P 501/502, IM 350F/350/430Fb/430F Machine Code: M0BQ, M0D1, D0C5, D0C6, D0C4, D0AP Field Service Manual Ver 1.0

Initial Release: February, 2019 (c) 2019 Ricoh Co.,Ltd.

Important Safety Notices

Warnings, Cautions, Notes

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

WARNING

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

• A Caution indicates a potentially hazardous situation. Failure to obey a Caution could result in minor or moderate injury or damage to the machine or other property.

🚼 Important 🔵

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

Vote

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

General Safety Instructions

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

Safety Information

Always obey the following safety precautions when using this product.

Safety During Operation

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



[A]: ON

[B]: OFF

[C]: Push ON/Push OFF

[D]: Standby

Switches and Symbols

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

Safety

Prevention of Physical Injury

- 1. Before disassembling or assembling parts of the machine and peripherals, make sure that the machine and peripheral power cords are unplugged.
- 2. The plug should be near the machine and easily accessible.
- 3. Note that some components of the machine and the paper tray unit are supplied with electrical voltage even if the main power switch is turned off.
- 4. Always unplug the power cord from the power source before you move the product. Before you move the machine, arrange the power cord so it will not fall under the machine.
- 5. Disconnect all peripheral units (finisher, LCT, etc.) from the mainframe before you move the machine.
- 6. If any adjustment or operation check has to be made with exterior covers off or open while the main switch is turned on, keep hands away from electrified or mechanically driven components.
- 7. The machine drives some of its components when it completes the warm-up period. Be careful to keep hands away from the mechanical and electrical components as the machine starts operation.
- 8. The inside and the metal parts of the fusing unit become extremely hot while the machine is operating. Be careful to avoid touching those components with your bare hands.
- 9. To prevent a fire or explosion, keep the machine away from flammable liquids, gases, and aerosols.
- 10. Do not use flammable sprays or solvent in the vicinity of the machine. Also, avoid placing these items in the vicinity of the machine. Doing so could result in fire or electric shock.
- 11. To avoid fire or explosion, never use an organic cleaner near any part that generates heat.
- 12. Clean the floor completely after accidental spillage of silicone oil or other materials to prevent slippery surfaces that could cause accidents leading to hand or leg injuries.
- 13. Never remove any safety device unless it requires replacement. Always replace safety devices immediately.
- 14. Never do any procedure that defeats the function of any safety device.
- 15. Modification or removal of a safety device (fuse, switch, etc.) could lead to a fire and personal injury. Always test the operation of the machine to ensure that it is operating normally and safely after removal and replacement of any safety device.
- For replacements use only the correct fuses or circuit breakers rated for use with the machine.
 Using replacement devices not designed for use with the machine could lead to a fire and personal injuries.
- 17. For machines installed with the ADF/ARDF:

When a thick book or three-dimensional original is placed on the exposure glass and the ARDF cover is lowered, the back side of the ARDF rises up to accommodate the original. Therefore, when closing the ARDF, please be sure to keep your hands away from the hinges at the back of the ARDF.

18. When using a vacuum cleaner around the machine, keep others away from the cleaner, especially

small children.

- 19. For machines installed with the anti-tip components:
 - The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety. The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1) Therefore, removal of such components must always be with the consent of the customer. Do not remove them at your own judgment.
- 20. **NEVER touch** the AC circuits on the PSU board to prevent electric shock caused by residual charge. Residual charge of about 100V-400V remains in the AC circuits on the PSU board for several months even when the board has been removed from the machine after turning off the machine power and unplugging the power cord.

Health Safety Conditions

- 1. For the machines installed with the ozone filters:
 - Never operate the machine without the ozone filters installed.
 - Always replace the ozone filters with the specified types at the proper intervals.
- 2. The machine, which use high voltage power source, can generate ozone gas. High ozone density is harmful to human health. Therefore, locate the machine in a large well ventilated room that has an air turnover rate of more than 50m³/hr/person.
- 3. Toner and developer are non-toxic, but if you get either of them in your eyes by accident, it may cause temporary eye discomfort. Try to remove with eye drops or flush with water as first aid. If unsuccessful, get medical attention.

Observance of Electrical Safety Standards

 The machine and its peripherals must be installed and maintained by a customer service representative who has completed the training course on those models with exceptions on some machines where the installation can be handled by the user.

Safety and Ecological Notes for Disposal

- Do not incinerate toner bottles or used toner. Toner dust may ignite suddenly when exposed to an open flame.
- Dispose of used toner, developer, organic photoconductors, and AIO unit in accordance with local regulations. (These are non-toxic supplies.)
- Dispose of replaced parts in accordance with local regulations.
- When keeping used lithium batteries in order to dispose of them later, do not put more than 100 batteries per sealed box. Storing larger numbers or not sealing them apart may lead to chemical reactions and heat build-up.

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

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 wellventilated location. If there are signs of irritation or other problems, seek medical attention.
- If toner gets on the skin, wash immediately with soap and cold running water.
- If toner gets into the eyes, flush the eyes with cold running water or eye wash. If there are signs of irritation or other problems, seek medical attention.
- If toner is swallowed, drink a large amount of cold water to dilute the ingested toner. If there are signs of any problem, seek medical attention.
- If toner spills on clothing, wash the affected area immediately with soap and cold water. Never use hot water! Hot water can cause toner to set and permanently stain fabric.
- Always store toner and developer supplies such as toner and developer packages, cartridges, bottles (including used toner and empty bottles and cartridges), and AIO unit out of the reach of children.
- Always store fresh toner supplies or empty bottles or cartridges in a cool, dry location that is not exposed to direct sunlight.
- Do not use a vacuum cleaner to remove spilled toner (including used toner). Vacuumed toner may cause a fire or explosion due to sparks or electrical contact inside the cleaner. However, it is possible to use a cleaner designed to be dust explosion-proof. If toner is spilled over the floor, sweep up spilled toner slowly and clean up any remaining toner with a wet cloth.

Handling the development unit cooling system

For the machines installed the development cooling system:

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

5. Contact a professional industrial waste disposal organization and ask them to dispose of the tank. Lithium Batteries for Taiwan

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Laser Safety

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

WARNING

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

WARNING FOR LASER UNIT WARNING: Turn off the main switch before attempting any of the procedures in the Laser Unit section. Laser beams can seriously damage your eyes. WARNING WARNING WARNUNG WARNUNG AVERTISSEMENT URE TO THE BEA AVERTISSEMENT SITION DIRECTI safe006 safe007 WARNING-CLASS 3B INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO THE BEAM WARNUNG-UNSICHTRARE LASERSTRAHLUNG KLASSE 38 WENN ARDECKUNG GE OFFNET NICHT DEM STRAHL AUSSETZEN A L'OUVERTURE EVITER L'EXPOSITION DIRECTE _safe008

Safety Instructions for the Color Controller

Fuse

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

Batteries

Always replace a battery with the same type of battery prescribed for use with the color controller unit.

Replacing a battery with any type other than the one prescribed for use could cause an explosion.

- Never discard used batteries by mixing them with other batteries or other refuse.
- Always remove used batteries from the work site and dispose of them in accordance with local laws and regulations regarding the disposal of such items.

Symbols and Abbreviations

Symbol	What it means
Ś	Screw
S.	Connector
R	Clip ring
Si a cara a c	Clamp
	FFC (Flexible Flat Cable)
S)	E-ring
COMP-	Spring
SEF	Short Edge Feed
LEF	Long Edge Feed





c2790086

[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

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1. Product Information

Machine Codes and Peripheral Configuration

Main Machine

Machine	Product	Function	Operation	PPM (A4/LT	Service Activity
Code	Name		Panel	SEF)	
M0BQ	P 501	Printer	4-line LCD	43 ppm	User maintenance
M0D1	P 502	Printer	4-line LCD	43 ppm	Service
					maintenance
D0C5	IM 350F	4 in 1	10 inch SOP	35 ppm	Service
					maintenance
D0C6	IM 350	3 in 1	10 inch SOP	35 ppm	Service
					maintenance
D0C4	IM 430Fb	4 in 1	10 inch SOP	43 ppm	User maintenance
D0AP	IM 430F	4 in 1	10 inch SOP	43 ppm	Service
					maintenance

The machine codes have the following suffix codes, which show where the machine is delivered to.

Code	Area	Power
-17	North America/Central, South America	120-127V, 60Hz
-19	Taiwan	110V, 60Hz
-21	China	220-240V, 50/60Hz
-27	Asia/Pacific, Europe/Russia/Middle East, Near East, Africa, Korea	220-240V, 50/60Hz

Options

External Options

Item	Machine Code	Remarks
Paper Feed Unit	D3ER-17	New
PB1120		500 sheets
Paper Feed Unit	D3EQ-17	New
PB1110		250 sheets
Caster Table Type M34	D3EP-03	New
Offline Stapler Type	D3EP-02 (Only	New
M34	NA/EU/AA)	Only for MF model (IM
		350F/350/430Fb/430F)
Handset HS1010	M444-38 (Only NA)	Common (MP 401)

Item	Machine Code	Remarks
		Only for Fax model (IM 350F/430Fb/430F)

Internal Options

Item	Machine Code	Remarks
Hard Disk Drive Option Type P18	M543-01	New
		Only for Printer model (P 501/500)
Optional Counter Interface Unit	B870-21	Common (MP 402)
Туре М12		Only for MF model (IM
		350F/350/430Fb/430F)
NFC Card Reader Type M27	M502-10	Common (MP 402)
		Only for MF model (IM
		350F/350/430Fb/430F)
Page Keeper Type M28	D3DQ-17 (Only	Common (MP C307)
	NA/EU)	Only for MF model (IM
		350F/350/430Fb/430F)
Enhanced Security HDD Option	D792-09 (Only	Common (MP C307)
Туре М10	NA/EU)	Only for MF model (IM
		350F/350/430Fb/430F)

Controller Options

Item	Machine Code	Remarks
IEEE1284 Interface Board	D3C0-17	Common (MP 402)
Туре М19		
IEEE802.11a/b/g/n Interface	M500-08 (Only NA/EU/AA)	Common (MP 402)
Unit Type M24		
File Format Converter Type	D3BR-04	Common (MP 402)
M19		Only for MF model (IM
		350F/350/430Fb/430F)
USB Device Server Option	D3BC-33 (NA)	Common (MP C6004ex)
Туре М19А	D3BC-34	
	(EU/AA/CHN/TWN/KOR)	
Extended USB Board Type	D3BS-01	Common (MP 402)
M19		Only for MF model (IM
		350F/350/430Fb/430F)

SD Card Options

Item	Machine Code	Remarks
XPS Direct Print Option Type	M543-11	New

Item	Machine Code	Remarks
P18		Only for Printer model (P 501/500)
XPS Direct Print Option Type	D3EN-18 (NA)	New
M34	D3EN-19 (EU)	Only for MF model (IM
	D3EN-20	350F/350/430Fb/430F)
	(AA/CHN/TWN/KOR)	
IPDS Unit Type P18	M543-07 (NA)	New
	M543-08 (EU)	Only for Printer model (P 501/500)
	M543-09	
	(AA/CHN/TWN/KOR)	
IPDS Unit Type M34	D3EN-13 (NA)	New
	D3EN-14 (EU)	Only for MF model (IM
	D3EN-15	350F/350/430Fb/430F)
	(AA/CHN/TWN/KOR)	
OCR Unit Type M13	D3AC-23 (NA)	Common (MP C306)
	D3AC-24 (EU)	Only for MF model (IM
	D3AC-25	350F/350/430Fb/430F)
	(AA/CHN/TWN/KOR)	
PostScript3 Unit Type P18	M543-04 (NA)	New
	M543-05 (EU)	Only for Printer model (P 501/500)
	M543-06	
	(AA/CHN/TWN/KOR)	
PostScript3 Unit Type M34	D3EN-10 (NA)	New
	D3EN-11 (EU)	Only for MF model (IM
	D3EN-12	350F/350/430Fb/430F)
	(AA/CHN/TWN/KOR)	
VM Card Type P18	D3EN-03 (NA)	New
	D3EN-04 (EU)	Only for Printer model (P 501/500)
	D3EN-05	
	(AA/CHN/TWN/KOR)	
FAX Connection Unit Type M34	D3EM-03 (NA)	New
	D3EM-04 (EU)	Only for Fax model (IM
	D3EM-05	350F/430Fb/430F)
	(AA/CHN/TWN/KOR)	
Data Overwrite Security Unit	D3BS-03	Common (MP 402)
Туре М19		Only for MF model (IM
		350F/350/430Fb/430F)
Unicode Font Package for	B869-01	Common (MP 402)
SAP(R) 1 License		

1.Product Information

Item	Machine Code	Remarks
Unicode Font Package for	B869-02	Common (MP 402)
SAP(R) 10 License		
Unicode Font Package for	B869-03	Common (MP 402)
SAP(R) 100 License		
SD Card for Fonts Type E	M500-66 (Only EU)	Common (MP 402)

♦ Note

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

1.Product Information

Specifications

See "Appendices" for the following information:

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

2. Installation



Installation Requirements

- 1. Temperature Range: 10 °C to 32 °C (50 °F to 89.6 °F)
- 2. Humidity Range: 15% to 80% RH
- 3. Ambient Illumination: Less than 1,500 lux (do not expose to direct sunlight.)
- 4. Ventilation: Room air should turn over at least 3 times/hr/person
- 5. Avoid an area which is exposed to sudden temperature changes. This includes:
 - Areas directly exposed to cool air from an air conditioner.
 - Areas directly exposed to heat from a heater.
- 6. Do not place the machine in an area where it will be exposed to corrosive gases.
- 7. Do not install the machine at any location over 2,000 m (6,500 ft.) above sea level.
- Place the copier on a strong and level base. (Inclination on any side should be no more than 3 mm.)
- 9. Do not place the machine where it may be subjected to strong vibrations.

Machine Space Requirements

Printer Model



MF Model





Printer Model



Item	mm (inch)
Width [A]	375 mm (14.8 inch) (Excluding the fan cover)
Height [B]	311 mm (12.2 inch)
Depth	412 mm (16.2 inch)

MF Model



d0apc2006

Item	mm (inch)
Width [A]	476 mm (18.7 inch)
Height [B]	510 mm (20.1 inch)
Depth	442 mm (17.4 inch) (When the operation panel is at right angles to the floor)

Power Requirements

- Make sure the plug is firmly inserted in the outlet.
- Avoid multi-wiring.
- Be sure to ground the machine.
- Never place anything on the power cord.
- 1. Input voltage level:

Destination	Power supply voltage	Frequency	Rated current consumption
NA	120 V to 127 V	60 Hz	12 A

2.Installation

Destination	Power supply voltage	Frequency	Rated current consumption
EU/AP/CHN	220 V to 240V	50 Hz/60 Hz	7 A

2. Permissible voltage fluctuation:

Destination	For printing images	For operating	
NA	+8.66% / -10%	+10% / -15%	
EU/AP/CHN	±10%	±15%	

Main Machine Installation (P 502/501)

The service maintenance model (P 502 (Machine code: M0D1)) is for installation by the customer engineer.

The user maintenance model (P 501 (Machine code: M0BQ)) is for installation by users. However, the customer engineer must do the installation if the sales representative requests it.

Accessories

P 502 (M0D1)/ P 501 (M0BQ)

Description	Q'ty			
	M0D1-17	M0D1-27	M0BQ-21	M0BQ-19
	M0BQ-17	M0BQ-27		
Power cord	1	1	1	1
Sheet - EULA (End User License Agreement)	1	1	1	1
Sheet - Notes for Using This Machine Safely	1	1	1	1
Sheet - User Registration Sheet	1	-	-	-
CD-ROM - Driver	1	1	1	1
Manual - Safety Information	1	1	1	1
Manual - Setup Guide	1	1	1	1
Manual - PRINTER LIMITED WARRANTY	1	-	-	-
Guarantee (Chinese)	-	-	1	-
Decal - Call Center	-	-	1	-

Installation Procedure

😭 Important 🔵

Condensation may form inside the machine when it is moved from a cold location to a warm location.

Using the machine while condensation exists may cause a malfunction.

If condensation has formed, do not immediately turn on the power. Leave the machine, without turning it on, in the location where it will be used for at least two hours. You can use the machine when the room temperature and the temperature inside the machine are nearly the same.

If SC548 or the message for condensation appears on the control panel when you turn on the machine's power, turn off the power and wait for the condensation to evaporate.

Removal of Packing Materials and Shipping Retainers

1. Do not put anything in the space around the machine, so that you can load paper, replace

2.Installation



consumables, and clear paper jams easily.

2. Remove all the adhesive tapes and protective sheet from the outside of the machine.



3. Press the front cover button on the right side of the machine, and then open the front cover.



4. Pull out the tape straight towards you. Toner adheres to the edge of the tape. Be careful not to

touch it.



5. Close the front cover.



Loading Paper

<u>1.</u> Pull out the paper tray carefully until it stops. Lift the front side of the tray, and then pull it out of the machine.



2. Pinch the lever of the back fence and align it with the paper size. Next, pinch the lever of the right

2.Installation

fence and align the right and left fences with the paper size.



Before setting the paper, set the side fences. Otherwise skew may occur.

<u>3.</u> Load the paper print side down.

Do not stack paper over the limit mark (the mark in the balloon shown above).



<u>4.</u> Rotate the paper size dial, which is located at the front right of the tray, so that the size and the feed direction of the paper in the paper tray can be seen from the window.


5. Lifting the front side of the tray, insert it into the machine, and then push it in carefully until it stops.



Turning the Power On

<u>1.</u> Connect the power cord to the power connector at the back of the machine.



2. Connect the power cord to the wall outlet.





The machine starts up. Following the start screen, the language select screen appears.

<u>4.</u> Press the $[\mathbf{V}]$ or $[\mathbf{A}]$ key to select the language, and then press the [OK] key.

The Installation Settings starts. Follow the instructions on the screen to complete setup.



Vote

There are "Time Zone Settings", "Date and Time Setting", "Daylight Saving Time", and "Network" in the Installation Settings.

😭 Important 🔵

Only for EU/AA/KOR (code: -27); the USB Port setting is set to Inactive by default. If necessary, set to [Active].



Printing a Configuration Page

After you have installed the machine or options, print the configuration page to check the machine status.

- 1. Press the [Menu] key.
- 2. Press the [▲] or [▼] key to select [List/Test Print], and then press the [OK] key.
- 3. Press the [▲] or [▼] key to select [Config. Page], and then press the [OK] key.

Moving the Machine

- It is dangerous to handle the power cord plug with wet hands. Doing so could result in electric shock.
- Unplug the power cord from the wall outlet before you move the machine. While moving the machine, take care that the power cord is not damaged under the machine. Failing to take these precautions could result in fire or electric shock.
- If you have to move the machine when the optional paper tray unit is attached, do not push on the main unit's top section. Doing so can cause the optional paper tray unit to detach, possibly resulting in injury.
- When disconnecting the power cord from the wall outlet, always pull the plug, not the cord.

Pulling the cord can damage the power cord. Use of damaged power cords could result in fire or electric shock.

- The machine weighs approximately 19 kg (41.9 lb.). When moving the machine, use the inset grips on both sides, and lift slowly. The machine will break or cause injury if dropped.
- Do not hold the control panel while moving the machine. Doing so may damage the control panel, cause a malfunction, or result in injury.

🚼 Important 🔵

- Be careful when moving the machine. Take the following precautions:
- Close all covers and trays, including the front cover and bypass tray.
- If optional paper feed units are attached, remove them from the machine and move them separately.
- Keep the machine level and carry it carefully, taking care not to jolt or tip it. Rough handling may cause a malfunction or damage the hard disk or memory, resulting in loss of stored files.
- **<u>1.</u>** Be sure to check the following:

The main power is turned OFF.

The power cord is unplugged from the wall outlet.

The interface cable is unplugged from the machine.

- 2. If optional paper feed units are attached, remove them.
- **<u>3.</u>** Lift the machine using the inset grips on both sides of the machine. Then move it horizontally to the place where you want to use it.

Note

Be sure to move the machine horizontally. To prevent toner from scattering, move the machine slowly.

4. If you removed the paper feed units, reattach them

Main Machine Installation (IM 350F/350/430F)

Accessories

IM 350F (D0C5)/ IM 430F (D0AP)

Description	Q'ty			
	D0C5-17	D0C5-27	D0AP-21	D0AP-19
	D0AP-17	D0AP-27		
Power cord	1	1	1	1
Modular cable with ferrite core	1	-	-	-
Ferrite core	-	1	1	1
Sheet - EULA (End User License Agreement)	1	1	1	1
Sheet - Note for Using This Machine Safely	1	1	1	1
Sheet - User Registration Sheet	1	-	-	-
Sheet - Note to the user (Caution for NFC Tag)	1	1	1	1
CD-ROM - Driver	1	1	1	1
Manual - Safety Information	1	1	1	1
Manual - Setup Guide	1	1	1	1
Manual - PRINTER LIMITED WARRANTY	1	-	-	-
Guarantee (Chinese)	-	-	1	-
Decal - Call Center	-	-	1	-
Decal - Bluetooth	1	1	1	1

IM 350 (D0C6)

Description	Q'ty
	D0C6-27
Power cord	1
Ferrite core	1
Sheet - EULA (End User License Agreement)	1
Sheet - Note for Using This Machine Safely	1
Sheet - Note to the user (Caution for NFC Tag)	1
CD-ROM - Driver	1
Manual - Safety Information	1
Manual - Setup Guide	1
Decal - Bluetooth	1

Important Notice on Security Issues

In order to increase the security of the machine, and to ensure that the customer sets the administrator password, an administrator set/change prompt screen is displayed at the first power-up. 28

Note

For more details about this security issue, see "Notes for Using This Machine Safely" supplied with the machine.

Installation Procedure

Content Conten

Condensation may form inside the machine when it is moved from a cold location to a warm location. Using the machine while condensation exists may cause a malfunction.

If condensation has formed, do not immediately turn on the power. Leave the machine, without turning it on, in the location where it will be used for at least two hours. You can use the machine when the room temperature and the temperature inside the machine are nearly the same.

If SC548 or the message for condensation appears on the control panel when you turn on the machine's power, turn off the power and wait for the condensation to evaporate.

Removal of Packing Materials and Shipping Retainers

<u>1.</u> Hold the inset grips on both sides of the machine with two people as shown below, and slowly lift and move the machine.



Lower the machine slowly when positioning it.
 Do not put anything in the space around the machine, so that you can load paper, replace consumables, and clear paper jams easily.



3. Remove all the narrow tapes and the protective sheet, outside the machine.



4. Press the front cover button on the right side of the machine, and then open the front cover.



5. Pull out the tape straight towards you. Toner adheres to the edge of the tape. Be careful not to

touch it.



6. Close the front cover.



7. Lift the exposure glass cover to remove the inner adhesive tapes (1) and the protective sheet (2).



<u>8.</u> Slide the scanner carriage lock switch toward you.



Note

SC120-00 is displayed when the machine is turned ON without scanner carriage unlock.

Loading Paper

<u>1.</u> Pull out the paper tray carefully until it stops. Lift the front side of the tray, and then pull it out of the machine.



<u>2.</u> Pinch the lever of the back fence and align it with the paper size. Next, pinch the lever of the right fence and align the right and left fences with the paper size.



Vote

Before setting the paper, set the side fences. Otherwise skew may occur.

<u>3.</u> Load the paper print side down.

Do not stack paper over the limit mark (the mark in the balloon shown above).



<u>4.</u> Rotate the paper size dial, which is located at the front right of the tray, so that the size and the feed direction of the paper in the paper tray can be seen from the window.



5. Lift the front side of the tray, insert it into the machine, and then push it in carefully until it stops.



Connecting the Modular Cable (Only Using the Fax)

<u>1.</u> Make two loops with the modular cord, and then attach the ferrite core [A] (this step is not needed for NA).



<u>2.</u> Connect the modular cable to the "LINE" connector.

Turning the Power On

<u>1.</u> Connect the power cord to the power connector at the back of the machine.



2. Connect the power cord to the wall outlet.



<u>3.</u> Press the main power switch.



The machine starts up. Following the start screen, the [Program/Change Administrator] screen appears.

4. Set the Administrator/Supervisor Login password or skip this screen temporarily.

If your customer change the password soon, go to step 5.

If you want to skip this screen, go to step 6.



- 5. Ask your customer to change the login password for Supervisor and Administrator 1 as following.
 - 1. Enter the password, and then press [OK].
 - 2. Enter the password again for confirming, and then press [OK] to register them.
 - 3. Press [OK]. The home screen is displayed.
- 6. Execute SP5-755-002 (Display Setting: Hide Administrator Password Change Scrn) to skip the

[Program/Change Administrator] screen.

The home screen is displayed.

😭 Important 🔵

- The Program/Change Administrator screen will be displayed every time the power is turned ON.
- We recommend that customers set the passwords from the Program/Change Administrator screen.
- The passwords for Supervisor or Administrator 1 to 4 can be set via "System Settings". However, if the passwords are set in the Program/Change Administrator screen, this screen will be displayed every time the power is turned ON.

Vote

If a password is not necessary, this screen can be disabled with the following procedure.

- 1. On the Program/Change Administrator screen, press [Change] next to Supervisor and then press [OK] without inputting any password.
- 2. Press [OK] again when the Confirm password screen is displayed.
- 3. For Administrator 1, do the same procedure as steps 1 and 2.
- 4. Press [OK]. The home screen is displayed.

Printing a Configuration Page

After you have installed the machine or options, print the configuration page to check the machine status.

- 1. Press [User Tools].
- 2. Press [Machine Features].
- 3. Press [Printer Features].
- 4. Press [Configuration Page] on the [List / Test Print] tab.
- 5. Press [User Tools] on the top right of the screen.

Note

• After installing the machine, configure the hard disk overwriting and data encryption settings. (Data Overwrite Security, HDD Encryption)

Moving the Machine

- It is dangerous to handle the power cord plug with wet hands. Doing so could result in electric shock.
- Unplug the power cord from the wall outlet before you move the machine. While moving the machine, take care that the power cord is not damaged under the machine. Failing to take these precautions could result in fire or electric shock.
- If you have to move the machine when the optional paper tray unit is attached, do not push on the main unit's top section. Doing so can cause the optional paper tray unit to detach, possibly

resulting in injury.

- When disconnecting the power cord from the wall outlet, always pull the plug, not the cord.
 Pulling the cord can damage the power cord. Use of damaged power cords could result in fire or electric shock.
- The machine weighs approximately 30 kg (66.2 lb.). When moving the machine, use the inset grips on both sides, and lift slowly in pairs. The machine will break or cause injury if dropped.
- Do not hold the control panel while moving the machine. Doing so may damage the control panel, cause a malfunction, or result in injury.

🚼 Important 🔵

- Be careful when moving the machine. Take the following precautions:
- Close all covers and trays, including the front cover and bypass tray.
- If optional paper feed units are attached, remove them from the machine and move them separately.
- Keep the machine level and carry it carefully, taking care not to jolt or tip it. Rough handling may cause a malfunction or damage the hard disk or memory, resulting in loss of stored files.
- **<u>1.</u>** Be sure to check the following:

The main power is turned OFF.

The power cord is unplugged from the wall outlet.

The interface cable is unplugged from the machine.

- 2. If optional paper feed units are attached, remove them.
- **<u>3.</u>** Lift the machine using the inset grips on both sides of the machine. Then move it horizontally to the place where you want to use it.



Be sure to move the machine horizontally. To prevent toner from scattering, move the machine slowly.

<u>4.</u> If you removed the paper feed units, reattach them.

• Note

Main Machine Installation (IM 430Fb)

This machine (Machine code: D0C4) is for installation by users. However, the customer engineer must do the installation if the sales representative requests it.

Accessories

IM 430Fb (D0C4)

Description	Q'ty	
	D0C4-17	D0C4-27
Power cord	1	1
Modular cable with ferrite core	1	-
Ferrite core	-	1
Sheet - EULA (End User License Agreement)	1	1
Sheet - Note for Using This Machine Safely	1	1
Sheet - User Registration Sheet	1	-
Sheet - Note to the user (Caution for NFC Tag)	1	1
CD-ROM - Driver	1	1
Manual - Safety Information	1	1
Manual - Setup Guide	1	1
Manual - PRINTER LIMITED WARRANTY	1	-
Decal - Bluetooth	1	1

Installation Procedure

Contract (Contract)

Condensation may form inside the machine when it is moved from a cold location to a warm location. Using the machine while condensation exists may cause a malfunction.

If condensation has formed, do not immediately turn on the power. Leave the machine, without turning it on, in the location where it will be used for at least two hours. You can use the machine when the room temperature and the temperature inside the machine are nearly the same.

If SC548 or the message for condensation appears on the control panel when you turn on the machine's power, turn off the power and wait for the condensation to evaporate.

Removal of Packing Materials and Shipping Retainers

1. Hold the inset grips on both sides of the machine with two people as shown above, and slowly lift

and move the machine.



<u>2.</u> Lower the machine slowly when positioning it.

Do not put anything in the space around the machine, so that you can load paper, replace consumables, and clear paper jams easily.



<u>3.</u> Remove all the narrow tapes and protective sheet from the outside of the machine.



<u>4.</u> Press the front cover button on the right side of the machine, and then open the front cover.



5. Pull out the tape straight towards you. Toner adheres to the edge of the tape. Be careful not to touch it.



6. Close the front cover.



7. Lift the exposure glass cover to remove the inner adhesive tapes (1) and the protective sheet (2).



<u>8.</u> Slide the scanner carriage lock switch toward you.



SC120-00 is displayed when the machine is turned ON without scanner carriage unlock.

Loading Paper

<u>1.</u> Pull out the paper tray carefully until it stops. Lift the front side of the tray, and then pull it out of the machine.



2. Pinch the lever of the back fence and align it with the paper size. Next, pinch the lever of the right

fence and align the right and left fences with the paper size.



Before setting the paper, set the side fences. Otherwise skew may occur.

<u>3.</u> Load the paper print side down.

Do not stack paper over the limit mark (the mark in the balloon shown above).



<u>4.</u> Rotate the paper size dial, which is located at the front right of the tray, so that the size and the feed direction of the paper in the paper tray can be seen from the window.



5. Lifting the front side of the tray, insert it into the machine, and then push it in carefully until it stops.



Connecting the Modular Cable (Only Using the Fax)

<u>1.</u> Make two loops with the modular cord, and then attach the ferrite core [A] (this step is not needed for NA).



2. Connect the modular cable to the "LINE" connector.

Turning the Power On

<u>1.</u> Connect the power cord to the power connector at the back of the machine.



2. Connect the power cord to the wall outlet.



<u>3.</u> Press the main power switch.



The machine starts up.

<u>4.</u> Following the start screen, the language select screen appears. Select the language to use, and then press [Next].

		? (
Selec	ct the language.	
○ 日本語	English	
Français	O Deutsch	
🔘 Italiano	C Español	Next
Nederlands	🔘 Català	
Ceština	Dansk	
		0anc2130

5. The administrator password setting screen appears.If your customer change the password soon, go to step 6.If you want to skip this screen, go to step 7.



<u>6.</u> Press the [Set Up Now] and then press [Next]. Ask your customer to change the name of the administrator and the password as following.

1. Press the [Administrator 1] and the [Password] dialogue boxes, enter the name and the password respectively.

2. Enter the name and the password again for confirming, and then press [OK] to register them.

3. Go to step 8.

7. Press [Set Up Later], and then press [Next] according to the instructions on the screen.



<u>8.</u> The Installation Settings screen appears. Press [X].



9. The following message is displayed. Uncheck the check box, and then press [OK].



- **10.** The home screen appears.
- **<u>11.</u>** Set the machine setting with one of the following menus.
 - User Tools > Machine Features
 - User Tools > Basic Settings When Installing

Screen Features				
The hrightness sounds land	econes and system sett	inns for Screen devi	ce can be made.	
Machine Features Each application's features a	nd system settings of t	he machine can be s	et.	
Counter The total amount of printed	paper can be displayed	and printed out.		
Inquiry The contact information for	maintenance can be dis	played and printed o	sut.	
Address Book Manage The user information and de	ement stinations can be progra	ammed, changed an	d deleted.	
Tray Paper Settings Settings for the paper trave	vanar tuna and its size .r	an he made	_	
Basic Settings When I Settings required when inst	nstalling alling can be made easil			

🔀 Important

When [Set Up Later] on the administrator password setting screen in step 5 is selected, forcibly display the administrator password setting screen by the following procedure.

- 1. After the machine installation, enter the SP mode and execute the SP5-755-001 (Display Setting: Disp Administrator Password Change Scrn).
- 2. Power cycle the machine. The following Program/Change Administrator screen is displayed.



3. Ask your customer to set the supervisor and administrator password.

If the Administrator/Supervisor Login password set, this Program/Change Administrator screen will disappear and the home screen is displayed.

Vote

If a password is not necessary, this screen can be disabled with the following procedure.

- 1. On the Program/Change Administrator screen, press [Change] next to Supervisor and then press [OK] without inputting any password.
- 2. Press [OK] again when the Confirm password screen is displayed.
- 3. For Administrator 1, do the same procedure as steps 1 and 2.
- 4. Press [OK]. The home screen is displayed.

Printing a Configuration Page

After you have installed the machine or options, print the configuration page to check the machine status.

- 1. Press [User Tools].
- 2. Press [Machine Features].
- 3. Press [Printer Features].
- 4. Press [Configuration Page] on the [List / Test Print] tab.
- 5. Press [User Tools] on the top right of the screen.

Vote

• After installing the machine, configure the hard disk overwriting and data encryption settings. (Data Overwrite Security, HDD Encryption)

Moving the Machine

- It is dangerous to handle the power cord plug with wet hands. Doing so could result in electric shock.
- Unplug the power cord from the wall outlet before you move the machine. While moving the machine, take care that the power cord is not damaged under the machine. Failing to take these precautions could result in fire or electric shock.
- If you have to move the machine when the optional paper tray unit is attached, do not push on the main unit's top section. Doing so can cause the optional paper tray unit to detach, possibly resulting in injury.
- When disconnecting the power cord from the wall outlet, always pull the plug, not the cord. Pulling the cord can damage the power cord. Use of damaged power cords could result in fire or electric shock.
- The machine weighs approximately 30 kg (66.2 lb.). When moving the machine, use the inset grips on both sides, and lift slowly in pairs. The machine will break or cause injury if dropped.
- Do not hold the control panel while moving the machine. Doing so may damage the control panel, cause a malfunction, or result in injury.

🚼 Important 🔵

- Be careful when moving the machine. Take the following precautions:
- Close all covers and trays, including the front cover and bypass tray.
- If optional paper feed units are attached, remove them from the machine and move them separately.
- Keep the machine level and carry it carefully, taking care not to jolt or tip it. Rough handling may cause a malfunction or damage the hard disk or memory, resulting in loss of stored files.
- **<u>1.</u>** Be sure to check the following:

The main power is turned OFF.

The power cord is unplugged from the wall outlet.

The interface cable is unplugged from the machine.

- <u>2.</u> If optional paper feed units are attached, remove them.
- 3. Lift the machine using the inset grips on both sides of the machine. Then move it horizontally to the

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place where you want to use it.



Vote

Be sure to move the machine horizontally. To prevent toner from scattering, move the machine slowly.

4. If you removed the paper feed units, reattach them

External/ Internal Options

New/Common	Item	Target		Link
		Printer	MF	
		model	model	
New	Paper Feed Unit PB1120	\checkmark	\checkmark	Paper Feed Unit PB1120 (D3ER-
New	Paper Feed Unit PB1110	\checkmark	\checkmark	17)/ PB1110 (D3EQ-17)
New	Caster Table Type M34	\checkmark	\checkmark	Caster Table Type M34 (D3EP-
				03)
New	Offline Stapler Type M34		\checkmark	Offline Stapler Type M34 (D3EP-
				02)
Common	Handset HS1010		\checkmark	Refer to Field Service Manual
				"Fax Unit".
New	Hard Disk Drive Option	\checkmark		Hard Disk Drive Option Type P18
	Type P18			(M543-01)
Common	Optional Counter		\checkmark	Optional Counter Interface Unit
	Interface Unit Type M12			Type M12 (B870-21)
Common	NFC Card Reader Type		\checkmark	NFC Card Reader Type M27
	M27			(M502-10)
Common	Page Keeper Type M28		\checkmark	Page Keeper Type M28 (D3DQ-
				17)
Common	Enhanced Security HDD		\checkmark	Enhanced Security HDD Option
	Option Type M10			Type M10 (D792-09)

Paper Feed Unit PB1120 (D3ER-17)/ PB1110 (D3EQ-17)

To prevent personal injury or damage to the machine, always use two service technicians on opposite sides of the machine to lift the machine with the inset grips provided on both sides.

Number of Paper Feed Unit That Can Be Installed

- Up to three paper feed units can be installed with any combination of 250 sheets bank and 500 sheet bank.
- The caster table is required when installing three paper feed units.
- When using a printer/multi-function printer on a table, only one or two optional paper feed unit should be installed.

Printer model:



MF model:



Person who install:

🎝 : User

🟝: Customer engineer

Use on table



Use on the floor



Accessories

No.	Description	Q'ty
1	Installation Guide	1
2	Set Sheet	1
3	EMC Address	1
4	Decal CHN 10mm	1
5	Decal CHN Date 40mm	1

Installation Procedure

- When installing this option, turn the machine power OFF, and unplug the power supply cord from the wall socket.
- The printer weighs approximately (max.) 19 kg (41.9 lb.).
- The multi-function printer weighs approximately (max.) 30 kg (66.1 lb.).
- To prevent personal injury or damage to the machine, always use two service technicians on opposite sides of the machine to lift it the machine slowly with the inset grips provided on both sides.

Note

To attach two or three lower paper trays at the same time, first stack one paper tray on the other, and then attach them as a single unit.

- **<u>1.</u>** Remove the packaging from the paper feed unit.
- <u>2.</u> Lift the machine using the inset grips on both sides of the machine as shown.



<u>3.</u> There are three vertical pins on the optional paper feed unit. Align the pins with the holes on the underside of the machine, and then carefully lower the machine.



4. Plug in the power cord, and then turn on the machine.

5. Print the configuration page to confirm that the unit was attached correctly.

Vote

To confirm whether the optional paper feed unit is attached correctly, print the configuration page. Under the heading "Attached Equipment" on the configuration page, you should see "Tray 2", "Tray 3", "Tray 4" for the attached units.

Caster Table Type M34 (D3EP-03)

When installing two or more optional trays on the caster table, it is required to install by the customer engineer.

Accessories

No.	Description	Q'ty	Installation location
1	Plate A-1	1	Caster table - Paper feed unit (Front right)
2	Plate A-2	1	Caster table - Paper feed unit (Front left)
3	Plate B-1	1	Main machine - Paper feed unit (Rear left)
4	Plate B-2	2	Paper feed unit - Paper feed unit (Rear)
5	Spacer	1	Caster table - Paper feed unit (Rear right)
6	Plate C-1	1	Caster table - Paper feed unit (Rear right)
7	Plate C-2	1	Only used when installing three paper feed units.
8	Screw A (M4×8)	3	Caster table - Paper feed unit
9	Screw B (M3×6)	2	Paper feed unit, Main machine (Left side)
10	Screw C (M3x12)	1	Paper feed unit, Main machine (Right side)
-	Installation Guide	1	-



Installation Procedure

Refer to "Caster Table Type M34 Installation Guide" provided with the Caster Table.

Offline Stapler Type M34 (D3EP-02)

Accessories

No.	Description	Q'ty
1	Stapler unit cradle	1
2	Stapler	1
-	Caution Chart	1
-	Set Sheet	1
-	Installation Guide	1



Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation, always turn the main machine power off, and then unplug the machine power supply cord from the power source.

Important

Do not remove the offline stapler after pressing it to fix.

Do not hold the staple unit when you move the machine.

<u>1.</u> By using a coin, open the cover on the right side of the machine.



<u>2.</u> Fold outside the parts of the release paper that are not stuck to the double-sided tapes on the back of the staple unit cradle.

The adhesion of the release paper is strong, so it cannot be detached once it is affixed. Do not affix the release paper until Step 6.



<u>3.</u> Align the hole on the staple unit cradle to the bump that is on the right side of the machine, and then insert the screw into the screw hole.

If the right side of the machine is dirty, clean the surface before mounting the staple unit cradle on the machine.



4. Align the lines of both the machine and the staple unit cradle as shown in the illustration, and then

turn the screw until it stops.



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<u>5.</u> Pull out the pieces of release paper that were folded outside, and then press the staple unit cradle towards the machine.

Support the staple unit cradle with a hand so that it does not move when pulling out the release paper. Do not press the staple unit forcibly. The release paper may tear. Pull the release paper to the sides slowly. After removing the release paper, press forcibly on the staple unit cradle to fasten it to the machine.

After releasing the release paper, press forcibly on the staple unit cradle to fasten it to the machine.



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<u>6.</u> Insert the staple unit into the stapler unit cradle. Push the staple unit firmly into the back.



<u>7.</u> Turn the machine's power on.The power of the offline stapler also turns on.

Precautions During Use

- During repeated use, wait more than 3 sec. between stapling.
- When using the stapler never turn the main machine off or set it in the Energy Save Mode. This will cause the machine to stop, the stack may jam in the stapler and you will not be able to remove it.
- If paper becomes jammed in the stapler, remove the staple unit from its mount, set it on the machine again and turn on the machine. This will re-initialize stapler and you will be able to remove the jammed stack.
- The staple cartridge is removed by lifting, not pressing down, so if the cartridge is struck and disconnected, the staples past the point of disconnection cannot be lifted out. If this occurs the staple cartridge must be replaced.

Hard Disk Drive Option Type P18 (M543-01)

Accessories

No.	Description	Q'ty
1	Hard disk drive	1
2	Flat cable	1
3	Power cord	1
4	Screw	2
5	Inner cover	1
6	HDD cover	1



Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.

<u>1.</u> Remove the HDD cover.



<u>2.</u> Loosen the screw by using a coin, and then remove the inner cover.



<u>3.</u> Install the hard disk in the indicated position.



<u>4.</u> Connect the flat cable and power cord to the hard disk.



5. Align the upper protrusions on the hard disk into the notches on the machine, and then fasten the hard disk to the machine with the screw.



d0apc2028
<u>6.</u> Connect the flat cable and power cord to the board of the machine.



<u>7.</u> Insert the two protrusions of the supplied inner cover, and then the lower protrusion, into the notches on the machine.



8. Tighten the screw.



<u>9.</u> Attach the supplied HDD cover.



<u>10.</u> Plug in the power cord, and then turn on the machine.When you switch the power on, a message is displayed indicating that the external hard disk drive will be formatted.

<u>11.</u> Print the configuration page to confirm the installation

Note

If it is correctly installed, "Hard Disk" will appear for "Device Connection" on the configuration page.

Optional Counter Interface Unit Type M12 (B870-21)

Accessories

No.	Description	Q'ty	Remarks
1	PCB: MKB	1	
2	Harness (MB to MKB)	1	
3	Harness (MB to MKB)	1	Not used
4	Screws M3x6	4	Only two used
5	Standoffs	4	Not used
6	Clamp	1	Not used
7	Lock band	1	Not used
8	Relay harness	1	Not used



Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation, always turn the main machine power off, and then unplug the machine power supply cord from the power source.

<u>1.</u> Remove the paper cassette.

<u>2.</u> Open the front cover [A] by pressing the front cover open button.



<u>3.</u> Open the rear cover [A].



<u>4.</u> Remove the HDD cover [A] and the connector cover [B] and [C]. Remove the connector cover with a flathead screwdriver.



5. Remove the right cover [A].



Orx5

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6. Attach PCB: MKB [A].



7. Connect the harness of PCB: MKB CN3 (13 pin) [A] and to the connector on SCB CN205 [B], and

then clamp the harnesses.



NFC Card Reader Type M27 (M502-10)

Accessories

No.	Description	Q'ty
1	NFC card reader	1
2	USB cable	1
3	Double-sided tape	2
4	Decal	1
-	Cushion	1
-	Clamp	4
-	EMC address	1
-	Caution chart	1



d205z2220

Installation Procedure (1): USB Cable Exposed

To prevent injury from electrical shock or damage to the machine, before installation, always turn the main machine power off, and then unplug the machine power supply cord from the power source.

Vote

Two installation methods are described below.

- Installation Procedure (1) is more convenient as the USB cable exposed (**recommended**).
- If the customer prefers a tidy appearance, follow this alternate Installation Procedure (2) to conceal the USB cable inside the machine (Installation Procedure (2): USB Cable Inside the

Machine).

- 1. Open the SPDF.
- **<u>2.</u>** Remove the platen sheet [A]. Do not place the removed platen sheet on the exposure glass.



3. Release the tab [A] to remove the SPDF bottom cover [B].



<u>4.</u> Release the tab [A] to remove the harness cover [B].



5. At the back of the SPDF, slide the small cover [A] up and remove it.



<u>6.</u> If the thickness of the NFC card reader is 15.4 mm or less, set cushion [A] into the hole on the SPDF bottom cover. (The cushion is provided as an accessory with this option.)



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<u>7.</u> Attach the double-sided tapes [A] on the bottom of the SPDF beside the projection [B] as shown.



d0apc2061

8. Peel the double-sided tapes [A].



d0apc2062

9. Connect the USB cable [B] with the ferrite core to the NFC card reader [A].



10. Firmly fasten the NFC card reader [A] to the SPDF.



d0apc2064

<u>11.</u> Route the USB cable [A] between the tabs as shown below.



d0apc2065

- 12. Attach the SPDF bottom cover to the SPDF.
- 13. Attach the harness cover to the SPDF.

<u>14.</u> Using the rear, left corner as a reference point set the platen sheet [A] on the exposure glass.



- **<u>15.</u>** Close the SPDF to attach the platen sheet.
- **16.** From small cover [A] remove knock-out [B] to create a slot.



17. Pass the USB cable through the hole, and then attach the small cover [A].



d0apc2068

18. Remove the side cover [A] of the operation panel.



<u>19.</u> Connect the USB cable [A] to the operation panel.



<u>20.</u> Pass the USB cable through the hole, and then attach the side cover [A] of the operation panel.



- **<u>21.</u>** Put the three clamps on the right cover, and then fasten the USB cable [A] with them as shown below.
- **22.** Carefully, move the operation panel slowly up and down, and then lift the scanner at the rear, to make sure there is no tension on the USB cable.



<u>23.</u> Attach the decal as shown below.



Installation Procedure (2): USB Cable Inside the Machine

To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.

- 1. Open the SPDF.
- **<u>2.</u>** Remove the platen sheet [A]. Do not place the removed platen sheet on the exposure glass.



3. Release the tab [A] to remove the SPDF bottom cover [B].



d0apc2057

4. Release the tab [A] to remove the harness cover [B].



5. At the back of the SPDF, slide the small cover [A] up and remove it.



<u>6.</u> If the thickness of the NFC card reader is 15.4 mm or less, set cushion [A] into the hole on the SPDF bottom cover. (The cushion is provided as an accessory with this option.)



7. Attach the double-sided tapes [A] on the bottom of the SPDF beside projection [B] as shown.



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<u>8.</u> Peel the double-sided tapes [A].



<u>9.</u> Connect the USB cable [B] with the ferrite core to the NFC card reader [A].



10. Firmly fasten the NFC card reader [A] to the SPDF.



<u>11.</u> Route the USB cable [A] between the tabs as shown below.



- 12. Attach the SPDF bottom cover to the SPDF.
- 13. Attach the harness cover to the SPDF.
- **<u>14.</u>** Using the rear, left corner as a reference point set the platen sheet [A] on the exposure glass.



- **<u>15.</u>** Close the SPDF to attach the platen sheet.
- **16.** From small cover [A] remove knock-out [B] to create a slot.



17. Pass the USB cable through the hole, and then attach the small cover [A].



<u>18.</u> Remove the side cover [A] of the operation panel.



19. Connect the USB cable [A] to the operation panel.



20. Pass the USB cable through the hole, and then attach side cover [A] of the operation panel.



<u>21.</u> Remove the paper cassette.

22. Open the front cover [A] by pressing the front cover button.



<u>23.</u> Open the rear cover [A].



24. Remove the HDD cover [A] and the connector cover [B] and [C]. Use a flathead screwdriver to remove the connector cover [B].



<u>25.</u> Remove the right cover [A].



OPx5

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<u>26.</u> Fasten the USB cable [A] with four clamps on the machine.



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27. Remove the tabs from the right cover [A] to create cutouts. On the rear side, use the small tab.



28. Pass the USB cable through the cutouts, and then attach the right cover [A].



d0apc2201

29. Carefully, move the operation panel slowly up and down, and then lift the scanner at the rear, to make sure there is no tension on the USB cable.



d0apc2202

<u>30.</u> Attach the decal as shown below.



Page Keeper Type M28 (D3DQ-17)

This option is only for NA/EU.

Accessories

No.	Description	Q'ty	Remarks
1	Double-feed sensor: Receiver	1	
2	Ground plate: Receiver	1	
3	Double-feed sensor: Emitter	1	
4	Ground plate: Emitter	1	
5	Tapping Screws: 3x10	4	
6	Screw: M3x6	1	
7	Harness: Receiver	1	Long harness
8	Harness: Emitter	1	Short harness
9	Harness: Ground wire	1	



Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation always turn the main machine power off, and then unplug the machine power supply cord from the power source.

Removing the SPDF rear cover

<u>1.</u> Open the SPDF top cover [A].

<u>2.</u> Remove the screw, and then lift up the original tray [B].



<u>3.</u> Open the SPDF [A], and then release the five tabs of the SPDF rear cover by using a thin screwdriver.



4. Remove the SPDF rear cover [A].



5. Close the SPDF.

Removing the SPDF front cover

- **<u>1.</u>** Open the SPDF top cover [A].
- 2. Remove the screw, and then lift up the original tray [B].



<u>3.</u> Open the SPDF and then release the three tabs of the SPDF front cover [A].



d296c1105

<u>4.</u> Close the SPDF slightly and then remove the SPDF front cover [A] while releasing the two tabs with a thin screwdriver.



d0apc4121

Installing the double-feed sensor (emitter)

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



d0apc4122

2. Remove the SPDF inner cover [A].



Vote

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



<u>3.</u> Remove the guard [A].



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



d296c1122

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



Installing the double-feed sensor (receiver)

1. Disconnect the harness [A] of the SPDF top cover [B] from SPDF relay board (CN5) and then

release the clamp.



☞x1 🖏 x1

d296c1110

<u>2.</u> Remove the harness [A] from the harness guide.



3. Remove the SPDF top cover [A].



OP x1

d296c1111a

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



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



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



- d296c1126
- <u>7.</u> Attach the double-feed sensor (receiver) [A]. (Tapping screw: 3x10)

Route the harnesses [B]. <u>8.</u>



<u>9.</u> Reattach the inner cover (\Im x5), and then reattach the SPDF top cover (\Im x1). Vote

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



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



Connecting the harnesses

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

• Note

Connect with attention to the connector colors.

- Double-feed sensor: White connector

- SPDF relay board: Black connector



<u>2.</u> Connect the harnesses [A] from the SPDF top cover to the connectors of the SPDF relay board [B] (CN5, CN6).



<u>3.</u> Reattach the covers and original feed unit.

Note

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



d296c1124

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



d296c1123

After installing the double-feed sensor

- **<u>1.</u>** Connect the power cord and turn ON the main power.
- 2. Enter the SP mode.
- 3. Set the SP6-040-001 (Page Keeper: Mount Select) to "1(ON)".
- 4. Press [END] twice.
- **<u>5.</u>** Turn the main power OFF and ON.
- 6. Log in as Administrator.
- 7. Press the "User Tools" icon.
- 8. Press [Machine Features] > [System Settings] > [Administrator Tools].
- <u>9.</u> Check that [ADF Optional Double Feed Detection] is displayed.



Enhanced Security HDD Option Type M10 (D792-09)

This option is only for NA/EU.

Accessories

No.	Description	Q'ty	Remarks
1	Enhanced Security HDD	1	
-	EMC Address	1	
	d191b0076		

Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation always turn the main machine power off, and then unplug the machine power supply cord from the power source.

<u>1.</u> Remove the HDD cover [A].



<u>2.</u> Remove the screw, and open the HDD inner cover [A].



<u>3.</u> Remove the standard HDD [A] installed on the machine.



<u>4.</u> Separate the standard HDD [A] from the bracket.



©™x4

d0apc4606

5. Remove the enhanced security HDD from its protective packaging.



d191b0078

- 6. Fasten the HDD to the bracket.
- **7.** Install the HDD bracket in the controller box.
- **8.** Reassemble the machine.

After Installing the HDD

<u>1.</u> Connect the power cord and turn the machine on. A message prompts you to format the hard disk. Touch [Format].



2. Wait for the machine to finish formatting the hard disk.



Colmportant)

Do not touch the power switch while the hard disk format is in progress. Wait for the machine to tell you that the formatting is finished.



- 3. Turn the main power OFF and back ON again after the message tells you formatting is finished.
- 4. Enter the SP mode.
- 5. Turn the main power OFF and back ON again.
- **<u>6.</u>** Ask an administrator to register the HDD authentication code in the machine.

Comportant)

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

Controller Options

New/Common	Item	Target		Link
		Printer	MF	
		model	model	
Common	IEEE 1284 Interface	\checkmark	\checkmark	IEEE 1284 Interface Board Type
	Board Type M19			M19 (D3C0-17)
Common	IEEE 802.11 Interface	\checkmark	\checkmark	IEEE 802.11 Interface Unit Type
	Unit Type M24			M24 (M500-08)
Common	File Format Converter		\checkmark	File Format Converter Type M19
	Type M19			(D3BR-04)
Common	USB Device Server	\checkmark	\checkmark	USB Device Server Option Type
	Option Type M19A			M19A (D3BC-33, -34)
Common	Extended USB Board		\checkmark	Extended USB Board Type M19
	Туре М19			(D3BS-01)
IEEE 1284 Interface Board Type M19 (D3C0-17)

Accessories

No.		Description	Q'ty
1	IEEE 1284 Interface b	board	1
2	FCC document		1
3	Notes for Users		1
[1]	<text><text><text><text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text></text></text></text>	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	

Installation Procedure

- To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.
- To prevent damage to the circuits on the boards, always touch a metal surface to discharge static charge from your body before you handle a board.
- Never put your hand or a tool into the slot when you install an option.
- Loosen the two screws and remove the slot cover. The removed cover will not be reused.
 Printer model:





<u>2.</u> Fully insert the interface board. Confirm that the IEEE 1284 interface board is firmly connected to the controller board.

Printer model:



MF model:



- **<u>3.</u>** Tighten the two screws to secure the interface board.
- <u>4.</u> Plug in the power cord, and then turn on the machine.
- <u>5.</u> Print the configuration page to confirm that the board was attached correctly.
 Note

If it is correctly installed, "Parallel Interface" will appear for "Device Connection" on the configuration page. For information about printing the configuration page, see "List / Test Print", Print.

IEEE 802.11 Interface Unit Type M24 (M500-08)

Accessories

No.	Description	Q'ty
1	IEEE 802.11 Interface board	1
-	Notes for Users	1
-	EMC address	1
-	Caution chart	1



m0a0k1065

Installation Procedure

- To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.
- To prevent damage to the circuits on the boards, always touch a metal surface to discharge static charge from your body before you handle a board.
- Never put your hand or a tool into the slot when you install an option.

🚼 Important 🔵

- When using wireless LAN (IEEE802.11 b/g/n:2.4-GHz band), this radio product uses the 2.4-GHz band. Check that industrial, scientific and medical devices using the same frequency bands, such as a microwave oven or a cordless telephone, are not used nearby.
- If there is interference, communication may become unstable. Check that there are no devices likely to cause interference in the surrounding area.
- Loosen the two screws and remove the slot cover. The removed cover will not be reused.
 Printer model:



d0apc2033

MF model:



2. Fully insert the interface board. Confirm that the interface board is firmly connected to the controller board.

Printer model:





- 3. Tighten the two screws to secure the interface board.
- **<u>4.</u>** Plug in the power cord, and then turn on the machine.
- 5. Print the configuration page to confirm that the board was attached correctly.

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Note
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If it is correctly installed, "Wireless LAN" will appear for "Device Connection" on the configuration page.

User Tool Settings for IEEE 802.11a/g/n (Printer Model)

Enter the User Tools mode and perform the procedure below. These settings take effect every time the machine is turned ON.

Note

- IEEE 802.11a/g/n function is disabled when using Ethernet.
- 1. Press the [Menu] key.
- 2. Select [Host Interface], and then press the [OK] key.
- 3. Select [Network], and then press the [OK] key.
- 4. Select [LAN Type], and then press the [OK] key.
- 5. Select [Wireless LAN], and then press the [OK] key. (Default: Ethernet)
- 6. Press the [Escape] key.
- 7. Select [Wireless LAN], and then press the [OK] key.
- **<u>8.</u>** Select [Communication Mode], and then press the [OK] key.
- **<u>9.</u>** Specify the "Communication Mode", and then press the [OK] key. ("Ad hoc Mode", "Infrastructure Mode", and "Direct Connection Mode")
- **<u>10.</u>** Select [SSID Setting], and then press the [OK] key.
- **<u>11.</u>** Enter the "SSID setting". (The setting is case sensitive.) Press the [Accept] key when you finish entering the SSID.
- 12. When "Ad Hoc Mode" is selected, select [Ad-hoc Channel], and then press the [OK] key. Specify the "Ad-hoc Channel". The allowed range for the channel settings may vary for different countries.
 - For mainly Europe and Asia
 2412 2462 MHz (1 11 channels)

2.Installation

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

(default: 11)

Vote

- In some countries, only the following channels are available: 2412 2462 MHz (1 11 channels)
- For mainly North America 2412 - 2462 MHz (1 - 11 channels) 5180 - 5240 MHz (36, 40, 44 and 48 channels) (default: 11)
- 13. Select [Security Method], and then press the [OK] key.
- **14.** Specify the "Security Method" for encryption of the Wireless LAN. To not use security setting, select [No].
 - The "WEP" (Wired Equivalent Privacy) setting is for protecting wireless data transmission. The same WEP key is required on the receiving side in order to unlock encoded data. There are 64 bit and 128 bit WEP keys.
 - Range of Allowed Settings:
 64 bit: 10 characters
 128 bit: 26 characters
 - When "WPA2" is selected, authentication settings and certificate installation settings are required.

When "Ad Hoc Mode" is selected, you cannot select WPA2 as the security method.

- WPA2 Authent. Method: Select either "WPA2-PSK" or "WPA2".
 If you select "WPA2-PSK", enter the pre-shared key (PSK) of 8-63 characters in ASCII code.
- **15.** To check the connection status, enter [Wireless LAN Signal] in [Wireless LAN] and confirm the signal status.

Note

Press "Restore Factory Defaults" to initialize the wireless LAN settings.

User Tool Settings for IEEE 802.11a/g/n (MF Model)

Enter the User Tools mode and perform the procedure below. These settings take effect every time the machine is turned ON.

♦ Note

- IEEE 802.11a/g/n function is disabled when using Ethernet.
- 1. Press the [User Tools] icon.
- Select [Machine Features] > [System Settings] > [Interface Settings] > [Network] > [LAN Type] > [Wireless LAN] (Default: Ethernet)
- 3. Press [Wireless LAN].

102

- 4. Specify the "Communication Mode".
- 5. Enter the "SSID setting". (The setting is case sensitive.)
- **<u>6.</u>** Specify the "Ad-hoc Channel". You need this setting when Ad Hoc Mode is selected. The allowed range for the channel settings may vary for different countries.
 - For mainly Europe and Asia

2412 - 2462 MHz (1 - 11 channels)

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

(default: 11)

Note

- In some countries, only the following channels are available: 2412 2462 MHz (1 11 channels)
- For mainly North America
 - 2412 2462 MHz (1 11 channels)
 - 5180 5240 MHz (36, 40, 44 and 48 channels)

(default: 11)

- <u>7.</u> Specify the "Security Method" for encryption of the Wireless LAN.
 - The "WEP" (Wired Equivalent Privacy) setting is for protecting wireless data transmission. The same WEP key is required on the receiving side in order to unlock encoded data. There are 64 bit and 128 bit WEP keys.
 - Range of Allowed Settings:
 - 64 bit: 10 characters
 - 128 bit: 26 characters
 - When "WPA2" is selected, authentication settings and certificate installation settings are required.

When "Ad Hoc Mode" is selected, you cannot select WPA2 as the security method.

- WPA2 Authent. Method: Select either "WPA2-PSK" or "WPA2".
 If you select "WPA2-PSK", enter the pre-shared key (PSK) of 8-63 characters in ASCII code.
- **<u>8.</u>** Press "Wireless LAN Signal" to check the machine's radio wave status using the operation panel.
 - Press "Restore Factory Defaults" to initialize the wireless LAN settings.

SP Mode Settings for IEEE 802.11 Wireless LAN

The following SP commands and UP modes can be specified for IEEE 802.11

SP No.	Name	Function
SP5-	Channel MAX	Specifies the maximum range of the channel settings for the country.
840-006		
SP5-	Channel MIN	Specifies the minimum range of the channels settings allowed for

2.Installation

SP No.	Name	Function
840-007		your country.
SP5-	Transmission	Specifies the transmission speed.
840-008	Speed	Auto, 54 Mbps, 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9
		Mbps, 6 Mbps, 11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps (default: Auto).
SP5-	WEP Key Select	Used to select the WEP key (Default: 00).
840-011		
UP	Name	Function
mode	SSID	Used to confirm the current SSID setting.
	WEP Key	Used to confirm the current WEP key setting.
	WEP Mode	Used to show the maximum length of the string that can be used for
		the WEP Key entry.
	WPA2 Authent.	Used to confirm the current WPA authentication setting and
	Method	preshared key.

File Format Converter Type M19 (D3BR-04)

Accessories

No.	Description	Q'ty
1	File Format Converter board	1
2	Notes for Users	1



Installation procedure

- To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.
- To prevent damage to the circuits on the boards, always touch a metal surface to discharge static charge from your body before you handle a board.
- Never put your hand or a tool into the slot when you install an option.
- **<u>1.</u>** Loosen the two screws and remove the slot cover. The removed cover will not be reused.



2. Fully insert the file format converter. Confirm that the file format converter is firmly connected to the

2.Installation

controller board.



- 3. Tighten the two screws to secure the file format converter.
- **<u>4.</u>** Plug in the power cord, and then turn on the machine.
- 5. Print the configuration page to confirm that the board was attached correctly.

USB Device Server Option Type M19A (D3BC-33, -34)

Accessories

No.	Description	Q'ty
1	USB cable	1
2	Interface board	1
3	Ferrite core	2
4	Cable ties	2



d238m0666

Vote

Ethernet cable is not provided with this option.

Interface Board Surface



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

Note

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

What Do the LED Indicators Mean?

When the USB device server option is correctly installed and recognized by the main machine, the LED indicators light up under the following conditions.



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

Installation Procedure

- To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.
- To prevent damage to the circuits on the boards, always touch a metal surface to discharge static charge from your body before you handle a board.
- Never put your hand or a tool into the slot when you install an option.

Comportant)

- The USB Device Server Option has an IP address stored on the PCB. This is different from the machine's IP address. The IP address and other network settings of the USB Device Server Option must be configured after installing this option.
- Loosen the two screws and remove the slot cover. The removed cover will not be reused.
 Printer model:



d0apc2033

MF model:



<u>2.</u> Fully insert the interface board. Confirm that the interface board is firmly connected to the controller board.

Printer model:





- 3. Tighten the two screws to secure the interface board.
- 4. Connect the USB cable to the USB port (Type A) [A] of the USB Device Server Option.
- 5. Connect the USB cable to the USB port (Type B) [B] of the machine I/F.



MF model:



6. Loop the cable at a point 3 cm (approximately 1.2 inches) [A] from each end of the Ethernet cable,

 Image: All and All and

and attach the ferrite cores to the cable

<u>7.</u> (For North America only) Bind both cores with cable ties [A] as shown below.



d196z2302

<u>8.</u> Insert the Ethernet cable into the Ethernet port on this option.Printer model:



d0apc2043

MF model:



- 9. Insert the other end of the Ethernet cable to a PC for network settings.
- **10.** Plug in the power cord, and then turn on the machine.

Vote

- Do not unplug the USB cable while the machine is trying to identify the USB Device Server Option. If unplugged, connect the cable again.
- It may take between 30 seconds to 1 minute to finish identification (the LEDs on the Ethernet port of the option light up when identification is completed).
- **<u>11.</u>** To ensure that the machine recognizes the USB Device Server Option correctly, perform one of the following:
 - Access the option's IP address from a web browser.
 - Ping the option's IP address from a command prompt on a Windows PC in the same network as the main machine.

If the IP address cannot be found (DHCP server), use the MAC address. This is the number printed on the seal attached to the printed circuit board for the USB Device Server Option.



d196z2350

 Use "RX" + the option's MAC address and access a web browser. Example: http://RX0080926A3264

eron naena ne a				Canguages	@ Melp
Dates			Device St	atus	
fatural Satings				Device Biatus	System Status
	Printer Information				[Enlands]
steen Indormation	Printer Name	Raw Port No.	Queue	DPP deutination UR	L
	MP 3554	9100	lp	http://BX0080926/	\$3264:631:upp:1p

2. Ping "RX" + "MAC address" from the command prompt on a windows PC which is on the same network as the mainframe.

C:\Users' >Ping RX0080926A3264	
Pinging RX0080926A3264 [192.168.100.100] with 32 bytes of da Reply from 192.168.100.100: bytes=32 time=1ms TTL=255 Reply from 192.168.100.100: bytes=32 time<1ms TTL=255 Reply from 192.168.100.100: bytes=32 time<1ms TTL=255 Reply from 192.168.100.100: bytes=32 time<1ms TTL=255	ta:
Ping statistics for 192.168.100.100: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 0ms, Maximum = 1ms, Average = 0ms	

d196z2352

Vote

When installing the USB Device Server Option Type M19A, the installation status is not shown on the Configuration Page.

Notes for Energy Save Mode Setting

If the USB device server option is installed and the machine enters into the energy save mode, you cannot print because there will be a communication error. Follow the instructions below to prevent the machine from entering the energy save mode.

1. Enter SP mode, and then set SP5-191-001 (Power Setting: Power Str) to "0 (Off)".

IP Address Setting

This section describes how to manually specify an IP address for the USB device server option. Note that you can specify an IP address not only on the same network segment but also on a different network segment. This will enable you to share a single printer with devices in multiple networks.

2.Installation

😭 Important 🔵

- You cannot change the IP address of this option from the operation panel of the main machine. The setting must be done from a web browser on your PC.
- The network setting of this option is initially assigned as follows: IP address: 192.168.100.100 / Subnet mask: 255.255.255.0
- The network setting of your PC must be in the same network segment to change the network setting of this option.
- **<u>1.</u>** Make a note of the current network settings of your PC.
- 2. Change the IP address of your PC to [192.168.100.xxx (*0 255)].
- 3. Change the subnet mask of your PC to [255.255.255.0].
- 4. Open a web browser.
- 5. Type [http://192.168.100.100/] in the address bar.
- 6. Press the "Enter" key.

Note

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



d197f0134

- 8. Type [root] in the username text box, and click [OK].
- <u>9.</u> Input the [IP Address], [Subnet Mask] and [Default Gateway].

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

<u>10.</u> Specify other items if needed.

11. Press [Set]

- **<u>12.</u>** Close the web browser.
- **<u>13.</u>** Disconnect the Ethernet cable from the PC.
- **<u>14.</u>** Connect the Ethernet cable to a network device (such as a switching hub).
- **15.** Specify the IP address of the USB device server option in the printer driver that you are using.

Extended USB Board Type M19 (D3BS-01)

Accessories

No.	Description	Q'ty
1	Extended USB board	1
[1]		
	d238m0668	

Installation procedure

- To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.
- To prevent damage to the circuits on the boards, always touch a metal surface to discharge static charge from your body before you handle a board.
- Never put your hand or a tool into the slot when you install an option.
- **<u>1.</u>** Loosen the two screws and remove the slot cover. The removed cover will not be reused.



2. Fully insert the interface board. Confirm that the interface board is firmly connected to the controller

board.



- <u>3.</u> Tighten the two screws to secure the interface board.
- **<u>4.</u>** Plug in the power cord, and then turn on the machine.
- 5. Print the configuration page to confirm that the board was attached correctly.

SD Card Options

New/Common	Item	Target		Link	
		Printer	MF		
		model	model		
New	XPS Direct Print	\checkmark		XPS Direct Print Option Type P18	
	Option Type P18			(M543-11)/ M34 (D3EN-18, -19, -20)	
New	XPS Direct Print		\checkmark		
	Option Type M34				
New	IPDS Unit Type P18	\checkmark		IPDS Unit Type P18 (M543-07, -08,	
New	IPDS Unit Type M34		\checkmark	-09)/ M34 (D3EN-13, -14, -15)	
Common	OCR Unit Type M13		\checkmark	OCR Unit Type M13 (D3AC-23, -24,	
				-25)	
New	Postscript Unit Type	\checkmark		Postscript3 Unit Type P18 (M543-	
	P18			04, -05, -06)/ M34 (D3EN-10, -11, -	
New	Postscript Unit Type		\checkmark	12)	
	M34				
New	VM Card Type P18	\checkmark		VM Card Type P18 (D3EN-03, -04, -	
				05)	
Common	Data Overwrite		\checkmark	Data Overwrite Security Unit Type	
	Security Unit Type			M19 (D3BS-03)	
	M19				
New	FAX Connection Unit		\checkmark	Refer to Service Manual "Fax	
	Туре М34			Options"	

SD Card Appli Move

Overview

There are only two SD card slots (one of them is a service slot).

However, if multiple SD card applications are merged, three or more SD card applications can be used simultaneously.

The SD card merge function enables the use of three or more functions within the capacity of two SD cards by physically transferring the function of one SD card to other SD cards (all SD card options can be stored in two SD cards).

However, because SD card applications are licensed, an SD card license will be transferred to the target SD card after merging. The original SD card cannot be used even if it is inserted into the machine.

A process to prevent illegal copying is also performed.

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

Notes on Using the SD Merge Function

- The data necessary for authentication is transferred with the application program from an SD card to another SD card. Authentication fails if you try to use the SD card after you moved the application program from one card to another card.
- Do not use an SD card that has been used before for other purposes. Normal operation is not guaranteed when such an SD card is used.
- An SD card, which becomes empty after the data in it has been moved to another card, cannot be reused.
- Keep the empty source card (the card which has had its data moved to another card) by, for example, affixing it near the SD card slot using adhesive tape. This is for the following reasons:
 - The SD card can be the only proof that the user is licensed to use the application program.
 - You may need to check the SD card and its data to solve a problem in the future.

Note

Do not move OCR Unit to another SD card.

Move Exec

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

Content (1997)

 Do not turn ON the write protect switch of the system SD card or application SD card on the machine. If the write protect switch is ON, a download error (e.g. Error Code 44) will occur during a firmware upgrade or application merge.

2.Installation

- 1. Turn the power OFF.
- 2. Remove the SD card slot cover [A].



- **<u>3.</u>** Make sure that a target SD card is in SD Card Slot 1 [A] (Upper). The application program is moved to this SD card.
- Insert the source SD card with the application program into SD Card Slot 2 [B] (Lower).
 The application program is copied from this source SD card.



- 5. Turn the power ON.
- 6. Enter the SP mode.
- 7. Select SP5-873-001 (SD Card Appli Move: Move Exec).
- **<u>8.</u>** Follow the messages shown on the operation panel.
- 9. Turn the power OFF.
- 10. Remove the source SD card from SD Card Slot 2.
- 11. Attach the SD card slot cover.
- 12. Turn the power ON.
- 13. Check that the application programs run normally.

Undo Exec

"Undo Exec" (SP5-873-002) lets you move application programs from an SD card in SD Card Slot 1 (upper) back to the original SD card in SD Card Slot 2 (lower). You can use this program when, for example, you have mistakenly copied some programs by using Move Exec (SP5-873-001).

🔂 Important 🔵

• Do not turn ON the write protect switch of the system SD card or application SD card on the machine. If the write protect switch is ON, a download error (e.g. Error Code 44) will occur

during a firmware upgrade or application merge.

- **<u>1.</u>** Turn the power OFF.
- 2. Remove the SD card slot cover [A].



- 3. Insert the integrated SD card into Slot 1 [A] (Upper).
- 4. Insert the SD card which became empty after merging into Slot 2 [B] (Lower).



5. Turn the power ON.

- 6. Enter the SP mode.
- 7. Select SP5-873-002 (SD Card Appli Move: Undo Exec).
- 8. Follow the messages shown on the operation panel.
- 9. Turn the power OFF.
- **10.** Remove the SD card from SD Card Slot 2.
- **<u>11.</u>** Attach the SD card slot cover.
- **<u>12.</u>** Turn the power ON.
- 13. Check that the application has been deleted.

XPS Direct Print Option Type P18 (M543-11)/ M34 (D3EN-18, -19, -20)

Accessories

No.	Description	Q'ty
1	XPS Direct Print SD card	1
	595i900b	

Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.

Vote

When installing more than one SD card, perform the merge operation. (SD Card Appli Move)

<u>1.</u> Loosen the screw and remove the SD card slot cover.

Printer model:





<u>2.</u> Insert the SD card into the upper slot.Printer model:



MF model:



d0apc2050

3. Attach the SD card slot cover and fasten it. **Printer model:**



4. MF model:



- 5. Plug in the power cord, and then turn on the machine
- 6. Confirm that the SD card was installed correctly.

Note

Printer model: The name of the installed emulation card appears in the [Prioritize Emulation/Program] of [System Settings].

MF model: The name of the installed emulation card appears in the [Prioritize Emulation/Program] of [System Settings] under [Initial Settings of the Printer]

IPDS Unit Type P18 (M543-07, -08, -09)/ M34 (D3EN-13, -14, -15)

Accessories

No.	Description	Q'ty
1	IPDS Unit SD card	1
d595	і900Ь	

Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.

•Note

When installing more than one SD card, perform the merge operation. (SD Card Appli Move)

<u>1.</u> Loosen the screw and remove the SD card slot cover.

Printer model:





<u>2.</u> Insert the SD card into the upper slot.Printer model:





- d0apc2050
- 3. Attach the SD card slot cover and fasten it. **Printer model:**



MF model:



- 4. Plug in the power cord, and then turn on the machine
- 5. Confirm that the SD card was installed correctly.

Note

Printer model: The name of the installed emulation card appears in the [Prioritize Emulation/Program] of [System Settings].

MF model: The name of the installed emulation card appears in the [Prioritize Emulation/Program] of [System Settings] under [Initial Settings of the Printer]

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

Accessories

No.	Description	Q'ty
1	OCR Unit SD card	1
1 659	5і900Ь	

Overview of Searchable PDF Function

This option adds a searchable PDF function to the scanner function.

- With this option, OCR is performed on a document read with the scanner, and text data is embedded in the PDF. This enables PDF text browsing, automatic assignment of file names, and automatic alignment of document orientation.
- This option is provided as an SD card. When the SD card is installed on the machine, an icon for the function is added. It is not necessary to install any software on a PC.
- If this option is installed, various settings related to the searchable PDF function are available.
- OCR is performed is after reading of the document is completed (after it is read by the SPDF and output). After the reading is completed, the documents can be removed from the document glass or SPDF.
- Other functions, such as the copier and printer functions, can be used during OCR.

Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.

Note

When installing more than one SD card, perform the merge operation. (SD Card Appli Move)

1. Loosen the screw and remove the SD card slot cover.



2. Insert the SD card into the upper slot.



- **<u>3.</u>** Plug in the power cord, and then turn on the machine.
- **<u>4.</u>** Enter the SP mode, and then press "Enter" in SP5-878-004 (Option Setup: OCR Dictionary). The SD card ID is saved in the NVRAM, and the machine ID is recorded on the SD card.
- 5. When "operation complete" is displayed, press "Close".

Note

- If the installation is not successful, "Failed" is displayed.
- If the installation fails, perform the following steps.
- 1. Check whether it is a used SD card.
- 2. Turn the power OFF and repeat Steps 1 to 5.
- **<u>6.</u>** Power cycle the machine.
- 7. Press "Enter" in SP5-878-004 (Option Setup: OCR Dictionary).

Dictionary data is copied to the HDD.

• Note

- In the first execution, the SD card and the machine are linked.
- In the second execution, the OCR dictionary is copied onto the HDD.
- **<u>8.</u>** Turn off the machine, and then remove the SD card.

Comportant)

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

2.Installation

<u>9.</u> Attach the SD card slot cover and fasten it.



- 10. Turn on the machine.
- 11. Press [File Format / File Name] on the scanner function screen.
- 12. Check that [OCR setting] is displayed on the "File format / File Name" screen.

Note

- The searchable PDF function can be switched on/off on the [OCR Settings] screen after installing the OCR unit.
- If you want to use the searchable PDF function, select [On] for [OCR Settings]. (Default: [Off])

Recovery Procedure

When the OCR option is installed, the OCR function is saved on the HDD, and ID information on the SD card is saved in the NVRAM. Therefore, when replacing the HDD or NVRAM, this option must be reinstalled.

When storing the original SD card

- When only the HDD is replaced Reinstall using the original SD card.
- When only the NVRAM is replaced
 When performing upload/download of NVRAM data, reinstall using the original SD card.
 When not performing upload/download of NVRAM data, order and reinstall a new SD card (service part).
- When the HDD and NVRAM are replaced simultaneously Reinstall using the original SD card.

If the original SD card is lost

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

Postscript3 Unit Type P18 (M543-04, -05, -06)/ M34 (D3EN-10, -11, -12)

Accessories

No.	Description	Q'ty
1	Postscript3 Unit SD card	1
-	Decal: PS3	1



d595i900b

Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.

Vote

When installing more than one SD card, perform the merge operation. (SD Card Appli Move)

<u>1.</u> Loosen the screw and remove the SD card slot cover.

Printer model:





<u>2.</u> Insert the SD card into the upper slot.Printer model:





- d0apc2050
- 3. Attach the SD card slot cover and fasten it. **Printer model:**


MF model:



- 4. Plug in the power cord, and then turn on the machine
- 5. Confirm that the SD card was installed correctly.

✓Note

Printer model: The name of the installed emulation card appears in the [Prioritize Emulation/Program] of [System Settings].

MF model: The name of the installed emulation card appears in the [Prioritize Emulation/Program] of [System Settings] under [Initial Settings of the Printer]

<u>6.</u> Attach the decal [A] on the front cover as shown below.



VM Card Type P18 (D3EN-03, -04, -05)

Accessories

No.	Description	Q'ty
1	Java-VM SD card	1
d595i	900Ъ	

Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.

Vote

When installing more than one SD card, perform the merge operation. (SD Card Appli Move)

<u>1.</u> Loosen the screw and remove the SD card slot.



<u>2.</u> Insert the SD card into the lower slot.



3. Attach the SD card slot cover and fasten it.



- 4. Plug in the power cord, and then turn on the machine
- 5. Confirm that the SD card was installed correctly.

Note

[JavaTM] appears when you press the [Switch Functions] key.

Data Overwrite Security Unit Type M19 (D3BS-03)

Overview

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

The machine's hard disk stores all document data from the Copier, Printer, and Scanner functions. It also stores the data of users' Document Server and code counters, and the Address Book. To prevent data on the hard disk being leaked before disposing of the machine, you can overwrite all data stored on the hard disk (Erase All Memory). You can also automatically overwrite temporarily-stored data (Auto Erase Memory).

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

Before You Begin the Procedure

<u>1.</u> Confirm that the Data Overwrite Security unit SD card is the correct type for the machine. The correct type for this machine is "**Type M19**".

Content (1997)

- If you install any version other than "**Type M19**", you have to replace the NVRAM and do this installation procedure again.
- 2. Make sure that the following settings are not at their factory default values:
 - Supervisor login password
 - Administrator login name
 - Administrator login password

If any of these settings are at a factory default value, tell the customer these settings must be changed before you do the installation procedure.

<u>3.</u> Make sure that "Admin. Authentication" is ON.

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

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

<u>4.</u> Make sure that "Administrator Tools" is enabled (selected).

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

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

Accessories

No.	Description	Q'ty
1	SD card	1
-	Comments Sheet	1
-	Operating Instructions CD-ROM	1



d1351921

Seal Check and Removal

Check the factory seals on the box and make sure the tamper proof seals are not broken and the box unopened.

- **<u>1.</u>** Check the seals [A] on each corner of the box.
 - Make sure that a seal is attached to each corner.
 - The surfaces of the seals must be blank. If you see "VOID" on the seals, do not install the components in the box.
- **<u>2.</u>** If the surfaces of the seals do not show "VOID", remove them from the corners of the box.
- **<u>3.</u>** You can see the "VOID" marks [B] when you remove each seal. In this condition, they cannot be attached to the box again.



Installation Procedure

To prevent injury from electrical shock or damage to the machine, before installation always, turn the main machine power off, and then unplug the machine power supply cord from the power source.

Note

When installing more than one SD card, perform the merge operation. (SD Card Appli Move)

- **<u>1.</u>** Disconnect the network cable.
- 2. Loosen the screw and remove the SD card slot cover.



<u>3.</u> Insert the SD card into the upper slot.



4. Attach the SD card slot cover and fasten it.





- **<u>5.</u>** Turn the machine on.
- **<u>6.</u>** Enter the SP mode.
- **<u>7.</u>** Do this step only if you are installing the option on a machine that is already in use (not a new machine):
 - If the customer wishes to continue using the same hard disk, execute all three SP modes below.
 - SP5-801-014 (Clear DCS Setting)
 - SP5-832-001 (HDD Formatting (ALL))
 - SP5-832-002 (HDD Formatting (IMH))
 - If a customer wishes to replace the hard disk with a new one, execute SP5-801-014 only.
 Note

If the customer continues using the same hard disk, the overwriting of the data stored on the disk before the option is installed cannot be guaranteed. It is highly recommended to replace the hard disk with a new one.

- **<u>8.</u>** Set SP5-836-001 (Capture Function (0:Off 1:On)) to a value of 0 (disabled).
- <u>9.</u> Execute SP5-878-001 ([Option Setup: Data Overwrite Security).If the installation fails, "Installation failed" is displayed when this SP is executed.
- **10.** Print out the System Settings List and make sure that the option was installed successfully.
- **<u>11.</u>** Reconnect the network cable.
- **12.** Execute SP5-990-005 (SP print mode: Diagnostic Report).

Make sure to shut down and reboot the machine once before printing the SMC. Otherwise, the latest settings may not be collected when the SMC is printed.

- **13.** Make sure that ROM number "D3BC5757A" and firmware version "1.02" appear in both of the following areas on the report (they must match):
 - "ROM Number / Firmware Version" "HDD Format Option"
 - "Loading Program"

Configuring "Auto Erase Memory" (Performed by the Customer)

Refer to "Using Auto Erase Memory (MF Model)".

Security Settings

Security Function Installation

The machine contains the Security functions (Data Overwrite Security and HDD Encryption unit) in the controller board.

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

Note

• This method is recommended because there is no user data on the HDD yet (for example, Address Book data, image data).

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

😭 Important 🔵

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

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

Vote

• If encryption is enabled after data has been stored on the disk, or of the encryption key is changed, this process can take three and a half hours or more.

The machine cannot be operated while data is being encrypted.

Once the encryption process begins, it cannot be stopped.

Make sure that the machine's main power is not turned OFF while the encryption process is in progress. If the machine's main power is turned OFF while the encryption process is in progress, the HDD will be damaged and all data on it will be unusable. When the HDD is broken, you should replace the HDD.

Back up the encryption key, and ask your customer to keep the encryption key in a safe place. For backing up encryption key, refer to "Backing Up the Encryption Key (Printer Model)" or "Backing Up the Encryption Key (MF Model)". If the encryption key is lost and is needed, refer to "Encryption Key Restoration".

Please use the following procedure when the Data Overwrite Security and HDD Encryption are reinstalled.

Data Overwrite Security

Before You Begin the Procedure

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

- (1) Supervisor login password
- (2) Administrator login name
- (3) Administrator login password

If any of these settings are at a factory default value, tell the customer these settings must be changed before you do the installation procedure.

2. Make sure that "Admin. Authentication" is ON and "Available Settings" is selected.

Printer model:

You can specify administrator privileges using Web Image Monitor from networked computers.

- (1) Login the Web Image Monitor as the administrator.
- (2) Point to [Device Management], and then click [Configuration].
- (3) Click [Administrator Authentication Management] under "Device Settings".
- (4) Make sure that the administrator authentication setting is [On].

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

MF model:

(1) [User Tools] icon > [Machine Features] > [System Settings] > [Administrator Tools] >

[Administrator Authentication Management] > [Admin. Authentication] > [On]

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

(2) [User Tools] icon > [Machine Features] > [System Settings] > [Administrator Tools] >

[Administrator Authentication Management] > [Available Settings]

When [Admin. Authentication] set to [On], "Available Settings" appears.

If this setting is not selected, tell the customer that this setting must be selected before you can do the installation procedure.

Using Auto Erase Memory (Printer Model)

The Auto Erase Memory function can be enabled by the following procedure.

A print data sent from a printer driver is temporarily stored on the machine's hard disk when the optional hard disk is installed. Even after the job is completed, it remains on the hard disk as temporary data. Auto Erase Memory erases the temporary data on the hard disk by overwriting it.

- 1. Press the [Menu] key.
- **<u>2.</u>** Log in as the machine administrator.
- 3. Select [Security Options], and then press the [OK] key.



- <u>4.</u> Select [Auto Erase Memory Setting], and then press the [OK] key.
- 5. Select [On].
- 6. Press the selection key beneath [HDDErase], and then select the method of overwriting as follows:

Method of	Description	
overwriting		
NSA	Temporary data is overwritten twice with random numbers and once with	
	zeros.	
DoD	Each item of data is overwritten by a random number, then by its	
	complement, then by another random number, and is then verified.	
Random	Temporary data is overwritten multiple times with random numbers. The	
Numbers	number of overwrites can be selected from 1 to 9. (Default: 3)	

- 7. Press the [OK] key.
- 8. Log out.
 - Vote

When Auto Erase Memory is enabled, you can use the Memory Erase Status screen to find out whether there is any data to be erased in the memory.

- 1. Press the [Menu] key.
- 2. Select [Memory Erase Status], and then press the [OK] key.
- 3. "Currently no data to erase" appears.

Using Auto Erase Memory (MF Model)

The Auto Erase Memory function can be enabled by the following procedure.

- **<u>1.</u>** Log in as the machine administrator from the operation panel.
- 2. Press the [User Tools] icon.
- 3. Press [Machine Features].
- 4. Press [System Settings].
- 5. Press [Administrator Tools].
- 6. Press [Next] three times.
- 7. Press [Auto Erase Memory Setting].

🕸 System Settings					
General Features	Tray Paper Settings	Timer Settings	Interfa Settir	ace Igs	f Tra
Service	Service Mode Lock Off Detect Da				
Firmware Version				Unauth	
Network Security Level		Level O		Unaut	horize
Auto Erase Memory Setting Off					Unauth
Erase All Memory					
Delete All Logs			148		

- <u>8.</u> Press [On].
- 9. Select the method of overwriting.



Method of	Description	
overwriting		
NSA	Temporary data is overwritten twice with random numbers and once with	
	zeros.	
DoD	Each item of data is overwritten by a random number, then by its	
	complement, then by another random number, and is then verified.	
Random	Temporary data is overwritten multiple times with random numbers. The	
Numbers	number of overwrites can be selected from 1 to 9. (Default: 3)	

If you select [NSA] or [DoD], proceed to step 12.

If you select [Random Numbers], proceed to step 10.

- 10. Press [Change].
- 11. Enter the number of times that you want to overwrite using the number keys, and then press [#].
- 12. Press [OK]. Auto Erase Memory is set.
- 13. Log out.
- **14.** Check the display and make sure that the overwrite erase icon appears.
- 15. Check the overwrite erase icon.

The icon [1] is lit when there is temporary data to be overwritten and blinks during overwriting.

The icon [2] is lit when there is no temporary data to be overwritten.



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

HDD Encryption

Before You Begin the Procedure:

- **<u>1.</u>** Make sure that the following settings are not at their factory default values:
 - Supervisor login password
 - Administrator login name
 - Administrator login password

If any of these settings are at a factory default value, tell the customer these settings must be changed before you do the installation procedure.

<u>2.</u> Make sure that "Admin. Authentication" is ON and "Administrator Tools" is enabled (selected). Printer model:

1. Open a web browser from a networked computer, and then log in to Web Image Monitor as the administrator.

- 2. Point to [Device Management], and then click [Configuration].
- 3. Click [Administrator Authentication Management] under "Device Settings".

4. From [User Administrator Authentication], [Machine Administrator Authentication], [Network Administrator Authentication], and [File Administrator Authentication], select the administrator authentication setting to [On], and then click [OK].

MF model:

1. Set "Admin. Authentication" to [On].

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

2. Select the settings to manage from "Available Settings".

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

•Note

If these settings are disabled, ask the customer these settings must be enabled before you do the installation procedure.

Enable Encryption Setting (Printer Model)

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

Comportant 🔿

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

- 1. Press the [Menu] key.
- **<u>2.</u>** Log in as the machine administrator from the operation panel.
- 3. Select [Security Options], and then press the [OK] key.



- <u>4.</u> Select [Machine Data Encryption], and then press the [OK] key.
- 5. Make sure that [Encrypt] is selected, and then press the [OK] key.
- **<u>6.</u>** When the optional hard disk is installed, select the data to be carried over to the hard disk and not be reset, and then press the [OK] key.

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

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

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

<u>7.</u> Select how to back up the encryption key.



If you have selected [SD Card], insert an SD card into the upper media slot on the back of the machine and press the [OK] key to back up the machine's data encryption key. If you have selected [PrtOnPpr], press the [Print] key. Print out the machine's data encryption key, and then press the [Exit] key.

- 8. Press [Exit].
- 9. Log out.
- **10.** Power cycle the machine.

The machine will start to convert the data on the memory. Wait until the message "Memory conversion complete. Turn the main power switch off." appears, and then turn the machine off again.

Enable Encryption Setting (MF Model)

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

Comportant)

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

- **<u>1.</u>** Log in as the machine administrator from the operation panel.
- 2. Press the [User Tools] icon.
- 3. Press [Machine Features].
- 4. Press [System Settings].
- 5. Press [Administrator Tools].
- 6. Press [Next] three times.
- 7. Press [Machine Data Encryption Settings].



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8. Press [Encrypt].



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

System Settings			Exit
General Tray Paper	Machine Data Encryption Set	tings: Carry Over / Format	Exit
Features V Settings	Carry over all data or f data.	ile system data only (without	formatting), or format all
Fixed USB Port	All Data	File System Data Only	Format All Data
Program / Change / Dele			
Machine Data Encryption			
Logged in: Machine Administrator	Syst	tem Status 🛛 Job List	27 MAY 2010 20:19
			d1420093

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

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

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

10. Select the backup method.

Select the method to back up the new machine data encryption key. Insert an SD card into the front slot to save the data.
Cancel Save to SD Card Print on Paper
dOapc2146

If you have selected [Save to SD Card], load an SD card into the media slot on the side of the control panel and press [OK] to back up the machine's data encryption key.

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

- 11. Press [Exit].
- 12. Press [Exit].
- 13. Log out.
- **<u>14.</u>** Power cycle the machine.

The machine will start to convert the data on the memory. Wait until the message "Memory conversion complete. Turn the main power switch off." appears, and then turn the machine off again.

Backing Up the Encryption Key (Printer Model)

The encryption key can be backed up. Select whether to save it to an SD card or to print it.

Important

The encryption key is required for data recovery if the machine malfunctions. Be sure to store the encryption key safely for retrieving backup data.

- 1. Press the [Menu] key.
- **<u>2.</u>** Log in as the machine administrator from the operation panel.
- 3. Select [Security Options], and then press the [OK] key.



- <u>4.</u> Select [Machine Data Encryption], and then press the [OK] key.
- 5. select [Back Up Encryption Key], and then press the [OK] key.
- **<u>6.</u>** Select how to back up the encryption key.

Select t up the c data enc	he method to back urrent machine ryption key.	
Cancel	SD Card PrtOnPp	r
	d0apc214	15

If you have selected [SD Card], insert an SD card into the upper slot on the back of the machine and press the [OK] key to back up the machine's data encryption key.

If you have selected [PrtOnPpr], press the [Start] key. Print out the machine's data encryption key and then press the [Exit] key.

- 7. Press [Exit].
- <u>8.</u> Log out.

Backing Up the Encryption Key (MF Model)

The encryption key can be backed up. Select whether to save it to an SD card or to print it.

Comportant)

The encryption key is required for data recovery if the machine malfunctions. Be sure to store the encryption key safely for retrieving backup data.

- **<u>1.</u>** Log in as the machine administrator from the operation panel.
- 2. Press the [User Tools] icon.
- 3. Press [Machine Features].
- 4. Press [System Settings].
- 5. Press [Administrator Tools].
- 6. Press [Next] three times.

- 7. Press [Machine Data Encryption Settings].
- 8. Press [Print Encryption Key].



- w_d1822515
- 9. Select the backup method.

Select the machine da SD card int data.	method to back up ata encryption key. to the front slot to	the current Insert an save the
Cancel	Save to SD Card	Print on Paper
		d0apc2147

If you have selected [Save to SD Card], load an SD card into the media slot on the side of the operation panel and press [OK] to backed up the machine's data encryption key.

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

10. Press [Exit].

11. Log out.

Encryption Key Restoration

How to restore the old encryption key to the machine

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



To do this, follow the procedure below.

- 1. Prepare an SD card that has been initialized in FAT16 format.
- 2. Using a PC, create a folder in the SD card and name it "restore_key".

- 3. Create a folder in the "restore_key" folder and name it the same as machine's serial number, "xxxxxxxxxx" (11 digits).
- 4. Create a text file called "key_xxxxxxxx.txt" and save it in the "xxxxxxxxx* folder. Write the encryption key in the text file.

/restore_key/xxxxxxxx/key_xxxxxxx.txt

Note

- Ask an Administrator to enter the encryption key. The key has already been printed out by the user and may have been saved in the "key_xxxxxxxxxtt" file. (The function of back-up the encryption key to the SD card directly is provided 11A products or later.)
- 5. Turn the machine on.
- 6. Confirm that a message is displayed on the LCD telling to insert the SD card that contains the encryption key.
- 7. Turn the machine off.
- 8. Insert the SD card that contains the encryption key into the lower media slot on the back of the machine.
- 9. Turn the machine on.

Note

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

- 10. Turn the machine off when the machine has returned to normal status.
- 11. Remove the SD card from the media slot.

How to do a forced startup with no encryption key

If the encryption key back-up has been lost, follow the procedure below to do a forced start-up.

Comportant 🔿

- The HDD will be formatted after the forced start-up.
- Encrypted data will be deleted.
- User settings will be cleared.
- 1. Prepare an SD card.
- Create a directory named "restore_key" inside the root directory of the SD card. Then, save the "nvram_key.txt" file using the following name:

/restore_key/nvram_key.txt

3. Create a text file and write "nvclear".

Comportant)

- Write this string at the head of the file.
- Use all lower-case letters.
- Do not use quotation marks or blank spaces.
- It is judged that a forced start has been selected when the content of "nvclear" is executed and the machine shifts to the alternate system (forced start).

- 4. Confirm that a message is displayed on the LCD telling to insert the SD card that contains the encryption key.
- 5. Turn the machine off.
- 6. Insert the SD card that contains the encryption key into the lower media slot on the back of the machine.
- 7. Turn the machine on.

The machine automatically clears the HDD encryption.

- 8. Turn OFF the main power when the machine has returned to normal status.
- 9. Remove the SD card from the media slot.
- 10. Turn the machine on.
- 11. Memory clear SP5-801-xx (Exclude SP-5-801-001: All Clear and SP-5-801-002: Engine), and clear SP5-846-046: the address book.
- 12. Set necessary user settings in User Tools key.

SP descriptions

- SP5-878-002 (Option Setup: HDD Encryption) Executes the setup for encryption.
- SP5-990-005 (SP Print Mode: Diagnostic Report)

Prints the configuration sheets of the system and user settings: SMC. Make sure to shut down and reboot the machine once before printing the SMC. Otherwise, the latest settings may not be collected when the SMC is printed.

• SP5-801-001 (Memory Clear: All Clear)

Resets all correction data for process control and all software counters, and returns all modes and adjustments to their default values.

• SP5-801-002 (Memory Clear: Engine)

Clears non-volatile memory of engine.

• SP5-846-046 (UCS Setting: Addr Book Media)

Displays the slot number where an address book data is in.

- 0: Unconfirmed
- 1: SD Slot 1
- 2: SD Slot 2
- 3: SD Slot 3
- 4: USB Flash ROM
- 10: SD Slot 10
- 20: HDD
- 30: Nothing

Settings for @Remote Service

Vote

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

Points to Check Before Making @Remote Settings

- 1. The setting of SP5-816-201 in the machine must be "0".
- 2. Print the SMC with SP5-990-002 and then check if a device ID2 (SP5-811-003) must be correctly programmed.
 - 6 spaces must be put between the 3-digit prefix and the following 8-digit number (e.g. xxx_____xxxxxxx).
 - ID2 (SP5-811-003) and the serial number (SP5-811-001) must be the same (e.g. ID2: A01____23456789 = serial No. A0123456789)
 - Make sure to shut down and reboot the machine once before printing the SMC. Otherwise, the latest settings may not be collected when the SMC is printed.
- <u>3.</u> The following settings must be correctly programmed.
 - Use Proxy (SP5-816-062) set to "1: Use".
 - Proxy server IP address (SP5-816-063)
 - Proxy server Port number (SP5-816-064)
 - Proxy User ID (SP5-816-065)
 - Proxy Password (SP5-816-066)
- **<u>4.</u>** Get a Request Number.

SP descriptions

• SP5-816-201 (Remote Service: Regist Status)

Displays a number that indicates the status of the @Remote service device.

0: Neither the registered device by the external nor embedded RCG device is set.

1: The embedded RCG device is being set. Only Box registration is completed. In this status, this unit cannot answer a polling request from the external RCG.

2: The embedded RCG device is set. In this status, the external RCG unit cannot answer a polling request.

3: The registered device by the external RCG is being set. In this status, the embedded RCG device cannot be set.

4: The registered module by the external RCG has not started.

• SP5-990-002 (SP Print Mode: SP Mode Data List)

Prints the configuration sheets of the system and user settings: SMC.

Make sure to shut down and reboot the machine once before printing the SMC. Otherwise, the latest settings may not be collected when the SMC is printed.

• SP5-811-003 (Machine No. Setting: ID2 Code Display)

Sets the ID-2 code used to identify the @remote device at installation.

• SP5-816-062 (Remote Service: Use Proxy)

0: Not use

1: Use

This SP setting determines if the proxy server is used when the machine communicates with the service center.

• SP5-816-063 (Remote Service: Proxy server IP address)

This SP sets the address of the proxy server used for communication between the RCG device and the gateway. Use this SP to set up or display the customer proxy server address.

The address is necessary to set up the embedded RCG-N.

The address display is limited to 127 characters. Characters beyond the 127 characters are ignored.

This address is customer information and is not printed in the SMC report.

• SP5-816-064 (Remote Service: Proxy server Port number)

This SP sets the port number of the proxy server used for communication between the embedded RCG-N and the gateway. This setting is necessary to set up the embedded RC Gate-N. This port number is customer information and is not printed in the SMC report.

• SP5-816-065 (Remote Service: Proxy User ID)

This SP sets the HTTP proxy certification username.

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.

• SP5-816-066 (Remote Service: Proxy Password)

This SP sets the HTTP proxy certification password.

The length of the password is limited to 31 characters. Any character beyond the 31st character is ignored.

This name is customer information and is not printed in the SMC report.

Execute the @Remote Settings

- **<u>1.</u>** Enter the SP mode.
- **<u>2.</u>** Using SP5-816-202, input the request number which you have obtained from @Remote Center GUI, and then enter [OK].
- 3. Confirm the request number, and then execute SP5-816-203.
- 4. Check the confirmation result using SP5-816-204.

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

Value	Meaning	Solution/ Workaround
3	Communication error (proxy	Check the network condition.
	enabled)	
4	Communication error (proxy	Check the network condition.
	disabled)	
5	Proxy error (authentication error)	Check Proxy username and password.
8	Other error	See "SP5816-208 Error Codes" below this.
9	Request number confirmation	Processing Please wait.
	executing	
20	Dial-up authentication error	* These errors occur only in the modems that
21	Answer tone detection error	support @Remote.
22	Carrier detection error	
23	Invalid setting value (modem)	
24	Low power supply current	
25	unplugged modem	
26	Busy line	

- **<u>5.</u>** Using SP5-816-205, check that the screen displays the location Information only when it has been input at the Center GUI.
- **<u>6.</u>** Execute the registration with SP5-816-206.
- 7. Check the registration result using SP5-816-207

Value	Meaning	Solution/ Workaround
0	Succeeded	-
1	Request number error	Check the request number again.
3	Communication error (proxy	Check the network condition.
	enabled)	
4	Communication error (proxy	Check the network condition.
	disabled)	
5	Proxy error (Authentication error)	Check Proxy username and password.
8	Other error	See "SP5-816-208 Error Codes" below this.
9	Request number confirmation	Processing Please wait.
	executing	
20	Dial-up authentication error	* These errors occur only in the modems that
21	Answer tone detection error	support @Remote.
22	Carrier detection error	
23	Invalid setting value (modem)	
24	Low power supply current	
25	unplugged modem	
26	Busy line	

<u>8.</u> Exit the SP mode.

SP5-816-208 Error Codes

Caused by Operation Error, Incorrect Setting

Code	Meaning	Solution/ Workaround
-	An Inquiry or registration attempted without	Obtain a Request Number before
12002	acquiring a request number.	inquiry or registration.
-	Attempted registration without execution of a	Perform Confirmation before
12003	confirmation and no previous registration.	attempting registration.
-	Attempted setting with illegal entries for	Check ID2 of the machine.
12004	certification and ID2.	
-	@Remote communication is prohibited. The	Make sure that "Remote Service" in
12005	device has an Embedded RC gate-related	User Tools is set to "Do not prohibit".
	problem.	
-	A confirmation request was made after the	Execute registration.
12006	confirmation had been already completed.	
-	The request number used at registration was	Check the request number.
12007	different from the one used at confirmation.	
-	Update certification failed because mainframe was	Check the machine status. If the
12008	in use.	machine is in use, try again later.
-	The ID2 in the NVRAM does not match the ID2 in	Check ID2 of the machine.
12009	the individual certification.	
-	The certification area is not initialized.	Initialize the certification area.
12010		

Error Caused by Response from GW URL

Code	Meaning	Solution/ Workaround
-2385	Other error	
-2387	Not supported at the Service Center	
-2389	Database out of service	
-2390	Program out of service	
-2391	Two registrations for the same machine	Check the registration condition of the machine
-2392	Parameter error	
-2393	External RCG not managed	
-2394	Machine not managed	
-2395	Box ID for external RCG is illegal.	
-2396	Mainframe ID for external RCG is illegal.	
-2397	Incorrect ID2 format	Check the ID2 of the machine.
-2398	Incorrect request number format	Check the request number.

SP descriptions

- SP5-816-202 (Remote Service: Letter Number) Allows entry of the number of the request needed for the RCG-N device.
- SP5-816-203 (Remote Service: Confirm Execute) Executes the inquiry request to the @Remote GW URL.
- SP5-816-204 (Remote Service: Confirm Result)) Displays a number that indicates the result of the inquiry executed with SP5816 203.
- SP5-816-205 (Remote Service: Confirm Place) Displays the installed section informed from G/W for the response of request number inquiry if the section is enrolled on the G/W.
- SP5-816-206 (Remote Service: Register Execute) Executes "Embedded RCG Registration".
- SP5-816-207 (Remote Service: Register Result) Displays a number that indicates the registration result.

Auto Remote Firmware Update (ARFU) Settings

Specify ARFU settings as required.

Content Conten

Operating Conditions:

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

Vote

• The connection is one-way, so the user's data cannot be accessed from the firmware server.

Procedure:

- 1. ARFU enable setting
- 2. Server connection check
- 3. Prohibited date and time setting

(1) Enable ARFU

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

1: ON / 0: OFF (Default)

Vote

To download the firmware only using SFU (Smart Firmware Update), and not by ARFU, specify the settings as follows:

- SP5-886-111(Auto Update Setting) to "0 (OFF)"
- SP5-886-115 (SFU Auto Download Setting) to "1 (ON)"

(2) Server connection check

- **<u>1.</u>** Enter the SP mode.
- 2. Press [Firmware update] > [Update] > [Execute update].

[Execute Update	
	Updated Package Information	
	Back	
·		d238m0986e

<u>3.</u> Check if one of the following messages appears: "Will you download the latest package Ver *** and update?" or "The installed package is the latest version.".

If the message appears, it is possible to execute ARFU. Press "No" and close SP mode to

complete the configuration.

Contract Important

The update will run immediately if you press "Yes" at the message "Will you download the latest package Ver *** and update?" The update cannot be canceled if it is run by SFU. (The update can be canceled if ARFU is used.)

Vote

SP5-886-116 (Auto Update Prohibit Term Setting) displays the scheduled date and time of the next ARFU.

If error code 71: [Network connection error] appears when you click "Execute update", see troubleshooting below.

(3) Prohibited date and time setting

Ask the customer for the prohibited times and days of the week for ARFU execution and set the following as needed. The default prohibited time is from 9 a.m. to 5 p.m. and there is no prohibited day.

- SP5-886-112 (Auto Update Prohibit Term Setting) Default: 1 (ON)
- SP5-886-113 (Auto Update Prohibit Start hour) Default: 9
- SP5-886-114 (Auto Update Prohibit End hour) Default: 17
- SP5-886-120 (Auto Update Prohibit Day Of Week Setting) Default: 00000000 [00H] Set the bits for the days of the week to prohibit updating. Prohibited (Monday - Sunday): bit 7, Monday: bit 6, Tuesday: bit 5
 - Wednesday: bit 4, Thursday: bit 3, Friday: bit 2, Saturday: bit 1, Sunday: bit 0
 - e.g.) Prohibited on Mon., Fri., Sat., and Sun.: 01000111 [47H]

•Note

They can be specified also via Web Image Monitor if logged in as the machine administrator from the device if SP5-886-111(Auto Update Setting) is set to "1 (ON)". For details, see Specifying the Time and Day of the Week to Prohibit Updating via Web Image Monitor.

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

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

- 4-1. IPv4 address, Subnet mask of the machine and Gateway IPv4 address
- 4-2. IPv4 address of the DNS server
- 4-3. Proxy server settings
- 4-4. Encryption level setting SP

4-1. IPv4 address, Subnet mask of the machine and Gateway IPv4 address

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

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

						L C
System Settings	ē		Exit	R	eset	
General Features Settings	Timer Settings	File Administrat Transfer Tools	tor	1	2	3
Network			Print List	4	5	6
Machine IPv4 Address	Auto-Obtain	DNS Configuration	Auto-Obtain	7	8	9
Pv4 Gateway Address	133.139.166. 1	DDNS Configuration	Active		Ľ	
Machine IPv6 Ad	dress	Psec	Inactive	/*	0	#
IPv6 Gateway Address		Domain Name	SSD_ohmori,ricc		<u> </u>	
IPv6 Stateless Address Autoconfiguration	n Active	WINS Configuration	On		J	
DHCPv6 Configur	ation	Effective Proto	col			
		1/2 🔺	▼ Next			
Check Status	<u>رہ</u>	<u> </u>		n 💿	St n0ajr	_{рр} n033
🔹 System Sett	ings				Exit	
Machine IPv4 Address			Cano	el	OK	
Select item.						
Auto-Obtain (DHCP)	Specify	►M	AC Address	00:26:73:	c0:6d	:8a
Machine IPv4 Address	133.139.166. 4	47				
►Subnet Mask	255.255.255.	0				

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4-2. IPv4 address of the DNS server

Check the DNS IPv4 address and check the connection.

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

Features Settin	es Settings	Settings	File Administr Transfer Tools	ator		2	2
Network		_		Print List	4	5	6
Machine IPv4 Addr	ess Auto-Obta	n 📃	DNS Configuration	Auto-Obtain	7	8	9
IPv4 Gateway Add	ress 155.159.1	66. 1	UUNE Configuration	Active	7*	0	#
Prachine IPv6 Gateway Addr	IPVO Address		Domain Name	SSD, ohmori, rico.			
Pv6 Stateliess Address Autoco	orfiguration Active		WINS Configuration	On	C	J	
DHOPv6	Configuration		Effective Pro	tocol]		
			1/2 🔺	Thread Vert]		

Vote

How to find the IP address:

Ask the customer to tell you the IP address of the DNS server. If the customer does not know it, ask the customer to check the IP address by one of the following ways:

1. Run "ipconfig / all" at the command prompt on the computer, then check the IP address of the DNS server.

2. Open the IPv4 properties dialog box on the computer, then check whether the IP address setting of

the DNS server is manual or automatic.

- If the setting of the DNS IP address is automatic, select [Auto-Obtain (DHCP)] at the MFP machine's DNS settings.
- If the setting of the DNS IP address is manual, select [Specify] and specify the DNS server 1 to 3.
- Press [Connection Test] to check the connection with the input address. Make sure that it is connected successfully.



4-3. Proxy server settings

Check the user's network environment and, as required, specify the proxy server settings in the following SPs:

- SP5-816-062 (Use Proxy)
 - 1: Used / 0: Not used
- SP5-816-063 (Proxy Host)
- SP5-816-064 (Proxy PortNumber)
- SP5-816-065 (Proxy User Name)
- SP5-816-066 (Proxy Password)

Comportant)

If access to the external server is restricted, request the network administrator (customer) to permit the following FQDN name for communication. - FQDN: p-rfu-ds2.support.ricoh.com

Vote

They can be specified also via Web Image Monitor if logged in as the machine administrator from the device if SP5-886-111(Auto Update Setting) is set to "1(ON)". For details, see Specifying the Time and Day of the Week to Prohibit Updating via Web Image Monitor.

4-4. Encryption level setting SP

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

Comportant 🔿

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

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

Note

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

Conditions

1) Customer uses RC Gate Type BN1.

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

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

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

Workaround

For Condition 1:

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

For Condition 2:

1. Manage the device with embedded RC Gate (2048 bit)

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

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

- 1. Start Web Image Monitor.
- **<u>2.</u>** Log in as the machine administrator.

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



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4. Click "Auto Firmware Update".



Note

Turn the main power OFF and back ON again after setting SP5-886-111 (AutoUpdateSetting) to "1 (ON)". "Auto Firmware Update" will appear in the menu list of Web Image Monitor.

5. Specify the times and days of the week to prohibit updating.Select the check boxes of the applicable days of the week to prohibit updating on that day.

ок	Cancel	
Settings to Prohibi	it Updates	
Timer to Prohibit Up	idates : 💌 Active 🖤 Inactive	
Start Time	AM • 9 • hr.	
End Time	DATE FOR MA	
Day of the Week to) Prohibit Updates: 🗇 Sunday 🗇 Manday 🗇 Tuesday 🖾 Wednesday 🗐 Thursday 🗍	Friday 🗖 Saturday
Day of the Week to Proxy Server Setti	Pruhišil Updales: 🗍 Sunday 🖾 Manday 🖾 Tuesday 🖾 Wednesday 🖾 Thursday 🖾 ings	Friday 🗖 Saturday
Day of the Week to Proxy Server Betti Proxy Server	Pruhišik Updates: 🛾 Sunday 🖾 Manday 🖾 Tuesday 🖾 Wednesday 🖾 Thursday 🖾 ings : O Enable 🕷 Disable	Friday 🗖 Saturday
Day of the Week to Proxy Server Betti Proxy Server	Pruhiški Updales: Sunday Manday Tuesday Wednesday Thursday ings : Enable ® Disable :	Friday 🗖 Saturday
Day of the Week to Proxy Server Setti Proxy Server Proxy Address Fort Number	Pruhiši Updates: Sunday Manday Tuesday Wednesday Thursday ings : O Enable ® Disable : 10	Friday 🗆 Saturday
Day of the Week to Proxy Server Proxy Server Proxy Address Port Number User Name	Pruhišk Updates: Sunday Manday Tuesday Wednesday Thursday ings C Enable Disable	Friday 🗌 Saturday

Instructions for the Customers

Provide instructions on the following matters to customers. For detailed procedures, see the user manuals.

- Operating the printer/copier/scanner/fax functions
- Loading paper and other consumables
- Operating the main power switch
- Removing jammed paper
- Registering/changing/deleting data in the address book
- Precautions on use
- Connecting to computers (such as configuring the port setting)
- A brief explanation of the tabs in the drivers

RemoteConnect Support Settings (MF Model Only)

Overview

The RemoteConnect Support function allows monitoring and remote control of the customer's machine's control panel.

- Allow a customer support operator to remotely connect with client's machine equipped with the Smart Operation panel (SOP-G2), or PC over the internet.
- Enable the support center to diagnose and resolve the issue through real-time screen sharing, remote guidance, and operation.



w_d0acm2004_en

The function was enabled by default. So, it's necessary to confirm with customers whether enabling the remote function is acceptable. If after explaining the function and benefits, the customer does not agree, then disable it via SP mode.

How to Enable/Disable RemoteConnect Support

- 1. Log in to Screen SP mode.
- 2. Select "Screen Device Settings".



3. Select "Application Settings".

Screen Device Settings			
Diserver Settings			
Application Settings			
Authoritation scientist mode			
Note the College			
Home key settings			
Display Apps List Setting			
Screen device always-connection is inactive.			
\$	谷	0	Stop
	A	d0a	cm1022

4. Select "Settings" in "RemoteSupportService" and check "Service availability".

	Settings
	Settings
	Settings
PrograminfoService	Settings
RemoteSupportService	Settings
Quick Scanner	Settings
	Settings
SendMeter	Settings
	Settings
	d0acm1025

Service availability	Image: A start and a start
Starting method Login banner	

Vote

The setting is located in RemoteSupportService. However, the name of settings menu is RemoteConnect Support settings,

You can find "RemoteConnectSupport" in the applications list, however, it does not have any settings, be sure to open the settings of "RemoteSupportService".

ProgramInfoService	Settings
Duick Scanner	Settings
in the second se	a conga
RemoteConnect Support	
BluetoothService	
	d0acm1027

- 5. Return the Home screen.
- **<u>6.</u>** Confirm if a connection can be established.

To confirm if RemoteConnect Support is working properly, open the application from "Check Status" menu or by pressing down on the status bar on the Smart Operation Panel for over five seconds and RemoteConnect Support will open.



<u>7.</u> If setup was done correctly, four digits will be displayed on the panel. Press the Exit key. If the setup was not done correctly, the four digits will not be displayed.



RemoteConnect Service needs an Internet connection, so the following error message might appear after long-pressing the status bar if an Internet connection is not detected. To check the connection, open the web browser in Smart Operation Panel and navigate to a webpage to confirm that the machine is connected to the Internet.



Vote

If a webpage cannot be connected to via the web browser, check the general network configuration settings, such as the IP address and proxy settings.

Uninstalling RemoteConnect Support

Some customers might ask for this feature to be disabled because of security precautions. In many cases, disabling RemoteConnect Support should be sufficient.

However, if a customer asks for RemoteConnect Support to be completely uninstalled, remove it by

conducting the following procedure:

- **<u>1.</u>** Log in to Screen SP mode.
- **<u>2.</u>** Select Apps > Install.
- **<u>3.</u>** Select Uninstall for the following two applications:

Firmware Type	Part Number
RemoteConnectSupport	D2411470A
RemoteSupportService	D1961459A
Remote Panel Operation Settings (MF Model Only)

Overview

Remote Panel Operation is a built-in function.

Using Web Image Monitor, you can view on your computer screen the operation panels of devices on the same network as well as remotely control such devices. For example, in a large company, the machine administrator can use the remote control to check for errors, operate machines, and change settings to provide support and manage machines easily.



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- [A]: Smart Operation Panel
- [B]: Web browser
- [C]: IT manager/ administrator
- Eliminating a trip to device
- Reducing end user's wait time

Usage

- Remote Panel Operation enables the IT manager or in-house help desk staff to remotely view and operate the Smart Operation Panel screen through a Web UI.
- It can be used to provide real-time interactive user support and also facilitate customer training.

Start-Up

<u>1.</u> Log in to Web Image Monitor as the administrator.

2.Installation

2. Click [Device Management] > [Remote Panel Operation]



Notes

- When connected by the Remote Panel Operation function, the machine does not automatically switch to Sleep mode, and the Auto Logout and System Auto Reset functions do not operate.
- You cannot connect to a single unit from multiple computers and operate it by the Remote Panel Operation function.
- The Remote Panel Operation function is supported by Internet Explorer 11 and later versions, Google Chrome 62 and later versions, Firefox 56 and later versions, and Microsoft Edge 40 and later versions.

About the Settings

- This function has been preinstalled. (Its icon does not appear on the control panel.)
- For security reasons, the settings have not been specified by default. Enable or disable each setting according to the customer's request.

How to Enable/Disable Remote Panel Operation/Monitoring

- **<u>1.</u>** Enable machine administrator authentication and login as administrator.
- 2. Press the "Settings" icon on the HOME screen.
- 3. Press "Basic Settings for Extended Devices".



