Model RMY-P1 Machine Codes: M154/M155/M174/M175

Field Service Manual

May, 2013

Safety Notices

Important Safety Notices

Prevention of Physical Injury

- 1. Before disassembling or assembling parts of the machine and peripherals, make sure that the machine power cord is unplugged.
- 2. The wall outlet should be near the machine and easily accessible.
- 3. 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.
- 4. 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.
- 5. 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.

Health Safety Conditions

Toner is 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 serviced by a customer service representative who has completed the training course on those models.

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.
- 2. Dispose of used toner, the maintenance unit which includes developer or the organic photoconductor in accordance with local regulations. (These are non-toxic supplies.)
- 3. Dispose of replaced parts in accordance with local regulations.

WARNING

• To prevent a fire or explosion, keep the machine away from flammable liquids, gases, and aerosols. A fire or an explosion might occur.

Handling Toner

- Work carefully when removing paper jams or replacing toner bottles or cartridges to avoid spilling toner on clothing or the hands.
- If toner is inhaled, immediately gargle with large amounts of cold water and move to a well ventilated location. If there are signs of irritation or other problems, seek medical attention.
- If toner gets on the skin, wash immediately with soap and cold running water.
- If toner gets into the eyes, flush the eyes with cold running water or eye wash. If there are signs of irritation or other problems, seek medical attention.
- If toner is swallowed, drink a large amount of cold water to dilute the ingested toner. If there are signs of any problem, seek medical attention.
- If toner spills on clothing, wash the affected area immediately with soap and cold water. Never use hot water! Hot water can cause toner to set and permanently stain fabric.
- Always store toner and developer supplies such as toner and developer packages, cartridges, and bottles (including used toner and empty bottles and cartridges) out of the reach of children.
- Always store fresh toner supplies or empty bottles or cartridges in a cool, dry location that is not exposed to direct sunlight.

WARNING

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

Laser Safety

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

WARNING

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

WARNING

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



m012i500

Symbols, Abbreviations and Trademarks

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

$\langle 7 \rangle$	Clip ring
F	Screw
eje	Connector
j.	Clamp
C	E-ring
SEF	Short Edge Feed
LEF	Long Edge Feed





Short Edge Feed (SEF)

Long Edge Feed (LEF)

Trademarks

Microsoft[®], Windows[®], and MS-DOS[®] are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript[®] is a registered trademark of Adobe Systems, Incorporated.

PCL[®] is a registered trademark of Hewlett-Packard Company.

Ethernet[®] is a registered trademark of Xerox Corporation.

PowerPC[®] is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

TABLE OF CONTENTS

Safety Notices	1
Important Safety Notices	1
Laser Safety	2
Symbols, Abbreviations and Trademarks	4
Trademarks	4
1. Product Information	
Product Overview	
Component Layout	
Paper Path	10
Drive Layout	
Machine Codes and Peripherals Configuration	12
Main Frame	12
Specifications	
2. Installation	
Installation Requirements	
Check Image Quality / Settings	
Moving and Transporting the Machine	16
3. Preventive Maintenance	
Preventive Maintenance Tables	
Image Quality Standards	
Paper Transfer Quality Standards	
PM Parts Settings	
PM Parts	
Preparation for PM	
Yield Counter	
4. Replacement and Adjustment	
General Cautions	
Special Tools	
Exterior Covers	
Front Cover	
Left Cover	
Rear Cover	
Right Cover	

Top Cover	
Laser Unit	
Caution Decal Locations	
Laser Unit	
Polygon Mirror Motor	40
Paper Feed	42
Paper Feed Roller	42
Friction Pad	43
Paper End Sensor	43
By-pass Feed Roller	
By-pass Feed Roller Friction Pad	46
By-pass Feed Sensor	46
Paper Feed Clutch	47
Relay Clutch	47
Registration Clutch	
Registration Roller	
Registration Sensor	
Image Transfer	54
Transfer Roller	54
Toner End Sensor	55
Quenching Lamp	55
Fusing and Exit	
Fusing Unit	
Thermostat	60
Thermistor	60
Fusing Lamp	62
Hot Roller	63
Pressure Roller	66
Hot Roller Stripper Pawls	66
Paper Exit Sensor	67
Drive	68
Main Motor	68
Drive Unit	68

Duplex Motor	
Electrical Components	70
Layout of PC Boards	70
Main board	70
PSU	72
HVP	
Charge Terminal Case	
Cooling Fan	77
Wireless LAN Board (For M155, M175)	
Duplex	
Relay Sensor	
Inverter Sensor	
5. Service Tables	
Smart Organizing Monitor	
Overview	
Printer Driver Installation (USB Connection)	
Entering the Printer Configuration	
Printer Configuration Menu List	83
Reports	
Configuration Page	
Other Types of Reports	
Test Page	
Test Pattern Printing	
Updating the Firmware	
Checking the Machine Firmware Version	
Updating the Main Firmware	
Updating the Boot Loader Firmware	
Updating Failure	
FW Update Tool Messages	
6. Troubleshooting	
Self-Diagnostic Mode	
Self-Diagnostic Mode at Power On	

Summary	
Engine SC	
Jam Detection	
Jam Sensor Layout	
Jam Message List	
Image Adjustment	
Registration Adjustment	
Image Quality	
Overview	
Other Problems	
Dark lines in halftone areas at 75mm Intervals	
Troubleshooting	
Jam/Paper Feed problem	
Image Quality problem	
7. Energy Save	
Energy Save	
Energy Saver Modes	141
Paper Save	
Effectiveness of Duplex/Combine Function	143

Product Overview

Component Layout



1.	Laser unit	9.	Friction pad
2.	Quenching lamp	10.	Transfer roller
3.	Cartridge (AIO-type)	11.	Paper Tray
4.	Development roller	12.	Fusing Unit
5.	Registration roller	13.	Pressure Roller
6.	By-pass feed roller	14.	Paper exit roller
7.	By-pass feed tray	15.	Hot Roller
8.	Paper feed roller	16.	Drum

Paper Path



- [A] Duplex section
- [B] Standard paper tray unit

Drive Layout



1.	Duplex Motor	4.	Relay Clutch
2.	Main Motor	5.	Paper Feed Clutch

3.	Registration Clutch	

Machine Codes and Peripherals Configuration

Main Frame



ltem	Machine Code	Duplex	Optional Tray	PCL	PS	Wireless LAN	Remarks
SP 310DN	M174	Auto	N/A	Yes	N/A	N/A	NEW
SP 310DNw	M175	Auto	N/A	Yes	N/A	Yes	NEW
SP 311DN	M154	Auto	N/A	Yes	N/A	N/A	NEW
SP 311DNw	M155	Auto	N/A	Yes	N/A	Yes	NEW

NA: Not Available

Specifications

See "Appendices" for the following information:

- "General Specifications"
- "Supported Paper Sizes"
- "Software Accessories"

1. Product Information

Installation Requirements

Check Image Quality / Settings

This machine is installed by the user.



Environment

- 1. Temperature Range: 10°C to 32°C (50°F to 89.6°F)
- 2. Humidity Range: 15% to 80% RH
- 3. Ambient Illumination: Less than 2,000 lux (do not expose to direct sunlight)
- 4. Ventilation: 3 times/hr/person
- 5. Do not install the machine at locations over the following heights above sea level.
 - All areas: 2,000 m (6,562 ft.)
- 6. Atmospheric pressure: more than 740 hPa.

Moving and Transporting the Machine

WARNING

• 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.

 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 printer weighs approximately 12.7 kg (28 lb.). When moving the printer, use the inset grips on both sides, and lift slowly in pairs. The printer will break or cause injury if dropped.

• When moving the printer after use, do not take out any of the toners, nor the waste toner bottle to prevent toner spill inside the printer.

• Do not hold the control panel while moving the printer. Doing so may damage the control panel, cause a malfunction, or result in injury.

Comportant 🔁

- Be careful when moving the printer. Take the following precautions:
- Turn off the main power.
- Close all covers and trays, including the front cover and bypass tray.
- If optional paper feed units are attached, remove them from the printer and move them separately.
- Be sure to place the printer on a smooth and stable place.
- Keep the printer 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.
- Protect the printer from strong shocks. Impact can damage the hard disk and cause stored files to be lost. As a precautionary measure, files should be copied to another computer.

1. Be sure to check the following:

The power switch is turned off.

The power cord is unplugged from the wall outlet.

The interface cable is unplugged from the printer.

2. Lift the printer by using the inset grips on both sides of the printer, and then move it horizontally to the place where you want to install it.

Note

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

2. Installation

Preventive Maintenance Tables

There are no PM parts in this machine.

Image Quality Standards

ltem	Specification	Remarks
Assured Image Area	Except Envelopes The standard print area of a sheet is the area enclosed by margins of 4.2 mm from all sides of the sheet. Envelopes The 15mm excluding the flap portion from the rear end / tip of the sheet, except for the region of the left and right ends 10mm.	Except Envelopes
Magnification Error	±0.75% or less	Except when duplexing.

Paper Transfer Quality Standards

ltem	Specification	Remarks
Registration	Single Side: Width: 0±2.0mm (Main Scan Direction) Vertical: Office / All Environments 0±1.5mm (Sub Scan Direction) Duplex: Width: 0±2.0mm (Main Scan Direction) Vertical: Office / All Environments 0±1.5mm (Sub Scan Direction)	Scale
Skew	Single Side: ±1.0mm/100mm or less (Less than B5 SEF) ±1.0mm/200mm or less (B5 SEF or more, tray 1 /Bypass tray) ±1.0mm/50mm or less (Bypass tray) Duplex: ±1.0mm/100mm or less (Less than B5 SEF) ±1.0mm/100mm or less (B5 SEF or more)	Except if the paper is longer than 432mm.

These standards are determined using the standard paper with the standard conditions. The values may change depending on environmental conditions such as temperature, humidity, and paper type.

PM Parts Settings

PM Parts

There are no PM parts in this machine.

Note

- Other than the three Yield Parts listed below, there are essentially no PM parts required for this product.
- These three items will need to be replaced in cases where their yield is near, however, given the APV (Average Printer Volume) for this product, these "yield parts^{*1}" are expected to outlast the working life of the machine.

*¹ "Yield Parts": Parts whose expected yield is longer than the machine lifetime when taking into consideration the machine's APV.

Description	Expected Yield	Q'ty/unit
Paper Feed Roller	120 K prints	1
Transfer Roller	120 K prints	1
Fusing Unit	120 K prints	1

See "page 27 "Replacement and Adjustment""

Preparation for PM

Yield Counter

Yield counters for each yield part can be checked by the following methods.

• Configuration Page in the "List/Test Print" menu

Page (1/2)
128MB Bootloader[V0.20], Firmware[v0.68/M1 545051 PCL 5e[v0.68], PCL XL[v0.68]

• Smart Organizing Monitor

Click "Maintenance" in the "Status" tab.

SP 311DN# -	Energy Sav	rer Mode 2		
Status User	Cor	nect Printer	Refresh:	3\$
SP 311DNw Print Cartridge Input Tray Maintenance System Counter Network	Item Fuser Unit Transfer Roller Paper Feed Roll	Status O (#) (#) (#)	50 100	Status OK Status OK Status OK
About		Min	imize	Close

• Web Image Monitor

RICON SP	310DN Web image monitor			
ome	Home		Language English	👻 🧭 Refresh 🔞
system Settings				
letwork Settings	Status Counter	Machine Information		
Print List/Report				
Administrator Tools	Model Name :SP 3	10DN		
	Location :			ה
	Contact :			-
	Host Name :310D	N-52CA40		
	Status :Energy	y Saver 2	and the second se	
				-
	Statue			
	510103	0 50	100	
	Print Cartridge	<u>ه</u>	Remaining Level 5	
	Fusing Unit	L	Status OK	
	Transfer Roller	L	Status OK	
	Paper Feed Roller	L	Status OK	
	Paper Tray			
	Paper Tray Tray 1	Out of Paper A4	D Plain Paper	
	Paper Tray Tray 1 Bypass Tray	Out of Paper A4	Plain Paper Plain Paper	

• The machine displays "Fuser life end notice", "Transfer roller life end notice" or "Life End of Paper Feed Roller Unit" when one of these counters reaches its yield.

Note

Counter Reset

The process below shows how to reset the yield counters.

- 1. Start the SOM utility.
- 2. Click the "User Tools" tab.
- 3. Click "Printer Configuration".

🛓 SP 311 DNw – 📃 🗖 🔀
Energy Saver Mode 2
Connect Printer Refresh: 3s Status Job Log User Tools List/Test Print List/Test Print
Printer Configuration IP Address About Minimize Close

- 4. The "Access Code" entry dialog appears.
- 5. Input the access code (for customer engineers).and then Click "OK".

