
(-9)	Drive does not answer command
(-10)	Internal kernel error
(-11)	Size of drive is too small

Display	Meaning
(-12)	Specified partition does not exist
(-13)	Device file does not exist

Recovery from SC 925

Procedure 1

If the machine shows SC codes for HDD errors (SC860 to SC865) with SC 925, do the recovery procedures for SC860 to SC865.

Procedure 2

If the machine does not show one of the five HDD errors (SC860 to SC865), turn the machine power off and on. If this is not the solution for the problem, then initialize the NetFile partition on the HDD with SP5832-011 (HDD Formatting – Ridoc I/F).

NetFiles: Jobs printed from the document server using a PC and DeskTopBinder

- Before you initialize the NetFile partition on the HDD, tell the customer that:
- · Received faxes on the delivery server will be erased
- All captured documents will be erased
- DeskTopBinder/Print Job Manager/Desk Top Editor job history will be erased
- Documents on the document server, and scanned documents, will not be erased.
- The first time that the network gets access to the machine, the management information must be configured again (this will use a lot of time).

Before you initialize the Netfile partition with SP5832-011, do these steps:

- 1. Go into the User Tools mode and do "Delivery Settings" to print all received fax documents that are scheduled for delivery. Then erase them.
- 2. In the User Tools mode, do Document Management> Batch Delete Transfer Documents.
- 3. Do SP5832-011, then turn the machine power off and on.

Procedure 3

If "Procedure 2" is not the solution for the problem, do SP5832-001 (HDD Formatting – All), then turn the machine power off and on.

SP5832-001 erases all document and address book data on the hard disks. Ask the customer before you do this SP code.

Procedure 4

If "Procedure 3" is not the solution for the problem, replace the HDD.

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		Software error 1
990	D	The software performs an unexpected function and the program cannot continue.
		Software defective, re-boot
		Software error 2
991	С	The software performs an unexpected function. However, unlike SC990, recovery processing allows the program to continue.
		Software defective, re-boot

In order to get more details about SC990 and SC991:

- 1) Execute SP7403 or print an SMC Report (SP5990) to read the history of the 10 most recent logged errors
- 2) If you press the zero key on the operation panel with the SP selection menu displayed, you will see detailed information about the recently logged SC990 or SC991, including the software file name, line number, and so on.



• 1) is the recommended method, because another SC could write over the information for the previous SC.

	D	Undefined error	
992		Defective software program	
		An error undetectable by any other SC code occurred	
	С	Application Item Error	
994		The number of executed application items on the operation panel reach the maximum limit for the operation panel structure.	
		Too much executed application items	
995	D	CPM setting error	

-01	-	Defective BCUNVRAM Replacement error
		 Install the previous NVRAM. Input the serial number with SP5811-003, and turn the main power switch off/on.
-02	-	Defective NVRAM Defective controller
		 Update the controller firmware. Install a new NVRAM, and turn off and on the main power switch after SC995-002 has occurred.
-03	-	Incorrect type controller installed Defective controller
		1. Replace the controller with the correct type.
-04	-	Incorrect model controller installed.
		1. Replace the controller with the correct model.

		Software Error 3: Cannot select application function
997	В	An application does not start after the user pushed the correct key on the operation panel.
997	ט	 Software bug A RAM or DIMM option necessary for the application is not installed or not installed correctly.

		Software Error 4: Application cannot start
998	D	Register processing does not operate for an application within 60 s after the machine power is turned on. No applications start correctly, and all end abnormally.
		 Software bug A RAM or DIMM option necessary for the application is not installed or not installed correctly.

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Electrical Component Defects

Component (Symbol)	CN	Condition	Symptom
By-pass Paper Length	236-2	Open	Paper size error
Sensor	(IOB)	Shorted	Taper size error
Duplex Entrance	217-A8 (IOB)	Open	Jam Z
Doblex Ellirance	217-A0 (IOB)	Shorted	Jam Z
Durales Cassas	217-A11	Open	"Open Cover" is displayed.
Duplex Cover	(IOB)	Shorted	"Open cover" cannot be detected.
Donald Fait	217-A14 (IOB)	Open	Jam Z
Duplex Exit		Shorted	am Z (Jam 1)
By-pass Paper End	217-B3 (IOB)	Open	The Paper End indicator lights even if paper is placed on the by-pass tray.
		Shorted	The Paper End indicator does not light even if there is no paper on the by-pass tray.
	217-B9,	Open	
By-pass Paper Size	B10,B12,B13 (IOB)	Shorted	Paper size error
Toner Overflow	217-B15 (IOB)	Open	CPU cannot detect the toner overflow even the waste toner in the transfer belt unit is full.
		Shorted	CPU detects the toner overflow even the waste toner in the transfer belt unit is not full.

Component (Symbol)	CN	Condition	Symptom
Paper Feed 1	216-A4 (IOB)	Open/Shorted	No symptom, but this may cause Jam A, and some pieces of paper are remaining at the paper feed unit when tray 1 is opened.
Relay 1	216-A7 (IOB)	Open	Jam A
Reidy 1	210-A7 (10b)	Shorted	Jam A, B
	216-A10	Open	The Paper End indicator lights even if paper is placed in the paper tray 1.
Paper End 1	(IOB)	Shorted	The Paper End indicator does not light even if there is no paper in the paper tray 1.
Tray Lift 1	216-A13 (IOB)	Open/ Shorted	SC501 is displayed.
Paper Feed 2	216-B4 (IOB)	Open/ Shorted	No symptom, but this may cause Jam A and some pieces of paper are remaining at the paper feed unit when tray 2 is opened.
Polary 2 216 B7 (10P		Open	Jam A
Keldy Z	Relay 2 216-B7 (IOB)		Jam A, B
		Open	The Paper End indicator lights even if paper is placed in the paper tray 2.
Paper End 2	(IOB)	Shorted	The Paper End indicator does not light even if there is no paper in the paper tray 2.
Tray Lift 2	216-B13 (IOB)	Open/ Shorted	SC502 is displayed.
Registration	200 2 (100)	Open	Jam A (Jam 8, 17)
Registration	209-2 (IOB)	Shorted	Jam A, B (Jam 1)

Component (Symbol)	CN	Condition	Symptom	
Paper Size 1	209-4, 5, 5, 8 (IOB)	Open/ Shorted	Paper size error in tray 1	
Paper Size 2	209-9, 10, 11, 13 (IOB)	Open/ Shorted	Paper size error in tray 2	
Lower Paper Height 1	210-4 (IOB)	Open/ Shorted	Remaining paper volume in tray 2 on	
Lower Paper Height 2	210-7 (IOB)	Open/ Shorted	the LCD is wrong.	
Upper Paper Height 1	210-12 (IOB)	Open/ Shorted	Remaining paper volume in tray 1 on	
Upper Paper Height 2	210-15 (IOB)	Open/ Shorted	the LCD is wrong.	
Junction Jam	221-A10 (IOB)	Open/ Shorted	Jam C	
Dance Evit	221-B2 (IOB)	Open	Jam C	
Paper Exit 221-B2 (IOB		Shorted	Jam C	
Fusing Exit	Fusing Exit 221-B5 (IOB)		Jam C	
Tosing Exil	221-03 (100)	Shorted	Jam C	
D O II	221-B8 (IOB)	Open	Paper overflow message is not displayed when a paper overflow condition exists.	
Paper Overflow		Shorted	Paper overflow message is displayed when a paper overflow condition does not exist.	
TD (Toner Density)	213-14 (IOB)	Open	The add toner indicator blinks even if there is toner in the development unit.	
		Shorted	SC390 is displayed.	

Component (Symbol)	CN	Condition	Symptom	
Web End	208-16 (IOB)	Open	CPU detects the web end even the web is not used up.	
vved End		Shorted	CPU cannot detect the web end even the web is used up.	
ID (Image Density)	200 11 (IOP)	Open	SC350 is displayed after copying.	
ID (Image Density)	208-11 (IOB)	Shorted	SC351 is displayed after copying.	
	208-8 (IOB)	Open	CPU cannot detect paper even a sheet of paper remains at the fusing unit.	
Fusing Entrance		Shorted	CPU detects paper even a sheet of paper does not remain at the fusing unit.	
Scanner Home Position 318-2 (SIO)		Open	SC121 is displayed.	
Scanner Home Position	318-2 (SIO)	Shorted	SC120 is displayed.	
Platen Cover	N 0 010 5 (010)		APS and ARE do not function properly	
ridien Cover	318-5 (SIO)	Shorted	No symptom.	
Original Length 1	313-2 (SIO)	Open/ Shorted	CPU cannot detect the original size properly. APS and ARE do not function correctly.	
Original Length 2	313-8 (SIO)	Open/ Shorted	CPU cannot detect the original size properly. APS and ARE do not function correctly.	

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Component (Symbol)	CN	Condition	Symptom
Binkt Door	221-B10 (IOB)	Open	"Open Cover" is displayed even if the right door is closed.
Right Door		Shorted	The LCD goes blank when the right door is opened.
Main Power	903-1,2 (PSU)	Open	The machine does not turn on.
		Shorted	The machine does not turn off.
Interlock	913-1,2 (PSU)	Open	"Doors/Covers Open" is displayed even if the front or right door is closed.
		Shorted	The LCD goes blank when the front or right door is opened.

Blown Fuse Conditions

ACAUTION

• Use a correct rating fuse for the fuse replacement. Never use a wrong rating fuse. If do so, the machine may be damaged.

Rating			C	
Fuse	115V	210 to 230V	Symptom at power on	
Power Sup	ply Board			
FU21	6.3A / 250V	6.3A / 250V	SC 533 (Power to IOB)	
FU22	6.3A / 250V	6.3A / 250V	SC 144-02 (Power to SIO)	
FU23	10A / 250V	10A / 250V	"Open Cover" is displayed. (Power to Interlock Switch)	
FU24	10A / 250V	10A / 250V	"Open Cover" is displayed. (Power to Interlock Switch)	
FU25	6.3A / 250V	6.3A / 250V	Alert LED turns on and operation panel does not turn on. (Power to MB)	
FU26	6.3A / 250V	6.3A / 250V	Stack paper in the optional paper feed unit or LCT is not detected. SC 503 is issued after opening and closing the tray 3 or 4. (Power to optional PFU or LCT)	
FU27	6.3A / 250V	6.3 A/ 250V	The machine does not detect a finisher. (Power to optional Finisher)	
FU101	15A / 250V	8A / 250V	No response	
FU102	12A / 250V	4A / 250V	No response	

Fuses

Fuse Address	Part No.	Q'ty
FU11	11071229	1
FU21, 22, 25, 26, 27	11071295	5
FU23, 24	11071216	2
FU101	11071252	1
FU102	11071320	1
FU103, 12, 14	11071225	3



Model AL-C2 Machine Code: D129/D130

Appendices

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1. Appendix: General Specifications

General Specifications

General

Configuration	Desktop					
Copy Process	Dry electrostatic	Dry electrostatic transfer system				
Original	Sheet, book, thre	ee-dimensional object				
Original Size	Maximum A3/1	Maximum A3/11" x 17"				
	Paper trays:	A3/11" x 17" - A5 LEF Non-standard sizes: Width: 182 - 297 mm (7.2" - 11.7") Length: 148 mm - 432 mm (5.8" - 17")				
Copy Paper Size	By-pass tray:	12" x 18"/305 x 457.2 mm, A3/11" x 17" - A6 SEF Non-standard sizes: Width: 90 - 305 mm (3.6" - 12") Length: 148 - 600 mm (5.8" - 23.6")				
	Duplex:	A3/11" x 17" - A6 SEF Non-standard sizes: Width: 90 - 297 mm (3.6" - 11.7") Length: 148 - 432 mm (5.8" - 17")				
	Paper trays:	60 - 216 g/m² (16 lb. Bond - 80 lb. Cover)				
Copy Paper Weight	By-pass:	52 - 220 g/m² (14 lb. Bond - 80 lb. Cover)				
	Duplex:	60 - 169 g/m² (16 lb. Bond - 90 lb. Index)				

Reproduction Ratios	7R5E: 82,		Metric version (%): 400, 200, 141, 122, 115, 93, 2, 75, 71, 65, 50, 25 ach version (%): 400, 200, 155, 129, 121, 93, 5, 78, 73, 65, 50, 25		
	Zoom: 25		to 400% in 1% steps		
	D129	40	cpm A4, 81/2" x 11" LEF, 1-to-1 (ADF)		
Copying Speed	D130	50	cpm, A4, 81/2" x 11" LEF, 1-to-1 (ADF)		
First Conv. Time	Basic	4.1	s, 1st Tray, A4/81/2" x 11" LEF		
First Copy Time	SP	3.5	s, 1st Tray, A4/81/2" x 11" LEF		
\\/ Time -	Basic	Les	s than 14.7s		
Warm-up Time	SP	Les	s than 19 s		
Continuous Copy	1 to 999 (operation	n par	panel entry)		
Paper Capacity (without	1,200 sheets				
options)	(550 sheets/tray x 2 with 100 sheets in the by-pass tray)				
Paper Capacity (with options)	(550 shoots /tray x 2		ith 100 sheets in the by-pass tray, 1200-sheet T)		
Paper Output	A4, 81/2" x 11" and smaller:		500 sheets		
	B4 and larger:		250 sheets		
	North America:		120 – 127V/60 Hz, 12 A		
Power Source	Europe/Asia:		220 – 240 V/50, 60 Hz, 7 A		
	Taiwan		110V/60Hz, 14 A		
Dimensional LLI	Without ADF		670 mm x 682 mm x 760 mm (26.4" x 26.9" x 30.0")		
Dimensions (w x d x h)	With ADF		670 mm x 682 mm x 895 mm (26.3" x 26.9" x 35.3")		
) A	EU		Less than 85 kg (187.4 lb.)		
Weight	NA		Less than 97 kg (213.9 lb.)		

Resolution	600 dpi (Scanning and Printing)						
Gradation	256 levels (Sco	256 levels (Scanning and Printing)					
Original Archive	More than 2,5	00 A4 pages for document ser	rver (ITU-T No. 4 Chart)				
Toner Replenishment	Cartridge exch	Cartridge exchange (630 g)					
Total Counter	Electric counter						
		Mainframe Only	Full System				
Noise Emission: Copying	D129	64.6 dB(A)	71.1 dB(A)				
Сорушу	D130	66.4 dB(A)	71.6 dB(A)				
		Mainframe Only	Full System				
Noise Emission: Stand-by	D129	33.8 dB(A)	34.0 dB(A)				
Sidna by	D130	32.6 dB(A)	33.6 dB(A)				

Power Consumption

Basic	D129		D130	
D	NA	156 W	NA	165 W
Ready	EU, Asia	157 W	EU, Asia	166 W
0	NA	745 W	NA	835 W
Operating	EU, Asia	742 W	EU, Asia	849 W
AA avimum	NA	1490 W	NA	1490 W
Maximum	EU, Asia	1460W	EU, Asia	1460 W

SP	D129		D130	
Ready	NA	160 W	NA	167 W
	EU, Asia	159 W	EU, Asia	172 W
O	NA	736 W	NA	828 W
Operating	EU, Asia	754 W	EU, Asia	864 W

	SP	D129			D130	
Marrianum		NA	1490 W	NA	1490 W	
Maximum	EU, Asia	1460W	EU, Asia	1460 W		

Full System	D129		D130	
Maximum	NA	1584 W	NA	1584 W
	EU, Asia	1550 W	EU, Asia	1550 W



- The above measurements were made in accordance with ISO 7779.
- In the above "Panel Off" condition, the polygonal mirror motor is not rotating.

Printer Controller

Printer Languages:	PCL 6/5e PDF Direct Adobe PostScript 3 (optional) IPDS (optional) MediaPrint: JPEG/TIFF
Resolution and Gradation:	PCL 5e: 300 x 300 dpi 600 x 600 dpi : Fast (1-bit) PCL 6: 600 x 600 dpi : Fast (1-bit) PDF Direct: 300 x 300 dpi/600 x 600 dpi PS3: 300 x 300 dpi/600 x 600 dpi XPS: 600 x 600 dpi : Fast (1-bit) IPDS: 300 x 300 dpi/600 x 600 dpi

Printing speed:	D129: Maximum 40 ppm (A4/LT LEF) D130: Maximum 50 ppm (A4/LT LEF)	
Resident Fonts:	PCL 6/5e (Standard): 45 Compatible fonts, 13 International fonts, 6 Bitmap fonts PDF Direct: 136 fonts IPDS (Optional): 108 fonts	
Host Interfaces:	USB2.0 Type A and Type B: Standard Ethernet (100 Base-TX/10 Base-T): Standard Gigabit Ethernet (1000 Base-T): Optional IEEE1284 parallel x 1: Optional IEEE802.11a/b/g (Wireless LAN): Optional Bluetooth (USB type): Optional	
Network Protocols:	TCP/IP (IPv4, IPv6), IPX/SPX	
RAM:	Maximum Basic model: 512 MB SP model: 1024 MB (Resident 512 MB + Additional 512) Note Additional 512 MB is required for all printer/scanner unit and printer units.	

Scanner Specifications

Standard Scanner Resolution:	Main scan/Sub scan 100 to 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 each for RGB

Scanning Throughput (ARDF mode):	BW: 61 ipm (A4LEF / BW Text/ Photo / 200dpi / Compression: On (MH)) FC: 31 ipm (A4LEF / FC Text / Photo / 200dpi / Compression: Standard)	
Interface:	Ethernet 10Base-T / 100Base-TX, Gigabit Ethernet (1000Base-T), Wireless LAN (IEEE 802.11a/b/g)	
Compression Method:	B&W: TIFF (MH, MR, MMR, JBIG2) Gray Scale/Full Color: JPEG	
Video Memory Capacity:	109.41 MB (A4, Full Color, 600dpi)	
Image Storage Capacity:	Number of originals per file: Maximum 1,000 pages Maximum of files: 3,000 files Storage on Doc.Server: Maximum 9,000 pages (B&W (ITU-T No.1/200 dpi MMR)	

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Optional Equipment

ARDF (D630)

	Simplex	Size	A3 to A5, DLT to HLT
		Weight	40 to 128 g/m ² (11 to 34 lb.)
Paper Size/Weight:	D 1	Size	A3 to A5, DLT to HLT
	Duplex	Weight	52 to 128 g/m² (14 to 34 lb.)
Table Capacity:	100 sheets	(81.4 g/m ² ,	22 lb)
Original Standard Position:	Rear left cor	ner	
Separation:	Feed belt and separation roller		
Original Transport:	Roller transp	oort	
Original Feed Order:	From the top	o original	
Supported Magnification Ratios:	32 to 200 %		
Power Source:	DC 24V, 5V from the scanner unit		
Power Consumption:	Less than 70W		
Dimensions (W x D x H):	570 mm x 5	520 mm x 135	5 mm (22.4"x20.5"x5.3")
Weight:	Less than 12	2kg (26.5 lb.)	

Two-tray Paper Feed Unit (D580)

Paper Feed System:	FRR
Paper Height Detection:	5 steps (100%, 70%, 30%, 10% (Near end), and Empty)
Capacity:	550 sheets x 2 trays
Paper Weight:	60 to 216 g/m² (16 to 80 lb. Cover)
Paper Size:	A3 SEF to A5, DLT SEF to HLT
Power Source:	DC 24V, 5V (from the main frame)

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Power Consumption:	Less than 40 W (Max.)/ Less than 25 W (Ave,)
Dimensions (W x D x H):	580 mm x 629 mm x 260 mm (22.8" x 24.8" x 10.2")
Weight:	26 kg (57.3 lb.)

LCT 2000-sheet (D581)

Paper Size:	A4 LEF/LT LEF
Paper Weight:	60 g/m ² to 216 g/m ² , 16 lb. Bond to 80 lb. Cover
Tray Capacity:	2,000 sheets (80 g/m², 20 lb. Bond)
Remaining Paper Detection:	5 steps (100%, 70%, 30%, 10%, Empty): Right Tray 4 steps (100%, 70%, 30%, Empty): Left Tray
Power Source:	DC 24 V, 5 V (from copier/printer)
Power Consumption:	45 W (Max.)/27 W (Ave.)
Dimensions (W x D x H):	580 mm x 620 mm x 260 mm (22.8" x 24.4" x 10.2")
Weight:	26 kg (57.3 lb.)

LCT 1200-sheet (D631)

Paper Size:	A4 LEF/ LT LEF/ B5 LEF
Paper Weight:	60 g/m ² to 216 g/m ² , 16 lb. Bond to 80 lb. Cover
Tray Capacity:	1200 sheets (80 g/m², 20lb. Bond)
Remaining Paper Detection:	5 steps (100%, 75%, 30%, 10%, End)
Power Source:	DC 24 V, 5 V (from copier/printer)
Power Consumption:	55 W (Max)/ 25 W (Ave.)
Dimensions (W x D x H):	348 mm x 540 mm x 290 mm (13.7" x 21.3" x 11.4")
Weight:	14 kg (30.8 lb.)

1-bin Tray Unit (D632)

Paper Size:	Standard Size: A3 /DLT to A6/ HLT SEF
Paper Weight:	60 to 169 g/m ² , 16 to 45 lb. Bond
Tray Capacity:	125 sheets (80 g/m², 20 lb. Bond, A4)
Power Source:	DC 24 V, 5 V (from the copier)
Power Consumption:	12 W or less
Dimensions (W x D x H):	565 mm x 410 mm x 115 mm (22.3"x16.2"x4.6")
Weight:	2 .5 kg (5.6 lb.)

Side Tray (D635)

Paper Size:	Standard Size: A3 /DLT to A6/ HLT SEF
Paper Weight:	52 to 300 g/m ² , 14 lb. Bond to 110 lb. Cover
Tray Capacity:	Internal tray: 250 sheets (80 g/m², 20 lb. Bond, A4/LT or smaller) 125 sheets (80 g/m², 20 lb. Bond, B4, LG or larger) External tray: 125 sheets (80 g/m², 20 lb. Bond)
Power Source:	DC 24 V, 5 V (from the copier)
Power Consumption:	20 W or less
Dimensions (W x D x H):	780 mm x 412 mm x 138 mm (30.8"x16.3"x5.5")
Weight:	4.5 kg (10.0 lb.)

Internal Shift Tray (D633)

Paper Size:	Standard Size: A3 /DLT to A6/ HLT SEF
Paper Weight:	52 to 160 g/m ² , 14 lb. Bond to 60 lb. Cover
Tray Capacity:	250 sheets (80 g/m ² , 20 lb. Bond, A4/LT or smaller) 125 sheets (80 g/m ² , 20 lb. Bond, B4, LG or larger)
Power Source:	DC 24 V, 5 V (from the copier)
Power Consumption:	10 W or less
Dimensions (W x D x H):	432 mm x 468 mm x 114 mm (16.7"x18.5"x4.5")
Weight:	2 kg (4.5 lb.)

Bridge Unit (D634)

Paper Weight:	52 g/m ² to 256 g/m ² , 16 lb. Bond to 68 lb. Bond
Tray Capacity:	250 sheets (80 g/m ² , 20 lb. Bond, A4/LT or smaller) 125 sheets (80 g/m ² , 20 lb. Bond, B4, LG or larger)
Power Source:	DC 24 V, 5 V (form the copier/printer)
Power Consumption:	20 W or less
Dimensions (W x D x H):	415 mm x 412 mm x 111 mm (16.3" x 16.2" x 4.4")
Weight	4 kg (8.9 lb.)

1000-Sheet Finisher (D588)

Upper Tray

Paper Size:	12" x 18"/305 x 457.2 mm, A3 to A6, 11" x 17" to 5.5" x 8.5"
Paper Weight:	52 to 256 g/m² (14 to 68 lb. Bond)

Banas Canasih u	250 sheets (A4, LT or smaller)
Paper Capacity:	50 sheets (B4, LG or larger)

Lower Tray

Paper Size:	No staple mode: 12" x 18"/305 x 457.2 mm, A3 to B5, DLT to HLT Staple mode: 12" x 18"/305 x 457.2 mm, A3, B4, A4, B5, DLT to LT				
Paper Weight:		No staple mode: 52 to 160 g/m² (14 lb. Bond to 60 lb. Cover) Staple mode: 64 to 90 g/m² (17 to 24 lb. Bond)			
Stapler Capacity:	50 sheets (A4, B5, LT) 30 sheets (A3, B4, DLT, LG	50 sheets (A4, B5, LT) 30 sheets (A3, B4, DLT, LG)			
	No staple mode: 1,000 sheets (A4/LT or smaller: 80 g/m², 20 lb.) 500 sheets (B4 /LG or larger: 80 g/m², 20 lb.) Staple mode: (80 g/m², 20 lb., number of sets) Paper Size Sheets Sets				
Paper Capacity:	A4,/LT LEF, B5 LEF	2 to 9	100		
	A4,/LT LEF,	10 to 50	100 to 20		
	A4,/LT LEF, B5 LEF	10 to 50	50 to 10		
	A3, B4, DLT, LG	2 to 9	50		
	A3, B4, DLT, LG	10 to 30	50 to 10		
Staple positions:	Top, Bottom, 2 Staples				
Staple Replenishment:	Cartridge (5,000 staples/cartridge)				
Power Source:	DC 24 V, 5 V (from the cop	oier/printer)			
Power Consumption:	50 W				
Weight:	25 kg (55.2 lbs)				

Dimensions (W x D x H):	520 x 520 x 790 mm (20.5" x 20.5" x 31.2")	
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3000-Sheet Finisher (D636)

Finisher					
Dimension (w x d x h)		657 mm x 613	657 mm x 613 mm x 960 mm (25.9" x 24.2" x 37.8")		
Weight		Less than 54 kg	Less than 54 kg (119 lb.) (no punch unit)		
v v oigin		Less than 56 kg	(123.5 lb.) (with punch unit)		
Power Consu	mption	Less than 96 W			
Noise		Less than 75 db			
Configuration	1	Console type at	ttached base-unit		
Power Source	Э	From base-unit			
	Stack Capacity		, 8.5" x 11" or smaller 3.5" x 14 or larger		
Proof Tray Paper Size			A6 SEF, B6 SEF, A5-A3 SEF, 5.5" x 8.5"-11" x 17" SEF, 12" x 18" SEF		
Paper Weight		52 g/m ² - 160	52 g/m ² - 160 g/m ² (14 lb. Bond - 60 lb. Cover)		
		3,000 sheets	A4 LEF, 8.5" x 11" LEF		
Stack Capacity		1,500 sheets	A3 SEF, A4 SEF, B4 SEF, B5, 11" x 17" SEF, 8.5" x 14" SEF, 8.5" x 11" SEF, 12" x 18" SEF		
Shift Tray		500 sheets	A5 LEF		
Shift Tray		100 sheets	A5 SEF, B6 SEF, A6 SEF, 5.5" x 8.5" SEF		
	Paper Size		A5 - A3 SEF, A6 SEF, B6 SEF, 5.5" x 8.5"- 11" x 17" SEF, 12" x 18" SEF		
	Paper Weight	52 g/m ² - 256	g/m² (14 lb. Bond - 68 lb. Bond)		
Staples					

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Paper Size		B5 - A3 8.5" x 11" - 11" x 17", 12" x 18"		
Paper Weight	oer Weight 64 g/m ² - 90 g/m ² (17 lb. Bond - 20 lb. Bond)			
Staple Position		Top, Bottom, 2 Staple, Top-slant		
Same Paper Size Stapling		50 sheets	A4, 8.5" x 11" or smaller	
		30 sheets	B4, 8.5" x 14" or larger	
Capacity	Mixed Paper Size	30 sheets	A4 LEF + A3 SEF, B5 LEF + B4 SEF, 8.5" x11" LEF + 11" x 17" SEF	

Staple Replenishment	Cartridge exchange / 5000 pins per cartridge			
	Paper Size	Pages/Set	Sets	
	A A LEE O 5" 11" LEE	20 - 50 pages	150 - 60 sets	
	A4 LEF, 8.5" x 11" LEF	2 - 19 pages	150 sets	
Stapled Stack Capacity (same size)	A A CEE D.5 O.5 " 11 " CEE	15 - 50 pages	100 - 30 sets	
	A4 SEF, B5, 8.5" x 11" SEF	2 - 14 pages	100 sets	
	Others	15 - 30 pages	100 - 33 sets	
	Otners	2 - 14 pages	100 sets	
Stapled Stack Capacity (mixed sizes)	A4 LEF & A3 SEF, B5 LEF & B4 SEF, 8.5" x11" LEF & 11" x 17" SEF,	2 - 30 pages	50 set	

2000-Sheet Booklet Finisher (D637)

Finisher	
Dimension W x D x H	657 mm x 613 mm x 960 mm (25.9 x 24.2 x 37.8")
Weight	Less than 63 kg (138.6 lb.) (no punch unit) Less than 65 kg (143 lb.) (with punch unit)
Power Consumption	Less than 96 W

Noise Le		Less than 75 db			
Configuration		Console type attached base-unit			
Power Source I		Fr	From base-unit		
Stack Capacity			250 sheets: A4, 8.5" x 11" or smaller 50 sheets: B4, 8.5" x 14 or larger		
Proof Tray	Paper Size		A6 SEF, B6 SEF, A5-A3 SEF, 5.5" x 8.5"-11" x 17" SEF, 12" x 18" SEF		
	Paper Weight	5	2 g/m² - 16	60 g/m² (14 lb. Bond - 60 lb. Cover)	
	Stack Capacity		,000 neets	A4 LEF, 8.5" x 11" LEF	
		1,000 sheets		A3 SEF, A4 SEF, B4 SEF, B5 11" x 17" SEF, 8.5" x 14" SEF, 8.5" x 11" SEF, 12"x18" SEF	
Shift Tray		500 sheets		A5 LEF	
		100 sheets		A5 SEF, B6 SEF, A6 SEF, 5.5" x 8.5" SEF	
	Paper Size			A6 SEF, B6 SEF 11" x 17" SEF, 12" x 18" SEF	
Paper Weight 5:		52 g/m² - 256 g/m² (14 lb. Bond - 68 lb. Bond)			
Staple					
Paper Size		B5-A3, 8.5" x 11" - 11" x 17", 12" x 18"			
Paper Weight			64 g/m ² - 90 g/m ² , 17 lb. Bond - 28 lb. Bond		
Staple Position			Top, Bottom, 2 Staple, Top-slant		

Staples Capacity	Same Paper Size	50 sheets	A4, 8.5" x 11" or smaller
		30 sheets	B4, 8.5" x 14" or larger
	Mixed Paper Size	30 sheets	A4 LEF & A3 SEF, B5 LEF & B4 SEF, 8.5" x 11" LEF & 11" x 17" SEF
	Booklet Stapling	15 sheets	A4 SEF, A3 SEF, B5 SEF, B4 SEF, 8.5" x 11" SEF, 8.5" x 14" SEF, 11" x 17" SEF, 12" x 18" SEF

Staple Replenishment		Corner staple	5,000 staples per cartridge
		Booklet staple	2,000 staples per cartridge
		A A I E E O 5 " 1 1 " I E E	13 - 50 pages
		A4 LEF, 8.5" x 11" LEF	2 - 12 pages
	Same Size	AACFF DE 0.5111111.CFF	10 - 50 pages
Caman Standa	Same Size	A4 SEF, B5, 8.5" x 11" SEF	2 - 9 pages
Corner Staple Capacity		Oil	10 - 30 pages
		Others	2 - 9 pages
Mixed Size		A4 LEF + A3 SEF B5 LEF + B4 SEF 8.5" x 11" LEF + 11" x 17" SEF	2 - 30 pages
	A4 SEF, A3 SEF, B5 SEF, B4 SEF		2 - 5 pages
Booklet Staple Capacity	8.5" x 11" SEF, 8.5" x 14" SEF, 11" x 17" SEF		6 - 10 pages
, ,	12" x 18" SEF		11 - 15 pages

Punch Unit for 2000/3000-Sheet (Booklet) Finisher

Available Punch Units		NA		2/3 holes switchable	
		EU		2/4 holes switchable	
		Scandinavia		4 holes	
		NA 2-h	oles	Up to 5,000 sheets	
		NA 3-h	oles	Up to 5,000 sheets	
Punch Waste R	eplenishment	EU 2-hc	bles	Up to 14,000 sheets	
		EU 4-hc	oles	Up to 7,000 sheets	
		Scandin	avia 4-holes	Up to 7,000 sheets	
Paper Weight	Paper Weight		² - 163 g/m ² ,	14 lb Bond - 43 lb Bond	
	NA 2-holes		A5 to A3, 5.5" x 8.5" to 11" x 17"		
			A5 to A4, 5.5" x 8.5" , 8.5" x 11"		
	NA 3-holes	SEF	A3, B4, 11" >	(1 <i>7</i> "	
	INA 3-noies	LEF	A4, B5, 8.5" x 11"		
D C:	EU 2-holes	SEF	A5 to A3, 5.5" x 8.5" to 11" x 17"		
Paper Sizes	EU 2-noies	LEF	A5 to A4, 5.5" x 8.5", 8.5" x 11"		
	EU 4-holes	SEF	A3, B4, 11"x17"		
EU 4-noies	EU 4-noies	LEF	A4, B5, 8.5"	x 11"	
	Scandinavia 4-holes	SEF	A5 to A3, 5.5	" x 8.5" to 11" x 17"	
	Scandinavia 4-noles		A5 to A4, 5.5" x 8.5", 8.5" x 11"		

2. Appendix: PM Tables

PM Tables

Amounts mentioned as the PM interval indicate the number of prints.

Mainframe

Symbol key: C: Clean, R: Replace, L: Lubricate, I: Inspect

	EM	160K	320K	800K	Note
Scanner/Optics					
Reflector		С			Optics cloth
1 st Mirror		С			Optics cloth
2nd Mirror		С			Optics cloth
3rd Mirror		С			Optics cloth
Scanner Guide Rails		С			Do not use alcohol.
Exposure Glass	С	С			Cleaner
Toner Shield Glass	С	С			Dry cloth or cleaner
APS Sensor		С			Dry cloth
Exposure Glass (Sheet through)	С	С			Cleaner
Drum (OPC) Area					
OPC Drum	I	R			
Charge Roller		R			
Charge Roller Cleaning Roller		R			
Drum Cleaning Blade 1		R			
Quenching Lamp	С		С		Dry cloth

RTB 36 Component added to PM table 2

RTB 36 Table modified

RTB 36 Components deleted from PM table

RTB 36 Table modified

RTB 36 Components added to PM table

		EM	160K	320K	800K	Note
	Pick-off Pawls		R			
	Spurs	С	С			Dry cloth
	ID Sensor	С	С			Perform SP3-001-2 after blower brush cleaning.
	Cleaning Entrance Seal		С			Blower brush. Replace if required.
ed	Side Seal		I			
	Development Unit					
	Development Drive Gears				С	Dry cloth
	Development Filter		R			
	Development filter: front		R			
	Development filter: rear		R			
	Developer I at EM, not at 160k		I	R		
d	Entrance Seal		I			
	Side Seal		I			
	Development Roller		С			Dry cloth
	Paper Feed					
	Registration Roller	I	С			Water
	Idle Roller Dust Blade	I	С			Detach and tap gently on flat surface to empty. Blower brush.
	Registration Roller Dust Blade	I	С			Blower brush.
	Feed Rollers	I	С			Water
	Pick-up Rollers	I	С			Water
	Separation Rollers	I	С			Water

ΕM 160K 320K 800K Note By-pass Feed Roller I С Water Ī By-pass Pick-up Roller С Water С By-pass Separation Roller Ī Water Paper Feed Guides С Dry cloth **Relay Rollers** С Water Bottom Plate Pad Ι С Water Bottom Plate Pad (By-pass С Water Ι feed) Registration Sensor I С Blower brush By-pass Feed Roller Gear Ι L Silicone Grease G-501 Ī С Blower Brush **Relay Sensors** Paper Feed Sensors Ī С Blower Brush **Duplex Unit** Inverter Rollers С Water С Transport Rollers Water Entrance Sensor С Water Exit Sensor С Water Transfer Belt Unit Dry cloth. To prevent damage to the Transfer Belt С R cleaning blade, always replace these items together. Transfer Belt Cleaning Blade R Transfer Belt Rollers С Dry cloth Entrance Seal С Dry cloth

RTB 36 Table modified RTB 36 Component added

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	EM	160K	320K	800K	Note		
Transfer Entrance Guide	С	С			Dry cloth		
Used Toner Tank	I	С			Empty the tank		
Paper Exit							
Paper Exit Sensor	I	I			Blower brush		
Junction Gate Jam sensor	I	С			Blower brush		
Fusing Exit Sensor	I	I			Blower brush		
Paper Exit Rollers	I	I			Water		
Junction Transport Roller	I	I			Water		
Paper Exit Guide	I	I			Water		



- Due to their durability and extended service life, the feed rollers, separation rollers, and pick-up rollers of the mainframe, optional paper trays, and LCT are not replaced at PM.
- *1: Lubricate the by-pass feed clutch gear with Silicone Grease G501 every P.M.

	EM	160K	320K	800K	Note
Fusing Unit and Paper Exit					
Fusing Entrance and Exit Guide Plates		С			Water or alcohol
Hot Roller		R			
Pressure Roller		R			
Fusing Thermistors		R			
Cleaning Roller Bushings		L			Grease: Barrierta JFE 55/2
Hot Roller Strippers			R		
Paper Exit Guide Ribs		С			Water or alcohol
Web Supply Roller		R			
Web Holder Roller			R		

	EM	160K	320K	800K	Note
Brake Pad			R		

Options

Amounts mentioned as the PM interval indicate the number of prints/ originals.

