RICOH UNIVERSITY
Learning ◆ Knowledge ◆ Performance

M040/M041
SERVICE MANUAL

004343MIU

LANIER RICOH savin

RICOH
Learning ◆ Knowledge ◆ Performance
UNIVERSITY

SERVICE MANUAL

M040/M041

LANIER
RICOH
SAVIN

RICOH UNIVERSITY
Learning ◆ Knowledge ◆ Performance

M040/M041
SERVICE MANUAL

004343MIU

LANIER RICOH SAVIN

WARNING

The Service Manual contains information regarding service techniques, procedures, processes and spare parts of office equipment distributed by Ricoh Americas Corporation. Users of this manual should be either service trained or certified by successfully completing a Ricoh Technical Training Program.

Untrained and uncertified users utilizing information contained in this service manual to repair or modify Ricoh equipment risk personal injury, damage to property or loss of warranty protection.

Ricoh Americas Corporation

LEGEND

PRODUCT CODE	COMPANY			
	GESTETNER	LANIER	RICOH	SAVIN
M040	SP C311N	SP C311N	Aficio SP C311N	SP C311N
M041	SP C312DN	SP C312DN	Aficio SP C312DN	SP C312DN

DOCUMENTATION HISTORY

REV. NO.	DATE	COMMENTS
*	02/2009	Original Printing

M040/M041

TABLE OF CONTENTS

PRODUCT INFORMATION

1. PRODUCT INFORMATION 1-1
1.1 SPECIFICATIONS 1-1
1.2 SUPPORTED PAPER SIZES 1-2
1.3 MACHINE OVERVIEW 1-3
1.3.1 COMPONENT LAYOUT 1-3
1.3.2 PAPER PATH 1-4
1.3.3 DRIVE LAYOUT 1-5
1.4 MACHINE CONFIGURATION 1-7
1.4.1 MODEL (M040/M041) 1-7
1.5 GUIDANCE FOR THOSE WHO ARE FAMILIAR WITH PREDECESSOR PRODUCTS 1-8

INSTALLATION

2. INSTALLATION 2-1
2.1 INSTALLATION REQUIREMENTS 2-1
2.1.1 ENVIRONMENT 2-1
2.1.2 MACHINE LEVEL 2-1
2.1.3 MACHINE SPACE REQUIREMENT 2-2
2.1.4 POWER REQUIREMENTS 2-2
2.1.5 INSTALLATION PROCEDURE 2-2

PREVENTIVE MAINTENANCE

3. PREVENTIVE MAINTENANCE 3-1
3.1 PREVENTIVE MAINTENANCE 3-1

REPLACEMENT AND ADJUSTMENT

4. REPLACEMENT AND ADJUSTMENT 4-1
4.1 BEFORE YOU START 4-1
4.2 SPECIAL TOOLS 4-2
4.3 EXTERIOR COVERS 4-3
4.3.1 REAR COVER 4-3
When reinstalling the rear cover 4-4
4.3.2 OPERATION PANEL 4-4

4.3.3 RIGHT COVER....4-5
When reinstalling the right cover....4-6
4.3.4 LEFT COVER....4-6
4.3.5 FRONT COVER UNIT....4-7
4.4 LASER OPTICS....4-9
4.4.1 CAUTION DECAL LOCATIONS....4-9
4.4.2 LASER OPTICS HOUSING UNIT....4-9
After replacing the laser optics housing unit....4-12
4.5 AIO CARTRIDGE....4-13
4.5.1 AIO CARTRIDGE (ALL IN ONE CARTRIDGE)....4-13
4.5.2 BLACK AIO MOTOR....4-13
4.5.3 COLOR AIO MOTOR....4-15
4.6 IMAGE TRANSFER....4-16
4.6.1 IMAGE TRANSFER BELT UNIT....4-16
4.6.2 AGITATOR MOTOR....4-16
4.6.3 ITB (IMAGE TRANSFER BELT) CONTACT MOTOR....4-17
4.6.4 ITB (IMAGE TRANSFER BELT) CONTACT SENSOR....4-18
4.6.5 TM (TONER MARK) SENSOR BASE....4-19
4.6.6 WASTE TONER BOTTLE SET SENSOR....4-20
4.6.7 WASTE TONER OVERFLOW SENSOR....4-21
4.6.8 AIR INTAKE FAN....4-22
4.7 PAPER TRANSFER....4-23
4.7.1 TRANSFER UNIT....4-23
4.7.2 TRANSFER ROLLER....4-23
4.7.3 REGISTRATION ROLLER....4-24
Reassembling the registration roller unit....4-25
4.7.4 REGISTRATION SENSOR....4-25
4.7.5 REGISTRATION AND DUPLEX CLUTCH....4-26
4.7.6 BY-PASS CLUTCH....4-27
4.7.7 FRONT COVER OPEN SENSOR....4-28
4.8 IMAGE FUSING....4-29
4.8.1 FUSING UNIT....4-29
4.8.2 FUSING LAMP....4-29
4.8.3 THERMOSTAT....4-32
4.8.4 THERMISTORS....4-32
When installing the thermistors: center and end....4-34
4.8.5 TRANSPORT/FUSING MOTOR....4-34
4.9 PAPER FEED AND EXIT....4-36
4.9.1 PAPER FEED CLUTCH....4-36
4.9.2 PAPER FEED ROLLER....4-36
4.9.3 SEPARATION PAD....4-37
4.9.4 BY-PASS SEPARATION PAD....4-38
4.9.5 BY-PASS PICK-UP AND FEED ROLLERS....4-38
By-pass Pick-up Roller....4-38
By-pass Feed Roller....4-39
When installing the by-pass pick-up and feed rollers....4-40
4.9.6 PAPER END SENSOR....4-40
4.9.7 PAPER EXIT SENSOR....4-41
4.10 ELECTRICAL COMPONENTS....4-42

4.10.1 CONTROLLER BOARD....4-42
4.10.2 EGB (ENGINE BOARD) 4-43
When installing the new EGB 4-43
4.10.3 INTERLOCK SWITCHES 4-44
4.10.4 FUSING FAN MOTOR....4-45
4.10.5 LSU FAN MOTOR 4-45
4.10.6 ID CHIP BOARD....4-46
4.10.7 PSU 4-47
Fuse....4-49
4.10.8 HIGH VOLTAGE POWER SUPPLY BOARD....4-49
4.10.9 TEMPERATURE/HUMIDITY SENSOR 4-50
4.10.10 TRAY SET SENSOR....4-50
4.10.11 EEPROM....4-51
EEPROM Setting 4-51

SYSTEM MAINTENANCE REFERENCE

5. SYSTEM MAINTENANCE REFERENCE 5-1
5.1 SERVICE PROGRAM 5-1
5.1.1 OVERVIEW 5-1
5.2 CONFIGURATION PAGE INFORMATION....5-2
5.2.1 OVERVIEW 5-2
To Print the Configuration Page from the Machine 5-2
To Print the Configuration Page from the SOM 5-2
5.2.2 ERROR LOG....5-2
5.2.3 COUNTER AND COVERAGE (PRINTER MODEL ONLY) 5-3
5.3 FIRMWARE UPDATING....5-4
5.3.1 CONTROLLER FIRMWARE 5-4
Engine Firmware....5-6
5.3.2 BOOT LOADER FIRMWARE 5-7

TROUBLESHOOTING

6. TROUBLESHOOTING 6-1
6.1 TROUBLESHOOTING GUIDE 6-1
6.2 IMAGE PROBLEMS 6-2
6.2.1 OVERVIEW 6-2
6.2.2 CHECKING A SAMPLE PRINTOUT 6-2
Printer Driver Setting for Printing a Sample 6-3

G849 PAPER FEED UNIT TK1010

SEE G849 SECTION FOR DETAILED TABLE OF CONTENTS

M040/M041 APPENDICES

SEE APPENDIX SECTION FOR DETAILED TABLE OF CONTENTS

Read This First

Safety Notices

Important Safety Notices

Prevention of Physical Injury

1. Before disassembling or assembling parts of the printer and peripherals, make sure that the printer power cord is unplugged.
2. The wall outlet should be near the printer 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 printer 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 printer starts operation.
5. The inside and the metal parts of the fusing unit become extremely hot while the printer 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 printer 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

1. Do not incinerate toner bottles or used toner. Toner dust may ignite suddenly when exposed to an open flame.
2. Dispose of used toner, the maintenance unit which includes developer or the organic photoconductor in accordance with local regulations. (These are non-toxic supplies.)
3. Dispose of replaced parts in accordance with local regulations.

⚠WARNING

- To prevent a fire or explosion, keep the machine away from flammable liquids,

gases, and aerosols. A fire or an explosion might occur.

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.

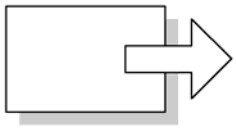
⚠WARNING
WARNING: Turn off the main switch before attempting any of the procedures in the Laser Optics Housing Unit section. Laser beams can seriously damage your eyes. **CAUTION MARKING:**  3b_laser

Symbols, Abbreviations and Trademarks

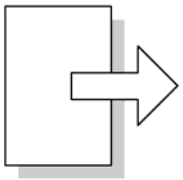
This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

☛	See or Refer to
	Clip ring
	Screw

	Connector
	Clamp
	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.

PRODUCT INFORMATION
APPENDIX: SPECIFICATIONS

TAB POSITION 1

INSTALLATION
APPENDIX: PREVENTIVE MAINTENANCE
G849 PAPER FEED UNIT TK1010

TAB POSITION 2

PREVENTIVE MAINTENANCE
APPENDIX: TROUBLESHOOTING GUIDE

TAB POSITION 3

REPLACEMENT AND ADJUSTMENT
APPENDIX: SP MODE TABLES

TAB POSITION 4

SYSTEM MAINTENANCE REFERENCE
APPENDIX: MACHINE SWAP

TAB POSITION 5

TROUBLESHOOTING

TAB POSITION 6

TAB POSITION 7

TAB POSITION 8

PRODUCT INFORMATION

1. PRODUCT INFORMATION

1.1 SPECIFICATIONS

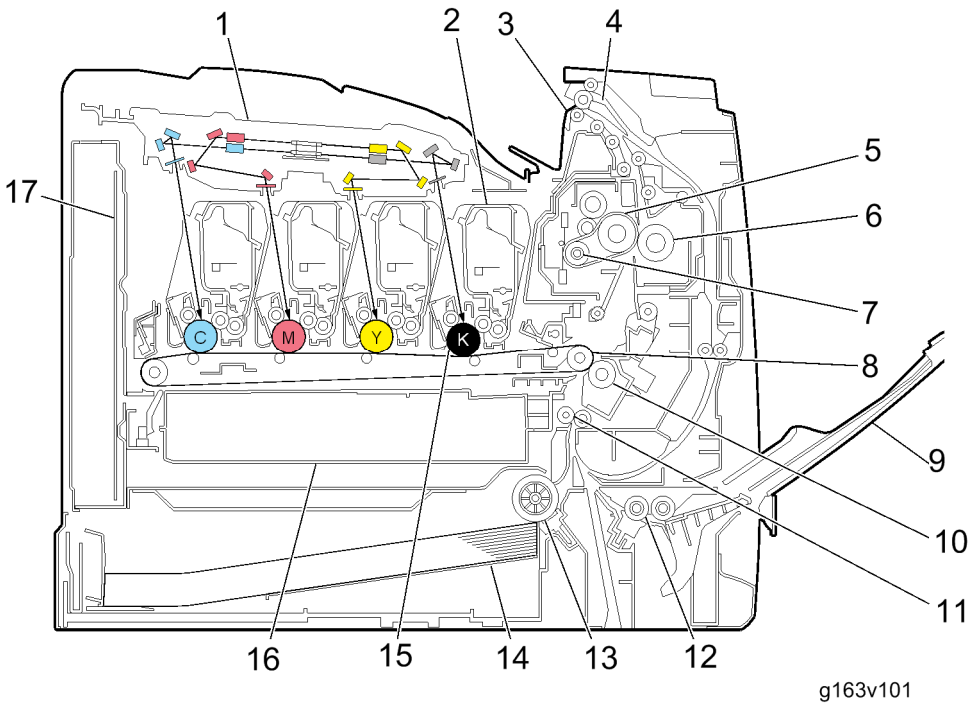
See "Appendices" for the "General Specifications".

1.2 SUPPORTED PAPER SIZES

See "Appendices" for the "Supported Paper Sizes".

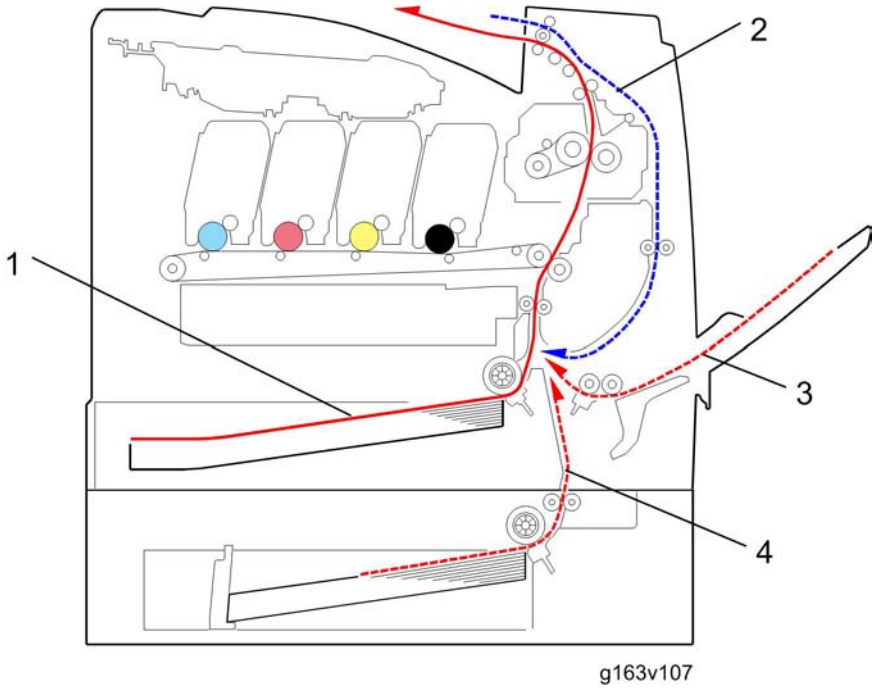
1.3 MACHINE OVERVIEW

1.3.1 COMPONENT LAYOUT



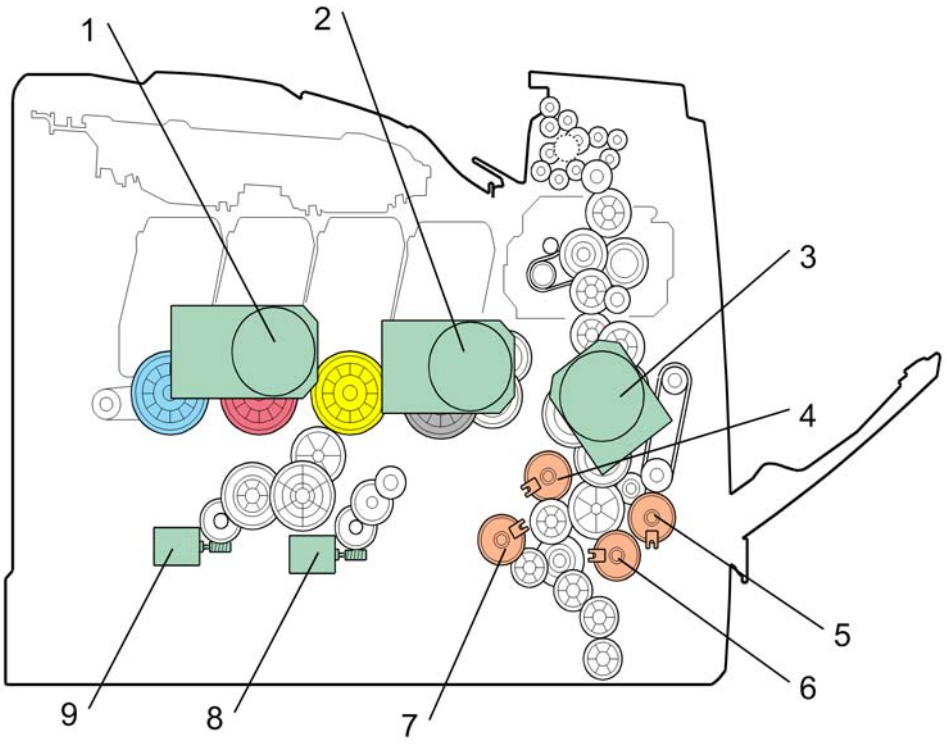
1. Laser Optics Housing Unit 2. Print Cartridge (AIO) 3. Paper Exit 4. Inverter Path 5. Fusing Belt 6. Pressure Roller 7. Fusing Lamp 8. ITB (Image Transfer Belt) Unit 9. By-pass Tray	10. Transfer Roller 11. Registration Roller 12. By-pass Feed Roller 13. Paper Feed Roller 14. Tray 1 15. OPC (AIO) 16. Waste Toner Bottle 17. EGB/ Controller Board

1.3.2 PAPER PATH



1. Paper path from the tray 1 to the output tray
2. Paper path in the duplex path
3. Paper path from the by-pass tray
4. Paper path from the optional tray 2 to the output tray

1.3.3 DRIVE LAYOUT



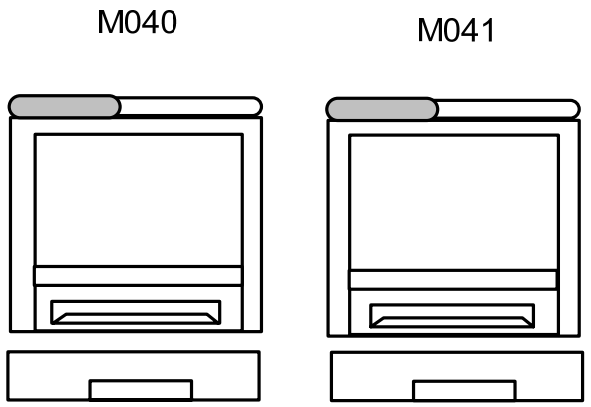
1. Color AIO Motor 2. Black AIO Motor 3. Transport/Fusing Motor 4. Registration Clutch 5. Duplex Clutch (P1d only)	6. By-pass Clutch 7. Paper Feed Clutch 8. Agitator Motor 9. ITB (Image Transfer Belt) Contact Motor

- **Color AIO Motor:**
  This drives the color AIO cartridges (Cyan, Magenta and Yellow)
- **Black AIO Motor:**
  This drives the black AIO and the ITB (Image Transfer Belt).
- **Transport/Fusing Motor:**
  This drives the fusing unit, paper feed roller, registration roller and paper exit roller* via the paper feed clutch, registration clutch and gears. (*: This motor only drives the paper exit roller in non-duplex models.)
- **Registration Clutch:**
  This transfers drive from the transport/ fusing motor to the registration roller.

- **Duplex Clutch (P1d only):**
  This transfers drive from the transport/ fusing motor to the duplex rollers.
- **By-pass Clutch**
  This transfers drive from the transport/ fusing motor to the duplex rollers.
- **Paper Feed Clutch:**
  This transfers drive from the transport/ fusing motor to the paper feed roller.
- **Agitator Motor:**
  This moves the agitators in the waste toner bottle.
- **ITB Contact Motor:**
  This moves the ITB into contact with and away from the color OPCs.

1.4 MACHINE CONFIGURATION

1.4.1 MODEL (M040/M041)



Models	Duplex Unit	Optional Memory	Optional Tray (G849)	PCL PS
M040	Manual	Y	500x1	Y
M041	Auto	Y	500x1	Y

1.5 GUIDANCE FOR THOSE WHO ARE FAMILIAR WITH PREDECESSOR PRODUCTS

Machine M040/M041 is a similar model with Machine G165/G166/G167. If you have experience with those products, the following information will be of help when you read this manual.

Different Points from Previous Products

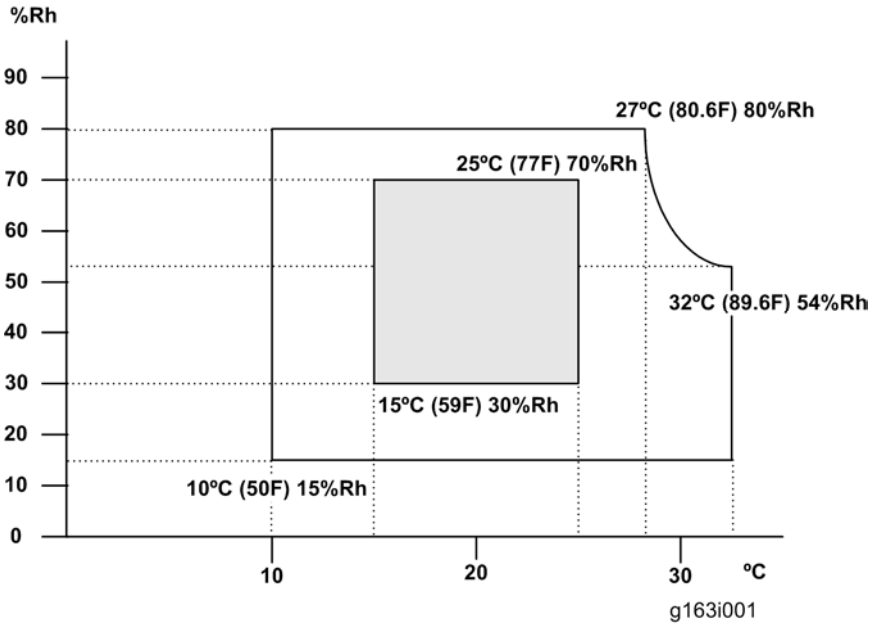
	M040/M041	G165/G166/G167
Print Cartridge (AIO)	Longer life Print Cartridge (AIO)	-
Operation Panel	2 Lines LCD	No LCD
Paper Input Capacity	500 sheets (Mainframe)	250 sheets (Mainframe)
By-pass	100 sheets (automatic)	1 sheet (manual)
Waste Toner Bottle	55 K prints/bottle	25 K prints/bottle
Fusing	Belt Fusing Drawer Connection	Roller Fusing Harness Connection
Tray Detection	Tray Set Sensor	No Tray Set Sensor

INSTALLATION

2. INSTALLATION

2.1 INSTALLATION REQUIREMENTS

2.1.1 ENVIRONMENT



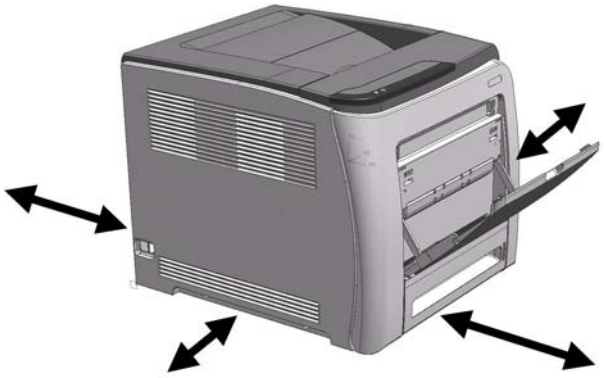
1. Temperature Range: 10°C to 32°C (50°F to 89.6°F)
2. Humidity Range: 15% to 80% RH
3. Ambient Illumination: Less than 2,000 lux (do not expose to direct sunlight)
4. Ventilation: 3 times/hr/person
5. Do not put the machine in areas that get sudden temperature changes. This includes:
   - Areas directly exposed to cool air from an air conditioner
   - Areas directly exposed to heat from a heater.
6. Do not put the machine in areas that get exposed to corrosive gas.
7. Do not install the machine at locations over 2,500 m (8,125 ft.) above sea level.
8. Put the machine on a strong, level base. (Inclination on any side must be no more than 5 mm.)
9. Do not put the machine in areas with strong vibrations.

2.1.2 MACHINE LEVEL

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

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

2.1.3 MACHINE SPACE REQUIREMENT



g163i502

Put the machine near the power source with these clearances:

Left side: Over 20 cm (7.9")

Rear: Over 10 cm (4")

Right side: Over 10 cm (4")

Front: Over 70 cm (27.5")

2.1.4 POWER REQUIREMENTS

⚠CAUTION

- Make sure that the plug is tightly connected to the outlet.
- Avoid multi-wiring.
- Make sure that you ground the machine.

Input voltage level	120 V, 60 Hz: More than 11 A (for North America) 220 V to 240 V, 50 Hz/60 Hz: More than 6 A (for Europe/ Asia)
Permitted voltage fluctuation: 10%	
Do not set anything on the power cord.	

2.1.5 INSTALLATION PROCEDURE

Refer to the Quick Installation Guide for details about installing the machine.

PREVENTIVE MAINTENANCE

3. PREVENTIVE MAINTENANCE

3.1 PREVENTIVE MAINTENANCE

See "Appendices" for the "User Replaceable Items".

REPLACEMENT AND ADJUSTMENT

4. REPLACEMENT AND ADJUSTMENT

4.1 BEFORE YOU START

⚠CAUTION

- 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.

4.2 SPECIAL TOOLS

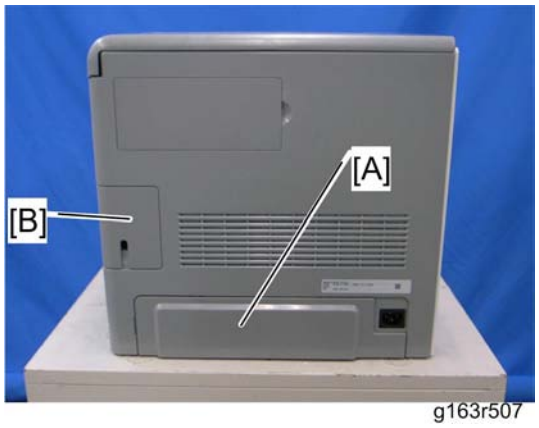
- PC: Windows 2000/XP/Vista, Windows Server 2003/2003 R2, or Mac OS X.
- USB cable or Crossover cable

4.3 EXTERIOR COVERS

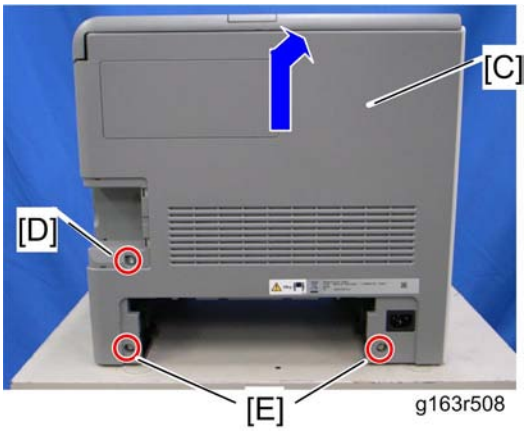
⚠CAUTION

- Turn off the main power switch and unplug the printer before you do the procedures in this section.

4.3.1 REAR COVER



1. Rear tray cover [A] (hooks)
2. Interface cover [B] (hooks)

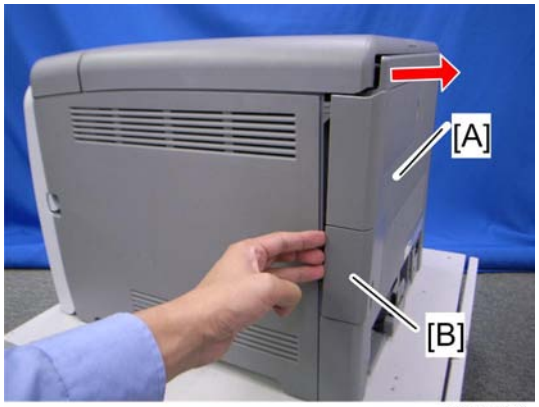


3. Rear cover [C] (🖉 x 3)

Note

- After removing three screws from the rear cover, push up the rear cover and then pull it toward you.
- Upper screw [D]: “M3x8” x 1, Lower screws [E]: “M4x10" x 2

When reinstalling the rear cover



g163r730

When reinstalling the rear cover [A], push the top of the cover first fully in, and then slide it down to ensure locking tabs are in correct position. Tighten screws in order shown below.

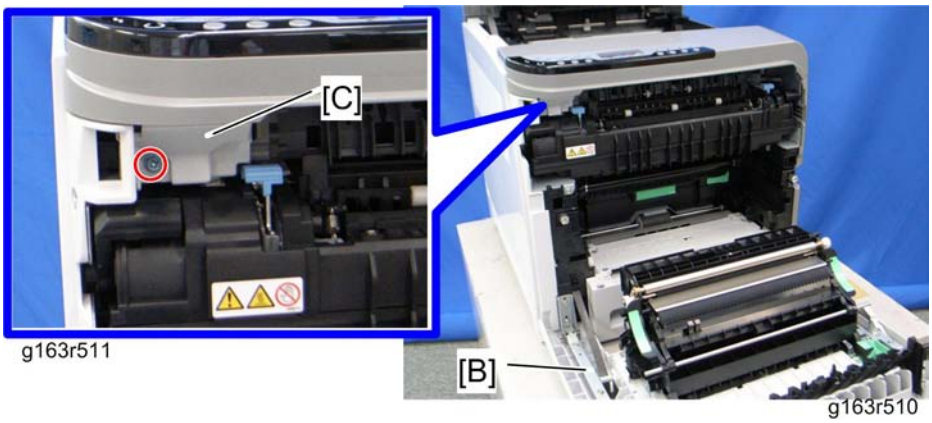
Note

- If the top pops out after rear cover installation (possibly when opening the connector cover [A]), repeat the above procedure, taking extra care to ensure locking tabs are fully in position before tightening screws.

4.3.2 OPERATION PANEL

g163r509

1. Open the top cover [A].



g163r511
g163r510

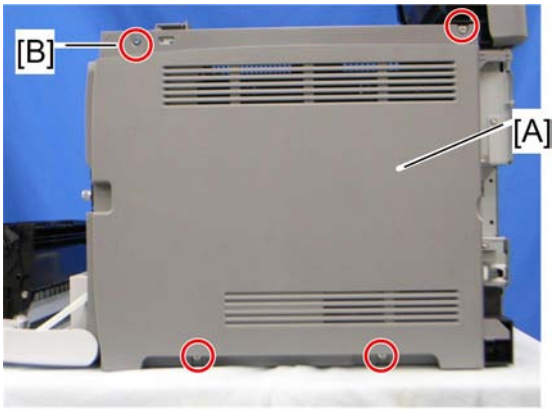
2. Open the front cover [B].
3. Front harness cover [C] (x 1)

g163r513
g163r512

4. Operation panel [D] (x 2, x 1)

4.3.3 RIGHT COVER

1. Rear cover (p.4-3)
2. Operation panel (p.4-4)



g163r514

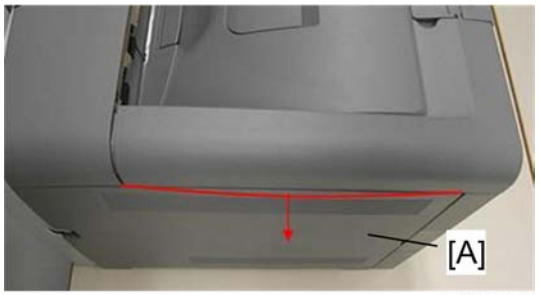
3. Right cover [A] (x 4)

Note

Exterior Covers

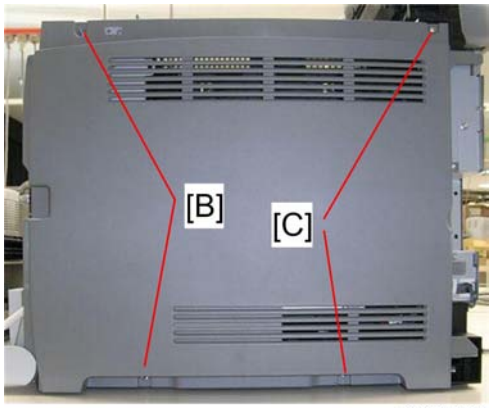
- Top front screw [B]: M3x8, others: M4x10

When reinstalling the right cover



g163r732

Tighten the two pairs of cover screws in the order shown below to prevent possible bulging of the right cover [A].

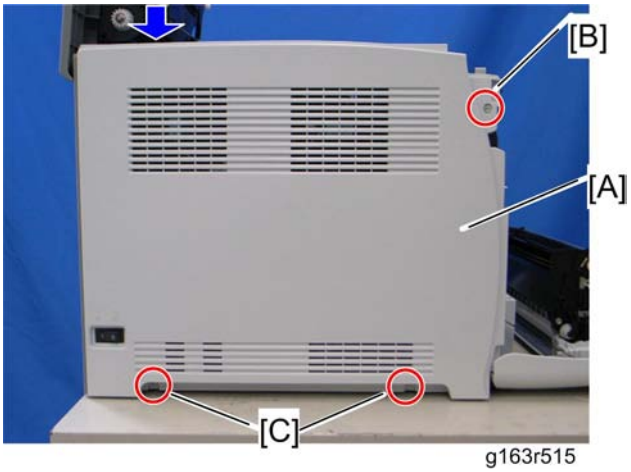


g163r733

1. First, tighten the 2 screws [B] at the front side of the right cover.
2. Then tighten the 2 screws [C] at the rear side of the right cover.

4.3.4 LEFT COVER

1. Rear cover (☛ p.4-3)
2. Operation panel (☛p.4-4)



g163r515

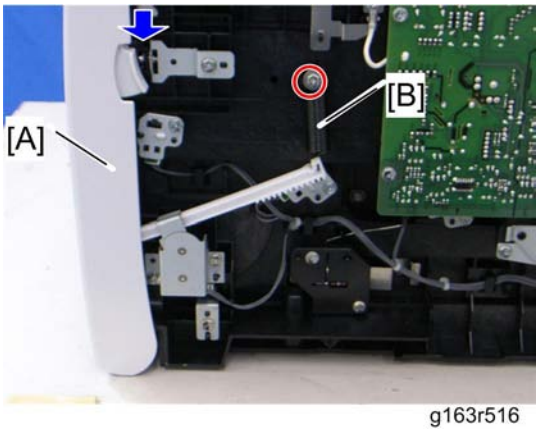
3. Left cover [A] (☞ x 3, hook at arrow mark)

Note

- Top front screw [B]: M3x8, others [C]: M4x10

4.3.5 FRONT COVER UNIT

1. Rear cover (☛ p.4-3)
2. Operation panel (☛ p.4-4)
3. Transfer unit (☛p.4-23)
4. Right cover (☛ p.4-5)

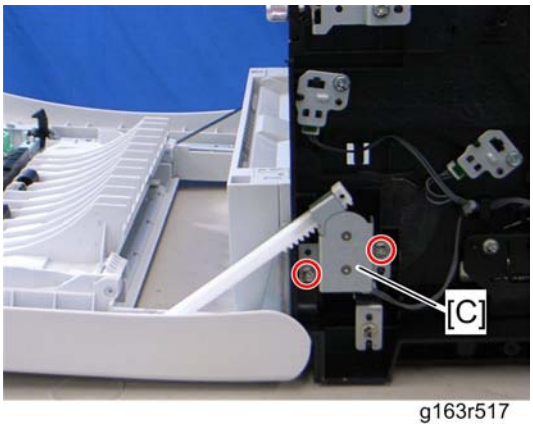


g163r516

5. Close the front cover [A].
6. Spring [B] (☞ x 1)

CAUTION

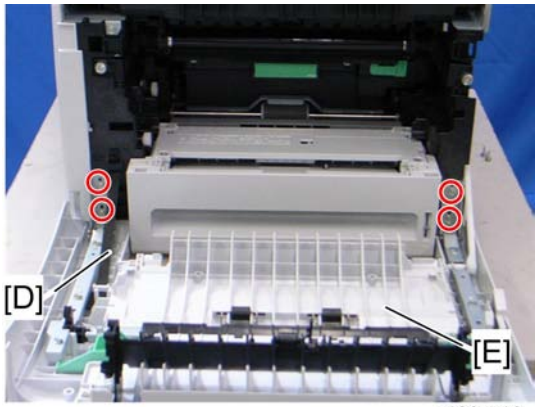
- Do not remove the spring [B] with the front cover open. The strong tension of the spring can cause injury.



g163r517

7. Cover link gear unit [C] (☞ x 2)

Exterior Covers



g163r518

8. Release the belt [D].
9. Front cover unit [E] (🔩 x 4)

4.4 LASER OPTICS

⚠WARNING

- Turn off the main power switch and unplug the printer before beginning any of the procedures in this section. Laser beams can cause serious eye injury.

4.4.1 CAUTION DECAL LOCATIONS

Caution decals are attached as shown below.

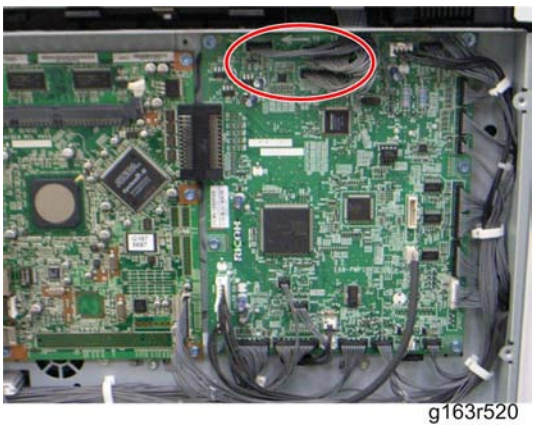
g163r519

⚠WARNING

- Be sure to turn off the main power switch and disconnect the power plug from the power outlet before beginning any disassembly or adjustment of the laser unit. This printer uses a class IIIb laser beam with a wavelength of 780 nm and an output of 7 mW. The laser can cause serious eye injury.

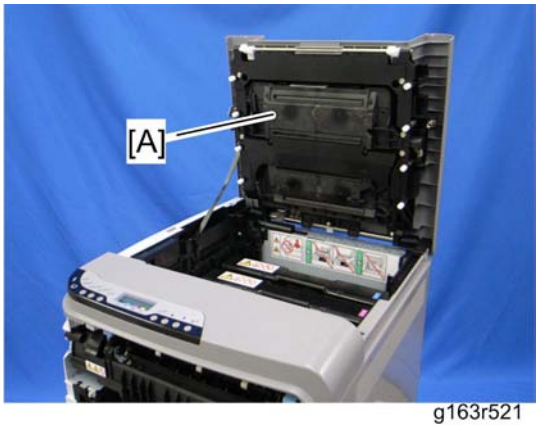
4.4.2 LASER OPTICS HOUSING UNIT

1. Rear cover (☛ p.4-3)
2. Controller box cover (☛ p.4-42)


g163r520

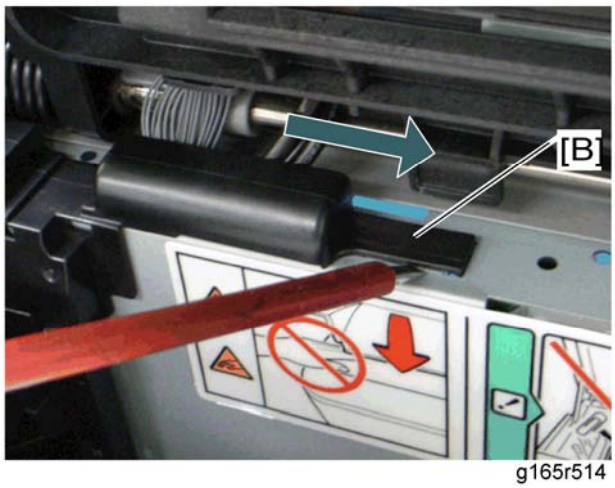
3. Disconnect the three harnesses from CN301, 302 and 303 on the EGB (✍ x 3).

Laser Optics



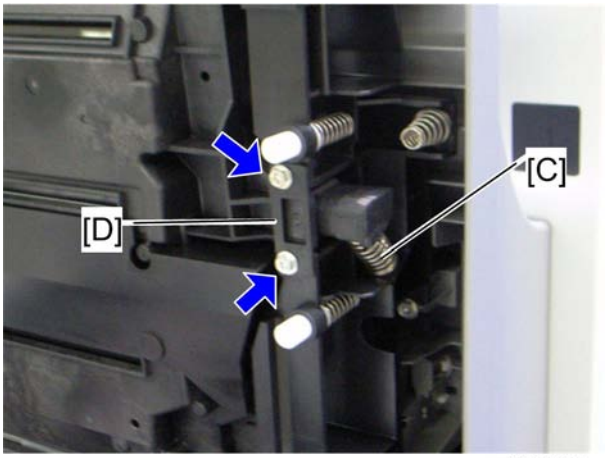
g163r521

4. Open the top cover [A].



g165r514

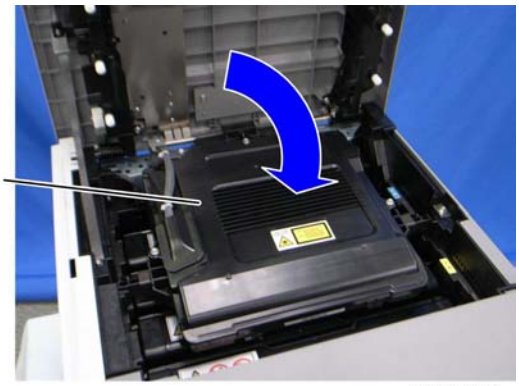
5. Lift up the hook of the harness guide [B] at the rear-left frame and slide the harness guide to the right.



g165r515

6. Remove the springs [C] (left side and right side).
7. Stoppers [D] (🔩 x 2 each; left side and right side)

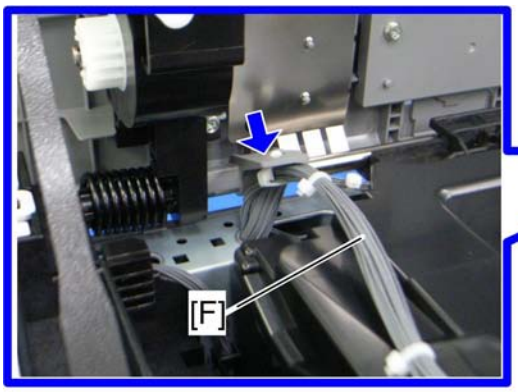
g165r516


g163r517

8. Remove the laser optics housing unit [E] from the top cover and place it on the main body.

Note

- Always use two hands when carrying the laser optics housing unit. Be sure not to drop the laser optics housing unit.



g163r518


g163r517

9. Take out the harnesses [F] (x 1).
10. Pull out the harnesses from the rear side.


g165r519

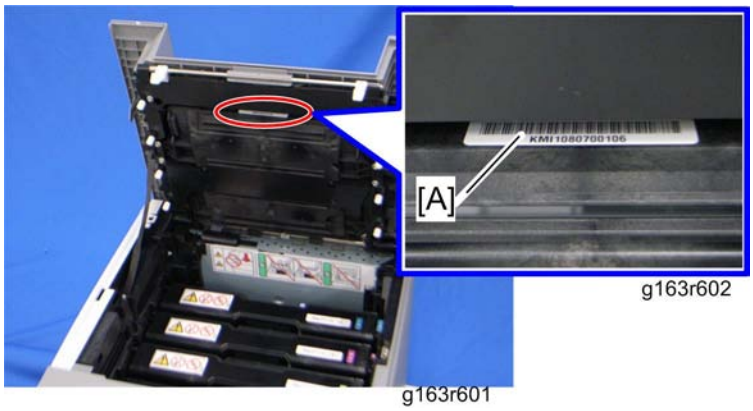
Laser Optics

11. Remove the laser optics housing unit.

After replacing the laser optics housing unit

Important

- Do the following step 4 with the front cover of the machine open.



1. Open the top cover and check the lot number [A] of the laser optics housing unit.
2. Look for the lot number [A] attached to the new laser optics housing unit. Then look for this lot number on the information sheet (this sheet will be released separately, and will contain lists of input data for each lot number)
   Input the data for this lot number from the information sheets with steps 3 to 7 below.
3. Open the front cover and turn on the machine.
4. Input the settings for the laser optics housing unit.
   - In the SOM utility, access “LSU Adjustment” inside the “SP Mode 2” tab.
   - Copy the corresponding LSU data inside the information sheet into the space provided in the SOM utility.
5. Close the front cover.
6. Execute "Color Registration" in the "SP Mode 2" tab.
7. Adjust the registration settings for each tray and for the front and rear sides of the paper with the "SP Mode 2" tab if necessary.

4.5 AIO CARTRIDGE

4.5.1 AIO CARTRIDGE (ALL IN ONE CARTRIDGE)

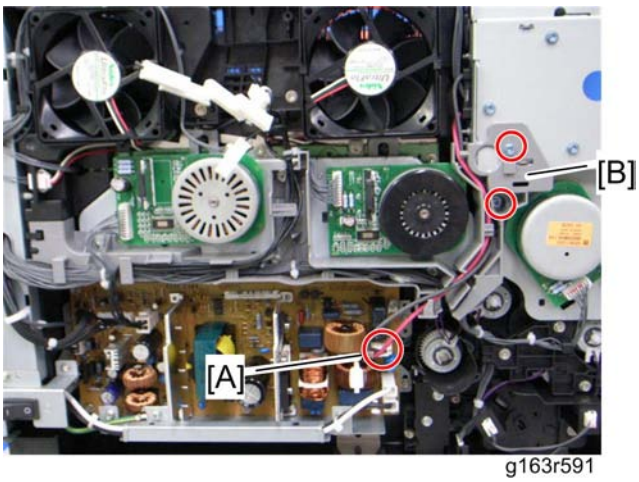
1. Open the top cover.

g163r522

2. AIO cartridge [A]

4.5.2 BLACK AIO MOTOR

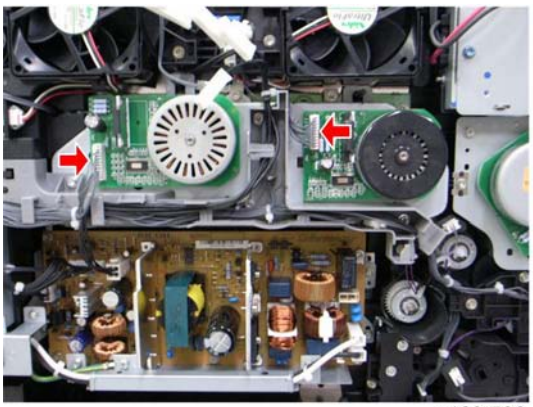
1. Left cover (☛ p.4-6)
2. Interlock switch base (☛ p.4-44)

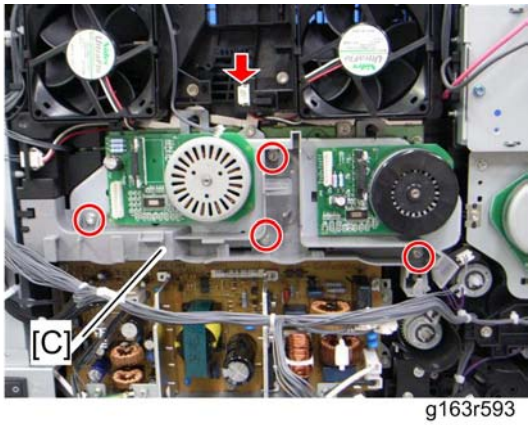


g163r591

3. Disconnect the fusing connector [A].
4. Fusing harness guide [B] (🔩 x 2)

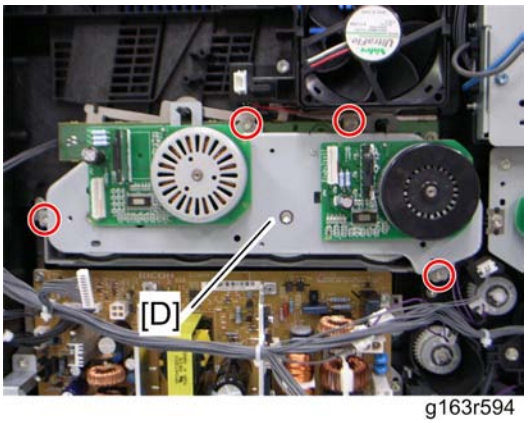
AIO Cartridge


g163r592



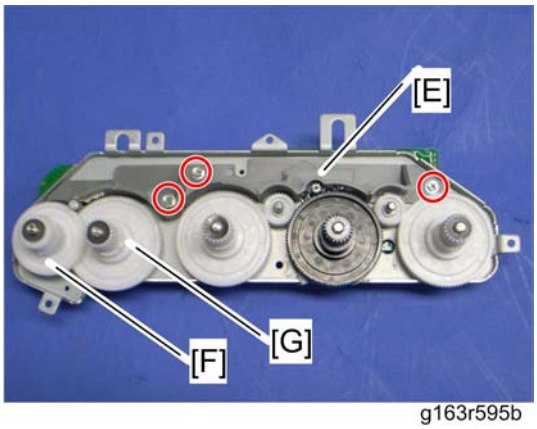
g163r593

5. Disconnect the connectors pointed by arrows in the above picture and take aside all harnesses on the harness guide [C].
6. Harness guide [C] (x 4)
7. Remove the LSU fan base (p.4-46 "ID Chip Board")



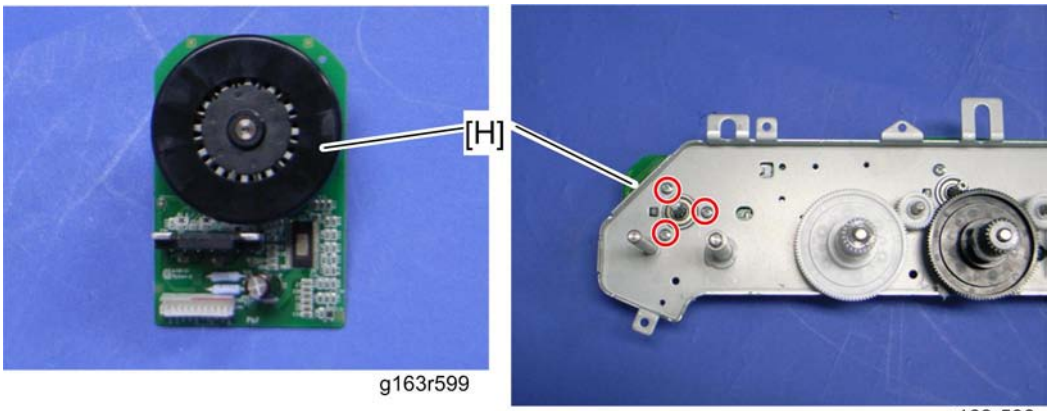
g163r594

8. Drive unit [D] (x 4)



g163r595b

9. Drive unit guide [E] (x 3)
10. Image transfer unit gear [F] (washer x 1)
11. Black AIO gear [G] (washer x 1)



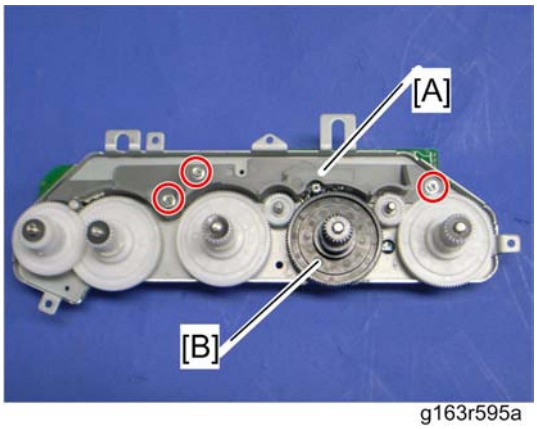
g163r599

g163r598

12. Black AIO motor [H] (🔩 x 3)

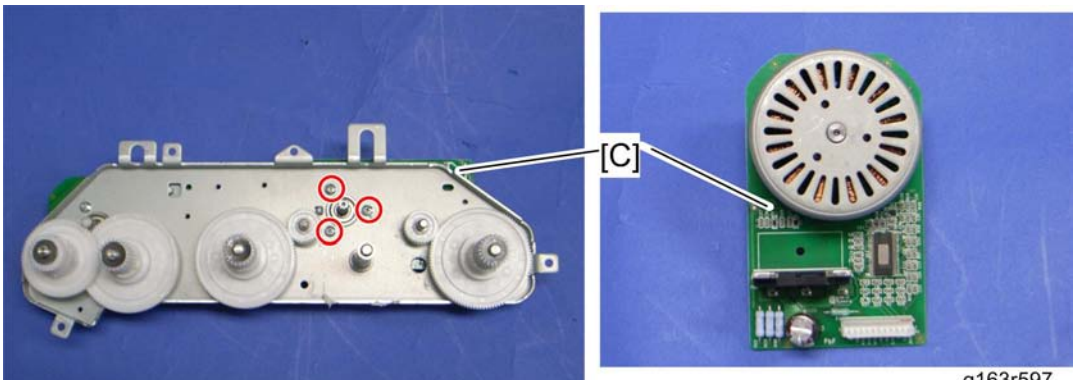
4.5.3 COLOR AIO MOTOR

1. Drive unit (☛ p.4-13)



g163r595a

2. Drive unit guide [A] (🔩 x 3)
3. Color AIO gear [B] (washer x 1)



g163r596

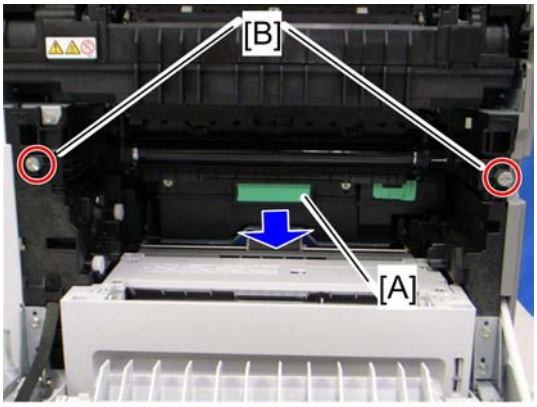
g163r597

4. Color AIO motor [C] (🔩 x 3)

4.6 IMAGE TRANSFER

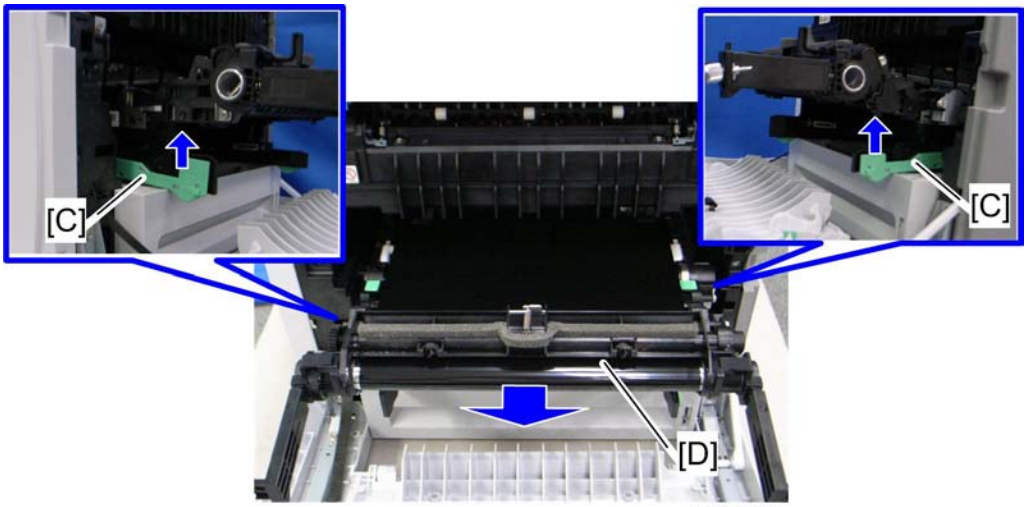
4.6.1 IMAGE TRANSFER BELT UNIT

1. Remove all the AIO cartridges (☛ p.4-13).
2. Transfer unit (☛ p.4-23)



g163r523

3. Remove the waste toner bottle [A].
4. Remove the two screws [B].

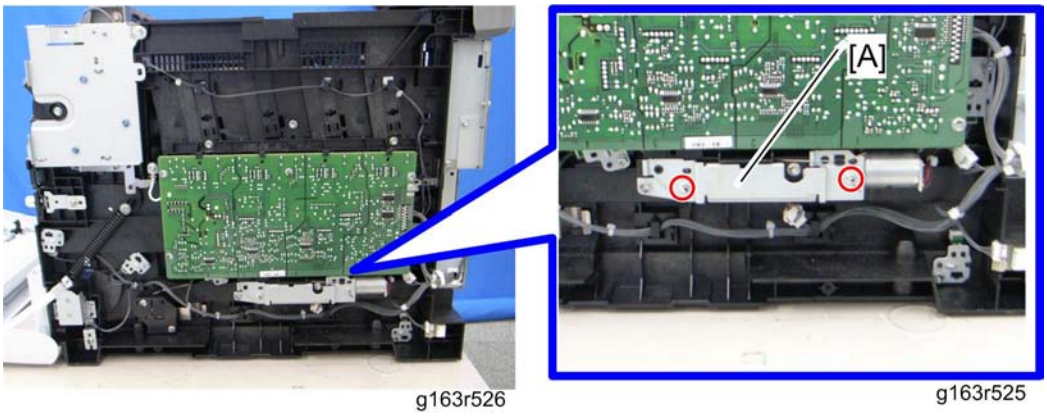


g163r524

5. Grab the handles [C], and then pull out the image transfer belt unit [D].

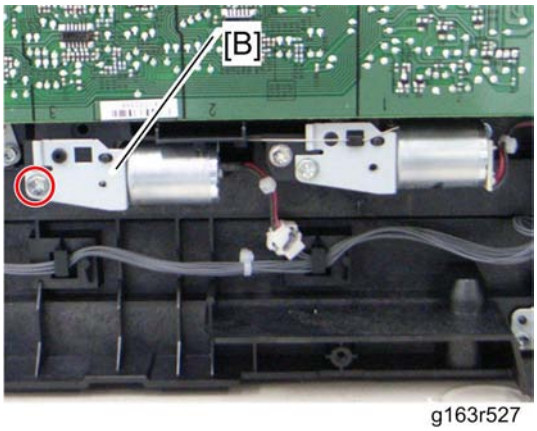
4.6.2 AGITATOR MOTOR

1. Right cover (☛ p.4-5)



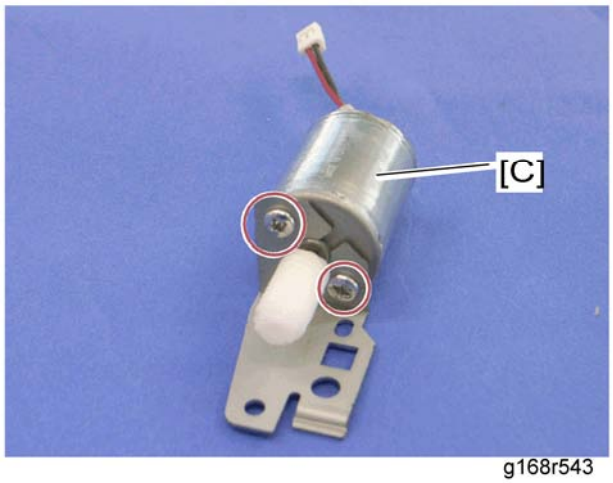
g163r526 g163r525

2. Motor bracket [A] (x 2)



g163r527

3. Agitator motor assembly [B] (x 1, x 1)



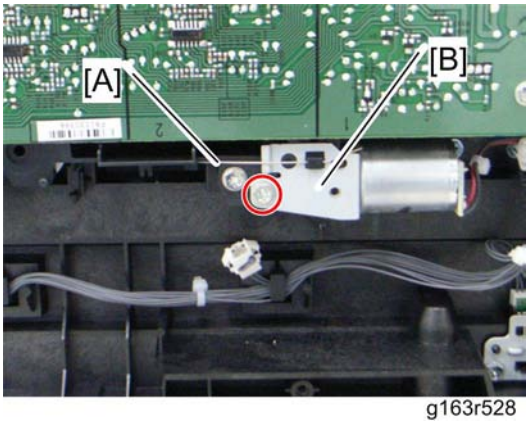
g168r543

4. Agitator motor [C] (x 2)

4.6.3 ITB (IMAGE TRANSFER BELT) CONTACT MOTOR

1. Agitator motor (p.4-16)

Image Transfer



g163r528

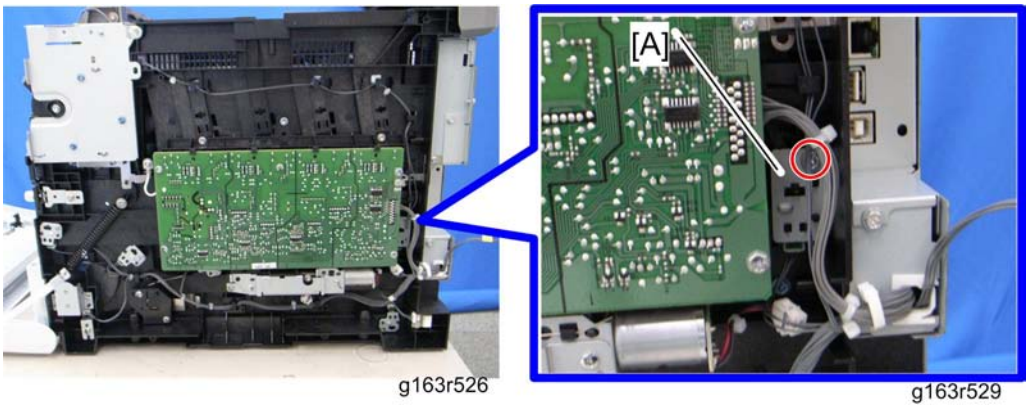
2. Release the wire [A].
3. ITB contact motor assembly [B] (x 1, x 1)

g168r545

4. ITB contact motor [C] (x 2)

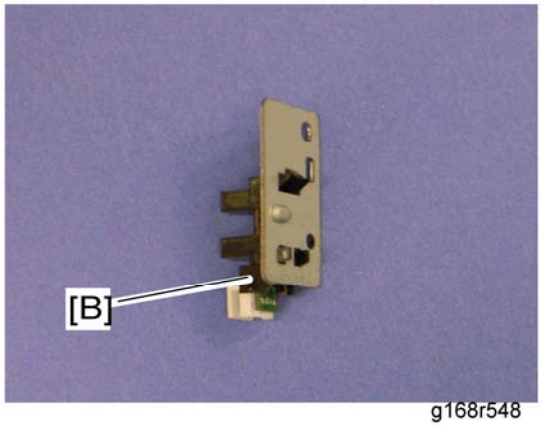
4.6.4 ITB (IMAGE TRANSFER BELT) CONTACT SENSOR