4. Press "Remote Panel Operation".



5. Enable "Remote Operation/Monitoring Functions".

Remote Operation/Monitoring Functions Remote Connection URL : 10.61.70.21/rws/sop/rst	ON
Set Remote Connection Timeout	
License Information	

Note

• "Remote Operation/Monitoring" Functions is disabled by default. When it is disabled, Remote Panel Operation is not displayed in the Web Image Monitor.

3. Preventive Maintenance

Preventive Maintenance Tables

See "Appendices" for the following information:

• Preventive Maintenance

Image Quality Standards

Engine

Item	Specification	Remarks
Assured Image Area	Leading edge: 4.2 mm Left/Right: 4.2 mm Trailing edge: 4.2 mm	
Magnification Error	 Main: ± 0.75% or less Sub: In an office environment: ± 0.75% or less In other environments: ± 1.0% or less 	
Perpendicularity	± 0.7 mm/100 mm	
Linearity	± 0.25 mm/100 mm	
Parallelism	 Standard tray/Optional tray: In an office environment: ± 1.0 mm or less In other environments: ± 1.8 mm or less Bypass tray: In all environments: ± 1.7 mm or less 	

Сору

Item	Specification	Remarks
Resolution	Exposure glass	M: Magnification ratio
	100%/Enlargement: Min 4.0 lines/mm or	
	more	
	Reduction: Min 3.6 × M lines /mm or	
	more	
	SPDF	
	100%/Enlargement: Min 2.8 lines/mm or	
	more	
	Reduction: Min 2.8 × M lines /mm or	
	more	
Assured Image	Leading edge: 4.2 mm	

3. Preventive Maintenance

Item	Specification	Remarks
Area	Left/Right: 4.2 mm	
	Trailing edge: 4.2 mm	
Magnification Error	100%/Reduced-size/Enlarged-size	Not applicable when using the
	Main: ± 1.25% or less	SPDF
	Sub:	
	• In an office environment: ± 1.25% or	
	less	
	• In other environments: ± 1.5% or less	
Perpendicularity	± 1.2 mm/100 mm or less	Not applicable when using the
		SPDF
Missing Image	Left: 2.0 ± 1.5 mm	
Area	Right: 2.0 mm	
	Leading edge: 3.0 ± 1.5 mm	
	Trailing edge: 3.0 mm	

SPDF

Item	Specification	Remarks
Magnification Error	100% SEF:	
	± 1% or less	
	Reduction/Enlargement SEF:	
	± 1% or less	
Linearity	1.05 mm/100 mm or less	

Vote

To check whether the problem is with the image or is due to another issue, print the test pattern.

Paper Transfer Quality Standards

Engines

Item	Specification	Remarks
Margin	Single Side:	
position	Main Scan: 0 ± 2.5 mm	
	Sub Scan: 0 ± 2.0 mm	
	Duplex:	
	Main Scan: 0 ± 2.5 mm	
	Sub Scan: 0 ± 2.0 mm	
Skew	Single Side:	Not applicable to paper fed from the bypass
	± 1.8 mm/200 mm or less (B5 SEF or	tray (Reference value when using the bypass
	more)	tray: ± 1.0 mm/100 mm)
	± 1.3 mm/100 mm or less (Less than	
	B5 SEF)	
	Duplex:	
	± 1.3 mm/100 mm or less (B5 SEF or	
	more)	
	± 1.8 mm/100 mm or less (Less than	
	B5 SEF)	
Curling	20 mm or less from the leading and	In an office environment
after fusing	trailing edges with a radius of 40 mm	
	or greater.	

SPDF

Item	Specification	Remarks
Margin	Main Scan: 0 ± 1.5 mm	
position	Sub Scan: 0 ± 2.0 mm	
Skew	Single Side/ Duplex	
	± 2.0 mm/200 mm or less (B5 SEF or more)	
	± 2.5 mm/200 mm or less (Less than B5 SEF, excluding A6 SEF and B6	
	SEF)	
	± 3.7 mm/200 mm or less (A6 SEF, B6 SEF)	

These standards are determined using standard paper under standard conditions.

Values may vary depending on environmental conditions such as temperature, humidity, use of used paper, etc.

Notes on the Main Power Switch

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

Characteristics of the Push Switch (DC Switch)

Power is supplied to the machine even the main power is turned OFF.

The push switch in this machine uses DC (direct current). Therefore, if the AC power cord is connected to an electrical outlet, power is supplied to the controller board, the operation unit, and other modules even when the main power is turned OFF. When replacing the controller board and the operation unit in this state, not only these boards, it will damage other electrical components. So, when performing maintenance work such as replacing parts, in addition to turning off the main power with the push switch, always unplug the AC power cord.

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

When you disconnect the power cord from the AC wall outlet, inside the machine for a while there is still residual charge. Therefore, if you remove boards in this state, it can cause a blown fuse or memory failure.

--How to remove the residual charge inside the machine--

After you unplug the power cord from the AC wall outlet, in order to remove the residual charge from inside the machine, be sure to press the main power switch. Thus, the charge remaining in the machine is released, and it is possible to remove boards.

When you reconnect the AC power cord into an AC wall outlet, the machine will start automatically.

In order to remove the residual charge, push the main power switch while you disconnect the AC power cord. At that time, the power ON flag inside the machine is set. Therefore, after you finish work on the machine and reconnect the power cord to the AC, even if you do not press the main power switch, the machine will start automatically and the moving parts will begin to move. When working on moving parts, be careful that fingers or clothes do not get caught.

Note

 Automatic restart deals with cases when you accidentally unplugged the AC power cord or unexpected power outages. By keeping the power flag ON, after the resumption of power, the machine will start up automatically.

In rare cases, when you reconnect the AC power cord to a power outlet, the machine does not start 176

automatically. In this case, the machine has not failed. The cause is due to the timing of releasing the residual charge. If you press the main power switch while the residual charge was already released, the power ON flag will not be set. At this time, start the machine manually by pressing the main power switch.

Shutdown Method

1. Press the main power switch [A] on the left side of the machine.



<u>2.</u> The shutdown message appears. After the shutdown process, the main power is turned off automatically. The LED on the operation panel is turned off when the machine completes the shutdown.

Contract (Contract)

MF models: Even after the shutdown message disappears, do not disconnect the power cord while the main power indicator [A] is flashing to indicate that the machine is still shutting down.



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Before attempting to remove or adjust any boards, follow the procedure below to obviate the need for replacing the board which may get damaged by the residual charge.

- **<u>1.</u>** After shutdown, unplug the power cord.
- 2. Press and hold the power button for a second to discharge the residual charge.

How to start from shutdown

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

Forced Shutdown

In case normal shutdown does not complete for some reason, the machine has a forced shutdown function.

To force shutdown the machine, press and hold the main power switch for 6 seconds.

Normally, do not execute a forced shutdown.

Important

• Forced shutdown can damage the HDD, the memory, and the machine. Use the force shutdown only if it is unavoidable.

General Cautions

- Turn off the main power switch and disconnect the power cord.
- After replacement, make sure that all removed harnesses are connected again and secured in their clamps.

Special Tools and Lubricants

No.	Part	Description	Q'ty	Unique or	Notes
	Number			Common	
1	VSSG9006	MOLYKOTE(R) G-1077	1	C (General)	(Locations to Apply Grease)
		GREASE 50G			
2	VSSG0006	DRYSURF MDF-2400	1	C (General)	Quick drying grease (Locations
		25G			to Apply Quick Drying Grease)
3	A2579300	GREASE-BARRIERTA-	1	C (General)	For fusing unit (Locations to
		S552R			Apply Grease in the Fusing
					Unit)
4	VSSG9008	FLOIL-G348 GREASE	1	C (General)	For scanner unit (Locations to
		20G			Apply Grease in the Scanner
					Unit)
5	B6455030	SD card 2GB	1	C (General)	
6	B6455040	SD card 8GB	1	C (General)	
7	B6455060	SD card 16GB	1	C (General)	
8	C4019503	20X Magnification	1	C (General)	
		Scope			

Vote

• A PC is required for creating the Encryption key file on an SD card when replacing the controller board for a model in which HDD encryption has been enabled.

Locations to Apply Grease

Drum Drive

Drum Motor

Apply grease to the drum motor as shown below.

	Location	Part name	Note
[A]	Drum motor shaft	DC BRUSHLESS MOTOR:DRUM:26W	Apply 5 mm to shaft tip.
[B]	Drum motor peen	BRACKET:DRIVE:MOTOR:PEEN	Apply 5 mm to shaft tip.

• May also be applied to opposing gear [C] (Gear: Drum: 1st) instead of [A] and [B].



Coating Amt.	Maximum	Minimum
[A]	d0apc4707	d0apc4708
[B]	d0apc4710	d0apc4711

Drum Motor Unit

Apply grease in the drum motor unit as shown below.

	Location	Part name	Note
[D]	Drum motor unit peen	BRACKET:DRIVE:DRUM:PEEN	Apply 5 mm to shaft tip.
[F]	Drum motor unit gear teeth	GEAR:DRIVE:DRUM	3 places

• May also be applied to opposing gear [E] (GEAR: DRIVE: DRUM shaft instead of [D].







d0apc4702

Coating Amt.	Maximum	Minimum
[D]	d0apc4713	d0apc4714
[F]	d0apc4716	d0apc4717

Paper Feed Drive

Gear Unit

Apply silent grease to the gear unit at the locations shown below.

	Location	Part name	Note
[A]	Gear unit housing	HOUSING:DRIVE:PAPER FEED:ASS'Y	2 places. Apply 10 mm to shaft
			tip.
[B]		HOUSING:DRIVE:PAPER FEED:ASS'Y	Apply 10 mm to shaft tip.
		HOLDER:DRIVE:TONER SUPPLY	
[C]	Gear unit gear	GEAR:DRIVE:TONER SUPPLY:NO.6	
[D]	teeth	GEAR:DRIVE:TONER	
		RECYCLING:NO.2	
[E]		GEAR:DRIVE:CONNECTING:NO.3	
[F]		GEAR:DRIVE:TONER SUPPLY:NO.3	



d0apc4705

Coating Amt.	Maximum	Minimum
[A] [B]	d0apc4718	d0apc4720
[C] [D] [E] [F]	d0apc4722	d0apc4723

Main Unit Side Plates

	Location	Part name	Note
[H]	The crimped shaft of the main	SIDE PLATE:RIGHT:500:PEEN	3 places. Apply 5 mm to
	unit side plate		shaft tip.
[I]	Ass'y gear on the main unit side	GEAR:DRIVE:PAPER	Pulley not exposed.
	plate	FEED:NO.3	

Apply silent grease to the main unit side plates at the locations shown below.









Feed/Fusing Drive

Feed/fusing Motor Unit

Apply silent grease to the feed/fusing motor (M4) at the locations shown below.

	Location	Part name	Note
[A]	Feed/fusing motor unit	GEAR:DRIVE:FUSING:NO.5	
	gears		
[B]	Feed/fusing motor	GEAR:DRIVE:TRANSPORT:NO.1	
	gears		

	Location	Part name	Note
[C]	Feed/fusing motor peen	BRACKET:DRIVE:FUSING:MOTOR:PEEN	2 places. Apply 5 mm to
	tip		shaft tip.
[D]	Feed/fusing motor unit	BRACKET:DRIVE:FUSING:NO.1:PEEN	2 places. Apply 5 mm to
	peen tip		shaft tip.





Coating Amt.	Maximum	Minimum
[A]	d0apc4729	d0apc4731
[B]	d0apc4732	d0apc4734
[C]		
[D]	d0apc4735	d0apc4737

Main Unit Side Plates

Apply silent grease to the main unit side plates at the locations shown below.

	Location	Part name	Note
[E]	Main unit side plate peens	SIDE PLATE:RIGHT:500:PEEN	4 places. Apply 5 mm to shaft tip.
		5mm - Formation -	:4738

Coating Amt.	Maximum	Minimum
[E]	d0apc4739	d0apc4741

Fusing Pressure/Release Motor Drive

Fusing Pressure/Release Motor Unit

Apply silent grease to the fusing pressure/release motor unit at the locations shown below.

	Location	Part name	Note
[A]	Fusing pressure/release motor	BRACKET:DRIVE:PRESSURE	5 mm from the tip.
	peen	RELEASE:PEEN	
[B]	Lubricated bearing of fusing	PLAIN SHAFT BEARING:4X8X2.8	
	pressure/release motor		
[C]	Fusing pressure/release motor	BRACKET:DRIVE:PRESSURE	2 places. 5 mm from
	peen	RELEASE:PEEN	the tip.
[D]	Small gear teeth of fusing	GEAR:DRIVE:PRESSURE	
	pressure/release motor unit	RELEASE:SUN	
[E]	Large gear teeth of fusing		
	pressure/release motor unit		
[F]	Worm gear of fusing	WORM GEAR:DRIVE:PRESSURE	Motor bearing
	pressure/release motor	RELEASE:Z2	housing cannot be
			exposed.
[G]	Surfaces of fusing	WORM WHEEL:DRIVE:PRESSURE	
	pressure/release motor unit	RELEASE:Z25	
	gear teeth		
[H]	Tip of fusing pressure/release	SHAFT:DRIVE:PRESSURE	
	motor peen	RELEASE:PRESS FIT	



Coating Amt.	Maximum	Minimum
[A] [C]	d0apc4744	d0apc4746
[B]	d0apc4747	d0apc4749
[D]	d0apc4750	d0apc4752

Coating Amt.	Maximum	Minimum
[E]	d0apc4753	d0apc4755
[F]	d0apc4756	d0apc4758
[G]	d0apc4759	d0apc4761
[H]	d0apc4762	d0apc4764

Pressure Release Support Shaft

Apply silent grease to the pressure release support shaft at the locations shown below.

	Location	Part name	Note
[I]	Support shaft	SUPPORT SHAFT:DRIVE:PRESSURE	3 places. Apply 5 mm
		RELEASE:PLANETARY	to shaft tip.
[J]	Support shaft		3 places.
	coupling		



d0apc4766

Coating Amt.	Maximum	Minimum
[1]	d0apc4767	d0apc4769
[J]	d0apc4770	d0apc4772

* The amount of grease shown with the colored parts.

Paper Feed Drive (Optional Bank)

Bank Drive Motor

Apply silent grease to the gear unit at the location shown below.

	Location	Pate name	Note
[A]	Bank drive	DC	Apply an 8mm wide band of grease, 5 to 13 mm
	motor shaft	MOTOR:GEAR:10W	from the tip of the roller as shown.



d0apc4788

Coating Amt.	Maximum	Minimum
[A]	d0apc4789	d0apc4790

Locations to Apply Quick Drying Grease

Drum Drive

Apply quick-drying grease to the locations shown below.

	Location	Part name	Note
[A]	Tip of drum joint	JOINT:DRIVE:DRUM	3 places. Apply around the cogs, and surface of
	cogs		the shaft tip.
[B]	Link tabs	LINK:DRIVE:DRUM	3 places. Apply to the tab surfaces.
[C]	Cam link	CAM:DRIVE:DRUM	3 places. Apply to the surface of the openings
	connection		marked with red.





Paper Feed Drive

Apply quick-drying grease to the locations shown below.

	Location	Parts name	Note
[A]	Holder grooves	HOLDER:DRIVE:TONER SUPPLY	6 places. Apply to the groove surfaces.
[B]	Link tab	LINK:DRIVE:TONER SUPPLY	3 places. Apply to the tab surfaces.



Paper Feed Drive (Optional Bank)

	Location	Parts name	Note
[A]	Flange	FLANGE:SYNCHRONOUS BELT	Apply to flange and sliding
			surface.
[B]	Timing pulley	GEAR:TIMING	Apply to the recessed
	shaft	PULLEY:TRANSPORT:Z29/T36	surface.

Apply quick-drying grease to the locations shown below.



Locations to Apply Grease in the Fusing Unit

Inside Fusing Unit

Apply Barrierta grease at the locations shown below

	Location	Part name	Note
[A]	Between fusing unit	CAM:ON-OFF,	2 places.
	separation cam and pressure	COVER:LEVER:PRESSURE	
	lever		
[B]	Hot roller bushing insertion	GEAR:HOT ROLLER	2 places (both sides of
[C]	point	THERMAL INSULATING	hot roller bushing).
		BUSHING:HOT ROLLER	
[D]	Inside hot roller gear	GEAR:HOT ROLLER	



	E 60apc4780	
	d0apc4781	
Coating Amt.	Maximum	Minimum
[B]	d0apc4782	d0apc4783
[C]	d0apc4784	d0apc4785
[D]	d0apc4786	d0apc4787

Locations to Apply Grease in the Scanner Unit

Inside Scanner Unit

Apply grease (FLOIL G-348) at the locations shown below.

	Location	Part name		Note
[A]	Scanner	GUIDE ROD:	5 places.	
	guide rod	SCANNER	Hold the scanner carriage	with the hand, and then move it right
			and left three times from th	e end to the end of the guide rod to
			spread the grease to the w	hole.
			dapc4794	
[B]	Scanner	RAIL:	5 places.	
	rail	SCANNER	Spread the grease on the e	entire rail (range of [C]) with a brush.
		65~85 r	A P P P P P P P P P P P P P	
			d0apc479	7
		55~75 mm		
	Coating Amt		Maximum	Minimum
[A]				

Coating Ant.	Maximum	IVIIIIIIUIII
[A]	d0apc4795	d0apc4796

Coating Amt.	Maximum	Minimum
[B]		
	dUapc4798	dUapc4 799

SMC Report Storage

The SMC Report that lists the factory settings is stored behind the platen sheet of the SPDF on MF models. An SMC Report is not provided with the printer model when it is shipped from the factory. However, the factory settings can be output with SP5-990-006 (SP Print Mode: Non-Default). If you are installing this printer model, print the SMC Report and store it in a safe place.

Sample SMC Report for MF models



d0apc4052

Factory Settings List (SP Print mode: Non-Default)

SP No.	SP name	Description
1-003-011	Paper Buckle By-pass: Plain	
1-003-012	Paper Buckle By-pass: Thick	
1-003-013	Paper Buckle By-pass: Envelope	
1-003-021	Paper Buckle Tray1: Plain	
1-003-022	Paper Buckle Tray1: Thick	
1-003-023	Paper Buckle Tray1: Envelope	
1-003-031	Paper Buckle Tray2: Plain	

SP No.	SP name	Description
1-003-032	Paper Buckle Tray2: Thick	
1-003-041	Paper Buckle Tray3: Plain	
1-003-042	Paper Buckle Tray3: Thick	
1-003-051	Paper Buckle Tray4: Plain	
1-003-052	Paper Buckle Tray4: Thick	
1-003-061	Paper Buckle Duplex: Plain	
1-003-062	Paper Buckle Duplex: Thick	
1-921-011	Fact LeadEdge Reg By-pass: Plain	
1-921-012	Fact LeadEdge Reg By-pass: Thick	
1-921-013	Fact LeadEdge Reg By-pass: Envelope	
1-921-021	Fact LeadEdge Reg Tray1: Plain	
1-921-022	Fact LeadEdge Reg Tray1: Thick	
1-921-023	Fact LeadEdge Reg Tray1: Envelope	
1-921-031	Fact LeadEdge Reg Tray2: Plain	
1-921-032	Fact LeadEdge Reg Tray2: Thick	
1-921-041	Fact LeadEdge Reg Tray3: Plain	
1-921-042	Fact LeadEdge Reg Tray3: Thick	
1-921-051	Fact LeadEdge Reg Tray4: Plain	
1-921-052	Fact LeadEdge Reg Tray4: Thick	
1-921-061	Fact LeadEdge Reg Duplex: Plain	
1-921-062	Fact LeadEdge Reg Duplex: Thick	
1-922-001	Fact S-to-S Reg By-pass	
1-922-002	Fact S-to-S Reg Tray 1	
1-922-003	Fact S-to-S Reg Tray 2	
1-922-004	Fact S-to-S Reg Tray 3	
1-922-005	Fact S-to-S Reg Tray 4	
1-922-006	Fact S-to-S Reg Duplex	
4-008-001	Sub Scan Magnification Adj.	MF models only
4-010-001	Sub Scan Registration Adj.	MF models only
4-011-001	Main Scan Registration Adj.	MF models only
4-609-001	Gray Balance Set: R Book Scan	MF models only
4-609-002	Gray Balance Set: R DF Scan	MF models only
4-610-001	Gray Balance Set: G Book Scan	MF models only
4-610-002	Gray Balance Set: G DF Scan	MF models only
4-611-001	Gray Balance Set: B Book Scan	MF models only
4-611-002	Gray Balance Set: B DF Scan	MF models only
4-712-001	CIS GB Adj. Value: R	MF models only

SP No.	SP name	Description
4-713-001	CIS GB Adj. Value: G	MF models only
4-714-001	CIS GB Adj. Value: B	MF models only
5-745-211	DeemedPowerConsumption Controller Standby	
5-745-212	DeemedPowerConsumption TR	
5-745-213	DeemedPowerConsumption Main Power Off	
5-745-214	DeemedPowerConsumption Scanning and Printing	
5-745-215	DeemedPowerConsumption Printing	
5-745-216	DeemedPowerConsumption Scanning	
5-745-217	DeemedPowerConsumption Engine Standby	
5-745-218	DeemedPowerConsumption Low Power Consumption	
5-745-219	DeemedPowerConsumption Silent condition	
5-745-220	DeemedPowerConsumption Heater Off	
5-849-001	Installation Date: Display	
6-006-001	ADF Adjustment Side-to-Side Regist: Face	MF models only
6-006-002	ADF Adjustment Side-to-Side Regist: Back	MF models only
6-006-003	ADF Adjustment L-Edge Regist (1-Pass): Face	MF models only
6-006-004	ADF Adjustment L-Edge Regist (1-Pass): Back	MF models only
6-006-010	ADF Adjustment T-Edge Erase (1-Pass): Face	MF models only
6-006-011	ADF Adjustment T-Edge Erase (1-Pass): Back	MF models only
6-017-001	ADF Adjustment Magnification	MF models only

Exterior Covers (Printer Model)

Right Cover (Printer)

- **<u>1.</u>** Remove the paper cassette.
- **<u>2.</u>** Open the front cover [A] by pressing the front cover button.



<u>3.</u> Open the rear cover [A].



<u>4.</u> Remove the right cover [A].



Note

The right cover is held in position by bosses on the frame of the main machine, so the right cover must be disconnected from these bosses before removal.



Left Cover (Printer)

- **<u>1.</u>** Remove the paper cassette.
- **<u>2.</u>** Open the front cover [A] by pressing the front cover button.



<u>3.</u> Open the rear cover [A].



d0apc4002

4. Remove the left cover [A].



Note

The left cover is held in position by bosses on the frame of the main machine, so disconnect these bosses before you remove the left cover.



d0apc4016

Front Cover (Printer)

- 1. Remove the right cover. (Right Cover (Printer))
- 2. Close the front cover, and open the bypass tray [A].
- 3. Release the four hinges to detach the paper guide plate [B].



4. Open the bypass tray about 90 degrees and remove the bypass tray [A]. Release the left hinge [B] first (which is C-cut) by pulling forward, and then release the right hinge [C] by pulling obliquely toward the left, front.



Vote

When reinstalling the bypass tray, first set the right hinge with the bypass tray wide open.

- 5. Open the front cover [A] by pressing the front cover button.



Disconnect the harness from the front cover [A] and remove the fastened part [B] of the belt. <u>6.</u>



d0apc4008

<u>7.</u> Release both hinges to remove the front cover [A]. Release the right hinge first.



Operation Panel (Printer)

- 1. Remove the right cover. (Right Cover (Printer))
- **<u>2.</u>** Lift up the display [A], and then remove the screw.



3. Release the two hooks to remove the operation panel [A], and then disconnect the harness
from the operation panel.



S X1

Upper Cover (Printer)

- 1. Remove the right cover. (Right Cover (Printer))
- 2. Remove the left cover. (Left Cover (Printer))
- 3. Remove the operation panel. (Operation Panel (Printer))
- 4. Remove the upper cover [A].



Rear Lower Cover (Printer)

- 1. Remove the right cover. (Right Cover (Printer))
- 2. Remove the left cover. (Left Cover (Printer))

<u>3.</u> Remove the rear lower cover [A].



Note

Open the rear cover slightly and remove the rear lower cover.



d0apc4011

Rear Cover (Printer)

- 1. Remove the rear lower cover. (Rear Lower Cover (Printer))
- 2. Remove the controller board. (Controller Board (Printer Model))



3. Release the harness from rear cover [A].

<u>4.</u> Remove the fixed part [B] for the belt of rear cover [A], and then remove the screw [C] fastening the hinge.



5. Release both sides of the hinge to remove the rear cover [A]. Release the right hinge first.



Exterior Covers (MF Model)

Right Cover (MF)

- **<u>1.</u>** Remove the paper cassette.
- **<u>2.</u>** Open the front cover [A] by pressing the front cover button.



<u>3.</u> Open the rear cover [A].



<u>4.</u> Remove the HDD cover [A] and the connector cover [B] and [C]. Use a flathead screwdriver to remove the connector cover [B].



5. Remove the right cover [A].



OPx5

d0apc4024

Vote

The right cover is held in position by bosses on the frame of the main machine, so disconnect these bosses before you remove the right cover. The rear upper boss is not visible from outside so confirm its location in the photo below.



Note

If the optional offline stapler is installed, do the following, instead of removing the connector cover in step 4. Do not remove the stapler unit cradle attached to the right cover with double-sided tape.

1. Pull out the stapler unit [A] from the stapler unit cradle.



2. Loosen the screw.



Left Cover (MF)

<u>1.</u> Remove the paper cassette.

<u>2.</u> Open the front cover [A] by pressing the front cover button.



<u>3.</u> Open the rear cover [A].



4. Remove the left cover [A].



The left cover is held in position by bosses on the frame of the main machine, so the left cover must be disconnected from these bosses before removal. The rear upper boss is not visible from



outside so confirm its location in the photo below.

Front Cover (MF)

- 1. Remove the right cover. (Right Cover (MF))
- 2. Close the front cover, and then open the bypass tray [A].
- 3. Release the four hinges to detach the paper guide plate [B].



<u>4.</u> Open the bypass tray about 90 degrees and remove the bypass tray [A].
Release the left hinge [B] first (which is C-cut) by pulling forward, and then release the right hinge [C] by pulling obliquely toward the left, front.



Note

When reinstalling the bypass tray, first set the right hinge with the bypass tray wide open.

5. Open the front cover [A] by pressing the front cover button.



<u>6.</u> Disconnect the harness from the front cover [A] and remove the fastened part [B] of the belt.



d0apc4008

<u>7.</u> Release both hinges to remove the front cover [A]. Release the right hinge first.



Upper Cover (MF)

<u>1.</u> Remove the right cover. (Right Cover (MF)) 214

- 2. Remove the left cover. (Left Cover (MF))
- 3. Remove the operation panel. (Operation Panel Unit)
- 4. Remove the scanner unit. (Scanner Unit (with SPDF))
- 5. Remove the upper cover [A].



Vote

Remove only screw [B] from the side, and then remove the other screws from the top.

Rear Lower Cover (MF)

- **<u>1.</u>** Remove the right cover. (Right Cover (MF))
- 2. Remove the left cover. (Left Cover (MF))
- 3. Remove the rear lower cover [A].



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Vote
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Open the rear cover slightly and remove the rear lower cover.



Rear Cover (MF)

- 1. Remove the rear lower cover. (Rear Lower Cover (MF))
- 2. Remove the SCB with bracket. (SCB with the Controller Box (MF Model))
- **<u>3.</u>** Release the harness from rear cover [A].





4. Remove the fastened part [B] for the belt of rear cover [A], and then remove the screw [C] holding

the hinge.



5. Release both hinges to remove the rear cover [A]. Release the right hinge first.



Smart Operation Panel (MF Model)

Operation Panel Unit

Important

Application settings and additional applications installed on the Smart Operation panel can be backed up automatically and can be restored. For details, refer to Automatic Backup/Restore for Application and Settings of SOP.

- **<u>1.</u>** Remove the right cover. (Right Cover (MF))
- 2. Remove the scanner front cover. (Scanner Front Cover)
- 3. Disconnect the harnesses from the operation panel unit.



𝒞x2 🖏x5

d0apc4035

Vote

When reconnecting the harnesses, route the harnesses with the operation panel unit horizontal and clamp the harnesses. The clamp [A] fixes between the bands of the harnesses.



d0apc4036

4. Set the operation panel vertically and remove the screws of the sub arm [A].



5. Open the SPDF [A], and then hold the operation panel [B] horizontal and lift it out.



<u>6.</u> Remove the screws of the main arm [A], and then remove the operation panel unit.



OPx4

d0apc4038

<u>7.</u> Turn over the operation panel unit, and remove the hinge covers [A] and [B].



<u>8.</u> Remove the main arm [A].



<u>9.</u> Remove the sub arm cover [A].



10. Release the two hooks to remove the sub-arm lower cover [A].





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 $\underline{\textbf{11.}}$ Remove the hinge covers [A] and [B].



12. Remove the sub-arm [A].



13. Release the clamps.

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111111 111111 122 ₩x2 d0apc4044

Vote

When clamping the USB cable [A], route the cable so it does not ride up on the operation panel PCB. Working carefully at the binding position, clamp the USB cable [A] and wire [B] at the positions shown below.



d0apc4054

When you route the harnesses, place USB cable [A] so harness [B] is folded inside, bending it inward from inside the cover. Set the harness in the recess [C] so it will not be pinched by the hinge cover.



14. Remove the harness cover [A].



OPx1

d0apc4045

15. Disconnect the harnesses.



Vote

When re-connecting the harnesses, connect them straight as shown above.

Comportant 🔿

When re-installing the operation panel unit, route the harnesses by referring to the photo in the reverse order.

Internal Parts

Refer to the FSM for "Smart Operation Panel 2nd Generation (New Type)".

Since only the shape of the bottom cover is different from other models, refer to the next page only for removing the bottom cover.

Bottom Cover

- 1. Remove the operation panel unit. (Operation Panel Unit)
- 2. Remove the bottom cover [A].



Note

There are four hooks inside the operation panel unit. Before removing it, check the photos below.



d0apc4051

SPDF (MF Model Only)

SPDF Unit

<u>1.</u> Remove the scanner rear cover [A].



<u>2.</u> Remove the scanner rear upper cover [A].



Vote

When you reattach the rear upper cover of the scanner, insert the antistatic sheet from the right side. It will slide inside the cover, and make sure that the sheet does not move on the scanner cover. Static electricity can damage the CIS unit if the sheet is not installed correctly.



Remove the relay board [A] and remove the FFC screw [B]. <u>3.</u>

4. Release the five hooks in order as shown below to free the FFC.



Disconnect the right FFC from the relay board [A]. <u>5.</u>



Remove the harness guide [A]. <u>6.</u>



Disconnect the harnesses [A] from the SPDF, and then remove the two shoulder screws. <u>7.</u>



<u>8.</u> Open the SPDF, and then remove the SPDF unit [A].



When Installing the SPDF

- 1. Open the SPDF.
- **<u>2.</u>** Do the following steps:
 - Place the platen sheet [A] on the exposure glass.
 - Align the platen sheet with Velcro tape [C], with the rear left corner [B] on the exposure glass as a reference.



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

Original Feed Unit

Content (1997)

Before replacing the original feed unit, reset the PM counter.

- **<u>1.</u>** Turn the power ON and enter the SP mode.
- **<u>2.</u>** Execute the following SPs to reset the PM counter.
 - SP7-804-008 (Reset PM Counter: ADF Pickup)
 - SP7-804-009 (Reset PM Counter: ADF Feed)
- 3. Turn the power OFF.
- **<u>1.</u>** Open the SPDF top cover.
- 2. Slide the shaft [A] of the original feed unit toward the rear and remove it.



SPDF Friction Pad

😭 Important 🔵

Before replacing the SPDF friction pad, reset the PM counter.

- **<u>1.</u>** Turn the power ON and enter the SP mode.
- 2. Execute the SP7-804-007 (Reset PM Counter: ADF Pad) to reset the PM counter.
- 3. Turn the power OFF.
- 1. Remove the original feed unit. (Original Feed Unit)
- 2. Push the lock lever [A] and then remove the SPDF friction pad [B].



Vote

When reinstalling the SPDF friction pad, push the lock lever and friction pad down together.



SPDF Rear Cover

- **<u>1.</u>** Open the SPDF top cover [A] and remove the screw.
- **<u>2.</u>** Lift the original tray [B].



<u>3.</u> Open the SPDF [A], and then release the five tabs of the SPDF rear cover with a small screwdriver.



d296c1102

4. Remove the SPDF rear cover [A].



SPDF Relay Board

- 1. Remove the SPDF rear cover. (SPDF Rear Cover)
- **<u>2.</u>** Release the hook, and then remove the SPDF relay board [A].



SPDF Drive Motor (M6)

- 1. Remove the SPDF rear cover. (SPDF Rear Cover)
- 2. Remove the SPDF drive motor (M6) [A].



@**2 @**1

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SPDF Feed Sensor (S17)

- **<u>1.</u>** Remove the SPDF rear cover. (SPDF Rear Cover)
- <u>2.</u> Disconnect the harness [A] from the SPDF top cover [B], and then release the clamp.



☞x1 \$x1

d296c1110

<u>3.</u> Remove the harness [A] from the harness guide.



d0apc4124

4. Remove the SPDF top cover [A].



Pivot screw x1

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

To prevent bending or damaging the inner cover, place it on a flat surface before you remove it.



6. Remove the SPDF feed sensor (S17) [A].



\$×1

Vote

When reattaching the SPDF top cover, make sure to place it correctly so that the two tabs fit into the holes.



SPDF Front Cover

<u>1.</u> Open the SPDF top cover [A].

2. Remove the screw, and then raise the original tray [B].



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



d296c1105

<u>4.</u> Close the SPDF slightly, and then remove the SPDF front cover [A] while releasing the two tabs with a thin screwdriver.



Feed Cover Sensor (S15), Original Set Sensor (S14)

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

2. Remove the feed cover sensor (S15) [A].



@*×1

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3. Remove the original set sensor (S14) [A].



@=×1

m0a0k0070

SPDF Registration Sensor (S16)

- **<u>1.</u>** Remove the SPDF front cover. (SPDF Front Cover)
- 2. Open the SPDF.
- **<u>3.</u>** Remove the plate [A] and then remove the scanning guide plate [B].



@Px1

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4. Remove the SPDF registration sensor (S16) with the bracket [A].



5. Remove the SPDF registration sensor (S16) [A] from the bracket.



SPDF Feed Clutch (CL8)

- 1. Remove the front cover. (SPDF Front Cover)
- 2. Release the harnesses on the harness guide [A] then remove it.



235

3. Remove the gear bracket [A].



4. Remove the SPDF feed clutch (CL8) [A].



CIS Unit

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



Vote

Lift the back of the SPDF inner cover [A] while raising the original tray [B], and then slide the SPDF inner cover toward the back of the SPDF unit.



5. Release the four hooks in the order shown below, and then remove the ferrite core [B] from the holder to disconnect the FFC [A].



<u>6.</u> Release the routed harnesses from the harness guide [A], and then remove it.



© x1 ☞ x3

d0apc4126

7. Remove the gear bracket [A].



8. Remove the gears [A].

Comportant)

Do not remove the gear [B] (this prevents inner pin [C] from falling into the machine).



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9. Open the SPDF unit [A] while holding the gear [B] by hand, and open the scanning guide plate (rear side) [C] by pulling the release lever [D].

Content (1997)

- Hold the gear [B]. It is not fastened, and it may drop into the machine. •
- Open the scanning guide plate (rear side) [C] before replacing the CIS unit. Otherwise, • the surface could be damaged.



m0a0k3034

<u>10.</u> Pull out the CIS unit [A] from the SPDF unit.

• Note

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



OPx2

m0a0k3036

Scanner (MF Model Only)

Scanner Front Cover

- 1. Remove the right cover. (Right Cover (Printer), Right Cover (MF))
- 2. Remove the PCDU. (PCDU)
- 3. Slide off the operation panel lower cover [A] to remove it.



- **<u>4.</u>** Open the SPDF.
- **<u>5.</u>** Release the three hooks with a small flathead screwdriver, and then remove the scanner front cover [A].

Remove the cover while raising it from the front side.



d0apc4033
Note

There are some hooks inside the scanner front cover. Before removing the cover, confirm the positions of the hooks in the photo below.



Scanner Unit (with SPDF)

- 1. Remove the right cover. (Right Cover (MF))
- 2. Remove the left cover. (Left Cover (MF))
- 3. Remove the operation panel unit. (Operation Panel Unit)
- 4. Disconnect the harnesses and FFCs from the scanner unit.



𝒞x3 ₽x4 ∞x2

d0apc4109

Vote

The FFC on the left side has a lock mechanism. Press the lock lever to disconnect it.



d0apc4110

Set the ferrite core [A] in the holder when you connect the harnesses.



5. Remove the harness guide [A].



⊕°x2

d0apc4112

6. Remove the ferrite core holder [A].



d0apc4113

Vote

When you attach the ferrite core holder [A], route the FFCs through the two ferrite cores.





<u>7.</u> Slide the scanner unit and SPDF to the right, and then lift it off the machine.

Platen Cover Sensor (S13)

<u>1.</u> Remove the scanner rear cover [A].



2. Remove the scanner rear upper cover [A].



Vote

When you attach the rear upper cover of the scanner, insert the anti-static sheet from the right so it slides inside the cover, and confirm that the sheet does not ride up on the scanner cover.

If the protective sheet is not installed correctly, static electricity could damage the CIS unit.



- 3. Remove the relay board [A] and remove the screw [B] fastened the FFC.
- <u>4.</u> Release the five hooks in the order shown below to free the FFC.



5. Disconnect the right FFC from the relay board [A] while pulling it out straight. (There is no locking mechanism.)



d0apc4105

6. Remove the harness guide [A].



7. Open the SPDF to move the feeler, and then remove the platen cover sensor (S13) [A].



☞x1 💱x1

Scanner HP Sensor (S12)

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



4. Pull the carriage belt [A] slowly to move the scanner carriage unit [B] to the right. Never push or

pull on the carriage unit directly.



5. Remove the screws of the brackets [A], and then remove the bracket [B].
Bracket [A] is attached with tape [C] and cannot be removed. Let bracket [A] float free slightly, and then remove bracket [B].



6. While raising rail [A] slightly, remove the scanner HP sensor (S12) [B].



Scanner Motor (M5)

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

<u>3.</u> Remove the scanner upper cover [A].



<u>4.</u> Remove screws of light shield [A], and then let it float free. The shield is attached with tape [B] so do not remove it.



5. Remove the scanner motor (M5) with the bracket [A].



6. Remove the scanner motor (M5) [A].



⊕°x2 ⊕°x1

d0apc4139

Scanner Carriage

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



4. Pull the carriage belt [A] slowly to move the scanner carriage unit [B] to the right. Never push or pull on the carriage unit directly.



5. Remove the screw of brackets [A] and then remove bracket [B].

Bracket [A] is attached with tape [C] and cannot be removed. Let bracket [A] float free slightly, and

then remove bracket [B].



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



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

Note

- The FFC is attached at [C] with double-sided tape. Do not try to strip the FFC off with • force.
- When reassembling, be sure to align the tape position where it was originally attached.



≪≫ X1

d0apc4142

8. Remove the shaft [B] from the carriage [A].



Vote

• Never wipe grease on the shaft of the scanner carriage.

Reinstalling the Scanner Carriage

Make sure that the FFC of the scanner carriage is connected and routed correctly:

- The FFC [A] must be connected straight, and not at an angle. Otherwise, the SCB may be damaged.
- The FFC must not sag or drag on the bottom of the scanner unit [B].



d0apc4143

• FFC must be hooked at [A] of the scanner carriage.



d0apc4144

LED Optics

LED Head

- 1. Remove the PCDU. (PCDU)
- 2. Remove the upper cover. (Upper Cover (Printer), Upper Cover (MF))
- 3. MF model: Remove the SCB with bracket. (SCB with the Controller Box (MF Model))
- 4. MF model: Remove the PCDU cooling fan (right) (FAN1) (right) with duct [A].



@Px2 ☞x1

d0apc4202

5. Remove the inner cover [A].



6. Push the LED unit [A] in.

Close the front door, or push the link on the left and right to push the LED unit in.



7. Disconnect the ground wire [B] and FFC [C] straight from the LED unit [A].



Vote

MF model: When re-connecting the FFC, attach it on the hook of the harness guide. The FFC must be connected straight.



Printer model: When re-connecting the FFC, attach it on the hook of the harness guide and the hook of the inner cover. The FFC must be connected straight.



8. Return the LED unit to its original position.To unlock, open the front cover or use a small flathead screwdriver to raise the joints (circled in red)



<u>9.</u> Remove the spacer [A].



10. Pull out the LED unit [A].

Slide the LED unit to left, and then pull out the LED unit's right shaft.

Comportant)

Work carefully when removing the LED unit to avoid hitting the lenses. A damaged lens could cause vertical streaks to appear on prints.



Vote

When reinstalling the LED unit work carefully to avoid touching the lens surfaces. When reattaching the LED unit, make sure that the ends of the LED shaft at the top fit into the holes of the LED unitholder. Attach the left end of the LED unit first.



- **<u>11.</u>** Bend the stay [A] to release the left and right tabs, and then separate the stay from the LED head [B].
- **12.** Remove the two spring holders [C] from the LED head.



Quenching Lamp

^{1.} Remove the PCDU. (PCDU) 254

- Remove the upper cover. (Upper Cover (Printer), Upper Cover (MF)) <u>2.</u>
- MF model: Remove the SCB with bracket. (SCB with the Controller Box (MF Model)) <u>3.</u>
- MF model: Remove the PCDU cooling fan (right) (FAN1) with duct [A]. <u>4.</u>



x2 ☞x1

d0apc4202

5. Remove the inner cover [A].



Remove the cleaning brush with the bracket [A]. <u>6.</u>



OPx2

d0apc4230

<u>7.</u> Release the two hooks to remove the quenching lamp with the case [A].



<u>8.</u> Release the four hooks to remove the quenching lamp from the case [A].



PCDU

PCDU

Comportant)

Do not touch the ID chip with bare hands.



- **<u>1.</u>** Open the front cover by pressing the front cover button.
- 2. Hold the grip to pull out the PCDU with the toner cartridge [A].



<u>3.</u> Turn the lock lever [A], and then press down until it is horizontal.



4. Remove the toner cartridge [B] from the PCDU [A].



Important

Never disassemble a PCDU. Disassembling a PCDU could cause the focus of the LED to shift, resulting in poor images.

Toner Cartridge

Toner Cartridge

Comportant)

Do not touch the ID chip with bare hands.



<u>1.</u> Open the front cover by pressing the front cover button.

2. Turn the lock lever [A], and then press down until it is horizontal.





<u>3.</u> Hold the grip to pull the toner cartridge [A] out.



Image Transfer

Image Transfer Roller

Before Replacing the Image Transfer Roller

User maintenance model:

Replace with an image transfer roller provided by the Maintenance Kit. The PM counter for the fusing unit is reset automatically, and at the same time, the counter for the image transfer roller is also reset.

Service maintenance model:

Before replacing the image transfer roller, reset the PM counter.

- **<u>1.</u>** Turn the power ON and enter the SP mode.
- 2. Execute the SP7-804-004 (Reset PM Counter: Trans.) to reset the PM counter.
- 3. Turn the power OFF.

Replacing the Image Transfer Roller

Vote

Do not touch the surface of the new image transfer roller.

- **<u>1.</u>** Remove the PCDU. (PCDU)
- **<u>2.</u>** Pinch both green ends of the guide [A], and then pull it towards you.



3. Remove the image transfer roller [A].



• Note

Attach the image transfer roller with the black ring on the left end and the white ring on the right end. Place the transfer roller on the bearing of the guide plate pulled out in Step 2, and then gently push the guide plate down.



Discharge Plate

To Remove the Discharge Plate

- **<u>1.</u>** Remove the PCDU. (PCDU)
- Remove the image transfer roller. (Image Transfer Roller) <u>2.</u>
- Slide the discharge plate [A] to the right to remove it. <u>3.</u>



To Install the Discharge Plate

<u>1.</u> Set the discharge plate [A] against the right side [B], and then insert it at the bottom.



- 2. Insert the discharge plate [A] into the gap between the tabs [B] and the back frame, and then slide it to the left.
- 3. Make sure that the position of the arrow marked on the discharge plate matches the three marks on the main frame shown below.



Image Creation Thermistor (TH5)

- 1. Remove the PCDU. (PCDU)
- 2. Remove the HVPS with the bracket. (HVPS with the Bracket)
- 3. Remove the cover seal [A] for the image creation thermistor (TH5).



d0apc4225

Note

Do not reuse the removed cover seal. Replace it with a new seal.

<u>4.</u> Remove the image creation thermistor (TH5) [A].



ଙ x1 ଙ x1 ≅x2

d0apc4226

Fusing

Fusing Unit

Before Replacing the Fusing Unit

User maintenance model:

Replace with a fusing unit provided by the Maintenance Kit. The new fusing unit detection fuse is provided with the fusing unit in the Maintenance Kit.

When the machine detects the new fusing unit, the PM counter is reset automatically, and at the same time, the counter for the image transfer roller is also reset.

Service maintenance model:

Before replacing the fusing unit, reset the PM counter.

- **<u>1.</u>** Turn the power ON and enter the SP mode.
- 2. Execute the SP7-804-003 (Reset PM Counter: Fuser) to reset the PM counter.
- **<u>3.</u>** Turn the power OFF.

Replacing the Fusing Unit

Fusing unit parts are very hot and may cause burn injury. Please wait after powering off the machine until it is cool to the touch before advancing.

<u>1.</u> Open the rear cover [A].



d0apc4002

<u>2.</u> Remove the fusing unit [A] while pinching the green levers on the handle.



Fusing Upper Cover

- **<u>1.</u>** Remove the fusing unit. (Fusing Unit)
- 2. Remove the drawer connector cover [A].



3. Remove the fusing front cover [A].



©‴x2

d0apc4403

<u>4.</u> Remove the fusing upper cover [A].



Vote

Since the four kinds of screws are used, be careful when assembling.



d0apc4405

Call out	Screw	Call out	Screw
[A]	Shoulder screw	[B]	Tapping screw (M3)
	Algue .		24
[C]	Bind screw with washer (M4)	[D]	Hexagonal screw with washer (M3)
			and the second s

The plate nuts, pins, and plate can be easily removed. After removing the fusing upper cover, do not lose until assembling the fusing unit.



Fusing Thermistor (TH1)

- 1. Remove the fusing upper cover. (Fusing Upper Cover)
- 2. Remove the fusing thermistor (TH1) [A].



@Px1

d0apc4406

Fusing Thermostat (Center, End) (TH4, TH3)

- 1. Remove the fusing upper cover (Fusing Upper Cover)
- <u>2.</u> Remove the plate nut [C] to remove the fusing thermostat (center) (TH4) [A] and the fusing thermostat (end) (TH3) [B].



@Px2

Fusing Lamp

- **<u>1.</u>** Remove the fusing upper cover. (Fusing Upper Cover)
- 2. Pull out the fusing lamp [A] from the left side.



d0apc4408

Hot Roller Stripper

- 1. Remove the fusing upper cover. (Fusing Upper Cover)
- 2. Remove the hot roller strippers with the bracket [A].



OPx2

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3. Release the hooks and springs to remove the hot roller strippers [A].



Hot Roller

- **<u>1.</u>** Remove the fusing upper cover. (Fusing Upper Cover)
- 2. Remove the fusing thermistor (TH1). (Fusing Thermistor (TH1))
- **<u>3.</u>** Remove the fusing lamp. (Fusing Lamp)
- 4. Remove the hot roller strippers with the bracket. (Hot Roller Stripper)
- 5. Turn the position detection feeler [A] lightly clockwise to release the spring tension.



Vote

When the machine power supply is off, the hot roller and pressure roller are pulled apart, so the pressure spring is extended (under high tension).

<u>6.</u> Remove the springs [A] on both sides.



Important

When removing the springs, press the side plates (circled in red). Do not apply force the top plate (marked yellow).



d0apc4415

- Image: Window Wi Window Wind
- 7. Remove the screws of the bracket [A] on both sides, and then remove the harness guide [B].

8. Remove the bracket [A].

Release the boss cap (1), raise bracket [A], and then release the boss cap (2).



<u>9.</u> Remove the hot roller [A].



Pressure Roller

- 1. Remove the hot roller. (Hot Roller)
- 2. Remove the pressure roller [A].



d0apc4420

Coloritant 🔿

Never disassemble entrance guide plate [A]. Disassembling the entrance guide plate could cause the paper wrinkles.



d0apc4411

Vote

The discharge brush [A] is attached while it is in contact with the pressure roller.



After reattaching the pressure roller, you need to make the discharge brush in the correct position without removing the entrance guide plate. Rotate the pressure roller in the backward direction, or scoop up the discharge brush with a flat-head screwdriver.

[A]: Correct position

[B]: Abnormal position



Fusing Thermopile (TH2)

- 1. Remove the fusing unit. (Fusing Unit)
- **<u>2.</u>** Remove the fusing thermopile (TH2) with the cover [A], and then disconnect the connector.



d0apc4425

A

3. Release the two hooks to remove the thermopile (TH2) [A] from the cover.



Fusing Pressure/Release Motor (M2)

- Remove the left cover. (Left Cover (Printer), Left Cover (MF)) <u>1.</u>
- <u>2.</u> Remove the fusing unit. (Fusing Unit)
- 3. Remove the fusing pressure/release motor (M2) [A].



d0apc4422

Fusing Nip Pressure Position Sensor (S7)

- 1. Remove the fusing pressure/release motor (M2). (Fusing Pressure/Release Motor (M2))
- <u>2.</u> Remove the Fusing nip pressure position sensor (S7) [A] with the bracket.



@x1 @x1

d0apc4423

Remove the Fusing nip pressure position sensor (S7) [A] from the bracket. <u>3.</u>



Paper Feed

Paper Feed Roller

Important

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

- **<u>1.</u>** Turn the power ON and enter the SP mode.
- 2. Execute the SP7-804-005 (Reset PM Counter: Feed Tray) to reset the PM counter.
- 3. Turn the power OFF.
- **<u>1.</u>** Remove the paper tray.
- 2. Slide the lever [A] to the left to remove the paper feed roller [B].



Separation Roller

Comportant)

Before replacing the separation roller, reset the PM counter.

- **<u>1.</u>** Turn the power ON and enter the SP mode.
- 2. Execute the SP7-804-006 (Reset PM Counter: Spr. Tray) to reset the PM counter.
- 3. Turn the power OFF.
- **<u>1.</u>** Pull out the paper tray.

2. Remove the inner cover [A] while pressing the two lock buttons in the paper tray.



<u>3.</u> Raise the holder of the separation roller [A] and remove it.



<u>4.</u> Remove the separation roller [A] from the holder.



Bypass Feed Roller

Important

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

- **<u>1.</u>** Turn the power ON and enter the SP mode.
- 2. Execute the SP7-804-057 (Reset PM Counter: Feed Bypass) to reset the PM counter.
- **<u>3.</u>** Turn the power OFF.
- 1. Remove the PCDU. (PCDU)
2. Open the cover [A] of the bypass feed roller.



<u>3.</u> Remove the bypass feed roller [A] with the shaft.Slide the shaft to the left, and then detach the right end of the roller first.



4. Release the hook to remove the bypass feed roller [A].



Vote

When attaching the bypass feed roller, insert the left end of the roller with the spring into the hole [A] of side plate first. Then slide the roller to the left, and then insert the right end of the roller into bearing [B].



d0apc453

If the shaft is not attached correctly, a paper jam will occur.

If the roller surface [A] is not set correctly as shown below, hold the end of the bypass feed roller [B] and turn it manually several times in the feed direction to seat the roller automatically. Avoid touching the surface of the roller while doing this.



d0apc 4536

Paper End Sensor (S6), Paper Near-end Sensor (S4)

- **<u>1.</u>** Remove the bypass feed unit. (Bypass Feed Unit)
- Release the two hooks on the upper side, and then turn the inner cover [A] toward you to remove <u>2.</u>



<u>3.</u> Release the two hooks on the upper side, and then turn the paper feed guide [A] toward you to remove it.



•Note

When attaching the paper feed guide, make sure that the paper near-end sensor feeler [A] is set correctly as shown below.

it.



<u>4.</u> Remove the paper end sensor (S6) [A].



5. Remove the bracket [A], and then remove the paper near-end sensor (S4) [B].



@ x1 𝒞 x1 🖏 x1

d0apc4508

Bypass Feed Unit

- 1. Remove the right cover. (Right Cover (Printer), Right Cover (MF))
- 2. Remove the left cover. (Left Cover (Printer), Left Cover (MF))
- 3. Remove the front cover. (Front Cover (Printer), Front Cover (MF))
- 4. Remove the bypass feed roller. (Bypass Feed Roller)
- Remove the bypass lift clutch (CL3). (Bypass Lift Clutch (CL3)) <u>5.</u>

280

6. Remove the bypass feed unit [A].



Bypass Friction Pad

C Important

Before replacing the bypass friction pad, reset the PM counter.

- Turn the power ON and enter the SP mode. 1.
- <u>2.</u> Execute the SP7-804-058 (Reset PM Counter: Spr. Bypass) to reset the PM counter.
- 3. Turn the power OFF.
- **<u>1.</u>** Remove the bypass feed unit. (Bypass Feed Unit)
- <u>2.</u> Remove the guide plate [A].



- **<u>3.</u>** Remove the bottom plate [A] upward.

While turning the shaft of the bypass lift clutch (CL3) [B], avoid snagging the cam on lift link [C] on the bottom plate while removing it.



d0apc4515

4. Remove the bypass friction pad [A].



Bypass Paper End Sensor (S2)

- 1. Remove the bypass feed unit. (Bypass Feed Unit)
- **<u>2.</u>** Remove the bracket [A] with the bypass paper end sensor (S2).



ଙ∦x2 🖏x1

<u>3.</u> Remove the bypass paper end sensor (S2) [A] from the bracket.



Bypass Tray Sensor (S3)

- 1. Remove the bypass feed unit. (Bypass Feed Unit)
- 2. Remove the bypass feed unit lower cover [A].



3. Remove the bypass tray sensor (S3) [A].



☞x1

d0apc4514

Paper Size Switch (SW4)

1. Remove the right cover. (Right Cover (Printer), Right Cover (MF))

2. Remove the bracket [A] with paper size switch (SW4).



@°x3 ☞x1

d0apc4517

<u>3.</u> Release the two hooks to remove the paper size switch (SW4) [A] from the bracket.



Registration Sensor (S5)

- **<u>1.</u>** Remove the PCDU. (PCDU)
- 2. Open the cover [A] of the bypass feed roller to disconnect the connector, and then pull it towards you to remove.



Note

The cover of the bypass feed roller is notched, so pull while raising it.



3. Release the five hooks to remove the harness cover [A].



4. Remove the registration sensor (S5) [A].



Registration Roller

- 1. Remove the bypass feed unit. (Bypass Feed Unit)
- 2. Remove the HVPS with the bracket. (HVPS with the Bracket)

<u>3.</u> Remove the bearing [A] of the registration drive roller on the left side.



- 4. Remove the registration clutch (CL5). (Registration Clutch (CL5))
- 5. Remove the bearing [A] of the registration drive roller on the right side.



- 6. Remove the registration sensor (S5). (Registration Sensor (S5))
- <u>7.</u> Remove the springs [B] of the holders for registration driven roller [A] on both sides, and then slide the holder (left end white, right end black) to remove the registration driven roller with the holders.



<u>8.</u> Remove the registration drive roller [A].



Vote

When attaching/removing the registration drive roller, be careful not to damage it with the edge of the cover sheet.

Paper Exit/ Duplex

Paper Exit Full Sensor (S10)

- **<u>1.</u>** Remove the upper cover. (Upper Cover (Printer), Upper Cover (MF))
- 2. Remove the Paper exit full sensor (S10) [A].



Paper Exit/Reverse Sensor (S1)

- 1. Remove the rear cover. (Rear Cover (Printer), Rear Cover (MF))
- 2. Remove the harness cover [A] and release the harness.



@Px1

d0apc4537

Note

There are four hooks inside the harness cover. Before removing the harness cover, check the locations of the hooks in the photo below.



3. Release the two hooks, and then remove the duplex unit [A].



OPX3

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<u>4.</u> Remove the guide plate [A].



5. Remove the paper exit/reverse sensor (S1) [A].



☞x1

d0apc4525

Duplex Entrance Sensor (S8)

1. Remove the Fusing unit. (Fusing Unit)

2. Remove the bracket [A], and then remove the duplex entrance sensor (S8) [B].



⊕ x1 ☞ x1

Exit/Reverse Motor (M1)

- 1. Remove the upper cover. (Printer models: Upper Cover (Printer), MF models: Upper Cover (MF))
- <u>AF model</u>: Remove the SCB with bracket. (SCB with the Controller Box (MF Model))
 Printer model: Remove the controller board. (Controller Board (Printer Model))
- **<u>3.</u>** Remove the exit/reverse motor (M1) [A].



⊕x2 ⊊x1 ©x1

d0apc4322

Exit Junction Gate Solenoid (SOL1)

<u>1.</u> Remove the upper cover. (Upper Cover (Printer), Upper Cover (MF))

2. Remove the exit junction gate solenoid (SOL1) [A].



@%x2 @€x1 ~~_x1

Drive Units

Toner Supply Clutch (CL2)

- 1. Remove the right cover. (Right Cover (Printer), Right Cover (MF))
- **<u>2.</u>** Remove the clutch cover [A].



•Note

Work carefully when assembling. The bearing [A] can catch easily on the clutch cover and become disengaged.



d0apc4326

MF model: Carefully remove the FFC attached to the clutch cover with double-sided tape to avoid damage to the FFC.



3. Remove the toner supply clutch (CL2) [A].



Note

When you install the toner supply clutch (CL2), match the gear notches [A] (x3) with the cogs [B] (x3). Also, the gear shaft is "D" cut so match it with the "D" cut hole of the clutch.



When attaching the toner supply clutch (CL2), make sure that the clutch connector is set over the holder.



d0apc4304

Bypass Feed Clutch (CL4)

1. Remove the right cover. (Right Cover (Printer), Right Cover (MF))

<u>2.</u> Remove the clutch cover [A].



Vote

Work carefully when assembling. The bearing [A] can catch easily on the clutch cover and become disengaged.



d0apc4326

MF model: Carefully remove the FFC attached to the clutch cover with double-sided tape to avoid damage to the FFC.



- <image>
- 3. Remove the bypass feed clutch (CL4) [A].

Vote

When you install the bypass feed clutch (CL4), match the gear notches [A] (x3) with the cogs [B] (x3). Also, the gear shaft is "D" cut so match it with the "D" cut hole of the clutch.



When attaching the bypass feed clutch (CL4), make sure that the connector of the clutch is set over the holder as shown below.



d0apc4306

Bypass Lift Clutch (CL3)

- 1. Remove the right cover. (Right Cover (Printer), Right Cover (MF))
- 2. Remove the front cover. (Front Cover (Printer), Front Cover (MF))

3. remove the bypass lift clutch (CL3) [A].



☞x1 🕅x1

d0apc4307

Vote

When attaching the bypass lift clutch (CL3), make sure that the connector of the clutch is set over the holder as shown below.



Registration Clutch (CL5)

- 1. MF model: Remove the SCB with the bracket. (SCB with the Controller Box (MF Model)) Printer model: Remove the BCU with bracket. (BCU with the Bracket (Printer Model))
- 2. Remove the registration clutch (CL5) [A].



☞x1 🕅x1

d0apc4309

Paper Feed Clutch (CL6)

1. MF model: Remove the SCB with the bracket. (SCB with the Controller Box (MF Model))

Printer model: Remove the BCU with the bracket. (BCU with the Bracket (Printer Model))

2. Remove the paper feed clutch (CL6) [A].



x1 🕅 x1

d0apc4310

Duplex Clutch (CL1)

- 1. MF model: Remove the SCB with the bracket. (SCB with the Controller Box (MF Model)) Printer model: Remove the controller board. (Controller Board (Printer Model))
- 2. Remove the duplex clutch (CL1) [A].



☞x1 @x1

d0apc4311

Relay Clutch (CL7)

- Remove the toner supply clutch (CL2). (Toner Supply Clutch (CL2)) <u>1.</u>
- <u>2.</u> Remove the bypass feed clutch (CL4). (Bypass Feed Clutch (CL4))
- 3. Remove the bypass lift clutch (CL3). (Bypass Lift Clutch (CL3))
- Remove the registration clutch (CL5). (Registration Clutch (CL5)) 4.
- 5. Remove the paper feed clutch (CL6). (Paper Feed Clutch (CL6))
- <u>6.</u> Remove the drum motor unit. (Drum Motor (M3))
- Remove the paper size switch (SW4). (Paper Size Switch (SW4)) 7.

8. Remove the brackets [A], [B], and [C].



@P x3

d0apc4329

9. Remove the gear unit [A].



OPx5

d0apc4312

Vote

When removing the gear unit, be careful not to injure the belt linked to the front cover.



d0apc4330

When you install the gear unit, confirm that the two pegs of the joint lever [A] are inserted correctly into the rings of the toner supply/collection drive link.



<u>10.</u> Remove the gear [A] on the relay clutch (CL7).



11. Remove the relay clutch (CL7) [A].



d0apc4314

Drum Motor (M3)

MF model: Remove the SCB with the bracket. (SCB with the Controller Box (MF Model))
 Printer model: Remove the BCU with the bracket. (BCU with the Bracket (Printer Model))

2. Printer model: Remove the harness guide [A].



<u>3.</u> Printer model: Remove the PCDU cooling fan (right) (FAN1) [A] with the duct.



<u>4.</u> Close the front cover or push in the joint lever [A], then remove the screw at the joint lever junction[B] that came out.



5. Remove the drum motor (M3) unit [A].



@x4 &x1

d0apc4317

Vote

When you re-install the drum motor (M3) unit, confirm that the joint lever [A] is set correctly in the drive link ring of the drum as shown below.



6. Remove the drum motor (M3) [A].



Feed/Fusing Motor (M4)

MF model: Remove the SCB with the bracket. (SCB with the Controller Box (MF Model))
 Printer model: Remove the BCU with the bracket. (BCU with the Bracket (Printer Model))

<u>2.</u> Printer model: Remove the harness guide [A].



@Px1 \\$x1

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- 3. Remove the duplex clutch (CL1). (Duplex Clutch (CL1))
- 4. Remove the Rear interlock switch (SW2) [A] with the bracket.



5. Remove the feed/fusing motor (M4) unit [A].



6. Remove the feed/fusing motor (M4) [A].



OPX3

Electrical Components

SCB (MF Model)

- **<u>1.</u>** Remove the right cover. (Right Cover (MF))
- 2. Remove the controller box lower cover [A].



3. Disconnect the harness, and then pull out the interface cover [A] to remove it.



⊕x7 ⊊x1

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<u>4.</u> Remove the controller box [A].



S℃x4 S€x2 \\$x3

5. Remove the SCB [A].



<u>6.</u> Remove the NVRAM [A], [B], [C], and the two guide rails [D] from the old SCB, and then install them on the new SCB.



Vote

Install the NVRAM so the indentation on the NVRAM, face the indentation marks on the SCB. If they are not installed correctly, the SCB may be damaged.

Make sure that the three NVRAMs are correctly installed on the SCB as shown above at:

- [A]: No seal
- [B]: 2M-1
- [C]: 2M-2

If a message tells that you need an SD card to restore settings after the NVRAM replacement, create an "SD card for restoration".

NVRAM on the SCB

Three NVRAM are mounted on the SCB, one engine NVRAM [A] and two controller NVRAM [B] and [C]. When you replace an NVRAM, follow the steps in the engine NVRAM and controller NVRAM replacement procedures described below. Always replace controller NVRAM together as a paired set.



Engine NVRAM Replacement

- **<u>1.</u>** Make sure you have the SMC Report (factory settings).
- **<u>2.</u>** Print out the SMC Report (all data) with SP5-990-001.
- 3. Turn the main power OFF.
- 4. Install an SD card into SD Card Slot 2 (lower slot).
- 5. Turn the main power ON.
- 6. Copy the NVRAM data to an SD card with SP5-824-001.
- 7. Turn the main power OFF. Disconnect the power cord.
- 8. Replace the NVRAM on the SCB and reassemble the machine. (SCB (MF Model))
- 9. Connect the power cord. Then turn the main power ON.

Note

When you do this, SC995 will be displayed. However, DO NOT turn off the main power. Continue with this procedure.

- 10. Select the destination setting with SP5-131-001. (JPN: 0, NA: 1, EU/AA/TWN/CHN: 2)
- **<u>11.</u>** Enter the SCB serial number and area code.

Note

- For information on how to configure this SP, contact the supervisor in your branch office.
- Refer to the following area code/destination list.
 - 1: Japan

- 2: North America
- 3: Europe
- 4: Taiwan
- 5: Asia
- 6: China
- 7: Korea
- **<u>12.</u>** Power cycle the machine.

Vote

If the SCB serial number is not entered correctly, SC995-01 (serial number entry error) will occur.

- 13. Copy the data from the SD card to the new NVRAM with SP5-825-001.
- 14. Turn the main power OFF.
- 15. Remove the SD card from SD Card Slot 2 (lower slot).
- **16.** Turn the main power ON.
- **17.** Check the factory settings sheet from step 1 and the SMC data printout from step 2, and then set the user tool and SP settings so they are the same as before.

Controller NVRAM Replacement

- 1. Make sure you have the SMC Report (factory settings).
- 2. Print out the SMC report (all data) with SP5-990-001.
- 3. Turn the main power OFF.
- 4. Install an SD card into SD Card Slot 2 (lower slot).
- 5. Turn the main power ON.
- 6. Copy the NVRAM data to an SD card with SP5-824-001.

Note

Note the following SP settings. They will not be automatically uploaded to the SD card. These settings will be input manually.

- SP5-895-001 (Application invalidation: Printer)
 0: Valid, 1: Invalid
- SP5-895-002 (Application invalidation: Scanner)
 0: Valid, 1: Invalid
- SP5-985-001 (Device Setting: On Board NIC)
 0: Invalid, 1: Valid
- SP5-985-002 (Device Setting: On Board USB)
 0: Invalid, 1: Valid
- <u>7.</u> Make sure the customer has a backup of their address book data. If they do not, do the following procedure to create a backup.
 - 1. Insert an SD card into SD slot 2, and then turn the main power ON.
 - 2. Save the address book data in the SD card using SP5-846-051.

Note

- The address data stored in the machine will be discarded later during this procedure. So be sure to obtain a backup of the customer's address book data.
- Note that the counters for the user will be reset when doing the backup/restore of the address book data.
- If they have a backup of the address book data, use their own backup data for restoration. There is a risk that the data cannot be backed up properly depending on the NVRAM condition.
- **<u>8.</u>** Do the following steps if the machine has the fax unit. If not, skip this step.
 - 1. Print the Box List by with the User Tools/Counter.
 - [User Tools/Counter] [Facsimile Features] [General Settings] [Box Setting: Print List]
 - 2. Print the Special Sender List by pressing these buttons in the following order.
 - [User Tools/Counter] [Facsimile Features] [Reception Settings] [Program Special Sender: Print List]
 - 3. Write down the following fax settings.
 - [Receiver] in [User Tools/Counter] [Facsimile Features] [Reception Settings] -[Reception File Settings] - [Forwarding].
 - [Notify Destination] in [User Tools/Counter] [Facsimile Features] [Reception Settings] -[Reception File Settings] - [Store].
 - [Specify User] in [User Tools/Counter] [Facsimile Features] [Reception Settings] -[Stored Reception File User Setting].
 - [Notify Destination] in [User Tools/Counter] [Facsimile Features] [Reception Settings] -[Folder Transfer Result Report].
 - Specified folder in [User Tools/Counter] [Facsimile Features] [Send Settings] [Backup File TX Setting].
 - [Receiver] in [User Tools/Counter] [Facsimile Features] [Reception Settings] [Reception File Settings] [Output Mode Switch Timer].
 - [Store: Notify Destination] in [User Tools/Counter] [Facsimile Features] [Reception Settings] [Output Mode Switch Timer].
 - All the destination information is shown on the display.

Note

In the fax settings, address book data is stored with entry IDs, which the system internally assigns to each data. The entry IDs may be changed due to re-assigning in backup/restore operations.

- 4. Make sure that there are no files queued for sending. Ask the customer to send any files waiting for transmission.
- <u>9.</u> Turn the main power OFF. Disconnect the power cord.
- **10.** Remove the SD card containing the NVRAM data from Slot 2.

- 11. Replace the NVRAM on the controller board and reassemble the machine. (SCB (MF Model))
- **12.** Connect the AC power cord, and then turn the main power ON.

Note

- Do not insert anything into SD Card Slot 2.
- SC673 appears at start-up, but this is normal because the controller and the smart operation panel cannot communicate with each other due to changes in the operation panel SP settings.
- **<u>13.</u>** Change the SP settings for the operation panel.

If you switch the screen to enter the SP mode, SC995-02 is displayed. However, continue the following steps.

- SP5-748-101: (OpePanel Setting: Op Type Action Setting): Change bit 0 from 0 to 1.
- SP5-748-201: (OpePanel Setting: Cheetah Panel Connect Setting): Change the value from 0 to 1.
- 14. Change the Flair API SP values.
 - SP5-752-001 (Copy FlairAPIFunction Setting): Change bit from 0 to 1.
 - SP3-301-001 (FAX:FlairAPI Setting) Change bit from 0 to 1.
- **15.** Power cycle the machine.

Note

- The model information is written on the NVRAM (Novita), so SC995-02 does not occur.
- Program/Change Administrator will be displayed in Japanese, but this is normal.
- 16. Enter the SP mode and input the following SP settings according to the notes you made in Step 6.
 - SP5-985-001 (Device Setting: On Board NIC)
 - SP5-985-002 (Device Setting: On Board USB)
- **17.** Re-insert the SD card that you removed in Step 10 back into Slot 2.
- **18.** Download the old NVRAM data from the SD card onto the new NVRAM with SP5-825-001 (NVRAM Data Download).

Note

This will take about 2 or 3 minutes.

- **19.** Turn the main power OFF, and then remove the SD card from the lower slot.
- 20. Turn the main power ON.

The screen "Program/Change Administrator" will be displayed in the language that is the same language as the time when the data was uploaded to the SD card in Step 6.

21. Execute SP5-755-002 (Hide Administrator Password Change Scrn).

After you execute this SP and exit SP mode, the Home screen is displayed and user functions can be used.

- **22.** Check that the fax and scanner icons are displayed, and then input the following SP settings according to the notes taken in Step 6.
 - SP5-895-001 (Application invalidation: Printer)
 - SP5-895-002 (Application invalidation: Scanner)

- 4.Replacement and Adjustment
- **23.** If the security functions (e.g. Stored file encryption/ Auto Erase Memory Setting) were applied, set the functions again.
- 24. Ask the customer to restore their address book or restore the address book data using SP5-846-052 (UCS Setting: Restore All Addr Book), and then ask the customer to ensure the address book data has been restored properly.

Content Content Content Content Content

If you obtained the backup of the customer's address book data in step 3, delete the backup immediately after the NVRAM replacement to avoid accidentally removing customer information from the work site.

25. Output all the SMC data with SP5-990-001 and make sure all the SP/UP settings, except counter information, are properly restored by checking the factory setting sheet from Step 1 and the SMC Report from Step 2.

Note

The counters will be reset.

- **<u>26.</u>** Make sure that the "Reception Settings" and "Send Settings" correspond with the notes taken in Step 8. Correct the settings if they are wrong.
- **<u>27.</u>** Power cycle the machine.

🔂 Important 🔵

If SP5-824-001 (NVRAM Data Upload) and SP5-825-001 (NVRAM Data Download) cannot be executed for some reason, enter all data on the SMC Report manually.

Vote

If the message "SD card for restoration is required." appears after the NVRAM replacement, restore the encryption key.

SCB with the Controller Box (MF Model)

- **<u>1.</u>** Remove the right cover. (Right Cover (MF))
- 2. Remove the SCB [A] with the controller box.



HDD (MF Models)

Before HDD Replacement

- **<u>1.</u>** Insert an SD card in SD Card Slot 2 (lower slot).
- **<u>2.</u>** Enter the SP mode.
- 3. Execute SP5-846-051 to upload the address book data to the SD card.

Vote

If the HDD is damaged, you may not be able to retrieve this data from the HDD.

Replacement Procedure

- 1. Remove the right cover. (Right Cover (MF))
- 2. Remove the HDD cover [A].



3. Remove the HDD [A] with the bracket.



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4. Remove the HDD [A] from the bracket.



Px4

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Contract Important

- HDD units must not be removed without the consent of owner from the machine under no circumstances, even if you suspect that it has been damaged.
- For the safekeeping or disposal reasons, leave the HDD unit with the customer.
- The HDD may contain proprietary or classified information (confidential, personal or sensitive data). Such as Document Server data and/or temporary files created automatically during copying, job sorting, and jam recovery. This data stored on the HDD is encrypted and cannot be read directly however it is possible to access via 3rd party.

After HDD Replacement

When you turn the main power ON after installing the new HDD, initialization of the disk starts automatically.

- **<u>1.</u>** Enter the SP mode.
- 2. Execute SP5-846-052 to restore the address book data from the SD card to the HDD.

Note

If the customer is using Data Overwrite Security, the Data Encryption feature or the Searchable PDF feature, these applications must be installed again.

FCU Board (Fax Model)

Accessory

The FCU board of the service part contains the following items included in the package.

- FCU •
- FFC •
- Jumper •
- Bracket •

When you replace the FCU board, transfer the SRAM data from the old FCU board to the new FCU board.

Note

The following data can be transferred:

TTI
- RTI
- CSI
- Fax bit switch settings
- RAM address settings
- NCU parameter settings.

Replacement Procedure

- 1. Remove the right cover. (Right Cover (MF))
- <u>2.</u> Remove the controller box lower cover [A].



3. Disconnect the harness, and then pull out the interface cover [A] to remove it.



x7 ☞x1

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4. Remove the FCU [A].



@Px3

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5. Attach the jumper [A] on the removed FCU board [B]. The jumper comes with the new FCU board.



<u>6.</u> Change the position of the battery jumper [A] on the new FCU board [B]. If the battery jumper is not in the correct position, SC820 will occur.



- 7. Attach the new FCU board to the interface cover.
- **<u>8.</u>** Attach the interface cover to the machine, and then connect the harness.
- **<u>9.</u>** Connect one end of the supplied FFC [A] into the CN603 connector [B] on the new FCU board. Make sure that the blue tape of the flat cable faces outward.



Vote

The FFC connector has a lock lever [A]. Tilt the lever to lock the FFC.



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10. Use a pair of radio pliers to flatten the marked tab [A] against the bracket provided with the new FCU board.



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<u>11.</u> Attach the bracket [A] above to the controller box.



@Px1

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12. Attach the old FCU board [A] to the bracket temporarily.



Vote

Mount the PCB and bracket so both are horizontal.

If the contact surface of bracket [A] cuts into the base plate as shown below, this could cause a short circuit between the element and the bracket and damage the PCB.



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13. Connect the other end of the FFC [A] into the CN603 connector on the old FCU board. Make sure that the blue tape of the flat cable faces outward.



Vote

The FFC connector has the lock lever [A], so tilt the lever to lock the FFC.

- 14. Turn the main power ON.
- 15. The SRAM data transfer begins. Once the transfer is completed, it will beep to indicate that the

process has been completed.

Vote

- The volume of the beeping is set to the same level as the speaker volume.
- If the speaker volume is set to off, the volume of the beeping is set to its initial factory-set level.
- If the machine does not beep, turn the main power OFF and then ON, and attempt data transfer again. Try several times if necessary.
- Be sure to check the transfer result after executing data transfer. If the transfer has failed, you need to specify settings manually in the SP mode.
- **16.** When "Ready" is displayed on the control panel, turn the power OFF, and remove the AC power plug from the receptacle.
- 17. Disconnect the FFC from both FCU boards, and then remove the old FCU board with the bracket.
- 18. Reattach the covers.
- **19.** Turn the main power ON.
- 20. Enter the SP mode.
- **<u>21.</u>** Print the system parameter list from SP6-101 in the Fax SP menu, and then check the list to see whether the SRAM data has been transferred correctly.
- 22. Set the correct date and time from the [User Tools].

User Tools > Machine Features > System Settings > Timer Setting > Set Date/Time

Note

If any of the SRAM data was not transferred, input those settings manually.

Speaker (Fax Model)

- 1. Remove the right cover. (Right Cover (MF))
- 2. Remove the controller box lower cover [A].



⊕® x4

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3. Disconnect the harness, and then pull out the interface cover [A] to remove it.



@x7 \$x1

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<u>4.</u> Remove the controller box [A].



5. Remove the speaker [A] from the controller box.



Controller Board (Printer Model)

1. Remove the right cover. (Right Cover (Printer))

<u>2.</u> Remove the controller box [A].



ଙ x6 🖗 x1

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<u>3.</u> Slide the controller board [A] with the bracket to the right.



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Vote

When attaching the controller board, fasten the screws in the following order.



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4. Release the three hooks, and then remove the controller board [A].



<u>5.</u> Remove the NVRAM [A] and the two guide rails [B] from the old controller board, and then install them on the new controller board.



Install the NVRAM so that the indentation on the NVRAM face the indentation marks on the controller board. If they are not installed correctly, the controller board may be damaged. Make sure that the NVRAM [A] is correctly installed on the controller board by comparing with the photo above.

If a message tells you that you need an SD card to restore settings after the NVRAM replacement, create an "SD card for restoration".

NVRAM on the Controller Board

• Note

- 1. Print out the SMC Report (factory settings) with SP5-990-006.
- 2. Print out the SMC Report (all data) with SP5-990-001.
- 3. Turn the main power OFF.
- 4. Install an SD card into SD Card Slot 2 (lower slot).
- 5. Turn the main power ON.
- **<u>6.</u>** Copy the NVRAM data to an SD card with SP5-824-001.

- 7. Turn the main power OFF. Disconnect the power cord.
- 8. Remove the SD card containing the NVRAM data from Slot 2.
- **<u>9.</u>** Replace the NVRAM on the controller board and reassemble the machine. (Controller Board (Printer Model))
- **<u>10.</u>** Connect the AC power cord, and then turn the main power ON.

Note

- Do not insert an SD Card in Slot 2.
- When you do this, SC995-02 (Defective NVRAM) will be displayed. However, DO NOT turn the main power OFF. Continue with this procedure.
- 11. Reinsert the SD card that you removed in Step 8 back into Slot 2.
- **12.** Download the old NVRAM data from the SD card onto the new NVRAM using SP5-825-001 (NVRAM Data Download).

Note

This will take about 2 or 3 minutes.

- **13.** Turn the main power OFF, and then remove the SD card from the lower slot.
- **<u>14.</u>** Turn the main power ON.
- **15.** If the security functions (e.g. Stored file encryption/ Auto Erase Memory Setting) were applied, set the functions again.
- 16. Output all the SMC data with SP5-990-001, and make sure all the SP/UP settings except for counter information are properly restored by checking the factory setting sheet from step 1 and the SMC Report from step 2.

Vote

The counters will be reset.

17. Power cycle the machine.

🔁 Important 🔵

If SP5-824-001 (NVRAM Data Upload) and SP5-825-001 (NVRAM Data Download) cannot be executed for some reason, enter all data on the SMC Report manually.

BCU (Printer Model)

- 1. Remove the controller board. (Controller Board (Printer Model))
- 2. Remove the upper cover. (Upper Cover (Printer))

<u>3.</u> Release the two hooks to remove the harness guide [A].





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Vote

Remove the harness guide tab from the right side. Check the position of the harness guide tab in the photo below.



<u>4.</u> Remove the BCU [A].



• Note

The board [A] is fastened to the bracket with three tabs. Before removing the BCU, confirm the locations of the tabs in the photo below.



When attaching the BCU, fasten the screws in the following order.



5. Remove the NVRAM [A] from the old BCU, and then install it on the new BCU [B].



• Note

Install the NVRAM so that the indentation on the NVRAM faces the indentation mark on the controller board. If they are not installed correctly, the controller board may be damaged. Make sure that the NVRAM is correctly installed on the controller board by comparing the installation with the photo above.

Set the DIP switches [B] on the new BCU to the same settings as the old board.

- **<u>6.</u>** Attach the new BCU.
- <u>7.</u> Reattach the covers.

- **<u>8.</u>** Turn the main power ON and enter the SP mode.
- 9. Enter the BCU serial number with SP5-811-004.

Note

If the BCU serial number is not entered correctly, SC995-01 (serial number entry error) will occur.

10. Power cycle the machine.

NVRAM on the BCU

- 1. Print out the SMC Report (factory settings) with SP5-990-006.
- 2. Print out the SMC Report (all data) with SP5-990-001.
- 3. Turn the main power OFF.
- 4. Install an SD card into SD Card Slot 2 (lower slot).
- 5. Turn the main power ON.
- 6. Copy the NVRAM data to an SD card with SP5-824-001.
- <u>7.</u> Turn the main power OFF. Disconnect the power cord.
- 8. Replace the NVRAM on the BCU and reassemble the machine. (BCU (Printer Model))
- 9. Connect the power cord. Then turn the main power ON.

Note

When you do this, SC995 will be displayed. However, DO NOT turn the main power OFF. Continue with this procedure.

- 10. Select the destination setting with SP5-131-001. (JPN: 0, NA: 1, EU/AA/TWN/CHN: 2)
- **<u>11.</u>** Enter the BCU serial number and area code.

Note

- For information on how to configure this SP, contact the supervisor in your branch office.
- Refer to the following area code/destination list.
 - 1: Japan
 - 2: North America
 - 3: Europe
 - 4: Taiwan
 - 5: Asia
 - 6: China
 - 7: Korea
- **<u>12.</u>** Power cycle the machine.

Note

If the BCU serial number is not entered correctly, SC995-01 (serial number entry error) will occur.

- 13. Copy the data from the SD card to the new NVRAM with SP5-825-001.
- 14. Turn the main power OFF.
- 15. Remove the SD card from SD Card Slot 2 (lower slot).
- 16. Turn the main power ON.
- 17. Check the factory settings sheet from Step 1 and the SMC data printout from Step 2, and set the

user tool and SP settings so they are the same as before.

BCU with the Bracket (Printer Model)

- 1. Remove the controller board. (Controller Board (Printer Model))
- 2. Remove the upper cover. (Upper Cover (Printer))
- 3. Release the two hooks to remove the harness guide [A].



☞x1 \\$x1

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Vote

Remove the harness guide tab from the right side. Check the position of the harness guide tab in the photo below.



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4. Disconnect the FFC from the BCU [A], and then remove the harness guide [B].



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5. Remove the BCU [A] with the bracket.



Ƴx4 ଙrx19 ∜x1

Vote

When attaching the BCU, fasten the screws in the following order.



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PSU

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



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200V models:



- 1. Remove the rear lower cover. (Printer models: Rear Lower Cover (Printer), MF models: Rear Lower Cover (MF))
- **<u>2.</u>** For MF models, remove the SCB with the bracket. (SCB with the Controller Box (MF Model)) For printer models, remove the controller board. (Controller Board (Printer Model))
- 3. Disconnect the harnesses from the PSU [A].



4. Remove the PSU [A] with the bracket. The harness is connected at the back. Pull it out slowly as

you remove it by pushing the bracket downward.



☞x1 💱x1

5. Remove the cover [A] from the PSU.



Toner End Sensor (S9)

- 1. Remove the left cover. (Left Cover (Printer), Left Cover (MF))
- 2. Remove the toner end sensor (S9) [A].



© x1 ☞ x1

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HVPS

- 1. Remove the left cover. (Left Cover (Printer), Left Cover (MF))
- 2. Release the hook to remove the HVPS [A].



HVPS with the Bracket

- 1. Remove the left cover. (Left Cover (Printer), Left Cover (MF))
- **<u>2.</u>** Release the harnesses on the bracket, and then remove the HVPS [A] and toner end sensor [B] with the bracket.



DC Switch (SW4)

1. Remove the left cover. (Left Cover (Printer), Left Cover (MF))

2. Remove the DC switch (SW3) [A] with the bracket.



@°x1 ☞x1 \$\$x1

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3. Remove the DC switch (SW3) [A] from the bracket.



@Px1

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Front Interlock Switch (SW1)

- 1. Remove the left cover. (Left Cover (Printer), Left Cover (MF))
- 2. Remove the front interlock switch (SW1) [A].



Rear Interlock Switch (SW2)

1. MF model: Remove the SCB with bracket. (SCB with the Controller Box (MF Model)) Printer model: Remove the controller board. (Controller Board (Printer Model)) 2. Remove the rear interlock switch (SW2) [A].



Temperature/Humidity Sensor (S11)

- 1. Remove the right cover. (Right Cover (Printer), Right Cover (MF))
- 2. Release the two hooks to remove the cover [A], and then remove the temperature/humidity sensor (S11) [B].



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NFC Board

- <u>1.</u> Open the bypass tray [A].
- Release the four hinges to detach the paper guide plate [B]. <u>2.</u>



3. Open the bypass tray about 90 degrees, and then remove the bypass tray [A]. Release the left hinge [B] first (which is C-cut) by pulling forward, and then release the right hinge [C] by pulling obliquely toward the left, front.



• Note

When re-installing the bypass tray, first set the right hinge with the bypass tray wide open.

4. Remove the screws of the front upper cover [A].



OPx2

- Open the front cover [A] by pressing the front cover button. <u>5.</u>
- <u>6.</u> Release the four hooks to remove the front upper cover [B].



7. Remove the harness guide [A] and cover [B], and then remove the NFC board [C].



@°x3 ☞x1

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Fans/ Filters

PCDU Cooling Fan (Right) (FAN1)

- 1. Remove the right cover. (Right Cover (Printer), Right Cover (MF))
- 2. Printer model: Remove the upper cover. (Upper Cover (Printer))
- 3. Remove the PCDU cooling fan (right) (FAN1) [A].

Printer model:



𝔐x2 ☞x1 鬃x1

MF model:



© x2 ☞ x1

Note

Fasten the cooling fan with its decal facing inside the machine.

MF model: When you remove or install a fan, pass the fan connector [A] through the sponge hole on the side of the duct. The sponge hole slightly is smaller than the connector, so work carefully to avoid tearing the sponge.



PCDU Cooling Fan (Left) (FAN2)

- 1. Remove the left cover. (Left Cover (Printer), Left Cover (MF))
- 2. Remove the PSU cooling fan (left) (FAN2) [A].



© x2 ☞ x1

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Vote

Fasten the cooling fan with its decal facing inside the machine.

PSU Cooling Fan (FAN3)

1. Remove the left cover. (Left Cover (Printer), Left Cover (MF))

<u>2.</u> Remove the PSU cooling fan (FAN3) [A].



✓Note

Fasten the cooling fan with its decal facing the inside of the machine.

Air Filters

<u>1.</u> Remove the filter cover (right) [A].



2. Remove the air filter (right) [A].The filter is attached with double-sided tapes [B].



<u>3.</u> Remove the filter cover (left) [A].



<u>4.</u> Remove the air filter (left) [A]. The filter is attached with double-sided tapes [B].



5. System Maintenance

Service Program Mode

Note

Make sure that the data-in LED (♣) is not on before you go into the SP mode. This LED indicates that some data is coming to the machine. When the LED is on, wait for the printer to process the data.

SP Tables

See "Appendices" for the following information:

- SP Tables SP1-XXX
- SP Tables SP2-XXX
- SP Tables SP3-XXX
- SP Tables SP4-XXX
- SP Tables SP5-XXX
- SP Tables SP6-XXX
- SP Tables SP7-XXX
- SP Tables SP8-XXX
- Printer SP Mode
- Scanner SP Mode
- Input and Output Check

Enabling and Disabling Service Program Mode

Vote

The Service Program Mode is for use by service representatives only, so that they can
properly maintain product quality. If this mode is used by anyone other than service
representatives for any reason, data might be deleted or settings might be changed. In such a
case, product quality cannot be guaranteed anymore.

Entering SP Mode

For details, ask your supervisor.

Vote

In the MF Model, if there are no Classic Application (copy/printer/scanner/fax) icons on the Home screen, follow the procedure below to display the number keyboard.

1. Press and hold the button [B] located at the right side of the operation panel and "Check Status [A]"

5.System Maintenance

at the same time, until the number keyboard is displayed.



<u>2.</u> Enter the key code for SP mode.



Exiting SP Mode

Press "Exit" on the LCD twice to return to the user screen.

In the printer model, press the [Escape] key.

Note

• To make the settings effective, turn the main power switch off and on after exiting service mode.

Types of SP Modes

For Printer Model

Туре	Description
Service SP	SP modes related to the controller/printer functions
Engine SP	SP modes related to the engine functions

Select one of the Service Program modes (Service, or Engine) with "Up/Down" keys, and then push the "OK" key.

[SP mode(Service)] Service Engine End

m0b0m0132

For MF Models

- System SP: SP modes related to the engine functions
- Printer SP: SP modes related to the controller functions
- Scanner SP: SP modes related to the scanner functions
- Fax SP: SP modes related to the fax functions

Select one of the Service Program modes (System, Printer, Scanner, or Fax) from the touch panel as shown in the diagram below after you access the SP mode. This section explains the functions of the System/Printer/Scanner SP modes. Refer to the Fax service manual for the Fax SP modes.

pP mode	MAIN 1.01	Exit
	System Sp	
	Fax Sp	
	Printer Sp	
	Scanner Sp	
	PM Counter	
	Firmware Update	
		25 111 - 20
		3:12
		d197z

Here is a short summary of the touch-panel buttons.

5.System Maintenance



1	Opens all SP groups and sublevels.
2	Closes all open groups and sublevels and restores the initial SP mode display.
3	Opens the copy window (copy mode) so you can make test copies. Press SP Mode (highlighted)
	in the copy window to return to the SP mode screen,
4	Enter the SP code directly with the number keys if you know the SP number. Then press [#].
	The required SP Mode number will be highlighted when pressing [#]. If not, just press the
	required SP Mode number.)
5	Press two times to leave the SP mode and return to the copy window to resume normal
	operation.
6	Press any Class 1 number to open a list of Class 2 SP modes.
7	Press to scroll the show to the previous or next group.
8	Press to scroll to the previous or next display in segments the size of the screen display (page).
9	Press to scroll the show the previous or next line (line by line).
10	Press to move the highlight on the left to the previous or next selection in the list.

Switching Between SP Mode and Copy Mode for Test Printing

- 1. In the SP mode, select the test print. Then press "Copy Window".
- 2. Use the copy window (copier mode), to select the appropriate settings (paper size, etc.) for the test print.
- 3. Press [Start] key to start the test print.
- 4. Press SP Mode (highlighted) to return to the SP mode screen and repeat from step 1.

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.

<u>1.</u> If you cannot go into the SP mode, ask the Administrator to log in with the User Tool and then set "Service Mode Lock" to OFF after he or she logs in:

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

- This unlocks the machine and lets you get access to all the SP codes.
- The CE can service the machine and turn the machine off and on. It is not necessary to ask the Administrator to log in again each time the machine is turned on.
- **<u>2.</u>** Go into the SP mode and set SP5169 to "1" if you must use the printer bit switches.
- **<u>3.</u>** After machine servicing is completed:
 - Change SP5169 from "1" to "0".
 - Turn the machine off and on. Tell the administrator that you have completed servicing the machine.
 - The Administrator will then set the "Service Mode Lock" to ON.

Test Pattern Printing

After changing an SP value for registration or image adjustment, print a test pattern to check the adjustment result.

- **<u>1.</u>** Enter the SP mode.
- 2. Select SP2-109-001 (Test Printing: pattern Selection).
- 3. Select the number for a test pattern that you want to print.

Printer model: Press [▲] [▼] key to select the test pattern, and then press [OK] key.

MF model: Press the test pattern key, and then press [OK] key.

No.	Pattern	No.	Pattern
0	None	9	Arg.Grid20mm
1	Vert. (1dot)	10	Indep.(1dot)
2	Hori. (1dot)	11	Indep.(2dot)
3	Vert. (2dot)	12	IIndep.(4dot)
4	Hori. (2dot)	13	Full
5	Grid Vert.	14	Band
6	Grid Hori.	15	Trim Area
7	Grid 20mm	16	White (MF model only)
8	Arg. Grid	17	SFBC Pattern (MF model only)

<u>4.</u> Enter SP2-109-002 (1 Sheet Printing) or SP2-109-003 (Continue Printing), and then press "Execute" to print test pattern.

When 1 sheet printing, you can select the print side with SP2-109-004 (Print Side Select).

5. Exit SP mode.

Firmware Update by SD Card

Overview

🔂 Important 🔵

- An SD card is a precision device, so when you handle an SD card, respect the following.
 - When the power is turned ON, do not insert or remove a card.
 - During installation, do not turn the power OFF.
 - Since the card is manufactured to high precision, do not store it in a hot or humid location, or in direct sunlight.
 - Do not bend the card, scratch it, or give it a strong shock.
 - Before downloading firmware to an SD card, check whether write-protection of the SD card is canceled. If write-protection is enabled, an error code (error code 44, etc.) will be displayed during download, and the download will fail.
- Before updating the firmware, disconnect the network cable and remove the wireless board from this machine (so that they are not accessed during the update).
- If SC818 is generated during the software update, switch the power OFF -> ON, and complete the update which was interrupted.

Preparation

- If the SD card is blank, copy the entire "romdata" folder onto the SD card.
- If the SD card already contains the "romdata" folder, copy the "M0D1 (machine code)" folder onto the card.
- If the card already contains folders up to "M0D1 (machine code)", copy the necessary firmware files (e.g. M0D1xxxx.fwu) into this folder.

Note

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

Updating Procedure (Printer Model)

- **<u>1.</u>** Download the new firmware to the SD card.
- **<u>2.</u>** Turn the power off.
- 3. Remove the SD card slot cover.
- 4. Insert the SD card into the lower SD card slot.
- 5. Slowly push the SD card into the slot so it locks in place. You will hear it click. Make sure the SD card locks in place.

Note

• Check whether the card is properly in the SD card slot. When an SD card is inserted, a click is heard, and it is locked.

5.System Maintenance

- To remove the SD, push it in to unlock the spring lock. Then release it so it pops out of the slot.
- **<u>6.</u>** Disconnect the network cable if the machine is connected to a network.
- <u>7.</u> Turn the power on.

After about 45 seconds, the initial version update screen appears on the LCD in English.

<u>8.</u> On the screen, press the corresponding key (Up and Down keys) to select the update file that you want to update.

You can change the module name screen or module version screen by using the left and right keys.

Program UpDate Menu P.01 Engine	
Exit	
Rrogram UpDate Menu P.00 ROM : XXXXXXXX NEW : XXXXXXXX	Program UpDate Menu P.01 ROM :1.02:09 NEW :1.022:09
Exit	Exit
	w m158m0094b

ROM/NEW	Contents
ROM:	Display installed module number (upper row)/ version information (lower row).
NEW:	Display module number (upper row)/ version information (lower row) on the SD
	card.

<u>9.</u> Press the [OK] key after selecting the item that you want to update.

The [UpDate] button appears.

<u>10.</u> Press the [UpDate] key to start the update.



The progress bar appears on the LCD.



w_m158m0097

<u>11.</u> The "Update Done" message appears after completing the updating.

The message differs depending on the firmware that has been updated.

- **<u>12.</u>** After turning the power off, remove the SD card.
- 13. Turn the power on again, and check whether the machine is operating normally.

14. Attach the SD card slot cover to the original position.

Note

- When the power supply is switched OFF during firmware update, the update is interrupted, and the power is switched ON again, normal operation cannot be guaranteed.
- To guarantee operation, an update error continues to be displayed until the update is successful.
 - In this case, insert the SD card again, switch the power ON, and continue download of firmware from the SD card automatically.
- The PS3 firmware program is included in the preinstalled PDF firmware. In the default state, although the PS3 firmware program is hidden in the disabled state, the function is enabled by installing the PS3 card. (The program installed in the PS3 card is a dongle (key) for enabling the PS3 function).
 - Due to the above specification, the self-diagnosis result report shows the ROM module number/software version of the PDF firmware at the PS location.

Updating Procedure (MF Models)

- **<u>1.</u>** Download the new firmware to the SD card.
- **<u>2.</u>** Turn the power off.
- 3. Remove the SD card slot cover.
- 4. Insert the SD card into the SD card lower slot.

Note

- Check whether the card is properly in the SD card slot. When an SD card is inserted, a click is heard, and it is locked.
- To remove the SD, push it in to unlock the spring lock. Then release it so it pops out of the slot.

5.System Maintenance

- 5. Turn the power on.
- <u>6.</u> Wait until the update screen starts (about 45 seconds).When it appears, "Please Wait" is displayed.
- <u>7.</u> Check whether a program installation screen is displayed. (The screen is always in English, regardless of the machine's language settings.) When the SD card contains two or more software modules, they are displayed as follows.

PCcard -> ROM Page01				
printer	(1)	ROM :G0000000 ROM :0.01	NEW :G0000000 NEW :0.0X	
Engine	(2)	ROM :B0705254 ROM :2.16:16	NEW :80705254 NEW :2.16:16	
OpePane I . DOM	(3)	ROM :B0705370 ROM :1.22	NEW :80705370 NEW :2.00	
		Exit(0)	J	
			dOa	apc5012

• Note

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

If you want to update the package firmware, refer to "Package Firmware Update (MF Model Only)

> Update via SD card."



<u>8.</u> Select the modules you want to update. The selected module is highlighted, and [Update] are displayed.

Vote

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

PCcard ->	ROM Page01			
	printer	(1)	ROM :G0000000 ROM :0.01	NEW :G0000000 NEW :0.0X
	Engine	(2)	ROM :B0705254 ROM :2.16:16	NEW :80705254 NEW :2.16:16
	OpePanel.DOM	(3)	ROM :1.22	NEW :80705370 NEW :2.00
				·
			Exit(0)	UpDate(\$)

d0apc5013

ROM/NEW	Contents
ROM:	Display installed module number (upper row)/ version information (lower row).
NEW:	Display module number (upper row)/ version information (lower row) on the SD
	card.

<u>9.</u> Press the [Update]. The software will be updated.

10. During the firmware update, a "firmware update/ verification progress screen" is displayed. When the firmware update is complete, the "firmware update end screen" is displayed.

- In the middle row, the name of the module currently being updated is displayed (in this case, the printer module is being updated).
- In the lower row, a progress bar is displayed in ten steps. (The more *, the more the progress.)

PCcard -> ROM		
	Loading	
	printer	

		d0apc5014

Note

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

5.System Maintenance

PCcard -> ROM
rocard > nom
Les dies
Loading
printer

9/22
1
dDanc501

<u>11.</u> When the update was completed normally, the "Update done" is displayed.

PCcard -> R	OM	
	[
	Update done.	
	printer Card No.:1/1.	
•		d0apc5015

- 12. After turning the power off, remove the SD card.
- 13. Turn the power on again, and check whether the machine is operating normally.
- 14. Attach the SD card slot cover to the original position.

Note

- When the power supply is switched OFF during the firmware update, the update process is interrupted, and when the power is switched ON again, normal operation cannot be guaranteed.
- To guarantee operation, an update error continues to be displayed until the update is successful.
 - In this case, insert the SD card again, switch the power ON, and continue download of firmware from the SD card automatically.
- The PS3 firmware program is included in the preinstalled PDF firmware. In the default state, although the PS3 firmware program is hidden in the disabled state, the function is enabled by installing the PS3 card. (The program installed in the PS3 card is a dongle (key) for enabling the PS3 function).
 - Due to the above specification, the self-diagnosis result report shows the ROM module number/software version of the PDF firmware at the PS location.
Error Screens during Updating

MF Models

PCcard -> R	DM	
	No Yalid Data E24	
		d0apc5017

Printer Model



w_m158m2015

EXX shows an error code.

For error codes, refer to the following table:

Error Code List

Code	Contents		Solutions
1	The module data does not match.	•	Power cycle the machine and try updating again.
		•	If the update cannot be made even if you insert
			the correct SD card, there is a possibility that the
			SD card is broken.
			Retry again with a different SD card.
		•	If you cannot resolve the problem with the above
			steps, replace the controller board.
2	An error occurred while initializing	•	>Power cycle the machine and try updating
	the update program.		again.
		•	If you cannot resolve the problem with the above
			step, replace the controller board.
3	The ROM data to be rewritten is	•	Power cycle the machine and try updating again.
	missing.	•	Turn the power off, switch DIPSW-1 on the

Code	Contents	Solutions	
			controller board to ON, and then turn the power
			back on to force the ROM data to be rewritten.
		•	Reset the ROM-DIMM.
		•	If you cannot resolve the problem with the above
			steps, replace the controller board.
4	Failed to check the GNU ZIP data.	•	>Power cycle the machine and try updating
			again.
		•	Turn the power off, switch DIPSW-1 on the
			controller board to ON, and then turn the power
			back on to force the ROM data to be rewritten.
		•	Replace the ROM-DIMM.
		•	If you cannot resolve the problem with the above
			steps, replace the controller board.
5	A device error occurred while	•	Power cycle the machine and try updating again.
	rewriting data.	•	Turn the power off, switch DIPSW-1 on the
			controller board to ON, and then turn the power
			on to force the ROM data to be rewritten.
		•	Reset the ROM-DIMM.
		•	If you cannot resolve the problem with the above
			steps, replace the controller board.
6	CPU clock error	•	Turn the power off, switch DIPSW-1 on the
			controller board to ON, and then turn the power
			on to force the ROM data to be rewritten.
		•	If you cannot resolve the problem with the above
			steps, replace the controller board.
10	A startup option error has occurred.	•	Restore the SD card for installation.
11	An error occurred while waiting to	•	>Power cycle the machine and try updating
	read the installed SD card.		again.
		•	Restore the SD card for installation.
		•	Retry updating with a different SD card.
		•	If you cannot resolve the problem with the above
			steps, replace the controller board.
12	Configuration file error	•	Power cycle the machine and try updating again.
		•	Restore the SD card for installation.
		•	Retry updating with a different SD card.
13	The memory is insufficient to install	•	Reduce the number of module files to be
	the data.		installed.
14	Failed to execute a system call.	•	>Power cycle the machine and try updating

Code	Contents	Solutions		
			again.	
		•	Restore the SD card for installation.	
		•	Retry updating with a different SD card.	
		•	If you cannot resolve the problem with the above	
			steps, replace the controller board.	
15	Failed to execute self-update.	•	Power cycle the machine and try updating again.	
		•	Restore the SD card for installation.	
		•	Retry updating with a different SD card.	
		•	If you cannot resolve the problem with the above	
			steps, replace the controller board.	
19	Schedule data error	•	Turn the power off, switch DIPSW-1 on the	
			controller board to ON, and then turn the power	
			on to force the ROM data to be rewritten.	
		•	If you cannot resolve the problem with the above	
			steps, replace the controller board.	
20	Physical address mapping cannot be	•	Power cycle the machine and try updating again.	
	performed.	•	Re-insert the SD card to reboot.	
		•	If you cannot resolve the problem with the above	
			steps, replace the controller board.	
21	Insufficient memory for the download	•	Power cycle the machine and try updating again.	
		•	If you cannot resolve the problem with the above	
			step, replace the controller board.	
22	Decompression of compressed data	•	Power cycle the machine and try updating again.	
	failed.	•	Replace the SD card used for the update.	
		•	If you cannot resolve the problem with the above	
			steps, replace the controller board.	
23	Failed to execute self-update.	•	Power cycle the machine and try updating again.	
		•	Turn the power off, switch DIPSW-1 on the	
			controller board to ON, and then turn the power	
			on to force the ROM data to be rewritten.	
		•	If you cannot resolve the problem with the above	
			steps, replace the controller board.	
24	SD card access error	•	Re-insert the SD card.	
		•	>Power cycle the machine and try updating	
			again.	
		•	Replace the SD card used for the update.	
		•	Replace the controller board if the above	
			solutions do not solve the problem.	

Code	Contents	Solutions		
31	An error to continue downloading	•	Install the SD card containing the subsequent	
	has occurred.		program(s), and then turn the power off and then	
	When using two or more SD cards to		back on to resume downloading.	
	download data, the data from the	•	Replace the SD card used for the update.	
	second or later SD card was	•	If the problem persists even if you try to install	
	incompatible.		the subsequent data using another SD card, turn	
			the power off, switch DIPSW-1 on the controller	
			board to ON, and then turn the power on to force	
			the ROM data to be rewritten.	
		•	If forcing the data to be rewritten fails, replace	
			the controller board.	
32	The SD card used after download	•	Insert the SD card containing the same program	
	suspension is incorrect.		as when the firmware update was suspended,	
	The SD card which was inserted		and then cycle the machine off/on and try	
	after the power interruption is		updating again.	
	different from the one which was	•	There is a possibility that the SD card is	
	inserted before power interruption.		damaged if the update cannot be done after the	
			correct SD card has been inserted. In this case,	
			try again with a different SD card.	
		•	Replace the controller board if the above	
			solutions do not solve the problem.	
			Replace all relevant boards if the update is done	
			for the engine board and FCU function.	
			Replace the operation panel unit if the update is	
			done for the operation panel.	
33	Card version error.	•	>Copy the correct update data for each version	
	The wrong card version is		on the SD card.	
	downloaded.			
34	Destination error.	•	Copy the correct update data for each	
	A card for the wrong destination is		destination (JPN/ EXP/ OEM) on the SD card.	
	inserted.			
35	Model error.	•	Copy the correct update data for each model on	
	A card for the wrong model is		the SD card.	
	inserted.			
36	Module error.	•	Install the program to be updated in advance.	
	The program to be downloaded does	•	There is a possibility that the SD card containing	
	not exist on the main unit.		the program to be updated has not been	
	The download destination specified		mounted. Check to confirm that the SD card has	

Code	Contents	Solutions
	by the card does not match the destination for the main unit's program.	 been correctly mounted. The SD card is incorrect if the program to be updated has been correctly installed. In this case, insert the correct SD card.
38	The version of the downloaded program has not been authorized for the update.	 Make sure that the program to be overwritten is the specified version.
40	Engine download fails.	 Power cycle the machine and try updating again. If the download fails again, replace the engine board.
41	Fax download fails.	 Power cycle the machine and try updating again. If the download fails again, replace the FCU board.
42	Operation panel/ language download fails.	 Power cycle the machine and try updating again. If the download fails again, replace the operation panel unit.
43	Printing download fails.	 Power cycle the machine and try updating again. The SD card is damaged if the update fails again. Replace the SD card.
44	The data to be overwritten cannot be accessed when controller-related programs are downloaded.	 Power cycle the machine and try updating again. Copy the correct update data on the SD card. Replace the controller board if the data to be overwritten is contained on the controller board.
49	Firmware updates are currently prohibited.	The setting of Update Firmware in the Administrator Tools has been set to [Prohibit] by an administrator. Amend the setting to [Do not Prohibit] and try again.
50	The results of the electronic authorization check have rejected the update data.	Copy the correct update data on the SD card.
57	@Remote is not connected at the date/time reserved for receiving the package firmware update from the network.	Check the @Remote connection.
58	The update cannot be done due to a reception route problem.	Check the @Remote connection.
59	HDD is not mounted.	Install the HDD correctly.

Code	Contents	Solutions	
60	HDD could not be used during the	•	Power cycle the machine and try updating again.
	package firmware update.	•	If the HDD is damaged, replace it.
61	The module ID for the package	•	Prepare the correct package file.
	firmware update is incorrect.		
62	The configuration of the package	•	Prepare the correct package file.
	firmware update files is incorrect.		
63	Reception fails due to power off at	•	The update is to be done automatically when the
	the reserved date/time of the remote		next reception time has elapsed.
	firmware update from the network.		
64	Reception fails due to power off at	•	Reset the reservation date/time for the remote
	the reserved date/time of the		update.
	package firmware update from the		
	network.		
65	Reception fails due to a status error	•	The update is to be done automatically when the
	of the machine at the reserved		next reception time has elapsed.
	date/time of the remote firmware		
	update from the network.		
66	Reception failed due to a status error	•	Reset the reservation date/time for the remote
	of the machine at the reserved		update.
	date/time of the package firmware		
	update from the network.		
67	Acquisition of the latest version	•	Check that the network is connected correctly.
	information from the Gateway fails at		
	the reserved date/time of the remote		
	firmware update from the network.		
68	Acquisition of the latest version	•	Check that the network is connected correctly.
	information from the Gateway fails.		
69	Download fails at the reserved	•	Check that the network is connected correctly.
	date/time of the remote firmware		
	update from the network.		
70	Package firmware download from the	•	Check that the network is connected correctly.
	network fails.		
71	Network communication error occurs	•	Check that the network is connected correctly.
	at the reserved date/time of the		
	package firmware update from the		
	network.		
72	The setting of @Remote is invalid at	•	Set the @Remote Service on the Administrator

Code	Contents	Solutions	
	the reserved date/time of the package firmware update from the network.	Tools to [Do not Prohibit].	
74	Decompression of compressed package data failed.	 Copy the correct package data on the SD card and try updating again. Replace the DIMM on the controller board if the above solution does not solve the problem. Replace the HDD if the above solution does not solve the problem. 	
75	The upper limit of the number of update files exceeds.	Make two or more of the same module do not exist under the /romdata directory on the SD card.	
221	Failed to terminate an application when attempting to update or uninstall it.	 If a job is underway in the target application, wait until the job is finished, and then try updating again. Power cycle the machine and try updating again. 	
222	Failed to verify the signature attached to the application or firmware.	 Try updating again using a valid signature. 	
224	The storage capacity is not enough.	 Reduce the number of applications to be installed. Uninstall unnecessary applications. 	
228	The target firmware file cannot be found.	Copy the correct update data and try updating again.	
229	 The target update file is invalid. Occurs in the following cases. Failed to decompress the file. Failed to obtain application information. Failed to read the public key for signature verification. 	Copy the correct update data and try updating again.	
230	The folder directory of the Smart Operation Panel firmware is invalid.	Copy the correct update data and try updating again.	
231	Failed to write data when updating the Smart Operation Panel firmware. (There is a problem with the hardware.)	 Power cycle the machine and try updating again. Replace the operation panel if the above solution does not solve the problem. 	
235	The target file is invalid, and the	Copy the correct update data and try updating	

Code	Contents		Solutions
	Android OS returns an error.		again.
		•	If the same application has already been
			installed, uninstall it and then try updating again.
236	The Android SDK version required by	•	Check that the Android SDK version required by
	the application is not installed on the		the application is installed on the Smart
	Smart Operation Panel.		Operation Panel.
255	Software malfunction	•	Power cycle the machine and try updating again.

Package Firmware Update

The HDD unit must be installed on the machine to enable the SFU (Smart Firmware Update) or the package firmware update via SD card.

Overview

Previous update method was consisted of modules (System/Copy, Engine etc.). However, current application is all-inclusive (System/Copy, Engine etc.) firmware packages.

There are two ways to update using the package firmware update:

- Via the network: SFU (Smart Firmware Update)
- Or using an SD card



Package Firmware Update via a network: SFU (Smart Firmware Update)

- There are two methods for SFU.
 - Immediate Update: To update the firmware when visiting
 - Update at the next visit: To set the date and time for downloading. The firmware will be automatically downloaded beforehand and updated at the following visit.
- "Update at the next visit" is recommended since firmware download may take some minutes due to the network condition.

Package Firmware Update via an SD Card

Package firmware update can also be performed using the conventional SD card method by writing the package firmware directly to the SD card.

Types of firmware update files, supported update methods:

	SFU	SD card	RFU	ARFU
Individual firmware	N/A	Available	Available	N/A
Package firmware	Available	Available	Available	Available

Immediate Update

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

Note

- The [Firmware Update] button will appear even when a machine is connected to @Remote • with a device which does not have an embedded @Remote communicating function.
- If an error code is displayed, refer to Error screens during updating (Error Screens During Updating).
- **<u>1.</u>** Enter the SP mode.
- 2. Press [Firmware Update].

SP mode	MAN 153	Exit
	SystemSp	
	Fax Sp	
	Pónter Sp	
	Scanner Sp	
	PMCounter	
	Firmwaie Update	
LantSp Logia 1 JULY 2014, 17:20		גרסבי ענוע ני 1750 מניקר

d197f0507

Press [Update]. 3.



d197f0508

4. Press [Execute Update].



5. Press [YES].



<u>6.</u> The following screen will be displayed.

	Updating	
Cancel		
last5ji logʻi 1 JULY 2014 - 17:30		יר 2014 און 10 באר 1730 ניגר
		d197f0513

Note

- If the error code E66, which indicates that the download of the firmware has failed, is displayed, implement this procedure from step 1.
- Update will be started automatically after the download is finished.
- When the machine is in the update mode, the automatic update is suspended if a print job is implemented. After the print job is finished, Press [YES] on the display shown with the following picture to restart updating.



7. [Update done] is displayed.

• The machine will automatically reboot itself.

	Loading		
	System/Copy		
	** *** *** *		
		9/22	
1 JULY 2014 17:30	-		17:30
	+		
	Update done		
	Package Ver.1 -> 2		
	:	22/22	
1 JULY 2014 17:30			17:30
			d197f0518

Note

• The figures at the right bottom part of the status indicators "Number of updated items/ All items to be updated".

Update at the Next Visit (Reserve)

It is possible to set the machine to download the package firmware which is necessary for SFU in advance, and then perform the actual installation at the next service visit. This saves waiting time for the firmware to download at the service visit.

How to Set the Machine to Download Firmware Later (Reserve)

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

Vote

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

2. Press [Firmware Update].



3. Press [Reserve].



4. Press [Reservation setting].

	Reservation setting	
	Reserved and recieved package information	
		1
	Back	
LaattSpLogia 1 JULY 2014 17:30		1 JULY 2014 17:30
		d107f0E10



- 5. Enter the dates and times of the next visit and start of receiving data.
 - "Next time to visit this customer": The package firmware will be automatically downloaded by this time/date.
 - "When to receive? (1-7)": The download of the package firmware will begin this number of days before the next visit.

Next time to visit this customer
2013 / 05 / 22 15 : 00 year month day hour minute
When to receive? (1-7) 1 day(s) before visit
Set Clear Cancel
Last5jiog10 1 JULY 2014 1 JULY 2014 1730 17.30
d197f0512

Successful Download

In the two diagrams below, the firmware is set to be downloaded by the day before the next scheduled visit. In the first diagram, the download is successful on the first try. In the second diagram, the download fails three times and is successful on the fourth try.



- If the firmware download fails or cannot be completed due to the network settings/condition, no
 power to the machine, or other reason, the machine will continue retrying every six hours until the
 scheduled deadline (up to a maximum of four tries). For example, if the download is set for the day
 before the next visit, the machine will attempt the download at 24 hours before the visit, and then
 continue trying every six hours (max. four tries total).
- The retry is only performed in cases when the firmware download has failed.
- If the machine is in Energy Saver mode when the download is scheduled to begin, the download will be performed in the background and the machine/panel will stay in Energy Saver mode.
- The download will continue uninterrupted even if the customer initiates a print job, copy job, fax receiving or other operation while the download is in progress.
- The download will be terminated if the customer turns OFF the main power while the download is in progress.
- If the download cannot be completed successfully by the time of the next scheduled visit, the machine will stop trying to download the firmware.

How to Check if the Firmware Downloaded with Reserve

2. Press [Firmware Update].



3. Press [Reserve].



4. Press [Reserve and received package information].

	[]	
	Reservation setting	
	Reserved and recieved package information	
	Back	
ետուէ5թեսցիս 1.ՍԱՄ 2014-17:30		1 J UUY 2014 1 7:30
		140760540

- d197f0510
- **<u>5.</u>** Check the information displayed.

When the package firmware is downloaded successfully, the details of the download result are displayed as the following picture shows.

Reservation reception result	Success
Part number of reserved and recieved package	D1234567
Version of reserved and received package	1.35
Package received date	2014/05/22
Reservation reception has succeeded.	Back
Lan 15 p Log a 1 JULY 2014 12:30	1 J ULY 2014 17:30
	d197f0511

Vote

• This information will only be displayed if the reserved firmware has already been downloaded. If not, all the data items are indicated with "-".

How to Install Firmware Downloaded with Reserve

- **<u>1.</u>** Enter the SP mode.
- 2. Press [Firmware Update].

SP mode			MAN	183		Exit
		SystemSp				
		Fax Sp				
		PrinterSp				
		Scanner Sp				
		PMCounter				
	F	'ir mwa iei Upda te	,			
Last5y Logia 1 JULY 2014 17:30						1 JULY 2014 17:30
					C	197f0507

3. Press [Update].

	Update	
	Reserve]
	Back	
last5plogie 1 JULY 2014-17-30		1 JULY 2014 17:30
		d197f0508

4. Press [Execute Update].

	Execute Update	
	Updated Package Information	
	Back	
last5į logʻis		1 J ULY 2014
1 JULY 2014 17:30		d197f0509

- 5. Check the version of the received package firmware, and then Press [YES].
 - The update is started.

NO

• Note

• If the version of the reserved package in the HDD is older than the latest version, the messages shown in the following picture are displayed.

Download and update the latest package (Ver.1.39) * Downloading may take some time.	Execute
Updated to the received package (Ver. 1.36)	Execute
Lart5j Login 1.1017 200 a.17-11	Back 1 J UUY 2014- 1 730
	d197f051

- If you wish to download the latest version, Press [Execute] beside the message
 "Download and update the latest package." Then the update of the package firmware will be started.
- If you wish to update using the firmware in the HDD (old version), Press [Execute] beside the message "Update to the received package."
- 6. [Update done] message is displayed.