Symbol key: C: Clean, R: Replace, L: Lubricate, I: Inspect

ARDF

RTB 36 Table modified

B802	EM	120K (Originals)	Note
ARDF (for originals)			
Pick-up Roller		R	Damp cloth; alcohol
Feed Belt		R	Damp cloth; alcohol
Separation Roller		R	Damp cloth; alcohol
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

PFU

RTB 36 Table modified

D351	EM	150K	300K	450K	Note
Paper Feed Unit					

RTB 36 Table modified

D351	EM	150K	300K	450K	Note
Relay Rollers		С			Dry or damp cloth
Bottom Plate Pad		С			Dry or damp cloth

2

LCT

RTB 36 Table modified

D352	EM	150K	300K	450K	Note	
LCT 2000-sheet						
Bottom Plate Pad		С			Dry or damp cloth	

RTB 36 Table modified

SR5020

B408	EM	150K	300K	450K	Note
1000-Sheet Finisher					
Rollers	С				Water or alcohol.
Discharge Brush	С	С			Dry cloth
Sensors	С				Blower brush
Jogger Fences	I	I			Replace if required.

2000/3000-Sheet (Booklet) Finisher

RTB 36 Table modified

B804/B805	EM	Note				
2000/3000-Sheet (Booklet) Finisher						
Rollers	С	Water or alcohol.				
Discharge Brush	С	Dry cloth				
Sensors	С	Blower brush				
Jogger Fences	ı	Replace if required.				
Punch Unit						

B804/B805	EM	Note
Punch Chads	С	Discard chads.

Bridge Unit

RTB 36 Table modified

D386	EM	Note
Bridge Unit		
Rollers	С	Dry or damp cloth
Сору Тгау	С	Dry or damp cloth
Sensors	С	Blower brush

1-Bin Tray Unit

RTB 36 Table modified

D389	EM	Note
1-Bin Tray Unit		
Rollers	С	Dry or damp cloth
Copy Tray	С	Dry or damp cloth
Sensors	С	Blower brush

RTB 36 Side tray and shift tray added

3. Appendix: Service Program Mode Tables

System SP Table-1

SP1-xxx: Feed

	Leading Edge Registration: Adjusts the leading edge registration by changing the registration clutch operation timing.	
1001*		
001	Tray: Plain	
002	Tray: Thick 1	
003	Tray: Thick 2	
004	By-pass: Plain	[0 to 0 / 0 / 0] mm stan]
005	By-pass: Thick 1	[-9 to 9/ 0 / 0.1 mm step]
006	By-pass: Thick 2	
007	Duplex: Plain	
008	Duplex: Thick 1	

	Side-to-Side Registration	
1002*	Adjusts the side to side registration by changing the laser main scan start position for each mode.	

001	By-pass	
002	Tray 1	
003	Tray 2	
004	Tray 3	[-4 to 4/0/0.1 mm step]
005	Tray 4	
006	LCT	
007	Duplex	

	Registration Buckle Adjustment Adjusts the paper feed motor timing. Paper feed motor timing determines the amount of paper buckle at Registration. (A "+" setting causes more buckling.)		
1003*			
001	Tray 1: Plain		
002	Tray 1: Thick 1		
003	Tray 1: Thick 2		
004	Tray 2, 3, 4: Plain	[-9 to 5 / -4 / 1 mm step]	
005	Tray 2, 3, 4: Thick1		
006	Tray 2, 3, 4: Thick2		
007	By-pass: Plain		
008	By-pass: Thick 1	[-9 to 5 / -2 / 1 mm step]	
009	By-pass: Thick 2		
010	Duplex: Plain	[-9 to 5 / -4 / 1 mm step]	
011	Duplex: Thick 1	[-9 to 5 / -3 / 1 mm step]	
012	LCT: Plain		
013	LCT: Thick 1	[-9 to 5 / -4 / 1 mm step]	
014	LCT: Thick2		

1007*	By-pass Paper Size Detection	
Controls paper size detection for the by-pass feed table.		or the by-pass feed table.
001	Detection Timing [-15 to 15 / 0 / 5 mm step]	
002	LG Detection	[0 to 1 / 0 / 1] 0: LT SEF, 1: LG

	Fusing Idling	
1103*	Switches fusing idling on/off. When on, printing will not start until enough time has elapsed so the hot roller can reach optimum temperature. This ensures even heat on the hot roller.	
	Switch on if fusing on the 1st and 2nd copies is incomplete (this may occur if the room is cold.). You must switch SP1103-1 ON before you set the fusing interval with SP1103-2.	
001	Enable Fusing Idling 0 = Off, 1 = On	
002	Interval [0 to 60 / 30 / 1 sec.]	
003	Idling Time at Every Job	Sets the machine to fusing idling only for 30 sec. for every job (when the original is set on the ARDF, when the ARDF cover is opened, etc.) and the fusing unit has reached the reload temperature (optimum temperature for operation). [0 to 30 / 0 / 1 sec.] 0: No idling done before a job.

Fusing Temperature Control

On-Off/Phase

Selects the fusing temperature control method. After changing this setting, be sure to turn the machine off and on again with the main power switch to enable the new setting.

[0 to 1 / 0 / 1]

0: Normal (ON/OFF control). Allows full application from ac power supply to bring the hot roller up to the target fusing temperature then shuts off. Determines the on-time from the present temperature (detected by the thermistor on the hot roller) and the temperature of 1 cycle before.

1104*

1: Phase (hysterisis) control. Sets the upper and lower limits for the temperature; at the lower temperature the fusing lamp is on and at the higher temperature the fusing lamp is off.

Change this setting to "0" only if the user has excessive electrical noise or interference on the power supply line. Such interference can cause voltage to drop when power is applied using the ON/OFF control method.

Interference can be caused by the general poor quality of the power supply lines, or if the machine is sharing a power supply with other electrical devices such as fluorescent lights. Before changing this setting, make sure that the machine is connected to a power supply not shared by other electrical equipment.



 Selecting Phase control ("1") could cause the fusing temperature control board to emit low pitched noise

	Fusing Temperature Adjustment	
1105*	Allows adjustment of the hot roller temperature at the center and ends of the roller for the quality or thickness of the paper. The hot roller in this machine has two fusing lamps: one heats the center of the roller, the other heats both ends. Each fusing lamp can be adjusted separately.	
	The "re-load temperature" is the "print ready temperature". When the fusing temperature exceeds this setting, the machine can operate. Do not set up a re-load temperature (Reload Temp. = Fusing. Temp – SP Value.) that is higher than the SP1-105-2 setting.	
001	Roller Center	C1b/C1.5b: [100 to 170 / 140 / 1 deg] C1c/C1.5c: [100 to 170 / 150 / 1 deg]
	Adjusts the fusing temperature at the	e center of the hot roller.

002	Roller Ends		100 to 170 / 145 / 1 deg]
	Adjusts the fusing temperature at the ends of the hot roller.		
	Re-load Temp. Minus: Roller Center		[0 to 60 / 0 / 1 deg]
	Sets the reload temperature for the center of the hot roller. This setting depends on the target temperature.		
003	Reload temp. = Target Temp – This	SP Setting	
	 Note Do not set a temperature that is higher than the setting for SP1105 1 (Roller Center Trays) 		
	Re-load Temp. Minus: Roller Ends		[0 to 60 / 0 / 1 deg]
	Sets the reload temperature for the ends of the hot roller. This setting depends on the target temperature.		
004	Reload temp. = Target Temp – This	SP Setting	
	 Note Do not set a temperature that is higher than the setting for SP1 105 2 (Roller Ends: Trays) 		
005 to 022			
005	Roller Center: M-Thick	C1b/C1.5b: [100 to 170 / 145 / 1 de C1c/C1.5c: [100 to 170 / 155 / 1 de	
006	C1b/C1.5b: [100 to 170 / 150 / 1 C1c/C1.5c: [100 to 170 / 160 / 1 c		
007	Roller Center: Thick 1		
008	Roller Ends: Thick 1	[100 00 1	70 / 130 / 1 deg]
009	Roller Center: Thick 2	[100 170 /470 / 1	
010	Roller Ends: Thick 2	[100 to 1	70 / 150 / 1 deg]
011	Roller Center: Thin	,	.5b: [100 to 170 / 130 / 1 deg] .5c: [100 to 170 / 140 / 1 deg]

012	Roller Ends: Thin	C1b/C1.5b: [100 to 170 / 135 / 1 deg] C1c/C1.5c: [100 to 170 / 145 / 1 deg]	
013	Roller Center: OHP: Plain	[100 to 170 / 150 / 1 deg]	
014	Roller Ends: OHP: Plain		
015	Roller Center: OHP: Thick	[100 to 170 / 155 / 1 deg]	
016	Roller Ends: OHP: Thick	[100 to 170 / 160 / 1 deg]	
017	Roller Center: Special 1	C1b/C1.5b: [100 to 170 / 140 / 1 deg] C1c/C1.5c: [100 to 170 / 150 / 1 deg]	
018	Roller Ends: Special 1	C1b/C1.5b: [100 to 170 / 145 / 1 deg] C1c/C1.5c: [100 to 170 / 155 / 1 deg]	
019	Roller Center: Special 2	C1b/C1.5b: [100 to 170 / 140 / 1 deg] C1c/C1.5c: [100 to 170 / 150 / 1 deg]	
020	Roller Ends: Special 2	C1b/C1.5b: [100 to 170 / 145 / 1 deg] C1c/C1.5c: [100 to 170 / 155 / 1 deg]	
021	Roller Center: Special 3	C1b/C1.5b: [100 to 170 / 140 / 1 deg] C1c/C1.5c: [100 to 170 / 150 / 1 deg]	
022	Roller Ends: Special 3	C1b/C1.5b: [100 to 170 / 145 / 1 deg] C1c/C1.5c: [100 to 170 / 155 / 1 deg]	
023	Feed Waiting: Plain	Turns the feed waiting mode on or off for each	
024	Feed Waiting: M-Thick	paper type. [0 to 1 / 0 / 1]	
025	Feed Waiting: Thick 1	0=Off, 1=On	
026	Feed Waiting: Thick 2	The paper waits at the registration roller until	
027	Feed Waiting: Thin	the fusing temperature reaches the prescribed temperature (adjustable with SP1105-028 to -37). If you enable this feature, also set SP 1105-38 to a convenient value for the	
		customer.	

028	Feed Wait: Center Minus: Plain	
029	Feed Wait: Ends Minus: Plain	
030	Feed Wait: Center Minus: M-Thick	
031	Feed Wait: Ends Minus: M-Thick	
032	Feed Wait: Center Minus: Thick 1	Adjusts the offset value for each re-load temperature to exit the feed waiting mode.
033	Feed Wait: Ends Minus: Thick 1	[0 to 60 / 0 / 1 deg]
034	Feed Wait: Center Minus: Thick 2	
035	Feed Wait: Ends Minus: Thick 2	
036	Feed Wait: Center Minus: Thin	
037	Feed Wait: Ends Minus: Thin	
038	Feed Waiting: Maximum Time	Sets the maximum feed waiting time. [0 to 30 / 0 / 1 sec] The paper is fed when the time specified with this SP has passed even though the fusing temperature has not reached the prescribed temperature.
		0: Disabled.

1106	Fusing Temperature Display	
001	Roller Center	Displays the temperature of the fusing unit.
002	Roller Ends	[-20 to 250 / 0 / 1 deg]
003	Machine Inside at Power On	Displays the temperature inside the machine.
004	Machine Inside	[-20 to 250 / 0 / 1 deg]

1109*	Fusing Nip Band Check	
1109	Checks the fusing nip band.	
001	Execution	

002	Idling Rotation Time	[0 to 120 / 60 / 1 sec]	
	002	Specifies the fusing rotation time before executing SP1109-001.	
	002	Pre-Idling Time	[5 to 30 / 10 / 1 sec]
003	003	Specifies the time that the paper stops	s in the fusing unit for measuring the nip.

1159	Fusing Jam Detection
1139	SC Code Display
	[0 to 1 / 0 / 1] 0:OFF, 1:ON
	This SP setting determines whether SC559 is issued after three paper late jams occur in the fusing unit. After this SP code is turned on, a counter monitors the number of paper late jams that occur in the fusing unit. After the 3rd occurrence of a fusing jam, SC559 is issued and the machine cannot be used until the service technician releases the error.
	↓ Note
	 Switching the machine off/on does not reset this jam counter. The counter is reset after the cause of the jam has been removed and a sheet of paper successfully passes the fusing exit sensor.

	Motor Speed Adjustment	
	Adjusts the speeds of each motor. Each step decreases or increases motor speed in 0.05% increments	
	Regist: Registration motor, Feed: Feed motor,	
1801*	Duplex: Duplex/By-pass motor, Inverter: Duplex inverter motor,	
	Exit: Paper exit motor, Bridge: Bridge unit drive motor,	
	OpcMot: Drum motor, TransferMot: Transfer/Development Motor,	
	FusingMot: Fusing motor,	
	DevPuddleMot: Development Paddle motor	
001	Regist: 90: Thick 2	
002	Regist: 154: Thick 1	[-2 to 2 / 0.4 / 0.05 %]
003	Regist: 180: Plain	
004	Regist: 230: Plain	

005	Feed: 90: Thick 2	
006	Feed: 154: Thick 1	[-2 to 2 / -0.4 / 0.05 %]
007	Feed: 180: Plain	[24.2/1/005%]
008	Feed: 230: Plain	[-2 to 2 / -1 / 0.05 %]
009	Duplex_CW: 90: Thick 2	[-4 to 4 / 0.4 / 0.1 %]
010	Duplex_CW: 154: Thick 1	[-4 10 4 / 0.4 / 0.1 %]
011	Duplex_CW: 180: Plain	[-4 to 4 / -2.3 / 0.1 %]
012	Duplex_CW: 230: Plain	[-4104/-2.3/0.1%]
013	Duplex_CCW: 90: Thick 2	[-4 to 4 / 0.4 / 0.1 %]
014	Duplex_CCW: 154: Thick 1	[-4 10 4 / 0.4 / 0.1 %]
015	Duplex_CCW: 180: Plain	[-4 to 4 / -2.3 / 0.1 %]
016	Duplex_CCW: 230: Plain	[-4 10 4 / -2.3 / 0.1 / ₀]

017	Inventor CM/ CO. Think 2	
017	Inverter_CW: 90: Thick 2	
018	Inverter_CW: 154: Thick 1	
019	Inverter_CW: 180: Plain	
020	Inverter_CW: 230: Plain	
021	Inverter_CCW: 90: Thick 2	
022	Inverter_CCW: 154: Thick 1	
023	Inverter_CCW: 180: Plain	
024	Inverter_CCW: 230: Plain	[44-4/0/01%]
025	Exit_CW: 90: Thick 2	[-4 to 4 / 0 / 0.1 %]
026	Exit_CW: 154: Thick 1	
027	Exit_CW: 180: Plain	
028	Exit_CW: 230: Plain	
029	Bridge: 90: Thick 2	
030	Bridge: 154: Thick 1	
031	Bridge: 180: Plain	
032	Bridge: 230: Plain	

033	OpcMot:90	
034	OpcMot:154	
035	OpcMot:180	
036	OpcMot:230	
037	TransferMot:90	
038	TransferMot: 154	[-4 to 4 / 0 / 0.01 %]
039	TransferMot: 180	[-4104/ 0 /0.01/ ₀]
040	TransferMot:230	
041	FusingMot:90	
042	FusingMot:154	
043	FusingMot:180	
044	FusingMot:230	
045	DevPuddleMot	[-4 to 4 / 0 / 0.1 %]

1902	Cleaning Web Setting		
001	Web Consumption	[0 to 120 / 0 / 1 %]	
001	Displays the consumed amount of the	e web roll.	
	Web Motor Interval	C1b/C1.5b: [3 to 130 / 8.4 / 0.1 sec]	
002		C1c/C1.5c: [3 to 130 / 6.7 / 0.1 sec]	
	Adjusts the interval for web motor rotation.		
003	Web Motor Time	[0.3 to 10 / 4.2 / 0.1 sec]	
003	Adjusts the rotation time of the web motor.		
		C1b/C1.5b: EU [0 to 100 / 90 / 1 %]	
004	Web Near End Setting	C1b/C1.5b: ASIA/NA [0 to 100 / 92 / 1 %]	
		C1c/C1.5c: EU [0 to 100 / 90 / 1 %]	
		C1c/C1.5c: ASIA/NA [0 to 100 / 92 / 1 %]	
	Adjusts the threshold for web near end.		

005	Web Motor Interval: Thick 1	to 130 / 11 .	2 / 0.1 sec]
003	Adjusts the interval for web motor rotation (thick 1).		
006	Web Motor Interval: Thick 2	to 130 / 16 .	8 / 0.1 sec]
008	Adjusts the interval for web motor rote	n (thick 2).	
	Paper Interval Time	to 10 / 5 /	l sec]
007	Adjusts the threshold for paper feeding. When the time between trailing edge detection and leading edge detection is within the value of this setting, the machine determines that the paper is still being fed.		
008	Web Motor Setting: Web End	[0 to 60 / 27 / 1 sec]	
008	Adjusts the motor rotation time after the web end.		
009	Web Motor Rotation: Power On	[0 to 10 / 2	2 / 1 times]
009	Adjusts the number of web motor rotations at the re-load state.		
010	Web Motor Interval: Pre-idle	[0 to 30 / 3	5 / 1 sec]
010	Adjusts the motor waiting time after the fusing motor idling.		
011	Web Motor Rotation: Pre-idle	[0 to 10 / 2	2 / 1 times]
011	Adjusts the number of web motor rotations at the fusing idling state.		

1903	Cleaning Web Setting		
001	Total Paper Counter	[0 to 999999999 / 0 / 1 sec]	
001	Displays the total paper feeding time.		
000	Total Web Motor Drive Time	[0 to 999999999 / 0 / 1 sec]	
002	Displays the total time of web motor rotation.		

1907	Paper Feed Timing Adj. (DFU)	
001	Feed Solenoid ON: Plain	[104-40/0/25]
002	Feed Solenoid ON: Thick	[-10 to 40 / 0 / 2.5 mm]

Feed Solenoid OFF: Plain	
Feed Solenoid OFF: Thick	
Feed Clutch ON: Plain	
Feed Clutch ON: Thick	[-10 to 10 / 0 / 1 mm]
Stop Position before Inverter	
Stop Position after Inverter	
Re-Feed Stop Position	
By-pass Solenoid OFF	[0 to 40 / 0 / 1 mm]
By-pass Solenoid ON	[0 to 1 / 1 / 1 mm]
By-pass Feed Clutch ON	
Exit Roller: Shift: 180	
Exit Roller: Shift: 230	
Exit: Junction Solenoid ON	
Exit: Junction Solenoid OFF	[-10 to 10 / 0 / 1 mm]
Bridge: Junction Solenoid ON	
Bridge: Junction Solenoid OFF	
1-Bin: Junction Solenoid ON	
1-Bin: Junction Solenoid OFF	
Shift Motor ON	[-1 to 1 / 0 / 0.1 mm]
	Feed Solenoid OFF: Thick Feed Clutch ON: Plain Feed Clutch ON: Thick Stop Position before Inverter Stop Position after Inverter Re-Feed Stop Position By-pass Solenoid OFF By-pass Solenoid ON By-pass Feed Clutch ON Exit Roller: Shift: 180 Exit Roller: Shift: 230 Exit: Junction Solenoid OFF Bridge: Junction Solenoid ON Bridge: Junction Solenoid ON 1-Bin: Junction Solenoid ON

1908	Paper Bank Feed Timing Adj (DFU)	
001	Feed Clutch ON: Plain	[10 - 10 / 0 / 1]
002	Feed Clutch ON: Thick	[-10 to 10 / 0 / 1 mm]

	CPM Down Setting
1916	When this machine gets a sequence of coping/printing jobs, the machine uses CPM down mode to prevent the fusing temperature from becoming too low.

001	Temp.: Plain	
002	Temp.: M-Thick	Adjusts the thresholds for each
003	Temp.: Thick 1	environmental condition (between Low and Medium).
004	Temp.: Thick 2	[10 to 23 / 17 / 1 deg]
005	Temp.: Thin	
006	ON/OFF: Low: Plain	
007	ON/OFF: Low: M-Thick	
008	ON/OFF: Low: Thick 1	
009	ON/OFF: Low: Thick 2	Turns on or off the CPM down setting for
010	ON/OFF: Low: Thin	each paper type and ambient temperature.
011	ON/OFF: Medium: Plain	[0 to 1 / 0 / 1]
012	ON/OFF: Medium: M-Thick	0= Off, 1= On
013	ON/OFF: Medium:: Thick 1	
014	ON/OFF: Medium: Thick 2	
015	ON/OFF: Medium: Thin	
016	Waiting Time: Low: Plain	
017	Waiting Time: Low: M-Thick	
018	Waiting Time: Low: Thick 1	
019	Waiting Time: Low: Thick 2	Adjusts the threshold time to enter the CPM down mode.
020	Waiting Time: Low: Thin	[0 to 180 / 60 / 1 sec]
021	Waiting Time: Medium: Plain	The machine determines whether the CPM
022	Waiting Time: Medium: M-Thick	down mode is activated or not after the time specified with these SPs has passed.
023	Waiting Time: Medium: Thick 1	
024	Waiting Time: Medium: Thick 2	
025	Waiting Time: Medium: Thin	

026	Temp.: Low: Plain	
027	Temp.: Low: Plain	
028	Temp.: Low: Thick 1	
029	Temp.: Low: Thick 2	Adjusts the threshold temperature of the fusing unit to enter the CPM down mode.
030	Temp.: Low: Thin	[100 to 200 / 120 / 1 deg]
031	Temp.: Medium: Plain	If the temperature of the fusing unit is less than the temperature specified with these
032	Temp.: Medium: M-Thick	SPs, the machine changes the CPM
033	Temp.: Medium: Thick 1	(adjustable with SP1916-36 to -45).
034	Temp.: Medium: Thick 2	
035	Temp.: Medium: Thin	
036	CPM: Low: Plain	Adjusts the CPM in the CPM down mode. C1b/C1.5b: [20 to 35 / 35 / 5 cpm] C1c/C1.5c: [20 to 45 / 45 / 5 cpm]
037	CPM: Low: M-Thick	Adjusts the CPM in the CPM down mode. C1b/C1.5b: [20 to 35 / 35 / 5 cpm] C1c/C1.5c: [20 to 45 / 45 / 5 cpm]
038	CPM: Low: Thick 1	Adjusts the CPM in the CPM down mode. C1b/C1.5b: [5 to 15 / 15 / 5 cpm] C1c/C1.5c: [5 to 25 / 25 / 5 cpm]
039	CPM: Low: Thick 2	Adjusts the CPM in the CPM down mode. [5 to 15 / 15 / 5 cpm]
040	CPM: Low: Thin	Adjusts the CPM in the CPM down mode.
041	CPM: Medium: Plain	C1b/C1.5b: [20 to 35 / 35 / 5 cpm]
042	CPM: Medium: M-Thick	C1c/C1.5c: [30 to 45 / 45 / 5 cpm]
043	CPM: Medium: Thick 1	Adjusts the CPM in the CPM down mode. C1b/C1.5b: [5 to 15 / 15 / 5 cpm] C1c/C1.5c: [5 to 25 / 25 / 5 cpm]

044	CPM: Medium: Thick 2	Adjusts the CPM in the CPM down mode. [5 to 15 / 15 / 5 cpm]
		Adjusts the CPM in the CPM down mode.
045	CPM: Medium: Thin	C1b/C1.5b: [20 to 35 / 35 / 5 cpm]
		C1c/C1.5c: [30 to 45 / 45 / 5 cpm]

1930	OnOff Time Adjust	
	On Time Adjust	[0 to 100 / 40 / 10 msec]
001	Adjusts the Off-On interval of the transfer belt contact motor. ("On" means that the transfer belt is in contact with the drum.)	
002	Off Time Adjust	[0 to 100 / 20 / 10 msec]
	Adjusts the On-Off interval of the transfer belt contact motor. ("Off" means that the transfer belt is away from the drum.)	

1950	Tray Lock at Jam	[0 or 1 / 0 / 1] 0= OFF, 1= ON
	Not used	

3

System SP Tables-2

SP2-xxx: Drum

2001*	Charge Bias	
001	Setting (Copying)	[1000 to 2000 / 1500 / 10 V]
001	Adjusts the voltage applied to the charge roller for copying.	
	Setting (P Pattern)	[0 to 700 / 250 / 10 V]
002	Adjusts the voltage applied to the charge roller when making the VSDP ID sensor pattern (for charge roller voltage correction). The actual charge roller voltage is this value plus the value of SP2001-1.	

2005*	Bias Control	
	Bias Correction 1	[0.1 to 1 / 0.85 / 0.05 step]
001	Adjusts the lower threshold value for the charge roller correction. When the value of VSDP/VSG is greater than this value, the charge roller voltage increases by 30 V (e.g., from -500 to -530).	
	Bias Correction 2	[0.1 to 1 / 0.9 / 0.05 step]
002	Adjusts the upper threshold value for the charge roller correction. When the value of VSDP/VSG is greater than this value, the charge roller voltage decreases by 30 V (absolute value).	
002	Bias Adjustment 1	[1000 to 2000 / 1500 / 10 vol]
003	Adjusts the lower limit value for charge roller voltage correction.	
004	Bias Adjustment 2	[1000 to 2000 / 2000 / 10 vol]
	Adjusts the upper limit value for charge roller voltage correction.	
005	Bias Adjustment 3	[0 to 100 / 30 / 10 vol]
	Adjusts the correction voltage adjustment step size.	

	Magnification Adjustment	
2102*	Main Scan	[-2 to 2 / 0 / 0.1 %]
	Adjusts the magnification in the main scan direction for copy mode and printer mode.	

	Erase Margin Adjustment	
2103*	Adjusts the erase margin by deleting image data at the margins. L Size: 297.1 mm or more (length) M Size: 216.1 to 297 mm (length) S Size: 216 mm or less (length)	
001	Leading Edge	
002	Trailing Edge	[0 to 9 / 3 / 0.1 mm]
003	Left	[0 to 9 / 2 / 0.1 mm]
004	Right	[0 10 9 / 2 / 0.1 mm]
005	Duplex Trail.: L Size: Plain	[0 to 4 / 1 / 0.1 mm]
006	Duplex Trail.: M Size: Plain	[0 to 4 / 0.8 / 0.1 mm]
007	Duplex Trail.: S Size: Plain	[0 to 4 / 0.6 / 0.1 mm]
008	Duplex Left: Plain	[0 to 1.5 / 0.3 / 0.1 mm]
009	Duplex Right: Plain	[0 10 1.3 / 0.0 / 0.1111111]
010	Duplex Trail.: L Size: Thick	[0 to 4 / 0.8 / 0.1 mm]
011	Duplex Trail.: M Size: Thick	[0 to 4 / 0.6 / 0.1 mm]
012	Duplex Trail.: S Size: Thick	[0 to 4 / 0.4 / 0.1 mm]
013	Duplex Left: Thick	[0 to 1.5 / 0.1 / 0.1 mm]
014	Duplex Right: Thick	[0.001.07 0.17 0.111111]

LD Power Adjustment(DFU)	
2105*	Adjusts the LD power for each mode.
Each LD power setting is decided by the process control.	

001	LD1: Copy	[-50 to 79 / -24 (C2b), 5 (C2c) /1]
002	LD2: Copy	
003	LD1: Printer/Fax	[50 to 70 / 44 (COL) 25 (CO.) / 1]
004	LD2: Printer/Fax	[-50 to 79 / -44 (C2b), -25 (C2c) /1]

2106*	POL REV TIME (Polygon motor rotation time)	
	PRE TIME	[0 to 60 / 10 / 1 sec]
001	Adjusts the time of polygon motor rotation before a job. If this is set to "O", this SP is not activated.	
	POST TIME	[0 to 60 / 0 / 1 sec]
002	Adjusts the time of the polygon motor rotation after a job. If this is set to "0", the polygon motor never switches off in standby mode. However, if the machine enters the energy saver mode, the polygon motor will ignore the zero setting and switch itself off.	

2109	Test Pattern		
001	Pattern Selection	[0 to 24 / 0 / 1] Test pattern of the GAVD	
	O: None 1: Vertical Line (1 dot) 2: Vertical Line (2 dot) 3: Horizontal Line (1 do 4: Horizontal Line (2 do 5: Grid Vertical Line 6: Grid Horizontal Line 7: Grid pattern small 8: Grid Pattern Large 9: Argyle Pattern Small 10: Argyle Pattern Large 11: Independent pattern 12: Independent Pattern	16: Hound's Tooth Check (Horizontal) 17: Black Band (Horizontal) 18: Black band (Vertical) 19: Checker Flag Pattern 20: Grayscale (Vertical Margin) 21: Grayscale (Horizontal Margin) 22: Two Beam Density Pattern 23: Full Dot Pattern 24:All white Pattern	

	[[0 to 15 / 15 / 1]
002		Set the density of the test pattern which is output in SP2109-001. This SP is not used for the Grayscale patterns.
2201*	Development Bias Adjustment	
	Development Bias	[200 to 700 / 560 / 10V]
001	Adjusts the development bias for copying.	
	Use as a temporary measure to correct faint copies from an aging drum.	
000	ID Sensor Pattern	[200 to 700 / 400 / 10V]
002		<u> </u>

	Forced Toner Supply
2207	Forces the toner bottle to supply toner at 1-second intervals for up to 30 seconds. To start, press [EXECUTE].

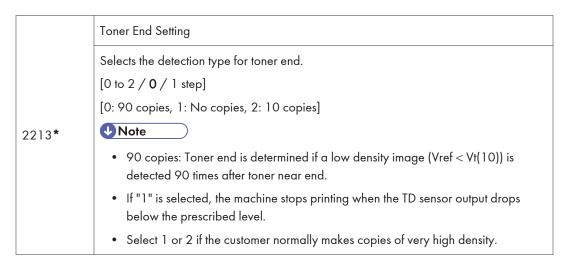
Adjusts the development bias for the ID sensor pattern for VSP

	Toner Supply Mode	[0: Sensor, 1: pixel]
2208*		? should be set to its default value. Use image pixel ary measure if the ID or TD sensor is defective.
	could illodes only as a lempore	ary medsore if the 1D of 1D sensor is defective.

	2209*	Toner Supply Rate	
		Toner Rate	[10 to 800 / 60 mg/s / 5 mg]
Sets the amount of toner supplied every second by the toner supply motor of time the motor remains on is determined by the data read by the TD set sensor. Increasing this value reduces the toner supply clutch on time. Use a lower user tends to make lots of copies that have a high proportion of black.		, , ,	
		,	

002	Correction Data	[25 to 300 / 300 / 25]
	Displays the toner supply correction coefficient (K). It can also be used to adjust K, but the value is changed again when VT is measured for the next copy.	
	The toner supply rate depends on the a corrected using this coefficient. This SP condition. The lower the value of K, the	,

2210*	P Pattern Cycle	
	Sets the interval between ID sensor pattern prints.	
	Job Page Count	[0 to 200 / 10 / 1 sheet]
001*	Sets the interval between ID sensor pattern printing. For users that do not make many copies daily, set a smaller interval to compensate for the effects of seasonal and weather changes.	
	Forced Page Count	[2 to 999 / 100 / 1 sheet]
002*	Sets the interval between ID sensor pattern printing.	
	Forces creation of the ID sensor pattern to prevent low density copies for customers who use the copier for long copy jobs.	



	Vref Setting	
Adjusts the TD sensor reference voltage (Vref). Change this value after replac development unit with another development unit that contains toner.		
	[1 to 5 / 4 / 0.01]	
2220*	 Check the value of SP2-220 in both the machine containing the test unit and the machine that you are going to move it to. 	
	Install the test development unit, and then input the VREF for this unit into SP2-220.	
	After the test, put back the old development unit, and change SP2-220 back to the original value.	

	Reverse Interval Drum, Transfer	[0 to 2000 / 0 / 1 sheets]
2221*	Adjusts the threshold for the reverse rotation motors. This helps the drum and transfer be will interrupt a multiple printing job.	on of the drum and development/transfer elt cleaning operations. This reverse rotation

2223*	Vt Display		
001	Current	[0 to 5 / 4 / 0.01]	
001	Displays the TD sensor output voltage for	the immediately previous copy.	
	Average 10 copies	[0 to 5 / 4 / 0.01]	
002	Displays the average of the most recent TD sensor outputs (from the previous 10 copies).		
003	Rate of Change	[-10000 to 10000 / 0 / 1]	
003	Displays the rate of change in the TD sensor output.		
004	GAIN	[0 to 255 / 0 / 1]	
004	Displays the GAIN value used to calculate the on time for the toner supply motor.		
	Image Pixel Count	[0 to 255 / 0 / 1]	
005	Displays the image pixel count.		

	Developer Lot	
2228*	Displays the lot number o of the developer pack.)	f the developer. (The lot number is embossed on the top edge

	Transfer Current Adjustment		
2301*	If the transfer current of image area is set highly than normal, the print image is easily come out. If the leading transfer current is set as same, the black line is come out due to exfoliation leave.		
		C2b: [10 to 100 / 35 / 1 µA]	
001	Image Area: 1st Side	C2c: [10 to 100 / 45 / 1 µA]	
	Adjusts the transfer current for pr	inting the first side of the paper	
		C2b: [10 to 100 / 35 / 1 µA]	
002	Image Area: 2nd Side	C2c: [10 to 100 / 40 / 1 µA]	
	Adjusts the transfer current for printing the second side of the paper		
	Leading Edge: 1st Side	[10 to 100 / 20 / 1 µA]	
003	Adjusts the transfer current for copying at leading edge the first side of the paper. Increase the current to separate the paper from the drum properly in high humidity and		
	high temperature conditions.		
	Leading Edge: 2nd Side	[10 to 100 / 20 / 1 µA]	
004	Adjusts the transfer current for copying at leading edge the second side of the paper.		
	Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
	By-pass: Image Area	C2b: [10 to 100 / 35 / 1 µA]	
005		C2c: [10 to 100 / 45 / 1 µA]	
005	Adjusts the transfer current for copying from the by-pass tray.		
	If the user normally feeds thicker paper from the bypass tray, use a higher setting.		

006	By-pass: Leading Edge	[10 to 100 / 20 / 1 µA]	
	Adjusts the transfer current for copying at the leading edge of paper fed from the bypass tray.		
	Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
000	No Image Area (SSP)	[10 to 100 / 15 / 1 µA]	
008	Adjusts the transfer current for co	pying.	

2309*	Current: Paper Size Correction (SSP)		
	Paper Lower Width (a)	[1 to 150 / 150 / 1 mm]	
001	Adjusts the lower paper width threshold for the transfer current, charge voltage, and development bias corrections.		
	Use this SP when an image problem (e.g., insufficient toner transfer) occurs with a small width paper. If the paper width is smaller than this value, the transfer current will be multiplied by the factor in SP2-309-3 (paper tray) or SP2-309-5 (by-pass).		
	Paper Upper Width (a)	[151 to 296 / 216 / 1 mm]	
002	Adjusts the upper paper width threshold for the transfer current, charge voltage, and development bias corrections. As for SP2-309-1, but the factors are in SP2-309-4 (paper tray) and SP2-309-6 (bypass).		
	Paper Tray: Plain (alpha)	[1 to 3 / 1 / 0.1]	
003	Adjusts the transfer current correction coefficient used if the paper width is less than the setting of SP2-309-1.		
	Paper Tray: Plain (beta)	[1 to 3 / 1 / 0.1]	
004	Adjusts the transfer current correction coefficient used if the paper width is less than the setting of SP2-309-2.		
	By-pass: Plain (gamma)	[1 to 3 / 1.1 / 0.1]	
005	Adjusts the transfer current correction coefficient used if the paper width is less than the setting of SP2-309-1.		