1. Right cover (p.4-5)



g163r526
g163r529

2. ITB contact sensor assembly [A] (x 1, x 1)

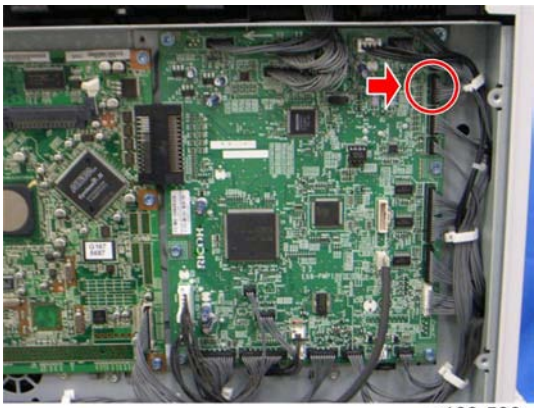


g168r548

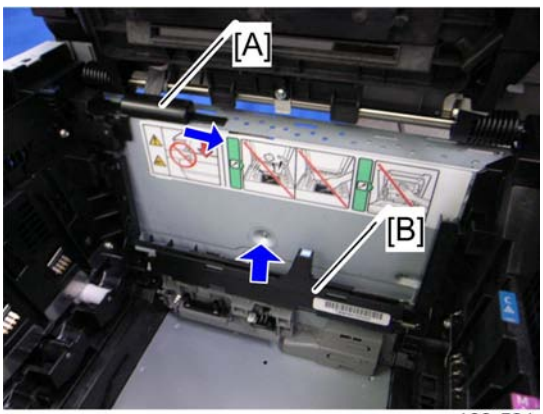
3. ITB contact sensor [B] (hooks)

4.6.5 TM (TONER MARK) SENSOR BASE

1. Open the top cover.
2. Remove all AIO cartridges (☛ p.4-13).
3. Slide the ITB unit to the front side or remove it.
4. Rear cover (☛ p.4-3)
5. Controller box cover (☛ p.4-42)


g163r530

6. Disconnect CN306 on the EGB (🖒 x 1).

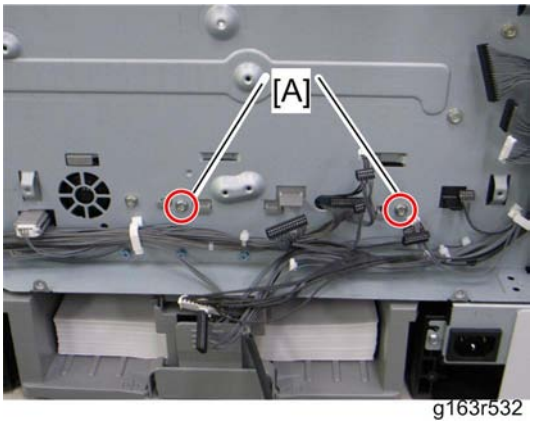


g163r531

7. Harness cover [A] (hooks)
8. TM sensor base [B]

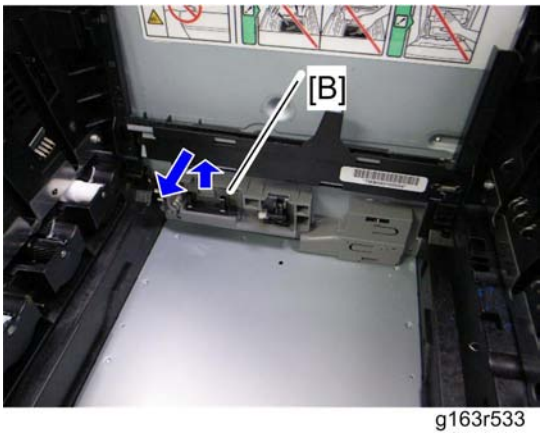
4.6.6 WASTE TONER BOTTLE SET SENSOR

1. Remove all AIO cartridges. (☛ p.4-13)
2. Image transfer belt unit (☛p.4-16)
3. EGB (☛ p.4-43)



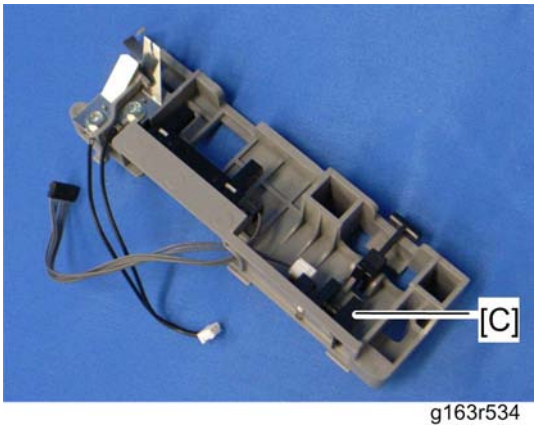
g163r532

4. Remove two screws [A] for the waste toner sensor base.



g163r533

5. Waste toner sensor base [B]
6. Remove the mylar at the bottom of the waste toner bottle set sensor.



g163r534

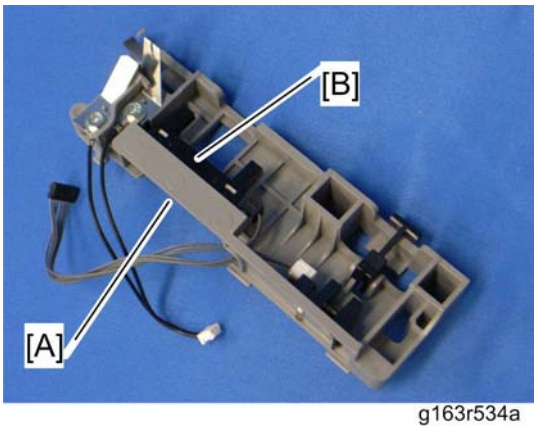
7. Waste toner bottle set sensor [C] (hooks, ☞ x 1)

Note

- When reinstalling the waste toner bottle set sensor, connect it to the white connector of the harness.

4.6.7 WASTE TONER OVERFLOW SENSOR

1. Remove all AIO cartridges. (☛ p.4-13)
2. Image transfer belt unit (☛p.4-16)
3. EGB (☛p.4-43)
4. Waste toner sensor base (☛ p.4-20)



g163r534a

5. Remove the mylar [A] securing the three hooks of the waste toner overflow sensor (at the bottom of this sensor base).

Note

- Reattach this mylar after reinstalling the waste toner overflow sensor.

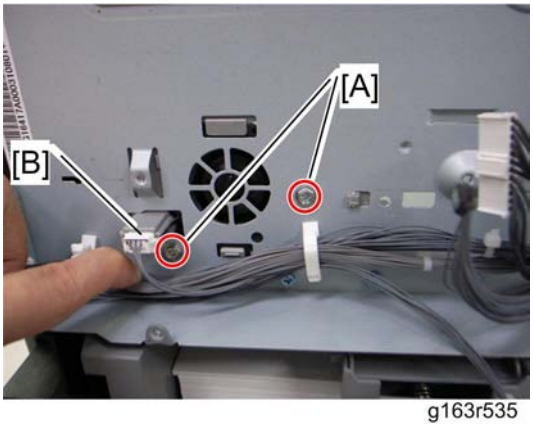
6. Waste toner overflow sensor [B] (hooks, ☞ x 1)

Note

- When reinstalling the waste toner overflow sensor, connect it to the black connector of the harness.

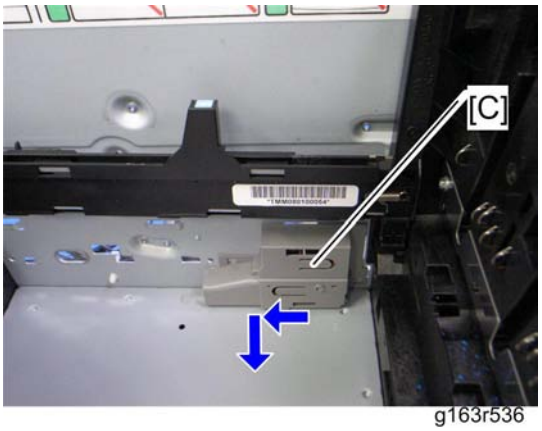
4.6.8 AIR INTAKE FAN

1. Remove all AIO Cartridge. (☛ p.4-13)
2. Image transfer belt unit (☛p.4-16)
3. EGB (☛p.4-43)
4. Waste toner sensor base (☛ p.4-20)



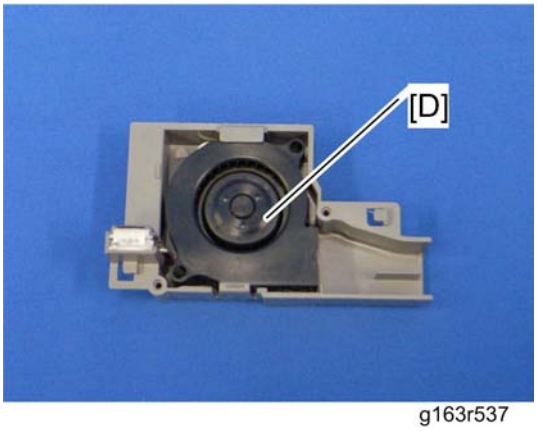
g163r535

5. Remove two screws [A] for the air intake fan base.
6. Disconnect the harness [B].



g163r536

7. Air intake fan base [C]



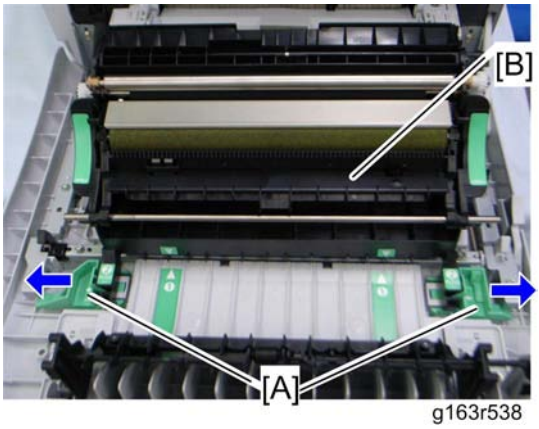
g163r537

8. Air intake fan [D] (✋ x 1)

4.7 PAPER TRANSFER

4.7.1 TRANSFER UNIT

1. Open the front cover.

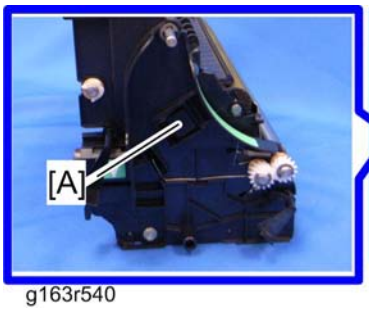


g163r538

2. Release the locks [A].
3. Transfer unit [B]

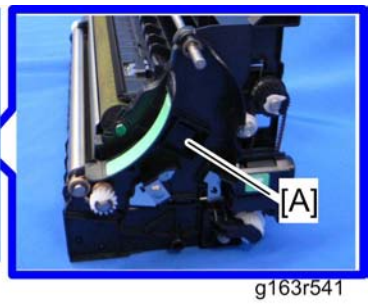
4.7.2 TRANSFER ROLLER

1. Transfer Unit (☛ p.4-23)



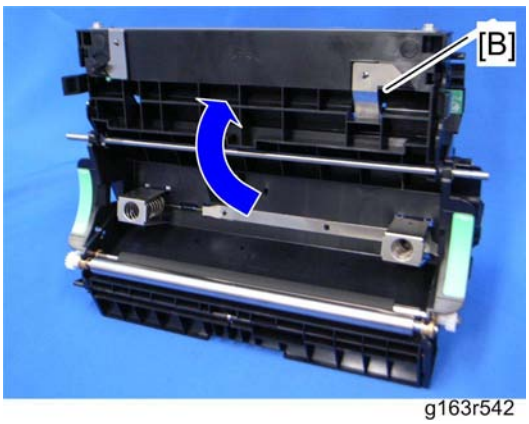
g163r540


g163r539



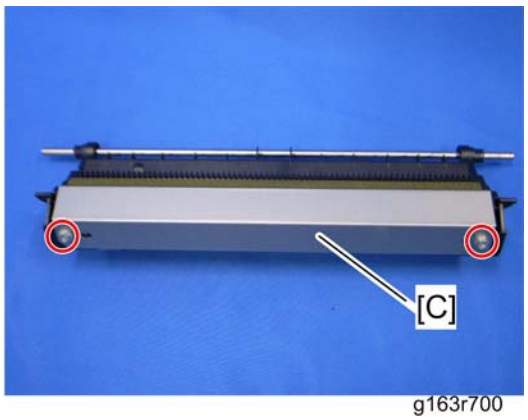
g163r541

2. Release the two hooks [A] at both sides of the transfer unit.



g163r542

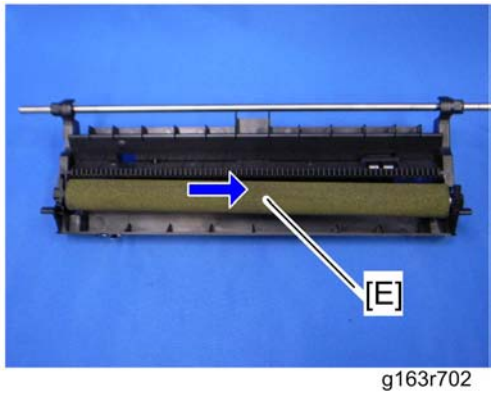
3. Open the transfer roller unit [B] and remove it.



g163r700

4. Transfer roller assembly [C] (x 2)

g163r701

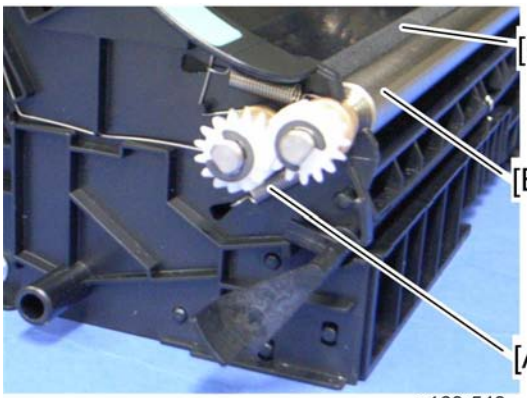


g163r702

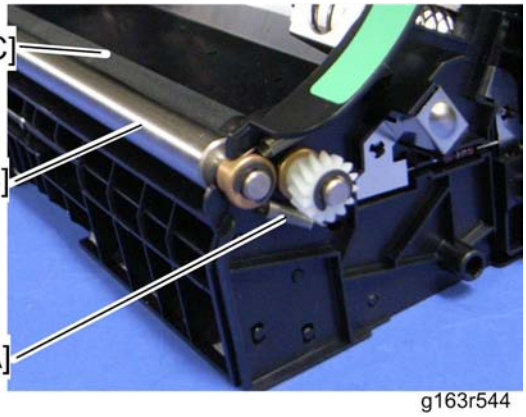
5. Release the holder [D] at the left side of the transfer roller unit (hook).
6. Transfer roller [E]

4.7.3 REGISTRATION ROLLER

1. Transfer unit (☛ p.4-23)
2. Transfer roller unit (☛ p.4-23)



g163r543


g163r544

3. Tension springs [A] (both sides)

4. Registration idle roller [B] (ℂ x 2, gear x 1, bushing x 2)
5. Registration roller [C] (ℂ x 2, gear x 2, bushing x 2)

Reassembling the registration roller unit

g168r559

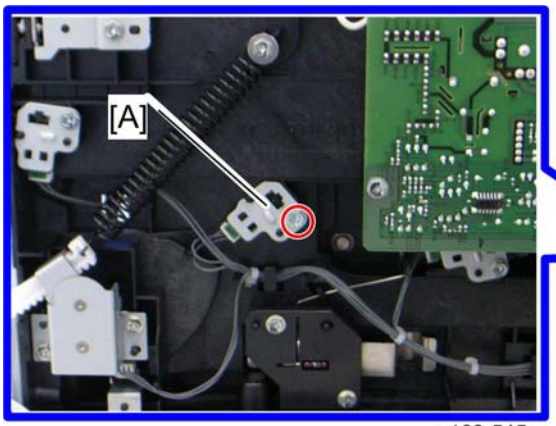
When installing the tension spring, make sure that the tension spring correctly hooks onto the bushing of the registration idle roller as shown above [A].

⚠CAUTION

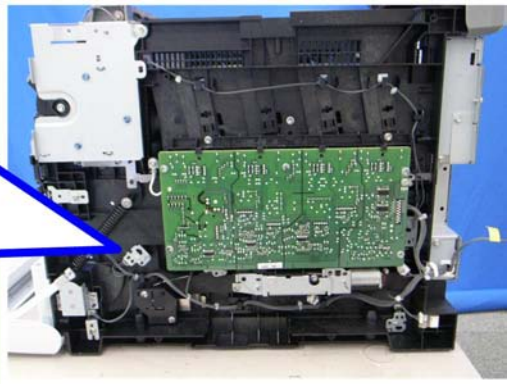
- Never fail to reassemble the registration idle motor in the right direction.

4.7.4 REGISTRATION SENSOR

1. Right Cover (☛ p.4-5)



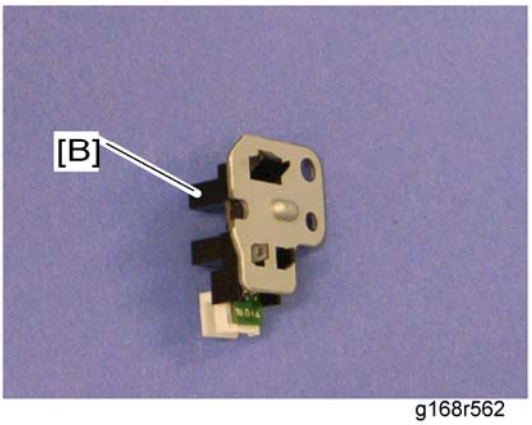
g163r545



g163r526

2. Registration sensor assembly [A] (🔩 x 1, 🖐 x 1)

Paper Transfer



g168r562

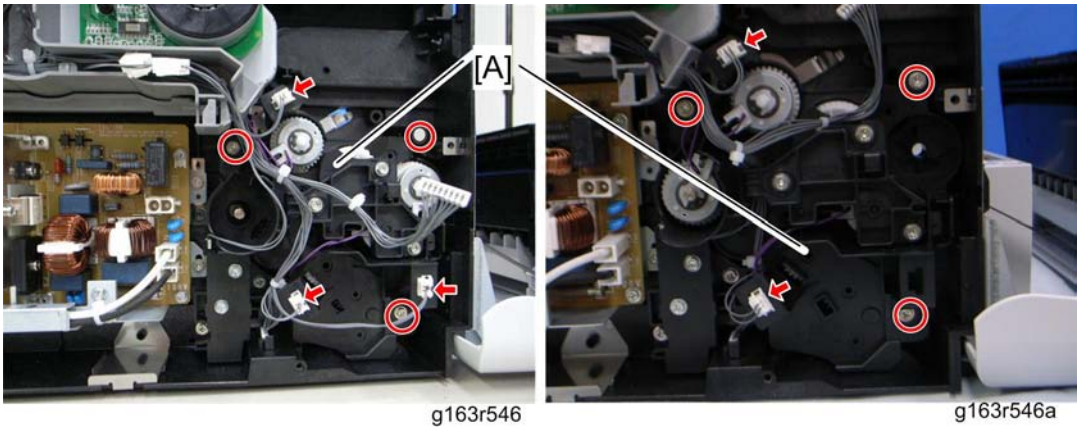
3. Registration sensor [B] (hooks)

4.7.5 REGISTRATION AND DUPLEX CLUTCH

Note

- The duplex clutch is used only for the M041 model. No duplex clutch is in the M040 model.

1. Rear cover (☛ p.4-3)
2. Left cover (☛ p.4-6)
3. Paper feed clutch (☛ p.4-36)
4. Transport/Fusing motor (☛p.4-34)

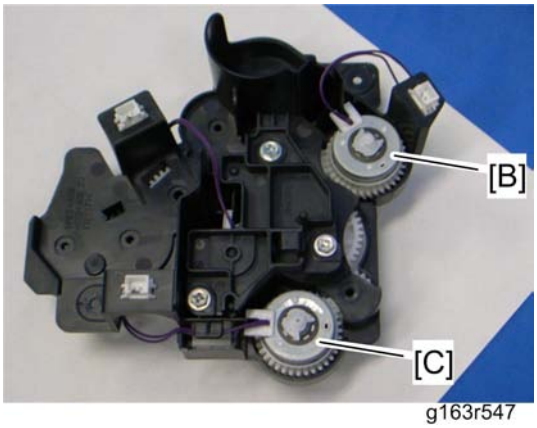


g163r546 g163r546a

5. Lower transport gear unit [A] (x 3, x 3 for M041/ x 2 for M040)

Note

- The picture on the left side shows the M041 model.
- The picture on the right side shows the M040 model (no duplex).



g163r547

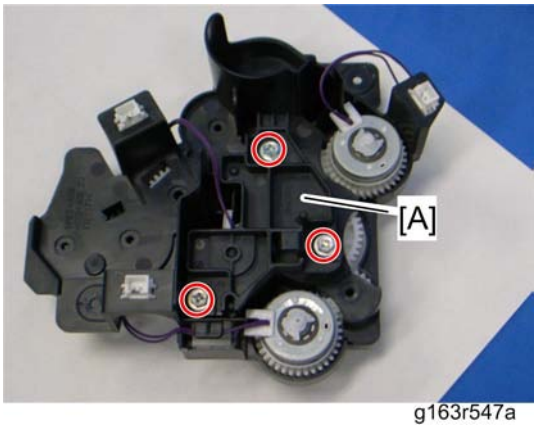
6. Registration clutch [B] (clip x 1, x 1)
7. Duplex clutch [C] (clip x 1, x 1)

Note

- The picture above shows the M041 model. No duplex clutch is in the M040 model.

4.7.6 BY-PASS CLUTCH

1. Lower transport gear unit (☛ p.4-26)



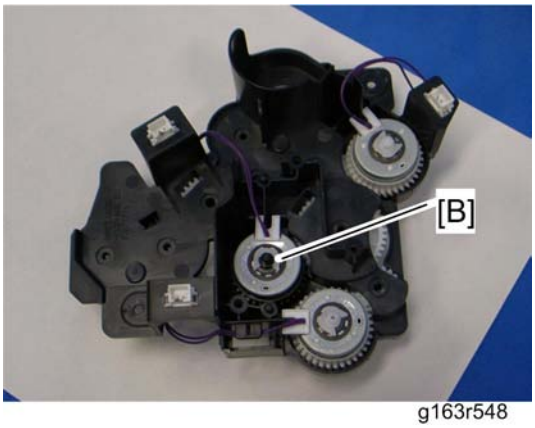
g163r547a

2. Cover [A] (x 3)

Note

- The picture above shows the M041 model. No duplex clutch is in the M040 model.

Paper Transfer



g163r548

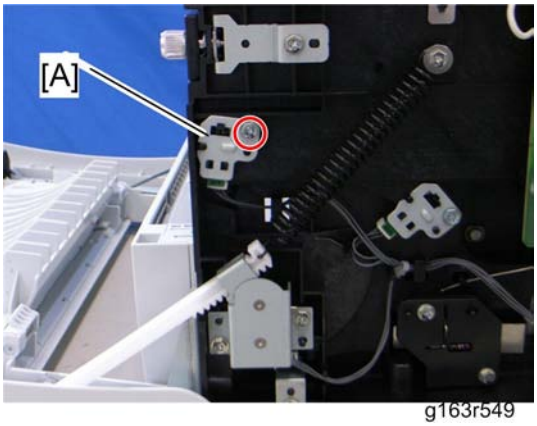
3. By-pass clutch [B] (clip x 1, x 1)

Note

- The picture above shows the M041 model. No duplex clutch is in the M040 model.

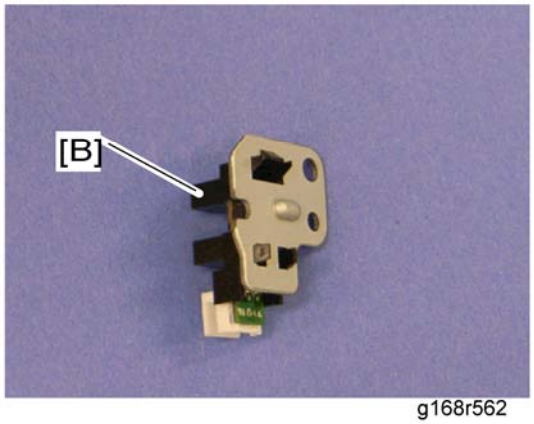
4.7.7 FRONT COVER OPEN SENSOR

1. Right Cover (☛ p.4-5)



g163r549

2. Front cover open sensor assembly [A] (x 1, x 1)



g168r562

3. Front cover open sensor [B] (hooks)

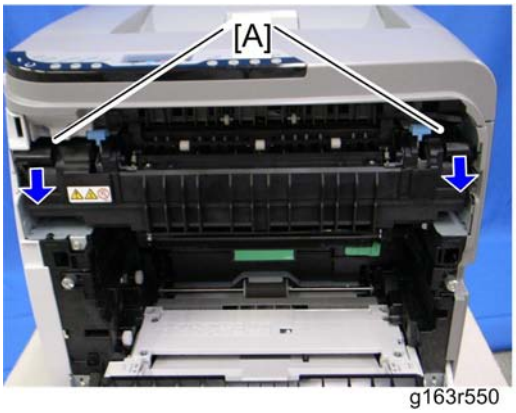
4.8 IMAGE FUSING

⚠CAUTION

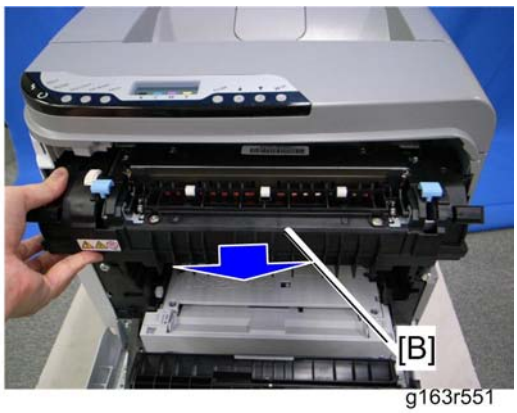
- Make sure that the fusing unit is cool before you touch it. The fusing unit can be very hot.
- Make sure to restore the insulators, shields, etc after you service the fusing unit.

4.8.1 FUSING UNIT

1. Open the front cover.



g163r550



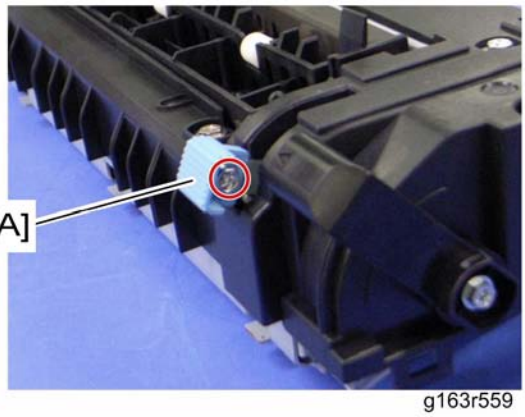
g163r551

2. Release the fusing unit lock levers [A].
3. Fusing unit [B]

4.8.2 FUSING LAMP

1. Fusing unit (☛ p.4-29)

g163r558


g163r559

2. Pressure release lever knobs [A] (🔩 x 1 each)

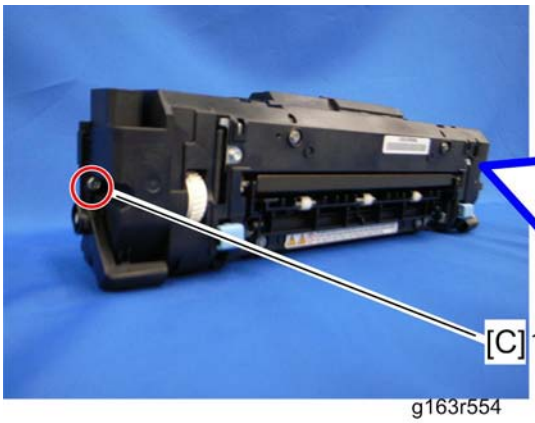
Image Fusing

g163r605

3. Lower the both pressure release levers [B].

⚠CAUTION

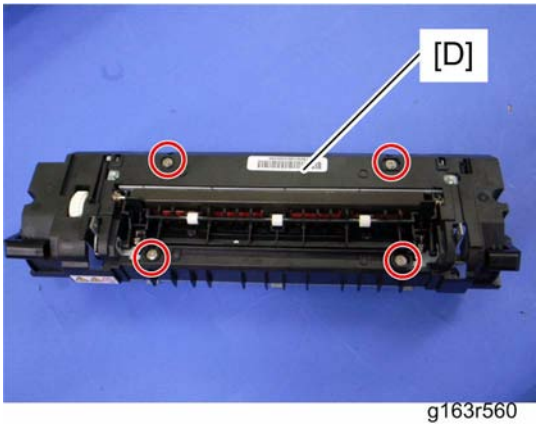
- Do not place the fusing unit with its rear entrance guide down. Otherwise, the fusing rear entrance guide can be broken.



g163r554

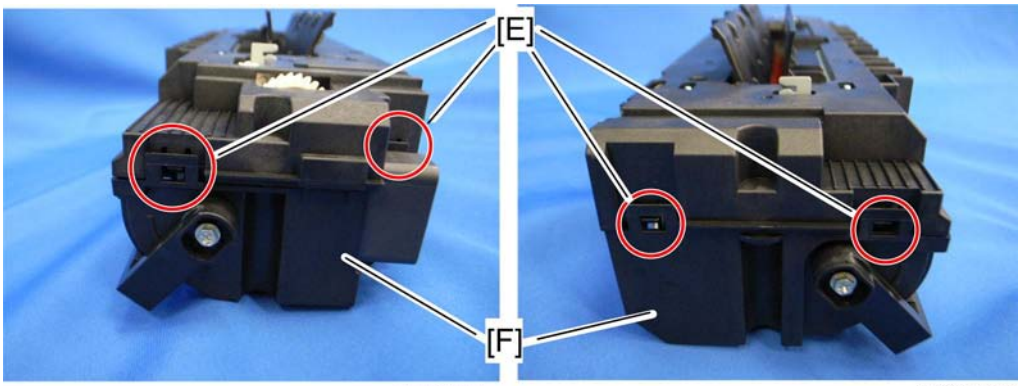

g163r555

4. Remove two screws [C] at the left and right edge of the fusing unit.



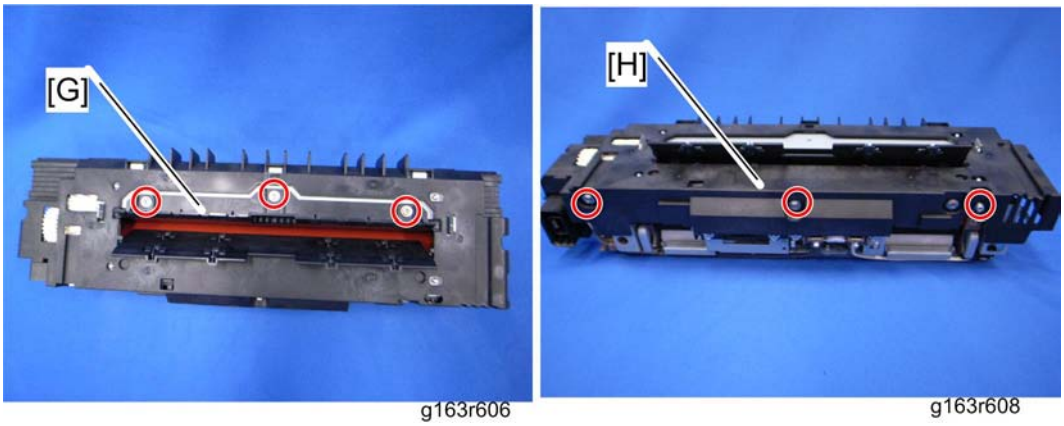
g163r560

5. Remove four screws on the fusing upper cover [D].



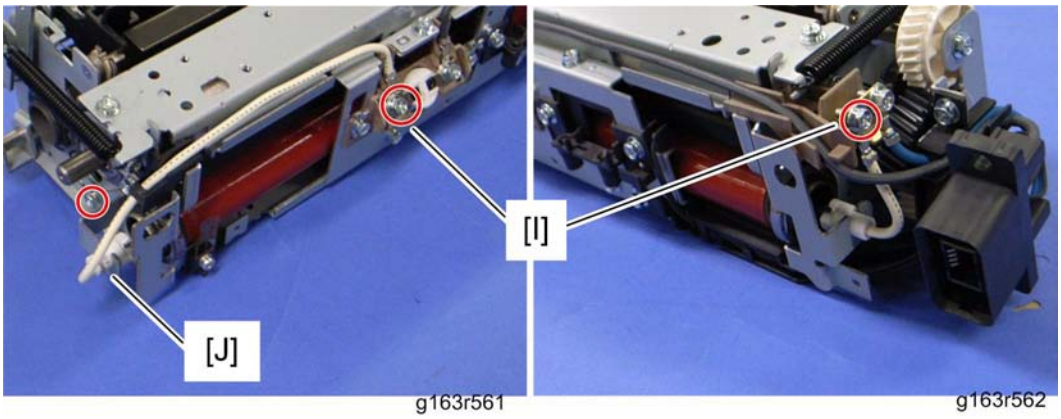
g163r556 g163r557

6. Release four hooks [E] of the fusing upper cover, and then remove the fusing upper cover [F].



g163r606 g163r608

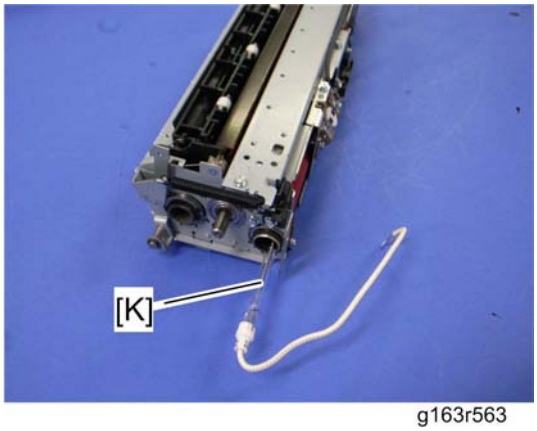
7. Fusing lower guide front plate [G] (x 3)
8. Fusing lower cover (x 3)



g163r561 g163r562

9. Remove two screws [I].
10. Fusing lamp right stay [J] (x 1)

Image Fusing

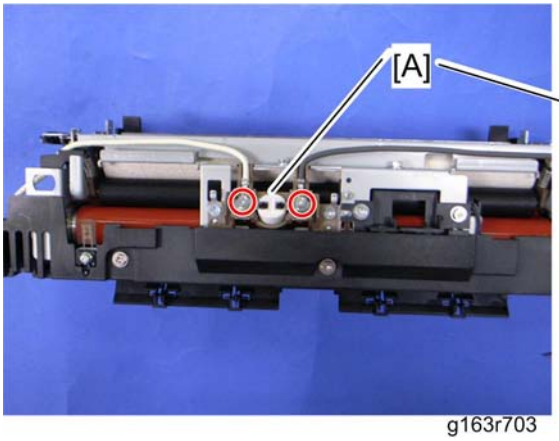


g163r563

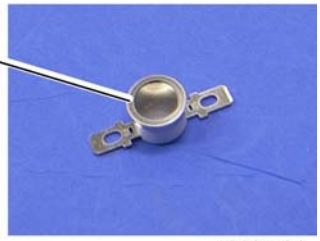
11. Fusing lamp [K]

4.8.3 THERMOSTAT

1. Fusing unit (☛ p.4-29)
2. Fusing upper cover (☛ p.4-29 "Fusing Lamp")



g163r703

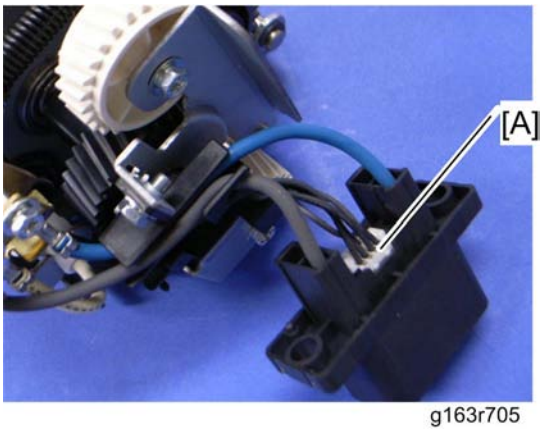


g163r704

3. Thermostat [A] (🔩 x 2)

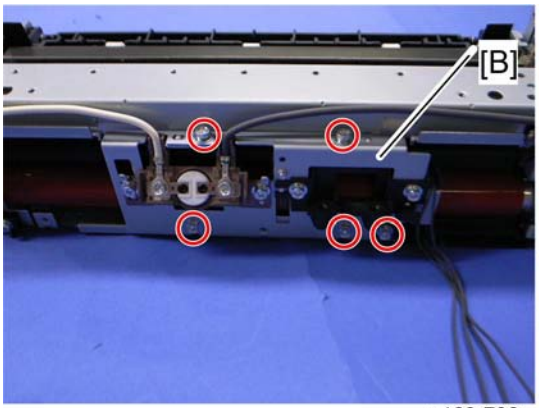
4.8.4 THERMISTORS

1. Fusing unit (☛ p.4-29)
1. Fusing upper cover (☛ p.4-29 "Fusing Lamp")
2. Fusing lower cover (☛ p.4-29 "Fusing Lamp")

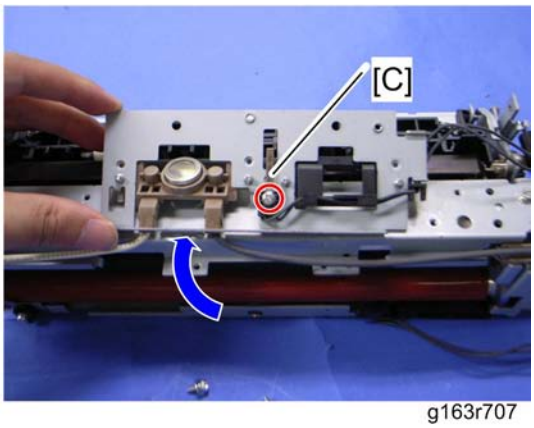


g163r705

3. Disconnect the thermistor connector [A].

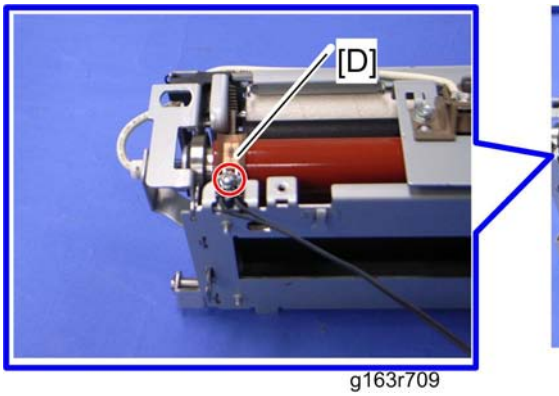


g163r706

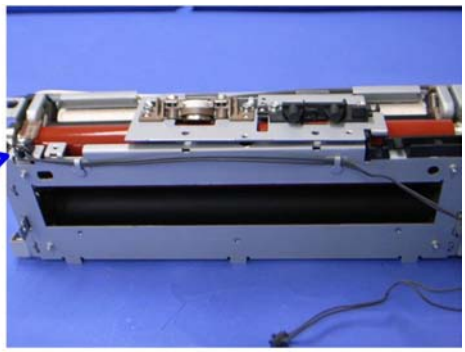


g163r707

4. Thermostat bracket [B] (x 5)
5. Thermistor: center [C] (x 1)



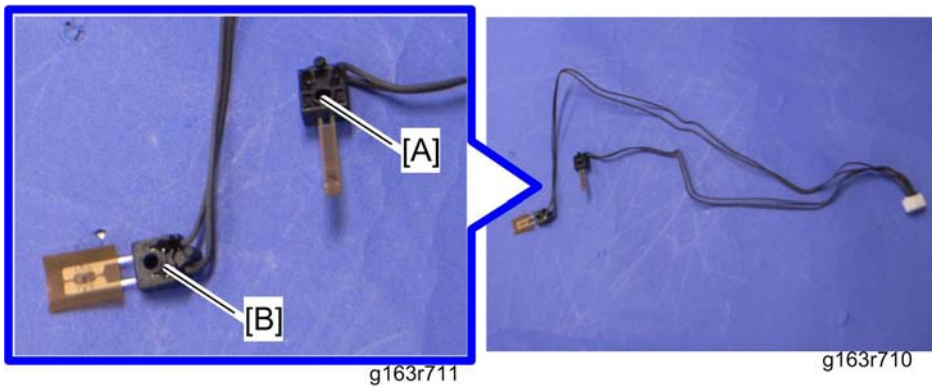
g163r709



g163r708

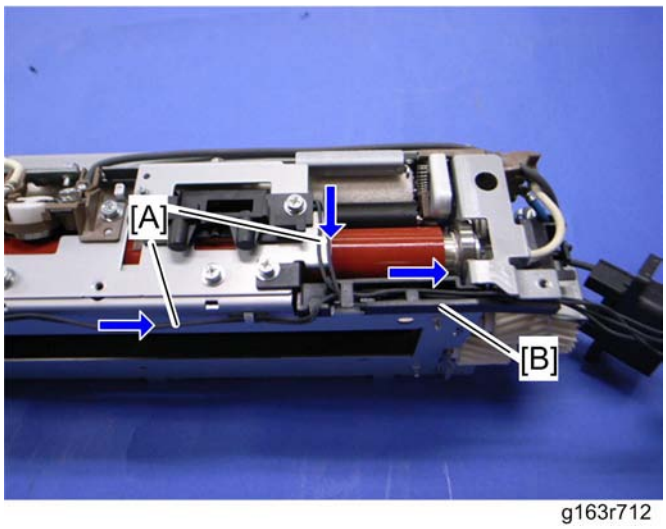
6. Thermistor: end [D] (x 1)

When installing the thermistors: center and end



Do not mix up two thermistors;

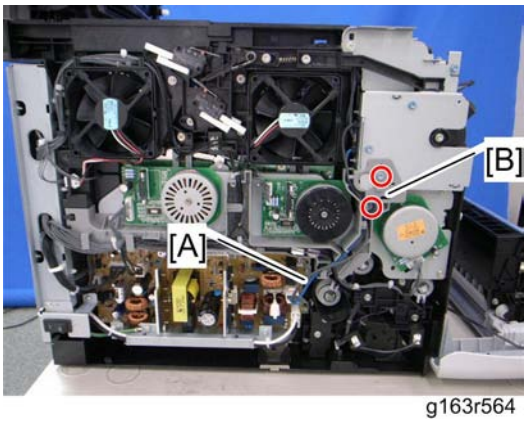
- [A]: Thermistor: center
- [B]: Thermistor: end



Set the cables [A] of two thermistors along the cable guide [B].

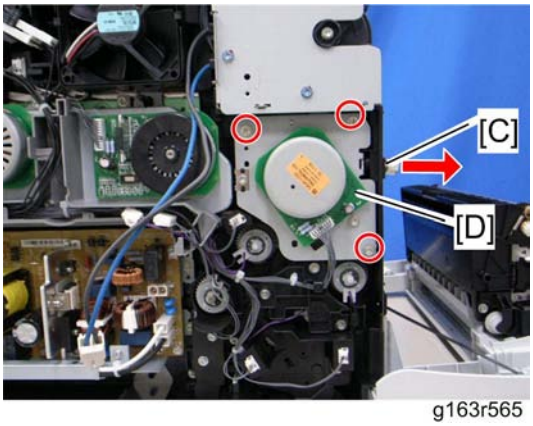
4.8.5 TRANSPORT/FUSING MOTOR

1. Rear cover (☛ p.4-3)
2. Left cover (☛ p.4-6)



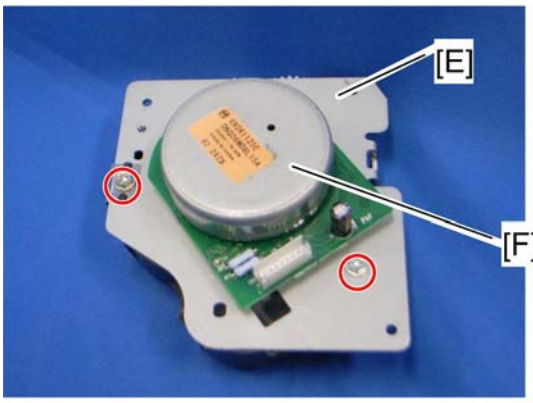
g163r564

3. Disconnect the fusing cables [A].
4. Fusing harness guide [B] (x 2)

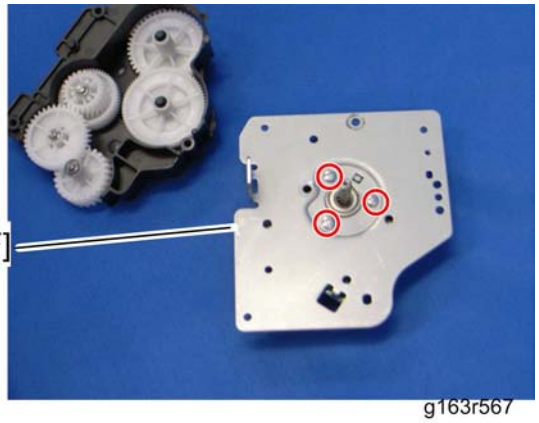


g163r565

5. Pull out the ITB unit [C] (x 2).
6. Transport/Fusing motor assembly [D] (x 3, x 1)



g163r566

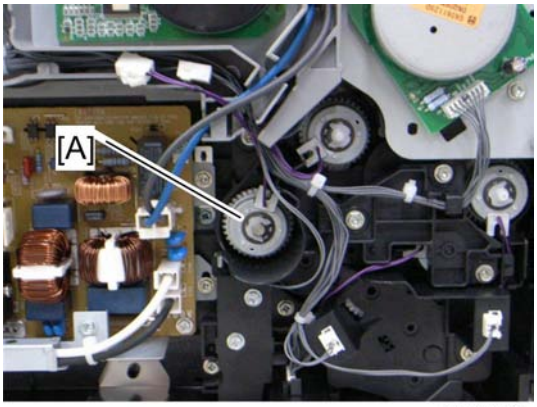

g163r567

7. Motor bracket [E] (x 2, ground plate x 1)
8. Transport/Fusing motor [F] (x 3)

4.9 PAPER FEED AND EXIT

4.9.1 PAPER FEED CLUTCH

1. Rear cover (☛ p.4-3)
2. Left cover (☛ p.4-6)

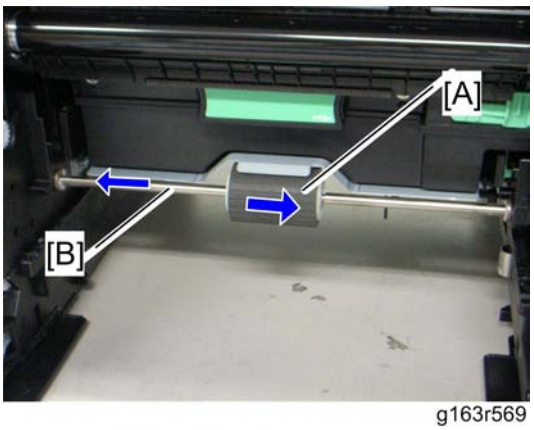


g163r568

3. Paper feed clutch [A] (clip x 1, ☞ x 1)

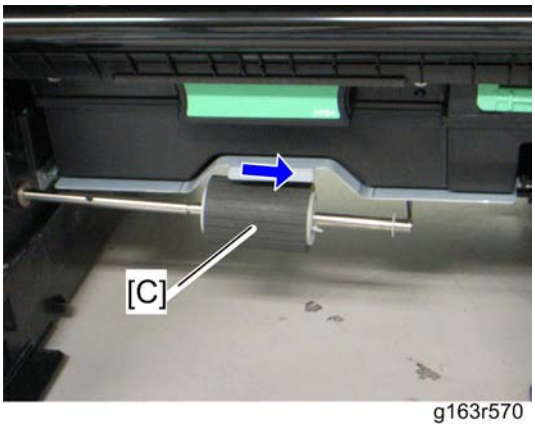
4.9.2 PAPER FEED ROLLER

1. Pull out the tray.
2. Open the front cover.
3. Transfer unit (☛ p.4-23)
4. Paper feed clutch (☛ p.4-36)



g163r569

5. Slide the paper feed roller [A] to the right side (hook).
6. Slide the paper feed shaft [B] to the left side (clip x 1).

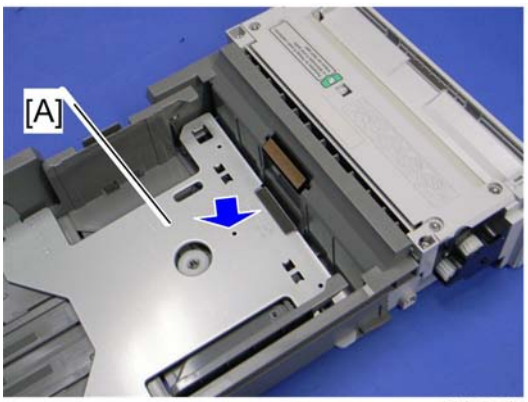


g163r570

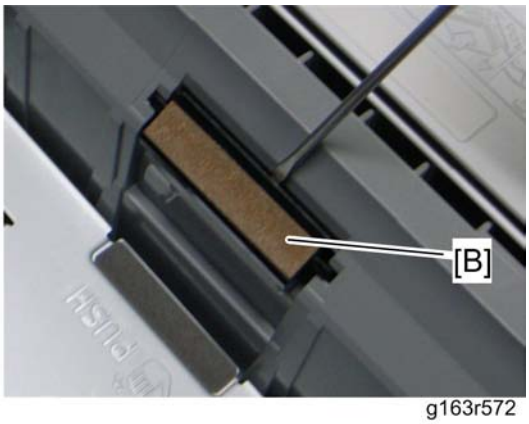
7. Paper feed roller [C] (x 1)

4.9.3 SEPARATION PAD

1. Pull out the tray.



g163r571



g163r572

2. Push down the bottom plate [A].
3. Separation pad [B] (hooks, spring x 1)

g163r573

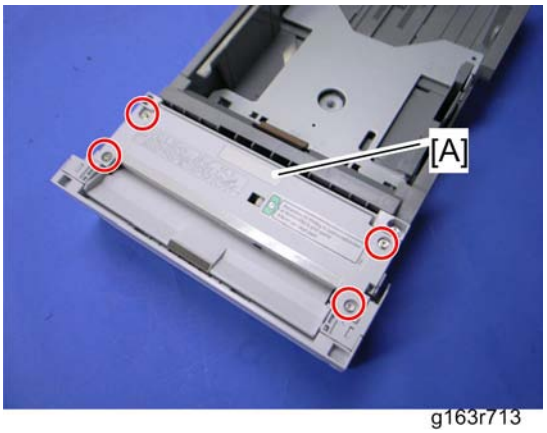

g163r574

Note

- When reinstalling the separation pad, make sure that the mylar [C] is not placed under the separation pad. The right side image above shows incorrect installation.