• The machine will automatically reboot itself.

	Loading		
	System/Copy		
	** *** *** *		
		9/22	
lastSpilog)# 1 JULY 2014 17:30			1 JULY 2014 17:30
	· · · · · · · · · · · · · · · · · · ·		
	Update done		
	Package Ver.1 -> 2		
		22/22	
Last5, Logi			1 JULY 2014
1 JULY 2014 17:30			d197f051
			2.011001
Note)			

• The figures at the lower right of the display indicate "Number of updated items/ All items to be updated".

Update via SD card

Update with an SD card, which is the conventional method, is available if you write the package firmware to the SD card.

Vote

- If an error code is displayed, refer to Error Screens During Updating.
- **<u>1.</u>** Create a new folder on the SD card, and then name it "package".
- **<u>2.</u>** Copy the package firmware (xxxxxxx.pkg) to this folder.



🔁 Important

• If you copy the package firmware into the conventional "romdata" folder, the update will

not work.

- Only one version of the package firmware should be copied into the folder. If you copy multiple versions of package firmware to the SD card, the machine will select only one version of the firmware randomly.
- **<u>3.</u>** Turn OFF the main power.
- 4. Insert the SD card which contains the package into SD card slot 2 (for service).
- 5. Turn ON the main power
- 6. Press [Update].

package Metis-C1 ALL	RCM :G0000000 RCM :0.01	NEW :G0000000 NEW :0.0X
package Metis-C1 DOM	ROM :80705254 ROM :2.16:16	NEW :80705254 NEW :2.18:16
package Metis-C1 DOM FCU	ROM :80705370 ROM :1.22	NEW :80705370 NEW :2.00
	Exit(0)	UpDate(\$)
		d176f2127

Vote

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



<u>7.</u> The update is started automatically after the package firmware download to the HDD has been completed.

<u>8.</u> When the update is completed, "Update done" is displayed.

Loading
System/Copy
9/22
+
Update done
Package Ver.1 ->2
00/00
22/22
w_d177z0021a
Note

- The figures at the lower right of the display indicate "Number of updated items/ All items to be updated".
- 9. Turn OFF the main power.
- $\underline{10.}$ Pull out the SD card from SD card slot 2.
- **<u>11.</u>** Turn ON the main power.

Remote Firmware Update

On this machine, the software can be updated by remote control using @Remote.



RFU Performable Condition

RFU is performable for a device which meets the following conditions.

- 1. The customer consents to the use of RFU.
- 2. The device is connected to a network via TCP/IP for @Remote.

Auto Remote Firmware Update (MF Model Only)

Vote

Auto remote firmware update (ARFU) requires an Internet connection. Be sure to get permission from the customer before setting up this feature.

Overview

By Auto Remote Firmware Update (ARFU), the firmware is updated by checking the global server every 76 hours and downloading the latest package if there is a more recent one.

Function Overview



Types of firmware update files supported update methods:

	SFU	SD Card	RFU	ARFU
Individual firmware	N/A	Available	Available	N/A
Package firmware	Available	Available	Available	Available

What is Included in the Firmware Package

Modules included in the firmware package are indicated by ticks (\checkmark) in the firmware download web site. Firmware not included in the package require updating by SD cards, etc.

The table below is an example:

Included	Firmware
-	aics
\checkmark	animation
\checkmark	Application Site
\checkmark	BluetoothService
\checkmark	CheetahSystem
-	CSPF
-	Data Erase Onb
-	EcoInfoWidget
\checkmark	Engine

Downloading and Updating Process

Latest Package Download

The machine checks the server for the latest version of the package.

If the version of the package on the global server is later than that of the package installed on the machine, or if the machine has not downloaded the firmware package yet, the machine will be downloading the latest package in the background even when it is in use.

If the download fails, the machine will retry download every 76 hours.

The downloaded package can also be used with SFU (Smart Firmware Update). A package downloaded with SFU (Smart Firmware Update) can be used with ARFU (Auto Remote Firmware Update) and vice versa.

When replacing the controller board, the firmware package data becomes lost from the controller board. Even if the latest firmware is on the new controller board, be sure to receive the latest package data. When the machine connects to the server where the package files are stored, the DNS settings and the name solution by DNS is needed. The machine will still try to download the package even if the name cannot be resolved, but will fail because the name is not resolved.

The time and date to send the next inquiry to the global server can be checked with SP5-886-116 (Firm Update Setting: Auto Update Next Date).

The auto remote firmware update is executed every 76 hours.

Validation of ARFU

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



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



If the machine is in use when the validation process runs, the process will be retried. Retry is done up to three times every hour (can be changed with SP) and if the machine is in use for all three retries, the machine will retry the update after 76 hours.



Situations validated as the machine in use

No.	Situations validated as the machine in use		
1	When the control panel is used within 30 seconds		
2	During firmware update		
3	While firmware update is disabled		
4	While printing (copy, printer, fax, re-printing via network)		
5	While scanning (copy, scanner, fax)		
6	Retrieving image data via the network		
7	While initial setting (User Tools settings) or SP is being set		
8	While fax is transferring data		
9	During on-hook / on the handset		
10	During the PC-FAX process (from PC to machine data transfer to the end of the job)		
11	While shifting to/from the energy server mode		

No.	Situations validated as the machine in use		
12	When not being able to run the firmware update due to the modules that are running		
	e.g.) Waiting for DCS transfer (refer to appendix), accessing devices such as eMMC/SD card,		
	etc.		
13	While displaying a preview		
14	While the document server function is in use		
15	Connecting to TWAIN		
16	During the interrupt copy process		
17	While displaying the printer menu		
18	While updating the display for the document server function via WIM or for stored fax		
	documents		
19	While writing log information		
20	While accessing the address book		
21	During SC		
22	While shutting down		
23	While importing or exporting preferences		
24	Until rebooting after changing settings that require a reboot (A reboot notification message		
	pops up after changing the settings)		
25	While verifying operation panel firmware on startup		

Update Process

When the machine has decided to run the auto firmware update, the following message is displayed.

Firmware update will Press [OK]. It will start automat have elapsed.	ll start. cically after 30 seconds
Cancel	OK
	d238m2106

The popup will have "Cancel" and "OK" buttons and the update process will start either when the "OK" button is selected or 30 seconds have passed.

When the "Cancel" button is selected, the machine will run the "Retry update" process.

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

Device and corresponding SC number

Device name	SC number
Engine board	SC845-01
Controller board	SC845-02
Operation panel (normal panel)	SC845-03
Operation panel (smart panel)	SC845-04
FCU function	SC845-05
(on the controller board and the fax board)	

Canceling the update

It is possible to cancel the Auto Remote Firmware Update (ARFU) or update in recovery mode from the operation panel.



d238m2107

But this is not possible while updating the operation panel itself. On the other hand, the update for the operation panel will run at the final stage of the update. Thus canceling the update at that stage has no real effect.

When the update is canceled, the machine will reboot when updates for all modules of one of the following devices is done.

- 1. Engine Board
- 2. FCU function on the controller board and the fax board
- 3. Controller Board
- 4. Operation Panel

For example, when the update process is canceled while updating the first module of the operation panel, the machine will reboot when all modules in the operation panel have been updated.

The firmware contents included in the package can be referred to in the release note in the SERES release of the package.

The next update will run 76 hours after the cancellation. The old (canceled) package will be discarded if the package downloaded 76 hours later is the latest.

Checking the ARFU Result

- **<u>1.</u>** Enter the SP mode.
- 2. Press [Firmware update].
- <u>3.</u> Press [Update].
- 4. Press [Update Package Information].
- <u>5.</u> If the firmware package is the same as the one on the global server, the update was completed successfully. Otherwise, check the result using the logging date.
 In SP7-520-041 to -045 (Update Log: Auto:Version), you can check the versions of the packages updated by ARFU. (-041 displays the latest result. It is also printed on the SMC sheet.)

Checking the Result Using the Log Data

- **<u>1.</u>** Enter the SP mode.
- 2. Press [System/Copy].
- <u>3.</u> Check the results for ARFU by SP7-520-051 to 060 (Update Log: Auto:Result)
 "-051" is the latest update result. For details about the number of each result log, see the next

section "Related SP."

Related SPs

SP Number	Selection	Overview	
	Def.		
SP5-886-111	0: OFF	Sets auto update by ARFU ON/OFF.	
	1: ON		
SP5-886-112	0: OFF	Will not run the update when update prohibited time setting is ON and	
	1: ON	the current time is in the range of the time set.	
SP5-886-113	0 to 23	• Start time < End time: Prohibited time is from the start time to the	
	9	end time on the same day.	
SP5-886-114	0 to 23	• Start time > End time: Prohibited time is from the start time to the	
	17	end time on the next day.	
		• Start time == End time: Prohibited time setting is disabled.	
		(Update will not be prohibited.)	
SP5-886-115	0: OFF	Even when the update function is disabled, downloading the package	

SP Number	Selection	Overview	
	Def.		
	1: ON	is allowed.	
		The downloaded package can be used with SFU.	
SP5-886-116	Display	Displays when the latest package check will run.	
	only		
SP5-886-117	1 to 24	Set time for the next version check after retry.	
	1		
SP5-886-120	0x00	The update will not run if the corresponding bit for each day below is	
		set to 1.	
		Prohibited at all times: bit 7	
		Monday: bit 6	
		Tuesday: bit 5	
		Wednesday: bit 4	
		Thursday: bit 3	
		Friday: bit 2	
		Saturday: bit 1	
		Sunday: bit 0	
		This setting is not changed by the prohibited time setting.	
		e.g.) Prohibited on Mon., Fri., Sat., and Sun. : 0x47 (01000111)	
SP7-520-011	Display	History of dates and times when the update has started.	
to 015	only	The five most recent are recorded, the lowest number being the most	
		recent.	
		If the last update failed, this is not recorded.	
SP7-520-021	Display	History of dates and times when the update has finished.	
to 025	only	The five most recent are recorded, the lowest number being the most	
		recent.	
		The record is created when the update has successfully finished.	
		When the update is canceled, no record is created.	
SP7-520-031	Display	History of the package numbers (including suffix) for which update has	
to 035	only	completed.	
		The five most recent are recorded, the lowest number being the most	
		recent.	
		The record is created when the update has successfully finished.	
		When the update is canceled, no record is created.	
SP7-520-041	Display	History of the package versions for which update has completed.	
to 045	only	The five most recent are recorded, the lowest number being the most	
		recent.	
		The record is created when the update has successfully finished.	

SP Number	Selection	Overview	
	Def.		
		When the update is canceled, no record is created.	
SP7-520-051	Display	History of the results of the download and the update.	
to 060	only	Refer below for the numbers set.	

Numbers set for the result history for SP7-520-051 to 060

No.	Result	Description
1	Downloading with SFU	Cannot download or update because the machine is now
		downloading the package for SFU.
2	HDD not installed	Cannot download or update because the machine has no
		HDD.
3	Updating with SFU	Cannot download or update because the machine is being
		updated with SFU.
4	HDD error	Cannot download or update because the HDD cannot be
		used.
5	Version information obtain error	Cannot download or update because the version
		information cannot be obtained.
6	Update download error	Cannot download or update because the update download
		failed.
		In the non @Remote method, this shows that the
		download failed because there was no proxy set.
7	Name resolution error	Cannot download or update because the name cannot be
		resolved upon downloading the update.
8	Auto update setting disabled	The package has been downloaded but will not run the
		update because SP5-886-111 (auto update setting) is
		disabled and SP5-886-115 (auto download setting for
		SFU) is enabled.
9	Update prohibited time	Cannot start to update because the auto-update prohibited
		time setting (SP5-886-112) is enabled and the time update
		initiated was in the range of prohibited time (SP5-886-113
		to 114).
		Or the day which update was initiated was a day for which
		update was prohibited (SP5-886-120).
10	Update postponed due to the	Cannot start update due to the following conditions when
	machine in use	the update was initiated.
		• The machine is in use by a user (the panel was used
		within 30 seconds)
		Machine offline for other reasons

No.	Result	Description
		Operation prohibited
		Displaying SP/UP menu
		• The firmware update is running with another method
		Configuration change prohibited
		Verifying the operation panel (smart panel)
11	Update canceled by the user	The update was canceled because a user selected
		"Cancel" in the popup shown before starting the update.
12	Offline failed	Cannot start to update because the machine is offline for
		other reasons.
13	Update successful	The update was started and successfully completed.
14	Update failed	An update was started but failed.
15	Update deemed completed	The update was canceled after the process was initiated
		because a user selected "Cancel". There is no need to
		resume the update due to one of the following reasons:
		• A newer update has been released and received.
		When retrying ARFU, the update has already been
		completed by another method.
16	Update canceled by the user after	The update was canceled after the process initiated
	update initiated	because a user selected "Cancel" during the update.
17	Version information obtain error	Cannot download or update because the name cannot be
	(communication error occurred for	resolved when obtaining version information.
	hostname)	
18	Version information obtain error	Cannot download or update because the proxy verification
	(proxy verification failure)	failed with proxy settings when obtaining version
		information.
19	Version information obtain error	Cannot download or update because an error other than
	(other than proxy verification	proxy verification with proxy settings occurred when
	failure when the proxy is set)	obtaining version information.
20	Update download error (proxy	Cannot download or update because the proxy verification
	verification failure)	failed with proxy settings when downloading the package.
21	Update download error (other	Cannot download or update because an error other than
	than proxy verification failure	proxy verification with proxy settings occurred when
	when the proxy is set)	downloading the package.
22	Update by retry successful	After a power failure, unsuccessful update, or rebooting,
		update by retry is executed successfully.
		However, this does not apply to the case where the update
		was canceled after the process was initiated because a

No.	Result	Description
		user selected "Cancel".
		In this case, the update is "successful" if the retry is not
		executed between the start and completion of the next
		update (76 hours after the cancellation).

Updating JavaVM (Printer Model)

Overview

Updating Java VM is performed with a PC using the update tool.

- Prepare the following items in advance.
 - SD memory card reader/writer
 - PC
- The updating procedure is as follows.
- 1. Deactivate the SDK applications
- 2. Remove the VM Card Type P18 from the main machine.
- 3. Update Java VM with the PC using the update tool.
- 4. Insert the VM Card Type P18 in the main machine.
- 5. Activate the SDK applications

Deactivating SDK Applications and Removing the VM Card

- **<u>1.</u>** Log in as the administrator from Web Image Monitor.
- 2. Take a note of the current heap size setting in [Heap / Stack Size Settings].
 - [Device Management] > [Configuration] > [Extended Feature Settings] > [Administrator Tools]
 > [Heap / Stack Size Settings]
- 3. Stop all SDK applications except for Java TM Platform.
 - 1. Display the [Startup Setting] menu.
 - [Device Management] > [Configuration] > [Extended Feature Settings] > [Startup Setting]
 - 2. Check the radio button of the SDK application which status is "Starting Up".
 - 3. Click [Start Up/Stop] to stop the application.
 - 4. "Stop" is displayed in the status column.

Note

Do not change the status of Java TM Platform to "Stop".

- 4. Make sure that "Auto Start" is set to "Off" for each SDK application.
 - 1. Click the [Details] icon (I) for each SDK application in [Startup Setting].
 - 2. Make sure that "Auto Start" is set to "Off". (Default: On)
- **<u>5.</u>** Turn the power OFF.

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



7. Remove the VM Card from the SD Slot 1 (Upper).

Updating JavaVM and Inserting the VM Card

- 1. Insert VM Card into the SD memory card reader/writer of your PC.
- **2.** Check that the SD memory card reader/writer is detected on your PC, and then write down the drive letter. (If the SD memory card reader/writer is detected as (F:), the drive letter is "f")
- **<u>3.</u>** Download the update modules from the Firmware Download Center.
- **<u>4.</u>** Unzip the downloaded file, and then execute the .exe file.
- **<u>5.</u>** The folder is generated.
- 6. Execute the .bat file in the folder.
- 7. Input the drive letter following the message "Please input drive letter of SD card [a x]: ". (If the SD memory card reader/writer is detected as (F:), input "f")



8. Press the [Enter] key to start updating Java VM. It takes 3 minutes to update Java VM.

- 9. After completing the update, remove VM Card from the SD memory card reader/writer of your PC.
- **10.** Insert VM Card into SD Slot 1 (upper) of the machine.
- **<u>11.</u>** Attach the SD card slot cover.

Activating SDK Applications

- **<u>1.</u>** Make sure that the VM card is fully inserted, and then turn the machine power ON.
- 2. Log in as the machine administrator from Web Image Monitor.
- 3. Set "Auto Start" whose status is "OFF" to "On".

- <u>4.</u> Compare the current heap size settings and the values recorded before the update.If the settings are not the same as the recorded values, correct the settings to the recorded values.
- 5. Enable the disabled SDK application.

Updating JavaVM (MF Model)

Creating an SD Card for Updating

- <u>1.</u> Download the update modules from Firmware Download Center. As one of the model modules,
 "Java VM v12 UpdateTool" is available for download. (The version differs depending on the model.)
- Unzip the downloaded file. Copy the whole "sdk" folder to the root of the SD card directly below.
 Note

When unzipping the downloaded file, two subfolders ("update" and "sdk") exist in the "sdk" folder. Rather than just copying the subfolder "sdk", copy the whole folder "sdk".

Updating Procedure

- An SD card can be inserted with the machine power off.
- During the updating process, do not turn off the power.
- If you turn off the power during the updating, the machine performance is not guaranteed. (There is a possibility that an SC and boot failure occurs.)
- If you accidentally turn off the power during the updating, retry the updating procedure from the beginning. (If the update fails again, you will need to replace the controller board.)
- If the boot priority application is set to the ESA application, switch to the copy application. ([System Settings] > [General Features] > [Function Priority])
- <u>2.</u> Take a note of the current Heap size. ([User Tools] > [Machine Features] > [Extended Feature Settings] > [Extended Feature Settings] > [Administrator Tools] > [Heap/Stack Size Settings])
 The Heap size setting is changed to the initial setting when updating.
- **<u>3.</u>** Turn the power off.
- <u>4.</u> Insert the SD card for update into the service slot.
- 5. Turn the power on.
- **<u>6.</u>** After booting Java VM, the update of the application is started. "Updating SDK/J" appears in the system message of the touch panel display after 1 minute. (Estimated time: about 2.5 minutes)
- <u>7.</u> After completing the update and starting the Java VM, "Update SDK / J done SUCCESS" appear in the System message of the touch panel display. After turning off the power, remove the SD card from the slot.

When you fail to update, "Update SDK/J done FAIL" is displayed. You can confirm the cause of the error message below.

- **<u>8.</u>** Turn the power on.
- **<u>9.</u>** Reconfigure the Heap size in reference to step 2.

Note

• If you have not done step 2, see the manual for the ESA application to know what value to set for the heap size.

<u>10.</u> Return to the previous setting for the boot priority application.

List of Error Messages

Update results are output as a text file on the SD card called "sdkjversionup.log" in the "\sdk\update" folder.

Result	File contents	Description of the output
Success	script file = /mnt/sd0/sdk/update/bootscript	Boot script path
	2012/08/22 17:57:47 start	Boot scripts processing start time
	2012/08/22 17:59:47 end SUCCESS	End time boot script processing, the results
Failure	script file = /mnt/sd0/sdk/update/bootscript	Boot script path
	2012/08/22 17:57:47 start	Boot scripts processing start time
	XXXX Error	Error message (Possibly multiple)
	2012/08/22 17:57:57 end FAIL	End time boot script processing, the results

Error Message	Cause	Remedy
PIECEMARK	Applied the wrong	Use the correct updating tool for this
Error,machine=XXXXX	updating tool (Using the	model.
	updating tool of a	
	different model)	
pasePut() - error : The file of	Inadequacy with the SD	Re-create the SD card for updating.
the	card for updating	
copy origin is not found	(Files are missing in the	
Put Error!	updating tool)	
paseCopy() - error : The file	Inadequacy SD card for	Inadequate SD card for updating
of the copy origin is not	updating	(Files in the updating tool are missing)
found.	(Files in the updating tool	
Copy Error!	are missing)	
[file name: XX] error,No	Writing destination is full.	Uninstall the unnecessary SDK
space	(The NAND flash	applications.
left on device	memory on the controller	If you cannot uninstall it, implement
pasePut() - error : The	board is full.)	escalation, stating the "model name,
destination directory cannot		application configuration, SMC sheet
be		(SP5-990-006/024/025), and error file."
made.		
pasePut() - error : fileCopy		
Error.		
Put Error!		
[file name: XX] error,No	Writing destination is full.	Uninstall the unnecessary SDK
Error Message	Cause	Remedy
-------------------------------	--------------------------	---
space	(The NAND flash	applications.
left on device	memory on the controller	If you cannot uninstall it, implement
paseCopy() - error : The	board is full.)	escalation stating the "model name,
destination directory cannot		application configuration, SMC sheet
be		(SP5-990-006/024/025), and error file."
made.		
paseCopy() - error : fileCopy		
Error.		
Copy Error!		
Put Error! *1	Error, not normally	If you cannot uninstall it, implement
Copy Error! *1	expected to occur	escalation stating the "model name,
Delete Error!		application configuration, SMC sheet
[XXXXX] is an unsupported		(SP5-990-006/024/025), and error file."
command.		*1
Version Error		Without the foregoing error message,
		only "Put Error / Copy Error" will be
		displayed

NVRAM Data Upload/Download

Uploading Content of NVRAM to an SD Card

Do the following procedure to upload SP code settings from NVRAM to an SD card.

Vote

- This data should always be uploaded to an SD card before the NVRAM is replaced.
- Make sure that the write protection of an SD card is unlocked
- **<u>1.</u>** Do SP5-990-001 (SMC Print) before turning OFF the power. You will need a record of the NVRAM settings if the upload fails.
- 2. Turn the power off.
- 3. Remove the SD card slot cover [A].



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



- 5. Turn the power on.
- 6. Execute SP5-824-001 (NVRAM Data Upload) and then press the "Execute" key.
- **<u>7.</u>** The following files are copied to an NVRAM folder on the SD card when the upload procedure is finished.

The file is saved to the path and the following filename:

NVRAM\<serial number>.NV

Here is an example with Serial Number "K5000017114":

NVRAM\K5000017114.NV

8. In order to prevent an error during the download, be sure to mark the SD card that holds the

uploaded data with the number of the machine from which the data was uploaded.

Vote

You can upload NVRAM data from more than one machine to the same SD card.

Downloading Data from an SD Card to NVRAM

Do the following procedure to download SP data from an SD card to the NVRAM in the machine.

- The NVRAM data download may fail if the SD card with the NVRAM data is damaged, or if the connection between the controller and BCU is defective.
- Do the download procedure again if the download fails.
- Do the following procedure if the second attempt fails:
- Enter the NVRAM data manually using the SMC print you created before uploading the NVRAM data.
- **1.** Turn the power on.
- 2. Remove the SD card slot cover [A].



3. Insert the SD card with the NVRAM data into SD slot 2 [A] (lower).



- **<u>4.</u>** Turn the power off.
- 5. Do SP5-825-001 (NVRAM Data Download) and press the "Execute" key.

Vote

• The serial number of the file on the SD card must match the serial number of the machine for the NVRAM data to download successfully. The download fails if the serial numbers do not match.

This procedure does not download the following data to the NVRAM:

Total Count

• C/O, P/O Count

SP Data Import/Export

Overview

Import/Export Conditions

Import/export is possible between devices only if their model type, region of use, and the following device configurations match.

- Optional paper feed unit
- Whether or not equipped with a hard disk
- Whether or not equipped with a Fax unit

Data That Can Be Imported and Exported

- System SP
- Printer SP
- Fax SP
- Scanner SP

Exporting Device Information

When exporting SP device information from the control panel, the data is saved on an SD card.

- **<u>1.</u>** Insert an SD card into the media slot on the side of the control panel.
- **<u>2.</u>** Enter SP mode.
- 3. Press SP5-749-001 (Import/Export: Export)
- 4. Select "Target" SP settings (System/Printer/Fax/Scanner) to be exported.
- 5. Select "Option" settings (Unique/Secret).

Item	Specification	Note
Unique	Unique information of the machine is	Unique information that can be updated
	included in the exported file if you	#1. Items that are to be used to identify the
	select "Unique" setting.	machine.
		Example: Network Information/ Hostname /
		Information related to fax number /Mail
		address assigned to the machine
		#2. Items for specifying the options equipped
		on the machine.
		Example: Lot number for developer
		Unique information that cannot be
		updated
		#1. Items that may cause a problem if
		imported
		Example: Serial number / Information related

Item	Specification	Note
		to @Remote
		#2. Items for managing the history of the
		machine
		Example: Time and date / Counter
		information / Installation date
		#3. Setting values for the Engine
Secret	Secret information is exported if you	Secret information
	select "Secret" setting.	#1. Data that cannot be exported without
		being encrypted.
		(Exported data is encrypted.)
		Example: Password / Encryption key / PIN
		code
		#2. Confidential information for the customer
		Example: Username / User ID / Department
		code / Mail address / Phone number
		#3. Personal information
		Example: Document name / Image data
		#4. Sensitive information for the customer
		Example: MAC address / Network
		parameters

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

6. Select "Crpt config" setting (Encryption).

Encryption	Select whether to encrypt or not	If the encryption function is used, the setting
	when exporting.	of an encryption key is required by direct
	If you push the "Encryption" key,	input.
	you can export secret information.	• Type the arbitrary password using the soft
		keyboard
		Can enter up to 32 characters

7. Press [Execute].

)

8. Press [OK].

Note

٠ If data export fails, the details of the error can be viewed in the log.

Importing Device Information

Import device information saved on an SD card.

- **<u>1.</u>** Insert an SD card into the media slot on the side of the control panel.
- 2. Enter SP mode.
- <u>3.</u> Press SP5-749-101(Import/Export: Import) 390

- 4. Select a unique setting.
- 5. Press [Encryption Key], if the encryption key was created when the file was exported.
- 6. Select an encryption setting.

Unique	If you want to apply the unique information to the target	Refer to the above
	machine, select the "Unique" key.	information.
Encryption	If an encrypted file is selected as the import file, this	
	setting is required.	

7. Press [Execute].

8. Press [OK].

Note

• If data export fails, the details of the error can be viewed in the log.

Possible Solutions for Import/Export Problems

The access log file is created when export/import is executed. The file is stored in the same location as the exported device setting information file.

If an error occurs, check the log's result code in the access log file first. Values other than 0 indicate that an error occurred.

The result code will appear in the circled area illustrated below.

- Example of a log file



w_d1825500

If you cannot solve the problem or do not know how to solve it after checking the code, note down the error log entry, then contact your supervisor.

Result Code	Cause	Solutions
2 (INVALID	A file import was attempted between	Import files exported from the same
REQUEST)	different models or machines with	model with the same device
	different device configurations.	configurations.
4 (INVALID	Failed to write the device information	Check whether the destination device is

Result Code	Cause	Solutions
OUTPUT DIR)	to the destination device.	operating normally.
7(MODULE	An unexpected error occurred during	Turn OFF then ON the main power, and
ERROR)	import or export.	then try the operation again. If the error
		persists, contact your supervisor.
8 (DISK FULL)	The available storage space on the	Execute the operation again after making
	external medium is insufficient.	sure there is enough storage space.
9 (DEVICE	Failed to write or read the log file.	Check whether the path to the folder for
ERROR)		storing the file or the folder in which the
		file is stored is missing.
10 (LOG	The hard disk is faulty.	Contact your supervisor.
ERROR)		
20 (PART	Failed to import some settings.	The reason for the failure is logged in
FAILED)		"NgCode". Check the code.
		Reason for the Error (Ng-Name)
		2. INVALID VALUE
		The specified value exceeds the
		allowable range.
		3. PERMISSION ERROR
		The permission to edit the setting is
		missing.
		4. NOT EXIST
		The setting does not exist in the system.
		5. INTERLOCK ERROR
		The setting cannot be changed because
		of the system status or interlocking with
		other specified settings.
		6. OTHER ERROR
		The setting cannot be changed for some
		other reason.
21 (INVALID	Failed to import the file because it is in	Check whether the file format is correct.
FILE)	the wrong format in the external	The import file should be a CSV file.
	medium.	
22 (INVALID	The encryption key is not valid.	Use the correct encryption key.
KEY)		

Note

- When exporting device information from the control panel, the data can be saved only on an SD card.
- The file format for exports is CSV.

Address Book Export/Import

Export

Backup address book information on SD card formatted with the specified software.

- **<u>1.</u>** Turn the power off.
- 2. Remove the SD slot cover [A].



3. Insert the SD card in the service slot [A] (lower).



- **<u>4.</u>** Turn the power on.
- 5. Execute SP5-846-051 (Backup All Addr Book) full address book back up.
- 6. Turn the power off.
- 7. Remove the SD card.
- 8. Attach the SD slot cover to the original position.

Note

- When local user information to be uploaded is not contained in the SD card, an execute malfunction is displayed. It cannot be used in the write-protect state.
- Since the address book is the customer's information, take care about handling it, and never bring it back.

Import

- **<u>1.</u>** Turn the power off.
- 2. Remove the SD slot cover of the controller unit.
- **<u>3.</u>** Set the SD card in the service slot.

- **<u>4.</u>** Turn the power on.
- 5. Execute SP5-846-052 (address book information restore).
- **<u>6.</u>** Turn the power off.
- 7. Remove the SD card.
- **<u>8.</u>** Attach the SD slot cover to the original position.
- <u>9.</u> Turn the power on, and check that the address book has been restored.

Vote

- User code counter information is initialized.
- Administrator and supervisor information is not backed up. Also, it is not erased during restore.
- If a download file does not exist, or if erasure is complete, execution malfunction is displayed.

Specification

The information which can be exported /imported is the following items. In the printer model, there is information that is not covered.

- Entry information
- User code information
- E-mail information
- Protection code information
- Fax information
- Fax additional information
- Group information
- Title information
- Title position information
- Folder information
- SMTP attestation
- Local authorization
- Folder authorization information
- Account ACL information
- New document initial ACL information
- LDAP authorization information

Capturing the Debug Logs

Overview

With this feature, you can save debug logs that are stored in the machine (HDD or operation panel) on an SD card. It allows the Customer Engineer to save and retrieve error information for analysis. The Capturing Log feature saves debug logs for the following four.

- Controller debug log including operation log
- Engine debug log
- FCU debug log
- Operation panel log

Contract (1997)

- In older models, a technician enabled the logging tool after a problem occurred. After that, when the problem had been reproduced, the technician was able to retrieve the debug log.
- However, this new feature saves the debug logs at the time that problems occur. Then you can copy the logs to an SD card.
- You can retrieve the debug logs using an SD card without a network.
- Analysis of the debug log is effective for problems caused by the software. Analysis of the debug log is not valid for the selection of defective parts or problems caused by hardware.

Types of debug logs that can be saved

Туре		Storage Timing	Destination (maximum
			storage capacity)
Controller debug	•	Saved at all times	HDD (4 GB) or SD card
log including			connected to the
operation log			service slot.
			When the data gets
			over 4.0 GB, the older
			data is deleted.
Engine debug log	•	When an engine SC occurs	HDD or SD card
	•	When paper feeding/output stop by jams	connected to the
	•	When the machine doors are opened during	service slot (Up to 300
		normal operation	times)
FCU debug log	•	When a specified amount of FCU debug log is	HDD or SD card
		stored in the FCU. If fax application is	connected to the
		unavailable (e.g. not installed), the machine does	service slot
		not transfer the log.	
Operation panel	•	When an error related to the operation panel	Memory in the operation
log		occurs.	panel.

Note

- Debug logs are not saved in the following conditions:
- While erasing all memory
- While data encryption equipment is installed
- While changing the firmware configuration
- Forced power OFF (accidentally disconnecting the outlet)
- Engine debug log in shutdown
- When the power supply to the HDD is off because of energy saving (engine OFF mode /STR mode)
- When one of the following SC occurs: SC672, SC816, SC819, SC878, SC899, SC859, SC860, SC861, SC863, or SC864

• Note

- Following logs are not saved:
- Log related to the energy saver mode (Engine-off, suspend-mode, or other cases) Network communication log
 Logs related to NRS
 IP-FAX log

Access log for the unauthorized user (guest)

- HTTP session timeout log
- Auto log-out log
- IC card related log
- Authorization for Fax

Security of the Operation Log

The following operation logs related to security are not saved.

- User ID
- Password
- IP address
- Telephone number
- Encryption key
- Transition to SP mode

Storing the Device Logs on an SD Card

The model without HDD does not have space to store device logs. To store device logs on such a model, insert an SD card into the service slot on the back of the machine.

Comportant)

It is recommended to use the SD card (16 GB) provided as a service part. The part number of the SD card that is registered as a service part is "B6455060".

1. Insert the SD card into the service SD card slot (lower slot).

- **<u>2.</u>** Turn the power on.
- **<u>3.</u>** Enter SP mode.
- 4. Set SP5-858-001 (Save Machine Info) to "1 (ON)".
- 5. Set SP5-858-002 (Target) to "1 (SD)".
- 6. Execute SP5-858-003 (Make LogTrace Dir).
- **<u>7.</u>** Power cycle the machine.

After the power is turned on, the machine starts to store the device logs on the SD card.

Retrieving the Debug Logs

😭 Important 🔵

- Retrieve debug logs to identify the date of occurrence of the problems and to find details of the problems
- e.g.: At around 8:00 am on March 10, an engine stall occurred. The operation panel does not respond. Turn OFF then ON the main power.
- Analysis of the debug log is effective for problems caused by the software. Analysis of the debug log is not valid for the selection of defective parts or problems caused by hardware

Procedure for Retrieving the Debug Log with SD Card

<u>1.</u> Insert the SD card into the slot on the side of the operation panel (MF model only) or the machine's service slot.

Comportant)

- It is recommended to use either the SD card with 2GB (P/N: B6455030) or 8GB (P/N: B6455040) provided as service parts. This is because the log data can be acquired much faster than when using commercially available SD cards.
- Format the SD card by using SD Formatter from Panasonic before copying the logs: https://www.sdcard.org/downloads/formatter_4/ (The URL is current as of Jun. 2016, and is subject to change)
- **<u>2.</u>** Turn the power on.
- **<u>3.</u>** Enter SP mode.
- **<u>4.</u>** Specify the date that the problem occurred in SP5-858-101 (Start Date) by setting it to the yearmonth-day calendar format.
 - For example, if a problem occurred on February 1, 2015, the date should be set to "20150201", as shown above.
 - Be sure to confirm the date when the problem occurred before obtaining the logs.
- 5. Specify the number of days to collect the logs in SP5-858-102 (Days of Tracing).
 - "2" is set by default, which is the minimum needed for investigating the problem.
 - A value of "1" to "180" can be set.
- **<u>6.</u>** Execute SP5-858-111 (Acquire All Info & Logs) to copy all of the log types to an SD card. It is possible to obtain the logs separately by the SPs below.

SP	Collectable Information and/or Logs
SP5-858-	All of the information and logs that are collected by executing the SPs from SP5-
111	858-121 to SP5-858-145, and SMC.
SP5-858-	Configuration page
121	
SP5-858-	Font page
122	
SP5-858-	Print settings list
123	
SP5-858-	Error log
124	
SP5-858-	Fax information (whether the fax destinations are included or not depends on the
131	setting of SP5-858-103.)
SP5-858-	Controller log, engine log, operation panel log, FCU, and SMC.
141	
SP5-858-	Controller log
142	
SP5-858-	Engine log
143	
SP5-858-	Operation panel log
144	
SP5-858-	FCU log
145	
SP5-992-	SMC
001	

<u>7.</u> After executing the SP for copying the information and/or logs, a confirmation screen will appear (MF model only). To proceed to obtain the information and/or logs, press [execute].



[A]	File size
[B]	Period to copy
[C]	Estimated time to copy
[D]	If [Fax Contacts] is displayed, it means that the fax destinations will be included in the fax
	information.
[E]	Where the data will be copied.

Vote

• The approximate time it takes to transfer the debug log is as follows. Transfer time may be affected by the type or format of the SD card.

Controller log (GW debug log): 2 - 20 minutes

Engine log: 2 minutes

Operation panel log: 2 - 20 minutes

If the estimated time is not calculated due to an error, an error code will be displayed.

Error	Description
code	
-1	Other problem.
-2	No SD card is inserted in the service slot or in the SD slot on the side of the operation
	panel. Insert an SD card to either of the SD slots.
-3	The SD card is locked. Unlock the SD card as shown below.
	Image: second system Image: second system Image: second system Image: second system
	1. Unlocked
	2. Locked

- **<u>8.</u>** Wait for the information and/or logs to be copied to the SD card.
- **<u>9.</u>** After a message stating that the process has completed appears on the operation panel, make sure that the LED light next to the SD slot is not flashing. Then, remove the SD card.

Vote

- The process of obtaining logs fails in the following cases:
 - When the size of the logs to obtain exceeds the amount of space available on the SD card.
 - When the SD card is removed while the logs are being copied to it.
 - When the SD card is not formatted.
- If 'failed' appears on the touch panel display, turn the power off, and then recover from step 1 again.

Note

Refer to "Log File List" to check the location of log files and file name.

Procedure for Retrieving the Debug Log via Web Image Monitor

<u>1.</u> Access the following URL and login as an administrator:

http://[IP address or hostname]/web/entry/df/websys/direct/getSysinfo.cgi

RICOH	
Web Image	Monitor
Login User Name : Login Password : Login	
Cancel	d25975002

2. Specify the date that the problem occurred and the number of days to download the logs. If the fax destinations need to be included in the fax information, set [On] as [Obtain Fax Destination(s) Information]. Then press [Download].

RICOH		Q ? i +i Lopout
< Home		a t t a vannistator
Obtain Device Informa	tion	@Refresh ⑦ ^
Home		
Date of fault	: 22 month 06 day 2015 year	
Number of days, including date fault occurred, to obtain	: 2 dev(s)	
Obtain Fax Destination(s) Information	:Oon ® 011	
Obtaining device information has a Click [Cancel] if the machine is obt	tarted. aining device information.	
Download Cancel		
Home		ų
		d259z5003

Vote

- 2 (days) is set by default. The value can be changed from 1 to 180.
- [Obtain Fax Destination(s) Information] is set to [Off] by default.
- **<u>3.</u>** The confirmation screen will appear and the information and/or logs will start being downloaded. To proceed to download the information and/or logs, wait for the open-or-save dialog to appear.

^
d259z5004

• To cancel downloading, press [Cancel].

- To reconfigure some settings, press [Download again].
- For the MF model, the operation panel shows the following while downloading the logs:



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

Do you want to open or save MachineInfo_G434PB17001_20150206_191743.tar (67.7 MB) from 133.139.166.63?						×
	Open	S	ave	٠	Cancel	
			Save			Ľ
			Save a	15		
			Save a	nd c	open	
				d2	259z50	06

• Note

Refer to "Log File List" to check the location of log files and file name.

Log File List

The logs are saved with the following file path + names.

Controller	/LogTrace/[*the model number]/watching/[yyyymmdd_hhmmss]_[aunique value].gz
debug log	
(mmesg)	
Engine debug	/LogTrace/[*the model number]/engine/[yyyymmdd_hhmmss].gz
log	
Operation	/LogTrace/[*the model number]/opepanel/[yyyymmdd_hhmmss].tar.gz
panel log	
SMC	/LogTrace/[*the model number]/smc/[*the model
	number]_[5992xxx]_[yyyymmdd_hhmmss].csv
Configuration	/LogTrace/[*the model
page	number]/gps/ConfigurationPage/ConfigurationPage_[yyyymmdd_hhmmss].csv
Font page	 /LogTrace/[*the model number]/gps/FontPage/FontPage_PCL_[the page
	number]_[yyyymmdd_hhmmss].jpg
	 /LogTrace/[*the model number]/gps/FontPage/FontPage_PDF_[the page
	number]_[yyyymmdd_hhmmss].jpg
	 /LogTrace/[*the model number]/gps/FontPage/FontPage_PS_[the page
	number]_[yyyymmdd_hhmmss].jpg
Print setting	/LogTrace/[*the model

list	number]/gps/PrintSettingList/PrintSettingList_RPGL_[yyyymmdd_hhmmss].txt
	/LogTrace/[*the model
	number]/gps/PrintSettingList/PrintSettingList_RTIFF_[yyyymmdd_hhmmss].csv
Error log	/LogTrace/[*the model number]/gps/ErrorLog/[yyyymmdd_hhmmss].csv
Fax	/LogTrace/[*the model number]/faxreport/[yyyymmdd_hhmmss].csv
information	
FCU debug	/LogTrace/*the model number]/fculog/[yyyymmdd_hhmmss].gz
log	

Automatic Backup/Restore for Application and Settings of SOP

Note

This tool is supported by Cheetah system version V1.01 or later.

Overview

The application settings and add-on applications can be automatically backed up and restored after a Smart Operation Panel replacement.

Data to be backed up and restored:

- System application settings^{*1}
- Standard application settings^{*1}
- Pre-install application settings^{*1}
- Add-on applications (including hybrids)^{*2}

*1: The system application, standard installed application, and pre-installed application are installed in Smart Operation Panel, so the application itself is not backed up or restored after replacement.
*2: Add-on applications settings are not backed up or restored.

Automatic Backup

Vote

Neither operator nor service technician can execute backup manually.

No other operation can be executed while the backup is in progress and while the message is displayed: "Now Backup. Please wait."

- Backup is executed 24 hours after the most recent backup. If there is no backup data on the machine, the first backup is executed at 2 a.m.
- In the following cases the backup is suspended and attempted one hour later:
 - When downloading the firmware from a website during ARFU.
 - LCD lamp on the operation panel is ON.
 - The HDD cannot be accessed for 60 sec.
- A backup does not execute if the backup data has not changed. (Up to 7 days max.)
- The LCD lamp remains off while the backup is in progress.
- Backup data is stored on the HDD.
- Here is an estimate of the time required to complete backup.

	Data Size	Backup Time
Add-on application	106MB	1 min. 6 sec.

	Data Size	Backup Time
Application settings	0.2MB	36 sec.

To disable automatic backup

The default setting is "Enabled".

In the operation panel service mode > [Screen Device Settings] > [Backup/Restore Settings]

nable Backup		Enable	
ast backup date : 2018/02/	22	Star	t restore

To disable the default settings, just uncheck [Enabled]. A machine restart is not required.

Restore			

Vote

The restore function cannot be used if there is no backup data on the machine.

 Log in to the operation panel in service mode, and execute [Screen Device Settings] > [Backup/Restore Settings] > [Start Restore].

sble Backup			- Enable
t backup date : 2018/02/22	2		Start restore
		C.	

2. After the message is displayed, touch [Execute].

The machine displays a message for about 10 min.

- 3. Touch "Close" in the dialog, "The restore is completed. Please restart."
- **<u>4.</u>** Cycle the machine off/on

Restore Error Codes

An error code will appear on the operation panel display if the restore operation fails.

Error	Content	Action
Code		
1	Add-on application restore operation failed.	Attempt to run the restore procedure
		again.
3	Application setting restore application	Attempt to run the restore procedure
	failed.	again.

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 checks the CPU, memory, HDD, and so on. An SC code is displayed if the selfdiagnostic program detects any malfunction or abnormal condition. In the case of the error that can start the machine, record it in System Error Log.

SC Logging

When an SC is generated, the "total count value when the SC is generated" and the "SC code" are logged. However, if the total count value during the SC is the same as last time, logging is not performed.

Logged data can be checked by outputting an administrative report (SMC print). The SC history is logged up to the last 10 entries, and if there are more than 10 entries, data are progressively deleted starting from the oldest.

SC Automatic Reboot

When an ordinary SC (type D) is generated, automatically reboot is performed. Automatic reboot or reboot by user operation can be set by SP5-875-001 (SC automatic reboot setting out) (default value: 1 "OFF").

When a type D occurs, an automatic reboot is done or the machine display asks the customer if it can reboot. However, when the SC occurs twice in a short time, the machine sends a report to the @Remote server without rebooting. This is because just rebooting may not be a good solution if an SC occurs twice.

When an automatic reboot is performed, a confirmation screen is displayed after reboot. The confirmation screen can be canceled by pressing the [OK] key (display is not canceled only when the main power switch is switched OFF to ON).

Screen display during reboot

- Status display on the current screen
 - Post-processing Post-processing during printing, etc.
 - Automatic reboot After operation end Post-processing

Until automatic reboot

- [Reboot] key
 Key to perform the reboot
- Turn ON spanner LED (same as when an SC is generated).

Operation during SC reboot

• Timing of SC reboot

When @Remote is enabled, and when a NRS alarm*1 is not generated, the corresponding SC is the object of an automatic reboot.

*1 NRS alarm: Issued when an ordinary SC (type D) is generated twice while the total counter counts 10 times.

• Time to automatic reboot

Reboot is performed 30 seconds after an engine reboot is possible, after the end of postprocessing during printing, etc.

At that time, a reboot is performed even if the MFP is operating. The engine does not start process control when a reboot is possible.

• Automatic reboot

See the flowchart below.



SC Manual Reboot

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



Service Call

Service Call Conditions

The 'SC Table' section shows the SC codes for controller errors and other errors. The latter are put into four types. The type is determined by their reset procedures. The table shows the classification of the SC codes.

Туре	Display	How to reset	SC call or SC alarm in customer support
			system
А	The SC is immediately displayed on	Reset the SC (set SP5-810-	Occurrence & alarm
	the operation panel when SC occurs.	1) and then cycle the main	count
	The error involves the fusing unit. The	power off and on.	\checkmark
	machine operation is disabled. The		Immediate alarm
	user cannot reset the error.		
В	When a function is selected, the SC is	Turn the operation switch	Occurrence & alarm
	displayed on the operation panel.	off and on.	count
	The machine cannot be used		\checkmark
	(downtime mitigation).		Power OFF and ON
			\checkmark
			Alarm count and
			alarm only if
			recurrence
С	No display on the operation panel.	Only the SC history is	Occurrence
	The machine operates as usual.	updated.	\checkmark
			Logging count &
			alarm count
D	The SC is displayed on the operation	Turn the main power switch	Occurrence & alarm
	panel.	off and on.	count
	The machine cannot be used		\checkmark
	(machine-error SC).		Power OFF and ON
			\checkmark
			Alarm count and
			alarm only if
			recurrence

Note

[•] When an ordinary SC (type D) is generated, an automatic reboot is performed. When an event is reported by the customer support system, even in the event of an ordinary SC, a reboot is not performed. During the automatic reboot, a confirmation screen is displayed after the reboot.

- When automatic reboot occurs twice continuously, an SC is displayed without rebooting, and logging count is performed. Also, when an SMC print is output, an asterisk (*) mark is added alongside the SC number for clarity.
- The automatic reboot can be enabled or disabled with SP5-875-001 (SC automatic reboot setting) (default value: OFF).

SP descriptions

• SP5-875-001 (SC automatic reboot: Reboot Setting)

Enables or disables the automatic reboot function when an SC error occurs.

0: The machine reboots automatically when the machine issues an SC error and logs the SC error code. If the same SC occurs again, the machine does not reboot.

1: The machine does not reboot when an SC error occurs.

The reboot is not executed for the pattern A or C.

SC100 (Scanning)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC101-	D	LED error (scanning)
01		The peak white level is less than the prescribed value.
		This SC is detected when the machine adjusts the LED's light intensity or before
		just scanning.
		Condensation in the scanner unit
		Loose, broken or defective connector
		Scanner carriage defective
		Engine board defective
		Harness defective
		Scanning guide plate is dirty or defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the FFC connectors (scanner carriage to SCB).
		2. Clean and replace the scanning guide plate (exposure glass).
		3. Replace the scanner carriage.
		4. Replace the SCB.
		5. Replace the FFC (scanner carriage to SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC101-	D	LED error (LED illumination adjustment)
02		The peak white level is less than the prescribed value.
		This SC is detected when the machine adjusts the LED's light intensity.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Defective LED
		LED driver PCB error
		Loose, broken, defective connector or defective harness
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the FFC connectors (Scanner carriage to SCB).
		2. Replace the scanner carriage.
		3. Replace the FFC (Scanner carriage to SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC102-	D	LED illumination adjustment error
00		The white level peak reached the prescribed threshold when the scanning guide
		plate was scanned after a specified number of adjustments.
		Loose, broken, or defective connector
		Scanner carriage defective
		Engine board defective
		Harness defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the FFC connectors (scanner carriage to SCB).
		2. Clean and replace the scanning guide plate (exposure glass).
		3. Replace the scanner carriage.
		4. Replace the SCB.
		5. Replace the FFC (scanner carriage to SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC111-	D	LED error (scanning): rear side
01		The peak white level is less than the prescribed value.
		Loose, broken, or defective connector
		SPDF CIS unit defective
		Harness defective
		Scanning guide plate is dirty or defective
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do the
		following steps. Check if the SC reoccurs by cycling the power off/on after each

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		step.
		1. Clean and replace the scanning guide plate (rear side).
		2. Reconnect the FFC connectors (SPDF CIS unit to SCB).
		3. Clean and replace the scanning guide plate.
		4. Replace the SPDF CIS unit.
		5. Replace the FFC (SPDF CIS unit to SCB).
		6. Replace the SCB.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC112-	D	LED illumination adjustment error: rear side
00		The white level peak reached the prescribed threshold when the scanning guide
		plate was scanned after a specified number of adjustments.
		Loose, broken, or defective connector
		SPDF CIS unit defective
		Harness defective
		Scanning guide plate is dirty or defective
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Clean and replace the scanning guide plate on the rear side.
		2. Reconnect the FFC connectors (SPDF CIS unit to SCB)
		3. Clean and replace the scanning guide plate.
		4. Replace the SPDF CIS unit.
		5. Replace the FFC (SPDF CIS unit to SCB).
		6. Replace the SCB.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC120-	D	Scanner home position error 1
00		The scanner HP sensor (S12) did not go OFF :
		During homing operation (power ON, leaving low power mode)
		During auto adjustment (power ON, leaving low power mode)
		During document, book scanning
		Scanner motor (M5) drive PCB error
		Scanner motor (M5) defective
		Scanner HP sensor (S12) defective
		Harness defective
		Timing belt, pulley, wire, or carriage not installed correctly

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Replace the scanner HP sensor (S12).
		2. Replace the scanner motor (M5).
		3. Replace the harness.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC121-	D	Scanner home position error 2
00		The scanner HP sensor (S12) did not go ON :
		During homing operation
		During auto adjustment
		During document, book scanning
		Scanner motor (M5) drive PCB error
		Scanner motor (M5) defective
		Scanner HP sensor (S12) defective
		Harness defective
		Timing belt, pulley, wire, or carriage not installed correctly
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Replace the scanner HP sensor (S12).
		2. Replace the scanner motor (M5).
		3. Replace the harness.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC141-	D	Black level correction error
00		The automatic adjustment has failed to correct the black level to the permissible
		range.
		Loose, broken, or defective connector
		Scanner carriage defective
		Engine board defective
		Harness defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the FFC connectors (scanner carriage (SBU) to SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		2. Replace the scanner carriage
		3. Replace the SCB.
		4. Replace the FFC (scanner carriage (SBU) to SCB)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC142-	D	White level correction error
00		The automatic adjustment has failed to correct the white level to the permissible
		range.
		SBU defective
		LED defective
		Engine board defective
		Loose, broken, defective connector or defective harness
		Scanner motor (M5) defective
		Dirty or incorrect mirror and/or lens
		Dirty or incorrect scanning guide plate
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the FFC connectors (scanner carriage (SBU) to SCB).
		2. Clean and replace the scanning guide plate (exposure glass).
		3. Replace the scanner carriage.
		4. Replace the SCB.
		5. Replace the FFC (scanner carriage (SBU) to SCB)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC144-	D	SBU communication error
00		Cannot correctly establish communication with the SBU.
		Scanner carriage defective
		Engine board defective
		Harness defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the FFC connectors (scanner carriage (SBU) to SCB).
		2. Replace the scanner carriage.
		3. Replace the SCB.
		4. Replace the FFC (scanner carriage (SBU) to SCB)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC151-	D	Black level correction error: rear side
00		The automatic adjustment has failed to correct the black level (rear side) to the
		permissible range.
		Loose, broken, or defective connector
		SPDF CIS unit defective
		Engine board defective
		Harness defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the FFC connectors (SPDF CIS unit to SCB).
		2. Replace the SPDF CIS unit.
		3. Replace the SCB.
		4. Replace the FFC (SPDF CIS unit to SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC152-	D	White level correction error: rear side
00		The automatic adjustment has failed to correct the white level (rear side) to the
		permissible range.
		SPDF CIS unit defective
		Engine board defective
		Harness defective
		Loose, broken, or defective connector
		Dirty or incorrect scanning guide plate
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Clean or replace the scanning guide plate on the rear side.
		2. Reconnect the FFC connectors (SPDF CIS unit to SCB).
		3. Replace the SPDF CIS unit.
		4. Replace the SCB.
		5. Replace the FFC (SPDF CIS unit to SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC154-	D	CIS communication error: rear side
00		Cannot correctly establish communication with the CIS.
		SPDF CIS unit defective

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Engine board defective
		Harness defective
		Loose, broken, or defective connector
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again,
		do the following steps. Check if the SC reoccurs by cycling the power after each
		step.
		1. Reconnect the FFC connectors (SPDF CIS unit to SCB).
		2. Replace the SPDF CIS unit.
		3. Replace the SCB.
		4. Replace the FFC (SPDF CIS unit to SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC161-	D	DRAM initialization failure
20		An error occurred every time the machine is turned on or returns to full operation
		from energy saver mode.
		Engine board defective
		DRAM device defective
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again,
		do the following steps. Check if the SC reoccurs by cycling the power after each
		step.
		1. Reconnect all the connectors on the SCB if they are disconnected or loose.
		2. Replace the SCB.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC195-	D	Machine Serial Number Error
00		Comparison of the product identification code in the machine serial number (11
		digits).
		The product identification code in the machine serial number (11 digits) does not
		match.
		Re-enter the machine serial number.

SC200 (LED Optics)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC230-	D	FGATE ON error
00		The FGATE signal did not turn ON within the given time period after the writing
		process started.
		Connection error between Engine and Controller

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Engine board failure (Damaged ASIC)
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check the connection between the BCU and the controller board. (Printer
		model only)
		2. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC231-	D	FGATE OFF error
00		The FGATE signal did not turn OFF within the given time period after the writing
		process ended.
		Connection error between Engine and Controller
		Engine board failure (Damaged ASIC)
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check the connection between the BCU and the controller board. (Printer
		model only)
		2. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC277-	D	LEDA communication error
00		There was a communication error between the LED head array and the engine
		board when the machine was turned on or recovered from the Energy Save mode.
		Loose connector, broken, defective or harness defective
		LED head defective
		Engine board (Printer: BCU, MF: SCB) defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check if the SC reoccurs by returning from energy saver mode.
		2. Reconnect the FFC connectors (LED head - engine board).
		3. Replace the FFC.
		4. Replace the LED head.
		5. Replace the engine board.
SC277-	D	LEDA communication error (other)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
10		Power supply to the LED head array is abnormal after the machine was turned on
		or recovered from the Energy Save mode.
		Engine board (Printer: BCU, MF: SCB) defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check if the SC reoccurs by returning from energy saver mode.
		2. Check if the SC reoccurs by normal printing.
		3. Replace the engine board.

SC300 (Image Processing)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC332-	D	Toner end detection error
00		Under the condition that the toner cartridge has not reached SP2-995-001, an error
		that no toner is supplied has been detected over "n" times in succession. (n: SP2-
		931-005)
		Overloaded toner feeding system (toner clogging)
		Detection screw of the PCDU not rotating
		Failure in the toner end sensor: Light leak
		• Failure in the toner supply clutch (CL2)
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the toner end sensor (S9) connector.
		2. Reconnect the toner supply clutch (CL2) connector.
		3. Re-install the PCDU.
		4. Replace the PCDU.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC364-	D	Toner end sensor (S9) output count error
00		Under the condition that the toner cartridge has not reached the end, an error that
		no toner is supplied has been detected over "n" times in succession. (n: SP2-931-
		003)
		Connector defective (disconnected, loose) or harness defective
		Toner end sensor (S9) defective (no light emission)
		Dirty detection surface of the toner cartridge
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check and clean the detection surface of the toner cartridge.
		2. Reconnect the toner end sensor (S9) connector.
		3. Re-install the PCDU.
		4. Replace the PCDU.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC396-	D	Drum motor (M3) error
01		The motor LOCK signal is detected for more than 2 seconds while the motor
		START signal is ON.
		Drum motor (M3) defective
		Loose, broken, defective connector or harness defective
		Engine board (Printer: BCU, MF: SCB) defective
		PCDU overload
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Replace the drum motor (M3).
		2. Reconnect the drum motor (M3) connector.
		3. Replace the drum motor (M3) harness.
		4. Replace the engine board.
		5. Replace the PCDU.
SC396-	D	Drum motor (M3) error (When the motor is deactivated)
02		The motor LOCK signal is not detected for more than 2 seconds while the motor
		START signal is OFF
		Drum motor (M3) defective
		Harness defective
		Engine board (Printer: BCU, MF: SCB) defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Replace the drum motor (M3).
		2. Replace the drum motor (M3) harness.
		3. Replace the engine board.
SC400 (Image Processing)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC440-	D	High voltage power: Transfer bias output error
01		A continuous error signal was detected for 200 ms during transfer positive bias
		output.
		Hardware related causes:
		Contact failure
		Loose, broken, defective connector on the controller side
		Grounding, open-circuit in the high voltage route
		Arc discharge due to lack of space
		The shorted harness on the controller side
		Engine board malfunction due to signal error
		HVPS defective
		Load related causes:
		Short-circuit
		Arc discharge due to lack of space
		Increase in transfer roller impedance (Low-temperature environment, due to
		dirt)
		Open-circuit in the power supply route
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Re-install the transfer roller.
		2. Replace the transfer roller.
		3. Reconnect the CN220 connector on engine board (Printer: BCU, MF: SCB).
		4. Reconnect the CN800 connector on HVPS.
		5. Re-install the HVPS.
		6. Replace the HVPS.
		7. Replace the engine board (Printer: BCU, MF: SCB).
		8. Replace the harnesses on HVPS.
SC440-	D	High voltage power: Loose connector
02		An error signal was detected continuously for 40 ms in standby mode with the front
		cover closed.
		Loose connector on the controller side
		Harness defective
		Engine board malfunction due to signal error
		HVPS defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the CN800 connector on HVPS.
		2. Reconnect the CN220 connector on engine board (Printer: BCU, MF: SCB).
		3. Replace the HVPS.
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harnesses on HVPS.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution		
SC490-	D	High voltage power: Charge/development bias output error		
00		An error signal was detected continuously for 200 ms during charge bias output.		
		Hardware related causes:		
		Contact failure		
		Loose, broken, or defective connector on the controller side		
		Grounding, open-circuit in the high voltage route		
		Arc discharge due to lack of space		
		The shorted harness on the controller side		
		Engine board malfunction due to signal error		
		HVPS defective		
		Load related causes:		
		Short-circuit		
		Arc discharge due to lack of space		
		Drum deterioration, or condensation on drum caused by overcurrent		
		Drum condensation, pinhole overcurrent		
		The incorrect gap between the drum and charge roller		
		Overcurrent due to condensation on the drum surface		
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again,		
		do the following steps. Check if the SC reoccurs by cycling the power after each		
		step.		
		1. Re-install the PCDU.		
		2. Check if there are scratches on the drum surface. If you can see the internal		
		element of the drum (bare metal) on the surface, replace the PCDU.		
		3. Reconnect the CN220 connector on engine board (Printer: BCU, MF: SCB).		
		4. Reconnect the CN800 connector on HVPS.		
		5. Re-install the HVPS.		
		6. Replace the HVPS.		
		7. Replace the engine board (Printer: BCU, MF: SCB).		
		8. Replace the harnesses on HVPS.		

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution	
SC497-	D	Image creation thermistor (TH5) error	
00		The output of the image creation thermistor (TH5) is out of the following range.	
		• 70°C or more	
		• -20°C or less	
		Loose, broken, defective connector or harness defective	
		Image creation thermistor (TH5) defective	
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again,	
		do the following steps. Check if the SC reoccurs by cycling the power after each	
		step.	
		1. Reconnect the image creation thermistor (TH5) connector.	
		2. Replace the image creation thermistor (TH5).	
		3. Replace the image creation thermistor (TH5) harness.	
		4. Replace the engine board (Printer: BCU, MF: SCB).	

SC500 (Paper Feed and Fusing)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC508-	В	Bypass bottom plate operation error
00		The bypass tray sensor (S3) signal did not change (ON/OFF or OFF/ON) for more
		than 4 sec. after the bypass lift clutch (CL3) activated, and this malfunction was
		detected three consecutive times.
		Bypass left clutch defective
		Bypass tray sensor (S3) connection lose, broken, defective, or sensor
		defective
		Engine board defective
		Harness connector lose, broken, defective, or harness defective
		Bypass feed roller missing
		A foreign object has fallen into the machine
		Tray not sliding smoothly
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check operation of the bottom plate.
		If the SC error displays and the bottom tray is not moving, go to "2."
		If the SC error displays and the bottom tray moves up and down, go to "3."
		If the operation of the bottom tray is abnormal (spurious noise, snagging), go
		to "11."

SC No.	Туре		Error Name/Error Condition/Major Cause/Solution
		2.	Re-connect the connector of the bypass lift clutch (CL3).
		3.	Confirm that the bypass feed roller is installed.
			If the bypass feed roller is missing, install it.
		4.	Re-connect the connector of the bypass tray sensor (S3).
			Go to "7" if problem not solved.
		5.	Replace bypass lift clutch (CL3).
		6.	Replace bypass lift clutch (CL3) harness.
			Go to "9" if problem not solved.
		7.	Replace the bypass tray sensor (S3).
		8.	Replace the bypass tray harness.
		9.	Replace the bypass feed unit.
		10.	Replace the engine board (Printer: BCU, MF: SCB).
		11.	If the bottom plate moves, make sure that the plate is snagging on a foreign
			object below the plate or the cam.
			If something has fallen in, remove it.
		12.	Apply quick-drying lubricant to the sliding parts of the bottom tray.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC520-	D	Feed/fusing motor (M4) malfunction (operating).
01		A motor malfunction was detected because the lock signal remained HIGH (motor
		not rotating normally) 20 consecutive times when checked at 100 ms intervals
		after the motor switched ON.
		Feed/fusing motor (M4) defective
		Harness connector lose, broken, defective, or harness defective
		Engine board defective
		Unit torque high
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after
		each step.
		1. Replace the feed/fusing motor (M4).
		2. Re-connect the connector of the feed/fusing motor (M4).
		3. Replace the feed/fusing motor (M4) harness.
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the feed/fusing drive unit.
SC520-	D	Feed/fusing motor (M4) operation malfunction (at rest)
02		A motor malfunction was detected because the lock signal was detected LOW 20
		consecutive times (motor not stopped normally) when checked at 100 ms intervals
		after the motor switched ON.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Feed/fusing motor (M4) defective
		Connector harness has broken
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after
		each step.
		1. Replace the feed/fusing motor (M4).
		2. Replace the feed/fusing motor (M4) harness.
		3. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC530-	D	PCDU cooling fan (right) (FAN1) (operating)
00		A motor malfunction was detected because the lock signal remained HIGH (motor
		not rotating normally) 50 consecutive times when checked at 100 ms intervals after
		the motor switched ON.
		PCDU cooling fan (right) (FAN1) defective
		Harness connector lose, broken, defective, or harness defective
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Replace PCDU cooling fan (right) (FAN1).
		2. Re-connect the connector of the PCDU cooling fan (right) (FAN1).
		3. Replace PCDU cooling fan (right) (FAN1) harness.
		4. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC531-	D	PSU cooling fan (FAN3) error (operating)
00		A motor malfunction was detected because the lock signal remained HIGH (motor
		not rotating normally) 50 consecutive times when checked at 100 ms intervals after
		the motor switched ON.
		PSU cooling fan (FAN3) defective
		Harness connector lose, broken, defective, or harness defective
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		1. Replace the PSU cooling fan (FAN3).
		2. Re-connect the connector of the PSU cooling fan (FAN3).
		3. Replace the PSU cooling fan (FAN3) harness.
		4. Replace the engine board (Printer: BCU, MF: SCB).
SC531-	D	PSU cooling fan (FAN3) error (at rest)
01		A motor malfunction was detected because the lock signal detected LOW 70
		consecutive times (motor not stopped normally) when checked at 100 ms intervals
		after the motor switched ON.
		PSU cooling fan (FAN3) defective
		Harness connector lose, broken, defective, or harness defective
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Replace the PSU cooling fan (FAN3).
		2. Re-connect the connector of the PSU cooling fan (FAN3).
		3. Replace the PSU cooling fan (FAN3) harness.
		4. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC532-	D	PSU cooling fan (left) (FAN2) error (operating)
00		A motor malfunction was detected because the lock signal remained HIGH (motor
		not rotating normally) 50 consecutive times when checked at 100 ms intervals after
		the motor switched ON.
		PSU cooling fan (left) (FAN2) defective
		Harness connector lose, broken, defective, or harness defective
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. PSU cooling fan (left) (FAN2) defective
		2. Re-connect the connector of the PSU cooling fan (left) (FAN2).
		3. Replace the PSU cooling fan (left) (FAN2) harness.
		4. Replace the engine board (Printer: BCU, MF: SCB).
SC532-	D	PSU cooling fan (left) (FAN2) error (at rest)
01		Motor malfunction detected because the lock signal detected LOW 70 consecutive
		times (motor not stopped normally) when checked at 100 ms intervals after the

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		motor switched ON.
		PSU cooling fan (left) (FAN2) defective
		Harness connector lose, broken, defective, or harness defective
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. PSU cooling fan (left) (FAN2) defective
		2. Re-connect the connector of the PSU cooling fan (left) (FAN2).
		3. Replace the PSU cooling fan (left) (FAN2) harness.
		4. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC534-	В	Bank 1 cooling fan error
00		
SC535-	В	Bank 2 cooling fan error
00		
SC536-	В	Bank 3 cooling fan error
00		
		Problem detected with internal bank cooling fan
		Harness connector lose, broken, defective
		Bank cooling fan defective
		Bank controller board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do the
		following steps. After each step cycle the machine off/on, and then do the output
		check for the item (SP5-804-162, -167, -173) to see if the SC error reoccurs.
		1. Re-connect the connector of the bank cooling fan.
		2. Replace the bank cooling fan.
		3. Replace the bank controller board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC541-	А	Fusing thermopile (TH2) disconnect error (center: abnormal low temperature)
01		A temperature reading of -20°C was detected continuously for 5.5 sec. (over 10
		detections at 0.5 sec. intervals)
		Fusing thermopile (TH2) disconnected
		Harness connector lose, broken, or defective
		1. Release the SC code in the SP mode, and then cycle the machine off/on to

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		recover normal operation.
		2. Replace the fusing thermopile (TH2).
		3. Re-connect the connector of the fusing thermopile (TH2).
		4. Replace the fusing thermopile (TH2) harness.
SC541-	А	Fusing temperature variation error between center and end of the hot roller
02		• 10 sec. after a printer job ended or after entering standby mode, within 1.2
		sec. the machine detected a 12°C temperature change at the center or end of
		the hot roller.
		 Normally, a temperature increase over 39°C is detected at the center of the
		hot roller 6 times within 1.2 sec.
		• Normally, a temperature increase over 24°C is detected at the end of the hot
		roller 6 times within 1.2 sec.
		Drawer connector defective
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. Replace the fusing unit.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC542-	А	No reload temperature (temperature gradient detection at the center of the hot
01		roller)
		Measurement starts 2.4 sec. after the fusing lamps switch on, and within 2.4 sec. 5
		temperature increases below 29°C were detected 5 consecutive times. (If the
		temperature is below 45° C, after the fusing thermopile (TH2) detects 45° C
		measurement starts after 2.4 sec. have elapsed.)
		Fusing lamp (center) disconnected
		Overheating protection device triggered (blown fusing thermostat)
		Power supply voltage low
		Fusing thermopile (TH2) output abnormal
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. Replace the fusing lamps.
		3. Replace the fusing thermostats (TH3, TH4).
		4. If the problem is low voltage, ask the client to connect the machine directly to a
		rated power source and to refrain from using extension cords.
		5. Replace the fusing thermopile (TH2).
SC542-	А	No reload temperature (timeout at the center of the hot roller)
03		The fusing unit did not reach the reload temperature within 14.2 sec. after the start

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		of fusing temperature control.
		Fusing lamp (center) disconnected
		Overheating protection device triggered (blown fusing thermostat)
		Power supply voltage low
		Fusing thermopile (TH2) output abnormal
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. Replace the fusing lamps.
		3. Replace the fusing thermostats (TH3, TH4).
		4. If the problem is low voltage, ask the client to connect the machine directly to a
		rated power source and to refrain from using extension cords.
		5. Replace the fusing thermopile (TH2).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC543-	А	High-temperature software error (center)
00		245°C detected continuously for 1 sec. at the center of the hot roller
		TRIAC short
		Engine board defective
		Fusing thermopile (TH2) defective
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. If TRIAC damaged, replace PSU.
		3. Replace the engine board (Printer: BCU, MF: SCB).
		4. Replace the fusing thermopile (TH2).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC544-	А	High-temperature (center) hardware error
00		Temperature over 250°C detected (high-temperature flag detected)
		TRIAC short
		Engine board defective
		Fusing thermopile (TH2) defective
		Fusing thermistor (TH1) defective
		Fusing temperature control software crashed
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. If TRIAC damaged, replace the PSU.
		3. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		4. Replace the fusing thermopile (TH2).
		5. Replace the fusing thermistor (TH1).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC545-	А	Fusing lamp (center) remains ON
00		After reaching reload temperature, the fusing lamp remained on for more than 5.9
		sec., the maximum DUTY time allowed after reloading.
		Fusing thermopile (TH2) output abnormal
		Fusing lamp (center) disconnected
		Overheating protection device triggered (blown fusing thermostat)
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. Replace the fusing thermopile (TH2).
		3. Replace the fusing lamps.
		4. Replace the fusing thermostats (TH3, TH4).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC547-	D	Zero cross-error (relay contact fusion)
01		After zero cross interrupt was enabled, the zero cross interrupts occurred more
		than four times within 50 ms (±20 ms).
		Damaged fusion relay (contact fusion)
		Fusion relay circuit defective
		1. Power cycle the machine.
		2. Replace the PSU.
		3. Check the harness connections between the PSU and the engine board
		(Printer: BCU, MF: SCB).
		4. Replace the harnesses between the PSU and the engine board.
		5. Replace the engine board.
SC547-	D	Zero cross-error (relay contact error)
02		Zero cross processing executed for 0.5 sec., but relay shut OFF/ON when zero
		cross was not generated even once. The process is done four or five times.
		Damaged fusion relay (contact open)
		Fusion relay circuit defective
		PSU fuse (24VS) blown
		1. Power cycle the machine.
		2. If the PSU fuse (24VS) has blown, replace it.
		3. Replace the PSU.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		4. Check the harness connections between the PSU and the engine board
		(Printer: BCU, MF: SCB).
		5. Replace the harnesses between the PSU and the engine board.
		6. Replace the engine board.
SC547-	D	Zero cross-error (abnormally low frequency)
03		Zero cross count processing is executed at 0.5 sec. intervals.
		• When the zero-cross count is 45 to 54, the frequency is set to 50 Hz.
		• When the zero-cross count is 55 to 65, the frequency is set to 60 Hz.
		• For cases other than the above ranges, the low-frequency detection count is
		added.
		The above processing is executed for 11 counts when the number of low-
		frequency detections is 2 or more.
		Frequency is the input power source is unstable.
		1. Power cycle the machine.
		2. Check the input power source.
		3. Check the harness connections between the PSU and the engine board
		(Printer: BCU, MF: SCB).
		4. Replace the harnesses between the PSU and the engine board.
		5. Replace the engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC548-	D	Fusing thermopile (TH2) output error (center of the hot roller): Condensation
00		detection
		3.6 sec. after the fusing lamps switched on, the rise in temperature at the center
		and end of the hot roller were sampled at 1.2 sec. intervals. The rise in temperature
		at the center was divided by the rise in temperature at the end and the result was
		less than 1.24, and the temperature at the center of the hot roller was less than
		110°C.
		Condensation on the fusing thermopile (TH2)
		1. If the ambient temperature has suddenly risen, wait for the condensation to
		evaporate before turning the machine on (about one or two hours).
		2. Clean the lens of the fusing thermopile (TH2).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC551-	А	Fusing thermistor (TH1) disconnect error (end: abnormal low temperature)
00		Low temperature was detected down by 20°C continuously for 8.7 sec.
		Fusing thermistor (TH1) disconnected

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Harness connector lose, broken, or defective
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. Re-connect the connector of the fusing thermistor (TH1).
		3. Replace the fusing thermistor (TH1).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC552-	А	No reload temperature (temperature gradient detection at end of hot roller)
01		Measurement starts 2.4 sec. after the fusing lamps switch on. Within 2.4 sec. 5
		temperature increases below 19°C were detected 5 consecutive times. (If the
		temperature is below 45° C, after the fusing thermopile (TH2) detects 45° C
		measurement starts after 2.4 sec. have elapsed.)
		Fusing lamp (end) disconnected
		Overheating protection device triggered (blown fusing thermostat)
		Power supply voltage low
		Fusing thermistor (TH1) output abnormal
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. Replace the fusing lamps.
		3. Replace the fusing thermostats (TH3, TH4).
		4. If the problem is low voltage, ask the client to connect the machine directly to a
		rated power source and to refrain from using extension cords.
		5. Replace the fusing thermistor (TH1).
SC552-	А	No reload temperature (timeout at end of the hot roller)
03		The fusing unit did not reach the reload temperature within 18.6 sec. after the start
		of fusing temperature control.
		Fusing lamp (end) disconnected
		Overheating protection device triggered (blown fusing thermostat)
		Power supply voltage low
		Fusing thermistor (TH1) output abnormal
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. Replace the fusing lamps.
		3. Replace the fusing thermostats (TH3, TH4).
		4. If the problem is low voltage, ask the client to connect the machine directly to a
		rated power source and to refrain from using extension cords.
		5. Replace the fusing thermistor (TH1).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC553-	А	High-temperature software error (end)
00		245°C was detected continuously for 1 sec.
		TRIAC short
		Engine board defective
		Fusing thermistor (TH1) defective
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. If TRIAC damaged, replace PSU.
		3. Replace the engine board (Printer: BCU, MF: SCB).
		4. Replace the fusing thermistor (TH1).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC554-	А	High-temperature (end) hardware error
00		The temperature at the center of the hot roller was less than 250°C, and the
		temperature at the end of the hot roller was 250°C or higher and triggered an
		abnormally high-temperature detection flag.
		TRIAC short
		Engine board defective
		Fusing thermopile (TH2) defective
		Fusing thermistor (TH1) defective
		Fusing temperature control software crashed
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.
		2. If TRIAC damaged, replace the PSU.
		3. Replace the engine board (Printer model: BCU, MF model: SCB).
		4. Replace the fusing thermopile (TH2).
		5. Replace the fusing thermistor (TH1).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC555-	А	Fusing lamp (end) remains ON
00		After reaching reload temperature, the fusing lamp remained on for more than 13.1
		sec. (the maximum DUTY time allowed after reloading).
		Fusing thermistor (TH1) output error
		Fusing lamp (end) disconnected
		Overheating protection device triggered (blown fusing thermostat)
		1. Release the SC code in the SP mode, and then cycle the machine off/on to
		recover normal operation.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		2. Replace the fusing thermistor (TH1).
		3. Replace the fusing lamps.
		4. Replace the fusing thermostats (TH3, TH4).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC557-	С	Zero cross frequency too high
00		Zero cross count processing is executed at 0.5 sec. intervals.
		• When the zero-cross count is 45 to 54, the frequency is set to 50 Hz.
		• When the zero-cross count is 55 to 65, the frequency is set to 60 Hz.
		• For cases other than the above ranges, the low-frequency detection count is
		added.
		The above processing is executed for 11 counts when the number of low-
		frequency detections is 1 or more.
		Frequency is the input power source is unstable, and there is noise on the line.
		None

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC559-	А	Fusing jam detected for 3 counts
00		Fusing jam detected for a 3 count when paper failed to arrive at the paper
		exit/reverse sensor.
		A jammed paper is blocking the paper path in the fusing unit, and paper cannot
		feed.
		1. Remove the fusing unit, and then remove the jammed paper.
		2. Check the fusing thermistor (TH1) and confirm that is positioned correctly (not
		floating free) and undamaged.
		3. After re-installing the fusing unit, go into the SP mode, and then release the
		SC code error.
		4. Power cycle the machine, and then confirm that the machine starts normally.
		5. Do some test copies to make sure the machine is printing normally and paper
		is feeding and exiting correctly.
		6. If the copies are dirty, there may be some dirt on the hot roller, so continue to
		do some test prints until the copies appear clean.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC569-	D	Fusing unit roller pressure mechanism error (pressure apply)
01		During counter-clockwise rotation (when applying pressure), the SNS signal
		remained LOW for more than 1 sec.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC569-	D	Fusing unit roller pressure mechanism error (pressure release)
02		During clockwise rotation (when releasing pressure), the SNS signal remained
		LOW for more than 1 sec.
		Fusing pressure/release motor (M2) lock
		Fusing pressure/release motor (M2) PCB drive board defective
		Fusing nip pressure position sensor (S7) defective
		• Harness connector of fusing nip pressure position sensor (S7) loose, broken,
		defective, or harness is defective.
		1. Re-connect the fusing nip pressure position sensor (S7).
		2. Replace the fusing nip pressure position sensor (S7).
		3. Replace the fusing pressure/release motor (M2).
		4. Replace the gears of the fusing pressure/release motor (M2).
		5. Replace the fusing unit.

SC600 (Device Communication)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC622-	D	1st paper bank communication error
00		Detected an error when connecting the communication line.
		1st paper bank control board defective
		Engine board defective
		1st paper bank to the main machine connection fault
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the connectors between the engine board and the 1st paper bank
		controller board.
		2. Replace the harnesses between the engine board and the 1st paper bank
		controller board.
		3. Replace the 1st paper bank controller board.
		4. Replace the paper bank.
		5. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC623-	D	2nd paper bank communication error
00		Detected an error when connecting the communication line.
		1st paper bank control board defective
		2nd paper bank control board defective

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		1st paper bank to 2nd paper bank connection fault
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the connectors between the 1st paper bank controller board and
		2nd paper bank controller board.
		2. Replace the harnesses between the 1st paper bank controller board and 2nd
		paper bank controller board.
		3. Replace the 1st paper bank controller board.
		4. Replace the 2nd paper bank controller board.
		5. Replace the paper bank.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC624-	D	3rd paper bank communication error
00		Detected an error when connecting the communication line.
		2nd paper bank control board defective
		3rd paper bank control board defective
		2nd paper bank to 3rd paper bank connection fault
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Reconnect the connectors between the 2nd paper bank controller board and
		3rd paper bank controller board.
		2. Replace the harnesses between the 2nd paper bank controller board and 3rd
		paper bank controller board.
		3. Replace the 2nd paper bank controller board.
		4. Replace the 3rd paper bank controller board.
		5. Replace the paper bank.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC641-	D	Engine to controller communication error (No response)
00		The controller sent a data frame by RAPI protocol, but there was no response
		after trying 3 times, once every 100ms.
		Controller board or software failure
		Engine board or software failure
		Controller board and engine board are not connected properly.
		• Check the connection between the controller board and engine board. (Printer

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		model only)
		Power cycle the machine.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC641-	D	Engine serial communication error (Time-out)
01		No response over the specified time.
SC641-	D	Engine serial communication error (Retry-over)
02		When commands are sent in the normal mode, communication fails over the
		upper limit numbers (3 times) of command byte retry.
SC641-	D	Engine serial communication error (Download Error)
03		In the download command mode or download data mode, a communication error
		is returned from the engine.
SC641-	D	Engine serial communication error (UART Error)
04		UART receive errors (Break condition, Framing, Parity or Overrun error) are
		detected.
		Controller board or software failure
		Controller board-engine board connection fault
		Engine board or software failure
		• Check and reconnect the connectors between the controller board and engine
		board. (Printer model only)
		Power cycle the machine.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC645-	С	ID tag connection error (Toner cartridge)
01		An error is notified during EEPROM communication and the machine does not
		recover after two retries.
		• Noise
		ID tag connection failure
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check if there are dirty or abnormality on the ID chip connector. If you can see
		the dirty or abnormality, clean or replace the ID chip connector.
		2. Replace the harness between the engine board (Printer: BCU, MF: SCB) and
		ID chip connector.
		3. Replace the toner cartridge.
		4. Replace the ID chip connector.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		5. Replace the engine board (Printer: BCU, MF: SCB).
SC645-	С	ID tag connection error (PCDU)
02		An error is notified during EEPROM communication and the machine does not
		recover after two retries.
		Noise
		ID tag connection failure
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check if there are dirty or abnormality on the ID chip connector. If you can see
		the dirty or abnormality, clean or replace the ID chip connector.
		2. Replace the harness between the engine board (Printer: BCU, MF: SCB) and
		ID chip connector.
		3. Replace the PCDU.
		4. Replace the ID chip connector.
		5. Replace the engine board (Printer: BCU, MF: SCB).

No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC667-	D	Master device mode setting error
01		When the machine starts or returns from the energy saver mode, a CPU mode
		setting error is detected.
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC669-	D	EEPROM communication error: ID error during EEPROM OPEN
01		
SC669-	D	EEPROM communication error: Channel error during EEPROM OPEN
02		
SC669-	D	EEPROM communication error: Device error during EEPROM OPEN
03		
SC669-	D	EEPROM communication error: Communication interrupted error during EEPROM
04		OPEN
SC669-	D	EEPROM communication error: Communication timeout error

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
05		
SC669-	D	EEPROM communication error: Not operating error during EEPROM OPEN
06		
SC669-	D	EEPROM communication error: Buffer full during EEPROM OPEN
07		
SC669-	D	EEPROM communication error: No error code during EEPROM OPEN
08		
SC669-	D	EEPROM communication error: ID error
09		
SC669-	D	EEPROM communication error: No error code during EEPROM Close
10		
SC669-	D	EEPROM communication error: ID error during EEPROM data write
11		
SC669-	D	EEPROM communication error: Channel error during EEPROM data write
12		
SC669-	D	EEPROM communication error: Device error during EEPROM data write
13		
SC669-	D	EEPROM communication error: Communication interrupted error during EEPROM
14		data write
SC669-	D	EEPROM communication error: Communication timeout error
15		
SC669-	D	EEPROM communication error: Not operating error during EEPROM data write
16		
SC669-	D	EEPROM communication error: Buffer full during EEPROM data write
17		
SC669-	D	EEPROM communication error: No error code during EEPROM data write
18		
SC669-	D	EEPROM communication error: ID error during EEPROM data read
19		
SC669-	D	EEPROM communication error: Channel error EEPROM data read
20		
SC669-	D	EEPROM communication error: Device error during EEPROM data read
21		
SC669-	D	EEPROM communication error: Communication interrupted error during EEPROM
22		data read
SC669-	D	EEPROM communication error: Communication timeout error
23		

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC669-	D	EEPROM communication error: Not operating error during EEPROM data read
24		
SC669-	D	EEPROM communication error: Buffer full during EEPROM data read
25		
SC669-	D	EEPROM communication error: No error code during EEPROM data read
26		
SC669-	D	EEPROM communication error: Verification error
36		
SC669-	D	EEPROM communication error: Error Detection
37		
		An error is notified during EEPROM communication and the machine does not
		recover after three retries.
		Electromagnetic noise
		EEPROM error
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Re-install the EEPROM on the engine board (Printer: BCU, MF: SCB).
		2. Replace the EEPROM on the engine board.
		3. Replace the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC670-	D	Engine startup error
00		Engine board does not start up.
		Engine board defective
		PSU defective
		Controller board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Power cycle the machine ten times.
		2. Check the connection between the controller board and BCU. (Printer model
		only)
		3. Replace the engine board (Printer: BCU, MF: SCB).
		4. Replace the PSU.
		5. Replace the controller board. (Printer model only)

No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC670-	D	ASIC device mode setting error
01		When the machine starts or returns from the energy saver mode, an ASIC mode
		setting error is detected.
		Engine board defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check the LED lighting on the engine board (Printer: BCU, MF: SCB). If
		abnormal lighting, replace the engine board.
		- Normal lighting: ON and OFF repeats at regular intervals
		- Abnormal lighting: LED lights twice, then turns OFF for 4 sec.
		2. Check the connection between the controller board and engine board. (Printer
		model only)
		3. Replace the controller board (Printer: Controller board, MF: SCB).
		4. Replace the engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC672		Controller startup error
SC672-	D	After the machine was powered on, communication between the controller and the
00		operation panel was not established, or communication with the controller was
		interrupted after a normal startup.
SC672-	D	After the machine was powered on, communication between the controller and the
10		operation panel was not established.
SC672-	D	After the machine was powered on, communication between the controller and the
11		operation panel was not established, or communication with the controller was
		interrupted after a normal startup.
SC672-	D	Communication with the controller was interrupted after a normal startup.
12		
SC672-	D	The operation panel detected that the controller is down due to other reason that
13		shown in SC672-00 to -12.
		Controller stalled
		Board installed incorrectly
		Controller board defective
		Operation panel connector lose, broken, or defective
		Controller late
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		step.
		1. Replace the USB cable/harness between the operation panel and the
		controller board.
		2. Replace the controller board (Printer: Controller board, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution		
SC672-	D	Controller startup error		
20		After the machine was powered on, communication between the controller and the		
		operation panel was not established, or communication with the controller was		
		interrupted after a normal startup.		
		USB cable defective		
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do		
		the following steps. Check if the SC reoccurs by cycling the power off/on after each		
		step.		
		1. Turn the power OFF, and press the SW5 on the controller board (Printer:		
		Controller board, MF: SCB).		
		2. Replace the controller board.		
		3. Replace the USB cable/harness between the operation panel and the		
		controller board.		
		4. Replace the operation panel.		

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC672-	D	Controller startup error
21		After the machine was powered on, communication between the controller and the
		operation panel was not established, or communication with the controller was
		interrupted after a normal startup.
		Controller failure
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Turn the power OFF, and press the SW5 on the controller board (Printer:
		Controller board, MF: SCB).
		2. Replace the controller board.
		3. Replace the USB cable/harness between the operation panel and the
		controller board.
		4. Replace the operation panel.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC672-99	D	Controller startup error
		The operation panel software ended abnormally.
		Controller stalled
		Board installed incorrectly
		Controller board (Printer: Controller board, MF: SCB) defective
		Operation panel connector lose, broken, or defective
		Controller late
		Power cycle the machine.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC673-01	D	Operation panel Flair communication error (Smart Operation Panel)
		System application (MonitorService) error occurred
		System application (MonitorService) terminated abnormally
		Press the [Reboot] on the SC screen.
		Power cycle the machine.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC673-	D	Operation panel Flair communication error (Smart Operation Panel)
10		The Smart Operation Panel is communicating with the main machine (this is called
		"flair communication"), and there was no response from the main machine.
		This SC is detected when the controller cannot respond to the notification from the
		monitoring service module (operation panel).
		Power cycle the machine.
		Replace the SCB.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC681-	D	Device ID is not identified (toner cartridge): Device ID error (Incorrect ID)
01		
SC681-	D	Device ID is not identified (toner cartridge): Channel error
06		
SC681-	D	Device ID is not identified (toner cartridge): Device ID error (No ID chip)
11		
SC681-	D	Device ID is not identified (toner cartridge): Communication error
16		
SC681-	D	Device ID is not identified (toner cartridge): Communication timeout
21		
SC681-	D	Device ID is not identified (toner cartridge): The device has stopped its operation

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
26		
SC681-	D	Device ID is not identified (toner cartridge): The device has stopped its operation
27		
SC681-	D	Device ID is not identified (toner cartridge): The device has stopped its operation
28		
SC681-	D	Device ID is not identified (toner cartridge): The device has stopped its operation
29		
SC681-	D	Device ID is not identified (toner cartridge): The requested buffer is full
31		
SC681-	D	Device ID is not identified (toner cartridge): SRAM OPEN: Verification error
36		
		An error is notified during the ID identification after three retries.
		Malfunction
		• Noise
		ID tag contact failure
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check if there are dirty or abnormality on the ID chip connector. If you can see
		the dirty or abnormality, clean or replace the ID chip connector.
		2. Reconnect the connectors between the engine board (Printer: BCU, MF: SCB)
		and ID chip connector.
		3. Replace the toner cartridge.
		4. Replace the harness between the engine board and ID chip connector.
		5. Replace the engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC682-	D	Device ID is not identified (PCDU): Device ID error (Incorrect ID)
01		
SC682-	D	Device ID is not identified (PCDU): Channel error
06		
SC682-	D	Device ID is not identified (PCDU): Device ID error (No ID chip)
11		
SC682-	D	Device ID is not identified (PCDU): Communication error
16		
SC682-	D	Device ID is not identified (PCDU): Communication timeout
21		

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC682-	D	Device ID is not identified (PCDU): The device has stopped its operation
26		
SC682-	D	Device ID is not identified (PCDU): The device has stopped its operation
27		
SC682-	D	Device ID is not identified (PCDU): The device has stopped its operation
28		
SC682-	D	Device ID is not identified (PCDU): The device has stopped its operation
29		
SC682-	D	Device ID is not identified (PCDU): The requested buffer is full
31		
SC682-	D	Device ID is not identified (PCDU): SRAM OPEN: Verification error
36		
		An error is notified during the ID identification after three retries.
		Malfunction
		Noise
		ID tag contact failure
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on after each
		step.
		1. Check if there are dirty or abnormality on the ID chip connector. If you can see
		the dirty or abnormality, clean or replace the ID chip connector.
		2. Reconnect the connectors between the engine board (Printer: BCU, MF: SCB)
		and ID chip connector.
		3. Replace the PCDU.
		4. Replace the harness between the engine board and ID chip connector.
		5. Replace the engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution		
SC687-	D	PER receipt failure		
00		Even though 120 seconds have elapsed after RAPI-PES (request for image		
		ransfer) is issued, a RAPI-PER receipt is not received from the controller board.		
		Defective controller board		
		• Noise		
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do		
		the following steps. Check if the SC reoccurs by cycling the power off/on after each		
		step.		
		1. Update the firmware		

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		2. Replace the engine board (Printer: BCU, MF: SCB).
		3. Replace the controller board (Printer: Controller board, MF: SCB).

SC700 (Peripherals)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC790-	D	Maximum number of banks (paper bank) exceeded
00		When the power is turned ON, the number of mounted paper banks is detected
		and the number exceeds four.
		The number of mounted paper tray units exceeds the specifications.
		Reduce the number of mounted paper tray units according to the specifications.

SC800 (Controller)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC816	-	Energy save I/O subsystem error
SC816-01	D	Subsystem error
SC816-02	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-03	D	Transition to STR was denied.
SC816-04	D	Interrupt in kernel communication driver
SC816-05	D	Preparation for transition to STR failed.
SC816-07	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-08	D	Sysarch (LPUX_ENGINE_TIMERCTRL) error
SC816-09	D	Sysarch (LPUX_RETURN_FACTOR_STR) error
SC816-10	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-11	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-12	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-13	D	open() error
SC816-14	D	Memory address error
SC816-15	D	open() error
SC816-16	D	open() error
SC816-17	D	open() error
SC816-18	D	open() error
SC816-19	D	Double open() error
SC816-20	D	open() error
SC816-22	D	Parameter error
SC816-23	D	read() error
SC816-24	D	read() error

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution		
SC816-25	D	write() error		
SC816-26	D	write() communication retry error		
SC816-27	D	write() communication retry error		
SC816-28	D	write() communication retry error		
SC816-29	D	read() communication retry error		
SC816-30	D	read() communication retry error		
SC816-35	D	read() error		
SC816-36	D	Subsystem error		
to -98				
		Energy save I/O subsystem detected some abnormality.		
		Energy save I/O subsystem defective		
		Energy save I/O subsystem detected a controller board error (non-		
		response).		
		• An error was detected during preparation for the transition to STR.		
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do		
		the following steps. Check if the SC reoccurs by cycling the power off/on after		
		each step.		
		1. Update the "System/Copy" firmware and the other system firmware to the		
		latest version.		
		2. Disable the STR shift function with SP5-191-001 (Power Str Set).		
		3. Replace the controller board (Printer: Controller board, MF: SCB).		

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC819-00	D	Fatal kernel error
		[XXXX]: Detailed error code
	[0x5032]	HAIC-P2 error
		HAIC-P2 decompression error (An error occurred in the ASIC
		compression/decompression module.)
		1. Power cycle the machine.
		2. Replace the HDD.
		3. Replace the controller board (Printer: Controller board, MF: SCB).
	[0x5245]	Link up error
		0x53554D45 -> "Link up error"
		1. Power cycle the machine.
		2. Replace the controller board (Printer: Controller board, MF: SCB).
		3. Replace the engine board (Printer: BCU, MF: SCB).
	[0c5355]	L2 status timeout

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		0x5350454E44 -> "L2 status time out"
		1. Power cycle the machine.
		2. Replace the controller board (Printer: Controller board, MF: SCB).
		3. Replace the engine board (Printer: BCU, MF: SCB).
	[0x6261]	HDD defective
		6261 6420 6469 7200 00 -> "bad dir"
		Power cycle the machine.
	[0x696e]	gwinit process ending
		If an unexpected error occurs at SCS processing end, gwint processing also
		halts (this result is judged a kernel stop error, by gwinit specification)
		"0x69742064" -> "init died"
		Power cycle the machine.
	Console	Other error (characters on operation panel)
	string	Error in the OS
		Power cycle the machine.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC840-00	D	EEPROM access error
		• 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.
		EEPROM is defective or has reached its end of life.
		-

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC841-00	D	EEPROM read data error
		Mirrored data of the EEPROM is different from the original data in EEPROM.
		Data in the EEPROM is overwritten for some reason.
		-

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC842-00	С	Nand-Flash updating verification error
		SCS write error (verify error) occurred at the Nand-Flash module when remote
		ROM or main ROM was updated.
		Nand-Flash defective

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Power cycle the machine.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC842-01	С	Insufficient Nand-Flash blocks (threshold exceeded)
		At startup, or when machine returned from energy saver mode, the Nand-Flash
		status was read and judged that the number of unusable blocks had exceeded
		the threshold, and then SCS generated the SC code.
		Number of unusable blocks exceeded the threshold for Nand-Flash
		Replace the controller board (Printer: Controller board, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC842-02	С	The number of Nand-Flash block deletions exceeded
		At startup, or when the machined returned from energy saver mode, the Nand-
		Flash was read and judged that the number of deleted blocks had exceeded the
		threshold, and then SCS generated this SC code.
		Number of blocks deleted exceeded threshold for Nand-Flash
		Replace the controller board (Printer: Controller board, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC843-02	В	eMMC rewrite frequency exceeded the threshold (Smart Operation Panel)
		At startup, or when the machined returned from energy saver mode, the eMMC
		was read and judged that the number of rewrote blocks had exceeded the
		threshold.
		Number of blocks rewrote exceeded threshold for eMMC
		Replace the Smart Operation Panel.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC845-01	D	Hardware error detected when the automatic firmware update: Engine board
SC845-02	D	Hardware error detected when the automatic firmware update: Controller board
SC845-03	D	Hardware error detected when the automatic firmware update: Operation panel
		(normal)
SC845-04	D	Hardware error detected when the automatic firmware update: Operation panel
		(Smart Operation Panel)
SC845-05	D	Hardware error detected when the automatic firmware update: FCU
		When updating the firmware automatically (ARFU), the firmware cannot be read
		or written normally, and the firmware update cannot be completed even by 3

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		retries.
		Hardware abnormality of the target board
		Replacing the target board.
		For SC852-02, HDD may cause the problem. Replace the HDD if the SC cannot
		be recovered by replacing the controller board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC855-01	В	Wireless LAN board error (driver attachment failure)
		Wireless LAN board error (wireless LAN card: 802.11 is covered)
		Defective wireless LAN board
		Loose connection
		1. Power cycle the machine.
		2. Replace wireless LAN board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC857-	В	USB I/F Error
00		The USB interface is unusable because of a driver error.
		USB driver error (There are three causes of USB error: RX error/CRC
		error/STALL. SC is issued only in the case of STALL.)
		1. Check the USB connection.
		2. Replace the controller board (Printer: Controller board, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC860-	В	HDD startup error at power on (HDD error)
00		The HDD is connected but the driver detected the following errors.
		SS_NO.T_READY: (-2): HDD does not become READY
		SS_BAD_LABEL: (-4): Partition type incorrect
		 SS_READ_ERROR: (-5): Error occurred while reading or checking the
		label
		 SS_WRITE_ERROR: (-6): Error occurred while writing or checking the
		label
		 SS_FS_ERROR: (-7): Failed to repair the filesystem
		 SS_MOUNT_ERROR: (-8): Failed to mount the filesystem
		 SS_COMMAND_ERROR: (-9): Drive not responding to the command
		 SS_KERNEL_ERROR: (-10): Internal kernel error
		SS_SIZE_ERROR: (-11): Drive size too small
		 SS_NOPARTITION:(-12): The specified partition does not exist

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		 SS_NOFILE: (-13): Device file does not exist
		Attempted to acquire HDD status through the driver but there has been no
		response for 300 seconds or more.
		Unformatted HDD
		Label data corrupted
		HDD defective
		Format the HDD with SP5-832-001.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC860-01	D	HDD file system error at power on (HDD error)
		Even one partition mount of HDD failed
		Power off during file writing to HDD
		Shutting down while writing the file to HDD
SC860-02	D	HDD label error (HDD error)
		HDD partition information is abnormal
		Power off during HDD initialization
		HDD defective
SC860-03	D	HDD encryption key error (HDD error)
		HDD encryption key could not be read with HDD encryption
		Simultaneous breakage of the controller's ROM (NAND) and NVRAM
		1. Power cycle the machine.
		2. Format the HDD with SP5-832-001.
		3. Replace the HDD.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC863-	D	HDD data read failure
01		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation.
		(An error occurred in an area that does not belong to a partition, such as a disk
		label area.)
		Guide for when to replace the HDD
		1. When SC863 has occurred ten times or more
		The interval is short.
		 Repeatedly occurs in the same situation (At power-on, etc.).
		 Startup takes a long time when the main power is turned on.
		2. It takes a long time after main power on for the operation panel to become
		ready.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		HDD access may be consuming time. Normal HDD access time after main
		power on is about 5 seconds. If the machine is not waiting for the engine to be
		ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If
		there is a problem with the HDD, HDD-related SCs such as SC860 and SC863
		will occur frequently. Print the SC log data and check them.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC863-01	D	HDD data read failure (An error occurred in an area that does not belong to a
		partition, such as a disk label area.)
SC863-02	D	HDD data read failure (An error occurred in partition "a".)
SC863-03	D	HDD data read failure (An error occurred in partition "b".)
SC863-04	D	HDD data read failure (An error occurred in partition "c".)
SC863-05	D	HDD data read failure (An error occurred in partition "d".)
SC863-06	D	HDD data read failure (An error occurred in partition "e".)
SC863-07	D	HDD data read failure (An error occurred in partition "f".)
SC863-08	D	HDD data read failure (An error occurred in partition "g".)
SC863-09	D	HDD data read failure (An error occurred in partition "h".)
SC863-10	D	HDD data read failure (An error occurred in partition "i".)
SC863-11	D	HDD data read failure (An error occurred in partition "j".)
SC863-12	D	HDD data read failure (An error occurred in partition "k".)
SC863-13	D	HDD data read failure (An error occurred in partition "I".)
SC863-14	D	HDD data read failure (An error occurred in partition "m".)
SC863-15	D	HDD data read failure (An error occurred in partition "n".)
SC863-16	D	HDD data read failure (An error occurred in partition "o".)
SC863-17	D	HDD data read failure (An error occurred in partition "p".)
SC863-18	D	HDD data read failure (An error occurred in partition "q".)
SC863-19	D	HDD data read failure (An error occurred in partition "r".)
SC863-20	D	HDD data read failure (An error occurred in partition "s".)
SC863-21	D	HDD data read failure (An error occurred in partition "t".)
SC863-22	D	HDD data read failure (An error occurred in partition "u".)
SC863-23	D	HDD data read failure (An error occurred in partition "v".)
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation.
		Guide for when to replace the HDD
		1. When SC863 has occurred ten times or more
		The interval is short.
		 Repeatedly occurs in the same situation (At power-on, etc.).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		 Startup takes a long time when the main power is turned on.
		2. It takes a long time after main power on for the operation panel to become
		ready.
		HDD access may be consuming time. Normal HDD access time after main
		power on is about 5 seconds. If the machine is not waiting for the engine to
		be ready and it still takes 20 to 30 seconds or more, the HDD may be the
		cause. If there is a problem with the HDD, HDD-related SCs such as SC860
		and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC864-01	D	HDD data CRC error (An error occurred in an area that does not belong to a
		partition, such as a disk label area.)
SC864-02	D	HDD data CRC error (An error occurred in partition "a".)
SC864-03	D	HDD data CRC error (An error occurred in partition "b".)
SC864-04	D	HDD data CRC error (An error occurred in partition "c".)
SC864-05	D	HDD data CRC error (An error occurred in partition "d".)
SC864-06	D	HDD data CRC error (An error occurred in partition "e".)
SC864-07	D	HDD data CRC error (An error occurred in partition "f".)
SC864-08	D	HDD data CRC error (An error occurred in partition "g".)
SC864-09	D	HDD data CRC error (An error occurred in partition "h".)
SC864-10	D	HDD data CRC error (An error occurred in partition "i".)
SC864-11	D	HDD data CRC error (An error occurred in partition "j".)
SC864-12	D	HDD data CRC error (An error occurred in partition "k".)
SC864-13	D	HDD data CRC error (An error occurred in partition "I".)
SC864-14	D	HDD data CRC error (An error occurred in partition "m".)
SC864-15	D	HDD data CRC error (An error occurred in partition "n".)
SC864-16	D	HDD data CRC error (An error occurred in partition "o".)
SC864-17	D	HDD data CRC error (An error occurred in partition "p".)
SC864-18	D	HDD data CRC error (An error occurred in partition "q".)
SC864-19	D	HDD data CRC error (An error occurred in partition "r".)
SC864-20	D	HDD data CRC error (An error occurred in partition "s".)
SC864-21	D	HDD data CRC error (An error occurred in partition "t".)
SC864-22	D	HDD data CRC error (An error occurred in partition "u".)
SC864-23	D	HDD data CRC error (An error occurred in partition "v".)
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation.
		1. Format the HDD.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		2. Replace the HDD.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC865-01	D	HDD access error (An error occurred in an area that does not belong to a
		partition, such as a disk label area.)
SC865-02	D	HDD access error (An error occurred in partition "a".)
SC865-03	D	HDD access error (An error occurred in partition "b".)
SC865-04	D	HDD access error (An error occurred in partition "c".)
SC865-05	D	HDD access error (An error occurred in partition "d".)
SC865-06	D	HDD access error (An error occurred in partition "e".)
SC865-07	D	HDD access error (An error occurred in partition "f".)
SC865-08	D	HDD access error(An error occurred in partition "g".)
SC865-09	D	HDD access error (An error occurred in partition "h".)
SC865-10	D	HDD access error (An error occurred in partition "i".)
SC865-11	D	HDD access error (An error occurred in partition "j".)
SC865-12	D	HDD access error (An error occurred in partition "k".)
SC865-13	D	HDD access error (An error occurred in partition "I".)
SC865-14	D	HDD access error (An error occurred in partition "m".)
SC865-15	D	HDD access error (An error occurred in partition "n".)
SC865-16	D	HDD access error (An error occurred in partition "o".)
SC865-17	D	HDD access error (An error occurred in partition "p".)
SC865-18	D	HDD access error (An error occurred in partition "q".)
SC865-19	D	HDD access error (An error occurred in partition "r".)
SC865-20	D	HDD access error (An error occurred in partition "s".)
SC865-21	D	HDD access error (An error occurred in partition "t".)
SC865-22	D	HDD access error (An error occurred in partition "u".)
SC865-23	D	HDD access error (An error occurred in partition "v".)
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or
		SC864 (CRC error).
		Replace the HDD.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC865-50	D	HDD time-out error (An error occurred in an unknown area.)
SC865-51	D	HDD time-out error (An error occurred in an area that does not belong to a
		partition.)
SC865-52	D	HDD time-out error (An error occurred in partition "a".)

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SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC865-53	D	HDD time-out error (An error occurred in partition "b".)
SC865-54	D	HDD time-out error (An error occurred in partition "c".)
SC865-55	D	HDD time-out error (An error occurred in partition "d".)
SC865-56	D	HDD time-out error (An error occurred in partition "e".)
SC865-57	D	HDD time-out error (An error occurred in partition "f".)
SC865-58	D	HDD time-out error(An error occurred in partition "g".)
SC865-59	D	HDD time-out error (An error occurred in partition "h".)
SC865-60	D	HDD time-out error (An error occurred in partition "i".)
SC865-61	D	HDD time-out error (An error occurred in partition "j".)
SC865-62	D	HDD time-out error (An error occurred in partition "k".)
SC865-63	D	HDD time-out error (An error occurred in partition "I".)
SC865-64	D	HDD time-out error (An error occurred in partition "m".)
SC865-65	D	HDD time-out error (An error occurred in partition "n".)
SC865-66	D	HDD time-out error (An error occurred in partition "o".)
SC865-67	D	HDD time-out error (An error occurred in partition "p".)
SC865-68	D	HDD time-out error (An error occurred in partition "q".)
SC865-69	D	HDD time-out error (An error occurred in partition "r".)
SC865-70	D	HDD time-out error (An error occurred in partition "s".)
SC865-72	D	HDD time-out error (An error occurred in partition "t".)
SC865-72	D	HDD time-out error (An error occurred in partition "u".)
SC865-73	D	HDD time-out error (An error occurred in partition "v".)
		The machine does not detect a reply from the HDD during the HDD operation.
		The HDD does not respond to the read/ write command from the machine.
		1. Check the harness connections between the controller board and HDD.
		2. Replace the HDD.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC866-	В	SD card authentication error
00		When a correct license for digital authentication is not found in an SD card
		The SD card contains the wrong program data
		The OD bard contains the wong program data.
		Store the correct program data on the SD card.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC867-	В	SD card removal detection
00		When an application SD card is removed from the slot (/mnt/sd0) while the
		application is being activated.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC867-	В	SD card removal detection
01		When an application SD card is removed from the slot (/mnt/sd1) while the
		application is being activated.
SC867-	В	SD card removal detection
02		When an application SD card is removed from the slot (/mnt/sd2) while the
		application is being activated.
		An application SD card has been removed from the slot (from the mount point
		/mnt/sd*).
		Power cycle the machine.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC868-	D	SD card access error
00		The SD controller returned an error during operation. (An error occurred at the
		mount point of /mnt/sd0)
SC868-	D	SD card access error
01		The SD controller returned an error during operation. (An error occurred at the
		mount point of /mnt/sd1)
SC868-	D	SD card access error
02		The SD controller returned an error during operation. (An error occurred at the
		mount point of /mnt/sd2)
		SD card defective
		SD controller defective
		SD card that starts an application:
		• Power cycle the machine and check the SD card insertion status.
		• If no problem is found, insert the SD card and turn the main power on.
		• If an error occurs, replace the SD card.
		SD card for users:
		• In case of a file system error, reformat the SD card (using the "SD Formatter"
		made by Panasonic).*
		• In case of a device access error, turn the power off and check the SD card
		insertion status.
		• If no problem is found, insert the SD card and turn the power on.
		If an error occurs, use another SD card.
		• If the error persists even after replacing the SD card, replace the
		controller board.

* Do not format the SD card supplied with the main machine or sold as an option. You may only format SD cards used for firmware update by the Customer Engineer.
| SC No. | Туре | Error Name/Error Condition/Major Cause/Solution |
|----------|------|--|
| SC870-00 | В | Address book data error (Anytime: Address book error.) |
| SC870-01 | В | Address book data error (On startup: Media required for storing the address |
| | | book is missing.) |
| SC870-02 | В | Address book data error (On startup: encryption is configured but the module |
| | | required for encryption (DESS) is missing.) |
| SC870-03 | В | Address book data error (Initialization: Failed to generate a file to store internal |
| | | address book.) |
| SC870-04 | В | Address book data error (Initialization: Failed to generate a file to store delivery |
| | | sender.) |
| SC870-05 | В | Address book data error (Initialization: Failed to generate a file to store delivery |
| | | destination.) |
| SC870-06 | В | Address book data error (Initialization: Failed to generate a file to store |
| | | information required for LDAP search.) |
| SC870-07 | В | Address book data error (Initialization: Failed to initialize entries required for |
| | | machine operation.) |
| SC870-08 | В | Address book data error (Machine configuration: HDD is present but the space |
| | | for storing the address book is unusable.) |
| SC870-10 | В | Address book data error (Machine configuration: Cannot make a directory for |
| | | storing the address book in the SD/USB FlashROM.) |
| SC870-11 | В | Address book data error (On startup: Inconsistency in the address book entry |
| | | number.) |
| SC870-20 | В | Address book data error (File I/O: Failed to initialize file.) |
| SC870-21 | В | Address book data error (File I/O: Failed to generate the file.) |
| SC870-22 | В | Address book data error (File I/O: Failed to open the file.) |
| SC870-23 | В | Address book data error (File I/O: Failed to write to file.) |
| SC870-24 | В | Address book data error (File I/O: Failed to read the file.) |
| SC870-25 | В | Address book data error (File I/O: Failed to check the file size.) |
| SC870-26 | В | Address book data error (File I/O: Failed to delete data.) |
| SC870-27 | В | Address book data error (File I/O: Failed to add data.) |
| SC870-30 | В | Address book data error (Search: Failed to obtain data from the cache when |
| | | searching in the machine address book. delivery destination/sender.) |
| SC870-31 | В | Address book data error (Search: Failed to obtain data from cache during LDAP |
| | | search.) |
| SC870-32 | В | Address book data error (Search: Failed to obtain data from cache while |
| | | searching the WS-scanner address book.) |
| SC870-41 | В | Address book data error (Cache: failed to obtain data from the cache.) |
| SC870-50 | В | Address book data error (On startup: Detected abnormality of the address book |

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		encryption status.)
SC870-51	В	Address book data error (Encryption settings: Failed to create the directory
		required for conversion between plaintext and encrypted text.)
SC870-52	В	Address book data error (Encryption settings: Failed to convert from plaintext to
		encrypted text.)
SC870-53	В	Address book data error (Encryption settings: Failed to convert from encrypted
		text to plain text.)
SC870-54	В	Address book data error (Encryption settings: Detected data inconsistency when
		reading the encrypted address book.)
SC870-55	В	Address book data error (Encryption settings: Failed to delete the file when
		changing encryption setting.)
SC870-56	В	Address book data error (Encryption settings: Failed to erase the file that records
		the encryption key during an attempt to change the encryption setting.)
SC870-57	В	Address book data error (Encryption settings: Failed to move a file during an
		attempt to change the encryption setting.)
SC870-58	В	Address book data error (Encryption settings: Failed to delete a directory during
	ļ	an attempt to change the encryption setting.)
SC870-59	В	Address book data error (Encryption settings: Detected a resource shortage
	ļ	during an attempt to change the encryption setting.)
SC870-60	В	Address Book data error (Unable to obtain the on/off setting for administrator
	<u> </u>	authentication.)
		When an error related to the Address Book is detected during startup or
		operation.
		Software bug
		Inconsistency of Address Book source location (machine/delivery
		server/LDAP server)
		Inconsistency of Address Book encryption setting or encryption key
		(NVRAM or HDD was replaced individually without formatting the Address
		Book)
		The address Book storage device (SD/HDD) was temporarily removed or
		hardware configuration does not match the application configuration.
		Address Book data corruption was detected.
		1. Check the HDD connection.
		2. Initialize all UCS settings and address/authentication information (SP5-846-
		046).
		3. Initialize the address book partition (SP5-832-006).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC871-01	D	FCU error
		An error occurred when FCS detects FCU defective.
		Time-out error
		Abnormal parameter
		1. Power cycle the machine.
		2. Update the firmware if the more recent firmware was released.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC874-05	D	Delete all error (Delete data area) : Read error
SC874-06	D	Delete all error (Delete data area) : Write error
SC874-09	D	Delete all error (Delete data area) : No response from HDD
SC874-10	D	Delete all error (Delete data area) : Error in Kernel
SC874-12	D	Delete all error (Delete data area) : No designated partition
SC874-13	D	Delete all error (Delete data area) : No device file
SC874-14	D	Delete all error (Delete data area) : Start option error
SC874-15	D	Delete all error (Delete data area) : No designated sector number
SC874-16	D	Delete all error (Delete data area) : failure in performing hdd erase
SC874-41	D	Delete all error (Delete data area) : Other fatal errors
SC874-42	D	Delete all error (Delete data area) : End by cancellation
SC874-61	D	Delete all error (Delete data area) : Library error
SC874-62	D	Delete all error (Delete data area) : Library error
SC874-63	D	Delete all error (Delete data area) : Library error
SC874-64	D	Delete all error (Delete data area) : Library error
SC874-65	D	Delete all error (Delete data area) : Library error
SC874-66	D	Delete all error (Delete data area) : Unavailable
SC874-67	D	Delete all error (Delete data area) : Erasing not finished
SC874-68	D	Delete all error (Delete data area) : HDD format failure (Normal)
SC874-69	D	Delete all error (Delete data area) : HDD format failure (Abnormal)
SC874-70	D	Delete all error (Delete data area) : Unauthorized library
SC874-99	D	Delete all error (Delete data area) : other errors
		An error occurred while data was being erased on HDD or NVRAM
		Error detected in HDD data delete the program
		Error detected in NVRAM data delete the program
		The "Delete All" option was not set
		1. Turn the main power switch off and back on, and then execute "Erase All
		Memory" under UP mode again. (However, if there is a defective sector or
		other problem with the hard disk, the error will persist even after trying the

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		above.)2. If the "Delete All" option is not installed when this error occurs, install the option.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC875-	D	Delete all error (HDD erasure) (hddchack –i error)
01		
SC875-	D	Delete all error (HDD erasure) (Data deletion failure)
02		
		An error was detected before HDD/data erasure starts. (Failed to erase data/failed
		to logically format HDD)
		HDD logical formatting failed.
		The modules failed to erase data.
		Power cycle the machine.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC877-	В	Data Overwrite Security card error
00		The "Auto Erase Memory" function of the Data Overwrite Security is enabled but it
		cannot be executed.
		Data Overwrite Security option SD card is broken.
		Data Overwrite Security option SD card has been removed.
		• If the SD card is broken, prepare a new Data Overwrite Security option SD
		card and replace the NVRAM.
		• If the SD card has been removed, turn the main power off and reinstall a
		working Data Overwrite Security option SD card.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC878-00	D	TPM electronic authentication error
		The machine failed TPM electronic authentication.
		System hash registered in the TPM did not match the data on the USB flash.
		System module was updated in an unauthorized manner.
		USB flash is not working correctly.
		Replace the controller board (Printer: Controller board, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC878-01	D	USB Flash error
		USB Flash file system error

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		USB Flash file system has been destroyed.
		Replace the controller board (Printer: Controller board, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC878-02	D	TPM error
		An error occurred in the TPM or TPM driver.
		TPM is defective
		Replace the controller board (Printer: Controller board, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC878-03	D	TCSD error
		An error occurred in TPM software stack.
		Unable to start TPM
		Necessary files missing from the TPM.
		Replace the controller board (Printer: Controller board, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC878-	D	Random Number Generator Error
20		An error occurred when doing self-check against seed for random number
		generated.
		TPM is defective
		Power cycle the machine.
		Replace the controller board (Printer: Controller board, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC899-00	D	Software performance error (signal reception end)
		-
		Occurs when an internal program behaves abnormally.
		In the case of a hardware defect
		Replace the hardware.
		In the case of a software error
		Power cycle the machine.
		Try updating the firmware.

SC900 (Others)

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC900-00	D	Electronic counter error

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		The electronic total counter value is not the specified value.
		This error is detected when the counter moves forward.
		The NVRAM connection is not correct.
		The NVRAM is defective.
		The NVRAM data is corrupted.
		• The data was written in the wrong area due to external factors.
		• When PRT received signals at SRM, the requested count is not completed.
		Replace the NVRAM.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC920-	В	Printer Error 1 (WORK memory not acquired)
02		
SC920-	В	Printer Error 1 (Filter processing ended abnormally)
04		
		When an error is detected in the application, which makes continued operation
		impossible.
		Software bug
		Unexpected hardware configuration (such as insufficient memory)
		Power cycle the machine.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC921-00	В	Printer application error (Resident font not found)
		The Resident font was not found at printer startup.
		Preinstalled font files not found.
		Power cycle the machine.

