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Phaser 6110 MFP

Service Documentation

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Precautions

In order to prevent accidents and to prevent damage to the equipment please read the precautions listed below carefully before servicing the printer and follow them closely.

Safety Warning

(1) Only to be serviced by appropriately qualified service engineers.
High voltages and lasers inside this product are dangerous. This printer should only be serviced by a suitably trained and qualified service engineer.

(2) Use only Xerox replacement parts
There are no user serviceable parts inside the printer. Do not make any unauthorized changes or additions to the printer, these could cause the printer to malfunction and create electric shock or fire haz-ards.

(3) Laser Safety Statement
The Printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, chapter 1 Subchapter J for Class 1(1) laser products, and elsewhere, it is certified as a Class I laser product con-forming to the requirements of IEC 825. Class I laser products are not considered to be hazardous. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service condition.

Warning >> Never operate or service the printer with the protective cover removed from Laser/Scanner assembly. The reflected beam, although invisible, can damage your eyes. When using this product, these basic safety pre-cautions should always be followed to reduce risk of fire, electric shock, and injury to persons.

CAUTION - INVISIBLE LASER RADIATION WHEN THIS COVER OPEN. DO NOT OPEN THIS COVER.

VORSICHT - UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

ATTENTION - RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.

ATTENZIONE - RADIAZIONE LASER INVISIBILE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.

PRECAUCION - RADIACION LASER IVISIBLE CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.

ADVARSEL. - USYNLIG LASERSTRÅLNING VED ÅBNING, NÅR SIKKERHEDSBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLNING.

ADVARSEL. - USYNLIG LASERSTRÅLNING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN. STRÅLEN ÄR FARLIG.

VARO! - AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER-SÄTEILYLLE ÄLÄ KATSO SÄTEESEEN.

Caution for safety

Toxic material

This product contains toxic materials that could cause illness if ingested.

(1) If the LCD control panel is damaged it is possible for the liquid inside to leak. This liquid is toxic. Contact with the skin should be avoided, wash any splashes from eyes or skin immediately and contact your doctor. If the liquid gets into the mouth or is swallowed see a doctor immediately.

(2) Please keep toner cartridges away from children. The toner powder contained in the toner cartridge may be harmful and if swallowed you should contact a doctor.

Electric Shock and Fire Safety Precautions

Failure to follow the following instructions could cause electric shock or potentially cause a fire.

(1) Use only the correct voltage, failure to do so could damage the printer and potentially cause a fire or electric shock.

(2) Use only the power cable supplied with the printer. Use of an incorrectly specified cable could cause the cable to overheat and potentially cause a fire.

(3) Do not overload the power socket, this could lead to overheating of the cables inside the wall and could lead to a fire.

(4) Do not allow water or other liquids to spill into the printer, this can cause electric shock. Do not allow paper clips, pins or other foreign objects to fall into the printer these could cause a short circuit leading to an electric shock or fire hazard..

(5) Never touch the plugs on either end of the power cable with wet hands, this can cause electric shock. When servicing the printer remove the power plug from the wall socket.

(6) Use caution when inserting or removing the power connector. The power connector must be inserted completely otherwise a poor contact could cause overheating possibly leading to a fire. When removing the power connector grip it firmly and pull.

(7) Take care of the power cable. Do not allow it to become twisted, bent sharply round corners or other wise damaged. Do not place objects on top of the power cable. If the power cable is damaged it could overheat and cause a fire or exposed cables could cause an electric shock. Replace a damaged power cable immediately, do not reuse or repair the damaged cable. Some chemicals can attack the coating on the power cable, weakening the cover or exposing cables causing fire and shock risks.

(8) Ensure that the power sockets and plugs are not cracked or broken in any way. Any such defects should be repaired immediately. Take care not to cut or damage the power cable or plugs when moving the machine.

(9) Use caution during thunder or lightening storms. Xerox recommend that this machine be disconnected from the power source when such weather conditions are expected. Do not touch the machine or the power cord if it is still connected to the wall socket in these weather conditions.

(10) Avoid damp or dusty areas, install the printer in a clean well ventilated location. Do not position the machine near a humidifier. Damp and dust build up inside the machine can lead to overheating and cause a fire.

(11) Do not position the printer in direct sunlight. This will cause the temperature inside the printer to rise possibly leading to the printer failing to work properly and in extreme conditions could lead to a fire.

(12) Do not insert any metal objects into the machine through the ventilator fan or other part of the casing, it could make contact with a high voltage conductor inside the machine and cause an electric shock.

Handling Precautions

The following instructions are for your own personal safety, to avoid injury and so as not to damage the printer

(1) Ensure the printer is installed on a level surface, capable of supporting its weight. Failure to do so could cause the printer to tip or fall.

(2) The printer contains many rollers, gears and fans. Take great care to ensure that you do not catch your fingers, hair or clothing in any of these rotating devices.

(3) Do not place any small metal objects, containers of water, chemicals or other liquids close to the printer which if spilled could get into the machine and cause damage or a shock or fire hazard.

(4) Do not install the machine in areas with high dust or moisture levels, beside on open window or close to a humidifier or heater. Damage could be caused to the printer in such areas.

(5) Do not place candles, burning cigarettes, etc on the printer, These could cause a fire.

Assembly / Disassembly Precautions

Replace parts carefully, always use approved parts. Take care to note the exact location of parts and also cable routing before dismantling any part of the machine. Ensure all parts and cables are replaced correctly. Please carry out the following procedures before dismantling the printer or replacing any parts.

(1) Check the contents of the machine memory and make a note of any user settings. These will be erased if the mainboard or network card is replaced.

(2) Ensure that power is disconnected before servicing or replacing any electrical parts.

(3) Disconnect printer interface cables and power cables.

(4) Only use approved spare parts. Ensure that part number, product name, any voltage, current or temperature rating are correct.

(5) When removing or re-fitting any parts do not use excessive force, especially when fitting screws into plastic.

(6) Take care not to drop any small parts into the machine.

(7) Handling of the OPC Drum

- The OPC Drum can be irreparably damaged if it exposed to light.
  Take care not to expose the OPC Drum either to direct sunlight or to fluorescent or incandescent room lighting. Exposure for as little as 5 mins can damage the surface's photoconductive properties and will result in print quality degradation. Take extra care when servicing the printer. Remove the OPC Drum and store it in a black bag or other lightproof container. Take care when working with the covers(especially the top cover) open as light is admitted to the OPC area and can damage the OPC Drum.
- Take care not to scratch the green surface of OPC Drum Unit.
  If the green surface of the Drum Cartridge is scratched or touched the print quality will be compromised.

Disregarding this warning may cause bodily injury

(1) Be careful with the high temperature part.
The fuser unit works at a high temperature. Use caution when working on the printer. Wait for the fuser to cool down before disassembly.

(2) Do not put finger or hair into the rotating parts.
When operating a printer, do not put hand or hair into the rotating parts (Paper feeding entrance, motor, fan, etc.). If do, you can get harm.

(3) When you move the printer.
This printer weighs 19.95kg including toner cartridge and cassette. Use safe lifting and handling techniques. Use the lifting handles located on each side of the machine. Back injury could be caused if you do not lift carefully.

(4) Ensure the printer is installed safely.
The printer weighs 19.95Kg, ensure the printer is installed on a level surface, capable of supporting its weight. Failure to do so could cause the printer to tip or fall possibly causing personal injury or damaging the printer.

(5) Do not install the printer on a sloping or unstable surface. After installation, double check that the printer is stable.

Section 1 Service Call Procedures

Switch on the power. **There is a smell, or smoke, or the printer is hot.** NOTE: the top cover, above the Fuser, is normally very warm to the touch when printer is ready.

No **Yes**

Refer to Fuser Vapour bulletin t6140-10 in Section 12. **The bulletin describes the condition.**

Yes **No**

Remove the Fuser (4.2) and check it for signs of overheating such as discoloration, deformed frames, or a thermostat with high electrical resistance. Remove the Covers (4.1). Check the PWB's and wiring for signs of overheating. Check the drives for signs of damage (4.7).

Go to the next statement.

There are indications of power on the Control Console.

Yes **No**

Remove the Covers (4.1). Check input power, switch, SMPS, and Main PWB power distribution voltages (Section 7, PWB Connections).
Check the connectors on the Control Console.
Replace or repair any part as required.

The machine is ready to make a copy or print.

Yes **No**

Go to Section 2 Repair Analysis Procedures.

Print a Demonstration Print (Section 6 General Procedures). **The Demonstration Print is output.**

Yes **No**

Go to Section 2 Repair Analysis Procedures.

The Demonstration Print image quality is good.

Yes **No**

Go to Image Quality Problems (Section 3 User Declared Errors)

There is still a problem with the printer.

No **Yes**

If the ADF is inoperative remove the covers (4.1) and Scanner upper cover and check the harness from the ADF to Main PWB.
If there are other problems go to Section 3 Image Quality.

Verify that Routine Maintenance is complete (Section 1, Service Procedures).
Ensure Printer is ready for customer service (clean covers)
Place Demonstration Print in output tray.

Parts for Maintenance and Repair

Replacement interval for parts with a limited life

Some of the parts in this printer have a limited life, shorter than that of the whole machine. These parts must be replaced periodically.
The table below shows the interval at which these parts should be replaced.
The table shows the life of each part, and is measured when using A4 paper. When servicing a machine always check the status of these parts using the control panel and ensure that parts are replaced at the appropriate times otherwise a general degradation in print quality will occur.

COMPONENT	REPLACEMENT CYCLE	REMARK
Toner Cartridge (Black)	intial (1,500 pages@5% coverage) replacement (2,000 pages@5% coverage)	User replace
Toner Cartridge (Colour: C/M/Y)	intial (700 pages@5% coverage) replacement (1,000 pages@5% coverage)	User replace
Waste toner container	5K image or 1.25K pages (Full colour 5% image)	User replace
T2 Roller	100K pages	
Imaging Unit	20K pages (Black) 12.5K pages (Color)	
ITB Unit (Image Transfer Unit	Black : (60K pages@5% coverage) Color : (15K pages@5% coverage)	User replace
Pick-Up Roller	100,000 pages - MP Pick-Up Roller, - Cassette Tray1 Pick-Up Roller	Engineer
Fuser Unit	100,000 pages (B/W) Color(50,000 pages)	User replace

The life span of each of these parts is stored in memory. The amount of each 'life' used can be checked at any time using the control panel.
When a part is replaced it is necessary to reset the 'life used' that is stored in memory.

* How to initialize a the value of part's life span:
From the control panel, select the following items in order:
Menu-Setup - Maintenance - Check other - (Select a desired part) - Reset

Section 2 Repair Analysis Procedures

Error Message

Messages in the colored cells are available with Phaser 6110 MFP.

Display	Meaning	Suggested solutions
[Color] Toner Empty	The color toner cartridge has run out. The machine stops printing.	Replace the color toner cartridge with a new one.
[Color] Toner Low	The corresponding color toner cartridge is almost empty.	Take out the toner cartridge and thoroughly shake it. By doing this, you can tem porarily reestablish printing operations.
[COMM. Error]	The machine has a communication problem.	Ask the sender to try again.
[Incompatible]	The remote machine does not have the requested feature, such as polling. This message also occurs if the remote machine does not have enough memory space to complete the operation you are attempting.	Reconfirm the remote machine's features.
[Line Error]	Your machine cannot connect with the receiving fax machine or has lost contact because of a problem with the phone line.	Try again. If the problem persists, wait an hour or so for the line to clear and try again. Or, turn the ECM mode on.
[No Answer]	The receiving fax machine has not answered after several redial attempts.	Try again. Make sure that the receiving machine is operational.
[No Paper] Add Paper	The paper in the tray has run out.	Load paper in the tray.
[Stop Pressed]	Stop/Clear has been pressed during an operation.	Try again.
ADC Not Confirm Error	A problem has occurred in the ADC in the machine.	Replace to the Main board.
Cancel? 1:Yes 2:No	Your machine's memory has become full while trying to store an original into mem ory.	To cancel the fax job, press the 1 button to accept Yes. If you want to send those pages that have been successfully stored, press the 2 button to accept No. You should send the remaining pages later, when memory is available.
Deve Home Sensor Error	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, Replace to the Main board.
Document Jam	The loaded original has jammed in the ADF.	Clear the jam.
Door Open	The front cover or rear cover is not securely latched.	Close the cover until it locks into place.
Enter Again	You entered an unavailable item.	Enter the correct item again.
Fuser Fan Locked	There is a problem in the cooling fan of the machine.	Open and then close the front cover.
Group Not Available	You have tried to select a group location number where only a single location number can be used, such as when adding locations for a Multiple Send operation.	Use a speed dial number or dial a number manually using the number keypad.

Display	Meaning	Suggested solutions
Install [Color] Toner	The color toner cartridge is not installed.	Install the color toner cartridge.
Install [Part]	The corresponding part of the machine is not installed.	Install the part into your machine.
Invalid [Color] Toner	The color toner cartridge you have installed is not for your machine.	Install the a Xerox-genuine color toner cartridge designed for your machine.
Invalid [Part]	The color part of the machine is not for your machine.	Install the a Xerox-genuine part designed for your machine.
Line Busy	The receiving fax machine did not answer or the line is already engaged.	Try again after a few minutes.
Low Heat Error Cycle Power	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, Replace to the Toner Cartridge.
LSU Hsync Error Cycle Power	A problem has occurred in the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back in. If the problem persists, Replace to the Toner Cartridge.
LSU Motor Error Cycle Power	A problem has occurred in the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back in. If the problem persists, Replace to the LSU Unit.
Main Motor Locked	There is a problem in the main motor.	Open and then close the front cover.
Memory Dial Full	You are trying to schedule a fax job when memory for storing fax jobs is full.	Wait until a scheduled job is complete.
Memory Full	The memory is full.	Delete unnecessary fax jobs and retransmit after more memory becomes available. Alternatively, split the transmission into more than one operation.
MP Tray Paper Empty	There is no paper in the multi-purpose tray.	Load paper in the multi-purpose tray.
Not Assigned	The speed button or speed dial number you tried to use has no number assigned to it.	Enter the number manually using the number keypad or store the number or address.
Open Heat Error Cycle Power	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, Replace to the Fuser Unit.
Operation Not Assigned	You are in the Add Page/Cancel Job operation, but there are no jobs stored.	Check the display to see if there are any scheduled jobs.
Out Bin Full	The output tray of the machine is full of paper.	Remove paper.
Paper Jam 0 Open/Close Door	Paper has jammed in the feeding area of the tray.	Clear the jam.
Paper Jam 1 Open/Close Door	Paper has jammed in the paper exit area.	Clear the jam.
Power Failure	Power has turned off then on and the machine's memory has not been back up.	The job which you were trying to do before the power failure must be completely re-done.

Display	Meaning	Suggested solutions
Replace [Color] Toner	This message appears between Toner Empty and Toner Low status.	Replace the toner cartridge with a new one.
Replace [Part]	The life of the part expires totally.	Replace the part with a new one. Call for service.
Replace [Part] Soon	The life of the part expires soon.	Replace to maintenance part.
Retry Redial?	The machine is waiting for a specified time interval to redial a previously busy station.	You can press OK to immediately redial, or Stop/Clear to cancel the redial operation.
Scanner locked	The scanner module is locked	Unlock the scanner and press Stop/Clear.
SCF Cover Open	The jam cover in the optional tray 2 is open.	Close the jam cover in the optional tray 2.
SCF Paper Jam	Paper has jammed in the optional tray 2.	Clear the jam.
Self Diagnostic...	The engine in your machine is checking some problems detected.	Please wait a few minutes.
Transfer Belt Error	A problem has occurred in the transfer belt in the machine.	Unplug the power cord and plug it back in. If the problem persists, please call for service.
Tray 1 Paper Empty	There is no paper in the tray 1.	Load paper in the tray 1.
Tray 2 Paper Empty	There is no paper in the optional tray 2.	Load paper in the optional tray 2.

Copying problems

Condition	Suggested solutions
Copies are too light or too dark.	Use Darkness to darken or lighten the background of the copies.
Smears, lines, marks, or spots appears on copies.	· If defects are on the original, press Darkness to lighten the background of your copies. · If no defects are on the original, clean the scan unit.
Copy image is skewed.	· Ensure that the original is face down on the scanner glass or face up in the ADF. · Check that the copy paper is loaded correctly.
Blank copies print out.	Ensure that the original is face down on the scanner glass or face up in the ADF.
Image rubs off the copy easily.	· Replace the paper in the tray with paper from a new package. · In high humidity areas, do not leave paper in the machine for extended periods of time.
Frequent copy paper jams occur.	· Fan the stack of paper, then turn it over in the tray. Replace the paper in the tray with a fresh supply. Check/adjust the paper guides, if necessary. · Ensure that the paper is the proper paper weight. 75 g/m 2 (20 lb bond) paper is recommended. · Check for copy paper or pieces of copy paper remaining in the machine after a paper jam has been cleared.
Toner cartridge produces fewer copies than expected before running out of toner.	· Your originals may contain pictures, solids, or heavy lines. For example, your originals may be forms, newsletters, books, or other documents that use more toner. · The machine may be turned on and off frequently. · The scanner lid may be left open while copies are being made.