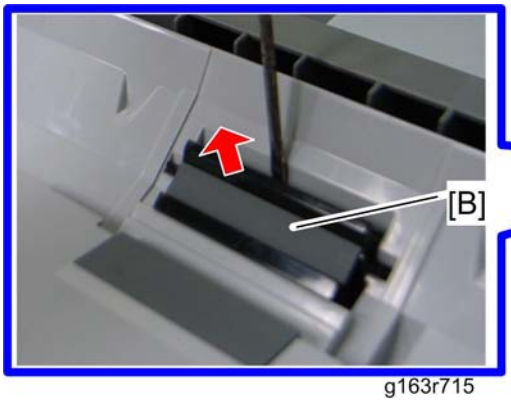
4.9.4 BY-PASS SEPARATION PAD

1. Pull out the tray 1.

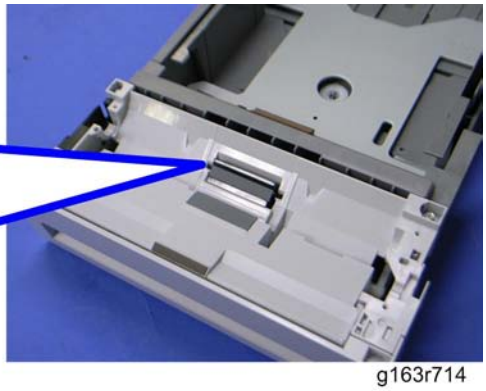


g163r713

2. By-pass feed unit [A] (🔩 x 4)



g163r715

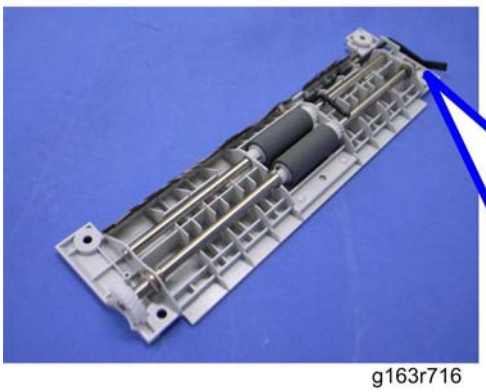

g163r714

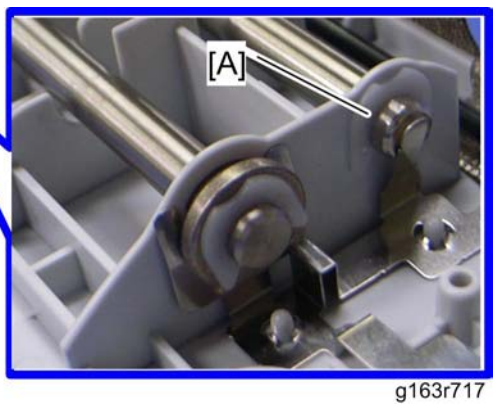
3. By-pass separation pad [B]

4.9.5 BY-PASS PICK-UP AND FEED ROLLERS

By-pass Pick-up Roller

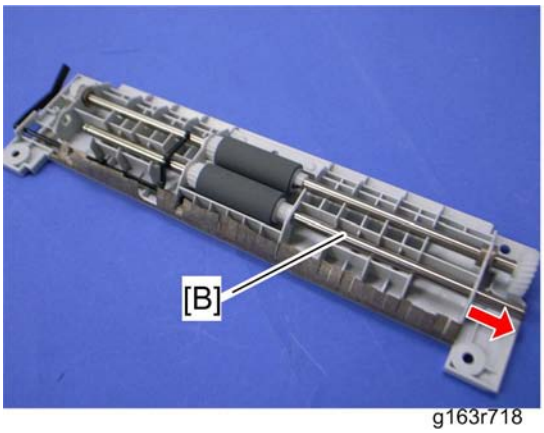
1. Pull out the tray 1.
2. By-pass feed unit (☛ p.4-38 "By-pass Separation Pad")


g163r716

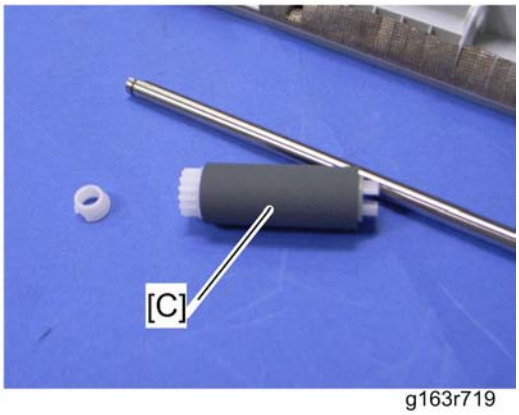


g163r717

3. Remove the clip [A].



g163r718



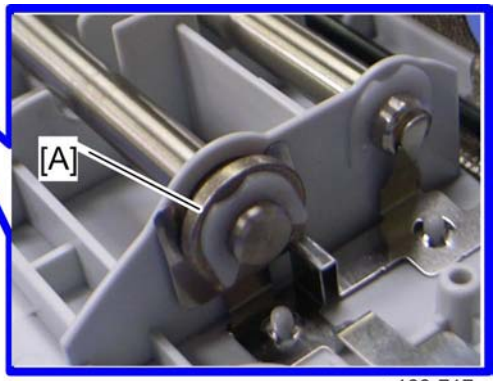
g163r719

4. Pull out the by-pass pick-up roller shaft [B] (bushing x 1).
5. Pick-up roller [C]

By-pass Feed Roller

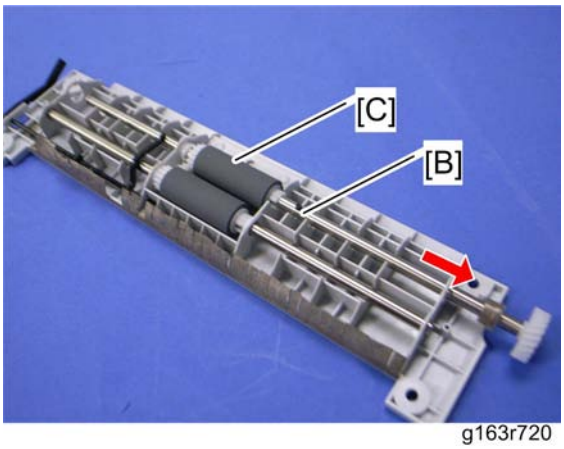
1. Pull out the tray 1.
2. By-pass feed unit (☛ p.4-38 "By-pass Separation Pad")


g163r716a



g163r717a

3. Bushing [A] at the by-pass feed roller shaft (clip x 1).

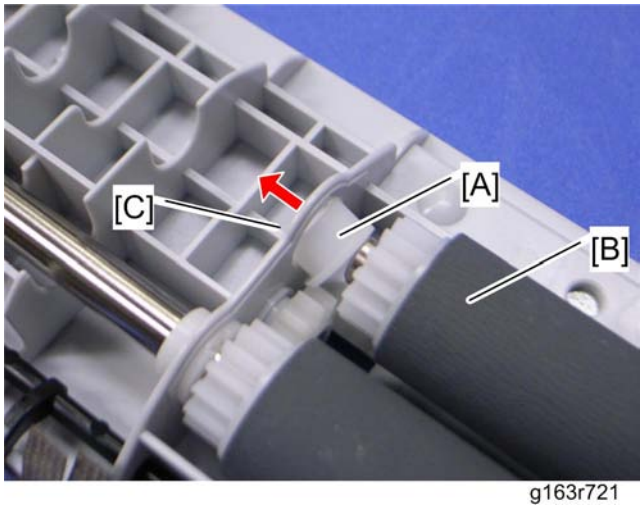


g163r720

4. Pull out the by-pass feed roller shaft [B] (bushing x 1).

5. Pick-up roller [C]

When installing the by-pass pick-up and feed rollers

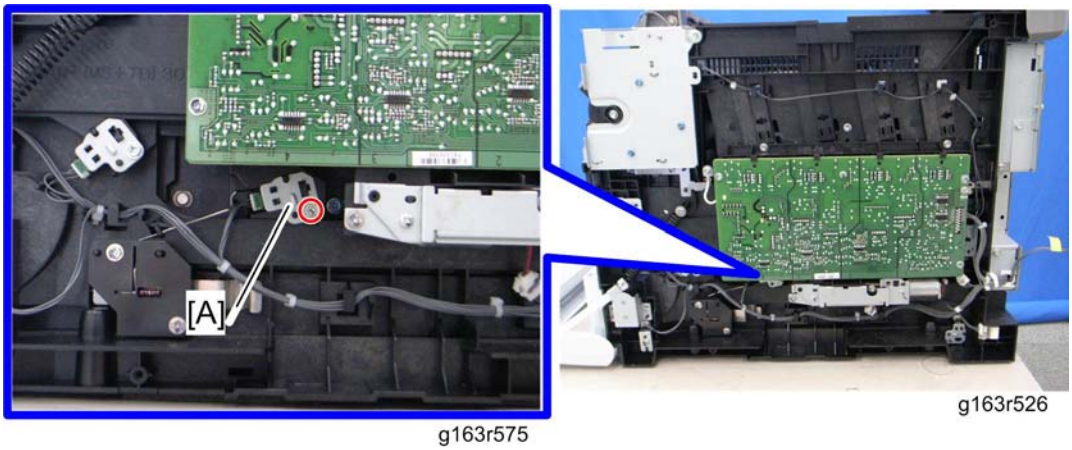


g163r721

Make sure that the small plastic bushing [A] is correctly inserted between the pick-up or feed roller [B] and roller support plate [C].

4.9.6 PAPER END SENSOR

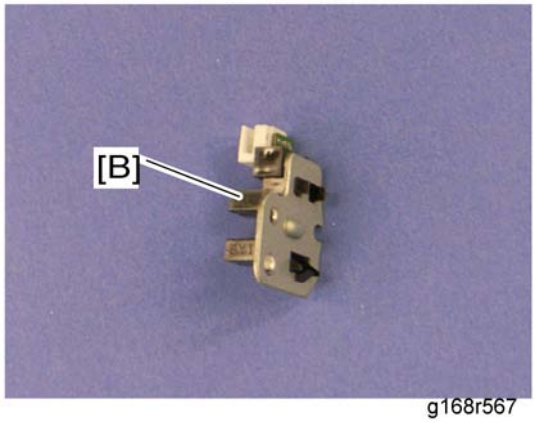
1. Rear cover (☛ p.4-3)
2. Right cover (☛ p.4-5)



g163r575

g163r526

3. Paper end sensor assembly [A] (x 1, x 1)

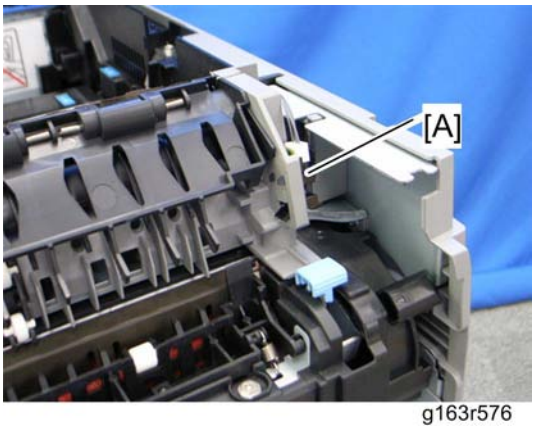


g168r567

4. Paper end sensor [B] (hooks)

4.9.7 PAPER EXIT SENSOR

1. Operation panel (☛ p.4-4)



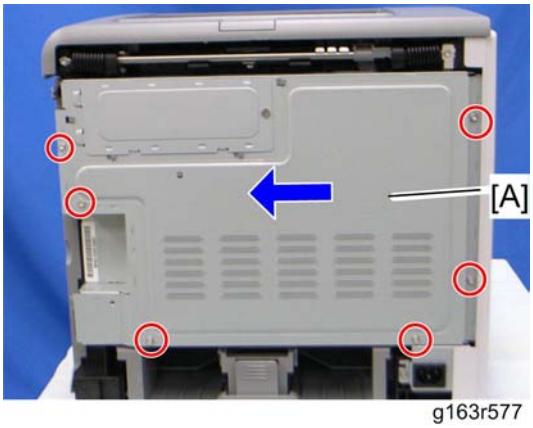
g163r576

2. Remove the mylar at the bottom of the paper exit sensor.
3. Paper exit sensor [A] (hooks, ☜ x 1)

4.10 ELECTRICAL COMPONENTS

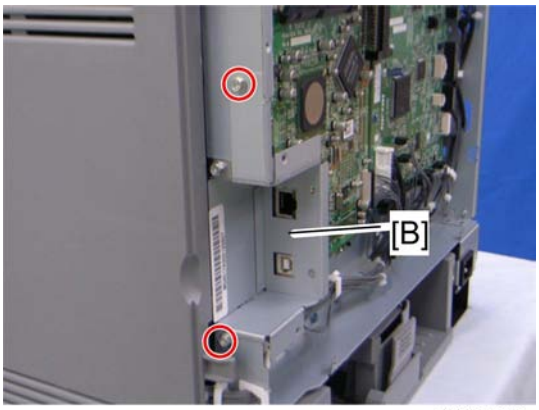
4.10.1 CONTROLLER BOARD

1. Rear cover (☛ p.4-3)



g163r577

2. Controller box cover [A] (☞ x 6)



g163r578

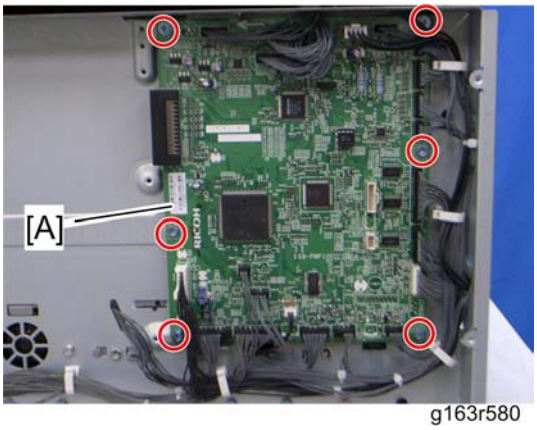
3. Interface bracket [B] (☞ x 2)

g163r579a

4. Controller board [C] (☞ x 6)

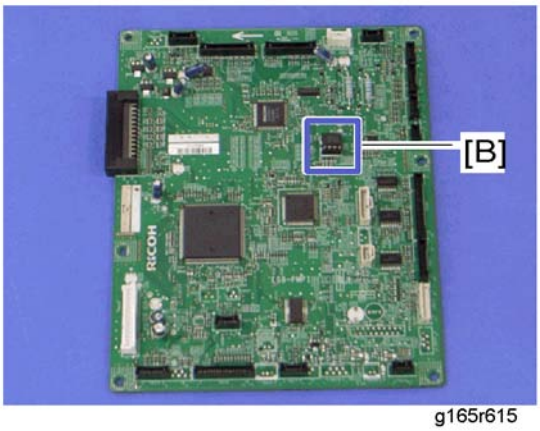
4.10.2 EGB (ENGINE BOARD)

1. Rear cover (☛ p.4-3)
2. Controller board (☛ p.4-42)



g163r580

3. EGB [A] (🔩 x 6, all connectors)



g165r615

4. EEPROM [B]

When installing the new EGB

1. Remove the EEPROM from the old EGB.


g165r615

g165r616

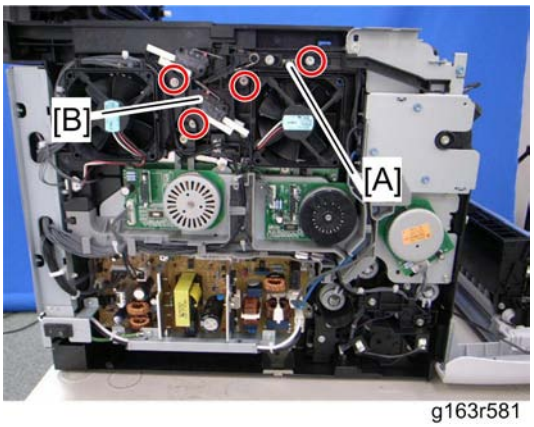
2. Install the removed EEPROM on the new EGB with the mark [A] pointing to the left side of the board after you replace the EGB.
3. Replace the EEPROM if the EEPROM on the old EGB is defective.

CAUTION

- Keep the EEPROM away from objects that can cause static electricity. Static electricity can damage EEPROM data.
- Make sure that the EEPROM is correctly installed on the EGB.

4.10.3 INTERLOCK SWITCHES

1. Operation panel (☛ p.4-4)
2. Rear cover (☛ p.4-3)
3. Left cover (☛ p.4-6)

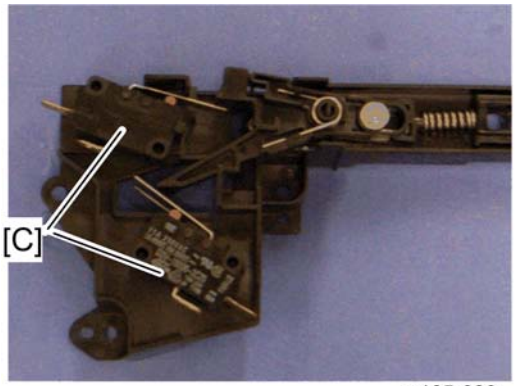


g163r581

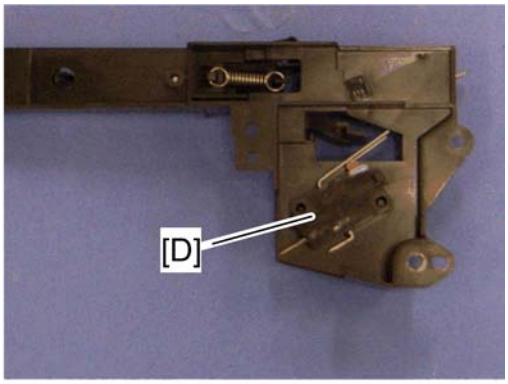
4. Remove the spring [A].
5. Interlock switch base [B] (🔩 x 4, all connectors)

Note

- Remove all connectors after the interlock switch base has been removed.



g165r620

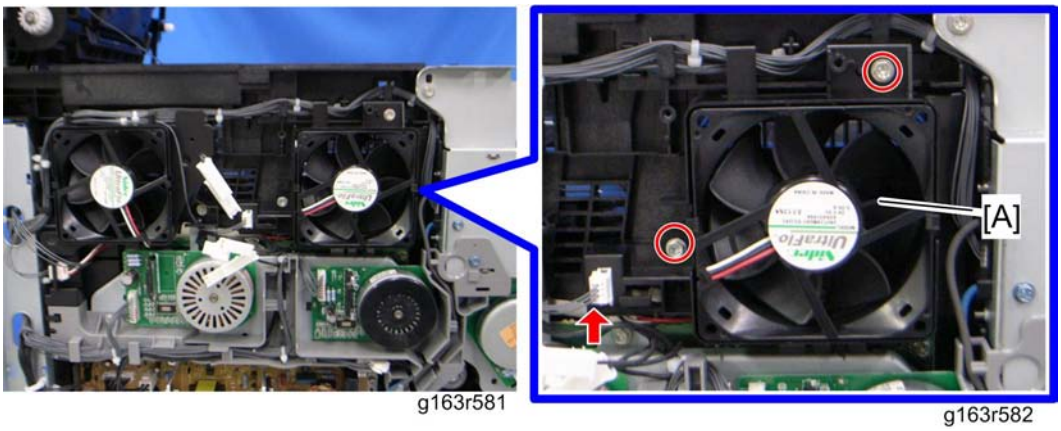


g165r621

6. Two interlock switches [C] at the outside of the base and one interlock switch [D] at the inside of the base (hooks)

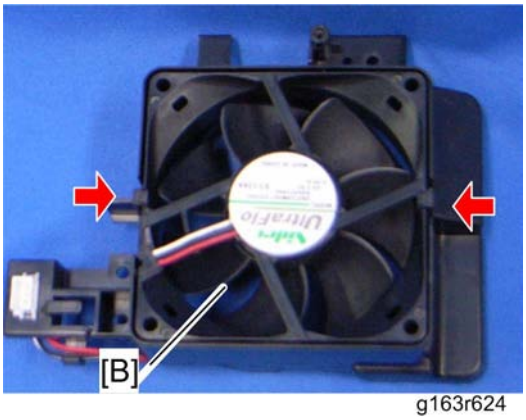
4.10.4 FUSING FAN MOTOR

1. Operation panel (☛ p.4-4)
2. Rear cover (☛ p.4-3)
3. Left cover (☛ p.4-6)
4. Interlock switch base (☛ p.4-44)



g163r581 g163r582

5. Fusing fan base [A] (🔧 x 2, ✋ x 1)



g163r624

6. Fusing fan motor [B] (hooks, ✋ x 1)

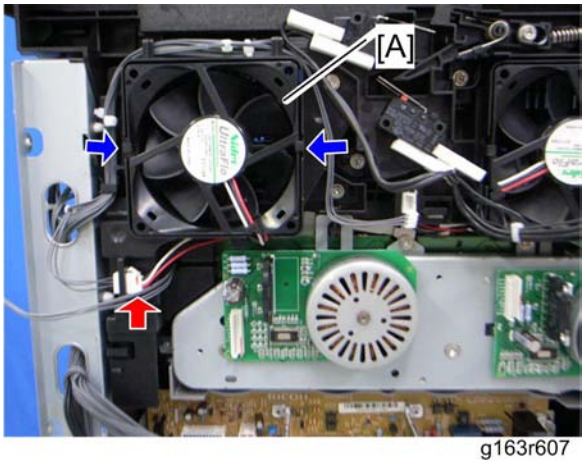
⚠CAUTION

- Install the fusing fan motor with its decal is facing the outside of the machine.
- Make sure the fan cable is facing the correct direction by noting the correct orientation of its cable. (Also notice that the fusing fan motor sticker is installed upside down.)

4.10.5 LSU FAN MOTOR

1. Operation panel (☛ p.4-4)
2. Rear cover (☛ p.4-3)
3. Left cover (☛ p.4-6)

Electrical Components



g163r607

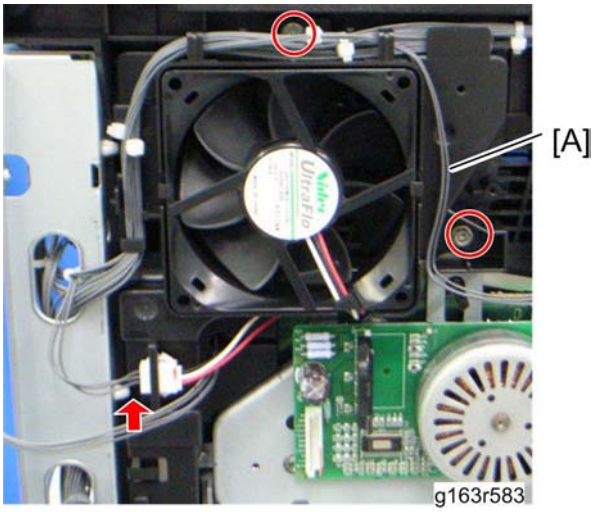
4. LSU fan motor [A] (hooks, x 1)

CAUTION

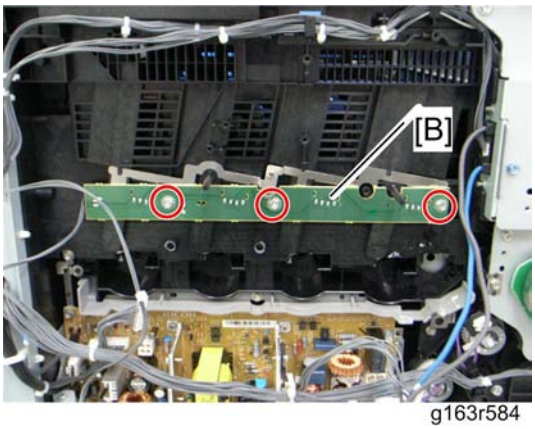
- Install the LSU fan motor, orienting it as shown in above photo, with its decal facing the outside of the machine.
- When reinstalling the LSU fan motor, make sure that its cable is oriented as shown above and that the decal is visible. (If the decal is not visible, the motor is installed backwards.)

4.10.6 ID CHIP BOARD

1. Operation panel (☛ p.4-4)
2. Rear cover (☛ p.4-3)
3. Left cover (☛ p.4-6)
4. Controller box cover (☛ p.4-42)
5. Disconnect the connector (CN305) on the EGB (x 1).
6. Interlock switch base (☛ p.4-44)
7. Fusing fan base (☛ p.4-45)



8. Take the harnesses aside around the LSU fan base [A].
9. LSU fan base [A] (x 2, x 1)
10. Drive unit (☛ p.4-13)

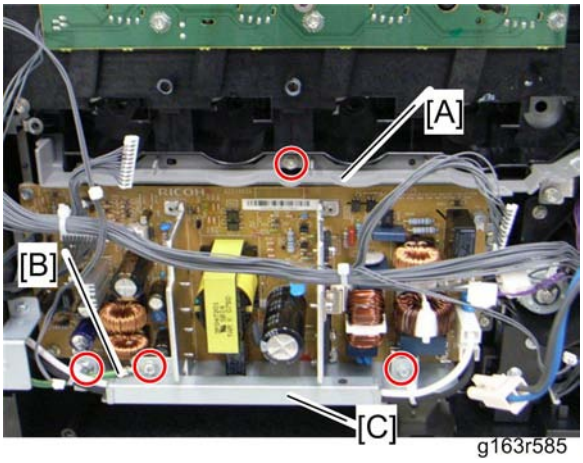


11. ID Chip Board [B] (x 3, x 1)

4.10.7 PSU

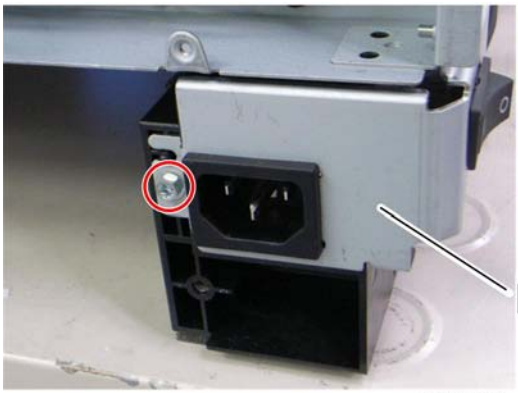
1. Operation panel (☛ p.4-4)
2. Rear cover (☛ p.4-3)
3. Left cover (☛ p.4-6)
4. Drive unit (☛ p.4-13)
5. LSU fan base (☛ p.4-45)

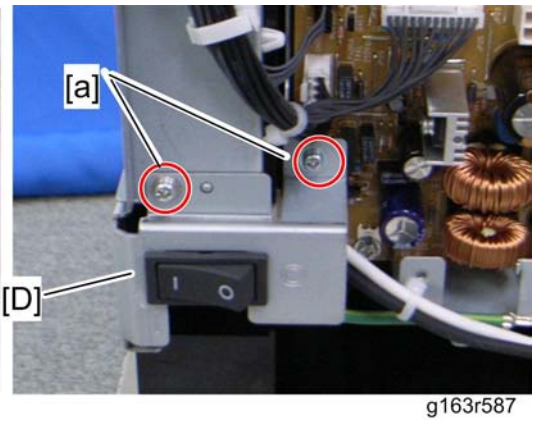
Electrical Components



g163r585

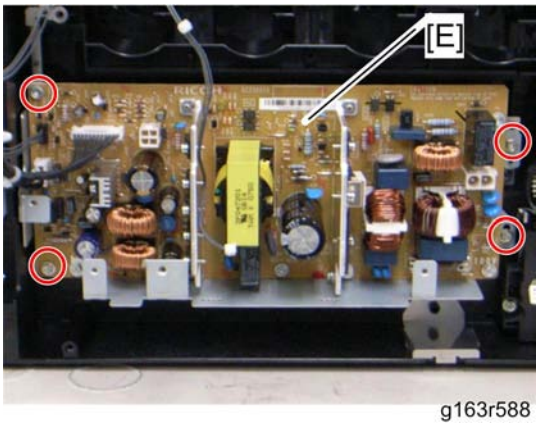
6. PSU guide [A] (x 1)
7. Ground cable [B] (x 1)
8. Power cord bracket [C] (x 2)


g163r586



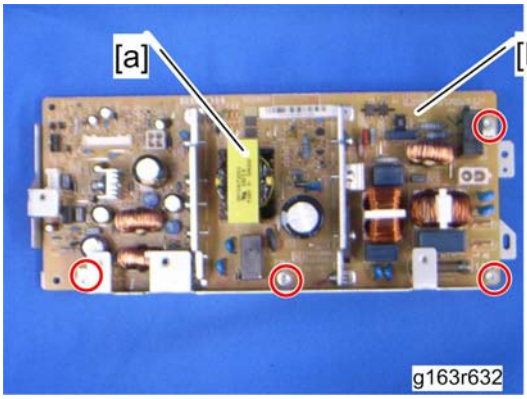
g163r587

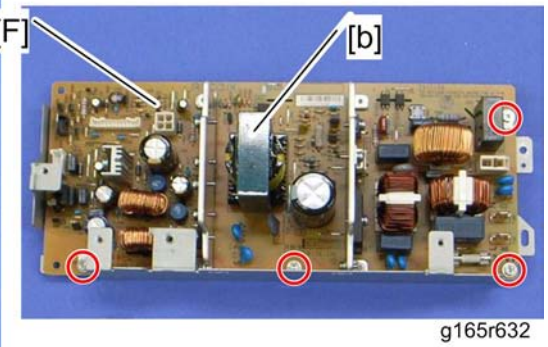
9. Power switch assembly [D] (washer [a] x 2, x 1, x 2)



g163r588

10. PSU assembly [E] (x 4, all connectors)





11. PSU [F] (🔩 x 4)

Important

- There are two types of PSUs for this model. Do not install a wrong PSU in the machine.
- PSU that yellow [a] on the transistor is for NA models and PSU that has green [a] on the transistor is for EU models.

Fuse

There is the removable fuse on the PSU.

Fuse No.	Rating
FU101: NA	15 A, 125V
FU101: EU, ASIA	6.3A, 250V

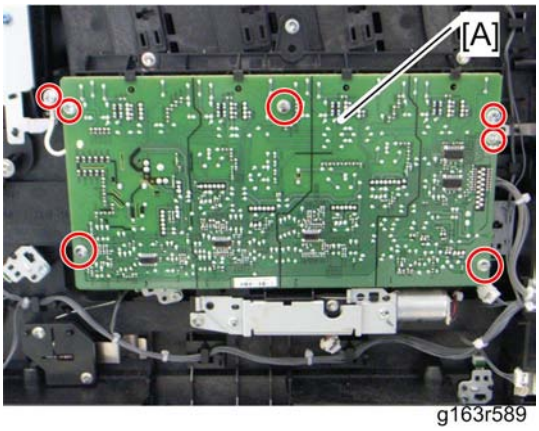
⚠CAUTION

- Use a correct rating fuse for the fuse replacement. Never use a wrong rating fuse. If you do so, the machine may be damaged.
- Never try direct connection of PSU circuit without a fuse.

4.10.8 HIGH VOLTAGE POWER SUPPLY BOARD

1. Remove all AIO cartridges.
1. Operation panel (☛ p.4-4)
2. Rear cover (☛ p.4-3)
3. Right cover (☛p.4-5)

Electrical Components

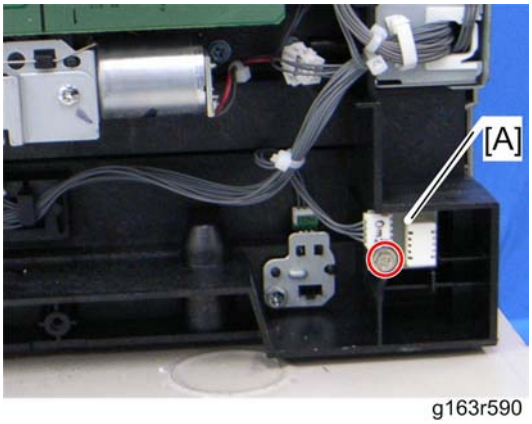


g163r589

4. High Voltage Power Supply Board [A] (x 7, ground cable x 1, x 1)

4.10.9 TEMPERATURE/HUMIDITY SENSOR

1. Operation panel (☛ p.4-4)
2. Rear cover (☛ p.4-3)
3. Right cover (☛ p.4-5)

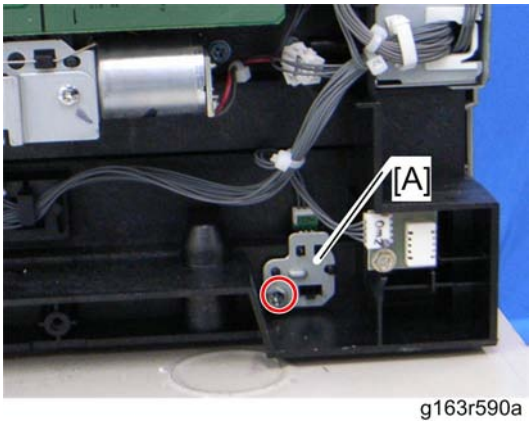


g163r590

4. Temperature/Humidity sensor [A] (x 1, x 1)

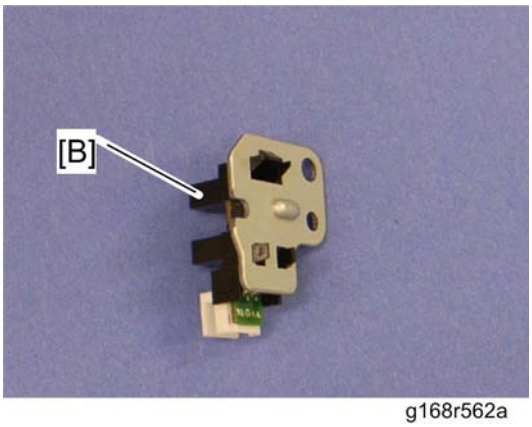
4.10.10 TRAY SET SENSOR

1. Operation panel (☛ p.4-4)
2. Rear cover (☛ p.4-3)
3. Right cover (☛ p.4-5)



g163r590a

4. Tray set sensor assembly [A] (x 1, x 1)



g168r562a

5. Tray set sensor [B] (hooks)

4.10.11 EEPROM

Note

- Replacement and Reinstallation procedures for the EEPROM are included in the "EGB (Engine Board)" replacement procedure. Refer to "EGB (Engine Board)" for details.

When replacing an old EEPROM with a new EEPROM, EEPROM setting is required. Follow the EEPROM setting procedure described below.

EEPROM Setting

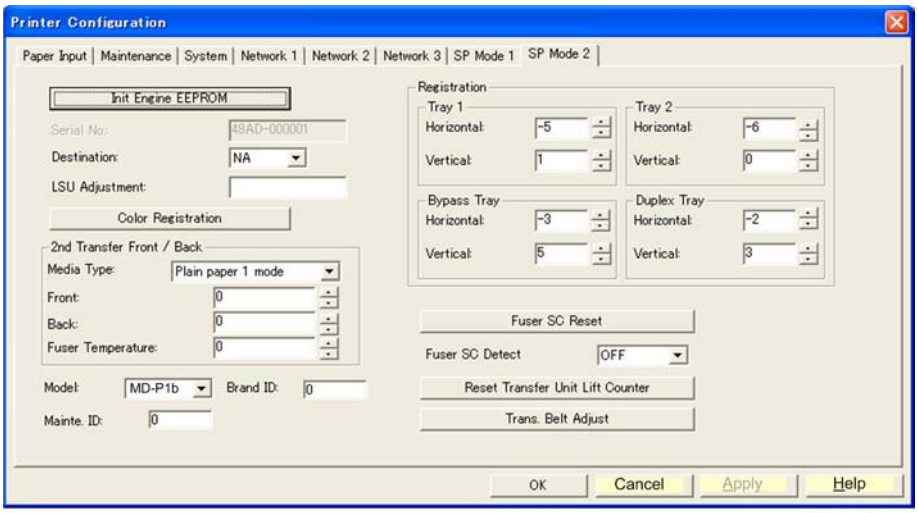
Important

- Do the following steps 1 to 11 with the front cover of the machine open. After completing these steps, turn off the machine.

1. Open the front cover and turn on the machine.

Note

- The machine may issue an error code (because the cover is open), but continue this procedure.



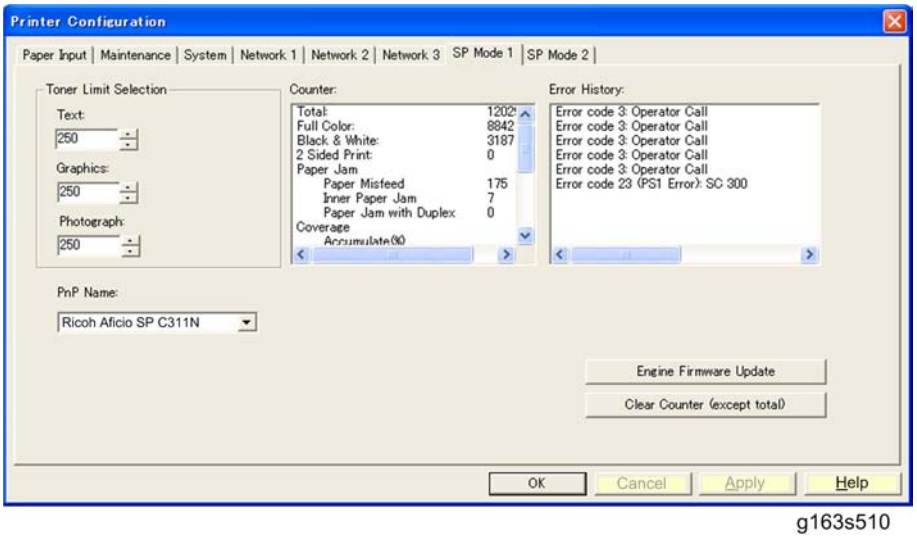
g163s511

2. Access the "SP Mode 2" tab.
3. Click the "Init Engine EEPROM" button to initialize the EEPROM.
4. Input the serial number in the "Serial No." box.

Note

- Ask your supervisor about how to input the serial number in its box.

5. Select a destination from the "Destination" box.
6. Select a model from the "Model" box.
7. Click the "SP Mode 1" tab.



g163s510

8. Select a plug and play name from the "PnP Name" box.
9. Click the "SP Mode 2" tab.
10. Input the LSU (laser optics housing unit) setting values in the "LSU Adjustment" box.
11. Turn off the machine.

12. Turn on the machine with the front cover open.
13. Enter SP Mode 2.
14. Close the front cover.
15. Click "Trans. Belt Adjust" to adjust the ITB (Image Transfer Belt) unit.
16. Select "ON" or "OFF" for the consecutive fusing jam detection with the "Fuser SC Detect" box.

Note

- The default setting is "OFF". Select "ON" only if the customer wants to use this feature.

17. Adjust the registration for each direction (vertical and horizontal) and trays with the "Registration" boxes if necessary.
18. Adjust the transfer roller bias and the temperature reduction of the fusing unit for each paper type and for the front and back sides with the "2nd Transfer Front/Back" boxes. The default settings for normal operation are all '0'.
19. Exit the "SP Mode".

SYSTEM MAINTENANCE REFERENCE

5. SYSTEM MAINTENANCE REFERENCE

5.1 SERVICE PROGRAM

See "Appendices" for "Smart Organizing Monitor" or “Service Program with Operation Panel”

5.1.1 OVERVIEW

There are two ways to execute the service program. One is to launch the SOM (Smart Organizing Monitor), which is provided with the printer driver, from your computer. The other is to execute the service program with the operation panel. For details, refer to the "Appendices" for the "Smart Organizing Monitor" or “Service Program with Operation Panel”.

5.2 CONFIGURATION PAGE INFORMATION

5.2.1 OVERVIEW

The configuration page for this model 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 from the Machine

Before turning on the machine

1. Hold down the "Stop/Start" key, and then turn on the main switch of the printer with holding down the "Stop/Start" key.
2. Keep holding down the "Stop/Start" key until the "Alert LED" is blinking.

When the machine is powered-on

1. Press "Menu" key.
2. Press the "▲" or "▼" key to select "List/Test Print", and then press the "#Enter" key.
3. Press the "#Enter" key at the "Config. Page".

To Print the Configuration Page from the SOM

1. Turn on the machine and the PC.
2. Start "Smart Organizing Monitor".
3. Select "Configuration Page" in "List/Test Print" on the "User Tools" tab.
4. Click "Print", and then "Yes".
5. The configuration page is printed.

5.2.2 ERROR LOG

The Error Log on the configuration page has the error logs (SC codes) and the following information. However, the following error codes cannot be stored after turning off the machine.

Error Code	Description
Code 3	▪ Paper misfeed ▪ Paper is not detected in the tray. ▪ The loaded paper size does not match the setting. ▪ Some unit(s) is not correctly installed.
Code 4	Print/Data Error

Error Code	Description
Code 5	A consumable supply has run out
Code 6	Warning; Toner near end, Waste toner bottle near full, TM sensor cleaning, Fusing belt near end or Transfer belt near end
Code 7	Alert; Diagnostic Error

5.2.3 COUNTER AND COVERAGE (PRINTER MODEL ONLY)

The configuration page for the printer models has the paper jam and coverage counters in the bottom line, but these counter names are not printed on the configuration page. These counters give the following information;

0.0.0/0.0.0.0/0.0.0.0

Left three counters:	Feed jam counter, inner jam counter, duplex jam counter
Center four counters:	Recent coverage of K, C, M, Y
Right four counters:	Accumulated Coverage of K, C, M, Y

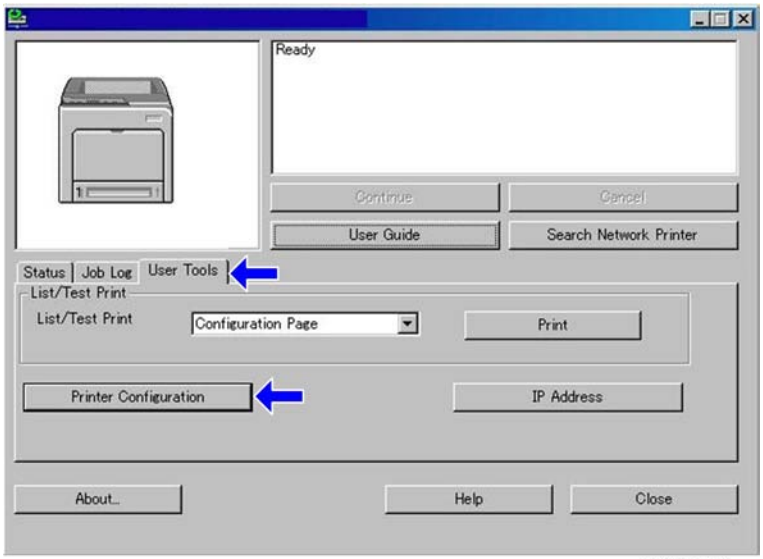
5.3 FIRMWARE UPDATING

⚠CAUTION

- Do not turn off the main power of the machine during the firmware updating. If doing so, the engine board or controller board may be damaged.

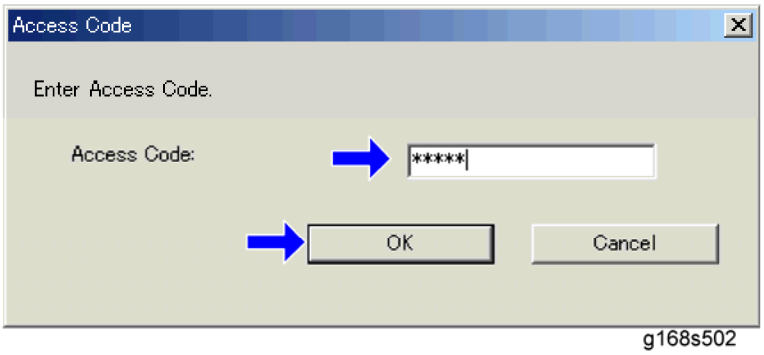
5.3.1 CONTROLLER FIRMWARE

1. Start SOM.



g163s501

2. Click the "Printer Configuration" button on the "User Tools" tab.

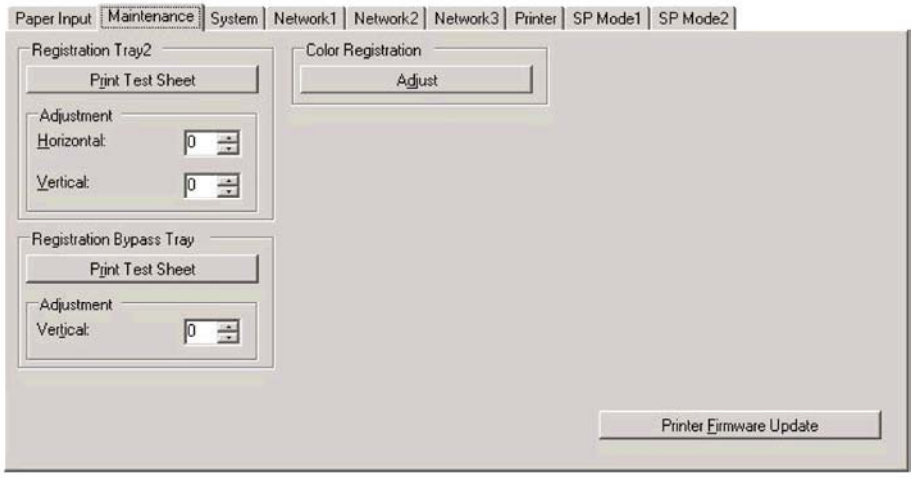


g168s502

3. Input the access code and click the "OK" button.

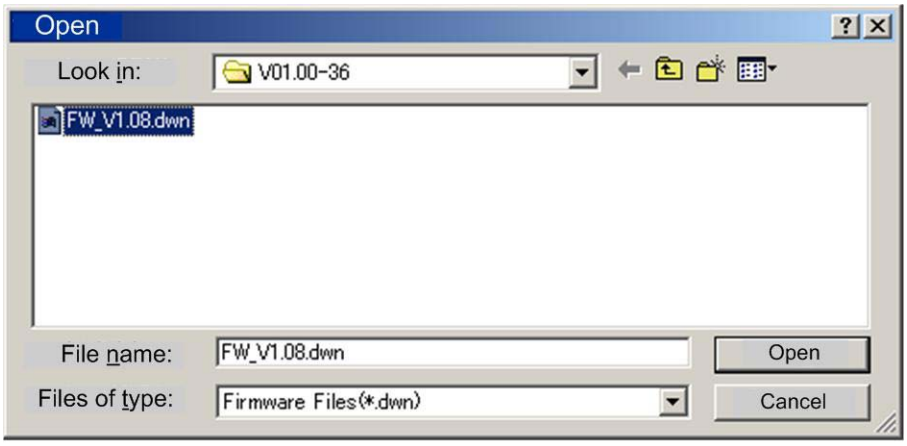
Note

- Ask your supervisor for the access code.



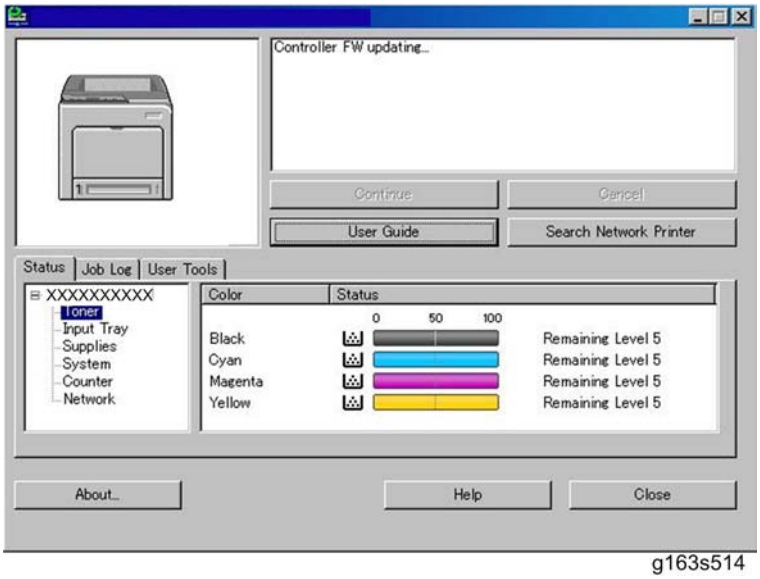
g165s504

4. Click the "Printer Firmware Update" button on the "Maintenance" tab.



g165s512

5. Seek the location of the update file and select it, and then click the "Open" button.

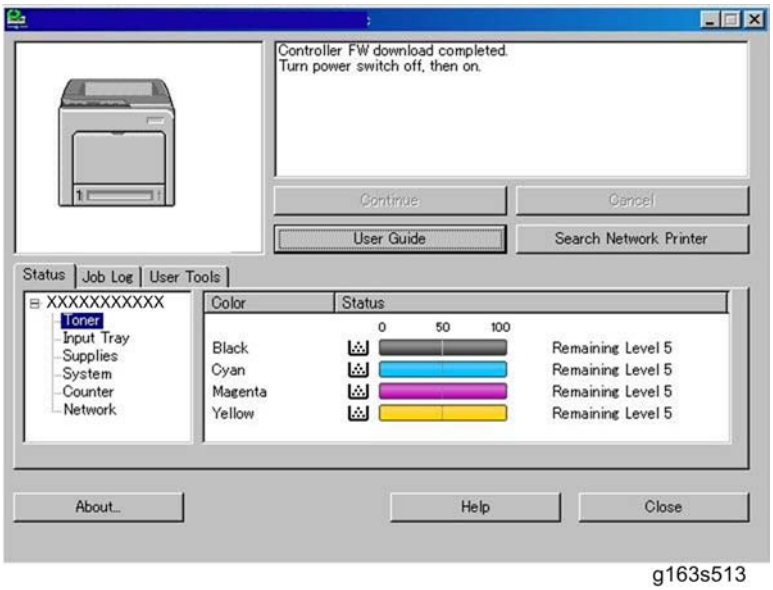


g163s514

6. SOM shows "Controller FW updating..." and the Alert LED (red) on the printer starts

blinking. (The Ready LED remains lit.)

7. Wait for a few minutes.



g163s513

8. When the update has finished, SOM shows "Controller FW download completed." and the Ready LED (green) on the printer starts blinking. (The Alert LED is still blinking.)

Note

- If "Controller FW download completed" does not appear, the download failed. Try again. You can also switch from an Ethernet connection to a USB connection and see if that works. If you still cannot download the firmware, it may be necessary to change the EGB and/or the controller board.
- If power failed during the download, try again. If you still cannot download the firmware, it may be necessary to change the EGB and/or the controller board.

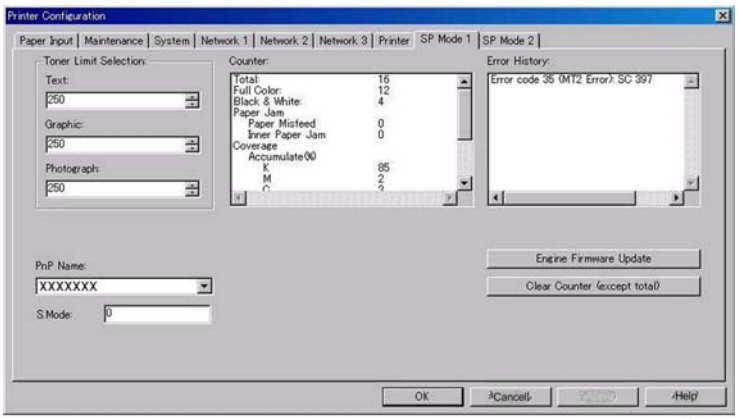
9. Turn the printer off and on.

Engine Firmware

1. Start SOM.
2. Click the "Printer Configuration" button on the "User Tools" tab.
3. Input the access code and click the "OK" button.

Note

- Ask your supervisor for the access code.



g165s518

4. Click the "Engine Firmware Update" button in the "SP Mode 1" tab.
5. Seek the location of the update file and select it, and then click the "Open" button.
6. SOM shows "Engine FW updating..." and the Alert LED (red) on the printer starts blinking. (The Ready LED remains lit.)
7. Wait for a few minutes.
8. When the update has finished, SOM shows "Engine FW download completed." and the Ready LED (green) on the printer starts blinking. (The Alert LED is still blinking.)

Note

- If "Engine FW download completed" does not appear, the download failed. Try again. You can also switch from an Ethernet connection to a USB connection and see if that works. If you still cannot download the firmware, it may be necessary to change the EGB and/or the controller board.
- If power failed during the download, try again. If you still cannot download the firmware, it may be necessary to change the EGB and/or the controller board.

9. Turn the printer off and on.

5.3.2 BOOT LOADER FIRMWARE

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

TROUBLESHOOTING

6. TROUBLESHOOTING

6.1 TROUBLESHOOTING GUIDE

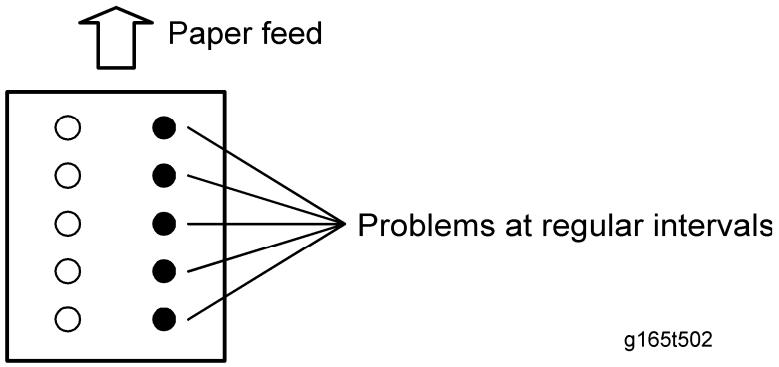
See "Appendices" for the following information:

- Error Messages
- Service Call Conditions

6.2 IMAGE PROBLEMS

6.2.1 OVERVIEW

Image problems may appear at regular intervals that depend on circumstances of certain components. The following diagram shows the possible symptoms (black or white dots at regular intervals).

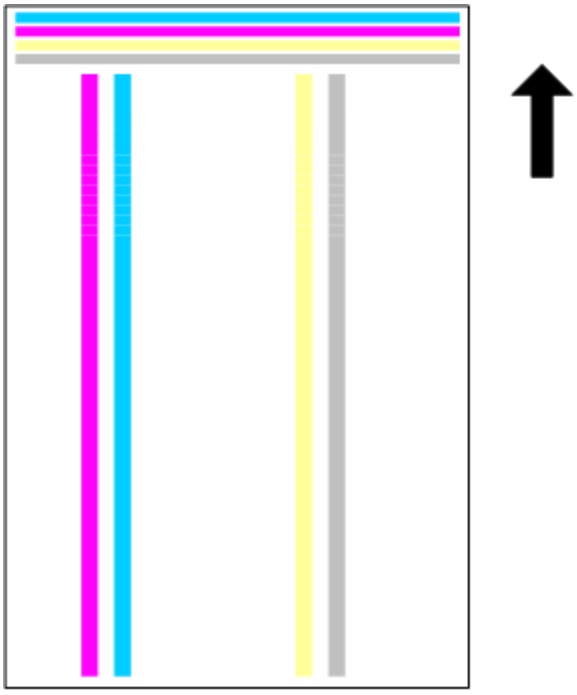


- Abnormal image at 24-mm intervals: Image transfer belt unit
- Colored spots at 38-mm intervals: AIO cartridge (Development roller)
- Abnormal image at 60-mm intervals: Transfer roller
- Colored spots at 75-mm intervals: AIO cartridge (OPC drum)
- Abnormal image at 110-mm intervals: Fusing unit (Pressure roller)
- Abnormal image at 141.3-mm intervals: Fusing unit (Fusing belt)

6.2.2 CHECKING A SAMPLE PRINTOUT

Print out a mono-color pattern (all K, C, M, or Y), which will clarify if the cause is a problem with one of the AIO cartridges, image transfer belt, image transfer roller, or the fusing unit. A sample page is provided with the printer driver's CD. You can print the sample page from the printer driver's CD. Before printing, you have to adjust the printer driver settings to make the problem become obvious. For details about adjusting the settings, refer to "Printer Driver Setting for Printing a Sample" described below.