No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC925-00	В	NetFile function error
SC925-01	В	NetFile function error
		The NetFile file management on the HDD cannot be used, or a NetFile
		management file is corrupted and operation cannot continue. The HDDs are
		defective and they cannot be debugged or partitioned, so the Scan Router
		functions (delivery of received faxes, document capture, etc.), Web services, and
		other network functions cannot be used.
		HDD defective
		Power loss while data was writing to HDD
		Software bug

No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Procedure 1
		1. If the machine shows SC codes for HDD errors (SC860 to SC865) with SC
		925, do the recovery procedures for SC860 to SC865.
		Procedure 2
		1. If the machine does not show one of the five HDD errors (SC860 to SC865),
		cycle the main power OFF/ON.
		2. If this is not the solution for the problem, then initialize the NetFile partition
		on the HDD with SP5-832-11 (HDD Formatting - Ridoc I/F).
		NetFiles: These are jobs printed from the document server using a PC and
		DeskTopBinder. Before you initialize the NetFile partition on the HDD, tell the
		customer:
		Received faxes on the delivery server will be erased
		All captured documents will be erased
		Desk Top Binder/Print Job Manager/Desk Top Editor job history will be
		erased
		Documents on the document server, and scanned documents will not
		be erased.
		• The first time that the network gets access to the machine, the
		management information must be configured again (this will use a lot of
		time).
		3. Before you initialize the Netfile partition with SP5-832-11, do these steps:
		4. In the User Tools mode, do Document Management> Batch Delete Transfer
		Documents.
		Do SP5-832-011, and power cycle the machine.
		Procedure 3
		1. If "Procedure 2" is not the solution to the problem, do SP5-832-001 (HDD
		Formatting - All)
		2. Cycle the power machine off/on.
		♥ Note
		 SP5-832-001 erases all document and address book data on the
		hard disks. Consult with the customer before you do this SP code.
		Procedure 4
		1. If "Procedure 3" does not solve the problem, replace the HDD.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Registration clutch (CL5) non-drive error
01		When the clutch is not driven, the registration value of the failure detection is "0"
		three times consecutively.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Connector disconnected
		Harness broken
		Clutch defective
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the registration clutch (CL5).
		3. Replace the registration clutch (CL5).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the registration clutch (CL5) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Paper feed clutch (CL6) non-drive error
02		When the clutch is not driven, the registration value of the failure detection is "0"
		three times consecutively.
		Connector disconnected
		Harness broken
		Clutch defective
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the paper feed clutch (CL6).
		3. Replace the paper feed clutch (CL6).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the paper feed clutch (CL6) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Bypass feed clutch (CL4) non-drive error
03		When the clutch is not driven, the registration value of the failure detection is "0"
		three times consecutively.
		Connector disconnected

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Harness broken
		Clutch defective
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do the
		following steps. Check if the SC reoccurs by cycling the power off/on and printing
		from bypass tray after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the bypass feed clutch (CL4).
		3. Replace the bypass feed clutch (CL4).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the bypass feed clutch (CL4) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Bypass lift clutch (CL3) non-drive error
04		When the clutch is not driven, the registration value of the failure detection is "0"
		three times consecutively.
		Connector disconnected
		Harness broken
		Clutch defective
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do the
		following steps. Check if the SC reoccurs by cycling the power off/on and printing
		from bypass tray after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the bypass lift clutch (CL3).
		3. Replace the bypass lift clutch (CL3).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the bypass lift clutch (CL3) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Relay clutch (CL7) non-drive error
05		When the clutch is not driven, the registration value of the failure detection is "0"
		three times consecutively.
		Connector disconnected
		Harness broken

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Clutch defective
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the relay clutch (CL7).
		3. Replace the relay clutch (CL7).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the relay clutch (CL7) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Duplex clutch (CL1) non-drive error
06		When the clutch is not driven, the registration value of the failure detection is "0"
		three times consecutively.
		Connector disconnected
		Harness broken
		Clutch defective
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the duplex clutch (CL1).
		3. Replace the duplex clutch (CL1).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the duplex clutch (CL1) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Toner supply clutch (CL2) non-drive error
07		When the clutch is not driven, the registration value of the failure detection is "0"
		three times consecutively.
		Connector disconnected
		Harness broken
		Clutch defective

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do the
		following steps. Check if the SC reoccurs by cycling the power off/on and do
		OUTPUT check with SP after each step. At this time, remove the toner cartridge.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the toner supply clutch (CL2).
		3. Replace the toner supply clutch (CL2).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the toner supply clutch (CL2) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Fusing pressure/release motor (M2) non-drive error
08		When the motor is not driven, the registration value of the failure detection is "0"
		three times consecutively.
		Connector disconnected
		Harness broken
		Motor defective
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the fusing pressure/release motor (M2).
		3. Replace the fusing pressure/release motor (M2).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the fusing pressure/release motor (M2) and
		engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Exit junction gate solenoid (SOL1) non-drive error
09		When the solenoid is not driven, the registration value of the failure detection is "0"
		three times consecutively.
		Connector disconnected
		Harness broken
		Solenoid defective

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the exit junction gate solenoid (SOL1).
		3. Replace the exit junction gate solenoid (SOL1).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the exit junction gate solenoid (SOL1) and
		engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Exit/reverse motor (M1) non-drive error
10		When the motor is not driven, the registration value of the failure detection is "0"
		three times consecutively.
		Connector disconnected
		Harness broken
		Motor defective
		Driver defective
		Interlock power off
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the exit/reverse motor (M1).
		3. Replace the exit/reverse motor (M1).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the exit/reverse motor (M1) and engine board.

No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Optional counter interface unit error
50		Setting of the optional counter interface is ON, and register values, of the set
		detection signal of the optional counter interface unit, is "1" 3 times in a row.
		Driver's error of the optional counter interface
		Power cycle the machine.
		• If the problem cannot be solved, replace the SCB.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Registration clutch (CL5) drive error
51		When the clutch is driven, the registration value of the failure detection is "1" three
		times consecutively.
		Driver defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the registration clutch (CL5).
		3. Replace the registration clutch (CL5).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the registration clutch (CL5) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Paper feed clutch (CL6) drive error
52		When the clutch is driven, the registration value of the failure detection is "1" three
		times consecutively.
		Driver defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the paper feed clutch (CL6).
		3. Replace the paper feed clutch (CL6).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the paper feed clutch (CL6) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Bypass feed clutch (CL4) drive error
53		When the clutch is driven, the registration value of the failure detection is "1" three
		times consecutively.
		Driver defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		printing from bypass tray after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the bypass feed clutch (CL4).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		3. Replace the bypass feed clutch (CL4).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the bypass feed clutch (CL4) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Bypass lift clutch (CL3) drive error
54		When the clutch is driven, the registration value of the failure detection is "1" three
		times consecutively.
		Driver defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		printing from bypass tray after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the bypass lift clutch (CL3).
		3. Replace the bypass lift clutch (CL3).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the bypass lift clutch (CL3) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Relay clutch (CL7) drive error
55		When the clutch is driven, the registration value of the failure detection is "1" three
		times consecutively.
		Driver defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the relay clutch (CL7).
		3. Replace the relay clutch (CL7).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the relay clutch (CL7) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Duplex clutch (CL1) drive error
56		When the clutch is driven, the registration value of the failure detection is "1" three
		times consecutively.
		Driver defective

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do
		the following steps. Check if the SC reoccurs by cycling the power off/on and
		duplex printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the duplex clutch (CL1).
		3. Replace the duplex clutch (CL1).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the duplex clutch (CL1) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Toner supply clutch (CL2) drive error
57		When the clutch is driven, the registration value of the failure detection is "1" three
		times consecutively.
		Driver defective
		Power cycle the machine to see if the error reoccurs. If the SC occurs again, do the
		following steps. Check if the SC reoccurs by cycling the power off/on and do
		OUTPUT check with SP after each step. At this time, remove the toner cartridge.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the toner supply clutch (CL2).
		3. Replace the toner supply clutch (CL2).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the toner supply clutch (CL2) and engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC940-	С	Exit junction gate solenoid (SOL1) drive error
59		When the solenoid is driven, the registration value of the failure detection is "1"
		three times consecutively.
		Driver defective
		Check if the SC occurs by turning the power OFF then ON. If the SC occurs again,
		do the following steps. Check if the SC reoccurs by cycling the power and duplex
		printing after each step.
		1. Reconnect the connector on the engine board (Printer: BCU, MF: SCB).
		2. Reconnect the exit junction gate solenoid (SOL1).
		3. Replace the exit junction gate solenoid (SOL1).
		4. Replace the engine board (Printer: BCU, MF: SCB).
		5. Replace the harness between the exit junction gate solenoid (SOL1) and
		engine board.

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC990-	D	Software performance error
00		The software attempted to make an unexpected operation.
		Incorrect argument
		Incorrect internal parameter
		Insufficient working memory
		• Abnormal performance caused by an error that cannot be detected in normal
		SC detection due to hardware specifications.
		Power cycle the machine.
		• Reinstall the software of the controller board (Printer: Controller board, MF:
		SCB).
		• Reinstall the software of the engine board (Printer: BCU, MF: SCB).

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution
SC991-	С	Recoverable software operation error
00		The software performed an unexpected function and the program cannot continue.
		Recovery processing allows the program to continue.
		Abnormal variable
		Internal parameter error
		Insufficient work memory
		Hardware error not detected by SC
		Logging only

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution	
SC992-	D	Undefined Error (No SC Code)	
00		An error not controlled by the system occurred (the error does not come under	
		any other SC code).	
		Software defective	
		Power cycle the machine.	

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution		
SC994-	С	Application Item Error		
00		The numbers of executed application items on the operation panel reach the		
		maximum limit for the operation panel structure.		
		Too many executed application items		
		Logging only		

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution	
SC995-	D	CPM setting error 1	
01		Comparison of machine serial number (11 digits) and machine identification code.	
		Jetails:	
		Machine serial number cannot be identified because of BICU replacement or	
		malfunctioning.	
		Machine serial number cannot be identified because of NV-RAM replacement	
		Achine serial number (11 digits) or machine identification code does not match.	
		• Enter the machine serial number using SP5-811, and then cycle the power	
		off/on.	
		Attach the NV-RAM that was installed previously.	

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution			
SC995-	D	CPM setting error 2			
02		Comparison of machine serial number (11 digits) and machine identification code.			
		Details:			
		Machine serial number cannot be identified because of NV-RAM replacement or			
		malfunctioning.			
		Machine serial number (11 digits) or machine identification code does not match.			
		Attach the NV-RAM that was installed previously.			
		Download data on the NV-RAM using SP5-825.			

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution			
SC995-	D	CPM setting error 3			
03		Comparison of machine serial number (11 digits) and machine identification code.			
		Details:			
		Unable to recognize machine identification code because the controller was			
		replaced incorrectly or is malfunctioning.			
		Machine serial number (11 digits) or machine identification code does not match.			
		Replace it with a specified controller.			

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution	
SC995-	D	CPM setting error 4	
04		Comparison of machine serial number (11 digits) and machine identification code.	
		Machine serial number (11 digits) or machine identification code does not match.	
		Return the parts to the original configuration, and then replace them according to	
		the manual.	

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution		
SC997-	В	Application function selection error		
00		The application did not function normally after pressing the application key on the		
		operation panel.		
		There is a bug in the software.		
		Check if the options required by the application (RAM, DIMM, boards) are		
		installed properly.		
		Check whether downloaded applications are correctly configured.		

SC No.	Туре	Error Name/Error Condition/Major Cause/Solution	
SC998-	D	Application start error	
00		• After power ON, no application program was registered to the system within	
		the specified period of time. (No application started or ended normally.).	
		• Even though the application started up, it cannot be rendered due to an	
		unknown fault.	
		There is a bug in the software.	
		• The options required by the application (RAM, DIMM, board) are not installed.	
		Power cycle the machine.	
		Check the RAM, DIMM, and boards.	
		Check the application configurations.	
		Replace the controller board (Printer: Controller board, MF: SCB).	

Jam Detection

Jam Displays

When a jam occurs, the jam code is displayed on the operation panel.

Only MF model, the location where the jam occurred is displayed on the operation panel as shown below:



Printer model, the message is displayed on the operation panel as shown below:

- (A1) Open Front Cover and remove the paper.
- (A2) Remove misfeed in Trays. Opn & cls Frt. Cov.
- (B) Open Front Cover and remove the paper.
- (C) Open Front/Rear Cover and remove misfeed.
- (Y1) Remove misfeed in Tray 2. Opn & cls Frt. Cov.
- (Y2) Remove misfeed in Tray 3. Opn & cls Frt. Cov.
- (Y3) Remove misfeed in Tray 4. Opn & cls Frt. Cov.
- (Z) Open Tray1/R.Cov & remove ppr.

Jam History

Checking Logs

Plotter (print engine) jam history can be displayed using SP7-507. The jam history of the 10 latest jams is displayed.

- SP7-507-001 "Plotter Jam: History Latest"
- SP7-507-002 "Plotter Jam: History Latest1"
- SP7-507-003 "Plotter Jam: History Latest2"

- SP7-507-004 "Plotter Jam: History Latest3"
- SP7-507-005 "Plotter Jam: History Latest4"
- SP7-507-006 "Plotter Jam: History Latest5"
- SP7-507-007 "Plotter Jam: History Latest6"
- SP7-507-008 "Plotter Jam: History Latest7"
- SP7-507-009 "Plotter Jam: History Latest8"
- SP7-507-010 "Plotter Jam: History Latest9"

Jam Display

SP7-507 shows the paper jam history.

CODE :011 SIZE :05h TOTAL:000034 DATE :Fri Feb 15 11:44:50 2006

- CODE: Indicates the jam code.
- SIZE: Indicates the paper size code.
- TOTAL: Indicates the total counter (SP7-502-001).
- DATE: Indicates the date when the jam occurred.

Vote

Initial jams at power on are not displayed here.

Jam Codes and Position Codes

Vote

- Jam code: Shows the cause of a jam. Appears in the log data.
- Position code: Shows the location of a jam. Appears on the operation panel.

These are lists of jam codes for the main machine and peripheral devices. Please note:

- Late jam. The paper has failed to arrive within the prescribed time due to a jam that has occurred upstream of the referenced sensor.
- **Lag jam.** The paper has failed to leave the location of the referenced sensor within the prescribed time due to a jam downstream of the referenced sensor.

Main Machine

Jam Code	Jam Type	Position Code
1	Registration sensor (S5) jam	В
1	Paper exit/reverse sensor (S1) jam	С
1	Duplex entrance sensor (S8) jam	С
		Z
3	Tray 1: No paper feeding	A1
33	Tray 1: No paper feeding continuously	A1

Jam Code	Jam Type	Position Code
8	Bypass tray: No paper feeding	A2
38	Bypass tray: No paper feeding continuously	A2
9	Duplex: No paper feeding	Z
17	Registration sensor (S5): Late jam	A1
57	Registration sensor (S5): Lag jam	В
20	Paper exit/reverse sensor (S1): Late jam	В
		С
60	Paper exit/reverse sensor (S1): Lag jam	В
		С
26	Duplex entrance sensor (S8): Late jam	С
66	Duplex entrance sensor (S8): Lag jam	С
		Z

SPDF (MF Model Only)

Jam Code	Jam Type	Position Code
1	Initial Jam	Р
4	SPDF registration sensor (S16): Late jam	Ρ
54	SPDF registration sensor (S16): Lag jam	Р
100	Motor defective	Р
13	SPDF feed sensor (S17): Late jam	Р
63	SPDF feed sensor (S17): Lag jam	Р
97	Timing error jam	Р
98	Original proximity jam	Р
99	Double-feed jam	Ρ

Optional Bank

Jam Code	Jam Type	Position Code
1	Tray 2 paper transport sensor jam	Y1
4	Tray 2: No paper feeding	Y1
34	Tray 2: No paper feeding continuously	Y1
13	Tray 2 paper transport sensor: Late jam	Y2
53	Tray 2 paper transport sensor: Lag jam	A1
		Y1
1	Tray 3 paper transport sensor jam	Y2
5	Tray 3: No paper feeding	Y2
35	Tray 3: No paper feeding continuously	Y2
14	Tray 3 paper transport sensor: Late jam	Y3
54	Tray 3 paper transport sensor: Lag jam	A1

Jam Code	Jam Type	Position Code
		Y1
		Y2
1	Tray 4 paper transport sensor jam	Y3
6	Tray 4: No paper feeding	Y3
36	Tray 4: No paper feeding continuously	Y3
55	Tray 4 paper transport sensor: Lag jam	A1
		Y1
		Y2
		Y3

Paper Size Codes

Paper size codes are as follows.

Size Code	Paper Size
005 (05H)	A4 LEF
006 (06H)	A5 LEF
014 (0EH)	B5 LEF
038 (26H)	8 1/2"x11"(LT) LEF
044 (2CH)	5 1/2"x8 1/2"(HLT) LEF
133 (85H)	A4 SEF
134 (86H)	A5 SEF
141 (8DH)	B4 SEF
142 (8EH)	B5 SEF
160 (A0H)	11"x17"(DLT) SEF
164 (A4H)	8 1/2"x14"(LG) SEF
166 (A6H)	8 1/2"x11"(LT) SEF
172 (ACH)	5 1/2"x8 1/2"(HLT) SEF
255 (FFH)	Others

Sensor Position Layout

Main Machine and Optional Bank



- 1. Registration sensor (S5)
- 2. Paper exit/reverse sensor (S1)
- 3. Duplex entrance sensor (S8)
- 4. Tray 2 paper transport sensor (Optional bank 1)
- 5. Tray 3 paper transport sensor (Optional bank 2)
- 6. Tray 4 paper transport sensor (Optional bank 3)

SPDF (MF Model Only)



- 1. SPDF feed sensor (S17)
- 2. SPDF registration sensor (S16)
- 3. Double-feed sensor (Option)

Image Adjustment

Registration Adjustment

Print Area

Check that the adjustment meets the product specification.



- [1]: Paper feed direction
- [2]: Print area

Adjustment Reference Values

- B: Leading edge (Sub scanning direction): 3.0 ± 1.5 mm
- D: Trailing edge (Sub scanning direction): 3.0 mm
- C: Left (Main scanning direction): 2.0 ± 1.5 mm
- A: Right (Main scanning direction): 2.0 mm

Adjustment Procedure

- **<u>1.</u>** Enter the SP mode, and select the test pattern (15: Trim Area) with SP2-109-001 (Test Printing: Pattern Selection).
- 2. Print out a test pattern with SP2-109-002 (Test Printing: 1 Sheet Printing).
 - Vote

Print a test pattern, and then adjust the leading edge registration in the SP mode to the optimum value.

<u>3.</u> Do the leading edge registration adjustment.

1) Check the leading edge registration for each paper trays and adjust them with SP1-001.

SP No.	SP Name	Range
SP1-001-001	User LeadEdge Reg: By-pass: Plain	±4.0 mm
SP1-001-002	User LeadEdge Reg: Tray1: Plain	±4.0 mm
SP1-001-003	User LeadEdge Reg: Tray2: Plain	±4.0 mm
SP1-001-004	User LeadEdge Reg: Tray3: Plain	±4.0 mm
SP1-001-005	User LeadEdge Reg: Tray4: Plain	±4.0 mm
SP1-001-006	User LeadEdge Reg: Duplex: Plain	±4.0 mm

- 2) Input the value. Then press [#].
- 3) Generate a trim pattern to check the leading edge adjustment.
- 4. Do the side-to-side registration adjustment.
 - 1) Check the side-to-side registration for each paper trays and adjust them with SP1-002.

SP No.	SP Name	Range
SP1-002-001	User S-to-S Reg: By-pass	±4.0 mm
SP1-002-002	User S-to-S Reg: Tray 1	±4.0 mm
SP1-002-003	User S-to-S Reg: Tray 2	±4.0 mm
SP1-002-004	User S-to-S Reg: Tray 3	±4.0 mm
SP1-002-005	User S-to-S Reg: Tray 4	±4.0 mm
SP1-002-006	User S-to-S Reg: Duplex	±4.0 mm

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

3) Generate a trim pattern to check the side-to-side registration adjustment.

Image Position Adjustment

Vote

• Adjust the blank margin width only if it cannot be adjusted by registration (leading edge/sideto-side). First adjust C and D; then A and B.



- [1]: Print area
- [2]: Paper feed direction
- **<u>1.</u>** Enter the SP mode, and select the test pattern (15: Trim Area) with SP2-109-001 (Test Printing: Pattern Selection).
- 2. Print out a test pattern with SP2-109-002 (Test Printing: 1 Sheet Printing).
- 3. Adjust the blank margin width of the image with SP2-103-001 to -008.

SP No.	SP Name	Range	Note
SP2-103-	Erase Margin Adj: Lead	0.0 to 9.9 mm (Default:	
001	Edge Width	3.0 mm)	
SP2-103-	Erase Margin Adj: Trail	0.0 to 9.9 mm (Default:	
002	Edge Width	2.0 mm)	
SP2-103-	Erase Margin Adj: Left	0.0 to 9.9 mm (Default:	
003	Edge Width	2.0 mm)	
SP2-103-	Erase Margin Adj: Right	0.0 to 9.9 mm (Default:	
004	Edge Width	2.0 mm)	
SP2-103-	Erase Margin Adj: Duplex	0.0 to 4.0 mm (Default:	Additional value against the
005	Lead EW	0.0 mm)	front side.
SP2-103-	Erase Margin Adj: Duplex	0.0 to 4.0 mm (Default:	
006	Trail EW	0.0 mm)	
SP2-103-	Erase Margin Adj: Duplex	0.0 to 4.0 mm (Default:	
007	Left EW	0.0 mm)	
SP2-103-	Erase Margin Adj: Duplex	0.0 to 4.0 mm (Default:	
008	Right EW	0.0 mm)	

Scanner, SPDF Image Adjustment

Scanner Image Adjustment

Before the scanner adjustment, do the Side-to-Side registration and image position adjustment.

Vote

Use a test chart to adjust these settings.

Magnification



A: Sub-scan magnification

- **<u>1.</u>** Put the test chart on the exposure glass and make a copy from one of the paper feed trays.
- 2. Check the magnification ratio. If necessary, adjust the magnification with the following SP.

Standard: ± 1.25%

SP No.	SP Name	Range
SP4-008-001	Sub Scan Magnification Adj.	± 1.0%

Registration



- A: Leading edge registration
- B: Side-to-side registration
- **<u>1.</u>** Put the test chart on the exposure glass. Then make a copy from one of the paper feed trays.
- **<u>2.</u>** Check the leading edge and side-to-side registration, and adjust as necessary with the following SPs.

A: 0 ± 2.0mm

B: 0 ± 2.5mm

SP No.	SP Name	Range
SP4-010-001	Sub Scan Registration Adj.	± 1.0 mm
SP4-011-001	Main Scan Registration Adj.	± 2.0 mm

SPDF Image Adjustment

Before the scanner adjustment, do the Side-to-Side registration and image position adjustment.

Note

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

Margin Position

- **<u>1.</u>** Put the temporary test chart on the SPDF. Then make a copy from one of the paper feed trays.
- **<u>2.</u>** Check the registrations, and adjust as necessary with following SPs. Standard: 0 ± 1.5 mm (Main scan), 0 ± 2.0 mm (Sub scan)

SP No.	SP Name	Range
SP6-006-001	Side-to-Side Regist:Face	± 3.0 mm
SP6-006-002	Side-to-Side Regist:Back	± 2.0 mm
SP6-006-010	L-Edge Regist (1-Pass):Face	± 5.0 mm
SP6-006-011	L-Edge Regist (1-Pass):Back	± 5.0 mm

SP No.	SP Name	Range
SP6-006-014	T-Edge Erase (1-Pass):Face	± 5.0 mm
SP6-006-015	T-Edge Erase (1-Pass):Back	± 5.0 mm

Magnification

- **<u>1.</u>** Place the temporary test chart on the SPDF and make a copy from one of the paper feed trays.
- 2. Check the magnification and adjust as necessary with following SP.

Standard: ± 1.0% or less

SP No.	Name	Range
SP6-017-001	SPDF Adjustment Magnification	± 5.0 %

Other Troubleshooting

Paper Feed (Skew)

Use the following flowchart to determine the cause and deal with the problem.



Problem at Regular Intervals

Image problems may appear at regular intervals that depend on the circumference of certain components.

The following diagram shows the possible symptoms (black or white dots at regular intervals or other problems).



1. Paper feed direction

2. Problems at regular intervals

Problems	Intervals	Defective parts
Problems with the printed result	113.1 mm	Paper feed roller
(other than black or white dots)	62.83 mm	Separation roller
	82.47 mm	Bypass feed roller
	48.44 mm	Relay roller (Drive)
	43.98 mm	Relay roller (Driven)
	51.18 mm	Registration roller (Drive)
	37.7 mm	Registration roller (Driven)
	29.8 mm	Charge roller
	50.00 mm	Image transfer roller
	93.2 mm	Hot roller
	41.15 mm	Paper exit/reverse roller
	45.08 mm	Fusing exit roller
	45.08 mm	Duplex entrance roller
	38.00 mm	Duplex relay roller
	38.00 mm	Duplex exit roller
Black or white dots	48.1 mm	Development roller
	94.4 mm	Drum

When Vertical Line of 8mm is Generated

The LED head contains 26 LED chips, each covering a line 8mm wide. If a line 8mm wide extending in the paper feed direction appears, an LED chip may be damaged. If so, replace the LED head.



When Vertical Banding is Generated

The vertical banding on a print image may be improved by the [Drum Rotation] function.

Vote

If the [Drum Rotation] function is performed many times, the life of the drum unit may be shortened.

<u>1.</u> Select a drum rotation level.

Printer model:

Menu > Maintenance > Drum Rotation

MF model:

Home screen > User Tools > Machine Features > Maintenance > Drum Rotation

2. Select a drum rotation level from the following 2 levels: Level 1 (Normal) and Level 2 (Strong).

Operation

- Level 1: Photoconductor idles for 55 seconds
- Level 2: Photoconductor idles for 30 seconds (for black and white vertical banding)

Effectively Prevented Problems

- Level 1: Pieces of white banding (for halftone or continuous printing)
- Level 2: White vertical banding (for halftone), black vertical banding, and black horizontal banding

When Vertical Lines, Bands Cause Uneven Density (MF Model Only)

Uneven density can be corrected by scanner feedback control when vertical stripes and bands appear in images and cause uneven density in halftone areas.



- [A]: Occurrence of uneven image density
- [B]: After correction
- [C]: Printing direction

Correction cannot be done for the following types of images:

- Uneven density, stripes, or banding in any direction other than the direction of the printing
- Black stripes or black bands where there is no image
- Text characters broken by white spots

During scanner feedback control, the scanner reads the halftone image, calculates a correction value from the density data, and then returns the result of the calculation to the print heads as an SP. The correction value calculated with image output becomes the correction value for the LED head array and the PCDU.

Correction Procedure

Preparation

Raise the platen and clean the exposure glass before you do this procedure.

<u>1.</u> On the Home screen, select User Tools icon > Machine Features > Maintenance > Vertical Uneven Density Correction.

🚸 User Tools / Inquiry		Exit
Maintenance		Exit
Select item.		
Adjust Print Position Adjust Im	age Density Replacement Al	ert Supply End Option
Curl Prevention Drum F	Rotation Vertical Uneaven D Correction	lensity
		_
		d0apc6013

2. Touch [Start].

🚸 User Tools / Inquiry	Exit
Vertical Uneaven Density Correction	Exit
Select item. Start Previous Setting 2018/08/22 13:50	
d	0apc6014

<u>3.</u> Select [A4] or $[8^{1}/_{2} \times 11]$ for the size of the paper with the halftone images, and then touch [Start Printing]. The correction sheet is printed.

🚸 Use	r Tools / Inquiry	Exit
Vertical Un	Load paper of one of the following sizes, then press [Start Printing].	Exit
	Stop Start Printing	
	dDat	ac6015

<u>4.</u> Turn the correction sheet over, and then set the sheet aligned with the upper left corner of the exposure glass as shown below.



d0apc6012

5. Touch [Start Scanning]. The correction is completed with the message disappears.



Vote

If scanning fails, check the following:

- Check the orientation and position of the correction sheet.
- Check the alignment of the correction sheet. To prevent the correction sheet from shifting, place more than five blank sheets of the same size on the correction sheet and try again.

Confirm whether the scanner feedback control executed correctly with the following SP codes.

- SP2-133-001 (SFBVSC:Choice: Reflect of Correction). If executed correctly, "1" is displayed.
- SP2-132-019 (SFBVSC:Configuration: Number of Scan). Displays the cumulative execution count of the set PCD unit.

Image Area or Backside Becomes Dirty When Frequently Printing on Small-size Paper

When continuously printing on paper sizes smaller than A4-width, the toner may collect on the ribs of the paper transfer exit, causing stripes and bands to form on the front or back side of the paper passing below.



To correct this problem when stripes or bands appear, clean the ribs at the paper transfer exit.



d0apc6017

Also, if this problem occurs with A5 LEF paper, to correct this problem clean the ribs and then feed the paper by its short edge (SEF).

Recycled or Thin Paper Is Severely Curled after Printing

If the delivered paper is curled, it cannot be stacked properly. In such a case, raise the paper stopper on the output tray and remove the paper frequently.

You can control the fuser temperature to prevent the paper from curling by User Tools.

Printer model: Menu > Maintenance > Quality Maintenance > Curl Prevention: Active (Default: Inactive)

MF model: User Tools > Machine Features > Maintenance > Curl Prevention: Active (Default: Inactive)

Vote

If set to [Active]:

- The print speed drops (30ppm). Accordingly, the first print output time is delayed.
- The fixing ability might worsen depending on the paper used.
- If "Thick Paper 2" or heavier is selected, the print speed drops around 23ppm.
- If "Thick Paper 1" or heavier is selected, idle rotation 10 seconds is added before printing.

Poor Image Quality When Using Shiny Materials Mode

With previous machines scanning shiny, metallic surfaces caused abnormal images with horizontal lines. The Shiny Materials mode selection reduces the amount of light for scanning to prevent the degradation of image quality.

• [A]: Normal scan. Amount of light: 100%
• [B]: Shiny Materials mode. Amount of light: 16%



Action

The amount of light used for Shiny Materials mode can be changed with SP4-856-001 (Shiny Materials Mode: PWM Duty). Increasing the amount of light can cause grainier images and make horizontal lines appear more prominent.

Uneven Image Density

Uneven density can occur in 2-by-2 or original halftone or filled areas during continuous print jobs longer than 20 pages with only 5 min. between print jobs.



Cause

The following conditions could make it difficult for toner to move to electrostatic image borders on the development roller and cause worm-eaten patterns to make the texture of images appear uneven.

- The electrostatic attraction of the toner to the development roller has increased due to pressure between the development roller and the OPC.
- The Coulomb force (strength of attraction and repulsion between positive/negative elements) of the electrostatic charge is too low due to large rough areas on the development roller.

Action

- 1. Stop the machine for at least 10 minutes.
- 2. Notch Adjustment

MF model:

User Tools > Machine Features > Maintenance > Adjust Image Density. Press [Darker] for 1to 3 times

Printer model:

Menu > Maintenance > Quality Maintenance > Adjust Image Density: Press 1 to 3 times to get darker

3. SP adjustment

Set SP2-201-206 (DV bias Control: Coefficient: a6) to from -20 to -120. This value is added to the development bias.

Horizontal White Bands 94 mm Apart

Horizontal white lines appear in halftone images. This is likely to occur in a high temperature, high humidity environment.



Cause

Starting and stopping the rotation of the OPC can cause "footprints" at the development roller nip, making it difficult for the toner to stick and develop images correctly at 94 mm intervals (OPC pitch) and causing white bands.

Action

- 1. Stop the machine for at least 10 minutes.
- 2. Notch Adjustment:

MF model

User Tools > Machine Features > Maintenance > Adjust Image Density. Press [Darker] 1 to 3 times. **Printer model**

Printer model

Menu > Maintenance > Quality Maintenance > Adjust Image Density. Press 1 to 3 times.

3. SP adjustment

Set SP2-201-206 (DV bias Control: Coefficient: a6) to from -20 to -120. (This value is added to the development bias.)

Excessive Curl When Printer in Thick Paper 3 Mode

A large paper curl (65mm -73mm) might develop while using "Thick Paper 3" (Paper over 165g/m²) mode. This could cause paper curling, the paper falling, or incorrect stacking.

Cause

In this machine, the position of the fusing unit entrance guide is arranged closer to the fusing roller as a countermeasure to prevent excessive curl in normal paper during duplex printing, caused by paper wrapping around the fusing roller when it enters the fusing unit.

Action

Remove the sheets one by one from the paper exit tray.

Defective Images When Printing on Envelopes

Defective images like the one shown below can occur when printing on envelopes.



- [A] Image distortion due to uneven texture at paper edges (sides, trailing edge)
- [B] Poor fusing when printing more than three envelopes consecutively
- [C] Poor transfer at envelope creases •

Cause

[A] Image distortion due to uneven texture at paper edges (sides, trailing edge)

[B] Poor fusing when printing more than three envelopes consecutively

[C] Poor transfer at envelope creases

Action

Apply any one of the countermeasures.

[A] Distorted image

Narrow the print area of the image by increasing the white space (margins) at sides and

trailing edge.

- Do not print halftones and filled areas near the edges of the image.
- Change the type of envelope.

[B] Insufficient fusing

- Change to envelopes of other types of paper with fusing temperatures: Envelope 2 (205°C), Envelope 3 (210°C).
- Raise the fusing temperature for the envelopes.

[C] Poor image transfer

- Position the image print area away from creases.
- Switch to envelopes made by another manufacturer.

Wrinkles Occur on Printed Envelopes

Wrinkles can occur when printing on envelopes under the following conditions:

- After printing a large number of envelopes (printing about 100 duplex mode).
- When printing thick envelopes of average weight up to 110 g/m².
- When printing in ambient temperature above 20°C (68°F).

Cause

Due to the wide envelope nip and envelope shape (equivalent to several sheets of paper, and the flap), the effect of the twisting motion at the fusing nip can cause wrinkling.

Action

- If wrinkling occurs, wait at least 5 min. before printing more envelopes.
- Switch to feeding envelopes from the bypass paper tray.
- Switch to envelopes made by another manufacturer.

Water Spots from Condensation

After a log job (about 20 sheets of A4) printing on single-sided sheets, water drop patterns may appear in the following duple print job. This is likely to occur in a cool environment, especially early in the morning before the machine is sufficiently warm.



d0apc6021

Cause

Water in the paper evaporates and accumulates in the duplex paper path during simplex printing. The paper collects the water when it passes through the duplex path which leads to poor image transfer.

Action

- Wait at least 5 min. after a long simplex print job before starting a duplex print job.
- Set "Curl Prevention" to ON.

MF model: User Tools > Machine Features > Maintenance > Curl Prevention: Active **Printer model:** Menu > Maintenance > Quality Maintenance > Curl Prevention: Active

Note

If set to [Active]:

- The print speed drops (30ppm). Accordingly, the first print output time is delayed.
- The fixing ability might worsen depending on the paper used.
- If "Thick Paper 2" or heavier is selected, the print speed drops around 23ppm.
- If "Thick Paper 1" or heavier is selected, idle rotation 10 seconds is added before printing.

Stained Leading Edges When Manual Duplex Printing Postcards or Thick Paper

Staining can occur at the leading edges during duplex printing when feeding postcards or thick paper from the Bypass Tray.



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Cause

During feed for duplex printing from the bypass tray, the printed first side is rubbing against the bypass paper feed rollers and peeling off toner.

Action

If smearing or staining occurs at the leading edges within halftone and filled areas when feeding from the bypass tray, switch to paper feed to Tray 1.

Black Speckles in Images

Black spots might appear on the images:

- Printed on 43 CPM model
- On 1st or 2nd sheet of the print job on the half from the leading edge
- Under horizontal line images



d0apc6025

Cause

The water content of the paper evaporates when the paper reaches the entrance of the fusing area, and the water vapor mixes with toner and causes black spots.

Action

- Change the printing side (front/back) of the paper
- Change to Silent Mode printing If set to [Active], the print speed drops (30ppm).
- Change to the "Curl Prevention" mode
 MF model: User Tools > Machine Features > Maintenance > Curl Prevention: Active
 Printer model: Menu > Maintenance > Quality Maintenance > Curl Prevention: Active
 Note

If set to [Active]:

- The print speed drops (30ppm). Accordingly, the first print output time is delayed.
- The fixing ability might worsen depending on the paper used.
- If "Thick Paper 2" or heavier is selected, the print speed drops around 23ppm.
- If "Thick Paper 1" or heavier is selected, idle rotation 10 seconds is added before printing.

Printed Barcodes Cannot Be Read

Cases can occur when barcodes printed at 600 dpi resolution cannot be read.

Cause

- Amount of applied toner is insufficient, or black lines have been lost due to uneven printing.
- If too much toner has been applied, blank areas in the patterns are too small.

Action

• Use the printer driver to set printing resolution to 1200 x 1200 dpi.

Excessive Curl Reduces Exit Tray Capacity

The amount of paper that can be stacked on the exit tray might be lower than the specification depending on the paper type.

Vote

For reference the number of sheets in a stack are:

- Approx. 15 mm. paper curl: about 200 sheets
- Approx. 20 mm. paper curl: about 150 sheets

Cause

Curl on either side of the stack raises the height of the stack and triggers the actuator of the tray full sensor before the paper exit tray is actually full.

Action

Instruct the operator to do the following:

- Turn the stack over and print on the other side
- Set "Curl Prevention" to ON.

MF model: User Tools > Machine Features > Maintenance > Curl Prevention: Active **Printer model:** Menu > Maintenance > Quality Maintenance > Curl Prevention: Active

If set to [Active]:

- The print speed drops (30ppm). Accordingly, the first print output time is delayed.
- The fixing ability might worsen depending on the paper used.

- If "Thick Paper 2" or heavier is selected, the print speed drops around 23ppm.
- If "Thick Paper 1" or heavier is selected, idle rotation 10 seconds is added before printing.

Stack Error (Spilling of the Paper Stacked in the Output Tray)

Depending on the number of sheets delivered, the stacked paper may spill. If the number of stacked sheets is substantial, you can prevent the stack from spilling by adjusting the stopper [A].

Printer model:



MF model:



To Prevent Accidental Power Cord Disconnection

To prevent the accidental disconnection of the power cord, you can install the AC cord clamp for this machine.

Part name	Part number	Q'ty	Remarks
AC CODE CLAMP: RACCD86-236AS	11050754	1	m160c9003

Installation Procedure

<u>1.</u> Attach the clamp [A] to the main machine.



<u>2.</u> Connect and clamp the AC code and clamp.



Paper Feed Tray Side Fence and End Fence Fasteners

The side fence and end fence of the paper feed trays can be fasten for operators using standard paper sizes. Use the service parts listed below to fasten the fences.

	Application	Part Name	Part No.	Note
[A]	Fastens the side fence	Hex tapping screws (+) M3x10	04583010N	
[B]	Fastens the end fence	Nylon Rivet NRP345	H0202318	d0apc6028

Attachment Locations



Fluorescent lamp, X-ray light, or LED flicker

Fluorescent lamps, LEDs, X-ray lights flicker after the machine is installed at the work site.

Cause

When the machine is turned on there is a large power surge momentarily to turn on the fusing lamps that maintain fusing temperature, causing a drop in voltage at some customer work sites.

Action

Enter the SP mode, open SP1-134-001 (Inrush Control), and then change [0 (Disable: Default)] from "0" to [1: (Enable)]. (There may be occasions when you cannot solve the problem at some customer work sites.)

Comportant)

Enabling this mode changes the machine specifications, so before doing this adjustment consult with sales district managers and customers.

Note

This Inrush Control mode is supported by the engine firmware below:

- Printer model: Ver.1.05:12 or later
- MF model: Ver.1.06:09 or later

Suppressing Maximum Power Consumption

Power supply breakers trip when multiple machines at the same work site are turned on together.

The power supply capacity at the work site is small, but the customer does not want to increase power

supply capacity.

Cause

The capacity of the power supply is temporarily insufficient if many machines are turned on at the same time.

Action

Enter the SP mode, open SP1-912-001 (Power Limit Mode: Mode: 0: OFF 1: ON), and then change [0 (Disable: Default)] from "0" to [1: (Enable)].

- In the maximum power consumption reduction mode, maximum power consumption can be lowered by shortening the time intervals between lighting the fusing lamps and lowering the amount of current flowing to the lamps to a level below that for normal operation mode.
- The purpose of this mode is to avoid power supply overload, not to save power.
- At startup the machine consumes power equal to that for normal operation mode.
- While this mode is enabled use Plain Paper 1 or Plain Paper 2.
- While this mode is enabled, the time needed to return from sleep mode to full operation is longer, and the fast print speed is slower than usual.

Comportant)

Enabling this mode changes the machine specifications, so before doing so consult with the sales district managers and customers.

Fibrous Deposits Occur on the Back Sides of Paper at the Leading Edges

Deposits resembling fibers can occur at the leading edge on the back side of paper.



d0apc6030

Cause

- 1. When the fusing entrance guide plate [A] is raised to counter paper wrinkling during fusion in this machine, this can severely abrade the back side of paper at the leading edge.
- 2. Paper dust from paper collects on the edge of the fusing entrance guide plate, causing toner and other matter scraped from the guide plate to form tendrils of fibrous deposits [B].

3. The build-up of these fibrous deposits collects on the back side of the paper.



d0apc6032

- [A] Fusing entrance guide plate
- [B] Fibrous deposits
- [C] Hot roller

Action

Do the following cleaning procedures.

- **<u>1.</u>** Remove the fusing unit. (Fusing Unit)
- **<u>2.</u>** Remove fusing unit top cover. (Fusing Upper Cover) (You can do this procedure without cover removal, but this procedure makes it easier to see the fusing entrance guide.)
- Remove the deposits [A] on the inner leading edge of the fusing guide plate. <u>3.</u>





Bend the tip of a cotton swab [B], or fold a sheet of paper [C]^{*1}, insert it between the edge of the <u>4.</u> guide plate and the hot roller, and then move it slowly back and forth along the length of the blade. Visually check to make sure that all the fibrous deposits have been removed.





d0apc6035

Vote

*1 If you choose to use folded paper, fold it as described below.

1. Take one sheet of A4 paper and fold it three times in halves.



2. Make a 1 cm fold at the tip of one end.



<u>5.</u> Remove the deposits [A] at the leading edge of the fusing guide plate on the side where paper passes.



- **<u>6.</u>** Rub the cotton swab (or tip of the folded paper) on the guide plate in the direction of paper feed.
- 7. Cut the tip of the folded paper (to about 30 mm), put it on the leading edge of the guide, and then

move it along the direction of paper feed to make sure that nothing remains caught on the blade.



 <u>8.</u> Reattach the cover, reinstall the fusing unit, and then confirm that paper feeds correctly. The first sheets may collect dirt from deposits that fell onto the hot roller and pressure roller during guide blade during cleaning. These deposits should disappear after more paper passes through (about 10 sheets).

Tears Occur at the Leading Edges of Paper

Paper may tear at the leading edges of paper if paper with residual burrs from cuttings is used. This can also cause double feeds or edges of the sheets to stick together.

Cause

Burrs caught on the edges of paper when stacks are cut during manufacturing can cause the trailing edges of the paper stick to the leading edges of the following sheets and lead to double-feeds or continuous feeds with the trailing and leading edges sticking together.

During paper separation, if there are burrs on the leading edges, the contact between the separation roller and leading edges can cause tearing at the leading edges. (See diagram below.) Condition with cutting burrs over 0.1 mm high



- [A] Separation roller
- [B] Feed roller
- [C] Pre-separation plate
- [D] Paper
- 506

Solution

Do the following for the paper being used.

- 1. Change the position of the paper stack.
 - A. Swap the front and back of the stack (leading edge and the trailing edge in the direction of feed).
 - B. Turn the stack over (without changing the direction of feed).
 - C. If Step A, B does not solve the problem turn the stack over and change the direction of feed.
- 2. Confirm that there is no moisture in the stack.

Request the operator to use paper that has been stored at acceptable range of temperature and humidity. You can also set the machine in curl reduction mode.

- Check to see that the paper is a type not recommended for use with the machine.
 Request the operator to use only paper that is recommended for use with the machine.
- 4. Make sure that the paper stack is not over the load limit for the paper feed tray.

Set a stack of paper so it does not exceed the limit for the side fence of the paper feed tray.

However, as shown in the figure below, for paper types whose trimming burrs are reversed at the leading edge of the paper and at the trailing edge of the paper, even if the paper is inverted with respect to the direction of feeding, there are cases where these methods are not effective.

- In paper feed direction A, small catching at the separation roller causes a small edge tearing.
- In paper feed direction B, a large incidence of catching at the separation roller causes a large amount of edge tearing.



White Spots Occur at Low Temperature and Humidity

If ambient temperature and humidity are low, papers that are thicker than medium thickness can cause groups of white spots [A].



d0apc6042

Cause

If the paper is cold, the electrical resistance will be high which can cause a discharge during image transfer.

Solution

Suppress the electrical discharge on paper, used for printing, by changing the paper thickness setting one step at a time according to the table below. This will prevent the electrical discharge issue in the transfer unit while maintaining optimum line speed and fusing.

However, if you change the setting from Thick 2 to Thick 3, you will not be able to do duplex printing, so if you are using duplex printing, make setting changes as shown in the table below.

	Printing Paper Thickness				
	Medium	Thick 1	Thick 2	Thick 2	Thick 3
			(Simplex)	(Duplex)	
Thickness	Normal 2	Thick 2	Thick 3	Normal 2	OHP
setting				(reduces transfer	
				electrical current)	
Silent mode	Not required	Not required	Not required	ON	Not required
				(line speed	
				reduced)	
SP mode	Not required	Not required	Not required	Change SP1-105-	Not required
changes				153, -203 to +10	
				(to match fusing	
				temperature)	
Comments	Change	Change	Change paper	Done by service	Change
	paper type in	paper type in	type in UP	technician only	paper type in
	UP mode	UP mode	mode		UP mode

Comportant)

These measures are intended to avoid problems, and we recommend that you return to the original settings if the operation environment changes according to the season.

7. Detailed Descriptions

Overview

Guidance for Those Who Are Familiar with Predecessor Models

Printer Model

Here is a summary of the differences between this machine and its predecessors.

Item			SP		P 502/501	Reason for Change
		4520DN/4510DN			(This machine)	
Specification	Print speed	40	ppm	43	ppm	-
Exposure	Toner	Sin	gle-element	Sir	ngle-element	-
unit,		pol	ymer toner	pul	lverized toner	
Development	Toner cartridge	Car	tridge right	Са	rtridge left side	Improved operability
unit	lock lever	side	e			with an operation
	position					panel on the
						opposite side
						Used toner counter-
						measures
	Toner cross-	No		Cro	oss-mixing with an	Improved toner flow
	mixing in the			agi	itator and cross-	with pulverized toner
	toner cartridge			mix	king coil	
	Used toner	Dire	ect path	Separated dual-path		Coil mechanism
	recovery path	me	thod	me	ethod	modified to improve
						toner flow
	Toner near-end	•	Definite toner	•	Estimated toner	SC332 (Toner end
	control		near-end		near-end	detection error)
			(calculated)		(calculated)	solutions
		•	Toner end	•	Definite toner	
			(physical		near-end	
			detection)		(physical	
					detection)	
				•	Toner end	
					(calculated from	
					definite near-end)	
	Quenching	No		Ye	S	Countermeasure for
	lamp					handling latent
						images and dirty

7.Detailed Descriptions

I	tem	SP	P 502/501	Reason for Change
		4520DN/4510DN	(This machine)	
				edges on paper
	Anti-static plate	Not removable	Removable	Improve
				maintenance
	LED head	Wipe with clean	Automatic cleaning by	Simplify cleaning
	cleaning	cloth	linking to	procedure
			opening/closing front	
			door	
Fusing Unit	Fusing unit	Lift after release	Lock release	Simplify
	installation and	with lock lever	mechanism and	installation/removal
	removal		handle combined	
	Fusing pressure	Manual (lever	Automatic	-
	release	provided for		
		envelopes)		
	Handling paper	No	Auto pressure release	Reduces the
	jams			number of paper
				jams in the fusing
				unit
	Fusing lamps	One fusing lamp	Two fusing lamps,	-
			one with a center	
			element and one with	
			two end elements	
	Temperature	Hot roller end:	Hot roller end:	-
	monitoring	thermistor	thermistor, thermostat	
		Hot roller center:	Hot roller center:	
		thermistor,	thermopile,	
		thermostat	thermostat	
		\frown	Cat	
		90-/		
		a /	Por	
		NØ		
Drive unit	Motor	Motor x1	Motor x2	Reduce mileage on
		All rollers are	Paper	the development
		driven by one	feed/fusing:	unit, achieve longer
		main motor	Paper feed motor	service life for drum
			Development:	

	tem	SP	P 502/501	Reason for Change
		4520DN/4510DN	(This machine)	
			Drum motor	
Paper Feed	Paper	Friction pad	RF (Roller Friction)	Countermeasure for
	feed/separation	method	method with the pre-	double-feeding
	system		separation plate	
	Paper tray	-	The tray can be	-
	bottom plate		loaded with the	
	lowers		bottom plate down	
	automatically			
	Paper near-end	No	Yes	Improve detection of
	sensor			the amount of paper
				remaining in the tray
	Paper size	Paper jam	The paper exits tray	Makes jam removal
	mismatch		without printing,	unnecessary
	operation		machine issues size	
			mismatch alert	
	Failure to feed	Paper jam	Paper feed retry	Makes jam removal
	operation		control	unnecessary
			Allows more time	
			before jam alert issue	
	Registration	Black guide plate	Transparent guide	Easier to see
	guide		plate	jammed paper
		-	Opening the	Makes paper jam
			registration guide	removal easier
			plate releases	
			pressure on	
			registration roller	
Electrical	NFC tag	No	Yes	-
Components	module			

MF Model

Here is a summary of the differences between this machine and its predecessors.

lt	em	MP 402SPF	IM	Reason for Change
			430Fb/430F/350F/350	
			(This machine)	
Specification	Print speed	40 ppm	43 ppm/ 35 ppm	-
SPDF/Scanner	Carriage lock	No	Yes	-
	Double-feed	No	Option	-

7.Detailed Descriptions

Item		MP 402SPF	IM	Reason for Change
			430Fb/430F/350F/350	
			(This machine)	
	detection			
Exposure unit,	Toner	Single-element	Single-element	-
Development		polymer toner	pulverized toner	
unit	Toner cartridge	Cartridge right	Cartridge left side	Improved operability
	lock lever	side		with the operation
	position			panel on the
				opposite side
				Used toner counter-
				measures
	Toner cross-	No	Cross-mixing with an	Improved toner flow
	mixing in toner		agitator and cross-	with pulverized
	cartridge		mixing coil	toner
	Used toner	Direct path	Separated dual-path	Coil mechanism
	recovery path	method	method	modified to improve
				toner flow
	Toner near-end	Definite	Estimated toner	SC332 (Toner end
	control	toner near-	near-end	detection error)
		end	(calculated)	solutions
		(calculated)	Definite toner	
		Toner end	near-end (physical	
		(physical	detection)	
		detection)	Toner end	
			(calculated from	
			definite near-end)	
	Quenching	No	Yes	Countermeasure for
	lamp			handling latent
				images and dirty
				edges on paper
	Anti-static plate	Not removable	Removable	Improve
				maintenance
	LED head	Wipe with clean	Automatic cleaning by	Simplify cleaning
	cleaning	cloth	linking to	procedure
			opening/closing front	
			door	
Fusing Unit	Fusing unit	Lift after release	Lock release	Simplify
	installation and	with the lock	mechanism and handle	installation/removal

lt	em	MP 402SPF	IM	Reason for Change
			430Fb/430F/350F/350	
			(This machine)	
	removal	lever	combined	
	Fusing	Manual (lever	Automatic	-
	pressure	provided for		
	release	envelopes)		
	Handling paper	No	Auto pressure release	Reduces the
	jams			number of paper
				jams in the fusing
				unit
	Fusing lamps	One fusing lamp	Two fusing lamps, one	-
			with a center element	
			and one with two end	
			elements	
	Temperature	Hot roller end:	Hot roller end:	-
	monitoring	thermistor	thermistor, thermostat	
		Hot roller center:	Hot roller center:	
		thermistor,	thermopile, thermostat	
		thermostat		
Drive unit	Motor	Motor x1	Motor x2	Reduce mileage on
		All rollers	• Paper feed/fusing:	the development
		are driven	Paper feed motor	unit, achieve longer
		by one	Development:	service life for drum
		main motor	Drum motor	
Paper Feed	Paper	Friction pad	RF (Roller Friction)	Countermeasure for
	feed/separation	method	method with the pre-	double-feeding
	system		separation plate	
	Paper tray	-	The tray can be loaded	-
	bottom plate		with the bottom plate	
	lowers		down	
	automatically			
	Paper near-end	No	Yes	Improve detection
	sensor			of the amount of
				paper remaining in
				the tray
	Paper size	Paper jam	The paper exits tray	Makes jam removal
	mismatch		without printing,	unnecessary
	operation		machine issues size	

7.Detailed Descriptions

lt	Item		IM	Reason for Change
			430Fb/430F/350F/350	
			(This machine)	
			mismatch alert	
	Failure to feed	Paper jam	Paper feed retry	Makes jam removal
	operation		control	unnecessary
			Allows more time	
			before jam alert issue	
	Registration	Black guide	Transparent guide	Easier to see
	guide	plate	plate	jammed paper
		-	Opening the	Makes paper jam
			registration guide plate	removal easier
			releases pressure on	
			registration roller	
Electrical	РСВ	BiCU board +	SCB (engine board	Fewer problems
Components		controller board	and controller board	with communication
			combined)	between separate
				boards
	NFC tag	No	Yes	-
	module			
Others	ARFU (Auto	No	Yes	-
	remote			
	firmware			
	update)			

Component Layout



- 1. PCDU
- 2. LED unit
- 3. Toner cartridge
- 4. Bypass feed tray
- 5. Paper feed tray
- 6. Duplex paper path
- 7. Fusing unit
- 8. Exit/reverse unit

Drive Layout



- 1. Exit/reverse motor (M1)
- 2. Feed/fusing motor (M4)
- 3. Duplex clutch (CL1)
- 4. Drum motor (M3)
- 5. Registration clutch (CL5)
- 6. Paper feed clutch (CL6)
- 7. Bypass lift clutch (CL3)
- 8. Relay clutch (CL7)
- 9. Bypass feed clutch (CL4)
- 10. Toner supply clutch (CL2)
- 11. Fusing pressure/release motor (M2)

Paper Path



- 1. Main machine paper feed path
- 2. Bypass paper feed path
- 3. Optional tray paper feed path
- 4. Duplex paper feed path

Parts Layout (Printer Model)

LED Optics, Other



No.	Description	No.	Description
1	Quenching lamp	4	Image creation thermistor (TH5)
2	LED unit	5	Toner end sensor (S9)
3	Temperature/humidity sensor (S11)		

Paper Feed



7.Detailed Descriptions

No.	Description	No.	Description
1	Paper size switch (SW4)	4	Paper end sensor (S6)
2	Bypass paper end sensor (S2)	5	Registration sensor (S5)
3	Bypass tray sensor (S3)	6	Paper near-end sensor (S4)

Fusing, Duplex, Paper Exit



No.	Description	No.	Description
1	Paper exit full sensor (S10)	7	Fusing thermostat (center) (TH4)
2	Exit/reverse motor (M1)	8	Fusing thermopile (TH2)
3	Paper exit/reverse sensor (S1)	9	Fusing nip pressure position sensor (S7)
4	Fusing lamp x2	10	Fusing thermistor (end) (TH1)
5	Duplex entrance sensor (S8)	11	Exit junction gate solenoid (SOL1)
6	Fusing thermostat (end) (TH3)		





No.	Description	No.	Description
1	Feed/fusing motor (M4)	6	Bypass lift clutch (CL3)
2	Duplex clutch (CL1)	7	Relay clutch (CL7)
3	Drum motor (M3)	8	Bypass feed clutch (CL4)
4	Registration clutch (CL5)	9	Toner supply clutch (CL2)
5	Paper feed clutch (CL6)	10	Fusing pressure/release motor (M2)

Boards, Switches, Fans



No.	Description	No.	Description
1	PCDU cooling fan (right) (FAN1)	7	HVPS
2	Rear interlock switch (SW2)	8	DC switch (SW3)
3	Controller board	9	Front interlock switch (SW1)
4	BCU	10	NFC board
5	PSU	11	PSU cooling fan (FAN3)
6	Operation panel	12	PSU cooling fan (left) (FAN2)

Parts Layout (MF Model)

SPDF



No.	Description	No.	Description
1	SPDF relay board	5	CIS unit
2	SPDF drive motor (M6)	6	SPDF feed clutch (CL8)
3	Feed cover sensor (S15)	7	SPDF feed sensor (S17)
4	Original set sensor (S14)	8	SPDF registration sensor (S16)



No.	Description	No.	Description
1	Scanner carriage	3	Scanner motor (M5)
2	Platen cover sensor (S13)	4	Scanner HP sensor (S12)

LED Optics, Other



No.	Description	No.	Description
1	Quenching lamp	4	Image creation thermistor (TH5)
2	LED unit	5	Toner end sensor (S9)
3	Temperature/humidity sensor (S11)		

Paper Feed



No.	Description	No.	Description
1	Paper size switch (SW4)	4	Paper end sensor (S6)
2	Bypass paper end sensor (S2)	5	Registration sensor (S5)
3	Bypass tray sensor (S3)	6	Paper near-end sensor (S4)

Fusing, Duplex, Paper Exit



No.	Description	No.	Description
1	Paper exit full sensor (S10)	7	Fusing thermostat (center) (TH4)
2	Exit/reverse motor (M1)	8	Fusing thermopile (TH2)
3	Paper exit/reverse sensor (S1)	9	Fusing nip pressure position sensor (S7)
4	Fusing lamp x2	10	Fusing thermistor (end) (TH1)
5	Duplex entrance sensor (S8)	11	Exit junction gate solenoid (SOL1)
6	Fusing thermostat (end) (TH3)		





No.	Description	No.	Description
1	Feed/fusing motor (M4)	6	Bypass lift clutch (CL3)
2	Duplex clutch (CL1)	7	Relay clutch (CL7)
3	Drum motor (M3)	8	Bypass feed clutch (CL4)
4	Registration clutch (CL5)	9	Toner supply clutch (CL2)
5	Paper feed clutch (CL6)	10	Fusing pressure/release motor (M2)

Boards, Switches, Fans



No.	Description	No.	Description
1	PCDU cooling fan (right) (FAN1)	8	Operation panel (Smart Operation Panel)
2	Rear interlock switch (SW2)	9	HVPS
3	HDD	10	DC switch (SW3)
4	FCU	11	Front interlock switch (SW1)
5	Speaker	12	NFC board
6	SCB	13	PSU cooling fan (FAN3)
7	PSU	14	PSU cooling fan (left) (FAN2)
SPDF

Component Layout



No.	Name	No.	Name
1	Original tray	12	Pre-scanning roller (front side)
2	Feed cover sensor (S15)	13	SPDF registration sensor (S16)
3	Original set sensor (S14)	14	Scanning guide plate (front side)
4	Pick-up roller	15	Pre-scanning roller (rear side)
5	Original set sensor actuator	16	Scanning guide plate (rear side)
6	Stopper	17	CIS unit
7	Friction pad	18	Exit roller
8	Feed roller	19	Platen
9	Feed sensor actuator	20	Original exit tray
10	SPDF feed sensor (S17)	21	SPDF drive motor (M6)
11	SPDF entrance roller		



No.	Name	No.	Name
1	SPDF feed clutch (CL8)	5	SPDF relay board
2	SPDF feed sensor (S17)	6	SPDF drive motor (M6)
3	SPDF registration sensor (S16)	7	Feed cover sensor (S15)
4	CIS unit	8	Original set sensor (S14)

Mechanism

SPDF Drive

The SPDF drive motor (M6) [A] drives all SPDF rollers via gears.

The SPDF feed clutch (CL8) [B] controls the mechanism for picking up the original.



Original Detection

When an original [A] is placed on the original tray correctly, the original set sensor actuator [B] is pushed up and the original set sensor (S14) [C] turns off (not interrupted). The machine judges this state as the placement of an original.

The stopper [D] prevents the user from placing originals too far into the feeder.



Original Transport Path

When [Start] is pressed, the SPDF feed clutch (CL8) is turned ON. Then the feed roller [A] rotates to drop the pickup roller [B] onto the top original of the stack. This moves the stopper [E] out of the way, and the original can be fed from the feed roller [A] to the SPDF entrance roller [C].

The friction pad [D] ensures that only one sheet of the original enters the feeder at a time.



When the original reaches the pre-scanning (front side) roller [B] via the SPDF entrance roller, the original moves the feed sensor actuator [C] and the SPDF feed sensor (S17) [D] is turned ON. Then the SPDF feed clutch (CL8) [E] is turned OFF to stop the feed roller [F] and the pick-up roller [G], to prevent the next original from being picked up.



The original is fed by the SPDF entrance roller [A] and the pre-scanning (front side) roller [B], scanned on the exposure glass under the scanning guide plate (front side) [C] and then delivered by the prescanning (rear side) roller [D].

The feeding of the original is detected by the SPDF registration sensor (S16) [E]. If an error occurs, it is reported as a paper jam.

The original is fed by the pre-scanning (rear side) roller [D], scanned by the SPDF CIS [F] on the scanning guide plate (rear side) [G], and then fed out by the exit roller [H].



When the original passes through the SPDF entrance roller [A], the SPDF feed sensor (S17) [B] is detected OFF. If the next original is set, the original set sensor (S14) [F] detects ON and the SPDF feed clutch (CL8) [C] is turned ON. Then, the feed roller [D] and pick-up roller [E] rotate to pick up the next original.



Double Feed Detection (Option)

A pair of ultrasound sensors is mounted in the ADF, one below the original feed path (emitter [A]) and the other above the path (receiver [B]).



- When the original passes between the sensors, an ultrasound wave from the emitter-sensor below pass through the paper to the receiver above.
- The receiver converts the signal generated by the vibration of the signal against the paper to an electrical pulse and checks its level.
- If a double feed occurs, the space between the sheets will generate a lower signal. When the receiver detects this lower signal (lower than that of a single sheet) it causes the machine to issue Jam Code J099 (double-feed detected) and then original feed stops.



This double feed detection will not function with originals that have:

- Folds, wrinkles, tears
- Holes
- Imperfectly fused images
- Perforations
- Taped connections
- Taped surfaces

Feeding such originals could cause false detection of double-feeds.

The service technician can also switch double-feed detection off/on with SP6-040-001 (Page Keeper: Mount Select, Default 0: Off).

Do not change the settings of SP6-040-005 (Page Keeper: Clear Select).

Scanner

Component Layout



No.	Name	No.	Name
1	Exposure glass (for SPDF)	5	Platen cover sensor (S13)
2	Exposure glass (for platen mode)	6	Scanner carriage drive belt
3	Scanner HP sensor (S12)	7	Scanner motor (M5)
4	Scanner carriage		

♦ Note

Automatic paper size detection is not available because this model has no automatic size sensor (APS) in the scanner.

Mechanism

Light Source and Exposure

This model uses an LED array for the light source. Light from the LED array (LEDB) [A] goes to the original via the light guiding panel [B] and the reflector [C]. Then from the original, the light follows the light path to the CCD.

The elements in the array are more densely spaced at the ends than at the center, to make sure that enough light reaches the left and right edges of the original.

The light reflected from the original travels as follows:

LED exposure -> 1^{st} mirror [D] -> 2^{nd} mirror [K] -> 3^{rd} mirror [E] -> 4^{th} mirror [L] -> 5^{th} mirror [F] -> Lens [H] -> CCD [I]



	Name		Name
[A]	LED array board (LEDB)	[G]	Light Path
[B]	Light guiding panel	[H]	Lens
[C]	Reflectors	[I]	CCD (soldered on the SBU)
[D]	1st mirror	[J]	SBU (Sensor board unit)
[E]	3rd mirror	[K]	2nd mirror
[F]	5th mirror	[L]	4th mirror

Scanner Carriage Drive

The scanner motor (M5) [B] drives the drive belt [D] in order to move the scanner carriage [A] along the guide rod [C].

Scanning starts with the scanner carriage [A] from the scanner HP sensor (S12) [E]. After scanning, the scanner carriage returns to the scanner HP sensor (S12). The actuator for the scanner HP sensor (S12) is on the underside of the carriage.

Vote

If you want to move the carriage, DO NOT pull it directly, instead, use the drive belt.



Improved Tolerance to Black Lines When Paper Passes through SPDF

This model uses a conventional mechanism in which paper comes in contact with the exposure glass during feeding. This is useful for dealing with adhesion of free dirt particles (paper scraps, etc.). (Self-cleaning mechanism using paper)

On the other hand, dirt adhering to the original can stick to the exposure glass and cause black lines in the scanned images

SPDF cross-section diagram



- [B]: Reading position
- [C]: Original feed path

Read Position Correction

By changing SP4-020-001 (Dust Check: Dust Detect: On/Off), when dirt is detected at the reading position, the reading position may be changed to avoid the dirt.

(If it cannot be avoided, an alert is displayed on the operation panel advising the user to clean the exposure glass).

Note

The scanning position can be corrected even for originals with dirt on the reverse side by switching SP4-020-011 (Dust Check: Dust Detect Level: Rear).

Image diagram



[A]: Reading position

- [B]: Exposure glass
- [C]: Dirt

Note

- Dirt is detected when a document passes through, so the alert will not disappear until the reading of the next document begins, even after exposure glass cleaning is performed.
- If dirt is detected not on the exposure glass but on the background guide plate, the alert will not disappear even if the glass is wiped clean.
- The time required for the first copy is slightly (almost imperceptibly) longer.
- The detection threshold can be changed using SP4-020-002 (Dust Check: Dust Detect:Lvl). The larger the value, the smaller the dirt particles that can be detected.
- Do not change the setting of SP4-020-003 (Dust Check: Dust Reject:Lvl).

Printing Process

Overview



m016d525

No.	Description			
1	Drum Charge	The charge roller gives the drum a negative charge.		
2	LED Optics	An LED beam writes the print data on the drum.		
3	Toner	The development roller applies toner to the latent image on the drum surface.		
4	Image	The transfer roller moves the toner from the drum to the paper.		
	Transfer			
5	Separation	The separation plate helps to remove the paper from the drum.		
6	Cleaning	aning The cleaning blade removes the remaining toner on the drum surface after the		
		image is transferred to the paper.		
7	Quenching The light from the quenching lamp neutralizes the residual charge on the drum			
		surface.		

LED Exposure

Component Layout



No.	Name
1	LED head
2	LED spacer
3	Drum
4	Cleaning brush

Mechanism

Writing Method

LED writing is superior to LD writing in unit-downsizing, noise reduction, and energy saving. Tiny LEDs, arranged in a line, are capable of creating images at 1200 dpi. Light beams emitted by the LEDs are focused using the Self-focusing Lens Array (SLA), creating an image on the OPC drum. Each LED head has 26 LED chips on board, and each chip has a line of LEDs 8mm in length.

Note

If a vertical line 8mm in width appears on the image parallel to the direction of paper feed, it may be caused by a broken LED chip.



- 1. LED board
- 2. SLA (Self-focusing Lens Array)
- 3. Drum

LED Head

Components

The LED head is composed of the following parts. No parts are replaceable, the whole LED head must be replaced.



- 1. Sheet
- 2. Base
- 3. LED board
- 4. Frame
- 5. SLA (Self-focusing Lens Array)

LED Positioning

The LED head contacts the LED spacer on the drum in order to hold and adjust the correct focal distance from the PCDU (slide-and-move method).

Image Position Adjustment

You can adjust the printing position from each tray with [Registration] in Menu. At this time, the following controls are done as the adjustment in the machine;

Horizontal Scan: Adjusted by moving the whole image position.

Vertical Scan: Adjusted by changing the light-emission timing.

Note

There is no mechanical adjustment, unlike laser writing.

Writing is applied across the length of the LED head in the horizontal direction. If you want to adjust to the printing position to an area that is outside the one that is within the setting range in [Registration], adjust the paper position in the feed tray. (Side-to-side Registration Adjustment in the Machine Paper Tray)

LED Light Volume Adjustment

An EEPROM on the LED head contains data which controls the light intensity of each element. There is no adjustment.

Adjustment at Replacement

Adjustment at LED head replacement is not needed because there is an EEPROM on the LED board. This ROM contains light volume adjustment data.

LED Head Cleaning

A new LED head cleaning mechanism is installed in this machine.

The LED unit is linked to the front door. Every time the front door is opened, the LED unit pulls away from where it was in contact with the drum. At this time, LED [A] is wiped by the cleaning brush [B]. This cleans the surface of the LED head automatically. Opening and closing the front door four times can clean the LED head.



Scanner Feedback Control (MF Model Only)

Scanner feedback control corrects uneven image density (vertical streaks, bands) in the vertical direction.

A halftone image is printed, the machine scans this, brightness data is written from the gray image, and then based on this data a correction value is calculated. The correction data is returned to the LED heads to correct the uneven density.



1	Halftone image output
2	Scanning
3	Brightness data write
4	Correction data created and fed back to the LED array
(5)	Image output (Corrected an uneven density)

The correction value calculated with image output becomes the correction value for the LED head and

the PCDU. Feedback correction cannot be done for the following types of images

- Uneven density, stripes, or banding in any direction other than the direction of printing
- Black stripes or black bands where there is no image
- Text characters broken by white spots

Scanner feedback control can be executed from the User Menu. For more details, refer to "When Vertical Lines, Bands Cause Uneven Density (MF Model Only)."

Home screen > [User Tools] icon > [Machine Features] > [Maintenance] > [Vertical Uneven Density Correction]

PCDU, Toner Cartridge

Component Layout

The toner cartridge is mounted on the PCDU, installed in the machine, but can be removed separately.



No.	Name	No.	Name
1	Toner supply coil	10	Development roller
2	Toner supply agitator (x2)	11	OPC drum
3	Toner hopper	12	Waste toner collection coil
4	Toner mixing coil	13	Drum cleaning blade
5	Used toner collection box	14	Quenching lamp *At main machine side
6	Used toner transport coil	15	Charge cleaning roller
7	1st mixing coil	16	Charge roller
8	2nd mixing coil	17	Doctor blade
9	Toner supply roller		

Separating the Toner Cartridge and PCDU

- The toner cartridge can be detached from the machine either on its own or together with the PCDU.
- After detaching the toner cartridge together with the PCDU, you can use the release lever to separate the PCDU [B] from the toner cartridge [A]. The release lever works in two steps. To

release the lock, push down the release lever to the horizontal position.



PCDU (Photo Conductor Development Unit)

PCDU Component Layout

The PCDU comprises the electrostatic charge section, OPC, the development section, and the drum cleaning mechanism. The quenching lamp, installed at the main machine side, is a new component for this machine.



No.	Name	No.	Name
1	1st mixing coil	7	Used toner collection coil
2	2nd mixing coil	8	OPC drum cleaning blade
3	Doctor blade	9	Quenching lamp * At main machine side

No.	Name	No.	Name
4	Toner supply roller	10	Charge cleaning roller
5	Development roller	11	Charge roller
6	OPC Drum		

PCDU Mechanism

Drive

The main motor drives PCDU through a coupling.

Toner Mixing

The toner moves as shown in the following drawing. The 1st mixing coil [A] moves the toner to the right side. The 2nd mixing coil [B] moves toner to the left side. Finally, the toner supply roller [C] supplies toner to the development roller [D]. By mixing the toner, the toner is circulated and evenly spread.



Development

The 1st mixing coil [A] and 2nd mixing coil [B] transport toner and the toner supply roller [C] provide the development roller [D] with toner. The electrostatic latent image on the surface of the OPC drum [E] takes on toner and turns into a visible toner image. The doctor blade [F] ensures that the toner is applied to the development roller with even thickness.



Charge, Charge Roller Cleaning, OPC Cleaning

To prevent ozone from being generated, the machine has a charge roller.

The charge roller [A] rotates with the OPC drum [B] to apply an electric charge evenly to the drum surface. However, if the charge roller is dirty, the applied electric charge becomes uneven. Therefore, the charge roller is always in contact with the charge cleaning roller [C], which cleans the charge roller. The cleaning blade [D] mounted in the PCDU collects any residual toner that remains after charging. The blade is a counter blade, mounted opposite to the direction of rotation of the drum. The blade, always in contact with the surface of the drum, scrapes away residual toner. The removed toner is collected by the toner collection coil [E].

Next, the quenching lamp [F] flashes light onto the OPC drum to remove any residual charge



New PCDU Detection, and Set Detection

When a PCDU is placed in the machine, the ID chip [A] is read. Every time the PCDU is installed, the machine reads its ID chip [A] to detect whether a new PCDU has been installed. If you want to continue the present PM count, do SP7-805-001 (Counter Continue: Setting) before replacing the PCDU with a new unit.



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More information about the PCDU unit can be confirmed with the SP codes listed below.

SP No.	SP name
SP7-932-001	PCDU Info.: Machine ID
SP7-932-002	PCDU Info.: Class ID
SP7-932-003	PCDU Info.: Maintenance ID
SP7-932-004	PCDU Info.: New AIO
SP7-932-005	PCDU Info.: Serial No.
SP7-932-006	PCDU Info.: Install Date
SP7-932-007	PCDU Info.: Sheets
SP7-932-008	PCDU Info.: Distance

SP No.	SP name
SP7-932-010	PCDU Info.: Control Distance
SP7-932-011	PCDU Info.: PM Chg Sheets
SP7-932-012	PCDU Info.: PM Chg Distance
SP7-932-013	PCDU Info.: Cleaning1Count
SP7-932-014	PCDU Info.: Cleaning2Count

Used Toner Transport

Used toner is collected from the PCDU by the used toner collection coil [A] and transferred via the used toner transport path [B] on the side of the PCDU to the toner cartridge's used toner collection box.



PCDU Near End/ End Detection

The end state is determined when the count exceeds the threshold setting of SP7-940-002, SP7-941-002 set for either paper sheet count or distance count (distance is calculated from the operation time of the drum motor (M3)).

The near-end threshold count setting is determined for either the paper or distance count as described below.

- Near-end threshold (sheet count):
 - End threshold (sheet count) Number of days to near-end*1 x APV
 - Calculated with average print volume (APV), the average number of sheets printed every day.
- Near-end threshold (distance): End threshold (distance count [mm]) - Number of days to near-end*1 x APV Calculated with the average print volume (APV), the equivalent distance traveled for average print

volume, the average number of sheets printed every day.

*1: Number of days to near-end SP settings

	SP7-952-002 (Days Before End: PCDU)	Days before near-end
0 Early		7 days
1 Normal		5 days (default)
2 Late		3 day

Operation Panel Messages

Status	Machine	Service activity	Messages
Near-	MF model	Service	-
end		maintenance	
		User	System Message
		maintenance	Replacement of Drum Unit will soon be necessary. Follow
			replacement instructions to replace the parts.
	Printer	Service	-
	model	maintenance	
		User	Rplcmnt Rqrd Soon:Drum Unit
		maintenance	New Drum Unit is required. Contact your local vendor.
End	MF model	Service	-
		maintenance	
		User	System Message
		maintenance	Replacement of Drum Unit is now necessary. Follow
			replacement instructions to replace the parts.
	Printer	Service	-
	model	maintenance	
		User	Replacmnt Requird:Drum Unit
		maintenance	Replace Drum Unit.

Toner Cartridge

Overview

- The toner cartridge contains the toner hopper, toner supply mechanisms, and the used toner collection box.
- The toner supply port on the toner cartridge has a shutter that opens when the toner cartridge is installed.
- This machine conducts toner recovery control only during high-volume print jobs with a high rate of page coverage or when toner supply errors occur.

Toner Cartridge Mechanism

Toner Supply

The toner supply clutch (CL2) turns ON and the coils in the toner cartridge rotate to transfer toner to the box tap and then the PCDU. The toner transferred to the PCDU is transferred to the development unit by the 1st mixing coil.

Toner Recovery Control

When the machine detects the lower limit for the amount of toner in the developer, printing stops and then the machine supplies toner as the amount is being checked as the machine idles. This sequence, (toner supply > toner amount detection > idling) comprises the toner recovery sequence. This sequence is performed to avoid insufficient toner supply and other problems. The previous machine always performed toner recovery when the amount of toner in the developer reached its lower limit, meaning toner recovery usually took place just before toner near-end when it was easy to detect the lower limit, resulting in lower productivity each time this was done. In regard to this issue, this machine maintains the correct amount of toner (near the upper limit) in the developer by replenishing toner while the machine is printing. Furthermore, toner recover control is performed only during high-volume print jobs with a high rate of coverage (25% or more on the sheets), or when a problem occurs in toner supply. In this way, the problem of reduced productivity in the toner recovery sequence at toner near-end with the previous machine has been solved.

New Unit Detection

The machine reads the ID chip to detect the status of the cartridge.

ID Chip Information

The toner cartridge for this machine is equipped with an ID chip [A] that records the cartridge serial number and the date the cartridge was installed.



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ID chip information can be checked in the SP mode.

SP No.	SP name	Note
SP7-931-xxx	Information for the toner cartri	dge currently installed
SP7-931-001	Toner Info.: Machine ID	
SP7-931-002	Toner Info.: Version	

SP No.	SP name	Note		
SP7-931-003	Toner Info.: Brand ID			
SP7-931-004	Toner Info.: Area ID			
SP7-931-005	Toner Info.: Class ID			
SP7-931-006	Toner Info.: Color ID			
SP7-931-007	Toner Info.: Maintenance ID			
SP7-931-008	Toner Info.: New AIO			
SP7-931-009	Toner Info.: Recycle Count			
SP7-931-010	Toner Info.: EDP Code			
SP7-931-011	Toner Info.: Serial No.			
SP7-931-012	Toner Info.: Remaining	Default: 100%, Countdown in increments of 1%		
	Toner			
SP7-931-013	Toner Info.: Toner End	0: Normal (Including estimated toner near end		
		status)		
		N: Definite toner near end		
		E: Toner near end		
SP7-931-014	Toner Info.: Refill Flag	"RF" is displayed at the time of refill detection,		
		otherwise blank.		
SP7-931-015	Toner Info.: R: Total Cnt.	Total counter (sheets) at toner cartridge		
		installation		
SP7-931-016	Toner Info.: E: Total Cnt. Total counter (sheets) at toner end detection			
SP7-931-017	Toner Info.: Unit Output Cnt. Number of output sheets from toner cartridge			
		installation		
SP7-931-018	Toner Info.: Install Date	Date when new toner cartridge was installed		
SP7-931-019	Toner Info.: Toner End Date	Date of toner end detection		
SP7-931-020	Toner Info.: Total Consump	(mg)		
SP7-931-021	Toner Info.: PCDU Distance	(mm)		
SP7-931-022	Toner Info.: Initial Amount	(g)		
SP7-931-023	Toner Info.: Near-End	(mg)		
	Consump			
SP7-935-xxx	Information for the previously installed toner cartridge			
SP7-935-001 to	Toner cartridge information for 1 before current cartridge			
-004				
SP7-935-005 to	Toner cartridge information for 2 before current cartridge			
-008				
SP7-935-009 to	Toner cartridge information for 3 before current cartridge			
-012				
SP7-935-013 to	Toner cartridge information for 4 before current cartridge			

SP No.	SP name	Note		
-016				
SP7-935-017 to	Toner cartridge information for	5 before current cartridge		
-020				

Used Toner

The used toner collection coil sends used toner in the PCDU down to the used toner collection box. The used toner collection box does not have a function to detect when it is full.

Toner Near End/ End Detection

There are three toner-end states for this machine. The detected conditions and operation at the time of detection are described below.

Status	Detect Condition	What Happens (Operation panel message)
Estimated	The amount of toner remaining is	MF model:
toner near-	calculated from the operation time	"[System Message] Check you have a print
end	of the toner supply clutch (CL2).	cartridge replacement(s). Current toner
		cartridge can be used until the replacement
		alert."
		Printer model:
		"Check you have a print cartridge
		replacement(s)."
Definite toner	Toner end sensor detects the	MF model:
near-end	amount of toner remaining.	"[System Message] Toner Cartridge is empty.
		Printing will be suspended soon. Replace the
		cartridge."
		Printer model:
		"Check you have a print cartridge
		replacement(s). Contact your local vendor."
Toner end	Calculated from definite near-end.	MF model:
		Printing halts.
		"[Add Toner] The following toner has been
		depleted. Procedure for adding toner is shown
		on the right."
		Printer model:
		Printing halts.
		"[Add Toner] Replace Print Cartridge. Press
		the Menu key to check supplies."

Estimated Toner Near End

When the amount of toner remaining (%) *1 is calculated from the amount of toner supplied, or the total distance (%) *2 of operation by the toner cartridge, whichever is lower is taken as the value of the amount of toner remaining. Either can be calculated from the toner supply operation time. When the amount of toner remaining reaches the threshold of the amount of toner available for use *3 , this triggers the estimated toner near-end alert.

*1 Toner remaining [%] = { Amt. toner supplied [g] / (Initial toner fill [g] - Toner fill tolerance and toner amt. margin [g]) } x 100

*2 Amt. toner consumed [%] = (Toner cartridge operation time distance / Used toner end distance) x 100 *3 The near-end and utilization threshold value can be selected with SP3-098-001: 0 Early, 1 Normal, 2 Late (default).

Definite Toner Near End

The toner end sensor (a photosensor) detects the amount of toner inside the development unit. It projects light to detect the amount of toner remaining in the toner supply path. The toner end sensor detects the occurrences of the toner near-end state. The estimated toner near-end state is triggered when the following condition is met:

Lower limit detections ≥ Near-end detection threshold (18 counts)

In a case where definite toner end is detected before estimated toner end, the definite toner end state takes precedent.

Toner End

When the definite toner end is determined, in order to calculate toner end the machine calculates the amount of toner consumed after definite toner end. The machine enters the toner end state and the machine halts when the following condition is met:

Amt. of toner consumed \geq End calculation threshold (5,000 mg)

Image Transfer and Paper Separation

Component Layout



No.	Name
1	OPC drum
2	Transfer roller
3	Discharge plate

Mechanism

Image Transfer/ Paper Separation

Image Transfer

After passing through the registration unit, the paper passes between the OPC drum [A] and the transfer roller [B]. During this time, the toner on the OPC drum surface is transferred to the paper by the positive electric charge on the transfer roller.

The voltage is applied to the transfer roller from the HVPS through receptacles, electrode terminals, a transfer roller spring, and bearings made of conductive resin composite.



Transfer current is adjusted for paper trays (paper feed unit, bypass tray, duplex tray) for paper size, paper type, the number of sheets, and for ambient conditions (operating environment). Further, the output voltage is checked when the transfer current is applied.

If the output voltage exceeds the prescribed voltage, the current is adjusted (corrected), and then feedback control achieves the target voltage.

Paper Separation

The paper separates from the OPC drum because of the curvature of the OPC drum [A] and because of the grounded discharge plate [C] downstream of the transfer roller [B]. Irregularities in the toner image at the time of separation are prevented by an electric field.



Transfer Roller Cleaning

Toner may transfer to the roller surface following a paper jam or if the paper is smaller than the image. Periodic cleaning of the roller is required to prevent this toner from migrating back to the rear of new printouts.

The machine cleans the roller at the following times:

- After initial power on.
- After clearing of a copy jam
- At the end of a job

The PSU first supplies a negative cleaning current (about -4 A) to the transfer roller, causing negatively charged toner on the roller to move back to the drum. It then applies a positive cleaning current (+5 A) to the roller, causing any positively charged toner to migrate back to the drum.

Related SPs

• 2-301-xxx [T bias Control]:

Use these SPs to adjust the power output and power coefficient used to transfer the toner image from drum to paper. Four separate voltages are applied: before the leading edge, at the leading

edge of the paper, across the image area, and at the trailing edge of the paper.

Image Fusing

Component Layout



No.	Name	No.	Name
1	Hot roller	6	Fusing entrance guide
2	Fusing thermistor (TH1)	7	Pressure roller
3	Fusing thermostat (center/end) (TH3,	8	Fusing nip pressure position sensor (S7) *At
	TH4)		main machine side
4	Fusing thermopile (TH2) *At main	9	Fusing exit roller
	machine side		
5	Heating lamp (center/end)	10	Hot roller strippers

Mechanism

Fusing Mechanism

Fusing Method

Paper is fed from the transfer unit into the fusing unit where a prescribed amount of heat and pressure are applied to fuse the toner to the paper. There are two fusing lamps (halogen lamps), one with the center heating element and the other with a heating element at either end of the hot roller. In this machine, a fusing thermopile (TH2) is mounted near the center of the hot roller on the interior side. This fusing thermopile (TH2) is a non-contact heat sensor that monitors temperature. A contact fusing thermistor (TH1) is mounted at the end of the hot roller to monitor temperature. These temperature readings are used to control fusing temperature by alternately turning the fusing lamps off and on. In addition, two thermostats (TH3, TH4), one at the center and one at the end of the hot roller provide protection against overheating.

Fusing Pressure, Paper Separation, and Paper Exit

Two springs hold the pressure roller up against the hot roller to keep constant pressure on the surface of the hot roller. Paper separation pawls (strippers) strip the paper from the hot roller after fusing, and then the fusing/exit roller moves the paper out of the fusing unit.

Fusing Unit Drive

The feed/fusing motor (M4) drives the hot roller. A gear mounted on the hot roller rotates the pressure roller.

Thermal Control Mechanism

This machine employs a PID controller to modulate the fusing temperature.

When the machine is turned on, the fusing lamps turn on and remain on until the hot roller reaches prerotation temperature. Next, the hot roller rotates to heat its surface evenly to raise the fusing temperature to the reload temperature.

The fusing lamps remain on while the fusing thermopile (TH2) monitors the temperature of the hot roller at the center of the fusing unit, and the fusing thermistor (TH1) monitors temperature at the end of the hot roller. The fusing lamps remain on until both detect Standby Mode [B].

The fusing lamps continue to alternately switch off and on to maintain the standby temperature. At the start of printing, the temperature is increased to Print Mode [C]. After a print job, the hot roller continues to rotate (pre-rotation) to prevent overshooting after printing.



- [B]: Standby Mode
- [C]: Print Mode
- [D]: Standby Mode
- [E]: Energy Saver Mod

Here is a list of target temperatures for each print mode in optimal ambient conditions. These temperatures are adjusted automatically in low-temperature environments.

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Status		Target temperature (Center) °C	Target temperature (End) °C
Standby Mode		163	158
Print Mode	Plain paper 1	170	165
	Plain paper 2	178	173
	Middle Thick	186	181
	Thick Paper 1	198	193
	Thick Paper 2	185	180
	Thick Paper 3	164	159
	Thin Paper	139	134
	Envelopes	205	205
	OHP	198	193
	Post Cards	205	200

The fusing temperature, except for that of the Energy Saver mode, can be adjusted in the SP mode (SP1-105).

Overheat Protection

The fusing thermopile (TH2) [A] monitors the surface temperature at the center of the hot roller. If the temperature exceeds 245°C (475°F), the machine cuts off the power to the fusing lamps [C]. The fusing thermistor (TH1) [B] monitors the temperature at the end of the hot roller. If the temperature exceeds 245°C (475°F), the machine cuts off the power to the fusing lamps [C]. If the machine overheats it will issue S543/SC553, and then stop. A customer engineer must release

SC543/SC553 with SP5-810-001 to restore operation of the machine.

Two thermostats, thermostat (center) (TH4) [D] and thermostat (end) (TH3) [E] provide more protection from overheating in case either one or both fusing thermopile (TH2) [A] and fusing thermistor (TH1) [B] should fail. These thermostats monitor the temperature around the hot roller and will cut off the power to the fusing lamps and shut down the machine if the temperature exceeds 350°C (662°F).



Fusing Pressure Automatic Release Mechanism

This machine is provided with a new fusing pressure/release motor (M2) which controls the opening and closing of the nip between the hot roller and pressure roller.

The hot roller [A] and pressure roller [B] are pressed together by two large springs. The lift cam [C] is provided to shift the position of the pressure lever against the springs to maintain the pressure. Fusing pressure/release motor (M2) [D] rotates a series of gears which in turn rotates the lift cam against the lift lever which raises and lowers the pressure roller.

Attached cam feeler [E] rotates, while the fusing nip pressure position sensor (S7) [F] (installed at the rear) monitors the status at the gap.



The pressure is released if a paper jam occurs, making it easier to remove the jammed paper. Pressure is released when the machine is off, or in standby mode, to prevent warping the shape of the pressure roller.

	Pressure status		
Startup	Power on, warm up	Released	
	Rotations after reloading temperature cycle	Applied	
Printing	Print job other than envelopes	Applied	
	Envelope print job	Released	
Standby		Released	
Abnormal halt		Released	

New Unit Detection

There are two types of fusing unit: one for emergency maintenance (EM) and another for periodical replacement.

The fusing unit for the periodical replacement has a new unit detection mechanism.

When the machine is switched on after installing a new fusing unit, the engine board detects the fuse [A] under the drawer connector of the new fusing unit and then blows the fuse. This resets the counter.



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CPM Down Control

This machine employs several CPM down modes to maintain the quality of printed images and to optimize and protect the operation of the machine

High-Temperature CPM Down

When paper narrower than the width of the heated surface of the hot roller passes through the fusing unit, the amount of unabsorbed heat at the ends of the hot roller causes the fusing unit to become abnormally hot. As soon as the machine detects such a rise in temperature, it will lower throughput and then regulate the high temperature inside the fusing unit.

After printing continuously more than 60 seconds, the fusing thermistor (TH1) starts to check the temperature at one-second intervals. Based on these temperature readings the machine will determine the appropriate CPM down level. The CPM down levels are described below.



Level			CPM Down Rate			
	Large Size Paper		Medium Size Paper		Small Size Paper	
	(Feed Edge>182mm)		(148 <feed edge<182mm)<="" td=""><td colspan="2">(Feed Edge<148mm)</td></feed>		(Feed Edge<148mm)	
	35 ppm 43 ppm		35 ppm	43 ppm	35 ppm	43 ppm
Normal	100%		100%		100%	
CPM Down 1	100%		85%		80%	
CPM Down 2	100%		70%		60%	
CPM Down 3	23%	28%	23%	28%	23%	28%

Low-Temperature CPM Down

If the fusing lamps cannot keep pace with the print job and are unable to maintain the target fusing temperature, throughput is slowed down to make it easier to maintain the target temperature. The fusing thermistor (TH1) checks the temperature every 10 sec. If the temperature reading is down by the critical temperature setting for SP1-124-001 (default: -25°C), the CPM level is lowered one step, and if the temperature reading is up by the critical temperature setting for SP1-124-001, the CPM level is raised one step.

Level	CPM Down Rate
Normal	100%
CPM Down 1	80%
CPM Down 2	60%
CPM Down 3	40%

CPM Down for Curl Reduction Mode

If the Curl Reduction Mode is selected in the User Settings for a print job, at the start of throughput the following conditions apply.

Paper Type	Normal Ambient Temp.	Low Ambient Temp.
Normal 1,2	100%	100%
Medium Thick	100%	100%
Thick 1	100%	75%
Thick 2	75%	75%
Thick 3	75%	50%
Thin	75%	50%
Postcard	75%	50%
OHP	75%	50%
Envelope	100%	100%

Low Power CPM Mode (200V Model Only)

With a low voltage power supply, the CPM down rate set at 33% automatically at the start of throughput.
Related SPs

• SP5-810-001 [SC Reset: Fusing SC Reset]: The CE uses this to cancel the fusing unit SC condition.

Paper Feed

Component Layout



3Paper feed roller (Tray 1)6Registration roller (Drive)

Mechanism

Paper Feed Operation

Paper Feeding

The paper feed tray of the main machine employs the RF (Roller Friction) method for paper separation. The RF mechanism comprises a separation roller with a torque limiter attached that forces paper separation (no reverse drive is used).

A paper feed signal switches on the paper feed clutch (CL6) [A] and starts rotating the feed roller [B] which feeds the paper. When the leading edge of the moving paper switches on the registration sensor (S5), this switches the feed clutch off. Image position timing starts while the registration sensor (S5) is on, and then the paper is transported to the transfer unit.



In front of the feed roller [A] a pre-separation plate [B] is installed to block the top of the stack from entering past the feed roller. The friction roller [C] separates the first sheet from the top of the stack so only the top sheet feeds.



Paper Feed Retry Control

In the main machine if the sheet does not feed after the paper feed signal is issued, the machine will issue another paper feed signal and try once more to feed the paper it issues a jam error. If the next attempt fails, the machine will issue a jam error. The machine is set to make one retry by default, but the number of attempts to retry paper feed can be adjusted for each paper tray with the SP codes (0, 1, or 2 retries) listed below.

SP No.	SP name				
SP1-909-001	FeedRetryCount: Manual Feed Tray				
SP1-909-002	FeedRetryCount: Tray1				
SP1-909-003	FeedRetryCount: Tray2				
SP1-909-004	FeedRetryCount: Tray3				
SP1-909-005	FeedRetryCount: Tray4				

Bottom Plate Lift Mechanism

When a paper tray is set in the machine, a catch on the frame of the machine snags the bottom plate lock lever [A] and releases it. When the lock is released, a spring raises the bottom plate [B] and paper stack to the feed roller.



Also, the bottom plate and end fence are linked, so when the bottom tray rises, the end fence shifts forward against the trailing edge of the stack. This keeps the edge of the stack against the fence to prevent misfeeds.

Improved Handling of Registration Roller Jams

Raising the registration guide (the transparent roller cover) slightly raises the registration roller mechanism. This allows easier removal of paper jams at the registration roller.

Output of Different Size Paper

In this machine, if the paper size setting and length of the paper feeding are not the same, the paper will immediately eject without printing to avoid causing a paper jam. The machine displays an alert on the operation panel so the operator can cancel the print job and start again with the correct paper size and paper size setting.

Tray Paper Detection

Paper End/ Paper Near End Detection

When the tray runs out of paper, one end of the paper end feeler [A] drops through the cut out on the bottom plate into the gap while the other end of the feeler pops up into the paper end sensor (S6) [B] and turns it off. When paper end is detected, the paper out message is displayed on the operation

panel.

This machine is provided with a new paper near-end sensor (S4).

A paper near-end feeler [C], installed on the corner of the bottom plate, detects the bottom plate as it rises. As sheets of paper feed out, the bottom plate rises. This also raises the feeler of the paper nearend sensor (S4) [D] until it blocks the gap of the sensor and switches it off. Paper near-end is detected when there are about 75±50 sheets of paper (0.1 mm thick) remaining in the tray. When paper near-end is detected, the operation panel displays the paper near-end message.

If paper end is detected before paper near-end, paper end takes precedence.



Paper Size Detection

When the paper tray is set in the machine, the paper size dial [A] installed on the right corner of the of the tray pushes onto the three grooves of the paper size switch (SW4) [B]. This sets the reading for the dial paper size setting. When more than one of these switches are set to "L" (ON") the machine knows the paper tray is installed.





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	SW 1	SW 2	SW 3	Paper size
1	L	L	L	A4 SEF
2	L	Н	L	A5 SEF
3	Н	L	L	A6 SEF
4	Н	Н	L	Legal SEF
5	L	L	Н	Letter SEF
6	L	Н	Н	-
7	Н	L	Н	Half letter SEF
8	Н	Н	Н	Paper cassette is not set.

>L: Switch is pressed

Adjustable Cassette

When the machine is shipped from the factory, only paper sizes up to A4 SEF can be set in the paper trays. To load longer paper sizes in the tray, press lock lever [A], and then extend the cassette. Next, release the rear edge of the side fence lock [B] to free the fence. Then load the tray and adjust the end fence [C] to the edge of the stack.



Side-to-side Registration Adjustment in the Machine Paper Tray

To adjust side-to-side registration, loosen the two screws on the underside of the tray and move the rack and pinion mechanism of the side guides from side to side.

The holder [A] can move to the right or left (up to 2mm). When at the default (±0) position, the holder position is the triangle marked area.



Bypass Paper Feed Operation

Paper Feed and Bottom Plate Operation

When the paper feed signal is issued for the bypass tray, the bypass lift clutch (CL3) [A] starts to rotate and raises the bottom plate [B].

Next, the bypass feed clutch (CL4) [C] switches on and rotates the bypass feed roller [D]. At the top of the paper stack in the bypass tray, the top sheet separates at the friction pad [E] and feeds into the machine toward the registration roller.

When the leading edge of the paper turns on the registration sensor (S5), this switches the bypass feed clutch (CL4) off. Image position timing takes over and positions the paper for image transfer. The registration clutch (CL5) switches on and the paper feeds to the transfer unit.

The bypass tray bottom plate [B] is raised and lowered by the cam [F] attached to the shaft rotated by the bypass lift clutch. The friction pad [E] is linked to the bottom tray so it also rises to maintain contact with the bypass feed roller to effect paper separation at the top of the stack. The feeler of the bypass tray sensor (S3) [G] attached to the cam switches on and off to detect the position of the tray as it moves up and down.

- ON (sensor gap open): Bottom plate down
- OFF (sensor gap blocked): Bottom plate up



Bypass Tray Paper Detection

Bypass Tray Paper End Detection

The bypass tray is equipped with a paper detection feeler [A] and bypass paper end sensor (S2) [B] that detect the presence of paper in the tray. The bypass paper end sensor (S2) goes on (gap open) when there is a paper in the tray, and then goes off (gap blocked by the feeler) after the last sheet feeds to signal the paper end.

- ON (Sensor gap open): Paper in the tray
- OFF (Sensor gap blocked): Paper out



Bypass Tray Paper Size Detection

The machine does not have a function to detect the size of paper loaded in the bypass tray.

Side-to-side Registration Adjustment in the Bypass Tray

To adjust side-to-side registration, loosen the screw on the right side of the tray, and slide the guide [A] to the left or right to adjust the position.



Paper Exit/ Duplex

Component Layout



No.	Name	No.	Name
1	Paper exit full sensor (S10)	7	Paper exit/reverse sensor (S1)
2	Duplex reverse roller	8	Duplex relay roller
3	Paper exit/reverse roller	9	Duplex entrance sensor (S8)
4	Paper exit roller	10	Duplex exit roller
5	Exit junction gate	11	Registration roller
6	Fusing exit/reverse roller		

Mechanism

Paper Exit/ Duplex Operation

Paper Exit

During simplex printing, each sheet of paper passes below the paper path junction gate [A] and then feeds between the exit/reverse roller [B] and paper exit roller [C].



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Duplex

This machine performs duplex printing using a duplex switchback delivery system. After the 1st side of the sheet is printed it is fed partially out of the machine and then reverse fed down into the machine by the paper/exit reverse roller for printing on the 2nd side.

During duplex printing, the leading edge of each sheet already printed on one side enters the paper exit path, triggers the paper junction gate sensor. This closes the junction gate [A] while the reverse rotation of the exit/reverse roller [B] feeds the paper to the duplex reverse roller [C].

When the trailing edge of the sheet passes the paper exit/reverse sensor (S1) [D], before the paper can feed completely out the machine paper exit the junction gate opens (returns to its original position), and then the exit/reverse roller switches to forward rotation, feeding the paper down past the junction gate into the duplex paper path. Next, the paper feeds into the machine again for printing of the other side of the paper.



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Paper Exit Full Detection

If the height of the paper stacked on the output tray exceeds a certain limit, the paper exit full sensor (S10) detects it based on the position of the paper overflow sensor feeler, and then the machine stops printing so the operator can remove the paper from the exit tray.

Exit/ Duplex Drive

The components that drive the rollers in the exit/duplex paper path are described below.

The fusing/exit reverse roller [A] is driven by the feed/fusing motor (M4) [B].

The duplex relay roller [C] and duplex exit roller [D] are engaged by the duplex clutch (CL1) [E] and driven by the feed/fusing motor (M4) [B].

The paper exit/reverse roller [F] is controlled independently by the exit/reverse motor (M1) [G] which controls the reverse and forward rotation of the reverse/exit roller near the paper exit to change the direction of paper feed during duplexing.

The position of the paper path junction gate [H] is controlled by the exit junction gate solenoid (SOL1) [I].



Air Flows (Fan Control)

Component Layout





No.	Name	No.	Name
1	PCDU cooling fan (right) (FAN1)	4	Image creation thermistor (TH5)
2	PSU cooling fan (FAN3)	5	Temperature/humidity sensor (S11)
3	PCDU cooling fan (left) (FAN2)	6	PSU thermistor (on PSU board)

Mechanism

Fans

This machine is equipped with three cooling fans to provide ventilation:

- PCDU cooling fan (right) (FAN1) [A]
- PCDU cooling fan (left) (FAN2) [B]
- PSU cooling fan (FAN3) [C].

Printer model



MF model



Fan Operation

Fan Operation for Each Mode

This machine is designed for low-noise operation, especially at ambient and low temperature, and when the machine is in Low Duty mode, each fan motor runs at low speed or stops, and can even print when the machine is in noise suppression mode. The noise suppression mode can be turned ON/OFF with SP1-953-001 (Fan Low Noise Mode: OFF/ON). Default: ON.

Each fan operates based on the temperature readings of the temperature/humidity sensor (S11) (T) and the PSU thermistor (Tp).

Machine mode	PCDU cooling fan (right)		PSU cooling fan		PCDU cooling	g fan (left)	
	(FAN1)		(FA	N3)	(FAN2)		
During Warmup	Stop		Stop		Stop	Stop	
During Standby	T<30°C	30%	Tp<78°C	Stop	T<34°C	Stop	
	30°C≤T<40°C	50%					
	40°C≤T<42°C	70%	78°C≤Tp	Low	34°C≤T<40°C	Low	
	42°C≤T<44°C	90%		speed		speed	
				(50%)		(50%)	
	44°C≤T	100%			40°C≤T	High	
						speed	
						(100%)	
Standby (fusing	Stop		Same as "During		Stop		
OFF)			Standby" a	above.			
During PCDU	Printing Mode		Same as "During		Printing Mode		
cleaning and toner			Standby" above.				
supply							
Printing	Printing Mode		Printing Mode		Printing Mode		
During PCDU	100%		High speed (100%)		High speed (100%)		
cooling							
Error status (door	Stop		Same as "During		Stop		
open, paper jam,			Standby" above.				
SC code issued)							

Fan Operation in Printing Mode

The PCDU cooling fans (right/left) (FAN1, FAN2) operate based on the Paper Thickness selection and the temperature readings of the development thermistor.

Image Creation Thermistor	PCDU cooling fans (right/left) (FAN1, FAN2)				
Temp. Reading	Thin	Normal	Medium Thick,	Thick 3, Envelope,	
		1,2	Thick 1, 2	OHP, Postcard	
Ts<30°C	Medium Duty	Low	Medium Duty	High Duty	
	Right: 70%	Duty*1	Right: 70%	Right: 100%	
	Left: Low	Right:	Left: Low speed	Left: High speed	
	speed (50%)	40%	(50%)	(100%)	
		Left: Stop			
30°C≤Ts<32°C	Medium Duty				
	Right: 70%				
	Left: Low speed	(50%)			

Image Creation Thermistor	PCDU cooling fans (right/left) (FAN1, FAN2)					
Temp. Reading	Thin	Thick 3, Envelope,				
		1,2	Thick 1, 2	OHP, Postcard		
32°C≤Ts	High Duty	High Duty				
	Right: 100%					
	Left: High speed (100%)					

*1: Drops to Medium Duty after printing for 7 min.

The PSU cooling fan (FAN3) operates based on printing time count (C) and the temperature readings of the PSU thermistor (Tp). However, when the low noise mode is OFF, the fan operates at normal high speed.

PSU Thermistor Temp. Reading	PSU cooling fan (FAN3)				
	C<200 200≤C<600 C≤600				
Tp<78°C	Stop	Low speed (50%)	High speed (100%)		
78°C≤Tp	High speed (100%)	High speed (100%)	High speed (100%)		

Fan Operation Control After Printing

The image creation thermistor (TH5) continues to monitor temperature at the end of the print job, and when the temperature reading is high the PCDU fan continues to operate and then later shifts to standby mode.

Image Creation Thermistor Temp.	CDU cooling fans (right/left) (FAN1, FAN2)		
Reading at End of Printing			
Ts<10°C	No extended operation		
10°C≤Ts<39°C	Operation extends for 45 sec. and ends Right: 40%		
	once the temperature drops below 39°C.	Left: Stop	
39°C≤Ts	Operation extends for 45 sec. or continues	Right: 80%	
	until temperature drops below 39°C. Left: High		
		speed (100%)	

Print Duty Fan Control

While the image creation thermistor (TH5) installed in the machine monitors temperature, development duty control is conducted as shown below.



Status	Normal	STEP1	STEP2
	printing		
Temperature (T)	T<40°C	40°C≤T<41°C	41°C≤T
Machine	Normal	Pause every 30 sec., print 14	Printing halts.
operation	printing	sheets.	
Fans operation	Print	All fans: High rotate (100%)	All fans: High rotate (100%)
	Mode		
>Cancellation	-	The machine shifts to normal	The machine shifts to STEP1
condition		operation when the thermistor	when the thermistor detects
		detects less than 39°C.	less than 40°C.

STEP1 Image creation thermistor (TH5) detects 40°C (104°F).

Until the temperature of the development unit drops 1°C, the operation will pause every 30 sec., print 14 sheets, and then repeat.

While printing is halted, a message is displayed on the operation panel.

The machine shifts to normal operation after the temperature drops by 1°C.

STEP 2: Image creation thermistor (TH5) detects 41°C (106°F).

Printing halts. Operation shifts to STEP 1 above once temperature drop 1°C.

A message is displayed on the operation panel while the machine is halted.

This message remains displayed along with a counter showing how much time remains until printing resumes.

Vote

If the machine frequently shifts to STEP 2, the filters may be clogged. Check the condition of the filters.

Boards

Block Diagram

Printer Model



MF Model



Board Outline

BCU (Printer Model Only)

The BCU board (engine board) controls the following functions:

- Engine sequence
- Controller interface

Controller Board (Printer Model Only)

The Controller board controls the following functions:

- SDRAM
- 10Base-T/100Base-Tx/Giga Ethernet
- USB2.0
- NVRAM
- Operation panel interface

SCB (MF Model Only)

In the MF model, the functions of the engine board and the controller board of the previous machine

have been brought together and mounted on a single board, the SCB (System Controller Board). Combining these two functions on one board reduces the number of controller SC errors generated by communication problems between the two separate boards of the previous model. The SCB board controls the following functions:

- Engine sequence
- SDRAM
- 10Base-T/100Base-Tx/Giga Ethernet
- USB2.0
- NVRAM
- Operation panel interface

PSU (Power Supply Unit)

Generates DC power from the wall socket AC power supply, and supplies it to each control circuit

HVPS (High-Voltage Power Supply)

Generates the high-voltage power required for process control.

FCU

Controls the fax program.

NFC Board

Controls the interface with the NFC module.

DC Switch

Controls the on/off operation of the DC power supply.

Toner End Sensor (Toner End Detection Board)

Detects whether the toner has run out.

SBU (Sensor Board Unit) (MF Model Only)

Converts the image reflected from the front side of the originals into digital image signals, then transmits them to the SCB.

Other Features

Silent Mechanism

The following features help the machine run as silently as possible.

Silent Mode

Printer model: [Menu] > [System] > [Silent Mode]

MF model: Home > [User Tools] icon > [Machine Features] > [System Settings] > [General Features] > [Silent Mode]

Silent mode decreases the noise level by increasing the interval between sheets and scanning speed (printing is slower).

	СРМ	Scanning	Fusing Temp. (Normal	Noise level
		speed	paper)	
Standard	43	40 ipm	Center: 178 °C	Main machine only: 51.9
mode	ppm		Edge: 173 °C	dB
				Full*: 55.1 dB
Silent mode	30	20 ipm	Center: 165 °C	Main machine only: 48.2
	ppm		Edge: 160 °C	dB
				Full*: 47.5 dB

*: Main machine + Paper Bank x3 (options)

If [On] is selected in silent mode, the message "Operating in silent mode..." is displayed on the operation panel.

New Lubricant to Reduce Noise When the Main Unit Is Operating

Grease with a high-silencing effect (G-1077) is applied to the drive components. When replacing one of these components, apply this grease as described in the replacement procedures.

Features of G-1077

- Low coefficient of friction
- Very stable, due to low oil separation

Shiny Materials Scanning Mode

In the conventional machine, when a glossy object such as a precious metal was scanned, an abnormal image (horizontal streak) was generated. In this machine, "Shiny Materials" mode selection has been added as a scanner application reading condition as a countermeasure.

Select: Scan Settings > Original Type > Full Color: Shiny Materials



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During original scanning, light from the light source [B] is irradiated on original [A], and the specularly reflected light [C] is incident on the CCD [F] via the mirror [D] and the lens [E].

When the original [A] has shiny material on its surface, the specularly reflected light [C] becomes strong, and when an excessive light amount enters the CCD [F], lateral streaks are generated.



In the Shiny Materials mode, the light amount is reduced so as not to cause lateral streaks, and scanning is performed. The amount of light in the glossy mode is 16% at the normal time and can be changed by SP4-856-001 (Shiny Materials Mode: PWM Duty).

• [A]: Light amount at 100% for normal scanning

• [B]: Light amount at 16% for Shiny Materials mode

When using this mode, the following side effects occur.

- Degradation of image area separation performance (picture/character misjudgment, streak emphasis processing)
- Graininess (feeling of the roughness of image) deteriorated

Revised Motor Configuration

In the previous machine one motor drives the drum of the PCDU as well as the fusing unit, but in this machine, the drum and fusing unit are driven by separate motors.

This two-motor configuration is designed so the drum and fusing unit do not rotate together, except during printing to lengthen the service life of the PCDU and reduce toner consumption.

This machine employs several operation modes: silent mode, envelope print mode, curl prevention mode, maximum power consumption mode, and others. The table below summarizes the operation of the fusing unit and PCDU in each mode and how this affects the service life of the PCDU.

Mode	Fusing	OPC	Effect on PCDU	Machine Operation
	Drive	Drive	Service Life	
Normal printing	Idles for	Driven	-	-
	about 3	only		
	sec.	during		
	before	printing		
	printing			
Silent mode	Idles for		No effect	Line speed down to 30 ppm
	about 3			
	sec.			
	before			

Мос	le	Fusing	OPC	Effect on PCDU	Machine Operation
		Drive	Drive	Service Life	
		printing			
Envelope p	rint mode	Idles for		No effect	• Line speed down to 30
		about 3			ppm
		sec.			Fusing: Pressure
		before			release
		printing			
Thick-3 mod	de	Idles for		No effect on idling	Target fusing
		about 10		time; however, the	temperature down
		sec.		interval between	Pre-printing idling
		before		sheets widens when	operation added
		printing		line speed goes down,	Line speed goes down
Low power	СРМ	Idles for		the drum also goes	to 30 ppm (with the
mode (200\	/ model	about 10		through many rotations	exception of printing on
only)		sec.		so this has no effect.	thin paper in normal
		before			mode, sheet interval
		printing			increases, so line
Curl	Thick1-	Idles for			speed is at 50% to
reduction	3	about 10			70%)
mode		sec.			
		before			
		printing			
	Misc.	Idles for			Target fusing
		about 3			temperature down
		sec.			Line speed goes down
		before			to 30 ppm (with the
		printing			exception of printing on
					thin paper in normal
					mode, sheet interval
					increases, so line
					speed is at 50% to
					70%)
Max. power		Idles for		No effect	To control power, startup
consumption		about 3			time is extended by about 5
reduction mode ^{*1}		sec.			sec.
		before			
		printing			
Punch hole	mode ^{*2}	Idles for		The distance of drum	The interval between sheets

Mode	Fusing	OPC	Effect on PCDU	Machine Operation
	Drive	Drive	Service Life	
	about 3		travel between each	increases slightly
	sec.		sheet increases, but it	
before		is extremely small and		
	printing		has no effect.	

Vote

*1 Maximum power consumption reduction mode

Enabling this mode can lower the maximum power consumption of the machine when the main power supply breaker is tripping due to the use of multiple printers or the power capacity of the installation site is insufficient. For more details, refer to Suppressing Maximum Power Consumption.

*2 Punched hole mode

Jamming can occur with paper feeding in the [A] direction with open holes [B] at the trailing edge as shown below. When the paper transport sensor in the optional bank detects the punched hole:

- 1. The paper transport sensor turns OFF at the punch hole. This triggers an incorrect detection of the trailing edge of the paper.
- 2. Next, the paper transport sensor turns ON again after the open hole passes. The machine incorrectly detects this as the leading edge of the next sheet. This interruption in the sequence of normal feed timing causes a paper jam.



To solve this problem:

- Mask control is performed so the paper transport sensor is turned off and will not detect again until the paper has traveled 25 mm past the sensor.
- The machine goes into the punched hole mode automatically when Labels or Thick-3 are selected for the paper type because perforations are common with these paper types frequently used by customers in the healthcare industry.
- In this mode, the paper feed start timing is delayed 25 mm for each sheet, so this slows productivity down slightly to about 29 ppm.

New Functions

Help Function (MF Model Only)

Overview

Press [**I**] on the operation panel to browse the operation manual and the operation panel related FAQ's.



The displayed manual not only be printed but also can be browsed on a smart device after scanning its QR code; so you can browse the help online while using the operation panel.

Online help menu:

When the machine is connected to the Internet, the following online help screen is displayed.



Vote

The guidance screen below opens the first time Help is used in an environment where the machine is connected to the Internet. The online Help will not open until the "I agree" box has been checked.



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If the online Help menu cannot be opened, check the following points.

- Some clients may require proxy server settings at their work sites.
 For proxy settings, refer to User's manual "Settings" > Screen Features > Wireless and Network > Proxy Settings.
- The settings of some operation panel browsers require that cookies be enabled (Default: Enable).

Offline help menu:

When the machine is not connected to the Internet, the following offline help screen is displayed. When the machine is offline, only Help for Image Quality & Paper Feeding information can be browsed, and FAQ's etc. cannot be displayed.



Settings for Help Function

If a customer does not want to connect the internet, the function can be disabled via UP and SP as follows:

Item		Value	Descriptions
		(Default)	
UP	Help Functions	ON/OFF	Press the [?] button on the Home screen to switch the display

Item		Value	Descriptions		
(Default)		(Default)			
		(ON)	on/off. The menu will not open if the function is switched off		
			with the SP code.		
	Display Online	ON/OFF	Allows settings with the Help function switched on. Press the		
	Help Preferentially	(ON)	[?] button to select the Help preference (Online or Offline		
			Help). The menu will not open if Online Help is switched off		
			with the SP code.		
SP	Help Functions	ON/OFF	Press the [?] button on the Home screen to switch the display		
		(ON)	on/off.		
	Online Help	ON/OFF	Switches the settings for the UP "Display Online Help		
		(ON)	Preferentiality" display on/off.		
	Display Online	ON/OFF	Press the [?] button to select the Help preference (Online or		
	Help Preferentially	(ON)	Offline Help).		

UP Setting

- **<u>1.</u>** Log in as administrator.
- 2. Select the "User Tools" icon.
- 3. Select [Screen Features].
- 4. Select [Screen Device Settings].



5. Select [Support Settings].



6. Enable or disable "Help Functions" and "Display Online Help Preferentially".



SP Setting

- **<u>1.</u>** Log in to Screen SP mode.
- 2. Select [Screen Device Settings].

Screen Features	
A Port Forwarding to Machine	
A MTU Settings	
DEVICE	
■ Storage	
🖾 Apps	
Micro SD card	
Language & input	
SYSTEM	
Screen Device Settings Information	
Screen Device Settings	
	Stop
	d0.e.em10.21



3. >Select [Application Settings].



4. Select [Settings] for "Support Settings".

😵 Application Settings	
Name	
Support Settings	Settings
	Settings
	Settings
ণ্চ 🗥 📀	Stop



5. Enable or disable "Help Functions", "Online Help", and "Display Online Help Preferentially".



Help for Image Quality & Paper Feeding

When a user encounters troubles when operating a machine, the solution is displayed on the operation panel and a user can attempt to resolve the problem on his or her own.

MF Model

On the MF model, the operation panel Help functions can be browsed from Help Function (MF Model Only). The initial menu is different, depending on whether the machine is connected to the Internet or not, but either initial menu allows entry to Built-in Help Content.

Online Help when connected to the Internet



Printer Model

The QR code for the User's Manual printed on the machine for the printer model can be read by a smart device, and then the contents of the manual can be browsed on the smart device while using the operation panel.



Help Menu

The menu item is as follows:

	Trouble	Actions
For better image	Faint/smeared	Cleaning the inside of the machine (LED
quality		head)
	Image partially missing	Cleaning the paper loading section
		Cleaning the paper feeding section
		Cleaning the registration roller
	Image skewed/shifted	• Confirm whether the side fence is set
		Cleaning the paper feeding section
		Cleaning the registration roller
	Lines visible/Dirt on the image	Cleaning the inside of the machine
	(MF model only)	(LED head)
		Cleaning the automatic document
		feeder (ADF)
	Uneven density (MF model only)	Correcting the image density uniformly
For smoother paper	Multiple sheets fed	Checking the loaded paper
feeding		Cleaning the paper feeding section
	Misfeed occurs	Checking the loaded paper
		Cleaning the paper feeding section
	Paper becomes creased	Checking the loaded paper, paper type,
		and thickness settings
	Paper curls	Checking the loaded paper, paper type,
		and thickness settings
	Original double feed/misfeed (MF	Checking the original
	model only)	Cleaning the automatic document
		feeder (ADF)

Bypass Tray Assist Function (MF Model Only)

A Bypass Tray setting has been added to make it easier to do the tray settings and avoid problems.