	By-pass: Plain (delta)	[1 to 3 / 1.1 / 0.1]
006	Adjusts the transfer current correction coefficient used if the paper width is less than the setting of SP2-309-2.	
007	Paper Tray: Thick 1 (alpha)	[1 to 3 / 1 / 0.1]
008	Paper Tray: Thick 1 (beta)	[1103/1/0.1]
009	By-pass: Thick 1 (gamma)	[1, 2/11/01]
010	By-pass: Thick 1 (delta)	[1 to 3 / 1.1 / 0.1]
011	Paper Tray: Thick 2 (alpha)	[] 1. 2 / 11 / 0]
012	Paper Tray: Thick 2 (beta)	[1 to 3 / 1.1 / 0.1]
013	By-pass: Thick 2 (gamma)	[] 1. 2 / 1.5 / 0.1]
014	By-pass: Thick 2 (delta)	[1 to 3 / 1.5 / 0.1]
015	Paper Tray: M-Thick (alpha)	[1 to 3 / 1 / 0.1]
016	Paper Tray: M-Thick (beta)	[1103/1/0.1]
017	By-pass: M-Thick (gamma)	[] 1. 2 / 11 / 0]
018	By-pass: M-Thick (delta)	[1 to 3 / 1.1 / 0.1]
019	Paper Tray: Thin (alpha)	[] 1. 2 /1 /0]]
020	Paper Tray: Thin (beta)	[1 to 3 / 1 / 0.1]
021	By-pass: Thin (gamma)	[] 1. 2 / 11 / 0]
022	By-pass: Thin (delta)	[1 to 3 / 1.1 / 0.1]
023	Paper Tray: Special 1 (alpha)	[1, 2/1/01]
024	Paper Tray: Special 1 (beta)	[1 to 3 / 1 / 0.1]
025	By-pass: Special 1 (gamma)	[] 1. 2 / 11 / 0]
026	By-pass: Special 1 (delta)	[1 to 3 / 1.1 / 0.1]
027	Paper Tray: Special 2 (alpha)	[] + 2 /1 /0]]
028	Paper Tray: Special 2 (beta)	[1 to 3 / 1 / 0.1]

029	By-pass: Special 2 (gamma)	[1, 2 / 11 / 0.1]
030	By-pass: Special 2 (delta)	[1 to 3 / 1.1 / 0.1]
031	Paper Tray: Special 3 (alpha)	[14-2/1/01]
032	Paper Tray: Special 3 (beta)	[1 to 3 / 1 / 0.1]
033	By-pass: Special 3 (gamma)	[1, 2 /11 /01]
034	By-pass: Special 3 (delta)	[1 to 3 / 1.1 / 0.1]

	Current: Paper Type Correction (SSP)	
2310*	Adjust the transfer current for each paper type. If the transfer current of image area is set highly than normal, the print image is easily come out. If the leading transfer current is set as same, the black line is come out due to exfoliation leave.	
001	Image 1st Side: Thick 1	[10 to 100 / 18 / 1 µA]
001	Adjusts the transfer current for printing the	first side of the paper (Thick 1).
	Leading Edge 1st Side: Thick 1	[10 to 100 / 15 / 1 µA]
002	Adjusts the transfer current for copying at leading edge the first side of the paper. Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions (Thick 1).	
003	Image 2nd Side: Thick 1	[10 to 100 / 18 / 1 µA]
003	Adjusts the transfer current for printing the second side of the paper (Thick 1).	
	Leading Edge 2nd Side: Thick 1	[10 to 100 / 15 / 1 µA]
004	Adjusts the transfer current for copying at leading edge the second side of the paper (Thick 1). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.	
005	Image: Thick 2	[10 to 100 / 18 / 1 µA]
003	Adjusts the transfer current for printing (Thick 2).	
	Leading Edge: Thick 2	[10 to 100 / 15 / 1 µA]
006	Adjusts the transfer current for copying at the leading edge of paper (Thick 2). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.	

007	Image: OHP	[10 to 100 / 20 / 1 µA]	
007	Adjusts the transfer current for printing (O	HP).	
	Leading Edge: OHP	[10 to 100 / 20 / 1 µA]	
008	Adjusts the transfer current for copying at the leading edge of paper (OHP). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
000	Image: Envelope	[10 to 100 / 20 / 1 µA]	
009	Adjusts the transfer current for printing (Er	nvelope).	
	Leading Edge: Envelope	[10 to 100 / 20 / 1 µA]	
010	Adjusts the transfer current for copying at the leading edge of paper (Envelope). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
	Imago 1st Sido: M Thick	C2b: [10 to 100 / 24 / 1 µA]	
011	Image 1st Side: M-Thick	C2c: [10 to 100 / 32 / 1 µA]	
	Adjusts the transfer current for printing the first side of the paper (M-Thick).		
	Leading Edge 1st Side: M-Thick	[10 to 100 / 20 / 1 µA]	
012	Adjusts the transfer current for copying at leading edge the first side of the paper (M-Thick). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
	Image 2nd Side, M. Thick	C2b: [10 to 100 / 24 / 1µA]	
013	Image 2nd Side: M-Thick	C2c: [10 to 100 / 32 / 1 µA]	
	Adjusts the transfer current for printing the second side of the paper (M-Thick).		
	Leading Edge 2nd Side: M-Thick	[10 to 100 / 20 / 1 µA]	
014	Adjusts the transfer current for copying at leading edge the second side of the paper (M-Thick). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
015	Image 1st Side: Special 1	C2b: [10 to 100 / 35 / 1 µA] C2c: [10 to 100 / 45 / 1 µA]	
	Adjusts the transfer current for printing the	e first side of the paper (Special 1).	

	Leading Edge 1st Side: Special 1	[10 to 100 / 20 / 1 µA]	
Adjusts the transfer current for copying at leading edge the first side of the (Special 1). Increase the current to separate the paper from the drum prophumidity and high temperature conditions.		ate the paper from the drum properly in high	
017	Image 2nd Side: Special 1	C2b: [10 to 100 / 35 / 1 µA] C2c: [10 to 100 / 40 / 1 µA]	
	Adjusts the transfer current for printing the	second side of the paper (Special 1).	
	Leading Edge 2nd Side: Special 1	[10 to 100 / 20 / 1 µA]	
018	Adjusts the transfer current for copying at leading edge the second side of the paper (Special 1). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
019	Image 1st Side: Special 2	C2b: [10 to 100 / 24 / 1 µA] C2c: [10 to 100 / 32 / 1 µA]	
	Adjusts the transfer current for printing the first side of the paper (Special 2).		
	Leading Edge 1st Side: Special 2	C2b: [10 to 100 / 24 / 1 µA] C2c: [10 to 100 / 32 / 1 µA]	
020	Adjusts the transfer current for copying at leading edge the first side of the paper (Special 2). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
021	Image 2nd Side: Special 2	C2b: [10 to 100 / 24 / 1 µA] C2c: [10 to 100 / 32 / 1 µA]	
	Adjusts the transfer current for printing the second side of the paper (Special 2).		
	Leading Edge 2nd Side: Special 2	C2b: [10 to 100 / 24 / 1 µA] C2c: [10 to 100 / 32 / 1 µA]	
022	Adjusts the transfer current for copying at leading edge the second side of the paper (Special 2). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
023	Image 1st Side: Special 3	C2b: [10 to 100 / 24 / 1 µA] C2c: [10 to 100 / 32 / 1 µA]	
	Adjusts the transfer current for printing the first side of the paper (Special 3).		

024	Leading Edge 1st Side: Special 3	C2b: [10 to 100 / 24 / 1 µA] C2c: [10 to 100 / 32 / 1 µA]	
	Adjusts the transfer current for copying at leading edge the first side of the paper (Special 3). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		
025	Image 2nd Side: Special 3	C2b: [10 to 100 / 24 / 1 ^µ A] C2c: [10 to 100 / 32 / 1 ^µ A]	
	Adjusts the transfer current for printing the second side of the paper (Special 3).		
	Leading Edge 2nd Side: Special 3	C2b: [10 to 100 / 24 / 1 µA] C2c: [10 to 100 / 32 / 1 µA]	
026	Adjusts the transfer current for copying at leading edge the second side of the paper (Special 3). Increase the current to separate the paper from the drum properly in high humidity and high temperature conditions.		

	PTL Control (SSP)	
2602*	Use this SP when an image problem occurs caused by the pick-off paws. This SP is for the printing which target line speed is 230 or 180 mm/sec. Set the PTL control (SP2603-001) to "1: ON" after installing the PTL. If the PTL control is set to ON, the black line is come out due to exfoliation leave. Set SP2911-002 (or 005, 008, 011) to "20" when using the PTL.	
001	1 st Side: OFF/ON	[0 to 1 / 0 / 1]
001	Sets the PTL control setting for printing the first side of the paper.	
	1 st Side: OFF Timing	[-10 to 10 / 2 / 1]
002	Sets the PTL control time for printing the first side of the paper when SP2602-001 is set to "1".	
003	2nd Side: OFF/ON	[0 to 1 / 0 / 1]
003	Sets the PTL control setting for printing the second side of the paper.	
	2nd Side: OFF Timing	[-10 to 10 / 2 / 1]
004	Sets the PTL control time for printing the second side of the paper when SP2602-003 is set to "1".	

	PTL Control: 154 mm/s (SSP)	
2603*	Use this SP when an image problem occurs caused by the pick-off paws. This SP is for the printing which target line speed is 154 mm/sec. Set the PTL control (SP2603-001) to "1: ON" after installing the PTL. If the PTL control is set to ON, the black line is come out due to exfoliation leave. Set SP2911-002 (or 005, 008, 011) to "20" when using the PTL.	
001	1 st Side: OFF/ON	[0 to 1 / 0 / 1]
001	Sets the PTL control setting for printing the first side of the paper.	
	1 st Side: OFF Timing	[-10 to 10 / 2 / 1]
002	Sets the PTL control time for printing the first side of the paper when SP2602-001 is set to "1".	
003	2nd Side: OFF/ON	[0 to 1 / 0 / 1]
003	Sets the PTL control setting for printing the second side of the paper.	
	2nd Side: OFF Timing	[-10 to 10 / 2 / 1]
004	Sets the PTL control time for printing the second side of the paper when SP2602-003 is set to "1".	

	PTL Control: 90 mm/s (SSP)		
2604*	Use this SP when an image problem occurs caused by the pick-off paws. This SP is for the printing which target line speed is 90 mm/sec. Set the PTL control (SP2603-001) to "1: ON" after installing the PTL. If the PTL control is set to ON, the black line is come out due to exfoliation leave. Set SP2911-002 (or 005, 008, 011) to "20" when using the PTL.		
1 st Side: OFF/ON		[0 to 1 / 0 / 1]	
001	Sets the PTL control setting for printing the first side of the paper.		
	1 st Side: OFF Timing	[-10 to 10 / 2 / 1]	
002	Sets the PTL control time for printing the first side of the paper when SP2602-001 is set to "1".		
003	2nd Side: OFF/ON	[0 to 1 / 0 / 1]	
003	Sets the PTL control setting for printing the second side of the paper.		

	2nd Side: OFF Timing	[-10 to 10 / 2 / 1]
004	Sets the PTL control time for printing the set to "1".	econd side of the paper when SP2602-003 is

		TD Sensor Initial Setting	Initialization
2801*	2801*	Performs the TD sensor initial setting and allows the service technician to enter the lot number of the developer. (The lot number is embossed on the edge of the developer package.) This SP mode controls the voltage applied to the TD sensor to make the TD sensor output about 3.0 V. Press "Execute" to start. After finishing this, the TD sensor output voltage is displayed.	
		Use this mode only after installing the machine, changing the TD sensor, or adding new developer.	

2802*	TD Sensor Manual Setting	
2002	Allows you to adjust the TD sensor output manually for the following.	
	VTS [1 to 5 / 4.78 / 0.01 vol]	
001	Adjusts the TD sensor output (VT).	
001	Change this value after replacing the development unit with another one that already contains toner. For example, when using a development unit from another machine for test purposes. To adjust VT, use a similar procedure as for SP2-220.	
000	VTMAX [1 to 5 / 4.78 / 0.01vol]	
002	Adjusts the maximum value for SP2802 1.	
003	VTMIN	[1 to 5 / 1 / 0.01vol]
003	Adjusts the minimum value for SP2802 1.	

	Process Setting
2805	Performs the developer initialization. Press "Execute" to start. This SP should be performed after doing SP2801 at installation and after replacing the drum.

2010	Grayscale Setting	
2810 Initializes the LD power setting. This SP should be done after replacing the dr		Initializes the LD power setting. This SP should be done after replacing the drum.

2812*	Drum Reverse Rotation (SSP)	
001	Reverse time	[0 to 9 / 4 / 1]
001	Sets the reverse time of the drum motor after the end of a job.	
000	Interval time	[0 to 19 / 9 / 1]
002	Sets the waiting time of the drum motor reverse after the end of a job.	

2911*	Transfer Current On/Off Timing (SSP)	
001	La (On Timing)	[-20 to 20 / 0 / 1 mm]
001	Adjust the timing to turn on the transfer current for the leading edge.	
002	Lb (Switch Timing)	[0 to 30 / 10 / 1 mm]
002	Adjust the timing to switch transfer curre	ent from the leading edge to the image area.
003	Lc (Off Timing)	[-20 to 20 / -5 / 1 mm]
003	Adjust the timing to turn off the transfer	current for the image area.
004	La (On Timing): Special 1	[-20 to 20 / 0 / 1 mm]
004	Adjust the timing to turn on the transfer current for the leading edge (Special 1).	
	Lb (Switch Timing): Special 1	[0 to 30 / 1 0 / 1 mm]
005	Adjust the timing to switch transfer current from the leading edge to the image area (Special 1).	
006	Lc (Off Timing): Special 1	[-20 to 20 / -5 / 1 mm]
008	Adjust the timing to turn off the transfer current for the image area (Special 1).	
007	La (On Timing): Special 2	[-20 to 20 / 0 / 1 mm]
007	Adjust the timing to turn on the transfer current for the leading edge (Special 2).	
	Lb (Switch Timing): Special 2	[0 to 30 / 10 / 1 mm]
008	Adjust the timing to switch transfer current from the leading edge to the image area (Special 2).	
000	Lc (Off Timing): Special 2	[-20 to 20 / -5 / 1 mm]
009	Adjust the timing to turn off the transfer current for the image area (Special 2).	

010	La (On Timing): Special 3	[-20 to 20 / 0 / 1 mm]
010	Adjust the timing to turn on the transfer current for the leading edge (Special 2).	
	Lb (Switch Timing): Special 3	[0 to 30 / 10 / 1 mm]
011	Adjust the timing to switch transfer current from the leading edge to the image area (Special 2).	
010	Lc (Off Timing): Special 3	[-20 to 20 / -5 / 1 mm]
012	Adjust the timing to turn off the transfer of	current for the image area (Special 2).

2912*	Transfer Reverse Rotation	
000	Interval	[0 to 10 / 3 / 1]
002	Sets the reverse time of the transfer/development motor after the end of a job.	

2914*	Paper Setting	
	C-alpha	[0 to 400 / 150 / 10vol]
001	Adjusts the charge roller voltage used when paper with a small width is fed from the by-pass tray. The paper width below which the correction starts depends on the value of SP2-309-1.	
	Use this SP when an image problem (such as white spots at the center of black dots or breaks in thin black lines) occurs when paper with a small width is fed from the by-pass feed tray.	
	C-beta	[0 to 400 / 0 / 10vol]
002	Adjusts the charge roller voltage used when paper with a small width is fed from the by-pass tray. The paper width below which the correction starts depends on the value of SP2-309-2.	
	Use this SP when an image problem (see 2-914-1) occurs when paper with a small width is fed from the by-pass feed tray.	
	B-gamma	[0 to 300 / 200 / 10vol]
003	Adjusts the development bias used when paper with a small width is fed from the bypass tray. The paper width below which the correction starts depends on the value of SP2-309-1.	
	Use this SP when an image pro width is fed from the by-pass fe	oblem (see 2-914-1) occurs when paper with a small ed tray.

	B-delta	[0 to 300 / 50 / 10vol]
004	Adjusts the development bias used when paper with a small width is fed from the bypass tray. The paper width below which the correction starts depends on the value of SP2-309-2.	
	Use this SP when an image pro width is fed from the by-pass fe	oblem (see 2-914-1) occurs when paper with a small eed tray.

2940*	Toner consump. (SSP)	
	[0: OFF 1: ON]	[0 to 1 / 1 / 1]
001	If this SP is set to ON, toner bottle consumes toner when the SP2801 (TD Sensor Setting) is executed. This prevents the image offset.	
	Setting	[0 to 1 / 0.06 / 0.01]
002	Specifies the threshold value for the toner consumption mode if SP2940-001 is set to ON.	

	2040*	Toner Overflow Sensor	[0 = OFF, 1= ON]
2960	2900	Selects whether or not the toner overflow sensor is activated.	

	Trans Cleaning Blade Forr	ming (SSP)
20/14	Applies a pattern of toner to the transfer belt at a defined interval between sheets on the transfer belt in order to reduce friction between the belt surface and the cleaning blade.	
2964*	Under conditions of high temperature and high humidity, the density control feature may reduce the amount of toner, which also reduces the amount of toner on the surface of the transfer belt. With less toner on the belt, the friction between the belt are the blade increases, and could cause the blade to bend or scour the surface of the belt.	
001	0: OFF, 1: ON [0 to 1 / 0 / 1]	
002	Pattern Interval	[1 to 100 / 15 / 1 sheet]
003	Pattern Number	[1 to 3 / 1 / 1 line]
004	Pattern LD Power	[0 to 15 / 2 / 1]

	Grayscale Limit (SSP)	
2972*	Controls the halftone density level to prevent deterioration of the OPC. The halftone density is detected by the ID sensor, and the machine adjusts the intensity of the LD beam according to the upper/lower limit setting.	
	Upper Limit	[0 to 100 / 58 (C2b), 63 (C2c) / 1vol]
001	Defines the upper limit for grayscale. A larger value allows a wider range of halftones at the pale end of the scale. If the image contains pale areas with fuzzy borders surrounded by dark areas, reduce this value to make the borders clearer.	
	Lower Limit	[0 to 100 / 52 (C2b), 57 (C2c) / 1vol]
002	Defines the lower limit for grayscale. A smaller value allows a wider range of halftones at the dark end of the scale.	

	Grayscale Cycle (SSP)	[0 to 1000 / 100 / 10 sheets]
2973*	•	erval in order to prevent deterioration of the OPC. If the setting, at the end of the job, or if the door is opened is executed.

2974*	Image Density	
Adjustment Mode [1 to 5 / 3 / 1]		[1 to 5 / 3 / 1]
001	Adjusts image density. Changing output voltage that in turn raise	ng this setting adjusts development bias and ID sensor s or lowers image density.

		Near End Setting	
		Detection Time	[0 to 2000 / 0 / 10 sec]
	2975*	Sets a time for toner supply motor rotation for issuing the toner near end warning on the operation panel. The time may need to be shorter for customers who run especially large print jobs (working at night, for example) to ensure earlier warning of the toner near end condition so toner out does not interrupt a long job.	

	Bottle Motor Time	
007/*	Displays the total ON time of the toner supply motor, calculated from when the toner bottle was replaced. Use this to check that the toner end count (SP2975) is working properly.	
2976*	matches the setting of SP2	y value other than "0", this value is displayed when it 975. When SP2975 is set to "0", SP2976 is disabled. et to zero by toner end recovery.)
	Time	[0 to 7,000,000 / 0 / 1 msec]

2077*	Toner End Status	
2977*	Indicates the toner near end or end condition.	
[0 to 10 / 0 / 1] 0: Not detected 1: Detected by SP2975-001 2: Vt (10) - Vref > 0.2 and Vsp > 0.6 3: Vt (10) - Vref > 0.45 4: 0.45 > Vt (10) - Vref > 0.2 and toner end counter > 300		0: Not detected 1: Detected by SP2975-001 2: Vt (10) - Vref > 0.2 and Vsp > 0.6 3: Vt (10) - Vref > 0.45 4: 0.45 > Vt (10) - Vref > 0.2 and toner end counter > 300
002	End	5 to 10: Not used [0 to 10 / 0 / 1] 0: Not detected 1: Vsp > 2.0 2: Toner end counter > 90 when SP2213-001 is set to "0". 3: Toner end counter < 90 and Vt (10) > (Vref + 0.3) when SP2213-001 is set to "0". 4: When SP2213-001 is set to "2" 5: Vsp > 0.9 when SP2213-001 is set to "2" 6: Special order 7 to 10: Not used

	Charge Counter	[0 to 1000000 / 0 / 1 sheets]
2980*	Set the number of pages to print after toner and carrier initialization before the charge input is increased to compensate for deterioration over time in the polarity of the carrier.	
		ity of the carrier in the toner will eventually decrease and out. Setting the charge output to increase after a specified ompensate for this effect.

System SP Table-3

SP3-xxx: Process

3001*	P Sensor Setting	
	Current	[0 to 43 / 13 / 0.1 mA]
001	Allows you to reset the PWM of the ID sensor LED to avoid a service call error after clearing NVRAM or replacing the NVRAM. The PWM data is stored by executing SP-3001-2.	
	ID Initialization	-
002	Performs the ID sensor initial setting. ID sensor output for the bare drum (VSG) is adjusted automatically to $4.0\pm0.2~\text{V}$.	
	Press "Execute" to start. Perform this so replacing the drum, or clearing NVR/	etting after replacing or cleaning the ID sensor, AM.

3045*	Toner End Setting, ON/OFF	DFU
	[0 to 1 / 0 / 1] 0=Off, 1=On	

	P Sensor Output	
	Displays the current VSG, VSP, VSDP, and grayscale control.	
3103*	If the P sensor does not detect the P pattern, "VSP = 5.0 V/VSG = 5.0 V" is displayed and an SC code is generated.	
	If the P sensor does not detect the bare area of the drum, "VSP = $0.0 \text{ V/VSG} = 0.0 \text{ V}$ " is displayed and an SC code is generated.	
001	Vsg	[0 to 5 / 0 / 0.1]
002	Vsp	[0 to 5 / 0 / 0.1]
003 Vsdp [0 to 5 / 0 / 0.1]		[0 to 5 / 0 / 0.1]
004	Vsm/Vsg	[0 to 5 / 0 / 0.1]

3902*	New PCU Detection (Not used)
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001	On/OFF Setting	[0 to 1 / 0 / 1] 0: On, 1: Off
	Turns on or off the new unit detection for the transfer belt unit and fusing unit.	

	Hot Roller Stripper Cleaning
3905*	"Cleaning A": 15 sec. off/on cycle for the fusing motor.
	"Cleaning B": Off (45 sec.) and On (15 sec.) cycle for the fusing motor.
	1st Cleaning: Interval
001	Sets the threshold for the 1st cleaning mode.
	"Cleaning A" is done once.
	[0 to 5 / 5 / 1 sheets]
	1st Cleaning: Mode Setting
002	Sets the number of additional execution times of the 1st cleaning mode.
	[0 to 5 / 0 / 1 times]
	2nd Cleaning: Interval
003	Sets the threshold for the 2nd cleaning mode.
	"Cleaning A" is done twice.
	[6 to 49 / 30 / 1 sheets]
	2nd Cleaning: Mode Setting
004	Sets the number of additional execution times of the 2nd cleaning mode.
	[0 to 5 / 0 / 1 times]
	3rd Cleaning: Interval
	Sets the threshold for the 3rd cleaning mode.
005	"Cleaning A" is done twice and "Cleaning B" is done "N" times.
	"N" is specified with SP3905-006.
	[50 to 999 / 100 / 1 sheets]

	3rd Cleaning: Mode Setting
	Sets the number of execution times of the 3rd cleaning mode.
006	[0 to 5 / 0 / 1 times]
	U Note
	All fans remain on during cleaning and then switch off 60sec after the cleaning cycle ends.
	Cleaning Priority Setting
007	[0 to 1 / 0 / 1 sheets]
007	0: Priority to printing (No job interruption)
	1: Priority to cleaning (Job interruption)

System SP Tables-4

SP4-xxx: Scanner

4008*	Sub Scan Mag. Adjustment
	Adjusts the magnification of the sub scan direction during scanning. Changing this value changes the scanner motor speed.
	[-1 to 1 / 0 / 0.1%]

	L-Edge Regist Adjustment	
	4010*	Adjusts the leading edge registration for scanning.
	[-2 to 2 / 0 / 0.1 mm]	
	As you enter a negative value, the image moves toward the leading edge.	

	S-to-S Regist Adjustment	
	Adjusts side-to-side registration for scanning.	
	4011*	[-2.5 to 2.5 / 0 / 0.1 mm]
	As you enter negative values, the image will disappear at the left, and as you enter positive values, the image will appear at the left.	

	Scanner Erase Margin: Scale	
	Adjusts scanning margins for the leading and trailing edges (sub scan) and right and left edge (main scan).	
4012*	Note	
	Do not adjust unless the customer desires a scanner margin greater than the printer margin.	
	These settings are adjusted to erase shadows caused by the gap between the original and the scale of the scanner unit.	
001	Book: Leading Edge	[0 to 3 / 1 / 0.1 mm]
002	Book: Trailing Edge	[0 to 3 / 0 / 0.1 mm]
003	Book: Left	[0 to 3 / 1 / 0.1 mm]

004	Book: Right	[0 to 3 / 0 / 0.1 mm]
005	ADF: Leading Edge	[0 to 3 / 0 / 0.1 mm]
007	ADF: Right	[0 to 3 / 0 / 0.1 mm]
008	ADF: Left	[0 to 3 / 0 / 0.1 mm]

4013	Scanner Free Run	
4013	Performs a scanner free run with the exposure lamp on or off.	
001	Lamp: OFF	[0 to 1 / 0 / 1]
002	Lamp: ON	0=Off, 1=On

4014	Scan	
001	HP Detection Enable	Scanner free run with HP sensor check.
002	HP Detection Disable	Scanner free run without HP sensor check.

	Dust Check
4020*	This function checks the narrow scanning glass of the ADF for dust that can cause black lines in copies. If dust is detected a system banner message is displayed, but processing does not stop.
	Dust Detect: On/Off
	Issues a warning if there is dust on the narrow scanning glass of the ADF when the original size is detected before a job starts. This function can detect dust on the white plate above the scanning glass, as well as dust on the glass. Sensitivity of the level of detection is adjusted with SP4020-2.
001	[0 to 1 / 1 / 1]
	0: Off. No dust warning.
	1: On. Dust warning. This warning does not stop the job.
	♥ Note
	Before switching this setting on, clean the ADF scanning glass and the white plate above the scanning glass.

	Dust Detect: Lvl
	Adjusts the sensitivity for dust detection on the ADF scanning glass. This SP is available only after SP4020-1 is switched on.
	[0 to 8 / 4 / 1]
002	If you see black streaks in copies when no warning has been issued, raise the setting to increase the level of sensitivity. If warnings are issued when you see not black streaks in copies, lower the setting.
	♣ Note
	 Dust that triggers a warning could move be removed from the glass by the originals in the feed path. If the dust is removed by passing originals, this is not detected and the warning remains on.
	Dust Reject: Lvl
003	Selects the level of the sub scan line correction when using the ARDF. [0 to 4 / 0 / 1] 0: OFF, 1: Weakest, 2: Weak, 3: Strong, 4: Strongest

4301	APS Operation Check
	Displays a code that represents the original size detected by the original sensors. (P. 243 "Input Check")
	APS Min. Size
	Determines whether an original of non-standard size is detected as A5/HLT size by the APS sensor.
4303	0: No original
	1: A5 - lengthwise (SEF)
	2: A5 - Sideways (LEF)

If "0" is selected, "Cannot detect original size" will be displayed.

4305	8K/16K Detection
	[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-Lenghtwise
	3: 8K 16K

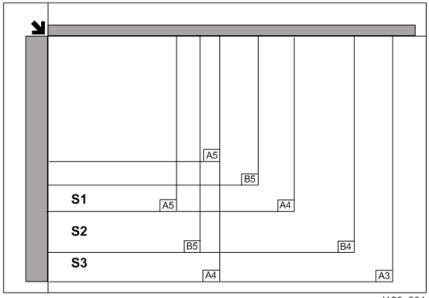
4308*	Scan Size Detection
001	Detection ON/OFF
	Selects whether the machine detects the original size.
	[0 to 1 / 1 / 1 step]
	0: OFF
	1: ON

4309*	Scan Size Detect: Setting
001	Original Density Thresh
	Adjust the density for the scan size detection. [0 to 255 / 18 / 1 step]
002	Detection Time
	Adjust the detection time for scan size detection. [20 to 100 / 60 / 20 msec]
003	Lamp ON: Delay Time
	Adjust the timing when to lamp on for the scan size detection. [0 to 200 / 40 / 20 msec]
004	LED PWM Duty
	Adjust the light value for the scan size detection. [0 to 100 / 60 / 1 %]

4210	Scan Size Detect Value	[0 to 255 / 0 / 1 digit]
Displays the scanned data for the original width detection.		ridth detection.
001	S1: R	
002	\$1: G	
003	S1: B	
004	S2: R	
005	\$2: G	
006	S2: B	
007	S3: R	
008	\$3: G	
009	S3: B	



• Each detection point (S1, S2, S3) in SP4310 is as follows.



d120s001

4400*	Scanner Erase Margin	
4400	These SPs set the area to be masked during platen (book) mode scanning.	
001	Book: Leading Edge	
002	Book: Trailing Edge	
003	Book: Left	
004	Book: Right	[0 to 3 / 0 / 0.1 mm]
005	ADF: Leading Edge	
007	ADF: Right	
008	ADF: Left	

	IPU Test Patte	IPU Test Pattern		
	Selects the IP	Selects the IPU test Pattern.		
		[0 to 28 / 0 / 1]		
		0: Scanned image	15: Gray pattern (1)	
		1: Gradation main scan A	16: Gray pattern (2)	
		2: Gradation main scan B	17: Gray pattern (3)	
		3: Gradation main scan C	18: Shading pattern	
4417		4: Gradation main scan D	19: Thin line pattern	
		5: Gradation sub scan (1)	20: Scanned + Grid pattern	
	Test Pattern	6: Grid pattern (1)	21: Scanned + Grid scale	
	restrailem	7: Slant grid pattern	22: Scanned + Color patch	
		8: Gradation K	23: Scanned + Slant Grid C	
		9: Check pattern 16	24: Scanned + Slant Grid D	
		10: Gray patch 16 (1)	25: Gray Scale 18 text	
		11: Gray patch 16 (2)	26: Gray Scale 18 photo	
		12: Gray patch 64	27: Gray Scale 256 text	
		13: Grid pattern (2)	28: Gray Scale 256 photo	
		14: Color patch K		

4429*	Select Copy Data Security	
001	Copying	Adjusts the density of the embedded message with
002	Scanning	the copy data security unit. [0 to 3 / 3 / 1]
003	Fax Operation	3: Darkest density

4450	Scan Image Path Selection
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	001	Black Subtraction ON/OFF	[0 to 1 / 1 / 1] 0=OFF, 1=ON
		Uses or does not use the black reduction image path.	
	002	SH ON/OFF	[0 to 1 / 0 / 1] 0=OFF, 1=ON
		Uses or does not use the shading image path.	

Digital AE		
4460*	Specifies the level of deleting the background in the ADS mode. You can adjust its level for each scanning method (platen, ADF).	
001	Low Limit Value	[0 to 1023 / 364 / 1 digit]
002	Background level	[512 to 1535 / 932 / 1 digit]

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	Specifies the printer vector correction value.	
025-028	CB Phase: Option/R/G/B	[0 to 255 / 0 / 1]	
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*	Scan Apli:Txt/Print	
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4551*	Scan Apli:Txt	
4552*	Scan Apli:Txt Dropout	
4553*	Scan Apli:Txt/Photo	
4554*	Scan Apli:Photo	
4565*	Scan Apli:GrayScale	
4570*	Scan Apli:Col Txt/Photo	
4571*	Scan Apli:Col Gloss Photo	
4572*	Scan Apli:AutoCol	
-005	MTF: O(Off) 1-15 (Weak-Strong)	[0 to 15 / 8 / 1] 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 (Weak-Strong)	[0 to 7 / 4 / 1]
-008	Use to remove "jaggies" if they appear. S	et higher for smoother images.
-007	Brightness: 1-255	[1 to 255 / 128 / 1]
-007	Set higher for darker, set lower for lighter	
-008	Contrast: 1-255	[1 to 255 / 128 / 1]
-008	Set higher for more contrast, set lower for less contrast.	
	Ind Dot Erase: O(Off) 1-7 (Weak- Strong)	[0 to 7 / 0 / 1]
-009	Sets the erasure level of Irregular Dots. Set higher for stronger effect, lower for weaker effect.	
	0: Not activated	

4580*	Fax Apli:Txt/Chart
4581*	Fax Apli:Txt
4582*	Fax Apli:Txt/Photo
4583*	Fax Apli:Photo

4584*	Fax Apli:Original 1	
4585*	Fax Apli:Original 2	
-005	MTF: 0(Off) 1-15 (Weak-Strong)	[0 to 15 / 8 / 1] 0: MTF OFF
	Sets the MTF level (Modulation Transfer F Set higher for stronger effect, lower for we	function) designed to improve image contrast. eaker effect.
-006	Smoothing: 0(x1) 1-7 (Weak-Strong)	[0 to 7 / 4 / 1]
-008	Use to remove "jaggies" if they appear. Set higher for smoother images.	
-007	Brightness: 1-255	[1 to 255 / 128 / 1]
-007	Set higher for darker, set lower for lighter.	
-008	Contrast: 1-255	[1 to 255 / 128 / 1]
-008	Set higher for more contrast, set lower for less contrast.	
	Ind Dot Erase: O(Off) 1-7 (Weak- Strong)	[0 to 7 / 0 / 1]
-009	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	[0 to 2 / 0 / 1]
-010	Sets the erasure level of textures. Set higher for stronger effect, lower for weaker effect. Note: This SP code exists for SP4580, SP4582 and SP4583 only.	

4600	SBU Version	
001	SBU ID	Displays the ID of the SBU.
002	GASBU-N ID	Displays the ID of the GASBU.
003	VSP5100 ID	Displays the ID of the VSP5100.

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	Executes the AGC with the scanner detection.
002	HP Detection Disable	Executes the AGC with the scanner detection.

	FGATE Open/Close
4604	Opens or closes the FGATE signal. This SP automatically returns to the default status (close) after exiting this SP.
	[0 to 1 / 0 / 1]
	0: OFF, 1: ON

4609*	Gray Balance Set: R	
001	Book Scan	[-384 to 255 / -46 / 1 digit]
	Displays the scanning level value (adjustment) for the red signal in Book Scan.	
000	DF Scan	[-384 to 255 / -46 / 1 digit]
002	Displays the scanning level value (adjustment) for the red signal in DF Scan.	

4610*	Gray Balance Set: G	
001	Book Scan	[-384 to 255 / -20 / 1 digit]
001	Displays the scanning level value (adjustment) for the green signal in Book Scan.	
000	DF Scan	[-384 to 255 / -20 / 1 digit]
002	Displays the scanning level value (adjustment) for the green signal in DF Scan.	

4611*	Gray Balance Set: B	
001	Book Scan	[-384 to 255 / -28 / 1 digit]
	Displays the scanning level value (adjustment) for the blue signal in Book Scan.	
002	DF Scan	[-384 to 255 / -28 / 1 digit]
	Displays the scanning level value (adjustment) for the blue signal in DF Scan.	

4623	Black Level Adj. Display
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	Latest: RE Color	[0 to 16383 / 0 / 1 digit]
Displays the black offset value (rough adjustment) for the even red signal in the Sprinting speed).		ustment) for the even red signal in the SBU (color
	Latest: RO Color	[0 to 16383 / 0 / 1 digit]
Displays the black offset value (rough adjustment) for the odd red signal printing speed).		ustment) for the odd red signal in the SBU (color

₩Note

• RE: Red Even signal, RO: Red Odd signal

4624	Black Level Adj. Display
	Latest: GE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the black offset value (rough adjustment) for the even green signal in the SBU (color printing speed).
	Latest: GO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the black offset value (rough adjustment) for the odd green signal in the SBU (color printing speed).

Note

• GE: Green Even signal, GO: Green Odd signal

4625	Black Level Adj. Display
	Latest: BE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the black offset value (rough adjustment) for the even blue signal in the SBU (color printing speed).
	Latest: BO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the black offset value (rough adjustment) for the odd blue signal in the SBU (color printing speed).



• BE: Blue Even signal, BO: Blue Odd signal

	Analog Gain Adjust	
4628	Displays the gain value of the amplifiers on the controller for Red. Only for the color scanner	
001	Latest: R Color	[0 to 255 / 0 / 1 digit]

	Analog Gain Adjust	
4629	Displays the gain value of the amplifiers on the controller for Green.	
	SP4629-003 and -004 are used only for the color scanner model.	
001	Latest: G Color	[0 to 7 / 0 / 1 digit]

4630	Analog Gain Adjust	
	Displays the gain value of the amplifiers on the controller for Blue.	
001	Latest: B Color	[0 to 7 / 0 / 1 digit]

4621	Digital Gain Adjust	
4631	Displays the gain value of the amplifiers on the controller for RE or RO.	
001	Latest: RE Color	[0 to 1023 / 0 / 1 digit]
002	Latest RO Color	[0 to 1023 / 0 / 1 digit]

4632		Digital Gain Adjust	
	4032	Displays the gain value of the amplifiers on the controller for GE or GO.	
	001	Latest: GE Color	[0 to 1023 / 0 / 1 digit]
	002	Latest: GO Color	[0 to 1023 / 0 / 1 digit]

4633	Digital Gain Adjust	
4033	Displays the gain value of the amplifiers on the controller for BE or BO.	
001	Latest: BE Color	[0 to 1023 / 0 / 1 digit]

Latest: BO Color	[0 to 1023 / 0 / 1 digit]
SSCC Correction Set /DELIA	
· · ·	[0 to 1 / 1 / 1 digit]
7,551,7 61.7	[totally ity is align]
Calculation ON/OFF	[0 to 1 / 1 / 1 digit]
SSCG Correction Execution (DFU)	
SSCG Correction Execution	[0 to 1 / 1 / 1 digit]
SSCG Correction Error Flag	[0 to 2 / 0 / 1 digit]
SSCG Result Apply Execution 80H	[0 to 1 / 0 / 1 digit]
SSCG Result Apply Execution Last	[0 to 1 / 0 / 1 digit]
SSCG Correction Adj (DFU)	
Latest:RE	[0 to 225 / 128 / 1]
Latest:RO	[0 to 225 / 128 / 1]
Latest:GE	[0 to 225 / 128 / 1]
Latest:GO	[0 to 225 / 128 / 1]
Latest:BE	[0 to 225 / 128 / 1]
Latest:BO	[0 to 225 / 128 / 1]
SSCG Correction Adj (DFU)	
	SSCG Correction Set (DFU) Apply ON/OFF Calculation ON/OFF SSCG Correction Execution (DFU) SSCG Correction Error Flag SSCG Result Apply Execution 80H SSCG Result Apply Execution Last SSCG Correction Adj (DFU) Latest: RE Latest: RO Latest: GG Latest: BE

002	Last:RO	[0 to 225 / 128 / 1]
003	Last:GE	[0 to 225 / 128 / 1]
004	Last:GO	[0 to 225 / 128 / 1]
005	Last:BE	[0 to 225 / 128 / 1]
006	Last:BO	[0 to 225 / 128 / 1]

4639*	SSCG Correction Adj (DFU)	
001	Factory Setting:RE	[0 to 225 / 128 / 1]
002	Factory Setting:RO	[0 to 225 / 128 / 1]
003	Factory Setting:GE	[0 to 225 / 128 / 1]
004	Factory Setting:GO	[0 to 225 / 128 / 1]
005	Factory Setting:BE	[0 to 225 / 128 / 1]
006	Factory Setting:BO	[0 to 225 / 128 / 1]

4640	SSCG Noise Size (DFU)	
001	Before Adj: RE	[0 to 1023 / 0 / 1]
002	Before Adj: RO	[0 to 1023 / 0 / 1]
003	Before Adj: GE	[0 to 1023 / 0 / 1]
004	Before Adj: GO	[0 to 1023 / 0 / 1]
005	Before Adj: BE	[0 to 1023 / 0 / 1]

006	Before Adj: BO	[0 to 1023 / 0 / 1]
007	After Adj: RE	[0 to 1023 / 0 / 1]
008	After Adj: RO	[0 to 1023 / 0 / 1]
009	After Adj: GE	[0 to 1023 / 0 / 1]
010	After Adj: GO	[0 to 1023 / 0 / 1]
011	After Adj: BE	[0 to 1023 / 0 / 1]
012	After Adj: BO	[0 to 1023 / 0 / 1]

4645	Scan Adjust Error	
4045	Displays the error value of the white level or black level adjustment.	
001	White level	[0 to 65535 / 0 / 1 digit]
002	Black level	[0 to 65535 / 0 / 1 digit]

	Scanner Hard Error	
Displays the result of the SBU connection check.		SBU connection check.
4647		[0 to 35535 / 0 / 1]
	Power-ON	0: OK, 1: SBU connection check failure
	Tower STV	If the SBU connection check fails, SC144-001, -002 or -003
		occurs.