Paper Feeding Problems

Condition	Suggested solutions
Paper is jammed during printing.	Clear the paper jam.
Paper sticks together.	· Ensure that there is not too much paper in the tray. The tray can hold up to 150 sheets of paper, depending on the thickness of your paper. · Make sure that you are using the correct type of paper. · Remove paper from the tray and flex or fan the paper. · Humid conditions may cause some paper to stick together.
Multiple sheets of paper do not feed.	· Different types of paper may be stacked in the tray. Load paper of only one type, size, and weight. · If multiple sheets have caused a paper jam, clear the paper jam.
Paper does not feed into the machine.	· Remove any obstructions from inside the machine. · Paper has not been loaded correctly. Remove paper from the tray and reload it correctly. · There is too much paper in the tray. Remove excess paper from the tray. · The paper is too thick. Use only paper that meets the specifications required by the machine. · If an original does not feed into the machine, the ADF rubber pad may require to be replaced.
The paper keeps jamming.	· There is too much paper in the tray. Remove excess paper from the tray. If you are printing on special materials, use the mamual tray. · An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine. · There may be debris inside the machine. Open the front cover and remove the debris. · If an original does not feed into the machine, the ADF rubber pad may require to be replaced.
Transparencies stick together in the paper exit.	Use only transparencies specifically designed for laser printers. Remove each transparency as it exits from the machine.
Envelopes skew or fail to feed correctly.	Ensure that the paper guides are against both sides of the envelopes.

Printing problems

Condition	Possible cause	Suggested solutions
The machine does not print.	The machine is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The machine is not selected as the default printer.	Select Phaser 6110 MFP Series as your default printer in your Windows.
	Check the machine for the following: · The front cover is not closed. Close the cover. · Paper is jammed. Clear the paper jam. · No paper is loaded. Load paper. · The toner cartridge is not installed. Install the toner cartridge. If a system error occurs, contact your service representative.	
	The connection cable between the computer and the machine is not connected properly.	Disconnect the printer cable and reconnect it.
	The connection cable between the computer and the machine is defective.	If possible, attach the cable to another computer that is working properly and print a job. You can also try using a different printer cable.
	The port setting is incorrect.	Check the Windows printer setting to make sure that the print job is sent to the correct port. If the computer has more than one port, make sure that the machine is attached to the correct one.
	The machine may be configured incorrectly.	Check the printer properties to ensure that all of the print settings are correct.
The machine does not print. (continued)	The printer driver may be incorrectly installed.	Repair the printer software. See the Software Section.
	The machine is malfunctioning.	Check the display message on the control panel to see if the machine is indicating a system error.
The machine selects print materials from the wrong paper source.	The paper source selection in the printer properties may be incorrect.	For many software applications, the paper source selection is found under the Paper tab within the printer properties. Select the correct paper source. See the printer driver help screen.

Condition	Possible cause	Suggested solutions
A print job is extremely slow.	The job may be very complex.	Reduce the complexity of the page or try adjusting the print quality settings.
	If you are using Windows 9x/Me, the Spool Setting may be set incorrectly.	From the Start menu, choose Settings and then Printers. Right-click the Phaser 6110 MFP Series machine icon, choose Properties, click the Details tab, and then choose the Spool Settings button. Select the desired spool setting.
Half the page is blank.	The page orientation setting may be incorrect.	Change the page orientation in your application. See the printer driver help screen.
	The paper size and the paper size settings do not match.	Ensure that the paper size in the printer driver settings matches the paper in the tray. Or, ensure that the paper size in the printer driver settings matches the paper selection in the software application settings you use.
The machine prints, but the text is wrong, garbled, or incomplete.	The printer cable is loose or defective.	Disconnect the printer cable and reconnect. Try a print job that you have already printed successfully. If possible, attach the cable and the machine to another computer and try a print job that you know works. Finally, try a new printer cable.
	The wrong printer driver was selected.	Check the application's printer selection menu to ensure that your machine is selected.
	The software application is malfunctioning.	Try printing a job from another application.
	The operating system is malfunctioning.	Exit Windows and reboot the computer. Turn the machine off and then back on again.
Pagesprint, but are blank.	The toner cartridge is defective or out of toner.	Redistribute the toner, if necessary. If necessary, replace the toner cartridge.
	The file may have blank pages.	Check the file to ensure that it does not contain blank pages.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.
The illustrations print incorrectly in Adobe Illustrator.	The setting in the software application is wrong.	Select Download as Bit Image in the TrueType Options window of the graphic properties and print the document again.

Scanning problems

Condition	Suggested solutions
The scanner does not work.	· Make sure that you place the original to be scanned face down on the scanner glass, or face up in the ADF. · There may not be enough available memory to hold the document you want to scan. Try the Prescan function to see if that works. Try lowering the scan resolution rate. · Check that the USB cable is connected properly. · Make sure that the USB cable is not defective. Switch the cable with a known good cable. If necessary, replace the cable. · Check that the scanner is configured correctly. Check scan setting in the SmarThru Configuration or the application you want to use to make certain that the scanner job is being sent to the correct port.
The unit scans very slowly.	· Check if the machine is printing received data. If so, scan the document after the received data has been printed. · Graphics are scanned more slowly than text. · Communication speed slows in scan mode because of the large amount of memory required to analyze and reproduce the scanned image. Set your computer to the ECP printer mode through BIOS setting. It will help to increase the speed. For details about how to set BIOS, refer to your computer user's guide.
Message appears on your computer screen: · "Device can't be set to the H/W mode you want." · "Port is being used by another program." · "Port i s Disabled. · "Scanner is busy receiving or printing data. When the current job is completed, try again." · "Invalid handle." · "Scanning has failed."	· There may be a copying or printing job in progress. When that job is complete, try your job again. · The Selected port is currently being used. Restart your computer and try again. · The printer cable may be improperly connected or the power may be off. · The scanner driver is not installed or the operating environment is not set up properly. · Ensure that the machine is properly connected and the power is on, Then restart your computer. · The USB cable may be improperly connected or the power may be off.

Network Scan problems

Condition	Suggested solutions
I cannot find a scanned image file.	You can check the scanned file's destination in the Advanced page in the Network Scan program's Properties screen.
I cannot find the scanned image file after scanning.	· Check if the scanned file's application is on your computer. · Check Open immediately with the default application in the Advanced page in the Network Scan program's Properties screen to open the scanned image immediately after scanning.
I forgot my ID and PIN.	Check your ID and PIN in the Server page in the Network Scan program's Properties screen.
I cannot view the Help file.	To view the Help file, you need to have Internet Explorer 4 service pack 2 or above.
I cannot use the Xerox Network Scan Manager.	Check your operating system. Supporting operating systems are Windows 98/Me/NT 4.0/2000/XP/2003.

Fax problems

Condition	Suggested solutions
The machine is not working, there is no display and the buttons are not working.	· Unplug the power cord and plug it in again. · Ensure that there is power to the electrical outlet.
No dial tone sounds.	· Check that the phone line is connected properly. · Check that the phone socket in the wall is working by plugging in another phone.
The numbers stored in memory do not dial correctly.	Make sure that the numbers are stored in memory correctly.
The original does not feed into the machine.	· Make sure that the paper is not wrinkled and you are putting it in correctly. Check that the original is the right size, not too thick or thin · Make sure that the ADF is firmly closed. · The ADF rubber pad may need to be replaced.
Faxes are not received automatically.	· The receiving mode should be set to Fax. · Make sure that there is paper in the tray. · Check to see if the display shows any error message. If it does, clear the problem.

Condition	Suggested solutions
The machine does not send.	· Make sure that the original is loaded in the ADF or on the scanner glass. · Sending should show up on the display. · Check the fax machine you are sending to, to see if it can receive your fax.
The incoming fax has blank spaces or is of poor-quality.	· The fax machine sending you the fax may be faulty. · A noisy phone line can cause line errors. · Check your machine by making a copy. · The toner cartridge may be empty.
Some of the words on an incoming fax are stretched.	The fax machine sending you the fax had a temporary document jam.
There are lines on the originals you send.	Check your scan unit for marks and clean it.
The machine dials a number, but a connection with the other fax machine fails.	The other fax machine may be turned off, out of paper, or cannot answer incoming calls. Speak with the other machine operator and ask her/him to sort out the problem.
Faxes do not store in memory.	There may not be enough memory space to store the fax. If the display shows the Memory Full message, delete from memory any faxes you no longer need and then try again to store the fax.
Blank areas appear at the bottom of each page or on other pages, with a small strip of text at the top.	You may have chosen the wrong paper settings in the user option setting. For details about paper settings.

Common Windows problems

Condition	Suggested solutions
"File in Use" message appears during installation.	Exit all software applications. Remove all software from the StartUp Group, then restart Windows. Reinstall the printer driver.
"Error Writing to LPTx" message appears.	· Ensure that the cables are connected correctly, the machine is on. · If bi-directional communication is not turned on in the driver, it will also cause this message.
"General Protection Fault", "Exception OE", "Spool32", or "Illegal Operation" messages appear.	Close all other applications, reboot Windows and try printing again.
"Fail To Print", "A printer timeout error occurred." messages appear.	These messages may appear during printing. Just keep waiting until the machine finishes printing. If the message appears in standby mode or after printing has been completed, check the connection and/or whether an error has occurred.

7.2.9 Common Linux problems

Condition	Suggested solutions
The machine does not print.	· Check if the printer driver is installed in your system. Open MFP configurator and switch to the Printers tab in Printers configuration window to look at the list of available printers. Make sure that your machine is displayed on the list. If not, please, invoke Add new printer wizard to set up your device. · Check if the printer is started. Open Printers configuration and select your machine on the printers list. Look at the description in the Selected printer pane. If its status contains "(stopped)" string, please, press the Start button. After that normal operation of the printer should be restored. The "stopped" status might be activated when some problems in printing occurred. For instance, this could be an attempt to print document when MFP port is claimed by a scanning application. · Check if the MFP port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (MFP port), the situation of simultaneous access of different "consumer" application to the same MFP port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other "consumer" will encounter "device busy" response. You should open MFP ports configuration and select the port assigned to your printer. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present owner is not functioning properly. · Check if your application has special print option such as "-oraw". If "-oraw" is specified in the command line parameter then remove it to print properly. For Gimp front-end, select "print" -> "Setup printer" and edit command line parameter in the command item.
The machine does not appear on the scanners list.	· Check if your machine is attached to your computer. Make sure that it is connected properly via the USB port and is turned on. · Check if the scanner driver for your machine is installed in your system. Open MFP Configurator, switch to Scanners configuration, then press Drivers. Make sure that driver with a name corresponding to your machine's name is listed in the window.Check if the MFP port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (MFP port), the situation of simultaneous access of different "consumer" application to the same MFP port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other "consumer" will encounter "device busy" response. This can usually happen while starting scan procedure, and appropriate message box appears. · To identify the source of the problem, you should open MFP ports configuration and select the port assigned to your scanner. MFP port's symbol /dev/mfp0 corresponds to LP:0 designation displayed in the scanners' options, /dev/mfp1 relates to LP:1 and so on. USB ports start at /dev/mfp4, so scanner on USB:0 relates to /dev/mfp4 respectively and so forth sequentially. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present port's owner is not functioning properly.

Condition	Suggested solutions
The machine does not scan.	· Check if a document is loaded into the machine. · Check if your machine is connected to the computer. Make sure if it is connected properly if I/O error is reported while scanning. · Check if the MFP port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (MFP port), the situation of simultaneous access of different "consumer" application to the same MFP port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other "consumer" will encounter "device busy" response. This can usually happen while starting scan procedure, and appropriate message box will be displayed. To identify the source of the problem, you should open MFP ports configuration and select the port assigned to your scanner. MFP port's symbol /dev/mfp0 corresponds to LP:0 designation displayed in the scanners' options, /dev/mfp1 relates to LP:1 and so on. USB ports start at /dev/mfp4, so scanner on USB:0 relates to /dev/mfp4 respectively and so forth sequentially. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present port's owner is not functioning properly.
I cannot print when I installed both Linux Print Package (LPP) and MFP driver on the same machine simultaneously.	· Since both Linux Printer Package and MFP driver make a symbolic link to "lpr" printing command, which is commonly used on Unix clones, it is not recommended to use both package on the same machine. · If you still want to use both packages simultaneously, please install the LPP first. · If you want to uninstall only one of them, please uninstall both packages and install that one you want to use again. · If you don't want to uninstall MFP driver and install it again, you may make the necessary symbolic link yourself. Please, log in as root user and invoke the following command: ln -sf /usr/local/bin/xerox/slpr /usr/bin/lpr
I cannot scan via Gimp Front-end.	· Check if Gimp Front-end has "Xsane:Device dialog." on the "Acquire" menu. If not, you should install Xsane plug-in for Gimp on the your computer. You can find Xsane plug-in package for Gimp on Linux distribution CD or Gimp home page. For the detail information, refer to the Help for Linux distribution CD or Gimp Front-end application. If you wish to use other kind of scan application, refer to the Help for application.
I encounter error "Cannot open MFP port device file" when printing a document.	Please avoid changing print job parameters (via SLPR utility, for example) while a print job is in progress. Known versions of CUPS server break the print job whenever print options are changed and then try to restart the job from the beginning. Since Linux MFP driver locks MFP port while printing, the abrupt termination of the driver keeps the port locked and therefore unavailable for subsequent print jobs. If this situation occurred, please, try to release the MFP port.

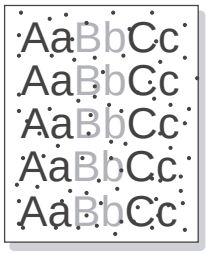
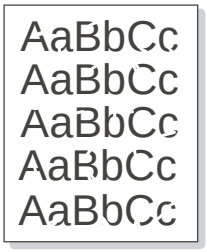
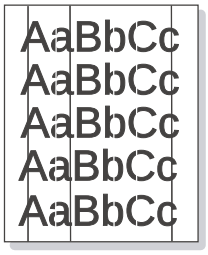
Macintosh problems

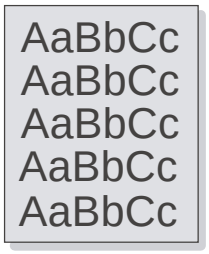
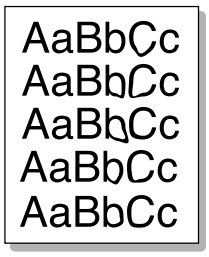
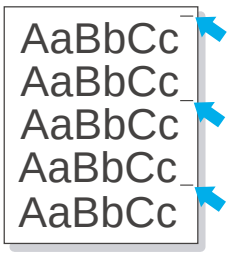
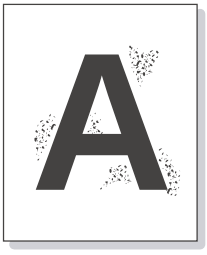
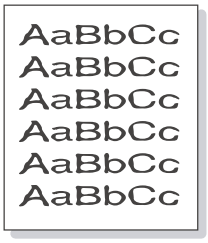
Condition	Suggested solutions
The printer does not print a document from Acrobat Reader.	You should change the Print Method option to Print as Image when you print from Acrobat Reader.
The document has printed, but the print job has not disappeared from the spooler in Mac OS 10.3.2.	Update your Mac OS to OS 10.3.3. or higher.

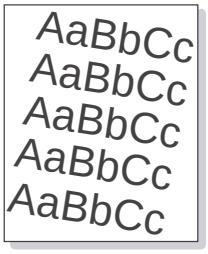
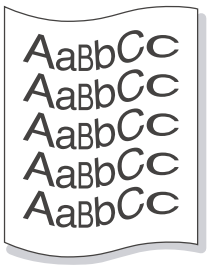
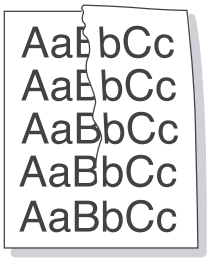
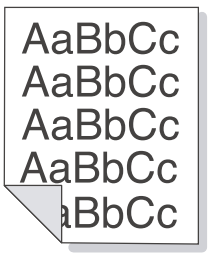
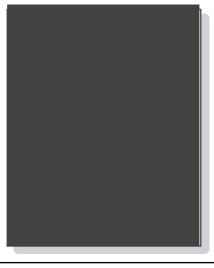
Section 3 Image Quality

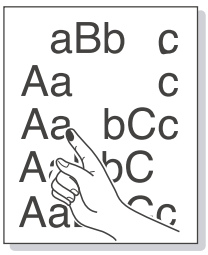
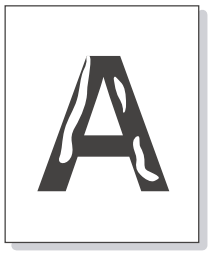
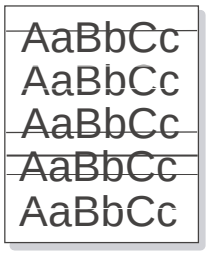
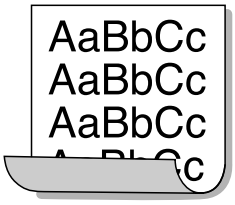
Print Quality Problems

Dirt inside of the printer or improper paper loading may reduce print quality. See the table below to troubleshoot problems.