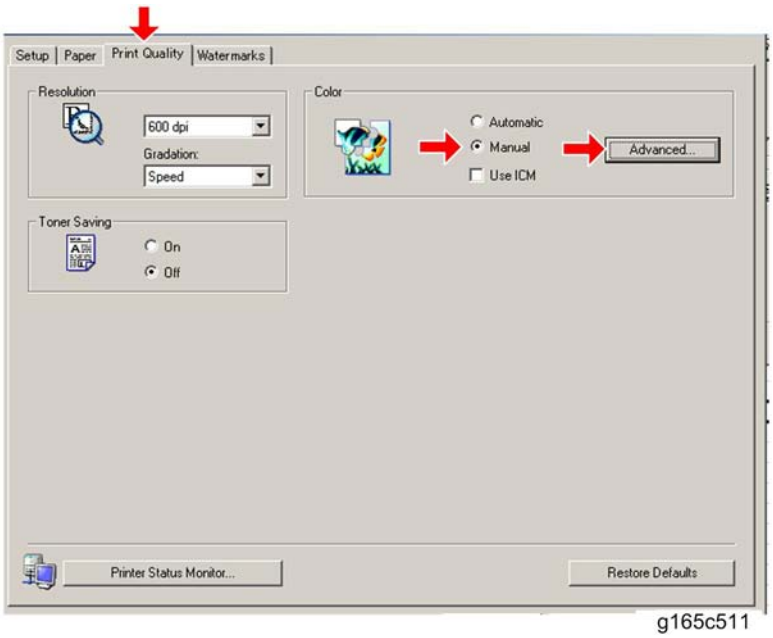
- Occurs with 1-3 colors: AIO cartridge(s) failure
- Occurs with all four colors: Image transfer belt, transfer roller or fusing unit failure



g165c502

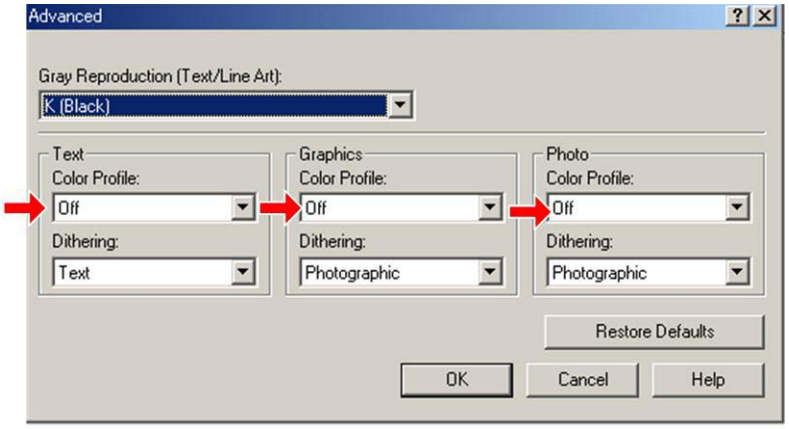
Printer Driver Setting for Printing a Sample

1. Click "Properties" on the printer driver.



g165c511

2. Click "Print Quality" tab.
3. Check "Manual" in the color setting.
4. Click "Advanced…".



g165c510

5. Select "Off" from the pull-down menu in the "Color Profile" of the "Text".
6. Select "Off" from the pull-down menu in the "Color Profile" of the "Graphics".
7. Select "Off" from the pull-down menu in the "Color Profile" of the "Photo".

M040/M041
SERVICE MANUAL APPENDICES

M040/M041 APPENDICES

TABLE OF CONTENTS

1. APPENDIX: SPECIFICATIONS 1-1

1.1 GENERAL SPECIFICATIONS 1-1

1.1.1 MAINFRAME 1-1

1.1.2 OPTION 1-3

Paper Feed Unit 1-3

1.2 SUPPORTED PAPER SIZES 1-4

2. APPENDIX: PREVENTIVE MAINTENANCE 2-1

2.1 PREVENTIVE MAINTENANCE 2-1

2.1.1 USER REPLACEABLE ITEMS 2-1

3. APPENDIX: TROUBLESHOOTING GUIDE 3-1

3.1 ERROR MESSAGES 3-1

3.1.1 OVERVIEW 3-1

3.1.2 ERROR MESSAGES LIST 3-1

3.2 SC CONDITIONS 3-7

3.2.1 SUMMARY 3-7

3.2.2 ENGINE SC 3-7

SC 1xx (Other Error) 3-7

SC 2xx (Laser Optics Error) 3-7

SC 3xx (Charge Error) 3-9

SC 4xx (Image Transfer and Transfer Error) 3-10

C 5xx (Motor and Fusing Error) 3-11

SC 6xx (Communication and Other Error) 3-15

3.2.3 CONTROLLER SC 3-16

SC8xx 3-16

4. APPENDIX: SP MODE TABLES 4-1

4.1 SMART ORGANIZING MONITOR 4-1

4.1.1 OVERVIEW 4-1

4.1.2 PRINTER DRIVER INSTALLATION 4-1

4.1.3 ENTERING THE PRINTER CONFIGURATION 4-2

4.1.4 PRINTER CONFIGURATION MENU LIST 4-3
Paper Input 4-4
Maintenance 4-6
System 4-8
Network 1 4-11
Network 2 4-15
Network 3 4-17
Printer 4-19
SP Mode 1 4-21
SP Mode 2 4-23
4.2 SERVICE PROGRAM WITH OPERATION PANEL 4-29
4.2.1 OVERVIEW 4-29
4.2.2 SERVICE MODE MENU ITEMS ON LCD 4-29
Service Menu (2nd Menu) 4-29
Engine Maintenance (2nd Menu) 4-29
Clear Log (2nd Menu) 4-31

5. APPENDIX: MACHINE SWAP 5-1
5.1 EXCHANGE AND REPLACE PROCEDURE 5-1
5.1.1 INSTRUCTION 5-1
Before the substitute machine gets to the customer site 5-1
When the substitute machine gets to the customer site 5-1
5.1.2 CLEANING POINTS AFTER MACHINE ARRIVAL AT DEPOT 5-1

APPENDIX:
SPECIFICATIONS

1. APPENDIX: SPECIFICATIONS

1.1 GENERAL SPECIFICATIONS

1.1.1 MAINFRAME

M040/M041

Type			Desktop
Technology			Laser beam scanning and electro-photographic printing
			Mono-component toner development
			4-drum tandem method
Resolution (dpi)			600 x 600 dpi (Speed Mode) 1200 x 600 dpi equivalent (Std Mode) 2400 x 600 dpi equivalent (Fine Mode)
Printing Speed	General Paper	A4/LT	FC: 25 ppm (LT: 26 ppm)
First Print Speed	Mono		13.5 sec or less
(A4/LT, SEF, Std. Tray)	F/C		13.5 sec or less
Duplex Printing	A4, LT, B5, LG, Exe		M040: Not supported M041: Auto
Dimensions (W x D x H)			400 x 480 x 387 mm / 16.0 x 19.2 x 15.4 inch
Weight			28.0 kg / 61.73 lb or less *Includes consumables.
Input capacity	Standard	Std Tray	500 sheets

General Specifications

		Bypass tray	100 sheet
	Op. Paper Tray	Paper Feed Unit	M040/M041: 500 sheets x 1
	Max		Up to 1,100 sheets
Output capacity	Standard Tray	Face down	Up to 150 sheets (A4/LT, 80g/m^2 or 20lb)
Input Paper Size	Standard Tray		A4, B5, A5, Legal, Letter, Executive, Foolscap, Folio, F (8"x13"), 148mm x 210mm (5.8"x8. 3")
	Bypass Tray		A4, B5, A5, Legal, Letter, HLT, Executive, Foolscap, Folio, F(8"x13"), B6, A6 Custom size: Min. 90mm x 148mm (3.6" x 5.8"), Max. 216mm x 356mm (8.64" x 14.24")
	Op. Paper Tray		A4, Letter
Media Type		Std.Tray	Plain Paper, Recycle Paper, Pre-punched Paper, Thin Paper, Color Paper, Letterhead, Preprinted, Thinner Paper
		Bypass Tray	Plain Paper, Recycled Paper, Application Paper, Envelope, Glossy, Thick Paper, Label, Thin Paper, Color Paper, Letterhead, Preprinted, Thinner Paper
		Op.Paper Feed Unit	Plain Paper, Recycled Paper, Pre-punched Paper, Thin Paper, Color Paper, Letterhead, Preprinted, Thinner Paper
Paper Weight	Standard Tray		60-105g/m^2 (16-28lb)
	Bypass tray		60-200g/m^2 (16-40lb)
	Op. Paper Tray	Paper Feed Unit	60-105g/m^2 (16-28lb)

Rating Power Spec.	NA version		120V, 60Hz
	EU version		230V, 50/60Hz
Power Consumption	NA version	Max.	1300W or less
		Energy Saver	15 W or less
	EU version	Max.	1300W or less
		Energy Saver	15 W or less
Warm-up Time			30 sec or less (from power on)
Energy Save Mode	Sleep Mode		Adjustable (off/ 1 / 5 /15 /30 / 45/ 60 min.: default 15 min)
	Low Power Mode		10 sec (Uses approx 100W)

1.1.2 OPTION

Paper Feed Unit

Paper Tray (500x1)	Paper Size	A4,Letter
	Paper Weight	60-105g/m^2 (16-28lb)
	Paper capacity	500 sheets x 1 tray
	Dimensions (W x D x H)	400 x 450 x 127mm/16 x 18 x 5.08 inch
	Weight	6 kg/13.2 lb

1.2 SUPPORTED PAPER SIZES

A	Supported and the size is molded in the tray. Need to select paper size by operation panel/driver.
B	Supported but size is not molded in the tray. Need to select paper size by operation panel/driver.
C	Need to input paper size by operation panel and driver.
N	Not supported.

Type		SEF/ LEF	Size	Input Tray			Auto. Dup.
				Std. Tray	Option PFU	Bypass Tray	
Plain Paper	A4	SEF	210x297	A	A	B	Y
		LEF	297x210	N	N	N	N
	B5	SEF	182x257	A	N	B	Y
		LEF	257x182	N	N	N	N
	A5	SEF	148x210	A	N	B	N
		LEF	210x148	N	N	N	N
	B6	SEF	128x182	N	N	B	N
		LEF	182x128	N	N	N	N
	A6	SEF	105x148	N	N	B	N
		LEF	148x105	N	N	N	N
Plain Paper	DLT	SEF	11" x 17"	N	N	N	N
	Legal	SEF	8 1/2”x14”	A	N	B	Y

Supported Paper Sizes

Type		SEF/ LEF	Size	Input Tray			Auto. Dup.
				Std. Tray	Option PFU	Bypass Tray	
	Letter	SEF	8 1/2”x11”	A	A	B	Y
		LEF	11”x 8 1/2”	N	N	N	N
	Half Letter	SEF	5 1/2” x 8 1/2”	N	N	C	N
	Executive	SEF	7 1/4”x10 1/2”	A	N	B	Y
		LEF	10 1/2”x7 1/4”	N	N	N	N
	F	SEF	8” x 13”	B	N	B	N
	Foolscap	SEF	8 1/2” x 13”	B	N	B	N
	Folio	SEF	8 1/4” x 13”	B	N	B	N
Plain Paper	8 Kai	SEF	267 x 390	N	N	N	N
	16 Kai	SEF	195 x 267	C	N	C	N
		LEF	267 x 195	N	N	N	N
Envelope	Com10	SEF	4 1/8” x 9 1/2”	N	N	C	N
	Monarch	SEF	3 7/8” x 7 1/2”	N	N	C	N
	C6	SEF	114 x 162	N	N	C	N
	C5	SEF	162 x 229	N	N	C	N
	DL Env	SEF	110 x 220	N	N	C	N
Custom		Width	90-148mm (3.6”x 5.8”)	N	N	C	N

Supported Paper Sizes

Type		SEF/ LEF	Size	Input Tray			Auto. Dup.
				Std. Tray	Option PFU	Bypass Tray	
	148-216mm (5.8” x 8.5”)		C	N	C	N	
	Length	148-210mm (3.6”x 5.8”)	N	N	C	N	
		210-356mm (5.8”x 14.2”)	C	N	C	N	

APPENDIX:
PREVENTIVE MAINTENANCE

2. APPENDIX: PREVENTIVE MAINTENANCE

2.1 PREVENTIVE MAINTENANCE

2.1.1 USER REPLACEABLE ITEMS

Item	Yield
Print Cartridge (AIO)	Starter/Short: Approx. 2.5 k prints/cartridge Long: 6.5 k for BK/ 6.0 k for CMY prints/cartridge
Maintenance Kit	Fusing Unit Transfer Roller Unit Approx. 90 k prints/ unit
Transfer Belt Unit	Approx. 90 k prints/ unit
Waste Toner Bottle	Approx. 55 k prints/ bottle (See condition 4)

Condition:

1. An A4 (8.5"x11")/ 5% chart is used to measure the above yield except the Print Cartridge (AIO).
2. The condition is standard temperature and humidity.
3. The expected yield measurement for the Print Cartridge (AIO) is based on ISO 19798 (ISO chart, continuous prints).
4. These yield values may change depending on the circumstances and printing conditions.
5. The yields of the Maintenance Kit (Fusing Unit and Transfer Roller Unit), Transfer Belt Unit and Waste Toner Bottle are measured by 3P/J when the printer is used 50% for color and 50% for black-and-white

APPENDIX:
TROUBLESHOOTING GUIDE

3. APPENDIX: TROUBLESHOOTING GUIDE

3.1 ERROR MESSAGES

3.1.1 OVERVIEW

The error messages will be displayed in the GUI of SOM or on the LCD of the operation panel if the machine has a problem. These can be recovered by a customer.

3.1.2 ERROR MESSAGES LIST

000	Cover Open
	The front or top cover is open.
	1. Close the front or top cover. 2. Replace the interlock switches or actuator mechanism.

010	AIO Set Error (Black)
011	AIO Set Error (Magenta)
012	AIO Set Error (Cyan)
013	AIO Set Error (Yellow)
	▪ Black AIO not set ▪ Defective connection of the ID chip terminal on the black AIO
	1. Install the AIO (black, magenta, cyan or yellow). 2. Reinstall or replace the AIO (black, magenta, cyan or yellow).

014	Waste Toner Bottle Set Error
	▪ Waste toner bottle not set ▪ Disconnected or defective harness of the waste toner bottle set sensor ▪ Defective waste toner bottle set sensor

Error Messages

	1. Install the waste toner bottle. 2. Check or replace the harness of the waste toner bottle set sensor. 3. Replace the waste toner bottle set sensor.

015	ITB (Image Transfer Belt) Unit Set Error
	▪ ITB unit not set ▪ The machine does not detect any signal from the TM sensors while the ITB contact motor is initializing.
	Install the ITB unit.

016	Fusing Unit Set Error
	▪ Fusing unit not set ▪ Disconnected or defective harness of the fusing unit
	1. Install the fusing unit. 1. Check or replace the harness of the fusing unit 2. Replace the fusing unit.

030	Tray/Paper Selection Error
	▪ No paper in the tray or tray not set in the machine ▪ Paper size requested by the job does not match the paper in the tray
	1. Install the tray or put the correct size paper in the tray. 2. Check the paper setting in the SOM (Smart Organizing Monitor) for printer models or user menu mode for MF models.

031	Paper Selection Error: Feed and Exit
	▪ Paper size requested by the job does not match the paper in the tray ▪ Selection error for the paper feed and paper exit location in duplex mode
	Check the paper feed and exit location in the SOM (Smart Organizing Monitor) for printer models or user menu mode for MF models.

050	Jam Error: No Feed from Tray 1
	▪ Paper slipped
	Remove the paper jam at tray 1.

051	Jam Error: No Feed from By-pass tray
	▪ Paper slipped ▪ Defective by-pass solenoid
	Remove the paper jam at by-pass tray.

052	Jam Error: No Feed from Optional Tray
	▪ Paper slipped
	Remove the paper jam at the optional tray (Tray 2).

054	Jam Error: No Feed from Duplex Path
	▪ Paper slipped
	Remove the paper jam at the duplex path.

055	Inner Jam Error: Registration/ Paper Exit
	A sheet of paper stays at the registration sensor or paper exit sensor. ▪ Paper slipped ▪ Paper double feed
	Remove the paper jam at the registration sensor or paper exit sensor.

Error Messages

056	Paper Exit Jam Error: Paper Exit/ Fusing Unit
	A sheet of paper stays at the paper exit sensor or winds around the rollers in the fusing unit. ▪ Paper slipped ▪ A sheet of paper is wound around the rollers in the fusing unit
	Remove the paper jam at the paper exit sensor or in the fusing unit.

057	Paper Exit Jam Error: Duplex
	A sheet of paper stays at the duplex sensor or winds around the rollers in the duplex path. ▪ Paper slipped ▪ A sheet of paper is wound around the rollers in the duplex path.
	Remove the paper jam at the paper exit sensor or in the duplex patht.

070	Printing Error: No Paper
	▪ No paper in the tray
	Put paper in the tray.

080	Toner Near End: Black AIO
081	Toner End: Black AIO
	▪ Black toner near-end or end
	Replace the black AIO.

082	Toner Near End: Magenta AIO
083	Toner End: Magenta AIO
	▪ Magenta toner near-end or end
	Replace the magenta AIO.

084	Toner Near End: Cyan AIO
085	Toner End: Cyan AIO
	▪ Cyan toner near-end or end
	Replace the Cyan AIO.

086	Toner Near End: Yellow AIO
087	Toner End: Yellow AIO
	▪ Yellow toner near-end or end
	Replace the yellow AIO.

088	Waste Toner Bottle: Near Full
089	Waste Toner Bottle: Full
	▪ Waste toner bottle near-full or full
	Replace the waste toner bottle.

090	ITB (Image Transfer Belt) Unit: Near End
091	ITB Unit: End
	▪ ITB unit near end or end
	Replace the ITB unit.

092	Fusing Unit: Near End
	▪ Fusing unit near end
	Replace the fusing unit.

Error Messages

999	Color Registration (MUSIC) Error
	▪ Color registration (MUSIC) failure
	This error is not displayed even if this error occurs. It is just logged. This error is automatically recovered after the color registration (MUSIC) has been done successfully.

3.2 SC CONDITIONS

3.2.1 SUMMARY

This machine issues an SC (Service Call) code if an error occurs on the machine. The error code can be seen with the SOM (☛ "p.4-1") or LCD on the operation panel.

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 issued.
3. First, disconnect then reconnect the connectors before you replace the PCBs, if the problem concerns electrical circuit boards.
4. First, check the mechanical load before you replace motors or sensors, if the problem concerns a motor lock.
5. 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.
   - Click "Fuser SC Reset" in SOM, and then turn the main power switch off and on.

3.2.2 ENGINE SC

SC 1xx (Other Error)

195	Serial Number Error
	The serial number stored in the memory (EGB) is not correct.
	▪ EEPROM defective ▪ EGB replaced without original EEPROM 1. Check the serial number. 2. If the stored serial number is incorrect, contact your supervisor.

SC 2xx (Laser Optics Error)

202	Polygon motor error 1: ON timeout
	The polygon mirror motor does not reach the targeted operating speed within 5 sec. after turning on or changing speed

SC Conditions

203	Polygon motor error 2: OFF timeout
	The polygon mirror motor does not leave the READY status within 3 sec. after the polygon motor switched off.
204	Polygon motor error 3: XSCRDY signal error
	The SCRDY_N signal remains HIGH for 350 ms while the LD unit is firing.
	▪ Polygon motor/driver board harness loose or disconnected ▪ Polygon motor/driver board defective ▪ Laser optics unit defective ▪ IPU (EGB) defective 1. Replace the interface harness of the laser optics unit. 2. Replace the laser optics unit. 3. Replace the EGB (Engine Board).

220	Laser Synchronizing Detection Error: [K]/[Y]
	The laser synchronizing detection signal for LDB [K]/[Y] is not output after the LDB unit has turned on while the polygon motor is rotating normally.
222	Laser Synchronizing Detection Error: [M]/[C]
	The laser synchronizing detection signal for LDB [M]/[C] is not output after the LDB unit has turned on while the polygon motor is rotating normally.
	▪ Disconnected cable from the laser synchronizing detection unit or defective connection ▪ Defective laser synchronizing detector ▪ Defective LDB ▪ Defective EGB 1. Check the connectors. 2. Replace the laser optics unit. 3. Replace the EGB.

240	LD error
	The IPU (EGB) detects a problem at the LD unit.
	▪ Worn-out LD ▪ Disconnected or broken harness of the LD. 1. Replace the laser optics unit.

SC 3xx (Charge Error)

300	High voltage power output error
	The measured voltage is not correct when the EGB measures each charge output (charge, development, image transfer belt unit, and transfer unit).
	▪ Disconnected or defective high voltage harness ▪ Defective high voltage power supply ▪ Defective EGB 1. Check or replace the harnesses. 2. Replace the high voltage power supply board 3. Replace the EGB. 4. Replace the AIOs.

396	Black drum motor error
	The LOCK signal error is detected when the EGB monitors the black drum motor state. (This monitoring is done immediately after power-on, when the motor starts rotating, and immediately after the motor stops.)
	▪ Disconnected or defective motor harness. ▪ Motor slips due to excessive load 1. Check the harness from the black drum motor. Replace it if necessary.
397	Color drum motor error
	The LOCK signal error is detected when the EGB monitors the color drum motor state. (This monitoring is done immediately after power-on, when the motor starts rotating, and immediately after the motor stops.)

SC Conditions

	▪ Disconnected or defective motor harness. ▪ Motor slips due to excessive load 1. Check the harness from the color drum motor. Replace it if necessary.

SC 4xx (Image Transfer and Transfer Error)

445	ITB (Image Transfer Belt) Unit: Home Position Error
	The ITB contact sensor does not detect the home position of the ITB for 5 seconds after the ITB unit initialization has been done.
	ITB (Image Transfer Belt) Unit: Contact Position Error
	The ITB contact sensor does not detect the contact position of the ITB for 5 seconds after the ITB unit has moved to the contact position.
	ITB (Image Transfer Belt) Unit: No-contact Position Error
	The ITB contact sensor does not detect the home position of the ITB for 5 seconds after the ITB unit has moved to no-contact position.
	▪ Defective ITB contact motor ▪ Defective ITB contact sensor ▪ Defective ITB unit 1. Replace the ITB contact motor. 2. Replace the ITB contact sensor. 3. Replace the ITB unit.

480	Agitator Motor Error
	The agitator motor error is detected twice for 10 msec during the initialization at power-on or after the cover is closed.
	▪ Disconnected or defective harness ▪ Defective agitator motor 1. Check or replace the harness. 2. Replace the agitator motor.

SC 5xx (Motor and Fusing Error)

500	Transport/Fusing Motor Error
	The LOCK signal error is detected when the EGB monitors the transport/fusing motor state. (This monitoring is done immediately after power-on, when the motor starts rotating, and immediately after the motor stops.)
	▪ Disconnected or defective motor harness. ▪ Motor slips due to excessive load 1. Check the harness from the transport/fusing motor. Replace it if necessary.

530	LSU Fan Motor Error
	A LOCK signal is not detected for more than ten seconds while the motor START signal is on and if this error occurs twice consecutively, this SC is issued.
	▪ Disconnected or defective motor harness. ▪ Defective LSU fan motor 1. Check or replace the motor harness. 2. Replace the LSU fan motor.

531	Fusing Fan Motor Error
	A LOCK signal is not detected for more than ten seconds while the motor START signal is on and if this error occurs twice consecutively, this SC is issued.
	▪ Disconnected or defective motor harness. ▪ Defective LSU fan motor 1. Check or replace the motor harness. 2. Replace the fusing fan motor.

532	Air Intake Fan Motor Error
	A LOCK signal is not detected for more than ten seconds while the motor START signal is on and if this error occurs twice consecutively, this SC is issued.

SC Conditions

	▪ Disconnected or defective motor harness. ▪ Defective air intake fan motor 1. Check or replace the motor harness. 1. Replace the air intake fan motor.

541	Thermistor Error
	The thermistor output is less than 0°C for 6 seconds.
	▪ Disconnected thermistor ▪ Defective harness connection 1. Check the harness connection of the thermistor. 2. Replace the fusing unit. Important ▪ Execute "Fuser SC Reset" with SOM to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.

542	Print Ready Temperature Error
	▪ The heating roller temperature increase during a set time is not correct. ▪ The fusing temperature does not reach the print ready temperature within a set time after the fusing lamp has turned on.
	▪ Defective thermistor ▪ Incorrect power supply input at the main power socket ▪ Defective fusing lamp 1. Check the voltage of the wall outlet. 2. Replace the fusing unit 3. Replace the fusing lamp. Important ▪ Execute "Fuser SC Reset" with SOM to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.

543	High Temperature Detection Error

	This SC is issued if one of following conditions occurs: ▪ The thermistor (center) detects 245°C or thermistor (end) detects 230°C. ▪ The thermistor (center) detects a 14°C increment or more for five seconds at 220°C or more or the thermistor (end) detects a 9°C increment or more for five seconds at 160°C (Warming Up), 170 °C (Standby), or 180°C (Print) or more.
	▪ Defective I/O control (EGB) ▪ Defective EGB 1. Replace the EGB Important ▪ Execute "Fuser SC Reset" with SOM to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.

545	Heating Lamp Full-Power Error
	The fusing lamp is fully-powered for a certain time while the fusing unit stays in the stand-by mode and is not rotating.
	▪ Deformed thermistor ▪ Thermistor not in the correct position ▪ Defective fusing lamp 1. Replace the fusing unit. 2. Replace the fusing lamp. Important ▪ Execute "Fuser SC Reset" with SOM to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.

547	Zero Cross Error
	The zero cross signal is not detected for three seconds even though the fusing lamp relay is on after turning on the main power or closing the front door.
	▪ Defective fusing lamp relay 1. Turn the main power switch off and on.

SC Conditions

	Important ▪ Execute "Fuser SC Reset" with SOM to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.

548	Low Temperature Error
	The center thermistor detects 90°C or less for 4 seconds.
	▪ Defective fusing lamp ▪ Defective thermistor 1. Replace the fusing unit. 2. Replace the fusing lamp. Important ▪ Execute "Fuser SC Reset" with SOM to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.

557	Zero Cross Frequency Error
	The detection error occurs ten times consecutively in ten zero cross signal detections. This error is defined when the detected zero cross signal is 17 or less/27 or more for 0.2 seconds.
	▪ Defective fusing lamp relay ▪ Unstable input power source 1. Check the power supply source. 2. Replace the fusing unit. Important ▪ Execute "Fuser SC Reset" with SOM to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code and cannot be operated.

559	Consecutive Fusing Jam
	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 "Fuser SC Detect" in the SP Mode 2 tab.
	▪ 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 "Fuser SC Reset" with SOM to recover the machine after completing the recovery procedure. Otherwise, the machine continues to issue this SC code cannot be operated.

SC 6xx (Communication and Other Error)

669	EEPROM Error
	An unexpected value exists in the initialization flag of the EEPROM
	▪ EEPROM not initialized ▪ Defective EEPROM 1. Initialize the EEPROM. 2. Replace the EEPROM. 3. Replace the EGB.

690	GAVD Communication Error
	The ID of the GAVD is not identified during initialization.
	The chip ID of the GAVD cannot be detected by the machine at power-on.
	▪ Defective EGB 1. Replace the EGB.

3.2.3 CONTROLLER SC

SC8xx

819	Service Cycle Power
	▪ Incorrect combination of EGB and controller board. ▪ An unexpected error occurs in the EEPROM on the controller board.
	▪ Controller board defective 1. Install the correct EGB and controller boards for this machine. 2. Replace the controller board

823	USB/ Network Device Error
	An interface error in the USB connection or NIB connection occurs.
	▪ Controller board detective 1. Replace the controller board.

824	EEPROM Error
	An EEPROM check error at power-on occurs.
	▪ Controller board detective 1. Replace the controller board.

827	On-Board Memory Check Error
	An on-board memory check error at power-on occurs.
	▪ Controller board detective 1. Replace the controller board.

828	ROM Checksum Error
	A ROM checksum error at power-on occurs.
	1. Replace the controller board.

APPENDIX:
SP MODE TABLES

4. APPENDIX: SP MODE TABLES

4.1 SMART ORGANIZING MONITOR

4.1.1 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.

4.1.2 PRINTER DRIVER INSTALLATION

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 [PCL 6 Printer Driver].
   The software license agreement appears.
6. After reading the agreement, click [I accept the agreement.], and then click [Next >].
7. 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 >].
10. 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].

4.1.3 ENTERING THE PRINTER CONFIGURATION

To enter the service system setting;

1. Launch the SOM utility.

   Take one of the following steps (a) or (b).

   (a)

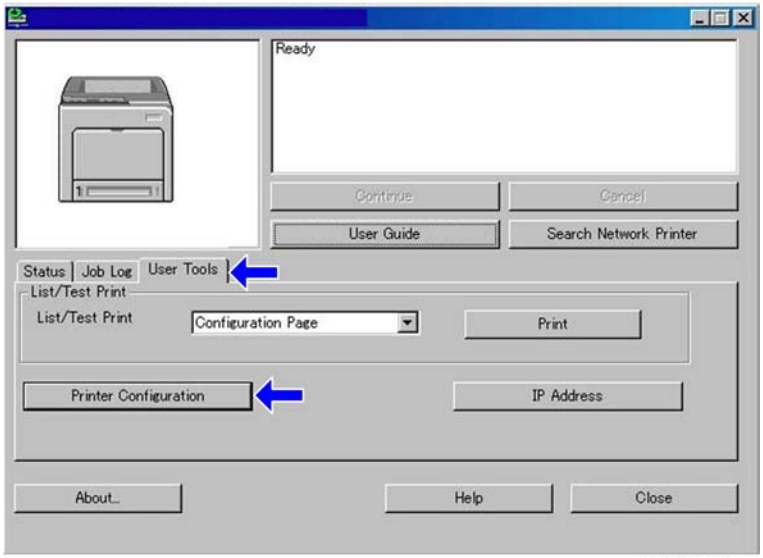
   - Open the Properties of the printer driver.
   - Click [Printing Preferences] on the Basic tab
   - Click [Smart Organizing Monitor…] on the Printing Preferences tab.

   (b)

   - Open the Properties of the printer driver.
   - Click [Smart Organizing Monitor…], on [Accessories], [Advanced Option] or [Paper Size Settings] tab.

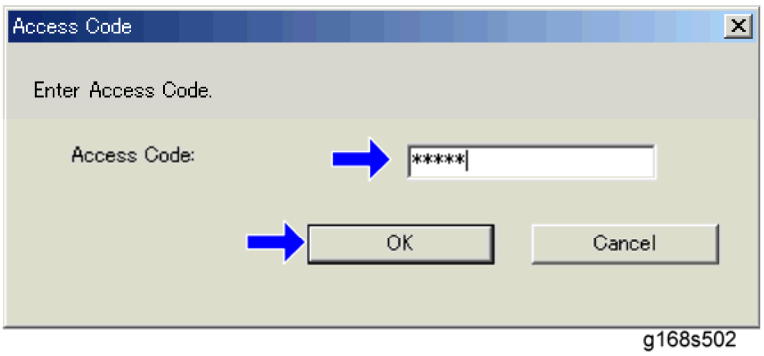
   Note

   - To display the SOM dialog box automatically when any error occurs, check [Display Smart Organizing Monitor automatically] check box on [Advanced Options] tab.



g163s501

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



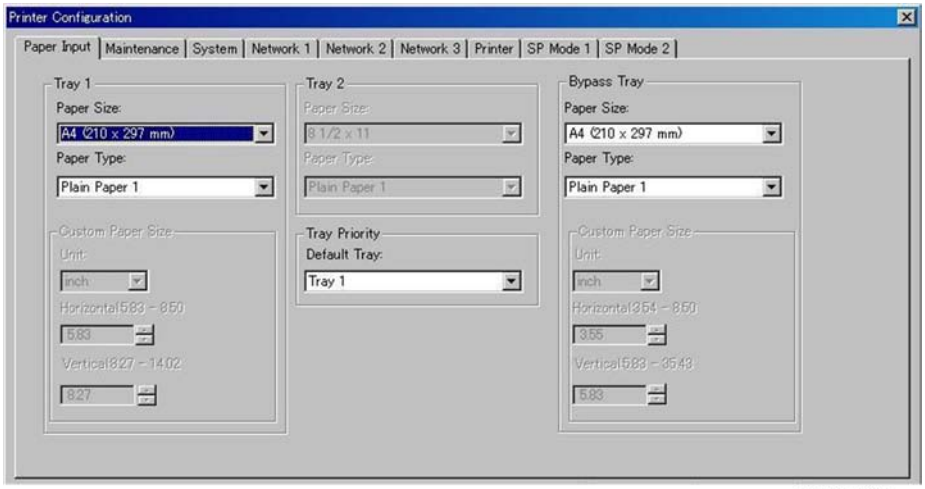
g168s502

5. Input the access code and click the "OK" button.

Note

- Ask your supervisor for the access code.

6. Click the "OK" button.



g163s503

7. The "Printer Configuration" GUI appears.

4.1.4 PRINTER CONFIGURATION MENU LIST

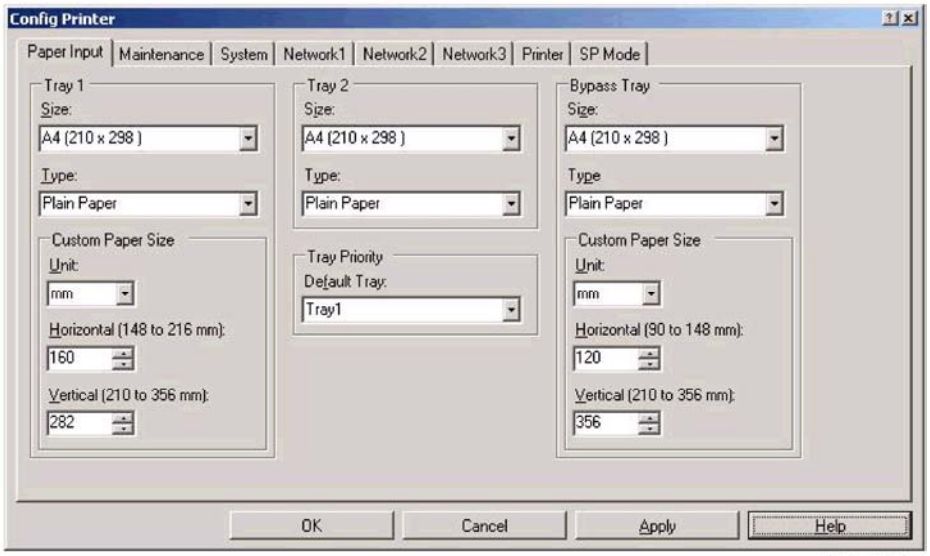
The SOM has the following printer configuration menus. Each menu contains various setting items. The details of each setting item are explained in this section below.

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.

Smart Organizing Monitor

Network 1	Adjusts network settings (Information, Interface, TCP/IP).
Network 2	Adjusts network settings (IPX, SMTP).
Network 3	Adjusts network settings (SNMP, Apple Talk).
Printer	Adjusts the printer driver settings (PCL, PS).
SP mode 1	Adjusts and executes service program modes.
SP mode 2	Adjusts and executes service program modes.

Paper Input



g165s503

Item	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/ Com10/ Monarch/ C5 Env/ C6 Env/ DL Env/ 16K/ Custom Paper/ Postcard/ Reply-paid Postcard/ Any 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	Thin Paper(60-75g/m^2)/ Plain Paper */ Plain Paper(90-105g/m^2)/	*: Default The selectable paper types

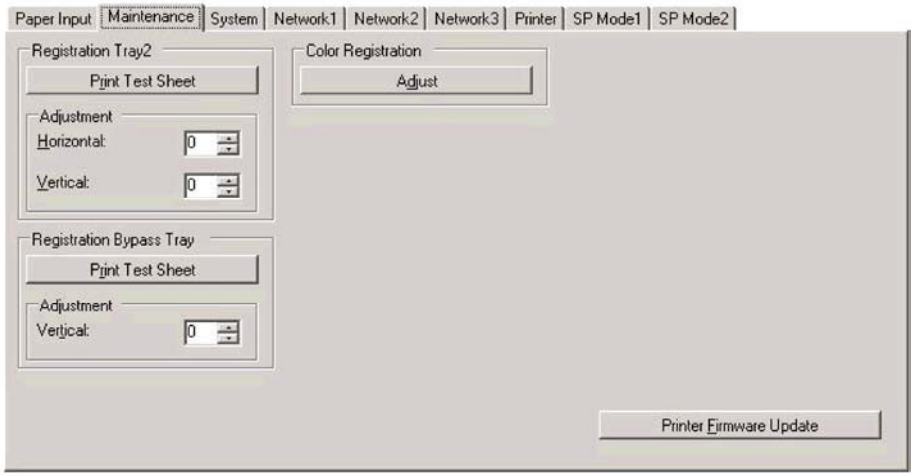
Item	Selections	Remarks
(standard)	Recycled/ Color/ Preprinted/ Prepunched/ Thick Paper (105-160g/m^2)/ Letterhead/ Bond/ Cardstock/ Labels/ Envelope/ Any type	depend on the model. For details, refer to the "Supported Paper Types" in the "Specifications" chapter.
Tray 2 Paper Size (optional)	A4 */ Letter *	*: Default (NA: Letter, EU: A4)
Tray 2 Paper type (optional)	Thin Paper(60-75g/m^2)/ Plain*/ Plain Paper(90-105g/m^2)/ Recycled/ Color/ Preprinted Paper/ Prepunched Paper/ Letterhead	-
Custom Size unit	Mm */ Inch *	If the paper size factory default is A4, then the custom size factory default unit is mm. If the paper size factory default is Letter, then the custom size factory default unit is inch.
Custom Horizontal	90*-216mm	3.54 – 8.50 inch. Precision is two digits after the decimal point in inch or one digit after the decimal point in mm. 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.
Custom Vertical	148*-356mm	5.83 – 14.02 inch. Precision is two digits after the decimal point in inch or one digit after the decimal point

Smart Organizing Monitor

Item	Selections	Remarks
		in mm. 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.
Priority Tray	MPT	Not used
	Tray1 *	-
	Tray2	

"*" indicates the factory default value.

Maintenance



g165s504

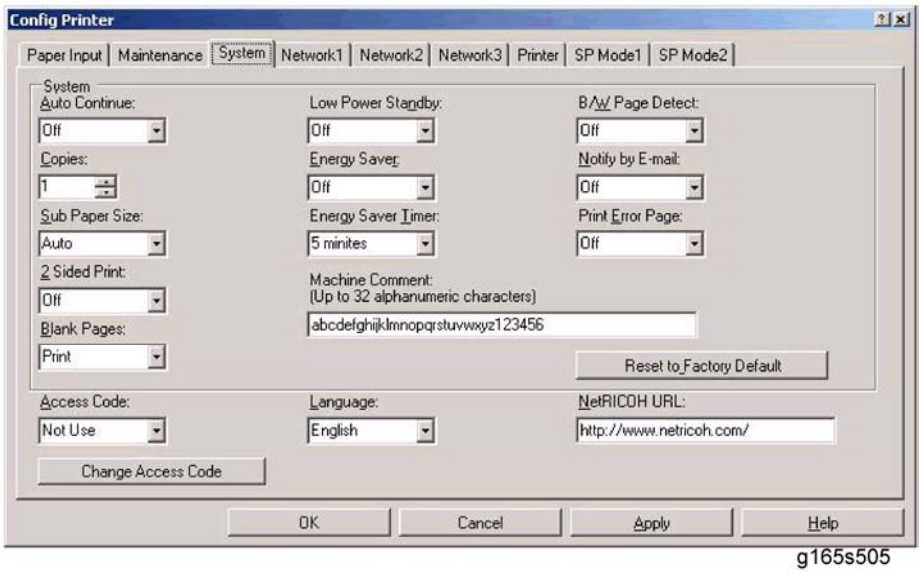
Group (Tab)	Item	Selections	Remarks
Registration Tray 2	Print Test Sheet button		Sends a command to the printer to print a test sheet. It is disabled when tray 2 is not installed.

	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.
	Adjustment Vertical	(-15 to +15) step	0.24 mm per step. Range is -3.6 mm to +3.6 mm If the machine settings are reset to the factory defaults, this value does not change.
Registration Bypass Tray	Print Test Sheet button		Sends a command to printer to print a test sheet.
	Adjustment Vertical	(-15 to +15) step	0.24 mm per step. Range is -3.6 mm to +3.6 mm
Color Registration	Adjust button		The engine will do color registration and density tuning automatically. The printer will warm up automatically after this setting is changed. The “color registration” in User Tools includes only a “Fine Adjustment”. In service support, never fail to use SP mode 2 including both fine and rough adjustment.
FW Update button	FW update button		This button is for updating the controller firmware. The button for updating the engine firmware is located in the "SP Mode 1" tab.

"*" indicates the factory default value.

Smart Organizing Monitor

System



Item	Selections	Remarks
Auto Continue	On/Off *	
Copies	1*-999	Default is 1.
Sub Paper Size	Off */ Auto	A4 Letter override
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.
Low Power Standby	On	
	Off *	
Energy Saver	On *	
	Off	
Energy Saver Time	5min *	
	15min	

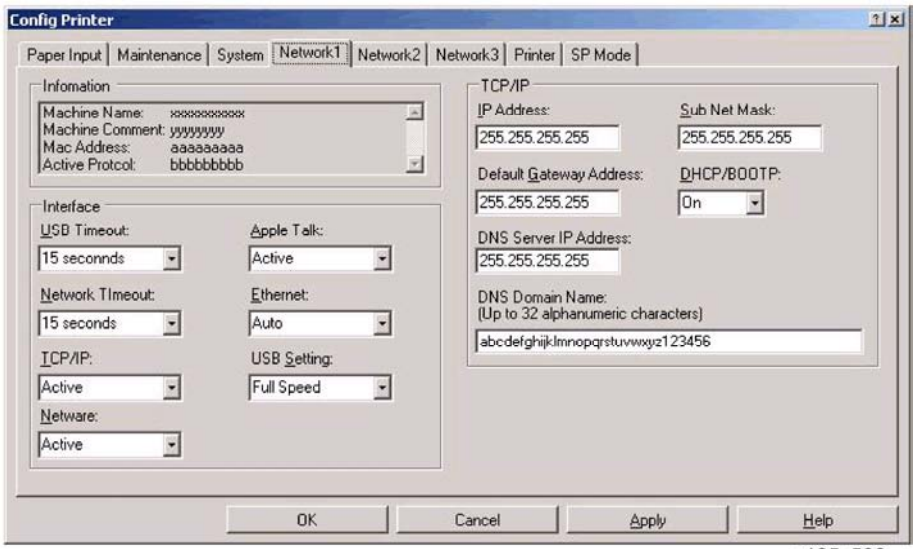
Item	Selections	Remarks
	30min	
	60min	
B/W Page Detect	On *	
	Off	
Notify by E-mail	On	
	Off *	
Print Error Page	On	
	Off *	
Machine Comment	Null string*	Up to 32 alphanumeric characters. The factory default is 'null string'.
Restore to Factory Default button		Restores all settings to the factory default settings for the market area setting.
Language	English *	The factory setting is English if the market is NA or EU or ASIA.
	French	
	German	
	Italian	
	Spanish	
	Dutch	
	Danish	
	Swedish	
	Norwegian	
	Portuguese	

Smart Organizing Monitor

Item	Selections	Remarks
	Polish	
	Czech	
	Hungarian	
	Finnish	
	Japanese	
	Simplified Chinese	
	Traditional Chinese	
	Russian	
Access Code	Used *	
	Not used	
Access code change button		Changes the access code. The button is grey if the Access code is set to "not used".
NetRicoh URL edit box	http://www.netricoh.com/*	

"*" indicates the factory default value.

Network 1



g165s506

Group (Tab)	Item	Selections	Remarks
Information	Machine Name		String length is 32
	Machine Comment		String length is 32
	Hardware Type		
	Mac Address		
	Active Protocol	TCP/IP, Netware, Apple Talk	List of 3 protocols when they are active.

Group (Tab)	Item	Selections	Remarks
TCP/IP	IP address	xxx.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	xxx.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 "255.255.255.0" when DHCP is off.
TCP/IP	Default Gateway address	xxx.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.

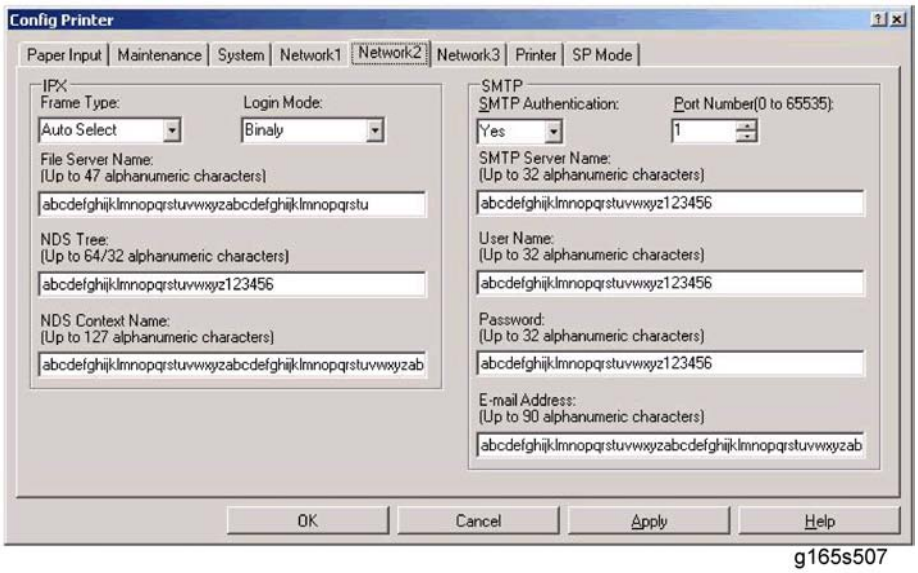
Group (Tab)	Item	Selections	Remarks
TCP/IP	DHCP	On */ Off	If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
TCP/IP	DNS Server IP Address	xxx.xxx.xxx.xxx	Up to 32 alphanumeric characters. This setting is not available if DHCP is enabled. The default 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.
Interface	USB I/O Timeout	15 60 * 300	
	Network I/O Timeout	15 60 * 300	

Smart Organizing Monitor

Group (Tab)	Item	Selections	Remarks
	TCP/IP	Active* Not Active	If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
	Netware	Active* Not Active	If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
	Apple Talk	Active* Not Active	If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
	Ethernet speed	Auto* 10M half 10M full 100M half 100M full	
	USB Setting	Full Speed Auto *	If this setting is changed, the printer power must be turned off/on for the new setting to take effect.

"*" indicates the factory default value.

Network 2



g165s507

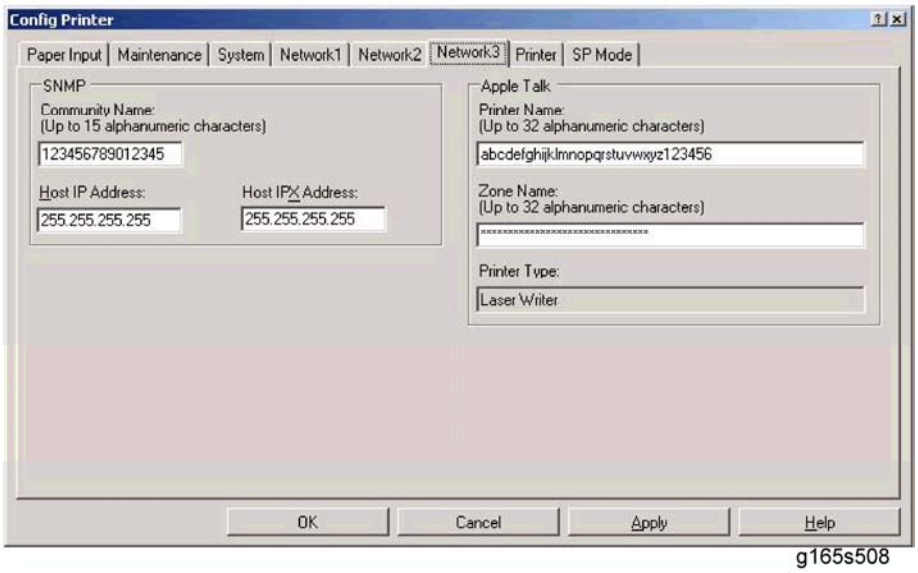
Group (Tab)	Item	Selections	Remarks
IPX	Frame Type	Auto Select*	If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
		Ethernet II	
	Login Mode	Bindery	If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
		Both	
		NDS*	
	File Server Name	Null string*	Up to 47 alphanumeric characters. The factory default is 'null string'. If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
	NDS Tree	Null string*	Up to 48 alphanumeric characters. The factory default is 'null string'. If this setting is changed, the printer power must be turned off/on for the new setting to take effect.

Smart Organizing Monitor

Group (Tab)	Item	Selections	Remarks
	NDS Context Name	Null string*	Up to 127 alphanumeric characters. The factory default is 'null string'. If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
SMTP	SMTP Authentication	Yes*	
		No	
	SMTP Server Name	Null string*	Up to 64 alphanumeric characters. The factory default is 'null string'.
	Port Number	25*	1 to 65535 The factory default is 25.
	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'.
	Administrator e-mail address	Null string*	Up to 64 alphanumeric characters. The factory default is 'null string'.
	SMTP server		

"*" indicates the factory default value.

Network 3



g165s508

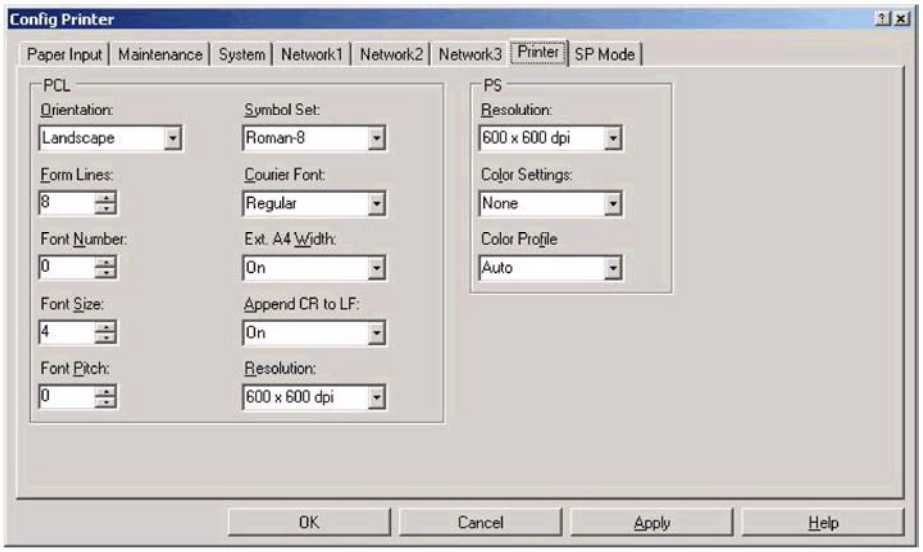
Group (Tab)	Item	Selections	Remarks
SNMP	Community Name	Null string *	Up to 15 alphanumeric characters. The factory default is 'null string'.
	Host IP Address	0.0.0.0 *	The factory default is 0.0.0.0 If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
	Host IPX Address	"FFFFFFFFFFFFFFFFFFFF" *	String length is 20. The factory default is 20 "F" characters. Valid characters are: "0123456789ABCDEFabcdef"; not case sensitive when setting but the capital character will change to lower case when reading. If this setting is changed, the printer power must be turned off/on for the new setting to take effect. A valid string length is 0 or 20.

Smart Organizing Monitor

Group (Tab)	Item	Selections	Remarks
			String lengths of 1 – 19 will cause the setting to be invalid. But SOM will not create an error message when the string length is in the range of 1 – 19. The invalid string can be saved at the printer side.
Apple Talk	Printer Name	"PublicWritter" *	String of maximum length 32. The factory default string is "PublicWritter". If this setting is changed, the printer power must be turned off/on for the new setting to take effect.
	Zone Name	"*"	Default is "*". Up to 32 in length. The factory default string is "*". If this setting is changed, the printer power must be turned off/on for the new setting to take effect.

"*" indicates the factory default value.

Printer



g165s509

Group (Tab)	Item	Selections	Remarks
PCL	Orientation	Portrait *	
		Landscape	
	Form Lines	5 to 128 by 1	If the machine settings are reset to the factory defaults, this value does not change.
	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.
PCL	Symbol Set	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,	

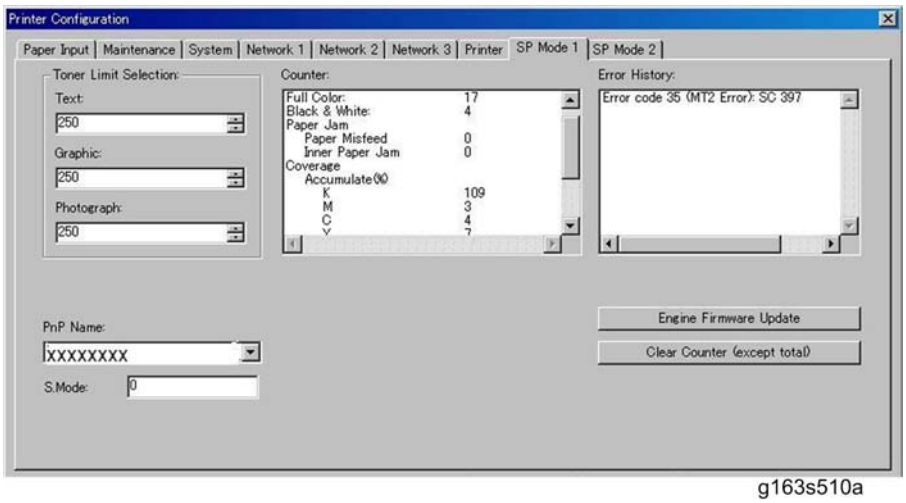
Smart Organizing Monitor

Group (Tab)	Item	Selections	Remarks
		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, ISO L9, PC-775, PC-1004,	
PCL	Courier Font	Regular*	
		Dark	
	Ext. A4 Width	Off*	
		On	
	Append CR to LF	Off	
		On *	
	Resolution	600x600dpi 1bit*	
		600x600dpi 2bits	
		600x600dpi 4bits	
PS	Resolution	600 x 600 dpi*	
		600 x 600 dpi 2bits	
		600 x 600 dpi 4bits	
	Color Profile	Off	

Group (Tab)	Item	Selections	Remarks
		Solid color *	
		Presentation	
		Photographic	

"*" indicates the factory default value.

SP Mode 1



g163s510a

Item	Selections	Remarks
Counter	Text	This means "toner limit". Should by text/graphic/image. [200 to 400 / 250 (default) / 10/step]
	Graphic	
	Image	
Print Side Volume	Total	Total printed page counter
	Color	Total printed color page counter
	B/W	Total printed mono page counter
	Duplex	Total printed duplex page counter.
	Paper Jam - Misfeed	Misfeed jam counter [0 to 128]

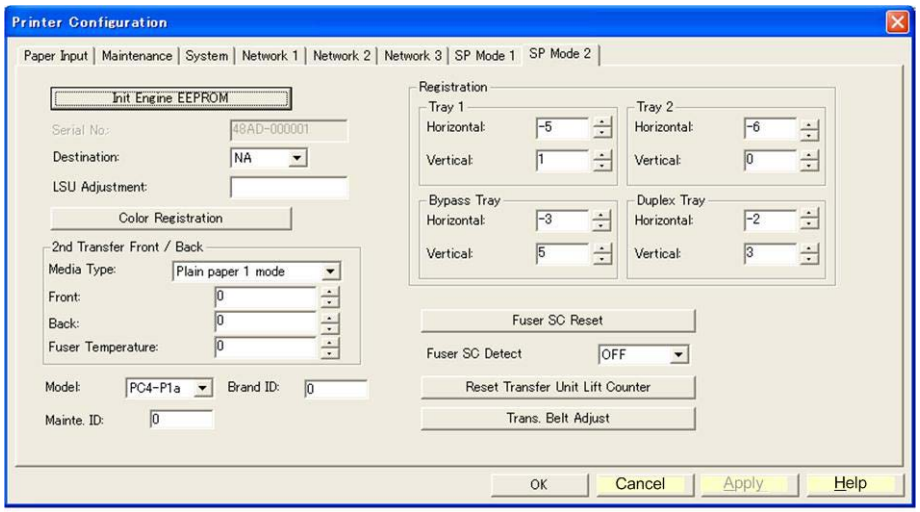
Smart Organizing Monitor

Item	Selections	Remarks
	Paper Jam - Inner	Counter for jams inside the machine [0 to 128]
	Paper Jam - Duplex	Duplex jam counter [0 to 128] Always 0 if the printer does not have a duplex unit.
	Recent K, M, C, Y coverage	Recent K coverage = K data got from the engine (the unit is 1024 dots) / A4 full coverage dot number (the unit is 1024 dots). A4 full coverage dot number in units of 1024 dots is 4961*7016/1024. Recent M, C, Y coverage uses the same equation as K, using the M, C, Y data from the engine.
	Accumulate K, M, C, Y coverage	Added from recent coverage. Stored in the EEPROM.
Error History	Error code listing	Maximum 16 error codes. There is nothing displayed if there is no error code. If there is only one error code, then only one error code string is displayed.
PnP Name		Select a Plug in Play name from the dropdown list. The modified setting will only take effect after the printer power is turned off/on. The printer will warm up automatically after this setting is changed.
S. Mode	[0 to 7F]	This adjusts the M/A of toner. **0x00**: Normal (Default: no reduction) 0x06: 20% reduction

Item	Selections	Remarks
		0x07: 10% reduction
Engine Firmware update button		Engine firmware update button
Clear Counter (except total)		This is used by Service. This clears all counters (except Total Counter).

"*" indicates the factory default value.