4654*	Black Level Adj. Display
	Latest Correct Value: RE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the previous black offset value (rough adjustment) for the even red signal in the SBU (color printing speed).

Last Correct Value: RO Color

[0 to 16383 / 0 / 1 digit]

Displays the previous black offset value (rough adjustment) for the odd red signal in the SBU (color printing speed).

U Note

• RE: Red Even signal, RO: Red Odd signal

4655*	Black Level Adj. Display
	Last Correct Value: GE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the previous black offset value (rough adjustment) for the even green signal in the SBU (color printing speed).
	Last Correct Value: GO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the previous black offset value (rough adjustment) for the even green signal in the SBU (color printing speed).

U Note

• GE: Green Even signal, GO: Green Odd signal

4656*	Black Level Adj. Display
	Last Correct Value: BE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the previous black offset value (rough adjustment) for the even blue signal in the SBU (color printing speed).
	Last Correct Value: BO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the previous black offset value (rough adjustment) for the odd blue signal in the SBU (color printing speed).



• BE: Blue Even signal, BO: Blue Odd signal

4658*	Analog Gain Adjust	
4036	Displays the previous gain value of the amplifiers on the controller for Red.	
001	Last Correct Value: R Color	[0 to 7 / 0 / 1 digit]

	Analog Gain Adjust		
	4659*	Displays the previous gain value of the amplifiers on the controller for Green.	
		SP4659-003 and -004 are used only for the color scanner model.	
	001	Last Correct Value: G Color	[0 to 7 / 0 / 1 digit]

4660*	Analog Gain Adjust		
	4000	Displays the previous gain value of the amplifiers on the controller for Blue.	
	001	Last Correct Value: B Color	[0 to 7 / 0 / 1 digit]

4661*	Digital Gain Adjust
	Last Correct Value: RE Color
001	[0 to 1023 / 0 / 1 digit] Displays the previous 2nd black offset value (rough adjustment) for the even red signal in the SBU (color printing speed).
	Last Correct Value: RO Color
002	[0 to 1023 / 0 / 1 digit] Displays the previous 2nd black offset value (rough adjustment) for the odd red signal in the SBU (color printing speed).



• RE: Red Even signal, RO: Red Odd signal

4662*	Digital Gain Adjust
	Last Correct Value: GE Color
001	[0 to 1023 / 0 / 1 digit]
	Displays the previous 2nd black offset value (rough adjustment) for the even green signal in the SBU (color printing speed).

Last Correct Value: GO Color

[0 to 1023 / 0 / 1 digit]

Displays the previous 2nd black offset value (rough adjustment) for the odd green signal in the SBU (color printing speed).

UNote

• GE: Green Even signal, GO: Green Odd signal

4663*	Digital Gain Adjust
	Last Correct Value: BE Color
001	[0 to 1023 / 0 / 1 digit]
	Displays the previous 2nd black offset value (rough adjustment) for the even blue signal in the SBU (color printing speed).
	Last Correct Value: BO Color
002	[0 to 1023 / 0 / 1 digit]
	Displays the previous 2nd black offset value (rough adjustment) for the odd blue signal in the SBU (color printing speed).

U Note

• BE: Blue Even signal, BO: Blue Odd signal

4673	Black Level Adj. Display
	Factory Setting: RE Color
001	[0 to 16383 / 0 / 1 digit]
	Displays the factory setting value of the 2nd black offset level rough adjustment for the even red signal in the SBU (color printing speed).
	Factory Setting: RO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the factory setting values of the 2nd black offset level rough adjustment for the odd red signal in the SBU (color printing speed).



• RE: Red Even signal, RO: Red Odd signal

4674	Black Level Adj. Display
	Factory Setting: GE Color
001	[0 to 16383 / 0 / 1 digit] Displays the factory setting value of the 2nd black offset level rough adjustment for the even green signal in the SBU (color printing speed).
	Factory Setting: GO Color
002	[0 to 16383 / 0 / 1 digit] Displays the factory setting values of the 2nd black offset level rough adjustment for the odd green signal in the SBU (color printing speed).



• GE: Green Even signal, GO: Green Odd signal

4675	Black Level Adj. Display
	Factory Setting: BE Color
001	[0 to 16383 / 0 / 1 digit] Displays the factory setting value of the 2nd black offset level rough adjustment for the even blue signal in the SBU (color printing speed).
	Factory Setting: BO Color
002	[0 to 16383 / 0 / 1 digit]
	Displays the factory setting values of the 2nd black offset level rough adjustment for the odd blue signal in the SBU (color printing speed).

U Note

• BE: Blue Even signal, BO: Blue Odd signal

	4677	Analog Gain Adjust	
		Displays the factory setting values of the gain adjustment for Red.	
		SP4677-003 and -004 are used only for the color scanner model.	
	001	Factory Setting: R	[0 to 7 / 0 / 1 digit]

	Analog Gain Adjust	
4678	Displays the factory setting values of the gain adjustment for Green. SP4678-003 and -004 are used only for the color scanner model.	
	/	
001	Factory Setting: G	[0 to 7 / 0 / 1 digit]

4679	Analog Gain Adjust	
	Displays the factory setting values of the gain adjustment for Blue.	
001	Factory Setting: B	[0 to 7 / 0 / 1 digit]

4680*	Digital Gain Adjust
	Factory Setting: RE Color
001	[0 to 1023 / 0 / 1 digit] Displays the gain value of the amplifiers on the controller for Red.
	Factory Setting: RO Color
002	[0 to 1023 / 0 / 1 digit] Displays the gain value of the amplifiers on the controller for odd Red.

4681*	Digital Gain Adjust
	Factory Setting: GE Color
001	[0 to 1023 / 0 / 1 digit] Displays the gain value of the amplifiers on the controller for Green.
	Displays the gain value of the amplifiers on the controller for Green.
	Factory Setting: GO Color
002	[0 to 1023 / 0 / 1 digit]
	Displays the gain value of the amplifiers on the controller for odd Green.

4682*	Digital Gain Adjust	
	Factory Setting: BE Color	
001	[0 to 1023 / 0 / 1 digit]	
	Displays the gain value of the amplifiers on the controller for Blue.	

002	Factory Setting: BO Color
002	Displays the gain value of the amplifiers on the controller for odd Blue.

	Scan Image Density Adjustment
4688*	Adjusts the white shading parameter when scanning an image with the ARDF.
4000	Adjusts the density level if the ID of outputs made in the DF and Platen mode is different.
	[80 to 120 / 98 / 1 %]

4690	White Level Peak Read	
4090	Displays the peak level of the white level scanning.	
001	RE	[0 to 1023 / 0 / 1 digit]
002	RO	

4691	White Level Peak Read	
	Displays the peak level of the white level scanning.	
001	GE	[0 - 1022 / 0 / 1 - 1::1
002	GO	[0 to 1023 / 0 / 1 digit]

4692	White Level Peak Read	
4092	Displays the peak level of the white level scanning.	
001	BE	[01022 / 0 / 1
002	ВО	[0 to 1023 / 0 / 1 digit]

4693	Black Level Peak Read	
4073	Displays the peak level of the black level scanning.	
001	RE	[0 to 1023 / 0 / 1 digit]
002	RO [0.1023 / 0 / 1	[0 10 1023 / 0 / 1 digit]

4694	Black Level Peak Read	
Display the peak level of the black level scanning.		vel scanning.
001	GE	[0 1022 / 0 / 1
002	GO	[0 to 1023 / 0 / 1 digit]

4695	Black Level Peak Read	
4093	Display the peak level of the black level scanning.	
001	BE	[0.1.1002 / 0 / 1.1::::1
002	ВО	[0 to 1023 / 0 / 1 digit]

4802	DF Shading FreeRun	
001	Lamp OFF	[0 to 1 / 0 / 1]
200		Executes the scanner free run of the shading movement with exposure lamp on or off.
002	Lamp ON	Press "OFF" to stop this free run. Otherwise, the free run continues.

4804	Home Position	Moves the exposure lamp a short distance and immediately returns it to its home position. Touch [Execute] > "Completed" > [Exit]
		Total [Execute] > Completed > [Exil]

Carriage Save Moves the exposure lamp a short distance away from the home position and stops. Touch [Execute] > "Completed" > [Exit] Do SP4804 to return the exposure lamp to its home position. Note • This SP is done before shipping the machine to another location. • Cycling the machine power off/on also returns the exposure lamp to its home position.

SBU Test Pattern Change
[0 to 255 / 0 / 1 /step]
1: Grid pattern
2: Gradation main scan
3: Gradation sub scan
4 to 250: Default (Scanning Image)

	Factory Setting Input (DFU)	
4808*	Execution Flag	[0 to 1 / 0 / 1 /step]

	Scanner Lamp Select
	[0 to 1 / 1 / 1 / step]
4809*	0: Xenon Lamp
	1: LED
	This SP switch the light value depends on the scanner lamp type.

4810	PWM (DFU)	
001	Latest	[0 to 8191 / 0 / 1 /step]
002*	Factory Setting	[0 to 8191 / 0 / 1 /step]

4811	LED White Level Peak Read (DFU)	
001	Latest: RE	[0 to 1023 / 0 / 1 /step]
002	Latest: RO	[0 to 1023 / 0 / 1 /step]
003	Latest: GE	[0 to 1023 / 0 / 1 /step]
004	Latest: GO	[0 to 1023 / 0 / 1 /step]
005	Latest: BE	[0 to 1023 / 0 / 1 /step]

006	Latest: BO	[0 to 1023 / 0 / 1 /step]

4812*	LED White Level Peak Read (DFU)	
001	Factory Setting: RE	[0 to 1023 / 0 / 1 /step]
002	Factory Setting: RO	[0 to 1023 / 0 / 1 /step]
003	Factory Setting: GE	[0 to 1023 / 0 / 1 /step]
004	Factory Setting: GO	[0 to 1023 / 0 / 1 /step]
005	Factory Setting: BE	[0 to 1023 / 0 / 1 /step]
006	Factory Setting: BO	[0 to 1023 / 0 / 1 /step]

	Filter Setting		
	This SP code sets the threshold value for independent dot erase.		
4903*	These adjustments are effective only for the "Custom Setting" original type.		
	The "O" setting disables independent dot erase.		
	A higher setting detects more spurious dots for erasing. However, this could erase dots in images that contain areas filled by dithering.		
001	Ind Dot Erase: Text	[0 to 7 / 0 / 1]	
002	Ind Dot Erase: Generation Copy		

4905*	Select Gradation Level	Changes the parameters for dithering. [0 to 255 / 0 / 1]
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4918	Man Gamma Adj (DFU)	
	Adjusts the offset data of the printer gamma for black in Photo mode or Letter mode.	
Touch [Change] to open the printer gamma screen.		
Enter the manual gamma adjustment screen.		

4954	Read/Restore Std	
001	Read New Chart	
001	Execute the scanning of the A4 chart.	
000	Recall Prev Chart	
002	Clear the data of the scanned A4 chart.	
003	Read Std Chart	
003	Execute the scanning of the A4 standard	d chart.
004	Set Std Chart	
004	Overwrite the standard data.	
	Read/Restore Std	[0 to 255 / 0 / 1]
005*	Adjusts chromaticity rank. When replace according to the barcode on the new so	

4991 IPU Image Pass Selection DFU
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	RGB Frame Memory		
		cts the image path. Enter the number to be selected using the 10-key pad.	
	[0 to 11 / 2/ 1]		
	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	
001	4	Inner pattern data: Gray scale	
	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	
001	Sensitivity Selection	Selects the Highlight correction level. [0 to 9 / 4 / 1 / step] 0: weakest sensitivity 9: strongest sensitivity
002	Range Selection	Selects the Highlight correction level. [0 to 9 / 4 / 1 / step] 0: weakest skew correction, 9: strongest skew correction

4994*	Text/Photo Detect Level Adj.
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3

4996* White Paper Level	
001	Select the detection level for the white paper.
	[0 to 6 / 3 / 1]

3

System SP Tables-5

SP5-xxx: Mode

500.4*	mm/inch Display Selection	0: Europe/Asia (mm) 1: North America (inch)
5024*	Selects the unit of measurement. After selection, turn the main power	switch off and on.

	Accounting counter
	Selects whether the printer counter is displayed on the LCD.
5045*	[0-1 / 0 / 1]
	0: Displays the total counter only.
	1: Displays both total counter and printer counter.

5047*	Paper Display
Turns on or off the printed paper display on the LCD.	
	[0 to 1 / 0 / 1]
0: Not displayed, 1: Displayed	

		ReturnTimePriorityType
5052*	5052*	Select the priority to return to the stand-by mode. [0 to $1 / 0 / 1$]
		0: Energy Save has priority
		1: Return time has priority

	5055*	Display IP Address	
		Display or does not display the IP address on the LCD.	
		[0 to 1 / 0 / 1]	
		0: OFF, 1: ON	

5056*	Coverage Counter Display
	Display or does not display the coverage counter on the LCD.
	[0 to 1 / 0 / 1]
	0: Not displayed, 1: Displayed

5061*	Toner Remaining Icon Display Change
	Display or does not display the remaining toner display icon on the LCD.
	[0 to 1 / 0 / 1]
	0: Not display, 1: Display

5062	Parts Replacement Alert Display
3002	Display or does not display the parts replacement alert on the LCD.
	PCU_Bk
001	[0 to 1 / 0 / 1]
	0: Not displayed, 1: Display
	Fuser
002	[0 to 1 / 0 / 1]
	0: Not displayed, 1: Display
	Transfer Unit
003	[0 to 1 / 0 / 1]
	0: Not displayed, 1: Display
	FuserCleaner
004	[0 to 1 / 0 / 1]
	0: Not displayed, 1: Display

5071	Set Bypass Paper Size Display
001	Turn on or off the paper size confirmation pop-up on the LED. This pop-up prevents mismatching between a paper size selected by the operation panel and the actual paper size on the by-pass tray.
	[0 or 1 / 0 / -]
	0: Off, 1: On

5074*	Home Screen Login
	Sets the application that appears when the home key is pressed.
	Setting
002	[0 to 11111111 / 0 / 1]
	0: OFF, 1: ON
	Home Key Customization
091	[0 to 2 / 0 / 1]
	0: OFF (Function disable), 1: SDK, 2: Reserve (Legacy application)
	Product ID
092	Sets the Application product ID.
	[0x00 to 0xffff / 0x00 / 1]
	Application Screen ID
093	Sets the display category of the application that is specified in the SP5075-001.
	[0 to 255 / 0 / 1]

	5075*	USB Keyboard
1		Function Setting
	001	[0 to 1 / 0 / 1]
		0: Disable, 1: Enable

RTB 17h SP5-083-001 (f/w ver 2.05)

RTB 17j SP5104: Default changed (f/w ver 2.06)

,	5104*	A3/DLT Double Count (SSP)
/		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
-------	-----------------------

	Default Optional Counter Type
	Selects the type of counter:
	0: None
	1: Key Card (RK3, 4) Japan only
001	2: Key Card Down
	3: Pre-paid Card
	4: Coin Rack
	5: MF Key Card
	11: Exp. Key Card (Add)
	12: Exp. Key Card (Deduct)
	External Optional Counter Type
	Enables the SDK application. This lets you select a number for the external device for user access control.
	Note: "SDK" refers to software on an SD card.
002	[0 to 3 / 0 / 1]
	0: None
	1: Expansion Device 1
	2: Expansion Device 2
	3: Expansion Device 3

5114*	Optional Counter I/F
	MF Key Card Extension
001	Use this SP and change the setting to "1" only when the "5" (MF Key Card) is selected with SP5113-001.
	[0: Not installed / 1: Installed (scanning accounting)]

	Disable Copying
5110*	Temporarily denies access to the machine. Japan Only
5118*	[0 to 1 / 0 / 1]
	0: Release for normal operation [Default]
	1: Prohibit access to machine

Selects if mode claremoved. 5120* 0: Yes. (Always not) 1: StandBy. (Mod	Mode Clear Opt. Counter Removal
	Selects if mode clear is done for an optional counter when an optional counter is removed.
	0: Yes. (Always mode clear)
	1: StandBy. (Mode clear before/after a job)
	2: No. (No mode clear)

	Counter Up Timing
5121*	Determines whether the optional key counter counts up at paper feed-in or at paper exit.
	[0 to 1 / 0 / 1]
	0: Feed, 1: Exit

5126*	F Size Original Setting
	Selects F size original setting.
	[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)

	APS Mode
5127*	Selects whether the APS function is enabled or disabled with the contact of a pre-paid card or coin lock.
	0: Disable (APS active) [Default], 1: Enable (APS not active)

		Paper Size Type Selection
	5131*	Selects the paper size (type) for both originals and copy paper.
		[0 to 2 / - / 1 step]
		0: Japan, 1: North America, 2: Europe
		After changing the setting, turn the copier off and on. If the paper size of the archive files stored on the HDD is different, abnormal copies could result.

	Bypass Length Setting
	Sets up the by-pass tray for long paper.
5150	[0 to 1 / 0 / 1]
3130	0: Off [Default]
	1: On. Sets the tray for feeding paper up to 600 mm long.
	With this SP selected on, paper jams are not detected in the paper path.

App. Switch Method

Determines whether the application screen is switched with a hardware switch or software switch.

0: Soft Key Set

1: Hard Key Set

Z-Fold Position

Not Used

Last Deleted Time
Displays the last delete time.

[0 to 4294967295 / 0 / 1]

Fax Printing Mode at Optional Counter Off

Enables or disables the automatic print out without an accounting device. This SP is used when the receiving fax is accounted for by an external accounting device.

O: 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 SP before you go into the printer SP mode.
	[0 to 1 / 0 / 1]
	0: Off. Printer bit switches cannot be adjusted.
	1: On. Printer bit switches can be adjusted.

	By-pass Tray Paper Size Error	[0 to 1 / 0 / 1] 0= OFF, 1= ON	
5179*	This SP determines whether a paper size error prompt appears when the machine detects the wrong paper size for the job and during feed from the by-pass tray.		

5181*	Paper Size Setting	
3101	Adjusts the paper size for e	each tray. [0 to 1 / - / 1]
001	Tray 1: 1	0: A4 LEF, 1: LT LEF
002	Tray 1: 2	0: A3, 1: DLT
003	Tray 1: 3	0: B4, 1: LG
004	Tray 1: 4	0: B5 LEF, 1: Exe LEF
005	Tray 2: 1	0: A4 LEF, 1: LT LEF
006	Tray 2: 2	0: A3, 1: DLT
007	Tray 2: 3	0: B4, 1: LG
008	Tray 2: 4	0: B5 LEF, 1: Exe LEF
009	Tray 3: 1 (Tandem)	0: A4 LEF, 1: LT LEF
010	Tray 3: 2	0: A3, 1: DLT
011	Tray 3: 3	0: B4, 1: LG
012	Tray 3: 4	0: B5 LEF, 1: Exe LEF
013	Tray 4: 1	0: A4 LEF, 1: LT LEF
014	Tray 4: 2	0: A3, 1: DLT
015	Tray 4: 3	0: B4, 1: LG

016	Tray 4: 4	O: B5 LEF, 1: Exe LEF
017	LCT	[0 to 2 / - / 1] O: A4 LEF, 1: LT LEF, 2: B5 LEF

	RK4: Setting (Japan only)		
	5186	Enable or distance the prevention for RK4 (Accounting device) Disconnection. If the RK4 is disconnected for 10 seconds when this SP is set to "1 (Enable)", the machine automatically jams a sheet of paper and stops.	
	[0 to 1 / 0 / 1]		

5188*	Copy Nv Version
	Displays the NV version on the controller.

5193	External Controller Info. Settings
3193	DFU

5195*	Limitless SW	
3193	DFU	

	Paper Exit After Staple End	
	This SP determines whether the machine can output paper if staple supply runs out.	
5199	[0 to 1 / 0 / 1]	
	0: OFF. Paper cannot exit if no staples are available.	
	1: ON. Paper can exit with no staples.	

5212*	Page Numbering	
003	Duplex Printout Left/Right Position	Horizontally positions the page numbers printed on both sides during duplexing. [-10 to 10/0/1 mm] O is center, minus is left, + is right.

004	Duplex Printout High/Low Position	Vertically positions the page numbers printed on both sides during duplexing. [-10 to 10/0/1 mm]
		0 is center, minus is down, + is up.

5227*	Page Numbering	
201	Allow Page No. Entry	Sets the number of input digits for the job serial number of the starting page numbering. [2 to 9 / 9 / 1]
202	Zero Surplus Setting	Sets the zero surplus serial number of the starting page numbering. [0 to 1 / 0 / 1] 0: Disable, 1: Enable

5302*	Set Time
	Time Difference
	Sets the time clock for the local time. This setting is done at the factory before delivery. The setting is GMT expressed in minutes.
	[-1440 to 1440 / - / 1 min.]
	Japan: +540 (Tokyo)
002	NA: -300 (NY)
	EU: +60 (Paris)
	CH: +480 (Peking)
	TW: +480 (Taipei)
	AS: +480 (Hong Kong)
	KO: +540 (Korea)

5307 Summer Time

		[0 to 1 / 1 (NA/EU), 0 (ASIA) / 1 /step]	
	Setting	0: Disabled	
		1: Enabled	
001	Enables or disables the su	mmer time mode.	
	Note		
	Make sure that both activated even if this	SP5-307-3 and -4 are correctly set. Otherwise, this SP is not SP is set to "1".	
	Rule Set (Start)		
	Specifies the start setting f	or the summer time mode.	
	_	P. For months 1 to 9, the "0" cannot be input in the first digit, or -2 or -3 becomes a seven-digit setting.	
	1st and 2nd digits: The mo	onth. [1 to 12]	
	3rd digit: The week of the	month. [1 to 5]	
003	4th digit: The day of the w	reek. [0 to 6 = Sunday to Saturday]	
003	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		
	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 fo	or 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. [00 to 23]		
	The 7th and 8 digits must	be set to "00".	
	The digits are counted from	m the left.	
	Make sure that SP5-307-	1 is set to "1".	

_	Access Control (DFU)	
5401*	This SP stores the settings that limit uses access to SDK application data.	
	Default Document ACL	
	_	the address book in external certification mode document ACL is updated according to this SP
100	[0 to 3 / 0 / 1]	
103	0: View	
	1: Edit	
	2: Edit/Delete	
	3: Full control	
	Note: This SP setting is ignored on a ma	schine that is not using document server.
104	Authentication Time	Specifies the timeout of the authentication. [0 to 255 / 0 / 1 sec./step] 0: 60 seconds 1 to 250 seconds
162	Extend Certification Detail	Selects the log out type for the extend authentication device. Bit 0: Log-out without an IC card 0: Not allowed (default) 1: Allowed
200	SDK1 Unique ID	
201	SDK1 Certification Method	
210	SDK2 Unique ID	"SDV" is the "Seftware Development Vit" This
211	SDK2 Certification Method	"SDK" is the "Software Development Kit". This data can be converted from SAS (VAS) when installed or uninstalled. (DFU)
220	SDK3 Unique ID	
221	SDK3 Certification Method	
230	SDK certification device	

00: 60 seconds (default), 01: 10 seconds, 10: 20 seconds, 11: 30 seconds	240	Detail Option	Enables or disables the log out confirmation option. Bit 0: Log out confirmation option 0: Enable (default), 1: Disable Selects the automatic log out time. Bit 1 and 2: Automatic log out timer reduction	

5402	Access Control (DFU)
3402	Sets limited uses for SDKJ application data.
101 to 130	SDKJ1 Limit Setting SDKJ30 Limit Setting
141 to 170	SDKJ1 Product ID SDKJ30 Product ID

5404	User Code Count Clear
	Clears the counts of the user codes assigned by the key operator to restrict the use of the machine. Press [Execute] to clear.

5411*	LDAP-Certification		
004	Simplified Certification	Turns simple authentication on or off for LDAP. [0 to 1 / 1 / 1] 0: OFF 1: ON	
005	Password Null Not Permit	This SP is enabled only when SP5411-4 is set to "1" (ON). [0 to 1 / 1 / 1] O: Password null is permitted. 1: Password null is not permitted.	
006	Detail Option	Determines whether LDAP option (anonymous certification) is turned on or off. [0 to 11111111 / 0 / 1] 0: OFF, 1: ON	

5412	Krb-Certification	
		Sets the level of Kerberos Certification.
100	Encrypt Mode	[0x01:AES256-CTS-HMAC-SHA1-96 / 0x02:AES128- CTS-HMAC-SHA1-96 / 0x04:DES3-CBC-SHA / 0x08:RC4-HMAC / 0x10:DES-CBC-MD5 / 0xFF:ALL / 0xFF / 1bit]

5413	Lockout Setting	
0.01	Lockout On/Off	[0 to 1 / 0 / 1] 0: OFF, 1:ON
001	Turns on or off the account lock for the local address book account.	
002	Lockout Threshold	[1 to 10 / 5 / 1]
002	Sets the maximum trial times for accessing the address book account.	
		[0 to 1 / 0 / 1]
	Cancellation On/Off	0: OFF (Lockout is not cancelled.)
003		1: ON (Lockout is cancelled if a user ID and password are correctly entered after the lockout function has been executed and a specific time has passed.)
	Turns on or off the cancellation function of the account lockout.	
	Cancellation Time	[1 to 9999 / 60 / 1 min]
004	Sets the interval of the retry for accessing the local address book account after the lockout function has been executed.	
	This setting is enabled only if SP5413-3 is set to "1" (ON).	

5414	Access Mitigation
	Mitigation ON/OFF
001	Permits or does not permit consecutive access to the machine with the same ID and password.
001	[0 to 1 / 0 / 1]
	0: OFF (Permitted)
	1: ON (Not permitted)

	Mitigation Time
002	Sets the prohibiting time for consecutive access to the machine with the same ID and password.
	[0 to 60 / 15 / 1 min]

5415*	Password Attack	
	Permissible Number	[0 to 100 / 30 / 1 times]
001	Sets the threshold number of attempts to attack the system with random passwords to gain illegal access to the system.	
002	Detect Time	[0 to 10 / 5 / 1 sec]
	Sets a detection time to count a password attack.	

5416*	Access Information	
	Access User Max Num	[50 to 200 / 200 / 1]
Sets the number of users for the access exclusion and password attack function.		cess exclusion and password attack detection
	Access Password Num	[50 to 200 / 200 / 1]
002	Sets the number of passwords for the access exclusion and password attack detection function.	
000	Monitor interval	[1 to 10 / 3 / 1 sec]
003	Sets the interval of watching out for user information and passwords.	

5417	Access Attack	
001	Access Permissible number	[0 to 500 / 100 / 1]
	Sets a limit on access attempts to prevent password cracking.	
000	Access Detect Time	[10 to 30 / 10 / 1 sec]
002	Sets a detection time to count password cracking.	

	Productivity Fall Weight	[0 to 9 / 3 / 1 sec]
003	Sets the wait time to slow down the spacess attempts have been detected.	peed of certification when an excessive number of
	Attack Max Num	[50 to 200 / 200 / 1]
004	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.	

	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	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the copy application.
011	Document Server	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the document server.
021	Fax	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the fax application.
031	Scanner	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the scanner application.
041	Printer	[0 or 1/0/1] 0: ON. 1: OFF Determines whether certification is required before a user can use the printer application.
051	SDK1	[0 or 1/ 0 /1] 0: ON. 1: OFF
061	SDK2	Determines whether certification is required before
071	SDK3	a user can use the SDK application.

		[0 or 1/0/1] 0: ON. 1: OFF
081	Browser	Determines whether certification is required before
		a user can use the browser application.

5430	Auth Dialog Message Change	
001	Message Change On/Off	Turns on or off the displayed message change for the authentication. [0 or 1 / 0 / -] 0: Off, 1: On
002	Message Text Download	Executes the message download for the authentication.
003	Message Text ID	Inputs message text for the authentication.

5431	External Auth User Preset	
010	Tag	[0 or 1 / 1 / -] 0: Not permit, 1: Permit
	Turns on or off the tag copy permission for the external authentication.	
011	Entry	[0 or 1 / 1 / -] 0: Not permit, 1: Permit
	Turns on or off the copy permission of the entry information for the external authentication.	
012	Group	[0 or 1 / 1 / -] 0: Not permit, 1: Permit
	Turns on or off the copy permission of the group information for the external authentication.	
020	Mail	[0 or 1 / 1 / -] 0: Not permit, 1: Permit
	Turns on or off the copy permission of the mail information for the external authentication.	

030	Fax	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
	Turns on or off the copy permission of the fax information for the external authe		
031	FaxSub	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
	Turns on or off the copy permission of the fax additional information for the external authentication.		
032	Folder	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
032	Turns on or off the copy permission of the folder information for the external authentication.		
033	ProtectCode	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
000	Turns on or off the copy permission of the protection code information for the external authentication.		
034	SmtpAuth	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
034	Turns on or off the copy permission of the SMTP information for the external authentication.		
035	LdapAuth	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
035	Turns on or off the copy permission of the LDAP information for the external authentication.		
036	Smb Ftp Fldr Auth	[0 or 1 / 1 / -] 0: Not permit, 1: Permit	
330	Turns on or off the copy permission of authentication.	the SMB/FTP information for the external	

037	AcntAcl	[0 or 1 / 1 / -] 0: Not permit, 1: Permit
	Turns on or off the copy permission of the account ACL information for the external authentication.	
	DocumentAcl	[0 or 1 / 1 / -]
038		0: Not permit, 1: Permit
	Turns on or off the copy permission of the document ACL information for the external authentication.	
	CertCrypt	[0 or 1 / 1 / -]
040		0: Not permit, 1: Permit
040	Turns on or off the copy permission of the authentication information for the external authentication.	
	UserLimitCount	[0 or 1 / 1 / -]
050		0: Not permit, 1: Permit
	Turns on or off the copy permission of authentication.	the maximum number information for the external

5481	Authentication Error Code	
	These SP codes determine how the authentication failures are displayed.	
001	System Log Disp	[0 or 1 / 0 / -] 0: OFF [Default], 1: ON Determines whether an error code appears in the system log after a user authentication failure occurs.
002	Panel Disp	[0 or 1 / 1 / 1] 0: OFF, 1: ON [Default] Determines whether an error code appears on the operation panel after a user authentication failure occurs.

RTB 13g Can now be used outside Japan (f/w ver 1.12)

5490		MF KeyCard (Japan only)
		Sets up operation of the machine with a keycard.
	5490	[0 to 1 / 0 / 1]
		0: Disabled. Cancels operation without a user code.
		1: Enabled. Allows operation without a user code.

	Optional Counter
5491*	Determines whether to cancel the job when MK1 keycard is pulled out from the machine during job.
3491	[0 to 11111111 / 0 / 1]
	0: On. Cancels the job.
	1: Off. Allows operation if MK1 keycard is pulled out from the machine during the job.

5501*	PM Alarm
001	PM Alarm Level
	Sets the PM alarm level.
	[0 to 9999 / 0 / 1 k copies/step]
	0: No PM alarm
	Original Count Alarm (DFU)
002	Selects whether the PM alarm for the number of scans is enabled or not.
	If this is "1", the PM alarm function is enabled.
	[0 = No / 1 = Yes]

	Jam Alarm
	Sets the alarm to sound for the specified jam level (document misfeeds are not included).
550A*	[0 to 3 / 3 / 1 step]
5504*	0: Zero (Off)
	1: Low (2.5K jams)
	2: Medium (3K jams)
	3: High (6K jams)

	Error Alarm
5505*	Sets the number of sheets to clear the error alarm counter.
	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 5000 (C1b) or 10000 (C1c) sheets). The error alarm occurs when the SC error alarm counter reaches "5".
	[0 to 255 / 45 (C2b) , 50 (C1b/C1.5b) , 60 (C2c) , 100 (C1c/C1.5c) / 100 copies / step]

5507*	Supply Alarm	
	Paper supply Alarm	Switches the control call on/off for the paper supply. (DFU)
		0: Off, 1: On
001	(0:Off 1:On)	0: No alarm.
	(0.011 1.011)	1: Sets the alarm to sound for the specified number transfer sheets for each paper size (A3, A4, B4, B5, DLT, LG, LT, HLT)
	Staple Supply Alarm (0:Off 1:On)	Switches the control call on/off for the stapler installed in the finisher. (DFU)
002		0: Off, 1: On
		0: No alarm
		1: Alarm goes off for every 1K of staples used.
003	Toner Supply Alarm (0:Off 1:On)	Switches the control call on/off for the toner end. (DFU) 0: Off, 1: On If you select "1" the alarm will sound when the copier
		detects toner end.
080	Toner Call Timing	Changes the timing of the "Toner Supply Call" via the @Remote, when the following conditions occur.
		0: At replacement
		1: At near end

128	Interval: Others	
132	Interval: A3	
133	Interval: A4	
134	Interval: A5	
141	Interval: B4	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes. (DFU)
142	Interval: B5	[250 to 10000 / 1000 / 1 Step]
160	Interval: DLT	
164	Interval: LG	
166	Interval: LT	
172	Interval: HLT	

5508	CC Call	
001	Jam Remains	Enables/disables initiating a call.
002	Continuous Jams	[0 to 1 / 1 / 1]
003	Continuous Door Open	0: Disable 1: Enable
011	Jam Detection: Time Length	Sets the length of time to determine the length of an unattended paper jam. [3 to 30 / 10 / 1 minute]
012	Jam Detection Continuous Count	Sets the number of continuous paper jams required to initiate a call. [2 to 10 / 5 / 1 time]
013	Door Open: Time Length	Sets the length of time the remains opens to determine when to initiate a call. [3 to 30/10/1 minute]

	SC/Alarm Setting		
	5515*	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.	

001	SC Call	
002	Service Parts Near End Call	
003	Service Parts End Call	
004	User Call	
006	Communication Information Test Call	[0 or 1 / 1 / 1] 0: OFF
007	Machine Information Notice	1: ON
008	Alarm Notice	
010	Supply Automatic Ordering Call	
011	Supply Management Report Call	
012	Jam/Door Open Call	

	Individual PM Part Alarm Call		
With @Remote in use, these SP codes can be set to issue an PM alarm call v SP parts reaches its yield.		be set to issue an PM alarm call when one of	
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]	

5720	Extend Function Setting	
5730	DFU	

5734	PDF Setting
	PDF/A Fixed
001	[0 or 1 / 0 / -]
001	0: No Limit
	1: Limited

5741	Node Authentication Timuout	
3/41	DFU	

5743	Network Security Level
	DFU
5744	Management
	DFU
5745	EcoCountTime
	DFU

SP 5747 RTB 40

SP 5749 RTB 43

5749	Input/Output
3749	DFU

5792	MCS Debug SW
3/92	DFU

5793	ECS Debug SW
3/93	DFU

	Memory Clear	
5801	Resets NVRAM data to the default settings. Before executing any of these SP codes, print an SMC Report.	
001	All Clear	Initializes items 2 to 15 below.
002	Engine	Initializes all registration settings for the engine and copy process 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 image file system. (IMH: Image Memory Handler)

005	MCS	Initializes the automatic delete time setting for stored documents.
		(MCS: Memory Control Service)
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	Initializes the printer defaults, programs registered, the printer SP bit switches, and the printer CSS counter.
009	Scanner Application	Initializes the defaults for the scanner and all the scanner SP modes.
010	Web Service	Deletes the Netfile (NFA) management files and thumbnails, and initializes the Job login ID.
		Netfiles: Jobs to be printed from the document server using a PC and the DeskTopBinder software
011	NCS	Initializes the system defaults and interface settings (IP addresses also), the SmartDeviceMonitor for Admin settings, WebStatusMonitor settings, and the TELNET settings. (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 (Log Count Service) settings.
020	Web Uapli	Initializes the web user application settings.
021	ECS	Initializes ECS (Engine Control Service).
023	AICS	Initializes the AICS settings.