When the paper is loaded in the Bypass Tray, the Bypass Tray Paper Settings screen pops-up.

pass Tray Paper Settings			Cancel	ОК	
Paper has been set on the Please check if the paper	ie Bypass r set mato	Tray. thes the paper se	etting.		
	Size	A4 : Vert. (210 x 297mm)			
Print Side: Face Up	Type	Plain Pape 66~74g/m2 (Pl	r Lain Paper 1)		
Paper Orientation	Recall / Program Change Setting				

Pop-ups appear in the Bypass Tray settings assistant:

- After pressing the Bypass Tray setting button on the Copier (Classic), Easy Copy, Quick Copy, and Document Server screens.
- If the pop-up displays have been enabled to open for Copier (Classic), Easy Copy, Quick Copy, and Document Server screens when the paper is set in the bypass tray. *¹
- When the [Delete] button is pressed on the paper size mismatch screen

Vote

*1 : Whether the pop-ups are enabled/disabled to appear when the paper is set in the tray depends on the following setting: Home > User Tools > Machine Features > Copier/Document Server Features > General Features tab > Paper Settings Screen for Bypass (Default: Display Automtcly.) However, the pop-ups do not appear when:

- A copy job is in progress
- A system dialog screen is open
- A machine status check screen is open
- A job stop screen is open

Setting the paper by the Bypass Tray Assist Paper Function

The Bypass Paper Setting screen opens when you select the paper setting for the bypass tray with the copy application, or after pressing the [Change Setting] button on the Settings screen when the paper is loaded in the Bypass Tray.

<u>1.</u> Select the paper type, and then press [Next].

 Paper Type 	*	Paper Size
S	elect the paper ty	ype.
Plain Paper 66-74g/m2 (Plain Paper 1) ChngT	hickness	tecycled Paper
Color Paper 2 Sided Unavailable	0 s	ipecial Paper 1
Special Paper 2 2 Sided Unavailable	0.0	etterhead
Dransinted Dapar		HP (Transparency)

When changing the paper thickness in Plain Paper, select the paper thickness.

Paper Th	ickness	Cancel	ОК	
	Select the paper thick	kness.		
	S2~65g/m2 (Thin Paper)			
66-74g/m2 (Plain Paper 1)				
	75-90g/m2 (Plain Paper 2)			
	91~105g/m2 (Middle Thick)			
	106~130n/m2 (Thick Danar 1)		d0apc7942	

2. Select the paper size and orientation, and then press [OK].

	Paper Type	1	2 Paper:	Size	×
	Set the	e paper siz	e and orientation.		
~	Custom Size		(210.0 x 297.0mm)		
	A4 (210 x 297mm)	P	O A5 (148 x 210mm)	P	ок
Back	O A5 (210 x 148mm)	P	O A6 (105 x 148mm)	P	
	B5 (182 x 257mm)	₽	O 86 (128 x 182mm)	P	
		-			
				dOap	c7943

When using a custom size, select the [Custom Size] and then input the paper size.

Custom Size		Cancel	ОК
Ente	r the paper si	ze.	
А		< 60	0.0 - 216.0mm >
(↔A 210	0.0 mm	
		< 127	- 900.0mm >
	ĴВ 29	7.0 mm	

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Energy Save

Energy Saver Modes

Customers should use energy saver modes properly, to save energy and protect the environment.

Power Consump.



The area shaded grey in this diagram represents the amount of energy that is saved when the timers are at the default settings. For example, if the timers are all set to 240 minutes, the grey area will disappear, and no energy is saved before 240 minutes.

Weekly Timer

(System settings > Timer Settings > Weekly Timer)

Specify time when the machine switches to and from Off mode or Sleep mode. This timer can be set daily or for Monday through Sunday. You can set up to six timer settings a day.

Default: [Inactive]

If you select [Active (Daily)] or [Active (Day of the Week)], specify [Weekly Timer Code], [Weekly Timer Schedule], or [Main Power On Timer Suspension Period].

Weekly Timer Code

If the Weekly Timer setting is specified, you can set a password (up to eight digits) for when the machine recovers from Off mode or Sleep mode. If a password is registered, the password input screen appears when you cancel Sleep mode, or when you press the main power switch during Off mode. The machine recovers from Sleep mode or Off mode after you enter the password. If you select [Off], you do not have to enter a password to recover the machine from Off mode or Sleep mode.

• Weekly Timer Schedule

- Event
 - Enter Sleep Mode
 - Cancel Weekly Timer Code
 - Main Power Off
 - Main Power On
 - None

Default for "Event": [None]

If you select any event, enter the time for the event in "Event Timer". (mainly Europe and Asia): Enter the time in [Event Timer] using the 24-hour format. (mainly North America): Enter the time in [Event Timer] using the 12-hour format.

• Main Power On Timer Suspension Period

Set the dates for [Start Date] and [End Date] using the number keys.

If the Main Power On Timer Suspension Period timer has been set and the machine's main power switch is not turned on at the date specified for [End Date] in [Main Power On Timer Suspension Period], the Main Power On timer will not be performed although the Main Power On Timer Suspension Period term expires. To enable Main Power On Timer, you need to turn the main power switch on manually.

Setting items that are related to Energy Saving

The user can set these timers with User Tools (System settings > Timer setting)

Sleep Mode Timer

User Tools (System settings > Timer setting)

After a specified period has passed, or [Energy Saver] is pressed, the machine enters Sleep mode in order to conserve energy. Specify the time to elapse before Sleep mode.

Default: [1 minute(s)]

Sleep Mode Timer may not work when error messages appear.

Depending on which Embedded Software Architecture application is installed on it, the machine might take longer than indicated to enter Sleep mode.

Fusing Unit Off Mode (Energy Saving) On/Off

User Tools (System settings > Timer setting)

Specifies whether Fusing Unit Off mode is enabled or not.

When Fusing Unit Off mode is enabled, the display is on but the fusing unit is off to save energy.

The machine requires roughly the same time as the warm-up time to recover from Fusing Unit Off mode.

Default: [Off]

If [Fusing Unit Off Mode (Energy Saving) On/Off] is set to [On], you can specify when to exit Fusing Unit Off mode and the time to elapse before entering Fusing Unit Off mode.

If [Exit Fusing Unit Off Mode] is set to [On Printing], the machine exits Fusing Unit Off mode when printing is performed.

If [Exit Fusing Unit Off Mode] is set to [On Operating Control Panel], the machine exits Fusing Unit Off mode when a key other than the copy function key is pressed on the control panel of the machine. If printing is performed with the copy function or a key in the copy function is pressed on the control panel of the machine, the machine exits Fusing Unit Off mode regardless of this setting. If the timer is set to [On], you can set the time from 10 seconds to 240 minutes, using the number keys.

Energy Saving Recvry. for Business Applicatn.

User Tools (System settings > General Settings)

Specify whether or not to enable low-energy recovery from Sleep mode to use applications independent of the machine, such as Address Book Management or Browser.

Default: [Off]

If [On (Energy Saving)] is selected, it takes longer than usual to be ready to use the machine.
Power States of this Machine (MF Model Only)



	State	Description	
1	Standby/Printing	State where normal operation is possible after warm-up	
		State during printing	
2	Printing	State when printing with the backlight of the operation panel turned off	
	state/Panel OFF		
3	Fusing OFF	State where the Standby Fusing OFF state is entered when the time set	
		with the "Fusing Unit Off Mode (Energy Saving) On/Off" setting of the	
		User Tools has elapsed.	

7.Detailed Descriptions

	State	Description	
		• State where the operation panel is flashing and the fusing lamp is OFF.	
		The bottom plate of the paper feed tray is raised.	
4	Quiet state	The Quiet state is entered when the Energy Saving key is pressed or the	
		time set with the "Sleep Mode Timer" of the User Tools has elapsed. This is	
		a temporary energy saving state before entering sleep mode.	
		• Basically, no homing (initialization) of peripheral devices is performed.	
		The bottom plate of the paper feed tray is raised.	
		The fusing lamp is turned OFF.	
5	Engine OFF	Entered from Quiet state with the internal timer.	
	(Sleep mode)	• The relevant power systems (24V, 12V, 5V) are turned OFF at the	
		same time as the fusing lamp.	
		• When printing is performed in engine OFF state, the warm-up is started	
		and printing is performed while the backlight of the operation panel is	
		turned OFF.	
6	STR state	Supplying of power and clock to the CPU and peripheral chips on the	
	(Sleep mode)	controller board is stopped.	

Device state for each Energy Saving state

	State	Energy Saving	Operation panel	Engine	HDD	CTL
		LED	LCD	(Printer/Scanner)		
1	Standby/Printing	ON	ON	ON	ON	ON
2	Printing state/Panel	ON	OFF	ON	ON	ON
	OFF					
3	fusing OFF	ON	ON	ON	ON	ON
				(Printer is in Quiet		
				state)		
4	Quiet state	ON	OFF	ON	ON	ON
			ON*1	(Printer is in Quiet		
				state)		
5	Engine OFF	Blinking	Sleep	OFF	OFF	ON
		gradually	OFF or ON*1		ON*1	
		ON*1				
6	STR state	Blinking	Sleep	OFF	OFF	STR
		gradually				

*1 When [Energy Saving Recvry. for Business Applicatn.] is [On (Energy Saving)], ON/OFF is determined by the internal timer of the Smart Operation Panel.

Transition of operation panel to Energy Saving when [Energy Saving Recvry. for Business

Applicatn.] is [On (Energy Saving)]

Normally, the Energy Saving state of the operation panel LCD changes in step with the energy saving state of the MFP/LP main unit, but to support the scenario where an application that does not use the engine (printer) is executed from the operation panel, the Energy Saving state of the operation panel is transitioned through the three states ON, OFF, and Sleep with its internal timer when [Energy Saving Recvry. for Business Applicatn.] is [On (Energy Saving)].

Recovery Time/Reduced Electrical Consumption

Item	IP 500SF/IM430F		P 501/P 500	
	mainly North	mainly Europe	mainly North	mainly Europe
	America	and Asia	America	and Asia
Reduced electrical	1.0 W	1.1 W	0.7 W	0.81 W
consumption in Sleep mode				
Recovery time from Sleep	10 sec. or less		10 sec. or less	
mode				

Vote

The time it takes to switch out from energy saving functions and electrical consumption may differ depending on the conditions and environment of the machine.

Recommendation

We recommend that the default settings should be kept.

- If the customer requests that these settings should be changed, please explain that their energy costs could increase and that they should consider the effects on the environment of extra energy use.
- If it is necessary to change the settings, please try to make sure that the Sleep Mode timer is not too long. Try with a shorter setting first, such as 5 min., then go to a longer one (such as 15 min.) if the customer is not satisfied.
- If the Sleep Mode timer is all set to the maximum value, the machine will not begin saving energy until 240 minutes has expired after the last job. This means that after the customer has finished using the machine for the day, energy will be consumed that could otherwise be saved.
- If you change the settings, the energy consumed can be measured using SP8941, as explained below.

Option (Offline Stapler Type M34)

Component Layout



d0apc800	
----------	--

No.	Name	No.	Name
1	Staple unit cradle	4	Lamp
2	Staple unit	5	Slide switch
3	Stapling slot	6	Stoppers

Mechanism

A paper sensor below the stapling slot detects the presence or absence of paper.

- 100 ms after detecting paper, the staple drive motor switches on and the staple operation begins. If • no paper is detected within this 100 ms, the staple operation does not begin.
- The sensor that detects the paper is a photosensor so it will not detect the paper when there is no • margin on the reverse side of the paper and it is black.

Papers can be stapled diagonal (corner staple) or parallel to the edge of the paper (margin staple),

depending on how the papers are inserted into the stapler slot.

Changing the setting of the slide switch [A] on the front of the stapler unit changes the angle at which a stack can be inserted.



- Raise the slide switch to raise the stoppers, and when the sheets are inserted along the stoppers, the stack can be stapled at the corner with the staple diagonal to the edges of the sheets.
- Lower the slide switch to lower the stoppers, and when the sheets are inserted from the front along the guide inside the stapler, the stack can be stapled in the margin with the staple parallel to the edges of the sheet.



- [A] Paper sensor exposure position
- [B] Staple position
- [C] Stoppers

Precautions During Use

- During repeated use, wait more than 3 sec. between stapling.
- When using the stapler never turn the main machine off or set it in the Energy Save Mode. This will cause the machine to stop, the stack may jam in the stapler and you will not be able to remove it.
- If paper becomes jammed in the stapler, remove the staple unit from its mount, set it on the machine again and turn on the machine. This will re-initialize stapler and you will be able to remove the jammed stack.
- The staple cartridge is removed by lifting, not pressing down, so if the cartridge is struck and disconnected, the staples past the point of disconnection cannot be lifted out. If this occurs the

7.Detailed Descriptions

staple cartridge must be replaced.

P 501/502, IM 350F/350/430Fb/430F Machine Code: M0BQ, M0D1, D0C5, D0C6, D0C4, D0AP Appendices Ver 1.0

Initial Release: February, 2019 (c) 2019 Ricoh Co.,Ltd.

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General Specifications

Main Machine

Items	Specification		
Туре	Desktop		
CPU	Printer model: Intel® Atom Processor AppoloLake 1.3GHz		
	MF model: Intel® A	Atom Processor BayTrail-I 1.46GHz	
Memory	2.0 GB		
HDD	Printer model: 250	GB or more (Option)	
	MF model: 250 GB	3 or more	
Photoconductor type	OPC Drum		
Copy system	LED array and elec	ctrophotographic printing	
Development system	Dry two-componer	it magnetic brush development system	
Fusing system	The heating roller	pressure system	
Scanning method	One-dimensional s	solid-state scanning system by CCD	
Warm-up time (23 °C	Printer model: 19 s	seconds or less	
(73.4 °F), rated	MF model: 63 seco	onds or less (When [Screen Startup Mode] is set to	
voltage)	[Quick], 24 second	is or less)	
First print time	IM 350F/350: 6.0 s	seconds or less (A4/LT SEF, feeding from Tray 1)	
	P 502/501/IM 430F	⁻ b/430F: 5.0 seconds or less (A4/LT SEF, feeding from	
	Tray 1)		
First copy time	IM 350F/350: 7.0 s	seconds or less (A4/LT SEF, feeding from Tray 1)	
	IM 430Fb/430F: 6.	0 seconds or less (A4/LT SEF, feeding from Tray 1)	
Continuous print	One-sided copy	P 502/501, IM 430Fb/430F: 43 pages per minute (A4/LT	
speed		SEF)	
		IM 350F/350: 35 pages per minute (A4/LT SEF)	
	Two-sided copy	P 502/501, IM 430Fb/430F: 37 pages per minute (A4/LT	
		SEF)	
		IM 350F/350: 30.5 pages per minute (A4/LT SEF)	
Resolution (Scan)	Exposure Glass: 6	00x600 dpi	
	SPDF: 600x300 dpi (front), 300x600 dpi (back), 600x600 dpi		
Resolution (Print)	1200x1200 dpi		
Print paperweight	• Tray 1: 52 – 2	20 g/m² (14 lb. Band – 80 lb. Cover)	
	• Bypass: 52 – 256 g/m ² (14 lb. Band – 140 lb. Cover)		
	 Duplex: 52 – 162 g/m² (14 lb. Band – 90 lb. Index) 		

Items	Specification		
	• Optional tray: 52 – 220 g/m ² (14 lb. Band – 80 lb. Cover)		
Print paper size	Tray 1	Select the paper size using the paper size dial on the	
		tray:	
		A4 SEF, A5 SEF, A6 SEF, 8 ¹ / ₂ ×14 SEF, 8 ¹ / ₂ ×11 SEF, 5	
		¹ / ₂ ×8 ¹ / ₂ SEF	
		Set the paper size dial on the tray to "Asterisk", and	
		select the paper size with the control panel:	
		A5 LEF, B5 SEF, B6 SEF, 8 ¹ / ₂ ×13 SEF, 8 ¹ / ₄ ×14 SEF, 8	
		¹ / ₄ ×13 SEF, 8×13 SEF, 8×10 ¹ / ₂ SEF, 8×10 SEF, 7 ¹ / ₄ ×10	
		¹ / ₂ SEF, 16K SEF, 8 ¹ / ₂ × 13 ² / ₅ SEF	
		Custom size:	
		• Vertical: 148 – 356 mm (5.83 – 14.01 inches)	
		• Horizontal: 82.5 – 216 mm (3.25 – 8.50 inches)	
	Bypass	Select the paper size:	
		A4 SEF, A5 SEF/LEF, A6 SEF, B5 SEF, B6 SEF, B7 SEF,	
		8 ¹ / ₂ ×14 SEF, 8 ¹ / ₂ ×13 SEF, 8 ¹ / ₂ ×11 SEF, 8 ¹ / ₄ ×14 SEF,	
		8 ¹ / ₄ ×13 SEF, 8×13 SEF, 8×10 ¹ / ₂ SEF, 8×10 SEF, 7	
		$^{1}/_{4}$ ×10 $^{1}/_{2}$ SEF, 5 $^{1}/_{2}$ ×8 $^{1}/_{2}$ SEF, 16K SEF, 8 $^{1}/_{2}$ × 13 $^{2}/_{5}$	
		SEF	
		Custom size:	
		• Vertical: 127 – 900 mm (5.00 – 35.43 inches)	
		• Horizontal: 60 – 216 mm (2.37 – 8.50 inches)	
	Duplex	A4 SEF, A5 SEF/LEF, A6 SEF, B5 SEF, B6 SEF, 8 $^{1}/_{2}$ ×14	
		SEF, 8 ¹ / ₂ ×13 SEF, 8 ¹ / ₂ ×11 SEF, 8 ¹ / ₄ ×14 SEF, 8 ¹ / ₄ ×13	
		SEF, 8×13 SEF, 8×10 ¹ / ₂ SEF, 8×10 SEF, 7 ¹ / ₄ ×10 ¹ / ₂	
		SEF, 5 ¹ / ₂ ×8 ¹ / ₂ SEF, 16K SEF, 8 ¹ / ₂ × 13 ² / ₅ SEF	
		Custom size:	
		• Vertical: 148 – 356 mm (5.83 – 14.01 inches)	
		• Horizontal: 100 – 216 mm (3.94 – 8.50 inches)	
	Optional tray	A4 SEF, A5 SEF/LEF, A6 SEF, B5 SEF, B6 SEF, 8 $^{1}/_{2}$ ×14	
		SEF, 8 ¹ / ₂ ×13 SEF, 8 ¹ / ₂ ×11 SEF, 8 ¹ / ₄ ×14 SEF, 8 ¹ / ₄ ×13	
		SEF, 8×13 SEF, 8×10 ¹ / ₂ SEF, 8×10 SEF, 7 ¹ / ₄ ×10 ¹ / ₂	
		SEF, 5 ¹ / ₂ ×8 ¹ / ₂ SEF, 16K SEF, 8 ¹ / ₂ × 13 ² / ₅ SEF,	
		Custom size:	
		• Vertical: 148 – 356 mm (5.83 – 14.01 inches)	
		• Horizontal: 82.5 – 216 mm (3.25 – 8.50 inches)	
Paper feed capacity	Tray1: 500 sheets		
(80g/m ² , 20 lb. Band)	Bypass: 100 sheet	s	

Items	Specification	
Paper output	more than 250 sheets	
capacity		
Power source	NA	120–127V/12A, 60 Hz
	EU/AP/CHN/KOR	220–240V/7A, 50/60 Hz
	TWN	110V/12A, 60Hz
Max power	NA	IM 430Fb/430F: 1390W
consumption		IM 350F/350: 1380W
		P 502: 1350W
	EU	IM 430Fb/430F: 1290W
		IM 350F/350: 1280W
		P 502/501: 1260W
Dimensions (W \times D \times	>Printer model: 375 × 412 × 311 mm (14.8 × 16.2 × 12.2 inches)	
H)	MF model: 476 × 442 × 510 mm (18.7 × 17.4 × 20.0 inches)	
Weight	Printer model: Approx.18.7 kg (41.2 lb.)	
	MF model: Approx. 29.8 kg (65.6 lb.)	

Printer

Items	Specification	
Printer Language	Standard:	
	PJL, RPCS, PCL5e/XL, MediaPrint: JPEG, MediaPrint: TIFF, IRIPS PS3,	
	IRIPS PDFDirect	
	Option:	
	Adobe PS3, Adobe PDE Direct, IPDS, XPS	
Interface	Standard:	
	Ethernet (1000BASE-T, 100BASE-TX, 10BASE-T), USB2.0 (Type A),	
	USB2.0 (Type B), SD card	
	Option:	
	IEEE1284 parallel interface, IEEE802.11a/b/g/n (Wireless LAN), Extended	
	USB board (MF model only), USB device server	
Protocol	TCP/IP (IPv4, IPv6)	
USB Interface	Supported operating system:	
(Standard)	Windows 7/8.1/10, Windows Server 2008/2008 R2/2012/2012 R2/2016,	
	OS X 10.8 or later	
	Transmission spec:	
	USB 2.0 Standard	
	Connectable device:	
	Devices corresponding to USB 2.0 Standard	

Items	Specification	
Compatible OS	Standard: Windows 7/8.1/10, Windows Server 2008/2008 R2/2012/2012	
	R2/2016	
	Option: Mac OS X 10.10 or later	
Resident Fonts	PCL 5e: 93 fonts	
	PDF: 93 fonts	
	PostScript 3: 93 fonts	

Scanner

Items	Specification	
Туре	Full-color scanner	
Scanning method	Exposure glass: Flatbed scanning	
	SPDF: Single-pass double-sided sheet through	
Image sensor type	Exposure glass: CCD image sensor	
	SPDF: Contact image sensor	
Original size (Max.)	Exposure glass: 216 x 356 mm (8.5 x 14.0 inches)	
	SPDF:	
	• Front: 216 x 600 mm (8.5 x 23.6 inches)	
	• Back: 216 x 356 mm (8.5 x 14.0 inches)	
Scan type	Exposure glass: Sheet, book, three-dimensional object, ID card	
	SPDF: Sheet	
Original size (Max.)	Exposure glass: 216 x 356 mm (8.5 x 14.0 inches)	
	SPDF:	
	 Front: 216 x 600 mm (8.5 x 23.6 inches) 	
	• Back: 216 x 356 mm (8.5 x 14.0 inches)	
Grayscales	Black and White: 2 tones	
	Full color/Grayscale: 256 tones	
Scanning Resolution	Exposure glass:	
	Basic: 200dpi	
	Scan to Email/Folder: 100dpi, 200dpi, 300dpi, 400dpi, 600dpi	
	Network TWAIN scanner: 100 - 1200dpi	
	SPDF: 100 - 600 dpi	
Compression	Black and White: TIFF (MH, MR, MMR, JBIG2)	
Method	Full color/Grayscale: JPEG	
Interface	• Standard: Ethernet (1000BASE-T, 100BASE-TX, 10BASE-T), USB2.0	
	(Type A: Operation Panel), SD card slot (Operation Panel)	
	Option: IEEE802.11a/b/g/n (Wireless LAN)	
Protocol	Network: TCP/IP	

Items	Specification	
	Scan to Email: SMTP	
	Scan to Folder: SMB, FTP, NCP	
	WSD scanner: Web Service on Devices for Scanning	
	Network TWAIN scanner: TCP/IP	
	WIA scanner: TCP/IP	
Scan to Email/Folder	TIFF, JPEG, PDF, High Compression PDF, PDF/A	
Format		

Supported Paper Sizes

Paper Feed

Paper	Size (W x L)	Standard	Optional	Bypass Tray	Duplex
		Tray	Tray		
A4 SEF	210 x 297 mm	А	А	С	D
A5 SEF	148 x 210 mm	А	А	С	D
A5 LEF	210 x 148 mm	В	В	С	D
A6 SEF	105 x 148 mm	А	А	С	D
B5 SEF	182 x 257 mm	В	В	С	D
B6 SEF	128 x 182 mm	В	В	С	D
B6 LEF	182 x 128 mm	Ν	Ν	С	Ν
B7 SEF	91 x 128 mm	Ν	Ν	С	Ν
LG SEF	8.5 x 14 inch	А	А	С	D
Foolscap SEF	8.5 x 13 inch	В	В	С	D
LT SEF	8.5 x 11 inch	А	А	С	D
GovermentLG SEF	8.25 x 14 inch	В	В	С	D
Folio SEF	8.25 x 13 inch	В	В	С	D
F/GL SEF	8 x 13 inch	В	В	С	D
Eng Quatro SEF	8 x 10 inch	В	В	С	D
Executive SEF	7.25 x 10.5	В	В	С	D
	inch				
HLT SEF	5.5 x 8.5 inch	А	А	С	D
HLT LEF	8.5 x 5.5 inch	N	Ν	С	Ν
Com10 SEF	4.125 x 0.5	В	Ν	С	Ν
	inch				
Monarch SEF	3.875 x 7.5	В	Ν	С	Ν
	inch				
8 ¹ / ₂ x 13 ² / ₅ SEF	8.5 x 13.4 inch	В	В	С	D
C5 SEF	162 x 229 mm	В	Ν	С	N
C6 SEF	114 x 162 mm	В	Ν	С	N
DL Env SEF	110 x 220 mm	В	Ν	С	N
16K SEF	195 x 267 mm	В	В	С	D
Custom Size (Width)	mm	82.5 – 216	82.5 – 216	60 – 216	100 – 216
	inch	3.25 - 8.50	3.25 - 8.50	2.37 – 8.50	3.94 – 8.50
Custom Size	mm	148 – 356	148 – 356	127 – 900	148 – 356
(Length)	inch	5.83 – 14.01	5.83 – 14.01	5.00 –	5.83 –
				35.43	14.01

Remarks: Standard Tray, Optional Tray

Remarks: Bypass Tray		
Ν	Not supported.	
В	Supported size. Need to set the dial to "*" and select the paper size at the operation panel.	
А	Supported size. Need to set the dial to the paper size.	

C Supported. Need to select the Bypass Tray and the paper size at the operation panel.

Remarks: Duplex

D	Supported.
N	Not supported.

Paper Exit

Paper	Size (W x L)	Output Tray
A4 SEF	210 x 297 mm	A
A5 SEF	148 x 210 mm	A
A5 LEF	210 x 148 mm	A
A6 SEF	105 x 148 mm	A
B5 SEF	182 x 257 mm	A
B6 SEF	128 x 182 mm	A
B6 LEF	182 x 128 mm	A
B7 SEF	91 x 128 mm	A
LG SEF	8.5 x 14 inch	A
Foolscap SEF	8.5 x 13 inch	A
LT SEF	8.5 x 11 inch	A
GovermentLG SEF	8.25 x 14 inch	A
Folio SEF	8.25 x 13 inch	A
F/GL SEF	8 x 13 inch	A
Eng Quatro SEF	8 x 10 inch	A
Executive SEF	7.25 x 10.5 inch	A
HLT SEF	5.5 x 8.5 inch	A
HLT LEF	8.5 x 5.5 inch	A
Com10 SEF	4.125 x 0.5 inch	A
Monarch SEF	3.875 x 7.5 inch	A
8 ¹ / ₂ x 13 ² / ₅ SEF	8.5 x 13.4 inch	A
C5 SEF	162 x 229 mm	A
C6 SEF	114 x 162 mm	A
DL Env SEF	110 x 220 mm	A
16K SEF	195 x 267 mm	А

Рар	er	Size (W x L)	Output Tray
Custom Size (Width)		mm	60.0 – 216
		inch	2.37 – 8.50
Custom Size (Length)		mm	127 – 900
		inch	5.00 - 35.4
Remarks: Output Tray			
Δ	Currented		

emarks. Output may		
A	Supported.	

Software Accessories

The printer drivers and utility software are provided on one CD-ROM. An auto-run installer lets you select the components you want to install.

Printer Drivers

For printing, install a printer driver on your computer. The following drivers are included on the CD-ROM:

Operating System*1	Printer Drivers		
	RPCS	PostScript 3	PCL 6
Windows Vista *2	~	✓	~
Windows 7 * ³	~	✓	\checkmark
Windows 8.1 *4	\checkmark	\checkmark	\checkmark
Windows 10 *5	\checkmark	\checkmark	\checkmark
Windows Server 2008 *6	~	\checkmark	\checkmark
Windows Server 2008 R2 *7	~	✓	\checkmark
Windows Server 2012 *8	~	✓	~
Windows Server 2012 R2 *9	~	✓	\checkmark
Windows Server 2016 *10	~	✓	\checkmark
Macintosh OS *11	-	✓	-

✓: Supported

- : Not Supported
- *1 Printer drivers support both 32-bit and 64-bit Windows.
- *2 Windows Vista Ultimate/Enterprise/Business/Home Premium/Home Basic
- *3 Windows 7 Home Premium/Professional/Ultimate/Enterprise
- *4 Windows 8.1/Pro/Enterprise
- *5 Windows 10 Home/Pro/Enterprise/Education
- *6 Windows Server 2008 Standard/Enterprise
- *7 Windows Server 2008 R2 Standard/Enterprise
- *8 Windows Server 2012 Foundation/Essentials/Standard
- *9 Windows Server 2012 R2 Foundation/Essentials/Standard
- *10 Windows Server 2016 Standard/Essentials/Datacenter/MultiPoint Premium Server
- *11 OS X 10.9 Mavericks or later

Scanner and LAN Fax Drivers

Operating system for TWAIN driver:

Windows Vista/7/8.1/10, Windows Server 2008/2008 R2/2012/2012 R2/2016

(TWAIN scanner runs in 32-bit compatible mode on a 64-bit operating system, so TWAIN scanner is not compatible with 64-bit applications. Use it with 32-bit applications.)

Operating system for WIA driver:

Windows Vista/7/8.1/10, Windows Server 2008/2008 R2/2012/2012 R2/2016 (WIA scanner can function under both 32- and 64-bit operating systems.)

Operating system for LAN FAX driver:

Windows Vista/7/8.1/10, Windows Server 2008/2008 R2/2012/2012 R2/2016

Vote

The LAN Fax driver lets you fax documents directly from your PC. Address Book Editor, Cover Sheet Editor, and MFP Address Book Downloader are to be installed as well.

Utility Software

The following utilities are available.

Software	Description
Device Manager NX	A PC Client based application program that monitors and manages up to
Lite	250 networked print devices.
Device Manager NX	
Accounting	
Remote	A communication device that enables digital MFPs and printers to be
Communication Gate A	connected to the communication server in the maintenance center.

Optional Equipment

Paper Feed Unit PB1120/PB1110

Item	Paper Feed Unit PB1120 Paper Feed Unit PB1110		
Paper feed	RF (Roller Friction)		
system			
Paper size	A4 SEF, A5 SEF/LEF, A6 SEF, B5 SEF, B6	6 SEF, 8 ¹ / ₂ ×14 SEF, 8 ¹ / ₂ ×13 SEF, 8	
	¹ / ₂ ×11 SEF, 8 ¹ / ₄ ×14 SEF, 8 ¹ / ₄ ×13SEF, 8×	13SEF, 8×10 ¹ / ₂ SEF, 8×10SEF, 7 ¹ / ₄ ×10	
	¹ / ₂ SEF, 5 ¹ / ₂ ×8 ¹ / ₂ SEF, 8 ¹ / ₂ × 13 ² / ₅ SEF, 1	6K, custom size	
Paperweight	52~220 g/m ² (14 to 80 lb.)		
Tray capacity	500 sheets	250 sheets	
(80g/m ²)			
Dimensions (W	370×392×125 mm (14.6 x 15.4 x 4.9	370×392×95 mm (14.6 x 15.4 x 3.7	
x D x H)	inches)	inches)	
Weight	Approx. 5.5 kg (12.1 lb.)	Approx. 4.8 kg (10.6 lb.)	
Power Source	DC 24V, 5V (Power is supplied from the main machine)		
Power	17 W or less		
Consumption			

Offline Stapler Type M34

Item	Specification
Staple capacity	Thickness: 2.2mm or less
	• Number of sheets: 2 sheets (52 g/m ²) to 20 sheets (90g/m ²)
Staple kind	Margin staple, corner staple
Staple position	3 mm 5 to 8 mm W_d0apc8003_en
Staple size	9.8mm 18.5mm 4.6mm d0apc8004
Cycle time	Less than 600 msec. (1 cycle: Between the time the motor is ON and OFF)
Dimensions (W x D x H)	140×120×149 mm
Weight	Approx. 1.5 kg (3.3 lb.)
Power source	DC 24V, 3.3V (Power is supplied from the main machine)
Noise	65 dB or less

2. Preventive Maintenance Tables

Maintenance Tables

Chart: A4 (LT)/6% Mode: 3 prints/job Environment: Normal temperature and humidity Yield may change depending on circumstances and print conditions.

Main Machine (P 501/ IM 430Fb)

Symbol keys: C: Clean, R: Replace

Note

(R): Yield Parts

The parts mentioned in these tables have a target yield. However, the total copy/print volume made by the machine will not reach the target yield within the machine's targeted lifetime if the machine is used under the target usage conditions (ACV, color ratio, and P/J). So, these parts are categorized not as PM parts but as yield parts (EM parts). The parts with "(R)" in this table are yield parts.

Yield Parts (PCDU/Transfer/Fusing)

ltem	40K	120K	EM	Remarks
PCDU	R			
Transfer roller		R		(Maintenance Kit)
Fusing unit		R		(Maintenance Kit)
Air filter			C or R	(Maintenance Kit)
				Clean with a vacuum cleaner or replace.

Paper Feed/Exit/Others

Item	EM	Remarks
Paper feed roller (Tray 1)	С	• Wipe with a damp cloth or clean with alcohol when cleaning.
		Replace when a feeding failure occurs.
Separation roller (Tray 1)	С	• Wipe with a damp cloth or clean with alcohol when cleaning.
		Replace when a double feed occurs.
Bypass feed roller	С	• Wipe with a damp cloth or clean with alcohol when cleaning.
		Replace when a feeding failure occurs.
Bypass friction pad	С	• Wipe with a damp cloth or clean with alcohol when cleaning.
		Replace when a double feed occurs.
Paper transport roller	С	Wipe with a damp cloth or clean with alcohol.
Registration roller	С	Wipe with a damp cloth or clean with alcohol.

2. Preventive Maintenance Tables

ltem	EM	Remarks			
Registration sensor	С	Remove paper dust.			
Duplex relay roller	С	Wipe with a damp cloth or clean with alcohol.			
Paper exit/reverse roller	С	Wipe with a damp cloth or clean with alcohol.			
Fusing/exit reverse sensor	С	Remove paper dust.			
LED head	С	When vertical lines or bands occurs,			
		User: Opening and closing the front door four times.			
		CE: Pushing the links of the LED unit four times.			

SPDF/Scanner (MF Model Only)

Item	EM	Remarks
Exposure glass (for SPDF)	С	Wipe with a dry cloth when
		cleaning.
Exposure glass (for platen mode)	С	Wipe with a dry cloth when
		cleaning.
Original feed unit (pick-up roller and feed roller)	C or	Wipe with a damp cloth when
	R	cleaning or replace.
SPDF friction pad	C or	Wipe with a dry cloth when
	R	cleaning or replace.
Platen	С	Wipe with a dry cloth when
		cleaning.
Scanning guide plate (front side, rear side)	С	Wipe with a dry cloth when
		cleaning.
SPDF entrance roller, Pre-scanning roller (front side, rear	С	Wipe with a damp cloth when
side), Exit roller, and each driven roller		cleaning.

Main Machine (P 502/ IM 350F/ IM 350/ IM 430F)

Symbol keys: C: Clean, R: Replace

Vote

(R): Yield Parts

The parts mentioned in these tables have a target yield. However, the total copy/print volume made by the machine will not reach the target yield within the machine's targeted lifetime if the machine is used under the target usage conditions (ACV, color ratio, and P/J). So, these parts are categorized not as PM parts but as yield parts (EM parts). The parts with "(R)" in this table are yield parts.

SPDF/Scanner (MF Model Only)

The PM count for the following items is based on the number of originals fed:

Item	30K	45K	120K	EM	Remarks
Exposure glass (for SPDF)				С	Wipe with a dry cloth

2.Preventive Maintenance Tables

Item	30K	45K	120K	EM	Remarks
					when cleaning.
Exposure glass (for platen mode)				С	Wipe with a dry cloth
					when cleaning.
Original feed unit (pick-up roller and feed roller)		(R)		С	Wipe with a damp
					cloth when cleaning.
SPDF friction pad	(R)			С	Wipe with a dry cloth
					when cleaning.
Platen			С	С	Wipe with a dry cloth
					when cleaning.
Scanning guide plate (front side, rear side)			С	С	Wipe with a dry cloth
					when cleaning.
SPDF entrance roller, Pre-scanning roller (front				С	Wipe with a damp
side, rear side), Exit roller, and each driven roller					cloth when cleaning.

PCDU/LED Optics/Transfer/Fusing

Item	70K	180K	EM	Remarks
PCDU	R			
LED head			С	When vertical lines or bands occurs,
				User: Opening and closing the front door four times.
				CE: Pushing the links of the LED unit four times.
Transfer roller		(R)		Replace referring to logging counter.
Fusing unit		(R)		Replace referring to logging counter.

Paper Feed/ Exit

Item	70K	180K	EM	Remarks
Paper feed roller (Tray 1)			С	Clean with alcohol.
				Replace when a feeding failure occurs.
Separation roller (Tray 1)			С	Clean with alcohol.
				Replace when a double feed occurs.
Bypass feed roller			С	Clean with alcohol.
				Replace when a feeding failure occurs.
Bypass friction pad			С	Clean with alcohol.
				Replace when a double feed occurs.
Paper transport roller			С	Clean with alcohol.
Registration roller			С	Clean with alcohol.
Registration sensor			С	Remove paper dust.
Duplex relay roller			С	Clean with alcohol.
Paper exit/reverse roller			С	Clean with alcohol.

2.Preventive Maintenance Tables

ltem	70K	180K	EM	Remarks
Fusing/exit reverse sensor			С	Remove paper dust.

Other

ltem	70K	180K	EM	Remarks
Air filter		(R)	C or R	Replace with a fusing unit.
				EM: Clean with a vacuum cleaner or replace.

Paper Feed Unit PB1120/ PB1110

Symbol keys: C: Clean, R: Replace

ltem	70K	180K	EM	Remarks
Paper feed roller			С	• Wipe with a damp cloth when cleaning
				Replace when a feeding failure occurs
Separation roller			С	• Wipe with a dry cloth when cleaning.
				Replace when a double feed occurs.
Bottom plate pad			С	Wipe with a dry cloth when cleaning
Paper transport roller			С	Wipe with a dry cloth when cleaning
Paper transport sensor			С	Remove paper dust.

3. SP Mode Tables (Common for both MF Model and Printer Model)

Remarks

The maximum number of characters on the control panel screen is limited to 30. For this reason, some of the SP modes shown on the screen have been abbreviated. The following are abbreviations used for the SP modes for which the full description is over 20 characters.

Item	Description
Paper Weight	Thin paper: 52-59 g/m², 13.9-15.7lb.
	Plain Paper1: 60-74 g/m², 16-19.7lb.
	Plain Paper2: 75-81 g/m², 20-21.6lb.
	Middle Thick: 82-105 g/m², 21.9-28lb.
	Thick Paper1: 106-157 g/m², 28.3-41.9lb.
Paper Type	N: Normal paper
	MTH: Middle thick paper
	TH: Thick paper
Paper Feed Station	P: Paper tray
	B: Bypass tray
Print Mode	S: Simplex
	D: Duplex

Others

The settings of each SP mode are explained in the right-hand column of the SP table in the following way.

[Adjustable range / Default setting / Step] Alphanumeric

• Note

• If "Alphanumeric" is written to the right of the bracket as shown above, the setting of the SP mode shows on the screen using alphanumeric characters instead of only numbers. However, the settings in the bracket in the SP mode table are explained by using only the numbers.

The following symbols are used in the SP mode tables.

Notation	What it means	
ENG	Engine SP	
CTL	Controller SP	
DFU	Design/Factory Use only: Do not touch these SP modes in the field.	
*	An asterisk (*) to the left side of ENG/CTL column means that this mode is stored in the	
	NVRAM. If you do a RAM clear, this SP mode will be reset to the default value. "ENG" and	

3.SP Mode Tables (Common for both MF Model and Printer Model)

Notation	What it means		
	"CTL" show which NVRAM contains the data.		
	*ENG: NVRAM on the BCU board		
	*CTL: NVRAM on the controller board		
SSP	This denotes a "Special Service Program" mode setting.		

Input and Output Check

Input Check

SP No.	SP Name	Value		Comments
		0	1	
5-803-002	Front Interlock	Door open	Door closed	
5-803-003	Rear Interlock	Door open	Door closed	
5-803-004	Registration	Paper present	No paper	
5-803-005	Paper Size	-	-	000: A4
				001: A6SEF
				010: A5SEF
				011: 8.5x14
				100: 8.5x11
				101: 5.5x8.5
				110: *
				111: No
				cassette
5-803-006	Duplex Entrance	Paper present	No paper	
5-803-007	Paper Exit Rev	Paper present	No paper	
5-803-008	Paper Exit Full	Not full	Full	
5-803-009	Paper End	Paper present	No paper	
5-803-010	Bypass:Paper End	Paper present	No paper	
5-803-011	Bypass:Tray	Bottom plate down	Bottom plate up	
5-803-012	Fusing Unit Set	Set	Not set	
5-803-013	Fusing Unit New	New unit	Old unit	
5-803-014	FusNipPress Pos	Pressure released	Pressure applied	
5-803-015	Feed Mt Lock	Rotate	At rest or lock	
5-803-016	Drum Mt Lock	Rotate	At rest or lock	
5-803-017	PCDUFan:R Lock	Rotate	At rest or lock	
5-803-018	PCDUFan:L Lock	Rotate	At rest or lock	
5-803-019	PSU Fan Lock	Rotate	At rest or lock	
5-803-020	FusingTempDetect	High temp. not	High temp.	
		detected	detected	
5-803-021	HVP:SC_T	Abnormal	Normal	
5-803-022	HVP:SC_C	Abnormal	Normal	
5-803-023	Key Counter Set2	Not set	Set	
5-803-024	Key Counter Set1	Set	Not set	
5-803-025	Key Card Set	Set	Not set	

SP No.	SP Name	Va	Value	
		0	1	
5-803-026	Rear Cover Open	Cover open	Cover close	
5-803-027	Paper Nearend	Paper present	No paper	
5-803-083	Bank1:500/250/No	-	-	0: 500
5-803-084	Bank2:500/250/No	-	-	1: 250
5-803-085	Bank3:500/250/No	-	-	2: None
5-803-087	Bank1 Trans SN	No paper	Paper present	
5-803-088	Bank2 Trans SN	No paper	Paper present	
5-803-089	Bank3 Trans SN	No paper	Paper present	
5-803-200	Scanner HP Sensor	Out of HP	At HP	
5-803-201	Platen Cover Sensor	Closed	Open	
6-011-009	Original Detection	Original not set	Original set	
6-011-010	Feed After sensor	No paper	Paper present	
6-011-013	Registration Sensor	No paper	Paper present	
6-011-015	Feed Cover Sensor	Cover closed	Cover open	
6-011-024	Page Keeper Sensor	No double-feed	Double-feed	
			detected	

3.SP Mode Tables (Common for both MF Model and Printer Model)

Output Check

SP No.	SP name	Operation	Restriction
5-804-001	FusPressRelMt:CW	Rotates fusing pressure/release	Cannot switch on with
		motor forward.	fusing unit set.
5-804-002	FusPressRelMt:CCW	Rotates fusing pressure/release	
		motor in reverse.	
5-804-003	DrumMt:CW:ExHi	Rotates drum motor forward.	Cannot switch on with
5-804-004	DrumMt:CW:Hi		PCDU set.
5-804-005	DrumMt:CW:Mid		
5-804-006	DrumMt:CW:Low		
5-804-007	DrumMt:CW:ExLow		
5-804-008	DrumMt:CCW:ExHi	Rotates drum motor in reverse.	
5-804-009	DrumMt:CCW:Hi		
5-804-010	DrumMt:CCW:Mif		
5-804-011	DrumMt:CW:Low		
5-804-012	DrumMt:CW:ExLow		
5-804-013	FeedMt:CW:ExHi	Rotates feed/fusing motor	Cannot switch on with

3.SP Mode Tables (Common for both MF Model and Printer Model)

SP No.	SP name	Operation	Restriction
5-804-014	FeedMt:CW:Hi	forward.	PCDU set.
5-804-015	FeedMt:CW:Mid		
5-804-016	FeedMt:CW:Low		
5-804-017	FeedMt:CW:ExLow		
5-804-018	FeedMt:CCW:ExHi	Rotates feed/fusing motor in	
5-804-019	FeedMt:CCW:Hi	reverse.	
5-804-020	FeedMt:CCW:Mid		
5-804-021	FeedMt:CCW:Low		
5-804-022	FeedMt:CCW:ExLow		
5-804-023	ExtRevMt:CW:ExHi	Rotates exit/reverse motor	
5-804-024	ExtRevMt:CW:Hi	forward.	
5-804-025	ExtRevMt:CW:Mid		
5-804-026	ExtRevMt:CW:Low		
5-804-027	ExtRevMt:CW:ExLow		
5-804-028	ExtRevMt:CCW:ExHi	Rotates exit/reverse motor in	
5-804-029	ExtRevMt:CCW:Hi	reverse.	
5-804-030	ExtRevMt:CCW:Mid		
5-804-031	ExtRevMt:CCW:Low		
5-804-032	ExtRevMt:CCW:ExLow		
5-804-033	PCDUFan:Left:High	Operates PCDU cooling fan	
5-804-034	PCDUFan:Left:Low	(left)	
5-804-035	PSU Fan: High	Operates PSU cooling fan.	
5-804-036	PSU Fan: Low		
5-804-037	HVP:Development	Outputs each PWM.	Cannot switch on with
5-804-038	HVP:Charge		PCDU set.
5-804-040	HVP:Transfer:+		
5-804-041	HVP:Transfer:-		
5-804-042	Drum QL	Lights the quenching lamp.	
5-804-044	Exit Junc SOL	Turns exit junction gate solenoid	
		on.	
5-804-045	PCDU Fan:Light	Operates PCDU cooling fan	
		(right).	
5-804-046	Duplex CL	Turns duplex clutch on.	
5-804-048	Toner Supply CL	Turns bypass paper feed clutch	
		on.	
5-804-049	Registration CL	Turns registration clutch on.	
5-804-050	Feed Connect CL	Turns relay clutch on.	

SP No.	SP name	Operation	Restriction
5-804-051	Bypass:Tray CL	Turns bypass lift clutch on.	Cannot turn on if the
			feed/fusing motor is
			rotating ccw.
5-804-052	Paper Feed CL	Turns paper feed clutch on.	
5-804-053	Toner End Sensor	Turns LED of the toner end	
		sensor on.	
5-804-054	Toner IDTAG Power		
5-804-162	Bank1 BLM:MAX	Rotates bank drive motor of	
5-804-163	Bank1 BLM:High	Bank 1 (option).	
5-804-164	Bank1 BLM:Mid		
5-804-165	Bank1 BLM:Low		
5-804-166	Bank1 BLM:MIN		
5-804-167	Bank2 BLM:MAX	Rotates bank drive motor of	
5-804-168	Bank2 BLM:High	Bank 2 (option).	
5-804-169	Bank2 BLM:Mid		
5-804-170	Bank2 BLM:Low		
5-804-171	Bank2 BLM:MIN		
5-804-172	Bank3 BLM:MAX	Rotates bank drive motor of	
5-804-173	Bank3 BLM:High	Bank 3 (option).	
5-804-174	Bank3 BLM:Mid		
5-804-175	Bank3 BLM:Low		
5-804-176	Bank3 BLM:MIN		
5-804-177	Bank1 Feed CL	Turns on paper feed clutch in	
		Bank 1 (option).	
5-804-178	Bank2 Feed CL	Turns on paper feed clutch in	
		Bank 2 (option).	
5-804-179	Bank3 Feed CL	Turns on paper feed clutch in	
		Bank 3 (option).	
5-804-202	Scanner Lamp	Turns scanner lamp on.	
6-012-003	Motor Forward	Rotates SPDF drive motor	
		forward.	
6-012-004	Motor Reverse	Rotates SPDF drive motor in	
		reverse.	
6-012-014	Feed Clutch	Turns SPDF feed clutch on.	

Printer SP Mode

SP1-XXX (Service Mode)

1001	[Bit Switch]			
1-001-	Bit Sw	vitch 1 Settings	0	1
001	bit 0	DFU	-	-
	bit 1	sysName value	Model name (PnP name)	Hostname
		This BitSw can switch the value	ue of the sysName of the standard MIB	
	bit 2	DFU	-	-
	bit 3	I/O timeout	Enabled	Disabled
		Enables/Disables MFP I/O Tir	neouts. If enabled, the MFP I/O Timeou	ut setting will
		have no affect. I/O Timeouts v	will never occur.	
	bit 4	SD card save mode	Disabled	Enabled
		This BitSw enables the SD card save mode setting menu to be displayed.		
		After enabling this BitSw, the Card Save settings will appear under:		
		"User Tools > Machine Features > Printer Features > List/Test print"		
	bit 5	Paper size error margin	±5pt	±10pt
		When a PS job is printed on a custom paper size, the job might not print because of		
		a paper size mismatch caused by a calculation error. This BitSw can set the		
		allowable margin of error value.		
		Note: This is available for PS	, PDF only.	
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	[Bit Switch]			
1-001-	Bit Switch 2 Settings		0	1
002	bit 0	DFU	-	-
	bit 1	DFU	-	-
bit 2		DFU	-	-
	bit 3	PDL auto switching	Enabled	Disabled
		Enables/Disables the MFPs ability to switch the PDL processor when receiving a jo		
		which contains both PS and PCL5e/c.		
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6 DFU		-	-
	bit 7	DFU	-	-

1001	[Bit Switch]
24	

3.SP Mode Tables (Common for both MF Model and Printer Model)

1-001-	Bit Swi	tch 3 Settings	0	1
003	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	Legacy HP compatibility	Disabled	Enabled
		Uses the same left margin as older HP mode	els such as HP4000/H	IP8000.
		This setting enables the starting position of t	he graphics in the job	to be changed.
		If this BitSw is enabled, the left margin comm	nand of " <esc>*r0A"</esc>	will be conducted
	as " <esc>*r1A".</esc>			
PCL command are below: - <esc> *r0A ->Start Graphics at X coordinate of Zero</esc>				
		- <esc> *r1A ->Start Graphics at Current Cu</esc>	rsor	
		Note: This is available for PCL5e/c only.		
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	[Bit Switch]					
1-001-	Bit Sw	itch 4 Settings	0	1		
004	bit 0	DFU				
	bit 1	DFU	-	-		
	bit 2	DFU	-	-		
	bit 3	Paper path for IPDS simplex	Simplex paper path	Duplex paper path		
		pages				
		This setting enables you to route the IPDS simplex job through the duplex unit.				
		Note: When this BitSw is set to duplex paper path, the simplex page might be				
		printed on the reverse side.				
	bit 4	DFU	-	-		
	bit 5	DFU	-	-		
	bit 6	Bypass tray paper direction LEF SEF				
		Changes the paper direction used with "Machine Setting(s): Any Type" in the				
		bypass tray. This setting enables the direction of the paper in the bypass tray to				
		specified.				
	bit 7	DFU	-	-		

1001	[Bit Switch]				
1-	Bit Switch 5 Settings	0	1		

001- 005	bit 0	DFU	-	-		
	bit 1	Number of copies with paper mismatch	Print Single Copy	Print All Copies		
		If a paper size or type mismatch	occurs during the printir	ig of multiple copies, only a		
		single copy is output by default. Using this BitSw, the device can be configured to				
		print all copies even if a paper mismatch occurs.				
	bit 2	GPS filter	Enabled	Disabled		
		If the GPS Filter is disabled, SD	K applications will not be	able to alter the print data		
		standard printer applications rec	ceive.			
		Note: The main purpose of this	BitSw is for troubleshoot	ing the effects of SDK		
		applications on data.				
	bit 3	PS trigger for PDL switching	Standard pattern	Pattern1		
		Specifying the auto detection al	gorithm for PS while swite	ching the print language.		
		If the Pattern1 is selected, "%%	" is used as a printer syst	tem PS trigger.		
	bit 4	Increase Max. number of the	Disabled (100)	Enabled (750)		
		stored jobs.				
		Changes the maximum number of jobs that can be stored on the HDD. The default				
		(disabled) is 100. If this is enabled, the max. will be raised to 750 or 1000				
		depending on the model.				
	bit 5	DFU	-	-		
	bit 6	Change imposition	Standard specification	Old model specification		
		specification				
		This setting enables the specification for imposition such as page alignment and				
		image rotation to be changed to the specification of old models when job orientation				
		and paper size are mixed.				
		The old models are below:				
		- PCL: 04A and earlier models				
		- PS/PDF/RPCS: 05S and earlier models				
		- BMLinkS: 05A and earlier models				
		IRIPS PS/PDF:				
		- USA and earlier models. Opera		specification is not		
		supported (Operation with older specification is recommended)				
	hit 7	Paper nath for latterhead	Simpley namer nath	Dunley naner nath		
		simplex inh	omplex paper paul	Dupick paper patt		
			l	the state of the		
		I his setting enables the simpley	Only affects jobs specified as letterhead			

3.SP Mode Tables (Common for both MF Model and Printer Model)

1001	[Bit Switch]				
1-001-006	-001-006 Bit Switch 6 Settings		0	1	
	bit 0 to 7	DFU	-	-	

1001	[Bit Switch]				
1-001-007 Bit Switch 7 Settings			0	1	
	bit 0 to 7	DFU	-	-	

1001	[Bit Switch]					
1-001-	Bit Switch 8 Settings		0	1		
008	bit 0	DFU	-	-		
	bit 1	DFU	-	-		
	bit 2	DFU	-	-		
	bit 3	DFU	-	-		
	bit 4	DFU	-	-		
	bit 5	DFU	-	-		
	bit 6	PJL/PDL Color Command Priority (Only MF	PJL Priority	PDL Priority		
		model)				
		This setting enables the priority of a PDL color command to be changed when a PJL				
		color command is "@PJL RENDERMODE = GRAYSCALE" in a job.				
		Note: This is available for PCL,RPCS,PS.				
	bit 7	DFU	-	-		

1001	[Bit Sv	[Bit Switch]			
1-	Bit Switch 9 Settings		0	1	
001-	bit 0	PDL Auto Detection timeout of jobs	Disabled	Enabled (10	
009		submitted via USB or Parallel Port (IEEE	(Immediately)	seconds)	
		1284).			
		To be used if PDL auto-detection fails. A fail	ure of PDL autodetect	ion doesn't	
		necessarily mean that the job can't be printe	ed. This bit switch tells	the device	
		whether to time-out immediately (default) up	oon failure or to wait 10) seconds.	
	bit 1	DFU	-	-	
	bit 2	Job cancel after jam	Not cancelled	Cancelled	
		This setting enables it to be specifed wheth	er jobs will be cancelle	ed after a jam	
		occurs.			
	Note: If this BitSw is enabled, printing under the following conditions might result problems:				
		- Job submission via USB or Parallel Port			

	- Speel printing (WIM > Configuration > Device Settings > System)			
	- Spool printing (Will > Conliguration > Device Settings > System)			
- Printing a large number of jobs continuously (The status of the job are not ac			b are not acquired	
when jobs exceeding the number guaranteed by the job monitor are continu			re continuously	
	printed.)			
bit 3	DFU	-	-	
bit 4	Timing of the PJL Status ReadBack (JOB	Mode 0	Mode 1	
	END) when printing multiple collated			
	copies.			
	This BitSw determines the timing of the PJL STATUS JOB END sent when multi			
	collated copies are being printed.			
	Mode 0: JOB END is sent by the device to t	he client after the first	copy has	
	completed printing. This causes the page co	ounter to be increment	ed after the first	
	copy and then again at the end of the job.			
	Mode 1: JOB END is sent by the device to t	he client after the last	copy has finished	
printing. This causes the page counter to be incremented at the end of ea			nd of each iob	
	printing. The baddee are page counter to be		la el edell jeb:	
bit 5	UTF-8 mode	Enabled	Disabled	
bit 5	UTF-8 mode Enabled (=0): Text composed of UTF-8 char	Enabled racters can be displayed	Disabled ed in the operation	
bit 5	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel.	Enabled racters can be displaye	Disabled ed in the operation	
bit 5	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be	Enabled racters can be displayed in the opera	Disabled ed in the operation tion panel.	
bit 5	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor	Enabled racters can be displayed displayed in the opera red in the MIB using U	Disabled ed in the operation tion panel. TF-8 encoded	
bit 5	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor characters. When these are displayed on th	Enabled racters can be displayed displayed in the opera red in the MIB using U e operation panel, the	Disabled ed in the operation tion panel. TF-8 encoded y will be garbled	
bit 5	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor characters. When these are displayed on th unless this switch is enabled (=0).	Enabled racters can be displayed displayed in the opera red in the MIB using U e operation panel, the	Disabled ed in the operation tion panel. TF-8 encoded y will be garbled	
bit 5 bit 6	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor characters. When these are displayed on th unless this switch is enabled (=0). Print option configuration (rsh, rcp, ftp)	Enabled racters can be displayed displayed in the opera red in the MIB using U e operation panel, the Enabled	Disabled ed in the operation tion panel. TF-8 encoded y will be garbled Disable	
bit 5 bit 6	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor characters. When these are displayed on th unless this switch is enabled (=0). Print option configuration (rsh, rcp, ftp) This BitSw enables the specification of the o	Enabled racters can be displayed displayed in the opera red in the MIB using U e operation panel, the Enabled configuration of the pri	Disabled ed in the operation tion panel. TF-8 encoded y will be garbled Disable nt option using	
bit 5 bit 6	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor characters. When these are displayed on th unless this switch is enabled (=0). Print option configuration (rsh, rcp, ftp) This BitSw enables the specification of the or rcp/rsh/ftp.	Enabled racters can be displayed displayed in the opera red in the MIB using U e operation panel, the Enabled configuration of the pri	Disabled ed in the operation tion panel. TF-8 encoded y will be garbled Disable nt option using	
bit 5 bit 6 bit 7	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor characters. When these are displayed on th unless this switch is enabled (=0). Print option configuration (rsh, rcp, ftp) This BitSw enables the specification of the or rcp/rsh/ftp. Enable/Disable print from USB/SD's	Enabled racters can be displayed displayed in the opera red in the MIB using U e operation panel, the Enabled configuration of the print Enabled	Disabled ed in the operation tion panel. TF-8 encoded y will be garbled Disable nt option using Disabled	
bit 5 bit 6 bit 7	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor characters. When these are displayed on th unless this switch is enabled (=0). Print option configuration (rsh, rcp, ftp) This BitSw enables the specification of the or rcp/rsh/ftp. Enable/Disable print from USB/SD's Preview function (Only MF model)	Enabled racters can be displayed displayed in the opera red in the MIB using U e operation panel, the Enabled configuration of the prin	Disabled ed in the operation tion panel. TF-8 encoded y will be garbled Disable nt option using Disabled	
bit 5 bit 6 bit 7	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor characters. When these are displayed on th unless this switch is enabled (=0). Print option configuration (rsh, rcp, ftp) This BitSw enables the specification of the or rcp/rsh/ftp. Enable/Disable print from USB/SD's Preview function (Only MF model) Determines whether the Print from USB/SD	Enabled racters can be displayed displayed in the opera red in the MIB using U e operation panel, the Enabled configuration of the pri Enabled function will have the	Disabled ed in the operation tion panel. TF-8 encoded y will be garbled Disable nt option using Disabled Preview function.	
bit 5 bit 6 bit 7	UTF-8 mode Enabled (=0): Text composed of UTF-8 char panel. Disabled (=1): UTF-8 characters cannot be For example, job names are sometimes stor characters. When these are displayed on th unless this switch is enabled (=0). Print option configuration (rsh, rcp, ftp) This BitSw enables the specification of the or rcp/rsh/ftp. Enable/Disable print from USB/SD's Preview function (Only MF model) Determines whether the Print from USB/SD Enabled (=0): Print from USB/SD will have t	Enabled racters can be displayed displayed in the opera red in the MIB using U e operation panel, the Enabled configuration of the prive Enabled function will have the he Preview function.	Disabled ed in the operation tion panel. TF-8 encoded y will be garbled Disable nt option using Disabled Preview function.	

1001	[Bit Switch]					
1-001-	Bit Sw	itch A Settings	0	1		
010	bit 0	DFU	-	-		
	bit 1	DFU	-	-		
	bit 2	DFU	-	-		
	bit 3	DFU	-	-		
	bit 4	DFU	-	-		
t	oit 5	Store and Skip Errored Job locks the queue	Queue is not	Queue		
---	-----------	---	---------------------	-----------------	--	--
		(Only MF model)	locked after	locked after		
			SSEJ	SSEJ		
		If this is 1, then after a job is stored using Store and Skip Errored Job (SSEJ), new				
		jobs cannot be added to the queue until the stored	l job has been comp	letely printed.		
t	oit 6	Allow use of Store and Skip Errored Job if	Does not allow	Allows SSEJ		
		connected to an external charge device (Only	SSEJ with ECD	with ECD		
	MF model)					
		If this is 0, Store and Skip Errored Job (SSEJ) will be automatically disabled if an				
		external charge device is connected.				
		Note: We do not officially support enabling this switch (1). Use it at your own risk.				
t	oit 7	Job cancels remaining pages when the paid-for	Job does not	Job cancels		
		pages have been printed on an external charge	cancel			
		device (Only MF model)				
		When setting 1 is enabled, after printing the paid-for pages on an external charge				
		device, the job that includes any remaining pages will be canceled.				
		This setting will prevent the next user from printing the unnecessary pages from the				
		previous user's print job.				

1001	[Bit S	witch]				
1-001-	Bit Sv	vitch B Settings	0	1		
011	bit 0	DFU	-	-		
	bit 1	DFU	-	-		
	bit 2	Limitless paper feeding for the bypass tray	Enabled	Disabled		
		When the bypass tray is the target of the "Auto Tray S	elect", and "Mac	hine		
		Setting(s): Any Type" is configured for the "Tray Setting Priority" of the bypass tray,				
		this BitSw can switch the behavior whether or not limitless paper feeding is applied				
		to the bypass tray.				
		Enabled (=0: Default):				
		Limitless paper feeding is applied to the bypass tray.				
		If a tray other than the bypass tray matches the job's p	paper size and ty	vpe but has		
		run out of paper, printing will occur from the bypass tra	ay.			
		Disabled (=1):				
		Limitless paper feeding is not applied to the bypass tra	ay.			
		If a tray other than the bypass tray matches the job's p	paper size and ty	vpe but has		
		run out of paper, printing will stop and an alert will appear on the LCD screen,				
		stating that the tray has run out of paper. This prevent	s unexpected us	e of the		
		bypass tray.				
		Limitations when this BitSw is set to "1":				

	- Jobs that contain more than one paper size cannot b	e printed.		
	- The "Paper Tray Priority: Printer" setting must be cor	nfigured to a tray	other than	
	the bypass tray.			
bit 3	DFU	-	-	
bit 4	"Apply Auto Paper Select" to override paper size or	Disabled	Enabled	
	paper type of the device			
	If this BitSw is enabled, the "Apply Auto Paper Select"	setting will decid	de if the paper	
	size or paper type that is specified in the device setting	size or paper type that is specified in the device settings should be overridden by the		
	job's commands when "Tray Setting Priority" is set to "Driver/Command" or			
	"Machine Setting(s): Any Type".			
	- Apply Auto Paper Select = OFF: Overridden (priority is given to the job's			
	commands)			
	- Apply Auto Paper Select = ON: NOT overridden (priority is given to the device			
	settings)			
bit 5	DFU	-	-	
bit 6	Tray selection when a paper mismatch occurs. Disabled Enabled			
	This BitSw enables the inactive auto paper select tray to be unselectable when a			
	paper size/type mismatch occurs.			
bit 7	DFU	-	-	

1001	[Bit S	[Bit Switch]				
1-001-	Bit Switch C Settings		0	1		
012	bit 0 DFU		-	-		
	bit 1	DFU	-	-		
	bit 2 DFU		-	-		
	bit 3 DFU		-	-		
	bit 4 DFU		-	-		
	bit 5	Change the user ID type displayed on the	Login User Name	User ID		
		operation panel				
		If this BitSw is enabled, the user ID type on the operation panel can change to the				
		user ID behavior exhibited in 14A and earlier models.				
	bit 6 AirPrint Enabled		Enabled	Disabled		
	bit 7	AirPrint PDF (Only printer model)	Enabled	Disabled		

1002	[Bit Switch2]			
1-002-001	Bit Switch (2) 1 Settings		0	1
	bit 0	Paper size mismatch display	Enabled	Disabled
		Display warning screen (40909) of paper size mismatch.		

3.SP Mode Tables (Common for both MF Model and Printer Model)

bit 1 to 7 DFU	bit 1 to 7
----------------	------------

1002	[Bit Switch2]			
1-002-002	Bit Switch (2) 2 Settings		0	1
	bit 0 to 7	DFU	-	-

1002	[Bit Switch2]				
1-002-003	Bit Switch (2) 3 Settings		0	1	
	bit 0 to 7	DFU	-	-	

1002	[Bit Switch2]			
1-002-004	Bit Switch (2) 4 Settings		0	1
	bit 0 to 7	DFU	-	-

1002	[Bit Switch2]				
1-002-005	Bit Switch (2) 5 Settings		0	1	
	bit 0 to 7	DFU	-	-	

1002	[Bit Switch2]			
1-002-006	Bit Switch (2) 6 Settings		0	1
	bit 0 to 7 DFU		-	-

1002	[Bit Switch2]				
1-002-007	Bit Switch (2) 7 Settings		0	1	
	bit 0 to 7	DFU	-	-	

1002	[Bit Switch2]			
1-002-008	Bit Switch (2) 8 Settings		0	1
	bit 0 to 7	DFU	-	-

1002	[Bit Switch2]				
1-002-009	Bit Switch (2) 9 Settings		0	1	
	bit 0 to 7	DFU	-	-	

1002	[Bit Switch2]			
1-002-010	Bit Switch (2) A Settings		0	1
	bit 0 to 7 DFU		-	-

3.SP Mode Tables (Common for both MF Model and Printer Model)

1002	[Bit Switch2]			
1-002-011	Bit Switch (2) B Settings		0	1
	bit 0 to 7 DFU		-	-

1002	[Bit Switch2]				
1-002-012	Bit Switch (2) C Settings		0	1	
	bit 0 to 7 DFU		-	-	

1003	[Clear Setting]			
1-003-001	Initialize Printer System	CTL	[- / - / -]	
			[Execute]	
	Initializes settings in the "System" menu of the user mode.			
1-003-003	Delete Program	CTL	[- / - / -]	
			[Execute]	

1004	[Print Summary]				
	Prints the service summary sheet (a summary of all the controller settings).				
1-004-001	Print Printer Summary CTL [-/-/-]				
			[Execute]		
1-004-002	Print Printer Summary2	CTL	[- / - / -]		
			[Execute]		

1007	[Supply Display]			
	Sets displaying remaining supply amount information or not.			
	0: Displays remaining supply amount information			
	1: Does not display remaining supply amount information			
1-007-002	Drum	CTL*	[0 or 1 / 1 / 1/step]	
1-007-006	Fusing unit	CTL*		

1110	[Media Print Device Setting]		
1-110-002	0:Disable 1:Enable	CTL*	[0 or 1 / 1 / -]

1111	[All Job Delete Mode]		
1-111-001	0:excluding New Job 1:including New Job	CTL*	[0 or 1 / 1 / -]

1112	[Supply End]		
1-112-001	0:continue 1:stop	CTL*	[0 or 1 / 0 / -]

1121	[Introduction Setting Boot Mode] (Only printer model)			
1-121-001	0:Off 1:On	CTL*	[0 or 1 / 0 / -]	

1400	[IPGL Setting]		
	(Only MF model)		
1-400-001	Set Thin Line Width	CTL*	[0 to 99 / 5 / 1/step]
1-400-002	Correct Line Width	CTL*	[0 to 3 / 2 / 1/step]
1-400-003	Bank Of Tray Setting	CTL*	[0 to 2 / 0 / 1/step]
1-400-004	Character Density	CTL*	[15 to 30 / 15 / 1/step]
1-400-005	Photo Density	CTL*	[15 to 30 / 15 / 1/step]
1-400-006	Default Blank Space	CTL*	[0 or 1 / 1 / 1/step]
1-400-007	Job Reset	CTL*	[0 or 1 / 0 / 1/step]
1-400-008	Search Not Setted Tray	CTL*	[0 or 1 / 0 / 1/step]
1-400-009	Character Total Amount	CTL*	[99 to 400 / 99 / 1/step]
1-400-010	Photo Total Amount	CTL*	[99 to 400 / 99 / 1/step]
1-400-011	Basis Of Scale	CTL*	[0 or 1 / 1 / 1/step]
1-400-012	600dpi Calculation Round	CTL*	[0 or 1 / 0 / 1/step]

4. SP Mode Tables (for Printer Model)

SP1-XXX (Feed)

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
			CTL	
1-001-001	User LeadEdge Reg	By-pass: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-002	User LeadEdge Reg	Tray1: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-003	User LeadEdge Reg	Tray2: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-004	User LeadEdge Reg	Tray3: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-005	User LeadEdge Reg	Tray4: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-006	User LeadEdge Reg	Duplex: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-001	User S-to-S Reg	By-pass	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-002	User S-to-S Reg	Tray 1	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-003	User S-to-S Reg	Tray 2	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-004	User S-to-S Reg	Tray 3	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-005	User S-to-S Reg	Tray 4	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-006	User S-to-S Reg	Duplex	ENG*	[-4 to 4 / 0 / 0.1mm]
1-003-011	Paper Buckle	By-pass: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-012	Paper Buckle	By-pass: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-013	Paper Buckle	By-pass: Envelope	ENG*	[-5 to 5 / 0 / 1mm]
1-003-021	Paper Buckle	Tray1: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-022	Paper Buckle	Tray1: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-023	Paper Buckle	Tray1: Envelope	ENG*	[-5 to 5 / 0 / 1mm]
1-003-031	Paper Buckle	Tray2: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-032	Paper Buckle	Tray2: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-041	Paper Buckle	Tray3: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-042	Paper Buckle	Tray3: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-051	Paper Buckle	Tray4: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-052	Paper Buckle	Tray4: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-061	Paper Buckle	Duplex: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-062	Paper Buckle	Duplex: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-101-001	Flicker Control	Flicker Control	ENG*	[0 to 1 / 0 / 1]
1-103-002	Fusing Idling	Reload Temp.:Center	ENG*	[90 to 180 / * / 1deg]
				IM 350F/350: 145
				IM 430Fb/430F: 153
1-103-003	Fusing Idling	center:Thresh	ENG*	[60 to 180 / * / 1deg]
				IM 350F/350: 135

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
			CIL	IM 430Eb/430E: 143
1-103-102	Fusina Idlina	Reload Temp Side	ENG*	[90 to 180 / * / 1dea]
1 100 102			LING	IM 350F/350: 105
				IM 430Fb/430F: 113
1-103-103	Fusing Idling	Side: Thresh	ENG*	[60 to 180 / * / 1deg]
				IM 350F/350: 85
				IM 430Fb/430F: 93
1-103-152	Fusing Idling	Reload Temp.:Side_low	ENG*	[90 to 180 / 100 /
		speed		1deg]
1-103-153	Fusing Idling	Side: Thresh_low speed	ENG*	[60 to 180 / 80 / 1deg]
1-103-202	Fusing Idling	Reload Temp:Center_low	ENG*	[90 to 180 / 140 /
		speed		1deg]
1-103-203	Fusing Idling	Center:Thresh_low speed	ENG*	[60 to 180 / 130 /
				1deg]
1-105-001	Fusing Temperature	Roller Center:Plain1	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 167
				IM 430Fb/430F: 170
1-105-003	Fusing Temperature	Roller Center:Plain2	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 175
				IM 430Fb/430F: 178
1-105-005	Fusing Temperature	Roller Center:M-Thick	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 180
				IM 430Fb/430F: 186
1-105-007	Fusing Temperature	Thick1 Paper:Roller	ENG*	[0 to 60 / * / 1deg]
	Adjustment	Center		IM 350F/350: 23
				IM 430Fb/430F: 28
1-105-008	Fusing Temperature	Thick2 Paper:Roller	ENG*	[0 to 60 / * / 1deg]
	Adjustment	Center		IM 350F/350: 18
			EN Ot	IM 430Fb/430F: 15
1-105-009	Fusing lemperature	Center Minus: I hin	ENG*	[0 to 60 / 10 / 1deg]
4 405 040			FNIOt	
1-105-010		Thick3 Paper:	ENG [*]	[U to 6U / * / 1deg]
	Aujustment	RullerCenter		IVI 300F/300: 23
1 105 011	Eucina Tomporatura			11VI 43000/4300.20
1-103-011	Adjustment			

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
1-105-012	Eusing Temperature	Standby Temp: Center	ENG*	[140 to 185 / * / 1dea]
1 100 012		Clandby Temp. Center	LING	IM 350E/350: 155
				IM 430Eb/430E: 163
1-105-013	Fusing Temperature	Print Ready	ENG*	[140 to 180 / * / 1deg]
	Adjustment	- mit roudy		IM 350E/350: 165
				IM 430Fb/430E: 173
1-105-014	Eusing Temperature	Thresh:S1	ENG*	[0 to 50 / 19 / 1deg]
1 100 014	Adjustment			
1-105-015	Fusing Temperature	Thresh:delta t	ENG*	[0 to 50 / 0 / 1dea]
	Adjustment			
1-105-016	Fusing Temperature	Low:Plain1	ENG*	[0 to 30 / 5 / 1dea]
	Adjustment			
1-105-017	Fusing Temperature	Low:Plain2	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-018	Fusing Temperature	Low:M-Thick	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-019	Fusing Temperature	Low:Thick	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-024	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	Lower:Plain1		
1-105-026	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	Lower:Plain2		
1-105-028	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	Lower:M-Thick		
1-105-030	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	Lower:Thick		
1-105-032	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Plain1		
1-105-034	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Plain2		
1-105-036	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:M-Thick		
1-105-038	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Thick		
1-105-040	Fusing Temperature	Envelope2:Roller Center	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 38

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
			CTL	
				IM 430Fb/430F: 35
1-105-042	Fusing Temperature Adjustment	Transparency:Roller Center	ENG*	[0 to 60 / 20 / 1deg]
1-105-044	Fusing Temperature	Post Card:Roller Center	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 38
				IM 430Fb/430F: 35
1-105-046	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center		
1-105-048	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center		
1-105-051	Fusing Temperature	Roller Center:Plain1_curl	ENG*	[0 to 255 / 146 / 1deg]
	Adjustment			
1-105-053	Fusing Temperature	Roller Center:Plain2_curl	ENG*	[0 to 255 / 155 / 1deg]
	Adjustment			
1-105-055	Fusing Temperature	Roller Center:M-	ENG*	[0 to 255 / 155 / 1deg]
	Adjustment	Thick_curl		
1-105-057	Fusing Temperature	Thick1 Paper:Roller	ENG*	[0 to 60 / 11 / 1deg]
	Adjustment	Center_curl		
1-105-058	Fusing Temperature	Thick2 Paper:Roller	ENG*	[0 to 60 / 13 / 1deg]
	Adjustment	Center_curl		
1-105-059	Fusing Temperature	Center Minus:Thin_curl	ENG*	[0 to 60 / 7 / 1deg]
	Adjustment			
1-105-060	Fusing Temperature	Thick3 Paper:	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	RollerCenter_curl		
1-105-067	Fusing Temperature	Thick Paper1: Roller	ENG*	[0 to 60 / 11 / 1deg]
	Adjustment	Side_curl		
1-105-068	Fusing Temperature	Thick Paper2 :Roller	ENG*	[0 to 60 / 13 / 1deg]
	Adjustment	Side_curl		
1-105-069	Fusing Temperature	Side Minus :Thin_curl	ENG*	[0 to 60 / 7 / 1deg]
	Adjustment			
1-105-070	Fusing Temperature	Thick Paper3 :Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Side_curl		
1-105-072	Fusing Temperature	Transparency:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Side_curl		
1-105-074	Fusing Temperature Adjustment	Post Card:Roller Side_curl	ENG*	[0 to 60 / 18 / 1deg]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-105-076	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Side_curl		
1-105-078	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Side_curl		
1-105-092	Fusing Temperature	Transparency:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Center_curl		
1-105-094	Fusing Temperature	Post Card:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Center_curl		
1-105-096	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Center_curl		
1-105-098	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Center_curl		
1-105-101	Fusing Temperature	Roller Side:Plain1	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 162
				IM 430Fb/430F: 165
1-105-103	Fusing Temperature	Roller Side:Plain2	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 170
				IM 430Fb/430F: 173
1-105-105	Fusing Temperature	Roller Side:M-Thick	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 175
				IM 430Fb/430F: 181
1-105-107	Fusing Temperature	Thick Paper1: Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 23
				IM 430Fb/430F: 28
1-105-108	Fusing Temperature	Thick Paper2 :Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 18
				IM 430Fb/430F: 15
1-105-109	Fusing Temperature	Side Minus :Thin	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment			
1-105-110	Fusing Temperature	Thick Paper3 :Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 23
				IM 430Fb/430F: 20
1-105-111	Fusing Temperature	Low Power	ENG*	[0 to 80 / 60 / 1deg]
	Adjustment			
1-105-112	Fusing Temperature	Standby Temp: Side	ENG*	[140 to 158 / * / 1deg]
	Adjustment			IM 350F/350: 150

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
			CTL	
				IM 430Fb/430F: 158
1-105-113	Fusing Temperature	Print Ready	ENG*	[140 to 158 / * / 1deg]
	Adjustment			IM 350F/350: 150
				IM 430Fb/430F: 158
1-105-116	Fusing Temperature	Low:Plain1	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-117	Fusing Temperature	Low:Plain2	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-118	Fusing Temperature	Low:M-Thick	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-119	Fusing Temperature	Low:Thick	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-124	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 50 / 1deg]
	Adjustment	Lower:Plain1		
1-105-126	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 55 / 1deg]
	Adjustment	Lower:Plain2		
1-105-128	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 40 / 1deg]
	Adjustment	Lower:M-Thick		
1-105-130	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 40 / 1deg]
	Adjustment	Lower:Thick		
1-105-132	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Plain1		
1-105-134	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Plain2		
1-105-136	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:M-Thick		
1-105-138	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Thick		
1-105-140	Fusing Temperature	Envelope2:Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 43
				IM 430Fb/430F: 40
1-105-142	Fusing Temperature	Transparency:Roller Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment			
1-105-144	Fusing Temperature	Post Card:Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 38
				IM 430Fb/430F: 35

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-105-146	Fusing Temperature Adjustment	Special Paper 1:Roller Side	ENG*	[0 to 60 / 20 / 1deg]
1-105-148	Fusing Temperature Adjustment	Special Paper 2:Roller Side	ENG*	[0 to 60 / 20 / 1deg]
1-105-151	Fusing Temperature Adjustment	Roller Side:Plain1_low speed	ENG*	[120 to 230 / 160 / 1deg]
1-105-152	Fusing Temperature Adjustment	Roller Side:Plain1_curl	ENG*	[0 to 255 / 141 / 1deg]
1-105-153	Fusing Temperature Adjustment	Roller Side:Plain2_low speed	ENG*	[120 to 230 / 165 / 1deg]
1-105-154	Fusing Temperature Adjustment	Roller Side:Plain2_curl	ENG*	[0 to 255 / 150 / 1deg]
1-105-155	Fusing Temperature Adjustment	Roller Side:M-Thick_low speed	ENG*	[120 to 230 / 170 / 1deg]
1-105-156	Fusing Temperature Adjustment	Roller Side:M-Thick_curl	ENG*	[0 to 255 / 150 / 1deg]
1-105-157	Fusing Temperature Adjustment	Thick Paper1: Roller Side_low speed	ENG*	[0 to 60 / 15 / 1deg]
1-105-158	Fusing Temperature Adjustment	Thick Paper2 :Roller Side_low speed	ENG*	[0 to 60 / 20 / 1deg]
1-105-159	Fusing Temperature Adjustment	Side Minus :Thin_low speed	ENG*	[0 to 60 / 10 / 1deg]
1-105-160	Fusing Temperature Adjustment	Thick Paper3 :Roller Side_low speed	ENG*	[0 to 60 / 25 / 1deg]
1-105-162	Fusing Temperature Adjustment	Standby Temp: Side_low speed	ENG*	[140 to 185 / 145 / 1deg]
1-105-163	Fusing Temperature Adjustment	Print ready:Side_low speed	ENG*	[140 to 180 / 145 / 1deg]
1-105-174	Fusing Temperature Adjustment	Paper Feed:Center Lower:Plain1_curl	ENG*	[0 to 60 / 5 / 1deg]
1-105-176	Fusing Temperature Adjustment	Paper Feed:Center Lower:Plain2_curl	ENG*	[0 to 60 / 5 / 1deg]
1-105-178	Fusing Temperature Adjustment	Paper Feed:Center Lower:M-Thick_curl	ENG*	[0 to 60 / 5 / 1deg]
1-105-180	Fusing Temperature Adjustment	Paper Feed:Center Lower:Thick_curl	ENG*	[0 to 60 / 5 / 1deg]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
1-105-190	Fusing Temperature	Envelope:Roller Side_low	ENG*	[0 to 60 / 45 / 1deg]
1-105-192	Fusing Temperature Adjustment	Transparency:Roller Side_low speed	ENG*	[0 to 60 / 20 / 1deg]
1-105-194	Fusing Temperature Adjustment	Post Card:Roller Side_low speed	ENG*	[0 to 60 / 40 / 1deg]
1-105-196	Fusing Temperature Adjustment	Special Paper 1:Roller Side_low speed	ENG*	[0 to 60 / 20 / 1deg]
1-105-198	Fusing Temperature Adjustment	Special Paper 2:Roller Side_low speed	ENG*	[0 to 60 / 20 / 1deg]
1-105-201	Fusing Temperature Adjustment	Roller Center:Plain1_low speed	ENG*	[120 to 230 / 165 / 1deg]
1-105-203	Fusing Temperature Adjustment	Roller Center:Plain2_low speed	ENG*	[120 to 230 / 170 / 1deg]
1-105-205	Fusing Temperature Adjustment	Roller Center:M-Thick_low speed	ENG*	[120 to 230 / 175 / 1deg]
1-105-207	Fusing Temperature Adjustment	Thick1 Paper:Roller Center_low speed	ENG*	[0 to 60 / 15 / 1deg]
1-105-208	Fusing Temperature Adjustment	Thick2 Paper:Roller Center_low speed	ENG*	[0 to 60 / 20 / 1deg]
1-105-209	Fusing Temperature Adjustment	Center Minus:Thin_low speed	ENG*	[0 to 60 / 10 / 1deg]
1-105-210	Fusing Temperature Adjustment	Thick3 Paper: RollerCenter_low speed	ENG*	[0 to 60 / 25 / 1deg]
1-105-212	Fusing Temperature Adjustment	Standby Temp: Center_low speed	ENG*	[140 to 185 / 150 / 1deg]
1-105-213	Fusing Temperature Adjustment	Print Ready:Center_low speed	ENG*	[140 to 180 / 160 / 1deg]
1-105-224	Fusing Temperature Adjustment	Paper Feed:Side Lower:Plain1_curl	ENG*	[0 to 60 / 5 / 1deg]
1-105-226	Fusing Temperature Adjustment	Paper Feed:Side Lower:Plain2_curl	ENG*	[0 to 60 / 5 / 1deg]
1-105-228	Fusing Temperature Adjustment	Paper Feed:Side Lower:M-Thick_curl	ENG*	[0 to 60 / 5 / 1deg]
1-105-230	Fusing Temperature Adjustment	Paper Feed:Side Lower:Thick_curl	ENG*	[0 to 60 / 5 / 1deg]

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
1-105-240	Eusing Temperature	Envelope [.] Roller	ENG*	[0 to 60 / 40 / 1deg]
	Adjustment	Center low speed		
1-105-242	Fusing Temperature	Transparency:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center_low speed		
1-105-244	Fusing Temperature	Post Card:Roller	ENG*	[0 to 60 / 40 / 1deg]
	Adjustment	Center_low speed		
1-105-246	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center_low speed		
1-105-248	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center_low speed		
1-105-251	Fusing Temperature	Envelope1 Temp	ENG*	[-30 to 0 / -1 / 1deg]
	Adjustment	Adjustment:Center		
1-105-252	Fusing Temperature	Envelope1 Temp	ENG*	[-30 to 0 / -1 / 1deg]
	Adjustment	Adjustment:Side		
1-105-253	Fusing Temperature	Envelope3 Temp	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment	Adjustment:Center		
1-105-254	Fusing Temperature	Envelope3 Temp	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment	Adjustment:Side		
1-106-001	Fusing Temperature	Roller Center	ENG	[-20 to 250 / 0 / 1deg]
	Display			
1-106-003	Fusing Temperature	In The Machine at Power	ENG	[-20 to 250 / 0 / 1deg]
	Display	On		
1-106-101	Fusing Temperature	Roller Center	ENG	[-20 to 250 / 0 / 1deg]
	Display			
1-108-001	Control Period Setting	Warming-up	ENG*	[100 to 2000 / 600 /
				100msec]
1-108-002	Control Period Setting	Print	ENG*	[100 to 2000 / 600 /
				100msec]
1-108-003	Control Period Setting	Wait	ENG*	[100 to 2000 / 600 /
				100msec]
1-108-004	Control Period Setting	Print Start	ENG*	[100 to 2000 / 600 /
				100msec]
1-108-005	Control Period Setting	Print Start Time	ENG*	[0 to 999 / 5 / 1sec]
1-108-008	Control Period Setting	Environment Adjusted	ENG*	[-20 to 60 / 23 /
		Temp		0.1deg]
1-108-009	Control Period Setting	Environment Temp Adjust	ENG*	[0 to 10 / 0 / 0.1deg]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
		Amount		
1-111-001	CurlDecMode	Mode Display	ENG*	[0 to 1 / 0 / 1]
1-112-001	Image Process Temp. Correction	Temp.:Normal:Level1	ENG*	[-25 to 10 / 0 / 1deg]
1-112-002	Image Process Temp. Correction	Temp.:Normal:Level2	ENG*	[-25 to 10 / * / 1deg] IM 350F/350: -18 IM 430Fb/430F: -10
1-123-001	Fuser ExeSheets	Normal	ENG*	[0 to 255 / 50 / 1pages]
1-123-002	Fuser ExeSheets	ConsecutivePrint	ENG*	[0 to 500 / 500 / 1pages]
1-124-001	CPM Down Setting	Low:Down Temp	ENG*	[-50 to 0 / -25 / 1deg]
1-124-002	CPM Down Setting	Low:Up Temp	ENG*	[-50 to 0 / -5 / 1deg]
1-124-003	CPM Down Setting	Low:1st CPM	ENG*	[10 to 100 / 80 / 5%]
1-124-004	CPM Down Setting	Low:2nd CPM	ENG*	[10 to 100 / 60 / 5%]
1-124-005	CPM Down Setting	Low:3rd CPM	ENG*	[10 to 100 / 40 / 5%]
1-124-006	CPM Down Setting	High:1st CPM	ENG*	[10 to 100 / 65 / 5%]
1-124-007	CPM Down Setting	High:2nd CPM	ENG*	[10 to 100 / 50 / 5%]
1-124-008	CPM Down Setting	High:3rd CPM	ENG*	[10 to 100 / 50 / 5%]
1-124-009	CPM Down Setting	High:1st CPM Down Time.:LT	ENG*	[0 to 999 / 0 / 1sec]
1-124-010	CPM Down Setting	High:2nd CPM Down Time.:LT	ENG*	[0 to 999 / 0 / 1sec]
1-124-011	CPM Down Setting	High:3rd CPM Down Time.:LT	ENG*	[0 to 999 / 0 / 1sec]
1-124-012	CPM Down Setting	High:1st CPM Down Time.:A4	ENG*	[0 to 999 / 0 / 1sec]
1-124-013	CPM Down Setting	High:2nd CPM Down Time.:A4	ENG*	[0 to 999 / 0 / 1sec]
1-124-014	CPM Down Setting	High:3rd CPM Down Time.:A4	ENG*	[0 to 999 / 0 / 1sec]
1-124-015	CPM Down Setting	High:1st CPM Down Time.:B5	ENG*	[0 to 999 / 120 / 1sec]
1-124-016	CPM Down Setting	High:2nd CPM Down Time.:B5	ENG*	[0 to 999 / 0 / 1sec]
1-124-017	CPM Down Setting	High:3rd CPM Down	ENG*	[0 to 999 / 0 / 1sec]

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
			CTL	
		Time.:B5		
1-124-018	CPM Down Setting	High:1st CPM Down	ENG*	[0 to 999 / 60 / 1sec]
		Time.:A5		
1-124-019	CPM Down Setting	High:2nd CPM Down	ENG*	[0 to 999 / 1 / 1sec]
		Time.:A5		
1-124-020	CPM Down Setting	High:3rd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:A5		
1-124-021	CPM Down Setting	High:1st CPM Down	ENG*	[0 to 999 / 60 / 1sec]
		Time.:A6		
1-124-022	CPM Down Setting	High:2nd CPM Down	ENG*	[0 to 999 / 1 / 1sec]
		Time.:A6		
1-124-023	CPM Down Setting	High:3rd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:A6		
1-124-024	CPM Down Setting	Judging Interval	ENG*	[1 to 999 / 10 / 1sec]
1-124-025	CPM Down Setting	Start Timing	ENG*	[1 to 999 / 10 / 1sec]
1-134-001	Voltage state	0:Low 1:Normal	ENG*	[0 to 1 / 1 / 1]
1-135-001	Inrush Control	Inrush Control	ENG*	[0 to 1 / 0 / 1]
1-136-001	Low Volt Control	Low Volt SC Count	ENG*	[0 to 999 / 0 / 1]
1-136-002	Low Volt Control	LowVoltPrintSW	ENG*	[0 to 1 / * / 1]
				NA/TWN: 0
				EU/AA/CHN/KOR: 1
				0: OFF, 1: ON
1-136-005	Low Volt Control	ON/OFF	ENG*	[0 to 1 / 1 / 1]
1-136-006	Low Volt Control	Resetting Flag	ENG*	[0 to 1 / 0 / 1]
1-136-007	Low Volt Control	Resetting Times	ENG*	[0 to 255 / 0 / 1Times]
1-151-118	Press Adjustment	Depressure Shift Time	ENG*	[0 to 255 / 10 / 1sec]
1-151-119	Press Adjustment	Depressure Standby	ENG*	[0 to 255 / 0 / 1sec]
		condition's Pressing Time		
1-151-120	Press Adjustment	Depressure	ENG*	[0 to 1 / 0 / 1]
		system: 0:exist 1:none		
1-151-121	Press Adjustment	Depressing& pressing	ENG*	[10 to 255 / 170 /
		Timer		1msec]
1-151-122	Press Adjustment	Pressure	ENG	[0 to 1 / 0 / 1]
1-151-123	Press Adjustment	Depressure	ENG	[0 to 1 / 0 / 1]
1-152-001	Fusing Nip Band	0:OFF、1:ON	ENG	[0 to 1 / 0 / 1]
	Check			

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
			CTL	
1-159-001	Fusing Jam Detection	SC Display	ENG*	[0 to 1 / 0 / 1]
1-160-001	Allophone Control	Allophone Control	ENG*	[0 to 1 / 0 / 1]
1-801-001	MotorSpeedAdjust	DrumMot:ExtraHigh	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-002	MotorSpeedAdjust	DrumMot:High	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-003	MotorSpeedAdjust	DrumMot:Mid	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-004	MotorSpeedAdjust	DrumMot:Low	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-006	MotorSpeedAdjust	FeedMot:ExtraHigh	ENG*	[-8 to 8 / 0 / 0.01%]
1-801-007	MotorSpeedAdjust	FeedMot:High	ENG*	[-8 to 8 / 0 / 0.01%]
1-801-008	MotorSpeedAdjust	FeedMot:Mid	ENG*	[-8 to 8 / 0 / 0.01%]
1-801-009	MotorSpeedAdjust	FeedMot:Low	ENG*	[-8 to 8 / 0 / 0.01%]
1-907-005	Paper Timing Adj	Reverse Stop Posi	ENG*	[-10 to 10 / 0 / 1mm]
1-907-015	Paper Timing Adj	Re-Feed Stop Posi	ENG*	[-10 to 10 / 0 / 1mm]
1-908-015	Paper Timing Adj	Junc Gate SOL:ON	ENG*	[-10 to 10 / 0 / 1mm]
1-908-017	Paper Timing Adj	Junc Gate SOL:OFF	ENG*	[-10 to 10 / 0 / 1mm]
1-908-018	Paper Timing Adj	Bypass Feed CL OFF	ENG*	[-50 to 900 / 0 / 1mm]
1-909-001	FeedRetryCount	Manual Feed Tray	ENG*	[0 to 2 / 1 / 1]
1-909-002	FeedRetryCount	Tray1	ENG*	[0 to 2 / 1 / 1]
1-909-003	FeedRetryCount	Tray2	ENG*	[0 to 2 / 1 / 1]
1-909-004	FeedRetryCount	Tray3	ENG*	[0 to 2 / 1 / 1]
1-909-005	FeedRetryCount	Tray4	ENG*	[0 to 2 / 1 / 1]
1-910-001	FeedRetryCountLog	Manual Feed Tray	ENG*	[0 to 65535 / 0 / 1]
1-910-002	FeedRetryCountLog	Tray1	ENG*	[0 to 65535 / 0 / 1]
1-910-003	FeedRetryCountlog	Tray2	ENG*	[0 to 65535 / 0 / 1]
1-910-004	FeedRetryCountlog	Tray3	ENG*	[0 to 65535 / 0 / 1]
1-910-005	FeedRetryCountlog	Tray4	ENG*	[0 to 65535 / 0 / 1]
1-911-001	FeedDelayDivLog	DivA_MF_All_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-002	FeedDelayDivLog	DivA_MF_All_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-003	FeedDelayDivLog	DivB_MF_All_Nor	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-004	FeedDelayDivLog	DivB_MF_All_Thick	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-005	FeedDelayDivLog	DivC_MF_All_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-006	FeedDelayDivLog	DivC_MF_All_Thick	ENG*	[0 to 65535 / 0 /

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
				1count]
1_011_007	FeedDelayDiyl og		ENG*	[0 to 65535 / 0 /
1-911-007	T EEGDEIAYDIVLOG		LING	1count1
1 011 009			ENC*	[0 to 65535 / 0 /
1-911-000	T EEGDEIAYDIVLOG		LING	1count1
1 011 000		DivA T1 1 Nor	ENC*	[0 to 65535 / 0 /
1-911-009	FeedDelayDivLog		ENG	100000000707
1 011 010		DivA T1 1 Thick	ENC*	[0 to 65535 / 0 /
1-911-010	FeedDelayDivLog		ENG	[0 10 000007 0 7
1 011 011		DivA T1 2 Nor		
1-911-011	FeedDelayDivLog	DIVA_TT_2_NOT	ENG	[0 10 05555 / 0 /
1 011 012		DivA T1 2 Thick		
1-911-012	FeedDelayDivLog	DIVA_T1_2_THICK	ENG	[0 10 05555 / 0 /
4 044 040				
1-911-013	FeedDelayDivLog	DIVB_11_1_Nor	ENG	
4 044 044				
1-911-014	FeedDelayDivLog		ENG	
4 0 4 4 0 4 5				
1-911-015	FeedDelayDivLog	DivB_I1_2_Nor	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-016	FeedDelayDivLog	DivB_11_2_1hick	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-017	FeedDelayDivLog	DivC_T1_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-018	FeedDelayDivLog	DivC_T1_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-019	FeedDelayDivLog	DivC_T1_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-020	FeedDelayDivLog	DivC_T1_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-021	FeedDelayDivLog	DivD_T1_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-022	FeedDelayDivLog	DivD_T1_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-023	FeedDelayDivLog	DivD_T1_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-024	FeedDelayDivLog	DivD T1 2 Thick	ENG*	[0 to 65535 / 0 /

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
			CTL	
				1count]
1-911-025	FeedDelayDivLog	DivA_T2_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-026	FeedDelayDivLog	DivA_T2_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-027	FeedDelayDivLog	DivA_T2_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-028	FeedDelayDivLog	DivA_T2_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-029	FeedDelayDivLog	DivB_T2_1_Nor	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-030	FeedDelayDivLog	DivB_T2_1_Thick	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-031	FeedDelayDivLog	DivB_T2_2_Nor	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-032	FeedDelayDivLog	DivB_T2_2_Thick	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-033	FeedDelayDivLog	DivC_T2_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-034	FeedDelayDivLog	DivC_T2_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-035	FeedDelayDivLog	DivC_T2_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-036	FeedDelayDivLog	DivC_T2_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-037	FeedDelayDivLog	DivD_T2_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-038	FeedDelayDivLog	DivD_T2_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-039	FeedDelayDivLog	DivD_T2_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-040	FeedDelayDivLog	DivD_T2_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-912-001	Power Limit Mode	Mode 0 OFF 1 ON	ENG*	[0 to 0 / 0 / 1]
1-979-001	Power Control	Power Control	ENG*	[0 to 1 / 0 / 1]
1-990-001	SC990 plt detail		ENG*	[0 to 4294967295 / 0 /

SP No.	Large Category	Small Category	ENG or	[Min to Max/Init./Step]
			CTL	
				1]
1-991-001	Max Fusing Lamp	Roller Center	ENG*	[40 to 100 / 100 /
	Duty			10%]
1-991-003	Max Fusing Lamp	After Warming-up - Center	ENG*	[40 to 100 / 100 /
	Duty			10%]
1-996-005	Heater Forced Off	After Printing	ENG*	[0 to 50 / 10 / 1sec]
1-998-001	Reserve SP	reserve01	ENG*	[0 to 255 / 0 / 1]
1-998-002	Reserve SP	reserve02	ENG*	[0 to 255 / 0 / 1]
1-998-003	Reserve SP	reserve03	ENG*	[0 to 255 / 0 / 1]
1-998-004	Reserve SP	reserve04	ENG*	[0 to 255 / 0 / 1]
1-998-005	Reserve SP	reserve05	ENG*	[0 to 255 / 0 / 1]
1-998-006	Reserve SP	reserve06	ENG*	[0 to 255 / 0 / 1]
1-998-007	Reserve SP	reserve07	ENG*	[0 to 255 / 0 / 1]
1-998-008	Reserve SP	reserve08	ENG*	[0 to 255 / 0 / 1]
1-998-009	Reserve SP	reserve09	ENG*	[0 to 255 / 0 / 1]
1-998-010	Reserve SP	reserve10	ENG*	[0 to 255 / 0 / 1]
1-998-011	Reserve SP	reserve11	ENG*	[0 to 65535 / 0 / 1]
1-998-012	Reserve SP	reserve12	ENG*	[0 to 65535 / 0 / 1]
1-998-013	Reserve SP	reserve13	ENG*	[0 to 65535 / 0 / 1]
1-998-014	Reserve SP	reserve14	ENG*	[0 to 65535 / 0 / 1]
1-998-015	Reserve SP	reserve15	ENG*	[0 to 65535 / 0 / 1]
1-998-016	Reserve SP	reserve16	ENG*	[0 to 65535 / 0 / 1]
1-998-017	Reserve SP	reserve17	ENG*	[0 to 65535 / 0 / 1]
1-998-018	Reserve SP	reserve18	ENG*	[0 to 65535 / 0 / 1]
1-998-019	Reserve SP	reserve19	ENG*	[0 to 65535 / 0 / 1]
1-998-020	Reserve SP	reserve20	ENG*	[0 to 65535 / 0 / 1]

SP2-XXX (Drum)

SP No.	Large Category	Small Category	ENG	[Min to Max/Init./Step]	
			or CTL		
2-102-002	Magnification Adj	Sub Normal	ENG*	[-1.8 to 1.8 / 0 / 0.1%]	
2-102-004	Magnification Adj	Sub Low	ENG*	[-1.8 to 1.8 / 0 / 0.1%]	
2-103-001	Erase Margin Adj	Lead Edge Width	ENG*	[0 to 9.9 / 3 / 0.1mm]	
2-103-002	Erase Margin Adj	Trail Edge Width	ENG*	[0 to 9.9 / 2 / 0.1mm]	
2-103-003	Erase Margin Adj	Left Edge Width	ENG*	[0 to 9.9 / 2 / 0.1mm]	
2-103-004	Erase Margin Adj	Right Edge Width	ENG*	[0 to 9.9 / 2 / 0.1mm]	
2-103-005	Erase Margin Adj	Duplex Lead EW	ENG*	[0 to 4 / 0 / 0.1mm]	
2-103-006	Erase Margin Adj	Duplex Trail EW	ENG*	[0 to 4 / 0 / 0.1mm]	
2-103-007	Erase Margin Adj	Duplex Left EW	ENG*	[0 to 4 / 0 / 0.1mm]	
2-103-008	Erase Margin Adj	Duplex Right EW	ENG*	[0 to 4 / 0 / 0.1mm]	
2-106-021	LEDA Emit Time	Print	ENG*	[0 to 7000 / 0 / 1ns]	
2-109-001	Test Printing	Pattern Selection	ENG	[0 to 15 / 0 / 1]	
				0: None	
				1: Vert. (1dot)	
				2: Hori. (1dot)	
				3: Vert. (2dot)	
				4: Hori. (2dot)	
				5: Grid Vert.	
				6: Grid Hori.	
				7: Grid 20mm	
				8: Arg. Grid	
				9: Arg.Grid20mm	
				10: Indep.(1dot)	
				11: Indep.(2dot)	
				12: Indep.(4dot)	
				13: Full	
				14: Band	
				15: Trim Area	
2-109-002	Test Printing	1 Sheet Printing	ENG	[0 to 0 / 0 / 0]	
2-109-003	Test Printing	Continue Printing	ENG	[0 to 0 / 0 / 0]	
2-109-004	Test Printing	Print Side Select	ENG	[0 to 1 / 0 / 1]	
				0: One Side	
				1: Both Sides	
2-212-001	ExeSheets	Normal	ENG*	[1 to 500 / 500 / 1page]	
2-212-002	ExeSheets	ConsecutivePrint	ENG*	[40 to 500 / 500 / 1page]	

4.SP Mode Tables (for Printer Model)

SP No.	Large Category	Small Category	ENG	[Min to Max/Init./Step]
			or CTL	
2-221-005	LEDA Data:Display	Serial Number	ENG*	[0 to 0 / 0 / 0]
2-221-009	LEDA Data:Display	Power Error	ENG*	[0 to 1 / 0 / 1]
2-241-004	Temp: Display	Temp Display	ENG	[-20 to 99.9 / 0 / 0.1deg]
2-243-001	Temp/Humid:Disp	Temperature	ENG	[-5 to 45 / 0 / 0.1deg]
2-243-002	Temp/Humid:Disp	Relative Humidity	ENG	[0 to 100 / 0 / 1%RH]
2-243-003	Temp/Humid:Disp	Absolute Humidity	ENG	[0 to 100 / 0 / 1g/m ³]
2-412-001	Flag T&H Sensor	0:No Flag/1:Flag	ENG*	[0 to 1 / 0 / 1]
2-413-001	Flag PSU	0:No Flag/1:Flag	ENG*	[0 to 1 / 0 / 1]
	Thermistor			
2-926-003	Recovery Supply	Recovery Count	ENG*	[0 to 10000 / 0 / 1count]
2-926-004	Recovery Supply	Self-Recovery	ENG	[0 to 1 / 0 / 1]
2-927-005	Initial Supply	Exchange Count	ENG*	[0 to 1000 / 0 / 1count]
2-932-001	NearEnd Detect	ON OFF	ENG*	[0 to 1 / 1 / 1]
2-961-001	CleaningOperation	Level 1	ENG	[0 to 1 / 0 / 1]
2-961-002	CleaningOperation	Level 2	ENG	[0 to 1 / 0 / 1]
2-970-002	Exchange Count	Count PCDU	ENG*	[0 to 1000 / 0 / 1count]
2-970-003	Exchange Count	Count Fuser	ENG*	[0 to 1000 / 0 / 1count]
2-990-002	Duty Control	Lower	ENG*	[2000 to 60000 / 8100 /
				1count]
2-990-003	Duty Control	Upper	ENG*	[2000 to 60000 / 9000 /
				1count]

SP3-XXX (Process)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
3-098-001	Days Before End	Toner	ENG*	[0 to 2 / 1 / 1]
3-920-001	Density Adjust	Notch Setting	ENG*	[-6 to 3 / 0 / 1]
3-920-002	Density Adjust	Mode select	ENG*	[0 to 1 / 0 / 1]

4.SP Mode Tables (for Printer Model)

SP4-XXX (Scanner)

There are no Group 4 SP modes for this machine.