SP Mode 2



g165s511

Item	Selections	Remarks
Init Engine EEPROM		This clears all counters except "Full Color" and "Black and White" in the total counter. When you click the [Init Engine EEPROM] button, the engine EEPROM is initialized. Turn the machine power off/on after you change this setting.
Serial No.	11 characters	Displays and changes a serial

Smart Organizing Monitor

Item	Selections	Remarks
		number. (Character: alphanumeric, input length: 11 bytes) The printer will warm up automatically after this setting is changed.
Destination	1 byte. 0:DOM (JPN), 1:NA, 2:EU, 3:China, 4:Taiwan, 5:AP, 6:LA	Displays and changes a destination. It may damage the printer if you change this setting. Turn the machine power off/on after you change this setting. The printer will warm up automatically after this setting is changed. SOM will show a blank space if the printer destination setting is unknown.
LSU Adjustment	Input 160 bytes setting.	Character: alphanumeric "0-9", "a-f", "A-F", only valid data can be input. Input length: 160 bytes
Color Registration button		The engine will perform color registration and density tuning automatically. The printer will warm up automatically after this setting is changed.
2nd Transfer Front / Back		
Media type	Display string only 0: Plain paper 1 mode 1: Plain paper 2 mode 2: Plain paper 3 mode 3: Reserved (not display) 4: Thick stock 1 mode	Please select the media type.

Item	Selections	Remarks
	5: Thick stock 2 mode 6: Thick stock 3 mode (Not used) 7: Thick stock 4 mode 8: Envelope 1 mode	
Front	(-15 to +15)	This adjusts the transfer roller current, based on the default value. The range of adjustment is from -15 [μA] to +15 [μA], in units of 1. The printer will warm up automatically after this setting is changed.
Back	(-15 to +15)	This adjusts the transfer roller current, based on the default value. The range of adjustment is from -15 [μA] to +15 [μA], in units of 1. The printer will warm up automatically after this setting is changed.
Fuser Temperature	(-15 to 0)	This adjusts the temperature of the fusing unit, based on the default value. The range of adjustment is from -15 [°C] to 0[°C], the unit is 2. The printer will warm up automatically after this setting is changed. *2
Model	Display string only 2: M040 3: M041	Displays the current model in a dropdown list. Do not change this setting (Designed for Factory Use).

Smart Organizing Monitor

Item	Selections	Remarks
Brand ID	00* – 7F	Displays the current brand ID number. Do not change this setting (Designed for Factory Use).
Mainte. ID	00* – 7F	Displays the current maintenance ID number. Do not change this setting (Designed for Factory Use).
Registration		
Tray1	Horizontal	1.32mm per step. Range is -15mm to +15mm. If the machine settings are reset to the factory defaults, this value does not change. The printer will exit the energy saver state after this setting is changed.
	Vertical	0.24mm per step. Range is -3.6mm to +3.6mm. If the machine settings are reset to the factory defaults, this value does not change. The printer will exit the energy saver state after this setting is changed.
Tray2	Horizontal (-15 to +15) step	1.32mm per step. Range is -5mm to +5mm. If the machine settings are reset to the factory defaults, this value does not change. The printer will exit the energy saver state after this setting is changed.
	Vertical (-15 to +15) step	0.24mm per step. Range is -3.6mm

Item	Selections	Remarks
		to +3.6mm. If the machine settings are reset to the factory defaults, this value does not change. The printer will exit the energy saver state after this setting is changed.
Bypass Tray	Horizontal	1.32mm per step. Range is -5mm to +5mm. If the machine settings are reset to the factory defaults, this value does not change. The printer will exit the energy saver state after this setting is changed.
	Vertical	0.24mm per step. Range is -3.6mm to +3.6mm. If the machine settings are reset to the factory defaults, this value does not change. The printer will exit the energy saver state after this setting is changed.
Duplex Tray	Horizontal (-15 to +15) step	1.32mm per step. Range is -5mm to +5mm. If the machine settings are reset to the factory defaults, this value does not change. The printer will exit the energy saver state after this setting is changed.
	Vertical (-15 to +15) step	0.24mm per step. Range is -3.6mm to +3.6mm. If the machine settings are reset to the factory defaults, this value does not change.

Smart Organizing Monitor

Item	Selections	Remarks
		The printer will exit the energy saver state after this setting is changed.
Fuser SC Reset		This button is for resetting an SC related with the fusing errors.
Fuser SC Detect	On/Off	If On, the engine detects SC559. If Off, the engine does not detect "Fusing SC Reset".
Reset Transfer Unit Life Counter		Resets the transfer unit life counter.
Trans. Belt Adjust		When you click the [Trans. Belt Adjust] button, the transfer belt adjustment is done. This calibrates the motor speed to match the length of the new transfer belt.

"*" indicates the factory default value.

4.2 SERVICE PROGRAM WITH OPERATION PANEL

4.2.1 OVERVIEW

This machine has an LCD on the operation panel. Therefore, you can directly execute the service program with the operation panel instead of the SOM.

Note

- Ask your supervisor for entering or exiting the service mode with the operation panel.

4.2.2 SERVICE MODE MENU ITEMS ON LCD

The wording and menu structures are described as shown below.

Service Menu (2nd Menu)

1st Menu	2nd Menu	3rd Menu	4th Menu
Service Mode	Service Menu	Toner Limit	Text
			Graphics
			Photograph
[200 to 400] Step by 10, Default is 250			

Engine Maintenance (2nd Menu)

1st Menu	2nd Menu	3rd Menu	4th Menu
Service Mode	Engine Maintenance	Brand	-
0: Ricoh/ 1: SP/ 2: NRG/ 3: Lanier			

1st Menu	2nd Menu	3rd Menu	4th Menu
Service Mode	Engine	Destination	-

Service Program with Operation Panel

1st Menu	2nd Menu	3rd Menu	4th Menu
	Maintenance		
[0 to 6] **DFU**			

1st Menu	2nd Menu	3rd Menu	4th Menu
Service Mode	Engine Maintenance	2nd Transfer	Front
			Back
[-15 to +15/ 1 step] This adjusts the transfer roller current, based on the default value. The range of adjustment is from -15 [μA] to +15 [μA], in units of 1. The printer will warm up automatically after this setting is changed.			

1st Menu	2nd Menu	3rd Menu	4th Menu
Service Mode	Engine Maintenance	2nd Transfer	Fuser Temp
[0 to -30/ 1 step] This adjusts the offset temperature of the fusing unit, based on the default value. The range of adjustment is from -30 [°C] to 0[°C], the unit is 2. The printer will warm up automatically after this setting is changed. *2			

1st Menu	2nd Menu	3rd Menu	4th Menu
Service Mode	Engine Maintenance	Registration	Tray 1
			Tray 2
			By-pass
			Duplex
5th Menu ▪ Vertical			

1st Menu	2nd Menu	3rd Menu	4th Menu
▪ Horizontal [-15 to +15/ 0.33 mm/ 1 step] This adjusts the vertical and horizontal registration for each tray. If the machine settings are reset to the factory defaults, this value does not change.			

Clear Log (2nd Menu)

This resets all log data.

APPENDIX:
MACHINE SWAP

5. APPENDIX: MACHINE SWAP

5.1 EXCHANGE AND REPLACE PROCEDURE

If the machine exchange and replacement is required, arrange to send a machine without the four print cartridges (AIO) to the customer site.

5.1.1 INSTRUCTION

Instruct the customer to do the following procedure.

Before the substitute machine gets to the customer site

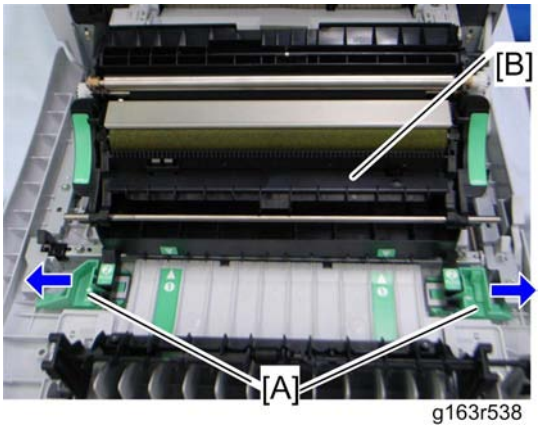
- Print the configuration page using "Smart Organizing Monitor".

When the substitute machine gets to the customer site

1. Remove the four print cartridges (AIO) from the problem machine.
2. Install the four print cartridges (AIO) into the substitute machine.
3. Input the customer settings which are printed on the configuration page by using "Smart Organizing Monitor".
4. Send back the problem machine to the repair center.

5.1.2 CLEANING POINTS AFTER MACHINE ARRIVAL AT DEPOT

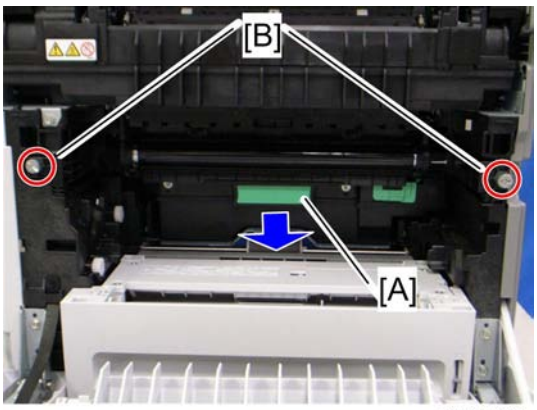
1. Open the front cover.



g163r538

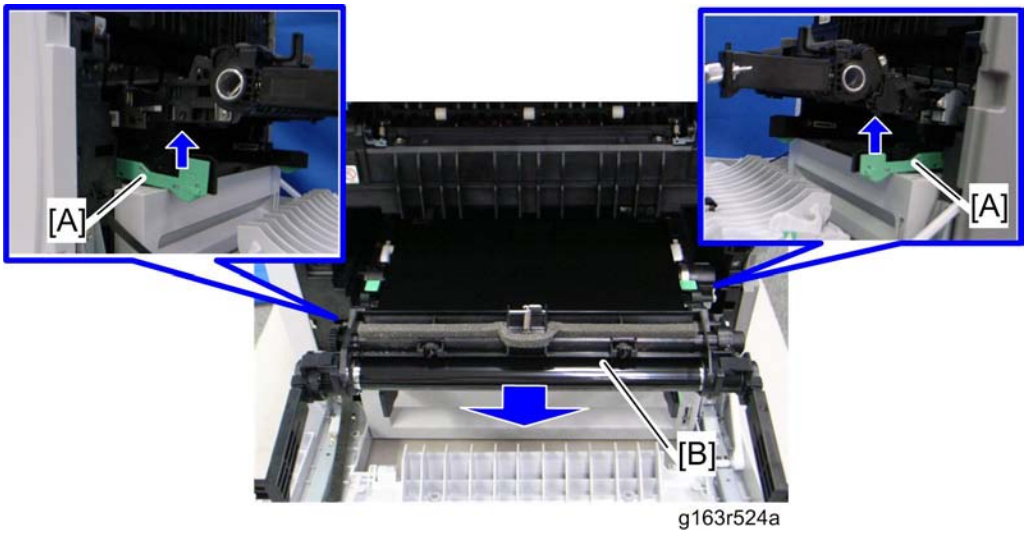
2. Release the locks [A].
3. Remove the transfer unit [B].

Exchange and Replace Procedure



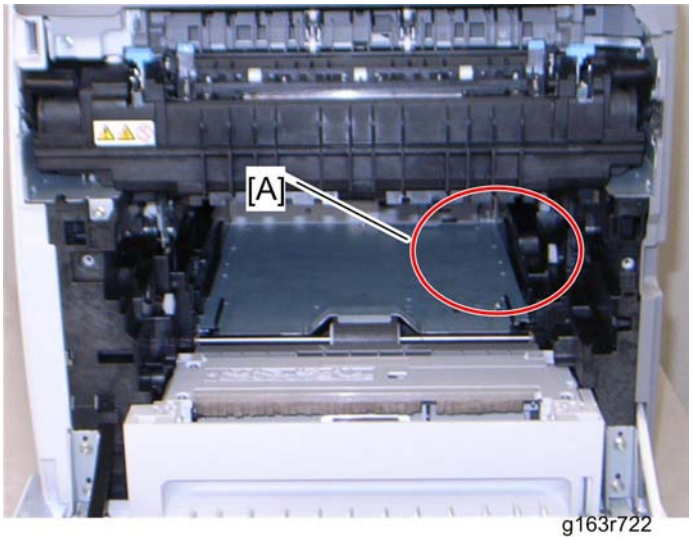
g163r523

4. Remove the waste toner bottle [A].
5. Remove the two screws [B].



g163r524a

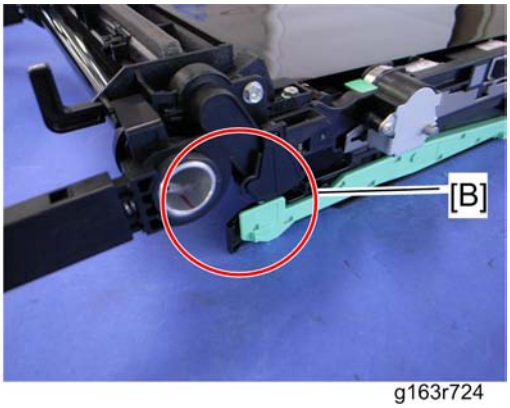
6. Grab the handles [A], and then pull out the image transfer belt unit [B].
7. Remove the waste toner bottle.



g163r722

8. Clean inside the machine, especially around the circled area [A].

g163r723



g163r724

9. Clean the circled area at the waste toner bottle [A] and circled area [B] at image transfer belt unit.
10. Reassemble the machine.

PAPER FEED UNIT TK1010
(G849)

PAPER FEED UNIT TK1010 (G849)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

1.1 PAPER FEED UNIT 1

1.1.1 TOP COVER 1

1.1.2 PAPER FEED AND RELAY CLUTCH 1

1.1.3 PAPER END AND RELAY SENSOR 2

1.1.4 PAPER FEED ROLLER 3

When reassembling 4

1.1.5 FRICTION PAD 5

When reassembling 5

2. DETAILED SECTION DESCRIPTIONS 7

2.1 OVERVIEW 7

2.1.1 COMPONENT LAYOUT 7

2.2 BASIC OPERATION 8

2.2.1 PAPER SEPARATION AND FEED 8

2.2.2 PAPER LIFT 9

2.2.3 PAPER END DETECTION 10

Read This First

Safety and Symbols

Replacement Procedure Safety

⚠CAUTION

- Turn off the main power switch and unplug the machine before beginning any of the replacement procedures in this manual.

Symbols Used in this Manual

This manual uses the following symbols.

☛: See or Refer to

: Screws

: Connector

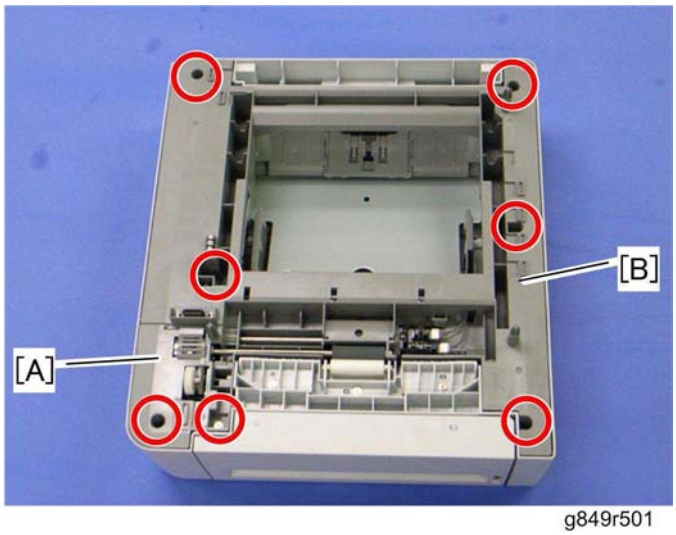
: Clip ring

: E-ring

1. REPLACEMENT AND ADJUSTMENT

1.1 PAPER FEED UNIT

1.1.1 TOP COVER

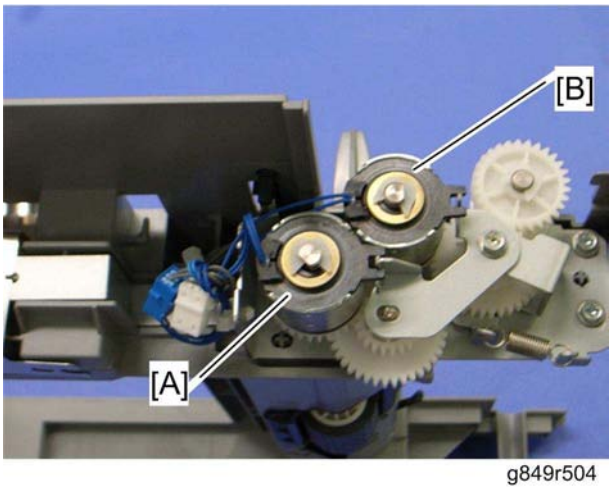


g849r501

1. Top left cover [A] (x 1)
2. Top cover [B] (x 6)

1.1.2 PAPER FEED AND RELAY CLUTCH

1. Top cover (☛ Top Cover)

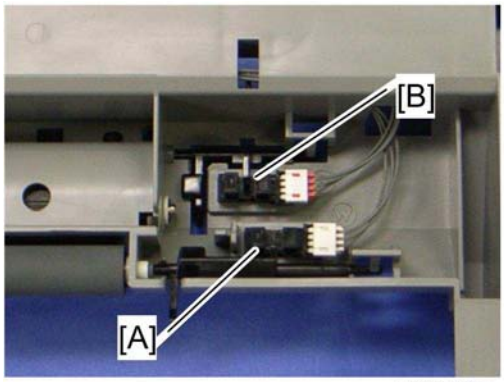


g849r504

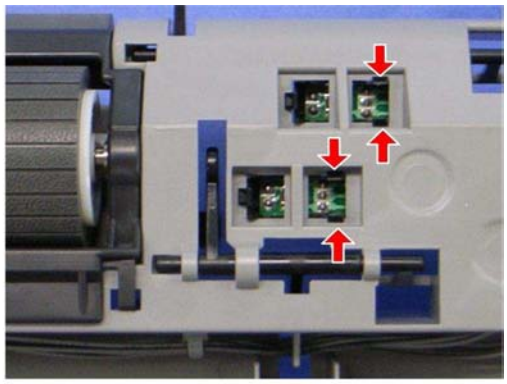
2. Paper feed clutch [A] (x 1, x 1)
3. Relay clutch [B] (x 1, x 1)

1.1.3 PAPER END AND RELAY SENSOR

1. Top cover (☛ Top Cover)



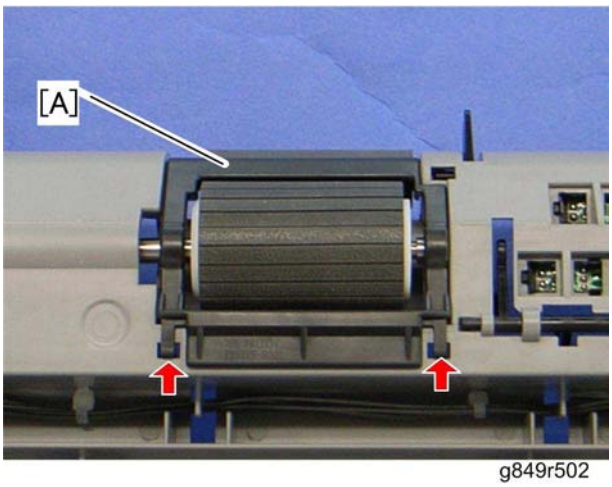
g849r505


g849r506

2. Paper end sensor [A] (hooks, ☜ x 1)
3. Relay sensor [B] (hooks, ☜ x 1)

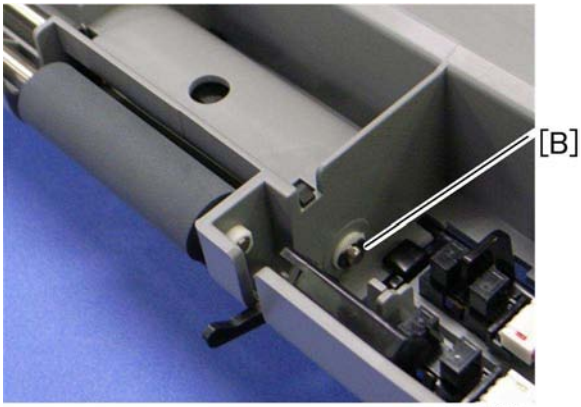
1.1.4 PAPER FEED ROLLER

1. Top cover (☛ Top Cover)
2. Paper feed clutch (☛ Top Cover)



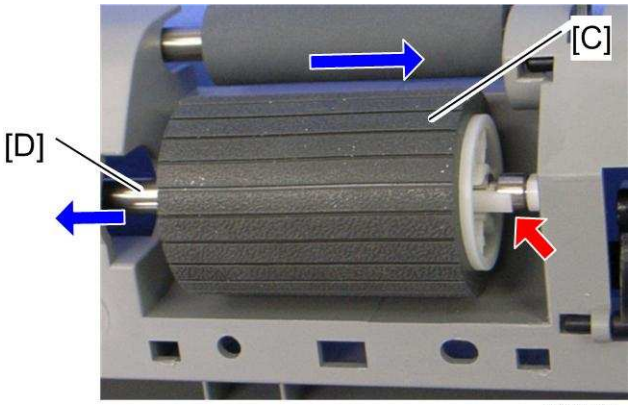
g849r502

3. Paper guide [A] (hooks)



g849r503

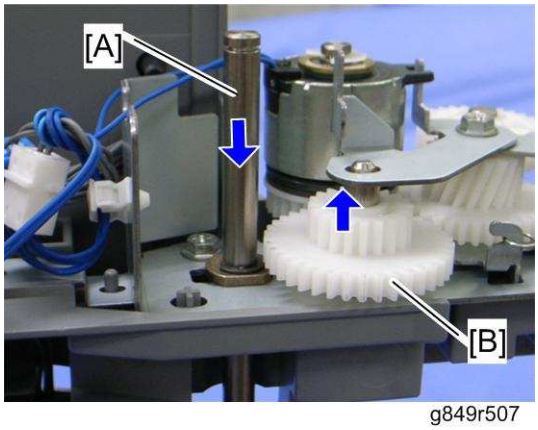
4. Remove the e-ring [B] at the right edge of the feed roller shaft.



g849r506

5. Slide the paper feed roller [C] to the right side (hook).
6. Pull out the feed roller shaft [D] to the left side (bushing x 1).

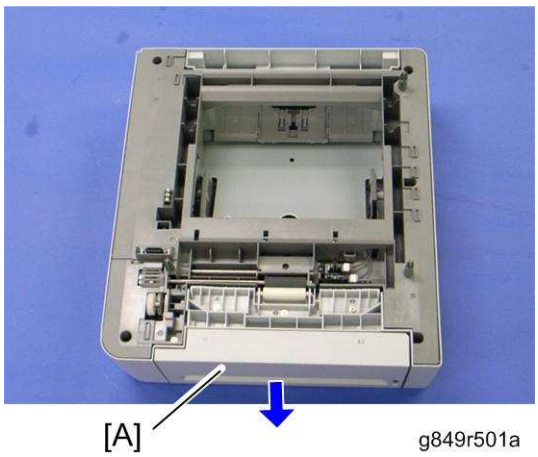
When reassembling



g849r507

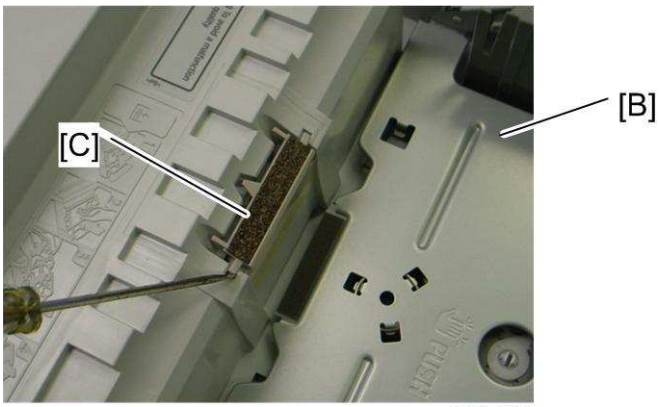
If the feed roller shaft [A] cannot be inserted easily, pull the gear [B], and then insert the feed roller shaft.

1.1.5 FRICTION PAD



g849r501a

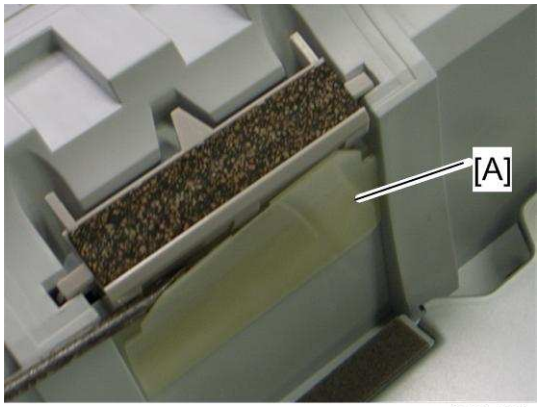
1. Pull out the tray [A]



g849r508

2. Press down the bottom plate [B]
3. Friction pad [C] (hooks, spring x 1)

When reassembling



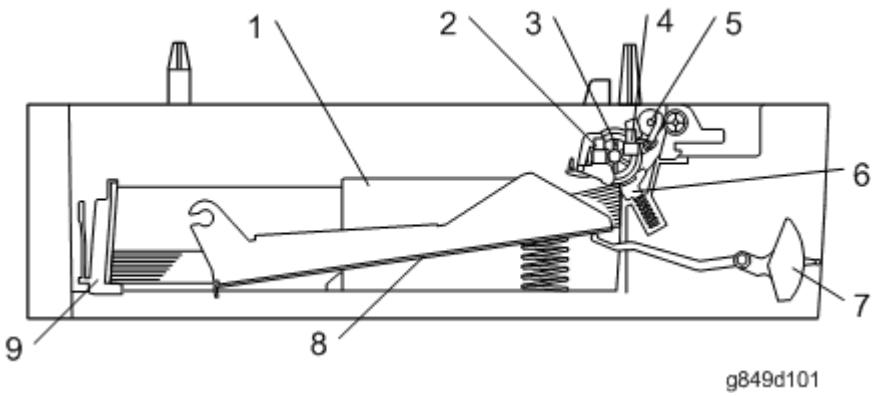
g849r509

When re-installing the friction pad, make sure that the mylar [A] does not go under the friction pad.

2. DETAILED SECTION DESCRIPTIONS

2.1 OVERVIEW

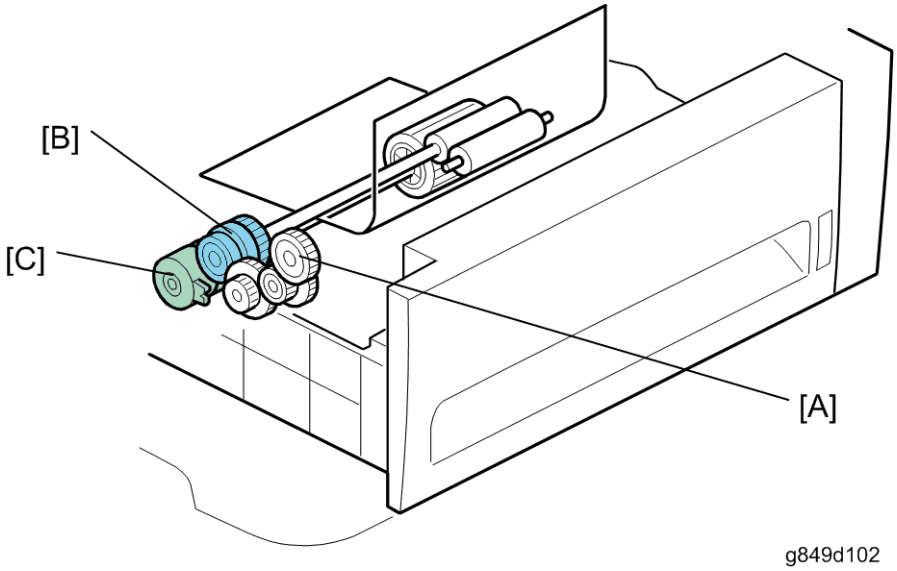
2.1.1 COMPONENT LAYOUT



1. Side Fence 2. Paper End Sensor 3. Paper Feed Roller 4. Relay Sensor 5. Relay Roller	6. Friction Pad 7. Paper Height Lever 8. Bottom Plate 9. Rear Fence

2.2 BASIC OPERATION

2.2.1 PAPER SEPARATION AND FEED



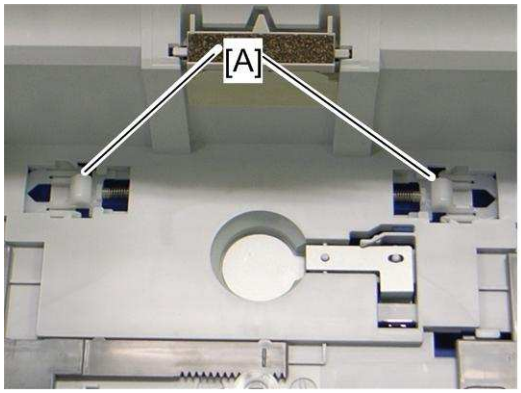
The paper tray holds 500 sheets of paper.

The paper feed unit uses a friction pad system.

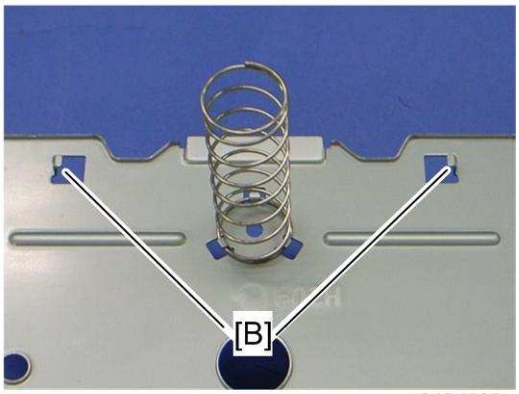
The gear [A] is driven by the transport/fusing motor in the mainframe.

The relay clutch [B] and paper feed clutch [C] control drive from the mainframe. When the optional tray is selected as the feed tray, the relay clutch and paper feed clutch transmit drive power to the relay roller and paper feed roller.

2.2.2 PAPER LIFT



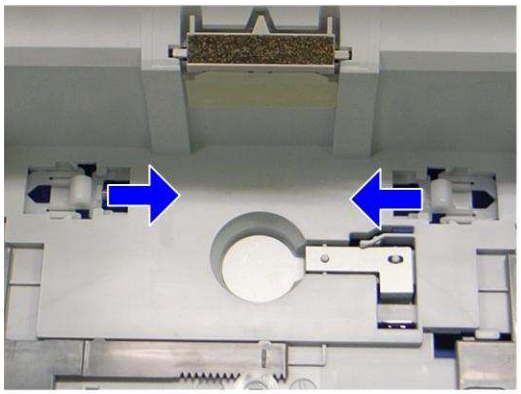
g849d501



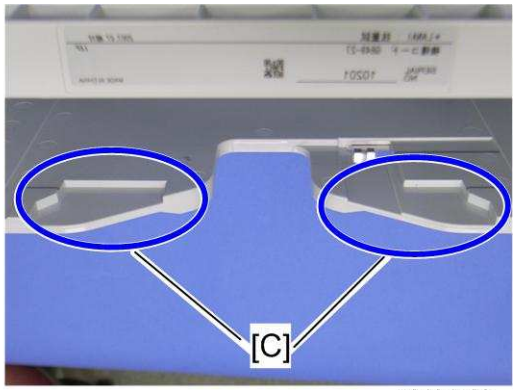
g849d502

The bottom plate is always pressed up by the spring in the tray. Therefore, you must press down the bottom plate when you insert the tray in the machine.

The bottom tray lock levers [A] hold the tabs [B] under the bottom plate after the bottom plate is pressed down.



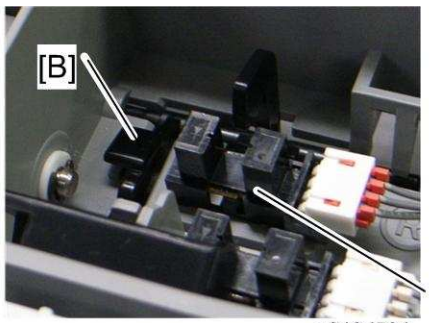
g849d501



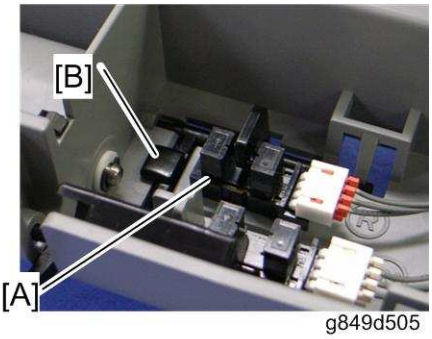
g849d503

When the tray is inserted in the machine, the lock lever guides [C] in the paper feed unit push the bottom plate lock levers, and then the lock levers release the tabs under the bottom plate. As a result, the bottom plate is lifted by the spring.

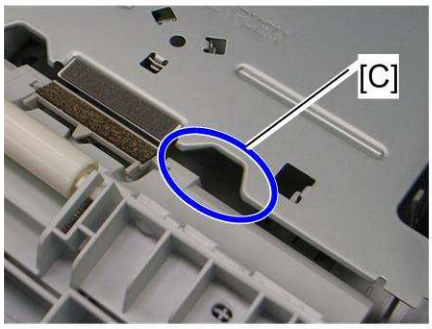
2.2.3 PAPER END DETECTION



g849d504



g849d505



g849d506

There is a paper end sensor [A] in the tray. The feeler [B] drops into the cutout [C] in the bottom plate and the actuator interrupts the paper end sensor. This sensor also detects whether the tray is set.

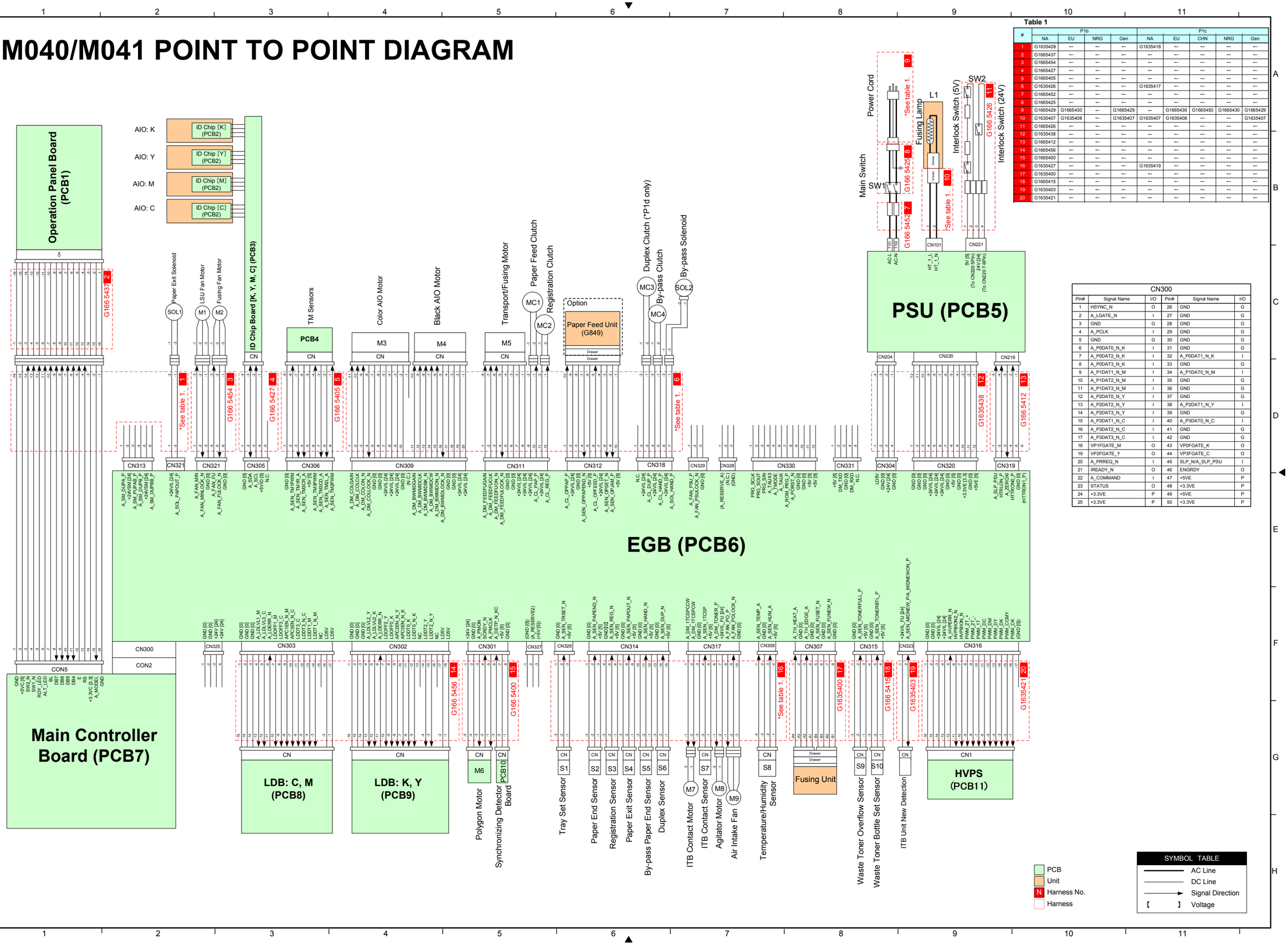
M040/M041 POINT TO POINT DIAGRAM

Table 1

#	P1b				P1c				
	NA	EU	NRG	Gen	NA	EU	CHN	NRG	Gen
1	G1635428	←	←	←	G1635418	←	←	←	←
2	G1665437	←	←	←	←	←	←	←	←
3	G1665454	←	←	←	←	←	←	←	←
4	G1665427	←	←	←	←	←	←	←	←
5	G1665405	←	←	←	←	←	←	←	←
6	G1635426	←	←	←	G1635417	←	←	←	←
7	G1665452	←	←	←	←	←	←	←	←
8	G1665425	←	←	←	←	←	←	←	←
9	G1665429	G1665430	←	G1665429	←	G1665430	G1665450	G1665430	G1665429
10	G1635407	G1635408	←	G1635407	G1635407	G1635408	←	←	G1635407
11	G1665426	←	←	←	←	←	←	←	←
12	G1635438	←	←	←	←	←	←	←	←
13	G1665412	←	←	←	←	←	←	←	←
14	G1665456	←	←	←	←	←	←	←	←
15	G1665400	←	←	←	←	←	←	←	←
16	G1635427	←	←	←	G1635419	←	←	←	←
17	G1635400	←	←	←	←	←	←	←	←
18	G1665415	←	←	←	←	←	←	←	←
19	G1635403	←	←	←	←	←	←	←	←
20	G1635421	←	←	←	←	←	←	←	←

CN300

Pin#	Signal Name	I/O	Pin#	Signal Name	I/O
1	HSYNC_N	O	26	GND	G
2	A_LGATE_N	I	27	GND	G
3	GND	G	28	GND	G
4	A_PCLK	I	29	GND	G
5	GND	G	30	GND	G
6	A_P0DAT0_N_K	I	31	GND	G
7	A_P0DAT2_N_K	I	32	A_P0DAT1_N_K	I
8	A_P0DAT3_N_K	I	33	GND	G
9	A_P1DAT1_N_M	I	34	A_P1DAT0_N_M	I
10	A_P1DAT2_N_M	I	35	GND	G
11	A_P1DAT3_N_M	I	36	GND	G
12	A_P2DAT0_N_Y	I	37	GND	G
13	A_P2DAT2_N_Y	I	38	A_P2DAT1_N_Y	I
14	A_P2DAT3_N_Y	I	39	GND	G
15	A_P3DAT1_N_C	I	40	A_P3DAT0_N_C	I
16	A_P3DAT2_N_C	I	41	GND	G
17	A_P3DAT3_N_C	I	42	GND	G
18	VP1FGATE_M	O	43	VP0FGATE_K	O
19	VP2FGATE_Y	O	44	VP3FGATE_C	O
20	A_PRREQ_N	I	45	SLP_N/A_SLP_PSU	I
21	IREADY_N	O	46	ENGRDY	O
22	A_COMMAND	I	47	+5VE	P
23	STATUS	O	48	+3.3VE	P
24	+3.3VE	P	49	+5VE	P
25	+3.3VE	P	50	+3.3VE	P



RICOH UNIVERSITY
Learning ◆ Knowledge ◆ Performance

M040/M041
PARTS CATALOG

004344MIU

LANIER RICOH savin

RICOH
Learning ◆ Knowledge ◆ Performance
UNIVERSITY

M040/M041
PARTS CATALOG

LANIER
RICOH
SAVIN

RICOH UNIVERSITY
Learning ◆ Knowledge ◆ Performance

M040/M041
PARTS CATALOG

004344MIU

LANIER RICOH SAVIN

LEGEND

PRODUCT CODE	COMPANY			
	GESTETNER	LANIER	RICOH	SAVIN
M040	SP C311N	SP C311N	Aficio SP C311N	SP C311N
M041	SP C312DN	SP C312DN	Aficio SP C312DN	SP C312DN
G849	Paper Feed Unit TK1010			

DOCUMENTATION HISTORY

REV. NO.	DATE	COMMENTS
*	02/2009	Original Printing

Color Printers

M040/M041-NA

Parts Catalog

Parts change information sample

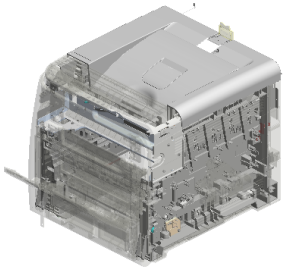
Add

Update

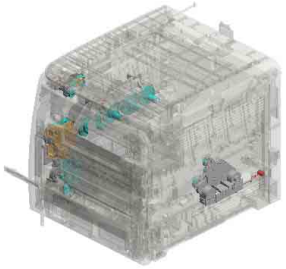
Delete

Model	Product Code	PC Style
Color Printers	M040/M041	3D
Paper Feed Unit Type TK1010	G849	Traditional

Unit All



U001
Main Frame

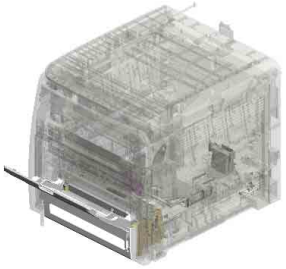


U002
Main Drive

U003
Exterior

U004
Operation

U005
Laser Unit

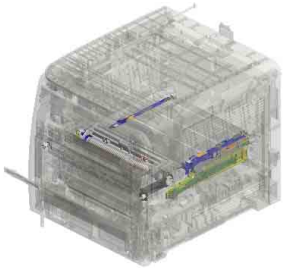


U006
Paper Feed

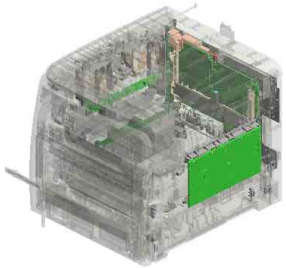
U007
Transport

U008
Fusing

U009
Paper Exit



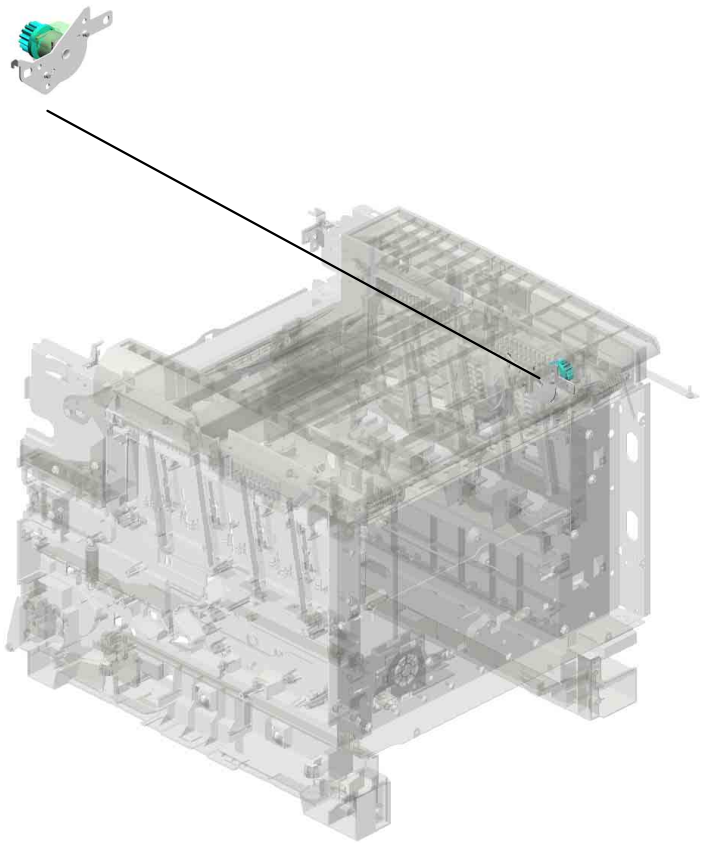
U010
Image Transfer



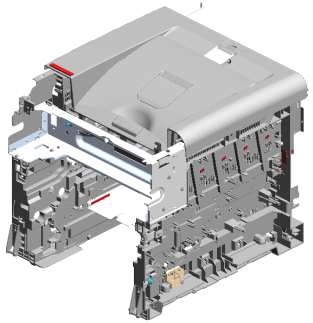
U011
Electrical

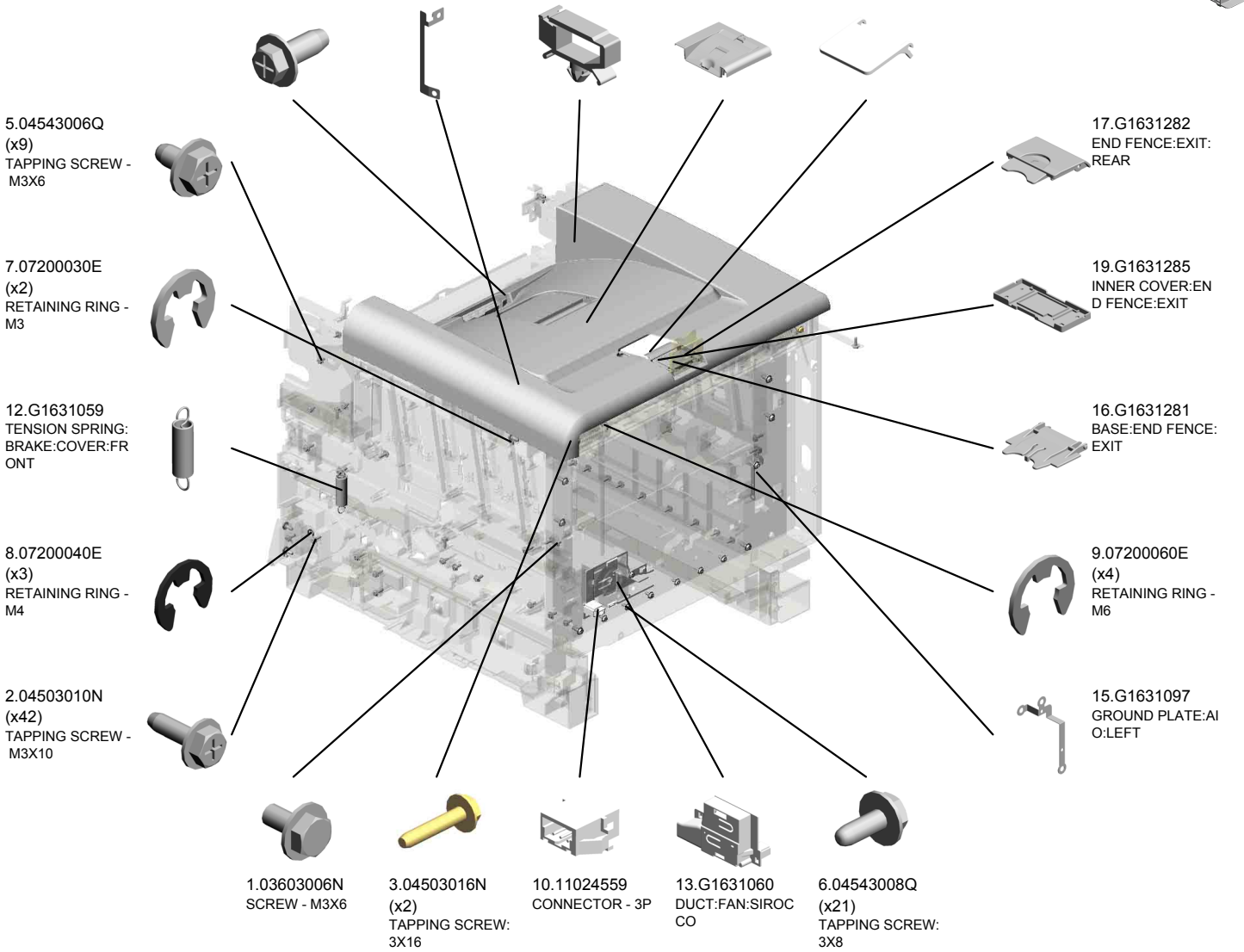
U001.Main Frame

U001 S001
G1661240
BRAKE:COVER:UPPER



U001
Main Frame





4.04504010N
(x16)
TAPPING SCREW: M4X10

14.G1631096
GROUND PLATE:FRONT

11.11050516
(x2)
CLAMP

20.G1631300
COVER:UPPER

18.G1631283
END FENCE:EXIT:FRONT

5.04543006Q
(x9)
TAPPING SCREW - M3X6

7.07200030E
(x2)
RETAINING RING - M3

12.G1631059
TENSION SPRING: BRAKE:COVER:FRONT

8.07200040E
(x3)
RETAINING RING - M4

2.04503010N
(x42)
TAPPING SCREW - M3X10

17.G1631282
END FENCE:EXIT: REAR

19.G1631285
INNER COVER:END FENCE:EXIT

16.G1631281
BASE:END FENCE: EXIT

9.07200060E
(x4)
RETAINING RING - M6

15.G1631097
GROUND PLATE:AIO:LEFT

1.03603006N
SCREW - M3X6

3.04503016N
(x2)
TAPPING SCREW: 3X16

10.11024559
CONNECTOR - 3P

13.G1631060
DUCT:FAN:SIROCCO

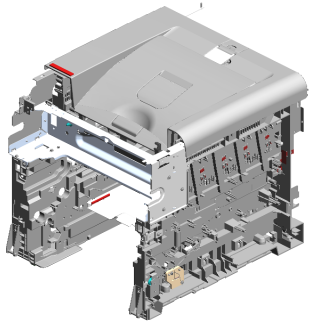
6.04543008Q
(x21)
TAPPING SCREW: 3X8

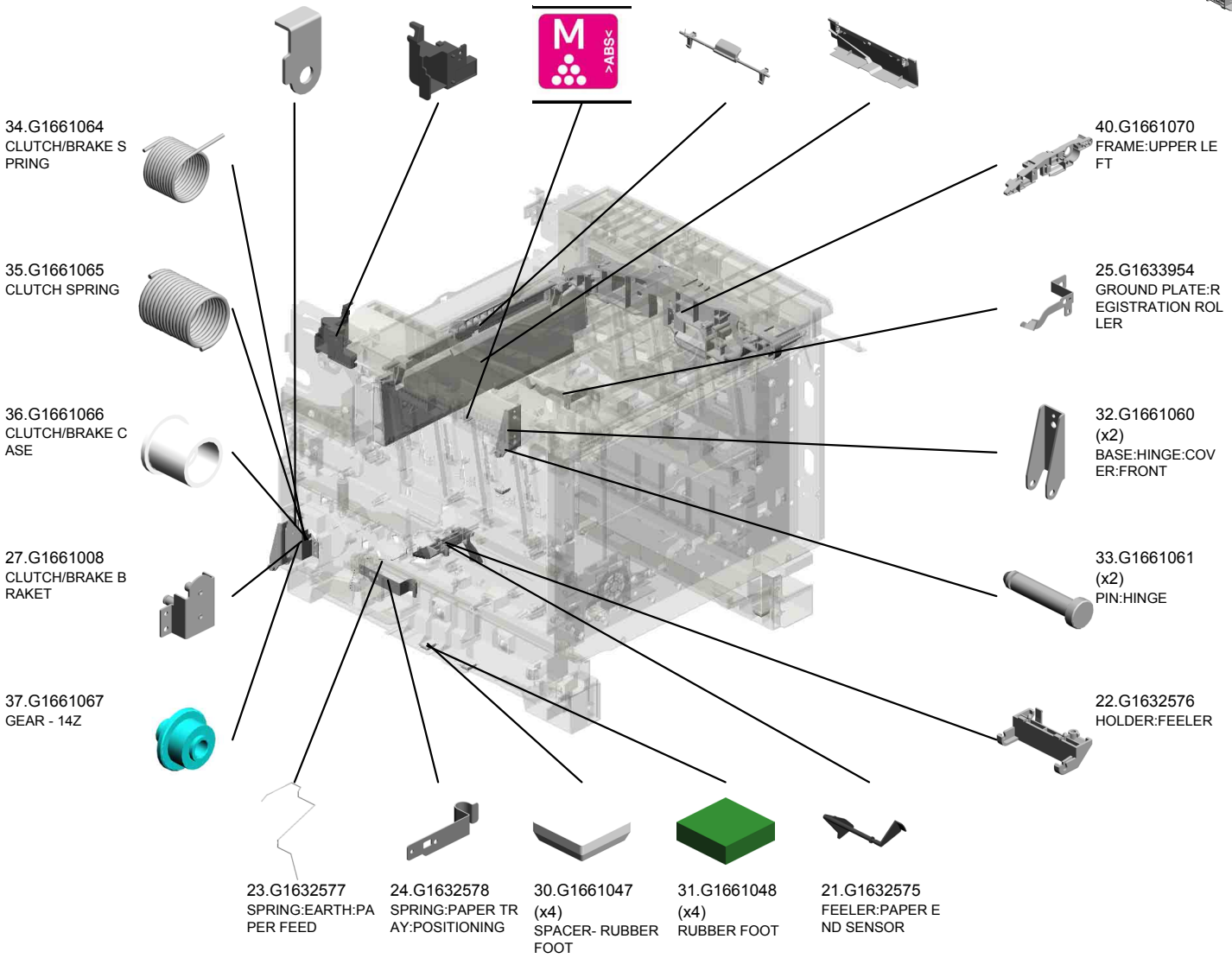
G1663290
[A]
DECAL - BLACK
200910 X/O

G1663292
[B]
COLOR DECAL -CYAN
200910 X/O

G1663293
[C]
DECAL - YELLOW
200910 X/O

U001
Main Frame





39.G1661069
RACK SUPPORTER

26.G1635755
HOLDER:RESISTOR:EXIT

29.G1661046
COLOR DECAL - MAGENTA

28.G1661012
LOCK SHAFT

38.G1661068
FUSING DUCT

34.G1661064
CLUTCH/BRAKE SPRING

35.G1661065
CLUTCH SPRING

36.G1661066
CLUTCH/BRAKE CASE

27.G1661008
CLUTCH/BRAKE BRAKET

37.G1661067
GEAR - 14Z

40.G1661070
FRAME:UPPER LEFT

25.G1633954
GROUND PLATE:REGISTRATION ROLLER

32.G1661060
(x2)
BASE:HINGE:COVER:FRONT

33.G1661061
(x2)
PIN:HINGE

22.G1632576
HOLDER:FEELER

23.G1632577
SPRING:EARTH:PAPER FEED

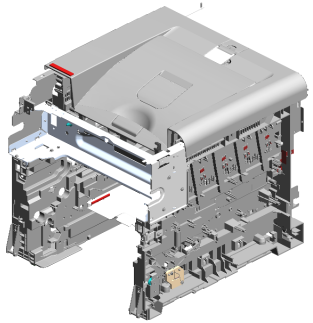
24.G1632578
SPRING:PAPER TRAY:POSITIONING