Problem	Solution
Light or faded print 	If a vertical white streak or faded area appears on the page: · The toner supply is low. You may be able to temporarily extend the toner cartridge life. If this does not improve print quality, install a new toner cartridge. · The paper may not meet paper specifications (for example, the paper is too moist or too rough). · A combination of faded or smeared defects may indicate that the printer needs cleaning.
Toner specks 	The paper may not meet specifications (for example, the paper is too moist or too rough).
Dropouts 	If generally rounded, faded areas occur randomly on the page: · A single sheet of paper may be defective. Try reprinting the job. · The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different brand of paper. · The paper lot is bad. The manufacturing process can cause some areas to reject toner. Try a different kind or brand of paper. · The toner cartridge may be defective. See "Vertical repetitive defects" on the next page. · If these steps do not correct the problems, contact a service representative.
Vertical lines 	If black vertical streaks appear on the page: · A imaging unit has probably been scratched. Remove the imaging unit and install a new one. If white vertical lines appear on the page: · Clean the inside of the printer. If you still have the same problems, replace the imaging unit with a new one.

Problem	Solution
Color or Black background 	If the amount of background shading becomes unacceptable, the procedures below may fix the problem. · Change to lighter weight paper. · heck the printer's environment; very dry (low humidity) or high humidity (higher than 80% RH) conditions can increase the amount of background shading. · Remove one of the old toner cartridges and install a new one.
Toner smear 	· Clean the inside of the printer. · Check the paper type and quality. · Remove the imaging unit and install a new one.
Vertical repetitive defects 	If marks repeatedly appear on the printed side of the page at even intervals: · Clean the inside of the printer. After cleaning the inside of the printer, if you still have the same problems, install a new toner cartridge of the problem color. · Parts of the printer may have toner on them. If the defects occur on the back of the page, the problem will likely correct itself after a few more pages. · The fusing assembly may be damaged. Contact a service representative.
Background scatter 	Background scatter results from bits of toner distributed on the printed page. · The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture. · If background scatter occurs on an envelope, change the printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause problems. · If background scatter covers the entire surface area of a printed page, adjust the print resolution through your software application or via the printer properties window.
Misformed characters 	· If characters are improperly formed and producing hollowed images, the paper stock may be too slick. Try a different paper. · If characters are improperly formed and producing a wavy effect, the printer may need service. Verify that it also occurs on a demo page.

Problem	Solution
Page skew 	· Ensure that the paper is loaded properly. · Check the paper type and quality. · Ensure that the paper or other material is loaded correctly and the guides are not too tight or too loose against the paper stack.
Page skew 	· Ensure that the paper is loaded properly. · Check the paper type and quality. Both high temperature and high humidity can cause paper curl. · Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.
Wrinkles or creases 	· Ensure that the paper is loaded properly. · Check the paper type and quality. · Turn the stack of paper over in the paper tray. Also try rotating the paper 180° in the tray.
Back of printouts aredirty 	· Check for leaking toner. Clean the inside of the printer.
Solid Color or Black pages 	· The toner cartridge may not be installed properly. Remove the toner cartridge and reinsert. · The toner cartridge may be defective and need replacing. Install a new toner cartridge. · The printer may require repair. Contact a service representative.

Problem	Solution
Loose toner 	· Clean the inside of the printer. · Check the paper type and quality. · Install a new toner cartridge. · If the problem persists, the printer may require repair. Contact a service representative.
Character Voids 	Character voids are white areas within characters that should be solid black: · You may be printing on the wrong surface of the paper. Remove the paper and turn it over. · The paper may not meet paper specifications.
Horizontal stripes 	If horizontally aligned color or black streaks or smears appear: · A toner cartridge may be installed improperly. Remove the toner cartridge and reinsert. · A toner cartridge may be defective. Install a new toner cartridge. · If the problem persists, the printer may require repair. Contact a service representative.
Curl 	If the printed paper is curled or paper does not feed into the printer: · Turn the stack of paper over in the paper tray. Also try rotating the paper 180° in the tray.

Major Problems Trouble shooting

Vertical Line and Band

Error	Vertical Line and Band
[Description]	1. Straight thin black vertical line occurs in the printing. 2. Dark black vertical band occur in the printing.
[Wrong Part]	1. LSU 2. Developer
[Check and Cause]	1. Damaged develop roller in the Developer. Deformed Doctor-blade or cleaningblade. 2. Scratched surface of the discharge roller in the developer. 3. Partly depression or deformation on the surface of the transfer roller.
[Solution]	1. If causes 1 and 2 occur in the developer unit, replace the developer and try to print out. 2. Replace the transfer roller if occurred as No. 3.
[Etc]	

Vertical White Line

Error	Vertical White Line
[Description]	White vertical voids in the image.
[Wrong Part]	1.LSU
[Check and Cause]	1. Foreign matter stuck onto the window of internal lenses of LSU mirror. 2. Foreign matter or toner particles between the developer roller and blade. (In case the life of the developer has been expired, white lines or light image occur in front of the image.) 3. It may occur when Burr and foreign substances are on the window of the developer frame. 4. If the fuser is defective, voids occur periodically at the top of a black image.
[Solution]	1. Foreign matter stuck onto the window : Clean the LSU window with recommended cleaner(IPA) Clean the window with a clean cotton swab. 2. Foreign matter in the LSU : Open the cover of LSU and clean with a cotton swab on the surface of the reflex mirror. 3. No 3. : Remove the foreign matter and burr of the exposure window. (Developer cartridge) 4. No. 4. : Open the front cover and check ribs that corresponds to the position of the voids. Remove if found. 5. If the problems are not solved, replace the developer cartridge.

Light Image

Error	Light Image
[Description]	1. The printed image is light, with no ghost.
[Wrong Part]	1. Developer 2. HVPS
[Check and Cause]	1. Develop roller is stained when the toner of developer cartridge is almost consumed. 2. Ambient temperature is below than 10°C. 3. Bad contact caused by the toner stains between the high voltage terminal in the HVPS and the one in the set. 4. Abnormal output from the HVPS.
[Solution]	1. Replace the developer cartridge and try to print out. 2. Wait 30 minutes after printer is powered on before you start printing. 3. Clean up the contaminated area by the toner. 4. Replace the HVPS if the problems are not solved by the above four directions.

Dark Image or black

Error	Dark Image or black
[Description]	The printed image is dark.
[Wrong Part]	1. HVPS
[Check and Cause]	1. No charge voltage in the HVPS board. 2. Charge voltage is not turned on due to the bad contacts between power supply in the side of the Developer and charge terminal of HVPS.
[Solution]	1. Clean the high voltage charge terminal. 2. Check the state of the connector which connects the engine board and HVPS. 3. Replace the HVPS if not solved by the above direction 1 and 2.

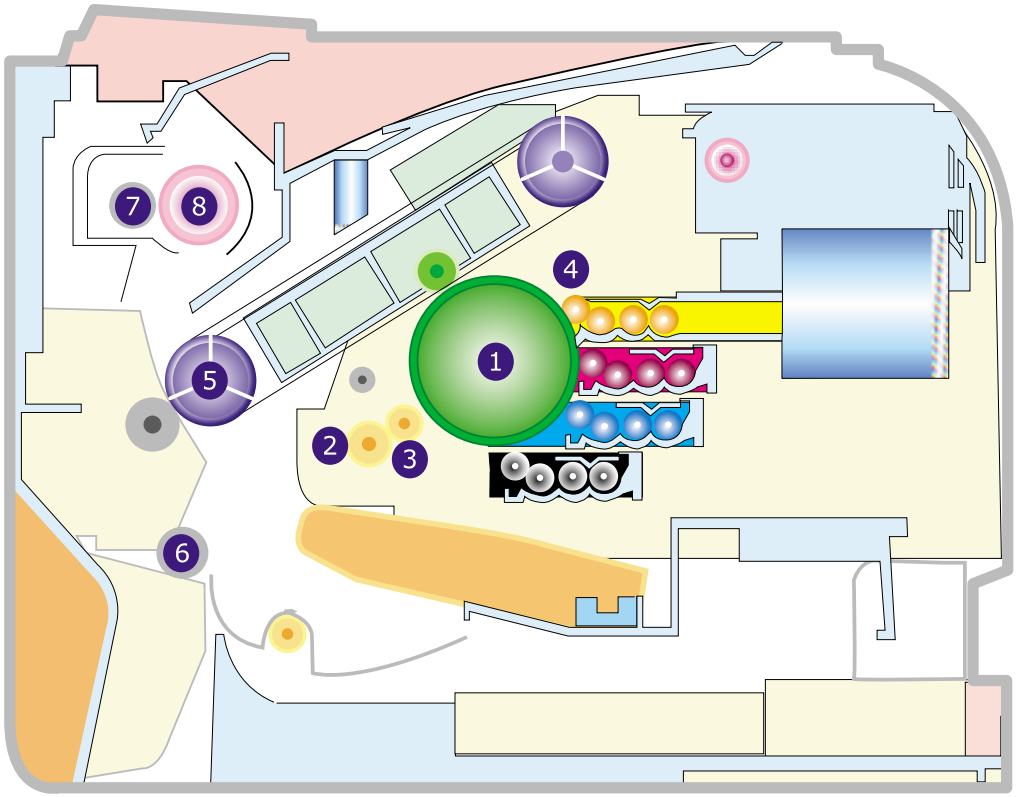
Background

Error	Background
[Description]	Light dark background appears in whole area of the printing.
[Wrong Part]	1. HVPS 2. Developer
[Check and Cause]	1. Does character exist less than 2% per a page, and hasn't it been used long time? 2. Does recycle paper be used? 3. Has the life span of the developer ended? 4. Is the movement(Up and Down) of the transfer roller smooth? 5. Is the HVPS normal?
[Solution]	1. The toner cartridge is basically designed to print 3,000 sheets with 5% image. If it prints more than 3,000 sheets (around 5,000 sheets) with 2% image, a background can be occurred. 2. The B/S is not guaranteed if using recycle paper. 3. Replace the developer when the life span of it has been ended. 4. Clean the bushing part of the transfer roller. 5. If the problem is still not solved, replace the developer.

Periodic Defective Image

If an image defects appears at regular intervals on the printed-paper, it is due to a faulty or damaged roller. Refer to the table below and check the condition of the appropriate roller.

No	Roller	Period	Phenomenon
1	OPC Drum	188.5 mm	White and Black Spots
2	Charge Roller	37.7mm	Black Spot and line and Periodic Band
3	Supply Roller	47.5mm	Periodic Band by little difference of density
4	Developing Roller	26.0mm	White Spot, Horizontal black band
5	1st Transfer Roller	32.7mm	Ghost, Damaged Image by abnormal tranfer
6	2nd Transfer Roller	57.5mm	Ghost, Damaged Image by abnormal tranfer
7	Heat Roller	86.6mm	Black Spots or Vertical Black Band
8	Pressure Roller	86.6mm	Background



ESD Precautions

Certain semiconductor devices can be easily damaged by static electricity. Such components are commonly called “Electrostatically Sensitive (ES) Devices”, or ESDs. Examples of typical ESDs are: integrated circuits, some field effect transistors, and semiconductor “chip” components.

The techniques outlined below should be followed to help reduce the incidence of component damage caused by static electricity.

Caution >>Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

1. Immediately before handling a semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, employ a commercially available wrist strap device, which should be removed for your personal safety reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ESDs, place the assembly on a conductive surface, such as aluminum or copper foil, or conductive foam, to prevent electrostatic charge buildup in the vicinity of the assembly.
3. Use only a grounded tip soldering iron to solder or desolder ESDs.
4. Use only an “anti-static” solder removal device. Some solder removal devices not classified as “anti-static” can generate electrical charges sufficient to damage ESDs.
5. Do not use Freon-propelled chemicals. When sprayed, these can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective packaging until immediately before installing it. Most replacement ESDs are packaged with all leads shorted together by conductive foam, aluminum foil, or a comparable conductive material.
7. Immediately before removing the protective shorting material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
8. Maintain continuous electrical contact between the ESD and the assembly into which it will be installed, until completely plugged or soldered into the circuit.
9. Minimize bodily motions when handling unpackaged replacement ESDs. Normal motions, such as the brushing together of clothing fabric and lifting one’s foot from a carpeted floor, can generate static electricity sufficient to damage an ESD.

Super Capacitor or Lithium Battery Precautions

1. Exercise caution when replacing a super capacitor or Lithium battery. There could be a danger of explosion and subsequent operator injury and/or equipment damage if incorrectly installed.

2. Be sure to replace the battery with the same or equivalent type recommended by the manufacturer.

3. Super capacitor or Lithium batteries contain toxic substances and should not be opened, crushed, or burned for disposal.

4. Dispose of used batteries according to the manufacture’s instructions.

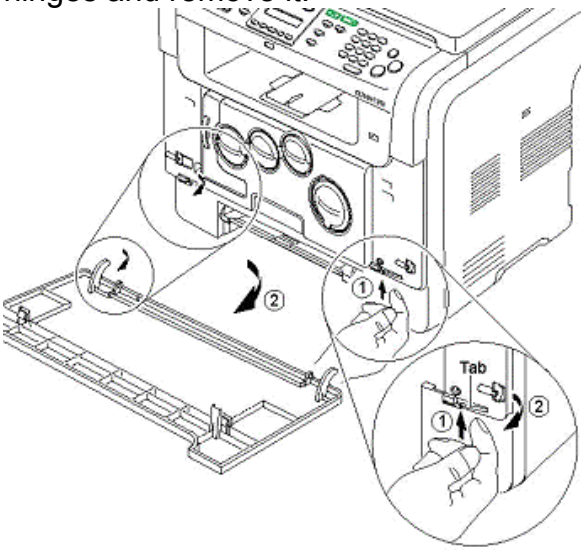
Section 4 Repairs and Adjustments

4 Disassembly Procedure

4.1 Covers

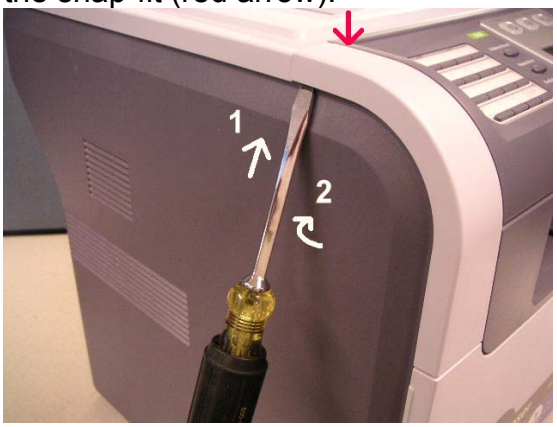
Front Cover

1. Open the Front Cover.
2. Push up the Tab (1) and slide the Front Cover to the right to disengage the hinges and remove it.



Corner Cover

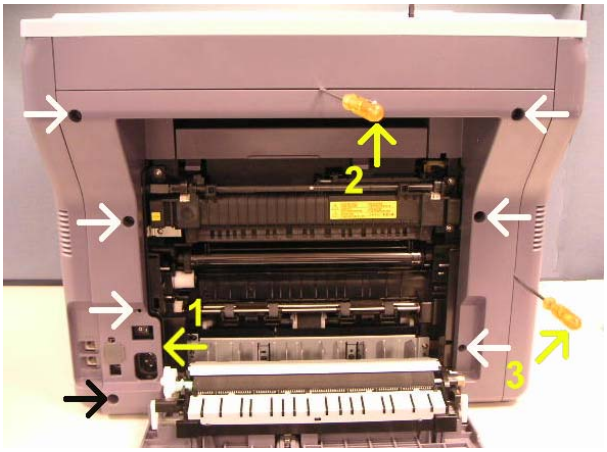
1. *NOTE: Procedure is the same for both sides, (left side is shown).*
   Push up end of Corner Cover slightly with large flat blade screwdriver (1) and then rotate screwdriver (2) to release the snap-fit (red arrow).



2. Pull Corner Cover toward front to remove cover.

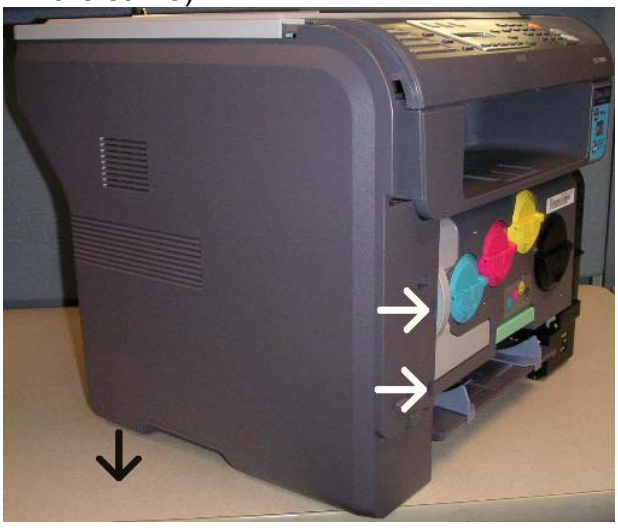
Rear Surround Cover

1. Open the Rear Cover.
2. Remove the Screws (7) and press the cover at the Yellow Arrows to release the snap-fits and pull out the cover to remove it.