Access Code		
Enter Access Code.		
Access Code:		
	OK	Cancel
		m1542111

- 6. Click the "SP Mode 3" tab.
- 7. Click "Clear Transfer Roller EM Counter", "Clear Paper Feed Roller EM Counter" or "Clear Fusing Unit EM Counter" and click "OK".

aper Input Maintenance Syste	m Network 1 Networ	rk 2 Ne	twork	3 Printer SP	Mode 1 Si	> Sr Mod
Destination:	EUROPE	,	Count	er Information-		
PnP ID:	2		Trans	fer Roller: tim	e 14885	
Serial No.:			Paper Fusin	Feed Roller: p g Unit: time	ages 46 14885	
Main Motor Rotation Time:	333		Fusin	fer Koller: pag g Unit: pages	res 46 46	
Charge Bias Setting:	1200		Remai Remai	ning Level of 1 ning Level of 1	Transfer Unit: aper Feed Rolls	99 er: 99
Adjust of Charge Bias:	0 ÷		Kemai Total	ning Level of P Engine Counter	using Unit: 46	99
Sub Scan Magnification:	0		Clear Transfer Roller EM Counter			
Development Bias Setting:	300 Clear Paper Feed Roller EM Counter			ter		
Transfer Roller Bias:	0		Clear Fusing Unit EM Counter			·
Curl Control mode:	55 ÷		Factory Default for Service			
Settings between near empty	and empty of Toner		EM Li	fe Display Set	ting: On	•
Fintable Sheets.			Clear Engine Memory			
frintable Dot Count:	100 ÷					
PDL Menu:	0n 💌			Reset Fus	ing Unit SC	
				1	1	

8. Exit the SOM utility.

4. Replacement and Adjustment

General Cautions

- If there are printer jobs in the machine, print out all jobs in the printer buffer.
- Turn off the main power switch and unplug the machine before you do the procedures in this section.

Special Tools

- PC: Windows XP/Vista/7/8, Windows Server 2003/2003 R2, 2008/2008 R2,2012
- USB or network cable

Note

• A computer is necessary to update the firmware.

Exterior Covers

Front Cover

1. Pull out the standard paper tray [A].



m1542001

2. Two tabs [A]



- 3. On the right side, push down the tab, and then slide the bypass tray [A] to the right.
- 4. Pull out the bypass tray [A].



5. Open the front cover [A].



Vote

- To open the front cover, push the cover release button [B] and (carefully) pull the cover forward and open (it hinges downward).
- 6. Push the right hinge [A] to release.
- 7. Front cover [B]



Left Cover

- 1. Front cover (page 29 "Front Cover")
- 2. Rear cover (page 34 "Rear Cover")
- 3. Remove two screws [A] on the front side of the left cover.



m1542006

4. Remove a screw [A] on the rear upper side of the left cover.



m1542007

5. Pull the rear upper part [A] of the left cover to release the hooks.

4



• Note

- The outside of the cover has marks indicating the position of the hooks.
- 6. Pull the front upper part [A] of the left cover to release the hooks.



m1542009

Note

- The outside of the cover has marks indicating the position of the hooks.
- 7. Pull the front bottom part of the left cover [A] to release the hooks.





- The outside of the cover has marks indicating the position of the hooks.
- 8. Left cover [A]



m1542011



• There are many hooks and tabs inside the left cover. Before removing the left cover, see the photos below.

4



Rear Cover

- 1. Open the rear cover [A]
- 2. Slide the shaft [B] in the direction of the blue arrow, and remove the rear cover [A].



m1542013
Right Cover

- 1. Front cover (page 29 "Front Cover")
- 2. Rear cover (page 34 "Rear Cover")
- 3. Right cover [A] (x 3, hook at arrow mark)



Note

• The outside of the cover has marks indicating the position of the hooks.

Vote

• There are many hooks and tabs inside the right cover. Before removing the right cover, see the photos below.



m1542015

Top Cover

- 1. Front cover (page 29 "Front Cover")
- 2. Rear cover (page 34 "Rear Cover")
- 3. Left cover (page 31 "Left Cover")
- 4. Right cover (page 35 "Right Cover")



When installing the top cover

- When re-installing the top cover, always verify that the two paperweights [A] are lifted. If they are not lifted to fit into the paper slot, the paperweights [A] could be damaged.
- Make sure that these paperweights [A] can be moved smoothly (up and down) after installing the top cover. If these paperweights do not move smoothly, try installing the top cover again.



m1542017

4

Laser Unit

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

Caution Decal Locations

A caution decal is attached as shown below.



WARNING

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

Laser Unit

- 1. Front cover (page 29 "Front Cover")
- 2. Rear cover (page 34 "Rear Cover")
- 3. Left cover (page 31 "Left Cover")
- 4. Right cover (page 35 "Right Cover")
- 5. Top cover (page 36 "Top Cover")



Polygon Mirror Motor

CAUTION

- Turn off the main switch and unplug the machine before attempting any of the procedures in this section. Laser beams can seriously damage your eyes.
- 1. Top cover (page 36 "Top Cover")
- 2. Polygon mirror cover [A] ($\mathscr{P} \times 2$)



m1542020

3. Polygon mirror motor [A] (🖉 x 4, 🕬 x 1)



m1542021

Vote

• Never touch the surface of the mirror with bare hands.

4

Paper Feed

Paper Feed Roller

- 1. Pull out the standard paper tray.
- 2. Front cover (page 29 "Front Cover")
- 3. AIO
- 4. Set the machine with the rear side facing down, resting on the table.



m1542022

- 5. Slide the paper feed shaft [A] to the left side ($\textcircled{0} \times 2$).
- 6. Slide the paper feed roller [B] to the right side, and remove it (hook).



After installing a new paper feed roller

- 1. Enter the "Printer Configuration" in the SOM.
- 2. Select the "SP Mode 3" tab.
- 3. Click "Clear Paper Feed Roller EM Counter" and then click "OK".

4. Exit the SOM.

Friction Pad

- 1. Remove the paper tray unit from the machine before removing the friction pad.
- 2. Friction pad [A] (2 hooks, spring)



When reinstalling the friction pad, do it in this order:

- 1. Replace the spring.
- 2. Insert the right side of the friction pad first, followed by the left side.
- 3. Gently push the friction pad down into the slot and then pull forward very slightly.

Paper End Sensor

- 1. Pull out the standard paper tray.
- 2. Front cover (page 29 "Front Cover")
- 3. AIO
- 4. Set the machine with the rear side facing down, resting on the table.
- 5. Paper end sensor [A] (3 hooks, 💷 x 1)



By-pass Feed Roller

- 1. Front cover (page 29 "Front Cover")
- 2. Left cover (page 31 "Left Cover")
- 3. Right cover (page 35 "Right Cover")
- 4. Pull out the paper tray.
- 5. By-pass lower guide plate [A] (P x 4, 💷 x 2, 🛱 x 2)



Note

- Reinstall the by-pass lower guide plate [A] while pressing the spring [B].
- Be careful that the spring [B] and the ground plate [C] do not fall inside the machine during reinstallation.



m1542026

- 6. By-pass upper guide plate [A]
- 7. By-pass solenoid cover, by-pass solenoid [B] (P x 1)
- 8. Gear [C] (hook)



- 9. Slide the by-pass feed roller shaft [A] to the left side, and remove it.
- 10. Remove the metal cover [B] from the by-pass feed roller [C].



By-pass Feed Roller Friction Pad

- 1. By-pass feed roller (page 44 "By-pass Feed Roller")
- 2. By-pass feed roller friction pad [A] (2 hooks, spring x 1)



m1542028

By-pass Feed Sensor

- 1. Front cover (page 29 "Front Cover")
- 2. Right cover (page 35 "Right Cover")
- 3. By-pass feed sensor [A] (3 hooks, 🖽 x 1)



Paper Feed Clutch

- 1. Drive unit (page 68 "Drive Unit")
- 2. Paper feed clutch [A] (IIII x 1, C x 1, A x 1)



m1542030

Relay Clutch

- 1. Drive unit (page 68 "Drive Unit")
- 2. Relay clutch [A] (©x 1)

4



Registration Clutch

- 1. Drive unit (page 68 "Drive Unit")
- 2. Registration clutch [A] (^Cx 1)



Registration Roller

- 1. Pull out the paper tray.
- 2. AIO
- 3. Top Cover (page 36 "Top Cover")
- 4. Fusing Unit (page 57 "Fusing Unit")
- 5. PSU / HVP unit (page 72 "PSU")
- 6. By-pass lower guide plate (page 44 "By-pass Feed Roller")

- 7. Paper feed clutch (page 47 "Paper Feed Clutch")
- 8. Relay clutch (page 47 "Relay Clutch")
- 9. Registration clutch (page 48 "Registration Clutch")
- 10. Heat insulating plate [A] ($\mathscr{F} \ge 2$)



m1542033

11. Duplex motor base [A] (🕅 x 4)



m1542034

12. Exit roller base [A] (x 2,4 tabs)



m1542035

49

4

13. Imaging unit base [A] (🎤 x 4, 🕬 x 1, 🛱 x 4)



14. Registration unit [A] (🖗 x 8, 🛱 x 3)



15. Upper guide plate [A] (2 hooks)

m1542037



m1542038

16. Remove the registration roller (follower) [A] as shown below (spring x 2, plastic parts x 2).



17. Registration roller (drive) [A] ($\mathbb{C}x$ 2, bushing x 2).



Registration Sensor

- 1. Registration unit (page 48 "Registration Roller")
- 2. Turn the registration unit over.
- 3. Registration sensor [A] (🕬 x 1, 3 hooks)

4



m1542041

Image Transfer

Transfer Roller

- 1. Front cover (page 29 "Front Cover")
- 2. AIO
- 3. Remove the transfer roller [A] as shown below.



4. Remove the bushing x 2, spring x 2, gear x 1, collar x 1 from the transfer roller.



• Do not touch the transfer roller surface when reinstalling the new transfer roller.

After installing a new transfer roller

- 1. Enter the "Printer Configuration" in SOM.
- 2. Select the "SP Mode 3" tab.
- 3. Click "Clear Transfer Roller EM Counter" and then click "OK".
- 4. Exit the SOM.

Note

Toner End Sensor

- 1. Left cover (page 31 "Left Cover")
- 2. Drive unit (page 68 "Drive Unit")
- 3. Toner end sensor [A] (4 hooks)





m1542044

Quenching Lamp

- 1. Front cover (page 29 "Front Cover")
- 2. Top cover (page 36 "Top Cover")
- 3. AIO
- 4. Quenching lamp with the case [A] (2 hooks, 🗊 x 1).



5. Remove the quenching lamp [A] from the case (3hooks).



m1542046

Fusing and Exit

• Switch off the main power, unplug the machine from its power source, and allow the fusing unit to cool before removing it.

Fusing Unit

- 1. Right cover (page 35 "Right Cover")
- 2. Rear cover (page 34 "Rear Cover")
- 3. Release the lock [A], and then remove the entrance guide [B] (💷 x 1)



m1542047

4. Disconnect the three connectors ($\bigcirc x 1$)



m1542048

5. Pass the cable [A] through the hole [B] inside the machine.



m1542049

6. Fusing unit [A] (🖉 x 4)



Note

• Make sure that the two bushings [A] remain in position.



m1542051

Reinstallation

Pass the cable [A] of the fusing unit through the hole [B] outside, after setting the fusing unit.



m1542049

After installing a new fusing unit

- 1. Enter the "Printer Configuration" in SOM.
- 2. Select the "SP Mode 3" tab.
- 3. Click "Clear Fusing Unit EM Counter" and then click "OK".
- 4. Exit the SOM.

4

Thermostat

- Do not recycle a thermoswitch that is already opened. Safety is not guaranteed if you do this.
- 1. Fusing unit (page 57 "Fusing Unit")
- 2. Fusing upper cover [A] (x 4)



m012r141

3. Thermostat [A] (🕅 x 2)



m016r142

Thermistor

- 1. Fusing unit (page 57 "Fusing Unit")
- 2. Fusing upper cover [A] (🕅 x 4)



m012r141

3. Fusing front cover [A] (F x 2)



m012r132

4. Thermistor [A] (𝖗 x 1)



m012r131

Fusing Lamp

- 1. Fusing unit (page 57 "Fusing Unit")
- 2. Fusing side covers [A] (x 2 each)



- 3. Turn over the fusing unit.
- 4. Ground wires (x 1 each)



5. Fusing lamp [A]



4

When reinstalling the fusing lamp

The flat terminal [A] must be placed on the right side of the fusing unit (fusing cable side).