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-801-002	Memory Clear	Engine	ENG	[0 to 1 / 0 / 1]
5-803-001	INPUT Check	PCB Ver	ENG	[0 to 7 / 0 / 1]
5-803-002	INPUT Check	Front Interlock	ENG	[0 to 1 / 0 / 1]
5-803-003	INPUT Check	Rear Interlock	ENG	[0 to 1 / 0 / 1]
5-803-004	INPUT Check	Registration	ENG	[0 to 1 / 0 / 1]
5-803-005	INPUT Check	Paper Size	ENG	[0 to 7 / 0 / 1]
5-803-006	INPUT Check	Duplex Entrance	ENG	[0 to 1 / 0 / 1]
5-803-007	INPUT Check	Paper Exit Rev	ENG	[0 to 1 / 0 / 1]
5-803-008	INPUT Check	Paper Exit Full	ENG	[0 to 1 / 0 / 1]
5-803-009	INPUT Check	Paper End	ENG	[0 to 1 / 0 / 1]
5-803-010	INPUT Check	Bypass:Paper End	ENG	[0 to 1 / 0 / 1]
5-803-011	INPUT Check	Bypass:Tray	ENG	[0 to 1 / 0 / 1]
5-803-012	INPUT Check	Fusing Unit Set	ENG	[0 to 1 / 0 / 1]
5-803-013	INPUT Check	Fusing Unit New	ENG	[0 to 1 / 0 / 1]
5-803-014	INPUT Check	FusNipPress Pos	ENG	[0 to 1 / 0 / 1]
5-803-015	INPUT Check	Feed Mt Lock	ENG	[0 to 1 / 0 / 1]
5-803-016	INPUT Check	Drum Mt Lock	ENG	[0 to 1 / 0 / 1]
5-803-017	INPUT Check	PCDUFan:R Lock	ENG	[0 to 1 / 0 / 1]
5-803-018	INPUT Check	PCDUFan:L Lock	ENG	[0 to 1 / 0 / 1]
5-803-019	INPUT Check	PSU Fan Lock	ENG	[0 to 1 / 0 / 1]
5-803-020	INPUT Check	FusingTempDetect	ENG	[0 to 1 / 0 / 1]
5-803-021	INPUT Check	HVP:SC_T	ENG	[0 to 1 / 0 / 1]
5-803-022	INPUT Check	HVP:SC_C	ENG	[0 to 1 / 0 / 1]
5-803-026	INPUT Check	Rear Cover Open	ENG	[0 to 1 / 0 / 1]
5-803-027	INPUT Check	Paper Nearend	ENG	[0 to 1 / 0 / 1]
5-803-083	Input Check	Bank1:500/250/No	ENG	[0 to 2 / 2 / 1]
5-803-084	Input Check	Bank2:500/250/No	ENG	[0 to 2 / 2 / 1]
5-803-085	Input Check	Bank3:500/250/No	ENG	[0 to 2 / 2 / 1]
5-803-087	Input Check	Bank1 Trans SN	ENG	[0 to 1 / 0 / 1]
5-803-088	Input Check	Bank2 Trans SN	ENG	[0 to 1 / 0 / 1]
5-803-089	Input Check	Bank3 Trans SN	ENG	[0 to 1 / 0 / 1]
5-804-001	OUTPUT Check	FusPressRelMt:CW	ENG	[0 to 1 / 0 / 1]
5-804-002	OUTPUT Check	FusPressRelMt:CCW	ENG	[0 to 1 / 0 / 1]
5-804-003	OUTPUT Check	DrumMt:CW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-004	OUTPUT Check	DrumMt:CW:Hi	ENG	[0 to 1 / 0 / 1]

SP5-XXX (Mode) - Engine

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-804-005	OUTPUT Check	DrumMt:CW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-006	OUTPUT Check	DrumMt:CW:Low	ENG	[0 to 1 / 0 / 1]
5-804-007	OUTPUT Check	DrumMt:CW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-008	OUTPUT Check	DrumMt:CCW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-009	OUTPUT Check	DrumMt:CCW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-010	OUTPUT Check	DrumMt:CCW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-011	OUTPUT Check	DrumMt:CCW:Low	ENG	[0 to 1 / 0 / 1]
5-804-012	OUTPUT Check	DrumMt:CCW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-013	OUTPUT Check	FeedMt:CW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-014	OUTPUT Check	FeedMt:CW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-015	OUTPUT Check	FeedMt:CW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-016	OUTPUT Check	FeedMt:CW:Low	ENG	[0 to 1 / 0 / 1]
5-804-017	OUTPUT Check	FeedMt:CW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-018	OUTPUT Check	FeedMt:CCW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-019	OUTPUT Check	FeedMt:CCW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-020	OUTPUT Check	FeedMt:CCW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-021	OUTPUT Check	FeedMt:CCW:Low	ENG	[0 to 1 / 0 / 1]
5-804-022	OUTPUT Check	FeedMt:CCW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-023	OUTPUT Check	ExtRevMt:CW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-024	OUTPUT Check	ExtRevMt:CW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-025	OUTPUT Check	ExtRevMt:CW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-026	OUTPUT Check	ExtRevMt:CW:Low	ENG	[0 to 1 / 0 / 1]
5-804-027	OUTPUT Check	ExtRevMt:CW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-028	OUTPUT Check	ExtRevMt:CCW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-029	OUTPUT Check	ExtRevMt:CCW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-030	OUTPUT Check	ExtRevMt:CCW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-031	OUTPUT Check	ExtRevMt:CCW:Low	ENG	[0 to 1 / 0 / 1]
5-804-032	OUTPUT Check	ExtRevMtCCW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-033	OUTPUT Check	PCDUFan:Left:High	ENG	[0 to 1 / 0 / 1]
5-804-034	OUTPUT Check	PCDUFan:Left:Low	ENG	[0 to 1 / 0 / 1]
5-804-035	OUTPUT Check	PSU Fan: High	ENG	[0 to 1 / 0 / 1]
5-804-036	OUTPUT Check	PSU Fan: Low	ENG	[0 to 1 / 0 / 1]
5-804-037	OUTPUT Check	HVP:Development	ENG	[0 to 1 / 0 / 1]
5-804-038	OUTPUT Check	HVP:Charge	ENG	[0 to 1 / 0 / 1]
5-804-040	OUTPUT Check	HVP:Transfer:-	ENG	[0 to 1 / 0 / 1]
5-804-041	OUTPUT Check	HVP:Supply	ENG	[0 to 1 / 0 / 1]
5-804-042	OUTPUT Check	Drum QL	ENG	[0 to 1 / 0 / 1]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-804-044	OUTPUT Check	Exit Junc SOL	ENG	[0 to 1 / 0 / 1]
5-804-045	OUTPUT Check	PCDU Fan:Light	ENG	[0 to 1 / 0 / 1]
5-804-046	OUTPUT Check	Duplex CL	ENG	[0 to 1 / 0 / 1]
5-804-048	OUTPUT Check	Bypass:Feed CL	ENG	[0 to 1 / 0 / 1]
5-804-049	OUTPUT Check	Registration CL	ENG	[0 to 1 / 0 / 1]
5-804-050	OUTPUT Check	Feed Connect CL	ENG	[0 to 1 / 0 / 1]
5-804-051	OUTPUT Check	Bypass:Tray CL	ENG	[0 to 1 / 0 / 1]
5-804-052	OUTPUT Check	Paper Feed CL	ENG	[0 to 1 / 0 / 1]
5-804-053	OUTPUT Check	Toner End Sensor	ENG	[0 to 1 / 0 / 1]
5-804-054	OUTPUT Check	Toner IDTAG Power	ENG	[0 to 1 / 0 / 1]
5-804-162	Output Check	Bank1 BLM:MAX	ENG	[0 to 1 / 0 / 1]
5-804-163	Output Check	Bank1 BLM:High	ENG	[0 to 1 / 0 / 1]
5-804-164	Output Check	Bank1 BLM:Mid	ENG	[0 to 1 / 0 / 1]
5-804-165	Output Check	Bank1 BLM:Low	ENG	[0 to 1 / 0 / 1]
5-804-166	Output Check	Bank1 BLM:MIN	ENG	[0 to 1 / 0 / 1]
5-804-167	Output Check	Bank1 BLM:MAX	ENG	[0 to 1 / 0 / 1]
5-804-168	Output Check	Bank2 BLM:High	ENG	[0 to 1 / 0 / 1]
5-804-169	Output Check	Bank2 BLM:Mid	ENG	[0 to 1 / 0 / 1]
5-804-170	Output Check	Bank2 BLM:Low	ENG	[0 to 1 / 0 / 1]
5-804-171	Output Check	Bank1 BLM:MIN	ENG	[0 to 1 / 0 / 1]
5-804-172	Output Check	Bank1 BLM:MAX	ENG	[0 to 1 / 0 / 1]
5-804-173	Output Check	Bank3 BLM:High	ENG	[0 to 1 / 0 / 1]
5-804-174	Output Check	Bank3 BLM:Mid	ENG	[0 to 1 / 0 / 1]
5-804-175	Output Check	Bank3 BLM:Low	ENG	[0 to 1 / 0 / 1]
5-804-176	Output Check	Bank1 BLM:MIN	ENG	[0 to 1 / 0 / 1]
5-804-177	Output Check	Bank1 Feed CL	ENG	[0 to 1 / 0 / 1]
5-804-178	Output Check	Bank2 Feed CL	ENG	[0 to 1 / 0 / 1]
5-804-179	Output Check	Bank3 Feed CL	ENG	[0 to 1 / 0 / 1]
5-810-001	SC Reset	Fusing SC Reset	ENG	[0 to 1 / 0 / 1]
5-811-002	Machine Serial	Display	ENG*	[0 to 255 / 0 / 1]
5-811-004	Machine Serial	Set EGB	ENG	[0 to 255 / 0 / 1]
5-811-021	Machine Serial	Update Latest	ENG*	[0 to 1 / 0 / 1]
5-811-022	Machine Serial	Update Previous	ENG*	[0 to 1 / 0 / 1]
5-811-023	Machine Serial	Previous	ENG*	[0 to 255 / 0 / 1]
5-811-024	Machine Serial	Update Latest EGB	ENG*	[0 to 1 / 0 / 1]
5-811-025	Machine Serial	Update Pre EGB	ENG*	[0 to 1 / 0 / 1]
5-811-026	Machine Serial	Previous EGB	ENG*	[0 to 255 / 0 / 1]

4.SP Mode Tables (for Printer Model)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max/Init./Step]
5-900-001	Engine Log Upload	Pattern	ENG*	[0 to 4 / 0 / 1]
5-900-002	Engine Log Upload	Trigger	ENG*	[0 to 3 / 0 / 1]
5-930-001	MeterClick Charge	Setting	ENG*	[0 to 1 / 0 / 1]
				0:No
				1:Yes
5-931-001	Life Alert Disp.	Mentenance Kit	ENG*	[0 to 1 / 1 / 1]
				0:No
				1:Yes
5-931-002	Life Alert Disp.	PCDU	ENG*	[0 to 1 / 1 / 1]
				0:No
				1:Yes
5-931-003	Life Alert Disp.	PCDU STOP	ENG*	[0 to 1 / 0 / 1]
				0:No
				1:Yes

SP5-XXX (Mode) - Controller

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-001-001	All Indicators On		CTL	[0 to 0 / 0 / 0]
5-024-001	mm/inch Display Selection	0:mm 1:inch	CTL*	[0 or 1 / * / 1]
				NA: 1
				EU, AA, CHN, TWN,
				KOR: 0
5-051-001	TonerRefillDetectionDisplay		CTL*	[0 or 1 / 0 / 1]
5-055-001	Display IP address		CTL*	[0 or 1 / 0 / 1]
5-083-001	LED Light Switch Setting	Toner Near End	CTL*	[0 or 1 / 0 / 1]
5-144-001	Tray Lock	Bypass	CTL*	[0 or 1 / 0 / 1]
5-144-002	Tray Lock	Tray 1	CTL*	[0 or 1 / 0 / 1]
5-144-003	Tray Lock	Tray 2	CTL*	[0 or 1 / 0 / 1]
5-144-004	Tray Lock	Tray 3	CTL*	[0 or 1 / 0 / 1]
5-144-005	Tray Lock	Tray 4	CTL*	[0 or 1 / 0 / 1]
5-169-001	CE Login		CTL*	[0 or 1 / 0 / 1]
5-191-002	Mode Set	Power Low Clock Mode	CTL*	[0 or 1 / 1 / 1]
5-195-001	Limitless SW		CTL*	[0 or 1 / 0 / 1]
5-302-002	Set Time	Time Difference	CTL*	[-1440 to 1440 / * / 1]
				NA: -300, EU: 60,
				AA, CHN, TWN:480
5-305-101	Auto Off Set	Auto Off Limit Set	CTL*	[0 or 1 / 0 / 1]
5-307-001	Daylight Saving Time	Setting	CTL*	[0 or 1 / * / 1]
				NA, EU: 1
				AA, CHN, TWN,
				KOR: 0
5-307-003	Daylight Saving Time	Rule Set(Start)	CTL*	[0 to 0xffffffff / * / 1]
				NA: 0x03200210
				EU: 0x03500010
				AA: 0x10500010
				CHN, TWN: 0
5-307-004	Daylight Saving Time	Rule Set(End)	CTL*	[0 to 0xffffffff / 0 / 1]
				NA: 0x11100200
				EU: 0x10500100
				AA: 0x03100000
				CHN, TWN: 0

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-401-104	Access Control	Authentication Time	CTL*	[0 to 255 / 0 / 1sec]
5-401-162	Access Control	Extend Certification Detail	CTL*	[0 to 0xff / 0 / 1]
5-401-200	Access Control	SDK1 UniqueID	CTL*	[0 to 0xFFFFFFFF /
				0 / 1]
5-401-201	Access Control	SDK1 Certification Method	CTL*	[0 to 0xFF / 0 / 1]
5-401-210	Access Control	SDK2 UniqueID	CTL*	[0 to 0xFFFFFFFF /
				0 / 1]
5-401-211	Access Control	SDK2 Certification Method	CTL*	[0 to 0xFF / 0 / 1]
5-401-220	Access Control	SDK3 UniqueID	CTL*	[0 to 0xFFFFFFFF /
				0 / 1]
5-401-221	Access Control	SDK3 Certification Method	CTL*	[0 to 0xFF / 0 / 1]
5-401-230	Access Control	SDK Certification Device	CTL*	[0 to 0xff / 0 / 1]
5-401-240	Access Control	Detail Option	CTL*	[0 to 0xff / 0 / 1]
5-404-001	User Code Count Clear	User Code Count Clear	CTL	[0 to 0 / 0 / 0]
5-404-101	User Code Count Clear	User Code Count Clear	CTL*	[0 or 1 / 0 / 1]
		Permit Setting		
5-411-004	LDAP-Certification	Simplified Authentication	CTL*	[0 or 1 / 1 / 1]
5-411-005	LDAP-Certification	Password Null Not Permit	CTL*	[0 or 1 / 1 / 1]
5-411-006	LDAP-Certification	Detail Option	CTL*	[0 to 0xff / 0 / 1]
5-412-100	Krb-Certification	Encrypt Mode	CTL*	[0 to 0xFF / 0x1F / 1]
5-413-001	Lockout Setting	Lockout On/Off	CTL*	[0 or 1 / 0 / 1]
5-413-002	Lockout Setting	Lockout Threshold	CTL*	[1 to 10 / 5 / 1]
5-413-003	Lockout Setting	Cancelation On/Off	CTL*	[0 or 1 / 0 / 1]
5-413-004	Lockout Setting	Cancelation Time	CTL*	[1 to 9999 / 60 /
				1min]
5-414-001	Access Mitigation	Mitigation On/Off	CTL*	[0 or 1 / 0 / 1]
5-414-002	Access Mitigation	Mitigation Time	CTL*	[0 to 60 / 15 / 1min]
5-415-001	Password Attack	Permissible Number	CTL*	[0 to 100 / 30 / 1]
5-415-002	Password Attack	Detect Time	CTL*	[1 to 10 / 5 / 1]
5-416-001	Access Information	Access User Max Num	CTL*	[50 to 200 / 200 / 1]
5-416-002	Access Information	Access Password Max	CTL*	[50 to 200 / 200 / 1]
		Num		
5-416-003	Access Information	Monitor Interval	CTL*	[1 to 10 / 3 / 1]
5-417-001	Access Attack	Access Permissible	CTL*	[0 to 500 / 100 / 1]
		Number		

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-417-002	Access Attack	Attack Detect Time	CTL*	[10 to 30 / 10 / 1sec]
5-417-003	Access Attack	Productivity Fall Waite	CTL*	[0 to 9 / 3 / 1sec]
5-417-004	Access Attack	Attack Max Num	CTL*	[50 to 200 / 200 / 1]
5-420-041	User Authentication	Printer	CTL*	[0 or 1 / 0 / 1]
5-420-051	User Authentication	SDK1	CTL*	[0 or 1 / 0 / 1]
5-420-061	User Authentication	SDK2	CTL*	[0 or 1 / 0 / 1]
5-420-071	User Authentication	SDK3	CTL*	[0 or 1 / 0 / 1]
5-481-001	Authentication Error Code	System Log Disp	CTL*	[0 or 1 / 0 / 1]
5-501-001	PM Alarm	PM Alarm Level	CTL*	[0 to 9999 / 0 / 1]
5-504-001	Jam Alarm		CTL*	[0 to 3 / 3 / 1]
5-504-002	Jam Alarm	Threshold	CTL*	[1 to 99 / 10 / 1]
5-505-001	Error Alarm		CTL*	[0 to 255 / * / 1]
				35 ppm model: 10
				43 ppm model: 15
5-505-002	Error Alarm	Threshold	CTL*	[1 to 99 / 5 / 1]
5-507-001	Supply/CC Alarm	Paper Supply Alarm	CTL*	[0 or 1 / 0 / 1]
5-507-003	Supply/CC Alarm	Toner Supply Alarm	CTL*	[0 or 1 / 1 / 1]
5-507-006	Supply/CC Alarm	WasteTonerBottle Supply	CTL*	[0 or 1 / 1 / 1]
		Alarm		
5-507-080	Supply/CC Alarm	Toner Call Timing	CTL*	[0 or 1 / 0 / 1]
5-507-081	Supply/CC Alarm	Toner Call Threshold	CTL*	[10 to 90 / 10 / 10%]
5-507-128	Supply/CC Alarm	Interval: Others	CTL*	[250 to 10000 / 1000
				/ 1]
5-507-133	Supply/CC Alarm	Interval: A4	CTL*	[250 to 10000 / 1000
				/ 1]
5-507-134	Supply/CC Alarm	Interval: A5	CTL*	[250 to 10000 / 1000
				/ 1]
5-507-142	Supply/CC Alarm	Interval: B5	CTL*	[250 to 10000 / 1000
				/ 1]
5-507-164	Supply/CC Alarm	Interval: LG	CTL*	[250 to 10000 / 1000
				/ 1]
5-507-166	Supply/CC Alarm	Interval: LT	CTL*	[250 to 10000 / 1000
				/ 1]
5-507-172	Supply/CC Alarm	Interval: HLT	CTL*	[250 to 10000 / 1000
				/ 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-515-001	SC/Alarm Setting	SC Call	CTL*	[0 or 1 / 1 / 1]
5-515-002	SC/Alarm Setting	Service Parts Near End	CTL*	[0 or 1 / 0 / 1]
		Call		
5-515-003	SC/Alarm Setting	Service Parts End Call	CTL*	[0 or 1 / 0 / 1]
5-515-004	SC/Alarm Setting	User Call	CTL*	[0 or 1 / 1 / 1]
5-515-006	SC/Alarm Setting	Communication Test Call	CTL*	[0 or 1 / 1 / 1]
5-515-007	SC/Alarm Setting	Machine Information	CTL*	[0 or 1 / 1 / 1]
		Notice		
5-515-008	SC/Alarm Setting	Alarm Notice	CTL*	[0 or 1 / 0 / 1]
5-515-009	SC/Alarm Setting	Non Genuine Tonner	CTL*	[0 or 1 / 1 / 1]
		Ararm		
5-515-010	SC/Alarm Setting	Supply Automatic Ordering	CTL*	[0 or 1 / 1 / 1]
		Call		
5-515-011	SC/Alarm Setting	Supply Management	CTL*	[0 or 1 / 1 / 1]
		Report Call		
5-515-012	SC/Alarm Setting	Jam/Door Open Call	CTL*	[0 or 1 / 0 / 1]
5-515-050	SC/Alarm Setting	Timeout:Manual Call	CTL*	[1 to 255 / 5 / 1min]
5-515-051	SC/Alarm Setting	Timeout:Other Call	CTL*	[1 to 255 / 10 / 1min]
5-517-031	Get Machine Information	Get SMC Info: Retry	CTL*	[0 to 255 / 10 / 1min]
		Interval		
5-728-001	Network Setting	NAT Machine Port1	CTL*	[1 to 65535 / 49101 /
				1]
5-728-002	Network Setting	NAT UI Port1	CTL*	[1 to 65535 / 55101 /
				1]
5-728-003	Network Setting	NAT Machine Port2	CTL*	[1 to 65535 / 49102 /
				1]
5-728-004	Network Setting	NAT UI Port2	CTL*	[1 to 65535 / 55102 /
				1]
5-728-005	Network Setting	NAT Machine Port3	CTL*	[1 to 65535 / 49103 /
				1]
5-728-006	Network Setting	NAT UI Port3	CTL*	[1 to 65535 / 55103 /
				1]
5-728-007	Network Setting	NAT Machine Port4	CTL*	[1 to 65535 / 49104 /
				1]
5-728-008	Network Setting	NAT UI Port4	CTL*	[1 to 65535 / 55104 /

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
				1]
5-728-009	Network Setting	NAT Machine Port5	CTL*	[1 to 65535 / 49105 /
				1]
5-728-010	Network Setting	NAT UI Port5	CTL*	[1 to 65535 / 55105 /
				1]
5-728-011	Network Setting	NAT Machine Port6	CTL*	[1 to 65535 / 49106 /
				1]
5-728-012	Network Setting	NAT UI Port6	CTL*	[1 to 65535 / 55106 /
				1]
5-728-013	Network Setting	NAT Machine Port7	CTL*	[1 to 65535 / 49107 /
				1]
5-728-014	Network Setting	NAT UI Port7	CTL*	[1 to 65535 / 55107 /
				1]
5-728-015	Network Setting	NAT Machine Port8	CTL*	[1 to 65535 / 49108 /
				1]
5-728-016	Network Setting	NAT UI Port8	CTL*	[1 to 65535 / 55108 /
				1]
5-728-017	Network Setting	NAT Machine Port9	CTL*	[1 to 65535 / 49109 /
				1]
5-728-018	Network Setting	NAT UI Port9	CTL*	[1 to 65535 / 55109 /
				1]
5-728-019	Network Setting	NAT Machine Port10	CTL*	[1 to 65535 / 49110 /
				1]
5-728-020	Network Setting	NAT UI Port10	CTL*	[1 to 65535 / 55110 /
				1]
5-731-001	Counter Effect	Change Mk1 Cnt(Paper-	CTL*	[0 or 1 / 0 / 1]
		>Combine)		
5-749-001	Import/Export	Export	CTL	[0 to 0 / 0 / 0]
5-749-101	Import/Export	Import	CTL	[0 to 0 / 0 / 0]
5-801-001	Memory Clear	All Clear	CTL	[0 to 0 / 0 / 0]
5-801-003	Memory Clear	SCS	CTL	[0 to 0 / 0 / 0]
5-801-004	Memory Clear	IMH Memory Clr	CTL	[0 to 0 / 0 / 0]
5-801-005	Memory Clear	MCS	CTL	[0 to 0 / 0 / 0]
5-801-008	Memory Clear	Printer Application	CTL	[0 to 0 / 0 / 0]
5-801-010	Memory Clear	Web Service	CTL	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-801-011	Memory Clear	NCS	CTL	[0 to 0 / 0 / 0]
5-801-014	Memory Clear	Clear DCS Setting	CTL	[0 to 0 / 0 / 0]
5-801-015	Memory Clear	Clear UCS Setting	CTL	[0 to 0 / 0 / 0]
5-801-016	Memory Clear	MIRS Setting	CTL	[0 to 0 / 0 / 0]
5-801-017	Memory Clear	CCS	CTL	[0 to 0 / 0 / 0]
5-801-018	Memory Clear	SRM Memory Clr	CTL	[0 to 0 / 0 / 0]
5-801-019	Memory Clear	LCS	CTL	[0 to 0 / 0 / 0]
5-801-021	Memory Clear	ECS	CTL	[0 to 0 / 0 / 0]
5-801-025	Cleae Memory	websys	CTL	[0 to 0 / 0 / 0]
5-812-001	Service Tel. No. Setting	Service	CTL*	[0 to 0 / 0 / 0]
5-812-002	Service Tel. No. Setting	Facsimile	CTL*	[0 to 0 / 0 / 0]
5-816-001	Remote Service	I/F Setting	CTL*	[0 to 2 / 2 / 1]
5-816-002	Remote Service	CE Call	CTL*	[0 or 1 / 0 / 1]
5-816-003	Remote Service	Function Flag	CTL*	[0 or 1 / 0 / 1]
5-816-007	Remote Service	SSL Disable	CTL*	[0 or 1 / 0 / 1]
5-816-008	Remote Service	RCG Connect Timeout	CTL*	[1 to 90 / 30 / 1sec]
5-816-009	Remote Service	RCG Write Timeout	CTL*	[0 to 100 / 60 / 1sec]
5-816-010	Remote Service	RCG Read Timeout	CTL*	[0 to 100 / 60 / 1sec]
5-816-011	Remote Service	Port 80 Enable	CTL*	[0 or 1 / 0 / 1]
5-816-013	Remote Service	RFU Timing	CTL*	[0 or 1 / 1 / 1]
5-816-014	Remote Service	RCG Error Cause	CTL	[0 to 2 / 0 / 1]
5-816-021	Remote Service	RCG-C Registed	CTL*	[0 or 1 / 0 / 1]
5-816-023	Remote Service	Connect Type(N/M)	CTL*	[0 or 1 / 0 / 1]
5-816-061	Remote Service	Cert Expire Timing	CTL*	[0 to 0 / 0 / 1]
5-816-062	Remote Service	Use Proxy	CTL*	[0 or 1 / 0 / 1]
5-816-063	Remote Service	Proxy Host	CTL*	[0 to 0 / 0 / 0]
5-816-064	Remote Service	Proxy PortNumber	CTL*	[0 to 0xffff / 0 / 1]
5-816-065	Remote Service	Proxy User Name	CTL*	[0 to 0 / 0 / 0]
5-816-066	Remote Service	Proxy Password	CTL*	[0 to 0 / 0 / 0]
5-816-067	Remote Service	CERT:Up State	CTL*	[0 to 255 / 0 / 1]
5-816-068	Remote Service	CERT:Error	CTL*	[0 to 255 / 0 / 1]
5-816-069	Remote Service	CERT:Up ID	CTL*	[0 to 0 / 0 / 0]
5-816-083	Remote Service	Firm Up Status	CTL*	[0 to 1 / 0 / 1]
5-816-085	Remote Service	Firm Up User Check	CTL*	[0 to 1 / 0 / 1]
5-816-086	Remote Service	Firmware Size	CTL*	[0 to 0xffffffff / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-816-087	Remote Service	CERT:Macro Ver.	CTL	[0 to 0 / 0 / 0]
5-816-088	Remote Service	CERT:PAC Ver.	CTL	[0 to 0 / 0 / 0]
5-816-089	Remote Service	CERT:ID2Code	CTL	[0 to 0 / 0 / 0]
5-816-090	Remote Service	CERT:Subject	CTL	[0 to 0 / 0 / 0]
5-816-091	Remote Service	CERT:SerialNo.	CTL	[0 to 0 / 0 / 0]
5-816-092	Remote Service	CERT:Issuer	CTL	[0 to 0 / 0 / 0]
5-816-093	Remote Service	CERT:Valid Start	CTL	[0 to 0 / 0 / 0]
5-816-094	Remote Service	CERT:Valid End	CTL	[0 to 0 / 0 / 0]
5-816-102	Remote Service	CERT:Encrypt Level	CTL*	[1 to 2 / 1 / 1]
5-816-103	Remote Service	Client Communication	CTL*	[0 to 3 / 0 / 1]
		Method		
5-816-104	Remote Service	Client Communication	CTL*	[1 to 7 / 7 / 1]
		Limit		
5-816-115	Remote Service	Network Information	CTL*	[5 to 255 / 5 / 1sec]
		Waiting timer		
5-816-200	Remote Service	Manual Polling	CTL	[0 or 1 / 0 / 1]
5-816-201	Remote Service	Regist Status	CTL	[0 to 255 / 0 / 1]
5-816-202	Remote Service	Letter Number	CTL*	[0 to 0 / 0 / 0]
5-816-203	Remote Service	Confirm Execute	CTL	[0 or 1 / 0 / 1]
5-816-204	Remote Service	Confirm Result	CTL	[0 to 255 / 0 / 1]
5-816-205	Remote Service	Confirm Place	CTL	[0 or 1 / 0 / 1]
5-816-206	Remote Service	Register Execute	CTL	[0 or 1 / 0 / 1]
5-816-207	Remote Service	Register Result	CTL	[0 to 255 / 0 / 1]
5-816-208	Remote Service	Error Code	CTL	[-2147483647 to
				2147483647 / 0 / 1]
5-816-209	Remote Service	Instl Clear	CTL	[0 or 1 / 0 / 1]
5-816-240	Remote Service	CommErrorTime	CTL	[0 to 0 / 0 / 1]
5-816-241	Remote Service	CommErrorCode 1	CTL*	[0 to 0xffffffff /
				0x00000000 / 1]
5-816-242	Remote Service	CommErrorCode 2	CTL*	[0 to 0xffffffff /
				0x00000000 / 1]
5-816-243	Remote Service	CommErrorCode 3	CTL*	[0 to 0xffffffff /
				0x00000000 / 1]
5-816-244	Remote Service	CommErrorState 1	CTL*	[0 to 0xffff / 0x0000 /
				1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-816-245	Remote Service	CommErrorState 2	CTL*	[0 to 0xffff / 0x0000 /
				1]
5-816-246	Remote Service	CommErrorState 3	CTL*	[0 to 0xffff / 0x0000 /
				1]
5-816-247	Remote Service	SSL Error Count	CTL*	[0 to 255 / 0 / 1]
5-816-248	Remote Service	Other Err Count	CTL*	[0 to 255 / 0 / 1]
5-816-250	Remote Service	CommLog Print	CTL	[0 to 255 / 0 / 1]
5-821-002	Remote Service RCG	RCG IPv4 Address	CTL*	[0 to 0xffffffff / 0 / 1]
	Setting			
5-821-003	Remote Service RCG	RCG Port	CTL*	[0 to 65535 / 443 / 1]
	Setting			
5-821-004	Remote Service RCG	RCG IPv4 URL Path	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-821-005	Remote Service RCG	RCG IPv6 Address	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-821-006	Remote Service RCG	RCG IPv6 URL Path	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-821-007	Remote Service RCG	RCG Host Name	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-821-008	Remote Service RCG	RCG Host URL Path	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-824-001	NV-RAM Data Upload		CTL	[0 to 0 / 0 / 0]
5-825-001	NV-RAM Data Download		CTL	[0 to 0 / 0 / 0]
5-828-050	Network Setting	1284 Compatiblity (Centro)	CTL*	[0 or 1 / 1 / 1]
5-828-052	Network Setting	ECP (Centro)	CTL*	[0 or 1 / 1 / 1]
5-828-065	Network Setting	Job Spooling	CTL*	[0 or 1 / 0 / 1]
5-828-066	Network Setting	Job Spooling Clear: Start	CTL*	[0 or 1 / 1 / 1]
		Time		
5-828-069	Network Setting	Job Spooling (Protocol)	CTL*	[0x00 to 0xff / 0x7f /
				1]
5-828-087	Network Setting	Protocol usage	CTL*	[0x00000000 to
				0xffffffff /
				0x00000000 / 1]
5-828-090	Network Setting	TELNET(0:OFF 1:ON)	CTL*	[0 or 1 / 1 / 1]
5-828-091	Network Setting	Web(0:OFF 1:ON)	CTL*	[0 or 1 / 1 / 1]
SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
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			or	Step]
			CTL	
5-828-145	Network Setting	Active IPv6 Link Local	CTL	[0 to 0 / 0 / 0]
		Address		
5-828-147	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 1		
5-828-149	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 2		
5-828-151	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 3		
5-828-153	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 4		
5-828-155	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 5		
5-828-156	Network Setting	IPv6 Manual Address	CTL*	[0 to 0 / 0 / 0]
5-828-158	Network Setting	IPv6 Gateway Address	CTL*	[0 to 0 / 0 / 0]
5-828-161	Network Setting	IPv6 Stateless Auto	CTL*	[0 or 1 / 1 / 1]
		Setting		
5-828-219	Network Setting	IPsec Aggressive Mode	CTL*	[0 or 1 / 0 / 1]
		Setting		
5-828-236	Network Setting	Web Item visible	CTL*	[0x0000 to 0xffff /
				0xffff / 1]
5-828-237	Network Setting	Web shopping link visible	CTL*	[0 to 1 / 1 / 1]
5-828-238	Network Setting	Web Supplies Link visible	CTL*	[0 or 1 / 1 / 1]
5-828-239	Network Setting	Web Link1 Name	CTL*	[0 to 0 / 0 / 0]
5-828-240	Network Setting	Web Link1 URL	CTL*	[0 to 0 / 0 / 0]
5-828-241	Network Setting	Web Link1 visible	CTL*	[0 or 1 / 1 / 1]
5-828-242	Network Setting	Web Link2 Name	CTL*	[0 to 0 / 0 / 0]
5-828-243	Network Setting	Web Link2 URL	CTL*	[0 to 0 / 0 / 0]
5-828-244	Network Setting	Web Link2 visible	CTL*	[0 or 1 / 1 / 1]
5-828-249	Network Setting	DHCPv6 DUID	CTL	[0 to 0 / 0 / 0]
5-832-002	HDD	HDD Formatting (IMH)	CTL	[0 to 0 / 0 / 0]
5-840-006	IEEE 802.11	Channel MAX	CTL*	[1 to 14 / 14 / 1]
5-840-007	IEEE 802.11	Channel MIN	CTL*	[1 to 14 / 1 / 1]
5-840-011	IEEE 802.11	WEP Key Select	CTL*	[0x00 to 0x11 / 0x00
				/ 1]
5-840-045	IEEE 802.11	WPA Debug Lvl	CTL*	[1 to 3 / 3 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-840-046	IEEE 802.11	11w	CTL*	[0 to 2 / 0 / 1]
5-840-047	IEEE 802.11	PSK Set Type	CTL*	[0 or 1 / 0 / 1]
5-842-001	GWWS Analysis	Setting 1	CTL*	[0x00 to 0xFF / 0 / 1]
5-842-002	GWWS Analysis	Setting 2	CTL*	[0x00 to 0xFF / 0 / 1]
5-844-001	USB	Transfer Rate	CTL*	[1 to 4 / 4 / 1]
5-844-002	USB	Vendor ID	CTL*	[0x0000 to 0xffff /
				0x05ca / 1]
5-844-003	USB	Product ID	CTL*	[0x0000 to 0xffff /
				0x0403 / 1]
5-844-004	USB	Device Release Number	CTL*	[0 to 9999 / 100 / 1]
5-844-005	USB	Fixed USB Port	CTL*	[0 to 2 / 0 / 1]
5-844-006	USB	PnP Model Name	CTL*	[0 to 0 / 0 / 0]
5-844-007	USB	PnP Serial Number	CTL*	[0 to 0 / 0 / 0]
5-844-008	USB	Mac Supply Level	CTL*	[0 or 1 / 1 / 1]
5-844-009	USB	USB Toggle Clear Mode	CTL*	[0 or 1 / 0 / 1]
5-844-100	USB	Notify Unsupport	CTL*	[0 or 1 / 1 / 1]
5-845-003	Delivery Server Setting	Retry Interval	CTL*	[60 to 900 / 300 /
				1sec]
5-845-004	Delivery Server Setting	Number of Retries	CTL*	[0 to 99 / 3 / 1]
5-845-022	Delivery Server Setting	Rapid Sending Control	CTL*	[0 or 1 / 1 / 1]
5-846-010	UCS Setting	LDAP Search Timeout	CTL*	[1 to 255 / 60 / 1]
5-846-021	UCS Setting	Folder Auth Change	CTL*	[0 or 1 / 0 / 1]
5-846-043	UCS Setting	Addr Book Media	CTL*	[0 to 30 / 0 / 1]
5-846-047	UCS Setting	Initialize Local Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-049	UCS Setting	Initialize LDAP Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-050	UCS Setting	Initialize All Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-060	UCS Setting	Search option	CTL*	[0x00 to 0xff / 0x0f /
				1]
5-846-094	UCS Setting	Encryption Stat	CTL*	[0 to 255 / 0 / 1]
5-846-100	UCS Setting	Initialize Suprvisor	CTL	[0 to 0 / 0 / 0]
5-848-004	Web Service	Access Ctrl: udirectory	CTL*	[0x00 to 0xFF / 0x00
		(Lower 4bits)		/ 1]
5-848-007	Web Service	Access Ctrl: Comm. Log	CTL*	[0x00 to 0xFF / 0x00
		Fax(Lower 4bits)		/ 1]
5-848-009	Web Service	Access Ctrl: Job Ctrl	CTL*	[0x00 to 0xFF / 0x00

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
		(Lower 4bits)		/ 1]
5-848-011	Web Service	Access Ctrl:	CTL*	[0x00 to 0xFF / 0x00
		Devicemanagement(Lower		/ 1]
		4bits)		
5-848-022	Web Service	Access Ctrl:	CTL*	[0x00 to 0xFF / 0x00
		uadministration (Lower		/ 1]
		4bits)		
5-848-025	Web Service	Access Ctrl: Rest	CTL*	[0x00 to 0xFF / 0x00
		WebService (Lower 4bits)		/ 1]
5-849-001	Installation Date	Display	CTL*	[0 to 0 / 0 / 0]
5-849-002	Installation Date	Switch to Print	CTL*	[0 or 1 / 1 / 1]
5-849-003	Installation Date	Total Counter	CTL*	[0 to 99999999 / 0 /
				1]
5-851-001	Bluetooth	Mode	CTL*	[0x00 to 0x01 / 0x00
				/ 1]
5-856-002	Remote ROM Update	Local Port	CTL	[0 or 1 / 0 / 1]
5-858-001	Save Machine Info	0:OFF 1:ON	CTL*	[0 or 1 / 1 / 1]
5-858-002	Save Machine Info	Target(0:HDD 1:SD	CTL*	[0 to 2 / 0 / 1]
		2:Lynx)		
5-858-003	Save Machine Info	Make LogTrace Dir	CTL*	[0 or 1 / 0 / 1]
5-858-101	Save Machine Info	Start Date	CTL*	[0 to 20371212 / 0 /
				1]
5-858-102	Save Machine Info	Days of Tracing	CTL*	[1 to 180 / 3 / 1day]
5-858-103	Save Machine Info	Acquire Fax	CTL*	[0 or 1 / 0 / 1]
		Address(0:OFF 1:ON)		
5-858-111	Save Machine Info	Acquire All Info & Logs	CTL	[0 or 1 / 0 / 1]
5-858-121	Save Machine Info	Acquire Configuration	CTL	[0 or 1 / 0 / 1]
		Page		
5-858-122	Save Machine Info	Acquire Font Page	CTL	[0 or 1 / 0 / 1]
5-858-123	Save Machine Info	Acquire Print Setting List	CTL	[0 or 1 / 0 / 1]
5-858-124	Save Machine Info	Acquire Error Log	CTL	[0 or 1 / 0 / 1]
5-858-131	Save Machine Info	Acquire Fax Info	CTL	[0 or 1 / 0 / 1]
5-858-141	Save Machine Info	Acquire All Debug Logs	CTL	[0 or 1 / 0 / 1]
5-858-142	Save Machine Info	Acquire Only Controller	CTL	[0 or 1 / 0 / 1]
		Debug Logs		

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-858-143	Save Machine Info	Acquire Only Engine	CTL	[0 or 1 / 0 / 1]
		Debug Logs		
5-858-144	Save Machine Info	Acquire Only Opepanel	CTL	[0 or 1 / 0 / 1]
		Debug Logs		
5-858-145	Save Machine Info	Acquire Only FCU Debug	CTL	[0 or 1 / 0 / 1]
		Logs		
5-860-002	SMTP/POP3/IMAP4	SMTP Server Port Number	CTL*	[1 to 65535 / 25 / 1]
5-860-003	SMTP/POP3/IMAP4	SMTP Authentication	CTL*	[0 to 1 / 0 / 1]
5-860-006	SMTP/POP3/IMAP4	SMTP Auth. Encryption	CTL*	[0 to 2 / 0 / 1]
5-860-007	SMTP/POP3/IMAP4	POP before SMTP	CTL*	[0 to 1 / 0 / 1]
5-860-008	SMTP/POP3/IMAP4	POP to SMTP Waiting	CTL*	[0 to 10000 / 300 /
		Time		1ms]
5-860-009	SMTP/POP3/IMAP4	Mail Receive Protocol	CTL*	[1 to 3 / 1 / 1]
5-860-013	SMTP/POP3/IMAP4	POP3/IMAP4 Auth.	CTL*	[0 to 2 / 0 / 1]
		Encryption		
5-860-014	SMTP/POP3/IMAP4	POP3 Server Port Number	CTL*	[1 to 65535 / 110 / 1]
5-860-015	SMTP/POP3/IMAP4	IMAP4 Server Port	CTL*	[1 to 65535 / 143 / 1]
		Number		
5-860-016	SMTP/POP3/IMAP4	SMTP Receive Port	CTL*	[1 to 65535 / 25 / 1]
		Number		
5-860-017	SMTP/POP3/IMAP4	Mail Receive Interval	CTL*	[2 to 1440 / 3 / 1min]
5-860-019	SMTP/POP3/IMAP4	Mail Keep Setting	CTL*	[0 to 2 / 0 / 1]
5-860-020	SMTP/POP3/IMAP4	Partial Mail Receive	CTL*	[1 to 168 / 72 /
		Timeout		1hour]
5-860-021	SMTP/POP3/IMAP4	MDN Response RFC2298	CTL*	[0 or 1 / 1 / 1]
		Compliance		
5-860-022	SMTP/POP3/IMAP4	SMTP Auth. From Field	CTL*	[0 or 1 / 0 / 1]
		Replacement		
5-860-025	SMTP/POP3/IMAP4	SMTP Auth. Direct Setting	CTL*	[0 to 0xff / 0 / 1]
5-860-026	SMTP/POP3/IMAP4	S/MIME:MIME Header	CTL*	[0 to 2 / 0 / 1]
		Setting		
5-866-001	E-Mail Report	Report Validity	CTL	[0 or 1 / 0 / 1]
5-866-005	E-Mail Report	Add Date Field	CTL*	[0 or 1 / 0 / 1]
5-869-001	RAM Disk Setting	Mail Function	CTL*	[0 or 1 / 0 / 1]
5-870-001	Common KeyInfo Writing	Writing	CTL	[0 or 1 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
5-870-003	Common KeyInfo Writing	Initialize	CTL	[0 or 1 / 0 / 1]
5-870-004	Common Key Info Writing	Writing: 2048bit	CTL	[0 or 1 / 0 / 1]
5-875-001	SC Auto Reboot	Reboot Setting	CTL*	[0 or 1 / 0 / 1]
5-875-002	SC Auto Reboot	Reboot Type	CTL*	[0 or 1 / 0 / 1]
5-887-001	SD GetCounter		CTL	[0 to 0 / 0 / 0]
5-888-001	Personal Information		CTL*	[0 or 1 / 0 / 1]
	Protect			
5-907-001	Plug & Play Maker/Model		CTL*	[0 to 255 / 0 / 1]
	Name			
5-909-002	HealthCare Setting	Model Setting	CTL*	[0 or 1 / 0 / 1]
5-990-001	SP Print Mode	All (Data List)	CTL	[0 to 255 / 0 / 1]
5-990-002	SP Print Mode	SP (Mode Data List)	CTL	[0 to 255 / 0 / 1]
5-990-004	SP Print Mode	Logging Data	CTL	[0 to 255 / 0 / 1]
5-990-005	SP Print Mode	Diagnostic Report	CTL	[0 to 255 / 0 / 1]
5-990-006	SP Print Mode	Non-Default	CTL	[0 to 255 / 0 / 1]
5-990-007	SP Print Mode	NIB Summary	CTL	[0 to 0 / 0 / 1]
5-990-026	SP Print Mode	Printer SP	CTL	[0 to 255 / 0 / 1]
5-992-001	SP Text Mode	All (Data List)	CTL	[0 to 255 / 0 / 1]
5-992-002	SP Text Mode	SP (Mode Data List)	CTL	[0 to 255 / 0 / 1]
5-992-004	SP Text Mode	Logging Data	CTL	[0 to 255 / 0 / 1]
5-992-005	SP Text Mode	Diagnostic Report	CTL	[0 to 255 / 0 / 1]
5-992-006	SP Text Mode	Non-Default	CTL	[0 to 255 / 0 / 1]
5-992-007	SP Text Mode	NIB Summary	CTL	[0 to 0 / 0 / 1]
5-992-026	SP Text Mode	Printer SP	CTL	[0 to 255 / 0 / 1]

4.SP Mode Tables (for Printer Model)

SP6-XXX (Peripherals)

There are no Group 6 SP modes for this machine.

SP7-XXX (Data Log) - Engine

SP No.	Large Category	Small Category	ENG	[Min to Max/Init./Step]
			or	
			CTL	
7-625-002	Old Counter 1	Sheets PCDU	ENG*	[0 to 999999 / 0 / 1sheet]
7-625-003	Old Counter 1	Sheets Fuser	ENG*	[0 to 9999999 / 0 / 1sheet]
7-626-002	Old Counter 2	Sheets PCDU	ENG*	[0 to 999999 / 0 / 1sheet]
7-626-003	Old Counter 2	Sheets Fuser	ENG*	[0 to 9999999 / 0 / 1sheet]
7-627-002	Old Dist. 1	PCDU	ENG*	[0 to 999999999 / 0 / 1mm]
7-627-003	Old Dist. 1	Fuser	ENG*	[0 to 999999999 / 0 / 1mm]
7-628-002	Old Dist. 2	PCDU	ENG*	[0 to 999999999 / 0 / 1mm]
7-628-003	Old Dist. 2	Fuser	ENG*	[0 to 999999999 / 0 / 1mm]
7-701-001	Info T&H Sensor	Info 1	ENG*	[0 to 0 / 0 / 0]
7-701-002	Info T&H Sensor	Info 2	ENG*	[0 to 0 / 0 / 0]
7-701-003	Info T&H Sensor	Info 3	ENG*	[0 to 0 / 0 / 0]
7-701-004	Info T&H Sensor	Info 4	ENG*	[0 to 0 / 0 / 0]
7-701-005	Info T&H Sensor	Info 5	ENG*	[0 to 0 / 0 / 0]
7-801-009	ROM Info.	No.:Bank	ENG	[0 to 0 / 0 / 0]
7-801-019	ROM Info.	No.:Bank2	ENG	[0 to 0 / 0 / 0]
7-801-040	ROM Info.	No.:Bank3	ENG	[0 to 0 / 0 / 0]
7-801-109	ROM Info.	Version:Bank	ENG	[0 to 0 / 0 / 0]
7-801-119	ROM Info.	Version:Bank2	ENG	[0 to 0 / 0 / 0]
7-801-140	ROM Info.	Version:Bank3	ENG	[0 to 0 / 0 / 0]
7-802-002	PM Counter Usage	PCDU	ENG*	[0 to 255 / 0 / 1%]
7-802-003	PM Counter Usage	Fuser	ENG*	[0 to 255 / 0 / 1%]
7-802-004	PM Counter Usage	Trans.	ENG*	[0 to 255 / 0 / 1%]
7-803-002	Disp. PM Counter	Sheets PCDU	ENG*	[0 to 999999 / 0 / 1sheet]
7-803-003	Disp. PM Counter	Sheets Fuser	ENG*	[0 to 9999999 / 0 / 1sheet]
7-803-004	Disp. PM Counter	Sheets Trans.	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-005	Disp. PM Counter	Sheets Feed Tray	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-006	Disp. PM Counter	Sheets Spr. Tray	ENG*	[0 to 9999999 / 0 / 1sheet]
7-803-051	Disp. PM Counter	Sheets Feed Bank1	ENG*	[0 to 9999999 / 0 / 1sheet]
7-803-052	Disp. PM Counter	Sheets Spr. Bank1	ENG*	[0 to 9999999 / 0 / 1sheet]
7-803-053	Disp. PM Counter	Sheets Feed Bank2	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-054	Disp. PM Counter	Sheets Spr. Bank2	ENG*	[0 to 9999999 / 0 / 1sheet]
7-803-055	Disp. PM Counter	Sheets Feed Bank3	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-056	Disp. PM Counter	Sheets Spr. Bank3	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-057	Disp. PM Counter	Sheets Feed Bypa	ENG*	[0 to 9999999 / 0 / 1sheet]

SP No.	Large Category	Small Category	ENG	[Min to Max/Init./Step]
			or	
			CTL	
7-803-058	Disp. PM Counter	Sheets Spr Bypa	ENG*	[0 to 9999999 / 0 / 1sheet]
7-804-002	Reset PM Counter	PCDU	ENG	[0 to 0 / 0 / 0]
7-804-003	Reset PM Counter	Fuser	ENG	[0 to 0 / 0 / 0]
7-804-004	Reset PM Counter	Trans.	ENG	[0 to 0 / 0 / 0]
7-804-005	Reset PM Counter	Feed Tray	ENG	[0 to 0 / 0 / 0]
7-804-006	Reset PM Counter	Spr. Tray	ENG	[0 to 0 / 0 / 0]
7-804-010	Reset PM Counter	Mentenance Kit	ENG	[0 to 0 / 0 / 0]
7-804-011	Reset PM Counter	All	ENG	[0 to 0 / 0 / 0]
7-804-051	Reset PM Counter	Feed Bank1	ENG	[0 to 0 / 0 / 0]
7-804-052	Reset PM Counter	Spr. Bank1	ENG	[0 to 0 / 0 / 0]
7-804-053	Reset PM Counter	Feed Bank2	ENG	[0 to 0 / 0 / 0]
7-804-054	Reset PM Counter	Spr. Bank2	ENG	[0 to 0 / 0 / 0]
7-804-055	Reset PM Counter	Feed Bank3	ENG	[0 to 0 / 0 / 0]
7-804-056	Reset PM Counter	Spr. Bank3	ENG	[0 to 0 / 0 / 0]
7-804-057	Reset PM Counter	Feed Bypass	ENG	[0 to 0 / 0 / 0]
7-804-058	Reset PM Counter	Spr. Bypass	ENG	[0 to 0 / 0 / 0]
7-805-001	Counter Continue	Setting	ENG	[0 to 0 / 0 / 0]
7-805-002	Counter Continue	Distance PCDU	ENG*	[0 to 999999999 / 0 / 1mm]
7-806-002	PM Counter Dist.	PCDU	ENG*	[0 to 999999999 / 0 / 1mm]
7-806-003	PM Counter Dist.	Fuser	ENG*	[0 to 999999999 / 0 / 1mm]
7-806-004	PM Counter Dist.	Trans.	ENG*	[0 to 999999999 / 0 / 1mm]
7-931-001	Toner Info.	Machine ID	ENG*	[0 to 255 / 0 / 1]
7-931-002	Toner Info.	Version	ENG	[0 to 255 / 0 / 1]
7-931-003	Toner Info.	Brand ID	ENG*	[0 to 255 / 0 / 1]
7-931-004	Toner Info.	Area ID	ENG*	[0 to 255 / 0 / 1]
7-931-005	Toner Info.	Class ID	ENG*	[0 to 255 / 0 / 1]
7-931-006	Toner Info.	Color ID	ENG	[0 to 255 / 0 / 1]
7-931-007	Toner Info.	Maintenance ID	ENG*	[0 to 255 / 0 / 1]
7-931-008	Toner Info.	New AIO	ENG*	[0 to 255 / 0 / 1]
7-931-009	Toner Info.	Recycle Count	ENG	[0 to 255 / 0 / 1]
7-931-010	Toner Info.	EDP Code	ENG*	[0 to 0 / 0 / 0]
7-931-011	Toner Info.	Serial No.	ENG*	[0 to 0 / 0 / 0]
7-931-012	Toner Info.	Remaining Toner	ENG*	[0 to 100 / 100 / 1%]
7-931-013	Toner Info.	Toner End	ENG*	[-/0/-]
				0: Normal (Including

SP No.	Large Category	Small Category	ENG	[Min to Max/Init./Step]
			or	
			CTL	
				estimated toner near end
				status)
				N: Definite toner near end
				E: Toner near end
7-931-014	Toner Info.	Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-931-015	Toner Info.	R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1sheet]
7-931-016	Toner Info.	E:Total Cnt.	ENG	[0 to 99999999 / 0 / 1sheet]
7-931-017	Toner Info.	Unit Output Cnt.	ENG*	[0 to 99999999 / 0 / 1sheet]
7-931-018	Toner Info.	Install Date	ENG*	[0 to 0 / 0 / 0]
7-931-019	Toner Info.	Toner End Date	ENG	[0 to 0 / 0 / 0]
7-931-020	Toner Info.	Total Consump	ENG*	[0 to 10000000 / 0 / 0.1mg]
7-931-021	Toner Info.	PCDU Distance	ENG*	[0 to 999999999 / 0 / 1mm]
7-931-022	Toner Info.	Initial Amount	ENG*	[0 to 65535 / 0 / 1g]
7-931-023	Toner Info.	NearEnd Consump	ENG*	[0 to 999999 / 0 / 0.1mg]
7-932-001	PCDU Info.	Machine ID	ENG*	[0 to 255 / 0 / 1]
7-932-002	PCDU Info.	Class ID	ENG*	[0 to 255 / 0 / 1]
7-932-003	PCDU Info.	Maintenance ID	ENG*	[0 to 255 / 0 / 1]
7-932-004	PCDU Info.	New AIO	ENG*	[0 to 255 / 0 / 1]
7-932-005	PCDU Info.	Serial No.	ENG*	[0 to 0 / 0 / 0]
7-932-006	PCDU Info.	Install Date	ENG*	[0 to 0 / 0 / 0]
7-932-007	PCDU Info.	Sheets	ENG*	[0 to 999999 / 0 / 1sheet]
7-932-008	PCDU Info.	Distance	ENG*	[0 to 999999999 / 0 / 1mm]
7-932-009	PCDU Info.	Usage rate	ENG*	[0 to 255 / 0 / 1%]
7-932-010	PCDU Info.	Control Distance	ENG*	[0 to 999999999 / 0 / 1mm]
7-932-011	PCDU Info.	PM Chg Sheets	ENG	[0 to 999999 / 0 / 1sheet]
7-932-012	PCDU Info.	PM Chg Distance	ENG	[0 to 999999999 / 0 / 1mm]
7-932-013	PCDU Info.	Cleaning1Count	ENG*	[0 to 65535 / 0 / 1count]
7-932-014	PCDU Info.	Cleaning2Count	ENG*	[0 to 65535 / 0 / 1count]
7-935-001	Toner Info. Log	1:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-002	Toner Info. Log	1:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-003	Toner Info. Log	1:R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1]
7-935-004	Toner Info. Log	1:Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-935-005	Toner Info. Log	2:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-006	Toner Info. Log	2:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-007	Toner Info. Log	2:R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max/Init./Step]
			or	
			CTL	
7-935-008	Toner Info. Log	2:Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-935-009	Toner Info. Log	3:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-010	Toner Info. Log	3:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-011	Toner Info. Log	3:R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1]
7-935-012	Toner Info. Log	3:Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-935-013	Toner Info. Log	4:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-014	Toner Info. Log	4:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-015	Toner Info. Log	4:R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1]
7-935-016	Toner Info. Log	4:Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-935-017	Toner Info. Log	5:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-018	Toner Info. Log	5:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-019	Toner Info. Log	5:R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1]
7-935-020	Toner Info. Log	5:Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-935-021	Toner Info. Log	1:Toner End	ENG*	[0 to 0 / 0 / 0]
7-935-022	Toner Info. Log	2:Toner End	ENG*	[0 to 0 / 0 / 0]
7-935-023	Toner Info. Log	3:Toner End	ENG*	[0 to 0 / 0 / 0]
7-935-024	Toner Info. Log	4:Toner End	ENG*	[0 to 0 / 0 / 0]
7-935-025	Toner Info. Log	5:Toner End	ENG*	[0 to 0 / 0 / 0]
7-936-001	PCDU Log	1:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-002	PCDU Log	1:Install Date	ENG*	[0 to 0 / 0 / 0]
7-936-003	PCDU Log	2:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-004	PCDU Log	2:Install Date	ENG*	[0 to 0 / 0 / 0]
7-936-005	PCDU Log	3:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-006	PCDU Log	3:Install Date	ENG*	[0 to 0 / 0 / 0]
7-936-007	PCDU Log	4:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-008	PCDU Log	4:Install Date	ENG*	[0 to 0 / 0 / 0]
7-936-009	PCDU Log	5:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-010	PCDU Log	5:Install Date	ENG*	[0 to 0 / 0 / 0]
7-939-001	Reset Count	Tonner 1st	ENG*	[0 to 65535 / 0 / 1]
7-939-011	Reset Count	Tonner 2nd	ENG*	[0 to 65535 / 0 / 1]
7-939-021	Reset Count	PCDU 1st	ENG*	[0 to 65535 / 0 / 1]
7-939-031	Reset Count	PCDU 2nd	ENG*	[0 to 65535 / 0 / 1]
7-940-002	Set PM Counter	Sheets PCDU	ENG*	[0 to 999999 / 0 / 1sheet]
7-940-003	Set PM Counter	Sheets Fuser	ENG*	[0 to 99999999 / 120000 /
				1sheet]

SP No.	Large Category	Small Category	ENG	[Min to Max/Init./Step]
			or	
			CTL	
7-941-002	Set PM Dist.	PCDU	ENG*	[0 to 999999999 / 0 / 1mm]
7-941-003	Set PM Dist.	Fuser	ENG*	[0 to 999999999 / 117000000
				/ 1mm]
7-951-002	Remain Day Count	Sheets PCDU	ENG*	[0 to 255 / 255 / 1days]
7-951-003	Remain Day Count	Sheets Fuser	ENG*	[0 to 255 / 255 / 1days]
7-952-001	Days Before End	Mentenance Kit	ENG*	[0 to 2 / 1 / 1]
7-952-002	Days Before End	PCDU	ENG*	[0 to 2 / 1 / 1]
7-953-002	Remain Day(Dist.)	PCDU	ENG*	[0 to 255 / 255 / 1days]
7-953-003	Remain Day(Dist.)	Fuser	ENG*	[0 to 255 / 255 / 1days]
7-955-002	Remain Pages	PCDU	ENG*	[0 to 9999999 / 9999999 /
				1page]
7-955-003	Remain Pages	Fuser	ENG*	[0 to 9999999 / 9999999 /
				1page]
7-956-002	Remain Days	PCDU	ENG*	[0 to 255 / 255 / 1days]
7-956-003	Remain Days	Fuser	ENG*	[0 to 255 / 255 / 1days]
7-957-002	Monthly Average P	PCDU	ENG*	[0 to 9999999 / 0 / 1page]
7-957-003	Monthly Average P	Fuser	ENG*	[0 to 9999999 / 0 / 1page]
7-958-002	PM Value Setting:	PCDU	ENG*	[1 to 30 / 15 / 1days]
7-958-003	PM Value Setting:	Fuser	ENG*	[1 to 30 / 15 / 1days]
7-970-001	Day Info.	Day Info. Fault	ENG*	[0 to 1 / 0 / 1]
7-979-001	CPU Reset Log	Data1	ENG*	[0x00 to 0xFF / 0x00 / 1]
7-979-002	CPU Reset Log	Data2	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-003	CPU Reset Log	Data3	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-004	CPU Reset Log	Data4	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-005	CPU Reset Log	Data5	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-006	CPU Reset Log	Data6	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-007	CPU Reset Log	Data7	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-008	CPU Reset Log	Data8	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]

SP No.	Large Category	Small Category	ENG	[Min to Max/Init./Step]
			or	
			CTL	
7-979-009	CPU Reset Log	Data9	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-010	CPU Reset Log	Data10	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-011	CPU Reset Log	Data11	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-012	CPU Reset Log	Data12	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-013	CPU Reset Log	Data13	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-014	CPU Reset Log	Data14	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-015	CPU Reset Log	Data15	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-016	CPU Reset Log	Data16	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-017	CPU Reset Log	Data17	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-018	CPU Reset Log	Data18	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-019	CPU Reset Log	Data19	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-020	CPU Reset Log	Data20	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-979-021	CPU Reset Log	Data21	ENG*	[0x0000 to 0xFFFF / 0x0000
				/ 1]
7-993-001	Total Counter		ENG*	[0 to 99999999 / 0 / 1]

SP7-XXX (Data Log) - Controller

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or CTL	Step]
7-401-001	Total SC	SC Counter	CTL*	[0 to 65535 / 0 / 1]
7-401-002	Total SC	Total SC Counter	CTL*	[0 to 65535 / 0 / 1]
7-403-001	SC History	Latest	CTL*	[0 to 0 / 0 / 0]
7-403-002	SC History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-403-003	SC History	Latest 2	CTL*	[0 to 0 / 0 / 0]
7-403-004	SC History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-403-005	SC History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-403-006	SC History	Latest 5	CTL*	[0 to 0 / 0 / 0]
7-403-007	SC History	Latest 6	CTL*	[0 to 0 / 0 / 0]
7-403-008	SC History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-403-009	SC History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-403-010	SC History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-404-001	Software Error History	Latest	CTL*	[0 to 0 / 0 / 0]
7-404-002	Software Error History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-404-003	Software Error History	Latest 2	CTL*	[0 to 0 / 0 / 0]
7-404-004	Software Error History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-404-005	Software Error History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-404-006	Software Error History	Latest 5	CTL*	[0 to 0 / 0 / 0]
7-404-007	Software Error History	Latest 6	CTL*	[0 to 0 / 0 / 0]
7-404-008	Software Error History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-404-009	Software Error History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-404-010	Software Error History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-502-001	Total Paper Jam	Jam Counter	CTL*	[0 to 65535 / 0 / 1]
7-502-002	Total Paper Jam	Total Jam Counter	CTL*	[0 to 65535 / 0 / 1]
7-504-001	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-003	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-004	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-005	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-006	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-008	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-009	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-013	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-017	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-020	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-023	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or CTL	Step]
7-504-026	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-053	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-054	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-055	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-057	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-060	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-063	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-504-066	Paper Jam Location		CTL*	[0 to 65535 / 0 / 1]
7-506-006	Jam Count by Paper Size	A5 LEF	CTL*	[0 to 65535 / 0 / 1]
7-506-044	Jam Count by Paper Size	HLT LEF	CTL*	[0 to 65535 / 0 / 1]
7-506-133	Jam Count by Paper Size	A4 SEF	CTL*	[0 to 65535 / 0 / 1]
7-506-134	Jam Count by Paper Size	A5 SEF	CTL*	[0 to 65535 / 0 / 1]
7-506-142	Jam Count by Paper Size	B5 SEF	CTL*	[0 to 65535 / 0 / 1]
7-506-164	Jam Count by Paper Size	LG SEF	CTL*	[0 to 65535 / 0 / 1]
7-506-166	Jam Count by Paper Size	LT SEF	CTL*	[0 to 65535 / 0 / 1]
7-506-172	Jam Count by Paper Size	HLT SEF	CTL*	[0 to 65535 / 0 / 1]
7-506-255	Jam Count by Paper Size	Others	CTL*	[0 to 65535 / 0 / 1]
7-507-001	Plotter Jam History	Latest	CTL*	[0 to 0 / 0 / 1]
7-507-002	Plotter Jam History	Latest 1	CTL*	[0 to 0 / 0 / 1]
7-507-003	Plotter Jam History	Latest 2	CTL*	[0 to 0 / 0 / 1]
7-507-004	Plotter Jam History	Latest 3	CTL*	[0 to 0 / 0 / 1]
7-507-005	Plotter Jam History	Latest 4	CTL*	[0 to 0 / 0 / 1]
7-507-006	Plotter Jam History	Latest 5	CTL*	[0 to 0 / 0 / 1]
7-507-007	Plotter Jam History	Latest 6	CTL*	[0 to 0 / 0 / 1]
7-507-008	Plotter Jam History	Latest 7	CTL*	[0 to 0 / 0 / 1]
7-507-009	Plotter Jam History	Latest 8	CTL*	[0 to 0 / 0 / 1]
7-507-010	Plotter Jam History	Latest 9	CTL*	[0 to 0 / 0 / 1]
7-514-001	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-003	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-004	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-005	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-006	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or CTL	Step]
	Location			
7-514-008	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-009	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-013	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-017	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-020	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-023	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-026	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
	Location			
7-514-053	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
7-514-054	Paper Jam Count by		CTL*	[0 to 65535 / 0 / 1]
7 544 055				
7-514-055	Paper Jam Count by		CIL"	[0 to 65535 / 0 / 1]
7 614 067	Depart lom Count by			I0 to 65525 / 0 / 11
7-514-057	Paper Jam Count by		CIL	
7 514 060				[0 to 65525 / 0 / 1]
7-514-000			CIL	
7 514 063	Paper Jam Count by			[0 to 65535 / 0 / 1]
7-314-003				
7-514-066	Paper Jam Count by		CTI *	[0 to 65535 / 0 / 1]
	Location		012	
7-516-006	Paper Size Jam Count	A5 LEF	CTL*	[0 to 65535 / 0 / 1]
7-516-044	Paper Size Jam Count	HLT LEF	CTL*	[0 to 65535 / 0 / 1]
7-516-133	Paper Size Jam Count	A4 SEF	CTL*	[0 to 65535 / 0 / 1]
7-516-134	Paper Size Jam Count	A5 SEF	CTL*	[0 to 65535 / 0 / 1]
7-516-142	Paper Size Jam Count	B5 SEF	CTL*	[0 to 65535 / 0 / 1]
7-516-164	Paper Size Jam Count	LG SEF	CTL*	[0 to 65535 / 0 / 1]
7-516-166	Paper Size Jam Count	LT SEF	CTL*	[0 to 65535 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or CTL	Step]
7-516-172	Paper Size Jam Count	HLT SEF	CTL*	[0 to 65535 / 0 / 1]
7-516-255	Paper Size Jam Count	Others	CTL*	[0 to 65535 / 0 / 1]
7-520-001	Update Log	ErrorRecord1	CTL*	[0 to 255 / 0 / 1]
7-520-002	Update Log	ErrorRecord2	CTL*	[0 to 255 / 0 / 1]
7-520-003	Update Log	ErrorRecord3	CTL*	[0 to 255 / 0 / 1]
7-520-004	Update Log	ErrorRecord4	CTL*	[0 to 255 / 0 / 1]
7-520-005	Update Log	ErrorRecord5	CTL*	[0 to 255 / 0 / 1]
7-520-006	Update Log	ErrorRecord6	CTL*	[0 to 255 / 0 / 1]
7-520-007	Update Log	ErrorRecord7	CTL*	[0 to 255 / 0 / 1]
7-520-008	Update Log	ErrorRecord8	CTL*	[0 to 255 / 0 / 1]
7-520-009	Update Log	ErrorRecord9	CTL*	[0 to 255 / 0 / 1]
7-520-010	Update Log	ErrorRecord10	CTL*	[0 to 255 / 0 / 1]
7-617-001	PM Parts Counter Display	Normal	CTL*	[0 to 9999999 / 0 / 1]
7-617-002	PM Parts Counter Display	Df	CTL*	[0 to 9999999 / 0 / 1]
7-618-001	PM Parts Counter Reset	Normal	CTL	[0 to 0 / 0 / 0]
7-618-002	PM Parts Counter Reset	Df	CTL	[0 to 0 / 0 / 0]
7-801-255	ROM No./ Firmware		CTL	[0 to 0 / 0 / 0]
	Version			
7-803-001	PM Counter Display	Paper	CTL	[0 to 9999999 / 0 / 1]
7-804-001	PM Counter Reset	Paper	CTL	[0 to 0 / 0 / 0]
7-807-001	SC/Jam Counter Reset		CTL	[0 to 0 / 0 / 0]
7-832-001	Self-Diagnose Result		CTL	[0 to 0 / 0 / 0]
	Display			
7-836-001	Total Memory Size		CTL	[0 to 0xffffffff / 0 / 1MB]
7-901-001	Assert Info.	File Name	CTL*	[0 to 0 / 0 / 0]
7-901-002	Assert Info.	Number of Lines	CTL*	[0 to 0 / 0 / 0]
7-901-003	Assert Info.	Location	CTL*	[0 to 0 / 0 / 0]
7-910-001	ROM No	System	CTL	[0 to 0 / 0 / 0]
7-910-002	ROM No	Engine	CTL	[0 to 0 / 0 / 0]
7-910-003	ROM No	Lcdc	CTL	[0 to 0 / 0 / 0]
7-910-009	ROM No	Bank	CTL	[0 to 0 / 0 / 0]
7-910-015	ROM No	Scanner	CTL	[0 to 0 / 0 / 0]
7-910-018	ROM No	NetworkSupport	CTL	[0 to 0 / 0 / 0]
7-910-019	ROM No	Bank2	CTL	[0 to 0 / 0 / 0]
7-910-022	ROM No	BIOS	CTL	[0 to 0 / 0 / 0]
7-910-040	ROM No	Bank3	CTL	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or CTL	Step]
7-910-041	ROM No	Bank4	CTL	[0 to 0 / 0 / 0]
7-910-150	ROM No	RPCS	CTL	[0 to 0 / 0 / 0]
7-910-151	ROM No	PS	CTL	[0 to 0 / 0 / 0]
7-910-158	ROM No	PCL	CTL	[0 to 0 / 0 / 0]
7-910-159	ROM No	PCLXL	CTL	[0 to 0 / 0 / 0]
7-910-162	ROM No	PDF	CTL	[0 to 0 / 0 / 0]
7-910-165	ROM No	PJL	CTL	[0 to 0 / 0 / 0]
7-910-166	ROM No	IPDS	CTL	[0 to 0 / 0 / 0]
7-910-168	ROM No	MediaPrint:TIFF	CTL	[0 to 0 / 0 / 0]
7-910-169	ROM No	XPS	CTL	[0 to 0 / 0 / 0]
7-910-180	ROM No	FONT	CTL	[0 to 0 / 0 / 0]
7-910-181	ROM No	FONT1	CTL	[0 to 0 / 0 / 0]
7-910-182	ROM No	FONT2	CTL	[0 to 0 / 0 / 0]
7-910-183	ROM No	FONT3	CTL	[0 to 0 / 0 / 0]
7-910-184	ROM No	FONT4	CTL	[0 to 0 / 0 / 0]
7-910-185	ROM No	FONT5	CTL	[0 to 0 / 0 / 0]
7-910-200	ROM No	Factory	CTL	[0 to 0 / 0 / 0]
7-910-202	ROM No	NetworkDocBox	CTL	[0 to 0 / 0 / 0]
7-910-204	ROM No	Printer	CTL	[0 to 0 / 0 / 0]
7-910-210	ROM No	MIB	CTL	[0 to 0 / 0 / 0]
7-910-211	ROM No	Websupport	CTL	[0 to 0 / 0 / 0]
7-911-001	Firmware Version	System	CTL	[0 to 0 / 0 / 0]
7-911-002	Firmware Version	Engine	CTL	[0 to 0 / 0 / 0]
7-911-003	Firmware Version	Lcdc	CTL	[0 to 0 / 0 / 0]
7-911-009	Firmware Version	Bank	CTL	[0 to 0 / 0 / 0]
7-911-015	Firmware Version	Scanner	CTL	[0 to 0 / 0 / 0]
7-911-018	Firmware Version	NetworkSupport	CTL	[0 to 0 / 0 / 0]
7-911-019	Firmware Version	Bank2	CTL	[0 to 0 / 0 / 0]
7-911-022	Firmware Version	BIOS	CTL	[0 to 0 / 0 / 0]
7-911-040	Firmware Version	Bank3	CTL	[0 to 0 / 0 / 0]
7-911-041	Firmware Version	Bank4	CTL	[0 to 0 / 0 / 0]
7-911-150	Firmware Version	RPCS	CTL	[0 to 0 / 0 / 0]
7-911-151	Firmware Version	PS	CTL	[0 to 0 / 0 / 0]
7-911-158	Firmware Version	PCL	CTL	[0 to 0 / 0 / 0]
7-911-159	Firmware Version	PCLXL	CTL	[0 to 0 / 0 / 0]
7-911-162	Firmware Version	PDF	CTL	[0 to 0 / 0 / 0]

4.SP Mode Tables (for Printer Model)

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or CTL	Step]
7-911-165	Firmware Version	PJL	CTL	[0 to 0 / 0 / 0]
7-911-166	Firmware Version	IPDS	CTL	[0 to 0 / 0 / 0]
7-911-168	Firmware Version	MediaPrint:TIFF	CTL	[0 to 0 / 0 / 0]
7-911-169	Firmware Version	XPS	CTL	[0 to 0 / 0 / 0]
7-911-180	Firmware Version	FONT	CTL	[0 to 0 / 0 / 0]
7-911-181	Firmware Version	FONT1	CTL	[0 to 0 / 0 / 0]
7-911-182	Firmware Version	FONT2	CTL	[0 to 0 / 0 / 0]
7-911-183	Firmware Version	FONT3	CTL	[0 to 0 / 0 / 0]
7-911-184	Firmware Version	FONT4	CTL	[0 to 0 / 0 / 0]
7-911-185	Firmware Version	FONT5	CTL	[0 to 0 / 0 / 0]
7-911-200	Firmware Version	Factory	CTL	[0 to 0 / 0 / 0]
7-911-202	Firmware Version	NetworkDocBox	CTL	[0 to 0 / 0 / 0]
7-911-204	Firmware Version	Printer	CTL	[0 to 0 / 0 / 0]
7-911-210	Firmware Version	MIB	CTL	[0 to 0 / 0 / 0]
7-911-211	Firmware Version	Websupport	CTL	[0 to 0 / 0 / 0]

SP8-XXX (Data Log 2) - Controller

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-071-001	T:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-071-002	T:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-003	T:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-004	T:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-005	T:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-006	T:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-007	T:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-008	T:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-009	T:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-010	T:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-011	T:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-012	T:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-013	T:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-014	T:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-001	P:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-074-002	P:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-003	P:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-004	P:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-005	P:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-006	P:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-007	P:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-008	P:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-009	P:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-010	P:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-011	P:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-012	P:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-013	P:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-014	P:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-001	O:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-077-002	O:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-003	O:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-004	O:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-005	O:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-006	O:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-007	O:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-077-008	O:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-009	O:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-010	O:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-011	O:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-012	O:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-013	O:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-014	O:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-081-001	T:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-084-001	P:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-381-001	T:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-384-001	P:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-387-001	O:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-391-001	LSize PrtPGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1]
8-411-001	Prints/Duplex		CTL*	[0 to 99999999 / 0 / 1]
8-421-001	T:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-421-004	T:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-421-005	T:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-421-006	T:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-007	T:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-008	T:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-009	T:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-010	T:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-011	T:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-012	T:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-013	T:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-014	T:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-015	T:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-016	T:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-017	T:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-018	T:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-019	T:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-020	T:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-021	T:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-022	T:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-023	T:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-024	T:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-424-001	P:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-424-004	P:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-424-005	P:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-424-006	P:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-007	P:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-008	P:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-009	P:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-010	P:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-011	P:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-012	P:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-013	P:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-014	P:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-015	P:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-016	P:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-017	P:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-018	P:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-019	P:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-020	P:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-021	P:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-022	P:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-023	P:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-024	P:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-001	O:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-427-004	O:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-427-005	O:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-427-006	O:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-007	O:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-008	O:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-009	O:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-010	O:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-011	O:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-012	O:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-013	O:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-014	O:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-015	O:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-016	O:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-427-017	O:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-018	O:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-019	O:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-020	O:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-021	O:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-022	O:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-023	O:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-024	O:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-441-001	T:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-441-002	T:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-441-003	T:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-441-004	T:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-441-005	T:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-441-006	T:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-441-007	T:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-441-008	T:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-441-009	T:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-441-010	T:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-441-254	T:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-441-255	T:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-444-001	P:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-444-002	P:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-444-003	P:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-444-004	P:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-444-005	P:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-444-006	P:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-444-007	P:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-444-008	P:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-444-009	P:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-444-010	P:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-444-254	P:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-444-255	P:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-447-001	O:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-447-002	O:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-447-003	O:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-447-004	O:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-447-005	O:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-447-006	O:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-447-007	O:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-447-008	O:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-447-009	O:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-447-010	O:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-447-254	O:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-447-255	O:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-451-001	PrtPGS/Ppr Tray	Bypass Tray	CTL*	[0 to 99999999 / 0 / 1]
8-451-002	PrtPGS/Ppr Tray	Tray 1	CTL*	[0 to 99999999 / 0 / 1]
8-451-003	PrtPGS/Ppr Tray	Tray 2	CTL*	[0 to 99999999 / 0 / 1]
8-451-004	PrtPGS/Ppr Tray	Tray 3	CTL*	[0 to 99999999 / 0 / 1]
8-451-005	PrtPGS/Ppr Tray	Tray 4	CTL*	[0 to 99999999 / 0 / 1]
8-451-006	PrtPGS/Ppr Tray	Tray 5	CTL*	[0 to 99999999 / 0 / 1]
8-451-007	PrtPGS/Ppr Tray	Tray 6	CTL*	[0 to 99999999 / 0 / 1]
8-451-008	PrtPGS/Ppr Tray	Tray 7	CTL*	[0 to 99999999 / 0 / 1]
8-451-009	PrtPGS/Ppr Tray	Tray 8	CTL*	[0 to 99999999 / 0 / 1]
8-451-010	PrtPGS/Ppr Tray	Tray 9	CTL*	[0 to 99999999 / 0 / 1]
8-451-011	PrtPGS/Ppr Tray	Tray 10	CTL*	[0 to 99999999 / 0 / 1]
8-451-012	PrtPGS/Ppr Tray	Tray 11	CTL*	[0 to 99999999 / 0 / 1]
8-451-013	PrtPGS/Ppr Tray	Tray 12	CTL*	[0 to 99999999 / 0 / 1]
8-451-014	PrtPGS/Ppr Tray	Tray 13	CTL*	[0 to 99999999 / 0 / 1]
8-451-015	PrtPGS/Ppr Tray	Tray 14	CTL*	[0 to 99999999 / 0 / 1]
8-451-016	PrtPGS/Ppr Tray	Tray 15	CTL*	[0 to 99999999 / 0 / 1]
8-451-101	PrtPGS/Ppr Tray	LC Inserter	CTL*	[0 to 99999999 / 0 / 1]
8-451-102	PrtPGS/Ppr Tray	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-461-001	T:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-461-002	T:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-461-003	T:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-461-004	T:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-461-005	T:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-461-006	T:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-461-007	T:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-461-008	T:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-464-001	P:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-464-002	P:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-464-003	P:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-464-004	P:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-464-005	P:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-464-006	P:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-464-007	P:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-464-008	P:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-521-001	T:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-521-002	T:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-521-003	T:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-521-004	T:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-521-005	T:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-006	T:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-521-007	T:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-521-008	T:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-009	T:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-010	T:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-011	T:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-012	T:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-013	T:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-521-014	T:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-521-015	T:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-521-016	T:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-524-001	P:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-524-002	P:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-524-003	P:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-524-004	P:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-524-005	P:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-006	P:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-524-007	P:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-524-008	P:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-009	P:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-010	P:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-011	P:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-012	P:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-013	P:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-524-014	P:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-524-015	P:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-524-016	P:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-551-001	T:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-551-002	T:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-551-003	T:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-554-001	P:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-554-002	P:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-554-003	P:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-561-001	T:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-561-002	T:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-561-003	T:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-561-004	T:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-564-001	P:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-564-002	P:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-564-003	P:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-564-004	P:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-567-001	O:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-567-002	O:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-567-003	O:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-567-004	O:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-581-001	T:Counter	Total	CTL*	[0 to 99999999 / 0 / 1]
8-581-032	T:Counter	Total(A3)	CTL*	[0 to 99999999 / 0 / 1]
8-591-001	O:Counter	A3/DLT	CTL*	[0 to 99999999 / 0 / 1]
8-591-002	O:Counter	Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-601-001	T:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 /
				1%]
8-601-011	T:Coverage Counter	B/W Printing Pages	CTL*	[0 to 99999999 / 0 / 1]
8-604-001	P:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 /
				1%]
8-617-001	SDK Apli Counter	SDK-1	CTL*	[0 to 99999999 / 0 / 1]
8-617-002	SDK Apli Counter	SDK-2	CTL*	[0 to 99999999 / 0 / 1]
8-617-003	SDK Apli Counter	SDK-3	CTL*	[0 to 99999999 / 0 / 1]
8-617-004	SDK Apli Counter	SDK-4	CTL*	[0 to 99999999 / 0 / 1]
8-617-005	SDK Apli Counter	SDK-5	CTL*	[0 to 99999999 / 0 / 1]
8-617-006	SDK Apli Counter	SDK-6	CTL*	[0 to 99999999 / 0 / 1]
8-617-007	SDK Apli Counter	SDK-7	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-617-008	SDK Apli Counter	SDK-8	CTL*	[0 to 99999999 / 0 / 1]
8-617-009	SDK Apli Counter	SDK-9	CTL*	[0 to 99999999 / 0 / 1]
8-617-010	SDK Apli Counter	SDK-10	CTL*	[0 to 99999999 / 0 / 1]
8-617-011	SDK Apli Counter	SDK-11	CTL*	[0 to 99999999 / 0 / 1]
8-617-012	SDK Apli Counter	SDK-12	CTL*	[0 to 99999999 / 0 / 1]
8-621-001	Func Use Counter	Function-001	CTL*	[0 to 99999999 / 0 / 1]
8-621-002	Func Use Counter	Function-002	CTL*	[0 to 99999999 / 0 / 1]
8-621-003	Func Use Counter	Function-003	CTL*	[0 to 99999999 / 0 / 1]
8-621-004	Func Use Counter	Function-004	CTL*	[0 to 99999999 / 0 / 1]
8-621-005	Func Use Counter	Function-005	CTL*	[0 to 99999999 / 0 / 1]
8-621-006	Func Use Counter	Function-006	CTL*	[0 to 99999999 / 0 / 1]
8-621-007	Func Use Counter	Function-007	CTL*	[0 to 99999999 / 0 / 1]
8-621-008	Func Use Counter	Function-008	CTL*	[0 to 99999999 / 0 / 1]
8-621-009	Func Use Counter	Function-009	CTL*	[0 to 99999999 / 0 / 1]
8-621-010	Func Use Counter	Function-010	CTL*	[0 to 99999999 / 0 / 1]
8-621-011	Func Use Counter	Function-011	CTL*	[0 to 99999999 / 0 / 1]
8-621-012	Func Use Counter	Function-012	CTL*	[0 to 99999999 / 0 / 1]
8-621-013	Func Use Counter	Function-013	CTL*	[0 to 99999999 / 0 / 1]
8-621-014	Func Use Counter	Function-014	CTL*	[0 to 99999999 / 0 / 1]
8-621-015	Func Use Counter	Function-015	CTL*	[0 to 99999999 / 0 / 1]
8-621-016	Func Use Counter	Function-016	CTL*	[0 to 99999999 / 0 / 1]
8-621-017	Func Use Counter	Function-017	CTL*	[0 to 99999999 / 0 / 1]
8-621-018	Func Use Counter	Function-018	CTL*	[0 to 99999999 / 0 / 1]
8-621-019	Func Use Counter	Function-019	CTL*	[0 to 99999999 / 0 / 1]
8-621-020	Func Use Counter	Function-020	CTL*	[0 to 99999999 / 0 / 1]
8-621-021	Func Use Counter	Function-021	CTL*	[0 to 99999999 / 0 / 1]
8-621-022	Func Use Counter	Function-022	CTL*	[0 to 99999999 / 0 / 1]
8-621-023	Func Use Counter	Function-023	CTL*	[0 to 99999999 / 0 / 1]
8-621-024	Func Use Counter	Function-024	CTL*	[0 to 99999999 / 0 / 1]
8-621-025	Func Use Counter	Function-025	CTL*	[0 to 99999999 / 0 / 1]
8-621-026	Func Use Counter	Function-026	CTL*	[0 to 99999999 / 0 / 1]
8-621-027	Func Use Counter	Function-027	CTL*	[0 to 99999999 / 0 / 1]
8-621-028	Func Use Counter	Function-028	CTL*	[0 to 99999999 / 0 / 1]
8-621-029	Func Use Counter	Function-029	CTL*	[0 to 99999999 / 0 / 1]
8-621-030	Func Use Counter	Function-030	CTL*	[0 to 99999999 / 0 / 1]
8-621-031	Func Use Counter	Function-031	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-621-032	Func Use Counter	Function-032	CTL*	[0 to 99999999 / 0 / 1]
8-621-033	Func Use Counter	Function-033	CTL*	[0 to 99999999 / 0 / 1]
8-621-034	Func Use Counter	Function-034	CTL*	[0 to 99999999 / 0 / 1]
8-621-035	Func Use Counter	Function-035	CTL*	[0 to 99999999 / 0 / 1]
8-621-036	Func Use Counter	Function-036	CTL*	[0 to 99999999 / 0 / 1]
8-621-037	Func Use Counter	Function-037	CTL*	[0 to 99999999 / 0 / 1]
8-621-038	Func Use Counter	Function-038	CTL*	[0 to 99999999 / 0 / 1]
8-621-039	Func Use Counter	Function-039	CTL*	[0 to 99999999 / 0 / 1]
8-621-040	Func Use Counter	Function-040	CTL*	[0 to 99999999 / 0 / 1]
8-621-041	Func Use Counter	Function-041	CTL*	[0 to 99999999 / 0 / 1]
8-621-042	Func Use Counter	Function-042	CTL*	[0 to 99999999 / 0 / 1]
8-621-043	Func Use Counter	Function-043	CTL*	[0 to 99999999 / 0 / 1]
8-621-044	Func Use Counter	Function-044	CTL*	[0 to 99999999 / 0 / 1]
8-621-045	Func Use Counter	Function-045	CTL*	[0 to 99999999 / 0 / 1]
8-621-046	Func Use Counter	Function-046	CTL*	[0 to 99999999 / 0 / 1]
8-621-047	Func Use Counter	Function-047	CTL*	[0 to 99999999 / 0 / 1]
8-621-048	Func Use Counter	Function-048	CTL*	[0 to 99999999 / 0 / 1]
8-621-049	Func Use Counter	Function-049	CTL*	[0 to 99999999 / 0 / 1]
8-621-050	Func Use Counter	Function-050	CTL*	[0 to 99999999 / 0 / 1]
8-621-051	Func Use Counter	Function-051	CTL*	[0 to 99999999 / 0 / 1]
8-621-052	Func Use Counter	Function-052	CTL*	[0 to 99999999 / 0 / 1]
8-621-053	Func Use Counter	Function-053	CTL*	[0 to 99999999 / 0 / 1]
8-621-054	Func Use Counter	Function-054	CTL*	[0 to 99999999 / 0 / 1]
8-621-055	Func Use Counter	Function-055	CTL*	[0 to 99999999 / 0 / 1]
8-621-056	Func Use Counter	Function-056	CTL*	[0 to 99999999 / 0 / 1]
8-621-057	Func Use Counter	Function-057	CTL*	[0 to 99999999 / 0 / 1]
8-621-058	Func Use Counter	Function-058	CTL*	[0 to 99999999 / 0 / 1]
8-621-059	Func Use Counter	Function-059	CTL*	[0 to 99999999 / 0 / 1]
8-621-060	Func Use Counter	Function-060	CTL*	[0 to 99999999 / 0 / 1]
8-621-061	Func Use Counter	Function-061	CTL*	[0 to 99999999 / 0 / 1]
8-621-062	Func Use Counter	Function-062	CTL*	[0 to 99999999 / 0 / 1]
8-621-063	Func Use Counter	Function-063	CTL*	[0 to 99999999 / 0 / 1]
8-621-064	Func Use Counter	Function-064	CTL*	[0 to 99999999 / 0 / 1]
8-771-001	Dev Counter	Total	CTL*	[0 to 99999999 / 0 / 1]
8-781-001	Toner_Botol_Info.	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-801-001	Toner Remain	К	CTL*	[0 to 100 / 0 / 1%]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-811-001	Eco Counter	Eco Total	CTL*	[0 to 99999999 / 0 / 1]
8-811-004	Eco Counter	Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-811-005	Eco Counter	Combine	CTL*	[0 to 99999999 / 0 / 1]
8-811-008	Eco Counter	Duplex(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-009	Eco Counter	Combine(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-010	Eco Counter	Paper Cut(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-051	Eco Counter	Sync Eco Total	CTL*	[0 to 99999999 / 0 / 1]
8-811-054	Eco Counter	Sync Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-811-055	Eco Counter	Sync Combine	CTL*	[0 to 99999999 / 0 / 1]
8-811-058	Eco Counter	Sync Duplex(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-059	Eco Counter	Sync Combine(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-060	Eco Counter	Sync Paper Cut(%)	CTL*	[0 to 100 / 0 / 1%]
8-811-101	Eco Counter	Eco Totalr:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-104	Eco Counter	Duplex:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-105	Eco Counter	Combine:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-108	Eco Counter	Duplex(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-109	Eco Counter	Combine(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-110	Eco Counter	Paper Cut(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-151	Eco Counter	Sync Eco Totalr:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-154	Eco Counter	Sync Duplex:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-155	Eco Counter	Sync Combine:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-158	Eco Counter	Sync Duplex(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-159	Eco Counter	Sync Combine(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-160	Eco Counter	Sync Paper Cut(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-851-011	Cvr Cnt:0-10%	0~2%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-021	Cvr Cnt:0-10%	3~4%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-031	Cvr Cnt:0-10%	5~7%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-041	Cvr Cnt:0-10%	8~10%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-861-001	Cvr Cnt:11-20%	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-871-001	Cvr Cnt:21-30%	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-881-001	Cvr Cnt:31%-	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-891-001	Page/Toner Bottle	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-901-001	Page/Toner_Prev1	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-911-001	Page/Toner_Prev2	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-921-001	Cvr Cnt/Total	Coverage(%):BK	CTL*	[0 to 2147483647 / 0 /
				1%]

SP No.	Large Category	Small Category	ENG or	[Min to Max / Init. /
			CTL	Step]
8-921-011	Cvr Cnt/Total	Coverage/P:BK	CTL*	[0 to 99999999 / 0 / 1]
8-941-001	Machine Status	Operation Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-002	Machine Status	Standby Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-003	Machine Status	Energy Save Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-004	Machine Status	Low Power Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-005	Machine Status	Off Mode Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-006	Machine Status	SC	CTL*	[0 to 99999999 / 0 / 1]
8-941-007	Machine Status	PrtJam	CTL*	[0 to 99999999 / 0 / 1]
8-941-008	Machine Status	OrgJam	CTL*	[0 to 99999999 / 0 / 1]
8-941-009	Machine Status	Supply PM Unit End	CTL*	[0 to 99999999 / 0 / 1]
8-961-001	Electricity Status	Ctrl Standby Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-002	Electricity Status	STR Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-003	Electricity Status	Main Power Off Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-004	Electricity Status	Reading and Printing	CTL*	[0 to 99999999 / 0 / 1]
		Time		
8-961-005	Electricity Status	Printing Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-006	Electricity Status	Reading Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-007	Electricity Status	Eng Waiting Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-008	Electricity Status	Low Pawer State Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-009	Electricity Status	Silent State Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-010	Electricity Status	Heater Off State Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-011	Electricity Status	LCD on Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-101	Electricity Status	Silent Print	CTL*	[0 to 99999999 / 0 / 1]
8-971-001	Unit Control	Engine Off Recovery	CTL*	[0 to 99999999 / 0 / 1]
		Count		
8-971-002	Unit Control	Power Off Count	CTL*	[0 to 99999999 / 0 / 1]
8-971-003	Unit Control	Force Power Off Count	CTL*	[0 to 99999999 / 0 / 1]
8-999-001	Admin. Counter List	Total	CTL*	[0 to 99999999 / 0 / 1]
8-999-007	Admin. Counter List	Printer: BW	CTL*	[0 to 99999999 / 0 / 1]
8-999-013	Admin. Counter List	Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-999-027	Admin. Counter List	Printer: BW(%)	CTL*	[0 to 2147483647 / 0 /
				1]

5.SP Mode Tables (for MF Model)

SP1-XXX (Feed)

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
1-001-001	User LeadEdge Reg	By-pass: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-002	User LeadEdge Reg	Tray1: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-003	User LeadEdge Reg	Tray2: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-004	User LeadEdge Reg	Tray3: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-005	User LeadEdge Reg	Tray4: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-001-006	User LeadEdge Reg	Duplex: Plain	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-001	User S-to-S Reg	By-pass	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-002	User S-to-S Reg	Tray 1	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-003	User S-to-S Reg	Tray 2	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-004	User S-to-S Reg	Tray 3	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-005	User S-to-S Reg	Tray 4	ENG*	[-4 to 4 / 0 / 0.1mm]
1-002-006	User S-to-S Reg	Duplex	ENG*	[-4 to 4 / 0 / 0.1mm]
1-003-011	Paper Buckle	By-pass: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-012	Paper Buckle	By-pass: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-013	Paper Buckle	By-pass: Envelope	ENG*	[-5 to 5 / 0 / 1mm]
1-003-021	Paper Buckle	Tray1: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-022	Paper Buckle	Tray1: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-023	Paper Buckle	Tray1: Envelope	ENG*	[-5 to 5 / 0 / 1mm]
1-003-031	Paper Buckle	Tray2: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-032	Paper Buckle	Tray2: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-041	Paper Buckle	Tray3: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-042	Paper Buckle	Tray3: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-051	Paper Buckle	Tray4: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-052	Paper Buckle	Tray4: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-003-061	Paper Buckle	Duplex: Plain	ENG*	[-5 to 5 / 0 / 1mm]
1-003-062	Paper Buckle	Duplex: Thick	ENG*	[-5 to 5 / 0 / 1mm]
1-101-001	Flicker Control	Flicker Control	ENG*	[0 to 1 / 0 / 1]
1-103-002	Fusing Idling	Reload Temp.:Center	ENG*	[90 to 180 / * / 1deg]
				IM 350F/350: 145
				IM 430Fb/430F: 153
1-103-003	Fusing Idling	center:Thresh	ENG*	[60 to 180 / * / 1deg]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
				IM 350F/350: 135
				IM 430Fb/430F: 143
1-103-102	Fusing Idling	Reload Temp.:Side	ENG*	[90 to 180 / * / 1deg]
				IM 350F/350: 105
				IM 430Fb/430F: 113
1-103-103	Fusing Idling	Side: Thresh	ENG*	[60 to 180 / * / 1deg]
				IM 350F/350: 85
				IM 430Fb/430F: 93
1-103-152	Fusing Idling	Reload Temp.:Side_low	ENG*	[90 to 180 / 100 /
		speed		1deg]
1-103-153	Fusing Idling	Side: Thresh_low speed	ENG*	[60 to 180 / 80 / 1deg]
1-103-202	Fusing Idling	Reload Temp:Center_low	ENG*	[90 to 180 / 140 /
		speed		1deg]
1-103-203	Fusing Idling	Center:Thresh_low speed	ENG*	[60 to 180 / 130 /
				1deg]
1-105-001	Fusing Temperature	Roller Center:Plain1	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 167
				IM 430Fb/430F: 170
1-105-003	Fusing Temperature	Roller Center:Plain2	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 175
				IM 430Fb/430F: 178
1-105-005	Fusing Temperature	Roller Center:M-Thick	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 180
				IM 430Fb/430F: 186
1-105-007	Fusing Temperature	Thick1 Paper:Roller	ENG*	[0 to 60 / * / 1deg]
	Adjustment	Center		IM 350F/350: 23
				IM 430Fb/430F: 28
1-105-008	Fusing Temperature	Thick2 Paper:Roller	ENG*	[0 to 60 / * / 1deg]
	Adjustment	Center		IM 350F/350: 18
				IM 430Fb/430F: 15
1-105-009	Fusing Temperature	Center Minus:Thin	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment			
1-105-010	Fusing Temperature	Thick3 Paper:	ENG*	[0 to 60 / * / 1deg]
	Adjustment	RollerCenter		IM 350F/350: 23
				IM 430Fb/430F: 20

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
1-105-011	Fusing Temperature Adjustment	Low Power	ENG*	[0 to 80 / 60 / 1deg]
1-105-012	Fusing Temperature	Standby Temp: Center	ENG*	[140 to 185 / * / 1deg]
	Adjustment			IM 350F/350: 155
				IM 430Fb/430F: 163
1-105-013	Fusing Temperature	Print Ready	ENG*	[140 to 180 / * / 1deg]
	Adjustment			IM 350F/350: 165
				IM 430Fb/430F: 173
1-105-014	Fusing Temperature Adjustment	Thresh:S1	ENG*	[0 to 50 / 19 / 1deg]
1-105-015	Fusing Temperature Adjustment	Thresh:delta t	ENG*	[0 to 50 / 0 / 1deg]
1-105-016	Fusing Temperature Adjustment	Low:Plain1	ENG*	[0 to 30 / 5 / 1deg]
1-105-017	Fusing Temperature Adjustment	Low:Plain2	ENG*	[0 to 30 / 5 / 1deg]
1-105-018	Fusing Temperature Adjustment	Low:M-Thick	ENG*	[0 to 30 / 5 / 1deg]
1-105-019	Fusing Temperature Adjustment	Low:Thick	ENG*	[0 to 30 / 5 / 1deg]
1-105-024	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	Lower:Plain1		
1-105-026	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	Lower:Plain2		
1-105-028	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	Lower:M-Thick		
1-105-030	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	Lower:Thick		
1-105-032	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Plain1		
1-105-034	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 20 / 1deg]
-	Adjustment	Upper:Plain2		
1-105-036	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:M-Thick		
1-105-038	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 20 / 1deg]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
	Adjustment	Upper:Thick		
1-105-040	Fusing Temperature	Envelope2:Roller Center	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 38
				IM 430Fb/430F: 35
1-105-042	Fusing Temperature	Transparency:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center		
1-105-044	Fusing Temperature	Post Card:Roller Center	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 38
				IM 430Fb/430F: 35
1-105-046	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center		
1-105-048	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center		
1-105-051	Fusing Temperature	Roller Center:Plain1_curl	ENG*	[0 to 255 / 146 / 1deg]
	Adjustment			
1-105-053	Fusing Temperature	Roller Center:Plain2_curl	ENG*	[0 to 255 / 155 / 1deg]
	Adjustment			
1-105-055	Fusing Temperature	Roller Center:M-	ENG*	[0 to 255 / 155 / 1deg]
	Adjustment	Thick_curl		
1-105-057	Fusing Temperature	Thick1 Paper:Roller	ENG*	[0 to 60 / 11 / 1deg]
	Adjustment	Center_curl		
1-105-058	Fusing Temperature	Thick2 Paper:Roller	ENG*	[0 to 60 / 13 / 1deg]
	Adjustment	Center_curl		
1-105-059	Fusing Temperature	Center Minus:Thin_curl	ENG*	[0 to 60 / 7 / 1deg]
	Adjustment			
1-105-060	Fusing Temperature	Thick3 Paper:	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	RollerCenter_curl		
1-105-067	Fusing Temperature	Thick Paper1: Roller	ENG*	[0 to 60 / 11 / 1deg]
	Adjustment	Side_curl		
1-105-068	Fusing Temperature	Thick Paper2 :Roller	ENG*	[0 to 60 / 13 / 1deg]
	Adjustment	Side_curl		
1-105-069	Fusing Temperature	Side Minus :Thin_curl	ENG*	[0 to 60 / 7 / 1deg]
	Adjustment			
1-105-070	Fusing Temperature	Thick Paper3 :Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Side_curl		

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
1-105-072	Fusing Temperature	Transparency:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Side_curl		
1-105-074	Fusing Temperature	Post Card:Roller Side_curl	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment			
1-105-076	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Side_curl		
1-105-078	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Side_curl		
1-105-092	Fusing Temperature	Transparency:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Center_curl		
1-105-094	Fusing Temperature	Post Card:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Center_curl		
1-105-096	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Center_curl		
1-105-098	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 18 / 1deg]
	Adjustment	Center_curl		
1-105-101	Fusing Temperature	Roller Side:Plain1	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 162
				IM 430Fb/430F: 165
1-105-103	Fusing Temperature	Roller Side:Plain2	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 170
				IM 430Fb/430F: 173
1-105-105	Fusing Temperature	Roller Side:M-Thick	ENG*	[120 to 230 / * / 1deg]
	Adjustment			IM 350F/350: 175
				IM 430Fb/430F: 181
1-105-107	Fusing Temperature	Thick Paper1: Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 23
				IM 430Fb/430F: 28
1-105-108	Fusing Temperature	Thick Paper2 :Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 18
				IM 430Fb/430F: 15
1-105-109	Fusing Temperature	Side Minus :Thin	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment			
1-105-110	Fusing Temperature	Thick Paper3 :Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 23

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
				IM 430Fb/430F: 20
1-105-111	Fusing Temperature	Low Power	ENG*	[0 to 80 / 60 / 1deg]
	Adjustment			
1-105-112	Fusing Temperature	Standby Temp: Side	ENG*	[140 to 158 / * / 1deg]
	Adjustment			IM 350F/350: 150
				IM 430Fb/430F: 158
1-105-113	Fusing Temperature	Print Ready	ENG*	[140 to 158 / * / 1deg]
	Adjustment			IM 350F/350: 150
				IM 430Fb/430F: 158
1-105-116	Fusing Temperature	Low:Plain1	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-117	Fusing Temperature	Low:Plain2	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-118	Fusing Temperature	Low:M-Thick	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-119	Fusing Temperature	Low:Thick	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment			
1-105-124	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 50 / 1deg]
	Adjustment	Lower:Plain1		
1-105-126	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 55 / 1deg]
	Adjustment	Lower:Plain2		
1-105-128	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 40 / 1deg]
	Adjustment	Lower:M-Thick		
1-105-130	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 40 / 1deg]
	Adjustment	Lower:Thick		
1-105-132	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Plain1		
1-105-134	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Plain2		
1-105-136	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:M-Thick		
1-105-138	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Upper:Thick		
1-105-140	Fusing Temperature	Envelope2:Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 43

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
				IM 430Fb/430F: 40
1-105-142	Fusing Temperature	Transparency:Roller Side	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment			
1-105-144	Fusing Temperature	Post Card:Roller Side	ENG*	[0 to 60 / * / 1deg]
	Adjustment			IM 350F/350: 38
				IM 430Fb/430F: 35
1-105-146	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Side		
1-105-148	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Side		
1-105-151	Fusing Temperature	Roller Side:Plain1_low	ENG*	[120 to 230 / 160 /
	Adjustment	speed		1deg]
1-105-152	Fusing Temperature	Roller Side:Plain1_curl	ENG*	[0 to 255 / 141 / 1deg]
	Adjustment			
1-105-153	Fusing Temperature	Roller Side:Plain2_low	ENG*	[120 to 230 / 165 /
	Adjustment	speed		1deg]
1-105-154	Fusing Temperature	Roller Side:Plain2_curl	ENG*	[0 to 255 / 150 / 1deg]
	Adjustment			
1-105-155	Fusing Temperature	Roller Side:M-Thick_low	ENG*	[120 to 230 / 170 /
	Adjustment	speed		1deg]
1-105-156	Fusing Temperature	Roller Side:M-Thick_curl	ENG*	[0 to 255 / 150 / 1deg]
	Adjustment			
1-105-157	Fusing Temperature	Thick Paper1: Roller	ENG*	[0 to 60 / 15 / 1deg]
	Adjustment	Side_low speed		
1-105-158	Fusing Temperature	Thick Paper2 :Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Side_low speed		
1-105-159	Fusing Temperature	Side Minus :Thin_low	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	speed		
1-105-160	Fusing Temperature	Thick Paper3 :Roller	ENG*	[0 to 60 / 25 / 1deg]
	Adjustment	Side_low speed		
1-105-162	Fusing Temperature	Standby Temp: Side_low	ENG*	[140 to 185 / 145 /
	Adjustment	speed		1deg]
1-105-163	Fusing Temperature	Print ready:Side_low	ENG*	[140 to 180 / 145 /
	Adjustment	speed		1deg]
1-105-174	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 5 / 1deg]
SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
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			or	Step]
			CTL	
	Adjustment	Lower:Plain1_curl		
1-105-176	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 5 / 1deg]
	Adjustment	Lower:Plain2_curl		
1-105-178	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 5 / 1deg]
	Adjustment	Lower:M-Thick_curl		
1-105-180	Fusing Temperature	Paper Feed:Center	ENG*	[0 to 60 / 5 / 1deg]
	Adjustment	Lower:Thick_curl		
1-105-190	Fusing Temperature	Envelope:Roller Side_low	ENG*	[0 to 60 / 45 / 1deg]
	Adjustment	speed		
1-105-192	Fusing Temperature	Transparency:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Side_low speed		
1-105-194	Fusing Temperature	Post Card:Roller Side_low	ENG*	[0 to 60 / 40 / 1deg]
	Adjustment	speed		
1-105-196	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Side_low speed		
1-105-198	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Side_low speed		
1-105-201	Fusing Temperature	Roller Center:Plain1_low	ENG*	[120 to 230 / 165 /
	Adjustment	speed		1deg]
1-105-203	Fusing Temperature	Roller Center:Plain2_low	ENG*	[120 to 230 / 170 /
	Adjustment	speed		1deg]
1-105-205	Fusing Temperature	Roller Center:M-Thick_low	ENG*	[120 to 230 / 175 /
	Adjustment	speed		1deg]
1-105-207	Fusing Temperature	Thick1 Paper:Roller	ENG*	[0 to 60 / 15 / 1deg]
	Adjustment	Center_low speed		
1-105-208	Fusing Temperature	Thick2 Paper:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center_low speed		
1-105-209	Fusing Temperature	Center Minus:Thin_low	ENG*	[0 to 60 / 10 / 1deg]
	Adjustment	speed		
1-105-210	Fusing Temperature	Thick3 Paper:	ENG*	[0 to 60 / 25 / 1deg]
	Adjustment	RollerCenter_low speed		
1-105-212	Fusing Temperature	Standby Temp:	ENG*	[140 to 185 / 150 /
	Adjustment	Center_low speed		1deg]
1-105-213	Fusing Temperature	Print Ready:Center_low	ENG*	[140 to 180 / 160 /
	Adjustment	speed		1deg]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
1-105-224	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 5 / 1deg]
	Adjustment	Lower:Plain1_curl		
1-105-226	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 5 / 1deg]
	Adjustment	Lower:Plain2_curl		
1-105-228	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 5 / 1deg]
	Adjustment	Lower:M-Thick_curl		
1-105-230	Fusing Temperature	Paper Feed:Side	ENG*	[0 to 60 / 5 / 1deg]
	Adjustment	Lower:Thick_curl		
1-105-240	Fusing Temperature	Envelope:Roller	ENG*	[0 to 60 / 40 / 1deg]
	Adjustment	Center_low speed		
1-105-242	Fusing Temperature	Transparency:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center_low speed		
1-105-244	Fusing Temperature	Post Card:Roller	ENG*	[0 to 60 / 40 / 1deg]
	Adjustment	Center_low speed		
1-105-246	Fusing Temperature	Special Paper 1:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center_low speed		
1-105-248	Fusing Temperature	Special Paper 2:Roller	ENG*	[0 to 60 / 20 / 1deg]
	Adjustment	Center_low speed		
1-105-251	Fusing Temperature	Envelope1 Temp	ENG*	[-30 to 0 / -1 / 1deg]
	Adjustment	Adjustment:Center		
1-105-252	Fusing Temperature	Envelope1 Temp	ENG*	[-30 to 0 / -1 / 1deg]
	Adjustment	Adjustment:Side		
1-105-253	Fusing Temperature	Envelope3 Temp	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment	Adjustment:Center		
1-105-254	Fusing Temperature	Envelope3 Temp	ENG*	[0 to 30 / 5 / 1deg]
	Adjustment	Adjustment:Side		
1-106-001	Fusing Temperature	Roller Center	ENG	[-20 to 250 / 0 / 1deg]
	Display			
1-106-003	Fusing Temperature	In The Machine at Power	ENG	[-20 to 250 / 0 / 1deg]
	Display	On		
1-106-101	Fusing Temperature	Roller Center	ENG	[-20 to 250 / 0 / 1deg]
	Display			
1-108-001	Control Period Setting	Warming-up	ENG*	[100 to 2000 / 600 /
				100msec]
1-108-002	Control Period Setting	Print	ENG*	[100 to 2000 / 600 /

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
				100msec]
1-108-003	Control Period Setting	Wait	ENG*	[100 to 2000 / 600 /
				100msec]
1-108-004	Control Period Setting	Print Start	ENG*	[100 to 2000 / 600 /
				100msec]
1-108-005	Control Period Setting	Print Start Time	ENG*	[0 to 999 / 5 / 1sec]
1-108-008	Control Period Setting	Environment Adjusted	ENG*	[-20 to 60 / 23 /
		Тетр		0.1deg]
1-108-009	Control Period Setting	Environment Temp Adjust	ENG*	[0 to 10 / 0 / 0.1deg]
		Amount		
1-111-001	CurlDecMode	Mode Display	ENG*	[0 to 1 / 0 / 1]
1-112-001	Image Process Temp. Correction	Temp.:Normal:Level1	ENG*	[-25 to 10 / 0 / 1deg]
1-112-002	Image Process Temp.	Temp.:Normal:Level2	ENG*	[-25 to 10 / * / 1deg]
	Correction			IM 350F/350: -18
				IM 430Fb/430F: -10
1-123-001	Fuser ExeSheets	Normal	ENG*	[0 to 255 / 50 /
				1pages]
1-123-002	Fuser ExeSheets	ConsecutivePrint	ENG*	[0 to 500 / 500 /
				1pages]
1-124-001	CPM Down Setting	Low:Down Temp	ENG*	[-50 to 0 / -25 / 1deg]
1-124-002	CPM Down Setting	Low:Up Temp	ENG*	[-50 to 0 / -5 / 1deg]
1-124-003	CPM Down Setting	Low:1st CPM	ENG*	[10 to 100 / 80 / 5%]
1-124-004	CPM Down Setting	Low:2nd CPM	ENG*	[10 to 100 / 60 / 5%]
1-124-005	CPM Down Setting	Low:3rd CPM	ENG*	[10 to 100 / 40 / 5%]
1-124-006	CPM Down Setting	High:1st CPM	ENG*	[10 to 100 / 65 / 5%]
1-124-007	CPM Down Setting	High:2nd CPM	ENG*	[10 to 100 / 50 / 5%]
1-124-008	CPM Down Setting	High:3rd CPM	ENG*	[10 to 100 / 50 / 5%]
1-124-009	CPM Down Setting	High:1st CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:LT		
1-124-010	CPM Down Setting	High:2nd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:LT		
1-124-011	CPM Down Setting	High:3rd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:LT		
1-124-012	CPM Down Setting	High:1st CPM Down	ENG*	[0 to 999 / 0 / 1sec]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
		Time.:A4		
1-124-013	CPM Down Setting	High:2nd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:A4		
1-124-014	CPM Down Setting	High:3rd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:A4		
1-124-015	CPM Down Setting	High:1st CPM Down	ENG*	[0 to 999 / 120 / 1sec]
		Time.:B5		
1-124-016	CPM Down Setting	High:2nd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:B5		
1-124-017	CPM Down Setting	High:3rd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:B5		
1-124-018	CPM Down Setting	High:1st CPM Down	ENG*	[0 to 999 / 60 / 1sec]
		Time.:A5		
1-124-019	CPM Down Setting	High:2nd CPM Down	ENG*	[0 to 999 / 1 / 1sec]
		Time.:A5		
1-124-020	CPM Down Setting	High:3rd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:A5		
1-124-021	CPM Down Setting	High:1st CPM Down	ENG*	[0 to 999 / 60 / 1sec]
		Time.:A6		
1-124-022	CPM Down Setting	High:2nd CPM Down	ENG*	[0 to 999 / 1 / 1sec]
		Time.:A6		
1-124-023	CPM Down Setting	High:3rd CPM Down	ENG*	[0 to 999 / 0 / 1sec]
		Time.:A6		
1-124-024	CPM Down Setting	Judging Interval	ENG*	[1 to 999 / 10 / 1sec]
1-124-025	CPM Down Setting	Start Timing	ENG*	[1 to 999 / 10 / 1sec]
1-134-001	Voltage state	0:Low 1:Normal	ENG*	[0 to 1 / 1 / 1]
1-135-001	Inrush Control	Inrush Control	ENG*	[0 to 1 / 0 / 1]
1-136-001	Low Volt Control	Low Volt SC Count	ENG*	[0 to 999 / 0 / 1]
1-136-002	Low Volt Control	LowVoltPrintSW	ENG*	[0 to 1 / * / 1]
				NA/TWN: 0
				EU/AA/CHN/KOR: 1
				0: OFF, 1: ON
1-136-005	Low Volt Control	ON/OFF	ENG*	[0 to 1 / 1 / 1]
1-136-006	Low Volt Control	Resetting Flag	ENG*	[0 to 1 / 0 / 1]
1-136-007	Low Volt Control	Resetting Times	ENG*	[0 to 255 / 0 / 1Times]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
1-151-118	Press Adjustment	Depressure Shift Time	ENG*	[0 to 255 / 10 / 1sec]
1-151-119	Press Adjustment	Depressure Standby	ENG*	[0 to 255 / 0 / 1sec]
		condition's Pressing Time		
1-151-120	Press Adjustment	Depressure	ENG*	[0 to 1 / 0 / 1]
		system: 0:exist 1:none		
1-151-121	Press Adjustment	Depressing& pressing	ENG*	[10 to 255 / 170 /
		Timer		1msec]
1-151-122	Press Adjustment	Pressure	ENG	[0 to 1 / 0 / 1]
1-151-123	Press Adjustment	Depressure	ENG	[0 to 1 / 0 / 1]
1-152-001	Fusing Nip Band Check	0:OFF、1:ON	ENG	[0 to 1 / 0 / 1]
1-159-001	Fusing Jam Detection	SC Display	ENG*	[0 to 1 / 0 / 1]
1-160-001	Allophone Control	Allophone Control	ENG*	[0 to 1 / 0 / 1]
1-801-001	MotorSpeedAdjust	DrumMot:ExtraHigh	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-002	MotorSpeedAdjust	DrumMot:High	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-003	MotorSpeedAdjust	DrumMot:Mid	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-004	MotorSpeedAdjust	DrumMot:Low	ENG*	[-4 to 4 / 0 / 0.01%]
1-801-006	MotorSpeedAdjust	FeedMot:ExtraHigh	ENG*	[-8 to 8 / 0 / 0.01%]
1-801-007	MotorSpeedAdjust	FeedMot:High	ENG*	[-8 to 8 / 0 / 0.01%]
1-801-008	MotorSpeedAdjust	FeedMot:Mid	ENG*	[-8 to 8 / 0 / 0.01%]
1-801-009	MotorSpeedAdjust	FeedMot:Low	ENG*	[-8 to 8 / 0 / 0.01%]
1-907-005	Paper Timing Adj	Reverse Stop Posi	ENG*	[-10 to 10 / 0 / 1mm]
1-907-015	Paper Timing Adj	Re-Feed Stop Posi	ENG*	[-10 to 10 / 0 / 1mm]
1-908-015	Paper Timing Adj	Junc Gate SOL:ON	ENG*	[-10 to 10 / 0 / 1mm]
1-908-017	Paper Timing Adj	Junc Gate SOL:OFF	ENG*	[-10 to 10 / 0 / 1mm]
1-908-018	Paper Timing Adj	Bypass Feed CL OFF	ENG*	[-50 to 900 / 0 / 1mm]
1-909-001	FeedRetryCount	Manual Feed Tray	ENG*	[0 to 2 / 1 / 1]
1-909-002	FeedRetryCount	Tray1	ENG*	[0 to 2 / 1 / 1]
1-909-003	FeedRetryCount	Tray2	ENG*	[0 to 2 / 1 / 1]
1-909-004	FeedRetryCount	Tray3	ENG*	[0 to 2 / 1 / 1]
1-909-005	FeedRetryCount	Tray4	ENG*	[0 to 2 / 1 / 1]
1-910-001	FeedRetryCountLog	Manual Feed Tray	ENG*	[0 to 65535 / 0 / 1]
1-910-002	FeedRetryCountLog	Tray1	ENG*	[0 to 65535 / 0 / 1]
1-910-003	FeedRetryCountlog	Tray2	ENG*	[0 to 65535 / 0 / 1]
1-910-004	FeedRetryCountlog	Tray3	ENG*	[0 to 65535 / 0 / 1]
1-910-005	FeedRetryCountlog	Tray4	ENG*	[0 to 65535 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
1-911-001	FeedDelayDivLog	DivA_MF_All_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-002	FeedDelayDivLog	DivA_MF_All_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-003	FeedDelayDivLog	DivB_MF_All_Nor	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-004	FeedDelayDivLog	DivB_MF_All_Thick	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-005	FeedDelayDivLog	DivC_MF_All_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-006	FeedDelayDivLog	DivC_MF_All_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-007	FeedDelayDivLog	DivD_MF_All_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-008	FeedDelayDivLog	DivD_MF_All_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-009	FeedDelayDivLog	DivA_T1_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-010	FeedDelayDivLog	DivA_T1_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-011	FeedDelayDivLog	DivA_T1_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-012	FeedDelayDivLog	DivA_T1_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-013	FeedDelayDivLog	DivB_T1_1_Nor	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-014	FeedDelayDivLog	DivB_T1_1_Thick	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-015	FeedDelayDivLog	DivB_T1_2_Nor	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-016	FeedDelayDivLog	DivB_T1_2_Thick	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-017	FeedDelayDivLog	DivC_T1_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-018	FeedDelayDivLog	DivC_T1_1_Thick	ENG*	[0 to 65535 / 0 /

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
				1count]
1-911-019	FeedDelayDivLog	DivC_T1_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-020	FeedDelayDivLog	DivC_T1_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-021	FeedDelayDivLog	DivD_T1_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-022	FeedDelayDivLog	DivD_T1_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-023	FeedDelayDivLog	DivD_T1_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-024	FeedDelayDivLog	DivD_T1_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-025	FeedDelayDivLog	DivA_T2_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-026	FeedDelayDivLog	DivA_T2_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-027	FeedDelayDivLog	DivA_T2_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-028	FeedDelayDivLog	DivA_T2_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-029	FeedDelayDivLog	DivB_T2_1_Nor	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-030	FeedDelayDivLog	DivB_T2_1_Thick	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-031	FeedDelayDivLog	DivB_T2_2_Nor	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-032	FeedDelayDivLog	DivB_T2_2_Thick	ENG*	[0 to 1000000 / 0 /
				1count]
1-911-033	FeedDelayDivLog	DivC_T2_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-034	FeedDelayDivLog	DivC_T2_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-035	FeedDelayDivLog	DivC_T2_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
1-911-036	FeedDelayDivLog	DivC_T2_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-037	FeedDelayDivLog	DivD_T2_1_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-038	FeedDelayDivLog	DivD_T2_1_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-911-039	FeedDelayDivLog	DivD_T2_2_Nor	ENG*	[0 to 65535 / 0 /
				1count]
1-911-040	FeedDelayDivLog	DivD_T2_2_Thick	ENG*	[0 to 65535 / 0 /
				1count]
1-912-001	Power Limit Mode	Mode 0 OFF 1 ON	ENG*	[0 to 0 / 0 / 1]
1-979-001	Power Control	Power Control	ENG*	[0 to 1 / 0 / 1]
1-990-001	SC990 plt detail		ENG*	[0 to 4294967295 / 0 /
				1]
1-991-001	Max Fusing Lamp Duty	Roller Center	ENG*	[40 to 100 / 100 /
				10%]
1-991-003	Max Fusing Lamp Duty	After Warming-up - Center	ENG*	[40 to 100 / 100 /
				10%]
1-996-005	Heater Forced Off	After Printing	ENG*	[0 to 50 / 10 / 1sec]
1-998-001	Reserve SP	reserve01	ENG*	[0 to 255 / 0 / 1]
1-998-002	Reserve SP	reserve02	ENG*	[0 to 255 / 0 / 1]
1-998-003	Reserve SP	reserve03	ENG*	[0 to 255 / 0 / 1]
1-998-004	Reserve SP	reserve04	ENG*	[0 to 255 / 0 / 1]
1-998-005	Reserve SP	reserve05	ENG*	[0 to 255 / 0 / 1]
1-998-006	Reserve SP	reserve06	ENG*	[0 to 255 / 0 / 1]
1-998-007	Reserve SP	reserve07	ENG*	[0 to 255 / 0 / 1]
1-998-008	Reserve SP	reserve08	ENG*	[0 to 255 / 0 / 1]
1-998-009	Reserve SP	reserve09	ENG*	[0 to 255 / 0 / 1]
1-998-010	Reserve SP	reserve10	ENG*	[0 to 255 / 0 / 1]
1-998-011	Reserve SP	reserve11	ENG*	[0 to 65535 / 0 / 1]
1-998-012	Reserve SP	reserve12	ENG*	[0 to 65535 / 0 / 1]
1-998-013	Reserve SP	reserve13	ENG*	[0 to 65535 / 0 / 1]
1-998-014	Reserve SP	reserve14	ENG*	[0 to 65535 / 0 / 1]
1-998-015	Reserve SP	reserve15	ENG*	[0 to 65535 / 0 / 1]
1-998-016	Reserve SP	reserve16	ENG*	[0 to 65535 / 0 / 1]

5.SP Mode Tables (for MF Model)

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
1-998-017	Reserve SP	reserve17	ENG*	[0 to 65535 / 0 / 1]
1-998-018	Reserve SP	reserve18	ENG*	[0 to 65535 / 0 / 1]
1-998-019	Reserve SP	reserve19	ENG*	[0 to 65535 / 0 / 1]
1-998-020	Reserve SP	reserve20	ENG*	[0 to 65535 / 0 / 1]

SP2-XXX (Drum)

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
2-102-002	Magnification Adj	Sub Normal	ENG*	[-1.8 to 1.8 / 0 / 0.1%]
2-102-004	Magnification Adj	Sub Low	ENG*	[-1.8 to 1.8 / 0 / 0.1%]
2-103-001	Erase Margin Adj	Lead Edge Width	ENG*	[0 to 9.9 / 3 / 0.1mm]
2-103-002	Erase Margin Adj	Trail Edge Width	ENG*	[0 to 9.9 / 2 / 0.1mm]
2-103-003	Erase Margin Adj	Left Edge Width	ENG*	[0 to 9.9 / 2 / 0.1mm]
2-103-004	Erase Margin Adj	Right Edge Width	ENG*	[0 to 9.9 / 2 / 0.1mm]
2-103-005	Erase Margin Adj	Duplex Lead EW	ENG*	[0 to 4 / 0 / 0.1mm]
2-103-006	Erase Margin Adj	Duplex Trail EW	ENG*	[0 to 4 / 0 / 0.1mm]
2-103-007	Erase Margin Adj	Duplex Left EW	ENG*	[0 to 4 / 0 / 0.1mm]
2-103-008	Erase Margin Adj	Duplex Right EW	ENG*	[0 to 4 / 0 / 0.1mm]
2-106-021	LEDA Emit Time	Print	ENG*	[0 to 7000 / 0 / 1ns]
2-109-001	Test Printing	Pattern Selection	ENG	[0 to 17 / 0 / 1]
				0: None
				1: Vert. (1dot)
				2: Hori. (1dot)
				3: Vert. (2dot)
				4: Hori. (2dot)
				5: Grid Vert.
				6: Grid Hori.
				7: Grid 20mm
				8: Arg. Grid
				9: Arg.Grid20mm
				10: Indep.(1dot)
				11: Indep.(2dot)
				12: Indep.(4dot)
				13: Full
				14: Band
				15: Trim Area
				16: White
				17: SFBC Pattern
2-109-002	Test Printing	1 Sheet Printing	ENG	[0 to 0 / 0 / 0]
2-109-003	Test Printing	Continue Printing	ENG	[0 to 0 / 0 / 0]
2-109-004	Test Printing	Print Side Select	ENG	[0 to 1 / 0 / 1]
				0: One Side

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
				1: Both Sides
2-131-004	SFBVSC:Execution SP	Correction Clear	ENG	[0 to 1 / 0 / 1]
2-132-001	SFBVSC:Configuration	Paper Size (Final)	ENG*	[0 to 1 / 0 / 1]
2-132-002	SFBVSC:Configuration	Paper Size	ENG*	[0 to 1 / 0 / 1]
		(Provisional)		
2-132-003	SFBVSC:Configuration	Sub Scan Pos. (A4)	ENG*	[0 to 260 / 168.5 / 0.1mm]
2-132-004	SFBVSC:Configuration	Sub Scan Pos. (LT)	ENG*	[0 to 240 / 151.5 / 0.1mm]
2-132-005	SFBVSC:Configuration	L.Mark Detect Sta.	ENG*	[70 to 120 / 90 / 1]
2-132-006	SFBVSC:Configuration	L.Mark Detect End	ENG*	[140 to 190 / 170 / 1]
2-132-007	SFBVSC:Configuration	C.Mark Detect Sta.	ENG*	[550 to 620 / 590 / 1]
2-132-008	SFBVSC:Configuration	C.Mark Detect End	ENG*	[640 to 710 / 670 / 1]
2-132-009	SFBVSC:Configuration	R.Mark Detect Sta.	ENG*	[1070 to 1120 / 1090 / 1]
2-132-010	SFBVSC:Configuration	R.Mark Detect End	ENG*	[1140 to 1190 / 1170 / 1]
2-132-011	SFBVSC:Configuration	L.Edge Detect Sta.	ENG*	[1 to 10 / 5 / 1]
2-132-012	SFBVSC:Configuration	L.Edge Detect End	ENG*	[25 to 60 / 45 / 1]
2-132-013	SFBVSC:Configuration	R.Edge Detect Sta.	ENG*	[1191 to 1225 / 1200 / 1]
2-132-014	SFBVSC:Configuration	R.Edge Detect End	ENG*	[1265 to 1272 / 1272 / 1]
2-132-015	SFBVSC:Configuration	Err. Jude. A Threshold	ENG*	[0 to 255 / 0 / 1]
2-132-016	SFBVSC:Configuration	Err. Jude. B Threshold	ENG*	[0 to 255 / 190 / 1]
2-132-017	SFBVSC:Configuration	Edge Margine	ENG*	[0 to 15 / 5 / 1]
2-132-018	SFBVSC:Configuration	Skew Detect Area	ENG*	[0 to 15 / 3 / 1]
2-132-019	SFBVSC:Configuration	Number of Scan	ENG*	[0 to 255 / 0 / 1]
2-132-020	SFBVSC:Configuration	Number of Skew Err.	ENG*	[0 to 255 / 0 / 1]
2-132-021	SFBVSC:Configuration	Number of Direction	ENG*	[0 to 255 / 0 / 1]
		Err.		
2-132-022	SFBVSC:Configuration	Excete Time:yy/mm/dd	ENG*	[0x00000000 to
				0xFFFFFFF /
				0x00000000 / 1]
2-132-023	SFBVSC:Configuration	Excete Time:hh/mm/ss	ENG*	[0x0000000 to
				0xFFFFFFF /
				0x00000000 / 1]
2-132-024	SFBVSC:Configuration	Threshold exceeding	ENG*	[0 to 255 / 0 / 1]
		number		
2-133-001	SFBVSC:Choice	Reflect of Correction	ENG*	[0 to 1 / 0 / 1]
2-133-002	SFBVSC:Choice	Correction Choice	ENG*	[0 to 3 / 3 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
				0: Only moving Ave.
				1: Moving Ave. & Mag.
				correction
				2: Moving Ave. & Shift
				correction
				3: All
2-133-003	SFBVSC:Choice	Correction Coefficient	ENG*	[0 to 1.5 / 0.7 / 0.1]
2-133-004	SFBVSC:Choice	SFBC Pattern Choice	ENG*	[0 to 1 / 0 / 1]
				0: Staggered
				4by4(1200dpi)
				1: Staggered
				2by2(1200dpi)
2-149-001	SFBVSC:Result	Left Marker Area	ENG*	[1 to 1272 / 1 / 1]
2-149-002	SFBVSC:Result	Center Marker Area	ENG*	[1 to 1272 / 1 / 1]
2-149-003	SFBVSC:Result	Right Marker Area	ENG*	[1 to 1272 / 1 / 1]
2-149-004	SFBVSC:Result	Left Edge Area	ENG*	[1 to 1272 / 1 / 1]
2-149-005	SFBVSC:Result	Right Edge Area	ENG*	[1 to 1272 / 1 / 1]
2-149-006	SFBVSC:Result	Shift	ENG*	[-4 to 4 / 0 / 1dot]
2-149-007	SFBVSC:Result	Left Mag.	ENG*	[-1 to 1 / 0 / 0.1%]
2-149-008	SFBVSC:Result	Right Mag.	ENG*	[-1 to 1 / 0 / 0.1%]
2-212-001	ExeSheets	Normal	ENG*	[1 to 500 / 500 / 1page]
2-212-002	ExeSheets	ConsecutivePrint	ENG*	[40 to 500 / 500 / 1page]
2-221-005	LEDA Data:Display	Serial Number	ENG*	[0 to 0 / 0 / 0]
2-221-009	LEDA Data:Display	Power Error	ENG*	[0 to 1 / 0 / 1]
2-241-004	Temp: Display	Temp Display	ENG	[-20 to 99.9 / 0 / 0.1deg]
2-243-001	Temp/Humid:Display	Temperature	ENG	[0 to 61 / 0 / 0.1deg]
2-243-002	Temp/Humid:Display	Relative Humidity	ENG	[0 to 100 / 0 / 1%RH]
2-243-003	Temp/Humid:Display	Absolute Humidity	ENG	[0 to 100 / 0 / 1g/m3]
2-412-001	Flag T&H Sensor	0:No Flag/1:Flag	ENG*	[0 to 1 / 0 / 1]
2-413-001	Flag PSU Thermistor	0:No Flag/1:Flag	ENG*	[0 to 1 / 0 / 1]
2-926-003	Recovery Supply	Recovery Count	ENG*	[0 to 10000 / 0 / 1count]
2-926-004	Recovery Supply	Self-Recovery	ENG	[0 to 1 / 0 / 1]
2-927-005	Initial Supply	Exchange Count	ENG*	[0 to 1000 / 0 / 1count]
2-932-001	NearEnd Detect	ON OFF	ENG*	[0 to 1 / 1 / 1]
2-961-001	CleaningOperation	Level 1	ENG	[0 to 1 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
2-961-002	CleaningOperation	Level 2	ENG	[0 to 1 / 0 / 1]
2-970-002	Exchange Count	Count PCDU	ENG*	[0 to 1000 / 0 / 1count]
2-970-003	Exchange Count	Count Fuser	ENG*	[0 to 1000 / 0 / 1count]
2-990-002	Duty Control	Lower	ENG*	[2000 to 60000 / 8100 /
				1count]
2-990-003	Duty Control	Upper	ENG*	[2000 to 60000 / 9000 /
				1count]