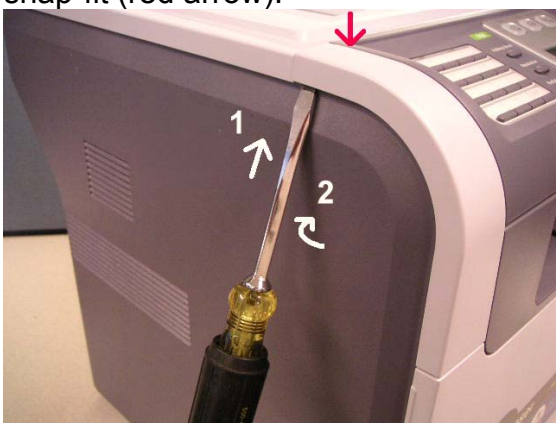
Left Cover/Right Cover

1. Remove Left or Right Corner Cover.
2. Remove Rear Surround Cover.
3. Remove the Screws (2). Use a flat blade screwdriver to release the bottom snap-fit (black arrow) and pull cover out and down to remove it (Right Cover is the same).



4.1.1 Control Console (OPE)

1. Remove Corner Covers by pushing up end of Corner Cover slightly with large flat blade screwdriver (1) and then rotate screwdriver (2) to release the snap-fit (red arrow).



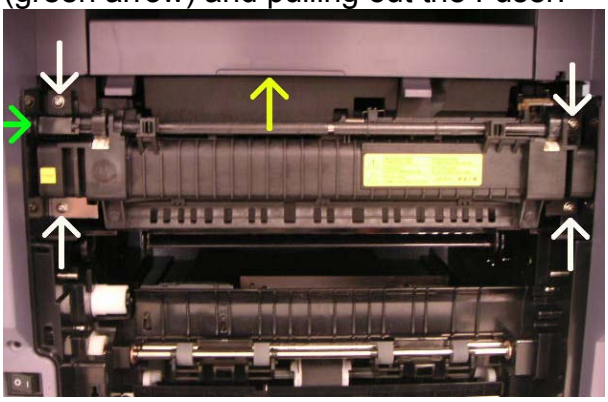
2. Pull Corner Cover toward front to remove cover.
3. Remove other Corner Cover.
4. CAUTION Harnesses must be disconnected after lifting Control Console.
   Remove Control Console by removing Screws (2, upper arrows), lifting Control Console to disengage mounts on each side (lower arrows), bending side covers out to move front of Control Console up and disengage mounts along rear edge. Disconnect connectors (2) but leave battery connected.

4 Disassembly Procedure

4.2 Fuser

WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about procedures.

1. Open Rear Cover.
2. Remove the Fuser by lifting paper guide (yellow arrow), removing Screws (4), moving drive coupling as indicated (green arrow) and pulling out the Fuser.

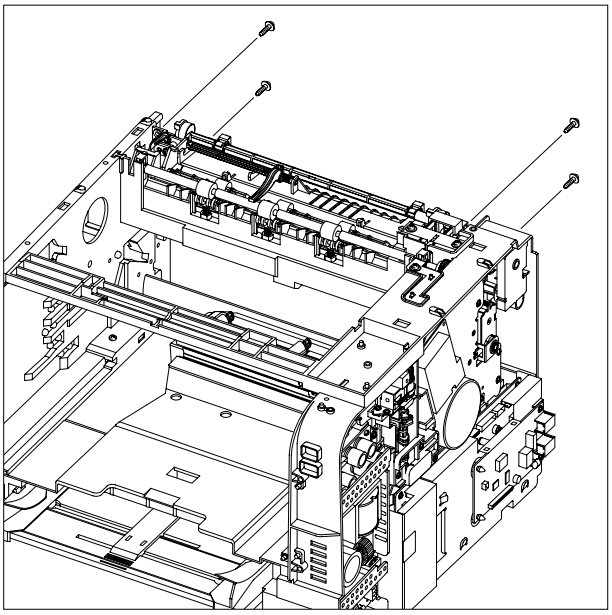


CAUTION
While replacing the Fuser ensure the electrical connectors engage correctly.

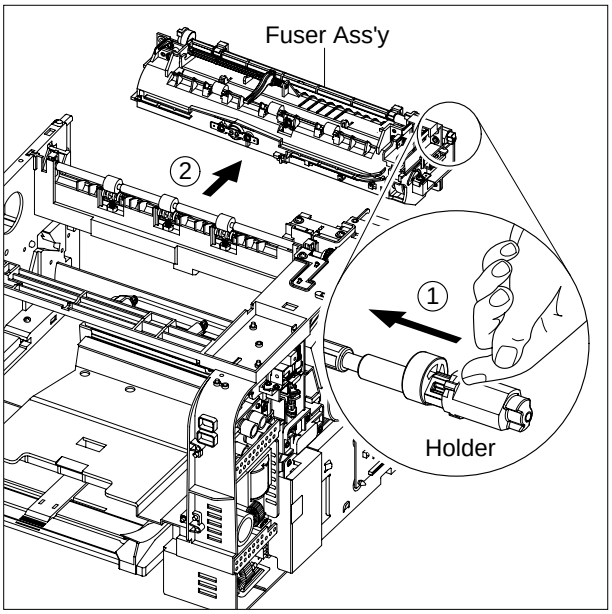
4.2.1 Fuser Assembly

1. Remove the Fuser Assembly, steps 2 and 3.

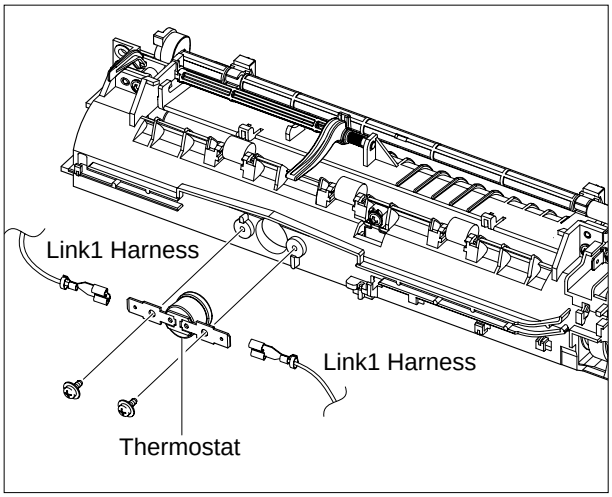
2. Remove the four screws securing the Fuser Ass'y, as shown below.



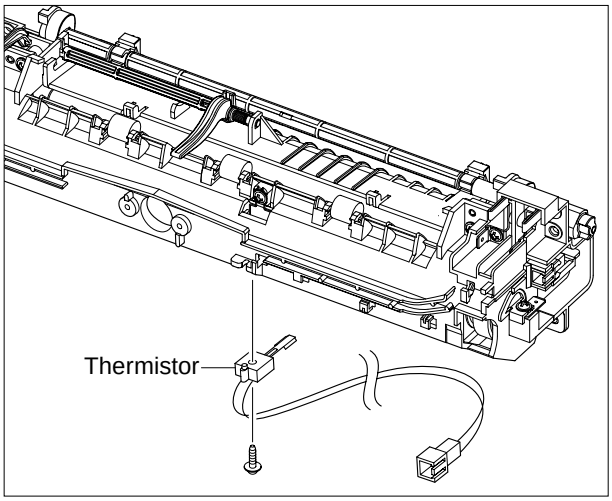
3. To remove the Fuser Ass'y, first pull the Holder in the direction of arrow and then take out the Fuser Ass'y, as shown below.



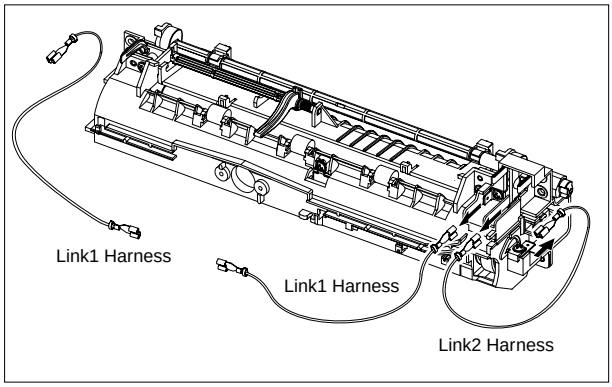
4. To remove the Thermostat, first release the Link1 Harness below the both side of the Thermostat and then remove the two screws securing the Thermostat and remove it, as shown below.



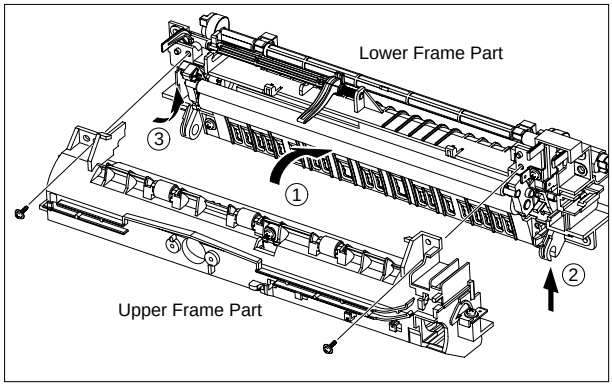
5. Remove the one screw securing the Thermistor and release it, as shown below.



6. For easy disassembly, release the Link1 Harness and Link2 Harness, as shown below.

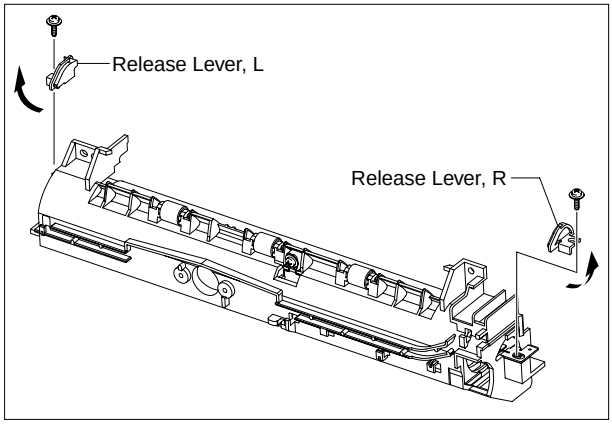


7. Remove the two screws securing the Upper Frame part and then separate the Lower Frame part in the direction of arrow, as shown below.

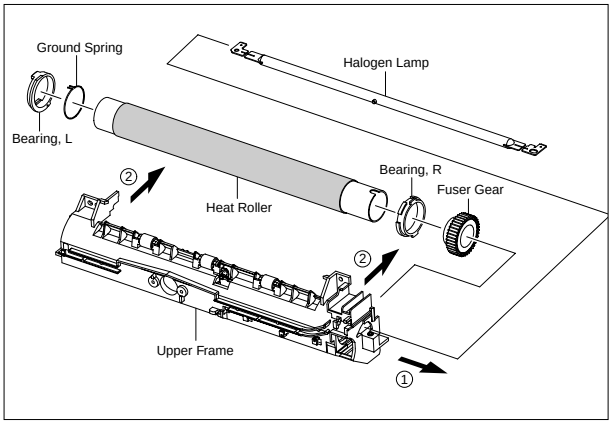


Notice: Be careful especially not to damage the covering of the Fuser Ass'y (If the cover is damaged, it could cause an electric leakage)

8. Remove the two screws securing the Release Lever(L, R) below the both side of the Halogen Lamp and then remove the Release Lever(L,R) in the direction of arrow.

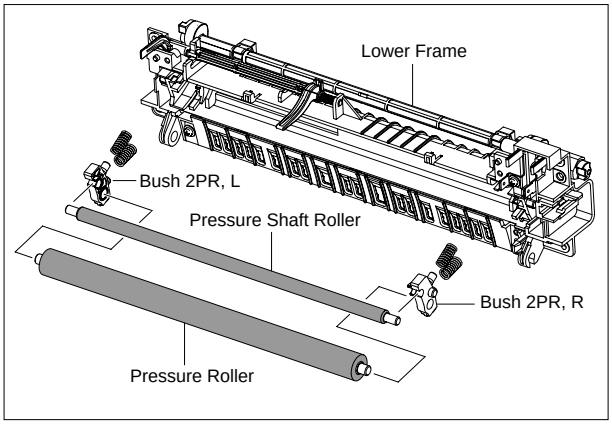


9. Take out the Halogen Lamp in the direction of arrow and then release the Heat Roller, as shown below.



Notice: Be careful not to damage or contaminate the surface of the roller when assembling and disassembling the Heat Roller.

10. Release the Pressure Shaft Roller and Pressure Roller in the direction of arrow, as shown below.

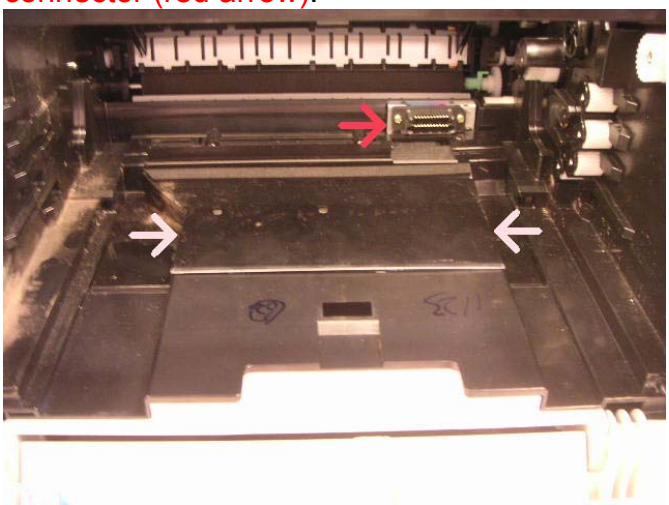


4 Disassembly Procedure

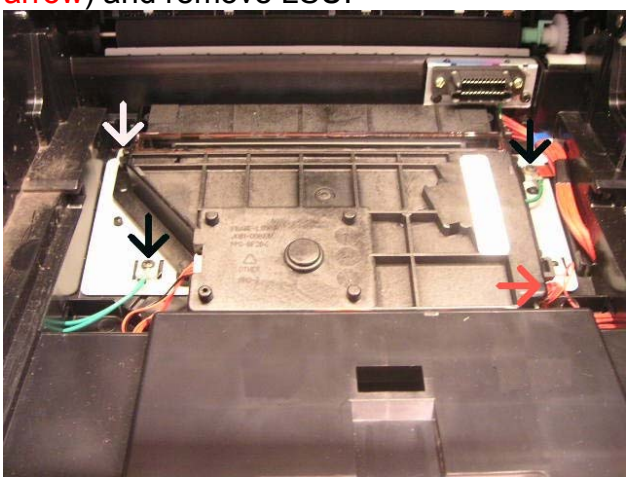
4.3 LSU

WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about safe working practices.

1. Remove Imager Unit and ITB, 4.10
   CAUTION: Protect Imager Unit and ITB from light.
2. Remove LSU Cover by grasping sides of cover and lifting. CAUTION: Use care when moving cover past connector (red arrow).

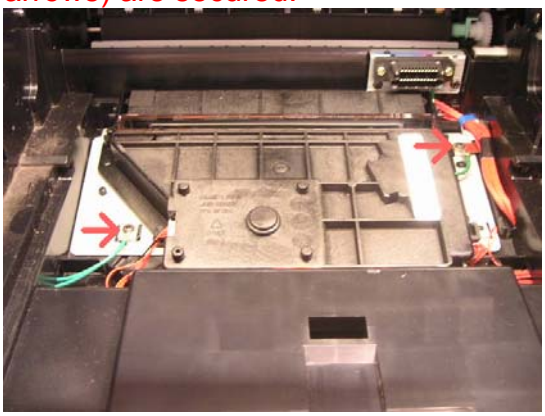


3. Disconnect left electrical plug, remove Screws (3) and lift LSU enough to access and disconnect right side electrical plug (CAUTION: Hold small PWB while disconnecting plug, red arrow) and remove LSU.



Replacement

CAUTION: Ensure ground wires (red arrows) are secured.

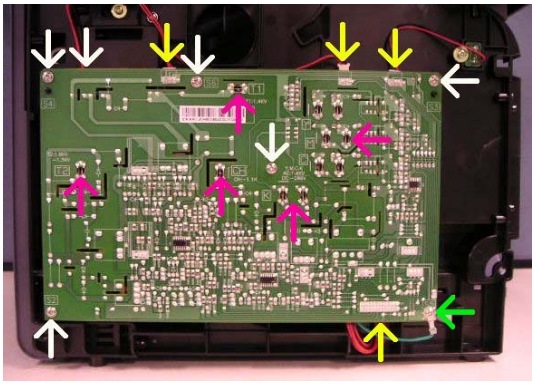


4 Disassembly Procedure

4.4 HVPS

WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about safe working practices.

1. Remove the Rear Surround Cover 4.1.
2. Remove Right Cover and Left Cover, 4.1.
3. Disconnect electrical plugs (3) from top of HVPS (Yellow Arrows). Remove Screws (6), remove HVPS (CAUTION: red arrows show spring contact locations behind PS) and then disconnect bottom electrical plug from rear (Yellow Arrow). CAUTION: Observe ESD practices.