Hot Roller

- 1. Fusing lamp (page 62 "Fusing Lamp")
- 2. Brackets [A] (x 2 each)



- 3. Turn over the fusing unit.
- 4. Fusing upper cover [A] (* x 4)



m012r141

5. Fusing front cover [A] (x 2)



m012r132

6. Fusing entrance guide [A] ($\mathscr{F} \times 3$)



m1542057

- 7. Thermistor (page 60 "Thermistor")
- 8. Hot roller stripper pawls (page 66 "Hot Roller Stripper Pawls")

9. Ground plate [A] (🖗 x 2 each)



m1542058

10. Quenching brush [A] (🖉 x 1)



11. Hot roller [A]





12. Remove the C-ring x 2, gear x 1, cap x 1, bushing x 2 from the Hot Roller.



m1542061

Pressure Roller

- 1. Hot roller (page 63 "Hot Roller")
- 2. Pressure roller [A] (Bearing x 2)



m1542062

Hot Roller Stripper Pawls

- 1. Fusing unit (page 57 "Fusing Unit")
- 2. Fusing upper cover (page 60 "Thermostat")
- 3. Metal holders [A] (1 holder for each pawl: P x 2 each)



4. Hot roller stripper pawls [A] (1 spring for each pawl)



Paper Exit Sensor

- 1. Rear cover (page 34 "Rear Cover")
- 2. Paper exit sensor [A] (💷 x 1, 3 hooks)



Drive

Main Motor

- 1. Left cover (page 31 "Left Cover")
- 2. Harness guide plate [A] (🖗 x 3, 💷 x 2, 🛱 x 1)



m1542065

Drive Unit

- 1. Left cover (page 31 "Left Cover")
- 2. Main board (page 70 "Main board")
- 3. Harness guide plate [A] (𝔅 x 3, 🖤 x 2, ⇔ x 1)





m1542066

Duplex Motor

- 1. Left cover (page 31 "Left Cover")





m1542067

Electrical Components

• When replacing a fuse, always use a fuse of the correct rating. Never use a fuse with the wrong rating. If you do, the machine may be damaged.

Layout of PC Boards



[A] Main board

Main board

- 1. Left cover (page 31 "Left Cover")
- 2. Main board [A] (𝒫 x 4, all 🕬 s)

RTB 4 (M0A7) New procedures added



m1542069
Vote

- Do not connect any connectors to JRS1 and JRS2 when reinstalling the Main board [A]. JRS1 and JRS2 are only used at the factory.
- Do not change the dip switch. The dip switch is only for factory use.
- 3. EEPROM [A]



m1542070

When installing the new main board

- 1. Remove the EEPROM from the old main board.
- 2. Install it on the new Main board after replacing the main board.
- 3. Replace the EEPROM if the EEPROM on the old main board is defective.



• Keep the EEPROM away from any objects that can cause static electricity. Static electricity can damage EEPROM data.

4

• Make sure that the EEPROM is correctly installed on the main board.

EEPROM

- Replacement procedures for the new EEPROM are included in the "page 70 "Main board"" replacement procedure. Refer to "page 70 "Main board"" for details.
- Do the following settings after installing a "new" EEPROM.

-Input the PnP Name, Destination with SOM.

-Adjust the Registration with SOM.

-Input the serial number on the serial number input display after installing the new EEPROM

Note

• Ask your supervisor about how to access the serial number input display.

PSU

- 1. Pull out the standard paper tray.
- 2. Front cover (page 29 "Front Cover")
- 3. Rear cover (page 34 "Rear Cover")
- 4. Left cover (page 31 "Left Cover")
- 5. Right cover (page 35 "Right Cover")
- 6. Top cover (page 36 "Top Cover")
- 7. Main board (page 70 "Main board")
- 8. Drive unit (page 68 "Drive Unit")
- 9. Bracket [A] (🖉 x 2, 🛱 x 1)



- m1542072
- 10. Disconnect three connectors on the left frame.

- 11. Main power switch bracket [A] on the right frame (\mathscr{F} x 2)
- 12. Remove the main power cord [B] as shown below(🕬 x 2, ground screw x 1).



13. Rear lower cover [A] (P x 3).



14. Release the lock [A], and then remove the entrance guide [B] (🕬 x 1).



m1542047

15. Duplex cover [A] ($\mathscr{P} \ge 2$, bushing ≥ 2)



- 16. Set the machine with the front side facing down, resting on the table.
- 17. Release the link [A] (©x 1)



- m1542076



m1542077

19. PSU / HVP unit [A] (🎤 x 4, 📬 x 1, 🛱 x 1)



20. PSU [A] (x 4, x 1)



M1542079-2

HVP

- 1. PSU / HVP unit (page 72 "PSU")
- 2. HVP [A] (🖉 x 4, 💷 x 1).



m1542079

Charge Terminal Case

- 1. Right cover (page 35 "Right Cover")
- 2. Charge terminal case [A] with the harness (\mathscr{P} x 2, \mathfrak{P} x 1, 2 hooks)



m1542080

- 3. Harness [A] (x 4)
- 4. Four springs and terminal pins [B].



m1542081

Cooling Fan

- 1. Right cover (page 35 "Right Cover")
- 2. Top cover (page 36 "Top Cover")
- 3. Cooling fan [A] (∂ x 2, 🕬 x 1, 🛱 x 2)



• Install the cooling fan [A] with its decal facing the outside of the machine.

Wireless LAN Board (For M155, M175)

- 1. Left cover (page 31 "Left Cover")
- 2. Top cover (page 36 "Top Cover")
- 3. Remove the Wireless LAN board [A] from the top cover (hook).



4

Duplex

Relay Sensor

- 1. Rear cover (page 34 "Rear Cover")
- 2. Relay sensor [A] (💷 x 1, 3 hooks)



m1542084

Inverter Sensor

- 1. Duplex transport guide (page 72 "PSU")
- 2. Inverter sensor [A] (🕬 x 1, 3hooks)



m016r160

Smart Organizing Monitor

Overview

SOM (Smart Organizing Monitor) is a utility which can check the status of a printer and set up a printer from a PC. This utility is executed from a printer driver.

Printer Driver Installation (USB Connection)

- 1. Close all applications currently running.
- 2. Check the following:
 - The printer's USB cable is disconnected
 - The printer's main power switch is turned off
- 3. Insert the CD-ROM into the CD-ROM drive.

The installer starts.

- 4. Select the interface language, and then click [OK].
- 5. Click [DDST Printer Driver] or [PCL 6 Printer Driver].

The software license agreement appears.

- 6. After reading the agreement, click [I accept the agreement.], and then click [Next >].
- In the [Method to install printer driver] dialog box, clear the [Search for network printers.] check box, select the [Connect a printer using a USB cable.] check box, and then click [Next >].
- 8. Select this printer, and then click [Next >].

A message appears, asking you to check that the USB cable is not connected and that the printer's main power switch is turned to off.

- 9. Check the USB cable and the printer status, and then click [Next >].
- When the [<Auto-detect USB Port>] dialog box appears, connect this printer to the computer using a USB cable, and then turn the printer's main power switch on. USB auto detection begins.
- 11. When the dialog box asking you to use this printer as the default printer appears, click either key.
- 12. When a message appears informing you that the installation was successfully completed, click [Finish].

Entering the Printer Configuration

To enter the service system setting;

1. Start the SOM utility.

😫 SP 311 DNw – 🔚 🗖 🔀
Energy Saver Mode 2
Connect Printer Refresh: 3s 💌
Status Job Log User Tools List/Test Print List/Test Print Configuration Page Print
Printer Configuration IP Address
About Minimize Close
m154210

- 2. Click the "User Tools" tab.
- 3. Click "Printer Configuration".
- 4. The "Access Code" entry dialog appears.

Access Code	×
Enter Access Code.	
Access Code:	жижжжж
	Cancel
	m012s502

- 5. Input the access code (for customer engineers).
- 6. Click the "OK" button.



m1549000

7. The "Printer Configuration" GUI appears.

Printer Configuration Menu List

The SOM has the following printer configuration menus. Each menu contains various setting items. The details of each setting item are explained in this section below.

Menu	Description		
Paper Input	Adjusts the paper type and size settings.		
Maintenance	Adjusts the image registration and executes the color registration adjustment.		
System	Adjusts the system settings of the machine.		
IPv6	Adjusts network settings (IPv6).		
Network 1	Adjusts network settings (Information, Interface, TCP/IP).		
Network 2	Adjusts network settings (IPX, SMTP).		
Network 3	Adjusts network settings (SNMP, Apple Talk).		
Wireless	Adjusts network settings (Wireless).		
Printer	Adjusts the printer driver settings (PCL, PS).		
SP mode 1	Adjusts and executes service program modes.		

Menu	Description		
SP mode 2	Adjusts and executes service program modes.		
SP mode 3	Adjusts and executes service program modes.		

Paper Input

www.Scow	Default Tray		Paper Size	
AL 010 x 297 avail	Tray 1	Tray 1 💌		
aper Type	Dans Tru Doub		Paper Type	
Plain Paper 1	· Biddens rush Lunguida		Pien Paper 1	
	Machine Settine(s)			
CANTON FROM SHIT	Size Mismatch Detection		Contrast (New York, Contrast	
	ION.	-	the state of the s	
Abarrana fritt - 118	in the second seco	and	Alter washington 2018	
Dartical 122 - 725			United 187 - 274	
-				
100 2			100 21	

m1549000

ltem	Selections	Remarks
Tray 1 Paper Size (standard)	A4 */ B5/ A5/ B6/ A6/ Legal/ Letter*/ Half Letter/ Executive/ 8" x 13"/ 8.5" x 13"/ Folio/ 16K/ Custom Paper Size	*: Default (NA: Letter, EU: A4) The selectable paper sizes depend on the model. For details, refer to the "Supported Paper Size List".
Tray 1 Paper type (standard)	Thin Paper/ Thick Paper 1/ Thick Paper 2 / Plain Paper 1*/ Recycled Paper/ Color Paper/ Preprinted Paper/ Prepunched Paper/ Letterhead/ Bond Paper/ Cardstock/ Labels	*: Default The selectable paper types depend on the model. For details, refer to the "Supported Paper Types" in the "Specifications" chapter.

ltem	Selections	Remarks		
Bypass Tray Paper Size	A4 */ B5/ A5/ B6/ A6/ Legal/ Letter*/ Half Letter/ Executive/ 16K/ $4_{1/8}$ " x 9 _{1/2} "/ 3 _{7/8} " x 7 _{1/2} "/ C5 Env/ C6Env/ DL Env/ Custom Paper Size	-		
Bypass Tray Paper type	Thin Paper/Thick Paper 1/Thick Paper 2 / Plain Paper 1*/Recycled Paper/ Color Paper/Preprinted Paper/ Prepunched Paper/Letterhead/Bond Paper/Cardstock/Labels/Envelope/ OHP	-		
Custom Paper Size: Unit mm */ Inch		If the paper size factory default is A4, then the custom size factory default unit is mm.		
Size. Unit		Letter, then the custom size factory default unit is inch.		
		3.54 – 8.50 inch. Precision is two digits after the decimal point in inch or one digit after the decimal point in mm.		
Custom Paper Size: Horizontal	100-216mm	If an input value is more than the maximum value, then it will be treated as the maximum value.		
		If an input value is less than the minimum value, then it will be treated as the minimum value.		
		5.83 – 14.02 inch. Precision is two digits after the decimal point in inch or one digit after the decimal point in mm.		
Custom Paper Size: Vertical	148-356mm	If an input value is more than the maximum value, then it will be treated as the maximum value.		
		If an input value is less than the minimum value, then it will be treated as the minimum value.		

ltem	Selections	Remarks		
Tray Priority:	Trayl *			
Default Tray	Bypass Tray			
	Machine Setting(s)			
Bypass Tray Priority	Any Size/Type	-		
	Any Custom Size/Type			
Size Mismatch Detection	On / Off*	-		

Maintenance

Fred Ter	of Sheet				
Horizontal	p d				
Vertical	E a				
Registration Byp	ess Tray	Registration Duple	or Tray		
Print Te	st Sheet	Print T	est Sheet		
Horizonfal	1	Horizontat	E q		
Vertical	₽ d	Vertical	E a		
Horizonfall Vertical	E H	Horizontal Vertical	E a		

m1549001

Group (Tab)	ltem	Selections	Remarks
	Print Test Sheet	-	Sends a PCL command to the printer to print a test sheet.
	ΠΟΠUQ		It is disabled when tray 1 is not installed.
Registration Tray 1	Adjustment Horizontal	(-15 to +15) step	0.34 mm per step. Range is -5 mm to +5 mm. If the machine settings are reset to the factory defaults, this value does not change.
A	Adjustment Vertical	(-15 to +15)	0.24 mm per step. Range is -3.6 mm to +3.6 mm
		step	If the machine settings are reset to the factory defaults, this value does not change.
	Print Test Sheet button	-	Sends a PCL command to printer to print a test sheet.
Registration Bypass Tray	Adjustment Horizontal	(-15 to +15) step	0.34 mm per step. Range is -5 mm to +5 mm.
	Adjustment Vertical	(-15 to +15) step	0.24 mm per step. Range is -3.6 mm to +3.6 mm
	Print Test Sheet button		Sends a PCL command to printer to print a test sheet.
Registration Duplex Tray	Adjustment Horizontal	(-15 to +15) step	0.34 mm per step. Range is -5 mm to +5 mm.
	Adjustment Vertical	(-15 to +15) step	0.24 mm per step. Range is -3.6 mm to +3.6 mm