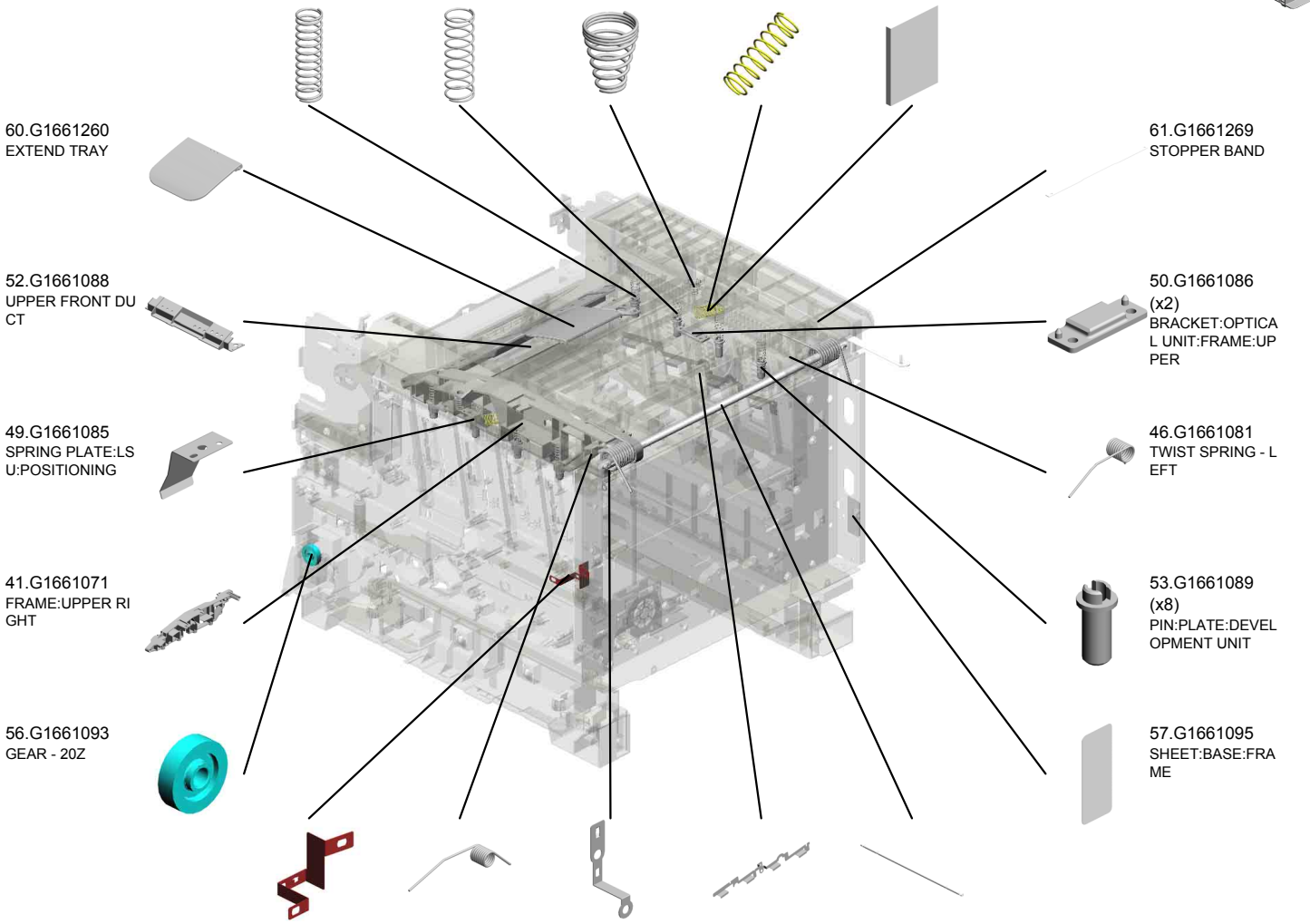
30.G1661047
(x4)
SPACER- RUBBER FOOT

31.G1661048
(x4)
RUBBER FOOT

21.G1632575
FEELER:PAPER END SENSOR

U001
Main Frame





48.G1661084
(x4)
SPRING:PLATE:AIO:BLACK

42.G1661072
(x4)
SPRING:PLATE:AIO

51.G1661087
(x2)
SPRING:CUSHION:FRAME:UPPER

44.G1661078
(x2)
COMPRESSION SPRING

62.G1661280
CUSHION - IMAGING UNIT

60.G1661260
EXTEND TRAY

61.G1661269
STOPPER BAND

52.G1661088
UPPER FRONT DUCT

50.G1661086
(x2)
BRACKET:OPTICAL UNIT:FRAME:UPPER

49.G1661085
SPRING PLATE:LSU:POSITIONING

46.G1661081
TWIST SPRING - LEFT

41.G1661071
FRAME:UPPER RIGHT

53.G1661089
(x8)
PIN:PLATE:DEVELOPMENT UNIT

56.G1661093
GEAR - 20Z

57.G1661095
SHEET:BASE:FRAME

47.G1661083
GROUNDING PLATE - HIGH VOLTAGE

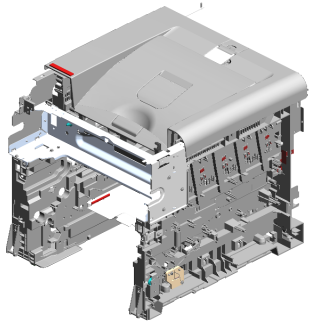
45.G1661080
TWIST SPRING - RIGHT

55.G1661091
GROUND PLATE - POWER SUPPLY UNIT

54.G1661090
GROUND PLATE - DCHIP

43.G1661073
SHAFT

U001
Main Frame



78.G1665758
GROUND PLATE - OUTPUT

80.G1663331
[A]
DECAL - BLACK
200910 X/O

82.G1663334
[C]
DECAL - YELLOW
200910 X/O

81.G1663333
[B]
DECAL - CYAN
200910 X/O

73.G1663994
RESISTOR - 50M OHM +-10% 0.5W

77.G1665757
GROUND PLATE -INPUT

71.G1663957
WASHER - 0.8X10.8MM

74.G1665705
SHIELDING PLATE

63.G1661342
RACK:DAMPER

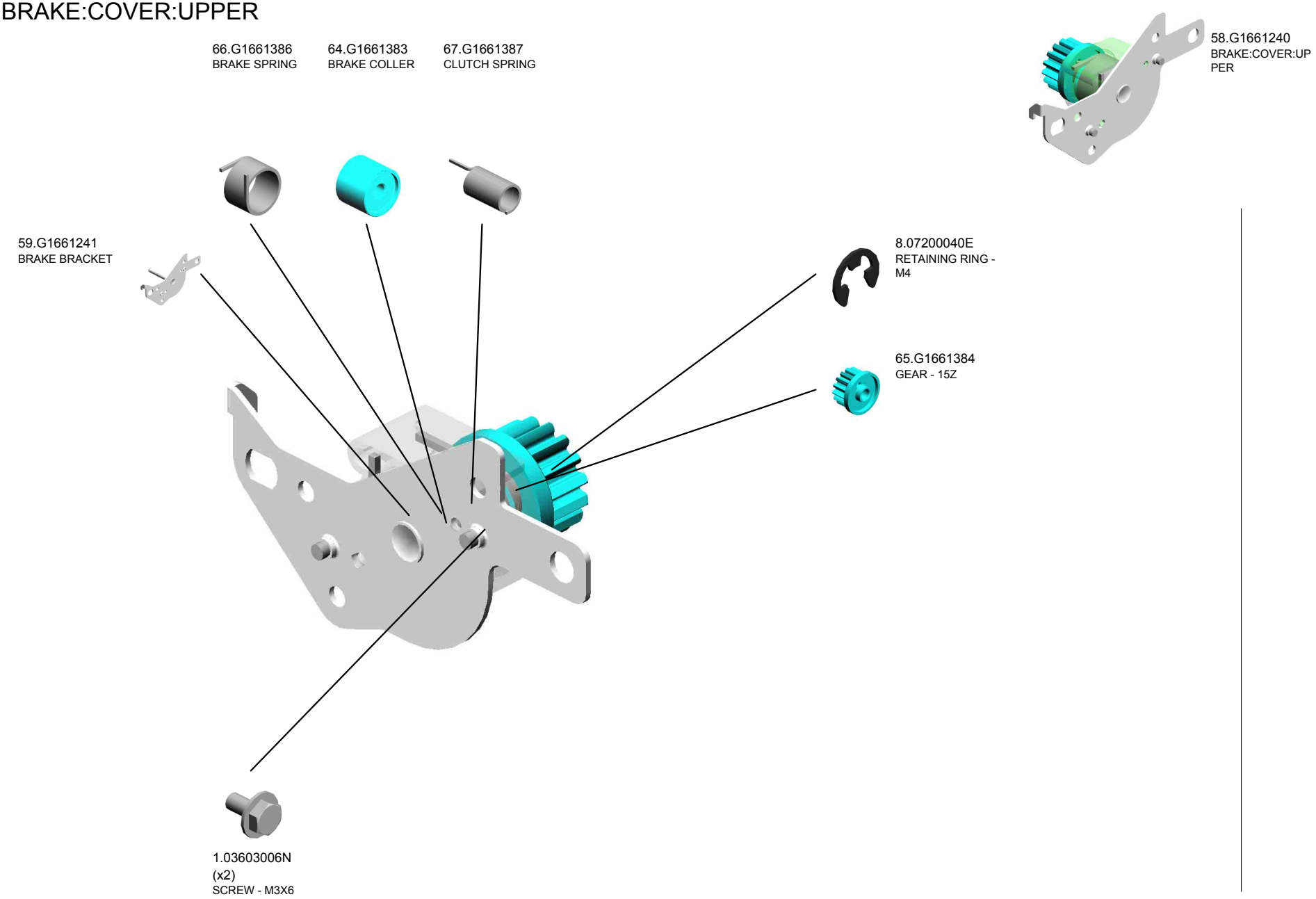
76.G1665724
HARNESS CLAMP HOLDER

75.G1665706
GROUND PLATE:SHAFT:IMAGING UNIT

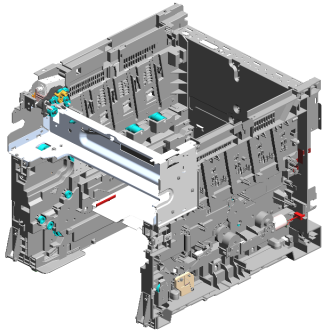
72.G1663993
RESISTOR - 100M OHM +-10% 0.5W

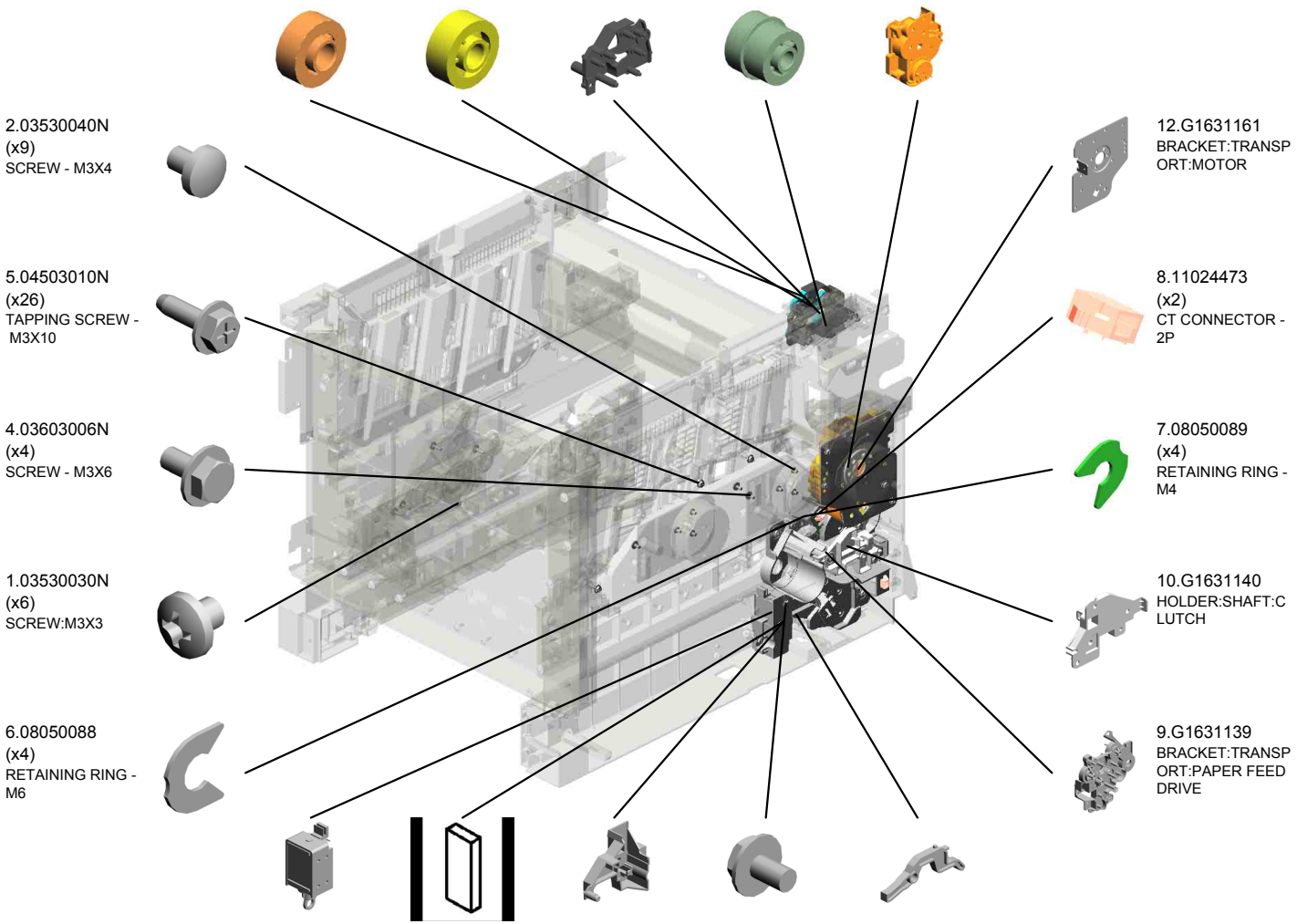
79.GX640030
FAN MOTOR:SIROCCO:DC 1.92W

U001_S001
BRAKE:COVER:UPPER



U002
Main Drive





19.G1634479
(x5)
GEAR:IDLER:EXIT

18.G1634478
GEAR:CHANGE:EXIT

17.G1634473
BRACKET:GEAR:EXIT

20.G1634480
GEAR:SLOW DOWN:EXIT

11.G1631148
BRACKET:TRANSPORT:FUSING DRIVE SUB-UNIT

2.03530040N
(x9)
SCREW - M3X4

5.04503010N
(x26)
TAPPING SCREW - M3X10

4.03603006N
(x4)
SCREW - M3X6

1.03530030N
(x6)
SCREW:M3X3

6.08050088
(x4)
RETAINING RING - M6

12.G1631161
BRACKET:TRANSPORT:MOTOR

8.11024473
(x2)
CT CONNECTOR - 2P

7.08050089
(x4)
RETAINING RING - M4

10.G1631140
HOLDER:SHAFT:CLUTCH

9.G1631139
BRACKET:TRANSPORT:PAPER FEED DRIVE

15.G1632842
DC SOLENOID:MANUAL FEED:PRESS FIT

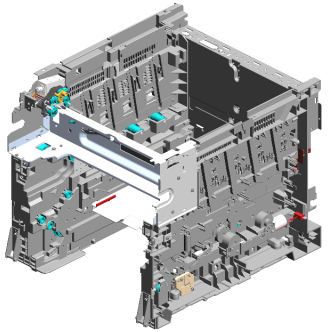
16.G1633961
SPACER:GROUND WIRE:TRANSFER/SEPARATION

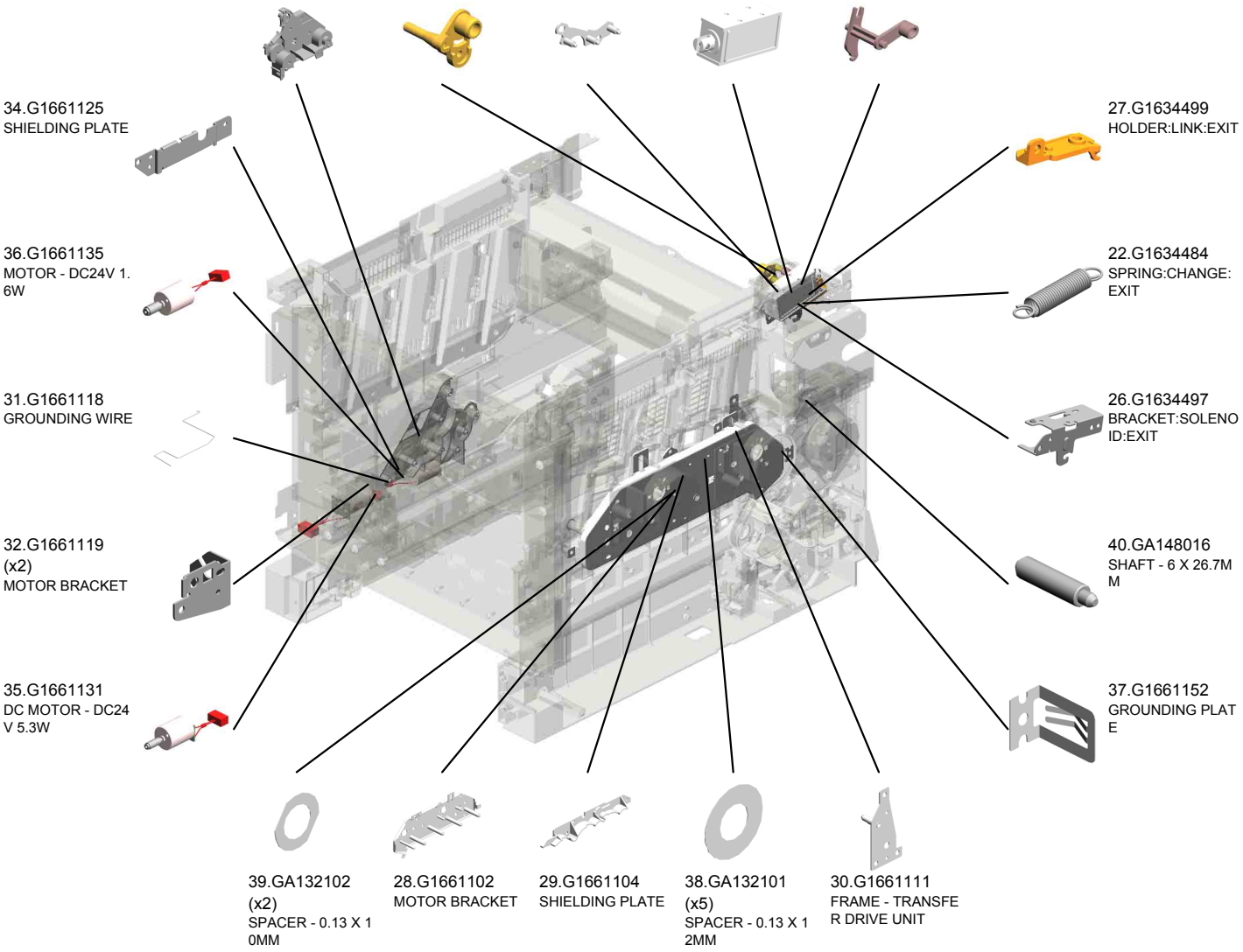
14.G1632839
HOLDER:DC SOLENOID:MANUAL FEED

3.03603005N
(x2)
SCREW - M3X5

13.G1632823
LINK:CAM

U002
Main Drive





33.G1661123
FRAME - ON-OFF DRIVE UNIT

21.G1634481
LEVER:CHANGE:EXIT

23.G1634487
BRACKET:IDLER:EXIT

24.G1634492
DC SOLENOID:PRESS FIT:(M041)

25.G1634495
LINK:CHANGE:EXIT

34.G1661125
SHIELDING PLATE

36.G1661135
MOTOR - DC24V 1.6W

31.G1661118
GROUNDING WIRE

32.G1661119
(x2)
MOTOR BRACKET

35.G1661131
DC MOTOR - DC24V 5.3W

27.G1634499
HOLDER:LINK:EXIT

22.G1634484
SPRING:CHANGE:EXIT

26.G1634497
BRACKET:SOLENOID:EXIT

40.GA148016
SHAFT - 6 X 26.7MM

37.G1661152
GROUNDING PLATE

39.GA132102
(x2)
SPACER - 0.13 X 10MM

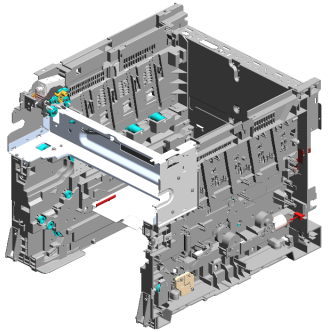
28.G1661102
MOTOR BRACKET

29.G1661104
SHIELDING PLATE

38.GA132101
(x5)
SPACER - 0.13 X 12MM

30.G1661111
FRAME - TRANSFER DRIVE UNIT

U002
Main Drive



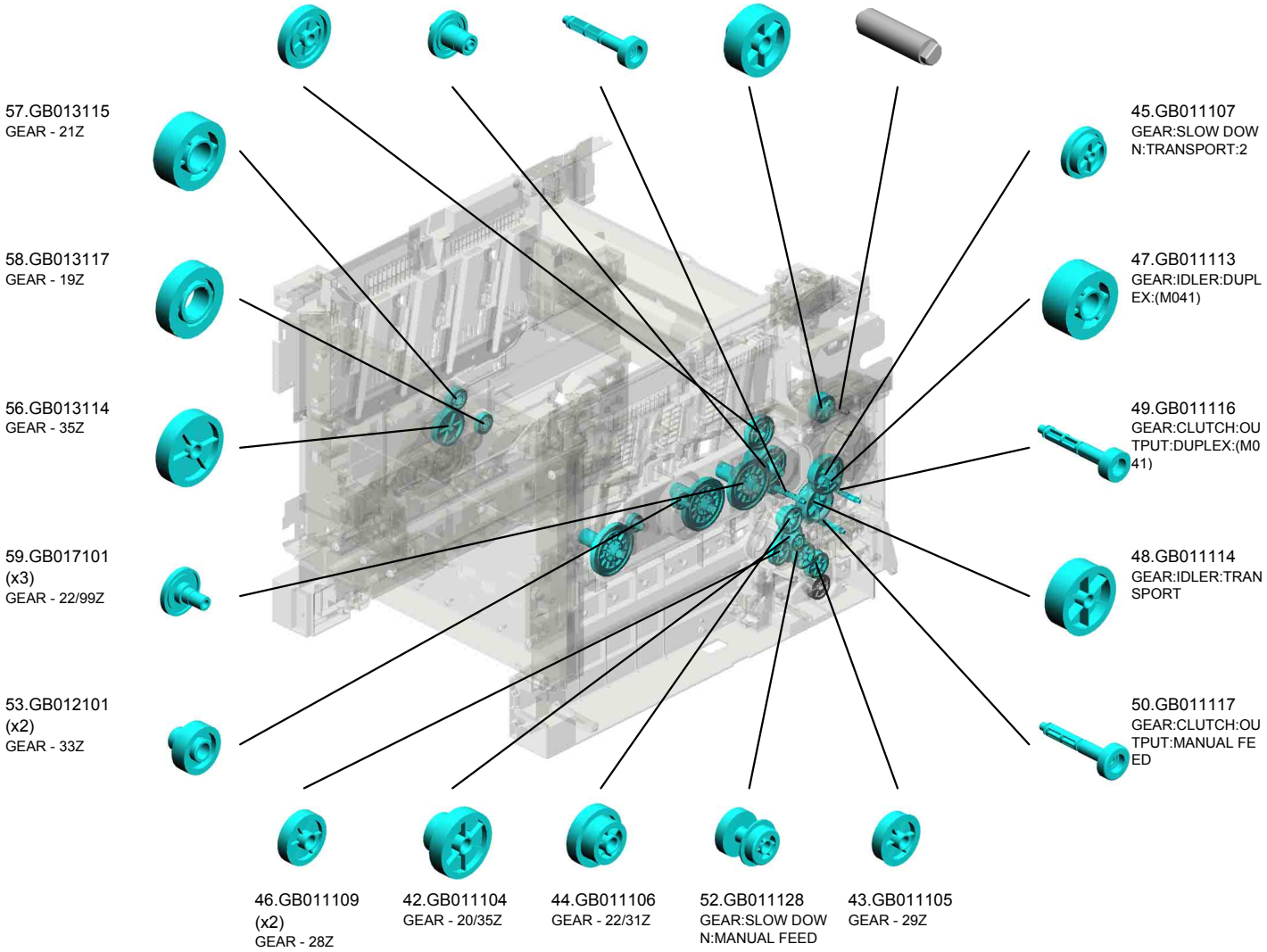
54.GB012102
GEAR - 54Z

60.GB017102
GEAR - 27/76Z

51.GB011118
REGIST DRIVE GEAR

55.GB013079
GEAR:IDLER:FUSING

41.GA148018
(x2)
SHAFT - 6 X 21.9MM



57.GB013115
GEAR - 21Z

58.GB013117
GEAR - 19Z

56.GB013114
GEAR - 35Z

59.GB017101
(x3)
GEAR - 22/99Z

53.GB012101
(x2)
GEAR - 33Z

45.GB011107
GEAR:SLOW DOWN:TRANSPORT:2

47.GB011113
GEAR:IDLER:DUPLEX:(M041)

49.GB011116
GEAR:CLUTCH:OUTPUT:DUPLEX:(M041)

48.GB011114
GEAR:IDLER:TRANSPORT

50.GB011117
GEAR:CLUTCH:OUTPUT:MANUAL FEED

46.GB011109
(x2)
GEAR - 28Z

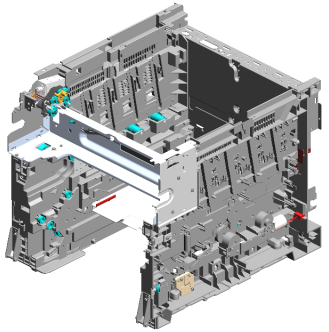
42.GB011104
GEAR - 20/35Z

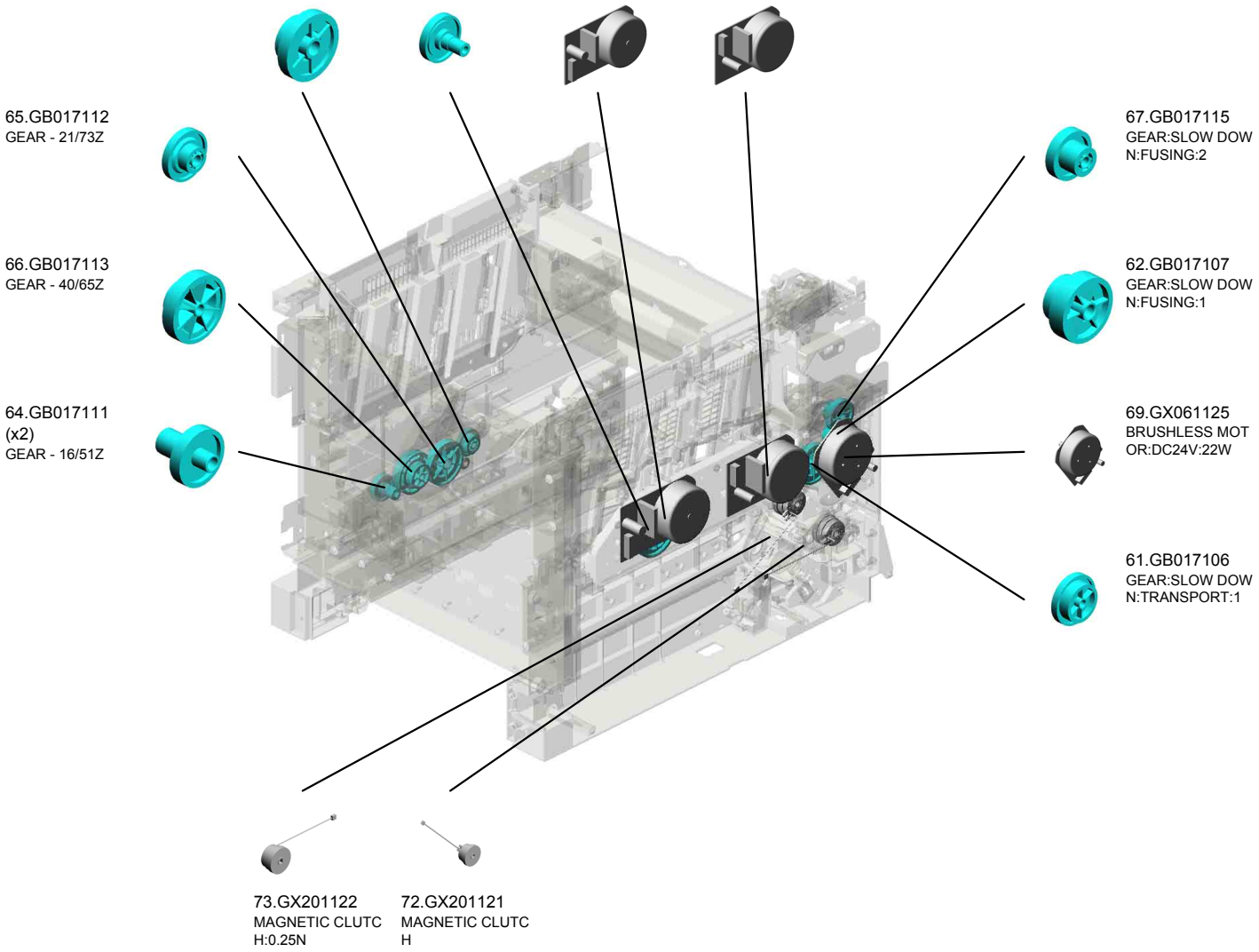
44.GB011106
GEAR - 22/31Z

52.GB011128
GEAR:SLOW DOWN:MANUAL FEED

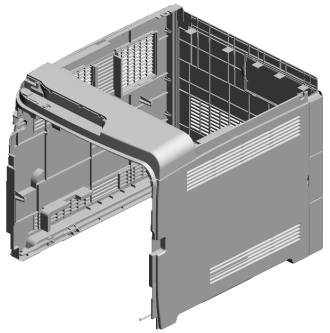
43.GB011105
GEAR - 29Z

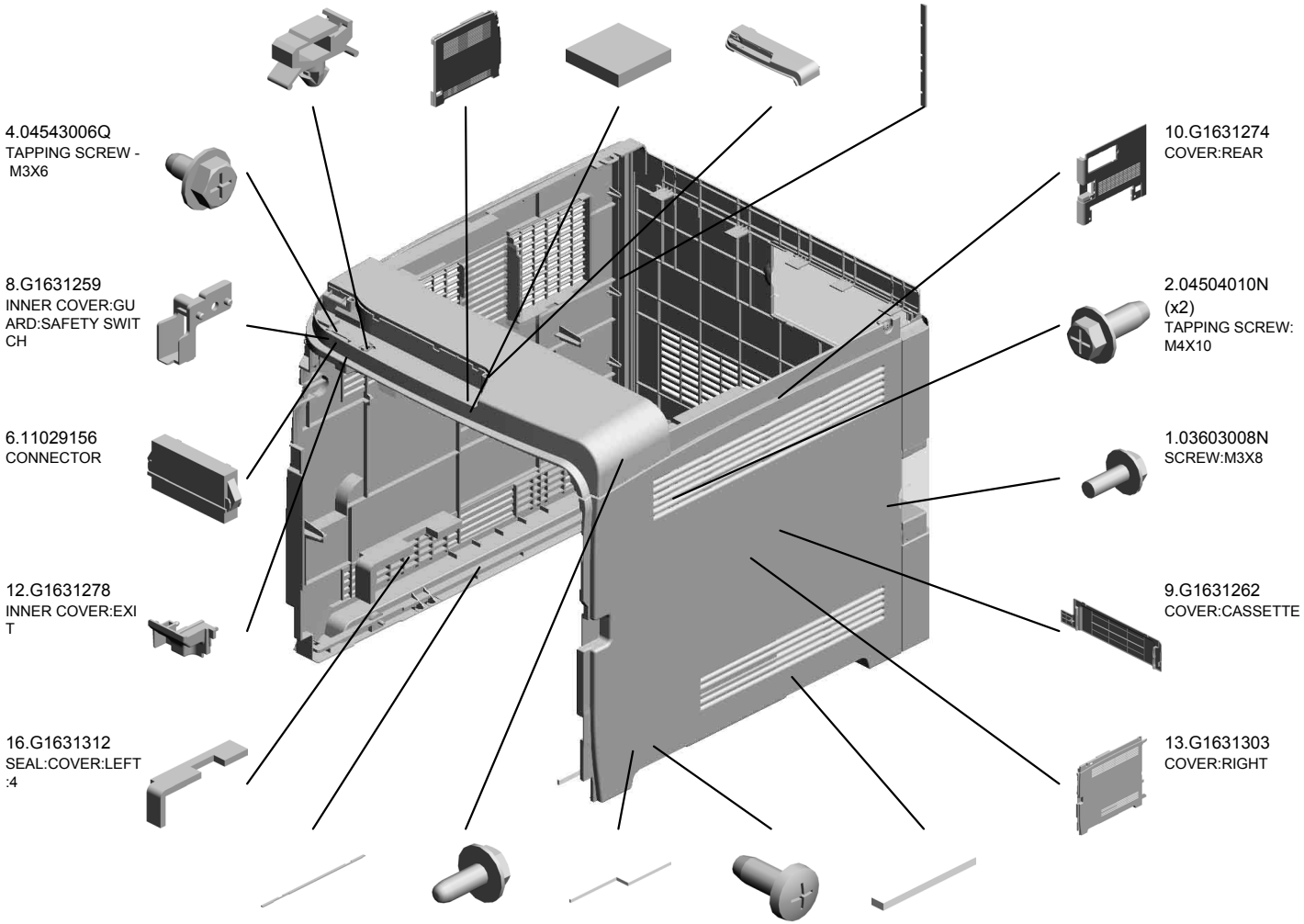
U002
Main Drive





U003
Exterior





7.11050511
HARNESS CLAMP - LWS-0306ZC

14.G1631306
COVER:LEFT

19.G1631315 (x7)
SEAL:COVER:EXIT

11.G1631277
COVER:PAPER EXIT

15.G1631311
SEAL:COVER:LEFT:3

4.04543006Q
TAPPING SCREW - M3X6

8.G1631259
INNER COVER:GUARD:SAFETY SWITCH

6.11029156
CONNECTOR

12.G1631278
INNER COVER:EXIT

16.G1631312
SEAL:COVER:LEFT:4

10.G1631274
COVER:REAR

2.04504010N (x2)
TAPPING SCREW: M4X10

1.03603008N
SCREW:M3X8

9.G1631262
COVER:CASSETTE

13.G1631303
COVER:RIGHT

17.G1631313
SEAL:COVER:LEFT:5

5.04543008Q (x4)
TAPPING SCREW: 3X8

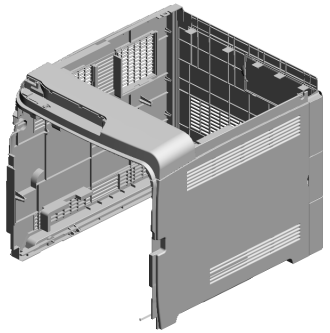
18.G1631314
SEAL:FRAME:LOWER:1

3.04524010N (x5)
BINDING SELF-TAPPING SCREW:4X10

20.G1631316
SEAL:FRAME:LOWER:3

5.04543008Q (x 1)
TAPPING SCREW:3X8

U003
Exterior



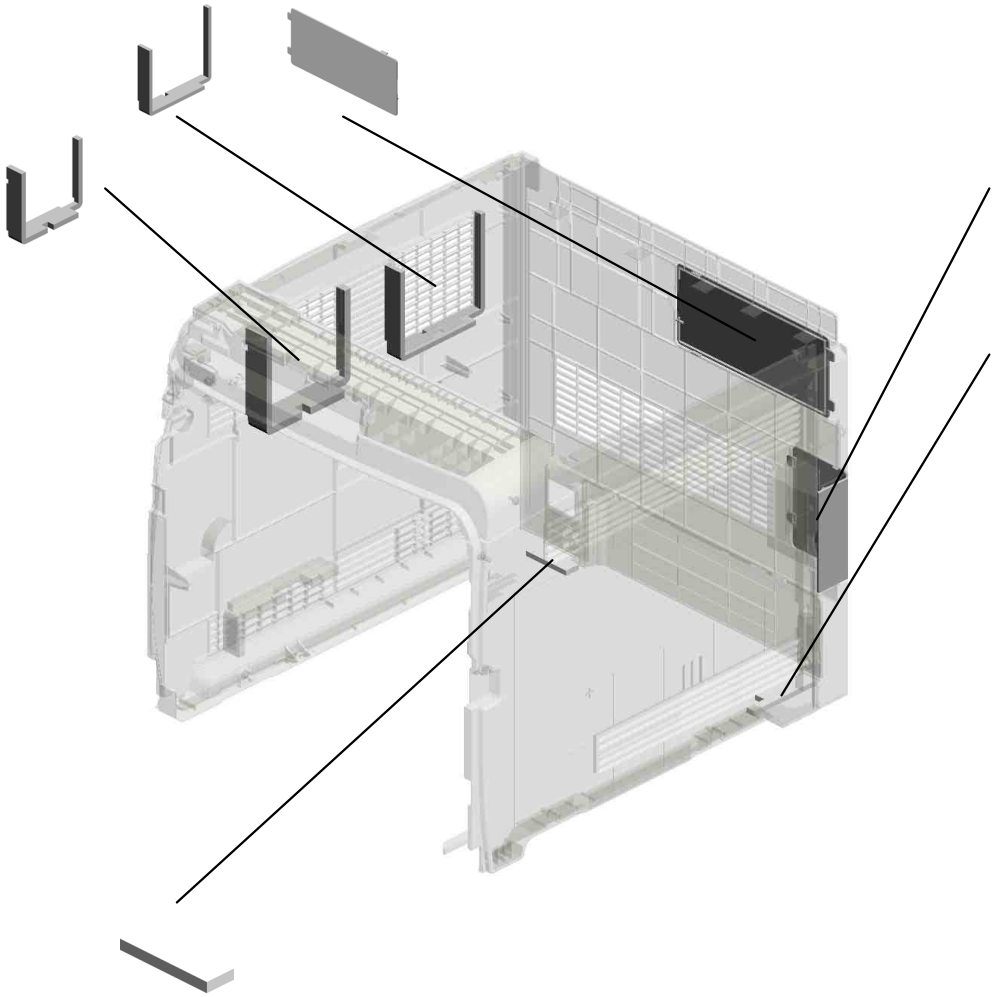
25.G1661310
SEAL - 5X21X273M
M

22.G1661259
MEMORY COVER

24.G1661309
SEAL - 7X27X273M
M

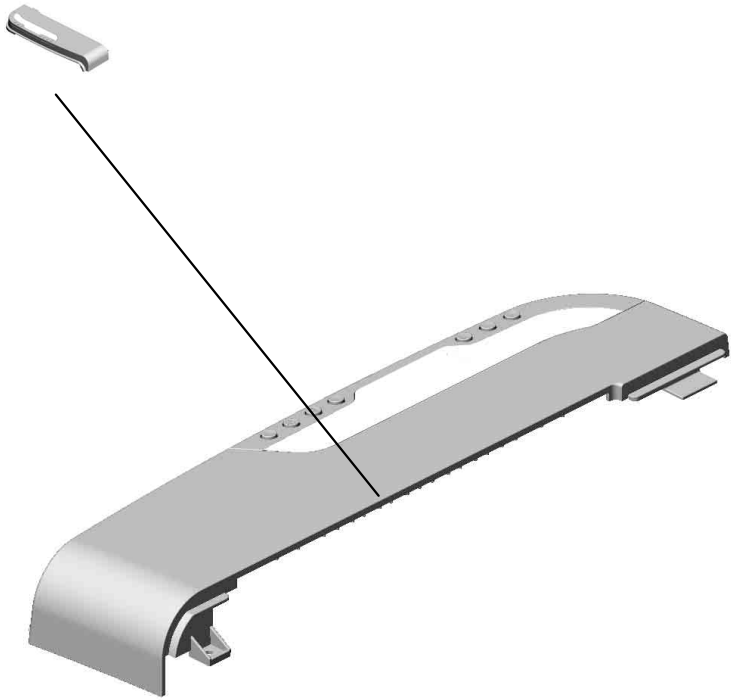
23.G1661308
INTERFACE COVE
R

21.G1631317
SEAL:FRAME:LOW
ER:4



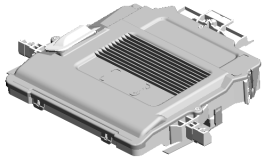
26.G1661315
LOWER SEAL - 2

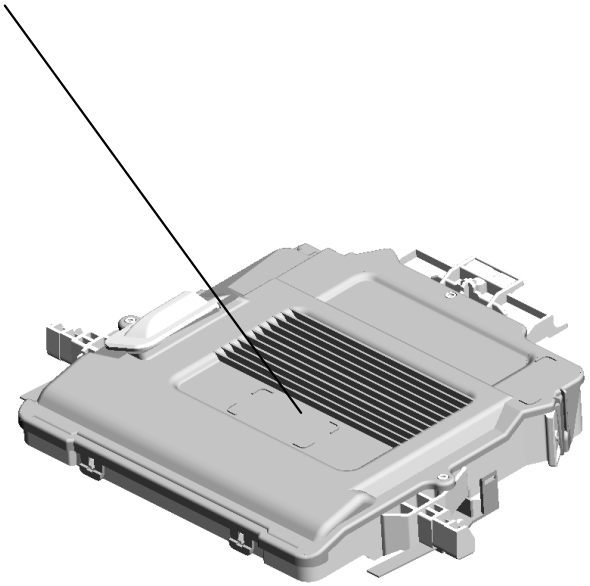
1.G1631401
OPERATION SUB-
UNIT:MIDAS-NA:AS
S'Y



U005
Laser Unit

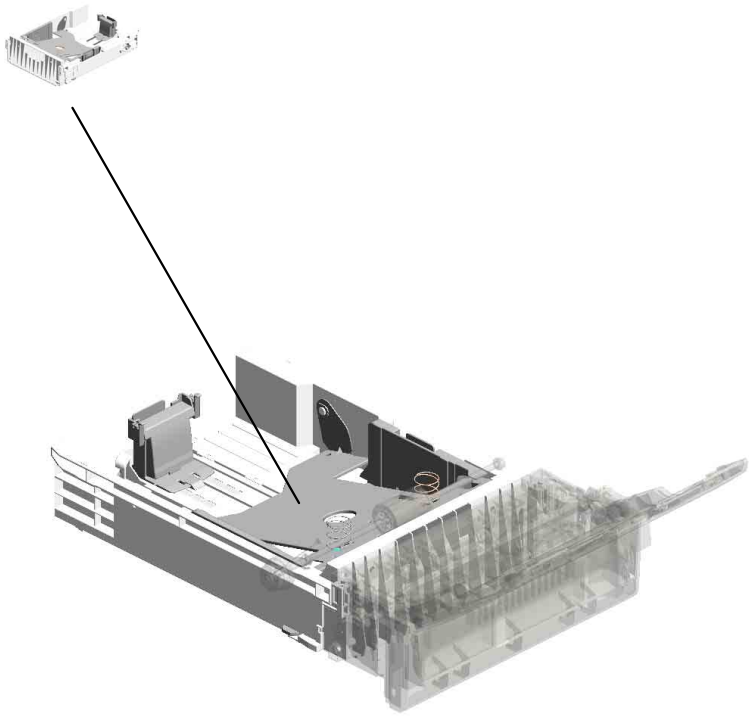
1.G1631851
IMAGING UNIT:AS
S'Y



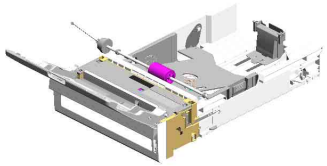


U006.Paper Feed

U006 S001
G1632550
CASSETTE:PAPER TRAY:AS
S'Y



U006
Paper Feed



7.AF031061
PAPER FEED ROLLER

34.G1632813
SHAFT:TRANSPORT:PAPER FEED ROLLER:PRESS FIT

12.G1632800
FRICTION PAD:ADHESION

5.AA080265
(x2)
BUSHING:6X8X5

20.G1632569
GROUND PLATE:MANUAL FEED

26.G1632802
SPRING:FRICTION PAD:MANUAL FEED

1.04503010N
(x7)
TAPPING SCREW - M3X10

33.G1632812
GEAR:TRANSPORT ROLLER:MANUAL FEED

32.G1632809
SPRING:CAM

31.G1632808
GEAR:CAM

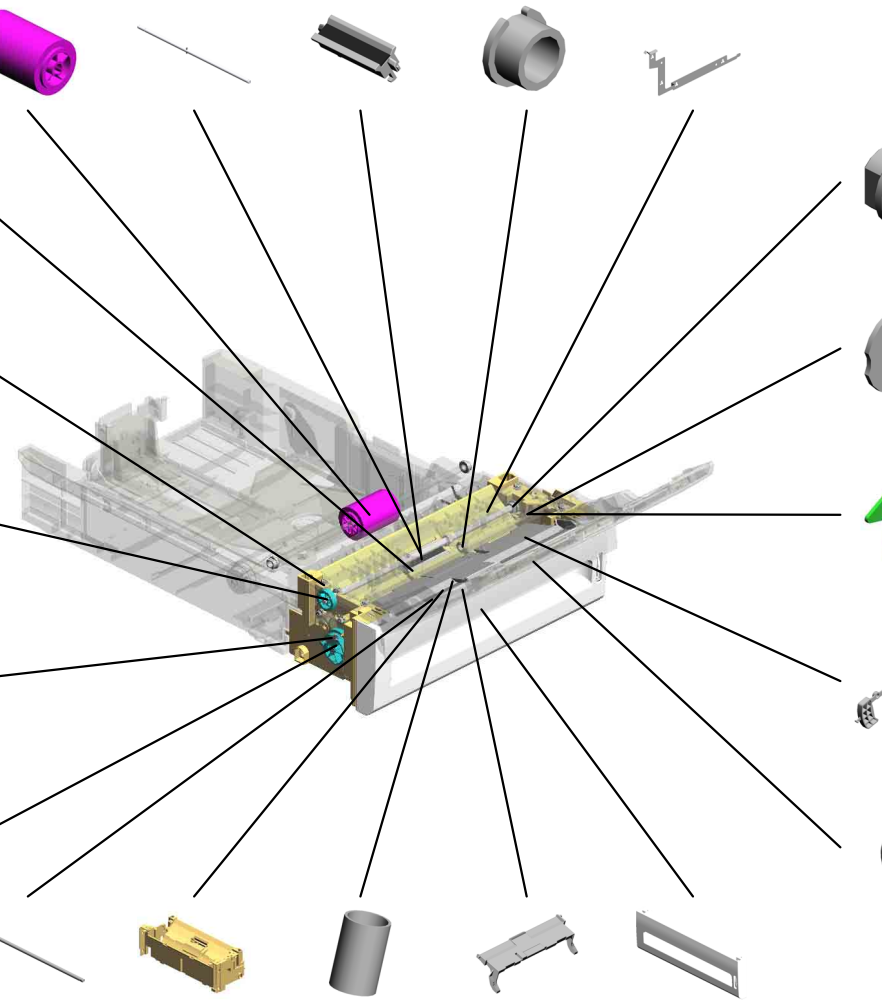
6.AA082101
(x6)
BUSHING - 6X10X6

2.08050088
(x9)
RETAINING RING - M6

3.08050089
(x9)
RETAINING RING - M4

18.G1632567
LEVER:PAPER VOLUME SENSOR

30.G1632807
CAM:RIGHT:MANUAL FEED



29.G1632806
SHAFT:CAM

25.G1632605
HOUSING:MANUAL FEED:PAPER TRAY

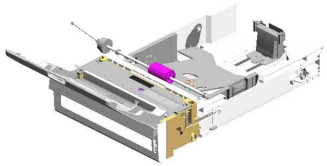
28.G1632805
SPRING:BASE:MANUAL FEED

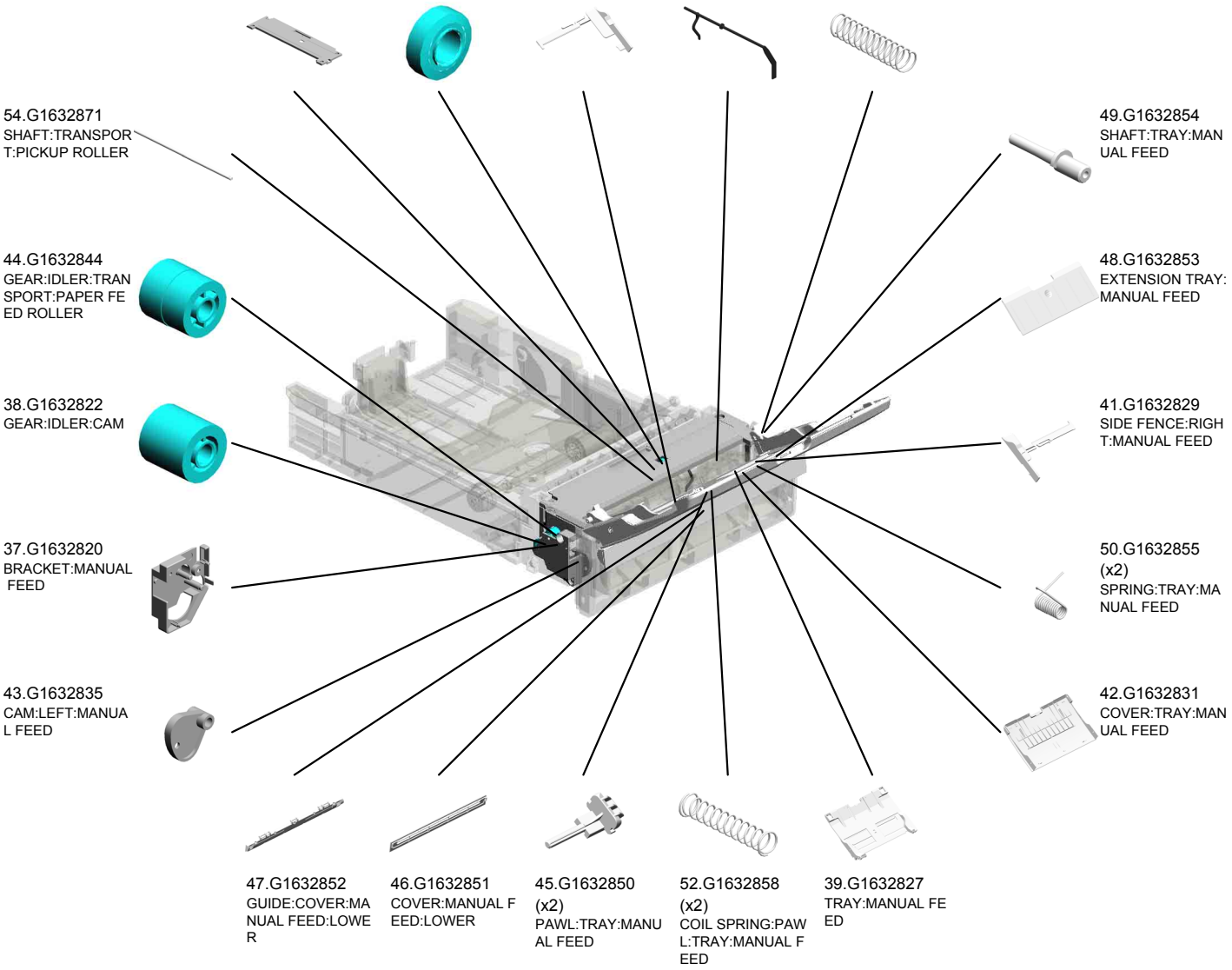
27.G1632803
BASE:MANUAL FEED:ADHESION

9.G1632552
CASSETTE COVER

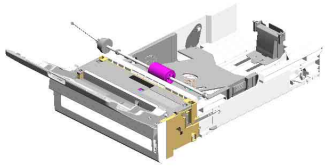
1.04503010N (x 1)
TAPPING SCREW - M3X10

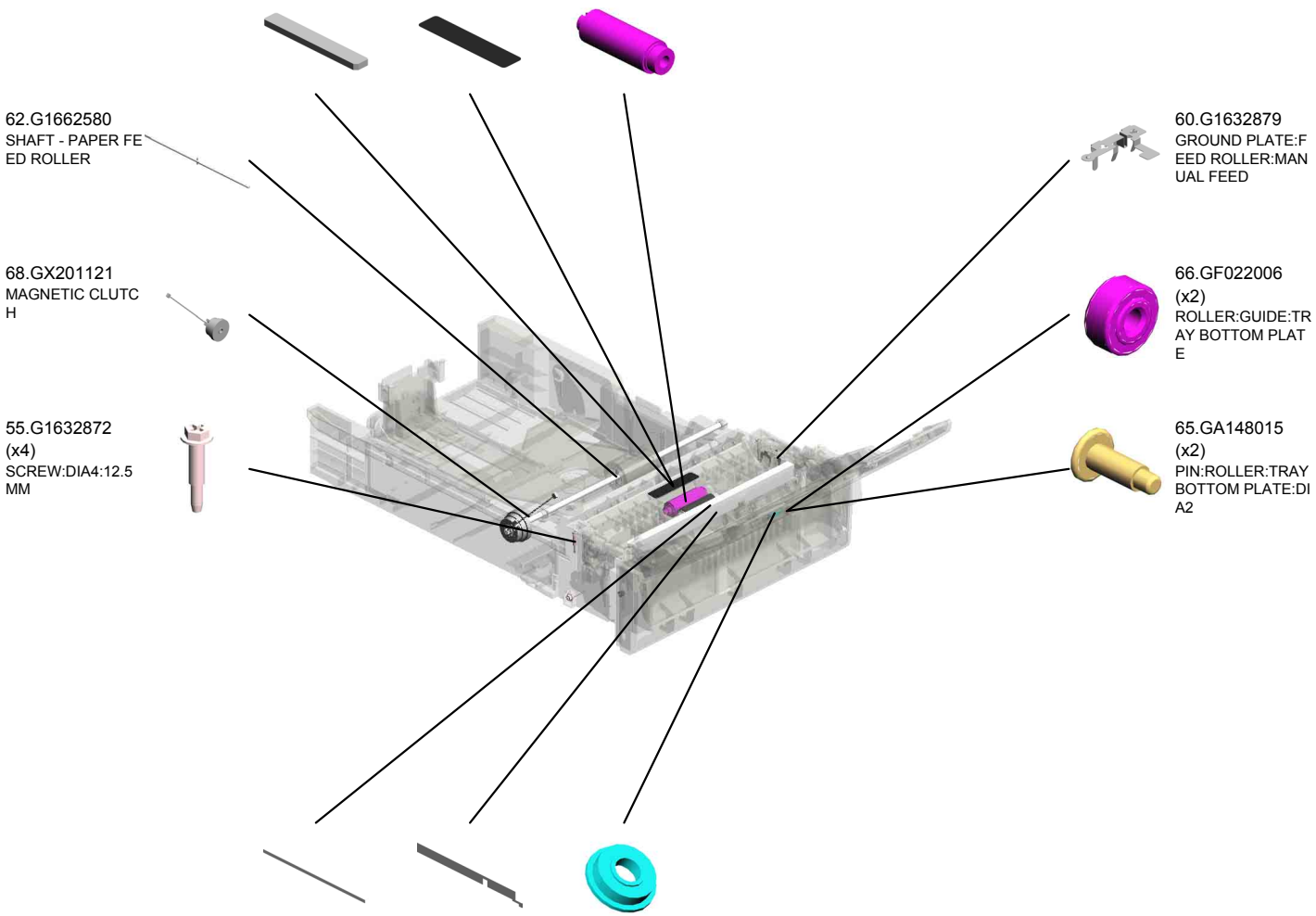
U006
Paper Feed





U006
Paper Feed





56.G1632873
DAMPING INSULATION:GUIDE:MANUAL FEED

57.G1632874
SHEET:DAMPING INSULATION:GUIDE:MANUAL FEED

67.GF031005
(x2)
PAPER FEED ROLLER:MANUAL FEED

62.G1662580
SHAFT - PAPER FEED ROLLER

68.GX201121
MAGNETIC CLUTCH

55.G1632872
(x4)
SCREW:DIA4:12.5MM

60.G1632879
GROUND PLATE:FEED ROLLER:MANUAL FEED

66.GF022006
(x2)
ROLLER:GUIDE:TRAY BOTTOM PLATE

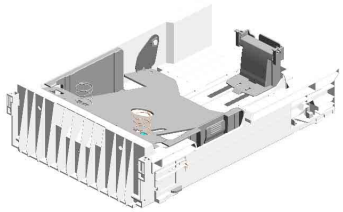
65.GA148015
(x2)
PIN:ROLLER:TRAY BOTTOM PLATE:DIA2