Replacement

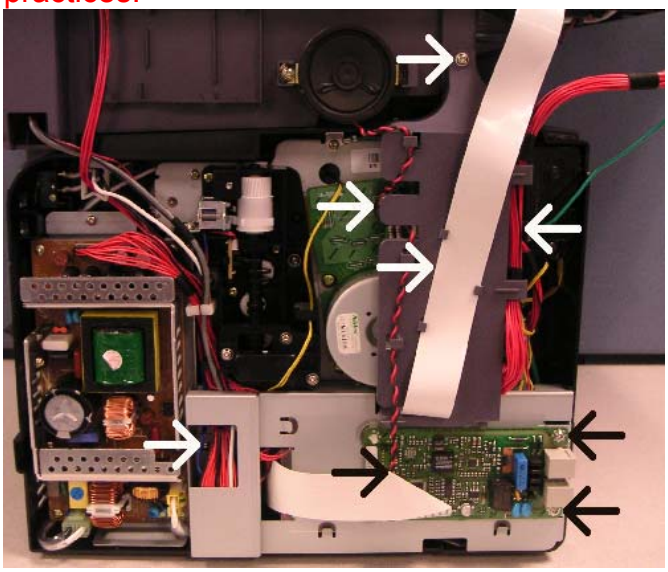
Note: The screw holes are numbered on HVPS for sequential installation. Ensure ground wire is secured (lower right corner).

4 Disassembly Procedure

4.5 FAX PWB

WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about safe working practices.

1. Remove the Rear Surround Cover 4.1.
2. Remove right Corner Cover and Right Cover, 4.1.
3. Remove Ribbon Cable and Wire Harnesses (2) from harness support. Remove Screw and harness support. Disconnect Ribbon Cable and wire harness from FAX PWB. Remove Screws (3) and remove FAX PWB with bracket. CAUTION: Observe ESD practices.



Replacement

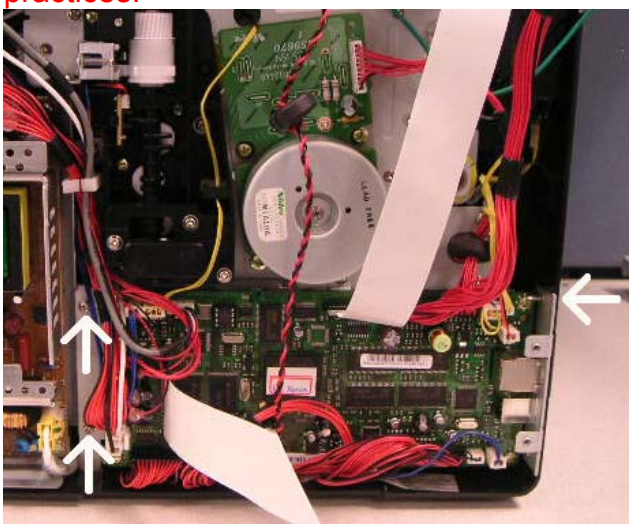
CAUTION: Damaged plugs or Main PWB will result from careless reconnection. Connect plugs carefully.

4 Disassembly Procedure

4.5.5 Main PWB

WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about safe working practices.

1. Remove the Rear Surround Cover 4.1.
2. Remove right Corner Cover and Right Cover, 4.1.
3. Remove the FAX PWB 4.5.
4. Disconnect electrical plugs from Main PWB. Remove Screws (3) and remove PWB. CAUTION: Observe ESD practices.

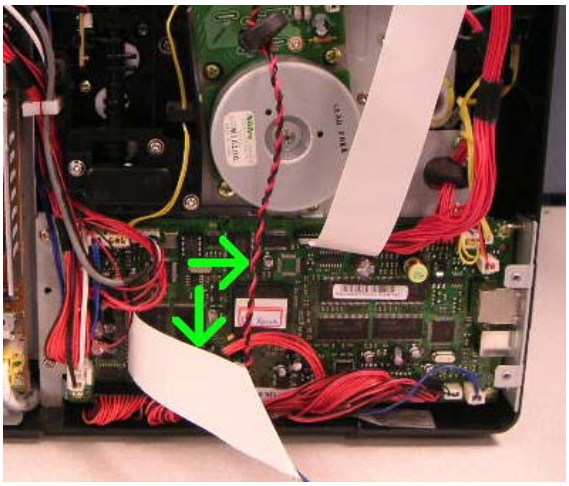


Replacement

CAUTION: Damaged plugs or Main PWB will result from careless reconnection. Connect plugs carefully.

Note: The plugs are different sizes to avoid incorrect connections.

NOTE: Green arrows indicate connections for FAX PWB.

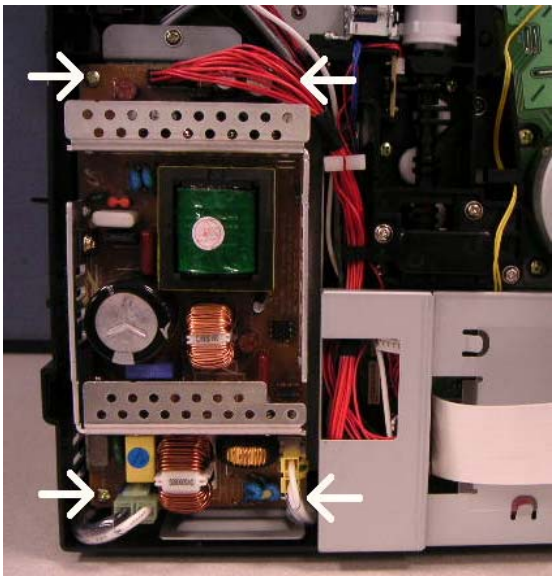


4 Disassembly Procedure

4.6 SMPS

WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about safe working practices.

1. Remove the Rear Surround Cover 4.1.
2. Remove right Corner Cover and Right Cover, 4.1.
3. Disconnect electrical plugs from SMPS. Remove Screws (4, white arrows) and remove SMPS. CAUTION Observe ESD practices.

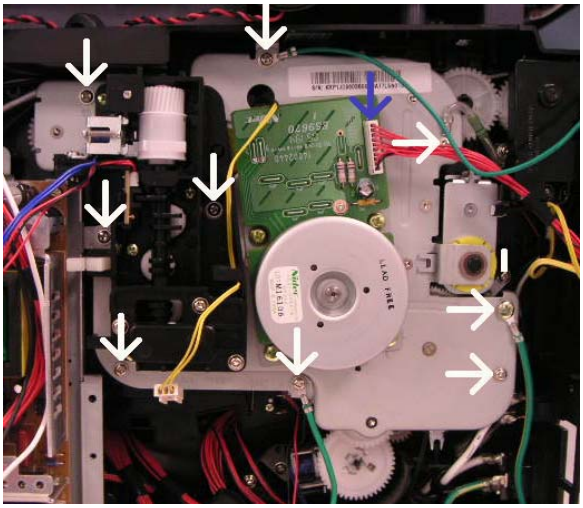


4 Disassembly Procedure

4.7 Drive Unit

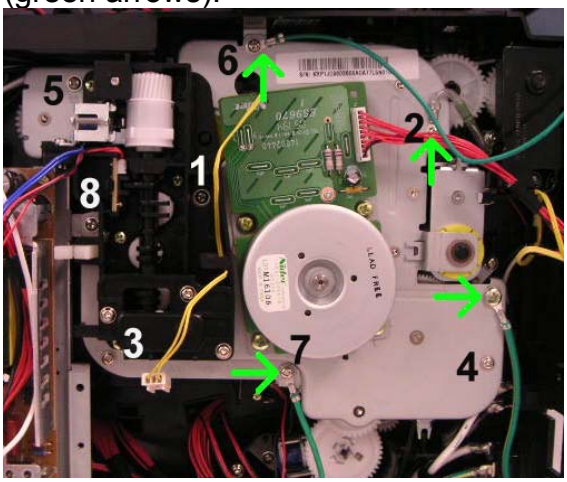
WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about safe working practices.

1. Remove the Rear Surround Cover 4.1.
2. Remove right Corner Cover and Right Cover, 4.1.
3. Remove Main PWB, 4.5.
4. Disconnect electrical plug from Drive Unit (blue arrow). Remove Screws (8) and screw from ground wire and remove Drive Unit. CAUTION: Observe ESD practices.

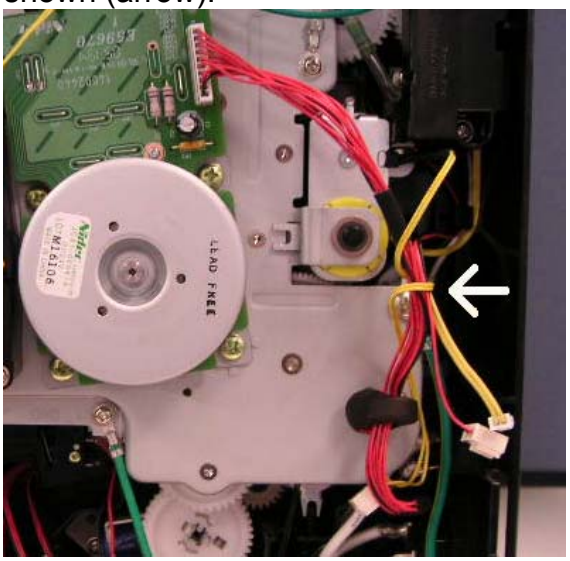


Replacement

Note: the screws are numbered for sequential installation. Ensure ground wires and ground resistor are secured (green arrows).



NOTE: Check wiring is secured as shown (arrow).

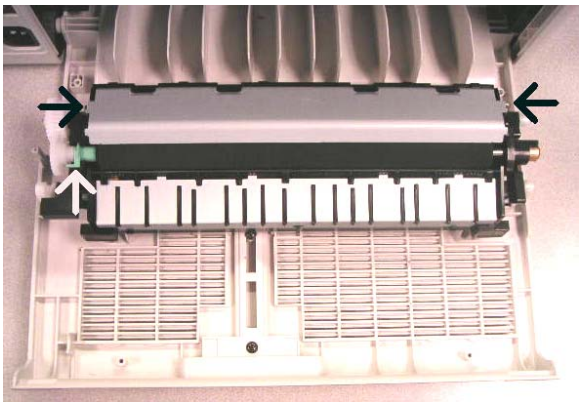


4 Disassembly Procedure

4.8 Transfer Roll

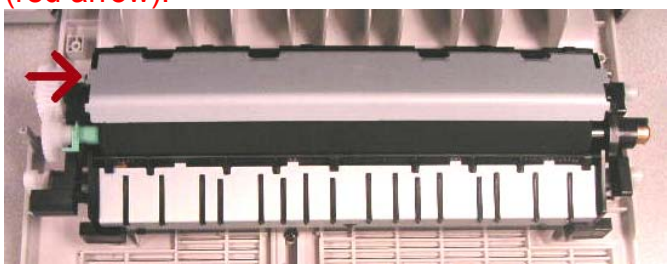
WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about procedures.

1. Open Rear Cover.
2. Remove Transfer Roll by removing Screws (2) and guide. Then rotate green lock up to release Transfer Roll and remove it.



Replacement

CAUTION: Ensure ground wire is secure (red arrow).



4 Disassembly Procedure

4.9 Imager

1. Open Front Cover, pull out Imager (bottom arrow) and grab top handle (top arrow). CAUTION: Protect the Imager from light.

4 Disassembly Procedure

4.10 InterTransfer Belt Module

1. Open Front Cover, pull out Imager (bottom arrow) and grab top handle (top arrow). CAUTION: Protect the Imager from light.

2. Remove InterTransfer Belt Unit by grasping bottom of ITB and pulling out slightly until it releases, lower it slightly, and continue pulling out to remove ITB. NOTE: Carefully observe removal path, especially at rear of ITB, for reinstallation. CAUTION: Do not touch the ITB Belt. Protect it from light.

4.11 Printer Cleaning

A printer should be regularly cleaned, especially if it is used in a dusty environment. This will ensure that print quality remains high and failure due to contamination of printing services is less likely to occur.

* Clean the printer with a soft, lint free, cloth dipped in water.

* Do not touch the transfer roller when cleaning the inside of the printer. Grease and oils from the skin will contaminate the surface and reduce print quality.

Cleaning the Printer

During the printing process, particles of paper, toner, and dust can accumulate inside the printer. Over time, this build-up can cause print quality problems such as toner specks or smearing. Your printer has a cleaning mode that can correct and prevent these types of problems.

Cleaning the Outside of the Printer

Clean the printer cabinet with a soft lint-free cloth. You can dampen the cloth slightly with water, but be careful not to let any water drip onto the printer or inside of it.

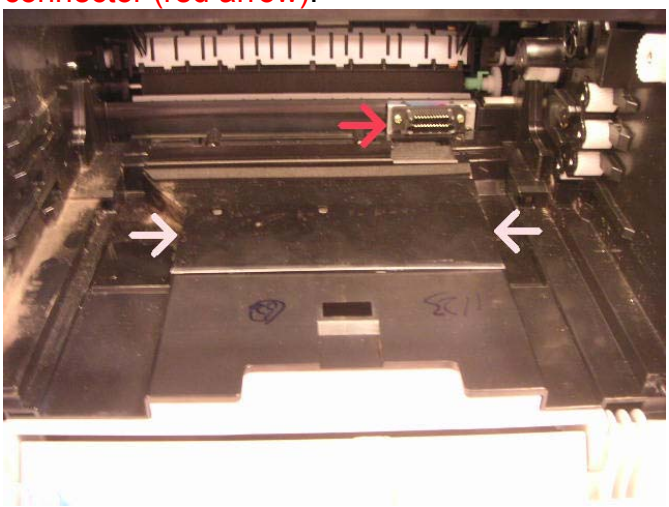
CAUTION: Cleaning the printer cabinet with cleaners containing large amounts of alcohol, solvents, or other strong substances can discolour or crack the cabinet.

4 Disassembly Procedure

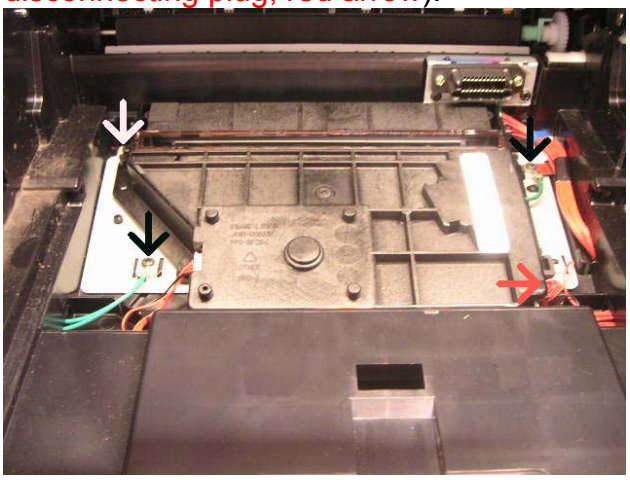
4.12 Feed Roll-Rubber Pick Up

WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about safe working practices.

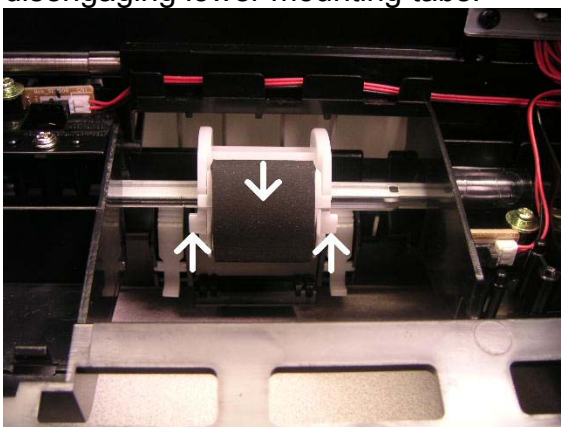
1. Remove Imager Unit and ITB, 4.10
   CAUTION: Protect Imager Unit and ITB from light.
2. Remove LSU Cover by grasping sides of cover and lifting. CAUTION: Use care when moving cover past connector (red arrow).



3. Remove LSU by disconnecting left electrical plug, removing Screws (3) and lifting LSU enough to access and disconnect right side electrical plug (CAUTION: Hold small PWB while disconnecting plug, red arrow).



4. Remove Feed Roll by rotating roll opposite normal feed direction so release tabs are accessible, pushing in both release tabs, pulling top of roll away form shaft, rotating it down and disengaging lower mounting tabs.

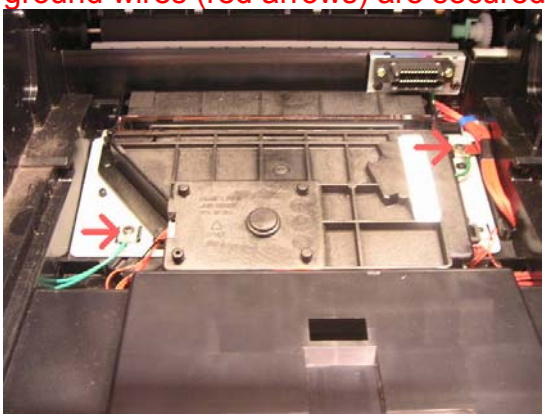


5. Remove Rubber Pick Up from support.

Replacement

NOTE: After replacing rubber pick up rotate feed roll opposite normal feed direction so the opening in feed roll faces down.