System

ter Configuration		
aper Input Maintenance Syste	m IPv6 Network 1 Network 2 Network	k 3 Wireless Printer SP Mode 1 SP Mode 2 SP Mode 3
Sub Paper Son 2 Side Print Distance Dis	Energy Saver Mode 1 Off T Energy Saver Mode 2 On T Energy Saver Mode 2 Timer Energy Saver Mode 2 Timer Device Connect Up to 32 alphanumeric characters)	Low Humidity Mode 이미 또 Inneer Density Adjustment 한 순 Print Emur Paes 이미 또
Pres		Restore Factory Defaults
Access Code	Language Options When To	oner Finishes
Use	English . Elsa Printing	
Change Access Code		
		or I some I some I som
	L	04 44200 0.007

m1549002

ltem	Selections	Remarks
Auto Continue	On/Off *	-
Copies	1*-999	-
Sub Paper Size	Off */ Auto	-
2 Sided Print	Off */ Short Edge Bind/ Long Edge Bind	-
Blank Page Print	Print */ Not Print	"Manual Duplex/Cover" has higher priority than the "Blank Pages" setting.
Energy Saver Mode 1	On	-
	Off *	-
	On *	-
Energy Saver Mode 2	Off	-
Energy Saver Mode 2 Timer	1*-240 min	-
Laure Humaialite e Adra ala	On	-
Low Inumially Mode	Off *	-
Image Density Adjustment	-3 to 3 (0*)	-

Item	Selections	Remarks
Dist From D	On	-
Print Error Page	Off *	-
Device Comment	Null string*	Up to 32 alphanumeric characters. The factory default is 'null string'.
Restore to Factory Default button	-	Restores all settings to the factory default settings for the market area setting.
	English *	
	French	
	German	
	Italian	-
	Spanish	-
	Dutch	-
	Danish	-
	Swedish	
	Norwegian	
Language	Portuguese	The factory setting is English if the market is NA, EU or ASIA.
	Polish	
	Czech	-
	Hungarian	-
	Finnish	-
	Japanese	-
	Simplified Chinese	
	Russian	
	Brazilian	
	Turkish	

ltem	Selections	Remarks
Assass Code	Use *	
Access Code	Do not use	-
Access code change button	-	Changes the access code. The button is grey if the Access code is set to "Do not use".

IPv6

Address From DHCP Dramless Auto Address Link local address Pvd default nouter (Dateway) Pvd default nouter (Dateway) Monual address Pvefix length Gateway	Prid Domain Name
--	------------------

m1549003

ltem	Selections	Remarks
IPv6 DHCP	Disable*/Enable	-
Address From DHCP	-	Displays Address from DHCP
Stateless Auto Address	-	Displays Stateless Auto Address.
Link Local Address	-	Displays Link Local Address.
IPvó default router (Gateway)	-	Displays IPv6 Default Gateway.
Manual Address	-	Input IPv6 Address Manually.
Prefix length	-	Input Prefix length.

Item	Selections	Remarks
Gateway	-	Input Gateway.
ΙΡνό	Disable*/Enable	-
DNS method	Auto*/Manual	-
IPv6 Primary DNS Server	-	-
IPv6 Secondary DNS Server	-	-
IPv6 Domain Name	-	-

Network 1

Information		TCP/IP
Dem Du Device Name SP Comment MAC Address 00	04 311004+ -26-73-52-0A-2F	2* Address Statement Hugs. 10 0 0 0 0 0 Delayet Gaterier Address DHCP DHCP DHCP
Interface	Fourt USB Port	DRE Method
of medal loop	for al	Ado *
/O Timeout (Network)	Weekees Exection	Printers UNL Survey II
60 seconda 💌	Active	
Ethernet Speed		Child Primary Align
Auto Select 💌		Le fr 22 aprilements staractina?

Group (Tab)	ltem	Selections	Remarks
Information	Device Name		String length is 32
	Comment		String length is 32
	Mac Address		

Group (Tab)	ltem	Selections	Remarks
TCP/IP	IP Address	xxx.xxx.xxx	This setting is not available if DHCP is enabled.
			If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
			The default setting is "192.0.0.192" when DHCP is off.
	Subnet Mask	This setting is not available if DHCP is enabled.If this setting is changed, the printer p must be turned off/on for the new se take effect.Will show all zero if network initialized not finished. Any change will be ignor before the end of network initialization The default setting is "255.255.255.DHCP is off.This setting is not available if DHCP is 	This setting is not available if DHCP is enabled.
			If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
			Will show all zero if network initialization is not finished. Any change will be ignored before the end of network initialization.
			The default setting is "255.255.255.0" when DHCP is off.
	Default Gateway Address	xxx.xxx.xxx	This setting is not available if DHCP is enabled.
			If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
			Will show all zero if network initialization is not finished. Any change will be ignored before the end of network initialization.
			The default setting is "192.0.0.192" when DHCP is off.

Group (Tab)	ltem	Selections	Remarks
TCP/IP	DHCP	On */ Off	If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
	DNS Method	Auto */ Manual	
		XXX.XXX.XXX	Up to 32 alphanumeric characters. This setting is not available if DHCP is enabled.
	Primary DNS Server IP		The default setting is "0.0.0.0"when DHCP is off.
			The setting when DHCP is changed from on to off is the previous setting when DHCP was on.
			If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
	DNS Domain Name		Up to 32 alphanumeric characters. This setting is not available if DHCP is enabled. The default setting when DHCP is off is null string.
			The setting when DHCP is changed from on to off is the previous setting when DHCP was on.
			If this setting is changed, the printer power must be turned off/on for the new setting to take effect.

Group (Tab)	ltem	Selections	Remarks
Interface	I/O Timeout (USB)	15 * 60 300	-
	I/O Timeout (Network)	15 60 * 300	-
	Ethernet speed	Auto Select* 10M half 10M full 100M half 100M full	-
	Fixed USB Port	On/ Off*	
	Wireless Function	Activ*/Inactive	

Network 2

SMTP Auftentication Port Number () to 655350	Ger Community Up to 15 sightmuneric characters) jublic Messee III Attense
User Hane Ula to 32 alphanumeric charactera) Rossecut Ula to 32 alphanumeric charactera) E-mail Address Ba to 64 alphanumeris charactera)	Pac Activated

Group (Tab)	ltem	Selections	Remarks
		Anonymous*	
	SMTP AuthenticationSMTP AuthenSMTP Server NameNull strPort Number25*	SMTP Authentication	
		POP before SMTP	
		Null string*	Up to 32 alphanumeric characters. The factory default is 'null string'.
		25*	1 to 65535 The factory default is 25.
SMTP	User Name	Null string*	Up to 32 alphanumeric characters. The factory default is 'null string'.
	Password	Null string*	Up to 32 alphanumeric characters. The factory default is 'null string'. User-input characters and characters read back from the printer will show "*" in order to protect the user password.
	E-mail Address	Null string*	Up to 64 alphanumeric characters. (address for receiving e-mail) The factory default is 'null string'.
	Get Community	public	Up to 15 alphanumeric characters.
SNMP	Manager IP Address	0.0.0.0 *	The factory default is 0.0.0.0 If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
IPsec Activated	IPsec Activated	Disable*/Enable	-

Network 3

Alert T		
Display Name Elip to 32 alphanumeric characters)	E-mail Address Up to 54 alphanumeric characters)	
1		
/ Paper Jam	Print Cartridge Near Empty	
F Print Cartridge Empty	The Paper	
F Service Required	Cover Open	
Alert 2		
Display Name (the to 22 address sector that actual)	E-mail Address (In to 64 address descentes)	
tap to oc aprianante c characterar		
F Paper Jam	F Print Cartridge Near Empty	
F Print Cartridge Enpty	T No Paper	
C Service Reported	Cover Open	

m1549006

Group (Tab)	ltem	Selections	Remarks	
		Paper Jam		
	Display Name	Print Cartridge Empty	Up to 32 alphanumeric characters.	
Alart 1		Service Required		
Alerr		Print Cartridge Near Empty		
	E-mail Address	No Paper	Up to 64 alphanumeric characters.	
		Cover Open		
		Paper Jam		
	Display Name	Print Cartridge Empty	Up to 32 alphanumeric characters.	
Alert 2		Service Required		
		Print Cartridge Near Empty		
	E-mail Address	No Paper	Up to 64 alphanumeric characters.	
		Cover Open		

"*" indicates the factory default value.

Wireless



m1549007

Group (Tab)	ltem	Selections	Remarks
	Wireless Status	-	
Wireless LAN Status	MAC Address	-	
	Communication Mode	-	
	SSID	-	Displays Wireless LAN Status.
	Channel	-	
	Indication of Wireless Signal Strength	-	
Configuration	-	Manual Setup	-
Method	-	Setup with WPS	-

Group (Tab)	ltem	Selections	Remarks
	SSID	-	Input SSID
	Communication Mode	Infrastructure	Selects communication
		Ad-Hoc	method.
	Ad-Hoc Channel	1 to 11	Sets Ad-Hoc Channel.
		Open System	
	Authoritantian	Shared Key	Salasta suthentiastics method
	Aumentication	WP A2-PSK	Selects authentication method.
Wireless LAN		Mix Mode WPA/WPA2	
Setting	Encryption	None*	
		WEP	Selects encryption method.
	WPA Passphrase	-	Input WPA passphrase.
	WEP Key Length	64bit*/128bit	Selects WEP key length.
	WEP Transmit Key ID	#1 to #4	
	WEP Key Format	Hexadecimal	
		ASCII	
One Touch	Wi-Fi Protected Setup with Push Button		
Setting (WPS)	Wi-Fi Protected Setup with PIN Code		

Printer

Orientations	Synbol Set			
Portrat	Tho-e	-		
Form Lines	Courier Font			
P* 33	Ineevia	-		
Fort Number	Est. A4 Widty			
	Amount CB to 1	-		
1200 +1	Con Con a co	-		
	- Paul	21		
font Price				
1000 11				

m1549008

Group (Tab)	ltem	Selections	Remarks
	Orientation	Portrait *	
	Onenidiion	Landscape	
PCI	Form Lines	5 to 128 by 1	If the machine settings are reset to the factory defaults, this value does not change.
FCL	Font Number	0*-89	The factory default value is 0.
	Font Size	4 to 999.75 by 0.25 (12 *)	The factory default value is 12.
	Font Pitch	0.44 to 99.99 by 0.01 (10 *)	The factory default value is 10.