SP3-XXX (Process)

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max / Init. / Step]
3-098-001	Days Before End	Toner	ENG*	[0 to 2 / 1 / 1]
3-920-001	Density Adjust	Notch Setting	ENG*	[-6 to 3 / 0 / 1]
3-920-002	Density Adjust	Mode select	ENG*	[0 to 1 / 0 / 1]

SP4-XXX (Scanner)

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
4-008-001	Sub Scan Magnification Adj.		ENG*	[-1 to 1 / 0 / 0.1%]
4-010-001	Sub Scan Registration Adj.		ENG*	[-1 to 1 / 0 / 0.1mm]
4-011-001	Main Scan Registration Adj.		ENG*	[-2 to 2 / 0 / 0.1mm]
4-012-001	Scanner Erase Margin:	Book: Sub Scan	ENG*	[0 to 3 / 1 / 0.1mm]
	Scale	Leading Edge (Left)		
4-012-002	Scanner Erase Margin:	Book: Sub Scan	ENG*	[0 to 3 / 1 / 0.1mm]
	Scale	Trailing Edge (Right)		
4-012-003	Scanner Erase Margin:	Book: Main Scan	ENG*	[0 to 3 / 1 / 0.1mm]
	Scale	Leading Edge (Rear)		
4-012-004	Scanner Erase Margin:	Book: Main Scan	ENG*	[0 to 3 / 1 / 0.1mm]
	Scale	Trailing Edge (Front)		
4-013-001	Scanner Free Run	Lamp OFF	ENG	[0 to 1 / 0 / 1]
4-013-002	Scanner Free Run	Lamp ON	ENG	[0 to 1 / 0 / 1]
4-014-001	Scan	HP Detection Enable	ENG	[0 to 1 / 0 / 1]
4-014-002	Scan	HP Detection Disable	ENG	[0 to 1 / 0 / 1]
4-014-003	Scan	HP Detec. On (FC	ENG	[0 to 1 / 0 / 1]
		600dpi LG)		
4-014-004	Scan	HP Detec. On (BW	ENG	[0 to 1 / 0 / 1]
		600dpi LG)		
4-016-001	DF Scan	FC 600 x 300dpi	ENG	[0 to 1 / 0 / 1STEP]
		Duplex Mode		
4-016-002	DF Scan	Bk 600 x 300dpi	ENG	[0 to 1 / 0 / 1STEP]
		Duplex Mode		
4-016-003	DF Scan	FC 600 x 600dpi	ENG	[0 to 1 / 0 / 1STEP]
		Duplex Mode		
4-016-004	DF Scan	Bk 600 x 600dpi	ENG	[0 to 1 / 0 / 1STEP]
		Duplex Mode		
4-016-005	DF Scan	Bk 600 x 200dpi	ENG	[0 to 1 / 0 / 1STEP]
		Duplex Mode		
4-016-006	DF Scan	FC 600 x 300dpi	ENG	[0 to 1 / 0 / 1STEP]
		Simplex Mode		
4-016-007	DF Scan	Bk 600 x 300dpi	ENG	[0 to 1 / 0 / 1STEP]
		Simplex Mode		
4-016-008	DF Scan	FC 600 x 600dpi	ENG	[0 to 1 / 0 / 1STEP]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
		Simplex Mode		
4-016-009	DF Scan	Bk 600 x 600dpi	ENG	[0 to 1 / 0 / 1STEP]
		Simplex Mode		
4-016-010	DF Scan	Bk 600 x 200dpi	ENG	[0 to 1 / 0 / 1STEP]
		Simplex Mode		
4-020-001	Dust Check	Dust Detect:On/Off	ENG*	[0 to 1 / 0 / 1]
4-020-002	Dust Check	Dust Detect:Lvl	ENG*	[0 to 8 / 4 / 1]
4-020-003	Dust Check	Dust Reject:Lvl	ENG*	[0 to 4 / 0 / 1]
4-020-011	Dust Check	Dust Detect Level:Rear	ENG*	[0 to 1 / 0 / 1]
4-020-012	Dust Check	Correction Level:Rear	ENG*	[0 to 8 / 4 / 1]
4-400-001	Scanner Erase Margin	Book: Sub Scan	ENG*	[0 to 3 / 1 / 0.1mm]
		Leading Edge (Left)		
4-400-002	Scanner Erase Margin	Book: Sub Scan	ENG*	[0 to 3 / 1 / 0.1mm]
		Leading Edge (Right)		
4-400-003	Scanner Erase Margin	Book: Main Scan	ENG*	[0 to 3 / 1 / 0.1mm]
		Leading Edge (Rear)		
4-400-004	Scanner Erase Margin	Book: Main Scan	ENG*	[0 to 3 / 1 / 0.1mm]
		Trailing Edge (Front)		
4-400-005	Original Erase Margin	ADF:Sub:L-Edge	ENG*	[0 to 3 / 1.6 / 0.1mm]
4-400-007	Original Erase Margin	ADF:Main:Edge	ENG*	[0 to 3 / 1.6 / 0.1mm]
4-400-008	Original Erase Margin	ADF:Main:T-Edge	ENG*	[0 to 3 / 1.6 / 0.1mm]
4-417-001	IPU Test Pattern	Test Pattern	ENG	[0 to 8 / 0 / 1]
				0: Scanned image
				1: Gradation main
				scan A
				2: Patch 16C
				3: Grid pattern A
				4: Slant grid pattern B
				5: Slant grid pattern
				С
				6: Slant grid pattern
				D
				7: Scanned+Slant
				Grid C
				8: Scanned+Slant

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
				Grid D
4-429-001	Select Copy Data Security	Copying	ENG*	[0 to 3 / 3 / 1]
4-429-002	Select Copy Data Security	Scanning	ENG*	[0 to 3 / 3 / 1]
4-429-003	Select Copy Data Security	Fax Operation	ENG	[0 to 3 / 3 / 1]
4-600-001	SCN Version Display	SCN ID	ENG	[0x00 to 0xFF / 0 / 1]
4-609-001	Gray Balance Set: R	Book Scan	ENG*	[-384 to 255 / -100 /
				1digit]
4-609-002	Gray Balance Set: R	DF Scan	ENG*	[-384 to 255 / -100 /
				1digit]
4-610-001	Gray Balance Set: G	Book Scan	ENG*	[-384 to 255 / -100 /
				1digit]
4-610-002	Gray Balance Set: G	DF Scan	ENG*	[-384 to 255 / -100 /
				1digit]
4-611-001	Gray Balance Set: B	Book Scan	ENG*	[-384 to 255 / -100 /
				1digit]
4-611-002	Gray Balance Set: B	DF Scan	ENG*	[-384 to 255 / -100 /
				1digit]
4-646-001	Scan Adjust Error	White level	ENG*	[0 to 65535 / 0 / 1]
4-646-002	Scan Adjust Error	Black level	ENG*	[0 to 65535 / 0 / 1]
4-646-003	Scan Adjust Error SM	White level	ENG*	[0 to 65535 / 0 / 1]
4-646-004	Scan Adjust Error SM	Black level	ENG*	[0 to 65535 / 0 / 1]
4-647-001	Scanner Hard Error	Power-ON	ENG	[0 to 65535 / 0 / 1]
4-648-001	Scannar Adjust Select	Adjust Mode	ENG*	[0 to 3 / 0 / 1]
4-649-001	Error Flag	Shiny Materials	ENG*	[0 to 255 / 0 / 1]
4-688-002	DF Density Adjustment	1-Pass	ENG*	[80 to 120 / 100 / 1%]
4-703-001	Scan Mode Selection	Copying	ENG	[0 to 1 / 0 / 1]
4-703-002	Scan Mode Selection	Scanning	ENG	[0 to 1 / 0 / 1]
4-712-001	CIS GB Adj. Value: R		ENG*	[-384 to 255 / -89 /
				1digit]
4-713-001	CIS GB Adj. Value: G		ENG*	[-384 to 255 / -76 /
				1digit]
4-714-001	CIS GB Adj. Value: B		ENG*	[-384 to 255 / -85 /
				1digit]
4-723-001	OUTPUT Check	Scanner Lamp: Color	ENG	[0 to 1 / 0 / 1]
4-745-001	CIS Scan Adjust Error	White level	ENG	[0 to 65535 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
4-745-002	CIS Scan Adjust Error	Black level	ENG	[0 to 65535 / 0 / 1]
4-746-001	CIS GB Adj Error Flag		ENG	[0 to 7 / 0 / 1]
4-747-001	CIS Scanner Hard Error	Power-ON	ENG	[0 to 65535 / 0 / 1]
4-785-001	White Level Adjust	Color	ENG*	[0 to 1024 / 707 /
				1digit]
4-796-001	Low Density Color	Front Side	ENG*	[0 to 3 / 0 / 1]
	Correction			0: OFF
				1: WEAK
				2: MEDIUM
				3: STRONG
4-796-002	Low Density Color	Rear Side	ENG*	[0 to 3 / 0 / 1]
	Correction			0: OFF
				1: WEAK
				2: MEDIUM
				3: STRONG
4-799-001	CIS Test Pattern Change		ENG	[0 to 255 / 0 / 1]
4-802-001	DF Shading FreeRun	Lamp OFF	ENG	[0 to 1 / 0 / 1]
4-802-002	DF Shading FreeRun	Lamp ON	ENG	[0 to 1 / 0 / 1]
4-803-001	Home Position Adjustment		ENG*	[-1.5 to 1 / 0 / 0.1mm]
4-804-001	Home Position		ENG	[0 to 1 / 0 / 1]
4-856-001	Shiny Materials Mode	PWM Duty	ENG*	[1 to 100 / 16 / 1%]
4-856-002	Shiny Materials Mode	Noise Detection	ENG*	[1 to 255 / 64 /
		Number		1times]
4-857-001	Shiny Materials Scanning	SN	ENG*	[0 to 1023 / 0 / 0.1]
	Adj			
4-857-002	Shiny Materials Scanning	Average	ENG*	[0 to 1023 / 0 /
	Adj			0.1digit]
4-857-003	Shiny Materials Scanning	Variance	ENG*	[0 to 1046529 / 0 / 1]
	Adj			
4-857-004	Shiny Materials Scanning	Illuminance	ENG*	[0 to 104848098 / 0 /
	Adj			1lx]
4-903-001	Filter Setting	Ind Dot Erase: Text	ENG*	[0 to 7 / 0 / 1]
4-903-002	Filter Setting	Ind Dot Erase:	ENG*	[0 to 7 / 0 / 1]
		Generation Copy		
4-905-001	Select Gradation Level		ENG*	[0 to 255 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
4-918-009	Man Gamma Adj		ENG	[0 to 0 / 0 / 0]
4-938-005	ACS:Edge Mask	Scan:Sub LEdge	ENG*	[0 to 31 / 15 / 1]
4-938-006	ACS:Edge Mask	Scan:Sub TEdge	ENG*	[0 to 31 / 15 / 1]
4-938-007	ACS:Edge Mask	Scan:Main LEdge	ENG*	[0 to 31 / 15 / 1]
4-938-008	ACS:Edge Mask	Scan:Main TEdge	ENG*	[0 to 31 / 15 / 1]
4-939-001	ACS:Color Range		ENG*	[-2 to 2 / 0 / 1]
4-994-001	Adj Txt/Photo Recog Level	High Compression	ENG*	[0 to 2 / 1 / 1]
		PDF		
4-996-001	White Paper Detection		ENG*	[0 to 6 / 3 / 1]
	Level			

SP5-XXX (Mode) - Engine

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max / Init. / Step]
5-186-001	RK4: Setting		ENG*	[0 to 1 / 0 / 1]
5-801-002	Memory Clear	Engine	ENG	[0 to 1 / 0 / 1]
5-803-001	INPUT Check	PCB Ver	ENG	[0 to 7 / 0 / 1]
5-803-002	INPUT Check	Front Interlock	ENG	[0 to 1 / 0 / 1]
5-803-003	INPUT Check	Rear Interlock	ENG	[0 to 1 / 0 / 1]
5-803-004	INPUT Check	Registration	ENG	[0 to 1 / 0 / 1]
5-803-005	INPUT Check	Paper Size	ENG	[0 to 7 / 0 / 1]
5-803-006	INPUT Check	Duplex Entrance	ENG	[0 to 1 / 0 / 1]
5-803-007	INPUT Check	Paper Exit Rev	ENG	[0 to 1 / 0 / 1]
5-803-008	INPUT Check	Paper Exit Full	ENG	[0 to 1 / 0 / 1]
5-803-009	INPUT Check	Paper End	ENG	[0 to 1 / 0 / 1]
5-803-010	INPUT Check	Bypass:Paper End	ENG	[0 to 1 / 0 / 1]
5-803-011	INPUT Check	Bypass:Tray	ENG	[0 to 1 / 0 / 1]
5-803-012	INPUT Check	Fusing Unit Set	ENG	[0 to 1 / 0 / 1]
5-803-013	INPUT Check	Fusing Unit New	ENG	[0 to 1 / 0 / 1]
5-803-014	INPUT Check	FusNipPress Pos	ENG	[0 to 1 / 0 / 1]
5-803-015	INPUT Check	Feed Mt Lock	ENG	[0 to 1 / 0 / 1]
5-803-016	INPUT Check	Drum Mt Lock	ENG	[0 to 1 / 0 / 1]
5-803-017	INPUT Check	PCDUFan:R Lock	ENG	[0 to 1 / 0 / 1]
5-803-018	INPUT Check	PCDUFan:L Lock	ENG	[0 to 1 / 0 / 1]
5-803-019	INPUT Check	PSU Fan Lock	ENG	[0 to 1 / 0 / 1]
5-803-020	INPUT Check	FusingTempDetect	ENG	[0 to 1 / 0 / 1]
5-803-021	INPUT Check	HVP:SC_T	ENG	[0 to 1 / 0 / 1]
5-803-022	INPUT Check	HVP:SC_C	ENG	[0 to 1 / 0 / 1]
5-803-023	INPUT Check	Key Counter Set2	ENG	[0 to 1 / 0 / 1]
5-803-024	INPUT Check	Key Counter Set1	ENG	[0 to 1 / 0 / 1]
5-803-025	INPUT Check	Key Card Set	ENG	[0 to 1 / 0 / 1]
5-803-026	INPUT Check	Rear Cover Open	ENG	[0 to 1 / 0 / 1]
5-803-027	INPUT Check	Paper Nearend	ENG	[0 to 1 / 0 / 1]
5-803-083	Input Check	Bank1:500/250/No	ENG	[0 to 2 / 2 / 1]
5-803-084	Input Check	Bank2:500/250/No	ENG	[0 to 2 / 2 / 1]
5-803-085	Input Check	Bank3:500/250/No	ENG	[0 to 2 / 2 / 1]
5-803-087	Input Check	Bank1 Trans SN	ENG	[0 to 1 / 0 / 1]
5-803-088	Input Check	Bank2 Trans SN	ENG	[0 to 1 / 0 / 1]
5-803-089	Input Check	Bank3 Trans SN	ENG	[0 to 1 / 0 / 1]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max / Init. / Step]
5-803-200	INPUT Check	Scanner HP Sensor	ENG	[0 to 1 / 0 / 1]
5-803-201	INPUT Check	Platen Cover Sensor	ENG	[0 to 1 / 0 / 1]
5-804-001	OUTPUT Check	FusPressRelMt:CW	ENG	[0 to 1 / 0 / 1]
5-804-002	OUTPUT Check	FusPressRelMt:CCW	ENG	[0 to 1 / 0 / 1]
5-804-003	OUTPUT Check	DrumMt:CW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-004	OUTPUT Check	DrumMt:CW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-005	OUTPUT Check	DrumMt:CW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-006	OUTPUT Check	DrumMt:CW:Low	ENG	[0 to 1 / 0 / 1]
5-804-007	OUTPUT Check	DrumMt:CW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-008	OUTPUT Check	DrumMt:CCW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-009	OUTPUT Check	DrumMt:CCW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-010	OUTPUT Check	DrumMt:CCW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-011	OUTPUT Check	DrumMt:CCW:Low	ENG	[0 to 1 / 0 / 1]
5-804-012	OUTPUT Check	DrumMt:CCW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-013	OUTPUT Check	FeedMt:CW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-014	OUTPUT Check	FeedMt:CW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-015	OUTPUT Check	FeedMt:CW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-016	OUTPUT Check	FeedMt:CW:Low	ENG	[0 to 1 / 0 / 1]
5-804-017	OUTPUT Check	FeedMt:CW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-018	OUTPUT Check	FeedMt:CCW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-019	OUTPUT Check	FeedMt:CCW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-020	OUTPUT Check	FeedMt:CCW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-021	OUTPUT Check	FeedMt:CCW:Low	ENG	[0 to 1 / 0 / 1]
5-804-022	OUTPUT Check	FeedMt:CCW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-023	OUTPUT Check	ExtRevMt:CW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-024	OUTPUT Check	ExtRevMt:CW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-025	OUTPUT Check	ExtRevMt:CW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-026	OUTPUT Check	ExtRevMt:CW:Low	ENG	[0 to 1 / 0 / 1]
5-804-027	OUTPUT Check	ExtRevMt:CW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-028	OUTPUT Check	ExtRevMt:CCW:ExHi	ENG	[0 to 1 / 0 / 1]
5-804-029	OUTPUT Check	ExtRevMt:CCW:Hi	ENG	[0 to 1 / 0 / 1]
5-804-030	OUTPUT Check	ExtRevMt:CCW:Mid	ENG	[0 to 1 / 0 / 1]
5-804-031	OUTPUT Check	ExtRevMt:CCW:Low	ENG	[0 to 1 / 0 / 1]
5-804-032	OUTPUT Check	ExtRevMt:CCW:ExLow	ENG	[0 to 1 / 0 / 1]
5-804-033	OUTPUT Check	PCDUFan:Left:High	ENG	[0 to 1 / 0 / 1]
5-804-034	OUTPUT Check	PCDUFan:Left:Low	ENG	[0 to 1 / 0 / 1]
5-804-035	OUTPUT Check	PSU Fan: High	ENG	[0 to 1 / 0 / 1]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max / Init. / Step]
5-804-036	OUTPUT Check	PSU Fan: Low	ENG	[0 to 1 / 0 / 1]
5-804-037	OUTPUT Check	HVP:Development	ENG	[0 to 1 / 0 / 1]
5-804-038	OUTPUT Check	HVP:Charge	ENG	[0 to 1 / 0 / 1]
5-804-040	OUTPUT Check	HVP:Transfer:-	ENG	[0 to 1 / 0 / 1]
5-804-041	OUTPUT Check	HVP:Supply	ENG	[0 to 1 / 0 / 1]
5-804-042	OUTPUT Check	Drum QL	ENG	[0 to 1 / 0 / 1]
5-804-044	OUTPUT Check	Exit Junc SOL	ENG	[0 to 1 / 0 / 1]
5-804-045	OUTPUT Check	PCDU Fan:Light	ENG	[0 to 1 / 0 / 1]
5-804-046	OUTPUT Check	Duplex CL	ENG	[0 to 1 / 0 / 1]
5-804-048	OUTPUT Check	Bypass:Feed CL	ENG	[0 to 1 / 0 / 1]
5-804-049	OUTPUT Check	Registration CL	ENG	[0 to 1 / 0 / 1]
5-804-050	OUTPUT Check	Feed Connect CL	ENG	[0 to 1 / 0 / 1]
5-804-051	OUTPUT Check	Bypass:Tray CL	ENG	[0 to 1 / 0 / 1]
5-804-052	OUTPUT Check	Paper Feed CL	ENG	[0 to 1 / 0 / 1]
5-804-053	OUTPUT Check	Toner End Sensor	ENG	[0 to 1 / 0 / 1]
5-804-054	OUTPUT Check	Toner IDTAG Power	ENG	[0 to 1 / 0 / 1]
5-804-162	Output Check	Bank1 BLM:MAX	ENG	[0 to 1 / 0 / 1]
5-804-163	Output Check	Bank1 BLM:High	ENG	[0 to 1 / 0 / 1]
5-804-164	Output Check	Bank1 BLM:Mid	ENG	[0 to 1 / 0 / 1]
5-804-165	Output Check	Bank1 BLM:Low	ENG	[0 to 1 / 0 / 1]
5-804-166	Output Check	Bank1 BLM:MIN	ENG	[0 to 1 / 0 / 1]
5-804-167	Output Check	Bank1 BLM:MAX	ENG	[0 to 1 / 0 / 1]
5-804-168	Output Check	Bank2 BLM:High	ENG	[0 to 1 / 0 / 1]
5-804-169	Output Check	Bank2 BLM:Mid	ENG	[0 to 1 / 0 / 1]
5-804-170	Output Check	Bank2 BLM:Low	ENG	[0 to 1 / 0 / 1]
5-804-171	Output Check	Bank1 BLM:MIN	ENG	[0 to 1 / 0 / 1]
5-804-172	Output Check	Bank1 BLM:MAX	ENG	[0 to 1 / 0 / 1]
5-804-173	Output Check	Bank3 BLM:High	ENG	[0 to 1 / 0 / 1]
5-804-174	Output Check	Bank3 BLM:Mid	ENG	[0 to 1 / 0 / 1]
5-804-175	Output Check	Bank3 BLM:Low	ENG	[0 to 1 / 0 / 1]
5-804-176	Output Check	Bank1 BLM:MIN	ENG	[0 to 1 / 0 / 1]
5-804-177	Output Check	Bank1 Feed CL	ENG	[0 to 1 / 0 / 1]
5-804-178	Output Check	Bank2 Feed CL	ENG	[0 to 1 / 0 / 1]
5-804-179	Output Check	Bank3 Feed CL	ENG	[0 to 1 / 0 / 1]
5-804-202	OUTPUT Check	Scanner Lamp	ENG	[0 to 1 / 0 / 1]
5-810-001	SC Reset	Fusing SC Reset	ENG	[0 to 1 / 0 / 1]
5-811-002	Machine Serial	Display	ENG*	[0 to 255 / 0 / 1]

SP No.	Large Category	Small Category	ENG or CTL	[Min to Max / Init. / Step]
5-811-004	Machine Serial	Set SCB	ENG	[0 to 255 / 0 / 1]
5-811-021	Machine Serial	Update Latest	ENG*	[0 to 1 / 0 / 1]
5-811-022	Machine Serial	Update Previous	ENG*	[0 to 1 / 0 / 1]
5-811-023	Machine Serial	Previous	ENG*	[0 to 255 / 0 / 1]
5-811-024	Machine Serial	Update Latest SCB	ENG*	[0 to 1 / 0 / 1]
5-811-025	Machine Serial	Update Pre SCB	ENG*	[0 to 1 / 0 / 1]
5-811-026	Machine Serial	Previous SCB	ENG*	[0 to 255 / 0 / 1]
5-894-001	ExternalCountSet	SW Charge Mode	ENG*	[0 to 2 / 0 / 1]
5-900-001	Engine Log Upload	Pattern	ENG*	[0 to 4 / 0 / 1]
5-900-002	Engine Log Upload	Trigger	ENG*	[0 to 3 / 0 / 1]
5-930-001	MeterClick Charge	Setting	ENG*	[0 to 1 / 1 / 1]
				0: No
				1: Yes
5-931-001	Life Alert Disp.	Mentenance Kit	ENG*	[0 to 1 / 1 / 1]
				0: No
				1: Yes
5-931-002	Life Alert Disp.	PCDU	ENG*	[0 to 1 / 1 / 1]
				0: No
				1: Yes
5-931-003	Life Alert Disp.	PCDU STOP	ENG*	[0 to 1 / 0 / 1]
				0: No
				1: Yes

SP5-XXX (Mode) - Controller

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-009-201	Add display language	1-8	CTL*	[0 to 255 / 0 / 1]
5-009-202	Add display language	9-16	CTL*	[0 to 255 / 0 / 1]
5-009-203	Add display language	17-24	CTL*	[0 to 255 / 0 / 1]
5-009-204	Add display language	25-32	CTL*	[0 to 255 / 0 / 1]
5-009-205	Add display language	33-40	CTL*	[0 to 255 / 0 / 1]
5-009-206	Add display language	41-48	CTL*	[0 to 255 / 0 / 1]
5-009-207	Add display language	49-56	CTL*	[0 to 255 / 0 / 1]
5-024-001	mm/inch Display	0:mm 1:inch	CTL*	[0 or 1 / * / 1]
	Selection			NA: 1
				EU, AA, CHN, TWN,
				KOR: 0
5-044-001	Operation Panel Bit	SW1	CTL*	[0x00 to 0xFF / 0 / 1]
	SW			
5-044-002	Operation Panel Bit	SW2	CTL*	[0x00 to 0xFF / 0 / 1]
	SW			
5-045-001	Accounting counter	Counter Method	CTL*	[0 to 7 / 0 / 1]
5-051-001	TonerRefillDetectionD		CTL*	[0 to 1 / 0 / 1]
	isplay			
5-055-001	Display IP address		CTL*	[0 to 1 / 0 / 1]
5-061-002	Toner PreNearEnd		CTL*	[0 to 1 / 0 / 1]
	Display Change			
5-071-001	Set Bypass Paper		CTL	[0 to 1 / 0 / 1]
	Size Display			
5-073-003	Supply Part	Fuser Unit	CTL*	[0 to 1 / 0 / 1]
	Replacement			
	Operation Type			
5-073-005	Supply Part	Drum Unit	CTL*	[0 to 1 / 0 / 1]
	Replacement			
	Operation Type			
5-074-002	Home Key	Login Setting	CTL*	[0 to 255 / 0 / 1]
	Customization			
5-074-050	Home Key	Show Home Edit Menu	CTL	[0 to 2 / 0 / 1]
	Customization			
5-074-091	Home Key	Function Setting	CTL*	[0 to 2 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
	Customization			
5-074-092	Home Key	Product ID	CTL*	[0 to 0xffffffff / 0 / 1]
	Customization			
5-074-093	Home Key	Application Screen ID	CTL*	[0 to 255 / 0 / 1]
	Customization			
5-075-003	USB Keyboard	Display setting	CTL*	[0 to 1 / 0 / 1]
5-076-001	Copy:LT/LG Mixed	0:OFF 1:ON	CTL*	[0 to 1 / * / 1]
	Sizes Setting			NA: 1
				EU, AA, CHN, TWN,
				KOR: 0
5-081-001	ServiceSP Entry		CTL*	[0 to 0 / 0 / 0]
	Code Setting			
5-083-001	LED Light Switch	Toner Near End	CTL*	[0 to 1 / 0 / 1]
	Setting			
5-083-002	LED Light Switch	Waste Toner Near End	CTL*	[0 to 1 / 0 / 1]
	Setting			
5-101-202	Copy Auto Clear	Auto Clear Timer Setting	CTL*	[0 to 1 / 0 / 1]
	Setting	(0:ON 1:OFF)		
5-113-001	Optional Counter	Default Optional Counter	CTL*	[0 to 12 / 0 / 1]
	Туре	Туре		
5-113-002	Optional Counter	External Optional Counter	CTL*	[0 to 3 / 0 / 1]
	Туре	Туре		
5-114-001	Optional Counter I/F	MF Key Card Extension	CTL*	[0 to 1 / 0 / 1]
5-118-001	Copy mode setting	Disable Copying	CTL*	[0 to 1 / 0 / 1]
5-118-003	Copy mode setting	DocumentServer:Printed	CTL*	[0 to 1 / 0 / 1]
		File Auto Delete		
5-118-004	Copy mode setting	Print Limit Warning	CTL	[0 to 1 / 1 / 1]
		Display Setting		
5-120-001	Mode Clear Opt.	0:Yes 1:StandBy 2:No	CTL*	[0 to 2 / 0 / 1]
	Counter Removal			
5-121-001	Counter Up Timing	0:Feed 1:Exit	CTL*	[0 to 1 / 0 / 1]
5-127-001	APS OFF Mode		CTL*	[0 to 1 / 0 / 1]
5-144-001	Tray Lock	Bypass	CTL*	[0 to 1 / 0 / 1]
5-144-002	Tray Lock	Tray 1	CTL*	[0 to 1 / 0 / 1]
5-144-003	Tray Lock	Tray 2	CTL*	[0 to 1 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-144-004	Tray Lock	Tray 3	CTL*	[0 to 1 / 0 / 1]
5-144-005	Tray Lock	Tray 4	CTL*	[0 to 1 / 0 / 1]
5-167-001	Fax Printing Mode at		CTL*	[0 to 1 / 0 / 1]
	Optional Counter Off			
5-169-001	CE Login		CTL*	[0 to 1 / 0 / 1]
5-188-001	Copy Nv Version		CTL*	[0 to 0 / 0 / 0]
5-191-001	Mode Set	Power Str Set	CTL*	[0 to 1 / 1 / 1]
5-191-003	Mode Set	Power Reject Engine Off	CTL*	[0 to 1 / 1 / 1]
5-194-001	SC991 Operation	SC Switching:	CTL*	[0 to 1 / 0 / 1]
	Mode Setting	SC990/SC991		
5-195-001	Limitless SW		CTL*	[0 to 1 / 0 / 1]
5-212-003	Page Numbering	Duplex Printout Left/Right	CTL*	[-10 to 10 / 0 / 0.01mm]
		Position of Left/Right		
		Facing		
5-212-004	Page Numbering	Duplex Printout	CTL*	[-10 to 10 / 0 / 0.01mm]
		Top/Bottom Position of		
		Left/Right Facing		
5-212-018	Page Numbering	Duplex Printout Left/Right	CTL*	[-10 to 10 / 0 / 0.01mm]
		Position of Top/Bottom		
		Facing		
5-212-019	Page Numbering	Duplex Printout	CTL*	[-10 to 10 / 0 / 0.01mm]
		Top/Bottom Position		
		of Top/Bottom Facing		
5-227-201	Page Numbering	Allow Page No. Entry	CTL*	[2 to 9 / 9 / 1]
5-227-202	Page Numbering	Zero Surplus Setting	CTL*	[0 to 1 / 0 / 1]
5-228-001	ScanBinary Bound		CTL*	[0 to 1 / 0 / 1]
5-302-002	Set Time	Time Difference	CTL*	[-1440 to 1440 / * / 1]
				NA: -300, EU: 60, AA:
				60, CHN: 480, TWN:
				480, KOR: 540
5-305-101	Auto Off Set	Auto Off Limit Set	CTL*	[0 to 1 / 0 / 1]
5-307-001	Daylight Saving Time	Setting	CTL*	[0 to 1 / 0 / 1]
5-307-003	Daylight Saving Time	Rule Set(Start)	CTL*	[0 to 0xffffffff / * / 1]
				NA: 0x03200210
				EU: 0x03500010

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
				AA: 0x10500010
				CHN, TWN, KOR: 0
5-307-004	Daylight Saving Time	Rule Set(End)	CTL*	[0 to 0xffffffff / * / 1]
				NA: 0x11100200
				EU: 0x10500100
				AA: 0x03100000
				CHN, TWN, KOR: 0
5-401-103	Access Control	Default Document ACL	CTL*	[0 to 3 / 0 / 1]
5-401-104	Access Control	Authentication Time	CTL*	[0 to 255 / 0 / 1sec]
5-401-160	Access Control	Extend Certification	CTL*	[0 to 1 / 0 / 1]
5-401-161	Access Control	Extend Certification Detail	CTL*	[0 to 0xFF / 0 / 1]
5-401-162	Access Control	Extend Certification Detail	CTL*	[0 to 0xff / 0 / 1]
5-401-163	Access Control	Extend Install State	CTL*	[0 to 0xFF / 0 / 1]
5-401-200	Access Control	SDK1 UniqueID	CTL*	[0 to 0xFFFFFFFF / 0 /
				1]
5-401-201	Access Control	SDK1 Certification Method	CTL*	[0 to 0xFF / 0 / 1]
5-401-210	Access Control	SDK2 UniqueID	CTL*	[0 to 0xFFFFFFFF / 0 /
				1]
5-401-211	Access Control	SDK2 Certification Method	CTL*	[0 to 0xFF / 0 / 1]
5-401-220	Access Control	SDK3 UniqueID	CTL*	[0 to 0xFFFFFFFF / 0 /
				1]
5-401-221	Access Control	SDK3 Certification Method	CTL*	[0 to 0xFF / 0 / 1]
5-401-230	Access Control	SDK Certification Device	CTL*	[0 to 0xff / 0 / 1]
5-401-240	Access Control	Detail Option	CTL*	[0 to 0xff / 0 / 1]
5-402-101	Access Control	SDKJ1 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-102	Access Control	SDKJ2 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-103	Access Control	SDKJ3 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-104	Access Control	SDKJ4 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-105	Access Control	SDKJ5 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-106	Access Control	SDKJ6 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-107	Access Control	SDKJ7 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-108	Access Control	SDKJ8 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-109	Access Control	SDKJ9 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-110	Access Control	SDKJ10 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-111	Access Control	SDKJ11 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-402-112	Access Control	SDKJ12 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-113	Access Control	SDKJ13 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-114	Access Control	SDKJ14 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-115	Access Control	SDKJ15 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-116	Access Control	SDKJ16 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-117	Access Control	SDKJ17 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-118	Access Control	SDKJ18 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-119	Access Control	SDKJ19 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-120	Access Control	SDKJ20 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-121	Access Control	SDKJ21 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-122	Access Control	SDKJ22 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-123	Access Control	SDKJ23 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-124	Access Control	SDKJ24 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-125	Access Control	SDKJ25 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-126	Access Control	SDKJ26 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-127	Access Control	SDKJ27 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-128	Access Control	SDKJ28 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-129	Access Control	SDKJ29 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-130	Access Control	SDKJ30 Limit Setting	CTL*	[0 to 0xFF / 0 / 1]
5-402-141	Access Control	SDKJ1 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-142	Access Control	SDKJ2 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-143	Access Control	SDKJ3 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-144	Access Control	SDKJ4 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-145	Access Control	SDKJ5 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-146	Access Control	SDKJ6 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-147	Access Control	SDKJ7 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-148	Access Control	SDKJ8 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-149	Access Control	SDKJ9 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-150	Access Control	SDKJ10 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-151	Access Control	SDKJ11 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-152	Access Control	SDKJ12 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-153	Access Control	SDKJ13 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-154	Access Control	SDKJ14 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-155	Access Control	SDKJ15 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-156	Access Control	SDKJ16 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-402-157	Access Control	SDKJ17 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-158	Access Control	SDKJ18 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-159	Access Control	SDKJ19 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-160	Access Control	SDKJ20 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-161	Access Control	SDKJ21 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-162	Access Control	SDKJ22 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-163	Access Control	SDKJ23 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-164	Access Control	SDKJ24 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-165	Access Control	SDKJ25 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-166	Access Control	SDKJ26 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-167	Access Control	SDKJ27 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-168	Access Control	SDKJ28 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-169	Access Control	SDKJ29 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-402-170	Access Control	SDKJ30 ProductID	CTL*	[0 to 0xffffffff / 0 / 1]
5-404-001	User Code Count	User Code Count Clear	CTL	[0 to 0 / 0 / 0]
	Clear			
5-404-101	User Code Count	User Code Count Clear	CTL*	[0 to 1 / 0 / 1]
	Clear	Permit Setting		
5-411-004	LDAP-Certification	Simplified Authentication	CTL*	[0 to 1 / 1 / 1]
5-411-005	LDAP-Certification	Password Null Not Permit	CTL*	[0 to 1 / 1 / 1]
5-411-006	LDAP-Certification	Detail Option	CTL*	[0 to 0xff / 1 / 1]
5-412-100	Krb-Certification	Encrypt Mode	CTL*	[0 to 0xFF / 0x1F / 1]
5-413-001	Lockout Setting	Lockout On/Off	CTL*	[0 to 1 / 0 / 1]
5-413-002	Lockout Setting	Lockout Threshold	CTL*	[1 to 10 / 5 / 1]
5-413-003	Lockout Setting	Cancelation On/Off	CTL*	[0 to 1 / 0 / 1]
5-413-004	Lockout Setting	Cancelation Time	CTL*	[1 to 9999 / 60 / 1min]
5-414-001	Access Mitigation	Mitigation On/Off	CTL*	[0 to 1 / 0 / 1]
5-414-002	Access Mitigation	Mitigation Time	CTL*	[0 to 60 / 15 / 1min]
5-415-001	Password Attack	Permissible Number	CTL*	[0 to 100 / 30 / 1]
5-415-002	Password Attack	Detect Time	CTL*	[1 to 10 / 5 / 1]
5-416-001	Access Information	Access User Max Num	CTL*	[50 to 200 / 200 / 1]
5-416-002	Access Information	Access Password Max	CTL*	[50 to 200 / 200 / 1]
		Num		
5-416-003	Access Information	Monitor Interval	CTL*	[1 to 10 / 3 / 1]
5-417-001	Access Attack	Access Permissible	CTL*	[0 to 500 / 100 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
		Number		
5-417-002	Access Attack	Attack Detect Time	CTL*	[10 to 30 / 10 / 1sec]
5-417-003	Access Attack	Productivity Fall Waite	CTL*	[0 to 9 / 3 / 1sec]
5-417-004	Access Attack	Attack Max Num	CTL*	[50 to 200 / 200 / 1]
5-420-001	User Authentication	Сору	CTL*	[0 to 1 / 0 / 1]
5-420-011	User Authentication	DocumentServer	CTL*	[0 to 1 / 0 / 1]
5-420-021	User Authentication	Fax	CTL*	[0 to 1 / 0 / 1]
5-420-031	User Authentication	Scanner	CTL*	[0 to 1 / 0 / 1]
5-420-041	User Authentication	Printer	CTL*	[0 to 1 / 0 / 1]
5-420-051	User Authentication	SDK1	CTL*	[0 to 1 / 0 / 1]
5-420-061	User Authentication	SDK2	CTL*	[0 to 1 / 0 / 1]
5-420-071	User Authentication	SDK3	CTL*	[0 to 1 / 0 / 1]
5-420-081	User Authentication	Browser	CTL*	[0 to 1 / 0 / 1]
5-430-001	Auth Dialog Message	Message Change On/Off	CTL*	[0 to 1 / 0 / 1]
	Change			
5-430-002	Auth Dialog Message	Message Text Download	CTL*	[0 to 0 / 0 / 0]
	Change			
5-430-003	Auth Dialog Message	Message Text ID	CTL	[0 to 0 / 0 / 0]
	Change			
5-431-010	External Auth User	Тад	CTL	[0 to 1 / 1 / 1]
	Preset			
5-431-011	External Auth User	Entry	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-012	External Auth User	Group	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-020	External Auth User	Mail	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-030	External Auth User	Fax	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-031	External Auth User	FaxSub	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-032	External Auth User	Folder	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-033	External Auth User	ProtectCode	CTL*	[0 to 1 / 1 / 1]
	Preset			

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-431-034	External Auth User	SmtpAuth	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-035	External Auth User	LdapAuth	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-036	External Auth User	Smb Ftp Fldr Auth	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-037	External Auth User	AcntAcl	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-038	External Auth User	DocumentAcl	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-431-040	External Auth User	CertCrypt	CTL*	[0 to 1 / 0 / 1]
	Preset			
5-431-050	External Auth User	UserLimitCount	CTL*	[0 to 1 / 1 / 1]
	Preset			
5-481-001	Authentication Error	System Log Disp	CTL*	[0 to 1 / 0 / 1]
	Code			
5-481-002	Authentication Error	Panel Disp	CTL*	[0 to 1 / 1 / 1]
	Code			
5-490-001	MF KeyCard	Job Permit Setting	CTL*	[0 to 1 / 0 / 1]
5-491-001	Optional Counter	Detail Option	CTL*	[0 to 0xff / 0 / 1]
5-501-001	PM Alarm	PM Alarm Level	CTL*	[0 to 9999 / 0 / 1]
5-504-001	Jam Alarm		CTL*	[0 to 3 / 3 / 1]
5-504-002	Jam Alarm	Threshold	CTL*	[1 to 99 / 10 / 1]
5-505-001	Error Alarm		CTL*	[0 to 255 / * / 1]
				43ppm model: 12
				35ppm model: 15
5-505-002	Error Alarm	Threshold	CTL*	[1 to 99 / 5 / 1]
5-507-001	Supply/CC Alarm	Paper Supply Alarm	CTL*	[0 to 1 / 0 / 1]
5-507-003	Supply/CC Alarm	Toner Supply Alarm	CTL*	[0 to 1 / 1 / 1]
5-507-005	Supply/CC Alarm	DrumLifeRemain Supply	CTL*	[0 to 1 / 1 / 1]
		Alarm		
5-507-006	Supply/CC Alarm	WasteTonerBottle Supply	CTL*	[0 to 1 / 1 / 1]
		Alarm		
5-507-008	Supply/CC Alarm	Fuser Supply Alarm	CTL*	[0 to 1 / 1 / 1]
5-507-080	Supply/CC Alarm	Toner Call Timing	CTL*	[0 to 1 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-507-081	Supply/CC Alarm	Toner Call Threshold	CTL*	[10 to 90 / 10 / 10%]
5-507-128	Supply/CC Alarm	Interval: Others	CTL*	[250 to 10000 / 1000 / 1]
5-507-133	Supply/CC Alarm	Interval: A4	CTL*	[250 to 10000 / 1000 / 1]
5-507-134	Supply/CC Alarm	Interval: A5	CTL*	[250 to 10000 / 1000 / 1]
5-507-142	Supply/CC Alarm	Interval: B5	CTL*	[250 to 10000 / 1000 / 1]
5-507-164	Supply/CC Alarm	Interval: LG	CTL*	[250 to 10000 / 1000 / 1]
5-507-166	Supply/CC Alarm	Interval: LT	CTL*	[250 to 10000 / 1000 / 1]
5-507-172	Supply/CC Alarm	Interval: HLT	CTL*	[250 to 10000 / 1000 / 1]
5-508-001	CC Call	Jam Remains	CTL*	[0 to 1 / 1 / 1]
5-508-002	CC Call	Continuous Jams	CTL*	[0 to 1 / 1 / 1]
5-508-003	CC Call	Continuous Door Open	CTL*	[0 to 1 / 1 / 1]
5-508-011	CC Call	Jam Detection: Time	CTL*	[3 to 30 / 10 / 1]
		Length		
5-508-012	CC Call	Jam Detection:	CTL*	[2 to 10 / 5 / 1]
		Continuous Count		
5-508-013	CC Call	Door Open: Time Length	CTL*	[3 to 30 / 10 / 1]
5-513-001	PartsAlermlevelCount	Normal	CTL*	[1 to 9999 / 300 / 1]
5-513-002	PartsAlermlevelCount	Df	CTL*	[1 to 9999 / 300 / 1]
5-514-001	PartsAlermlev	Normal	CTL*	[0 to 1 / 1 / 1]
5-514-002	PartsAlermlev	Df	CTL*	[0 to 1 / 0 / 1]
5-515-001	SC/Alarm Setting	SC Call	CTL*	[0 to 1 / 1 / 1]
5-515-002	SC/Alarm Setting	Service Parts Near End	CTL*	[0 to 1 / 1 / 1]
		Call		
5-515-003	SC/Alarm Setting	Service Parts End Call	CTL*	[0 to 1 / 1 / 1]
5-515-004	SC/Alarm Setting	User Call	CTL*	[0 to 1 / 1 / 1]
5-515-006	SC/Alarm Setting	Communication Test Call	CTL*	[0 to 1 / 1 / 1]
5-515-007	SC/Alarm Setting	Machine Information	CTL*	[0 to 1 / 1 / 1]
		Notice		
5-515-008	SC/Alarm Setting	Alarm Notice	CTL*	[0 to 1 / 1 / 1]
5-515-009	SC/Alarm Setting	Non Genuine Tonner	CTL*	[0 to 1 / 1 / 1]
		Ararm		
5-515-010	SC/Alarm Setting	Supply Automatic	CTL*	[0 to 1 / 1 / 1]
		Ordering Call		
5-515-011	SC/Alarm Setting	Supply Management	CTL*	[0 to 1 / 1 / 1]
		Report Call		

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-515-012	SC/Alarm Setting	Jam/Door Open Call	CTL*	[0 to 1 / 1 / 1]
5-515-050	SC/Alarm Setting	Timeout:Manual Call	CTL*	[1 to 255 / 5 / 1min]
5-515-051	SC/Alarm Setting	Timeout:Other Call	CTL*	[1 to 255 / 10 / 1min]
5-517-061	Get Machine	AutoDiscovery Execution	CTL	[0 to 1 / 0 / 1]
	Information	Setting		
5-517-062	Get Machine	AutoDiscovery Execution	CTL	[0 to 1 / 0 / 1]
	Information	Interval		
5-517-063	Get Machine	AutoDiscovery Execution	CTL	[0 to 6 / 0 / 1]
	Information	Weekday		
5-517-064	Get Machine	AutoDiscovery Execution	CTL	[0 to 23 / 0 / 1]
	Information	Hour		
5-517-065	Get Machine	AutoDiscovery Execution	CTL	[0 to 59 / 0 / 1]
	Information	Minute		
5-517-066	Get Machine	AutoDiscovery SNMP	CTL	[0 to 0 / 0 / 0]
	Information	Community Name		
5-517-100	Get Machine	GetLog:NotificationSetting	CTL*	[0 to 1 / 0 / 1]
	Information			
5-728-001	Network Setting	NAT Machine Port1	CTL*	[1 to 65535 / 49101 / 1]
5-728-002	Network Setting	NAT UI Port1	CTL*	[1 to 65535 / 55101 / 1]
5-728-003	Network Setting	NAT Machine Port2	CTL*	[1 to 65535 / 49102 / 1]
5-728-004	Network Setting	NAT UI Port2	CTL*	[1 to 65535 / 55102 / 1]
5-728-005	Network Setting	NAT Machine Port3	CTL*	[1 to 65535 / 49103 / 1]
5-728-006	Network Setting	NAT UI Port3	CTL*	[1 to 65535 / 55103 / 1]
5-728-007	Network Setting	NAT Machine Port4	CTL*	[1 to 65535 / 49104 / 1]
5-728-008	Network Setting	NAT UI Port4	CTL*	[1 to 65535 / 55104 / 1]
5-728-009	Network Setting	NAT Machine Port5	CTL*	[1 to 65535 / 49105 / 1]
5-728-010	Network Setting	NAT UI Port5	CTL*	[1 to 65535 / 55105 / 1]
5-728-011	Network Setting	NAT Machine Port6	CTL*	[1 to 65535 / 49106 / 1]
5-728-012	Network Setting	NAT UI Port6	CTL*	[1 to 65535 / 55106 / 1]
5-728-013	Network Setting	NAT Machine Port7	CTL*	[1 to 65535 / 49107 / 1]
5-728-014	Network Setting	NAT UI Port7	CTL*	[1 to 65535 / 55107 / 1]
5-728-015	Network Setting	NAT Machine Port8	CTL*	[1 to 65535 / 49108 / 1]
5-728-016	Network Setting	NAT UI Port8	CTL*	[1 to 65535 / 55108 / 1]
5-728-017	Network Setting	NAT Machine Port9	CTL*	[1 to 65535 / 49109 / 1]
5-728-018	Network Setting	NAT UI Port9	CTL*	[1 to 65535 / 55109 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-728-019	Network Setting	NAT Machine Port10	CTL*	[1 to 65535 / 49110 / 1]
5-728-020	Network Setting	NAT UI Port10	CTL*	[1 to 65535 / 55110 / 1]
5-728-101	Network Setting	PacketCapture	CTL	[0 or 1 / 0 / 1]
5-728-102	Network Setting	PacketCapture:mode	CTL	[0 or 1 / 0 / 1]
5-728-103	Network Setting	PacketCapture:interface	CTL	[0 to 3 / 0 / 1]
5-728-104	Network Setting	PacketCapture:length	CTL	[54 to 65535 / 128 / 1]
5-728-105	Network Setting	PacketCapture:broadcast	CTL	[0 or 1 / 0 / 1]
5-728-106	Network Setting	PacketCapture:specify	CTL	[0 or 1 / 0 / 1]
		port		
5-728-107	Network Setting	PacketCapture:portnumbe	CTL	[0 to 65535 / 0 / 1]
		r		
5-728-108	Network Setting	PacketCapture:time	CTL	[0 to 0xffffffff / 0 / 1]
5-730-001	Extended Function	JavaTM Platform setting	CTL*	[0 or 1 / 1 / 1]
	Setting			
5-730-010	Extended Function	Expiration Prior Alarm Set	CTL*	[0 to 999 / 20 / 1days]
	Setting			
5-731-001	Counter Effect	Change Mk1 Cnt(Paper-	CTL*	[0 or 1 / 0 / 1]
		>Combine)		
5-734-001	PDF Setting	PDF/A Fixed	CTL*	[0 or 1 / 0 / 1]
5-741-001	Node Authentication		CTL*	[1 to 255 / 60 / 1sec]
	Timuout			
5-745-211	DeemedPowerConsu	Controller Standby	CTL*	[0 to 9999 / 0 / 1]
	mption			
5-745-212	DeemedPowerConsu	STR	CTL*	[0 to 9999 / 0 / 1]
	mption			
5-745-213	DeemedPowerConsu	Main Power Off	CTL*	[0 to 9999 / 0 / 1]
	mption			
5-745-214	DeemedPowerConsu	Scanning and Printing	CTL*	[0 to 9999 / 0 / 1]
	mption			
5-745-215	DeemedPowerConsu	Printing	CTL*	[0 to 9999 / 0 / 1]
	mption			
5-745-216	DeemedPowerConsu	Scanning	CTL*	[0 to 9999 / 0 / 1]
	mption			
5-745-217	DeemedPowerConsu	Engine Standby	CTL*	[0 to 9999 / 0 / 1]
	mption			

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-745-218	DeemedPowerConsu	Low Power Consumption	CTL*	[0 to 9999 / 0 / 1]
	mption	e u		
5-745-219	DeemedPowerConsu	Silent condition	CTL*	[0 to 9999 / 0 / 1]
5-745-220	DeemedPowerConsu	Heater Off	CTI *	[0 to 9999 / 0 / 1]
0 1 10 220	mption		0.12	
5-748-101	OpePanel Setting	Op Type Action Setting	CTL	[0 to 255 / 0 / 1]
5-748-201	OpePanel Setting	Cheetah Panel Connect	CTL	[0 to 1 / 0 / 1]
		Setting		
5-749-001	Import/Export	Export	CTL	[0 to 0 / 0 / 0]
5-749-101	Import/Export	Import	CTL	[0 to 0 / 0 / 0]
5-751-001	Key Event Encryption Setting	Password	CTL*	[0 to 255 / 0 / 1]
5-752-001	Copy:WebAPI Setting	Copy:FlairAPI Setting	CTL*	[0 to 255 / 0 / 1]
5-752-002	Copy:WebAPI Setting	Copy:SmartSDK Setting	CTL*	[0 to 255 / 0 / 1]
5-755-001	Display Setting	Disp Administrator	CTL	[0 to 0 / 0 / 0]
		Password Change Scrn		
5-755-002	Display Setting	Hide Administrator	CTL	[0 to 0 / 0 / 0]
		Password Change Scrn		
5-758-001	RemoteUI Setting	Authentication	CTL*	[0 to 1 / 0 / 1]
5-759-001	Machine Limit Count	Machine Limit Count	CTL*	[0 to 1 / 0 / 1]
		Setting		
5-759-051	Machine Limit Count	Limit Count	CTL*	[0 to 99999999 / 0 / 1]
5-760-001	PaaS	PaaS Mode	CTL*	[0 to 1 / 0 / 1]
5-760-002	PaaS	Enter PaaS Mode	CTL	[0 to 1 / 0 / 1]
5-760-003	PaaS	Contract ID	CTL*	[0 to 0 / 0 / 0]
5-760-004	PaaS	Authentication Key	CTL*	[0 to 0 / 0 / 0]
5-760-005	PaaS	Server Name	CTL*	[0 to 0 / 0 / 0]
5-760-006	PaaS	Server URL Path	CTL*	[0 to 0 / 0 / 0]
5-760-007	PaaS	Server Port Number	CTL*	[1 to 65535 / 443 / 1]
5-760-008	PaaS	Registration Status	CTL*	[0 to 1 / 0 / 1]
5-760-009	PaaS	Registration	CTL	[0 to 1 / 0 / 1]
5-760-010	PaaS	Unregistration	CTL	[0 to 1 / 0 / 1]
5-760-011	PaaS	Overwrite Registration on	CTL	[0 to 1 / 0 / 1]
		Server		

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-760-012	PaaS	Execution Return Code	CTL	[0 to 255 / 0 / 1]
5-760-013	PaaS	Error Code	CTL	[0 to 0xffffffff / 0 / 1]
5-760-015	PaaS	Use Proxy	CTL*	[0 to 1 / 0 / 1]
5-760-016	PaaS	Proxy Server	CTL*	[0 to 0 / 0 / 0]
5-760-017	PaaS	Proxy Port Number	CTL*	[0 to 65535 / 0 / 1]
5-760-018	PaaS	Proxy User Name	CTL*	[0 to 0 / 0 / 0]
5-760-019	PaaS	Proxy User Password	CTL*	[0 to 0 / 0 / 0]
5-760-020	PaaS	Retry Interval	CTL*	[0 to 65535 / 5 / 1sec]
5-760-021	PaaS	Retry Count	CTL*	[0 to 255 / 3 / 1]
5-760-023	PaaS	Next Update Time	CTL*	[0 to 0 / 0 / 1]
5-760-024	PaaS	Enter Normal Mode	CTL	[0 to 1 / 0 / 1]
5-761-001	SmartOperationPanel	Restore the default Home	CTL	[0 to 255 / 0 / 1]
	Setting	screen		
5-761-007	SmartOperationPanel	Introduction Setting Boot	CTL	[0 to 255 / 0 / 1]
	Setting	Mode		
5-764-001	NFC Setting	GuestNetwork	CTL*	[0 to 1 / 0 / 1]
5-764-002	NFC Setting	Encrypted Communication	CTL*	[0 to 1 / 0 / 1]
		Permission		
5-764-003	NFC Setting	Access Port1	CTL*	[0 to 65535 / 8081 / 1]
5-764-004	NFC Setting	Access Port2	CTL*	[0 to 65535 / 8080 / 1]
5-764-005	NFC Setting	Access Port3	CTL*	[0 to 65535 / 80 / 1]
5-791-001	DCS Debug Setting	Common	CTL*	[0 to 0xff / 0x09 / 1]
5-791-002	DCS Debug Setting	IFC	CTL*	[0 to 0xff / 0x0b / 1]
5-791-003	DCS Debug Setting	SMM	CTL*	[0 to 0xff / 0x03 / 1]
5-791-004	DCS Debug Setting	SJM/RJM	CTL*	[0 to 0xff / 0xe7 / 1]
5-791-005	DCS Debug Setting	DSS	CTL*	[0 to 0xff / 0x27 / 1]
5-791-006	DCS Debug Setting	MRS	CTL*	[0 to 0xff / 0x23 / 1]
5-791-007	DCS Debug Setting	NAS	CTL*	[0 to 0xff / 0x3a / 1]
5-792-001	MCS Debug SW	1	CTL	[0 to 0xFF / 0 / 0]
5-792-002	MCS Debug SW	2	CTL	[0 to 0xFF / 0 / 0]
5-792-003	MCS Debug SW	3	CTL	[0 to 0xFF / 0 / 0]
5-792-004	MCS Debug SW	4	CTL	[0 to 0xFF / 0 / 0]
5-793-001	ECS Debug SW	1	CTL	[0 to 0xFF / 0 / 1]
5-795-001	SRM Debug SW	1	CTL	[0 to 255 / 0 / 1]
5-801-001	Memory Clear	All Clear	CTL	[0 to 0 / 0 / 0]
SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
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			or	
			CTL	
5-801-003	Memory Clear	SCS	CTL	[0 to 0 / 0 / 0]
5-801-004	Memory Clear	IMH Memory Clr	CTL	[0 to 0 / 0 / 0]
5-801-005	Memory Clear	MCS	CTL	[0 to 0 / 0 / 0]
5-801-006	Memory Clear	Copier application	CTL	[0 to 0 / 0 / 0]
5-801-007	Memory Clear	Fax Application	CTL	[0 to 0 / 0 / 0]
5-801-008	Memory Clear	Printer Application	CTL	[0 to 0 / 0 / 0]
5-801-009	Memory Clear	Scanner Application	CTL	[0 to 0 / 0 / 0]
5-801-010	Memory Clear	Web Service	CTL	[0 to 0 / 0 / 0]
5-801-011	Memory Clear	NCS	CTL	[0 to 0 / 0 / 0]
5-801-012	Memory Clear	R-FAX	CTL	[0 to 0 / 0 / 0]
5-801-014	Memory Clear	Clear DCS Setting	CTL	[0 to 0 / 0 / 0]
5-801-015	Memory Clear	Clear UCS Setting	CTL	[0 to 0 / 0 / 0]
5-801-016	Memory Clear	MIRS Setting	CTL	[0 to 0 / 0 / 0]
5-801-017	Memory Clear	CCS	CTL	[0 to 0 / 0 / 0]
5-801-018	Memory Clear	SRM Memory Clr	CTL	[0 to 0 / 0 / 0]
5-801-019	Memory Clear	LCS	CTL	[0 to 0 / 0 / 0]
5-801-020	Cleae Memory	Web Uapli	CTL	[0 to 0 / 0 / 0]
5-801-021	Memory Clear	ECS	CTL	[0 to 0 / 0 / 0]
5-801-023	Memory Clear	AICS	CTL	[0 to 0 / 0 / 0]
5-801-025	Cleae Memory	websys	CTL	[0 to 0 / 0 / 0]
5-801-026	Memory Clear	PLN	CTL	[0 to 0 / 0 / 0]
5-801-027	Memory Clear	SAS	CTL	[0 to 0 / 0 / 0]
5-801-028	Memory Clear	Rest WebService	CTL	[0 to 0 / 0 / 0]
5-812-001	Service Tel. No.	Service	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-812-002	Service Tel. No.	Facsimile	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-812-003	Service Tel. No.	Supply	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-812-004	Service Tel. No.	Operation	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-812-101	Service Tel. No.	Disp Inquiry	CTL*	[0 to 1 / 0 / 1]
	Setting			
5-816-001	Remote Service	I/F Setting	CTL*	[0 to 2 / 2 / 1]
5-816-002	Remote Service	CE Call	CTL*	[0 to 1 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-816-003	Remote Service	Function Flag	CTL*	[0 to 1 / 0 / 1]
5-816-007	Remote Service	SSL Disable	CTL*	[0 to 1 / 0 / 1]
5-816-008	Remote Service	RCG Connect Timeout	CTL*	[1 to 90 / 30 / 1sec]
5-816-009	Remote Service	RCG Write Timeout	CTL*	[0 to 100 / 60 / 1sec]
5-816-010	Remote Service	RCG Read Timeout	CTL*	[0 to 100 / 60 / 1sec]
5-816-011	Remote Service	Port 80 Enable	CTL*	[0 to 1 / 0 / 1]
5-816-013	Remote Service	RFU Timing	CTL*	[0 to 1 / 1 / 1]
5-816-014	Remote Service	RCG Error Cause	CTL	[0 to 2 / 0 / 1]
5-816-021	Remote Service	RCG-C Registed	CTL*	[0 to 1 / 0 / 1]
5-816-023	Remote Service	Connect Type(N/M/3G)	CTL*	[0 to 2 / 0 / 1]
5-816-027	Remote Service	Connection Timeout	CTL*	[1 to 90 / 30 / 1sec]
5-816-028	Remote Service	Send Timeout	CTL*	[0 to 100 / 30 / 1sec]
5-816-029	Remote Service	Receive Timeout	CTL*	[0 to 100 / 30 / 1sec]
5-816-030	Remote Service	Retry Interval	CTL*	[0 to 0xffff / 3 / 1sec]
5-816-031	Remote Service	Retry Count	CTL*	[0 to 255 / 3 / 1]
5-816-032	Remote Service	Connect Send Delay	CTL*	[0 to 255 / 5 / 1sec]
5-816-033	Remote Service	Max Multipart	CTL*	[0 to 255 / 10 / 1]
5-816-034	Remote Service	Firm DL Interval	CTL*	[0 to 0xffff / 3 / 1sec]
5-816-035	Remote Service	Firm DL Retry Count	CTL*	[0 to 255 / 3 / 1]
5-816-061	Remote Service	Cert Expire Timing	CTL*	[0 to 0 / 0 / 1]
5-816-062	Remote Service	Use Proxy	CTL*	[0 to 1 / 0 / 1]
5-816-063	Remote Service	Proxy Host	CTL*	[0 to 0 / 0 / 0]
5-816-064	Remote Service	Proxy PortNumber	CTL*	[0 to 0xffff / 0 / 1]
5-816-065	Remote Service	Proxy User Name	CTL*	[0 to 0 / 0 / 0]
5-816-066	Remote Service	Proxy Password	CTL*	[0 to 0 / 0 / 0]
5-816-067	Remote Service	CERT:Up State	CTL*	[0 to 255 / 0 / 1]
5-816-068	Remote Service	CERT:Error	CTL*	[0 to 255 / 0 / 1]
5-816-069	Remote Service	CERT:Up ID	CTL*	[0 to 0 / 0 / 0]
5-816-083	Remote Service	Firm Up Status	CTL*	[0 to 1 / 0 / 1]
5-816-085	Remote Service	Firm Up User Check	CTL*	[0 to 1 / 0 / 1]
5-816-086	Remote Service	Firmware Size	CTL*	[0 to 0xffffffff / 0 / 1]
5-816-087	Remote Service	CERT:Macro Ver.	CTL	[0 to 0 / 0 / 0]
5-816-088	Remote Service	CERT:PAC Ver.	CTL	[0 to 0 / 0 / 0]
5-816-089	Remote Service	CERT:ID2Code	CTL	[0 to 0 / 0 / 0]
5-816-090	Remote Service	CERT:Subject	CTL	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-816-091	Remote Service	CERT:SerialNo.	CTL	[0 to 0 / 0 / 0]
5-816-092	Remote Service	CERT:Issuer	CTL	[0 to 0 / 0 / 0]
5-816-093	Remote Service	CERT:Valid Start	CTL	[0 to 0 / 0 / 0]
5-816-094	Remote Service	CERT:Valid End	CTL	[0 to 0 / 0 / 0]
5-816-102	Remote Service	CERT:Encrypt Level	CTL*	[1 to 2 / 1 / 1]
5-816-103	Remote Service	Client Communication	CTL*	[0 to 3 / 0 / 1]
		Method		
5-816-104	Remote Service	Client Communication	CTL*	[1 to 7 / 7 / 1]
		Limit		
5-816-115	Remote Service	Network Information	CTL*	[5 to 255 / 5 / 1sec]
		Waiting timer		
5-816-155	Remote Service	PPP Certification Time	CTL*	[1 to 65536 / 60 / 1sec]
		Out		
5-816-190	Remote Service	3G DongleID	CTL*	[0 to 0 / 0 / 0]
5-816-200	Remote Service	Manual Polling	CTL	[0 to 1 / 0 / 1]
5-816-201	Remote Service	Regist Status	CTL	[0 to 255 / 0 / 1]
5-816-202	Remote Service	Letter Number	CTL*	[0 to 0 / 0 / 0]
5-816-203	Remote Service	Confirm Execute	CTL	[0 to 1 / 0 / 1]
5-816-204	Remote Service	Confirm Result	CTL	[0 to 255 / 0 / 1]
5-816-205	Remote Service	Confirm Place	CTL	[0 to 1 / 0 / 1]
5-816-206	Remote Service	Register Execute	CTL	[0 to 1 / 0 / 1]
5-816-207	Remote Service	Register Result	CTL	[0 to 255 / 0 / 1]
5-816-208	Remote Service	Error Code	CTL	[-2147483647 to
				2147483647 / 0 / 0]
5-816-209	Remote Service	Instl Clear	CTL	[0 to 1 / 0 / 1]
5-816-240	Remote Service	CommErrorTime	CTL	[0 to 0 / 0 / 1]
5-816-241	Remote Service	CommErrorCode 1	CTL*	[0 to 0xffffffff /
				0x00000000 / 1]
5-816-242	Remote Service	CommErrorCode 2	CTL*	[0 to 0xffffffff /
				0x00000000 / 1]
5-816-243	Remote Service	CommErrorCode 3	CTL*	[0 to 0xffffffff /
				0x00000000 / 1]
5-816-244	Remote Service	CommErrorState 1	CTL*	[0 to 0xffff / 0x0000 / 1]
5-816-245	Remote Service	CommErrorState 2	CTL*	[0 to 0xffff / 0x0000 / 1]
5-816-246	Remote Service	CommErrorState 3	CTL*	[0 to 0xffff / 0x0000 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-816-247	Remote Service	SSL Error Count	CTL*	[0 to 255 / 0 / 1]
5-816-248	Remote Service	Other Err Count	CTL*	[0 to 255 / 0 / 1]
5-816-250	Remote Service	CommLog Print	CTL	[0 to 255 / 0 / 0]
5-821-002	Remote Service RCG	RCG IPv4 Address	CTL*	[0 to 0xffffffff / 0 / 1]
5-821-003	Remote Service RCG	RCG Port	CTI *	[0 to 65535 / 443 / 1]
0 02 1 000	Setting		012	
5-821-004	Remote Service RCG Setting	RCG IPv4 URL Path	CTL*	[0 to 0 / 0 / 0]
5-821-005	Remote Service RCG Setting	RCG IPv6 Address	CTL*	[0 to 0 / 0 / 0]
5-821-006	Remote Service RCG Setting	RCG IPv6 URL Path	CTL*	[0 to 0 / 0 / 0]
5-821-007	Remote Service RCG Setting	RCG Host Name	CTL*	[0 to 0 / 0 / 0]
5-821-008	Remote Service RCG	RCG Host URL Path	CTL*	[0 to 0 / 0 / 0]
5-824-001	NV-RAM Data Upload		СТІ	[0 to 0 / 0 / 0]
5-825-001	NV-RAM Data			[0 to 0 / 0 / 0]
	Download			
5-828-039	Network Setting	User Class	CTL*	[0 to 0 / 0 / 0]
5-828-040	Network Setting	Class Id	CTL*	[0 to 0 / 0 / 0]
5-828-050	Network Setting	1284 Compatiblity (Centro)	CTL*	[0 to 1 / 1 / 1]
5-828-052	Network Setting	ECP (Centro)	CTL*	[0 to 1 / 1 / 1]
5-828-065	Network Setting	Job Spooling	CTL*	[0 to 1 / 0 / 1]
5-828-066	Network Setting	Job Spooling Clear: Start Time	CTL*	[0 to 1 / 1 / 1]
5-828-069	Network Setting	Job Spooling (Protocol)	CTL*	[0x00 to 0xff / 0x7f / 0]
5-828-087	Network Setting	Protocol usage	CTL*	[0x00000000 to 0xffffffff / 0x00000000 / 1]
5-828-090	Network Setting	TELNET(0:OFF 1:ON)	CTL*	[0 to 1 / 1 / 1]
5-828-091	Network Setting	Web(0:OFF 1:ON)	CTL*	[0 to 1 / 1 / 1]
5-828-145	Network Setting	Active IPv6 Link Local Address	CTL	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-828-147	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 1		
5-828-149	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 2		
5-828-151	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 3		
5-828-153	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 4		
5-828-155	Network Setting	Active IPv6 Stateless	CTL	[0 to 0 / 0 / 0]
		Address 5		
5-828-156	Network Setting	IPv6 Manual Address	CTL*	[0 to 0 / 0 / 0]
5-828-158	Network Setting	IPv6 Gateway Address	CTL*	[0 to 0 / 0 / 0]
5-828-161	Network Setting	IPv6 Stateless Auto	CTL*	[0 to 1 / 1 / 1]
		Setting		
5-828-219	Network Setting	IPsec Aggressive Mode	CTL*	[0 to 1 / 0 / 1]
		Setting		
5-828-236	Network Setting	Web Item visible	CTL*	[0x0000 to 0xffff / 0xffff /
				1]
5-828-237	Network Setting	Web shopping link visible	CTL*	[0 to 1 / 1 / 1]
5-828-238	Network Setting	Web Supplies Link visible	CTL*	[0 to 1 / 1 / 1]
5-828-239	Network Setting	Web Link1 Name	CTL*	[0 to 0 / 0 / 0]
5-828-240	Network Setting	Web Link1 URL	CTL*	[0 to 0 / 0 / 0]
5-828-241	Network Setting	Web Link1 visible	CTL*	[0 to 1 / 1 / 1]
5-828-242	Network Setting	Web Link2 Name	CTL*	[0 to 0 / 0 / 0]
5-828-243	Network Setting	Web Link2 URL	CTL*	[0 to 0 / 0 / 0]
5-828-244				
	Network Setting	Web Link2 visible	CTL*	[0 to 1 / 1 / 1]
5-828-249	Network Setting Network Setting	Web Link2 visible DHCPv6 DUID	CTL* CTL	[0 to 1 / 1 / 1] [0 to 0 / 0 / 0]
5-828-249 5-832-001	Network Setting Network Setting HDD	Web Link2 visible DHCPv6 DUID HDD Formatting (ALL)	CTL* CTL CTL	[0 to 1 / 1 / 1] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0]
5-828-249 5-832-001 5-832-002	Network Setting Network Setting HDD HDD	Web Link2 visible DHCPv6 DUID HDD Formatting (ALL) HDD Formatting (IMH)	CTL* CTL CTL CTL	[0 to 1 / 1 / 1] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0]
5-828-249 5-832-001 5-832-002 5-832-003	Network Setting Network Setting HDD HDD HDD	Web Link2 visible DHCPv6 DUID HDD Formatting (ALL) HDD Formatting (IMH) HDD Formatting	CTL* CTL CTL CTL CTL	[0 to 1 / 1 / 1] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0]
5-828-249 5-832-001 5-832-002 5-832-003	Network Setting Network Setting HDD HDD HDD	Web Link2 visible DHCPv6 DUID HDD Formatting (ALL) HDD Formatting (IMH) HDD Formatting (Thumbnail/OCR)	CTL* CTL CTL CTL CTL	[0 to 1 / 1 / 1] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0]
5-828-249 5-832-001 5-832-002 5-832-003 5-832-004	Network Setting Network Setting HDD HDD HDD HDD	Web Link2 visible DHCPv6 DUID HDD Formatting (ALL) HDD Formatting (IMH) HDD Formatting (Thumbnail/OCR) HDD Formatting (Job Log)	CTL* CTL CTL CTL CTL CTL	[0 to 1 / 1 / 1] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0]
5-828-249 5-832-001 5-832-002 5-832-003 5-832-004 5-832-005	Network Setting Network Setting HDD HDD HDD HDD HDD	Web Link2 visible DHCPv6 DUID HDD Formatting (ALL) HDD Formatting (IMH) HDD Formatting (Thumbnail/OCR) HDD Formatting (Job Log) HDD Formatting (Printer	CTL* CTL CTL CTL CTL CTL CTL	[0 to 1 / 1 / 1] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0]
5-828-249 5-832-001 5-832-002 5-832-003 5-832-004 5-832-005	Network Setting Network Setting HDD HDD HDD HDD HDD	Web Link2 visible DHCPv6 DUID HDD Formatting (ALL) HDD Formatting (IMH) HDD Formatting (Thumbnail/OCR) HDD Formatting (Job Log) HDD Formatting (Printer Fonts)	CTL* CTL CTL CTL CTL CTL CTL	[0 to 1 / 1 / 1] [0 to 0 / 0 / 0] [0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
		Info)		
5-832-007	HDD	Mail RX Data	CTL	[0 to 0 / 0 / 0]
5-832-008	HDD	Mail TX Data	CTL	[0 to 0 / 0 / 0]
5-832-009	HDD	HDD Formatting (Data for	CTL	[0 to 0 / 0 / 0]
		a Design)		
5-832-010	HDD	HDD Formatting (Log)	CTL	[0 to 0 / 0 / 0]
5-832-011	HDD	HDD Formatting (Ridoc I/F)	CTL	[0 to 0 / 0 / 0]
5-832-012	HDD	HDD Formatting	CTL	[0 to 0 / 0 / 0]
5-834-001	Operation Panel Image Exposure Function		CTL	[0 to 1 / 0 / 1]
5-836-001	Capture Setting	Capture Function (0:Off 1:On)	CTL*	[0 to 1 / 0 / 1]
5-836-011	Capture Setting	Capture Setting: Copy	CTL*	[0 to 1 / 0 / 1]
5-836-012	Capture Setting	Capture Setting: Doc. Svr.	CTL*	[0 to 1 / 0 / 1]
5-836-013	Capture Setting	Capture Setting: Fax RX Printer	CTL*	[0 to 1 / 0 / 1]
5-836-014	Capture Setting	Capture Setting: Fax TX	CTL*	[0 to 1 / 0 / 1]
5-836-015	Capture Setting	Capture Setting: Printer	CTL*	[0 to 1 / 0 / 1]
5-836-016	Capture Setting	Capture Setting: Scanner	CTL*	[0 to 1 / 0 / 1]
5-836-017	Capture Setting	Capture Setting: SDK	CTL*	[0 to 1 / 0 / 1]
5-836-061	Capture Setting	Captured File Resend (0:Off 1:On)	CTL*	[0 to 1 / 1 / 1]
5-836-072	Capture Setting	Reduction for Copy B&W Text	CTL*	[0 to 6 / 0 / 1]
5-836-073	Capture Setting	Reduction for Copy B&W Other	CTL*	[0 to 6 / 0 / 1]
5-836-075	Capture Setting	Reduction for Printer B&W	CTL*	[0 to 6 / 0 / 1]
5-836-082	Capture Setting	Format for Copy B&W Text	CTL*	[0 to 3 / 1 / 1]
5-836-083	Capture Setting	Format for Copy B&W Other	CTL*	[0 to 3 / 1 / 1]
5-836-085	Capture Setting	Format for Printer B&W	CTL*	[0 to 3 / 1 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-836-091	Capture Setting	Default for JPEG	CTL*	[5 to 95 / 50 / 1]
5-836-092	Capture Setting	High Quality for JPEG	CTL*	[5 to 95 / 60 / 1]
5-836-093	Capture Setting	Low Quality for JPEG	CTL*	[5 to 95 / 40 / 1]
5-836-094	Capture Setting	Default Format for Back	CTL*	[0 to 4 / 0 / 1]
		Up Files		
5-836-095	Capture Setting	Default Resolution for	CTL*	[0 to 6 / 2 / 1]
		Back Up Files		
5-836-096	Capture Setting	Default User Name for	CTL*	[0 to 0 / 0 / 0]
		Back Up Files		
5-836-097	Capture Setting	Default Compression for	CTL*	[0 to 2 / 0 / 1]
		Back Up Files		
5-836-101	Capture Setting	Primary srv IP address	CTL*	[0 to 0xffffffff / 0x00 / 0]
5-836-102	Capture Setting	Primary srv scheme	CTL*	[0 to 0 / 0 / 0]
5-836-103	Capture Setting	Primary srv port number	CTL*	[1 to 65535 / 80 / 1]
5-836-104	Capture Setting	Primary srv URL path	CTL*	[0 to 0 / 0 / 0]
5-836-111	Capture Setting	Secondary srv IP address	CTL*	[0 to 0xffffffff / 0x00 / 0]
5-836-112	Capture Setting	Secondary srv scheme	CTL*	[0 to 0 / 0 / 0]
5-836-113	Capture Setting	Secondary srv port	CTL*	[1 to 65535 / 80 / 1]
		number		
5-836-114	Capture Setting	Secondary srv URL path	CTL*	[0 to 0 / 0 / 0]
5-836-120	Capture Setting	Default Reso Rate Switch	CTL*	[0 to 1 / 0 / 1]
5-836-122	Capture Setting	Reso: Copy(Mono)	CTL*	[0 to 255 / 3 / 1]
5-836-124	Capture Setting	Reso: Print(Mono)	CTL*	[0 to 255 / 3 / 1]
5-836-125	Capture Setting	Reso: Fax(Color)	CTL*	[0 to 255 / 4 / 1]
5-836-126	Capture Setting	Reso: Fax(Mono)	CTL*	[0 to 255 / 3 / 1]
5-836-127	Capture Setting	Reso: Scan(Color)	CTL*	[0 to 255 / 4 / 1]
5-836-128	Capture Setting	Reso: Scan(Mono)	CTL*	[0 to 255 / 3 / 1]
5-836-129	Capture Setting	Reso: SDK(Color)	CTL*	[0 to 255 / 4 / 1]
5-836-130	Capture Setting	Reso: SDK(Mono)	CTL*	[0 to 255 / 3 / 1]
5-836-141	Capture Setting	All Addr Info Switch	CTL*	[0 to 1 / 1 / 1]
5-836-142	Capture Setting	Stand-by Doc Max	CTL*	[10 to 10000 / 2000 / 1]
		Number		
5-836-143	Capture Setting	ClearLightPDF Switch	CTL*	[0 to 1 / 0 / 1]
5-840-006	IEEE 802.11	Channel MAX	CTL*	[1 to 14 / 14 / 1]
5-840-007	IEEE 802.11	Channel MIN	CTL*	[1 to 14 / 1 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-840-011	IEEE 802.11	WEP Key Select	CTL*	[0x00 to 0x11 / 0x00 / 0]
5-840-045	IEEE 802.11	WPA Debug Lvl	CTL*	[1 to 3 / 3 / 1]
5-840-046	IEEE 802.11	11w	CTL*	[0 to 2 / 0 / 1]
5-840-047	IEEE 802.11	PSK Set Type	CTL*	[0 to 1 / 0 / 1]
5-841-001	Supply Name Setting	Toner Name Setting:	CTL*	[0 to 0 / 0 / 0]
		Black		
5-842-001	GWWS Analysis	Setting 1	CTL*	[0x00 to 0xFF / 0 / 1]
5-842-002	GWWS Analysis	Setting 2	CTL*	[0x00 to 0xFF / 0 / 1]
5-844-001	USB	Transfer Rate	CTL*	[1 to 4 / 4 / 0]
5-844-002	USB	Vendor ID	CTL*	[0x0000 to 0xffff /
				0x05ca / 0]
5-844-003	USB	Product ID	CTL*	[0x0000 to 0xffff /
				0x0403 / 0]
5-844-004	USB	Device Release Number	CTL*	[0 to 9999 / 100 / 1]
5-844-005	USB	Fixed USB Port	CTL*	[0 to 2 / 0 / 1]
5-844-006	USB	PnP Model Name	CTL*	[0 to 0 / 0 / 0]
5-844-007	USB	PnP Serial Number	CTL*	[0 to 0 / 0 / 0]
5-844-008	USB	Mac Supply Level	CTL*	[0 to 1 / 1 / 1]
5-844-009	USB	USB Toggle Clear Mode	CTL*	[0 to 1 / 0 / 1]
5-844-100	USB	Notify Unsupport	CTL*	[0 to 1 / 1 / 1]
5-845-001	Delivery Server	FTP Port No.	CTL*	[1 to 65535 / 3670 / 1]
	Setting			
5-845-002	Delivery Server	IP Address (Primary)	CTL*	[0 to 0xffffffff / 0x00 / 1]
	Setting			
5-845-006	Delivery Server	Delivery Error Display	CTL*	[0 to 999 / 300 / 1sec]
	Setting	Time		
5-845-008	Delivery Server	IP Address (Secondary)	CTL*	[0 to 0xffffffff / 0x00 / 1]
	Setting			
5-845-009	Delivery Server	Delivery Server Model	CTL*	[0 to 4 / 0 / 1]
	Setting			
5-845-010	Delivery Server	Delivery Svr. Capability	CTL*	[0 to 255 / 0 / 1]
	Setting			
5-845-011	Delivery Server	Delivery Svr. Capability	CTL*	[0 to 255 / 0 / 1]
	Setting	(Ext)		
5-845-013	Delivery Server	Server Scheme(Primary)	CTL*	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
	Setting			
5-845-014	Delivery Server	Server Port	CTL*	[1 to 65535 / 80 / 1]
	Setting	Number(Primary)		
5-845-015	Delivery Server	Server URL Path(Primary)	CTL*	[0 to 0 / 0 / 0]
	Setting			
5-845-016	Delivery Server	Server	CTL*	[0 to 0 / 0 / 0]
	Setting	Scheme(Secondary)		
5-845-017	Delivery Server	Server Port	CTL*	[1 to 65535 / 80 / 1]
	Setting	Number(Secondary)		
5-845-018	Delivery Server	Server URL	CTL*	[0 to 0 / 0 / 0]
	Setting	Path(Secondary)		
5-845-022	Delivery Server	Rapid Sending Control	CTL*	[0 to 1 / 1 / 1]
	Setting			
5-846-001	UCS Setting	Machine ID (for Delivery	CTL*	[0 to 0 / 0 / 0]
		Server)		
5-846-002	UCS Setting	Machine ID Clear (for	CTL*	[0 to 0 / 0 / 0]
		Delivery Server)		
5-846-003	UCS Setting	Maximum Entries	CTL*	[2000 to 20000 / 2000 /
				1]
5-846-006	UCS Setting	Delivery Server Retry	CTL*	[0 to 255 / 0 / 1]
		Timer		
5-846-007	UCS Setting	Delivery Server Retry	CTL*	[0 to 255 / 0 / 1]
		Times		
5-846-008	UCS Setting	Delivery Server Maximum	CTL*	[2000 to 20000 / 2000 /
		Entries		1]
5-846-010	UCS Setting	LDAP Search Timeout	CTL*	[1 to 255 / 60 / 1]
5-846-020	UCS Setting	WSD Maximum Entries	CTL*	[50 to 250 / 250 / 1]
5-846-021	UCS Setting	Folder Auth Change	CTL*	[0 to 1 / 0 / 1]
5-846-040	UCS Setting	Addr Book Migration(USB-	CTL	[0 to 0 / 0 / 0]
		>HDD)		
5-846-041	UCS Setting	Fill Addr Acl Info	CTL	[0 to 0 / 0 / 0]
5-846-043	UCS Setting	Addr Book Media	CTL*	[0 to 30 / 0 / 1]
5-846-047	UCS Setting	Initialize Local Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-048	UCS Setting	Initialize Delivery Addr	CTL	[0 to 0 / 0 / 0]
		Book		

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-846-049	UCS Setting	Initialize LDAP Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-050	UCS Setting	Initialize All Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-051	UCS Setting	Backup All Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-052	UCS Setting	Restore All Addr Book	CTL	[0 to 0 / 0 / 0]
5-846-053	UCS Setting	Clear Backup Info	CTL	[0 to 0 / 0 / 0]
5-846-060	UCS Setting	Search option	CTL*	[0x00 to 0xff / 0x0f / 1]
5-846-062	UCS Setting	Complexity option 1	CTL*	[0 to 32 / 0 / 1]
5-846-063	UCS Setting	Complexity option 2	CTL*	[0 to 32 / 0 / 1]
5-846-064	UCS Setting	Complexity option 3	CTL*	[0 to 32 / 0 / 1]
5-846-065	UCS Setting	Complexity option 4	CTL*	[0 to 32 / 0 / 1]
5-846-091	UCS Setting	FTP Auth Port Setting	CTL*	[0 to 65535 / 3671 / 1]
5-846-094	UCS Setting	Encryption Stat	CTL*	[0 to 255 / 0 / 0]
5-846-098	UCS Setting	Bit SW2	CTL*	[0x00 to 0xff / 0x04 / 1]
5-846-099	UCS Setting	Bit SW	CTL*	[0x00 to 0xff / 0x0f / 1]
5-846-100	UCS Setting	Initialize Suprvisor	CTL	[0 to 0 / 0 / 0]
5-847-002	Rep Resolution	Rate for Copy B&W Text	CTL*	[0 to 6 / 0 / 1]
	Reduction			
5-847-003	Rep Resolution	Rate for Copy B&W Other	CTL*	[0 to 6 / 0 / 1]
	Reduction			
5-847-005	Rep Resolution	Rate for Printer B&W	CTL*	[0 to 6 / 0 / 1]
	Reduction			
5-847-007	Rep Resolution	Rate for Printer B&W	CTL*	[0 to 6 / 1 / 1]
	Reduction	1200dpi		
5-847-021	Rep Resolution	Network Quality Default	CTL*	[5 to 95 / 50 / 1]
	Reduction	for JPEG		
5-848-002	Web Service	Access Ctrl:	CTL*	[0x00 to 0xFF / 0x02 / 0]
		Repository(onlyLower4bits		
)		
5-848-003	Web Service	Access Ctrl: Doc.Svr.Print	CTL*	[0x00 to 0xFF / 0x00 / 0]
		(Lower 4bits)		
5-848-004	Web Service	Access Ctrl: udirectory	CTL*	[0x00 to 0xFF / 0x00 / 0]
		(Lower 4bits)		
5-848-007	Web Service	Access Ctrl: Comm. Log	CTL*	[0x00 to 0xFF / 0x00 / 0]
		Fax(Lower 4bits)		
5-848-009	Web Service	Access Ctrl: Job Ctrl	CTL*	[0x00 to 0xFF / 0x00 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
		(Lower 4bits)		
5-848-011	Web Service	Access Ctrl:	CTL*	[0x00 to 0xFF / 0x00 / 0]
		Devicemanagement(Lowe		
		r 4bits)		
5-848-021	Web Service	Access Ctrl: Delivery	CTL*	[0x00 to 0xFF / 0x00 / 0]
		(Lower 4bits)		
5-848-022	Web Service	Access Ctrl:	CTL*	[0x00 to 0xFF / 0x00 / 0]
		uadministration (Lower		
		4bits)		
5-848-024	Web Service	Access Ctrl: Log Service	CTL*	[0x00 to 0xFF / 0x00 / 0]
		(Lower 4bits)		
5-848-025	Web Service	Access Ctrl: Rest	CTL*	[0x00 to 0xFF / 0x00 / 0]
		WebService (Lower 4bits)		
5-848-042	Web Service	Plaintext Permission	CTL*	[0 to 1 / 0 / 1]
5-848-043	Web Service	The number of transaction	CTL*	[0 to 100 / 10 / 1]
		generation		
5-848-044	Web Service	Request Max Size	CTL*	[0 to 1000 / 50 / 1]
5-848-045	Web Service	Reverse Proxy Server	CTL*	[0x00 to 0xFF / 0 / 1]
		Setting(ESA Port)		
5-848-046	Web Service	8080/51443 Port Open	CTL*	[0 to 300 / 60 / 1]
		Time		
5-848-099	Web Service	Repository: Download	CTL*	[0x00 to 0xFF / 0x00 / 1]
		Image Setting		
5-848-100	Web Service	Repository: Download	CTL*	[1 to 2048 / 2048 / 1]
		Image Max. Size		
5-848-150	Web Service	Log Operation Mode	CTL*	[0 to 9 / 0 / 1]
5-848-217	LogTrans	Setting: Timing	CTL*	[0 to 2 / 0 / 1]
5-849-001	Installation Date	Display	CTL	[0 to 0 / 0 / 0]
5-849-002	Installation Date	Switch to Print	CTL*	[0 or 1 / 1 / 1]
5-849-003	Installation Date	Total Counter	CTL*	[0 to 99999999 / 0 / 1]
5-851-001	Bluetooth	Mode	CTL*	[0x00 to 0x01 / 0x00 / 1]
5-853-001	Stamp Data		CTL	[0 to 0 / 0 / 0]
	Download			
5-856-002	Remote ROM Update	Local Port	CTL	[0 to 1 / 0 / 1]
5-857-110	Save Debug Log	Debug Logging	CTL*	[0x00000000 to 0xffffffff /

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
		Forwarding Address		0x00000000 / 1]
5-857-111	Save Debug Log	Debug Logging	CTL*	[0 to 0 / 0 / 0]
		Forwarding User Name		
5-857-112	Save Debug Log	Debug Logging	CTL*	[0 to 0 / 0 / 0]
		Forwarding Password		
5-857-113	Save Debug Log	Debug Logging	CTL*	[0 to 1440 / 0 / 1]
		Forwarding Time		
5-857-130	Save Debug Log	Acquire Condition Data	CTL*	[0 to 1 / 0 / 0]
		Only		
5-858-001	Collect Machine Info	0:OFF 1:ON	CTL*	[0 to 1 / 1 / 1]
5-858-002	Collect Machine Info	Save To (0:HDD 1:SD)	CTL*	[0 to 1 / 0 / 1]
5-858-003	Collect Machine Info	Make Log Trace Dir	CTL*	[0 to 1 / 0 / 0]
5-858-101	Collect Machine Info	Failure Occuring Date	CTL*	[0 to 20371212 / 0 / 1]
5-858-102	Collect Machine Info	Tracing Days	CTL*	[1 to 180 / 2 / 1day]
5-858-103	Collect Machine Info	Acquire Fax	CTL*	[0 to 1 / 0 / 1]
		Address(0:OFF 1:ON)		
5-858-111	Collect Machine Info	Acquire All Info & Logs	CTL	[0 to 1 / 0 / 0]
5-858-121	Collect Machine Info	Acquire Configuration	CTL	[0 to 1 / 0 / 0]
		Page		
5-858-122	Collect Machine Info	Acquire Font Page	CTL	[0 to 1 / 0 / 0]
5-858-123	Collect Machine Info	Acquire Print Setting List	CTL	[0 to 1 / 0 / 0]
5-858-124	Collect Machine Info	Acquire Error Log	CTL	[0 to 1 / 0 / 0]
5-858-131	Collect Machine Info	Acquire Fax Info	CTL	[0 to 1 / 0 / 0]
5-858-141	Collect Machine Info	Acquire All Debug Logs	CTL	[0 to 1 / 0 / 0]
5-858-142	Collect Machine Info	Acquire Controller Debug	CTL	[0 to 1 / 0 / 0]
		Logs Only		
5-858-143	Collect Machine Info	Acquire Engine Debug	CTL	[0 to 1 / 0 / 0]
		Logs Only		
5-858-144	Collect Machine Info	Acquire Opepanel Debug	CTL	[0 to 1 / 0 / 0]
		Logs Only		
5-858-145	Collect Machine Info	Acquire FCU Debug Logs	CTL	[0 to 1 / 0 / 0]
		Only		
5-858-146	Collect Machine Info	Acquire Only Network	CTL	[0 to 1 / 0 / 0]
		Packets		
5-860-020	SMTP/POP3/IMAP4	Partial Mail Receive	CTL*	[1 to 168 / 72 / 1hour]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
		Timeout		
5-860-021	SMTP/POP3/IMAP4	MDN Response RFC2298	CTL*	[0 to 1 / 1 / 1]
		Compliance		
5-860-022	SMTP/POP3/IMAP4	SMTP Auth. From Field	CTL*	[0 to 1 / 0 / 1]
		Replacement		
5-860-025	SMTP/POP3/IMAP4	SMTP Auth. Direct Setting	CTL*	[0 to 0xff / 0x0 / 1]
5-860-026	SMTP/POP3/IMAP4	S/MIME:MIME Header	CTL*	[0 to 2 / 0 / 1]
		Setting		
5-860-028	SMTP/POP3/IMAP4	S/MIME: Authentication	CTL*	[0 to 1 / 0 / 1]
		Check		
5-860-029	SMTP/POP3/IMAP4	SMTP Server 3G Line IP	CTL*	[0 to 0xffffffff / 0x00 / 1]
		Address		
5-861-201	Account Setting	Send Domain1	CTL	[0 to 0 / 0 / 0]
5-861-202	Account Setting	Send Domain2	CTL	[0 to 0 / 0 / 0]
5-861-203	Account Setting	Send Domain3	CTL	[0 to 0 / 0 / 0]
5-866-001	E-Mail Report	Report Validity	CTL	[0 to 1 / 0 / 1]
5-866-005	E-Mail Report	Add Date Field	CTL*	[0 to 1 / 0 / 1]
5-866-100	E-Mail Report	Log Format	CTL*	[0 to 255 / 0 / 1]
5-866-109	E-Mail Report	CounterE-Mail:3G Line	CTL*	[0 to 1 / 0 / 1]
		Validity		
5-866-110	E-Mail Report	CounterE-Mail:Validity	CTL*	[0 to 1 / 0 / 1]
5-866-111	E-Mail Report	CounterE-Mail:Destination	CTL*	[0 to 0 / 0 / 0]
		Registration		
5-866-112	E-Mail Report	CounterE-Mail:Send Test	CTL*	[0 to 0 / 0 / 0]
5-866-113	E-Mail Report	CounterE-Mail:Next Send	CTL*	[0 to 0 / 0 / 0]
		Date		
5-866-114	E-Mail Report	CounterE-Mail:Send Date	CTL*	[0 to 31 / 0 / 1]
		Setting		
5-866-115	E-Mail Report	CounterE-Mail:Send Time	CTL*	[0 to 2359 / 0 / 1]
		Setting		
5-866-121	E-Mail Report	CounterE-	CTL*	[0 to 0 / 0 / 0]
		Mail:Destination1		
5-866-122	E-Mail Report	CounterE-	CTL*	[0 to 0 / 0 / 0]
		Mail:Destination2		
5-866-123	E-Mail Report	CounterE-	CTL*	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
		Mail:Destination3		
5-870-001	Common KeyInfo	Writing	CTL	[0 to 1 / 0 / 1]
	Writing			
5-870-003	Common KeyInfo	Initialize	CTL	[0 to 1 / 0 / 1]
	Writing			
5-870-004	Common Key Info	Writing: 2048bit	CTL	[0 to 1 / 0 / 1]
	Writing			
5-873-001	SDCardAppliMove	MoveExec	CTL	[0 to 0 / 0 / 1]
5-873-002	SDCardAppliMove	UndoExec	CTL	[0 to 0 / 0 / 1]
5-875-001	SC Auto Reboot	Reboot Setting	CTL*	[0 to 1 / 0 / 1]
5-875-002	SC Auto Reboot	Reboot Type	CTL*	[0 to 1 / 0 / 1]
5-878-001	Option Setup	Data Overwrite Security	CTL	[0 to 0 / 0 / 0]
5-878-004	Option Setup	OCR Dictionary	CTL	[0 to 0 / 0 / 0]
5-881-001	Fixed Phrase Block		CTL	[0 to 0 / 0 / 0]
	Erasing			
5-885-020	Set WIM Function	DocSvr Acc Ctrl	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-885-050	Set WIM Function	DocSvr Format	CTL*	[0 to 2 / 0 / 1]
5-885-051	Set WIM Function	DocSvr Trans	CTL*	[5 to 20 / 10 / 1]
5-885-100	Set WIM Function	Set Signature	CTL*	[0 to 2 / 0 / 1]
5-885-101	Set WIM Function	Set Encrypsion	CTL*	[0 to 1 / 0 / 1]
5-885-200	Set WIM Function	Detect Mem Leak	CTL*	[0x00 to 0xFF / 0x00 / 0]
5-885-205	Set WIM Function	MonitorDisable	CTL*	[0 to 1 / 0 / 1]
5-886-100	Farm Update Setting	Skip Version Check	CTL	[0 to 1 / 0 / 1]
5-886-101	Farm Update Setting	Skip LR Check	CTL	[0 to 1 / 0 / 1]
5-886-111	Farm Update Setting	Auto Update Setting	CTL*	[0 to 1 / 0 / 1]
5-886-112	Farm Update Setting	Auto Update Prohibit Term	CTL*	[0 to 1 / 1 / 1]
		Setting		
5-886-113	Farm Update Setting	Auto Update Prohibit Start	CTL*	[0 to 23 / 9 / 1hour]
		hour		
5-886-114	Farm Update Setting	Auto Update Prohibit End	CTL*	[0 to 23 / 17 / 1hour]
		hour		
5-886-115	Farm Update Setting	SFU Auto Download	CTL*	[0 to 1 / 0 / 1]
		Setting		
5-886-116	Farm Update Setting	Auto Update Next Date	CTL*	[0 to 0 / 0 / 0]
5-886-117	Farm Update Setting	Auto Update Retry Interval	CTL*	[1 to 24 / 1 / 1hour]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
		Hour		
5-886-119	Farm Update Setting	Auto Update @Remote	CTL*	[0 to 1 / 0 / 1]
		Using Setting		
5-886-120	Farm Update Setting	Auto Update Prohibit Day	CTL*	[0 to 255 / 0 / 1]
		of Week Setting		
5-886-201	Farm Update Setting	Restore Date	CTL*	[0 to 0 / 0 / 0]
5-886-202	Farm Update Setting	Save Old Version List	CTL	[0 to 0 / 0 / 0]
5-887-001	SD GetCounter		CTL	[0 to 0 / 0 / 0]
5-888-001	Personal Information		CTL*	[0 to 1 / 0 / 1]
	Protect			
5-892-001	Engine Data Check		CTL*	[0 to 0 / 0 / 0]
5-893-001	SDK Application	SDK-1	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-002	SDK Application	SDK-2	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-003	SDK Application	SDK-3	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-004	SDK Application	SDK-4	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-005	SDK Application	SDK-5	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-006	SDK Application	SDK-6	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-007	SDK Application	SDK-7	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-008	SDK Application	SDK-8	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-009	SDK Application	SDK-9	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-010	SDK Application	SDK-10	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-011	SDK Application	SDK-11	CTL	[0 to 0 / 0 / 0]
	Counter			
5-893-012	SDK Application	SDK-12	CTL	[0 to 0 / 0 / 0]
	Counter			

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
5-895-001	Application	Printer	CTL	[0 to 1 / 0 / 0]
	invalidation			
5-895-002	Application	Scanner	CTL	[0 to 1 / 0 / 0]
	invalidation			
5-907-001	Plug &		CTL*	[0 to 255 / 0 / 1]
	Play Maker/Model			
	Name			
5-909-002	HealthCare Setting	Model Setting	CTL*	[0 to 1 / 0 / 1]
5-913-002	Switchover	Print Application Timer	CTL*	[0 to 30 / 3 / 1]
	Permission Time			
5-967-001	Copy Server : Set	(0:ON 1:OFF)	CTL*	[0 to 1 / 0 / 1]
	Function			
5-970-001	Debug Serial Output	(00000000:OFF	CTL*	[0x00 to 0xFF / 0x00 / 0]
		1000000:ON)		
5-973-101	User Stamp	Frame deletion setting	CTL*	[0 to 3 / 0 / 1]
	Registration			
5-985-001	Device Setting	On Board NIC	CTL*	[0 to 2 / 0 / 1]
5-985-002	Device Setting	On Board USB	CTL*	[0 to 1 / 0 / 1]
5-990-001	SP Print Mode	All (Data List)	CTL	[0 to 255 / 0 / 0]
5-990-002	SP Print Mode	SP (Mode Data List)	CTL	[0 to 255 / 0 / 0]
5-990-003	SP Print Mode	User Program	CTL	[0 to 255 / 0 / 0]
5-990-004	SP Print Mode	Logging Data	CTL	[0 to 255 / 0 / 0]
5-990-005	SP Print Mode	Diagnostic Report	CTL	[0 to 255 / 0 / 0]
5-990-006	SP Print Mode	Non-Default	CTL	[0 to 255 / 0 / 0]
5-990-007	SP Print Mode	NIB Summary	CTL	[0 to 0 / 0 / 0]
5-990-008	SP Print Mode	Capture Log	CTL	[0 to 255 / 0 / 1]
5-990-021	SMC Print	Copier User Program	CTL	[0 to 0 / 0 / 0]
5-990-022	SP Print Mode	Scanner SP	CTL	[0 to 255 / 0 / 0]
5-990-023	SP Print Mode	Scanner User Program	CTL	[0 to 255 / 0 / 0]
5-990-024	SP Print Mode	SDK/J Summary	CTL	[0 to 0 / 0 / 0]
5-990-025	SP Print Mode	SDK/J Application Info	CTL	[0 to 0 / 0 / 0]
5-990-026	SP Print Mode	Printer SP	CTL	[0 to 255 / 0 / 0]
5-990-027	SP Print Mode	SmartOperationPanel SP	CTL	[0 to 255 / 0 / 0]
5-990-028	SP Print Mode	SmartOperationPanel UP	CTL	[0 to 255 / 0 / 0]
5-992-001	SP Text Mode	All (Data List)	CTL	[0 to 255 / 0 / 0]

SP No.	Large Category	Small Category		[Min to Max / Init. / Step]
			or	
			CTL	
5-992-002	SP Text Mode	SP (Mode Data List)	CTL	[0 to 255 / 0 / 0]
5-992-003	SP Text Mode	User Program	CTL	[0 to 255 / 0 / 0]
5-992-004	SP Text Mode	Logging Data	CTL	[0 to 255 / 0 / 0]
5-992-005	SP Text Mode	Diagnostic Report	CTL	[0 to 255 / 0 / 0]
5-992-006	SP Text Mode	Non-Default	CTL	[0 to 255 / 0 / 0]
5-992-007	SP Text Mode	NIB Summary	CTL	[0 to 0 / 0 / 0]
5-992-008	SP Text Mode	Capture Log	CTL	[0 to 255 / 0 / 1]
5-992-021	SP Text Mode	Copier User Program	CTL	[0 to 0 / 0 / 0]
5-992-022	SP Text Mode	Scanner SP	CTL	[0 to 255 / 0 / 0]
5-992-023	SP Text Mode	Scanner User Program	CTL	[0 to 255 / 0 / 0]
5-992-024	SP Text Mode	SDK/J Summary	CTL	[0 to 0 / 0 / 0]
5-992-025	SP Text Mode	SDK/J Application Info	CTL	[0 to 0 / 0 / 0]
5-992-026	SP Text Mode	Printer SP	CTL	[0 to 255 / 0 / 0]
5-992-027	SP Text Mode	SmartOperationPanel SP	CTL	[0 to 255 / 0 / 0]
5-992-028	SP Text Mode	SmartOperationPanel UP	CTL	[0 to 255 / 0 / 0]
5-993-001	SP Text	All (Data List)	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			
5-993-002	SP Text	SP (Mode Data List)	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			
5-993-003	SP Text	User Program	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			
5-993-004	SP Text	Logging Data	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			
5-993-005	SP Text	Diagnostic Report	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			
5-993-006	SP Text	Non-Default	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			
5-993-007	SP Text	NIB Summary	CTL	[0 to 0 / 0 / 0]
	Mode(Privacy)			
5-993-008	SP Text	Capture Log	CTL	[0 to 255 / 0 / 1]
	Mode(Privacy)			
5-993-021	SP Text Mode	Copier User Program	CTL	[0 to 0 / 0 / 0]
5-993-022	SP Text	Scanner SP	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			
5-993-023	SP Text	Scanner User Program	CTL	[0 to 255 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
	Mode(Privacy)			
5-993-024	SP Text	SDK/J Summary	CTL	[0 to 0 / 0 / 0]
	Mode(Privacy)			
5-993-025	SP Text	SDK/J Application Info	CTL	[0 to 0 / 0 / 0]
	Mode(Privacy)			
5-993-026	SP Text	Printer SP	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			
5-993-027	SP Text	SmartOperationPanel SP	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			
5-993-028	SP Text	SmartOperationPanel UP	CTL	[0 to 255 / 0 / 0]
	Mode(Privacy)			

SP6-XXX (Peripherals)

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
6-006-001	ADF Adjustment	Side-to-Side Regist:Face	ENG*	[-3 to 3 / 0 / 0.1mm]
6-006-002	ADF Adjustment	Side-to-Side Regist:Back	ENG*	[-2 to 2 / 0 / 0.1mm]
6-006-010	ADF Adjustment	L-Edge Regist (1-Pass):Face	ENG*	[-5 to 5 / 0 / 0.1mm]
6-006-011	ADF Adjustment	L-Edge Regist (1-Pass):Back	ENG*	[-5 to 5 / 0 / 0.1mm]
6-006-014	ADF Adjustment	T-Edge Erase (1-Pass):Face	ENG*	[-5 to 5 / -1.6 /
				0.1mm]
6-006-015	ADF Adjustment	T-Edge Erase (1-Pass):Back	ENG*	[-5 to 5 / -1.6 /
				0.1mm]
6-009-001	ADF Free Run	Simplex Mode	ENG	[0 to 1 / 0 / 1STEP]
6-009-002	ADF Free Run	Duplex Mode	ENG	[0 to 1 / 0 / 1STEP]
6-011-009	1-Pass ADF INPUT	Original Detection	ENG	[0 to 1 / 0 / 1STEP]
	Check			
6-011-010	1-Pass ADF INPUT	Feed After sensor	ENG	[0 to 1 / 0 / 1STEP]
	Check			
6-011-013	1-Pass ADF INPUT	Registration Sensor	ENG	[0 to 1 / 0 / 1STEP]
	Check			
6-011-015	1-Pass ADF INPUT	Feed Cover Sensor	ENG	[0 to 1 / 0 / 1STEP]
	Check			
6-011-024	1-Pass ADF INPUT	Page Keeper Sensor	ENG	[0 to 1 / 0 / 1]
	Check			
6-012-003	1-Pass ADF OUTPUT	Motor Forward	ENG	[0 to 1 / 0 / 1STEP]
	Check			
6-012-004	1-Pass ADF OUTPUT	Motor Reverse	ENG	[0 to 1 / 0 / 1STEP]
	Check			
6-012-014	1-Pass ADF OUTPUT	Feed Clutch	ENG	[0 to 1 / 0 / 1STEP]
	Check			
6-017-001	ADF Adjustment		ENG*	[-5 to 5 / 0 / 0.1%]
	Magnification			
6-018-001	1-Pass ADF OUTPUT	Back shading	ENG	[0 to 1 / 0 / 1STEP]
	Check			
6-030-001	DF Hinge	Hinge Open Counter	ENG*	[0 to 999999 / 0 / 1]
6-030-002	DF Hinge	Hinge Open Counter State	ENG*	[0 to 1 / 0 / 1]
6-030-003	DF Hinge	Hinge Open Counter Clear	ENG	[0 to 0 / 0 / 0]
6-040-001	Page Keeper	Mount Select	ENG*	[0 to 1 / 0 / 1]

5.SP Mode Tables (for MF Model)

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
6-040-005	Page Keeper	Clear Select	ENG*	[0 to 1 / 1 / 1]

SP7-XXX (Data Log) - Engine

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
7-625-002	Old Counter 1	Sheets PCDU	ENG*	[0 to 999999 / 0 / 1sheet]
7-625-003	Old Counter 1	Sheets Fuser	ENG*	[0 to 99999999 / 0 / 1sheet]
7-626-002	Old Counter 2	Sheets PCDU	ENG*	[0 to 999999 / 0 / 1sheet]
7-626-003	Old Counter 2	Sheets Fuser	ENG*	[0 to 99999999 / 0 / 1sheet]
7-627-002	Old Dist. 1	PCDU	ENG*	[0 to 999999999 / 0 / 1mm]
7-627-003	Old Dist. 1	Fuser	ENG*	[0 to 999999999 / 0 / 1mm]
7-628-002	Old Dist. 2	PCDU	ENG*	[0 to 999999999 / 0 / 1mm]
7-628-003	Old Dist. 2	Fuser	ENG*	[0 to 999999999 / 0 / 1mm]
7-701-001	Info T&H Sensor	Info 1	ENG*	[0 to 0 / 0 / 0]
7-701-002	Info T&H Sensor	Info 2	ENG*	[0 to 0 / 0 / 0]
7-701-003	Info T&H Sensor	Info 3	ENG*	[0 to 0 / 0 / 0]
7-701-004	Info T&H Sensor	Info 4	ENG*	[0 to 0 / 0 / 0]
7-701-005	Info T&H Sensor	Info 5	ENG*	[0 to 0 / 0 / 0]
7-801-002	ROM Info.	No.:Engine	ENG	[0 to 0 / 0 / 0]
7-801-009	ROM Info.	No.:Bank	ENG	[0 to 0 / 0 / 0]
7-801-019	ROM Info.	No.:Bank2	ENG	[0 to 0 / 0 / 0]
7-801-040	ROM Info.	No.:Bank3	ENG	[0 to 0 / 0 / 0]
7-801-102	ROM Info.	Version:Engine	ENG	[0 to 0 / 0 / 0]
7-801-109	ROM Info.	Version:Bank	ENG	[0 to 0 / 0 / 0]
7-801-119	ROM Info.	Version:Bank2	ENG	[0 to 0 / 0 / 0]
7-801-140	ROM Info.	Version:Bank3	ENG	[0 to 0 / 0 / 0]
7-802-002	PM Counter Usage	PCDU	ENG*	[0 to 255 / 0 / 1%]
7-802-003	PM Counter Usage	Fuser	ENG*	[0 to 255 / 0 / 1%]
7-802-004	PM Counter Usage	Trans.	ENG*	[0 to 255 / 0 / 1%]
7-803-002	Disp. PM Counter	Sheets PCDU	ENG*	[0 to 999999 / 0 / 1sheet]
7-803-003	Disp. PM Counter	Sheets Fuser	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-004	Disp. PM Counter	Sheets Trans.	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-005	Disp. PM Counter	Sheets Feed Tray	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-006	Disp. PM Counter	Sheets Spr. Tray	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-007	Disp. PM Counter	Sheets ADF Pad	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-008	Disp. PM Counter	Sheets ADF	ENG*	[0 to 99999999 / 0 / 1sheet]
		Pickup		
7-803-009	Disp. PM Counter	Sheets ADF Feed	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-027	Disp. PM Counter	Usage ADF Pad	ENG*	[0 to 255 / 0 / 1%]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
7-803-028	Disp. PM Counter	Usage ADF Pickup	ENG*	[0 to 255 / 0 / 1%]
7-803-029	Disp. PM Counter	Usage ADF Feed	ENG*	[0 to 255 / 0 / 1%]
7-803-051	Disp. PM Counter	Sheets Feed	ENG*	[0 to 99999999 / 0 / 1sheet]
		Bank1		
7-803-052	Disp. PM Counter	Sheets Spr. Bank1	ENG*	[0 to 9999999 / 0 / 1sheet]
7-803-053	Disp. PM Counter	Sheets Feed	ENG*	[0 to 99999999 / 0 / 1sheet]
		Bank2		
7-803-054	Disp. PM Counter	Sheets Spr. Bank2	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-055	Disp. PM Counter	Sheets Feed	ENG*	[0 to 99999999 / 0 / 1sheet]
		Bank3		
7-803-056	Disp. PM Counter	Sheets Spr. Bank3	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-057	Disp. PM Counter	Sheets Feed Bypa	ENG*	[0 to 99999999 / 0 / 1sheet]
7-803-058	Disp. PM Counter	Sheets Spr Bypa	ENG*	[0 to 99999999 / 0 / 1sheet]
7-804-002	Reset PM Counter	PCDU	ENG	[0 to 0 / 0 / 0]
7-804-003	Reset PM Counter	Fuser	ENG	[0 to 0 / 0 / 0]
7-804-004	Reset PM Counter	Trans.	ENG	[0 to 0 / 0 / 0]
7-804-005	Reset PM Counter	Feed Tray	ENG	[0 to 0 / 0 / 0]
7-804-006	Reset PM Counter	Spr. Tray	ENG	[0 to 0 / 0 / 0]
7-804-007	Reset PM Counter	ADF Pad	ENG	[0 to 0 / 0 / 0]
7-804-008	Reset PM Counter	ADF Pickup	ENG	[0 to 0 / 0 / 0]
7-804-009	Reset PM Counter	ADF Feed	ENG	[0 to 0 / 0 / 0]
7-804-010	Reset PM Counter	Mentenance Kit	ENG	[0 to 0 / 0 / 0]
7-804-011	Reset PM Counter	All	ENG	[0 to 0 / 0 / 0]
7-804-051	Reset PM Counter	Feed Bank1	ENG	[0 to 0 / 0 / 0]
7-804-052	Reset PM Counter	Spr. Bank1	ENG	[0 to 0 / 0 / 0]
7-804-053	Reset PM Counter	Feed Bank2	ENG	[0 to 0 / 0 / 0]
7-804-054	Reset PM Counter	Spr. Bank2	ENG	[0 to 0 / 0 / 0]
7-804-055	Reset PM Counter	Feed Bank3	ENG	[0 to 0 / 0 / 0]
7-804-056	Reset PM Counter	Spr. Bank3	ENG	[0 to 0 / 0 / 0]
7-804-057	Reset PM Counter	Feed Bypass	ENG	[0 to 0 / 0 / 0]
7-804-058	Reset PM Counter	Spr. Bypass	ENG	[0 to 0 / 0 / 0]
7-805-001	Counter Continue	Setting	ENG	[0 to 0 / 0 / 0]
7-805-002	Counter Continue	Distance PCDU	ENG*	[0 to 999999999 / 0 / 1mm]
7-806-002	PM Counter Dist.	PCDU	ENG*	[0 to 9999999999 / 0 / 1mm]
7-806-003	PM Counter Dist.	Fuser	ENG*	[0 to 999999999 / 0 / 1mm]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
7-806-004	PM Counter Dist.	Trans.	ENG*	[0 to 999999999 / 0 / 1mm]
7-852-001	DF Glass Dust Check	Dust Detection	ENG*	[0 to 65535 / 0 / 1]
		Counter		
7-852-002	DF Glass Dust Check	Dust Detection	ENG*	[0 to 65535 / 0 / 1]
		Clear Counter		
7-852-003	DF Glass Dust Check	Dust Detection	ENG*	[0 to 65535 / 0 / 1]
		Counter: Back		
7-931-001	Toner Info.	Machine ID	ENG*	[0 to 255 / 0 / 1]
7-931-002	Toner Info.	Version	ENG	[0 to 255 / 0 / 1]
7-931-003	Toner Info.	Brand ID	ENG*	[0 to 255 / 0 / 1]
7-931-004	Toner Info.	Area ID	ENG*	[0 to 255 / 0 / 1]
7-931-005	Toner Info.	Class ID	ENG*	[0 to 255 / 0 / 1]
7-931-006	Toner Info.	Color ID	ENG	[0 to 255 / 0 / 1]
7-931-007	Toner Info.	Maintenance ID	ENG*	[0 to 255 / 0 / 1]
7-931-008	Toner Info.	New AIO	ENG*	[0 to 255 / 0 / 1]
7-931-009	Toner Info.	Recycle Count	ENG	[0 to 255 / 0 / 1]
7-931-010	Toner Info.	EDP Code	ENG*	[0 to 0 / 0 / 0]
7-931-011	Toner Info.	Serial No.	ENG*	[0 to 0 / 0 / 0]
7-931-012	Toner Info.	Remaining Toner	ENG*	[0 to 100 / 100 / 1%]
				Countdown in increments of 1%
7-931-013	Toner Info.	Toner End	ENG*	[-/0/-]
				0: Normal (Including estimated
				toner near end status)
				N: Definite toner near end
				E: Toner near end
7-931-014	Toner Info.	Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-931-015	Toner Info.	R:Total Cnt.	ENG*	[0 to 999999999 / 0 / 1sheet]
7-931-016	Toner Info.	E:Total Cnt.	ENG	[0 to 999999999 / 0 / 1sheet]
7-931-017	Toner Info.	Unit Output Cnt.	ENG*	[0 to 999999999 / 0 / 1sheet]
7-931-018	Toner Info.	Install Date	ENG*	[0 to 0 / 0 / 0]
7-931-019	Toner Info.	Toner End Date	ENG	[0 to 0 / 0 / 0]
7-931-020	Toner Info.	Total Consump	ENG*	[0 to 10000000 / 0 / 0.1mg]
7-931-021	Toner Info.	PCDU Distance	ENG*	[0 to 9999999999 / 0 / 1mm]
7-931-022	Toner Info.	Initial Amount	ENG*	[0 to 65535 / 0 / 1g]
7-931-023	Toner Info.	NearEnd	ENG*	[0 to 9999999 / 0 / 0.1mg]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
		Consump		
7-932-001	PCDU Info.	Machine ID	ENG*	[0 to 255 / 0 / 1]
7-932-002	PCDU Info.	Class ID	ENG*	[0 to 255 / 0 / 1]
7-932-003	PCDU Info.	Maintenance ID	ENG*	[0 to 255 / 0 / 1]
7-932-004	PCDU Info.	New AIO	ENG*	[0 to 255 / 0 / 1]
7-932-005	PCDU Info.	Serial No.	ENG*	[0 to 0 / 0 / 0]
7-932-006	PCDU Info.	Install Date	ENG*	[0 to 0 / 0 / 0]
7-932-007	PCDU Info.	Sheets	ENG*	[0 to 999999 / 0 / 1sheet]
7-932-008	PCDU Info.	Distance	ENG*	[0 to 999999999 / 0 / 1mm]
7-932-009	PCDU Info.	Usage rate	ENG*	[0 to 255 / 0 / 1%]
7-932-010	PCDU Info.	Control Distance	ENG*	[0 to 999999999 / 0 / 1mm]
7-932-011	PCDU Info.	PM Chg Sheets	ENG	[0 to 999999 / 0 / 1sheet]
7-932-012	PCDU Info.	PM Chg Distance	ENG	[0 to 999999999 / 0 / 1mm]
7-932-013	PCDU Info.	Cleaning1Count	ENG*	[0 to 65535 / 0 / 1count]
7-932-014	PCDU Info.	Cleaning2Count	ENG*	[0 to 65535 / 0 / 1count]
7-935-001	Toner Info. Log	1:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-002	Toner Info. Log	1:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-003	Toner Info. Log	1:R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1]
7-935-004	Toner Info. Log	1:Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-935-005	Toner Info. Log	2:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-006	Toner Info. Log	2:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-007	Toner Info. Log	2:R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1]
7-935-008	Toner Info. Log	2:Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-935-009	Toner Info. Log	3:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-010	Toner Info. Log	3:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-011	Toner Info. Log	3:R:Total Cnt.	ENG*	[0 to 999999999 / 0 / 1]
7-935-012	Toner Info. Log	3:Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-935-013	Toner Info. Log	4:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-014	Toner Info. Log	4:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-015	Toner Info. Log	4:R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1]
7-935-016	Toner Info. Log	4:Refill Flag	ENG*	[0 to 0 / 0 / 0]
7-935-017	Toner Info. Log	5:Serial No.	ENG*	[0 to 0 / 0 / 0]
7-935-018	Toner Info. Log	5:Install Date	ENG*	[0 to 0 / 0 / 0]
7-935-019	Toner Info. Log	5:R:Total Cnt.	ENG*	[0 to 99999999 / 0 / 1]
7-935-020	Toner Info. Log	5:Refill Flag	ENG*	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
7-935-021	Toner Info. Log	1:Toner End	ENG*	[0 to 0 / 0 / 0]
7-935-022	Toner Info. Log	2:Toner End	ENG*	[0 to 0 / 0 / 0]
7-935-023	Toner Info. Log	3:Toner End	ENG*	[0 to 0 / 0 / 0]
7-935-024	Toner Info. Log	4:Toner End	ENG*	[0 to 0 / 0 / 0]
7-935-025	Toner Info. Log	5:Toner End	ENG*	[0 to 0 / 0 / 0]
7-936-001	PCDU Log	1:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-002	PCDU Log	1:Install Date	ENG*	[0 to 0 / 0 / 0]
7-936-003	PCDU Log	2:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-004	PCDU Log	2:Install Date	ENG*	[0 to 0 / 0 / 0]
7-936-005	PCDU Log	3:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-006	PCDU Log	3:Install Date	ENG*	[0 to 0 / 0 / 0]
7-936-007	PCDU Log	4:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-008	PCDU Log	4:Install Date	ENG*	[0 to 0 / 0 / 0]
7-936-009	PCDU Log	5:Serial No	ENG*	[0 to 0 / 0 / 1]
7-936-010	PCDU Log	5:Install Date	ENG*	[0 to 0 / 0 / 0]
7-939-001	Reset Count	Tonner 1st	ENG*	[0 to 65535 / 0 / 1]
7-939-011	Reset Count	Tonner 2nd	ENG*	[0 to 65535 / 0 / 1]
7-939-021	Reset Count	PCDU 1st	ENG*	[0 to 65535 / 0 / 1]
7-939-031	Reset Count	PCDU 2nd	ENG*	[0 to 65535 / 0 / 1]
7-940-002	Set PM Counter	Sheets PCDU	ENG*	[0 to 999999 / 0 / 1sheet]
7-940-003	Set PM Counter	Sheets Fuser	ENG*	[0 to 99999999 / 120000 / 1sheet]
7-941-002	Set PM Dist.	PCDU	ENG*	[0 to 999999999 / 0 / 1mm]
7-941-003	Set PM Dist.	Fuser	ENG*	[0 to 9999999999 / 117000000 /
7-951-002	Remain Day Count	Sheets PCDU	FNG*	[0 to 255 / 255 / 1days]
7-951-003	Remain Day Count	Sheets Fuser	ENG*	[0 to 255 / 255 / 1days]
7-952-001	Davs Before End	Mentenance Kit	ENG*	[0 to 2/1/1]
7-952-002	Days Before End	PCDU	ENG*	[0 to 2/1/1]
7-953-002	Remain Dav(Dist.)	PCDU	ENG*	[0 to 255 / 255 / 1days]
7-953-003	Remain Day(Dist.)	Fuser	ENG*	[0 to 255 / 255 / 1days]
7-955-002	Remain Pages	PCDU	ENG*	[0 to 9999999 / 9999999 / 1page]
7-955-003	Remain Pages	Fuser	ENG*	[0 to 9999999 / 9999999 / 1page]
7-956-002	Remain Davs	PCDU	ENG*	[0 to 255 / 255 / 1davs]
7-956-003	Remain Davs	Fuser	ENG*	[0 to 255 / 255 / 1davs]
7-957-002	Monthly Average P	PCDU	ENG*	[0 to 99999999 / 0 / 1page]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
7-957-003	Monthly Average P	Fuser	ENG*	[0 to 99999999 / 0 / 1page]
7-958-002	PM Value Setting:	PCDU	ENG*	[1 to 30 / 15 / 1days]
7-958-003	PM Value Setting:	Fuser	ENG*	[1 to 30 / 15 / 1days]
7-970-001	Day Info.	Day Info. Fault	ENG*	[0 to 1 / 0 / 1]
7-978-001	SC670-01 Log	First Occurred	ENG*	[0 to 1 / 0 / 1]
7-978-002	SC670-01 Log	First Data1	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-978-003	SC670-01 Log	First Data2	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-978-004	SC670-01 Log	First Data3	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-978-005	SC670-01 Log	First Data4	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-978-006	SC670-01 Log	First Data5	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-978-011	SC670-01 Log	Latest Occurred	ENG*	[0 to 1 / 0 / 1]
7-978-012	SC670-01 Log	Latest Data1	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-978-013	SC670-01 Log	Latest Data2	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-978-014	SC670-01 Log	Latest Data3	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-978-015	SC670-01 Log	Latest Data4	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-978-016	SC670-01 Log	Latest Data5	ENG*	[0x00000000 to 0xFFFFFFFF /
				0x00000000 / 1]
7-979-001	CPU Reset Log	Data1	ENG*	[0x00 to 0xFF / 0x00 / 1]
7-979-002	CPU Reset Log	Data2	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-003	CPU Reset Log	Data3	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-004	CPU Reset Log	Data4	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-005	CPU Reset Log	Data5	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-006	CPU Reset Log	Data6	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-007	CPU Reset Log	Data7	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-008	CPU Reset Log	Data8	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-009	CPU Reset Log	Data9	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or	
			CTL	
7-979-010	CPU Reset Log	Data10	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-011	CPU Reset Log	Data11	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-012	CPU Reset Log	Data12	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-013	CPU Reset Log	Data13	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-014	CPU Reset Log	Data14	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-015	CPU Reset Log	Data15	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-016	CPU Reset Log	Data16	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-017	CPU Reset Log	Data17	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-018	CPU Reset Log	Data18	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-019	CPU Reset Log	Data19	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-020	CPU Reset Log	Data20	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-979-021	CPU Reset Log	Data21	ENG*	[0x0000 to 0xFFFF / 0x0000 / 1]
7-993-001	Total Counter		ENG*	[0 to 99999999 / 0 / 1]