	FreeRun	
The correct pape		the copier engine. uld be loaded in the 1st tray or 2nd tray, but paper is not fed. be turned off and on after using the free run mode for a test.
001	TRAY1:A4LEF	-
002	TRAY2:A3	-
003	TRAY2:A4SEF	-

5803	Input Check		
	Displays the signals received from sensors and switches. (p.243 "Input Check")		
	Outrout Charle		

	Output Check
5804	Turns on the electrical components individually for test purposes. (*** p.253 "Output Check")

5805	Anti-Condensation Heater
	[0 or 1 / 0 / -]
	0:OFF / 1:ON

5810	SC Reset		
001	Fusing SC Reset	Resets all level A service call conditions, such as fusing errors. To clear the service call, touch "Execute" on the LCD, then turn the main power switch off/on.	

5811	MachineSerial		
002	Display	Displays the machine serial number.	
003	BCU Inputs the serial number.		
005	FRAM	Displays the FRAM serial number.	

5812*	Service Tel. No. Setting
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001	Service	Inputs the telephone number of the CE (displayed when a service call condition occurs.)
002	Facsimile	Use this to input the fax number of the CE printed on the Counter Report (UP mode).
003	Supply	Inputs the telephone number of the supplier displayed on the user mode screen.
()()/I ()neration		Allows the service center contact telephone number to be displayed on the user mode screen.

5816	Remote Service		
	I/F Setting		
	Selects the remote service setting.		
001	[0 to 2 / 2 / 1 /step]		
	0: 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]		
002	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 registration has been completed.		
004	Communication Test Call		
	This SP issues a test call from a GW machine to determine whether it can communicate successfully with the call center after it has been set up for NRS. Successful return will be in the range 0 to 99.		

	Device Information Call
005	This SP issues a call to notify the NRS device information to the call center. Successful return will be in the range 0 to 99.
	SSL Disable
007	Uses or does not use the RCG certification by SSL when calling the RCG. [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 / 30 / 1 second /step]
	RCG Write Timeout
009	Specifies the write timeout interval when calling the RCG. [0 to 100 / 60 / 1 second / step]
	RCG Read Timeout
010	Specifies the read timeout interval when calling the RCG. [0 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
	@Remote Communication Permission
012	[0 to 2 / 1 / 1] 0: Not permitted 1: Permitted 2: Partially limit

013	RFU (Remote Firmware Update) Timing
	Selects the RFU timing. [0 or 1 / 1 / -] 0: RFU is executed whenever update request is received. 1: RFU is executed only when the machine is in the sleep mode.
	RCG Error Cause
014	[0 or 1 / 0 / -] 0: Normal 1: Fails to reflect the client/server certificate settings by network failure to reboot. Transition to 0 on restart the machine.
	RCG-C Registed
021	This SP displays the Embedded RC Gate installation end flag. O: Installation not completed 1: Installation completed
	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
0/1	Cert. Expire Timing DFU
061	Proximity of the expiration of the certification.
	Use Proxy
062	This SP setting determines if the proxy server is used when the machine communicates with the service center.

Proxy Host 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. 063 **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 064 RC Gate-N. **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	on certification without ID2.	
	5	Notification that no cert	ification was issued.	
	6	Notification that GW UI	RL does not exist.	
069	CERT	: Up ID	The ID of the request for certification.	
083	Firm	Up Status	Displays the status of the firmware 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: SerialNo. Displays serial number for the @Remote certification. Asterisks (*) indicate that no @Remote certification exi			
092	Displays the common name of the issuer of the @Rem CERT: Issuer 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 cut @Remote certification is enabled.			
094	CERT: Valid End Displays the end time of the period for which the a @Remote certification is enabled.			
00/	Server CN Check			
096	Not used			
004	GW Host			
096	Not used			
097	GW URL Path			
097	Not used			
099	Debug RescueG/WURL Set			
099	Not used			
102*	CERT: Encrypt Level			
	Displays the encryption level for the NRS certificate. [1 or 2 / 1 / -] 1: Indicates that the certificate encryption level is 512-bit. 2: Indicates that the certificate encryption level is 2048-bit.			
	Selection Country			
150	Not used			
1.51	Line Type Automatic Judgment			
151	Not used			
150	Line Type Judgment Result			
152	Not used			

1.50	Selection Dial / Push			
153	Not used			
154	Outside Line Outgoing Number			
154	Not used			
156	Dial Up User Name			
130	Not used			
157	Dial Up Password			
137	Not used			
161	Local Phone Number			
101	Not used			
162	Connection Timing Adjustment Incoming			
102	Not used			
163	Access Point			
103	Not used			
164	Line Connecting			
104	Not used			
173	Modem Serial No.			
173	Not used			
174	Retransmission Limit			
174	Not used			
186	RCG-C M DebugBitSW			
100	Not used			
187	FAX TX Priority			
107	Not used			
200	Manual Polling			
200	Executes the manual polling.			

	Regist Status			
	Displays a number that indic	ates the status of the @Remote service device.		
	0: Neither the @Remote device nor Embedded RCG Gate is set.			
201		e is being set. Only Box registration is completed. In this not communicate with this device.		
201	2: The Embedded RCG Gate communicate with this device	e is set. In this status, the @Remote device cannot e.		
	3: The @Remote device is be set.	ing set. In this status the Embedded RCG Gate cannot be		
	4: The @Remote module has	not started.		
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)			
	4: Proxy error (proxy disabled)			
	5: Proxy error (Illegal user name or password) 6: Communication error			
	7: Certification update error			
	8: Other error			
	9: Confirmation executing			
	Confirm Place			
205	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.			
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)
- 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

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		
	Operation Error, Incorrect Setting	-12002	Inquiry, registration attempted without acquiring device status.		
		-12003	Attempted registration without execution of an inquiry and no previous registration.		
208		-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.		
		-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.	
	Error Caused by Response from GW URL	-2387	Not supported at the Service Center	
		-2389	Database out of service	
		-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	
		Releases the machine from its Embedded RCG Gate setup.		
209	Instl Clear	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	Sets the IP address of the RCG (Remote Communication Gate) destination for call processing at the remote service center. [00000000h to FFFFFFFh / 0000000h / 1]
003	RCG Port	Sets the port number of the RCG (Remote Communication Gate) destination for call processing at the remote service center. [0 to 65535 / 443 / 1]

OO4 RCG URL Path Gate) destination f	of the RCG (Remote Communication for call processing at the remote service as / /RCG/services/ /-1
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	NV-RAM Data Upload
5824	Uploads the NVRAM data to an SD card. Push Execute.
	Note: When uploading data in this SP mode, the front door must be open.

	NV-RAM Data Download
5825	Downloads data from an SD card to the NVRAM in the machine. After downloading is completed, remove the card and turn the machine power off and on.

5828	Network Setting
	IPv4 Address (Ethernet/IEEE 802.11)
001	This SP allows you to check and reset the IPv4 address for Ethernet and wireless LAN (802.11): aaa.bbb.ccc.ddd
	IPv4 Subnet Mask (Ethernet/IEEE 802.11)
002	This SP allows you to check and reset the IPv4 subnet mask for Ethernet and wireless LAN (802.11): aaa.bbb.ccc.ddd
	IPv4 Default Gateway (Ethernet/IEEE 802.11)
003	This SP allows you to check and reset the IPv4 default gateway used by the network for Ethernet and wireless LAN (802.11): aaa.bbb.ccc.ddd
	DHCP (Ethernet/IEEE 802.11)
006	This SP code allows you check and change the setting that determines whether the IP address is used with DHCP on an Ethernet or wireless (802.11) LAN network. [0 to 1 / 1 / 1]
	0: Not used (manual setting)
	1: Used

	Active IPv4 Address					
021	This SP allows you to check the IPv4 address that was used when the machine started up with DHCP.					
	Active IPv4 Subnet Mask					
022	This SP allows you to check the IPv4 subnet mask setting that was used when the machine started up with DHCP.					
	Active IPv4 Gateway Address					
023	This SP allows you to check the machine started up with DHCP	PV4 default gateway setting that was used when the				
050	1284 Compatibility (Centro)	Enables and disables bi-directional communication on the parallel connection between the machine and a computer. [0 to 1 / 1 / 1] 0:Off, 1: On				
052	ECP (Centro)	Disables and enables the ECP feature (1284 Mode) for data transfer. [0 to 1 / 1 / 1] 0: Disabled, 1: Enabled				
065	Job Spooling	Switches the job spooling on and off. [0 to 1 / 0 / 1] 0: No spooling, 1: Spooling enabled				
066	Job Spooling Clear: Start Time	This SP determines whether the job interrupted at power off is resumed at the next power on. This SP operates only when SP5828-065 is set to "1". [0 to 1 / 1 / 1] 1: OFF Resumes printing spooled jog.				
		0: ON Clears spooled job.				

			This SP determines whether job spooling is enabled or disabled for each protocol. This is a 8-bit setting.		
	Job	Job Spooling (Protocol)		/ 1	/ 1]
			0: No s	poo	ling, 1: Spooling enabled
069	0	LPR		4	BMLinks (Japan Only)
	1	FTP (Not Used)		5	DIPRINT
	2	IPP		6	Reserved (Not Used)
	3	3 SMB		7	Reserved (Not Used)
087	@R	Remote Protocol Cnt (DFU)			
090	090 TELNET (0:OFF 1:ON)		Disables or enables Telnet operation. If this SP is disabled, the Telnet port is closed. [0 to 1 / 1 / 1]		
			0: Disable, 1: Enable		
091	Web (0:OFF 1:ON)		Disables or enables the Web operation. [0 to 1 / 1 / 1] 0: Disable, 1: Enable		
	Active IPv6 Link Local Address		This is the IPv6 local address referenced on the Ethernet or wireless LAN (802.11) in the format: "Link-Local address" + "Prefix Length"		
145			The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each. These notations can be abbreviated. See "Note: IPV6 Addresses " below this table.		

147	Active IPv6 Stateless Address		
149	Active IPv6 Stateless Address	These SPs are the IPv6 stateless addresses (1 to 5) referenced on the Ethernet or wireless LAN (802.11) in	
151	Active IPv6 Stateless Address	the format: "Stateless 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 5		
	IPv6 Manual Address		
156	This SP is the IPv6 manually set address referenced on the Ethernet or wireless LAN (802.11) 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. These notations can be abbreviated. See "Note: IPV6 Addresses" below this table.		
	IPv6 Gateway Address		
158	(802.11). The IPv6 address co	dress referenced on the Ethernet or wireless LAN nsists of a total 128 bits configured in 8 blocks of 16 be abbreviated. See "Note: IPV6 Addresses" below this	

Note: IPV6 Addresses

Ethernet and the Wireless LAN (802.11) reference the IPV6 "Link-Local address + Prefix Length". The IPV6 address consists of 128 bits divided into 8 blocks of 16 bits: aaaa:bbbb:cccc:dddd:eeee:ffff:gggg:hhhh:

The prefix length is inserted at the 17th byte (Prefix Range: 0x0 to 0x80). The initial setting is 0x40 (64).

For example, the data: "2001123456789012abcdef012345678940h" is expressed:

"2001:1234:5678:9012:abcd:ef01:2345:6789": prefixlen 64

However, the actual IPV6 address display is abbreviated according to the following rules.

Rules for Abbreviating IPV6 Addresses

1. The IPV6 address is expressed in hexadecimal delimited by colons (:) with the following characters:

0123456789abcdefABCDEF

2. A colon is inserted as a delimiter every 4th hexadecimal character.

fe80:0000:0000:0000:0207:40ff:0000:340e

3. The notations can be abbreviated by eliminating zeros where the MSB and digits following the MSB are zero. The example in "2" above, then, becomes

fe80:0:0:0207:40ff:0:340e

4. Sections where only zeros exist can be abbreviated with double colons (::). This abbreviation can be done also where succeeding sections contain only zeros (but this can be done only at one point in the address). The example in "2" and "3" above then becomes:

 ${\it fe80::207:40ff:0:340e}$ (only the first null sets zero digits are abbreviated as "::")

fe80:0:0:0:207:40ff::340e (only the last null set before "340e" is abbreviated as "::")

161	IPv6 Stateless Auto Setting	Enable or disables the automatic setting for IPv6 stateless. [O or 1 / 1 / 1] 1: Enable, O: Disable	
	Web Item visible		
236	Displays or does not display the Web system items. [0 x 0000 to 0 x ffff / 0 x ffff] 0: Not displayed, 1: Displayed bit0: Net RICOH bit1: Consumable Supplier bit2-15: Reserved (all)		
	Web shopping link visible		
237	Displays or does not display the the web system. [0 to 1 / 1 / 1] 0: Not display, 1:Display	e link to Net RICOH on the top page and link page of	

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]		
ot 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		
his 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"		
Link2 URL	Same as "-240"	
Link2 visible	Same as "-241"	
DHCPv6 DUID		
Sets DHCPv6 DUID.		
[00000000000000000000000000000h to		
FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	Fh / 00000000000000000000000000000000000	
	ays or does not display the of the web system. 1 / 1 / 1] It display, 1:Display Link1 Name P confirms or changes the num characters for the UR Link1 URL Confirms or changes the num characters for the UR Link1 visible ays or does not display the 1 / 1 / 1] It display, 1:Display Link2 Name Link2 URL Link2 visible Pv6 DUID DHCPv6 DUID.	

	HDD
5832	Enter the SP number for the partition to initialize, then press #. When the execution ends, cycle the machine off and on.
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
008	Mail TX Data
009	HDD Formatting (Data for Design)
010	HDD Formatting (Log)
011	HDD Formatting (Ridoc I/F) (for Ridoc Desk Top Binder)

5836*	Capture Setting	
001	Capture Function (0:Off 1:On)	
	With this function disabled, the settings related to the capture feature cannot be initialized, displayed, or selected.	
	[0 to 1 / 0 / 1]	
	0: Disable, 1: Enable	
	Panel Setting	
002	initial system screen. [0 to 1 / 0 / 1] 0: Disable, 1: Enable	setting can be selected or updated from the
	The setting for SP5836-001 has priority.	
072	Reduction for Copy B&W Text	[0 to 6 / 0 / 1] 0:1, 1:1/2, 2:1/3, 3:1/4, 6:2/3
073	Reduction for Copy B&W Other	[0 to 6 / 0 / 1] 0:1, 1:1/2, 2:1/3, 3:1/4, 6:2/3
075	Reduction for Printer B&W	[0 to 6 / 0 / 1] 0 1, 1:1/2, 2:1/3, 3:1/4, 6:2/3
078	Reduction for Printer B&W 1200	1: 1/2 , 3: 1/4, 4: 1/6, 5: 1/8

Format for Copy B&W Text		[0 to 3 / 1 / 1] 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
Format Copy B&W Other		[0 to 3 / 1 / 1] 0: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
Format for Printer B&W		[0 to 3 / 1 / 1] O: JFIF/JPEG, 1: TIFF/MMR, 2: TIFF/MH, 3: TIFF/MR
Default for JPEG		[5 to 95 / 50 / 1]
Sets the JPEG format default for documents sent to the document management server with the MLB, with JPEG selected as the format. Enabled only when optional File Format Converter (MLB: Media Link Board) is installed.		ormat. Enabled only when optional File
Primary srv IP address		e IP address for the primary capture server. pasically adjusted by the remote system.
Primary srv scheme	This is b	pasically adjusted by the remote system.
Primary srv port number	This is b	pasically adjusted by the remote system.
Primary srv URL path	This is b	pasically adjusted by the remote system.
Secondary srv IP address		e IP address for the secondary capture server. pasically adjusted by the remote system.
Secondary srv scheme	This is basically adjusted by the remote system.	
Secondary srv port number	This is basically adjusted by the remote system.	
Secondary srv URL path	This is basically adjusted by the remote system.	
Reso: Copy (Mono)	[0 to 25	55 / 3 / 1/step]
Selects the resolution for BW copy mode. This is basically adjusted by the remote system.		This is basically adjusted by the remote
0: 600dpi/ 1: 400dpi/ 2: 300d	pi/ 3: 2	00dpi/ 4: 150dpi/ 5: 100dpi
Reso: Print (Mono)		pasically adjusted by the remote system.
	Format Copy B&W Other Format for Printer B&W Default for JPEG Sets the JPEG format default for dwith the MLB, with JPEG selected Format Converter (MLB: Media Li Primary srv IP address Primary srv scheme Primary srv URL path Secondary srv IP address Secondary srv IP address Secondary srv IP address Secondary srv URL path Reso: Copy (Mono) Selects the resolution for BW cop system. 0: 600dpi/ 1: 400dpi/ 2: 300d	Format Copy B&W Other Format for Printer B&W Default for JPEG Sets the JPEG format default for document with the MLB, with JPEG selected as the format Converter (MLB: Media Link Board Primary srv IP address Primary srv scheme This is becondary srv port number Primary srv URL path Secondary srv IP address Sets the This is becondary srv URL path Secondary srv port number This is becondary srv port number This is becondary srv port number This is becondary srv URL path This is becondary srv URL path Reso: Copy (Mono) [0 to 25] Selects the resolution for BW copy mode. system. 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 2 This is becondary in the path is is becondary.

	Selects the resolution for BW print mode. This is basically adjusted by the remote system.	
	0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi	
126	Reso: Fax (Mono) This is basically adjusted by the remote system. [0 to 255 / 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: 200dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi	
127	Reso: Scan (Color) This is basically adjusted by the remote system. [0 to 255 / 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	
128	Reso: Scan (Mono)	This is basically adjusted by the remote system. [0 to 255 / 3 / 1/step]
	Selects the resolution for BW scanning mode. This is basically adjusted by the remote system. 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi	
141	All Addr Info Switch	[0 or 1 / 1 / -] 0: Off, 1: On
	Turns on or off the all address information transmission for the captured resources.	
142	Stand-by Doc Max Number	[10 to 9999 / 2000 / 1/step]
	Selects the maximum number of captured documents to be transmitted to the document server.	

5840*	IEEE 802.11
	Channel MAX
006	Sets the maximum range of the bandwidth for the wireless LAN. This bandwidth setting varies for different countries.
	[1 to 14 / 11 (NA), 13 (EU), 14 (JPN) / 1]
	JPN: 1 to 14, NA: 1 to 11, EU: 1 to 13

	Channel MIN		
007	Sets the minimum range of the bandwidth for operation of the wireless LAN. This bandwidth setting varies for different countries.		
	[1 to 14 / 1 / 1]		
	JPN: 1 to 14, NA: 1 to 11, EU: 1	to 13	
	Transmission speed	[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 07 - 11M Fix	
	0 x 10 - 48M Fix	0 x 05 - 5.5M Fix	
008	0 x 0F - 36M Fix	0 x 08 - 1 M Fix	
	0 x 0E - 18M Fix	0 x 13 - 0 x FE (reserved)	
	0 x 0D - 12M Fix	0 x 12 - 72M (reserved)	
	0 x 0B - 9M Fix	0 x 09 - 22M (reserved)	
	0 x 0A - 6M Fix		
	WEP Key Select		
	Selects the WEP key.		
011	Bit 1 and 0		
	00: Key1, 01: Key2 (Reserved),		
	10: Key3 (Reserved), 11: Key4(Reserved)		
	This SP is displayed only when the IEEE802.11 card is installed.		
	RTS/CTS Thresh		
013	Adjusts the RTS/CTS threshold for the IEEE802.11 card.		
010	[0 to 3000 / 2432 / 1]		
	This SP is displayed only when the IEEE802.11 card is installed.		
	Fragment Thresh		
042	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
	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.
	1 1g Slot Time
044	Selects the slot time for IEEE802.11.
	[0 to 1 / 0 / 1] 0: 20 µm, 1: 9 µm
	This SP is displayed only when the IEEE802.11 card is installed.
	WPA Debug Lvl
045	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	
	Press the User Tools key. These names appear when the user presses the Inquiry button on the User Tools screen.	
001	Toner Name Setting: Black	
007	OrgStamp	
011	StapleStd1	
012	StapleStd2	
013	StapleStd3	
014	StapleStd4	
021	StapleBind 1	
022	StapleBind2	
023	StapleBind3	

	GWWS Analysis (DFU)			
			Groups	
	This is a debugging tool. It sets the debugging output mode of each Net File process. Bit SW 0011 1111	0	System & other groups (LSB)	
		1	Capture related	
5842*		2	Certification related	
		3	Address book related	
		4	Machine management related	
		5	Output related (printing, delivery)	
		6	Repository related	
		Default: 00000000 – do not change		
001	Setting 1	Netfiles: Jobs to be printed from the document server using a PC and the DeskTopBinder software		
		Adjusts the debug program mode setting.		
	Setting 2	Bit7: 5682 mmseg-log setting		
002		0: Date/Hour/Minute/Second		
		1: Minute/Second/Msec.		
		0 to 6: Not used		

5844	USB		
	Transfer Rate		
001	Sets the speed for USB data transmission. [0 x 01 or 0 x 04 / 0 x 04 /-] 0 x 01 [Full Speed], 0 x 04 [Auto Change]		
002	Vendor ID Sets the vendor ID: Initial Setting: 0x05A Ricoh Company [0x0000 to 0xFFFF/1] (DFU)		

	Product ID		
003	Sets the product ID.		
	[0x0000 to 0xFFFF/1] (DFU)		
	Device Release No.		
	Sets the device release number of the BCD (binary coded decimal) display.		
004	[0000 to 9999 / 100 / 1] (DFU)		
	Enter as a decimal number. NCS converts the number to hexadecimal number recognized as the BCD.		
005	Fixed USB Port		
	This SP standardizes for common use the model name and serial number for USB PnP (Plug & Play). It determines whether the driver requires re-installation.		
	[0 to 2 / 0 / 1]		
	0: OFF		
	1: Level 1		
	2: Level 2		
006	PnP Model Name		
	This SP sets the model name to be used by the USB PnP when "Function Enable (Level		
	2) is set so the USB Serial No. can have a common name (SP5844-5).		
	Default: Laser Printer (up to 20 characters allowed).		
007	PnP Serial Number		
	This SP sets the serial number to be used by the USB PnP when "Function Enable (Level 2)		
	set so the USB Serial No. can have a common name (SP5844-5).		
	Default: None (up to 12 characters allowed for entry).		
Make sure that this entry is the same as the serial number in use.			
 At initialization the serial number generated from the model name is use setting of this SP code. 			
	At times other than initialization, the value set for this SP code is used.		
100	Notify Unsupport		

This SP determines whether an alert message appears on the control panel when a USB device (unsupported device) that cannot use an A-connector is connected.

[0 to 1 / 1 / 1]

0: Function enable

1: Function disable

- An unsupported device is a device that cannot use the functions of the USB device. For example, a USB mouse cannot be used even if it connected.
- If the PictBridge option is not mounted, even if a digital camera is connected it cannot be used because it is an unsupported device.

5845*	Delivery Server Setting
3643	These are delivery server settings.
001	FTP Port No.
001	[0 to 65535 / 3670 / 1]
	IP Address (Primary)
002	Use this SP to set the Scan Router Server address. The IP address under the transfer tab can be used with the initial system setting.
	[Range: 000.000.000.000 to 255.255.255.255]
	Delivery Error Display Time
006	Use this setting to set the length of time that the message is shown when a test error occurs during document transfer with the NetFile application and an external device. [0 to 999 / 300 / 1 sec]
	IP Address (Secondary)
008	Sets the IP address that is given to the computer that is the secondary delivery server for Scan Router. This SP lets you set only the IP address, and does not refer to the DNS setting.
	[Range: 000.000.000.000 to 255.255.255.255]

	Delivery Server Model				
	Lets you change the model of the delivery server that is registered by the I/O device.				
	[0 to 4 / 0 / 1 step]				
009	0: Unknown				
009	1: SG1 Provided				
	2: SG1 Package				
	3: SG2 Provided				
	4: SG2 Package				
	Delivery Svr. Capability				
	Changes the functions that the registered I/	O device can do.			
	[0 to 255 / 0 / 1 step]				
	Bit7 = 1 Comment information exits				
	Bitó = 1 Direct specification of mail address possible				
010	Bit5 = 1 Mail RX confirmation setting possible				
	Bit4 = 1 Address book automatic update fu	unction 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 se	et to 1, Bit6 is set to "O")			
	Delivery Svr.Capability (Ext)				
011	These settings are for future use. They will let you increase the number of registered devices (in addition to those registered for SP5845 010).				
	There are eight bits (Bit 0 to Bit 7). All are unused at this time.				
013	Server Scheme (Primary)				
014	Server port Number (Primary)	[1 to 65535 / 80 / 1]			
015	Server URL Path (Primary)				
016	Server Scheme (Secondary)				
017	Server Port Number(Secondary)	[1 to 65535 / 80 / 1]			
018	Server URL Path (Secondary)				

022	Rapid Sending Control	[0 to 1 / 1 / -] 0: Disable, 1: Enable
	Enables or disables the prevention function for the continuous data sending error.	

5846*	UCS Setting
	Machine ID (for Delivery Server)
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 Delivery Server)
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.
	Maximum Entries
003	Changes the maximum number of entries that UCS can handle. [2000 to 20000 / 2000 / 1 step]
	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
006	Sets the interval for retry attempts when the delivery server fails to acquire the delivery server address book.
	[0 to 255 / 0 / 1 step]
	0: No retries
	Delivery Server Retry Times
007	Sets the number of retry attempts when the delivery server fails to acquire the delivery server address book. [0 to 255 / 0 / 1 step]

	Delivery Server Maximum Entries
008	Lets you set the maximum number of account entries and information about the users of the delivery server controlled by UCS.
	[2000 to 20000 / 2000 / 1 step]
	LDAP Search Timeout
010	Sets the length of the time-out for the search of the LDAP server.
	[1 to 255 / 60 / 1 step]
	WSD Maximum Entries
020	WSD (Web Services on Devices) is the Microsoft standard for connectivity to webservice enabled devices.
	[50 to 250 / 250 / 1]
	Folder Auth Change
	This SP determines whether the user login information (Login User name and Password) or address (destination setting in the address book for Scan-to-SMB) is used to permit folder access. The machine must be cycled off/on for this setting to take effect if it is changed.
021	[0 to 1 / 0 / 1]
	0: Login User
	Uses operator login information (initial value of main machine)
	1: Destination
	Uses address authorization information
022	Initial Value of Upper Limit Count
022	[0 to 999999 / 500 / 1]

Addr Book Migration (USB -> HDD)

This SP moves the address book data from the SD card or flash ROM on the controller board to the HDD. You must cycle the machine off and on after executing this SP.

- 1. Turn the machine off.
- 2. Install the HDD.
- 3. Turn the machine on.
- 4. Do SP5846 040.

040 5. Turn the machine off/on.



- Executing this SP overwrites any address book data already on the HDD with the data from the flash ROM on the controller board.
- We recommend that you back up all directory information to an SD card with SP5846-051 before you execute this SP.
- After the address book data is copied to HDD, all the address book data is deleted from the flash ROM. If the operation fails, the data is not erased from the flash ROM.

041 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

- 1. Turn the machine off.
- 2. Install the new HDD.
- 3. Turn the machine on.
- 4. The address book and its initial data are created on the HDD automatically. However, at this point the address book can be accessed by only the system administrator or key operator.
- 5. Enter the SP mode and do SP5846 041. After this SP executes successfully, any user can access the address book.

Addr Book Media				
	Displays the slot number where an address book data is in. [0 to 30 / - /1]			
043	0: Unconfirmed			
	1: SD Slot 1	20: HDD		
	2: SD Slot 2	30: Nothing		
	4: USB Flash ROM			
046	Initialize All Setting & Addr Book			
040	Initializes all settings and the address book.			
	Initialize Local Address Book			
047	Clears all of the address information from th managed with UCS.	e local address book of a machine		
	Initialize Delivery Addr Book			
048	Push [Execute] to delete all items (this does not include user codes) in the delivery address book that is controlled by UCS.			
	Initialize LDAP Addr Book			
049	Push [Execute] to delete all items (this does not include user codes) in the LDAP address book that is controlled by UCS.			
	Initialize All Addr Book			
050	Clears everything (including users codes) in the directory information managed by UCS. However, the accounts and passwords of the system administrators are not deleted.			
	Backup All Addr Book			
051	Copies all directory information to the SD card. Do this SP before replacing the controller board or HDD. The operation may not succeed if the controller board or HDD is damaged.			
	Restore All Addr Book			
052	Copies back all directory information from the SD card to the flash ROM or HDD. Upload the address book from the old flash ROM or HDD with SP5846-51 before removing it. Do SP5846 52 after installing the new HDD.			

	Clear Backup Info				
053	Deletes the address book uploaded from the SD card in the slot 2. Deletes only the files uploaded for that machine. This feature does not work if the card is write-protected.				
		After you do this SP, go out of the SP mode, turn the power off. Do not remove D card until the Power LED stops flashing.			
	Searc	ch Option			
	This S	P uses bit switches to set up the fuzzy search options for the UCS local address			
	Bit	Meaning			
	0	Checks both upper/lower case characters			
	1				
060	2	Japan Only			
	3				
	4	Not Used			
	5	Not Used			
	6	Not Used			
	7	Not Used			
	Comp	plexity 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 N	ote			
	•	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.			

Complexity Option 2

Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to lower case and defines the length of the password.

063 [0 to 32 / **0** / 1step]



- 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.

Complexity Option 3

Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to numbers and defines the length of the password.

064 [0 to 32 / **0** / 1 step]



- 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.

Complexity Option 4

Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to symbols and defines the length of the password.

065 [0 to 32 / **0** / 1step]



091

- 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.

FTP Auth Port Setting

Sets the FTP port to get the delivery server address book that is used in the individual authorization mode.

[0 to 65535 / **3671** / 1step]

	Encryption Start	
094	Shows the status of the encryption function of the address book on the LDAP server.	
	[0 to 255 / 1] No default	

Rep Resolution Reduction				
5847-2 through 5847-6 changes the default settings of image data sent externally by				
the Net File page reference functi	on.			
5847-21 sets the default for JPEG	image quality of im	age files controlled by NetFile.		
"NetFile" refers to jobs to be printed from the document server with a PC and the				
DeskTopBinder software.				
Rate for Copy B&W Text	[0 to 6 / 0 / 1]	0: 1x		
Rate for Copy B&W Other Rate for Printer B&W	[0 to 6 / 0 / 1]	1: 1/2x		
	[0 to 6 / 0 / 1]	2: 1/3x		
Raic for Fillion Bayy		3: 1/4x		
Rate for Printer B&W 1200dpi	[0 to 6 / 1 / 1]	4: 1/5x		
		5: 1/8x		
		6: 2/3x1		
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.				
	5847-2 through 5847-6 change the Net File page reference functi 5847-21 sets the default for JPEG "NetFile" refers to jobs to be printed DeskTopBinder software. Rate for Copy B&W Text Rate for Copy B&W Other Rate for Printer B&W Rate for Printer B&W Sets the default value for the quality of the page of the Network Quality Default for JPEG	5847-2 through 5847-6 changes the default settings the Net File page reference function. 5847-21 sets the default for JPEG image quality of im "NetFile" refers to jobs to be printed from the documer DeskTopBinder software. Rate for Copy B&W Text [0 to 6 / 0 / 1] Rate for Copy B&W Other [0 to 6 / 0 / 1] Rate for Printer B&W [0 to 6 / 0 / 1] Rate for Printer B&W [0 to 6 / 0 / 1] Network Quality Default for JPEG Sets the default value for the quality of JPEG images soft function is available only with the MLB (Media Link Both)		

5848*	Web Service		
	5848-2 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 of images that can be downloaded. The default is equal to 1 gigabyte.		
002	Acc. Ctrl.: Repository (only Lower 4 Bits)	0000: No access control 0001: Denies access to DeskTop Binder.	

		i e e e e e e e e e e e e e e e e e e e	
003	Acc. Ctrl.: Doc. Svr. Print (Lower 4 Bits)		
004	Acc. Ctrl.: User Directory (Lower 4 Bits)		
007	7 Acc. Ctrl Comm. Log Fax (Lower 4 Bits)		
009	Acc. Ctrl.: Job Control (Lower 4 Bits)	Switches access control on and off.	
011	Acc. Ctrl: Device Management (Lower 4 Bits)	0000: OFF, 0001: ON	
021	Acc. Ctrl: Delivery (Lower 4 Bits)		
022	Acc. Ctrl: User Administration (Lower 4 Bits)		
099	Repository: Download Image Setting		
100	Repository: Download Image Max. Size	Specified the max size of the image data that the machine can download/	
		[1 to 2048 / 2048 / 1 MB]	
210	Setting: Log Type: Job 1		
	No information is available at this time.		
211	Setting: Log Type: Job 2		
211	No information is available at this time.		
212	Setting: Log Type: Access		
212	No information is available at this time.		
213	Setting: Primary Srv		
213	No information is available at this time.		
214	Setting: Secondary Srv		
214	No information is available at this time.		
215	Setting: Start Time		
213	No information is available at this time.		
216	Setting: Interval Time		
210	No information is available at this time.		

217	Setting: Timing	
217	No information is available at this time.	

	Installation Date	
5849	Displays or prints the installation date of the machine.	
001	Display	The "Counter Clear Day" has been changed to "Installation Date" or "Inst. Date".
		Determines whether the installation date is printed on the printout for the total counter.
002	2 Switch to Print	[0 to 1 / 1 / -]
		0: OFF (No Print)
		1: ON (Print)
003 Total Counter		When the total number of pages that are made reaches this value, the current date becomes the 'official' installation date for this machine.
		[0 to 99999999 / 0 / 1]

5850*	Address Book Function Japan Only	
Replacement of Circuit Classification		
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.	

	Bluetooth
5851*	Sets the operation mode for the Bluetooth Unit. Press either key.
	[O: Public] / [1: Private]

	Stamp Data Download
5853	Push [Execute] to download the fixed stamp data from the machine ROM onto the hard disk. Then these stamps can be used by the system. If this is not done, the user will not have access to the fixed stamps ("Confidential", "Secret", etc.).
	You must always execute this SP after replacing the HDD or after formatting the HDD. Always switch the machine off and on after executing this SP.

5856	Remote ROM Update
	When set to "1" allows reception of firmware data via the local port (IEEE 1284) during a remote ROM update. This setting is reset to zero after the machine is cycled off and on. Allows the technician to upgrade the firmware using a parallel cable
002	[0 to 1 / 0 / 1 step] 0: Not allowed
	0: Not allowed
	1: Allowed

5857	Save Debug Log	
	On/Off (1:ON 0:OFF)	
001	Switches on the debug log feature. The debug log cannot be captured until this feature is switched on.	
	[0 to 1 / 0 / 1]	
	0: OFF, 1: ON	
	Target (2: HDD 3: SD)	
002	Selects the destination where the debugging information generated by the event selected by SP5858 will be stored if an error is generated	
	[2 to 3 / 2 / 1]	
	2: HDD, 3: SD Card	
005	Save to HDD	
003	Specifies the decimal key number of the log to be written to the hard disk.	
006	Save to SD Card	
008	Specifies the decimal key number of the log to be written to the SD Card.	