Group (Tab)	ltem	Selections	Remarks
Group (Tab)	Item Symbol Set	Selections Roman-8, Roman-9, ISO L1, ISO L2, ISO L5, PC-8*, PC-8 D/N, PC-850, PC-852, PC-858, PC-8 TK, Win L1, Win L2, Win L5, Desktop, PS Text, VN Intl, VN US, MS Publ, Math-8, PS Math, VN Math, Pi Font, Legal, ISO 4, ISO 6, ISO 11, ISO 15, ISO 17, ISO 21, ISO 60, ISO 69, Win 3.0, MC Text, ISO L6,	Remarks
		PC-1004, Win Balt	
	Courier Font	Regular*	
	Courier Form	Dark	
	Ext A1 Width	Off*	
		On	
	Append CR to	Off *	
	LF	On	

SP Mode 1



m1549009

Registration: Tray 1	Horizontal	Adjusts the horizontal registration for tray 1. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / -1 (Default) / 0.1 mm/step]
	Vertical: Plain Paper	Adjusts the vertical registration of plain paper for tray 1. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 17 (Default) / 0.1 mm/step]
	Vertical: Thick Paper	Adjusts the vertical registration of thick paper for tray 1. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 17 (Default) / 0.1 mm/step]
	Vertical: Thin Paper	Adjusts the vertical registration of thin paper for tray 1. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 17 (Default) / 0.1 mm/step]

	Horizontal	Adjusts the horizontal registration for the bypass tray. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / -3 (Default) / 0.1 mm/step]
Vertico Registration: Bypass Tray Vertico Vertico	Vertical: Plain Paper	Adjusts the vertical registration of plain paper for the bypass tray. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 15 (Default) / 0.1 mm/step]
	Vertical: Thick Paper	Adjusts the vertical registration of thick paper for the bypass tray. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 15 (Default) / 0.1 mm/step]
	Vertical: Thin Paper	Adjusts the vertical registration of thin paper for t the bypass tray. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 15 (Default) / 0.1 mm/step]
Registration: Duplex Tray	Horizontal	Adjusts the horizontal registration the back side in duplex mode. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 6 (Default) / 0.1 mm/step]
	Vertical: Plain Paper	Adjusts the vertical registration of plain paper for the back side in duplex mode. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 18 (Default) / 0.1 mm/step]
	Vertical: Thick Paper	Adjusts the vertical registration of thick paper for the back side in duplex mode. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 0 (Default) / 0.1 mm/step]
	Vertical: Thin Paper	Adjusts the vertical registration of thin paper for the back side in duplex mode. If the machine settings are reset to the factory defaults, this value does not change. [-40 to 40 / 18 (Default) / 0.1 mm/step]

	00* – 7F			
Brand ID	and ID Displays the current brand ID number.			
	Do not change this setting (Designed for Factory Use).		
Auto IP Setting	[On or Off (Default)]			
	Main Motor	Output check (Main Motor)		
	Middle Clutch	Output check (Relay Clutch)		
	Tray1 Clutch	Output check (Paper Feed Clutch)		
	Bypass solenoid	Output check (Bypass solenoid)		
	Registration clutch	Output check (Registration Clutch)		
Output aboak	Reverse Clutch	Output check (Reverse Clutch)		
Опригспеск	Fan High Speed	Output check (Fan High Speed)		
	Fan Low Speed	Output check (Fan Low Speed)		
	Erase Lamp	Output check (Quenching Lamp)		
	Polygon Motor	Output check (Polygon Motor)		
	Duplex Motor Normal	Output check (Duplex Motor Normal)		
	Duplex Motor Reverse	Output check (Duplex Motor Reverse)		
	Displays Print Cartridge Info	ormation.		
Print Cartridge	Displays			
Information	Print cartridge: Kind ID, Tor	ner End History, Refill Flag Status, Unit Print Counter		
	OPC: OPC Rotation Time, F	Prev. OPC rotation time, Alert Status, Prev. Alert Status		

SP Mode 2

ter Configuration		
eer Jout Maintenance Siysten 1946 Anount of Paper Buckle at the Presistant Trev 1 Vertical Plan Paper P2 2 Thick Paper P2 2 Thin Paper P2 2	Network 1 Network 2 Network 3 Wereless n Roler Bypass Tray Vertical Plain Paper 2 4 Track Paper 2 4 Track Paper 2 4 Duples Tray Vertical Plain Paper 0 4 Track	Turke SP Mode 1 SP Mode 2 SP Mode 3 Fusive Teleperature
SC859 Detection Con 2 Refill mode settings Auto in Handling Node on "Waste Toner full" of the	Print Test Partiern fill mode refilled ADD Off	Tray T Jam 0 Bypass Tray Jam 0 Daglex Jam 0 Inner Jam 0 Cuter Jam 0

m1549010

	Vertical: Plain Paper	Adjusts the amount of paper buckle at the registration roller for each tray and paper type. [-8 to 8 / -2 (Default) / 1 mm/step]
Amount of Paper Buckle at the Registration Roller: Tray 1	Vertical: Thick Paper	Adjusts the amount of paper buckle at the registration roller for each tray and paper type. [-8 to 8 / 0 (Default) / 1 mm/step]
	Vertical: Thin Paper	Adjusts the amount of paper buckle at the registration roller for each tray and paper type. [-8 to 8 / -2 (Default) / 1 mm/step]
Amount of Paper Buckle at the Registration Roller: Bypass Tray	Vertical: Plain Paper	Adjusts the amount of paper buckle at the registration roller for each tray and paper type. [-8 to 8 / -2 (Default) / 1 mm/step]
	Vertical: Thick Paper	Adjusts the amount of paper buckle at the registration roller for each tray and paper type. [-8 to 8 / 0 (Default) / 1 mm/step]
	Vertical: Thin Paper	Adjusts the amount of paper buckle at the registration roller for each tray and paper type. [-8 to 8 / -2 (Default) / 1 mm/step]

Amount of Paper Buckle at the Registration Roller: Duplex Tray	Vertical: Plain Paper	Adjusts the amount of paper buckle at the registration roller for each tray and paper type. [-8 to 8 / 0 (Default) / 1 mm/step]	
	Vertical: Thick Paper		
	Vertical: Thin Paper		
Fusing Temperature	Plain Paper	Adjusts the fusing temperature for plain paper. [150 to 190 / 175 (Default) / 5°C/step]	
	Thick Paper 1	Adjusts the fusing temperature for thick 1 paper. [160 to 200 / 185 (Default) / 5°C /step]	
	Thin Paper	Adjusts the fusing temperature for thin paper. [140 to 165 / 150 (Default) / 5°C/step]	
	Envelope	Adjusts the fusing temperature for envelope. [170 to 200 / 200 (Default) / 5°C/step]	
	Postcard	Adjusts the fusing temperature for postcard. [160 to 200 / 185 (Default) / 5°C/step]	
	Thick Paper 2	Adjusts the fusing temperature for thick 2 paper. [160 to 200 / 185 (Default) / 5°C/step]	
	Recycled	Adjusts the fusing temperature for recycled paper. [150 to 180 / 160 (Default) / 5°C/step]	
	Standby Mode	Adjusts the fusing temperature in the standby mode. [120 to 175 / 155 (Default) / 1°C/step]	
	Low Power Mode	Adjusts the fusing temperature in the low power mode.	
		[80 to 135 / 120 (Default) / 5°C/step]	
Jam Counter	Displays Jam Counter for each location.		
	Total Jam, Tray 1 Jam, Bypass Tray Jam, Duplex Jam, Inner Jam, Outer Jam		
Print Test Pattern	Prints the test pattern.		
SC559 Detection	[On or Off (Default)]		
Refill Mode Setting	Auto refill mode	Do not change this setting (Designed for Factory Use).	
	Pure refill mode	Do not change this setting (Designed for Factory Use).	

Handling Mode on "Waste Toner full"	Sets the machine operation at "waste toner full" of the refilled AIO.
of the refilled AIO	[On or Off (Default)]

SP Mode 3



Type E Models: RTB 5 IMPORTANT NOTE on "Clear Engine Memory" button Clicking the "Clear Engine Memory" button in the SOM (printer configuration screen) or the SP mode will falsely reset all the engine related values stored in the main board, and the machine must be replaced.

 10	430	,,,,

Destination	Sets the destination and updates the engine setting. Do not change this setting (Designed for Factory Use). JPN/ NA/ EU / ASIA/ China/ TAIWAN/ KOREA		
PnP ID	Do not change this setting (Designed for Factory Use).		
Serial No	Do not change this setting (Designed for Factory Use).		
Main Motor Rotation Time	Displays the main motor rotation time.		
Charge Bias	Adjusts the charge bias. [1100 to 1300 / 1200 / 20 /step]		
Adjust of Charge Bias	Charge bias correction for dirty background 0: OFF (Default) 1: ON 2 to 255: not available [0 to 255 / 0 / 1 /step]		
Sub Scan Magnification	Adjusts the sub scan magnification. [-8 to 8 / 0 / 1 /step]		
--	--	---	--
Development Bias Setting	Adjusts the developer bias. [270 to 330 / 300 / 15 /step]		
Transfer Roller Bias	Adjusts the transfer roller [-6 to 6 / 0 / 1 /step]	bias.	
Curl Control mode	Corrects the face curl of paper. 0: OFF (28ppm) 1: Sets the engine speed at 14ppm after printing 1 minute. 2: Sets the engine speed at 14ppm. 3 to 255: not available [0 to 255 / 0 / 1 / step]		
Settings between near empty and empty of Toner status	Printable Sheets	Adjusts the printable sheets between "toner near end" to "toner end". [0 to 255 / 200 / 1 sheet/step]	
	Printable Dot Count	Adjusts the printable dot count between "toner near end" to "toner end". [0 to 255 / 100 / 1 dot/step]	
PDL Menu		ON = "PDL Settings" is shown (Default) OFF = "PDL Settings" is hidden	
Counter Information		Display the counter information.	
Clear Transfer Roller	EM Counter	Clears the EM counter of the transfer roller.	
Clear Paper Feed Roller EM Counter		Clears the EM counter of the paper feed roller.	
Clear Fusing Unit EM Counter		Clears the EM counter of the fusing unit.	
Factory Default for Service		 Resets all the settings to factory default. Note Clears/ resets the contents of the controller memory (all data programmed by the user, log data application counters) to factory default. After executing, initial setup menu starts after poweron. 	

EM Life Display	Sets the display of alert when each EM parts yield of this machine is reached. [On or Off (Default)]	
Clear Engine Memory	Resets the engine settings stored in the EEPROM to factory default.	
Reset Fusing Unit SC	This button is for resetting an SC related with the fusing errors.	

Reports

Configuration Page

The configuration page has information about the machine's status. Print this sheet as shown below. Check the configuration page when doing machine maintenance.

To Print the Configuration Page

- 1. Start the SOM utility.
- 2. Click the "User Tools" tab.
- 3. Select "Configuration Page" in the "List/ Test Print".
- 4. Click "Print".

🚔 SP 311 DNw -		
Energy Sav	er Mode 2	
Con Status Job Log User Tools List/Test Print List/Test Print Configuration Page	nect Printer Refresh:	35
Printer Configuration	IP Address Minimize	Close
		m1542109

- 5. The configuration page is printed.
- Configuration page example

Configuration Pag	ge (1/2)	RIC	COH SP 311DN
System Reference Machine ID Total Memory Finnware Version Printer Language Print Catridge Transfer Roller Paper Foed Roller Spation Line	128MB Bootloader[V0.20], Firmware[v PCL 5e[v0.68], PCL XL[v0.68]	0.68/M1545051B], Engine[0.21]	
Page land			
Paper input Tray Priority Bypass Tray Priority Bypass Tray Tray 1 Size Mismatch Detection	Tray 1 Machine Setting(s) A4 A4 Off	Plain Paper (65-99g/m2) Plain Paper (65-99g/m2)	
Maintenance			
Registration Horizontal: Tray I Horizontal: Bypass Tray Horizontal: Duplex: Back Side	0 0 0	Vertical: Tray 1 Vertical: Bypass Tray Vertical: Duplex: Back Side	0 0 0
System			
Auto Continue Sub Paper Size Blank Page Print Energy Saver Mode 2 Default Paper Size Auto F-mail Notification	Off Off On On A4 Off	Copies Duplex Energy Saver Mode 1 Energy Saver Mode 2 Timer Print Error Report Loss Monsière Mode	1 Off Off I minute Off Off
901 Manu		Low Hannahy More	UII.
Orientation Font Number Font Pitch Courier Font Append CR to LF	Portrait 0 10.00 Regular Off	Form Lines Point Size Symbol Set Extend A4 Width Besolution	64 12.00 PC-8 Off 600 dpi
Host Interface		The second second	000 x 000 upr
Fimeout: USB DHCP Subnet Mask Ethernet Fixed USB Port	60 seconds Active 255.255.255.0 Auto Select Off	Timeout: Network IP Address Gateway Address USB Setting IPsee	60 seconds 133.139.166.67 133.139.166.1 Auto Select Inactive
nterface Information			
AC Address	00-26-73-52-ca-2f	Host Name	311DNw-52CA2F
lounter List lotal Counter	25	Duplex Counter	0
aper Misfeed Counter iotal Counter aper Misfeed: Standard Tray	0	Paper Misfeed: Duplex Unit Internal Misfeed	0

m1542097

Total Counter

Total Counter:

The total counter incremented by the "**main board**" each time the board issues a print command to the engine.

The value is calculated as follows:

Total counter = Printer counter + Reports print

Application Counters:

Application counters exist for each individual primary machine function, and are incremented by the "**main board**" each time the board issues a print request for the function in question.

🚼 Important 🔵

• The application counters is 0 If you select "Factory Default for Service" in the SP mode 3.

5

Other Types of Reports

You can also check other reports than reports of configuration page with "List/Test Print" in the SOM or Web image monitor.

- Test Page
- PCL Config./Font Page

Prints the current configuration and installed PCL font list.

• Maintenance Page (Web image monitor only)

Prints the maintenance status.

Test Page

When you check an image problem or other problems, it might be necessary to print a test page. Follow the test page print procedure below to print a test page.

To Print the Test Page

- 1. Start the SOM utility.
- 2. Click the "User Tools" tab.
- 3. Select "Test Page" in the "List/ Test Print".
- 4. Click "Print".