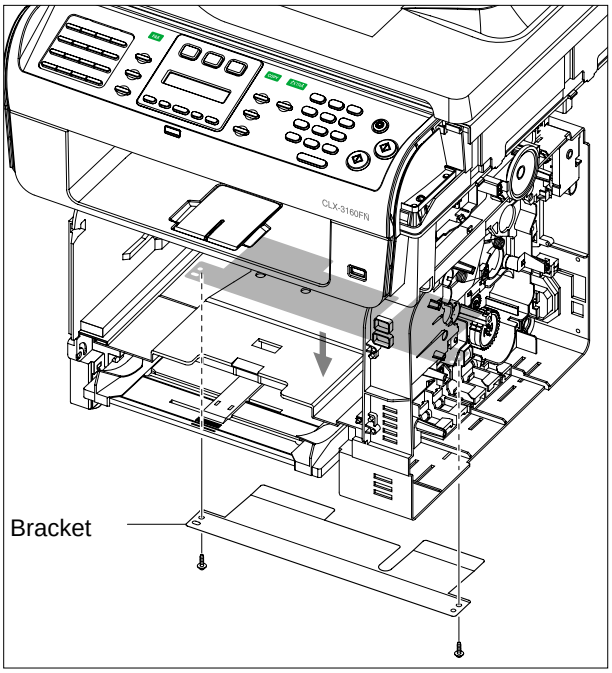
CAUTION: When replacing LSU ensure ground wires (red arrows) are secured.



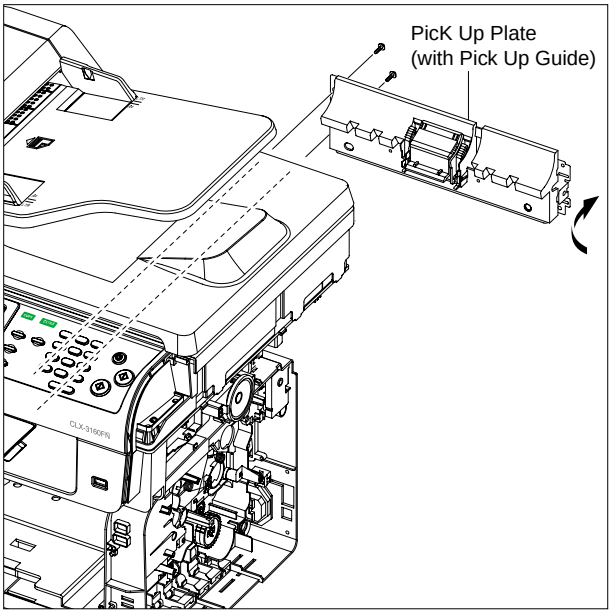
4.12.1 Pick Up Roller

1. Remove the following:
   - HVPS 4.4
   - LIU Unit 4.3
   - Main PBA 4.5.5
   - Drive Unit 4.7

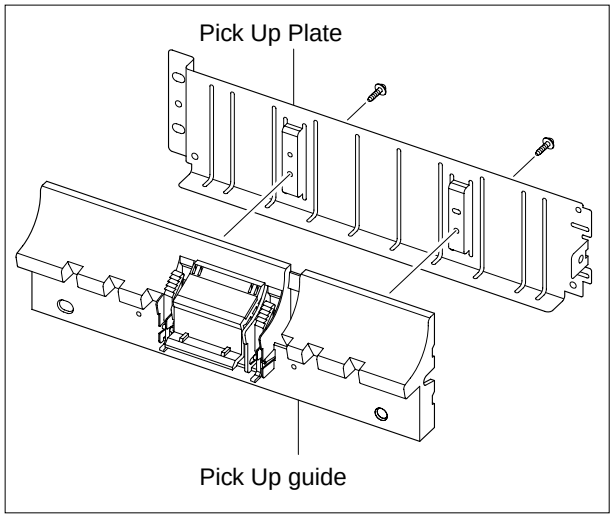
2. Remove the two screws securing the Bracket and remove it, as shown below.



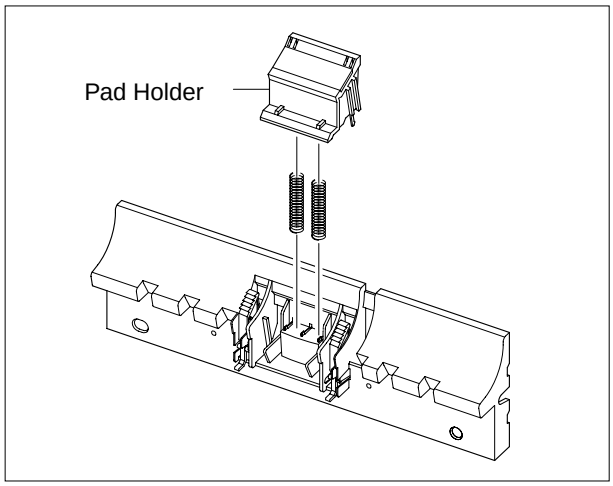
3. Remove the three screws securing the Pick Up Plate(with Pick Up Guide) and then release the Pick Up Plate in the direction of arrow.



4. If necessary, remove the two screws securing the Pick Up Plate and remove it from the Pick Up Guide, as shown below.

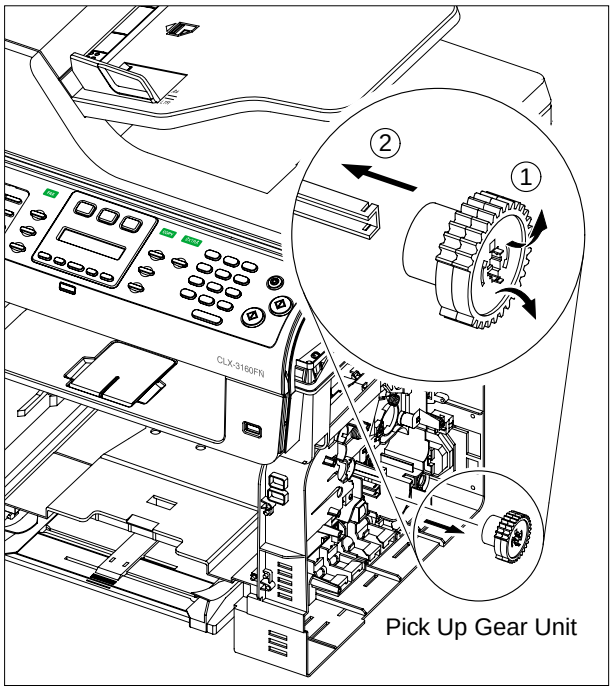


5. If necnssary, pull the Pad Holder from the Pick Up Guide, as shown below.

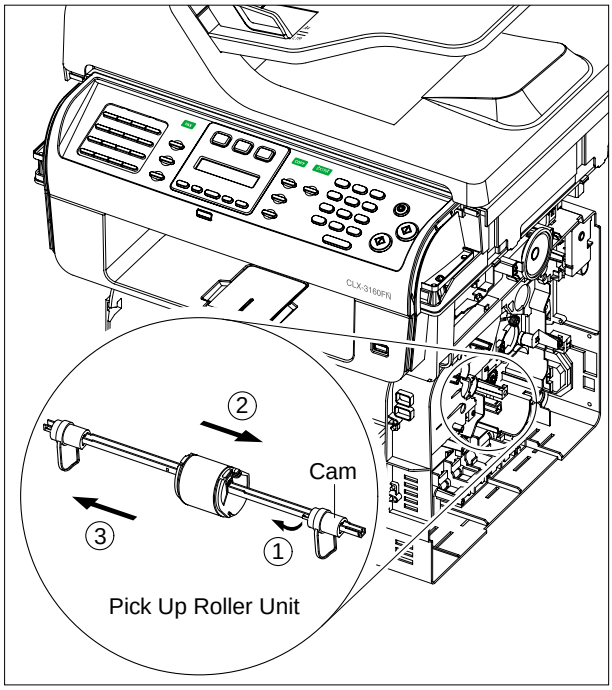


Notice: 1) Be aware of the Springs to ensure they are not lost.
2) Clean the surface of the Rubber Pad with ethylalcohol.After wiping, be sure to dry it.

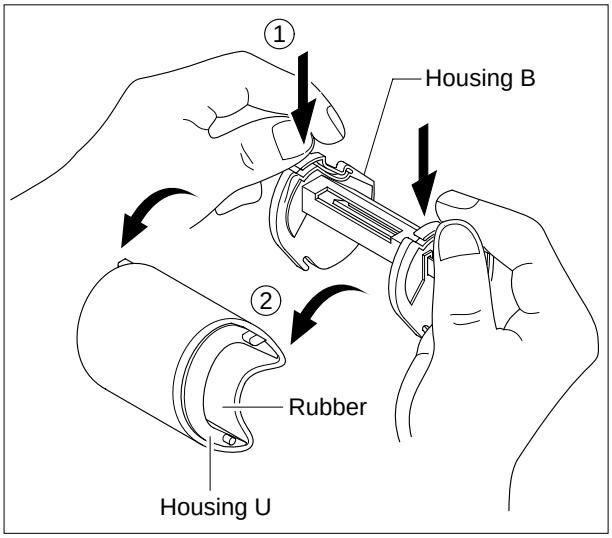
6. To remove the Pick Up Gear Unit, first unlatch the lock device of the Pick Up Gear Unit, as shown below and then pull the Pick Up Gear Unit in the direction of arrow.



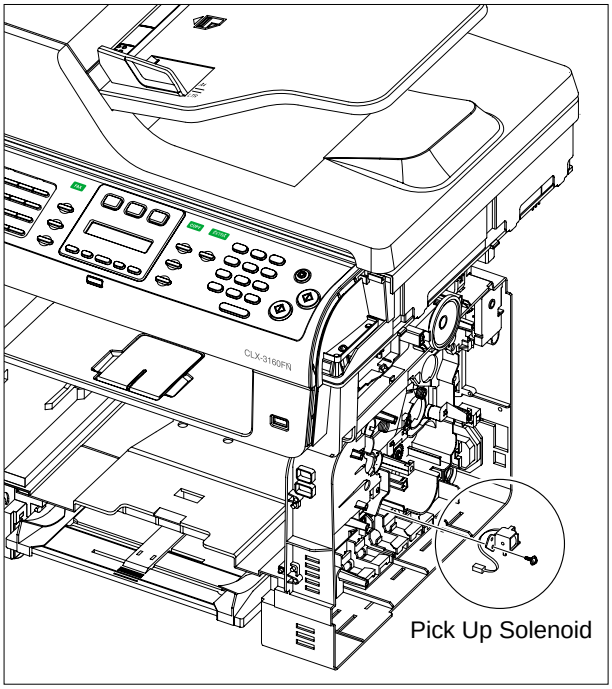
7. To remove the Pick Up Roller Unit, first lift the notch attached to the right side Pick Up Cam so that it's slide the right to left from the Pick Up Shaft, and then slide the Pick Up Roller Unit left side to right side and take out the left side, as shown below.



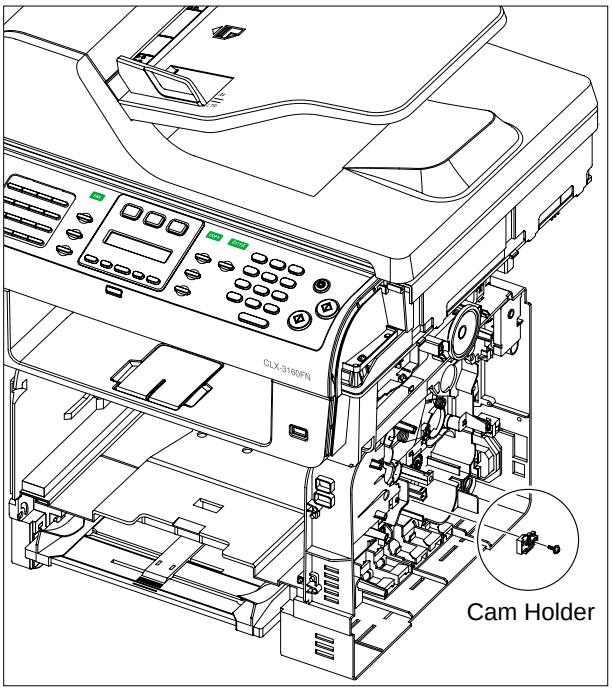
8. When if only remove the Pick Up Rubber, first pull the Pick Up Rubber(with Housing U) from the Housing B in the direction of arrow and then release the Pick Up Rubber from the Housing U, as shown below.



9. Remove the one screw securing the Pick Up Solenoid and remove it.



10. Remove the one screw securing the Cam Holder and remove it.

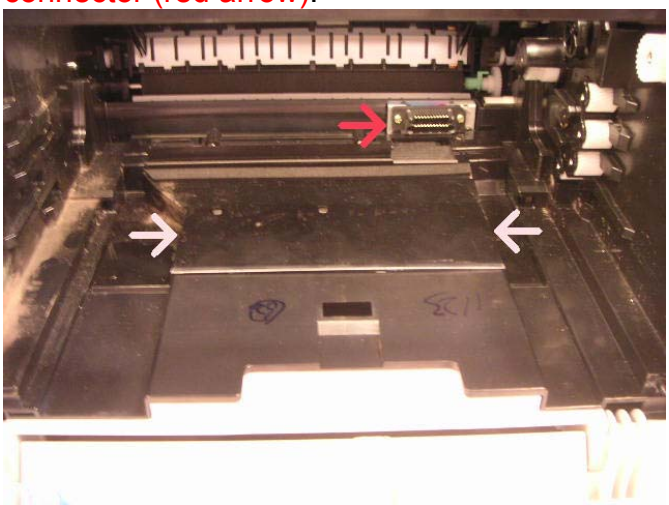


4 Disassembly Procedure

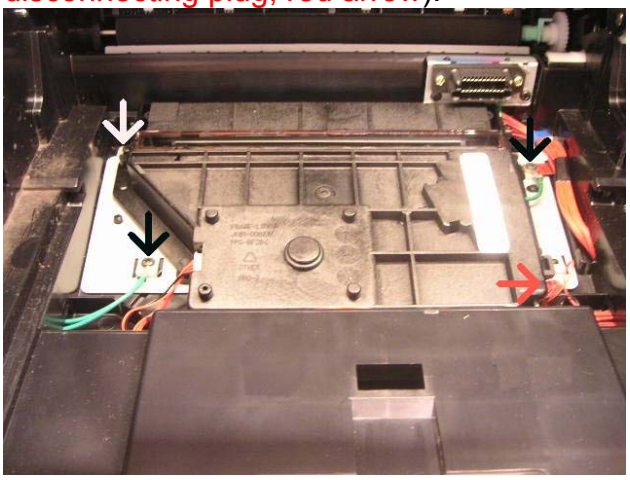
4.13 Tray Empty Actuator

WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about safe working practices.

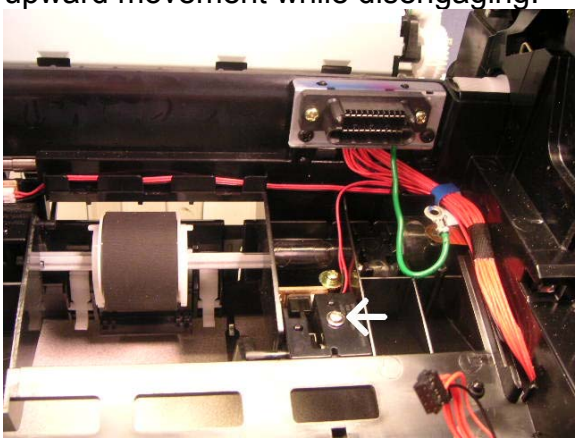
1. Remove Imager Unit and ITB, 4.10. CAUTION: Protect Imager Unit and ITB from light.
2. Remove LSU Cover by grasping sides of cover and lifting. CAUTION: Use care when moving cover past connector (red arrow).



3. Remove LSU by disconnecting left electrical plug, removing Screws (3) and lifting LSU enough to access and disconnect right side electrical plug (CAUTION: Hold small PWB while disconnecting plug, red arrow).

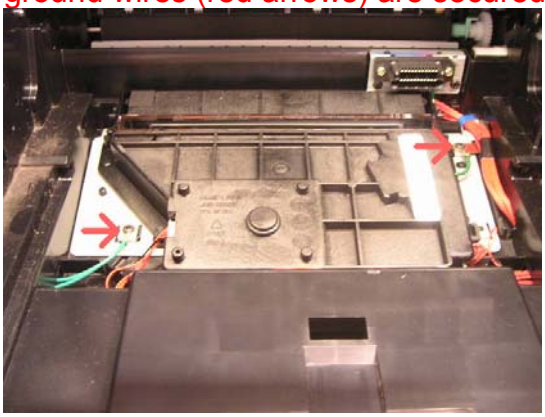


4. Remove Tray Empty Actuator by removing Screw and pulling Actuator housing up. NOTE: a small locating tab on the bottom, under arrow, will resist upward movement while disengaging.