Copy HDD to SD Card (Latest 4 MB) Takes the most recent 4 MB of the log written to the hard disk and copies them to the SD Card. 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. Copy HDD to SD Card Latest 4 MB Any Key) Takes the log of the specified key from the log on the hard disk and copies it to the SD Card. A unique file name is generated to avoid overwriting existing file names on the SD Card. A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4 MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card. This SP does not execute if there is no log on the HDD with no key specified. Erase HDD Debug Data Erases all debug logs on the HDD Erase SD Card Debug Data Erases all debug logs on the SD Card. If the card contains only debugging files generated by an event specified by SP\$858, the files are erased when SP\$857 010 or 011 is executed. To enable this SP, the machine must be cycled off and on. Free Space on SD Card Displays the amount of space available on the SD card. Copy SD to SD (Latest 4MB) Copies the last 4MB of the log (written directly to the card from shared memory) onto an SD card. Copy SD to SD (Latest 4MB Any Key) This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number. Make HDD Debug This SP creates a 32 MB file to store a log on the HDD.		
SD Card. 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. Copy HDD to SD Card Latest 4 MB Any Key) Takes the log of the specified key from the log on the hard disk and copies it to the SD Card. A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4 MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card. This SP does not execute if there is no log on the HDD with no key specified. Erase HDD Debug Data Erases all debug logs on the HDD Erase SD Card Debug Data Erases all debug logs on the SD Card. If the card contains only debugging files generated by an event specified by SP5858, the files are erased when SP5857 010 or 011 is executed. To enable this SP, the machine must be cycled off and on. Free Space on SD Card Displays the amount of space available on the SD card. Copy SD to SD (Latest 4MB) Copies the last 4MB of the log (written directly to the card from shared memory) onto an SD card. Copy SD to SD (Latest 4MB Any Key) This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number. Make HDD Debug		Copy HDD to SD Card (Latest 4 MB)
Card. Up to 4MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card. Copy HDD to SD Card Latest 4 MB Any Key) Takes the log of the specified key from the log on the hard disk and copies it to the SD Card. A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4 MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card. This SP does not execute if there is no log on the HDD with no key specified. Erase HDD Debug Data Erases all debug logs on the HDD Erase SD Card Debug Data Erases all debug logs on the SD Card. If the card contains only debugging files generated by an event specified by SP5858, the files are erased when SP5857 010 or 011 is executed. To enable this SP, the machine must be cycled off and on. Free Space on SD Card Displays the amount of space available on the SD card. Copy SD to SD (Latest 4MB) O14 Copies the last 4MB of the log (written directly to the card from shared memory) onto an SD card. Copy SD to SD (Latest 4MB Any Key) This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number. Make HDD Debug	009	,
Takes the log of the specified key from the log on the hard disk and copies it to the SD Card. A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4 MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card. This SP does not execute if there is no log on the HDD with no key specified. Erase HDD Debug Data Erases all debug logs on the HDD Erases SD Card Debug Data Erases all debug logs on the SD Card. If the card contains only debugging files generated by an event specified by SP5858, the files are erased when SP5857 010 or 011 is executed. To enable this SP, the machine must be cycled off and on. Free Space on SD Card Displays the amount of space available on the SD card. Copy SD to SD (Latest 4MB) 114 Copies the last 4MB of the log (written directly to the card from shared memory) onto an SD card. Copy SD to SD (Latest 4MB Any Key) 115 This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number. Make HDD Debug		Card. Up to 4MB can be copied to an SD Card. 4 MB segments can be copied one
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Erases all debug logs on the SD Card. If the card contains only debugging files generated by an event specified by SP5858, the files are erased when SP5857 010 or 011 is executed. To enable this SP, the machine must be cycled off and on. Free Space on SD Card Displays the amount of space available on the SD card. Copy SD to SD (Latest 4MB) Copies the last 4MB of the log (written directly to the card from shared memory) onto an SD card. Copy SD to SD (Latest 4MB Any Key) This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number. Make HDD Debug	011	Erases all debug logs on the HDD
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Displays the amount of space available on the SD card. Copy SD to SD (Latest 4MB) Copies the last 4MB of the log (written directly to the card from shared memory) onto an SD card. Copy SD to SD (Latest 4MB Any Key) This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number. Make HDD Debug		To enable this SP, the machine must be cycled off and on.
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Copies the last 4MB of the log (written directly to the card from shared memory) onto an SD card. Copy SD to SD (Latest 4MB Any Key) This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number. Make HDD Debug	013	Displays the amount of space available on the SD card.
Copies the last 4MB of the log (written directly to the card from shared memory) onto an SD card. Copy SD to SD (Latest 4MB Any Key) This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number. Make HDD Debug		Copy SD to SD (Latest 4MB)
This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number. Make HDD Debug	014	,
directly from shared memory) to a log specified by key number. Make HDD Debug		Copy SD to SD (Latest 4MB Any Key)
016	015	,
	017	Make HDD Debug
	016	This SP creates a 32 MB file to store a log on the HDD.

017	Make SD Debug
017	This SP creates a 4 MB file to store a log on an SD card.

	Debug Save When	
5858*	These SPs select the content of the debugging information to be saved to the destination selected by SP5857-002. SP5858-003 stores one SC specified by number.	
001* Engine SC Error (0:OFF 1:ON) Stores SC codes		Stores SC codes generated by copier engine errors.
002*	Controller SC Error (0:OFF 1:ON)	Stores SC codes generated by GW controller errors.
003* Any SC Error [0 to 65535 / 0 ,		[0 to 65535 / 0 / 1 step]
004*	Jam (0:OFF 1:ON)	Stores jam errors.

5859*	Debug Save K	Čey No.
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 files for functions that use common memory on the controller board.
006	Key 6	[0 to 9999999 / 0 / 1]
007	Key 7	
008	Key 8	
009	Key 9	
010	Key 10	

5860*	SMTP/POP3/IMAP4
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	Partial Mail Receive Timeout
000	[1 to 168 / 72 / 1 hour]
020	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.
	MDN Response RFC2298 Compliance
021	Determines whether RFC2298 compliance is switched on for MDN reply mail. [0 to 1 / 1 / 1] 0: No, 1: Yes
	SMTP Auth. From Field Replacement
022	Determines whether the FROM item of the mail header is switched to the validated account after the SMTP server is validated.
022	[0 to 1 / 0 / 1]
	0: No. "From" item not switched.
	1: Yes. "From" item switched.
	SMTP Auth Direct Sending
	Select the authentication method for SMPT.
	Bit 0: LOGIN
	Bit 1: PLAIN
025	Bit 2: CRAM_MD5
	Bit 3: DIGEST_MD5
	Bit 4 to Bit 7: Not Used
	Note
	This SP is activated only when SMTP authentication is enabled by UP mode.
	S/MIME: MIME Header Setting
	Selects the MIME header type of an E-mail sent by S/MIME.
026	[0 to 2 / 0 / 1]
020	0: Microsoft Outlook Express standard
	1: Internet Draft standard
	2: RFC standard

	S/MIME: Authentication Check
	When sending S/MIME mail, specify whether to check the destination authentication.
028	[0 to 1 / 0 / 1]
	0: Not checked
	1: Checked

5866	E-Mail Report	
001	Report Validity	Enables or disables the E-mail alert function. [0 or 1 / 0 / -] 0: Enabled, 1: Disabled
005	005 Add Date Field	Adds or does not add the date field to the header of the alert mail.
005		[0 or 1 / 0 / –] 0: Not added, 1: Added

5870	Common Key Info Writing	
001	Writing	Writes to flash ROM the common proof for validating the device for @Remote specifications.
003	Initialize	Initializes the data area of the common proof for validating.
004	Writing: 2048bit	Writes to flash ROM the common proof (2048-bit) for validating the device for @Remote specifications.

	SD Card Appli. Move	
5873	Allows you to move applications from one SD card another. For more, see "SD Card Appli Move" in the chapter "System Maintenance (Main Chapters).	
001	Move Exec	Executes the move from one SD card to another.
002	Undo Exec This is an undo function. It cancels the previous execution.	

5875	SC Auto Reboot	
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	This SP determines whether the machine reboots automatically when ar occurs. Note The reboot does not occur for Type A SC codes.	
001	Reboot Setting	[0 to 1/0/1] 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.
002	Reboot Type	[0 to 1 / 0 / 1] 0: Manual reboot, 1: Automatic reboot

5878	Option Setup	
001	Data Overwrite Security	Press [Execute] to initialize the Data Overwrite Security option for the copier. For more, see "DataOverwriteSecurity Unit" in the chapter "Installation".

5881	Fixed Phase Block Erasing	
3001	Detects the Fixed phrase.	

5882	CPM Set
3882	DFU

5885*	Set WIM Function	
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020	Allows or disallows the functions of web image monitor. O: OFF, 1: ON Bit: O: Forbid all document server access 1: Forbid user mode access 2: Forbid print function 3: Forbid Fax 4: Forbid scan sending 5: Forbid download 6: Forbid delete 7: Forbid guest user	
050	DocSvr Format Selects the display type for the document box list	
051	DocSvr Trans Sets the number of documents to be displayed in the document box list. [5 to 20 / 10 / 1] Set Signature [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. Set Encryption Determines whether the scanned documents with the WIM are encrypted when they are transmitted by an e-mail. [0 to 1 / 0 / 1] 0: Not encrypted, 1:Encryption	
100		
101		

200	Detect Mem Leak	Not used
201	DocSvr Timeout	Not used

5887	SD Get Counter
	This SP determines whether the ROM can be updated.
001	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.
001	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.

	Personal Information Protect
	Selects the protection level for logs.
5888*	[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
3093	Displays the counter name of each SDK application.
001	SDK-1
002	SDK-2
003	SDK-3
004	SDK-4
005	SDK-5
006	SDK-6

	Plug & Play Maker/Model Name
5907	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.

	LCT Paper Size
	Specifies the paper size in the LCT.
5908*	[0 or 1 / 0 / -]
	0: A4
	1: LT

5913*	Switchover Permission Time	
	Print Application Timer	[3 to 30 / 3 / 1 second step]
002	Sets the length of time to elapse before allowed the display when the application currently because a key has not been pressed.	owing another application to take control of controlling the display is not operating

5919*	HDD Encryption
	Display Operation State
	Shows the status of the encryption function for the HDD.
001	[0 or 1 / 0 / -] 0: Not Activated
	0: Not Activated
	1: Activated

	Copy Server: Set Function	0 : ON, 1: OFF
5967*		his is a security measure that prevents image of the HDD. After changing this setting, you nable the new setting.

5973*	User Stamp Registration
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101	Frame deletion setting
101	[0 to 3 / 0 / 1 mm]

5974*	Cherry Server
	Selects which version of the Scan Router application program, "Light" or "Full" (Professional) is installed.
	[0 or 1 / 0 / -]
	O: Light
	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 @Remote 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*	Counter Falsification Prevention
	This SP detects that a mechanical counter device is removed. If it is detected, SC610 occurs.
	[0 or 1 / 1 / 1/step]
	0: OFF. 1: ON

5990	SP Print Mode
	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
026	Print SP

5992	SP Text Mode
	Writes the SMC sheets into the SD card.
001	All (Data List)
002	SP (Mode Data List)
003	User Program
004	Logging Data
005	Diagnostic Report
006	Non-Default
007	NIB Summary

008	Capture Log
021	Copier User Program
022	Scanner SP
023	Scanner User Program
024	SDK/J Summary
025	SDK/J Application Info
026	Print SP

System SP Tables-6

SP6-xxx: Peripherals

	ADF Registration Adjust		
6006*	Adjusts the side-to-side and leading edge registration for simplex and duplex original feeding in ARDF mode. SP6006-5 sets the maximum setting allowed for rear edge erase.		
001	Side-to-Side Regist: Front	[-3 to 3 / 0 / 0.1 mm / step]	
002	Side-to-Side Regist: Rear		
003	Leading Edge Registration	[-5 to 5 / 0 / 0.1 mm / step]	
005	Buckle: Duplex Front	[-3 to 3 / 0 / 0.1 mm / step]	
006	Buckle: Duplex Rear	[-2.5 to 2.5 / 0 / 0.1 mm / step]	
007	Rear Edge Erase	[-10 to 10 / 0 / 0.1 mm / step]	

6007	ADF Input Check	
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001	Original Length 1 (B5 Detection Sensor)		
002	Original Length 2 (A4 Detection Sensor)		
003	Original Length 3 (LG Detection Sensor)		
004	Original Width Sensor 1		
005	Original Width Sensor 2		
006	Original Width Sensor 3	0: Paper not detected	
007	Original Width Sensor 4	1: Paper detected	
008	Original Width Sensor 5		
009	Original Set Sensor		
010	Separation Sensor		
011	Skew Correction Sensor		
012	Scan Entrance Sensor		
013	Registration Sensor		
014	Exit Sensor		
015	Feed Cover Sensor	0: ADF cover closed 1: ADF cover open	
016	Lift Up Sensor	0: ADF closed 1: ADF open	
017	Inverter Sensor	0: Paper not detected 1: Paper detected	
018	Pick-up Roller HP Sensor	0: HP (Pick-up roller: Up) 1: Not HP (Pick-up roller: Down)	
019	Original Set HP Sensor	0: HP (Stopper: UP) 1: Not HP (Stopper: Down)	

6008	ADF Output Check	
001	Pick-up Motor Forward	
002	Pick-up Motor Reserve	
003	Feed Motor Forward	
004	Feed Motor Reserve	
005	Relay Motor Forward	
007	Inverter Motor Forward	
008	Inverter Motor Reserve	
011	Inverter Solenoid	
012	Stamp	
013	Fan Motor	

	ADF FreeRun
6009	Performs an ARDF free run in duplex mode. Press [ON] to start, press [OFF] to stop.
	Note: This is a general free run controlled from the copier.
001	Free Run: Simplex Motion
002	Free Run: Duplex Motion
003	Free Run: Stamp Motion

6010*	ADF Stamp Position Adjust.	[-5 to 5 / 0 / 0.1 mm step]
	Adjusts the horizontal position of the	stamp on the scanned originals.

	Original	Size Detect Setting		
	1 '	Specifies the original size for a size detected by the original sensor, since original sensors cannot recognize all sizes.		
	(7) 0000	0000 (0)		
	Different	bits are used for detection, de	pending on the location as shown below.	
	Bit	Size	Location	
	7	A4 (L)/LT (L)		
6016*	6	11" x 15"/DLT (L)	Japan only	
	5	DLT (L)/ 11" x 15"		
	4	LT (S)/ US Exec (S)	NIA I	
	3	LT (L)/8" x 10" (L)	NA only	
	2	LG (L)/ F4 (L)		
	1	A4 (L)/ 16K (L)	FIL/AA I	
	0	8K (L)/ DLT (L)	EU/AA only	

	DF Magnification Adj.	[-5 to 5 / 0 / 0.1% step]
6017*	Adjusts the magnification in the sub-sca	
	Use the key to toggle between + and -	before entering the value

		Skew Correction Moving Setting
		Turns the original skew correction in the ARDF for all original sizes on or off.
6	020*	[0 to 1 / 0 / 1]
		0: Off (only for small original sizes)
		1: On (for all original sizes)

6128	6120	Punch Position: Sub Scan	
	Adjusts the punching position in the sub scan direction. (For D636/D637)		

001	2-Hole: DOM (Japan)	
002	3-Hole: NA	
003	4-Hole: EU	[-7.5 to 7.5 / 0 / 0.5 mm]
004	5-Hole: SCAN	
005	2-Hole: NA	

6129	Punch Position: Main Scan	
0129	Adjusts the punching position in the main scan direction. (For D636/D637)	
001	2-Hole: DOM (Japan)	
002	3-Hole: NA	
003	4-Hole: EU	[-2 to 2 / 0 / 0.4 mm]
004	4-Hole: SCAN	
005	2-Hole: NA	

613	6130*	Skew Correction: Buckle Adj.	
	0130	Adjusts the paper buckle at the punch unit for each paper size. (For D636/D637)	

001	A3 SEF	
002	B4 SEF	
003	A4 SEF	
004	A4 LEF	
005	B5 SEF	
006	B5 LEF	[-5 to 5 / 0 / 0.25 mm]
007	DLT SEF	[-3 10 3 / 0 / 0.23 mm]
008	LG SEF	
009	LT SEF	
010	LT LEF	
011	12" x 18"	
012	Other	

6131*	Skew Correction Control
0131	Selects the skew correction control for each paper size. (For D636/D637)

001	A3 SEF	
002	B4 SEF	
003	A4 SEF	
004	A4 LEF	
005	B5 SEF	
006	B5 LEF	[0 to 1 / 1 / 1 mm]
007	DLT SEF	
008	LG SEF	
009	LT SEF	
010	LT LEF	
011	12" x 18"	
012	Other	

/100*		Jogger Fence Fine Adj.
	6132*	This SP adjusts the distance between the jogger fences and the sides of the stack on the finisher stapling tray in the (Booklet) Finisher D636/D637. The adjustment is done perpendicular to the direction of paper feed.

001	A3 SEF	
002	B4 SEF	
003	A4 SEF	
004	A4 LEF	
005	B5 SEF	
006	B5 LEF	[-1.5 to 1.5 / 0 / 0.5 mm]
007	DLT SEF	[-1.5 to 1.5 / 0 / 0.5 tillin]
008	LG SEF	
009	LT SEF	
010	LT LEF	
011	12" x 18"	
012	Other	

	Staple Position Adjustment
	Adjusts the staple position for each finisher (D636/D637).
6133*	+ Value: Moves the staple position to the rear side.
	- Value: Moves the staple position to the front side.
	[-3.5 to 3.5 / 0 / 0.5 mm]

	Saddle Stitch Position Adj.
6134*	Use this SP to adjust the stapling position of the booklet stapler when paper is stapled and folded in the Booklet Finisher (D637).

001	A3 SEF	
002	B4 SEF	[-3 to 3 / 0 / 0.2 mm]
003	A4 SEF	+ Value: Shifts staple position toward the crease.
004	B5 SEF	- Value: Shifts staple position away from the crease
005	DLT SEF	Feed Out
006	LG SEF	J
007	LT SEF	
008	12" x 18"	$\bigoplus \longleftarrow \rightarrow \ominus$
009	Other	

	Folder Position Ac	Ji.
6135*	This SP corrects the Finisher D637.	e folding position when paper is stapled and folded in the Booklet
001	A3 SEF	
002	B4 SEF	[-3 to 3 / 0 / 0.2 mm]
003	A4 SEF	+ Value: Shifts staple position toward the crease.
004	B5 SEF	- Value: Shifts staple position away from the crease.
005	DLT SEF	Feed Out
006	LG SEF	
007	LT SEF	
008	12" x 18"	
009	Other	

	Book Fold Repeat
6136*	Sets the number of times that folding is done in the Booklet Finisher D637.
	[2 to 30 / 2 / 1 time/step]

(107	Finisher Free Run	
6137	These SPs are used for the D588 or D636/D637.	
001	Free Run 1	D588: System free run D636/D637: Free run for paper edge stapling.
002	Free Run 2	D588: Free run for durability testing D636/D637: Not used
003	Free Run 3	Not used
004	Free Run 4	Not used

	Entrance Sensor	
6139	Display the signals received from sensors and switches of the (booklet) finisher. (D588) (p.243 "Input Check")	

	FIN (EUP) INPUT Check	
6140	Display the signals received from sensors and switches of the (booklet) finisher. (D636/D637) (p.243 "Input Check")	

	FIN (KIN) OUPUT Check
6144	Display the signals received from sensors and switches of the (booklet) finisher. (D588) (p.253 "Output Check")

	FIN (EUP) OUPUT Check
	Display the signals received from sensors and switches of the (booklet) finisher. (D636/D637) (p.253 "Output Check")

	Max. Pre-Stack Sheet [0 to 3 / 3 / 1 sheets step]
6149*	This SP sets the number of sheets sent to the pre-stack tray. • You may need to adjust this setting or switch it off when feeding thick or slick
	paper.

6800	Sheet Conversion (Thick Paper)
	Permits punching, including tab sheets.
	Note: Do not change this setting.
	[1 to 3 / 3 / 1 sheet]
	1: 1 Sheet
	2: 2 Sheets
	3: 3 Sheets

6830*	Extra Staples
	More than the standard number of sheets can be stapled. This SP sets the additional number of sheets (This Setting + Standard Number = maximum number of sheets).
	 If the number of the maximum for staples is increased, and the mechanical warranty of the unit can be guaranteed, then the setting can take effect without changing the controller software.
	 However, assurance that mechanical performance can be guaranteed is required before changing the setting to increase the staple load for more than the maximum in the feed/exit specifications. Raising this setting without quality assurance could damage the machine.
1	Staple positions other than booklet stapling
	[0 to 50 / 0 / 1]
2	2 Booklet stapling
	[0 to 50 / 0 / 1]

6910	Shading Control		
001	ON/OFF	[0 to 1 / 0 / 1] 0= OFF, 1= ON	
	Enables or disables the shading adjustment for DF mode.		
002	Shading Interval: A	[0 to 60 / 3 / 1 sec] DFU	
003	Shading Interval: B	[0 to 120 / 60 / 1] DFU	

3

System SP Tables-7

SP7-xxx: Data Log

7401*	Total SC Counter	
001	SC Counter	
	Displays the total number of service calls that have occurred. This SC counter can be reset by executing SP7807 (SC/Jam Counter Reset).	
002	Total SC Counter	
	Displays the cumulative sum of service calls that have occurred. This SC counter cannot be reset by executing SP7807 (SC/Jam Counter Reset).	

7403*	SC History	
001	Latest	
002	Latest 1	
003	Latest 2	Displays the most recent 10 service calls.
004	Latest 3	
005	Latest 4	
006	Latest 5	
007	Latest 6	
008	Latest 7	
009	Latest 8	
010	Latest 9	

7404*	SC991 History	
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001	Latest	
002	Latest 1	
003	Latest 2	Displays the 10 most recently detected SC991 codes.
004	Latest 3	
005	Latest 4	
006	Latest 5	
007	Latest 6	
008	Latest 7	
009	Latest 8	
010	Latest 9	

7502*	Total Paper Jam
001	Jam Counter
	Displays the total number of paper jams. This SC counter can be reset by executing SP7807 (SC/Jam Counter Reset).
002	Total Jam Counter
	Displays the cumulative sum of paper jams. This SC counter cannot be reset by executing SP7807 (SC/Jam Counter Reset).

7503*	Total Original Jam	
001	Original Jam Counter	
	Displays the total number of original jams. This SC counter can be reset by executing SP7807 (SC/Jam Counter Reset).	
002	Total Original Counter	
	Displays the cumulative sum of original jams. This SC counter cannot be reset by executing SP7807 (SC/Jam Counter Reset).	

	Total Jams Location		
7504*	These SPs display the total number of paper jams by location. A "Check-in" (paper late) error occurs when the paper fails to activate the sensor at the precise time. A "Check-out" ("paper lag") paper jam occurs when the paper remains at the sensor for longer than the prescribed time.		
001	At power On		
003	Tray 1: On		
004	Tray 2: On		
005	Tray 3: On		
006	Tray 4: On		
007	LCT: On		
008	Bypass: On		
009	Duplex: On		
011	Vertical Transport 1: On		
012	012 Vertical Transport 2: On		
013	Bank: Transport Sn 1: On		
014	Bank: Transport Sn 2: On		
017	Registration: On		
019	Fusing Exit: On		
020	020 Paper Exit: On		
021	Bridge Exit On		
022	Bridge Transport: On		
024	Junction Gate Sensor: On		
025	Duplex Exit: On		
026	Duplex Entrance: On (In)		
027	Duplex Entrance: On (Out)		
051	Vertical Transport 1: Off		

052	Vertical Transport 2: Off				
053	Bank Transport 1: Off				
054	Bank Transport 2: Off				
057	Registration Sensor: Off				
058	CT Feed Sensor: Off				
060	Paper Exit: Off				
061	Bridge: Exit: Off				
062	Bridge: Transport: Off				
064	Junction Gate Sensor: Off				
065	Duplex Exit: Off				
066	Duplex Entrance: Off (In)				
067	Duplex Entrance: Off (Out)				
100	Finisher Entrance: KIN				
101	Finisher Shift Tray Exit: KIN				
102	Finisher Staple: KIN				
103	Finisher Exit: KIN				
105	Finisher Tray Lift Motor: KIN				
106	Finisher Jogger Motor: KIN				
107	Finisher Shift Motor: KIN				
108	Finisher Staple Motor: KIN				
109	Finisher Exit Motor: KIN				
191	Finisher Entrance: EUP				
192	Finisher Proof Exit: EUP				
193	Finisher Shift Tray Exit: EUP				
194	Finisher Staple Exit: EUP				
195	Finisher Exit: EUP				

198	Finisher Folder: EUP		
199	inisher Tray Motor: EUP		
200	Finisher Jogger Motor: EUP		
201	nisher Shift Motor: EUP		
202	Finisher Staple Moving Motor: EUP		
203	Finisher Staple Motor: EUP		
204	Finisher Folder Motor: EUP		
206	Finisher Punch Motor: EUP		

	Original Jam Detection	
7505	Displays the total number of original jams by location. These jams occur when the original does not activate the sensors. A Check-in ("paper late") error occurs when the paper fails to activate the sensor at the precise time. A Check-out ("paper lag") paper jam occurs when the paper remains at the sensor for longer than the prescribed time.	
001	At Power: On	
003	Separation Sensor: On	
004	Skew Correction Sensor: On	
005	Interval Sensor: On	
006 Registration Sensor: On		
007	Inverter Sensor: On	
008	 One Original Exit Sensor: On Separation Sensor: Off Skew Correction Sensor: Off 	
053		
054		
055	Interval Sensor: Off	
056	Registration Sensor: Off	
057	Inverter Sensor: Off	
058	Original Exit Sensor: Off	

7506*	Jam Count by	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	Displays the total number of copy jams by paper size.
141	B4 SEF	
142	B5 SEF	
160	DLT SEF	
164	LG SEF	
166	LT SEF	
172	HLT SEF	
255	Others	

	7507*	Plotter Jam History	
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001	Last				
002	Latest 1	Displays the copy Sample Display:	jam history	(the most recent 10 jams)
003	Latest 2	CODE:007			
004	Latest 3	SIZE:05h			
005	Latest 4	TOTAL:0000334			
006	Latest 5	DATE: Mon Mar	15 11:44:50	0 2000	
007	Latest 6	where: CODE is the SP7504-*** number (see above.			
008	Latest 7	SIZE is the ASAP paper size code in hex.			
009	Latest 8	TOTAL is the total jam error count (SP7502)			
010	Latest 9	DATE is the date the jams occurred.			
Size	Code	Size	Code	Size	Code
A4 (S)	05	A3 (L)	84	DLT (L)	AO
A5 (S)	06	A4 (L)	85	LG (L)	A4
B5 (S)	OE	A5 (L)	86	LT (L)	A6
LT (S)	26	B4 (L)	8D	HLT (L)	AC
HLT (S)	2C	B5 (L)	8E	Others	FF

7508*	Original Jam History
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001	Last				
002	Last 1	Displays the original jam history (the most recent 10 jams).			
003	Last 2	Sample Display:			
004	Last 3	CODE:007 SIZE:05h			
005		TOTAL:0000334			
	Last 4	DATE: Mon Mar 1	5 11:44:50	2000	
006	Last 5	where:			
007	Last 6	CODE is the SP7505*** number (see above.			
008	Last 7	SIZE is the ASAP paper size code in hex.			
009	Last 8	TOTAL is the total jam error count (SP7503)			
010	Last 9	DATE is the date the jams occurred.			
Size	Code	Size	Code	Size	Code
A4 (S)	05	A3 (L)	84	DLT (L)	A0
A5 (S)	06	A4 (L)	85	LG (L)	A4
B5 (S)	OE	A5 (L)	86	LT (L)	A6
LT (S)	26	B4 (L)	8D	HLT (L)	AC
HLT (S)	2C	B5 (L)	8E	Others	FF

7624*	Part Replacement Operation		
7024	Selects the PM maintenance for each part.		
001	PCU-BK		
002	Fuser	[0 to 1 / 1 / 1]	
003	Transfer Unit	0:No (Not PM maintenance) 1: Yes (PM maintenance)	
004	FuserCleaner	,	

	ROM No./Firmware Version
7801	This SP codes display the firmware versions of all ROMs in the system, including the mainframe, the ARDF, and peripheral devices.

7803*	PM Counter Display		
/803 °	Displays the PM counter since the last PM.		
001	Paper	[0 to 999999 / 0 / 1 page]	
001	Displays the paper counter (pages)		
	Page: PCD	[0 to 999999 / 0 / 1 page]	
002	Displays the PCD (Drum and Develop	oment unit) counter (pages)	
000	Page: Transfer	[0 to 999999 / 0 / 1 page]	
003	Displays the transfer unit counter (pag	ges).	
00.4	Page: Fuser	[0 to 999999 / 0 / 1 page]	
004	Displays the fusing unit counter (pages).		
005	Rotation: PCD	[0 to 999999999 / 0 / 1 mm]	
005	Displays the PCD rotation counter (distance).		
	Rotation: Transfer	[0 to 999999999 / 0 / 1 mm]	
006	Displays the transfer unit rotation counter (distance).		
	Rotation: Fuser	[0 to 999999999 / 0 / 1 mm]	
007	Displays the fuser unit rotation counter (distance).		
009	Rotation(%): PCD	[0 to 255 / 0 / 1 %]	
800	Displays the PCD (%) rotation counter (Distance/PM).		
000	Rotation(%):Transfer	[0 to 255 / 0 / 1 %]	
009	Displays the transfer unit (%) rotation counter (distance/PM).		
2.1.5	Rotation(%):Fuser	[0 to 255 / 0 / 1 %]	
010	Displays the fuser unit (%) rotation counter (distance/PM).		
011	Rotation(%):Web	[0 to 255 / 0 / 1 %]	
011	Displays the web unit (%) rotation counter (distance/PM).		

	PM Counter Reset
7804	Resets the PM counter.
	Touch [Execute] two times > "Completed" > [Exit]
001	Рарег
001	Resets the PM counter of the paper.
002	PCD
002	Resets the PM counter of the PCD (Drum and Development unit except developer).
003	Transfer
003	Resets the PM counter of the transfer unit.
004	Fuser
004	Resets the PM counter of the fuser unit.
005	Web
003	Reset the PM counter of the web unit.
006	All Clear
008	Resets all PM counter

7805	Parts Counter		
001	Page: OPC	[0 to 999999 / 0 / 1 page]	
001	Displays the parts counter (pages) of the OPC.		
000	Page: Charge Roller	[0 to 999999 / 0 / 1 page]	
002	Displays the parts counter (pages) of the charge roller.		
000	Page: Developer	[0 to 999999 / 0 / 1 page]	
003	Displays the parts counter (pages) of the developer.		
00.4	Page: Belt Blade	[0 to 999999 / 0 / 1 page]	
004	Displays the parts counter (pages) of the transfer belt cleaning blade.		

005	Page: Heat Roller	[0 to 999999 / 0 / 1 page]	
005	Displays the parts counter (pages) of	the hot roller.	
	Page: Pressure Roller	[0 to 999999 / 0 / 1 page]	
006	Displays the parts counter (pages) of	the pressure roller.	
007	Page: Cleaning Roller	[0 to 999999 / 0 / 1 page]	
007	Displays the parts counter (pages) of the cleaning roller.		
008	Page: Thermistor	[0 to 999999 / 0 / 1 page]	
008	Displays the parts counter (pages) of	the thermistors.	
009	Page: Stripper	[0 to 999999 / 0 / 1 page]	
009	Displays the parts counter (pages) of	the strippers.	
010	Rotation: OPC	[0 to 999999999 / 0 / 1 mm]	
010	Displays the parts counter (rotations)	of the OPC.	
011	Rotation: Charge Roller	[0 to 999999999 / 0 / 1 mm]	
011	Displays the parts counter (rotations) of the charge roller.		
012	Rotation: Developer	[0 to 999999999 / 0 / 1 mm]	
012	Displays the parts counter (rotations) of the developer.		
013	Rotation: Belt Blade	[0 to 999999999 / 0 / 1 mm]	
013	Displays the parts counter (rotations) of the transfer belt, blade.		
014	Rotation: Heat Roller	[0 to 999999999 / 0 / 1 mm]	
014	Displays the parts counter (rotations)	of the hot roller.	
015	Rotation: Pressure Roller	[0 to 999999999 / 0 / 1 mm]	
013	Displays the parts counter (rotations) of the pressure roller.		
016	Rotation: Cleaning Roller	[0 to 999999999 / 0 / 1 mm]	
010	Displays the parts counter (rotations) of the cleaning roller.		
01 <i>7</i>	Rotation: Thermistor	[0 to 999999999 / 0 / 1 mm]	
017	Displays the parts counter (rotations) of the thermistors.		

018	Rotation: Stripper	[0 to 999999999 / 0 / 1 mm]	
018	Displays the parts counter (rotations) of the strippers.		
010	Page(%): Web	[0 to 255 / 0 / 1 %]	
019	Displays the parts counter (rotations/PM %) of the cleaning web.		

7806	Counter Clear		
001	OPC		
001	Resets the parts counter of the OPC.		
002	Charge Roller		
002	Resets the parts counter of the charge roller.		
003	Developer		
003	Resets the parts counter of the developer.		
004	Belt: Blade		
004	Resets the parts counter of the transfer belt cleaning blade.		
005	Heat Roller		
003	Resets the parts counter of the hot roller.		
006	Pressure Roller		
000	Resets the parts counter of the pressure roller.		
007	Cleaning Roller		
007	Resets the parts counter of the cleaning roller.		
008	Web		
000	Resets the parts counter of the cleaning web.		
009	Thermistor		
009	Resets the parts counter of the thermistors.		
010	Stripper		
010	Resets the parts counter of the strippers.		

011	All Clear	
011	Resets all parts counters.	

	SC/Jam Counter Reset
7807	Resets the SC and jam counters. To reset, press Execute on the touch panel.
	This SP does not reset the jam history counters: SP7507, SP7508.

7826	MF Error Counter Japan Only	
7020	Displays the number of counts requested of the card/key counter.	
001	Error Total	A request for the count total failed at power on. This error will occur if the device is installed but disconnected.
002	Error Staple	The request for a staple count failed at power on. This error will occur if the device is installed but disconnected.

7827	MF Error Counter Clear Japan Only
	Press Execute to reset to 0 the values of SP7826. Japan Only

	Self-Diagnose Result Display
7832	Execute to open the "Self-Diagnostics Result Display" to view details about errors. Use the keys in the display on the touch-panel to scroll through all the information. If no errors have occurred, you will see the "No Error" message on the screen.

7836	Total Memory Size
7630	Displays the memory capacity of the controller system.

	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 (Dust Check) is switched on.	
001	Dust Detection Counter [0 to 65535 / 0 / 1 /step]	
002	Dust Detection Clear Counter	[0 to 65535 / 0 / 1 /step]

7853	Replacement Counter	
001	PCD	[0 to 255 / 0 / 1]
001	Displays the replacement counter of the PCD (Drum and Development unit).	
002	Transfer	[0 to 255 / 0 / 1]
	Displays the replacement counter of the transfer unit.	
003	Fuser	[0 to 255 / 0 / 1]
	Displays the replacement counter of the fusing unit.	
004	Web	[0 to 255 / 0 / 1]
	Displays the replacement counter of the cleaning web.	

	zero cross	[0 to 255 / 60 / 1]
Stores and displays the detected zero cross frequency of the main ac power from the wall socket.		o cross frequency of the main ac power supply

	Assert Info. DFU		
7901	These SP numbers display the results of the occurrence of the most recent SC code generated by the machine.		
001*	File Name	Module name	
002*	Number of Lines	Number of the lines where error occurred.	
003*	Location	Value	

7906	Prev Counter	
001	Page: PCD	[0 to 999999 / 0 / 1 page]
	Displays the counter (pages) of the previous PCD	
000	Page: Transfer	[0 to 999999 / 0 / 1 page]
002	Displays the previous counter (pages) of the previous transfer unit.	
003	Page: Fuser	[0 to 999999 / 0 / 1 page]
	Displays the previous counter (pages) of the previous fusing unit.	

004	Rotation: PCD	[0 to 999999999 / 0 / 1 mm]	
	Displays the previous counter (rotations) of the previous PCD		
005	Rotation: Transfer	[0 to 999999999 / 0 / 1 mm]	
005	Displays the previous counter (rotatio	ons) of the previous transfer unit.	
004	Rotation: Fuser	[0 to 999999999 / 0 / 1 mm]	
006	Displays the previous counter (rotations/PM %) of the previous fusing unit.		
007	Rotation(%):PCD	[0 to 255 / 0 / 1 mm]	
007	Displays the previous counter (rotations/PM %) of the previous PCD		
000	Rotation(%):Transfer	[0 to 255 / 0 / 1 mm]	
008	Displays the previous counter (rotations/PM %) of the previous transfer unit.		
000	Rotation(%):Fuser	[0 to 255 / 0 / 1 mm]	
009	Displays the previous counter (rotations/PM %) of the previous fusing unit.		
010	Rotation(%):Web	[0 to 255 / 0 / 1 %]	
010	Displays the previous counter (rotations/PM %) of the previous cleaning web.		

7950	Replacement Date
001	PCD
001	Displays the replacement date of the PCD.
002	Transfer
002	Displays the replacement date of the transfer unit.
002	Fuser
003	Displays the replacement date of the fusing unit.
004	Web
	Displays the replacement date of the web unit.

7951	Remaining Counter
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001	PCD(Page)	[0 to 255 / 255 / 1 days]	
001	Displays the remaining counter (pages) of the PCD.		
002	Transfer(Page)	[0 to 255 / 255 / 1 days]	
002	Displays the remaining counter (page	es) of the transfer unit.	
003	Fuser(Page)	[0 to 255 / 255 / 1 days]	
003	Displays the remaining counter (page	es) of the fusing unit.	
005	PCD(Rotation)	[0 to 255 / 255 / 1 days]	
003	Displays the remaining counter (rotations) of the PCD.		
006	Transfer(Rotation)	[0 to 255 / 255 / 1 days]	
000	Displays the remaining counter (rotations) of the transfer unit.		
007	Fuser(Rotation)	[0 to 255 / 255 / 1 days]	
007	Displays the remaining counter (rotations) of the fusing unit.		
009	PCD (%)	[0 to 255 / 100 / 1 %]	
009	Displays the remaining counter (%) of the PCD.		
010	Transfer (%)	[0 to 255 / 100 / 1 %]	
010	Displays the remaining counter (%) of the transfer unit.		
011	Fuser (%)	[0 to 255 / 100 / 1 %]	
011	Displays the remaining counter (%) of the fusing unit.		
013	Web (%)	[0 to 255 / 100 / 1 %]	
013	Displays the remaining counter (%) of the cleaning web.		

7952	PM Yield Setting		
7932		Sets the each yield of the following.	
	001	PCD(Page)	[0 to 99999999 / 160000 / 1 sheet]
001	Sets the PM yield of the PCD (Pages).		

	Transfer(Page)	[0 to 9999999 / 160000 / 1 sheet]	
002	Sets the PM yield of the transfer unit (Pages).		
202	Fuser(Page)	[0 to 9999999 / 160000 / 1 sheet]	
003	Sets the PM yield of the fusing unit (Po	ages).	
005	PCD(Rotation)	C2b: [0 to 999999999 / 71990000 / 1 mm] C2c: [0 to 999999999 / 75500000 / 1 mm]	
	Sets the PM yield of the PCD (Rotatio	ns).	
006	Transfer(Rotation)	C2b: [0 to 999999999 / 62770000 / 1 mm] C2c: [0 to 999999999 / 65420000 / 1 mm]	
	Sets the PM yield of the transfer unit (Rotations).		
007	Fuser(Rotation)	C2b: [0 to 999999999 / 54880000 / 1 mm] C2b: [0 to 999999999 / 55800000 / 1 mm]	
	Sets the PM yield of the fusing unit (Rotations).		
000	Web (%)	[0 to 255 / 92 / 1 %]	
009	Sets the PM yield (%) of the web unit.		
021	Day Threshold: PCD	[1 to 30 / 15 / 1 days]	
021	Adjusts the threshold day for the near end for the PCD.		
022	Day Threshold: Transfer Unit	[1 to 30 / 15 / 1 days]	
UZZ	Adjusts the threshold day for the near end for the transfer unit.		
023	Day Threshold: Fusing Unit	[1 to 30 / 15 / 1 days]	
023	Adjusts the threshold day for the near	end for the fusing unit.	