🚔 SP 311 DNw -	gy Saver Mode 2		
	Connect Printer	Refresh:	38 💌
Status Job Log User Tools List/Test Print List/Test Print Test Page		Print	
Printer Configuration		IP Address	
About	Min	imize	Close
			m1542110

- 5. The test page is printed.
- Test page sample



m118t100

5

Test Pattern Printing

Follow the test pattern print procedure below to print a test pattern.

To Print the Test Pattern

- 1. Start the SOM utility.
- 2. Click the "User Tools" tab.
- 3. Click "Printer Configuration".

SP 311DNw -	
Connect Printer Refresh: 3s	-
Status Job Log User Tools List/Test Print List/Test Print Configuration Page Print	
Printer Configuration IP Address	
About Minimize Close	
mʻ	542108

- 4. The "Access Code" entry dialog appears.
- 5. Input the access code (for customer engineers).and then Click "OK".

Access Code		
Enter Access Code.		
Access Code:		
	OK	Cancel
		m1542111

- 6. Select the "SP Mode 2" tab.
- 7. Click "Print Test Pattern".

rinter Configuration	
Paper Input Maintenance System IPv6 Network 1 Network 2 Network 3 Wireless Amount of Paper Buckle at the Registration Roller Tray 1 Vertical: Plain Paper: 0 + Thick Paper: 0 + Thin Paper: -2 + Thick Paper: 0 + Thin Paper: -2 + Thick Paper: 0 + Thin Paper: 0 + Plain Paper: 0 + Thick Paper: 0 + Plain Paper: 0 + Thick Paper: 0	Printer SP Mode 1 SP Mode 2 Fusing Temperature Plain Paper: 175 + Thick Paper 1: 185 + Thin Paper: 150 + Envelope: 200 + Postcard: 185 + Thick Paper 2: 185 + Recycled: 160 + Standby Mode: 155 + Low Power Mode: 120 + Jam Counter Total Jam 0
SC559 Detection: Off Print Test Pattern Refill mode settings: Auto refill mode Handline Mode on "Waste Toner full" of the refilled AIC: Off	Trav 1 Jam 0 Duplex Jam 0 Inner Jam 0 Outer Jam 0
ОК	Cancel Apply Help

- 8. The following three test pattern pages (Checker flag/ Grid pattern/ Trimming pattern) are printed.
- Test pattern samples



m016t502

Updating the Firmware

Comportant 🔁

 Never turn the machine's main power off while the firmware is being updated, as this could damage the main board.

Checking the Machine Firmware Version

To update the firmware for this machine, you need the most recent version of the firmware (firmware file downloadable from the Internet).

- 1. Start the SOM utility.
- 2. Click the "User Tools" tab.
- 3. Select "Configuration Page" in the "List/ Test Print".
- 4. Click "Print" to print the "Configuration Page", which shows the "Firmware Version".

Updating the Main Firmware

Using the following procedure to update the main firmware, be sure to print the configuration page both before and after the update. Comparing pre- and post-update configuration pages allows you to check whether or not the update was successful.

Follow the procedure carefully, and note that it will vary in parts depending on which version of the firmware is currently installed.

Procedure

When updating firmware, always disconnect any other cable(s) than the one being used for the update operation.

(When updating firmware via USB cable, first disconnect any network and phone line cables, and when updating firmware via LAN cable, first disconnect any USB and phone line cables.)

- 1. Prepare:
 - Computer: Windows XP/Vista/7/8, Windows Server 2003/2003 R2, 2008/2008 R2,2012
 - USB cable or LAN (Local Area Network) cable
- 2. Download the firmware files to your computer.
 - FwUpdateTool.exe (User Mode execute file)
 - Setting.ini (Parameter setting)

- xxx.brn (Main Firmware)
- 3. Make a folder on a local drive of your computer and save the files there.
- 4. Connect a computer and the machine through a network or directly by USB.
- 5. Click the "FWUpdateTool.exe" file to execute the updating program.
- 6. Check the information, and then click [OK].
- For a USB connection, click "F/W Update (USB)" [A]. For a network connection, enter the machine's IP address in "Machine IP" [B], and then click "F/W Update (NET)" [C].

	Firmware Update for Users v0.05	Σ	3
[A] —	F/W Update (USB)	F/W Update (NET)	[C]
	Machine IP:		[B]
	Never turn off the engine pow FW Update Done. ***Please message appears on the cons	ver before the reboot the Machine.*** ole.	
	Cle	ose	
		m154211	3

8. The following message appears on the screen:

"Firmware is Updating ..." and the Alert LED (red) on the printer starts blinking. (The Ready LED remains lit.)

- Do not turn the main power off from this point until the update procedure is completed.
- Wait until "FW Update Done. ***Please reboot the Machine. ***" appears in the firmware update tool window. The Ready LED (green) on the printer starts blinking. (The Alert LED is still blinking.)
- 10. Turn off the power of the machine, and then turn it back on.
- 11. Print a configuration page to check the machine's firmware version.

Updating the Boot Loader Firmware

This is also listed on the configuration page, but this firmware is not updated in the field.

Updating Failure

If the firmware update is not successful, the update process is suspended and an error message should display on the FW Update Tool screen. The Alert LED (red) on the printer starts lighting. (The Ready LED remains lit.) If this happens, DO NOT turn off the machine; you must execute the update procedure again (unless the error message "Downloaded file is broken! Do NOT use print, scan, fax and copy function at the same time." is displayed).

If power is turned off accidentally during a firmware update, the firmware will not be correctly updated, and the machine may not start up normally. If the machine does not start up normally, the Main firmware will need to be updated again.

FW Update Tool Messages

FW Update Tool Messages: Information

Message for USB update

Messages	Comment	Action
USB Upload : End of data	Send F/W file to Printer successfully. (Transmission Time: <30 sec)	Please reboot Printer after panel shows reboot message.
USB Upload : FAIL	Cannot open USB printer driver while F/W file is transmitted.	Check USB cable connection. Check whether the USB Print Driver is available. Check whether the printer is available.
	F/W file transmission cannot be completed. (Transmission will be canceled if timeout.)	Check USB cable connection. Check whether the USB Print Driver is available. Check whether the printer is available.
Can't open ROM file. Please check ROM file.	F/W file does not exist.	Check the download file name in setting.ini. "ImageFile=" Check that the download file and f/w update tool are in the same folder.

Messages	Comment	Action
New Version: Update FW	Main FW is transmitting	Nothing to do; please wait
Firmware is Updating	Main FW is updating	Nothing to do; please wait
FW Update Done. *** Please reboot the Machine.***	F/W update is completed.	Please reboot the machine.

Message for Network update

Messages	Comment	Action
Connecting	Connect to Printer.	Please wait a moment.
Net Upload : End of data	Update F/W successfully. (Transmission Time: <30 sec)	Please reboot printer after panel shows reboot message.
		Check network cable connection.
Net Jule and FAU	Can not open FTP port of Printer before F/W file is transmitted.	Check whether the printer is available.
Net Upload : FAIL	(Transmission will be canceled if timeout.)	Check the printer and PC IP address setting.
		Check the PC firewall setting about FTP.
	F/W file transmission can not be completed.	(1) Check network cable connection.
	(Transmission will be canceled if timeout.)	(2) Check whether the printer is available.
		Check the download file name in setting.ini. "ImageFile="
check ROM file.	F/W file does not exist.	Check that the download file and f/w update tool are in the same folder.
New Version: Update FW	Main FW is transmitting	Nothing to do; please wait
Firmware is Updating	Main FW is updating	Nothing to do; please wait
FW Update Done. *** Please reboot the Machine.***	F/W update is completed.	Please reboot the machine.

FW Update Tool Messages: Error

Message for USB update

Messages	Comment	Action
Machine is not ready.	Can not get Printer status form USB status channel before F/W file is transmitted.	Check USB cable connection. Check whether the USB Print Driver is available. Do not update F/W when the printer is still powering up.
Wrong Model.	F/W file is not matched for current machine.	Please check the version of the F/W file and whether it is suitable for the printer.
Machine is busy.	F/W update is running. Other Printer functions are running.	Please wait until F/W update is completed. Please wait until other printer functions are completed.
FW Update Done. *** Please reboot the Machine.***	F/W update is completed.	Please reboot the machine.
Machine loses communication. ***Please check FW Update Done. Then reboot the Machine.***	F/W file has transmitted. Polling F/W update progress fail.	Do not reboot engine until Engine Panel display "Firmware Update Done. Please reboot". Then reboot engine.
Downloaded file is broken! Do NOT use print, scan, fax and copy function at the same time.	F/W checks the downloaded file. And get wrong checksum. So stop modifying F/W.	Check the downloaded file is not broken. Do not use printer functions when updating firmware.

Message for Network update

Messages	Comment	Action
Machine is not ready.	Cannot get Printer status form Network status channel before F/W file is transmitted.	Check PC network settings and IP address. Check printer network settings and IP address. Do not update F/W when
		printer is still powering up.
Wrong Model.	F/W file is not matched for current machine.	Please check the version of the F/W file and whether it is suitable for printer.
Machine is busy.	F/W update is running. Other Printer functions are running.	Please wait until F/W update is completed. Please wait until other printer functions are completed.
FW Update Done. *** Please reboot the Machine.***	F/W update is completed.	Please reboot the machine.
Machine loses communication. ***Please check FW Update Done. Then reboot the Machine.***	F/W file has transmitted. Polling F/W update progress fail.	Do not reboot engine till Engine Panel display "Firmware Update Done. Please reboot". Then reboot the engine.
Downloaded file is broken! Do NOT use print, scan, fax and copy function at the same time.	F/W checks the downloaded file. And get wrong checksum. So stop modifying F/W.	Check the downloaded file is not broken. Do not use printer functions when updating firmware.

5. Service Tables

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, and so on. An SC code is displayed if the selfdiagnostic program detects any malfunction or abnormal condition. If it is an error with which the machine can start, the machine records it in the System Error Log.

Service Call

See "Appendices" for the "Error Message".

Summary

This machine issues an SC (Service Call) code if an error occurs with the machine. The error code can be seen with the SOM.

Make sure that you understand the following points;

- 1. All SCs are logged.
- 2. At first, always turn the main switch off and on if an SC code is displayed.
- 3. First, disconnect then reconnect the connectors before replacing the PCBs (if the problem concerns electrical circuit boards).
- First, check the mechanical load before replacing motors or sensors (if the problem concerns a locked motor).

6

Fusing related SCs

To prevent damage to the machine, the main machine cannot be operated until the fusing related SC has been reset by a service representative.

• Enter "SP Mode 3" in the SOM.

Click "OK" in "Reset Fusing Unit SC" with "SP Mode 3", and then turn the main power switch off and on.

Engine SC

SC 2xx (Laser Optics Error)

202	Polygon motor on timeout error
	The polygon mirror motor does not reach the targeted operating speed within 10 sec. after turning.
203	Polygon motor off timeout error
	The polygon mirror motor does not leave the READY status within 20 sec. after the polygon mirror motor switched off.

	Polygon motor lock signal error
204	The signal remains HIGH for 200 ms (or 4times in 50msec polling) while the polygon mirror motor is rotating.
	 Polygon motor/driver board harness loose or disconnected
	 Polygon motor/driver board defective
	Laser optics unit defective
	 Turn the machine main power off/on.
	2. Replace the interface harness of the laser optics unit.
	3. Replace the laser optics unit.
	Beam Synchronize error
	The laser synchronizing detection signal for LD is not output within 400msec after the LD unit has turned on.
	• Disconnected cable from the laser synchronizing detection unit or defective connection
220	Defective laser synchronizing detector
	Defective LD
	Defective Main board
	1. Check the connectors.
	2. Replace the laser optics unit.
	3. Replace the Main board.
	Laser Scanning Unit thermistor error
	At power on, the temperature sensor in the optics unit detected a temperature lower than -30°C for more than 4 sec.
	-or-
268	It detected a temperature higher than 105°C for more than 1sec.
	 Thermistor disconnected (causes extremely low temperature reading)
	• Thermistor damaged and short circuited (causes extremely high temperature reading)
	1. Turn the machine's main power off, and then on.
	2. Replace the thermistor.

SC 4xx (Image Transfer and Transfer Error)

	Bias leak
	An error signal is detected for 0.2 seconds when changing the development unit.
491	Defective transfer roller
	Defective HVP pack
	1. Turn the machine's main power off, and then on.

SC 5xx (Motor and Fusing Error)

	Main motor error
500	The machine does not detect a main motor lock signal within 2sec after the main motor started to rotate.
	-0г-
	The machine does not release a main motor lock signal within 2sec after the main motor switched off.
	-0r-
	The machine detects a main motor lock signal every 100ms for seven times consecutively, after the main motor started to rotate stably.
	Overload of
	Torque load overload
	Defective main motor
	Disconnect or defective motor harness
	1. Turn the machine's main power off, and then on.
	2. Check or replace the main motor if the torque load is normal.
	3. Replace the motor harness.
530	Exhaust fun Error
	The FAN lock signal – High for 10 seconds, after the fan motor started to rotate.
	Disconnected or defective motor harness.
	1. Turn the machine's main power off, and then on.