SP7-XXX (Data Log) - Controller

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
7-401-001	Total SC	SC Counter	CTL*	[0 to 65535 / 0 / 0]
7-401-002	Total SC	Total SC Counter	CTL*	[0 to 65535 / 0 / 0]
7-403-001	SC History	Latest	CTL*	[0 to 0 / 0 / 0]
7-403-002	SC History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-403-003	SC History	Latest 2	CTL*	[0 to 0 / 0 / 0]
7-403-004	SC History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-403-005	SC History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-403-006	SC History	Latest 5	CTL*	[0 to 0 / 0 / 0]
7-403-007	SC History	Latest 6	CTL*	[0 to 0 / 0 / 0]
7-403-008	SC History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-403-009	SC History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-403-010	SC History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-404-001	Software Error History	Latest	CTL*	[0 to 0 / 0 / 0]
7-404-002	Software Error History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-404-003	Software Error History	Latest 2	CTL*	[0 to 0 / 0 / 0]
7-404-004	Software Error History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-404-005	Software Error History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-404-006	Software Error History	Latest 5	CTL*	[0 to 0 / 0 / 0]
7-404-007	Software Error History	Latest 6	CTL*	[0 to 0 / 0 / 0]
7-404-008	Software Error History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-404-009	Software Error History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-404-010	Software Error History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-502-001	Total Paper Jam	Jam Counter	CTL*	[0 to 65535 / 0 / 0]
7-502-002	Total Paper Jam	Total Jam Counter	CTL*	[0 to 65535 / 0 / 0]
7-503-001	Total Original Jam	Original Jam Counter	CTL*	[0 to 65535 / 0 / 0]
7-503-002	Total Original Jam	Total Original Jam Counter	CTL*	[0 to 65535 / 0 / 0]
7-504-001	Paper Jam Location	Initial Jam	CTL*	[0 to 65535 / 0 / 0]
7-504-003	Paper Jam Location	Tray1: No Feed	CTL*	[0 to 65535 / 0 / 0]
7-504-004	Paper Jam Location	Tray2: No Feed	CTL*	[0 to 65535 / 0 / 0]
7-504-005	Paper Jam Location	Tray3: No Feed	CTL*	[0 to 65535 / 0 / 0]
7-504-006	Paper Jam Location	Tray4: No Feed	CTL*	[0 to 65535 / 0 / 0]
7-504-008	Paper Jam Location	Bypass: No Feed	CTL*	[0 to 65535 / 0 / 0]
7-504-009	Paper Jam Location	Duplex: No Feed	CTL*	[0 to 65535 / 0 / 0]
7-504-013	Paper Jam Location	Tray2 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
		Late Jam		
7-504-014	Paper Jam Location	Tray3 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]
		Late Jam		
7-504-017	Paper Jam Location	Registration Sensor Late	CTL*	[0 to 65535 / 0 / 0]
		Jam		
7-504-020	Paper Jam Location	Inverter Exit Sensor Late	CTL*	[0 to 65535 / 0 / 0]
		Jam		
7-504-026	Paper Jam Location	Duplex Entrance Sensor	CTL*	[0 to 65535 / 0 / 0]
		Late Jam		
7-504-033	Paper Jam Location	Tray1:No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
7-504-034	Paper Jam Location	Tray2: No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
7-504-035	Paper Jam Location	Tray3:No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
7-504-036	Paper Jam Location	Tray4:No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
7-504-038	Paper Jam Location	Duplex:No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
7-504-053	Paper Jam Location	Tray2 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]
		Lag Jam		
7-504-054	Paper Jam Location	Tray3 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]
		Lag Jam		
7-504-055	Paper Jam Location	Tray4 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]
		Lag Jam		
7-504-057	Paper Jam Location	Registration Sensor Lag Jam	CTL*	[0 to 65535 / 0 / 0]
7-504-060	Paper Jam Location	Inverter Exit Sensor Lag Jam	CTL*	[0 to 65535 / 0 / 0]
7-504-066	Paper Jam Location	Duplex Entrance Sensor Lag	CTL*	[0 to 65535 / 0 / 0]
		Jam		
7-505-001	Original Jam Detection	Initial Jam	CTL*	[0 to 65535 / 0 / 0]
7-505-004	Original Jam Detection	Registration Sensor Late	CTL*	[0 to 65535 / 0 / 0]
		Jam		
7-505-013	Original Jam Detection	Sensor Late Jam After Feed	CTL*	[0 to 65535 / 0 / 0]
7-505-054	Original Jam Detection	Registration Sensor Lag Jam	CTL*	[0 to 65535 / 0 / 0]
7-505-063	Original Jam Detection	Sensor Lag Jam After Feed	CTL*	[0 to 65535 / 0 / 0]
7-505-081	Original Jam Detection	Bypass Set Sensor Jam	CTL*	[0 to 65535 / 0 / 0]
7-505-097	Original Jam Detection	Timing Error Jam	CTL*	[0 to 65535 / 0 / 0]
7-505-098	Original Jam Detection	Paper Interval Shortage Jam	CTL*	[0 to 65535 / 0 / 0]
7-505-099	Original Jam Detection	Double Feed Jam	CTL*	[0 to 65535 / 0 / 0]
7-505-100	Original Jam Detection	Motor Error	CTL*	[0 to 65535 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
7-506-006	Jam Count by Paper Size	A5 LEF	CTL*	[0 to 65535 / 0 / 0]
7-506-044	Jam Count by Paper	HLTLEF	CTL*	[0 to 65535 / 0 / 0]
	Size			
7-506-133	Jam Count by Paper	A4 SEF	CTL*	[0 to 65535 / 0 / 0]
7 506 134	Jam Count by Paper			[0 to 65535 / 0 / 0]
7-500-154	Size			
7-506-142	Jam Count by Paper	B5 SEF	CTL*	[0 to 65535 / 0 / 0]
	Size			
7-506-164	Jam Count by Paper Size	LG SEF	CTL*	[0 to 65535 / 0 / 0]
7-506-166	Jam Count by Paper	LT SEF	CTL*	[0 to 65535 / 0 / 0]
	Size			
7-506-172	Jam Count by Paper	HLT SEF	CTL*	[0 to 65535 / 0 / 0]
	Size			
7-506-255	Jam Count by Paper	Others	CTL*	[0 to 65535 / 0 / 0]
	Size			
7-507-001	Plotter Jam History	Latest	CTL*	[0 to 0 / 0 / 0]
7-507-002	Plotter Jam History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-507-003	Plotter Jam History	Latest 2	CTL*	[0 to 0 / 0 / 0]
7-507-004	Plotter Jam History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-507-005	Plotter Jam History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-507-006	Plotter Jam History	Latest 5	CTL*	[0 to 0 / 0 / 0]
7-507-007	Plotter Jam History	Latest 6	CTL*	[0 to 0 / 0 / 0]
7-507-008	Plotter Jam History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-507-009	Plotter Jam History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-507-010	Plotter Jam History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-508-001	Original Jam History	Latest	CTL*	[0 to 0 / 0 / 0]
7-508-002	Original Jam History	Latest 1	CTL*	[0 to 0 / 0 / 0]
7-508-003	Original Jam History	Latest 2	CTL*	[0 to 0 / 0 / 0]
7-508-004	Original Jam History	Latest 3	CTL*	[0 to 0 / 0 / 0]
7-508-005	Original Jam History	Latest 4	CTL*	[0 to 0 / 0 / 0]
7-508-006	Original Jam History	Latest 5	CTL*	[0 to 0 / 0 / 0]
7-508-007	Original Jam History	Latest 6	CTL*	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
7-508-008	Original Jam History	Latest 7	CTL*	[0 to 0 / 0 / 0]
7-508-009	Original Jam History	Latest 8	CTL*	[0 to 0 / 0 / 0]
7-508-010	Original Jam History	Latest 9	CTL*	[0 to 0 / 0 / 0]
7-514-001	Paper Jam Count by	Initial Jam	CTL*	[0 to 65535 / 0 / 0]
	Location			
7-514-003	Paper Jam Count by Location	Tray1: No Feed	CTL*	[0 to 65535 / 0 / 0]
7-514-004	Paper Jam Count by	Tray2: No Feed	CTL*	[0 to 65535 / 0 / 0]
	Location			
7-514-005	Paper Jam Count by	Tray3: No Feed	CTL*	[0 to 65535 / 0 / 0]
	Location			
7-514-006	Paper Jam Count by	Tray4: No Feed	CTL*	[0 to 65535 / 0 / 0]
	Location			
7-514-008	Paper Jam Count by	Bypass: No Feed	CTL*	[0 to 65535 / 0 / 0]
	Location			
7-514-009	Paper Jam Count by	Duplex: No Feed	CTL*	[0 to 65535 / 0 / 0]
	Location			
7-514-013	Paper Jam Count by	Tray2 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]
	Location	Late Jam		
7-514-014	Paper Jam Count by	Tray3 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]
	Location	Late Jam		
7-514-017	Paper Jam Count by	Registration Sensor Late	CTL*	[0 to 65535 / 0 / 0]
	Location	Jam		
7-514-020	Paper Jam Count by	Inverter Exit Sensor Late	CTL*	[0 to 65535 / 0 / 0]
	Location	Jam		
7-514-026	Paper Jam Count by	Duplex Entrance Sensor	CTL*	[0 to 65535 / 0 / 0]
	Location	Late Jam		
7-514-033	Paper Jam Count by	Tray1:No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
	Location			
7-514-034	Paper Jam Count by	Tray2: No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
	Location			
7-514-035	Paper Jam Count by	Tray3:No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
	Location			
7-514-036	Paper Jam Count by	Tray4:No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
	Location			

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
7-514-038	Paper Jam Count by Location	Duplex:No Feed Continuous	CTL*	[0 to 65535 / 0 / 0]
7-514-053	Paper Jam Count by	Tray2 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]
	Location	Lag Jam		
7-514-054	Paper Jam Count by	Tray3 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]
	Location	Lag Jam		
7-514-055	Paper Jam Count by	Tray4 Vertical Trans Sensor	CTL*	[0 to 65535 / 0 / 0]
	Location	Lag Jam		
7-514-057	Paper Jam Count by Location	Registration Sensor Lag Jam	CTL*	[0 to 65535 / 0 / 0]
7-514-060	Paper Jam Count by Location	Inverter Exit Sensor Lag Jam	CTL*	[0 to 65535 / 0 / 0]
7-514-066	Paper Jam Count by	Duplex Entrance Sensor Lag	CTL*	[0 to 65535 / 0 / 0]
	Location	Jam		
7-515-001	Original Jam Count by Detection	Initial Jam	CTL*	[0 to 65535 / 0 / 0]
7-515-004	Original Jam Count by	Registration Sensor Late	CTL*	[0 to 65535 / 0 / 0]
	Detection	Jam		
7-515-013	Original Jam Count by Detection	Sensor Late Jam After Feed	CTL*	[0 to 65535 / 0 / 0]
7-515-054	Original Jam Count by Detection	Registration Sensor Lag Jam	CTL*	[0 to 65535 / 0 / 0]
7-515-063	Original Jam Count by Detection	Sensor Lag Jam After Feed	CTL*	[0 to 65535 / 0 / 0]
7-515-081	Original Jam Count by Detection	Bypass Set Sensor Jam	CTL*	[0 to 65535 / 0 / 0]
7-515-097	Original Jam Count by Detection	Timing Error Jam	CTL*	[0 to 65535 / 0 / 0]
7-515-098	Original Jam Count by Detection	Paper Interval Shortage Jam	CTL*	[0 to 65535 / 0 / 0]
7-515-099	Original Jam Count by Detection	Double Feed Jam	CTL*	[0 to 65535 / 0 / 0]
7-515-100	Original Jam Count by Detection	Motor Error	CTL*	[0 to 65535 / 0 / 0]
7-516-006	Paper Size Jam Count	A5 LEF	CTL*	[0 to 65535 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
7-516-044	Paper Size Jam Count	HLT LEF	CTL*	[0 to 65535 / 0 / 0]
7-516-133	Paper Size Jam Count	A4 SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-134	Paper Size Jam Count	A5 SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-142	Paper Size Jam Count	B5 SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-164	Paper Size Jam Count	LG SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-166	Paper Size Jam Count	LT SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-172	Paper Size Jam Count	HLT SEF	CTL*	[0 to 65535 / 0 / 0]
7-516-255	Paper Size Jam Count	Others	CTL*	[0 to 65535 / 0 / 0]
7-520-001	Update Log	ErrorRecord1	CTL*	[0 to 255 / 0 / 1]
7-520-002	Update Log	ErrorRecord2	CTL*	[0 to 255 / 0 / 1]
7-520-003	Update Log	ErrorRecord3	CTL*	[0 to 255 / 0 / 1]
7-520-004	Update Log	ErrorRecord4	CTL*	[0 to 255 / 0 / 1]
7-520-005	Update Log	ErrorRecord5	CTL*	[0 to 255 / 0 / 1]
7-520-006	Update Log	ErrorRecord6	CTL*	[0 to 255 / 0 / 1]
7-520-007	Update Log	ErrorRecord7	CTL*	[0 to 255 / 0 / 1]
7-520-008	Update Log	ErrorRecord8	CTL*	[0 to 255 / 0 / 1]
7-520-009	Update Log	ErrorRecord9	CTL*	[0 to 255 / 0 / 1]
7-520-010	Update Log	ErrorRecord10	CTL*	[0 to 255 / 0 / 1]
7-520-011	Update Log	Auto:StartDate1	CTL*	[0 to 0 / 0 / 0]
7-520-012	Update Log	Auto:StartDate2	CTL*	[0 to 0 / 0 / 0]
7-520-013	Update Log	Auto:StartDate3	CTL*	[0 to 0 / 0 / 0]
7-520-014	Update Log	Auto:StartDate4	CTL*	[0 to 0 / 0 / 0]
7-520-015	Update Log	Auto:StartDate5	CTL*	[0 to 0 / 0 / 0]
7-520-021	Update Log	Auto:EndDate1	CTL*	[0 to 0 / 0 / 0]
7-520-022	Update Log	Auto:EndDate2	CTL*	[0 to 0 / 0 / 0]
7-520-023	Update Log	Auto:EndDate3	CTL*	[0 to 0 / 0 / 0]
7-520-024	Update Log	Auto:EndDate4	CTL*	[0 to 0 / 0 / 0]
7-520-025	Update Log	Auto:EndDate5	CTL*	[0 to 0 / 0 / 0]
7-520-031	Update Log	Auto:Piecemark1	CTL*	[0 to 0 / 0 / 0]
7-520-032	Update Log	Auto:Piecemark2	CTL*	[0 to 0 / 0 / 0]
7-520-033	Update Log	Auto:Piecemark3	CTL*	[0 to 0 / 0 / 0]
7-520-034	Update Log	Auto:Piecemark4	CTL*	[0 to 0 / 0 / 0]
7-520-035	Update Log	Auto:Piecemark5	CTL*	[0 to 0 / 0 / 0]
7-520-041	Update Log	Auto:Version1	CTL*	[0 to 0 / 0 / 0]
7-520-042	Update Log	Auto:Version2	CTL*	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
7-520-043	Update Log	Auto:Version3	CTL*	[0 to 0 / 0 / 0]
7-520-044	Update Log	Auto:Version4	CTL*	[0 to 0 / 0 / 0]
7-520-045	Update Log	Auto:Version5	CTL*	[0 to 0 / 0 / 0]
7-520-051	Update Log	Auto:Result1	CTL*	[0 to 255 / 0 / 1]
7-520-052	Update Log	Auto:Result2	CTL*	[0 to 255 / 0 / 1]
7-520-053	Update Log	Auto:Result3	CTL*	[0 to 255 / 0 / 1]
7-520-054	Update Log	Auto:Result4	CTL*	[0 to 255 / 0 / 1]
7-520-055	Update Log	Auto:Result5	CTL*	[0 to 255 / 0 / 1]
7-520-056	Update Log	Auto:Result6	CTL*	[0 to 255 / 0 / 1]
7-520-057	Update Log	Auto:Result7	CTL*	[0 to 255 / 0 / 1]
7-520-058	Update Log	Auto:Result8	CTL*	[0 to 255 / 0 / 1]
7-520-059	Update Log	Auto:Result9	CTL*	[0 to 255 / 0 / 1]
7-520-060	Update Log	Auto:Result10	CTL*	[0 to 255 / 0 / 1]
7-617-001	PM Parts Counter	Normal	CTL*	[0 to 9999999 / 0 /
	Display			0]
7-617-002	PM Parts Counter	Df	CTL*	[0 to 9999999 / 0 /
	Display			0]
7-618-001	PM Parts Counter	Normal	CTL	[0 to 0 / 0 / 0]
	Reset			
7-618-002	PM Parts Counter	Df	CTL	[0 to 0 / 0 / 0]
	Reset			
7-624-002	Part Replacement	PCDU	CTL*	[0 to 1 / 1 / 1]
	Operation ON/OFF			
7-624-003	Part Replacement	Fusing Unit	CTL*	[0 to 1 / 1 / 1]
	Operation ON/OFF			
7-801-255	ROM No./ Firmware		CTL	[0 to 0 / 0 / 0]
	Version			
7-803-001	PM Counter Display	Paper	CTL*	[0 to 9999999 / 0 /
				0]
7-804-001	PM Counter Reset	Paper	CTL	[0 to 0 / 0 / 0]
7-807-001	SC/Jam Counter Reset		CTL	[0 to 0 / 0 / 0]
7-826-001	MF Error Counter	Error Total	CTL*	[0 to 9999999 / 0 /
				0]
7-826-002	MF Error Counter	Error Staple	CTL*	[0 to 9999999 / 0 /
				0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
7-827-001	MF Error Counter Clear		CTL	[0 to 0 / 0 / 0]
7-832-001	Self-Diagnose Result		CTL	[0 to 0 / 0 / 0]
	Display			
7-836-001	Total Memory Size		CTL	[0 to 0xffffffff / 0 / 0MB]
7-840-001	ServiceSP Entry Code	Change Time :Latest	CTL*	[0 to 0 / 0 / 0]
	Chg Hist			
7-840-002	ServiceSP Entry Code	Change Time :Last1	CTL*	[0 to 0 / 0 / 0]
	Chg Hist			
7-840-101	ServiceSP Entry Code	Initialize Time :Latest	CTL*	[0 to 0 / 0 / 0]
	Chg Hist			
7-840-102	ServiceSP Entry Code	Initialize Time :Last1	CTL*	[0 to 0 / 0 / 0]
	Chg Hist			
7-901-001	Assert Info.	File Name	CTL*	[0 to 0 / 0 / 0]
7-901-002	Assert Info.	Number of Lines	CTL*	[0 to 0 / 0 / 0]
7-901-003	Assert Info.	Location	CTL*	[0 to 0 / 0 / 0]
7-910-001	ROM No	System/Copy	CTL	[0 to 0 / 0 / 0]
7-910-002	ROM No	Engine	CTL	[0 to 0 / 0 / 0]
7-910-003	ROM No	Lcdc	CTL	[0 to 0 / 0 / 0]
7-910-009	ROM No	Bank	CTL	[0 to 0 / 0 / 0]
7-910-012	ROM No	FCU	CTL	[0 to 0 / 0 / 0]
7-910-018	ROM No	NetworkSupport	CTL	[0 to 0 / 0 / 0]
7-910-019	ROM No	Bank2	CTL	[0 to 0 / 0 / 0]
7-910-022	ROM No	BIOS	CTL	[0 to 0 / 0 / 0]
7-910-023	ROM No	HDD Format Option	CTL	[0 to 0 / 0 / 0]
7-910-040	ROM No	Bank3	CTL	[0 to 0 / 0 / 0]
7-910-150	ROM No	RPCS	CTL	[0 to 0 / 0 / 0]
7-910-151	ROM No	PS	CTL	[0 to 0 / 0 / 0]
7-910-152	ROM No	RPDL	CTL	[0 to 0 / 0 / 0]
7-910-153	ROM No	R98	CTL	[0 to 0 / 0 / 0]
7-910-154	ROM No	R16	CTL	[0 to 0 / 0 / 0]
7-910-156	ROM No	R55	CTL	[0 to 0 / 0 / 0]
7-910-157	ROM No	RTIFF	CTL	[0 to 0 / 0 / 0]
7-910-158	ROM No	PCL	CTL	[0 to 0 / 0 / 0]
7-910-159	ROM No	PCLXL	CTL	[0 to 0 / 0 / 0]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
7-910-160	ROM No	MSIS	CTL	[0 to 0 / 0 / 0]
7-910-162	ROM No	PDF	CTL	[0 to 0 / 0 / 0]
7-910-165	ROM No	PJL	CTL	[0 to 0 / 0 / 0]
7-910-166	ROM No	IPDS	CTL	[0 to 0 / 0 / 0]
7-910-167	ROM No	MediaPrint:JPEG	CTL	[0 to 0 / 0 / 0]
7-910-168	ROM No	MediaPrint:TIFF	CTL	[0 to 0 / 0 / 0]
7-910-169	ROM No	XPS	CTL	[0 to 0 / 0 / 0]
7-910-180	ROM No	FONT	CTL	[0 to 0 / 0 / 0]
7-910-181	ROM No	FONT1	CTL	[0 to 0 / 0 / 0]
7-910-182	ROM No	FONT2	CTL	[0 to 0 / 0 / 0]
7-910-183	ROM No	FONT3	CTL	[0 to 0 / 0 / 0]
7-910-184	ROM No	FONT4	CTL	[0 to 0 / 0 / 0]
7-910-185	ROM No	FONT5	CTL	[0 to 0 / 0 / 0]
7-910-186	ROM No	FONT6	CTL	[0 to 0 / 0 / 0]
7-910-187	ROM No	FONT7	CTL	[0 to 0 / 0 / 0]
7-910-200	ROM No	Factory	CTL	[0 to 0 / 0 / 0]
7-910-201	ROM No	Сору	CTL	[0 to 0 / 0 / 0]
7-910-202	ROM No	NetworkDocBox	CTL	[0 to 0 / 0 / 0]
7-910-203	ROM No	Fax	CTL	[0 to 0 / 0 / 0]
7-910-204	ROM No	Printer	CTL	[0 to 0 / 0 / 0]
7-910-205	ROM No	Scanner	CTL	[0 to 0 / 0 / 0]
7-910-206	ROM No	RFax	CTL	[0 to 0 / 0 / 0]
7-910-210	ROM No	MIB	CTL	[0 to 0 / 0 / 0]
7-910-211	ROM No	Websupport	CTL	[0 to 0 / 0 / 0]
7-910-212	ROM No	WebUapl	CTL	[0 to 0 / 0 / 0]
7-910-213	ROM No	SDK1	CTL	[0 to 0 / 0 / 0]
7-910-214	ROM No	SDK2	CTL	[0 to 0 / 0 / 0]
7-910-215	ROM No	SDK3	CTL	[0 to 0 / 0 / 0]
7-910-250	ROM No	Package	CTL	[0 to 0 / 0 / 0]
7-911-001	Firmware Version	System/Copy	CTL	[0 to 0 / 0 / 0]
7-911-002	Firmware Version	Engine	CTL	[0 to 0 / 0 / 0]
7-911-003	Firmware Version	Lcdc	CTL	[0 to 0 / 0 / 0]
7-911-009	Firmware Version	Bank	CTL	[0 to 0 / 0 / 0]
7-911-012	Firmware Version	FCU	CTL	[0 to 0 / 0 / 0]
7-911-018	Firmware Version	NetworkSupport	CTL	[0 to 0 / 0 / 0]
SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
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			or	Step]
			CTL	
7-911-019	Firmware Version	Bank2	CTL	[0 to 0 / 0 / 0]
7-911-022	Firmware Version	BIOS	CTL	[0 to 0 / 0 / 0]
7-911-023	Firmware Version	HDD Format Option	CTL	[0 to 0 / 0 / 0]
7-911-040	Firmware Version	Bank3	CTL	[0 to 0 / 0 / 0]
7-911-150	Firmware Version	RPCS	CTL	[0 to 0 / 0 / 0]
7-911-151	Firmware Version	PS	CTL	[0 to 0 / 0 / 0]
7-911-152	Firmware Version	RPDL	CTL	[0 to 0 / 0 / 0]
7-911-153	Firmware Version	R98	CTL	[0 to 0 / 0 / 0]
7-911-154	Firmware Version	R16	CTL	[0 to 0 / 0 / 0]
7-911-156	Firmware Version	R55	CTL	[0 to 0 / 0 / 0]
7-911-157	Firmware Version	RTIFF	CTL	[0 to 0 / 0 / 0]
7-911-158	Firmware Version	PCL	CTL	[0 to 0 / 0 / 0]
7-911-159	Firmware Version	PCLXL	CTL	[0 to 0 / 0 / 0]
7-911-160	Firmware Version	MSIS	CTL	[0 to 0 / 0 / 0]
7-911-162	Firmware Version	PDF	CTL	[0 to 0 / 0 / 0]
7-911-165	Firmware Version	PJL	CTL	[0 to 0 / 0 / 0]
7-911-166	Firmware Version	IPDS	CTL	[0 to 0 / 0 / 0]
7-911-167	Firmware Version	MediaPrint:JPEG	CTL	[0 to 0 / 0 / 0]
7-911-168	Firmware Version	MediaPrint:TIFF	CTL	[0 to 0 / 0 / 0]
7-911-169	Firmware Version	XPS	CTL	[0 to 0 / 0 / 0]
7-911-180	Firmware Version	FONT	CTL	[0 to 0 / 0 / 0]
7-911-181	Firmware Version	FONT1	CTL	[0 to 0 / 0 / 0]
7-911-182	Firmware Version	FONT2	CTL	[0 to 0 / 0 / 0]
7-911-183	Firmware Version	FONT3	CTL	[0 to 0 / 0 / 0]
7-911-184	Firmware Version	FONT4	CTL	[0 to 0 / 0 / 0]
7-911-185	Firmware Version	FONT5	CTL	[0 to 0 / 0 / 0]
7-911-186	Firmware Version	FONT6	CTL	[0 to 0 / 0 / 0]
7-911-187	Firmware Version	FONT7	CTL	[0 to 0 / 0 / 0]
7-911-200	Firmware Version	Factory	CTL	[0 to 0 / 0 / 0]
7-911-201	Firmware Version	Сору	CTL	[0 to 0 / 0 / 0]
7-911-202	Firmware Version	NetworkDocBox	CTL	[0 to 0 / 0 / 0]
7-911-203	Firmware Version	Fax	CTL	[0 to 0 / 0 / 0]
7-911-204	Firmware Version	Printer	CTL	[0 to 0 / 0 / 0]
7-911-205	Firmware Version	Scanner	CTL	[0 to 0 / 0 / 0]
7-911-206	Firmware Version	RFax	CTL	[0 to 0 / 0 / 0]

5.SP Mode Tables (for MF Model)

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. /
			or	Step]
			CTL	
7-911-210	Firmware Version	MIB	CTL	[0 to 0 / 0 / 0]
7-911-211	Firmware Version	Websupport	CTL	[0 to 0 / 0 / 0]
7-911-212	Firmware Version	WebUapl	CTL	[0 to 0 / 0 / 0]
7-911-213	Firmware Version	SDK1	CTL	[0 to 0 / 0 / 0]
7-911-214	Firmware Version	SDK2	CTL	[0 to 0 / 0 / 0]
7-911-215	Firmware Version	SDK3	CTL	[0 to 0 / 0 / 0]
7-911-250	Firmware Version	Package	CTL	[0 to 0 / 0 / 0]

SP8-XXX (Data Log 2) - Controller

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-001-001	T:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-002-001	C:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-003-001	F:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-004-001	P:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-005-001	S:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-006-001	L:Total Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-011-001	T:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-012-001	C:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-013-001	F:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-014-001	P:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-015-001	S:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-016-001	L:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-017-001	O:Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-021-001	T:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-022-001	C:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-023-001	F:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-024-001	P:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-025-001	S:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-026-001	L:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-027-001	O:Pjob/LS		CTL*	[0 to 99999999 / 0 / 1]
8-031-001	T:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-032-001	C:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-033-001	F:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-034-001	P:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-035-001	S:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-036-001	L:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-037-001	O:Pjob/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-041-001	T:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-042-001	C:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-043-001	F:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-044-001	P:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-045-001	S:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-046-001	L:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-047-001	O:TX Jobs/LS		CTL*	[0 to 99999999 / 0 / 1]
8-051-001	T:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-052-001	C:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-053-001	F:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-054-001	P:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-055-001	S:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-056-001	L:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-057-001	O:TX Jobs/DesApl		CTL*	[0 to 99999999 / 0 / 1]
8-061-001	T:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-061-002	T:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-061-003	T:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-061-004	T:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-061-005	T:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-006	T:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-061-007	T:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-061-008	T:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-009	T:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-010	T:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-011	T:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-012	T:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-061-013	T:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-061-014	T:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-061-015	T:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-061-016	T:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-062-001	C:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-062-002	C:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-062-003	C:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-062-004	C:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-062-005	C:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-006	C:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-062-007	C:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-062-008	C:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-009	C:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-010	C:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-011	C:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-012	C:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-062-013	C:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-062-014	C:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-062-015	C:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-062-016	C:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-063-001	F:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-063-002	F:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-063-003	F:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-063-004	F:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-063-005	F:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-006	F:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-063-007	F:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-063-008	F:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-009	F:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-010	F:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-011	F:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-012	F:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-063-013	F:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-063-014	F:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-063-015	F:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-063-016	F:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-064-001	P:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-064-002	P:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-064-003	P:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-064-004	P:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-064-005	P:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-006	P:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-064-007	P:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-064-008	P:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-009	P:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-010	P:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-011	P:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-012	P:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-064-013	P:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-064-014	P:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-064-015	P:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-064-016	P:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-065-001	S:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-065-002	S:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-065-003	S:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-065-004	S:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-065-005	S:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-006	S:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-065-007	S:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-065-008	S:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-009	S:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-010	S:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-011	S:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-012	S:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-065-013	S:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-065-014	S:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-065-015	S:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-065-016	S:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-066-001	L:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-066-002	L:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-066-003	L:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-066-004	L:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-066-005	L:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-006	L:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-066-007	L:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-066-008	L:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-009	L:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-010	L:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-011	L:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-012	L:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-066-013	L:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-066-014	L:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-066-015	L:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-066-016	L:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-067-001	O:FIN Jobs	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-067-002	O:FIN Jobs	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-067-003	O:FIN Jobs	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-067-004	O:FIN Jobs	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-067-005	O:FIN Jobs	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-006	O:FIN Jobs	Punch	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-067-007	O:FIN Jobs	Other	CTL*	[0 to 99999999 / 0 / 1]
8-067-008	O:FIN Jobs	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-009	O:FIN Jobs	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-010	O:FIN Jobs	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-011	O:FIN Jobs	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-012	O:FIN Jobs	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-067-013	O:FIN Jobs	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-067-014	O:FIN Jobs	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-067-015	O:FIN Jobs	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-067-016	O:FIN Jobs	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-071-001	T:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-071-002	T:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-003	T:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-004	T:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-005	T:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-006	T:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-007	T:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-008	T:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-009	T:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-010	T:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-011	T:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-012	T:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-013	T:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-071-014	T:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-001	C:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-072-002	C:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-003	C:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-004	C:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-005	C:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-006	C:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-007	C:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-008	C:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-009	C:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-010	C:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-011	C:Jobs/PGS	301~500 Pages	CTL*	[0 to 999999999 / 0 / 1]
8-072-012	C:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-072-013	C:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-072-014	C:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-001	F:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-073-002	F:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-003	F:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-004	F:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-005	F:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-006	F:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-007	F:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-008	F:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-009	F:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-010	F:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-011	F:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-012	F:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-013	F:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-073-014	F:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-001	P:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-074-002	P:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-003	P:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-004	P:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-005	P:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-006	P:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-007	P:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-008	P:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-009	P:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-010	P:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-011	P:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-012	P:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-013	P:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-074-014	P:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-001	S:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-075-002	S:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-003	S:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-004	S:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-005	S:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-006	S:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-075-007	S:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-008	S:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-009	S:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-010	S:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-011	S:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-012	S:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-013	S:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-075-014	S:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-001	L:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-076-002	L:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-003	L:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-004	L:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-005	L:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-006	L:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-007	L:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-008	L:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-009	L:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-010	L:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-011	L:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-012	L:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-013	L:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-076-014	L:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-001	O:Jobs/PGS	1 Page	CTL*	[0 to 99999999 / 0 / 1]
8-077-002	O:Jobs/PGS	2 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-003	O:Jobs/PGS	3 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-004	O:Jobs/PGS	4 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-005	O:Jobs/PGS	5 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-006	O:Jobs/PGS	6~10 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-007	O:Jobs/PGS	11~20 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-008	O:Jobs/PGS	21~50 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-009	O:Jobs/PGS	51~100 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-010	O:Jobs/PGS	101~300 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-011	O:Jobs/PGS	301~500 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-012	O:Jobs/PGS	501~700 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-013	O:Jobs/PGS	701~1000 Pages	CTL*	[0 to 99999999 / 0 / 1]
8-077-014	O:Jobs/PGS	1001~ Pages	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-081-001	T:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-082-001	C:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-083-001	F:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-084-001	P:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-085-001	S:Smart Device	Smart Device	CTL*	[0 to 99999999 / 0 / 1]
8-111-001	T:FAX TX Jobs	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-111-101	T:FAX TX Jobs	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-113-001	F:FAX TX Jobs	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-113-101	F:FAX TX Jobs	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-121-001	T:IFAX TX Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-123-001	F:IFAX TX Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-131-001	T:S-to-Email Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-131-002	T:S-to-Email Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-131-003	T:S-to-Email Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-135-001	S:S-to-Email Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-135-002	S:S-to-Email Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-135-003	S:S-to-Email Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-141-001	T:Deliv Jobs/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-141-002	T:Deliv Jobs/Svr	Color	CTL*	[0 to 99999999 / 0 / 1]
8-141-003	T:Deliv Jobs/Svr	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-145-001	S:Deliv Jobs/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-145-002	S:Deliv Jobs/Svr	Color	CTL*	[0 to 99999999 / 0 / 1]
8-145-003	S:Deliv Jobs/Svr	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-151-001	T:Deliv Jobs/PC	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-151-002	T:Deliv Jobs/PC	Color	CTL*	[0 to 99999999 / 0 / 1]
8-151-003	T:Deliv Jobs/PC	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-155-001	S:Deliv Jobs/PC	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-155-002	S:Deliv Jobs/PC	Color	CTL*	[0 to 99999999 / 0 / 1]
8-155-003	S:Deliv Jobs/PC	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-161-001	T:PCFAX TX Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-163-001	F:PCFAX TX Jobs		CTL*	[0 to 99999999 / 0 / 1]
8-171-001	T:Deliv	B/W	CTL*	[0 to 99999999 / 0 / 1]
	Jobs/WSD/DSM			
8-171-002	T:Deliv	Color	CTL*	[0 to 99999999 / 0 / 1]
	Jobs/WSD/DSM			
8-171-003	T:Deliv	ACS	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
	Jobs/WSD/DSM			
8-175-001	S:Deliv	B/W	CTL*	[0 to 99999999 / 0 / 1]
	Jobs/WSD/DSM			
8-175-002	S:Deliv	Color	CTL*	[0 to 99999999 / 0 / 1]
	Jobs/WSD/DSM			
8-175-003	S:Deliv	ACS	CTL*	[0 to 99999999 / 0 / 1]
	Jobs/WSD/DSM			
8-181-001	T:Scan to Media Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-181-002	T:Scan to Media Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-181-003	T:Scan to Media Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-185-001	S:Scan to Media Jobs	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-185-002	S:Scan to Media Jobs	Color	CTL*	[0 to 99999999 / 0 / 1]
8-185-003	S:Scan to Media Jobs	ACS	CTL*	[0 to 99999999 / 0 / 1]
8-191-001	T:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-192-001	C:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-193-001	F:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-195-001	S:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-196-001	L:Total Scan PGS		CTL*	[0 to 99999999 / 0 / 1]
8-201-001	T:LSize Scan PGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1]
8-203-001	F:LSize Scan PGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1]
8-205-001	S:LSize Scan PGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1]
8-211-001	T:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-212-001	C:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-213-001	F:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-215-001	S:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-216-001	L:Scan PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-221-001	ADF Org Feeds	Front	CTL*	[0 to 99999999 / 0 / 1]
8-221-002	ADF Org Feeds	Back	CTL*	[0 to 99999999 / 0 / 1]
8-231-001	Scan PGS/Mode	Large Volume	CTL*	[0 to 99999999 / 0 / 1]
8-231-002	Scan PGS/Mode	SADF	CTL*	[0 to 99999999 / 0 / 1]
8-231-003	Scan PGS/Mode	Mixed Size	CTL*	[0 to 99999999 / 0 / 1]
8-231-004	Scan PGS/Mode	Custom Size	CTL*	[0 to 99999999 / 0 / 1]
8-231-005	Scan PGS/Mode	Platen	CTL*	[0 to 99999999 / 0 / 1]
8-231-006	Scan PGS/Mode	Mixed 1side/2side	CTL*	[0 to 99999999 / 0 / 1]
8-231-007	Scan PGS/Mode	ID card Feeder	CTL*	[0 to 99999999 / 0 / 1]
8-241-001	T:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-241-002	T:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-241-003	T:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-241-004	T:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1]
8-241-005	T:Scan PGS/Org	Мар	CTL*	[0 to 99999999 / 0 / 1]
8-241-006	T:Scan PGS/Org	Normal/Detail	CTL*	[0 to 99999999 / 0 / 1]
8-241-007	T:Scan PGS/Org	Fine/Super Fine	CTL*	[0 to 99999999 / 0 / 1]
8-241-008	T:Scan PGS/Org	Binary	CTL*	[0 to 99999999 / 0 / 1]
8-241-009	T:Scan PGS/Org	Grayscale	CTL*	[0 to 99999999 / 0 / 1]
8-241-010	T:Scan PGS/Org	Color	CTL*	[0 to 99999999 / 0 / 1]
8-241-011	T:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1]
8-242-001	C:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]
8-242-002	C:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-242-003	C:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-242-004	C:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1]
8-242-005	C:Scan PGS/Org	Мар	CTL*	[0 to 99999999 / 0 / 1]
8-242-011	C:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1]
8-243-001	F:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]
8-243-002	F:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-243-003	F:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-243-006	F:Scan PGS/Org	Normal/Detail	CTL*	[0 to 99999999 / 0 / 1]
8-243-007	F:Scan PGS/Org	Fine/Super Fine	CTL*	[0 to 99999999 / 0 / 1]
8-243-011	F:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1]
8-245-001	S:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]
8-245-002	S:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-245-003	S:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-245-004	S:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1]
8-245-008	S:Scan PGS/Org	Binary	CTL*	[0 to 99999999 / 0 / 1]
8-245-009	S:Scan PGS/Org	Grayscale	CTL*	[0 to 99999999 / 0 / 1]
8-245-010	S:Scan PGS/Org	Color	CTL*	[0 to 99999999 / 0 / 1]
8-245-011	S:Scan PGS/Org	Other	CTL*	[0 to 99999999 / 0 / 1]
8-246-001	L:Scan PGS/Org	Text	CTL*	[0 to 99999999 / 0 / 1]
8-246-002	L:Scan PGS/Org	Text/Photo	CTL*	[0 to 99999999 / 0 / 1]
8-246-003	L:Scan PGS/Org	Photo	CTL*	[0 to 99999999 / 0 / 1]
8-246-004	L:Scan PGS/Org	GenCopy, Pale	CTL*	[0 to 99999999 / 0 / 1]
8-246-005	L:Scan PGS/Org	Мар	CTL*	[0 to 99999999 / 0 / 1]
8-246-011	L:Scan PGS/Org	Other	CTL*	[0 to 999999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-251-001	T:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-252-001	C:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-255-001	S:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-256-001	L:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-257-001	O:Scan PGS/ImgEdt		CTL*	[0 to 99999999 / 0 / 1]
8-281-001	T:Scan PGS/TWAIN		CTL*	[0 to 99999999 / 0 / 1]
8-285-001	S:Scan PGS/TWAIN		CTL*	[0 to 99999999 / 0 / 1]
8-291-001	T:Scan PGS/Stamp		CTL*	[0 to 99999999 / 0 / 1]
8-293-001	F:Scan PGS/Stamp		CTL*	[0 to 99999999 / 0 / 1]
8-295-001	S:Scan PGS/Stamp		CTL*	[0 to 99999999 / 0 / 1]
8-301-001	T:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-301-002	T:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-301-003	T:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-301-004	T:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-301-005	T:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-301-006	T:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-301-007	T:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-301-008	T:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-301-009	T:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-301-010	T:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-301-254	T:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-301-255	T:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-302-001	C:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-302-002	C:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-302-003	C:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-302-004	C:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-302-005	C:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-302-006	C:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-302-007	C:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-302-008	C:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-302-009	C:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-302-010	C:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-302-254	C:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-302-255	C:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-303-001	F:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-303-002	F:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-303-003	F:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-303-004	F:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-303-005	F:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-303-006	F:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-303-007	F:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-303-008	F:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-303-009	F:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-303-010	F:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-303-254	F:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-303-255	F:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-305-001	S:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-305-002	S:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-305-003	S:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-305-004	S:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-305-005	S:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-305-006	S:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-305-007	S:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-305-008	S:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-305-009	S:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-305-010	S:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-305-254	S:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-305-255	S:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-306-001	L:Scan PGS/Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-306-002	L:Scan PGS/Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-306-003	L:Scan PGS/Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-306-004	L:Scan PGS/Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-306-005	L:Scan PGS/Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-306-006	L:Scan PGS/Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-306-007	L:Scan PGS/Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-306-008	L:Scan PGS/Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-306-009	L:Scan PGS/Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-306-010	L:Scan PGS/Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-306-254	L:Scan PGS/Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-306-255	L:Scan PGS/Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-311-001	T:Scan PGS/Rez	1200dpi ~	CTL*	[0 to 99999999 / 0 / 1]
8-311-002	T:Scan PGS/Rez	600dpi~1199dpi	CTL*	[0 to 999999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-311-003	T:Scan PGS/Rez	400dpi~599dpi	CTL*	[0 to 99999999 / 0 / 1]
8-311-004	T:Scan PGS/Rez	200dpi~399dpi	CTL*	[0 to 99999999 / 0 / 1]
8-311-005	T:Scan PGS/Rez	~199dpi	CTL*	[0 to 99999999 / 0 / 1]
8-315-001	S:Scan PGS/Rez	1200dpi ~	CTL*	[0 to 99999999 / 0 / 1]
8-315-002	S:Scan PGS/Rez	600dpi~1199dpi	CTL*	[0 to 99999999 / 0 / 1]
8-315-003	S:Scan PGS/Rez	400dpi~599dpi	CTL*	[0 to 99999999 / 0 / 1]
8-315-004	S:Scan PGS/Rez	200dpi~399dpi	CTL*	[0 to 99999999 / 0 / 1]
8-315-005	S:Scan PGS/Rez	~199dpi	CTL*	[0 to 99999999 / 0 / 1]
8-321-001	T:Sacn Poster	2 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-321-002	T:Sacn Poster	4 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-321-003	T:Sacn Poster	9 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-322-001	C:Sacn Poster	2 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-322-002	C:Sacn Poster	4 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-322-003	C:Sacn Poster	9 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-326-001	L:Sacn Poster	2 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-326-002	L:Sacn Poster	4 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-326-003	L:Sacn Poster	9 Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-381-001	T:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-382-001	C:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-383-001	F:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-384-001	P:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-385-001	S:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-386-001	L:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-387-001	O:Total PrtPGS	Field Number	CTL*	[0 to 99999999 / 0 / 1]
8-391-001	LSize PrtPGS	A3/DLT, Larger	CTL*	[0 to 99999999 / 0 / 1]
8-401-001	T:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-402-001	C:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-403-001	F:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-404-001	P:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-405-001	S:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-406-001	L:PrtPGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-411-001	Prints/Duplex		CTL*	[0 to 99999999 / 0 / 1]
8-421-001	T:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-421-002	T:PrtPGS/Dup Comb	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-421-003	T:PrtPGS/Dup Comb	Book> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-421-004	T:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-421-005	T:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-421-006	T:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-007	T:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-008	T:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-009	T:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-010	T:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-011	T:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-421-012	T:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-013	T:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-014	T:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-015	T:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-016	T:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-017	T:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-018	T:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-421-019	T:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-020	T:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-021	T:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-022	T:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-023	T:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-421-024	T:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-422-001	C:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-422-002	C:PrtPGS/Dup Comb	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-422-003	C:PrtPGS/Dup Comb	Book> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-422-004	C:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-422-005	C:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-422-006	C:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-422-007	C:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-422-009	C:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-422-012	C:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-422-013	C:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-422-014	C:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-422-015	C:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-422-017	C:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-422-019	C:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-422-020	C:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-422-022	C:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 999999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-423-001	F:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-423-004	F:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-423-005	F:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-423-006	F:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-423-007	F:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-423-009	F:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-423-011	F:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-423-012	F:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-423-013	F:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-423-014	F:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-423-015	F:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-423-017	F:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-423-019	F:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-423-020	F:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-423-022	F:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-423-024	F:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-001	P:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-424-004	P:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-424-005	P:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-424-006	P:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-007	P:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-008	P:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-009	P:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-010	P:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-011	P:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-424-012	P:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-013	P:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-014	P:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-015	P:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-016	P:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-017	P:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-018	P:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-424-019	P:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-020	P:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-021	P:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-022	P:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-424-023	P:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-424-024	P:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-001	S:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-425-004	S:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-425-005	S:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-425-006	S:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-007	S:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-009	S:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-010	S:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-011	S:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-425-012	S:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-013	S:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-014	S:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-015	S:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-017	S:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-018	S:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-425-019	S:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-020	S:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-022	S:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-023	S:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-425-024	S:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-426-001	L:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-426-004	L:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-426-005	L:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-426-006	L:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-426-007	L:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-426-009	L:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-426-011	L:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-426-012	L:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-426-013	L:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-426-014	L:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-426-015	L:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-426-017	L:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-426-019	L:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-426-020	L:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-426-022	L:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-426-024	L:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-001	O:PrtPGS/Dup Comb	Simplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-427-002	O:PrtPGS/Dup Comb	Duplex> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-427-003	O:PrtPGS/Dup Comb	Book> Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-427-004	O:PrtPGS/Dup Comb	Simplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-427-005	O:PrtPGS/Dup Comb	Duplex Combine	CTL*	[0 to 99999999 / 0 / 1]
8-427-006	O:PrtPGS/Dup Comb	2in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-007	O:PrtPGS/Dup Comb	4in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-008	O:PrtPGS/Dup Comb	6in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-009	O:PrtPGS/Dup Comb	8in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-010	O:PrtPGS/Dup Comb	9in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-011	O:PrtPGS/Dup Comb	16in1	CTL*	[0 to 99999999 / 0 / 1]
8-427-012	O:PrtPGS/Dup Comb	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-013	O:PrtPGS/Dup Comb	Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-014	O:PrtPGS/Dup Comb	2in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-015	O:PrtPGS/Dup Comb	4in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-016	O:PrtPGS/Dup Comb	6in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-017	O:PrtPGS/Dup Comb	8in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-018	O:PrtPGS/Dup Comb	9in1 + Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-427-019	O:PrtPGS/Dup Comb	2in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-020	O:PrtPGS/Dup Comb	4in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-021	O:PrtPGS/Dup Comb	6in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-022	O:PrtPGS/Dup Comb	8in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-023	O:PrtPGS/Dup Comb	9in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-427-024	O:PrtPGS/Dup Comb	16in1 + Magazine	CTL*	[0 to 99999999 / 0 / 1]
8-431-001	T:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-431-002	T:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]
8-431-003	T:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-432-001	C:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-432-002	C:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]
8-432-003	C:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-434-001	P:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-434-002	P:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]
8-434-003	P:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-436-001	L:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-436-002	L:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-436-003	L:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-437-001	O:PrtPGS/ImgEdt	Cover/Slip Sheet	CTL*	[0 to 99999999 / 0 / 1]
8-437-002	O:PrtPGS/ImgEdt	Series/Book	CTL*	[0 to 99999999 / 0 / 1]
8-437-003	O:PrtPGS/ImgEdt	User Stamp	CTL*	[0 to 99999999 / 0 / 1]
8-441-001	T:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-441-002	T:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-441-003	T:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-441-004	T:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-441-005	T:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-441-006	T:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-441-007	T:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-441-008	T:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-441-009	T:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-441-010	T:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-441-254	T:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-441-255	T:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-442-001	C:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-442-002	C:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-442-003	C:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-442-004	C:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-442-005	C:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-442-006	C:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-442-007	C:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-442-008	C:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-442-009	C:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-442-010	C:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-442-254	C:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-442-255	C:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-443-001	F:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-443-002	F:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-443-003	F:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-443-004	F:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-443-005	F:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-443-006	F:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-443-007	F:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-443-008	F:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-443-009	F:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-443-010	F:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-443-254	F:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-443-255	F:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-444-001	P:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-444-002	P:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-444-003	P:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-444-004	P:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-444-005	P:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-444-006	P:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-444-007	P:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-444-008	P:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-444-009	P:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-444-010	P:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-444-254	P:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-444-255	P:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-445-001	S:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-445-002	S:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-445-003	S:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-445-004	S:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-445-005	S:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-445-006	S:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-445-007	S:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-445-008	S:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-445-009	S:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-445-010	S:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-445-254	S:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-445-255	S:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-446-001	L:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-446-002	L:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-446-003	L:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-446-004	L:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-446-005	L:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-446-006	L:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-446-007	L:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-446-008	L:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-446-009	L:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-446-010	L:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-446-254	L:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-446-255	L:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-447-001	O:PrtPGS/Ppr Size	A3	CTL*	[0 to 99999999 / 0 / 1]
8-447-002	O:PrtPGS/Ppr Size	A4	CTL*	[0 to 99999999 / 0 / 1]
8-447-003	O:PrtPGS/Ppr Size	A5	CTL*	[0 to 99999999 / 0 / 1]
8-447-004	O:PrtPGS/Ppr Size	B4	CTL*	[0 to 99999999 / 0 / 1]
8-447-005	O:PrtPGS/Ppr Size	B5	CTL*	[0 to 99999999 / 0 / 1]
8-447-006	O:PrtPGS/Ppr Size	DLT	CTL*	[0 to 99999999 / 0 / 1]
8-447-007	O:PrtPGS/Ppr Size	LG	CTL*	[0 to 99999999 / 0 / 1]
8-447-008	O:PrtPGS/Ppr Size	LT	CTL*	[0 to 99999999 / 0 / 1]
8-447-009	O:PrtPGS/Ppr Size	HLT	CTL*	[0 to 99999999 / 0 / 1]
8-447-010	O:PrtPGS/Ppr Size	Full Bleed	CTL*	[0 to 99999999 / 0 / 1]
8-447-254	O:PrtPGS/Ppr Size	Other (Standard)	CTL*	[0 to 99999999 / 0 / 1]
8-447-255	O:PrtPGS/Ppr Size	Other (Custom)	CTL*	[0 to 99999999 / 0 / 1]
8-451-001	PrtPGS/Ppr Tray	Bypass Tray	CTL*	[0 to 99999999 / 0 / 1]
8-451-002	PrtPGS/Ppr Tray	Tray 1	CTL*	[0 to 99999999 / 0 / 1]
8-451-003	PrtPGS/Ppr Tray	Tray 2	CTL*	[0 to 99999999 / 0 / 1]
8-451-004	PrtPGS/Ppr Tray	Tray 3	CTL*	[0 to 99999999 / 0 / 1]
8-451-005	PrtPGS/Ppr Tray	Tray 4	CTL*	[0 to 99999999 / 0 / 1]
8-451-006	PrtPGS/Ppr Tray	Tray 5	CTL*	[0 to 99999999 / 0 / 1]
8-451-007	PrtPGS/Ppr Tray	Tray 6	CTL*	[0 to 99999999 / 0 / 1]
8-451-008	PrtPGS/Ppr Tray	Tray 7	CTL*	[0 to 99999999 / 0 / 1]
8-451-009	PrtPGS/Ppr Tray	Tray 8	CTL*	[0 to 99999999 / 0 / 1]
8-451-010	PrtPGS/Ppr Tray	Tray 9	CTL*	[0 to 99999999 / 0 / 1]
8-451-011	PrtPGS/Ppr Tray	Tray 10	CTL*	[0 to 99999999 / 0 / 1]
8-451-012	PrtPGS/Ppr Tray	Tray 11	CTL*	[0 to 99999999 / 0 / 1]
8-451-013	PrtPGS/Ppr Tray	Tray 12	CTL*	[0 to 99999999 / 0 / 1]
8-451-014	PrtPGS/Ppr Tray	Tray 13	CTL*	[0 to 99999999 / 0 / 1]
8-451-015	PrtPGS/Ppr Tray	Tray 14	CTL*	[0 to 99999999 / 0 / 1]
8-451-016	PrtPGS/Ppr Tray	Tray 15	CTL*	[0 to 99999999 / 0 / 1]
8-451-101	PrtPGS/Ppr Tray	LC Inserter	CTL*	[0 to 99999999 / 0 / 1]
8-451-102	PrtPGS/Ppr Tray	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-461-001	T:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-461-002	T:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-461-003	T:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-461-004	T:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-461-005	T:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-461-006	T:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-461-007	T:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-461-008	T:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-462-001	C:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-462-002	C:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-462-003	C:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-462-004	C:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-462-005	C:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-462-006	C:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-462-007	C:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-462-008	C:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-463-001	F:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-463-002	F:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-463-003	F:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-463-004	F:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-463-005	F:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-463-006	F:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-463-007	F:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-463-008	F:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-464-001	P:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-464-002	P:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-464-003	P:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-464-004	P:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-464-005	P:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-464-006	P:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-464-007	P:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-464-008	P:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-466-001	L:PrtPGS/Ppr Type	Normal	CTL*	[0 to 99999999 / 0 / 1]
8-466-002	L:PrtPGS/Ppr Type	Recycled	CTL*	[0 to 99999999 / 0 / 1]
8-466-003	L:PrtPGS/Ppr Type	Special	CTL*	[0 to 99999999 / 0 / 1]
8-466-004	L:PrtPGS/Ppr Type	Thick	CTL*	[0 to 99999999 / 0 / 1]
8-466-005	L:PrtPGS/Ppr Type	Normal (Back)	CTL*	[0 to 99999999 / 0 / 1]
8-466-006	L:PrtPGS/Ppr Type	Thick (Back)	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-466-007	L:PrtPGS/Ppr Type	OHP	CTL*	[0 to 99999999 / 0 / 1]
8-466-008	L:PrtPGS/Ppr Type	Other	CTL*	[0 to 99999999 / 0 / 1]
8-471-001	PrtPGS/Mag	~49%	CTL*	[0 to 99999999 / 0 / 1]
8-471-002	PrtPGS/Mag	50%~99%	CTL*	[0 to 99999999 / 0 / 1]
8-471-003	PrtPGS/Mag	100%	CTL*	[0 to 99999999 / 0 / 1]
8-471-004	PrtPGS/Mag	101%~200%	CTL*	[0 to 99999999 / 0 / 1]
8-471-005	PrtPGS/Mag	201% ~	CTL*	[0 to 99999999 / 0 / 1]
8-481-001	T:PrtPGS/TonSave		CTL*	[0 to 99999999 / 0 / 1]
8-484-001	P:PrtPGS/TonSave		CTL*	[0 to 99999999 / 0 / 1]
8-511-001	T:PrtPGS/Emul	RPCS	CTL*	[0 to 99999999 / 0 / 1]
8-511-002	T:PrtPGS/Emul	RPDL	CTL*	[0 to 99999999 / 0 / 1]
8-511-003	T:PrtPGS/Emul	PS3	CTL*	[0 to 99999999 / 0 / 1]
8-511-004	T:PrtPGS/Emul	R98	CTL*	[0 to 99999999 / 0 / 1]
8-511-005	T:PrtPGS/Emul	R16	CTL*	[0 to 99999999 / 0 / 1]
8-511-006	T:PrtPGS/Emul	GL/GL2	CTL*	[0 to 99999999 / 0 / 1]
8-511-007	T:PrtPGS/Emul	R55	CTL*	[0 to 99999999 / 0 / 1]
8-511-008	T:PrtPGS/Emul	RTIFF	CTL*	[0 to 99999999 / 0 / 1]
8-511-009	T:PrtPGS/Emul	PDF	CTL*	[0 to 99999999 / 0 / 1]
8-511-010	T:PrtPGS/Emul	PCL5e/5c	CTL*	[0 to 99999999 / 0 / 1]
8-511-011	T:PrtPGS/Emul	PCL XL	CTL*	[0 to 99999999 / 0 / 1]
8-511-012	T:PrtPGS/Emul	IPDL-C	CTL*	[0 to 99999999 / 0 / 1]
8-511-013	T:PrtPGS/Emul	BM-Links	CTL*	[0 to 99999999 / 0 / 1]
8-511-014	T:PrtPGS/Emul	Other	CTL*	[0 to 99999999 / 0 / 1]
8-511-015	T:PrtPGS/Emul	IPDS	CTL*	[0 to 99999999 / 0 / 1]
8-511-016	T:PrtPGS/Emul	XPS	CTL*	[0 to 99999999 / 0 / 1]
8-511-017	T:PrtPGS/Emul	IRIPS PS	CTL*	[0 to 99999999 / 0 / 1]
8-511-018	T:PrtPGS/Emul	IRIPS PDF	CTL*	[0 to 99999999 / 0 / 1]
8-511-019	T:PrtPGS/Emul	PictBridge	CTL*	[0 to 99999999 / 0 / 1]
8-511-020	T:PrtPGS/Emul	MediaPrintTIFF	CTL*	[0 to 99999999 / 0 / 1]
8-511-021	T:PrtPGS/Emul	MediaPrintJPEG	CTL*	[0 to 99999999 / 0 / 1]
8-514-001	P:PrtPGS/Emul	RPCS	CTL*	[0 to 99999999 / 0 / 1]
8-514-002	P:PrtPGS/Emul	RPDL	CTL*	[0 to 99999999 / 0 / 1]
8-514-003	P:PrtPGS/Emul	PS3	CTL*	[0 to 99999999 / 0 / 1]
8-514-004	P:PrtPGS/Emul	R98	CTL*	[0 to 99999999 / 0 / 1]
8-514-005	P:PrtPGS/Emul	R16	CTL*	[0 to 99999999 / 0 / 1]
8-514-006	P:PrtPGS/Emul	GL/GL2	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-514-007	P:PrtPGS/Emul	R55	CTL*	[0 to 99999999 / 0 / 1]
8-514-008	P:PrtPGS/Emul	RTIFF	CTL*	[0 to 99999999 / 0 / 1]
8-514-009	P:PrtPGS/Emul	PDF	CTL*	[0 to 99999999 / 0 / 1]
8-514-010	P:PrtPGS/Emul	PCL5e/5c	CTL*	[0 to 99999999 / 0 / 1]
8-514-011	P:PrtPGS/Emul	PCL XL	CTL*	[0 to 99999999 / 0 / 1]
8-514-012	P:PrtPGS/Emul	IPDL-C	CTL*	[0 to 99999999 / 0 / 1]
8-514-013	P:PrtPGS/Emul	BM-Links	CTL*	[0 to 99999999 / 0 / 1]
8-514-014	P:PrtPGS/Emul	Other	CTL*	[0 to 99999999 / 0 / 1]
8-514-015	P:PrtPGS/Emul	IPDS	CTL*	[0 to 99999999 / 0 / 1]
8-514-016	P:PrtPGS/Emul	XPS	CTL*	[0 to 99999999 / 0 / 1]
8-514-017	P:PrtPGS/Emul	IRIPS PS	CTL*	[0 to 99999999 / 0 / 1]
8-514-018	P:PrtPGS/Emul	IRIPS PDF	CTL*	[0 to 99999999 / 0 / 1]
8-514-019	P:PrtPGS/Emul	PictBridge	CTL*	[0 to 99999999 / 0 / 1]
8-514-020	P:PrtPGS/Emul	MediaPrintTIFF	CTL*	[0 to 99999999 / 0 / 1]
8-514-021	P:PrtPGS/Emul	MediaPrintJPEG	CTL*	[0 to 99999999 / 0 / 1]
8-521-001	T:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-521-002	T:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-521-003	T:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-521-004	T:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-521-005	T:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-006	T:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-521-007	T:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-521-008	T:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-009	T:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-010	T:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-011	T:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-012	T:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-521-013	T:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-521-014	T:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-521-015	T:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-521-016	T:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-522-001	C:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-522-002	C:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-522-003	C:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-522-004	C:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-522-005	C:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]	
			or CTL		
8-522-006	C:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]	
8-522-007	C:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]	
8-522-008	C:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-522-009	C:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-522-010	C:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-522-011	C:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-522-012	C:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-522-013	C:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-522-014	C:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-522-015	C:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]	
8-522-016	C:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-523-001	F:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]	
8-523-002	F:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]	
8-523-003	F:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]	
8-523-004	F:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]	
8-523-005	F:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-523-006	F:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]	
8-523-007	F:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]	
8-523-008	F:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-523-009	F:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-523-010	F:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-523-011	F:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-523-012	F:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-523-013	F:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-523-014	F:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-523-015	F:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]	
8-523-016	F:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-524-001	P:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]	
8-524-002	P:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]	
8-524-003	P:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]	
8-524-004	P:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]	
8-524-005	P:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-524-006	P:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]	
8-524-007	P:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]	
8-524-008	P:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]	
8-524-009	P:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]	

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-524-010	P:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-011	P:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-012	P:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-524-013	P:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-524-014	P:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-524-015	P:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-524-016	P:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-525-001	S:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-525-002	S:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-525-003	S:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-525-004	S:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-525-005	S:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-006	S:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-525-007	S:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-525-008	S:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-009	S:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-010	S:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-011	S:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-012	S:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-525-013	S:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-525-014	S:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-525-015	S:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]
8-525-016	S:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]
8-526-001	L:PrtPGS/FIN	Sort	CTL*	[0 to 99999999 / 0 / 1]
8-526-002	L:PrtPGS/FIN	Stack	CTL*	[0 to 99999999 / 0 / 1]
8-526-003	L:PrtPGS/FIN	Staple	CTL*	[0 to 99999999 / 0 / 1]
8-526-004	L:PrtPGS/FIN	Booklet	CTL*	[0 to 99999999 / 0 / 1]
8-526-005	L:PrtPGS/FIN	Z-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-006	L:PrtPGS/FIN	Punch	CTL*	[0 to 99999999 / 0 / 1]
8-526-007	L:PrtPGS/FIN	Other	CTL*	[0 to 99999999 / 0 / 1]
8-526-008	L:PrtPGS/FIN	Inside-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-009	L:PrtPGS/FIN	Three-IN-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-010	L:PrtPGS/FIN	Three-OUT-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-011	L:PrtPGS/FIN	Four-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-012	L:PrtPGS/FIN	KANNON-Fold	CTL*	[0 to 99999999 / 0 / 1]
8-526-013	L:PrtPGS/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]	
			or CTL		
8-526-014	L:PrtPGS/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-526-015	L:PrtPGS/FIN	3rd Vendor	CTL*	[0 to 99999999 / 0 / 1]	
8-526-016	L:PrtPGS/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-531-001	Staple	Staples	CTL*	[0 to 99999999 / 0 / 1]	
8-531-002	Staple	Stapless	CTL*	[0 to 99999999 / 0 / 1]	
8-551-001	T:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-551-002	T:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-551-003	T:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-552-001	C:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-552-002	C:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-552-003	C:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-554-001	P:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-554-002	P:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-554-003	P:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-556-001	L:PrtBooks/FIN	Perfect-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-556-002	L:PrtBooks/FIN	Ring-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-556-003	L:PrtBooks/FIN	TwinLoop-Bind	CTL*	[0 to 99999999 / 0 / 1]	
8-561-001	T:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-561-002	T:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-561-003	T:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-561-004	T:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-562-001	C:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-562-002	C:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-562-003	C:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-562-004	C:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-563-001	F:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-563-002	F:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-563-003	F:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-563-004	F:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-564-001	P:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-564-002	P:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-564-003	P:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-564-004	P:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-566-001	L:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-566-002	L:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-566-003	L:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]	
			or CTL		
8-566-004	L:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-567-001	O:A Sheet Of Paper	Total: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-567-002	O:A Sheet Of Paper	Total: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-567-003	O:A Sheet Of Paper	Duplex: Over A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-567-004	O:A Sheet Of Paper	Duplex: Under A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-581-001	T:Counter	Total	CTL*	[0 to 99999999 / 0 / 1]	
8-581-032	T:Counter	Total(A3)	CTL*	[0 to 99999999 / 0 / 1]	
8-591-001	O:Counter	A3/DLT	CTL*	[0 to 99999999 / 0 / 1]	
8-591-002	O:Counter	Duplex	CTL*	[0 to 99999999 / 0 / 1]	
8-601-001	T:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]	
8-601-011	T:Coverage Counter	B/W Printing Pages	CTL*	[0 to 99999999 / 0 / 1]	
8-602-001	C:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]	
8-603-001	F:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]	
8-604-001	P:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]	
8-606-001	L:Coverage Counter	B/W	CTL*	[0 to 2147483647 / 0 / 1%]	
8-617-001	SDK Apli Counter	SDK-1	CTL*	[0 to 99999999 / 0 / 1]	
8-617-002	SDK Apli Counter	SDK-2	CTL*	[0 to 99999999 / 0 / 1]	
8-617-003	SDK Apli Counter	SDK-3	CTL*	[0 to 99999999 / 0 / 1]	
8-617-004	SDK Apli Counter	SDK-4	CTL*	[0 to 99999999 / 0 / 1]	
8-617-005	SDK Apli Counter	SDK-5	CTL*	[0 to 99999999 / 0 / 1]	
8-617-006	SDK Apli Counter	SDK-6	CTL*	[0 to 99999999 / 0 / 1]	
8-617-007	SDK Apli Counter	SDK-7	CTL*	[0 to 99999999 / 0 / 1]	
8-617-008	SDK Apli Counter	SDK-8	CTL*	[0 to 99999999 / 0 / 1]	
8-617-009	SDK Apli Counter	SDK-9	CTL*	[0 to 99999999 / 0 / 1]	
8-617-010	SDK Apli Counter	SDK-10	CTL*	[0 to 99999999 / 0 / 1]	
8-617-011	SDK Apli Counter	SDK-11	CTL*	[0 to 99999999 / 0 / 1]	
8-617-012	SDK Apli Counter	SDK-12	CTL*	[0 to 99999999 / 0 / 1]	
8-621-001	Func Use Counter	Function-001	CTL*	[0 to 99999999 / 0 / 1]	
8-621-002	Func Use Counter	Function-002	CTL*	[0 to 99999999 / 0 / 1]	
8-621-003	Func Use Counter	Function-003	CTL*	[0 to 99999999 / 0 / 1]	
8-621-004	Func Use Counter	Function-004	CTL*	[0 to 99999999 / 0 / 1]	
8-621-005	Func Use Counter	Function-005	CTL*	[0 to 99999999 / 0 / 1]	
8-621-006	Func Use Counter	Function-006	CTL*	[0 to 99999999 / 0 / 1]	
8-621-007	Func Use Counter	Function-007	CTL*	[0 to 99999999 / 0 / 1]	
8-621-008	Func Use Counter	Function-008	CTL*	[0 to 99999999 / 0 / 1]	
8-621-009	Func Use Counter	Function-009	CTL*	[0 to 99999999 / 0 / 1]	

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-621-010	Func Use Counter	Function-010	CTL*	[0 to 99999999 / 0 / 1]
8-621-011	Func Use Counter	Function-011	CTL*	[0 to 99999999 / 0 / 1]
8-621-012	Func Use Counter	Function-012	CTL*	[0 to 99999999 / 0 / 1]
8-621-013	Func Use Counter	Function-013	CTL*	[0 to 99999999 / 0 / 1]
8-621-014	Func Use Counter	Function-014	CTL*	[0 to 99999999 / 0 / 1]
8-621-015	Func Use Counter	Function-015	CTL*	[0 to 99999999 / 0 / 1]
8-621-016	Func Use Counter	Function-016	CTL*	[0 to 99999999 / 0 / 1]
8-621-017	Func Use Counter	Function-017	CTL*	[0 to 99999999 / 0 / 1]
8-621-018	Func Use Counter	Function-018	CTL*	[0 to 99999999 / 0 / 1]
8-621-019	Func Use Counter	Function-019	CTL*	[0 to 99999999 / 0 / 1]
8-621-020	Func Use Counter	Function-020	CTL*	[0 to 99999999 / 0 / 1]
8-621-021	Func Use Counter	Function-021	CTL*	[0 to 99999999 / 0 / 1]
8-621-022	Func Use Counter	Function-022	CTL*	[0 to 99999999 / 0 / 1]
8-621-023	Func Use Counter	Function-023	CTL*	[0 to 99999999 / 0 / 1]
8-621-024	Func Use Counter	Function-024	CTL*	[0 to 99999999 / 0 / 1]
8-621-025	Func Use Counter	Function-025	CTL*	[0 to 99999999 / 0 / 1]
8-621-026	Func Use Counter	Function-026	CTL*	[0 to 99999999 / 0 / 1]
8-621-027	Func Use Counter	Function-027	CTL*	[0 to 99999999 / 0 / 1]
8-621-028	Func Use Counter	Function-028	CTL*	[0 to 99999999 / 0 / 1]
8-621-029	Func Use Counter	Function-029	CTL*	[0 to 99999999 / 0 / 1]
8-621-030	Func Use Counter	Function-030	CTL*	[0 to 99999999 / 0 / 1]
8-621-031	Func Use Counter	Function-031	CTL*	[0 to 99999999 / 0 / 1]
8-621-032	Func Use Counter	Function-032	CTL*	[0 to 99999999 / 0 / 1]
8-621-033	Func Use Counter	Function-033	CTL*	[0 to 99999999 / 0 / 1]
8-621-034	Func Use Counter	Function-034	CTL*	[0 to 99999999 / 0 / 1]
8-621-035	Func Use Counter	Function-035	CTL*	[0 to 99999999 / 0 / 1]
8-621-036	Func Use Counter	Function-036	CTL*	[0 to 99999999 / 0 / 1]
8-621-037	Func Use Counter	Function-037	CTL*	[0 to 99999999 / 0 / 1]
8-621-038	Func Use Counter	Function-038	CTL*	[0 to 99999999 / 0 / 1]
8-621-039	Func Use Counter	Function-039	CTL*	[0 to 99999999 / 0 / 1]
8-621-040	Func Use Counter	Function-040	CTL*	[0 to 99999999 / 0 / 1]
8-621-041	Func Use Counter	Function-041	CTL*	[0 to 99999999 / 0 / 1]
8-621-042	Func Use Counter	Function-042	CTL*	[0 to 99999999 / 0 / 1]
8-621-043	Func Use Counter	Function-043	CTL*	[0 to 99999999 / 0 / 1]
8-621-044	Func Use Counter	Function-044	CTL*	[0 to 99999999 / 0 / 1]
8-621-045	Func Use Counter	Function-045	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-621-046	Func Use Counter	Function-046	CTL*	[0 to 99999999 / 0 / 1]
8-621-047	Func Use Counter	Function-047	CTL*	[0 to 99999999 / 0 / 1]
8-621-048	Func Use Counter	Function-048	CTL*	[0 to 99999999 / 0 / 1]
8-621-049	Func Use Counter	Function-049	CTL*	[0 to 99999999 / 0 / 1]
8-621-050	Func Use Counter	Function-050	CTL*	[0 to 99999999 / 0 / 1]
8-621-051	Func Use Counter	Function-051	CTL*	[0 to 99999999 / 0 / 1]
8-621-052	Func Use Counter	Function-052	CTL*	[0 to 99999999 / 0 / 1]
8-621-053	Func Use Counter	Function-053	CTL*	[0 to 99999999 / 0 / 1]
8-621-054	Func Use Counter	Function-054	CTL*	[0 to 99999999 / 0 / 1]
8-621-055	Func Use Counter	Function-055	CTL*	[0 to 99999999 / 0 / 1]
8-621-056	Func Use Counter	Function-056	CTL*	[0 to 99999999 / 0 / 1]
8-621-057	Func Use Counter	Function-057	CTL*	[0 to 99999999 / 0 / 1]
8-621-058	Func Use Counter	Function-058	CTL*	[0 to 99999999 / 0 / 1]
8-621-059	Func Use Counter	Function-059	CTL*	[0 to 99999999 / 0 / 1]
8-621-060	Func Use Counter	Function-060	CTL*	[0 to 99999999 / 0 / 1]
8-621-061	Func Use Counter	Function-061	CTL*	[0 to 99999999 / 0 / 1]
8-621-062	Func Use Counter	Function-062	CTL*	[0 to 99999999 / 0 / 1]
8-621-063	Func Use Counter	Function-063	CTL*	[0 to 99999999 / 0 / 1]
8-621-064	Func Use Counter	Function-064	CTL*	[0 to 99999999 / 0 / 1]
8-631-001	T:FAX TX PGS	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-631-101	T:FAX TX PGS	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-633-001	F:FAX TX PGS	B/W(Tel)	CTL*	[0 to 99999999 / 0 / 1]
8-633-101	F:FAX TX PGS	B/W(Cloud)	CTL*	[0 to 99999999 / 0 / 1]
8-641-001	T:IFAX TX PGS	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-643-001	F:IFAX TX PGS	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-651-001	T:S-to-Email PGS	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-651-002	T:S-to-Email PGS	Color	CTL*	[0 to 99999999 / 0 / 1]
8-655-001	S:S-to-Email PGS	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-655-002	S:S-to-Email PGS	Color	CTL*	[0 to 99999999 / 0 / 1]
8-661-001	T:Deliv PGS/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-661-002	T:Deliv PGS/Svr	Color	CTL*	[0 to 99999999 / 0 / 1]
8-665-001	S:Deliv PGS/Svr	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-665-002	S:Deliv PGS/Svr	Color	CTL*	[0 to 99999999 / 0 / 1]
8-671-001	T:Deliv PGS/PC	B/W	CTL*	[0 to 99999999 / 0 / 1]
8-671-002	T:Deliv PGS/PC	Color	CTL*	[0 to 99999999 / 0 / 1]
8-675-001	S:Deliv PGS/PC	B/W	CTL*	[0 to 99999999 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-675-002	S:Deliv PGS/PC	Color	CTL*	[0 to 99999999 / 0 / 1]
8-681-001	T:PCFAX TXPGS		CTL*	[0 to 99999999 / 0 / 1]
8-683-001	F:PCFAX TXPGS		CTL*	[0 to 99999999 / 0 / 1]
8-691-001	T:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-692-001	C:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-693-001	F:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-694-001	P:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-695-001	S:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-696-001	L:TX PGS/LS		CTL*	[0 to 99999999 / 0 / 1]
8-701-001	TX PGS/Port	PSTN-1	CTL*	[0 to 99999999 / 0 / 1]
8-701-002	TX PGS/Port	PSTN-2	CTL*	[0 to 99999999 / 0 / 1]
8-701-003	TX PGS/Port	PSTN-3	CTL*	[0 to 99999999 / 0 / 1]
8-701-004	TX PGS/Port	ISDN(G3,G4)	CTL*	[0 to 99999999 / 0 / 1]
8-701-005	TX PGS/Port	Network	CTL*	[0 to 99999999 / 0 / 1]
8-711-001	T:Scan PGS/Comp	JPEG/JPEG2000	CTL*	[0 to 99999999 / 0 / 1]
8-711-002	T:Scan PGS/Comp	TIFF(Multi/Single)	CTL*	[0 to 99999999 / 0 / 1]
8-711-003	T:Scan PGS/Comp	PDF	CTL*	[0 to 99999999 / 0 / 1]
8-711-004	T:Scan PGS/Comp	Other	CTL*	[0 to 99999999 / 0 / 1]
8-711-005	T:Scan PGS/Comp	PDF/Comp	CTL*	[0 to 99999999 / 0 / 1]
8-711-006	T:Scan PGS/Comp	PDF/A	CTL*	[0 to 99999999 / 0 / 1]
8-711-007	T:Scan PGS/Comp	PDF(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-711-008	T:Scan PGS/Comp	PDF/Comp(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-711-009	T:Scan PGS/Comp	PDF/A(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-715-001	S:Scan PGS/Comp	JPEG/JPEG2000	CTL*	[0 to 99999999 / 0 / 1]
8-715-002	S:Scan PGS/Comp	TIFF(Multi/Single)	CTL*	[0 to 99999999 / 0 / 1]
8-715-003	S:Scan PGS/Comp	PDF	CTL*	[0 to 99999999 / 0 / 1]
8-715-004	S:Scan PGS/Comp	Other	CTL*	[0 to 99999999 / 0 / 1]
8-715-005	S:Scan PGS/Comp	PDF/Comp	CTL*	[0 to 99999999 / 0 / 1]
8-715-006	S:Scan PGS/Comp	PDF/A	CTL*	[0 to 99999999 / 0 / 1]
8-715-007	S:Scan PGS/Comp	PDF(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-715-008	S:Scan PGS/Comp	PDF/Comp(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-715-009	S:Scan PGS/Comp	PDF/A(OCR)	CTL*	[0 to 99999999 / 0 / 1]
8-721-001	T:Deliv	B/W	CTL*	[0 to 99999999 / 0 / 1]
	PGS/WSD/DSM			
8-721-002	T:Deliv	Color	CTL*	[0 to 99999999 / 0 / 1]
	PGS/WSD/DSM			

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]	
			or CTL		
8-725-001	S:Deliv	B/W	CTL*	[0 to 99999999 / 0 / 1]	
	PGS/WSD/DSM				
8-725-002	S:Deliv	Color	CTL*	[0 to 99999999 / 0 / 1]	
	PGS/WSD/DSM				
8-731-001	T:Scan PGS/Media	B/W	CTL*	[0 to 99999999 / 0 / 1]	
8-731-002	T:Scan PGS/Media	Color	CTL*	[0 to 99999999 / 0 / 1]	
8-735-001	S:Scan PGS/Media	B/W	CTL*	[0 to 99999999 / 0 / 1]	
8-735-002	S:Scan PGS/Media	Color	CTL*	[0 to 99999999 / 0 / 1]	
8-741-001	RX PGS/Port	PSTN-1	CTL*	[0 to 99999999 / 0 / 1]	
8-741-002	RX PGS/Port	PSTN-2	CTL*	[0 to 99999999 / 0 / 1]	
8-741-003	RX PGS/Port	PSTN-3	CTL*	[0 to 99999999 / 0 / 1]	
8-741-004	RX PGS/Port	ISDN(G3,G4)	CTL*	[0 to 99999999 / 0 / 1]	
8-741-005	RX PGS/Port	Network	CTL*	[0 to 99999999 / 0 / 1]	
8-771-001	Dev Counter	Total	CTL*	[0 to 99999999 / 0 / 1]	
8-781-001	Toner_Botol_Info.	ВК	CTL*	[0 to 99999999 / 0 / 1]	
8-791-001	LS Memory Remain		CTL*	[0 to 100 / 0 / 1%]	
8-801-001	Toner Remain	К	CTL*	[0 to 100 / 0 / 1%]	
8-811-001	Eco Counter	Eco Total	CTL*	[0 to 99999999 / 0 / 1]	
8-811-004	Eco Counter	Duplex	CTL*	[0 to 99999999 / 0 / 1]	
8-811-005	Eco Counter	Combine	CTL*	[0 to 99999999 / 0 / 1]	
8-811-008	Eco Counter	Duplex(%)	CTL*	[0 to 100 / 0 / 1%]	
8-811-009	Eco Counter	Combine(%)	CTL*	[0 to 100 / 0 / 1%]	
8-811-010	Eco Counter	Paper Cut(%)	CTL*	[0 to 100 / 0 / 1%]	
8-811-051	Eco Counter	Sync Eco Total	CTL*	[0 to 99999999 / 0 / 1]	
8-811-054	Eco Counter	Sync Duplex	CTL*	[0 to 99999999 / 0 / 1]	
8-811-055	Eco Counter	Sync Combine	CTL*	[0 to 99999999 / 0 / 1]	
8-811-058	Eco Counter	Sync Duplex(%)	CTL*	[0 to 100 / 0 / 1%]	
8-811-059	Eco Counter	Sync Combine(%)	CTL*	[0 to 100 / 0 / 1%]	
8-811-060	Eco Counter	Sync Paper Cut(%)	CTL*	[0 to 100 / 0 / 1%]	
8-811-101	Eco Counter	Eco Totalr:Last	CTL*	[0 to 99999999 / 0 / 1]	
8-811-104	Eco Counter	Duplex:Last	CTL*	[0 to 99999999 / 0 / 1]	
8-811-105	Eco Counter	Combine:Last	CTL*	[0 to 99999999 / 0 / 1]	
8-811-108	Eco Counter	Duplex(%):Last	CTL*	[0 to 100 / 0 / 1%]	
8-811-109	Eco Counter	Combine(%):Last	CTL*	[0 to 100 / 0 / 1%]	
8-811-110	Eco Counter	Paper Cut(%):Last	CTL*	[0 to 100 / 0 / 1%]	
8-811-151	Eco Counter	Sync Eco Totalr:Last	CTL*	[0 to 99999999 / 0 / 1]	

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-811-154	Eco Counter	Sync Duplex:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-155	Eco Counter	Sync Combine:Last	CTL*	[0 to 99999999 / 0 / 1]
8-811-158	Eco Counter	Sync Duplex(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-159	Eco Counter	Sync Combine(%):Last	CTL*	[0 to 100 / 0 / 1%]
8-811-160	Eco Counter	Sync Paper	CTL*	[0 to 100 / 0 / 1%]
		Cut(%):Last		
8-851-011	Cvr Cnt:0-10%	0~2%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-021	Cvr Cnt:0-10%	3~4%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-031	Cvr Cnt:0-10%	5~7%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-851-041	Cvr Cnt:0-10%	8~10%:BK	CTL*	[0 to 99999999 / 0 / 1]
8-861-001	Cvr Cnt:11-20%	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-871-001	Cvr Cnt:21-30%	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-881-001	Cvr Cnt:31%-	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-891-001	Page/Toner Bottle	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-901-001	Page/Toner_Prev1	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-911-001	Page/Toner_Prev2	ВК	CTL*	[0 to 99999999 / 0 / 1]
8-921-001	Cvr Cnt/Total	Coverage(%):BK	CTL*	[0 to 2147483647 / 0 / 1%]
8-921-011	Cvr Cnt/Total	Coverage/P:BK	CTL*	[0 to 99999999 / 0 / 1]
8-941-001	Machine Status	Operation Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-002	Machine Status	Standby Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-003	Machine Status	Energy Save Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-004	Machine Status	Low Power Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-005	Machine Status	Off Mode Time	CTL*	[0 to 99999999 / 0 / 1]
8-941-006	Machine Status	SC	CTL*	[0 to 99999999 / 0 / 1]
8-941-007	Machine Status	PrtJam	CTL*	[0 to 99999999 / 0 / 1]
8-941-008	Machine Status	OrgJam	CTL*	[0 to 99999999 / 0 / 1]
8-941-009	Machine Status	Supply PM Unit End	CTL*	[0 to 99999999 / 0 / 1]
8-951-001	AddBook Register	User Code /User ID	CTL*	[0 to 99999 / 0 / 1]
8-951-002	AddBook Register	Mail Address	CTL*	[0 to 99999 / 0 / 1]
8-951-003	AddBook Register	Fax Destination	CTL*	[0 to 99999 / 0 / 1]
8-951-004	AddBook Register	Group	CTL*	[0 to 99999 / 0 / 1]
8-951-005	AddBook Register	Transfer Request	CTL*	[0 to 99999 / 0 / 1]
8-951-006	AddBook Register	F-Code	CTL*	[0 to 99999 / 0 / 1]
8-951-007	AddBook Register	Copy Program	CTL*	[0 to 255 / 0 / 1]
8-951-008	AddBook Register	Fax Program	CTL*	[0 to 255 / 0 / 1]
8-951-009	AddBook Register	Printer Program	CTL*	[0 to 255 / 0 / 1]

SP No.	Large Category	Small Category	ENG	[Min to Max / Init. / Step]
			or CTL	
8-951-010	AddBook Register	Scanner Program	CTL*	[0 to 255 / 0 / 1]
8-961-001	Electricity Status	Ctrl Standby Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-002	Electricity Status	STR Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-003	Electricity Status	Main Power Off Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-004	Electricity Status	Reading and Printing	CTL*	[0 to 99999999 / 0 / 1]
		Time		
8-961-005	Electricity Status	Printing Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-006	Electricity Status	Reading Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-007	Electricity Status	Eng Waiting Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-008	Electricity Status	Low Pawer State Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-009	Electricity Status	Silent State Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-010	Electricity Status	Heater Off State Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-011	Electricity Status	LCD on Time	CTL*	[0 to 99999999 / 0 / 1]
8-961-101	Electricity Status	Silent Print	CTL*	[0 to 99999999 / 0 / 1]
8-971-001	Unit Control	Engine Off Recovery	CTL*	[0 to 99999999 / 0 / 1]
		Count		
8-971-002	Unit Control	Power Off Count	CTL*	[0 to 99999999 / 0 / 1]
8-971-003	Unit Control	Force Power Off Count	CTL*	[0 to 99999999 / 0 / 1]
8-999-001	Admin. Counter List	Total	CTL*	[0 to 99999999 / 0 / 1]
8-999-003	Admin. Counter List	Copy: BW	CTL*	[0 to 99999999 / 0 / 1]
8-999-007	Admin. Counter List	Printer: BW	CTL*	[0 to 99999999 / 0 / 1]
8-999-010	Admin. Counter List	Fax Print: BW	CTL*	[0 to 99999999 / 0 / 1]
8-999-013	Admin. Counter List	Duplex	CTL*	[0 to 99999999 / 0 / 1]
8-999-023	Admin. Counter List	Copy: BW(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-027	Admin. Counter List	Printer: BW(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-030	Admin. Counter List	Fax Print: BW(%)	CTL*	[0 to 2147483647 / 0 / 1]
8-999-101	Admin. Counter List	Transmission Total:	CTL*	[0 to 99999999 / 0 / 1]
		Color		
8-999-102	Admin. Counter List	Transmission Total:	CTL*	[0 to 99999999 / 0 / 1]
		BW		
8-999-103	Admin. Counter List	FAX Transmission	CTL*	[0 to 99999999 / 0 / 1]
8-999-104	Admin. Counter List	Scanner Transmission:	CTL*	[0 to 99999999 / 0 / 1]
		Color		
8-999-105	Admin. Counter List	Scanner Transmission:	CTL*	[0 to 99999999 / 0 / 1]
		BW		

Scanner SP Mode

SP1-XXX (System and Others)

1001	[Scan Nv Version]			
	Operates automatic initialization to ensure that scanner NV is initialized if necessary. To			
	do this SP, specify the version of scanner NV within 9 characters.			
	"Function name"_"Machine code"_"Serial number"			
	- Function name: Enter "3".			
	- Machine code: Enter the machine code with three characters.			
	- Serial number: Enter the number (default: 001).			
1-001-005	-	CTL*	-	

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. This SP is		
	activated only when the machine uses TWAIN scanning.		
1-005-001	Range from 0 to 5 mm	CTL*	[0 to 5 / 0 / 1 mm]

1009	[Remote scan disable]		
	Enable or disable remote scan.		
1-009-001	0:Enable 1:Disable	CTL*	[0 or 1 / 0 / -]
			0: enable, 1: disable

1010	[Non Display Clear Light PDF]		
	Enable or disable remote scan.		
1-010-001	0:Enable 1:Disable	CTL*	[0 or 1 / 0 / -]
			0: Display, 1: No display

1011	[Org count Disp]		
	Selects the original counter display.		
	0: Displays remaining memory for the original scanning		
	1: Displays original counter.		
1-011-001	0:ON 1:OFF	CTL*	[0 or 1 / 0 / -]

1012	[UserInfo release]		
	Clear the following settings:		
	Address, Sender, Text / Subject, Filename		
1-012-001	0:NO 1:YES	CTL*	[0 or 1 / 1 / -]
	0: No, 1: Yes		
--	---------------		

1013	[Scan to Media Device Setting]		
	On or off multimedia function		
1-013-001	0:OFF 1:ON	CTL*	[0 or 1 / 1 / -]
			0: OFF, 1: ON

1014	[Scan to Folder Pass Input Set]		
1-014-001	0:OFF 1:ON	CTL*	[0 or 1 / 0 / -]
			0: OFF, 1: ON

1016	[Scan To Email Sender Address]		
1-016-001	0:OFF 1:ON	CTL*	[0 or 1 / 0 / -]
			0: OFF, 1: ON

1040	[Scan:LT/LG Mixed Size Setting]		
1-040-001	0:OFF 1:ON	CTL*	[0 or 1 / * / -]
			NA: 1, Other: 0
			0: OFF, 1: ON

1041	[Scan:FlairAPI Setting]		
1-041-001	0x00 – 0xff	CTL*	[- / 0000000 / -]

1042	[Email Date Setting]		
1-042-001	Setting Range: 0-3	CTL*	[0 to 3 / 0 / -]
			0: Follow language setting
			1: MM/DD/YYYY
			2: DD/MM/YYYY
			3: YYYY/MM/DD

1043	[Result Screen Doc Name Display]			
1-043-001	0:Nondisplay 1:Display	CTL*	[0 or 1 / 0 / -]	
	0: No Display, 1: display			

SP2-XXX, SP3-XXX (Scanning-image Quality)

2021	[Compression Level (Grayscale)]
	Selects the compression ratio for grayscale processing mode (JPEG) for the three
	settings that can be selected at the operation panel.

5.SP Mode Tables (for MF Model)

2-021-001	Comp 1: 5-95	CTL*	[5 to 95 / 20 / 1 /step]
2-021-002	Comp 2: 5-95		[5 to 95 / 40 / 1 /step]
2-021-003	Comp 3: 5-95		[5 to 95 / 65 / 1 /step]
2-021-004	Comp 4: 5-95		[5 to 95 / 80 / 1 /step]
2-021-005	Comp 5: 5-95		[5 to 95 / 95 / 1 /step]

2023	[ClearLightPDF:ACS Setting]		
2-023-001	0:OFF 1:ON	CTL*	[0 or 1 / 1 / 1]

2024	[Compression ratio of ClearLight PDF]			
	Selects the compression ratio for clearlight PDF for the two settings that can be			
	selected at the operation panel.			
2-024-001	Compression Ratio (Normal) CTL* [5 to 95 / 25 / 1 /step]			
2-024-002	Compression Ratio (High)		[5 to 95 / 15 / 1 /step]	

2025	[Compression ratio of ClearLight PDF JPEG2000]		
	Selects the compression ratio for clearlight PDF for the two settings that can be		
	selected at the operation panel.		
2-025-001	Compression Ratio (Normal) JPEG2000	CTL*	[5 to 95 / 25 / 1 /step]
2-025-002	Compression Ratio (High) JPEG2000		[5 to 95 / 15 / 1 /step]

2030	[OCR PDF DetectSens]		
2-030-001	White Lumi Value: 0 - 255	CTL*	[0 to 255 / 250 / -]
2-030-002	White Pix Ratio: 0 - 100		[0 to 100 / 80 / -]
2-030-003	White Tile Ratio: 0 - 100		[0 to 100 / 80 / -]

2030	[Vertical Judgment Setting]		
2-031-001	Function Setting: 0 - 1	CTL*	[0 or 1 / 0 / 1]
2-031-002	Algorithm Setting: 0 - 2		[0 or 2 / 0 / 1]

3036	[HighCompressPDF PrioritySettng]		
3-036-001	0:Generate PDF 1:Handling Speed	CTL*	[0 or 1 / 1 / 1]

3037	[flate Compression Setting]		
3-037-001	0:Disable 1:Enable	CTL*	[0 or 1 / 1 / 1]

Printing Features

Behavior of USB Printer Detection

An MFP/LP connected via USB sends its product name and unique serial number. With the data, the machine determines whether requires a printer driver for the USB device to be installed. SP5-844-005 allows you to change how to determine the MFP/LP requires a printer driver installation:

• OFF

If SP5-844-005 is set to OFF, the unique serial number of the device is sent to the computer. As a result, if the device is swapped out for a device of the same product, pop-up messages will appear, because the serial numbers between the two are different.

Level 1

If SP5-844-005 is set to Level 1, a common serial number for the product such as "MP 305+" series is sent to the computer. As a result, if the device is swapped out for a device of the same product, pop-up messages will not appear because the devices are recognized as having the same serial number.

• Level 2

If SP5-844-005 is set to Level 2, a common serial number for all GW/GW+ models is sent to the computer. As a result, if a GW/GW+ device is swapped out for a different GW/GW+ device, pop-up messages will not appear because the devices are both recognized as being based on GW/GW+.

Auto PDL Detection Function

Overview

The Auto PDL Detection function gives the MFP the ability to determine the PDL of a job or of specific parts of a job. This can be especially useful in cases where the PDL is not specified or if the job contains multiple PDLs.

Conditions for detection of the PDL

The MFP will only attempt to detect a job's PDL if all of the following conditions are met.

- No @PJL ENTER LANGUAGE command is contained in the job
- No submission protocol options (lpr, ftp, rcp, or rsh options) have been used to specify the PDL
- User Tools > Printer > System > Printer Language = Auto

PDL detection by the printer system, PCL interpreter and PS interpreter

There are 3 components in the printer which can perform Auto PDL Detection:

1. Printer system:

Uses a set of triggers unique to PCL5, PS or PDF. Up to 2KB from the start of the job can be searched for triggers.

2. PCL interpreter:

It can detect PS triggers in PCL data. If a PS trigger is detected, the PCL interpreter will abort processing and return the unprocessed part of the job back to the printer system. Up to 256 bytes from the start of each page can be searched for triggers.

3. **PS interpreter:**

It can detect PCL5 triggers in PS data. If a PCL trigger is detected, the PS interpreter will abort processing and return the unprocessed part of the job back to the printer system. The entire page (regardless of the number of bytes) is searched for triggers.

Note

- 2. and 3. can be disabled using Printer Bit Switch 2-3=1.
- If the "Printer Language" is configured to anything other than Auto, all detection will be disabled.
- An interpreter submits a job page by page to the rasterizer. Therefore, when an interpreter detects a trigger mid-job, the previous pages will have already been submitted and will be output using the previously detected PDL.
- If the PDL cannot be detected by the printer system, then the PDL defaults to the one configured in "Configuration > Printer Basic Settings > Default Printer Language".

The Printer Language setting and Default Printer Language setting in WIM:

Reserved Job waiting 1 ime	Short wait
Printer Language	: Auto 💌
Sub Paper Size	: Off 💌
Page Size	: A4 💌
Letterhead Setting	: Off
Bypass Tray Setting Priority	: Driver/Command Settings 💌
Edge to Edge Print	: On 💌
Default Printer Language	: PCL 💌
Tray Switching	
	d238m3501

PDL selection and switching

3 types of PDL selection/switching are performed:

1. PDL selection (PCL5 or PS (including PDF)) at the beginning of the job: performed by the printer

system



2. PDL switching from PCL5 to PS: performed by the PCL interpreter and the printer system



3. PDL switching from PS to PCL5: performed by the PS interpreter and the printer system



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Triggers

Printer system

PCL5	[ESC]E
triggers	[FF]
PS triggers	%!PS-Adobe-3.1 %! dict begin bind def findfont showpage /statusdict 0 startjob [EOT]
	0x04 "}" + space caracter + "def" userdict 0x14
PDF	%PDF-

triggers %!PS-Adobe-M.nPDF- (*M, n=numeric)	
---	--

* "userdict" is excluded by configuring Printer Bit Switch 5-3=1.

Vote

- Up to 2KB from the start of the job can be searched for triggers.
- By configuring Printer Bit Switch 5-3=1:
 - "%%" can be added to the PS triggers
 - "userdict" is excluded
- If a job is identified as PDF, it will be sent to the PS interpreter to be processed as a regular PS job.

PS interpreter

PCL5 trigger	[ESC]E and 2 or more continuous PCL commands
Note	

• Up to 256 bytes from the start of each page can be searched for triggers.

Some possible problems

Garbled output:

If a string of characters (or binary data) is mistaken as a trigger and an incorrect PDL is applied, the output will be garbled.

Incorrect printer settings:

Printer settings, for example the paper size, is incorrectly applied. This can happen when the printer settings at the beginning of the job are initialized before a PDL switch occurred and no settings were configured for the rest of the job.

Printer Bit Switch description

Bit Switch 2-3

This controls Auto PDL Detection by the PCL interpreter and PS interpreter.

BitSW 2-3=0 (default):

If PDL switching is applied to the job, all of the printer system, PCL interpreter and PS interpreter will search for switching criteria (triggers).

BitSW 2-3=1:

Only the printer system will search for switching criteria (triggers). PCL/PS interpreters will not.

Bit Switch 5-3

This affects the PDL switching criteria (triggers) used by the printer system.

BitSW 5-3=0 (default):

"%%" is not used as a printer system PS trigger. "%%" will not call the PS interpreter.

BitSW 5-3=1:

"%%" is used as a printer system PS trigger.

However some customers prefer that "%%" be included as a switching criteria. BitSW5-3=1 should be used in such a case.

Note

• A side effect of BitSW5-3=1 is that "userdict" will no longer be used as a PS trigger.

Bit Switch 9-0

These determine whether Auto PDL Detection for print jobs transmitted via USB/parallel will wait 10 seconds to make sure the first 2KB of the job has been sent.

The Printer system portion of the Auto PDL Detection function is only performed on the first 2KB of a job and can wait up to 10 seconds for that first 2KB to arrive. As the printer is unable to detect the end of jobs submitted over a USB/Parallel connection, it might be preferable to not wait 10 seconds if jobs of less than 2KB are going to be printed. Enabling/disabling this waiting time is the purpose of BitSw 9-0. BitSw 9-0=0 (default):

The printer system will not wait 10 seconds for the first 2KB of data to arrive.

BitSw 9-0=1:

The printer system will wait up to 10 seconds for the first 2KB of data to arrive.

Print Images Rotation

Printer Bit Switch description

Bit Switch 5-6

This change the way an MFP/LP rotates PCL, PS, PDF, or RPCS print images.

BitSW 5-6=0 (default):

A uniform binding edge (short or long edge) will be applied to every page of every job. Pages will always be rotated as if they were to be bound on that edge.

BitSW 5-6=1:

A uniform binding edge (short or long edge) will only be applied if the job is stapled, punched, or Z-folded. Otherwise, the bound edge might differ from page to page.

Example:

A 3-page job. Page 1 has the PCL simplex command. Page 2 and 3 have the PCL duplex long-edge bind commands.

No finishing options (staple, punch, z-fold) are used.

Bit Switch #5-6=0:



Bit Switch #5-6=1:



• Note

Used in conjunction with Bit Switch #5-6, Orientation Auto Detect for PS/PDF jobs might cause • unexpected results.

PJL USTATUS

Printer Bit Switch description

Bit Switch 9-4

These control the way PJL USTATUS returns page count totals in cases where multiple copies of a job are being printed.

BitSw 9-4=0 (default):

This change the way an MFP/LP rotates PCL, PS, PDF, or RPCS print images.

- 1. The page count for a single copy is returned after the first copy is printed.
- 2. The page count for the rest of the copies, excluding the first copy, is returned after all copies have been printed.
- 3. This emulates an older HP PCL firmware spec. It is only needed for compatibility with legacy software.

BitSw 9-4=1:

The page count for all copies is output after all copies have been printed. This emulates more recent HP PCL firmware specs. For example, consider 3 copies of a 3 page job: 9-4 = 0 @PJL USTATUS JOB START NAME="TEST_page1-3" **@PJL USTATUS PAGE** 1 **@PJL USTATUS PAGE** 2 **@PJL USTATUS PAGE** 3 **@PJL USTATUS JOB** END NAME="TEST_page1-3" PAGES=3 <comment> The page count of the first copy is returned.</comment> **@PJL USTATUS PAGE** 1 **@PJL USTATUS PAGE** 2 **@PJL USTATUS PAGE** 3 **@PJL USTATUS PAGE** 4 @PJL USTATUS PAGE 5 **@PJL USTATUS PAGE** 6 <comment> The page count of the remaining two copies is returned.</comment> 9-4 = 1 @PJL USTATUS JOB START NAME="Microsoft Word - TEST_page1-3" **@PJL USTATUS PAGE** 1 @PJL USTATUS PAGE 2

@PJL USTATUS PAGE 3 **@PJL USTATUS PAGE** 4 **@PJL USTATUS PAGE** 5 **@PJL USTATUS PAGE** 6@PJL USTATUS PAGE 7 **@PJL USTATUS PAGE** 8 @PJL USTATUS PAGE 9 **@PJL USTATUS JOB** END NAME="Microsoft Word - TEST_page1-3" PAGES=9 <comment> The page count of all three copies is returned.</comment>

Adjustment

User Code Authentication to Restrict Color Printing

The Effect of Bit Switch 8-3 on Host Printing with User Code Authentication

This page explains the difference between the default configuration of the device and the effect of enabling Bit Switch 8-3.

If a GW device is running User Code Authentication to restrict color printing and the host system does not add the necessary commands to the print job, the default configuration is for a job that does not include the PJL SET DATAMODE command to be aborted. However, if Bit Switch 8-3 is enabled, a job that does not include the PJL SET DATAMODE command is forced to print in black and white instead. Flow charts illustrating the process of the Bit Switch 8-3 settings in more detail are included in the sections below.

Default Configuration: Bit Switch 8-3 not enabled (Set to 0)

In the following flow chart, the lines and comments in **Red** represent the processing path of a host system's print job in a default case:



(*1) In a PS job, the command is RCsetdevicecolor, and divided by its value, (gray) or (cmyk).(*2) In a PS job, the command is {setuserinfo}.

Bit Switch 8-3 Enabled (Set to 1)

Bit Switch 8-3 changes the way a GW device handles the PJL SET DATAMODE (or RCsetdevicecolor) command. With Bit Switch 8-3 enabled, **any job which does not include such a command is forced to print out in B/W**.

In the following flow chart, the lines and comments in **Blue** represent the processing path of a host system job:



(*1) In a PS job, the command is RCsetdevicecolor, and divided by its value, (gray) or (cmyk).(*2) In a PS job, the command is {setuserinfo}.

Scanner Features

Display settings of recently used scan destination

Configuring the scanner interface so that the most recently used scan destination is cleared.

Whether the MFP clears the most recently used scan destination, can be configured using Scanner SP 1-012-001.

By default, this is cleared to avoid subsequent users scanning to it by mistake.

Scanner SP 1-012-001

- 1 (default): Clear
- 0: Do not clear

This will cause all of the following to be cleared after the scanning is complete:

- Destination
- Sender
- Email subject
- Email message
- File name

The information in the list above will be cleared after scanning is finished.

Exceptions:

• User Auth.:

If SP 1-012-001 = 0 and if User Auth. (excluding User Code authentication) is enabled, the most recently used scan destination will only be retained until the user logs out.

• Scanner Auto Reset timer:

Even if SP 1-012-001 = 0 the most recently used scan destination can still be cleared by the Scanner Auto Reset timer. If the Scanner Auto Reset timer is shorter than the System Auto Reset timer, then the most recently used scan destination will be cleared when the Scanner Auto Reset timer elapses.

The Setting of SMTP authentication in Scan to Email

Scan to Email fails with the error message "Transmission has failed ". The SMTP username and password are correct. How can I make Scan to Email pass?

Change SP 5-860-022 "SMTP Auth. From Field Replacement" to On. By doing this, Scan to Email will pass the SMTP authentication.

Vote

 Using this option to solve the above problem, the device email address will appear in the email's "From" field. The email address of the user who sent the email will appear in the "Reply-to" field.

Explanation

This is an SMTP authentication issue that aborts transmission of an already started Scan to Email.

Currently this has only been reproduced using MS-Exchange server.

MS-Exchange requires that all of the following match:

- 1. The sender's address in the "MAIL FROM" field. This is also known as the "envelope sender" or "MIME sender". It is an SMTP command sent at the beginning of the email transmission process.
- 2. The sender's address in the mail header "From:" field. This appears as "From" in email clients. It is a part of the email itself.

The email address corresponding to the SMTP username used to login into the SMTP server.
 When the MFP logins into the SMTP server, the email address of the username 3) will be compared to 1) and 2). If these comparisons fail, authentication will also fail. Exchange server will stop the transmission procedure, and the "Transmission has failed" message will be returned to the sender.

Typical example

NG case:

SP5-860-022 is Off:

- 1. The "MAIL FROM" field = device
- 2. The mail header "From:" field = use
- 3. The SMTP username = device

When the SMTP server compares 2) and 3) the Exchange Server will stop the transmission procedure.

OK case:

SP5-860 can be used to make the values in the above example, match.

In this example, if SP5-860-022 is On, the user's email address in the mail header '2)' will be replaced by the Administrator's email address.

To solve the problem, the Administrator's address must be the same as the device's address.

If this is done:

- 1. The "Mail From: field = device
- 2. The mail header "From:" field = administrator
- 3. The SMTP username = device

1,2 and 3 must match and the authentication should be successful.

Vote

• The user's email address will still be inserted into the reply-to field.

The device SMTP user name, password, and email address are configurable in [User Tools] > [Machine Features] > [System Settings] > [File Transfer] > [SMTP Authentication].

User email addresses are configurable in the user configuration of the Address Book.

The administrator email address is configurable in [User Tools] > [Machine Features] > [System Settings] > [File Transfer] > [Administrator's Email Address].

The Qualification Switching of Scan to Folder

Determining which account Scan to Folder uses to access a scan destination and the effects of System SP 5-846-021.

This method depends on how the destination is accessed, whether authentication is being used, and SP 5-846-021.

Cases:

Case	Destination	User auth.	Account used to access the folder
	selection		
А	Manual entry	Either enabled or	The user's account *
		disabled	
В	Destination list	disabled	The recipient's account
			(as configured in the Address Book's Folder
			Authentication setting)
С		enabled	If SP 5-846-021 =
			0 (default): The authenticated user's account
			1: The recipient's account
			(as configured in the Address Book's Folder
			Authentication setting)

* The "user's account" will be either the one entered during scanning (see the Manual Entry screen capture) or if User Auth. is enabled, the account configured in the user's Folder Authentication setting will be used.

The destination's access logs:

Case A or Case C with SP=0: The access logs can be used to determine which user sent the scan.



Case B or Case C with SP=1: All access will be logged as the same user.



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Management Features

How to Disable the Document Server Function

- 1. Enter 'Copy' SP mode.
- 2. Change SP5-967-001 to 1. (0:ON 1:OFF)
- **<u>3.</u>** Reboot the machine.

Vote

• When the above SP mode (SP5-967-001) is OFF (=1), both the Document Server and Locked Print functions will be disabled.

How to Use Locked Print When the Document Server Is Disabled

- **<u>1.</u>** Enter 'Printer' SP mode.
- **<u>2.</u>** Set SP1-006-001 to 1.
 - 0: Link with Doc. Srv (default)

Locked print will only be enabled if the document server is enabled.

1: Enable

Enable Locked

Print will be enabled no matter the status of the document server.

<u>3.</u> Turn OFF then ON the main power.

Security Features

How to Restrict Access to the WIM Job Menu

- 1. Enter 'Printer' SP mode.
- 2. Set SP5-888-001
 - 0: (default): "Job" menu is enabled.
 - 1: "Job" menu is disabled.

Vote

• This setting takes effect only if user authentication (other than User Code auth.) is disabled.

****	****	***00 Web Image Monitor		
Home	Job			
Document Server		Job List		Fax History
Printer: Print Jobs	3	Current/Waiting Jobs	4	Transmission
Job		= 300 HISKORY		LAN-Fax
Configuration	- 🔊	Printer Job History		Document Server
		Error Log	4	Print Job History Fax Remote Send History Scanner Remote Send History

How to Restrict Web Image Monitor Access to the Document Server

System (Copier) SP 5-885-020 bit 0, 1 and 7 restrict Web Image Monitor access to the DS. It disables the following WIM settings:

- The entire Document Server menu (shown in blue in fig1)
- Job > Document Server (shown in red in fig1)

See the following for details:

Bit 0:

Bit 0 = 0 (default): Allows anyone (guests, users, admins) access to the DS via WIM.

Bit 0 = 1: Prevents everyone from accessing the DS via WIM.

Bit 1:

Bit 1 = 0 (default): Allows anyone (guests, users, admins) access to the DS via WIM.

Bit 1 = 1: Only administrators can access the DS via WIM.

Note

• Without admin privileges, even authenticated users will be unable to access the DS via WIM.

Bit 7:

Bit 7 = 0 (default): Allows anyone (guests, users, admins) access to the DS via WIM.

Bit 7 = 1: Only administrators and authenticated users can access the DS via WIM.

The most restrictive result of combining these three configurations will take priority. So for example:

Bit 0 = 0

Bit 1 = 1

Bit 7 = 1

As Bit 1 = 1 is the most restrictive of the three, it will take presedence over the other two and only administrators will be able to access the DS via WIM.

Home	Job	
Document Server	lab List	Desmont Server
Printer: Print Jobs		Document server
Job	Current/Waiting Jobs	Scanner Remote Send History
Address Book		L
Configuration	Printer	
	Job History Error Log	

Vote

- In order for SP5-885-020 to have any effect, the Document Server must be enabled (SP5-967-001=0). For information about SP5-967-001, refer to Disabling the Document Server using System SP5-967-001 and Printer SP1-006-001.
- Access to the entire "Job" menu can be restricted using SP 5-888-001. For details, refer to Use of SP 5-888-001 to restrict access to the "Job" menu on WIM.

User Authentication for Specific MFP Applications

The SP5-420 settings enable/disable User Authentication for specific MFP applications.

SP 5-420	User Authentication	Value (Default: 0)	
SP5-420-001	Сору	0 (ON)	1 (OFF)
SP5-420-011	Document Server		
SP5-420-021	Fax		
SP5-420-031	Scanner		
SP5-420-041	Printer		

SP 5-420 User Authentication Value (Default: 0)

<u>1.</u> Enable User Authentication for the device as a whole:

User Tools > System Settings > Administrator Tools > User Authentication Management

2. Use the SP5-420 settings to specify the applications to which User authentication is to apply.