7953	Operation Env Log	
001	T<10	[0 to 99999999 / 0 / 1 mm]
	Displays the PCU rotation distance in the environment: T<10°C	
002	10<=T<=17	[0 to 99999999 / 0 / 1 mm]
002	Displays the PCU rotation distance in the environment: 10°C<=T<=17°C	

003	17 <t<23< th=""><th>[0 to 99999999 / 0 / 1 mm]</th></t<23<>	[0 to 99999999 / 0 / 1 mm]
	Displays the PCU rotation distance in the environment: 17<=T<=23	
004	23<=T<=27	[0 to 99999999 / 0 / 1 mm]
004	Displays the PCU rotation distance of the environment: 23<=T<=27	
005	27<=T<=32	[0 to 99999999 / 0 / 1 mm]
	Displays the PCU rotation distance of the environment: 27<=T<=32	
006	32 <t< td=""><td>[0 to 99999999 / 0 / 1 mm]</td></t<>	[0 to 99999999 / 0 / 1 mm]
	Displays the PCU rotation distance of the environment: 32 <t< td=""></t<>	

7954	Env Log Clear	
		Resets the environment logs (SP7953).

System SP Tables-8

SP8-xxx: Data Log 2

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 8codes that when used in combination with others, can provide useful information.

SP Numbers	What They Do
SP8211 to SP8216	The number of pages scanned to the document server.
SP8401 to SP8406	The number of pages printed from the document server.
SP8691 to SP8696	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
P:	Print application.	when the job was not stored on the document server.
S:	Scan application.	

L:	Local storage (document server)	Totals (jobs, pages, etc.) for the document server. The L: counters work differently case by case. Sometimes, they count jobs/pages stored on the document server; this can be in document server mode (from the document server window), or from another mode, such as from a printer driver or by pressing the Store File button in the Copy mode window. Sometimes, they include occasions when the user uses a file that is already on the document server. Each counter will be discussed case by case.
O:	Other applications (external network applications, for example)	Refers to network applications such as Web Image Monitor. Utilities developed with the SDK (Software Development Kit) will also be counted with this group in the future.

The Group 8 SP codes are limited to 17 characters, forced by the necessity of displaying them on the small LCDs of printers and faxes that also use these SPs. Read over the list of abbreviations below and refer to it again if you see the name of an SP that you do not understand.

Key for Abbreviations

Abbreviation	What It Means
/	"By", e.g. "T:Jobs/Apl" = Total Jobs "by" Application
>	More (2> "2 or more", 4> "4 or more"
AddBook	Address Book
Apl	Application
B/W	Black & White
Bk	Black
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 count up. For jobs larger than 10 pages, this counter counts up by the number that is in excess of 10 (e.g., for an 11-page job, the counter counts up 11-10 =1)
lFax	Internet Fax
ImgEdt	Image Edit performed on the original with the copier GUI, e.g. border removal, adding stamps, page numbers, etc.
К	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

Abbreviation	What It Means	
Palm 2	Print Job Manager/Desk Top Editor: A pair of utilities that allows print jobs to be distributed evenly among the printers on the network, and allows files to moved around, combined, and converted to different formats.	
PC	Personal Computer	
PGS	Pages. A page is the total scanned surface of the original. Duplex pages count as two pages, and A3 simplex count as two pages if the A3/DLT counter SP is switched ON.	
PJob	Print Jobs	
Ppr	Paper	
PrtJam	Printer (plotter) Jam	
PrtPGS	Print Pages	
R	Red (Toner Remaining). Applies to the wide format model A2 only. This machine is under development and currently not available.	
Rez	Resolution	
SC	Service Code (Error SC code displayed)	
Scn	Scan	
Sim, Simplex	Simplex, printing on 1 side.	
S-to-Email	Scan-to-E-mail	
SMC	SMC report printed with SP5990. All of the Group 8counters 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	



• All of the Group 8 SPs are reset with SP5 801-1 Memory All Clear.

8001	T:Total Jobs	These SPs count the number of times each application is	
8002	C:Total Jobs	used to do a job.	
8003	F:Total Jobs	[0 to 9999999 / 0 / 1] Note: The L: counter is the total number of times the other	
8004	P:Total Jobs	applications are used to send a job to the document server,	
8005	S:Total Jobs	plus the number of times a file already on the document server is used.	
8006	L:Total Jobs		

- 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.

8011	T:Jobs/LS	
8012	C:Jobs/LS	These SPs count the number of jobs stored to the document server
8013	F:Jobs/LS	by each application, to reveal how local storage is being used for
8014	P:Jobs/LS	input. [0 to 9999999 / 0 / 1]
8015	S:Jobs/LS	The L: counter counts the number of jobs stored from within the
8016	L:Jobs/LS	document server mode screen at the operation panel.
801 <i>7</i>	O:Jobs/LS	

- 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.

8021	T:Pjob/LS	
8022	C:Pjob/LS	
8023	F:Pjob/LS	These SPs reveal how files printed from the document server were stored on the document server originally.
8024	P:Pjob/LS	[0 to 9999999 / 0 / 1] The L: counter counts the number of jobs stored from within the document server mode screen at the operation panel.
8025	S:Pjob/LS	
8026	L:Pjob/LS	accoment correct mean coreen at the operation panel.
8027	O:Pjob/LS	

 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.

8031	T:Pjob/DesApl	
8032	C:Pjob/DesApl	
8033	F:Pjob/DesApl	These SPs reveal what applications were used to output documents from the document server.
8034	P:Pjob/DesApl	[0 to 9999999 / 0 / 1]
8035	S:Pjob/DesApl	The L: counter counts the number of jobs printed from within the document server mode screen at the operation panel.
8036	L:Pjob/DesApl	accoment con , or mean concern at the operation parior.
8037	O:Pjob/DesApl	

- When documents already stored on the document server are printed, the count for the application that started the print job is incremented.
- When the print job is started from a network application (Desk Top Binder, Web Image Monitor, etc.) the L: counter increments.

8041	T:TX Jobs/LS	
8042	C:TX Jobs/LS	These SPs count the applications that stored files on the document server that were later accessed for transmission over
8043	F:TX Jobs/LS	the telephone line or over a network (attached to an e-mail, or
8044	P:TX Jobs/LS	as a fax image by I-Fax). [0 to 9999999 / 0 / 1]
8045	S:TX Jobs/LS	Note: Jobs merged for sending are counted separately.
8046	L:TX Jobs/LS	The L: counter counts the number of jobs scanned from within the document server mode screen at the operation panel.
8047	O:TX Jobs/LS	

- When a stored copy job is sent from the document server, the C: counter increments.
- When images stored on the document server by a network application or Palm2 are sent as an email, the O: counter increments.

8051	T:TX Jobs/DesApl	
8052	C:TX Jobs/DesApl	These SPs count the applications used to send files from
8053	F:TX Jobs/DesApl	the document server over the telephone line or over a network (attached to an e-mail, or as a fax image by I-
8054	P:TX Jobs/DesApl	Fax). Jobs merged for sending are counted separately.
8055	S:TX Jobs/DesApl	[0 to 9999999 / 0 / 1] The L: counter counts the number of jobs sent from within
8056	L:TX Jobs/DesApl	the document server mode screen at the operation panel.
8057	O:TX Jobs/DesApl	

• If the send is started from Desk Top Binder or Web Image Monitor, for example, then the O: counter increments.

	T:FIN Jobs	[0 to 9999999 / 0 / 1]		
8061	These SPs total the finishing methods. The finishing method is specified by the application.			
	C:FIN Jobs [0 to 9999999 / 0 / 1]			
8062	These SPs total finishing methods for copy jobs only. The finishing method is specified by the application.			

	F:FIN Jobs		[0 to 9999999 / 0 / 1]	
8063	These SPs total finishing methods for fax jobs only. The finishing method is specified by the application.			
	Note: Finishing features	for fax jobs a	re not available at this time.	
	P:FIN Jobs		[0 to 9999999 / 0 / 1]	
8064	These SPs total finishing the application.	methods for p	rint jobs only. The finishing method is specified by	
	S:FIN Jobs		[0 to 9999999 / 0 / 1]	
8065	These SPs total finishing by the application.	methods for s	can jobs only. The finishing method is specified	
	Note: Finishing features	for scan jobs	are not available at this time.	
	L:FIN Jobs		[0 to 9999999 / 0 / 1]	
8066	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 [0 to 9999999 / 0 / 1]		[0 to 9999999 / 0 / 1]	
8067	These SPs total finishing methods for jobs executed by an external application, over the network. The finishing method is specified by the application.			
806x 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 SP8066 1)		
806x 2	Stack	Number of jobs started out of Sort mode.		
806x 3	Staple	Number of jobs started in Staple mode.		
806x 4	Booklet	Number of jobs started in Booklet mode. If the machine is in staple mode, the Staple counter also increments.		
806x 5	Z-Fold	Number of jobs started In any mode other than the Booklet mode and set for folding (Z-fold).		
806x 6	Punch	Number of jobs started in Punch mode. When Punch is set for a print job, the P: counter increments. (See SP8064 6.)		
806x 7	Other	Reserved. N	Reserved. Not used	

806x 8	Inside-Fold	Number of jobs started In any mode other than the Booklet mode and set for folding (Inside-fold).	
806x 9	Three-IN-Fold	Letter Fold-in Not Used	
806x 10	Three-OUT-Fold	Letter Fold-out Not Used	
806x 11	Four-Fold	Double Parallel Fold Not Used	
806x 12	KANNON-Fold	Gate Fold Not Used	
806x 13	Perfect-Bind	Perfect Binder Not Used	
806x 14	Ring-Bind	Ring Binder Not Used	

	T:Jobs/PGS	[0 to 9999999 / 0 / 1]		
8071	These SPs count the number of jobs broken down by the number of pages in the job, regardless of which application was used.			
	C:Jobs/PGS	[0 to 9999999 / 0 / 1]		
8072	These SPs count and calculate the number of copy jobs by size based on the number of pages in the job.			
	F:Jobs/PGS	[0 to 9999999 / 0 / 1]		
These SPs count and calculate the number of fax jobs pages in the job.		per of fax jobs by size based on the number of		
	P:Jobs/PGS	[0 to 9999999 / 0 / 1]		
8074	These SPs count and calculate the number of print jobs by size based on the number of pages in the job.			
	S:Jobs/PGS	[0 to 9999999 / 0 / 1]		
8075	These SPs count and calculate the number of scan jobs by size based on the num			
	L:Jobs/PGS	[0 to 9999999 / 0 / 1]		
8076	These SPs count and calculate the number of jobs printed from within the document server mode window at the operation panel, by the number of pages in the job.			

	O:Jobs/PGS	[0 to 9999	[0 to 9999999 / 0 / 1]	
These SPs count and calculate the number of "Other" appli Monitor, Palm 2, etc.) by size based on the number of pag				
807x 1	1 Page	807x 8	21 to 50 Pages	
807x 2	2 Pages	807x 9	51 to 100 Pages	
807x 3	3 Pages	807x 10	101 to 300 Pages	
807x 4	4 Pages	807x 11	301 to 500 Pages	
807x 5	5 Pages	807x 12	501 to 700 Pages	
807x 6	6 to 10 Pages	807x 13	701 to 1000 Pages	
807x 7	11 to 20 Pages	807x 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.

	T:FAX TX Jobs [0 to 9999999 / 0 / 1]		
8111	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 available at this time.		
001	B/W	Black TX	

	F:FAX TX Jobs [0 to 9999999 / 0 / 1]		[0 to 9999999 / 0 / 1]
8113	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.		
001	B/W	Black TX	

- 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 (812x) also increments.
- The fax job is counted when the job is scanned for sending, not when the job is sent.

	T:IFAX TX Jo	bbs	[0 to 9999999 / 0 / 1]	
8121	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: Colo	Note: Color fax sending is not available at this time.		
001	OO 1 B/W Black TX			
	F:IFAX TX Jobs		[0 to 9999999 / 0 / 1]	
8123	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.		e at this time.	
001	1 B/W Black TX			

- 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		[0 to 9999999 / 0 / 1]
	8131	These SPs count the total number of jobs scanned and attached to an e-mail, regardless of whether the document server was used or not.		
001		B/W	Black TX	

	002	Color Color TX		
003 ACS Color TX		Color TX		
		S:S-to-Email Jobs		
8135		These SPs count the number of jobs scanned and attached to an e-mail, without storing the original on the document server.		
001 B/W		B/W	Black TX	
	002	Color	Color TX	
003 ACS Color TX		ACS	Color TX	

- These counters count jobs, not pages.
- If the job is stored on the document server, after the job is stored it is determined to be color or black-and-white then counted.
- If the job is cancelled during scanning, or if the job is cancelled while the document is waiting to be sent, the job is not counted.
- If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
- If several jobs are combined for sending to the Scan Router, Scan-to-Email, or Scan-to-PC, or if one job is sent to more than one destination. each send is counted separately. For example, if the same document is sent by Scan-to-Email as well as Scan-to-PC, then it is counted twice (once for Scan-to-Email and once for Scan-to-PC).

01.41	T:Deliv Jobs/Svr		[0 to 9999999 / 0 / 1]	
8141	These SPs c	These SPs count the total number of jobs scanned and sent to a Scan Router server.		
001	B/W	Black Deliv		
002	Color	Color Deliv		
003	ACS	Color Deliv		
8145	S:Deliv Jobs/Svr			
6143	These SPs c	ount the number of jobs sc	anned and sent to a Scan Router server.	
001	B/W	Black Deliv		
002	Color	Color Deliv		
003	ACS	Color Deliv		

- These counters count jobs, not pages.
- The jobs are counted even though the arrival and reception of the jobs at the Scan Router server cannot be confirmed.
- If even one color image is mixed with black-and-white images, then the job is counted as a "Color" job.
- If the job is cancelled during scanning, or if the job is cancelled while the document is waiting to be delivered, the job is not counted.
- If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
- Even if several files are combined for sending, the transmission counts as one job.

	T:Deliv Jobs	s/PC	[0 to 9999999 / 0 / 1]
8151	These SPs count the total number of jobs scanned and sent to a folder on a PC (Scanto-PC). Note: At the present time, 8151 and 8155 perform identical counts.		
001	B/W	Black Deliv	
002 Color Color Deliv			
003 ACS Color Deliv			
8155	S:Deliv Jobs/PC		
6133	These SPs c	ount the total number of jobs	s scanned and sent with Scan-to-PC.
001	B/W	Black Deliv	
002	Color	Color Deliv	
003	ACS	Color Deliv	

- 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.

8161	T:PCFAX TX Jobs	These SPs count the number of PC Fax transmission jobs.
		A job is counted from when it is registered for sending, not when it is sent.
8163	F:PCFAX TX Jobs	[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.

8171	T:Deliv Jobs	/WSD	These SPs count the pages scanned by WSD.
8175	S:Deliv Jobs	s/WSD	[0 to 9999999 / 0 / 1]
001	B/W	Black Deliv	
002	Color	Color Deliv	
003	ACS	Color Deliv	

8181	T:Scan to N	1edia Jobs	These SPs count the pages scanned to media by the
8185	S:Scan to M	1edia Jobs	scanner application. [0 to 9999999 / 0 / 1]
001	B/W	Black Deliv	
002	Color	Color Deliv	
003	ACS	Color Deliv	

8191	T:Total Scan PGS	
8192	C:Total Scan PGS	These SPs count the pages scanned by each application that uses the scanner to scan images.
8193	F:Total Scan PGS	
8195	S:Total Scan PGS	[0 to 9999999 / 0 / 1]
8196	L:Total Scan PGS	

- SP 8191 to 8196 count the number of scanned sides of pages, not the number of physical pages.
- These counters do not count reading user stamp data, or reading color charts to adjust color.
- Previews done with a scanner driver are not counted.

- A count is done only after all images of a job have been scanned.
- Scans made in SP mode are not counted.

Examples

- If 3 B5 pages and 1 A3 page are scanned with the scanner application but not stored, the S: count is 4.
- If both sides of 3 A4 sheets are copied and stored to the document server using the Store File button in the Copy mode window, the C: count is 6 and the L: count is 6.
- If both sides of 3 A4 sheets are copied but not stored, the C: count is 6.
- If you enter document server mode then scan 6 pages, the L: count is 6.

8201	T:LSize Scan PGS	[0 to 9999999 / 0 / 1]
8203	F Lsize Scan PGS	[0 to 9999999 / 0 / 1]
	S:LSize Scan PGS	[0 to 9999999 / 0 / 1]
These SP codes count the total number of large pages input with the scanne jobs only. Large size paper (A3/DLT) scanned for fax transmission are not Note: These counters are displayed in the SMC Report, and in the User To		r (A3/DLT) scanned for fax transmission are not counted.

8211	T:Scan PGS/LS	These SPs count the number of pages scanned into the
8212	C:Scan PGS/LS	document server . [0 to 9999999 / 0 / 1]
8213	F:Scan PGS/LS	The L: counter counts the number of pages stored from
8215	S:Scan PGS/LS	within the document server mode screen at the operation panel, and with the Store File button from within the Copy
8216	L:Scan PGS/LS	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 F	- -eeds	[0 to 9999999 / 0 / 1]		
8221	These SPs count the number of pages fed through the ADF for front and back side scanning.				
001	Front	is the same as the number of poscanning. With an ADF that cannot scan count is the same as the number	canning: h sides simultaneously, the Front side count ages fed for either simplex or duplex both sides simultaneously, the Front side of pages fed for duplex front side er of pages fed for duplex front side ermined by which side the user loads face		
002	Back	same as the number of pages f With an ADF that cannot scan	h sides simultaneously, the Back count is the		

- 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		[0 to 9999999 / 0 / 1]	
8231	These SPs count the num work load on the ADF.	ber of pages scanned by each ADF mode to determine the		
001	Large Volume	Selectable. Large of ADF at one time.	copy jobs that cannot be loaded in the	
002	SADF	Selectable. Feeding pages one by one through the ADF.		
003	Mixed Size	Selectable. Select "	'Mixed Sizes" on the operation panel.	
004	Custom Size	Selectable. Origina	als of non-standard size.	
005	Platen	Book mode. Raising	g the ADF and placing the original directly	
006	Mixed 1 side/2 side	Selectable. Select "	'Simplex/Duplex" on the operation panel.	

- 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/Or	g [0 t	[0 to 9999999 / 0 / 1]				
8241		These SPs count the total number of scanned pages by original type for all jobs, regardless of which application was used.					
8242	C:Scan PGS/O	rg [0 to 9999999 / 0 / 1]					
	These SPs count	These SPs count the number of pages scanned by original type for Copy jobs.					
	F:Scan PGS/Or	g [0	o 9999999 / C) / 1]			
8243	These SPs count	These SPs count the number of pages scanned by original type for Fax jobs.					
	S:Scan PGS/Or	g [0	0 to 9999999 / 0 / 1]				
8245	These SPs count	These SPs count the number of pages scanned by original type for Scan jobs.					
8246	L:Scan PGS/Org	g [0 t	o 9999999 / C	0 / 1]			
		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					
8246	server mode scre	een at the op					
8246	server mode scre	een at the op					
8246 824x 1: Te	server mode scre the Copy mode	een at the op screen	eration panel, a	nd with the Sto	ore File button f	rom within	
	server mode screethe Copy mode	een at the op screen 8241	8242	8243	re File button f	8246	
824x 1: Te	server mode screethe Copy mode ext	een at the op screen 8241 Yes	8242 Yes	8243 Yes	8245 Yes	8246 Yes	
824x 1: Te 824x 2: Te 824x 3: Pl	server mode screethe Copy mode ext	8241 Yes Yes	8242 Yes Yes	8243 Yes Yes	8245 Yes Yes	8246 Yes Yes	
824x 1: Te 824x 2: Te 824x 3: Pl	server mode scre the Copy mode ext ext/Photo hoto	8241 Yes Yes Yes	8242 Yes Yes Yes	8243 Yes Yes Yes	8245 Yes Yes Yes	8246 Yes Yes Yes	
824x 1: Te 824x 2: Te 824x 3: Pl 824x 4: G 824x 5: N	server mode scre the Copy mode ext ext/Photo hoto	8241 Yes Yes Yes Yes	8242 Yes Yes Yes Yes Yes	8243 Yes Yes Yes No	8245 Yes Yes Yes Yes	8246 Yes Yes Yes Yes	
824x 1: Te 824x 2: Te 824x 3: Pl 824x 4: G 824x 5: M 824x 6: N	server mode scre the Copy mode ext ext/Photo hoto GenCopy, Pale	8241 Yes Yes Yes Yes Yes Yes	8242 Yes Yes Yes Yes Yes Yes	8243 Yes Yes No No	8245 Yes Yes Yes Yes No	8246 Yes Yes Yes Yes Yes Yes	

824x 9: Grayscale	Yes	No	No	Yes	No
824x 10: Color	Yes	No	No	Yes	No
824x 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.

8251	T:Scan PGS/ImgEdt	These SPs show how many times Image Edit features have
8252	C:Scan PGS/ImgEdt	been selected at the operation panel for each application. Some examples of these editing features are:
8255	S:Scan PGS/ImgEdt	Erase> Border
8256	L:Scan PGS/ImgEdt	Erase> Center
	O:Scan PGS/ImgEdt	Image Repeat
		Centering
		Positive/Negative
8257		[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.

8281	T:Scan PGS/TWAIN	These SPs count the number of pages scanned using a
		TWAIN driver. These counters reveal how the TWAIN driver is used for delivery functions.
8285	S:Scan PGS/TWAIN	[0 to 9999999 / 0 / 1] Note: At the present time, these counters perform identical counts.

8291	T:Scan PGS/Stamp	These SPs count the number of pages stamped with the
8293	F:Scan PGS/Stamp	stamp in the ADF unit. [0 to 9999999 / 0 / 1]
8295	S:Scan PGS/Stamp	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

	T:Scan PGS/Size	[0 to 9999999 / 0 / 1]	
8301	These SPs count by size the total number of pages scanned by all applications. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-441].		
	C:Scan PGS/Size	[0 to 9999999 / 0 / 1]	
8302	These SPs count by size the total number of pages scanned by the Copy application. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-442].		
F:Scan PGS/Size [0 to 9999999 / 0 /		[0 to 9999999 / 0 / 1]	
8303	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 [0 to 999		[0 to 9999999 / 0 / 1]	
8305	,	e total number of pages scanned by the Scan application. e original page size (scanning) and output page size [SP	
	L:Scan PGS/Size	[0 to 9999999 / 0 / 1]	
8306	These SPs count by size the total number of pages scanned and stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen. Use these totals to compare original page size (scanning) and output page size [SP 8-446].		

830x 1	A3
830x 2	A4
830x 3	A5
830x 4	B4
830x 5	B5
830x 6	DLT
830x 7	LG
830x 8	LT
830x 9	HLT
830x 10	Full Bleed
830x 254	Other (Standard)
830x 255	Other (Custom)

	T:Scan PGS/Rez	[0 to 9999999 / 0 / 1]	
8311	These SPs count by resolution setting the total number of pages scanned by applications that can specify resolution settings.		
	S:Scan PGS/Rez [0 to 9999999 / 0 / 1] These SPs count by resolution setting the total number of pages scanned by applications that can specify resolution settings. Note: At the present time, 8311 and 8315 perform identical counts.		
8315			
831x 1	1200dpi to		
831x 2	600dpito 1 199dpi		
831x3	400dpito599dpi		
831x 4	200dpito399dpi		
831x 5	to 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.

8381	T:Total PrtPGS	
8382	C:Total PrtPGS	These SPs count the number of pages printed by the customer. The counter for the application used for storing
8383	F:Total PrtPGS	the pages increments.
8384	P:Total PrtPGS	[0 to 9999999 / 0 / 1] The L: counter counts the number of pages stored from
8385	S:Total PrtPGS	within the document server mode screen at the operation
8386	L:Total PrtPGS	panel. Pages stored with the Store File button from within the Copy mode screen go to the C: counter.
8387	O:Total PrtPGS	

- 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	[0 to 9999999 / 0 / 1]
These SPs count pages printed on paper sizes A3/DLT and larger.		d on paper sizes A3/DLT and larger.	
		Note: In addition to being displayed in the User Tools d	splayed in the SMC Report, these counters are also isplay on the copy machine.

8401	T:PrtPGS/LS	
8402	C:PrtPGS/LS	These SPs count the number of pages printed from the document server. The counter for the application used to print
8403	F:PrtPGS/LS	the pages is incremented.
8404	P:PrtPGS/LS	The L: counter counts the number of jobs stored from within the document server mode screen at the operation panel.
8405	S:PrtPGS/LS	[0 to 9999999 / 0 / 1]
8406	L:PrtPGS/LS	

- 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.

8411	Prints/Duplex	This SP counts the amount of paper (front/back counted as 1 page) used for duplex printing. Last pages printed only on one side are not counted. [0 to 9999999 / 0 / 1]	
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	T:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]	
8421	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing. This is the total for all applications.		
	C:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]	
8422	These SPs count by binding and combine, and n-Up settings the number of pag processed for printing by the copier application.		
	F:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]	
8423	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the fax application.		
P:PrtPGS/Dup Comb [0 to 9		[0 to 9999999 / 0 / 1]	
8424	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the printer application.		
	S:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]	
8425	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the scanner application.		

	L:PrtPGS/Dup Comb	[0 to 9999999 / 0 / 1]
8426	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 [0 to 9999999 / 0 / 1]	
8427	These SPs count by binding of processed for printing by Otl	and combine, and n-Up settings the number of pages her applications
842x 1	Simplex> Duplex	
842x 2	Duplex> Duplex	
842x 3	Book> Duplex	
842x 4	Simplex Combine	
842x 5	Duplex Combine	
842x 6	2in1	2 pages on 1 side (2-Up)
842x 7	4in1	4 pages on 1 side (4-Up)
842x 8	6in1	6 pages on 1 side (6-Up)
842x 9	8 in 1	8pages on 1 side (8-Up)
842x 10	9in1	9 pages on 1 side (9-Up)
842x 11	16in1	16 pages on 1 side (16-Up)
842x 12	Booklet	
842x 13	Magazine	
842x 14	2in1 + Booklet	
842x 15	4in1 + Booklet	
842x 16	6in1 + Booklet	
842x 17	8in1 + Booklet	
842x 18	9in1 + Booklet	
842x 19	2in1 + Magazine	
842x 20	4in1 + Magazine	

842x 21	6in1 + Magazine	
842x 22	8in1 + Magazine	
842x 23	9in1 + Magazine	
842x 24	16in1 + Magazine	

- These counts (SP8421 to SP8427) are especially useful for customers who need to improve their compliance with ISO standards for the reduction of paper consumption.
- Pages that are only partially printed with the n-Up functions are counted as 1 page.
- Here is a summary of how the counters work for Booklet and Magazine modes:

Booklet		Magazine	
Original Pages	Count	Original Pages	Count
1	1	1	1
2	2	2	2
3	2	3	2
4	2	4	2
5	3	5	4
6	4	6	4
7	4	7	4
8	4	8	4

	T:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
8431	These SPs count the total number of pages output with the three features below, regardless of which application was used.		
	C:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
8432	These SPs count the total number of pages output with the three features below with the copy application.		
	P:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
8434	These SPs count the total number of pages output with the three features below with the print application.		

	L:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
8436	These SPs count the total number of pages output from within the document server mode window at the operation panel with the three features below.		
	O:PrtPGS/ImgEdt	[0 to 9999999 / 0 / 1]	
These SPs count the total number of pages output with the three for Other applications.		umber of pages output with the three features below with	
843x 1	Cover/Slip Sheet	Total number of covers or slip sheets inserted. The count for a cover printed on both sides counts 2.	
843x 2	Series/Book	The number of pages printed in series (one side) or printed as a book with booklet right/left pagination.	
843x 3	User Stamp	The number of pages printed where stamps were applied, including page numbering and date stamping.	

0.441	T:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8441	These SPs count by print paper size the number of pages printed by all applications.		
	C:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8442	These SPs count by print paper size the number of pages printed by the copy application.		
	F:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8443	These SPs count by print paper size the number of pages printed by the fax application.		
	P:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8444	These SPs count by print paper size the number of pages printed by the printer application.		
	S:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8445	These SPs count by print paper size the number of pages printed by the scanner application.		
	L:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]	
8446	These SPs count by print paper size the number of pages printed from within the document server mode window at the operation panel.		

8447	O:PrtPGS/Ppr Size	[0 to 9999999 / 0 / 1]
0447	These SPs count by print paper size the number of pages printed by Other application	
844x 1	A3	
844x 2	A4	
844x 3	A5	
844x 4	B4	
844x 5	B5	
844x 6	DLT	
844x 7	LG	
844x 8	LT	
844x 9	HLT	
844x 10	Full Bleed	
844x 254	Other (Standard)	
844x 255	Other (Custom)	

• These counters do not distinguish between LEF and SEF.

0.451	PrtPGS/Ppr Tray		[0 to 9999999 / 0 / 1]
8451	These SPs count the number of sheets fed from each paper feed station.		d from each paper feed station.
001	Bypass Tray	Bypass Tray	
002	Tray 1	Copier	
003	Tray 2	Copier	
004	Tray 3	Paper Tray Unit (Option)	
005	Tray 4	Paper Tray Unit (Option)	
006	Tray 5	LCT (Option)	
007	Tray 6	Currently not used.	
008	Tray 7	Currently not used.	

009	Tray 8	Currently not used.
010	Tray 9	Currently not used.
011	Tray 10	Currently not used.
012	Tray 11	Currently not used.
013	Tray 12	Currently not used.
014	Tray 13	Currently not used.
015	Tray 14	Currently not used.
016	Tray 15	Currently not used.

	T:PrtPGS/Ppr Type [0 to 9999999 / 0 / 1]				
	These SPs count by paper type the number pages printed by all applications.				
8461	These counters are not the same as the PM counter. The PM counter is based on feed timing to accurately measure the service life of the feed rollers. However, these counts are based on output timing.				
	Blank sheets (covers, chapter covers, slip s	heets) are also counted.			
	During duplex printing, pages printed on both sides count as 1, and a page printed on one side counts as 1.				
8462	C:PrtPGS/Ppr Type	[0 to 9999999 / 0 / 1]			
0402	These SPs count by paper type the number pages printed by the copy application.				
8463	F:PrtPGS/Ppr Type	[0 to 9999999 / 0 / 1]			
6403	These SPs count by paper type the number pages printed by the fax application.				
8464	P:PrtPGS/Ppr Type	[0 to 9999999 / 0 / 1]			
0404	These SPs count by paper type the number pages printed by the printer application.				
	L:PrtPGS/Ppr Type	[0 to 9999999 / 0 / 1]			
8466	These SPs count by paper type the number pages printed from within the document server mode window at the operation panel.				
846x 1	Normal				
846x 2	Recycled				

846x 3	Special
846x 4	Thick
846x 5	Normal (Back)
846x 6	Thick (Back)
846x 7	OHP
846x 8	Other

8471	PrtPGS/Mag	[0 to 9999999 / 0 / 1]	
04/1	These SPs count by magnification rate the number of pages printed.		
001	to 49%		
002	50% to 99%		
003	100%		
004	101% to 200%		
005	201% to		

- 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%.

8481	T:PrtPGS/TonSave
8484	P:PrtPGS/TonSave

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]

0.51.1	T:PrtPGS/Emul	[0 to 9999999 / 0 / 1]			
8511	These SPs count by printer emulation mode the total number of pages printed.				
0514	P:PrtPGS/Emul		[0 to 9999999 / 0 / 1]		
8514	These SPs count b	by printer emulation mode the total number of pages printed.			
001	RPCS				
002	RPDL	Japan Only			
003	PS3				
004	R98				
005	R16	Japan Only			
006	GL/GL2				
007	R55				
008	RTIFF				
009	PDF				
010	PCL5e/5c				
011	PCL XL				
012	IPDL-C				
013	BM-Links	Japan Only			
014	Other				
015	IPDS				

- SP8511 and SP8514 return the same results as they are both limited to the Print application.
- Print jobs output to the document server are not counted.

	T:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
8521	These SPs count by finishing mode the total number of pages printed by all applications.			
	C:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
8522	These SPs count by finishing mode the total napplication.	umber of pages printed by the Copy		
	F:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
8523	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	[0 to 9999999 / 0 / 1]		
8524	These SPs count by finishing mode the total number of pages printed by the Print application.			
	S:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
8525	These SPs count by finishing mode the total number of pages printed by the Scanner application.			
	L:PrtPGS/FIN	[0 to 9999999 / 0 / 1]		
8526	These SPs count by finishing mode the total number of pages printed from within the document server mode window at the operation panel.			
852x 1	Sort			
852x 2	Stack			
852x 3	Staple			
852x 4	Booklet			
852x 5	Z-Fold			
852x 6	Punch			
852x 7	Other			
852x 8	Inside-Fold			

852x 9	Three-IN-Fold
852x 10	Three-OUT-Fold
852x 11	Four-Fold
852x 12	KANNON-Fold
852x 13	Perfect-Bind
852x 14	Ring-Bind



- If stapling is selected for finishing and the stack is too large for stapling, the unstapled pages are still counted.
- The counts for staple finishing are based on output to the staple tray, so jam recoveries are counted.

8531	Staples	This SP counts the amount of staples used by the machine.
		[0 to 9999999 / 0 / 1]

8551	T:PrtBooks/FIN	
8552	C:PrtBooks/FIN	
8554	P:PrtBooks/FIN	
8556	L:PrtBooks/FIN	
001	Perfect-Bind	Not Used
002	Ring-Bind	Not Used

8561	T:A Sheet Of Paper	[0 to 9999999 / 0 / 1]
8562	C:A Sheet Of Paper	[0 to 9999999 / 0 / 1]
8563	F:A Sheet Of Paper	[0 to 9999999 / 0 / 1]
8564	P:A Sheet Of Paper	[0 to 9999999 / 0 / 1]
8566	L:A Sheet Of Paper	[0 to 9999999 / 0 / 1]

0547	O:A Sheet Of Paper		[0 to 9999999 / 0 / 1]
These SPs count the totals number of duplex pages printed.		plex pages printed.	
001	Total: Over A3/DLT		
002	Total: Under A3/DLT		
003	Duplex: Over A3/DLT		
004	Duplex: Under A3/DLT		

	T: Counter	[0 to 9999999 / 0 / 1]
8581	also displayed in the User Tools display	splayed in the SMC Report, these counters are

	O: Counter		[0 to 9999999 / 0 / 1]
These SPs count the totals for A3/DLT paper use, number of duplex pages pages the number of staples used. These totals are for Other (O:) applications only			
001	A3/DLT		
002	Duplex		

8601	T:Coverage Counter		
8001	These SPs count the total coverage for each color and printout pages.		color and printout pages.
001	B/W [0 to 21474836		47 / 0 / 1]
011	B/W Printing Pages [0 to 9999999 /		(0/1]
0400	C:Coverage Counter		[0 to 2147483647 / 0 / 1]
8602	These SPs count the total coverage for B/W.		
0402	F:Coverage Counter [0 to 2147483647 / 0 / 1]		[0 to 2147483647 / 0 / 1]
8603	These SPs count the total coverage for B/W.		

0404	P:Coverage Counter	[0 to 2147483647 / 0 / 1]	
8604	These SPs count the total coverage for B/W.		
0,10,1	L:Coverage Counter	[0 to 2147483647 / 0 / 1]	
8606	These SPs count the total coverage for B/W.		

8617	SDK Apli Counter		[0 to 9999999 / 0 / 1]
8017	These SPs count the total printout pages for each SDK applicaion.		
001	SDK-1		
002	SDK-2		
003	SDK-3		
004	SDK-4		
005	SDK-5		
006	SDK-6		

8621	Func Use Counter	-
001 to 064	Function-001 to Function-064	

	T:FAX TX P	GS .	[0 to 9999999 / 0 / 1]
8631	These SPs on number.	These SPs count by color mode the number of pages sent by fax to a telephone number.	
00	B/W	B/W Black TX	
	F:FAX TX P	F:FAX TX PGS [0 to 999999 / 0 / 1]	
8633	These SPs count by color mode the number of pages sent by fax to a telephone number.		
00	B/W	B/W Black TX	

- 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:FAX TX PGS		[0 to 9999999 / 0 / 1]	
These SPs count by color mode the number of pages sent by fax to as for I-Fax.			ber of pages sent by fax to as fax images using		
	001	B/W Black TX			
		F:FAX TX PGS [0 o 9999999 / 0 / 1]		[0 0 9999999 / 0 / 1]	
8643		These SPs count by color mode the number of pages sent by Fax as fax images using Fax.			
	001	B/W	B/W Black TX		

- 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	[0 to 9999999 / 0 / 1]	
These SPs count by color mode the total number of pages attached to an e-mail both the Scan and document server applications.			
001	B/W		
002	Color		
	S:S-to-Email PGS	[0 to 9999999 / 0 / 1]	
These SPs count by color mode the total number of pages attached to an e-mail Scan application only.		mber of pages attached to an e-mail for the	

001	B/W	
002	Color	

U Note

- The count for B/W and Color pages is done after the document is stored on the HDD. If the job is cancelled before it is stored, the pages are not counted.
- If Scan-to-Email is used to send a 10-page document to 5 addresses, the count is 10 (the pages are sent to the same SMTP server together).
- If Scan-to-PC is used to send a 10-page document to 5 folders, the count is 50 (the document is sent to each destination of the SMB/FTP server).
- Due to restrictions on some devices, if Scan-to-Email is used to send a 10-page document to a large number of destinations, the count may be divided and counted separately. For example, if a 10-page document is sent to 200 addresses, the count is 10 for the first 100 destinations and the count is also 10 for the second 100 destinations, for a total of 20).