	Fuser thermistor error
541	The thermistor output is less than 0°C for 5 seconds after the fusing lamp turns ON.
	Disconnected or defective thermistor
	Disconnected or defective fusing lamp
	1. Check the harness connection of the thermistor.
	2. Replace the fusing unit.
	☆Important
	 Execute "Reset Fusing Unit SC" to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.
	Fuser reload error
	This SC is issued if one of following conditions occurs:
	The fusing temperature rises 8°C or less in 1.5 seconds; and this continues 5 times consecutively.
	-or-
542	The fusing temperature has not reached 45°C within 9 seconds (after the fusing lamp comes ON while the machine is warming-up).
542	-or-
	The fusing unit does not attain reload temperature within 35 s. (normal temperature) or 65 s (lower temperature – the thermistor output is less than 18°C) after the fusing temperature control starts.
	Defective or deformed thermistor
	 Incorrect power supply input at the main power socket
	1. Defective fusing lamp

	High temperature error (Soft)
	 The detected temperature stays at 235°C for 1 second, and this consecutively occurs 10 times.
543	 Defective Main board Defective PSU Replace the Main board Replace the PSU Important Execute "Reset Fusing Unit SC" to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.
	High temperature error (hard)
544	 During stand-by mode or a print job, the detected heating roller temperature reaches 250°C.
	 Defective Main board Defective PSU Replace the Main board Replace the PSU Important Execute "Reset Fusing Unit SC" to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.

	Fuser full heater error
545	The fuser full heater remained ON at full capacity for more than 9 s after the fusing temperature attains reload temperature.
	Deformed thermistor
	Thermistor not in the correct position
	Defective fusing lamp
	1. Replace the fusing unit.
	2. Replace the fusing lamp.
	☆Important
	 Execute "Reset Fusing Unit SC" to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.
	Zero cross error
	 The zero cross signal is detected three times even though the fusing lamp relay is off when turning on the main power.
	 The zero cross signal is not detected for 3 seconds even though the fusing lamp relay is on after turning on the main power or closing the front door.
	• The detection error occurs twice or more in 11 zero cross signal detections. This error is defined when the detected zero cross signal is less than 45.
547	• The zero cross signal is not detected three times while the main power remains ON.
	Defective fusing relay
	Defective fusing relay circuit
	 Shorted +24V fuse on the PSU
	Unstable power supply.
	1. Check the power supply source.
	2. Replace the +24V fuse on the PSU.
	3. Replace the PSU

559

Fuser 3times jam error

The paper jam counter for the fusing unit reaches 3. The paper jam counter is cleared if the paper is fed correctly.

This SC is activated only when this function is enabled with "Eng. Maintenance" (default "OFF").

- Defective fusing unit
- Defective fusing control
- 1. Clear this SC to send a command after a jam removal.
- 2. Turn off this function after a jam removal.

🔁 Important 🗋

• Execute "Reset Fusing Unit SC" to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.

SC 6xx (Communication and Other Error)

	EEPROM communication error
	An unexpected value exists in the initialization flag of the EEPROM
669	EEPROM not connected
	Defective EEPROM
	1. Installing the EEPROM.
	2. Replacing the EEPROM.

Jam Detection

Jam Sensor Layout

There are the sensors of the jam detection as shown below.

Paper Jam



- 1. Registration Sensor
- 2. Inverter Sensor
- 3. Paper Exit Sensor
- 4. Relay Sensor

Jam Message List

Here is a list of common jam messages, a description of the causes.

See the drawing shown above to check the sensor location.

Paper Jam

Related to jam code

Jam message	Cause	Sensor

Misfeed: PprTray	Paper does not reach registration sensor (bypass tray)	Registration sensor [1]
Misfeed: Tray 1	Paper does not reach registration sensor (tray 1)	Registration sensor [1]
	Paper does not reach registration sensor (duplex feed tray)	Registration sensor [1]
Misfd: Dupl Unit	Paper does not reach duplex entry sensor	Relay sensor [5]
	Paper does not reach duplex exit sensor	Inverter sensor [3]
Internal Michaed	Paper stayed on registration sensor	Registration sensor [1]
	Paper does not reach exit sensor	Paper exit sensor [4]
Misfd: Stnd Tray	Paper stayed on exit sensor	Paper exit sensor [4]

Related to jam at initialization

Jam message	Cause
Internal Misfeed	Registration sensor [1]
Misfd: Stnd Tray	Paper exit sensor [4]
Misfd: Dupl Unit	Relay sensor [5]
	Inverter sensor [3]

Image Adjustment

Registration Adjustment

User Adjustment

The paper registration can also be adjusted with the SOM ("Printer Configuration"). For details, see the "Software Guide".

Service Adjustment

- 1. Print the test page. (page 109 "Reports")
 - Print out the test page before changing the paper registration setting.
- 2. Start the SOM utility.
- 3. Click the "User Tools" tab.
- 4. Click "Printer Configuration".

🚔 SP 311DNw -	
Energy Saver Mode 2	
Connect Printer Refresh:	35 💌
List/Test Print Configuration Page Print Print	
Printer Configuration IP Address	
About Minimize	Close
	m1542108

- 5. The "Access Code" entry dialog appears.
- 6. Input the access code (for customer engineers).and then Click "OK".

Access Gode		
Enter Access Code.		
Access Code:		
	OK	Cancel

- 7. Select the "SP Mode 1" tab.
- 8. Click "Up" or "Down" to set the registration value (mm) and then click "OK".

Printer Configuration		. 🛛
Paper Input Maintenance System IPv6 Ne	stwork 1 Network 2 Network 3 Wireless	Printer SP Mode 1
Registration Tray 1 Horizontal: Vertical: Plain Paper: 0 Thick Paper: 0 Thin Paper: 0	Bypass Tray Horizontał 0 • Verticał: Plain Paper: 0 • Thick Paper: 0 • Thin Paper: 0 • Duplex Tray Horizontał 0 • Verticał: Plain Paper: 0 • Thick Paper: 0 • Thick Paper: 0 •	Output Check Information Output Check Items: Main Motor On Off Print Cartridge Information Print Cartridge: Kind ID: Torver End History: Refill Flae Status: Unit Print Counter: 33 OPC: OPC Rotation Time: 25 Prev. OPC rotation time: 5 Alert status: OPrev. Alert status: Derver. Derver. Alert status: Derver. Alert status: Derver. Alert status: Derver. Derver. Der
	ОК	Apply Help
		m1542123

Vote

- Increase the value to shift the print area in the plus direction.
- Decrease to shift in the minus direction.
- Adjust the margins of the test page so that they are equal in size.



m016t500

- (1): Feed Direction
- (2): Vertical Adjustment
- (3): Horizontal Adjustment
- (4): Print Area
- 9. Exit the SOM.

6

Image Quality

Overview

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).



- Abnormal image at 29.8 mm intervals: Charge roller
- Abnormal image at 37.7 mm intervals: Registration roller
- Colored spots at 37.9 mm intervals: Print cartridge (Development roller)
- Abnormal image at 45.8 mm intervals: Transfer roller
- Colored spots at 75.3 mm intervals: Print cartridge (OPC drum)
- Abnormal image at 94.2 mm intervals: Fusing unit (Pressure roller)
- Abnormal image at 93.1 mm intervals: Fusing unit (Hot roller)
- Abnormal image at 100.5 mm intervals: Paper feed roller

Other Problems

Dark lines in halftone areas at 75mm Intervals

Using the machine in a room where the humidity is too low may cause dark lines in halftone areas at 75mm intervals. This is because low-humidity conditions tend to cause variations in light sensitivity across the surface of the drum.

Selecting [On] for [Low Humidity Mode] under the [System] tab in [Printer Configuration] with SOM (Smart Organizing Monitor) may help to prevent these lines from appearing.

When the humidity mode setting is enabled, the drum is rotated slightly every 15 minutes. This keeps the light sensitivity constant across the entire surface of the drum.

Troubleshooting

Jam/Paper Feed problem

problem	Cause/Solution
Paper does not feed smoothly.	 Use supported types of paper. Load paper correctly, making sure that the paper guides are properly adjusted. If the paper is curled, straighten the paper. Take out the paper from tray and fan it well. Then, reverse the top and bottom of the paper, and put it back in the tray.
Paper jams occur frequently.	 There remain pieces of paper in the paper path. Poor contact or disconnection of the sensor. There is some foreign body in the paper guides of the paper path. If there are gaps between the paper and the paper guides, adjust the paper guides to remove the gaps. Avoid printing on both sides of paper when printing images that contain large solid areas, which consume a lot of toner. Use supported types of paper. Load paper only as high as the upper limit markings on the paper guide. Make sure that the friction pads and paper feed rollers are

problem	Cause/Solution
	• Fan the paper well before loading. Also make sure that the edges are even by tapping the stack on a flat surface such as a desk.
	• Make sure that the paper guides are in the right position.
	 Use supported types of paper.
Multiple sheets of paper are fed at one time.	 Load paper only as high as the upper limit markings on the paper guide.
	 Make sure that the friction pads and paper feed rollers are clean.
	 Check that paper was not added while there was still some left in the tray.
	Only add paper when there is none left in the tray.
Paper gets wrinkles.	Deterioration of the hot roller or the pressure roller.
	• Paper is damp. Use paper that has been stored properly.
	• Paper is too thin.
	 If there are gaps between the paper and the paper guides, adjust the paper guides to remove the gaps.
The printed paper is curled.	• Load the paper upside down in the paper tray.
	 If the paper curl is severe, take prints from the output tray more frequently.
	• Paper is damp. Use paper that has been stored properly.
	 Adjust with "Curl Control mode" in the SP Mode 3.
Images are printed diagonally to the pages.	If there are gaps between the paper and the paper guides, adjust the paper guides to remove the gaps.
Printed envelopes come out creased.	Check if the levers for printing on envelopes inside the rear cover are properly set. Lower the levers.

Image Quality problem

problem	Cause/Solution
Blurred or too light	 The polygon mirror of the laser unit is dirty. Adjust the image density. Paper is damp. Use paper that has been stored properly. If you enable [Toner Saving], printing is generally less dense. Printer Driver > Print Quality > Toner Saving: Off Toner is almost depleted. Replace the print cartridge. Condensation may have collected. If rapid change in temperature or humidity occurs, use this machine only after it has acclimatized.
Dirty or too dark	 Image density is too high. Adjust the image density. Toner on the printed surface is not dry. Do not touch printed surfaces immediately after copying. Remove freshly printed sheets one by one, taking care not to touch printed areas.
Dirty background	 Replace the print cartridge. Adjust with "Adjust of Charge Bias" in the SP Mode 3.
Vertical black lines	The stripper pawls of the fusing Unit are dirty.Replace the print cartridge.
Vertical White lines	Toner is almost depleted. Replace the print cartridge.
Horizontal black lines	Humidity level surrounding the machine may be too low. Refer to "Dark lines in halftone areas at 75mm Intervals".
A moire pattern is produced.	The original probably has heavily lined or dotted areas. Switching the setting for image quality between [Photo] and [Mixed] may eliminate the moire pattern.
Insufficient fusing	Check if the levers for printing on envelopes inside the rear cover are properly set. Pull up the levers.

7. Energy Save

Energy Save

Energy Saver Modes

Customers should use energy saver modes properly, to save energy and protect the environment.



The backlight of the screen is turned off and "Energy Saver Mode1" appears on the screen, and then the fusing lamp is turned off and "Energy Saver Mode2" appears on the screen.

The area shaded grey in this diagram represents the amount of energy that is saved when the timers are at the default settings. If the timers are changed, then the energy saved will be different. For example, if the timers are all set to 240 min., the grey area will disappear, and no energy is saved before 240 min. expires.

Timer Settings

The user can set these timers with User Tools (SOM > Printer Configuration > System > Energy Saver Mode 1 or Mode 2)

• Energy Saver Mode 1 (30 sec.): This can be only turned on or off.

• Energy Saver Mode 2 (1 to 240 min.): This can be turned on or off and timer setting is adjustable (default: 1 min.).

Return to Stand-by Mode

Energy Saver Mode 1

• Recovery time: 10 sec.

Energy Saver Mode 2

• Recovery time: 20 sec.

Recommendation

We recommend that the default settings should be kept.