59.G1632878
SHEET:DISCHARGE BRUSH:MANUAL FEED

58.G1632877
DISCHARGE BRUSH:MANUAL FEED

64.G8003133
SIDE FENCE GEAR

U006_S001
CASSETTE:PAPER TRAY:ASS'Y



8.G1632550
CASSETTE:PAPER TRAY:ASS'Y

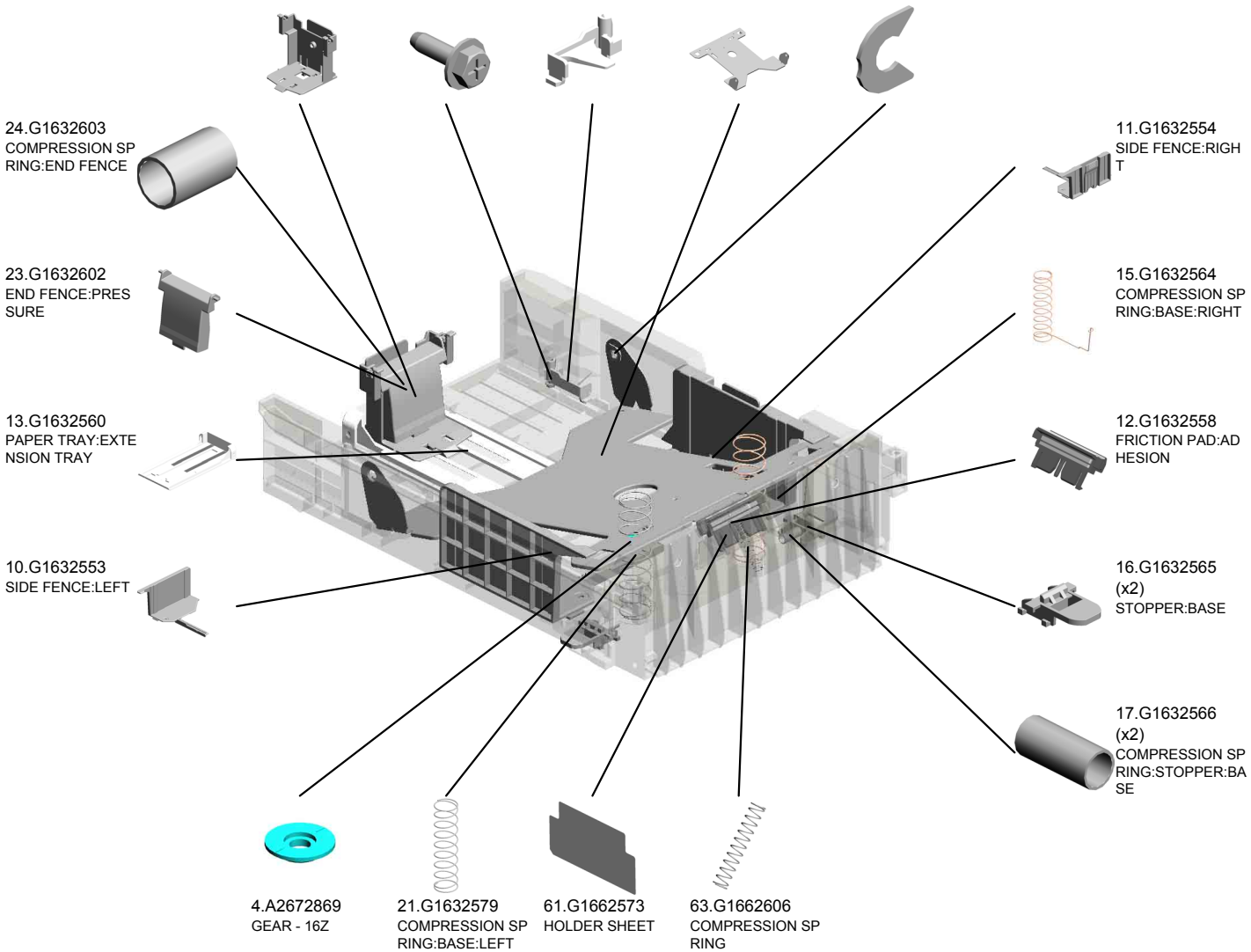
22.G1632601
END FENCE

1.04503010N
TAPPING SCREW - M3X10

14.G1632561
FEELER:SET SENSOR:PAPER TRAY

19.G1632568
BASE:PEEN

2.08050088
(x2)
RETAINING RING - M6



24.G1632603
COMPRESSION SP RING:END FENCE

23.G1632602
END FENCE:PRESSURE

13.G1632560
PAPER TRAY:EXTENSION TRAY

10.G1632553
SIDE FENCE:LEFT

11.G1632554
SIDE FENCE:RIGHT

15.G1632564
COMPRESSION SP RING:BASE:RIGHT

12.G1632558
FRICTION PAD:ADHESION

16.G1632565
(x2)
STOPPER:BASE

17.G1632566
(x2)
COMPRESSION SP RING:STOPPER:BASE

4.A2672869
GEAR - 16Z

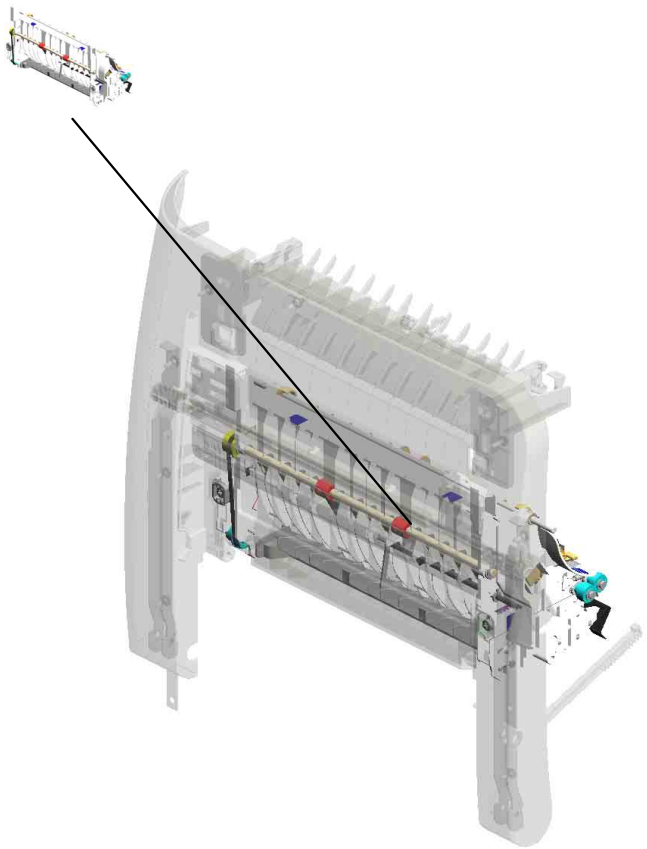
21.G1632579
COMPRESSION SP RING:BASE:LEFT

61.G1662573
HOLDER SHEET

63.G1662606
COMPRESSION SP RING

U007.Transport

U007 S001
G1633800
TRANSFER UNIT:(M040)



U007
Transport

14.G1633913
HOLDER:GUIDE PLATE:REVERSE:LEFT

15.G1633921 (x2)
SPRING:GUIDE PLATE:MIDDLE

18.G1633926
GUIDE PLATE:EXIT:MIDDLE

19.G1633927
GUIDE PLATE:EXIT:MIDDLE:INNER

17.G1633925
TORSION SPRING:FEELER:PAPER FEED SENSOR

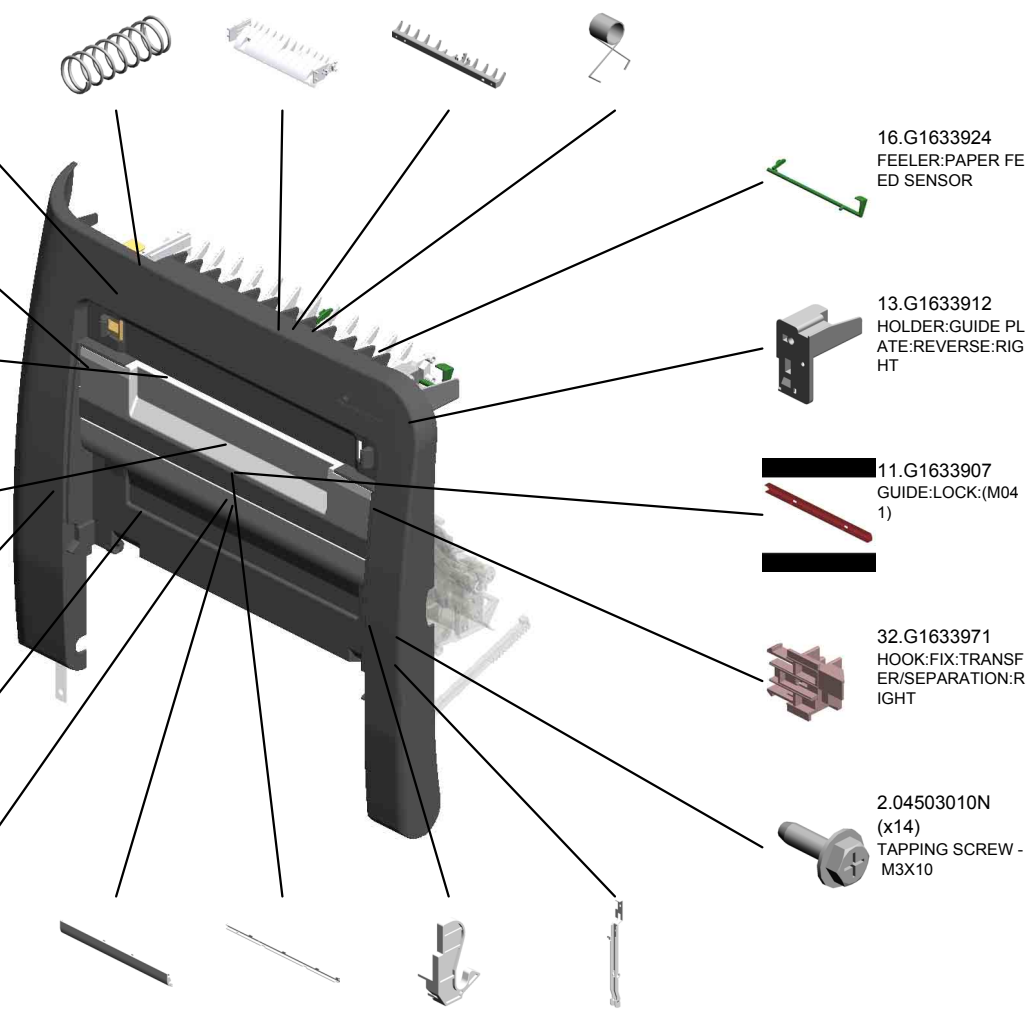
31.G1633970
HOOK:FIX:TRANSFER/SEPARATION:LEFT

37.G1633989 (x2)
DECAL:COVER:FRONT:POSITIONING DISPLAY

21.G1633935
DESIGN PLATE:COVER:FRONT:UPPER

10.G1633904
FRAME:COVER:FRONT:LEFT

33.G1633972
SLIDER:TRANSPORT UNIT:LEFT



16.G1633924
FEELER:PAPER FEED SENSOR

13.G1633912
HOLDER:GUIDE PLATE:REVERSE:RIGHT

11.G1633907
GUIDE:LOCK:(M041)

32.G1633971
HOOK:FIX:TRANSFER/SEPARATION:RIGHT

2.04503010N (x14)
TAPPING SCREW - M3X10

20.G1633932
COVER:FRONT

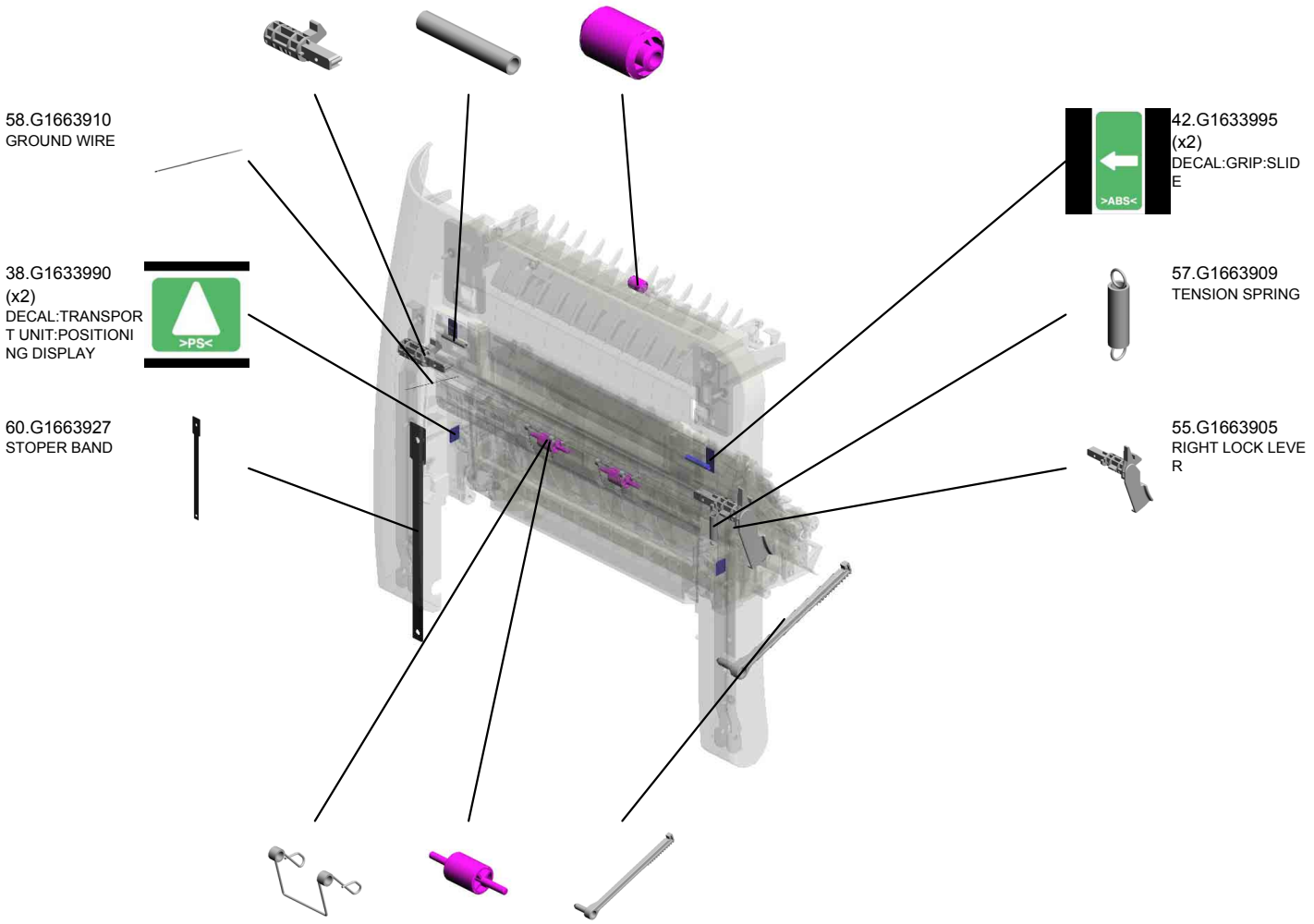
22.G1633936
DESIGN PLATE:COVER:FRONT:LOWER

12.G1633908
ARM:LEVER:LOCK

36.G1633975
SLIDER:TRANSPORT UNIT:RIGHT

9.G1633903
FRAME:COVER:FRONT:RIGHT

U007
Transport



56.G1663906
LEFT LOCK LEVER

64.G1663972
(x2)
COMPRESSION SP
RING - GRIP

59.G1663926
EXIT GUIDE ROLL
ER - MIDDLE

58.G1663910
GROUND WIRE

38.G1633990
(x2)
DECAL:TRANSPOR
T UNIT:POSITIONI
NG DISPLAY

60.G1663927
STOPER BAND

42.G1633995
(x2)
DECAL:GRIP:SLID
E

57.G1663909
TENSION SPRING

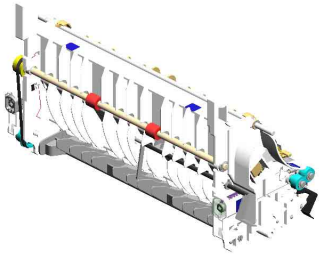
55.G1663905
RIGHT LOCK LEVE
R

67.G1664607
(x2)
PRESSURE SPRIN
G - DUPLEX ROLL
ER

66.G1664606
(x2)
DUPLEX ROLLER

61.G1663928
BRAKE RACK - FR
ONT COVER

U007_S001
TRANSFER UNIT:(M040)



8.G1633800
TRANSFER UNIT:(M040)

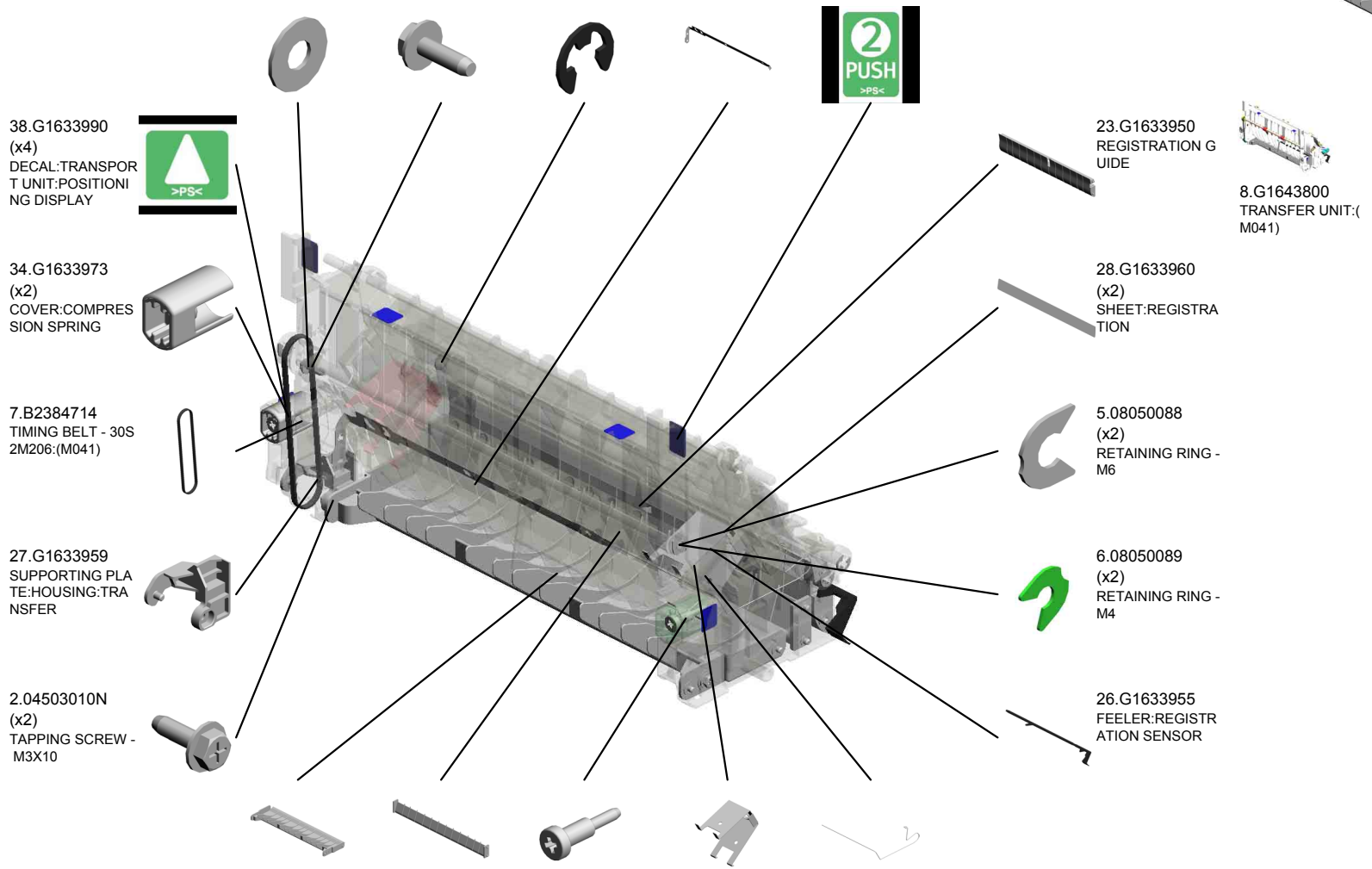
3.07010030N
WASHER DIA3

1.03604010N
SCREW:M4X10

4.07200040E
(x4)
RETAINING RING - M4

29.G1633965
ELECTRODE PLATE:EARTH:LINK

40.G1633992
(x2)
DECAL:TRANSFER/SEPARATION



38.G1633990
(x4)
DECAL:TRANSPORT UNIT:POSITIONING DISPLAY

34.G1633973
(x2)
COVER:COMPRESSION SPRING

7.B2384714
TIMING BELT - 30S 2M206:(M041)

27.G1633959
SUPPORTING PLATE:HOUSING:TRANSFER

2.04503010N
(x2)
TAPPING SCREW - M3X10

23.G1633950
REGISTRATION GUIDE

28.G1633960
(x2)
SHEET:REGISTRATION

5.08050088
(x2)
RETAINING RING - M6

6.08050089
(x2)
RETAINING RING - M4

26.G1633955
FEELER:REGISTRATION SENSOR

8.G1643800
TRANSFER UNIT:(M041)

25.G1633952
GUIDE:DUPLEX SUB-UNIT:LOWER

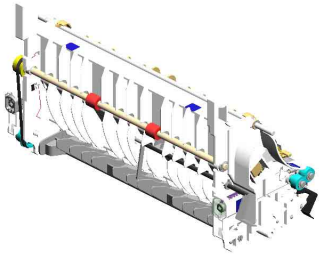
24.G1633951
GUIDE:PAPER FEED SUB-UNIT

35.G1633974
(x2)
SCREW:HOUSING:TRANSPORT

39.G1633991
(x2)
COVER:COMPRESSION SPRING

30.G1633968
GROUND WIRE:REGISTRATION ROLLER

U007_S001
TRANSFER UNIT:(M040)



8.G1633800
TRANSFER UNIT:(M040)

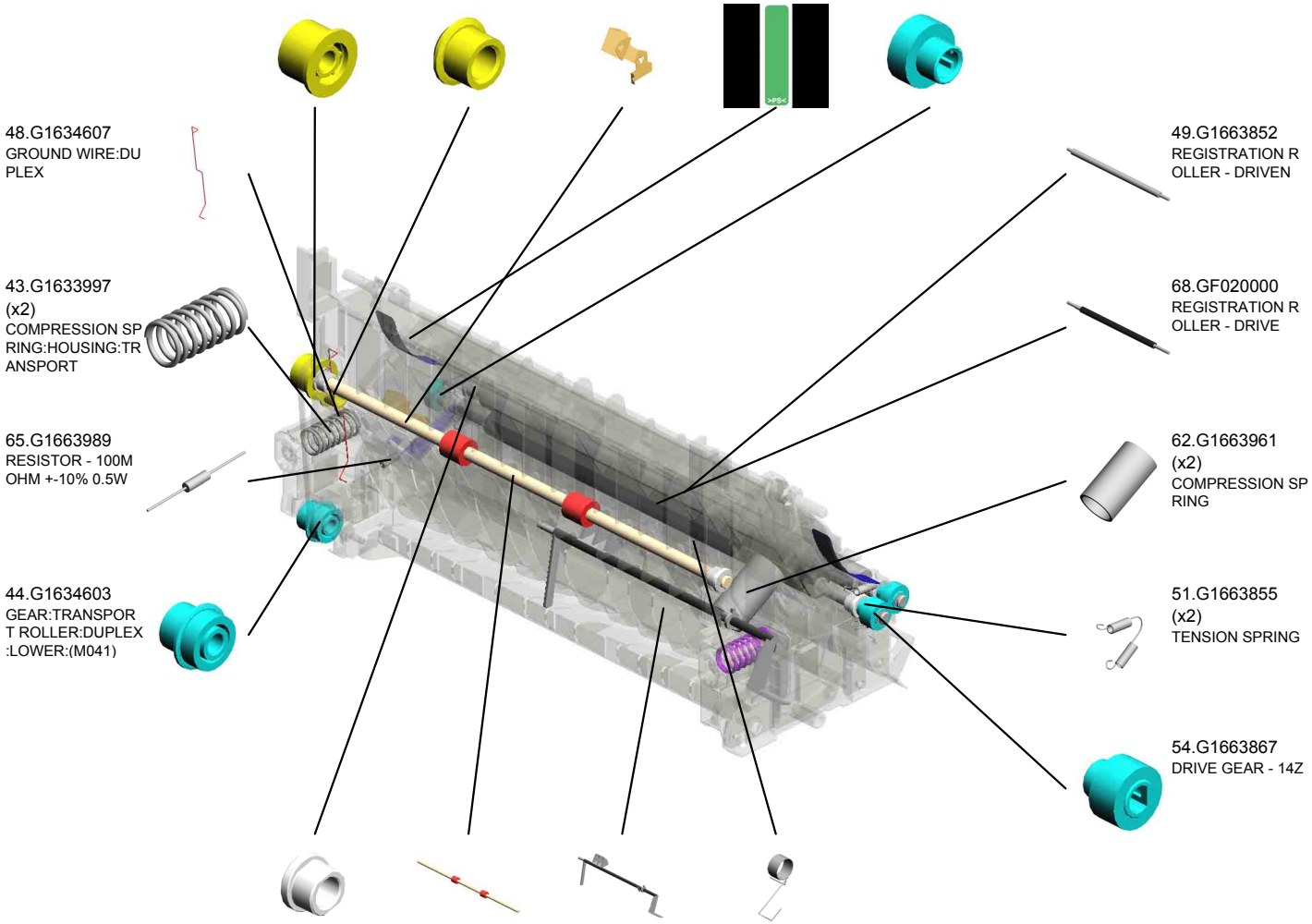
45.G1634604
PULLEY:TRANSPORT ROLLER:DUPLEX

46.G1634605
BELT PULLEY:DUPLEX:(M041)

63.G1663968
ELECTRODE PLATE - CONTACT POINT

41.G1633993
(x2)
DECAL:GRIP:HOUSING

53.G1663865
(x2)
GEAR - 14Z



48.G1634607
GROUND WIRE:DUPLEX

43.G1633997
(x2)
COMPRESSION SPRING:HOUSING:TRANSPORT

65.G1663989
RESISTOR - 100M OHM +-10% 0.5W

44.G1634603
GEAR:TRANSPORT ROLLER:DUPLEX:LOWER:(M041)

49.G1663852
REGISTRATION ROLLER - DRIVEN

68.GF020000
REGISTRATION ROLLER - DRIVE

62.G1663961
(x2)
COMPRESSION SPRING

51.G1663855
(x2)
TENSION SPRING

54.G1663867
DRIVE GEAR - 14Z

50.G1663853
(x6)
BUSHING - 6MM

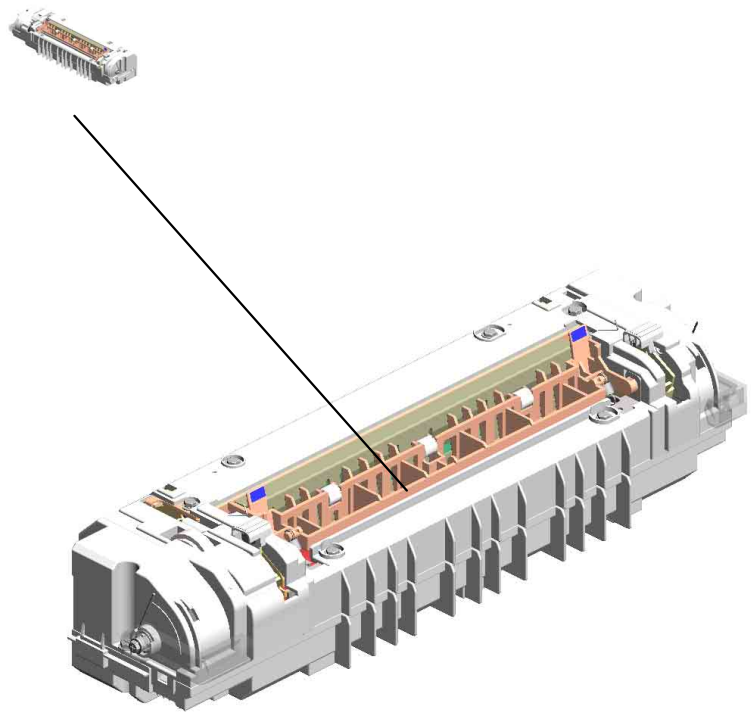
69.GF020052
TRANSPORT ROLLER:DUPLEX

47.G1634606
FEELER:DUPLEX:(M041)

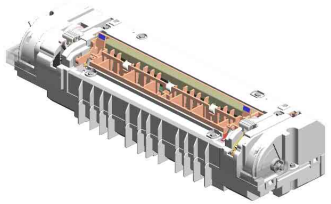
52.G1663860
TORSION SPRING

U008.Fusing

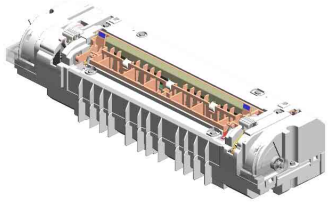
U008 S001
G1630218
FUSING UNIT - 120V



U008
Fusing



U008_S001
FUSING UNIT - 120V



13.G1630218
FUSING UNIT - 120 V

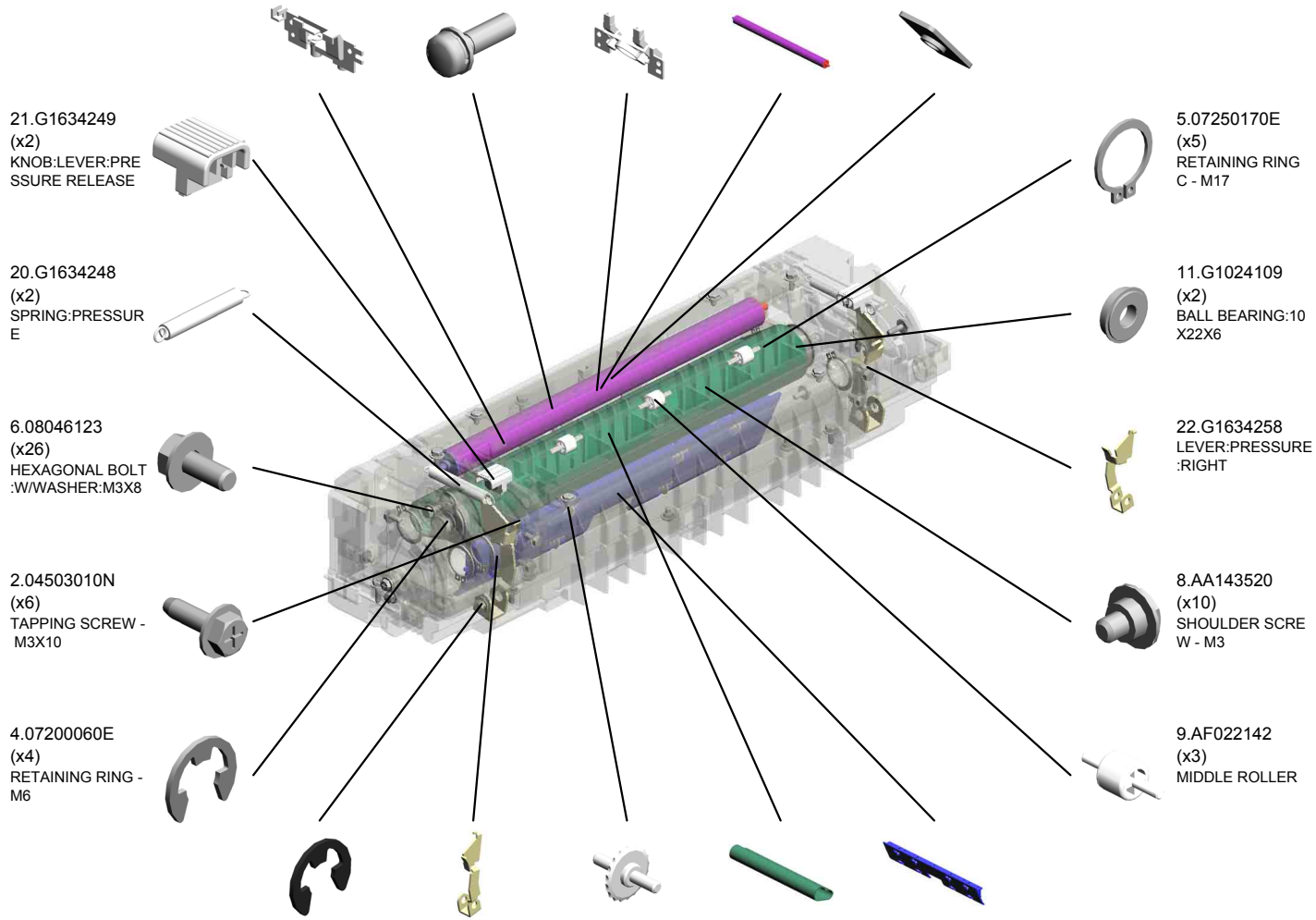
16.G1634214
FUSE HOLDER

7.09573010N
SCREW:SMALL ROUND/SPRING:M3X10

15.G1634213
HOLDER:THERMOSTAT

12.G1594322
CLEANING FELT:BELT TENSION

14.G1634109
(x2)
STAY:THERMOSTAT



21.G1634249
(x2)
KNOB:LEVER:PRESSURE RELEASE

20.G1634248
(x2)
SPRING:PRESSURE

6.08046123
(x26)
HEXAGONAL BOLT:W/WASHER:M3X8

2.04503010N
(x6)
TAPPING SCREW - M3X10

4.07200060E
(x4)
RETAINING RING - M6

5.07250170E
(x5)
RETAINING RING C - M17

11.G1024109
(x2)
BALL BEARING:10X22X6

22.G1634258
LEVER:PRESSURE:RIGHT

8.AA143520
(x10)
SHOULDER SCREW - M3

9.AF022142
(x3)
MIDDLE ROLLER

3.07200040E
(x4)
RETAINING RING - M4

19.G1634243
LEVER:PRESSURE:LEFT

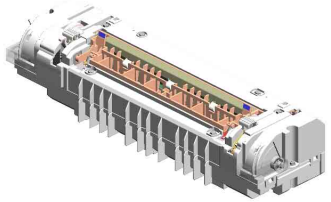
18.G1634216
(x8)
SHAFT:GUIDE:PAPER

10.G1024106
FUSING BELT:DIA45:ASS'Y

17.G1634215
FUSING ENTRANCE GUIDE PLATE

1.03130040N (x 3)
SCREW:M3X4
7.09573010N (x 1)
SCREW:SMALL ROUND/SPRING:M3X10

U008_S001
FUSING UNIT - 120V



13.G1630218
FUSING UNIT - 120 V

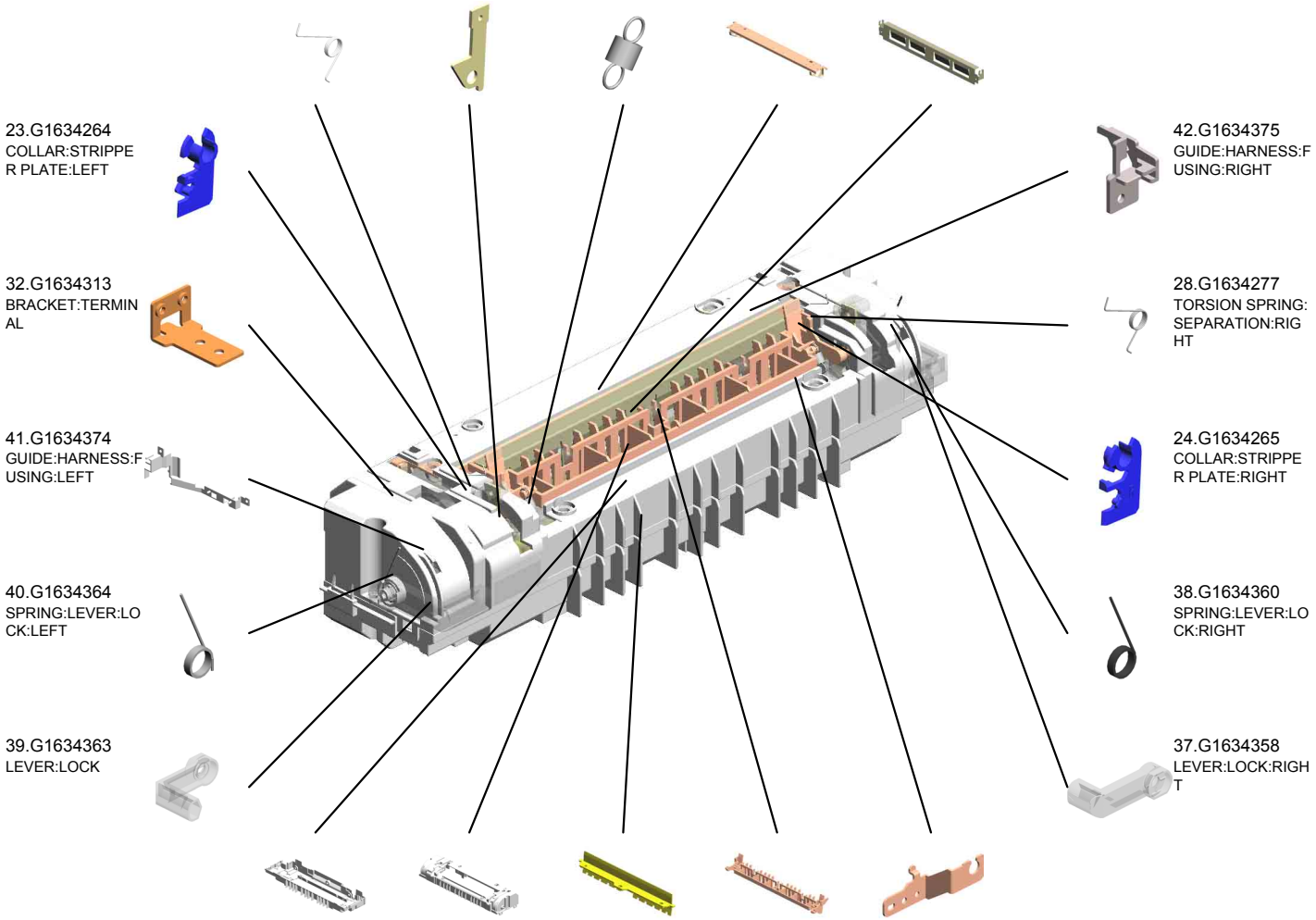
27.G1634276
TORSION SPRING: SEPARATION:LEFT

35.G1634354 (x2)
LEVER:PRESSURE RELEASE

29.G1634278 (x2)
SPRING:GUIDE PLATE:FUSING EXIT

30.G1634282
BRACKET:BELT TENSIONER

26.G1634273
STRIPPER PLATE: COAT



23.G1634264
COLLAR:STRIPPER PLATE:LEFT

32.G1634313
BRACKET:TERMINAL

41.G1634374
GUIDE:HARNESS:FUSING:LEFT

40.G1634364
SPRING:LEVER:LOCK:LEFT

39.G1634363
LEVER:LOCK

42.G1634375
GUIDE:HARNESS:FUSING:RIGHT

28.G1634277
TORSION SPRING: SEPARATION:RIGHT

24.G1634265
COLLAR:STRIPPER PLATE:RIGHT

38.G1634360
SPRING:LEVER:LOCK:RIGHT

37.G1634358
LEVER:LOCK:RIGHT

33.G1634341
COVER:LOWER

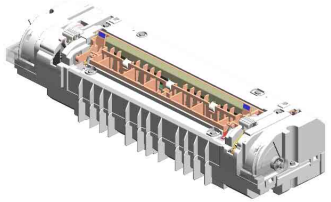
36.G1634356
COVER:UPPER

34.G1634347
FUSING ENTRANCE GUIDE PLATE

25.G1634271
GUIDE PLATE:FUSING EXIT

31.G1634311
BRACKET:HEATER:FUSING

U008_S001
FUSING UNIT - 120V



13.G1630218
FUSING UNIT - 120 V

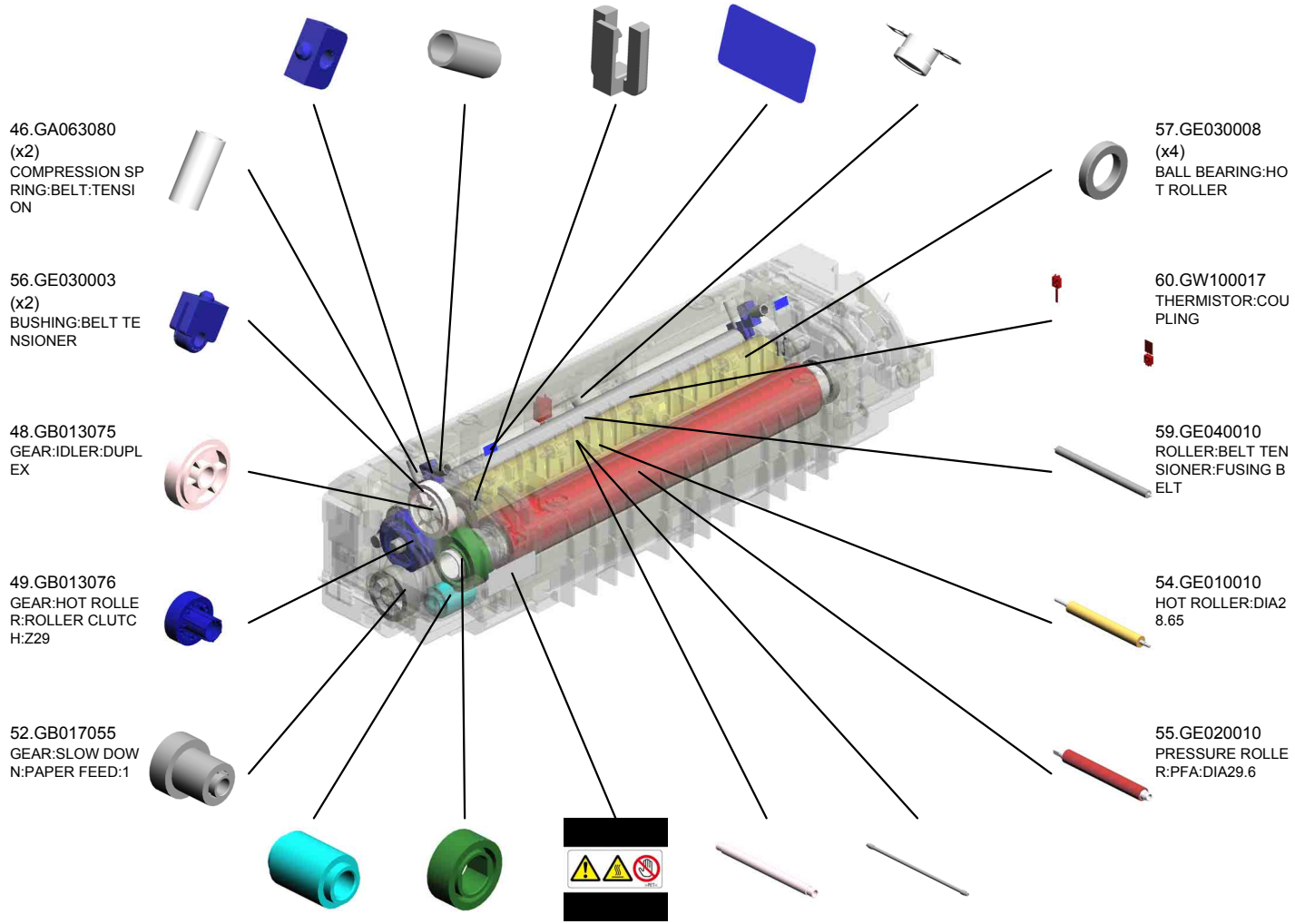
58.GE031010
(x2)
BUSHING:CLEANING FELT

47.GA063081
(x2)
COMPRESSION SPRING:CLEANER

43.G1664283
(x2)
POSITIONING PLATE - STRIPPER PLATE

45.G1664399
(x2)
DECAL:FUSING EXIT:OPEN AND CLOSE

61.GW110006
THERMOSTAT



46.GA063080
(x2)
COMPRESSION SPRING:BELT:TENSION

56.GE030003
(x2)
BUSHING:BELT TENSIONER

48.GB013075
GEAR:IDLER:DUPLEX

49.GB013076
GEAR:HOT ROLLER:ROLLER CLUTCH:Z29

52.GB017055
GEAR:SLOW DOWN:PAPER FEED:1

57.GE030008
(x4)
BALL BEARING:HOT ROLLER

60.GW100017
THERMISTOR:COUPLING

59.GE040010
ROLLER:BELT TENSIONER:FUSING BELT

54.GE010010
HOT ROLLER:DIA28.65

55.GE020010
PRESSURE ROLLER:PFA:DIA29.6

51.GB013080
GEAR:IDLER:1

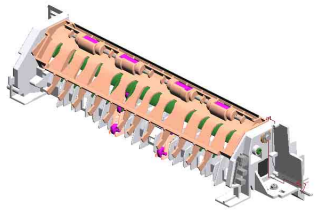
50.GB013078
GEAR:IDLER:DRIVE

44.G1664398
DECAL - HIGH TEMPERATURE

53.GE010006
HEAT ROLLER:DIA20:COAT

62.GX440020
HEATER:120V:850W:120%

U009
Paper Exit



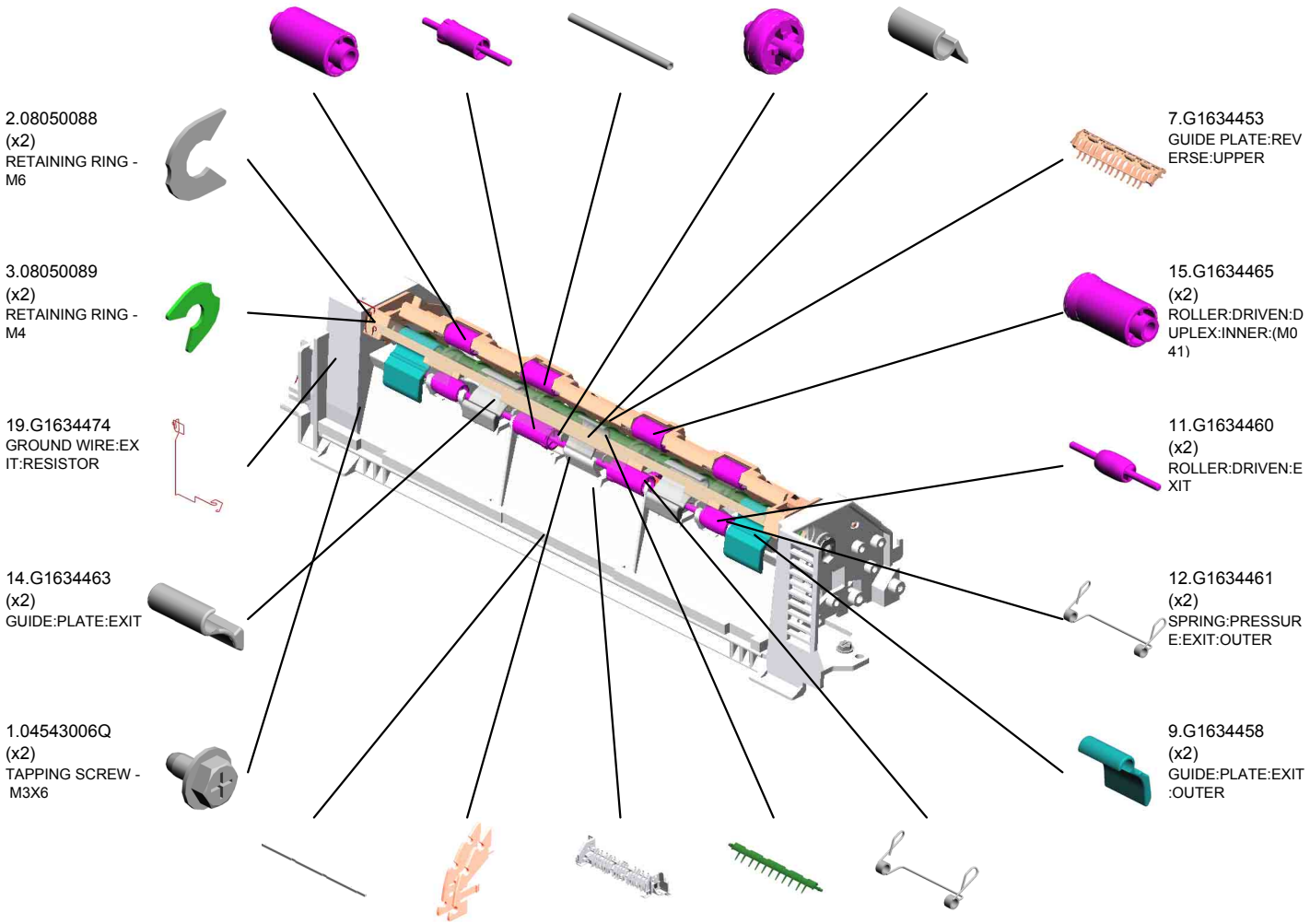
16.G1634467
(x2)
ROLLER:DRIVEN:DUPLEX:(M041)

11.G1634466
(x2)
ROLLER:DRIVEN:EXIT

18.G1634469
(x4)
SPRING:PRESSURE:DUPLEX:(M041)

4.AF040574
(x6)
GUIDE ROLLER

10.G1634459
STOPPER:EXIT:EXIT:(M041)



2.08050088
(x2)
RETAINING RING - M6

3.08050089
(x2)
RETAINING RING - M4

19.G1634474
GROUND WIRE:EXIT:RESISTOR

14.G1634463
(x2)
GUIDE:PLATE:EXIT

1.04543006Q
(x2)
TAPPING SCREW - M3X6

7.G1634453
GUIDE PLATE:REVERSE:UPPER

15.G1634465
(x2)
ROLLER:DRIVEN:DUPLEX:INNER:(M041)

11.G1634460
(x2)
ROLLER:DRIVEN:EXIT

12.G1634461
(x2)
SPRING:PRESSURE:EXIT:OUTER

9.G1634458
(x2)
GUIDE:PLATE:EXIT:OUTER

5.G1631318
SEAL:GUIDE PLATE:EXIT:LOWER

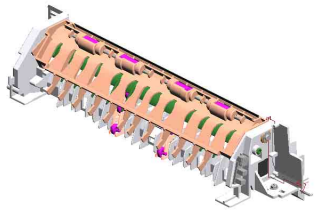
13.G1634462
(x2)
BRACKET:ROLLER:EXIT

6.G1634451
GUIDE PLATE:EXIT:LOWER

8.G1634454
GATE PAWL:REVERSE

17.G1634468
(x2)
SPRING:PRESSURE:EXIT:INNER

U009
Paper Exit



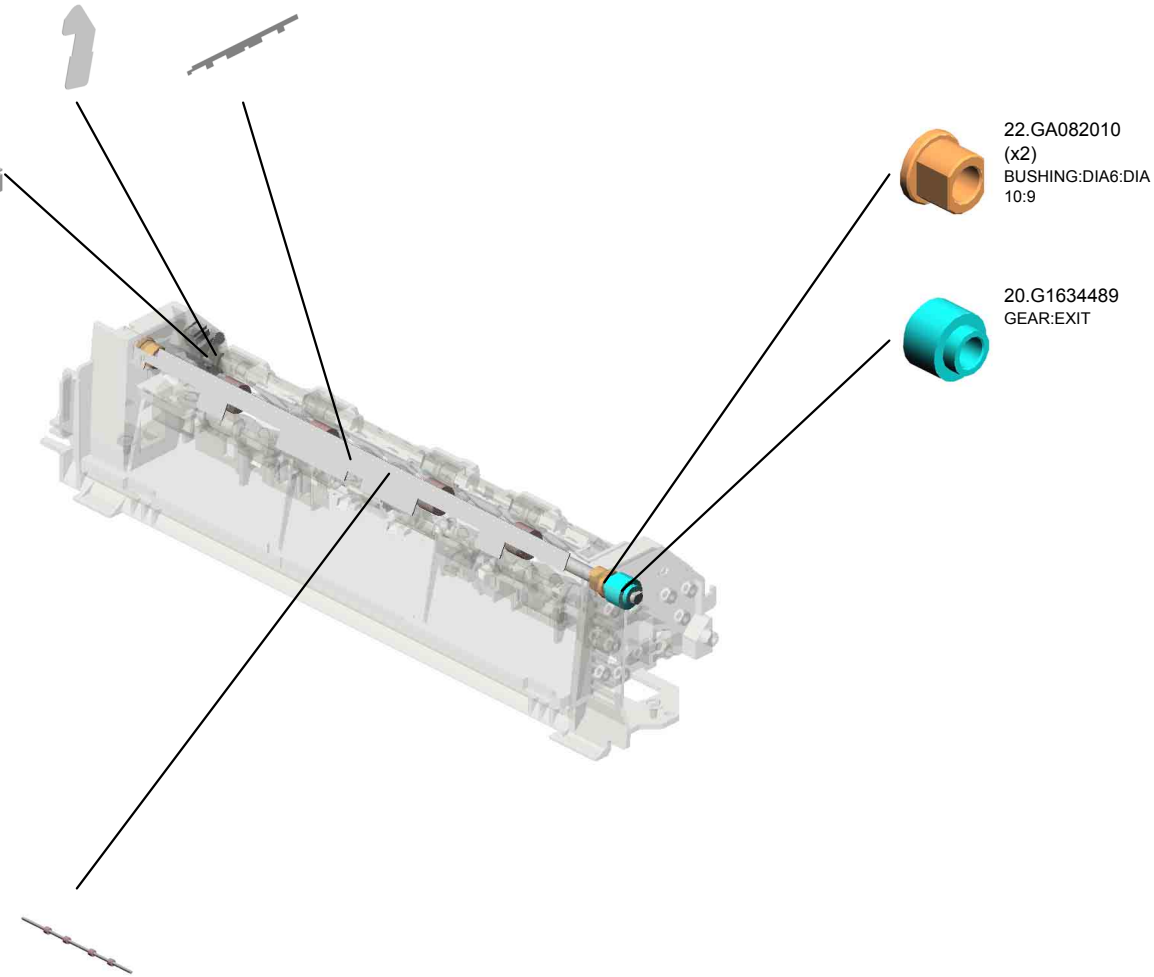
21.G1664462
STOPPER - PHOT OINTERRUPTOR

23.GA120012
DISCHARGE BRUSH:EXIT

25.GW020020
PHOTOINTERRUPTOR:LG248NL1

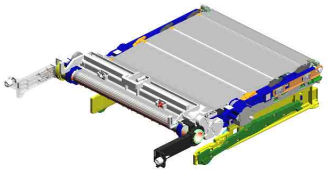
22.GA082010
(x2)
BUSHING:DIA6:DIA10:9

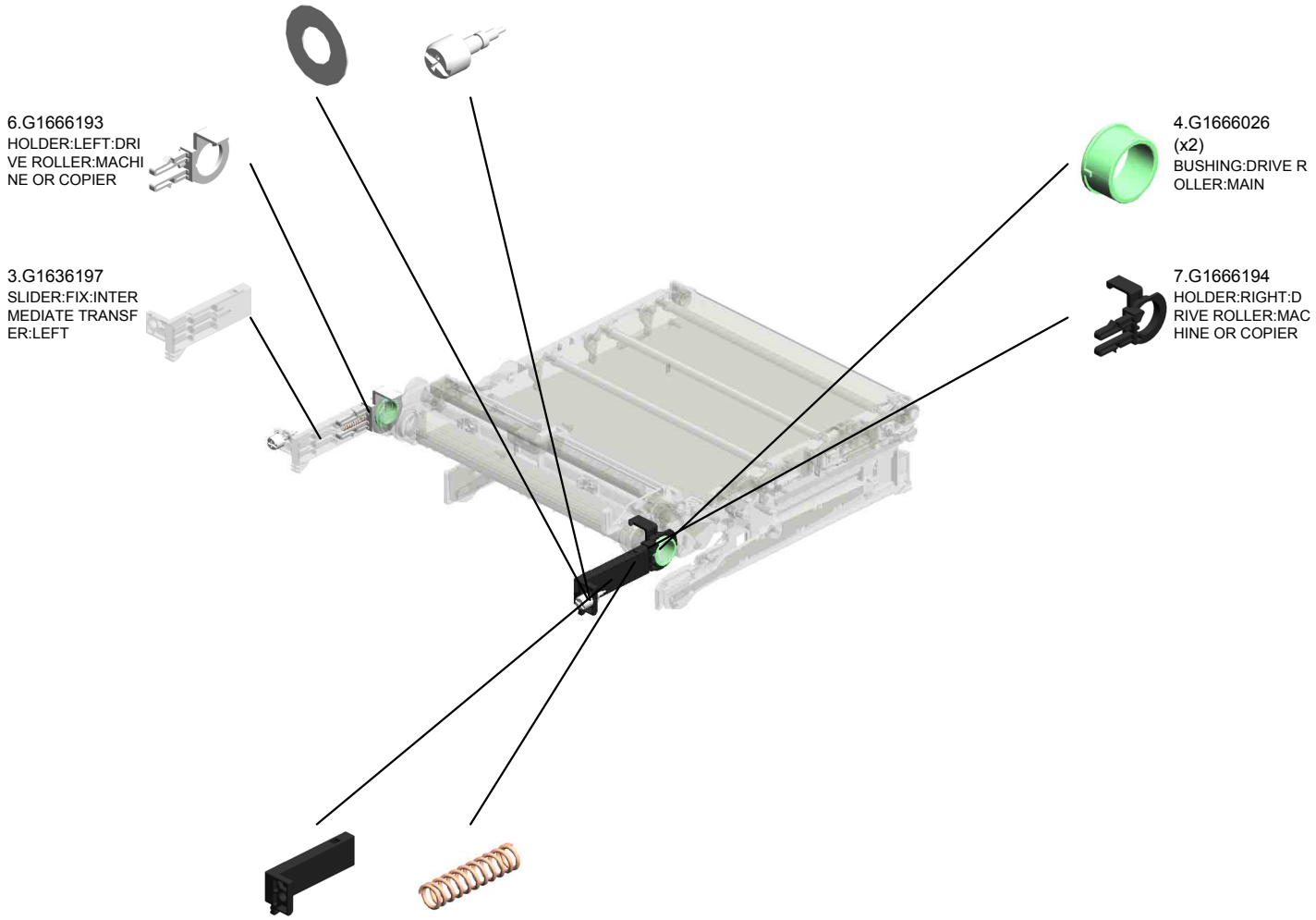
20.G1634489
GEAR:EXIT



24.GF020040
EXIT ROLLER

U010
Image Transfer





8.H3103640
(x2)
SPACER

1.G1636119
(x2)
KNOB SCREW:FIX:
INTERMEDIATE TR
ANSFER

6.G1666193
HOLDER:LEFT:DRI
VE ROLLER:MACHI
NE OR COPIER

3.G1636197
SLIDER:FIX:INTER
MEDIATE TRANSF
ER:LEFT

4.G1666026
(x2)
BUSHING:DRIVE R
OLLER:MAIN

7.G1666194
HOLDER:RIGHT:D
RIVE ROLLER:MAC
HINE OR COPIER

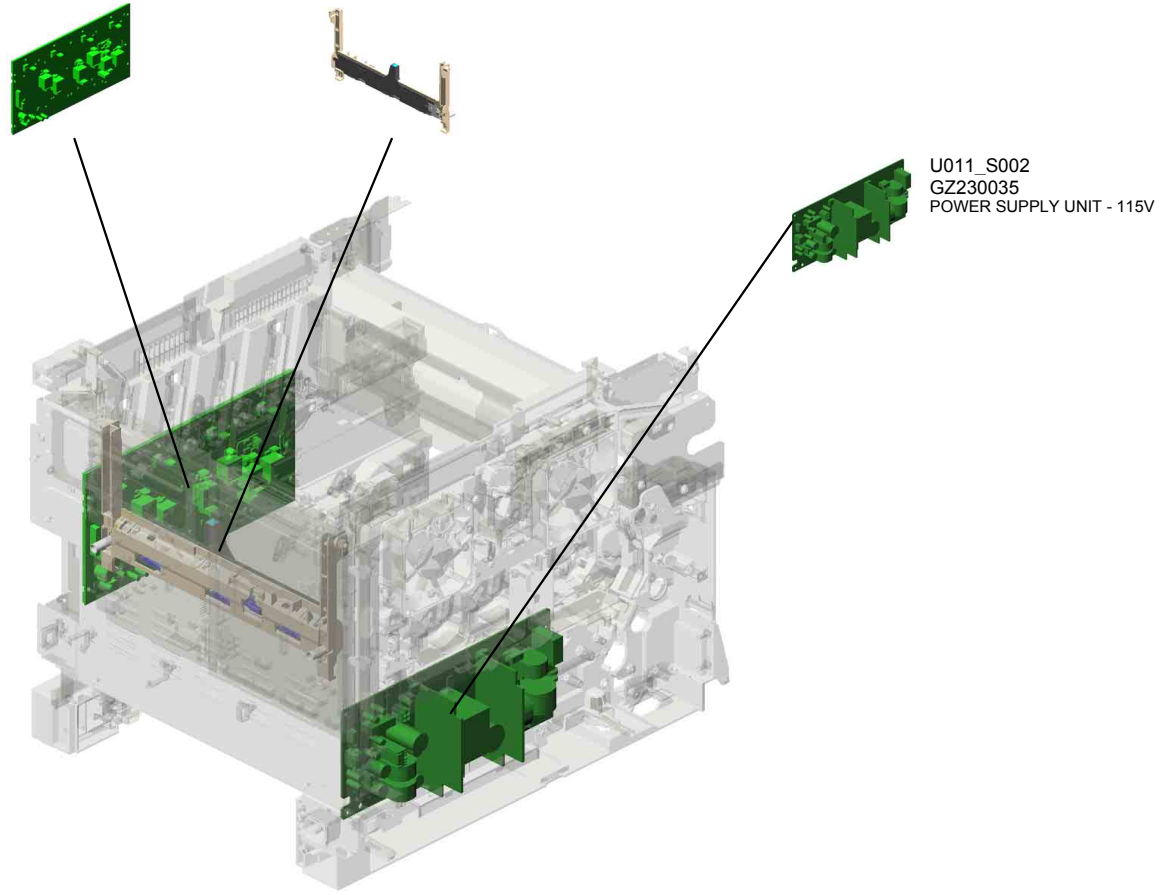
2.G1636196
SLIDER:FIX:INTER
MEDIATE TRANSF
ER:RIGHT