	T:Deliv PGS/Svr	[0 to 9999999 / 0 / 1]		
8661	These SPs count by color mode the total number of pages sent to a Scan Router server by both Scan and LS applications.			
00	1 B/W	B/W		
002	2 Color			
	S:Deliv PGS/Svr	[0 to 9999999 / 0 / 1]		
These SPs count by color mode the total number of pages sent to a Scan R by the Scan application.		number of pages sent to a Scan Router server		
00	B/W			
002	Color			

UNote

- 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 [0 to 9999999 / 0 / 1]		
8671	These SPs count by color mode the total number of pages sent to a folder on a PC (Scan-to-PC) with the Scan and LS applications.		
001	B/W		
002	Color		
	S: Deliv PGS/PC	[0 to 9999999 / 0 / 1]	
These SPs count by color mode the total number of pages sent w Scan application.		I number of pages sent with Scan-to-PC with the	
001	B/W		
002	Color		

8681	T:PCFAX TXPGS	These SPs count the number of pages sent by PC Fax.	
8683 F:PC	F:PCFAX TXPGS	These SPs are provided for the Fax application only, so the counts for SP8681 and SP8683 are the same.	
	F:PCFAX TXPGS	[0 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.)

8691	T:TX PGS/LS	These SPs count the number of pages sent from the document
8692	C:TX PGS/LS	server. The counter for the application that was used to store the pages is incremented.
8693	F:TX PGS/LS	[0 to 9999999 / 0 / 1]
8694	P:TX PGS/LS	The L: counter counts the number of pages stored from within the document server mode screen at the operation panel.
8695	S:TX PGS/LS	Pages stored with the Store File button from within the Copy
8696	L:TX PGS/LS	mode screen go to the C: counter.



• Print jobs done with Web Image Monitor and Desk Top Binder are added to the count.

3

- 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		[0 to 9999999 / 0 / 1]
8701	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 ISDN (G3, G4) is 12.		
001	PSTN-1		
002	PSTN-2		
003	PSTN-3		
004	ISDN (G3,G4)		
005	Network		

	T:Scan PGS/Comp		[0 to 9999999 / 0 / 1]
These SPs count the number of compressed pages scanned into the docume counted by the formats listed below.		ages scanned into the document server,	
001	JPEG/JPEG2000		
002	TIFF (Multi/Single)		
003	PDF		
004	Other		
005	PDF/Comp		
006	PDF/A		

	S:Scan PGS/Comp		[0 to 9999999 / 0 / 1]
These SPs count the number of compressed pages scanned by the counted by the formats listed below.		ages scanned by the scan application,	
001	JPEG/JPEG2000		
002	TIFF (Multi/Single)		

003	PDF	
004	Other	
005	PDF/Comp	
006	PDF/A	

8721	T:Deliv PGS/WSD		[0 to 9999999 / 0 / 1]
8725	S:Deliv PGS/WSD		[0 to 9999999 / 0 / 1]
6/23	These SPs count the number of pages scanne		d by each scanner mode.
001	B/W		
002	Color		

8731	T:Scan PGS/Media		[0 to 9999999 / 0 / 1]
	S:Scan PGS/Media		[0 to 9999999 / 0 / 1]
8735	These SPs count the number of pages scanne mode.		d and saved in a meia by each scanner
001	B/W		
002	Color		

RX PGS/Port			[0to9999999/ 0 / 1]
8741	These SPs count the num them.	ber of pages receiv	red by the physical port used to receive
001	PSTN-1		
002	PSTN-2		
003	PSTN-3		
004	ISDN (G3,G4)		
005	Network		

	Dev Counter	[0to9999999/ 0 /1]
8771	These SPs count the frequency of use (number of rotations of the development rollers) for black and other color toners.	
	Note: For machines that do not support of Total count.	color, the Black toner count is the same as the

	Toner_Botol_Info.
8781	This SP displays the number of toner bottles used. The count is done based on the equivalent of 1,000 pages per bottle.

8791	LS Memory Remain	This SP displays the percent of space available on the document server for storing documents.
		[0 to 100 / 0 / 1]

	Toner Remain	[0 to 100 / 0 / 1]
	This SP displays the percent of toner remaining for each color. This SP allows the user to check the toner supply at any time.	
Note: This precise method of measuring remaining toner supply (1% softher machines in the market that can only measure in increment This SP is expanded for color MFP and color LP machines. For this done for black only.		
		r LP machines. For this machine, the count

8811	Eco Counter	
001	Eco Total	[0 to 9999999 / 0 / 1]
Displays the number of pages reduced by using the duplex and the combin		ges reduced by using the duplex and the combine function.
004	Duplex	[0 to 9999999 / 0 / 1]
004	Displays the number of pages reduced by using the duplex function.	
005	Combine	[0 to 9999999 / 0 / 1]
005	Displays the number of pag	ges reduced by using the combine function.

000	Duplex(%)	[0 to 100 / 0 / 1]	
008	Displays the utilization ratio	Displays the utilization ratio of the duplex function.	
000	Combine(%)	[0 to 100 / 0 / 1]	
009	Displays the utilization ratio	o of the duplex function.	
010	Paper Cut(%)	[0 to 100 / 0 / 1]	
010	Displays the paper reduction ratio.		
101 Eco Totalr:Last [0		[0 to 99999999 / 0 / 1]	
104	Duplex:Last	[0 to 99999999 / 0 / 1]	
105	Combine:Last	[0 to 99999999 / 0 / 1]	
108	Duplex(%):Last	[0 to 100 / 0 / 1]	
109	Combine(%):Last	[0 to 100 / 0 / 1]	
110	Paper Cut(%):Last	[0 to 100 / 0 / 1]	

8851	Cvr Cnt:0-10%	[0 to 9999999 / 0 / 1]
0031	These SPs count the percentage of dot coverage for black other color toners.	
011	0 to 2%: BK	
021	3 to 4%: BK	
031	5 to 7%: BK	
041	8 to 10%: BK	

8861	Cvr Cn	t:11-20%	[0 to 9999999 / 0 / 1]
0001	These SPs count the percentage of dot coverage for black other color toners.		
001	ВК	Black toner	

0.071		Cvr Cn	t:21-30%		[0 to 9999999 / 0 / 1]		
8871	071	These SPs count the percentage of dot coverage for black other color toners.					
	001	ВК	BK Black toner				
8881		Cvr Cnt:31%- [0 to 9999999 / 0 / 1]		[0 to 9999999 / 0 / 1]			
0001		These S	These SPs count the percentage of dot coverage for black other color toners.				
	001	ВК	Black toner				
		ļ.					
0001		Page/1	Toner Bottle	[0	to 9999999 / 0 / 1]		
8891		These S	SPs display the amount of the rem	ain	ing current toner.		
	001	ВК	Black toner				
8901		Page/1	Page/Toner_Prev1 [0 to 9999999 / 0 / 1]				
8901		These SPs display the amount of the remaining previous toner.					
	001	ВК	Black toner				
8911		Page/1	[0 to 9999999 / 0 / 1]		to 9999999 / 0 / 1]		
0711		These SPs display the amount of the remaining 2nd previous toner.					
	001	ВК	BK Black toner				
			,				
8921		Cvr Cn	t/Total		[0 to 9999999 / 0 / 1]		
0721		Displays the total coverage and total printout number for each color.					
	001	Coverage (%) BK					
	011	Covera	Coverage/P:BK				
		Machin	ne Status	[() to 9999999 / 0 / 1]		
8941		SPs are	SPs count the amount of time the result of time the result of the suseful for customers who need to the suseful for compliance with IS	o in	•		

001	Operation Time	Engine operation time. Does not include time while controller is saving data to HDD (while engine is not operating).
002	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.
003	Energy Save Time	Includes time while the machine is performing background printing.
004	Low Power Time	Includes time in Energy Save mode with Engine on. Includes time while machine is performing background printing.
005	Off Mode Time	Includes time while machine is performing background printing. Does not include time machine remains powered off with the power switches.
006	SC	Total down time due to SC errors.
007	PrtJam	Total down time due to paper jams during printing.
008	OrgJam	Total down time due to original jams during scanning.
009	Supply PM Unit End	Total down time due to supply unit end.

8951	AddBook Register				
6931	These SPs count the number of events when the machine manages data registration.				
001	User Code /User ID	User code registrations.			
002	Mail Address	Mail address registrations.			
003	Fax Destination	Fax destination registrations.			
004	Group	Group destination registrations.	[0 to 9999999 / 0 / 1]		
005	Transfer Request	Fax relay destination registrations for relay TX.			
006	F-Code	F-Code box registrations.			

007	Copy Program	Copy application registrations with the Program (job settings) feature.	
008	Fax Program	Fax application registrations with the Program (job settings) feature.	[0 to 255 / 0 / 255]
009	Printer Program	Printer application registrations with the Program (job settings) feature.	[0 to 255 / 0 / 255]
010	Scanner Program	Scanner application registrations with the Program (job settings) feature.	

8999	Adomin. Counter List	[0 to 9999999 / 0 / 1]	
0777	Display the total coverage and total printout number for each color.		
001	Total		
003	Copy: BW		
007	Printer: BW		
010	Fax Print: BW		
012	<u>'</u>		
013			
023	Copy: BW (%)		
027	Printer: BW (%)		
030	Fax Print: BW (%)		
101	Transmission Total: Color		
102	Transmission Total: BW		
103	Fax Transmission		
104	Scanner Transmission: Color		
105	Scanner Transmission: BW		

Input Check

Copier

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							

	Input Check				
5803	D	Reading			
	Description	0	1		
001	Tray 1: Paper Size Sensor	See the table 1 following	this table.		
002	Tray 1: Tray Set Sensor	Set	Not set		
003	Tray 1: Paper Lift Sensor	Not upper limit	Upper limit		
004	Tray 1: Paper End Sensor	No paper	Paper remaining		
005	Tray 1: Paper Height Sensor 1				
006	Tray 1: Paper Height Sensor 2	See the table 2 following	TINIS TODIE.		
007	Tray 2: Paper Size Sensor	See the table 1 following	this table.		
008	Tray 2: Tray Set Sensor	Set	Not set		
009	Tray 2: Paper Lift Sensor	Not upper limit	Upper limit		
010	Tray 2: Paper End Sensor	No paper	Paper remaining		
011	Tray 2: Paper Height Sensor 1	See the table 2 following this table.			
012	Tray 2: Paper Height Sensor 2				

013	Tray 1: Paper Feed Sensor	Paper detected	No paper detected		
014	Tray 2: Paper Feed Sensor	Paper detected	No paper detected		
015	Tray 3: Paper Feed Sensor	Paper detected	No paper detected		
016	Tray 4: Paper Feed Sensor	Paper detected	No paper detected		
017	LCT: Paper Feed Sensor	No paper detected	Paper detected		
018	Relay Sensor 1	Paper detected	No paper detected		
019	Relay Sensor 2	Paper detected	No paper detected		
020	Relay Sensor 3	No paper detected	Paper detected		
021	Relay Sensor 4	No paper detected	Paper detected		
022	Relay Sensor: LCT	No paper detected	Paper detected		
023	By-pass: Paper End Sensor	Not end	Paper end		
024	By-pass: Paper Size Sensor	See the table 3 following	g this table.		
025	Registration Sensor	Paper detected	No paper detected		
026	Fusing Exit Sensor	No paper detected	Paper detected		
027	Fusing Entrance Sensor	Paper detected	No paper detected		
028	Junction Gate Relay Sensor	Paper detected	No paper detected		
029	Exit Sensor	Paper detected	No paper detected		
030	Paper Overflow Sensor	Not full	Full		
031	Right Cover Open/Close	Close	Open		
032	Duplex Unit Open/Close	Open	Close		
033	Duplex Entrance Sensor	Paper detected	No paper detected		
034	Duplex Exit Sensor	Paper detected	No paper detected		
035	Bank Right Cover Open/Close	Close	Open		
036	Tray Cover Open/Close	Close	Open		
037	LCT Set	Set	Not set		
038	Bridge/Exit Tray: Exit Sensor	Paper detected	No paper detected		

039	Bridge/Exit Tray: Relay Sensor	Paper detected	No paper detected
040	Bridge/Exit/Shift: Set Detection	Set	Not set
041	Bridge/Exit Tray: Left Guide Open/ Close	Close	Open
042	Bridge/Exit Tray: Right Guide Open/Close	Close	Open
043	Transfer Belt Unit HP Sensor	Not HP	HP
046	Fusing Unit Set	Set (Bit1)	Not set (Bit1)
047	Toner Overflow Sensor	Not full	Full
048	Interlock Detection 1	Right or front door is open.	Right or front door is close.
049	Interlock Detection 2	Right or front door is open.	Right or front door is close.
050	Key Card Set	Set	Not set
051	Key Counter Set	Set	Not set
052	Mechanical Counter Set	Not set	set
053	1-Bin Unit Set	Set	Not set
054	1-Bin Unit: Paper Set	Paper detected	No paper detected
057	Cleaning Web End	Not end	End
060	Shift Sensor	No paper detected	Paper detected
064	Shift Tray Sensor	Stay at rear	Stay at front
065	Bypass Tray Paper Length Detection	Paper detected	No paper detected
200	Scanner HP Sensor	Not HP	HP
201	Platen Cover Sensor	Open	Close

Table 1: Paper Height Sensor

0: Deactivated, 1: Activated (actuator inside sensor)

Remaining paper	Paper height sensor 1	Paper height sensor 2
Full	0	0
Nearly full	1	0
Near end	1	1
Almost empty	0	1

Table 2: Paper Size Switch

Switch 1 is used for the tray set detection.

0: Pushed, 1: Not pushed

Мо	Models			on
North America	Europe/Asia	4	3	2
11" x 17" SEF*1 (A3 SEF)	A3 SEF*1 (11" x 17" SEF)	0	0	1
8.5" x 14" SEF *2 (B4 SEF)	B4 SEF *2 (8.5" x 14" SEF)	0	0	0
A4 SEF	A4 SEF	1	1	0
8.5" x 11" SEF	8.5" x 11" SEF	1	1	1
B5 SEF	B5 SEF	0	1	1
11" x 81/2" LEF*3 (A4 LEF)	A4 LEF*3 (11" x 81/2" LEF)	1	0	0
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

Table 3: Paper Size (By-pass Table)

0: Pushed, 1: Not pushed

Models		Bit No.	Bit No.				
North America	Europe/Asia	3	2	1	0		
11" x 17" SEF*1 (11" x 8.5" LEF)	A3 SEF*1 (A4 LEF)	1	1	1	0		
11" x 17" SEF* 1 (11" x 8.5" LEF)	A3 SEF*1 (A4 LEF)	1	1	0	0		
8.5" x 11" SEF*1 (8.5" x 11" SEF*2)	A4 SEF*1 (A5 LEF)	1	1	0	1		
8.5" x 11" SEF*1 (8.5" x 11" SEF*2)	A4 SEF* 1 (B5 LEF)	1	0	0	1		
5.5" x 8.5" SEF	A5 SEF	1	0	1	1		
5.5" x 8.5" SEF	A5 SEF	0	0	1	1		
5.5" x 8.5" SEF	A6 SEF	0	1	1	1		
5.5" x 8.5" SEF	A6 SEF	1	1	1	1		



• *1: When the machine determines that the paper feed direction is "LEF", it considers that the paper size is bracketed size.

 $^{^*}$ 1: The machine detects either 11" x 17" SEF or A3 SEF, depending on the setting of SP 5-181-002 (Tray 1) or -006 (Tray 2).

^{*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 -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 -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 -008 (Tray 2)..

P	-	۹
ч	F	D
۹	h	n
c	Ξ	2

Original S	Length Sensor			Width Sensor		SP4-301		
Metric version	Inch version	L3	L2	L1	W1	W2	display	
A3	11" x 17"	0	0	0	0	0	00011111	
B4	10" x 14"	0	0	0	0	Х	00011110	
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	0	0	Х	Х	00011100	
A4 LEF	8.5" x 11"	Х	Х	Х	0	0	00000011	
B5 LEF	-	Х	Х	Х	0	Х	00000010	
A4 SEF	11" x 8.5"	Х	0	0	Х	Х	00001100	
B5 SEF	-	Х	Х	0	Х	Х	00000100	
A5 LEF/ SEF	5.5" x 8.5", 8.5" x 5.5"	Х	Х	Х	Х	Х	00000000	

Options

3000/2000-Sheet (Booklet) Finisher (D636/D637)

6140	D: D : "	Reading		
0140	Description		0	1
001	Entra	ince Sensor	No paper detected	Paper detected
002	Proof Exit Sensor		No paper detected	Paper detected
003	Proof Full Detection Sensor		Not Full	Full
004	Uppe	er Tray Exit Sensor	No paper detected*1	Paper detected* 1

/1/0		Bit Description	Reading		
6140	Bit		0	1	
005	Stap	e Exit Sensor	No paper detected	Paper detected	
006	Shift	Roller HP Sensor	Not HP	HP	
007	Shift	Exit Sensor	No paper detected	Paper detected	
008	Exit (Guide Plate HP Sensor	Not HP	HP	
009	Lowe	er Tray Height Sensor	No paper detected	Paper detected	
010	Uppe	er Tray Height Sensor	No paper detected	Paper detected	
011	Uppe	er Tray Full Sensor	Not Full	Full	
012	Stack	c Roller HP Sensor	Not HP	HP	
013	Jogg	er HP Sensor	Not HP	HP	
014	Feed	Out Belt HP Sensor	HP	Not HP	
015	Stap	ling Tray Paper Sensor	No paper detected	Paper detected	
016	Corn	er Stapler HP Sensor	Not HP	HP	
017	Stap	er Rotation HP Sensor	Not HP	HP	
018	Uppe	er Tray Limit SW	Not Limit	Limit	
019	Door	Switch	Closed	Open	
020	Corn	er Stapler Operation	Not HP	HP	
021	Stap	e Detection	No staple detected	Staple detected	
022	Stap	le Dip Detection	No staple detected	Staple detected	
023	Punc	h Movement HP Sensor	Not HP	НР	
024	Pape	r Position Slide HP Sensor	Not HP	HP	
025	Paper Position Sensor		No paper detected	Paper detected	
026	Punch Full Sensor		Not Full	Full	
027	Punch HP Sensor		Not HP	HP	
028	Punc	h DIP SW 1	See	* 1	

/1/0			Reading		
6140	Bit	Description	0	1	
029	Punc	h DIP SW 2	See	* 1	
030	Stack	k Junction Gate HP Sensor	Not HP	HP	
031	Stack	k Present Sensor	No paper detected	Paper detected	
032	Clam	np Roller HP Sensor	Not HP	HP	
033	Fold	Entrance Sensor	No paper detected	Paper detected	
034	Botto	om Fence HP Sensor	Not HP	HP	
035	Fold	Cam HP Sensor	Not HP	HP	
036	Fold	Plate HP Sensor	Not HP	HP	
037	Fold Unit Exit Sensor		No paper detected	Paper detected	
038	Lower Tray Full Sensor: Front		No paper detected*2	Paper detected*2	
039	Lower Tray Full Sensor: Rear		No paper detected*2	Paper detected*2	
040	Book	clet Stapler 1: Operation	Not HP	HP	
041	Book	clet Stapler 1: Staple In (Front)	No staple detected	Staple detected	
042	Booklet Stapler 1: Staple In (Leading Edge)		No staple detected	Staple detected	
043	Booklet Stapler 1: Operation (Rotation/ Rear)		Not HP	НР	
044	Booklet Stapler 1: Staple In (Rear)		No staple detected	Staple detected	
045		clet Stapler 1: Staple In (Leading e/Rear)	No staple detected	Staple detected	
046	Uppe	er Tray Full Sensor: 3000	Not Full	Full	

* 1: Combination of DIP SW 1 and SW 2

DIP SW 1	DIP SW 2	Punch Type
DIP 344 I	DIP 500 Z	runch Type

0	0	Japan
1	0	Europe
0	1	North America
1	1	North Europe

 $^{^*}$ 2: Please refer to "Lower Tray (D637 Only)" in the Service Manual for the "3000/2000 (Booklet) Finisher".

1000-Sheet Finisher (D588)

/100	Bit Description	Reading		
6139		Description	0	1
001	Entra	nce Sensor	Paper detected	No paper detected
002		Exit Sensor er Tray Exit Sensor)	No paper detected	Paper detected
003		e Entrance Sensor bler Tray Entrance Sensor)	Paper detected	No paper detected
004	Staple Moving HP Sensor (Stapler HP Sensor)		Not HP	НР
005	Jogger HP Sensor (Jogger Fence HP Sensor)		Not HP	НР
006	Stack	Feed-out Belt HP Sensor	HP	Not HP
007	Stapl	e Tray Paper Sensor	No paper detected	Paper detected
008	Staple Rotation Sensor (Staple Rotation HP Sensor)		Not HP	НР
009	Staple Sensor		Staple detected	No staple detected
010	Staple READY Detection		Staple detected	No staple detected
011		Guide Plate HP Guide Plate HP Sensor)	Not HP	НР

4120	D:A	D : "	Reading		
6139	Bit	Description	0	1	
012	Shift HP Sensor		Not HP	HP	
013	Paper Sensor (Stack Height Sensor)		No output tray detected	Output tray detected	
014	Tray Lower Sensor (Lower Tray Lower Limit Sensor)		Lower limit	Not lower limit	
015	Proof Full Sensor		Not full	Full	

3

Output Check

Copier

5804	Output Check		
001	Exit Motor: 350		
002	Exit Motor: 175		
003	Exit Motor: 230	Panar ovit mater (Mainframa)	
004	Exit Motor: 180	Paper exit motor (Mainframe)	
005	Exit Motor: 154		
006	Exit Motor: 90		
007	Feed Motor: 300		
008	Feed Motor: 255		
009	Feed Motor: 230		
010	Feed Motor: 215	Paper feed motor (Mainframe)	
011	Feed Motor: 180		
012	Feed Motor: 154		
013	Feed Motor: 90		
014	Bank: Feed Motor: 300		
015	Bank: Feed Motor: 255		
016	Bank: Feed Motor: 230		
017	Bank: Feed Motor: 215	Paper feed motor (Optional paper feed unit)	
018	Bank: Feed Motor: 180		
019	Bank: Feed Motor: 154		
020	Bank: Feed Motor: 90		

5804	Output Check	
021	LCT: Feed Motor: 300	
022	LCT: Feed Motor: 255	
023	LCT: Feed Motor: 230	
024	LCT: Feed Motor: 215	Paper feed motor (Optional LCT)
025	LCT: Feed Motor: 180	
026	LCT: Feed Motor: 154	
027	LCT: Feed Motor: 90	
028	Paper Feed Clutch 1	
029	Paper Feed Clutch 2	Paper feed clutch 1/2 (Mainframe)
030	Bank: Paper Feed Clutch 3	Paper feed clutch 3/4 (Optional paper
031	Bank: Paper Feed Clutch 4	feed unit)
032	LCT: Paper Feed Clutch	Paper feed clutch (Optional LCT)
033	Pick-up Solenoid 1	Did C. L 1.1 /2 /A4 .: \
034	Pick-up Solenoid 2	Pick-up Solenoid 1/2 (Mainframe)
035	Bank: Pick-up Solenoid 3	Pick-up Solenoid 3/4 (Optional paper
036	Bank: Pick-up Solenoid 4	feed unit)
037	LCT: Pick-up Solenoid	Pick-up Solenoid (LCT)
038	Tray Lift Motor 1: Up	
039	Tray Lift Motor 1: Down	
040	Tray Lift Motor 2: Up] -
041	Tray Lift Motor 2: Down	
042	Paper Tray Lock Solenoid	Not used
043	Bank: Paper Tray Lock Solenoid	Tray lock solenoid (Optional paper feed unit)

5804	Output Check	
044	Registration Motor: 230	
045	Registration Motor: 180	
046	Registration Motor: 154	-
047	Registration Motor: 90	
048	Exit: Junction Gate Solenoid	Junction gate 1 solenoid
049	Duplex: Inverter Gate Solenoid	Not used
050	Duplex Inverter Motor: Fwd: 230	
051	Duplex Inverter Motor: Fwd: 180	
052	Duplex Inverter Motor: Fwd: 154	
053	Duplex Inverter Motor: Fwd: 90	
054	Duplex Inverter Motor: Rev: 230	-
055	Duplex Inverter Motor: Rev: 180	
056	Duplex Inverter Motor: Rev: 154	
057	Duplex Inverter Motor: Rev: 90	
058	Duplex/By-pass Motor: Fwd: 230	
059	Duplex/By-pass Motor: Fwd: 180	
060	Duplex/By-pass Motor: Fwd: 154	
061	Duplex/By-pass Motor: Fwd: 90	
062	Duplex/By-pass Motor: Rev: 230	-
063	Duplex/By-pass Motor: Rev: 180	
064	Duplex/By-pass Motor: Rev: 154	
065	Duplex/By-pass Motor: Rev: 90	
066	By-pass Feed Clutch	-
067	By-pass Pick-up Solenoid	-

5804	Output Check	
06	Bridge/Exit Tray: Drive Motor: 230	
06	9 Bridge/Exit Tray: Drive Motor: 180	Diamento (Billion with
07	D Bridge/Exit Tray: Drive Motor: 154	Drive motor (Bridge unit)
07	Bridge/Exit Tray: Drive Motor: 90	
07	Bridge/Exit Tray: Junction Gate Solenoid	Junction Gate Solenoid (Bridge unit)
07	Bridge/Exit Tray: Drive Motor: Reset	-
07	4 Bridge/Exit Tray: Drive Motor: Enable	-
07	5 Bridge: Cooling Fan Motor	Not used
07	5 Transfer Belt Contact Motor	-
07	7 OPC Motor: 230	
07	B OPC Motor: 180	Drum motor
07	OPC Motor: 154	
08	OPC Motor: 90	
08	Transfer/Development Motor: 230	
08	2 Transfer/Development Motor: 180	
08	3 Transfer/Development Motor: 154	-
08	Transfer/Development Motor: 90	
08	5 Fusing Motor: 230	
08	5 Fusing Motor: 180	
08	Fusing Motor: 154	_
08	B Fusing Motor: 90	
08	Development Puddle Motor	-
09	O PTL Control	-
09	1 Fusing Fan Motor: High	Fusing exhaust fan meter
09	Fusing Fan Motor: Low	Fusing exhaust fan motor

5804	Output Check	
093	Exhaust Fan Motor: High	Exhaust fan motor
094	Exhaust Fan Motor: Low	Exnaust tan motor
095	Duct Fan Motor	Cooling fan motor
096	Exit Fan Motor: High	D I. (
097	Exit Fan Motor: Low	Paper exit cooling fan motor
098	PSU Fan Motor	-
099	1-Bin Junction Gate Solenoid	Junction gate 2 solenoid (1-bin unit)
100	Polygon Motor: 230	
101	Polygon Motor: 180	
102	Polygon Motor: 154	-
103	Polygon Motor: 90	
104	LD 1	
105	LD 2	-
106	Toner Bottle Motor: Fwd	Toner supply motor
107	Quenching Lamp	-
108	Charge Bias	-
109	Development Bias	-
110	Transfer Belt Voltage	-
111	ID Sensor LED	-
115	Cleaning Web Motor	Web motor
116	Shift Tray Motor	Not used
117	CTL Cooling FAN	Controller fan
202	Scanner Lamp	-

1000-Sheet Finisher (D588)

6144	Output Check	
Display Description		Description
001	Upper Relay Motor	Upper Transport Motor
002	Lower Relay Motor	Lower Transport Motor
003	Exit Motor	-
004	Proof Junction Gate SOL	Tray Junction Gate Solenoid
005	Lower Tray Lift Motor	-
006	Jogger Fence Motor	-
007	Stapler Motor	-
008	Stapler Hammer	-
009	Stapler Junction Gate Solenoid	-
010	Positioning Roller Solenoid	-
011	Stack Feed-out Motor	-
012	Shift Motor	-
013	Exit Guide Plate Motor	-

3000 / 2000-Sheet (Booklet) Finisher (D636/D637)

6145	Output		
0143	Display	Description	
001	Entrance Motor	-	
002	Upper Transport Motor	-	
003	Lower Transport Motor	-	
004	Upper/Proof Tray Exit Motor	-	
005	Clamp Roller Retraction Motor	-	

006	Shift Roller Motor	-
007	Exit Guide Plate Motor	-
008	Upper Tray Lift Motor	-
009	Stacking Sponge Roller Motor	-
010	Jogger Fence Motor	-
011	Feed Out Belt Motor	-
012	Corner Stapler Movement Motor	-
013	Corner Stapler Rotation Motor	-
014	Corner Stapler	-
015	Proof Junction Gate Solenoid	-
016	Stapling Tray Junction Gate Solenoid	-
017	Stapling Edge Pressure Plate Solenoid	-
018	Positioning Roller Solenoid	-
019	Booklet Pressure Roller Solenoid	-
020	Stack Junction Gate Motor	-
021	Fold Unit Bottom Fence Lift Motor	-
022	Booklet Stapler: Front	-
023	Booklet Stapler: Rear	-
024	Fold Plate Motor	-
025	Fold Roller Motor	-
026	Positioning Roller Motor	-
027	Punch Drive Motor	-
028	Punch Movement Motor	-
029	Paper Position Sensor Slide Motor	-

Printer Service Tables

SP1-xxx (Service Mode)

1001	Bit Switch			
001	Bit Swi	Bit Switch 1		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 GW SD slot.		
	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 ed printable area.		the edges of the	

1001	Bit Switch

Q

002	Bit Swi	tch 2	0	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 a 'Collate Type' configured. Note	II jobs that do r	not already have
	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 process Some host systems submit jobs that contain both PS of switching is disabled, these jobs will not be printed p	and PCL5e/c. I	f Auto PDL
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	
	bit 7	DFU	-	-

1001	Bit Switch
------	------------

003	Bit Swit	rch 3	0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	[PCL5e/c]: Legacy HP compatibility	0: Disable	1: Enable
	000/HP8000. 0A") will be			
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	Bit Swi	Bit Switch				
004	Bit Swit	Bit Switch 4		1		
	bit 0	DFU	-	-		
	bit 1	DFU	-	-		
	bit 2	DFU	-	-		
	bit 3	IPDS print-side reversal	0: Disable	1: Enable		
		Enable: Increases printing speed but simplex pages may be printed on the back side of the sheet.				
	bit 4	DFU	-	-		
	bit 5	DFU	-	-		
	bit 6	DFU	-	-		
	bit 7	IPDS support tools	0: Disable	1: Enable		
	Enable: Enables the port for IPDS support tools.					

1001	Bit Switch
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005	Bit Swit	rch 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 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 u	ınder:	
		"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 printing of multiple copies, only a single copy is output by default. Using this Bit Switch, the device can be configured to print all copies even if a paper mismatch occurs.		
	bit 2	Prevent SDK applications from altering the contents of a job	0: Disable	1: Enable
		If this BitSw is enabled, SDK applications will not be achieved by preventing SDK applications from acce Filter".	•	
		Note: The main purpose of this BitSw is for troublesh applications on data.	ooting the effe	cts of SDK
	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 vio Job Type settings to 1000. The default is 100.		
	bit 5	DFU	-	-

bit	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	- PCL: Pre-04A models			
	- PS/PDF/RPCS:Pre-05S models	- PS/PDF/RPCS:Pre-05S models			
bit	Letterhead mode printing	0: Disable	1: Enable (Duplex)		
	Routes all pages through the duplex unit.				
	If this is disabled, simplex pages or the last page of an odd-paged duplex job not routed through the duplex unit. This could result in problems with letterhead/printed pages. Only affects pages specified as Letterhead paper.				

1001	Bit Swit	Bit Switch				
006	Bit Swit	rch 6 DFU	-	-		
1001	Bit Swit	rch				
007	Bit Switch 7 0			1		
		Print path	0: Disable	1: Enable		
	bit 0 If enabled, simplex pages (in mixed simplex/duplex PS/PCL5 jobs only) and the last page 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	DFU	-	-		
1001	Bit Swit	rch				

800

Bit Switch 8 **DFU**

DFU

bit 0

to 3

	bit 4	PCL edge to edge printing setting	0: Disable (Standard)	1: Enable (BMS)
Switch the edge to edge printing setting for the cust		m-made mach	ine (BMS).	
	bit 5 to 7	DFU	-	-

1001	Bit Swit	Bit Switch			
009	Bit Swit	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 PD necessarily mean that the job can't be printed. This be to time-out immediately (default) upon failure or to w	it switch tells th	e device whether	
	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.			ed in the bypass	

bit 4	Response to PJL USTATUS when multiple collated copies are printed	0: Disable	1: Enable	
		tiple collated copies are printed, the device no longer TUS with the number of pages in the current copy. Instead the otal number of pages for all copies.		
Bit 5 to 7	DFU	-	-	

1001	Bit Swit	Bit Switch			
010	Bit Switch 10		0	1	
	bit 0 to 4	DFU	-	-	
	bit 5	List / Test Print Lock	0: Disable	1: Enable	
		If enabled, you can lock or unlock the [List/Test Print] items under the Pinter Features menu when the Store and Skip Errored Job Function is on.			
	Bit 6	Optional charge machines	-	-	
		If enabled, you can use the optional charge machines when the Store and Skip Errored Job Function is on.	0: Disable	1: Enable	
	Bit 7	DFU	-	-	

1001	Bit Swit	Bit Switch			
011	Bit Switch 11		0	1	
	bit 0	List / Test Print menu	0: Disable	1: Enable	
		When enabled, [Multiple Lists] menu is displayed in [List / Test Print] under the Printer Features menu.			
	bit 1	Interrupt printing	0: Job	1: Page	
		Selects the interrupting units for the interrupt printing function. When you select "0," you can interrupt printing of a job while being processed. When you select "1," you can interrupt printing of a page while being processed.			

Bit 2	DFU		
to 7		-	-

1001	Bit Swi	Bit Switch		
012	Bit Swi	Bit Switch 12		1
	bit 0 to 7	DFU	-	-

1003	[Clear Setting]
1002 001	Initialize Printer System
1003 001	Initializes settings in the "System" menu of the user mode.
1003 003	Delete Program

1004	[Print Summary]	
1004 001	Print Printer Summary	
1004 001	Prints the service summary sheet (a summary of all the controller settings).	

1006	[Sample/Locked Print]	*CTL	0: Link with Doc. Svr, 1: Enable
1006 001	Enables and disables the document server. When you select "0," the document server is enabled or disabled in accordance with Copy Service Mode SP5-967. When you select "1," the document server is enabled regardless of Copy Service Mode SP5-967.		

1110	[Media Print Device Setting]	
1110 002	0: Disable 1: Enable	Selects the setting for the media print device.

1111	[All Job Delete Mode]	
1111 001	0: excluding New Job 1: including New Job	Select whether to include an image processing job in jobs subject to full cancellation from the SCS job list.

Scanner Service Table

SP Tables

SP	Number/Name	Function/[Setting]
1001	Scan NV Version	Displays the version of the scanner NV.
1004	Compression Type	Selects the compression type for binary picture processing. [1 to 3 / 1 / 1/step] 1: MH, 2: MR, 3: MMR
1005	Erase Margin	Creates an erase margin for all edges of the scanned image. If the machine has scanned the edge of the original, create a margin. [0 to 5 / 0 / 1 mm/step]
1009	Remote scan disable	Enables or disables the TWAIN function. [0 or 1 / 0 / -] 0: Enable, 1: Disable
1010	Non Display Clear Light PDF	Displays or does not display the clear light PDF function. [0 or 1 / 0 / -] 0: Display, 1: Not display
1011	Org Count Disp	Displays or does not display the original counter. [O or 1 / 0 / -] O: Not display, 1: Display
1012	User Info Release	Clears or does not clear a user information after a job. [0 or 1 / 1 / -] 0: Not clear, 1: Clear

3

SP	Number/Name	Function/[Setting]
	Compression level (grayscale)	
2021	These SP codes set the compression ratio for the grayscale processing mode that can be selected with the notch settings on the operation panel. Range: 5 (lowest ratio) <-> 95 (highest ratio)	
1	Comp 1: 5 - 95	[5 to 95 / 20 / 1 /step]
2	Comp 2: 5 - 95	[5 to 95 / 40 / 1 /step]
3	Comp 3: 5 - 95	[5 to 95 / 65 / 1 /step]
4	Comp 4: 5 - 95	[5 to 95 / 80 / 1 /step]
5	Comp 5: 5 - 95	[5 to 95 / 95 / 1 /step]

	[Compression ratio of ClearLight PDF]		
2024*	Selects the compression ratio for clearlight PDF for the two settings that can be selected at the operation panel.		
1	Compression Ratio (Normal image)	[5 to 95 / 25 / 1 /step]	
2	Compression Ratio (High comp image)	[5 to 95 / 20 / 1 /step]	

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