- If the customer requests that these settings should be changed, please explain that their energy costs could increase, and that they should consider the effects on the environment of extra energy use.
- If it is necessary to change the settings, please try to make sure that the Energy Saver Mode 2 Timer is not too long. Try with a shorter setting first, such as 30 min., then go to a longer one (such as 60 min.) if the customer is not satisfied.
- If the timers are all set to the maximum value, the machine will not begin saving energy until 240
 minutes has expired after the last job. This means that after the customer has finished using the
 machine for the day, energy will be consumed that could otherwise be saved.
Paper Save

Effectiveness of Duplex/Combine Function

Duplexing and the combine functions reduce the amount of paper used. This means that less energy overall is used for paper production, which improves the environment.

1. Duplex:

Reduce paper volume in half!



d062d102

2. Combine mode:

Reduce paper volume in half!



3. Duplex + Combine:

Using both features together can further reduce paper volume by 3/4!



To check the paper consumption, look at the total counter and the duplex counter.

The total counter counts all pages printed.

- For one duplex page, the total counter goes up by 2.
- For a duplex job of a three-page original, the total counter goes up by 3.

The duplex counter counts pages that have images on both sides.

- For one duplex page, the duplex counter goes up by 1.
- For a duplex job of a three-page original, the duplex counter will only increase by 1, even though two sheets are used.

Total counter

This machine has a total sides printed counter only (so a duplex print is counted as two, not one). You can check the total counter with the SOM or on the "Configuration Page".

 Total counter: SOM > "Printer Configuration" > "SP Mode 3" > "Counter Information" or " Configuration Page"

The following table shows paper savings and how the counters increase for some simple examples of single-sided and duplex jobs

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter
1	1	1	0	1
2	2	1	1	2
3	3	2	1	3
4	4	2	2	4
5	5	3	2	5

Duplex mode:

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter
10	10	5	5	10
20	20	10	10	20

If combine mode is used, the total and duplex counters work in the same way as explained previously. The following table shows paper savings and how the counters increase for some simple examples of duplex/combine jobs.

2 in 1 mode:

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter
1	1	1	0	1
2	2	1	1	1
3	3	2	1	2
4	4	2	2	2
5	5	3	2	3
10	10	5	5	5
20	20	10	10	10

Duplex + 2 in 1 mode:

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter
1	1	1	0	1
2	2	1	1	1
3	3	1	2	2
4	4	1	3	2
5	5	2	3	3
6	6	2	4	3
7	7	2	5	4

7

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter
8	8	2	6	4
9	9	3	6	5
10	10	3	7	5
11	11	3	8	6
12	12	3	9	6

Model RMY-P1 Machine Codes: M154/M155/M174/M175

Appendices

May, 2013

TABLE OF CONTENTS

1. Appendices: Specifications	
General Specifications	3
General Specifications	3
Printer	4
Supported Paper Sizes	6
2. Appendices: SP Mode Table	
Service Menu	9
3. Appendices: Troubleshooting Guide	
Service Call Conditions	11
Error Messages	12
Overview	12
Error Messages List	12
Error and Status Messages Appear on Smart Organizing Monitor	12
Error and Status Indicate on the Control Panel	13

General Specifications

General Specifications

Configuration	Desktop		
	Main tray	250 sheets (80g/m ² , 20lb)	
Paper capacity	By-pass tray	50 sheets (80g/m ² , 20lb)	
	Output tray	Up to 125 sheets (A4/LT or 80g/m ² , 20lb)	
		A4, B5 JIS, A5, B6 JIS, A6, Legal, Letter, HLT, Executive, F, Foolscap, Folio,16K	
	Main tray	Custom size:	
		Min. 90 x 148mm (3.6" x 5.8")	
		Max. 216 x 356mm (8.5" x 14")	
Paper size		A4, B5, A5, B6, A6, Legal, Letter,	
		HLT, Exective, F, Foolscap, Folio,16K	
	By-pass tray	Custom size:	
		Min. 90 x 148 mm (3.9" x 5.8")	
		Max. 216 x 356 mm (8.5" x 14")	
	Duplex	A4, Legal, Letter(8 1/2″x11″)	
Demonstration	Main tray	52-162 g/m ² (14-43 lb)	
raper weight	By-pass tray	52-162 g/m ² (14-43 lb)	
Machine size (W x D x H)	370 x 392 x 262 mm (14.6 x 15.4 x 10.3 inches)		
Weight (Machine body with consumables)	Approximately 12.7 Kg (28.0 lb) or less		
Energy Saver Mode	Selectable 1 to 240 minutes (1 minute steps)		

	Maximum	US version: Less than 800 W	
	Maximon	CH: Less than 850 W	
	Ready mode	120W	
Power consumption	Power save mode	US/EU/AP: • 50 W or less (Energy Saver Mode 1) • 5.0 W or less (Energy Saver Mode 2) CH:	
		 70 W or less (Energy Saver Mode 1) 10 W or less (Energy Saver Mode 2) 	
	US	120V, 7A, 60Hz	
Power	EU/AP	220 - 240 V, 4A, 50/60Hz	
	CN	220 - 240 V, 5A, 50/60Hz	
	Printing	Less than 65.8 dB (A)	
Noise	Standby Mode	40 dB (A)	
	Energy Saver	40 dB (A)	
Warm-up time	26 seconds or less (23°	C, 71.6°F)	
Machine life	5 years, 200,000 prints (whichever comes first)		
Environmental Standard	EnergyStar Tier 2 specifications		
Laser type	Class I		

Printer

Print speed	US	30 ppm (Letter)
	EU/CH/AP	28 ppm (A4)
Printer language	PCL6C	
Font	80 fonts	

Resolution	600 x 600 dpi (Maximum: 1200 x 600 dpi)			
Toner save mode	Supported			
First print speed	12 seconds or less			
Duplex print	Supported			
PC interface	 Ethernet (10BASE-T, 100BASE-TX) USB 2.0 Wi-Fi 			
Network	Protocol	TCP/IP, IPP		
Memory	Standard/Max	128MB		
Operation System	Win XP/Vista/7/8, server 2003/server 2008/server 2012 (32bit/64bit)			

Supported Paper Sizes

А	Supported and the size is molded in the tray. Need to select paper size by operation panel/driver.
В	Supported but size is not molded in the tray. Need to select paper size by operation panel/driver. *For bypass tray, paper width is indicated.
С	Need to input paper size by operation panel and driver.
N	Not supported.

Туре		SEF/LEF Size	Input Tray			
			Size	Standard Tray	Duplex	Туре
	A 4	SEF	210x297mm	А	В	Y
	A4	LEF	297x210mm	Ν	Ν	Ν
	B5	SEF	182x257mm	А	В	Ν
		LEF	257x182mm	Ν	Ν	Ν
Plain	A5	SEF	148x210mm	А	В	Ν
Paper		LEF	210x148mm	Ν	С	Ν
	Вб	SEF	128x182mm	В	В	Ν
		LEF	182x128mm	Ν	Ν	Ν
	٨٨	SEF	105x148mm	В	В	Ν
	A6	LEF	148x105mm	Ν	Ν	Ν

Туре				Input	Tray	Туре
		SEF/LEF	Size	Standard Tray	Duplex	
	DLT	SEF	11" x 17"	N	N	Ν
	Legal	SEF	81/2″x14″	A	В	Y
	Letter	SEF	81/2″x11″	A	В	Y
Plain Paper		LEF	11″x 8 1/2″	N	N	Ν
	Half Letter	SEF	51/2″ x 81/2″	В	В	Ν
	г	SEF	71/4″x101/2″	A	В	Ν
	Executive	LEF	10 1/2″x7 1/4″	N	N	N
	F	SEF	8″ x 13″	В	N	N
	Foolscap	SEF	8 1/2″ x 13″	В	N	N
Plain	Folio	SEF	8 1/4″ x 13″	В	N	N
Paper	8 Kai	SEF	267 x 390mm	N	N	N
	16 Kai	SEF	195 x 267mm	В	В	N
		LEF	267 x 195mm	N	N	N
Envelope	Env. #10	Env. 10	SEF	4 1/8″ x 9 1/2″	Ν	В
	Env. Monarch	Env. Monarch	SEF	3 7/8″ x 7 1/2″	Ν	В
	Env. C6	Env. C6	SEF	114 x 162mm	Ν	В
	Env. C5	Env. C5	SEF	162 x 229mm	Ν	В
	Env. DL	Env. DL	SEF	110 x 220mm	Ν	В

	Туре				Input Tray		
			SEF/LEF	Size	Standard Tray	Duplex	Туре
Custom	Custom	Width	Width	-	100-216 mm (3.6″x 8.5″)	90-216m m (3.5″x 8.5″)	N
	Cusiom	Length	Length	-	148 – 356mm (5.8″x 14.24″)	140-356 mm (5.5″x 14.24″)	Ν

Service Menu

See "Main Chapters" for "Service Program Mode".

2. Appendices: SP Mode Table

3. Appendices: Troubleshooting Guide

Service Call Conditions

See "Main Chapters" for "Service Call Conditions".

Error Messages

Overview

Error messages will be displayed on the LCD panel / Smart Organizing Monitor if the machine has a problem. These can be viewed by a customer.

Error Messages List

Error and Status Messages Appear on Smart Organizing Monitor

Message	Causes	Solutions
No Response from I/O Device Check the cable, power cord, and main switch.	 The power cable of the machine is not plugged in. The power of the machine is not turned ON. The USB cable is not connected. 	 Check the printer power cord. Check the printer power switch is on. Check the USB cable is properly connected.
Tray Not Detected or No Paper The indicated paper source tray is not set properly, or no paper loaded. Check the indicated tray.	Tray 1 has run out of paper. The bypass tray has run out of paper.	 Load paper into Tray 1. See the user's guide "Loading Paper". Load paper into the bypass tray. See the user's guide "Loading Paper".
Tray 1 Jam Bypass Tray Jam Duplex Jam Inner Jam Outer Jam Total Jam	A paper jam has occurred in the machine.	Remove the jammed paper. See the user's guide "Paper Feed Problems".
Paper Size Mismatch Paper of the selected paper size is not loaded in the indicated paper source tray. Check the indicated tray.	The paper size specified on the machine and the size specified in the printer driver do not match.	For details about specifying the paper size setting on the machine, see the user's guide "Loading Paper". For details about changing the paper size setting in the printer driver, see the printer driver Help.

Message	Causes	Solutions
Paper Type Mismatch Paper of the selected paper type is not loaded in the indicated paper source tray. Check the indicated tray.	The paper type specified on the machine and the type specified in the printer driver do not match.	For details about changing the paper type setting of the machine, See the user's guide "Loading Paper". For details about changing the paper type setting in the printer driver, see the printer driver Help.
Print Cartridge is near empty.	The print cartridge is almost empty.	Prepare a new print cartridge.
Shortly printing becomes not available. Please keep Print Cartridge handy.	The machine has run out of the toner.	Replace the print cartridge. See the user's guide "Replacing the Print Cartridge".
Printing has been interrupted because of the memory overflow.	The data is too large or complex to print.	Select [600 x 600 dpi] in [Resolution:] to reduce the size of data. For details, see the printer driver Help.
Waste Toner full No printing is available. Open the indicated cover, and then replace Print Cartridge.	The waste toner bottle is full.	Replace the print cartridge.
No Toner or Waste Toner full No printing is available. Open the indicated cover, and then replace Print Cartridge.	The print cartridge has not been installed.	Reinstall the print cartridge. See the user's guide "Replacing the Print Cartridge".

Error and Status Indicate on the Control Panel

The LED on the operation panel indicates the machine status, including any errors.

LED					
Toner/ Paper End	Alarm	Power	Status	Solution	
-	-	On	The power is on.	The status is normal.	
-	-	Flashing	Importing data.	The status is normal.	
Flashing	-	On	The print cartridge is almost empty.	Replace the print cartridge before it becomes empty.	
On	-	On	 The print cartridge is empty. The print cartridge is not set correctly. The tray has run out of paper. 	 Replace the print cartridge. Set the print cartridge again correctly. Load paper into the tray. 	
-	Flashing	On	A paper jam has occurred in the machine.	Use Web Image Monitor or Smart Organizing Monitor to determine where the paper jam is, and then remove the jammed paper. See the user's guide "Paper Feed Problems".	
_	On	On	 The size of paper to print on and the size of the paper loaded in the tray do not match. A cover is open. 	 Use Web Image Monitor or Smart Organizing Monitor to check the paper size settings, and then change either the size of paper to print on or the size of paper loaded in the tray. Confirm that all the covers are closed completely. 	
-	On	On	Another type of error has occurred.	Use Web Image Monitor or Smart Organizing Monitor to check the error, and then take appropriate measures. See the user's guide "Using Web Image Monitor" or "Using Smart Organizing Monitor".	

LED					
Toner/ Paper End	Alarm	Power	Status	Solution	
On	On	On	A malfunction has occurred.	Contact your sales or service representative.	

MEMO