5.G1666099
(x2)
COMPRESSION SP
RING:SLIDER

U011.Electrical

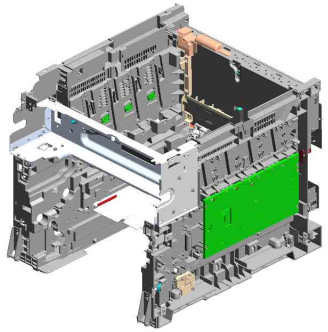
U011 S001
GZ300003
POWER PACK

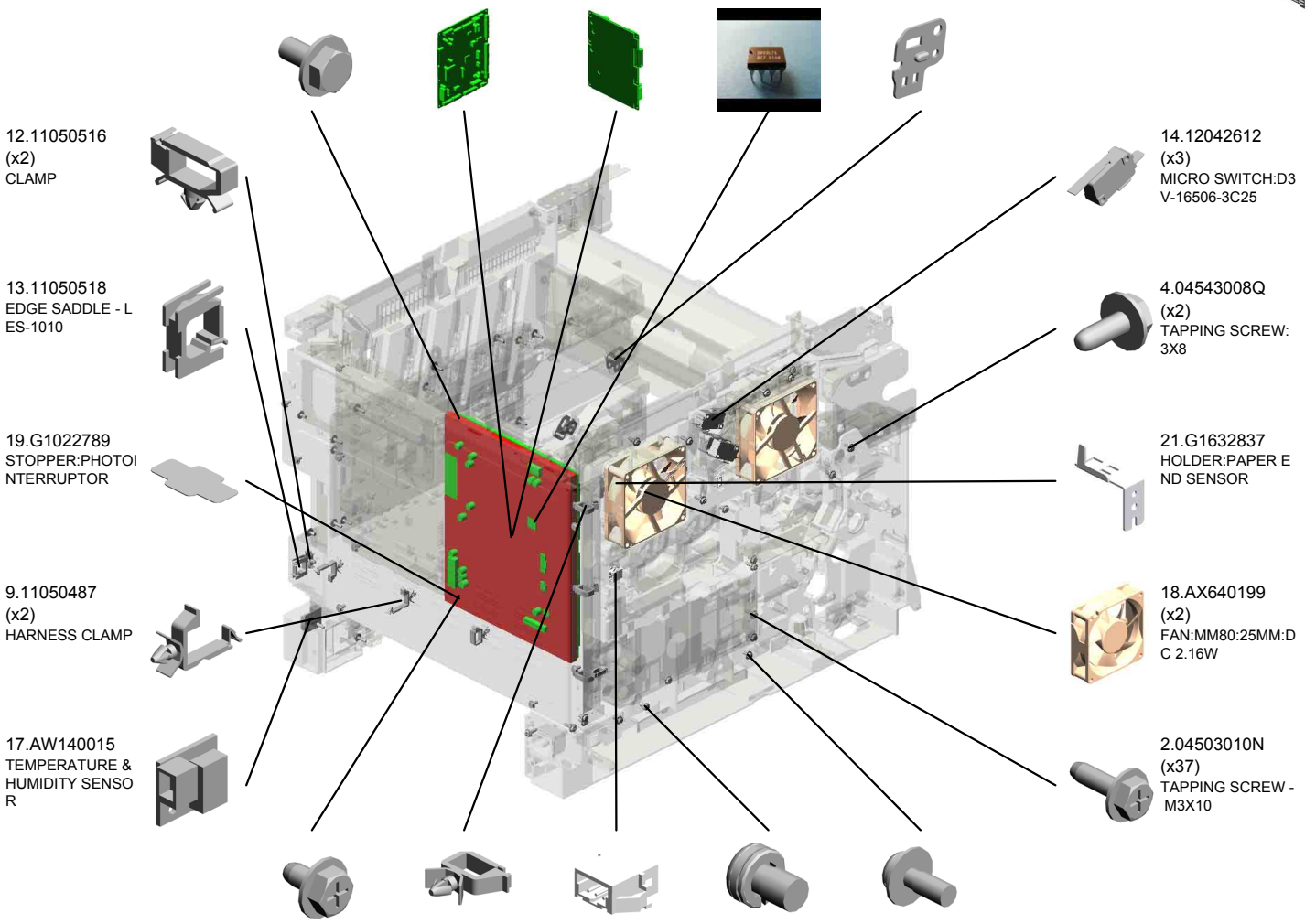
U011 S003
G1666003
DENSITY SENSOR:ASS'Y



U011_S002
GZ230035
POWER SUPPLY UNIT - 115V

U011
Electrical





1.03603006N
(x14)
SCREW - M3X6

22.G1635121
PCB:EGB:(M041)

23.G1635126
PCB:EGB-MP1Z:ASS'Y:(M040)

15.14076657
EEPROM:BR93L76-W

20.G1631068
(x3)
BRACKET - PHOTO INTERRUPTOR

12.11050516
(x2)
CLAMP

13.11050518
EDGE SADDLE - L
ES-1010

19.G1022789
STOPPER:PHOTOINTERRUPTOR

9.11050487
(x2)
HARNESS CLAMP

17.AW140015
TEMPERATURE & HUMIDITY SENSOR

14.12042612
(x3)
MICRO SWITCH:D3V-16506-3C25

4.04543008Q
(x2)
TAPPING SCREW: 3X8

21.G1632837
HOLDER:PAPER END SENSOR

18.AX640199
(x2)
FAN:MM80:25MM:DC 2.16W

2.04503010N
(x37)
TAPPING SCREW - M3X10

3.04543006Q
(x12)
TAPPING SCREW - M3X6

10.11050508
(x4)
HARNESS CLAMP - LWS-0711

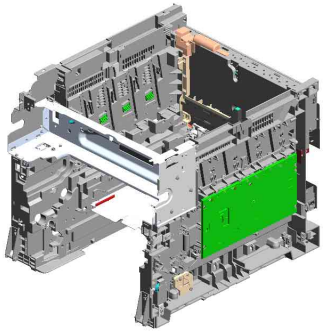
7.11024559
(x2)
CONNECTOR - 3P

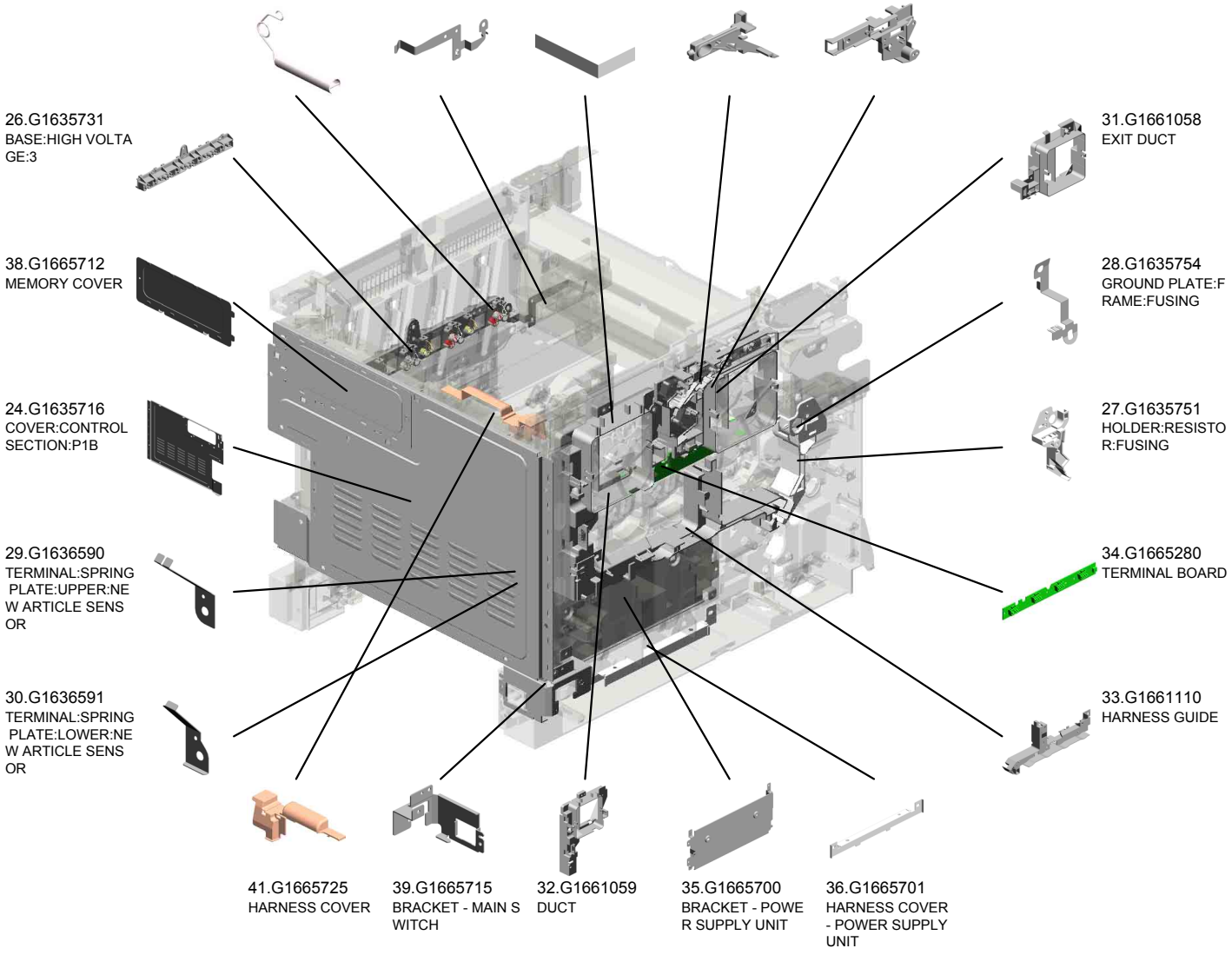
16.AA143592
SCREW- M4X6

5.09543008N
(x2)
SCREW - M3X8

6.11024473 (x 3)
CT CONNECTOR - 2P
7.11024559 (x 1)
CONNECTOR - 3P
8.11033902 (x 1)
CONNECTOR - 10P

U011
Electrical





40.G1665716 (x12)
TERMINAL:AIO

37.G1665708
2NDTERMINAL- TRANSFER

25.G1635728 (x4)
SEAL:FAN:2

43.G1665733
LINK - SAFETY SWITCH

42.G1665732
BRACKET SAFETY SWITCH

26.G1635731
BASE:HIGH VOLTAGE:3

38.G1665712
MEMORY COVER

24.G1635716
COVER:CONTROL SECTION:P1B

29.G1636590
TERMINAL:SPRING PLATE:UPPER:NEW ARTICLE SENSOR

30.G1636591
TERMINAL:SPRING PLATE:LOWER:NEW ARTICLE SENSOR

31.G1661058
EXIT DUCT

28.G1635754
GROUND PLATE:FRAME:FUSING

27.G1635751
HOLDER:RESISTOR:FUSING

34.G1665280
TERMINAL BOARD

33.G1661110
HARNESS GUIDE

41.G1665725
HARNESS COVER

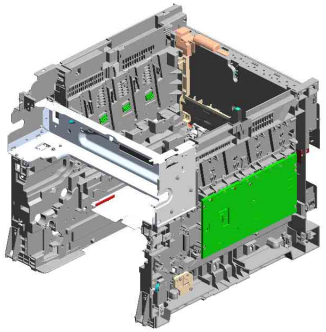
39.G1665715
BRACKET - MAIN SWITCH

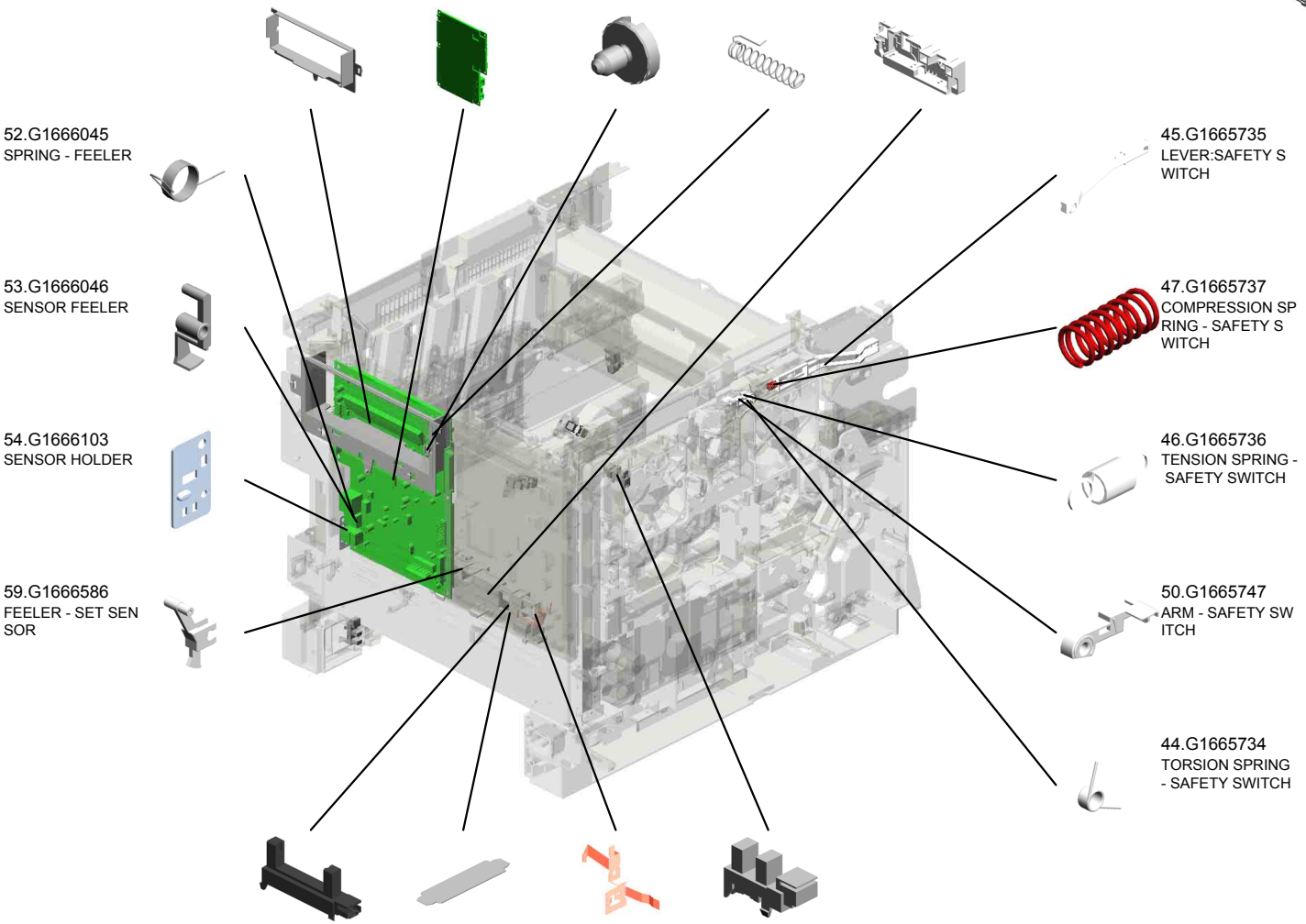
32.G1661059
DUCT

35.G1665700
BRACKET - POWER SUPPLY UNIT

36.G1665701
HARNESS COVER - POWER SUPPLY UNIT

U011
Electrical





49.G1665746
MEMORY STOPPER

61.G1675685
PCB:CTL:PCL400:ASS'Y

65.M0185754
SCREW

48.G1665738
1ST TERMINAL - TRANSFER

60.G1666587
SENSOR BRACKET

52.G1666045
SPRING - FEELER

53.G1666046
SENSOR FEELER

54.G1666103
SENSOR HOLDER

59.G1666586
FEELER - SET SENSOR

45.G1665735
LEVER:SAFETY SWITCH

47.G1665737
COMPRESSION SPRING - SAFETY SWITCH

46.G1665736
TENSION SPRING - SAFETY SWITCH

50.G1665747
ARM - SAFETY SWITCH

44.G1665734
TORSION SPRING - SAFETY SWITCH

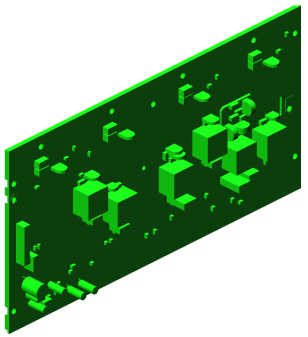
58.G1666584
USED TONER SENSOR

57.G1666580
STOPPER SHEET - PHOTOINTERRUPTOR

55.G1666107
GROUNDING PLATE

62.GW020020 (x6)
PHOTOINTERRUPTOR:LG248NL1

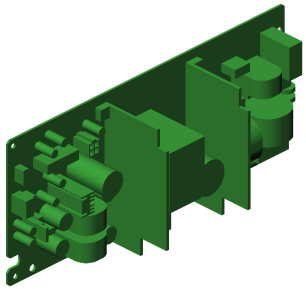
U011_S001
POWER PACK



64.GZ300003
POWER PACK

11.11050511
HARNESS CLAMP -
LWS-0306ZC

U011_S002
POWER SUPPLY UNIT - 115V

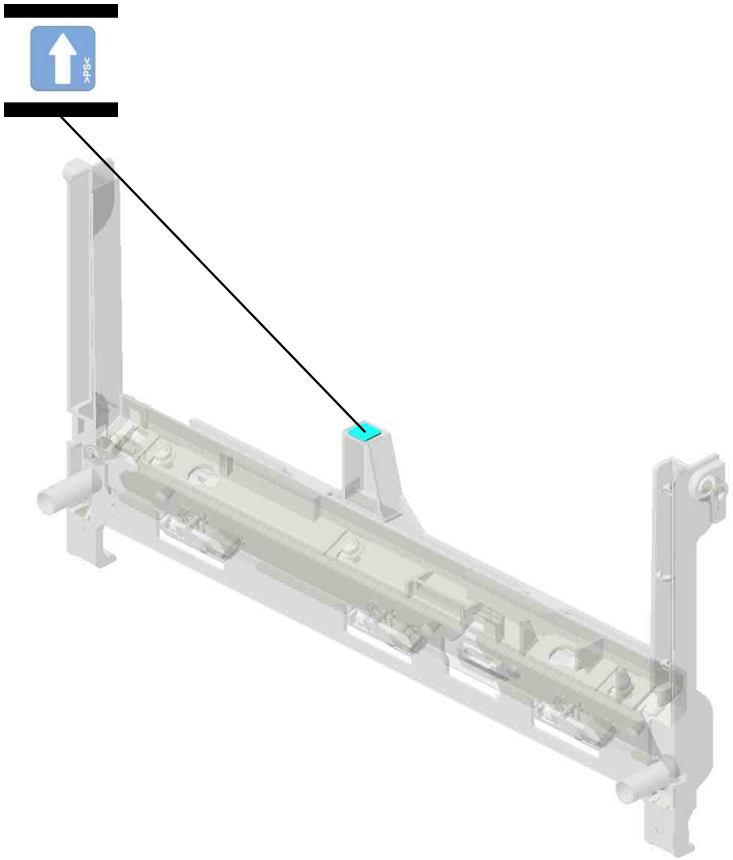


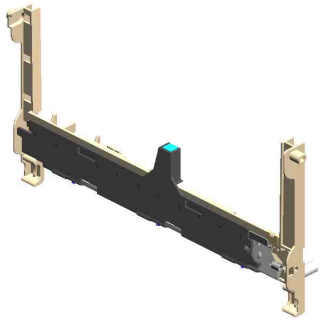
63.GZ230035
POWER SUPPLY U
NIT - 115V

5.09543008N (x 1)
SCREW - M3X8

U011_S003
DENSITY SENSOR:ASS'Y

56.G1666191
CLEANER DECAL -
DENSITY SENSOR



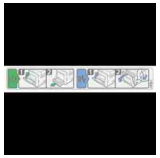


51.G1666003
DENSITY SENSOR:
ASS'Y

Accessories

1.M0401361
DECAL:NAME PLATE

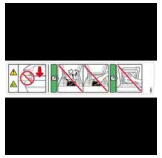
2.G1632862
DECAL:SIDE FENCE:MANUAL FEED:EXP



3.G1633937
DECAL:CAUTION:OPERATE:MANUAL FEED

4.G1634232
DECAL:H-TEMP WARNING:FUSING:NA

5.G1661268
LOGO PLATE - RIC



6.G1661390
CAUTION DECAL - TRANSFER BELT

7.G1665429
POWER SUPPLY CORD - 125 V 15A

8.G1811320
DECAL:CAUTION:WEIGHT:G181

9.M0401362
DECAL:NAME PLATE:NA:GEN

10.M0411361
DECAL:NAME PLATE

11.M0411362
DECAL:NAME PLATE:NA:GEN

Number	Part Name	Group	ID
A2672869	GEAR - 16Z	U006_S001	4
AA080265	BUSHING:6X8X5	U006	5
AA082101	BUSHING - 6X10X6	U006	6
AA143520	SHOULDER SCREW - M3	U008_S001	8
AA143592	SCREW- M4X6	U011	16
AF022142	MIDDLE ROLLER	U008_S001	9
AF031061	PAPER FEED ROLLER	U006	7
AF040574	GUIDE ROLLER	U009	4
AW140015	TEMPERATURE & HUMIDITY SEN SOR	U011	17
AX640199	FAN:MM80:25MM:DC 2.16W	U011	18
B2384714	TIMING BELT - 30S2M206:(M041)	U007_S001	7
G1022789	STOPPER:PHOTOINTERRUPTOR	U011	19
G1024106	FUSING BELT:DIA45:ASS'Y	U008_S001	10
G1024109	BALL BEARING:10X22X6	U008_S001	11
G1594322	CLEANING FELT:BELT TENSION	U008_S001	12
G1630218	FUSING UNIT - 120V	U008_S001	13
G1631059	TENSION SPRING:BRAKE:COVER: FRONT	U001	12
G1631060	DUCT:FAN:SIROCCO	U001	13
G1631068	BRACKET - PHOTOINTERRUPTOR	U011	20
G1631096	GROUND PLATE:FRONT	U001	14
G1631097	GROUND PLATE:AIO:LEFT	U001	15
G1631139	BRACKET:TRANSPORT:PAPER FE ED DRIVE	U002	9
G1631140	HOLDER:SHAFT:CLUTCH	U002	10
G1631148	BRACKET:TRANSPORT:FUSING D RIVE SUB-UNIT	U002	11
G1631161	BRACKET:TRANSPORT:MOTOR	U002	12
G1631259	INNER COVER:GUARD:SAFETY S WITCH	U003	8
G1631262	COVER:CASSETTE	U003	9
G1631274	COVER:REAR	U003	10
G1631277	COVER:PAPER EXIT	U003	11
G1631278	INNER COVER:EXIT	U003	12
G1631281	BASE:END FENCE:EXIT	U001	16
G1631282	END FENCE:EXIT:REAR	U001	17
G1631283	END FENCE:EXIT:FRONT	U001	18

Number	Part Name	Group	ID
G1631285	INNER COVER:END FENCE:EXIT	U001	19
G1631300	COVER:UPPER	U001	20
G1631303	COVER:RIGHT	U003	13
G1631306	COVER:LEFT	U003	14
G1631311	SEAL:COVER:LEFT:3	U003	15
G1631312	SEAL:COVER:LEFT:4	U003	16
G1631313	SEAL:COVER:LEFT:5	U003	17
G1631314	SEAL:FRAME:LOWER:1	U003	18
G1631315	SEAL:COVER:EXIT	U003	19
G1631316	SEAL:FRAME:LOWER:3	U003	20
G1631317	SEAL:FRAME:LOWER:4	U003	21
G1631318	SEAL:GUIDE PLATE:EXIT:LOWER	U009	5
G1631401	OPERATION SUB-UNIT:MIDAS-NA: ASS'Y	U004	1
G1631851	IMAGING UNIT:ASS'Y	U005	1
G1632550	CASSETTE:PAPER TRAY:ASS'Y	U006_S001	8
G1632552	CASSETTE COVER	U006	9
G1632553	SIDE FENCE:LEFT	U006_S001	10
G1632554	SIDE FENCE:RIGHT	U006_S001	11
G1632558	FRICTION PAD:ADHESION	U006_S001	12
G1632560	PAPER TRAY:EXTENSION TRAY	U006_S001	13
G1632561	FEELER:SET SENSOR:PAPER TRA Y	U006_S001	14
G1632564	COMPRESSION SPRING:BASE:RI GHT	U006_S001	15
G1632565	STOPPER:BASE	U006_S001	16
G1632566	COMPRESSION SPRING:STOPPE R:BASE	U006_S001	17
G1632567	LEVER:PAPER VOLUME SENSOR	U006	18
G1632568	BASE:PEEN	U006_S001	19
G1632569	GROUND PLATE:MANUAL FEED	U006	20
G1632575	FEELER:PAPER END SENSOR	U001	21
G1632576	HOLDER:FEELER	U001	22
G1632577	SPRING:EARTH:PAPER FEED	U001	23
G1632578	SPRING:PAPER TRAY:POSITIONIN G	U001	24
G1632579	COMPRESSION SPRING:BASE:LE FT	U006_S001	21

Number	Part Name	Group	ID
G1632601	END FENCE	U006_S001	22
G1632602	END FENCE:PRESSURE	U006_S001	23
G1632603	COMPRESSION SPRING:END FENCE	U006_S001	24
G1632605	HOUSING:MANUAL FEED:PAPER TRAY	U006	25
G1632800	FRICTION PAD:ADHESION	U006	12
G1632802	SPRING:FRICTION PAD:MANUAL FEED	U006	26
G1632803	BASE:MANUAL FEED:ADHESION	U006	27
G1632805	SPRING:BASE:MANUAL FEED	U006	28
G1632806	SHAFT:CAM	U006	29
G1632807	CAM:RIGHT:MANUAL FEED	U006	30
G1632808	GEAR:CAM	U006	31
G1632809	SPRING:CAM	U006	32
G1632812	GEAR:TRANSPORT ROLLER:MANUAL FEED	U006	33
G1632813	SHAFT:TRANSPORT:PAPER FEED ROLLER:PRESS FIT	U006	34
G1632817	GEAR:IDLER:PAPER FEED ROLLER	U006	35
G1632818	FEELER:PAPER END SENSOR:MANUAL FEED	U006	36
G1632820	BRACKET:MANUAL FEED	U006	37
G1632822	GEAR:IDLER:CAM	U006	38
G1632823	LINK:CAM	U002	13
G1632827	TRAY:MANUAL FEED	U006	39
G1632828	SIDE FENCE:LEFT:MANUAL FEED	U006	40
G1632829	SIDE FENCE:RIGHT:MANUAL FEED	U006	41
G1632831	COVER:TRAY:MANUAL FEED	U006	42
G1632835	CAM:LEFT:MANUAL FEED	U006	43
G1632837	HOLDER:PAPER END SENSOR	U011	21
G1632839	HOLDER:DC SOLENOID:MANUAL FEED	U002	14
G1632842	DC SOLENOID:MANUAL FEED:PRESS FIT	U002	15
G1632844	GEAR:IDLER:TRANSPORT:PAPER FEED ROLLER	U006	44
G1632850	PAWL:TRAY:MANUAL FEED	U006	45
G1632851	COVER:MANUAL FEED:LOWER	U006	46
G1632852	GUIDE:COVER:MANUAL FEED:LOWER	U006	47
G1632853	EXTENSION TRAY:MANUAL FEED	U006	48
G1632854	SHAFT:TRAY:MANUAL FEED	U006	49
G1632855	SPRING:TRAY:MANUAL FEED	U006	50
G1632856	SPRING:SHAFT:TRAY:MANUAL FEED	U006	51
G1632858	COIL SPRING:PAWL:TRAY:MANUAL FEED	U006	52
G1632862	DECAL:SIDE FENCE:MANUAL FEED:EXP		
G1632870	GUIDE:MANUAL FEED:PAPER TRAY	U006	53
G1632871	SHAFT:TRANSPORT:PICKUP ROLLER	U006	54
G1632872	SCREW:DIA4:12.5MM	U006	55
G1632873	DAMPING INSULATION:GUIDE:MANUAL FEED	U006	56
G1632874	SHEET:DAMPING INSULATION:GUIDE:MANUAL FEED	U006	57
G1632877	DISCHARGE BRUSH:MANUAL FEED	U006	58
G1632878	SHEET:DISCHARGE BRUSH:MANUAL FEED	U006	59
G1632879	GROUND PLATE:FEED ROLLER:MANUAL FEED	U006	60
G1633800	TRANSFER UNIT:(M040)	U007_S001	8
G1633903	FRAME:COVER:FRONT:RIGHT	U007	9
G1633904	FRAME:COVER:FRONT:LEFT	U007	10
G1633907	GUIDE:LOCK:(M041)	U007	11
G1633908	ARM:LEVER:LOCK	U007	12
G1633912	HOLDER:GUIDE PLATE:REVERSE:RIGHT	U007	13
G1633913	HOLDER:GUIDE PLATE:REVERSE:LEFT	U007	14

Number	Part Name	Group	ID
G1633921	SPRING:GUIDE PLATE:MIDDLE	U007	15
G1633924	FEELER:PAPER FEED SENSOR	U007	16
G1633925	TORSION SPRING:FEELER:PAPER FEED SENSOR	U007	17
G1633926	GUIDE PLATE:EXIT:MIDDLE	U007	18
G1633927	GUIDE PLATE:EXIT:MIDDLE:INNER	U007	19
G1633932	COVER:FRONT	U007	20
G1633935	DESIGN PLATE:COVER:FRONT:UPPER	U007	21
G1633936	DESIGN PLATE:COVER:FRONT:LOWER	U007	22
G1633937	DECAL:CAUTION:OPERATE:MANUAL FEED		
G1633950	REGISTRATION GUIDE	U007_S001	23
G1633951	GUIDE:PAPER FEED SUB-UNIT	U007_S001	24
G1633952	GUIDE:DUPLEX SUB-UNIT:LOWER	U007_S001	25
G1633954	GROUND PLATE:REGISTRATION ROLLER	U001	25
G1633955	FEELER:REGISTRATION SENSOR	U007_S001	26
G1633959	SUPPORTING PLATE:HOUSING:TRANSFER	U007_S001	27
G1633960	SHEET:REGISTRATION	U007_S001	28
G1633961	SPACER:GROUND WIRE:TRANSFER/SEPARATION	U002	16
G1633965	ELECTRODE PLATE:EARTH:LINK	U007_S001	29
G1633968	GROUND WIRE:REGISTRATION ROLLER	U007_S001	30
G1633970	HOOK:FIX:TRANSFER/SEPARATION:LEFT	U007	31
G1633971	HOOK:FIX:TRANSFER/SEPARATION:RIGHT	U007	32
G1633972	SLIDER:TRANSPORT UNIT:LEFT	U007	33
G1633973	COVER:COMPRESSION SPRING	U007_S001	34
G1633974	SCREW:HOUSING:TRANSPORT	U007_S001	35
G1633975	SLIDER:TRANSPORT UNIT:RIGHT	U007	36
G1633989	DECAL:COVER:FRONT:POSITIONING DISPLAY	U007	37
G1633990	DECAL:TRANSPORT UNIT:POSITI	U007_S001	38

Number	Part Name	Group	ID
	ONING DISPLAY	U007	38
G1633991	COVER:COMPRESSION SPRING	U007_S001	39
G1633992	DECAL:TRANSFER/SEPARATION	U007_S001	40
G1633993	DECAL:GRIP:HOUSING	U007_S001	41
G1633995	DECAL:GRIP:SLIDE	U007	42
G1633997	COMPRESSION SPRING:HOUSING:TRANSPORT	U007_S001	43
G1634109	STAY:THERMOSTAT	U008_S001	14
G1634213	HOLDER:THERMOSTAT	U008_S001	15
G1634214	FUSE HOLDER	U008_S001	16
G1634215	FUSING ENTRANCE GUIDE PLATE	U008_S001	17
G1634216	SHAFT:GUIDE:PAPER	U008_S001	18
G1634232	DECAL:H-TEMP WARNING:FUSING:NA		
G1634243	LEVER:PRESSURE:LEFT	U008_S001	19
G1634248	SPRING:PRESSURE	U008_S001	20
G1634249	KNOB:LEVER:PRESSURE RELEASE	U008_S001	21
G1634258	LEVER:PRESSURE:RIGHT	U008_S001	22
G1634264	COLLAR:STRIPPER PLATE:LEFT	U008_S001	23
G1634265	COLLAR:STRIPPER PLATE:RIGHT	U008_S001	24
G1634271	GUIDE PLATE:FUSING EXIT	U008_S001	25
G1634273	STRIPPER PLATE:COAT	U008_S001	26
G1634276	TORSION SPRING:SEPARATION:LEFT	U008_S001	27
G1634277	TORSION SPRING:SEPARATION:RIGHT	U008_S001	28
G1634278	SPRING:GUIDE PLATE:FUSING EXIT	U008_S001	29
G1634282	BRACKET:BELT TENSIONER	U008_S001	30
G1634311	BRACKET:HEATER:FUSING	U008_S001	31
G1634313	BRACKET:TERMINAL	U008_S001	32
G1634341	COVER:LOWER	U008_S001	33
G1634347	FUSING ENTRANCE GUIDE PLATE	U008_S001	34
G1634354	LEVER:PRESSURE RELEASE	U008_S001	35
G1634356	COVER:UPPER	U008_S001	36
G1634358	LEVER:LOCK:RIGHT	U008_S001	37
G1634360	SPRING:LEVER:LOCK:RIGHT	U008_S001	38

Number	Part Name	Group	ID
G1634363	LEVER:LOCK	U008_S001	39
G1634364	SPRING:LEVER:LOCK:LEFT	U008_S001	40
G1634374	GUIDE:HARNESS:FUSING:LEFT	U008_S001	41
G1634375	GUIDE:HARNESS:FUSING:RIGHT	U008_S001	42
G1634451	GUIDE PLATE:EXIT:LOWER	U009	6
G1634453	GUIDE PLATE:REVERSE:UPPER	U009	7
G1634454	GATE PAWL:REVERSE	U009	8
G1634458	GUIDE:PLATE:EXIT:OUTER	U009	9
G1634459	STOPPER:EXIT:EXIT:(M041)	U009	10
G1634460	ROLLER:DRIVEN:EXIT	U009	11
G1634461	SPRING:PRESSURE:EXIT:OUTER	U009	12
G1634462	BRACKET:ROLLER:EXIT	U009	13
G1634463	GUIDE:PLATE:EXIT	U009	14
G1634465	ROLLER:DRIVEN:DUPLEX:INNER:(M041)	U009	15
G1634466	ROLLER:DRIVEN:EXIT	U009	11
G1634467	ROLLER:DRIVEN:DUPLEX:(M041)	U009	16
G1634468	SPRING:PRESSURE:EXIT:INNER	U009	17
G1634469	SPRING:PRESSURE:DUPLEX:(M041)	U009	18
G1634473	BRACKET:GEAR:EXIT	U002	17
G1634474	GROUND WIRE:EXIT:RESISTOR	U009	19
G1634478	GEAR:CHANGE:EXIT	U002	18
G1634479	GEAR:IDLER:EXIT	U002	19
G1634480	GEAR:SLOW DOWN:EXIT	U002	20
G1634481	LEVER:CHANGE:EXIT	U002	21
G1634484	SPRING:CHANGE:EXIT	U002	22
G1634487	BRACKET:IDLER:EXIT	U002	23
G1634489	GEAR:EXIT	U009	20
G1634492	DC SOLENOID:PRESS FIT:(M041)	U002	24
G1634495	LINK:CHANGE:EXIT	U002	25
G1634497	BRACKET:SOLENOID:EXIT	U002	26
G1634499	HOLDER:LINK:EXIT	U002	27
G1634603	GEAR:TRANSPORT ROLLER:DUPLEX:LOWER:(M041)	U007_S001	44
G1634604	PULLEY:TRANSPORT ROLLER:DUPLEX	U007_S001	45
G1634605	BELT PULLEY:DUPLEX:(M041)	U007_S001	46

Number	Part Name	Group	ID
G1634606	FEELER:DUPLEX:(M041)	U007_S001	47
G1634607	GROUND WIRE:DUPLEX	U007_S001	48
G1635121	PCB:EGB:(M041)	U011	22
G1635126	PCB:EGB-MP1Z:ASS'Y:(M040)	U011	23
G1635716	COVER:CONTROL SECTION:P1B	U011	24
G1635728	SEAL:FAN:2	U011	25
G1635731	BASE:HIGH VOLTAGE:3	U011	26
G1635751	HOLDER:RESISTOR:FUSING	U011	27
G1635754	GROUND PLATE:FRAME:FUSING	U011	28
G1635755	HOLDER:RESISTOR:EXIT	U001	26
G1636119	KNOB SCREW:FIX:INTERMEDIATE TRANSFER	U010	1
G1636196	SLIDER:FIX:INTERMEDIATE TRANSFER:RIGHT	U010	2
G1636197	SLIDER:FIX:INTERMEDIATE TRANSFER:LEFT	U010	3
G1636590	TERMINAL:SPRING PLATE:UPPER:NEW ARTICLE SENSOR	U011	29
G1636591	TERMINAL:SPRING PLATE:LOWER:NEW ARTICLE SENSOR	U011	30
G1643800	TRANSFER UNIT:(M041)	U007_S001	8
G1661008	CLUTCH/BRAKE BRAKET	U001	27
G1661012	LOCK SHAFT	U001	28
G1661046	COLOR DECAL - MAGENTA	U001	29
G1661047	SPACER- RUBBER FOOT	U001	30
G1661048	RUBBER FOOT	U001	31
G1661058	EXIT DUCT	U011	31
G1661059	DUCT	U011	32
G1661060	BASE:HINGE:COVER:FRONT	U001	32
G1661061	PIN:HINGE	U001	33
G1661064	CLUTCH/BRAKE SPRING	U001	34
G1661065	CLUTCH SPRING	U001	35
G1661066	CLUTCH/BRAKE CASE	U001	36
G1661067	GEAR - 14Z	U001	37
G1661068	FUSING DUCT	U001	38
G1661069	RACK SUPPORTER	U001	39
G1661070	FRAME:UPPER LEFT	U001	40
G1661071	FRAME:UPPER RIGHT	U001	41

Number	Part Name	Group	ID
G1661072	SPRING:PLATE:AIO	U001	42
G1661073	SHAFT	U001	43
G1661078	COMPRESSION SPRING	U001	44
G1661080	TWIST SPRING - RIGHT	U001	45
G1661081	TWIST SPRING - LEFT	U001	46
G1661083	GROUNDING PLATE - HIGH VOLTAGE	U001	47
G1661084	SPRING:PLATE:AIO:BLACK	U001	48
G1661085	SPRING PLATE:LSU:POSITIONING	U001	49
G1661086	BRACKET:OPTICAL UNIT:FRAME:UPPER	U001	50
G1661087	SPRING:CUSHION:FRAME:UPPER	U001	51
G1661088	UPPER FRONT DUCT	U001	52
G1661089	PIN:PLATE:DEVELOPMENT UNIT	U001	53
G1661090	GROUND PLATE - DCHIP	U001	54
G1661091	GROUND PLATE - POWER SUPPLY UNIT	U001	55
G1661093	GEAR - 20Z	U001	56
G1661095	SHEET:BASE:FRAME	U001	57
G1661102	MOTOR BRACKET	U002	28
G1661104	SHIELDING PLATE	U002	29
G1661110	HARNESS GUIDE	U011	33
G1661111	FRAME - TRANSFER DRIVE UNIT	U002	30
G1661118	GROUNDING WIRE	U002	31
G1661119	MOTOR BRACKET	U002	32
G1661123	FRAME - ON-OFF DRIVE UNIT	U002	33
G1661125	SHIELDING PLATE	U002	34
G1661131	DC MOTOR - DC24V 5.3W	U002	35
G1661135	MOTOR - DC24V 1.6W	U002	36
G1661152	GROUNDING PLATE	U002	37
G1661240	BRAKE:COVER:UPPER	U001_S001	58
G1661241	BRAKE BRACKET	U001_S001	59
G1661259	MEMORY COVER	U003	22
G1661260	EXTEND TRAY	U001	60
G1661268	LOGO PLATE - RIC		
G1661269	STOPPER BAND	U001	61
G1661280	CUSHION - IMAGING UNIT	U001	62
G1661308	INTERFACE COVER	U003	23

Number	Part Name	Group	ID
G1661309	SEAL - 7X27X273MM	U003	24
G1661310	SEAL - 5X21X273MM	U003	25
G1661315	LOWER SEAL - 2	U003	26
G1661342	RACK:DAMPER	U001	63
G1661383	BRAKE COLLER	U001_S001	64
G1661384	GEAR - 15Z	U001_S001	65
G1661386	BRAKE SPRING	U001_S001	66
G1661387	CLUTCH SPRING	U001_S001	67
G1661390	CAUTION DECAL - TRANSFER BELT		
G1662573	HOLDER SHEET	U006_S001	61
G1662580	SHAFT - PAPER FEED ROLLER	U006	62
G1662606	COMPRESSION SPRING	U006_S001	63
G1663331	**DECAL - BLACK**	**U001**	**80**
G1663333	**DECAL - CYAN**	**U001**	**81**
G1663334	**DECAL - YELLOW**	**U001**	**82**
G1663852	REGISTRATION ROLLER - DRIVEN	U007_S001	49
G1663853	BUSHING - 6MM	U007_S001	50
G1663855	TENSION SPRING	U007_S001	51
G1663860	TORSION SPRING	U007_S001	52
G1663865	GEAR - 14Z	U007_S001	53
G1663867	DRIVE GEAR - 14Z	U007_S001	54
G1663905	RIGHT LOCK LEVER	U007	55
G1663906	LEFT LOCK LEVER	U007	56
G1663909	TENSION SPRING	U007	57
G1663910	GROUND WIRE	U007	58
G1663926	EXIT GUIDE ROLLER - MIDDLE	U007	59
G1663927	STOPER BAND	U007	60
G1663928	BRAKE RACK - FRONT COVER	U007	61
G1663957	WASHER - 0.8X10.8MM	U001	71
G1663961	COMPRESSION SPRING	U007_S001	62
G1663968	ELECTRODE PLATE - CONTACT POINT	U007_S001	63
G1663972	COMPRESSION SPRING - GRIP	U007	64
G1663989	RESISTOR - 100M OHM +-10% 0.5W	U007_S001	65
G1663993	RESISTOR - 100M OHM +-10% 0.5W	U001	72

Number	Part Name	Group	ID
G1663994	RESISTOR - 50M OHM +-10% 0.5W	U001	73
G1664283	POSITIONING PLATE - STRIPPER PLATE	U008_S001	43
G1664398	DECAL - HIGH TEMPERATURE	U008_S001	44
G1664399	DECAL:FUSING EXIT:OPEN AND CLOSE	U008_S001	45
G1664462	STOPPER - PHOTOINTERRUPTOR	U009	21
G1664606	DUPLEX ROLLER	U007	66
G1664607	PRESSURE SPRING - DUPLEX ROLLER	U007	67
G1665280	TERMINAL BOARD	U011	34
G1665429	POWER SUPPLY CORD - 125V 15A		
G1665700	BRACKET - POWER SUPPLY UNIT	U011	35
G1665701	HARNESS COVER - POWER SUPPLY UNIT	U011	36
G1665705	SHIELDING PLATE	U001	74
G1665706	GROUND PLATE:SHAFT:IMAGING UNIT	U001	75
G1665708	2NDTERMINAL- TRANSFER	U011	37
G1665712	MEMORY COVER	U011	38
G1665715	BRACKET - MAIN SWITCH	U011	39
G1665716	TERMINAL:AIO	U011	40
G1665724	HARNESS CLAMP HOLDER	U001	76
G1665725	HARNESS COVER	U011	41
G1665732	BRACKET SAFETY SWITCH	U011	42
G1665733	LINK - SAFETY SWITCH	U011	43
G1665734	TORSION SPRING - SAFETY SWITCH	U011	44
G1665735	LEVER:SAFETY SWITCH	U011	45
G1665736	TENSION SPRING - SAFETY SWITCH	U011	46
G1665737	COMPRESSION SPRING - SAFETY SWITCH	U011	47
G1665738	1ST TERMINAL - TRANSFER	U011	48
G1665746	MEMORY STOPPER	U011	49
G1665747	ARM - SAFETY SWITCH	U011	50
G1665757	GROUND PLATE -INPUT	U001	77
G1665758	GROUND PLATE - OUTPUT	U001	78

Number	Part Name	Group	ID
G1666003	DENSITY SENSOR:ASS'Y	U011_S003	51
G1666026	BUSHING:DRIVE ROLLER:MAIN	U010	4
G1666045	SPRING - FEELER	U011	52
G1666046	SENSOR FEELER	U011	53
G1666099	COMPRESSION SPRING:SLIDER	U010	5
G1666103	SENSOR HOLDER	U011	54
G1666107	GROUNDING PLATE	U011	55
G1666191	CLEANER DECAL - DENSITY SENSOR	U011_S003	56
G1666193	HOLDER:LEFT:DRIVE ROLLER:MACHINE OR COPIER	U010	6
G1666194	HOLDER:RIGHT:DRIVE ROLLER:MACHINE OR COPIER	U010	7
G1666580	STOPPER SHEET - PHOTOINTERRUPTOR	U011	57
G1666584	USED TONER SENSOR	U011	58
G1666586	FEELER - SET SENSOR	U011	59
G1666587	SENSOR BRACKET	U011	60
G1675685	PCB:CTL:PCL400:ASS'Y	U011	61
G1811320	DECAL:CAUTION:WEIGHT:G181		
G8003133	SIDE FENCE GEAR	U006	64
GA063080	COMPRESSION SPRING:BELT:TENSION	U008_S001	46
GA063081	COMPRESSION SPRING:CLEANER	U008_S001	47
GA082010	BUSHING:DIA6:DIA10:9	U009	22
GA120012	DISCHARGE BRUSH:EXIT	U009	23
GA132101	SPACER - 0.13 X 12MM	U002	38
GA132102	SPACER - 0.13 X 10MM	U002	39
GA148015	PIN:ROLLER:TRAY BOTTOM PLATE:DIA2	U006	65
GA148016	SHAFT - 6 X 26.7MM	U002	40
GA148018	SHAFT - 6 X 21.9MM	U002	41
GB011104	GEAR - 20/35Z	U002	42
GB011105	GEAR - 29Z	U002	43
GB011106	GEAR - 22/31Z	U002	44
GB011107	GEAR:SLOW DOWN:TRANSPORT:2	U002	45

Number	Part Name	Group	ID
GB011109	GEAR - 28Z	U002	46
GB011113	GEAR:IDLER:DUPLEX:(M041)	U002	47
GB011114	GEAR:IDLER:TRANSPORT	U002	48
GB011116	GEAR:CLUTCH:OUTPUT:DUPLEX:(M041)	U002	49
GB011117	GEAR:CLUTCH:OUTPUT:MANUAL FEED	U002	50
GB011118	REGIST DRIVE GEAR	U002	51
GB011128	GEAR:SLOW DOWN:MANUAL FEED	U002	52
GB012101	GEAR - 33Z	U002	53
GB012102	GEAR - 54Z	U002	54
GB013075	GEAR:IDLER:DUPLEX	U008_S001	48
GB013076	GEAR:HOT ROLLER:ROLLER CLUTCH:Z29	U008_S001	49
GB013078	GEAR:IDLER:DRIVE	U008_S001	50
GB013079	GEAR:IDLER:FUSING	U002	55
GB013080	GEAR:IDLER:1	U008_S001	51
GB013114	GEAR - 35Z	U002	56
GB013115	GEAR - 21Z	U002	57
GB013117	GEAR - 19Z	U002	58
GB017055	GEAR:SLOW DOWN:PAPER FEED:1	U008_S001	52
GB017101	GEAR - 22/99Z	U002	59
GB017102	GEAR - 27/76Z	U002	60
GB017106	GEAR:SLOW DOWN:TRANSPORT:1	U002	61
GB017107	GEAR:SLOW DOWN:FUSING:1	U002	62
GB017110	GEAR - 22/99Z CYAN	U002	63
GB017111	GEAR - 16/51Z	U002	64
GB017112	GEAR - 21/73Z	U002	65
GB017113	GEAR - 40/65Z	U002	66
GB017115	GEAR:SLOW DOWN:FUSING:2	U002	67
GB017116	GEAR - 17/42Z	U002	68
GE010006	HEAT ROLLER:DIA20:COAT	U008_S001	53
GE010010	HOT ROLLER:DIA28.65	U008_S001	54
GE020010	PRESSURE ROLLER:PFA:DIA29.6	U008_S001	55
GE030003	BUSHING:BELT TENSIONER	U008_S001	56

Number	Part Name	Group	ID
GE030008	BALL BEARING:HOT ROLLER	U008_S001	57
GE031010	BUSHING:CLEANING FELT	U008_S001	58
GE040010	ROLLER:BELT TENSIONER:FUSING BELT	U008_S001	59
GF020000	REGISTRATION ROLLER - DRIVE	U007_S001	68
GF020040	EXIT ROLLER	U009	24
GF020052	TRANSPORT ROLLER:DUPLEX	U007_S001	69
GF022006	ROLLER:GUIDE:TRAY BOTTOM PLATE	U006	66
GF031005	PAPER FEED ROLLER:MANUAL FEED	U006	67
GW020020	PHOTOINTERRUPTOR:LG248NL1	U009	25
		U011	62
GW100017	THERMISTOR:COUPLING	U008_S001	60
GW110006	THERMOSTAT	U008_S001	61
GX061125	BRUSHLESS MOTOR:DC24V:22W	U002	69
GX061141	BRUSHLESS MOTOR:DC24V:30W	U002	70
GX071143	BRUSHLESS MOTOR:DC24V:50W	U002	71
GX201121	MAGNETIC CLUTCH	U002	72
		U006	68
GX201122	MAGNETIC CLUTCH:0.25N	U002	73
GX440020	HEATER:120V:850W:120%	U008_S001	62
GX640030	FAN MOTOR:SIROCCO:DC 1.92W	U001	79
GZ230035	POWER SUPPLY UNIT - 115V	U011_S002	63
GZ300003	POWER PACK	U011_S001	64
H3103640	SPACER	U010	8
M0185754	SCREW	U011	65
M0401361	DECAL:NAME PLATE		
M0401362	DECAL:NAME PLATE:NA:GEN		
M0411361	DECAL:NAME PLATE		
M0411362	DECAL:NAME PLATE:NA:GEN		

Standard Parts

03130040N
SCREW:M3X4

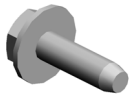
03530030N
SCREW:M3X3

03530040N
SCREW - M3X4

03603005N
SCREW - M3X5

03603006N
SCREW - M3X6

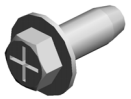
03603008N
SCREW:M3X8



03604010N
SCREW:M4X10

04503010N
TAPPING SCREW - M3X10

04503016N
TAPPING SCREW:3X16



04504010N
TAPPING SCREW:M4X10

04524010N
BINDING SELF-TAPPING SCREW:4X10

04543006Q
TAPPING SCREW - M3X6

04543008Q
TAPPING SCREW:3X8

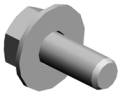
07010030N
WASHER DIA3

07200030E
RETAINING RING - M3

07200040E
RETAINING RING - M4

07200060E
RETAINING RING - M6

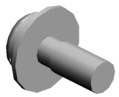
07250170E
RETAINING RING C - M17



08046123
HEXAGONAL BOLT:W/WASHER:M3X8

08050088
RETAINING RING - M6

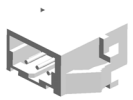
08050089
RETAINING RING - M4



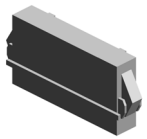
09543008N
SCREW - M3X8

09573010N
SCREW:SMALL ROUND/SPRING:M3X10

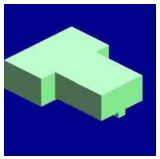
11024473
CT CONNECTOR - 2P



11024559
CONNECTOR - 3P



11029156
CONNECTOR



11033902
CONNECTOR - 10P

11050487
HARNESS CLAMP

Standard Parts

11050508
HARNESS CLAMP - LWS-071
1

11050511
HARNESS CLAMP - LWS-030
6ZC

11050516
CLAMP

11050518
EDGE SADDLE - LES-1010

12042612
MICRO SWITCH:D3V-16506-3
C25

14076657
EEPROM:BR93L76-W

Design Change List

Number	Title	Set	Old Part		New Part		Index No.		Q'ty	Interchg		Reason	Cut-in S/N
			P/N	Name	P/N	Name	Group	ID		Indiv.	Set		
200910	0910 Modification	-	G1663290	DECAL - BLACK	G1663331	DECAL - BLACK	U001	80	1	X/O			M04017: M04051:
			G1663292	COLOR DECAL -	G1663333	DECAL - CYAN	U001	81	1	X/O			
			G1663293	DECAL - YELLO	G1663334	DECAL - YELLO	U001	82	1	X/O			