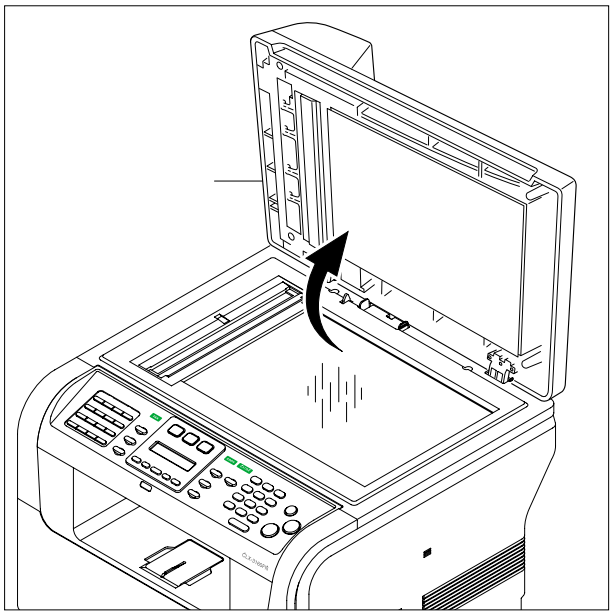
Replacement

CAUTION: When replacing LSU ensure ground wires (red arrows) are secured.

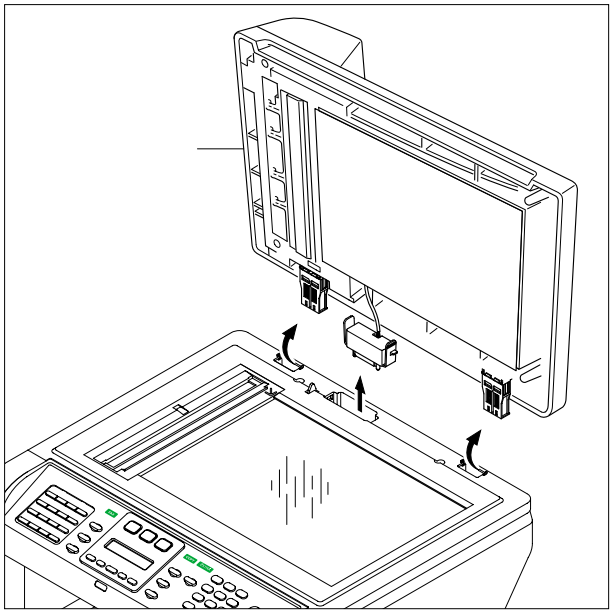


5.10 ADF

1. Open the ADF Ass'y

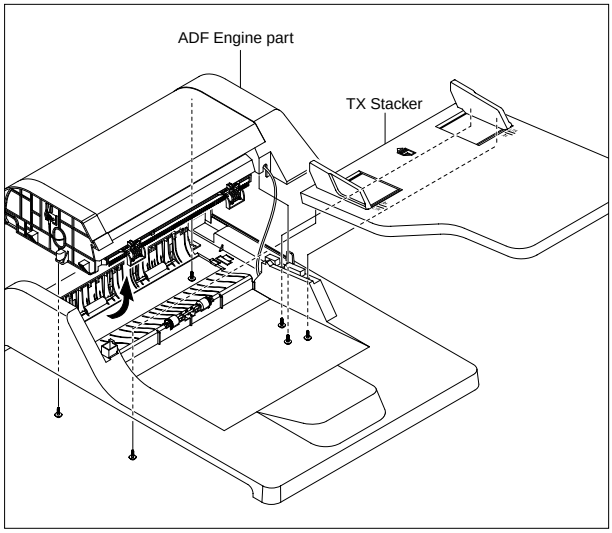


2. First remove the ADF Harness from the Platen Ass'y and then pull the ADF Ass'y upward in the direction of arrow, as shown below.

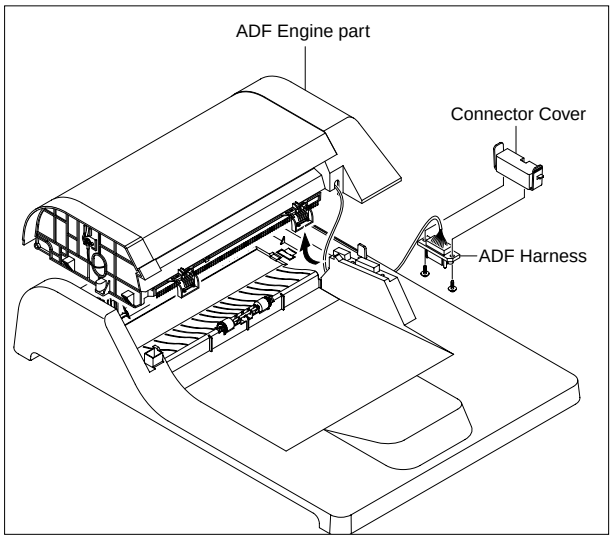


5.10 ADF Ass'y

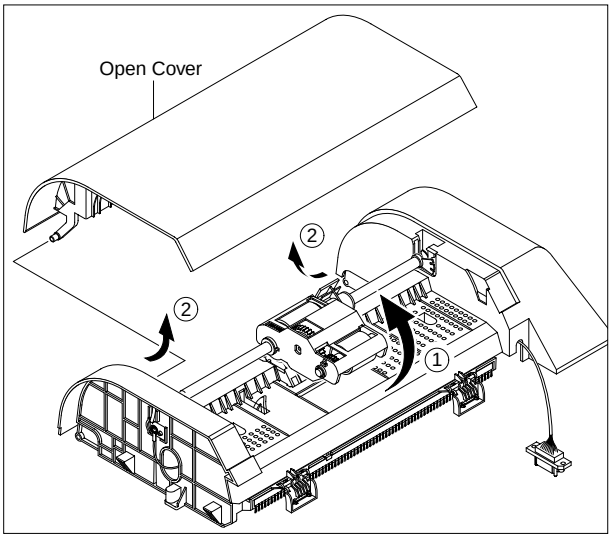
1. To remove the ADF Engine part, first remove the eight screws securing the ADF Engine part to the Cover Platen and then release the ADF Engine part in the direction of arrow.
   At that time the TX Stacker automatically release it self at right side, as shown below.



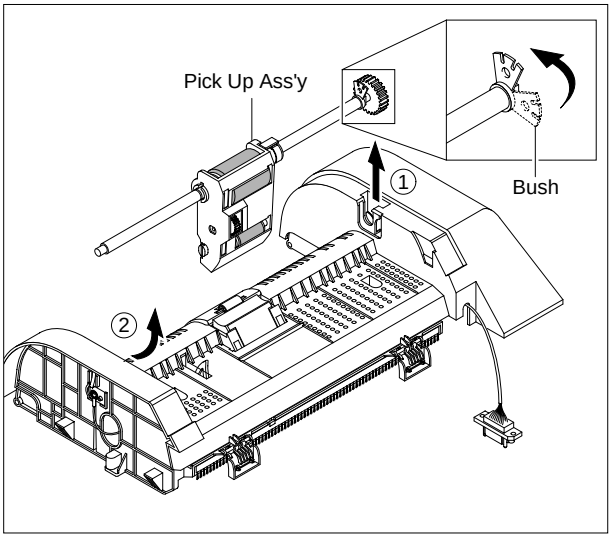
2. Remove the two screws securing the ADF Harness to the Cover Connector and then take care to thread the ADF Harness through the Cover Platen.



3. Remove the Open Cover, as shown below.

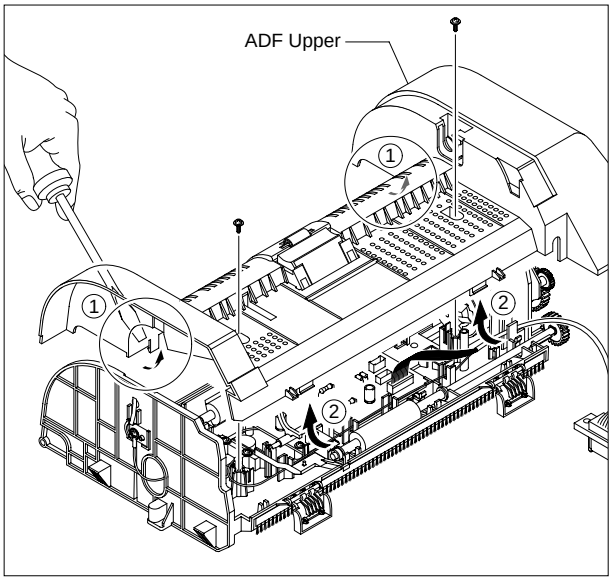


4. Release the Bush and rotate it until it reaches the slot, as shown below and then lift the Pick Up Ass'y out in the direction of arrow.

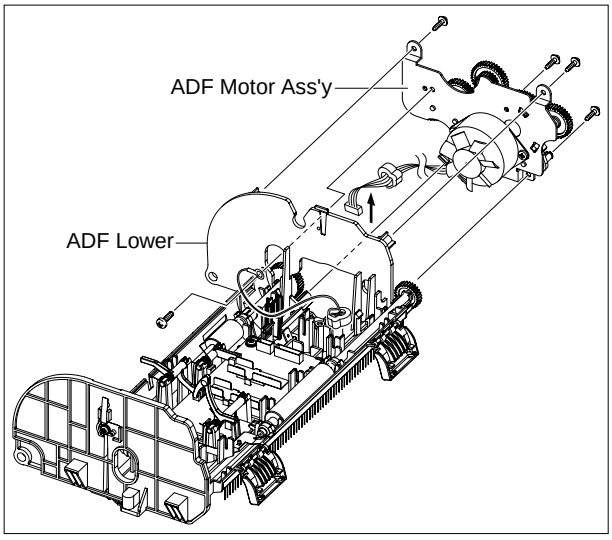


Notice : Do not grab the rubber part of the Pick Up Ass'y, it may cause a malfunction due to a foreigen object.

5. To remove the ADF Upper, first remove the two screws securing the ADF Upper and then unlatch the two hooks using a flat-blade screwdriver, as shown below.



6. Unplug the ADF Motor connector and remove four screws securing the ADF Motor Ass'y and then remove the one screw securing the Ground Cable, as shown below.
Then take out the ADF Motor Ass'y.



Notice : 1) When working on the ADF Motor Ass'y take care not to contaminate any of the rubber surfaces with grease.

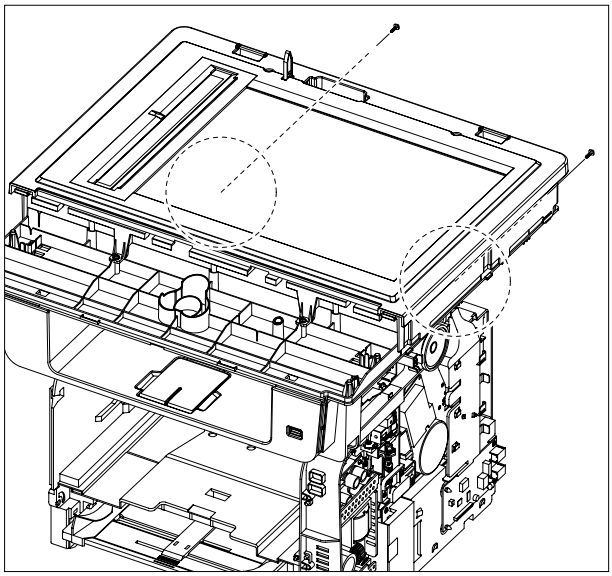
2) Before removing the ADF Engine part take great care to note the position of the Ferrite Core and the Motor Harness routing. When refitting the ADF Engine part ensure that the Harness and Ferrite are properly located and are clear of the Motor Fan and White Bar Clip.

5.11 Scanner

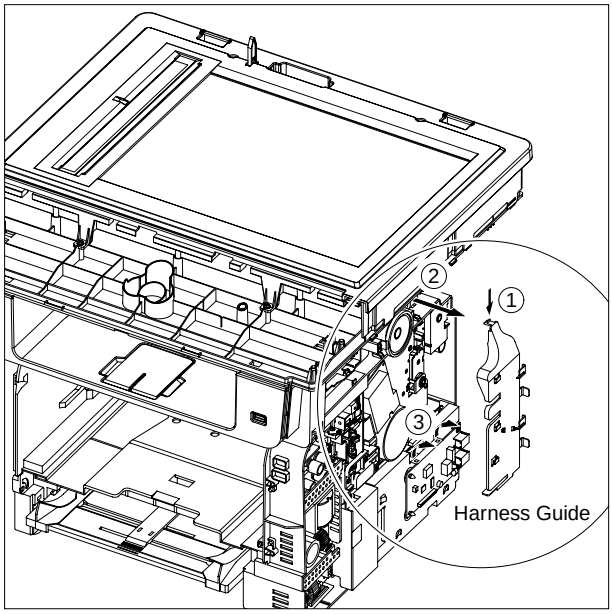
1. Remove the following:

   - OPE Unit 4.1.1
   - Side Cover Left, Right 4.1
   - ADF Ass'y 5.10

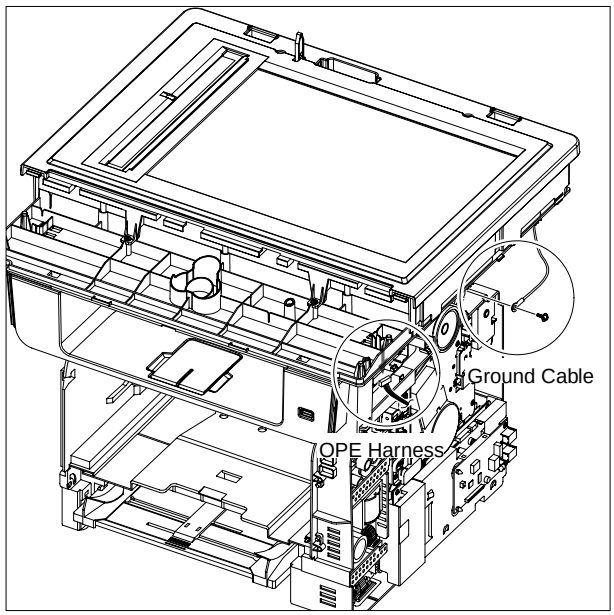
2. Remove the two screws securing the Platen Ass'y, as shown below.



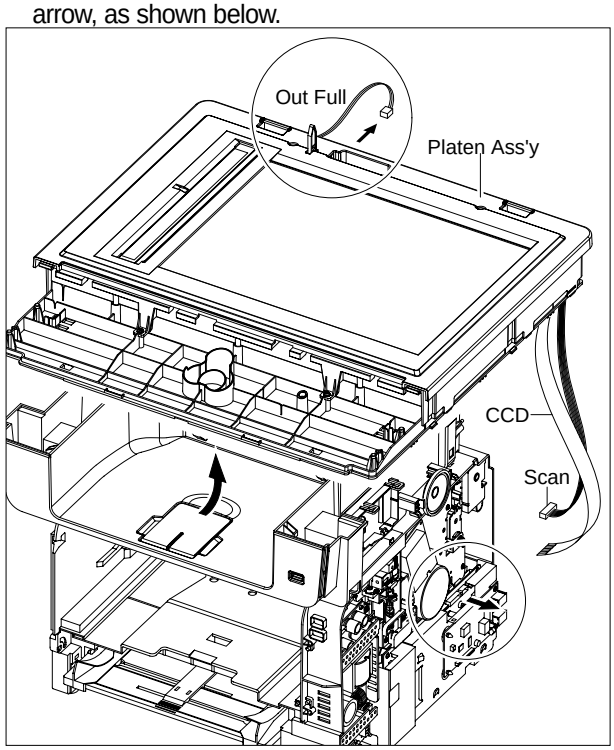
3. First carefully release the cables(CCD, Scan, Ground) from the Harness Guide and then apply light pressure to the top of the Harness Guide and pull it to the right side in the direction of arrow, as shown below.



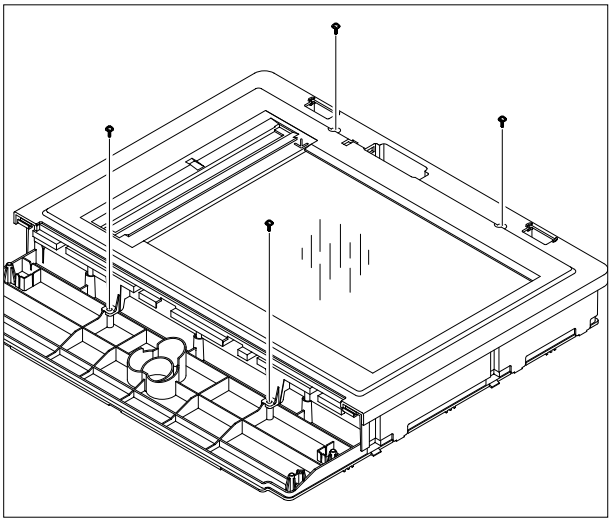
4. First release the OPE Harness in the direction of arrow and then remove the one screw securing the Ground Cable, as shown below.



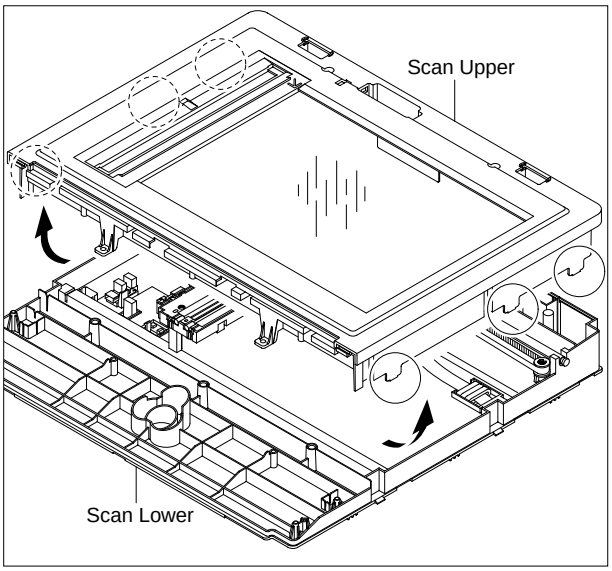
5. Unplug the two connectors(Scan, Out Full) and CCD Cable and then lift the Platen Ass'y in the direction of arrow, as shown below.



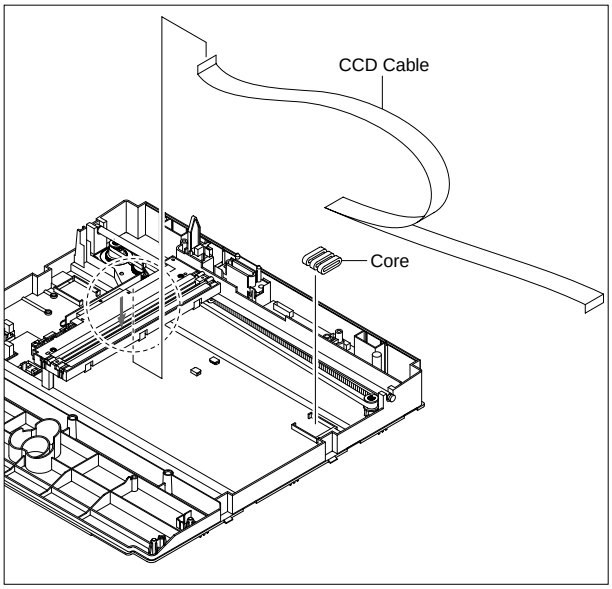
6. Remove the four screws securing the Scan Upper.



7. Release the six hooks securing the Scan Upper to the Scan Lower and remove it, as shown below.

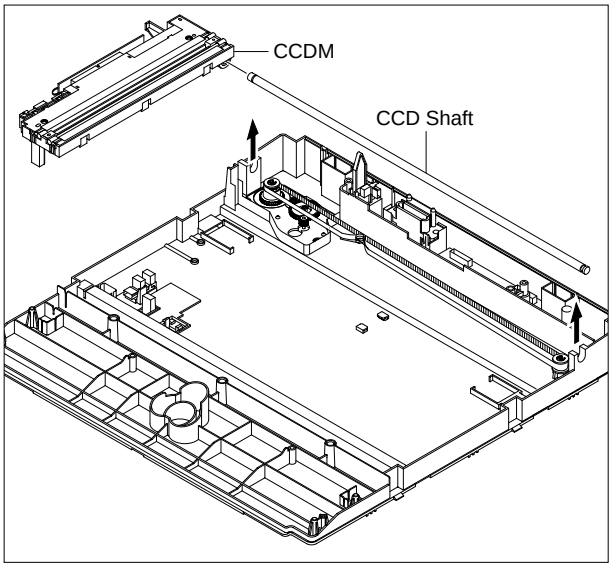


8. Remove the CCD Cable, as shown below.

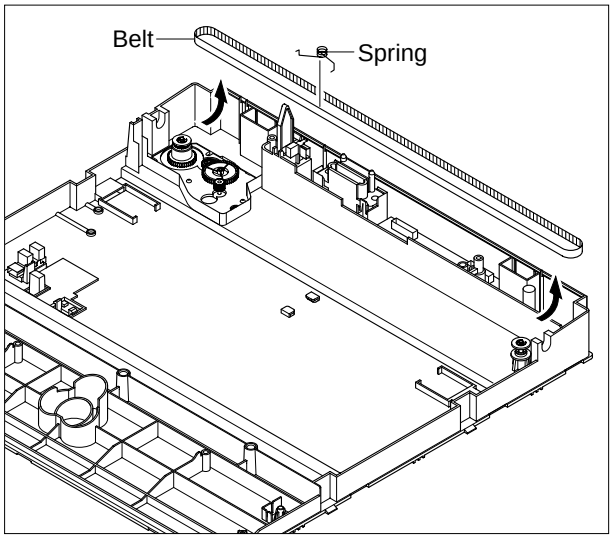


Notice: You should connector remove the CCD Cable vertically to avoid the CCD Cable pin damage.

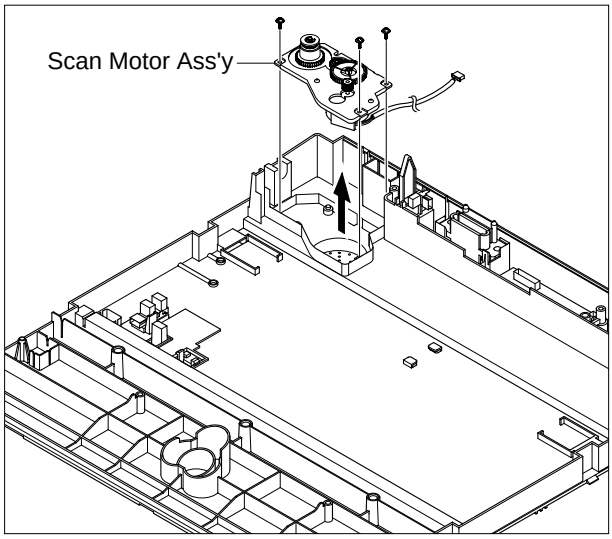
9. Pull up the CCD Shaft and take out the CCDM.



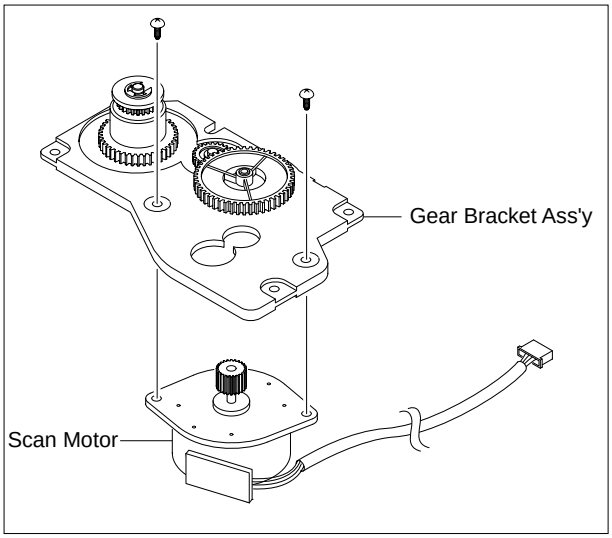
10. Squeeze the spring to release the tension in the Belt and lift from the pulleys, as shown below.



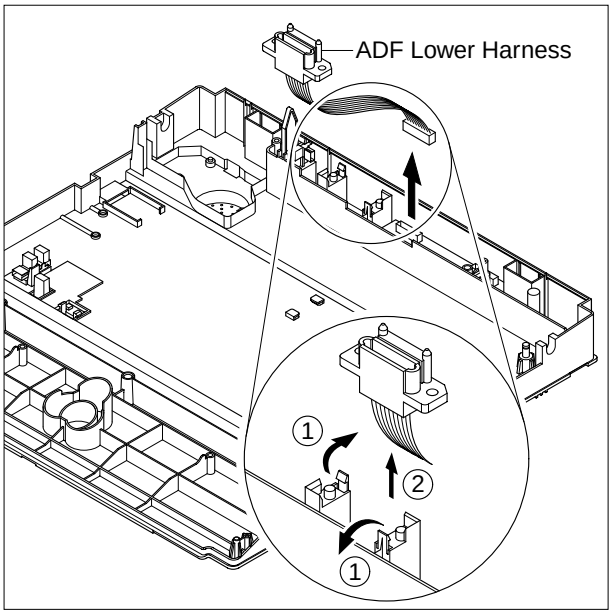
11. Remove the three screws securing the Scan Motor Ass'y and then unplug the connector from the Joint PBA.



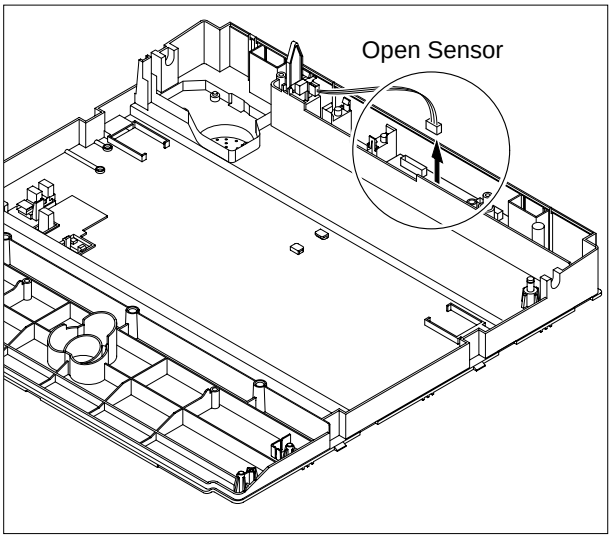
12. If necessary, remove the two screws securing the Scan Motor and remove it, as shown below.



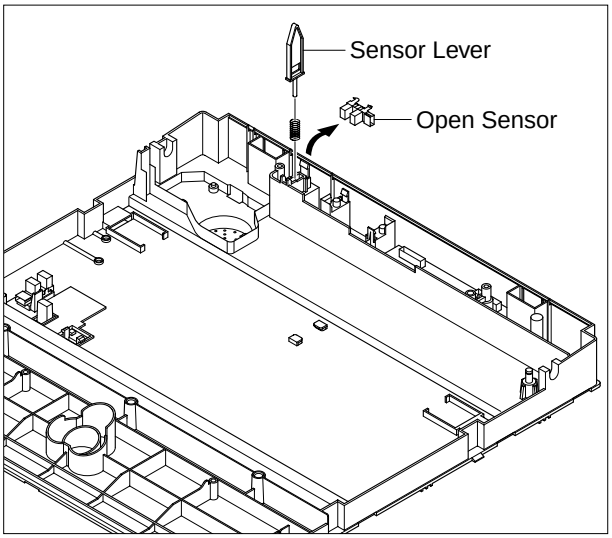
13. To remove the ADF Lower Harness, first unlatch the hooks in the direction of arrow and then Unplug the connector from the Joint PBA, as shown below.



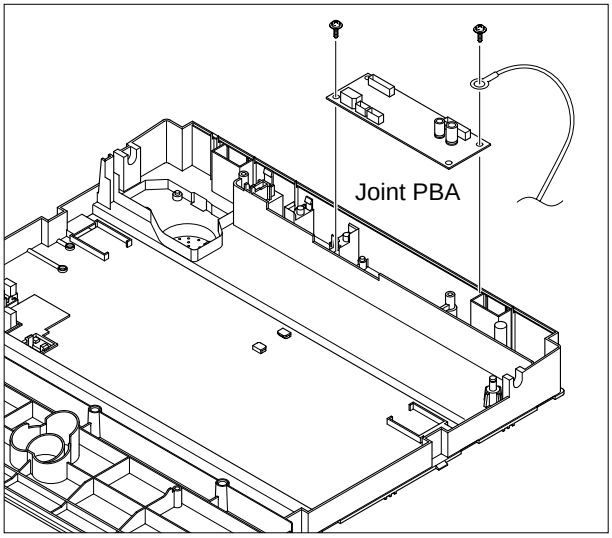
14. Unplug the Open Sensor connector from the Joint PBA.



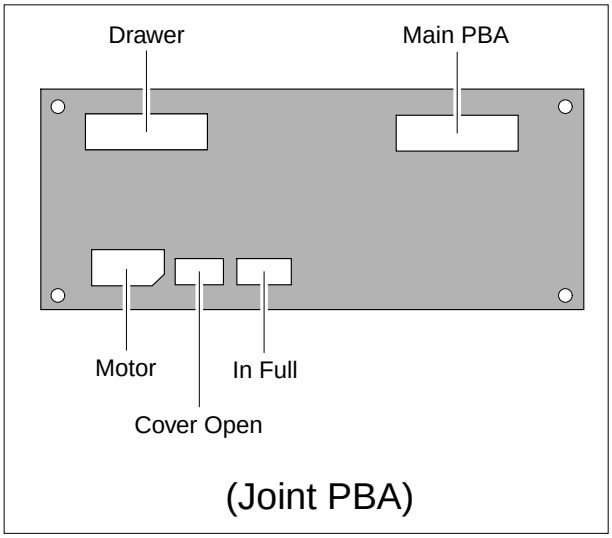
15. Unlatch the Open Sensor and remove it, as shown below.



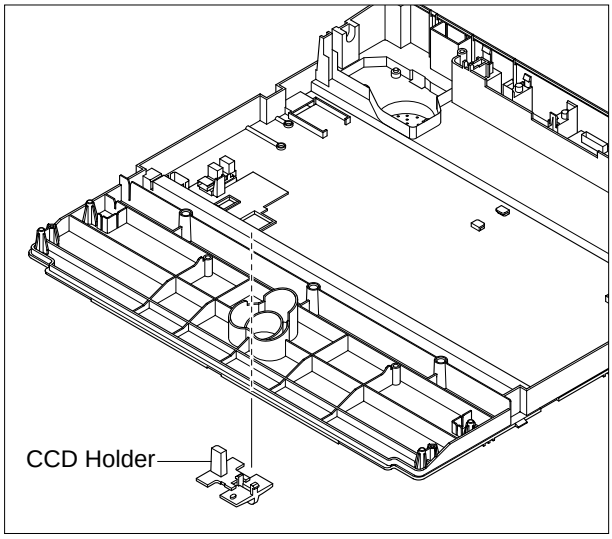
16. Remove the two screws securing the Joint PBA and remove it, as shown below.



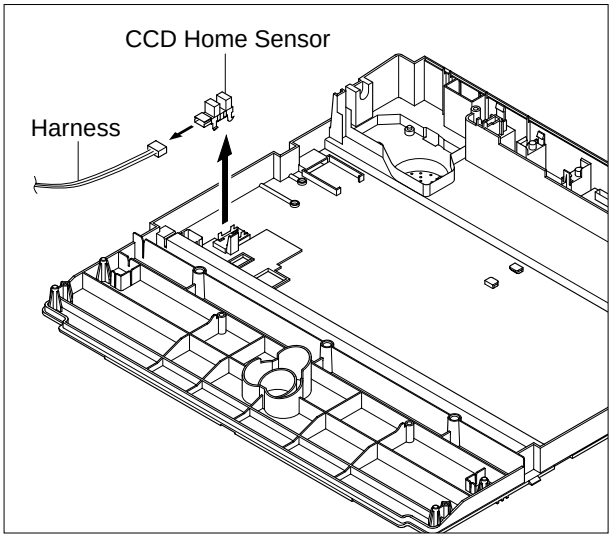
17. The connectors are located, as shown below.



18. Remove the CCD Holder.



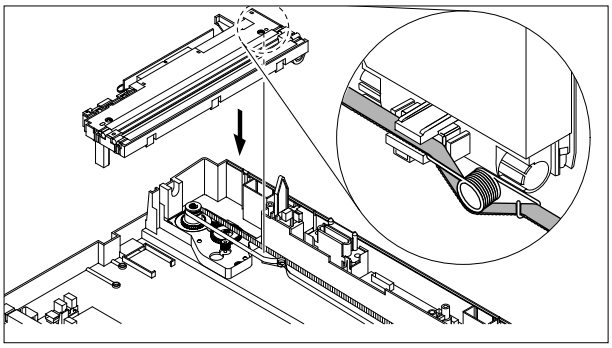
19. Unplug the Harness from the CCD Home Sensor and release the CCD Home Sensor, as shown below.



Caution : Reassembling CCDM

1) When refitting the Scanner Belt and Belt Spring take care to relocate the tension spring as close to the right side of the CCDM as is possible, as shown below.

2) When refitting the Scan Upper Cover take care to ensure that the Cover Open Switch is not trapped.

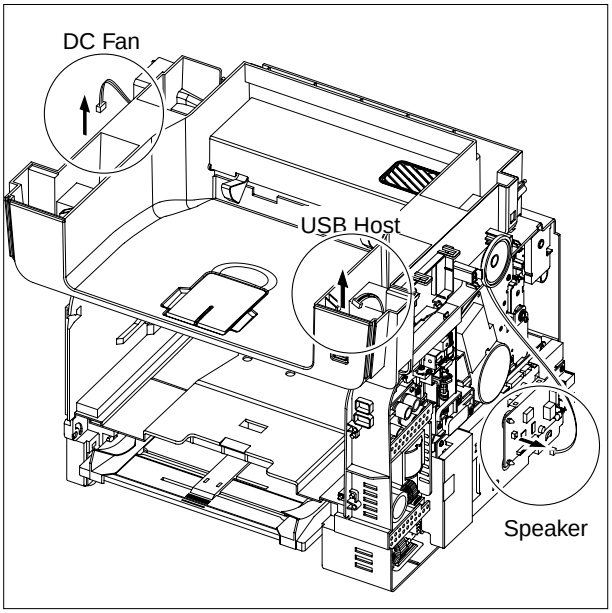


5.12 Middle Cover

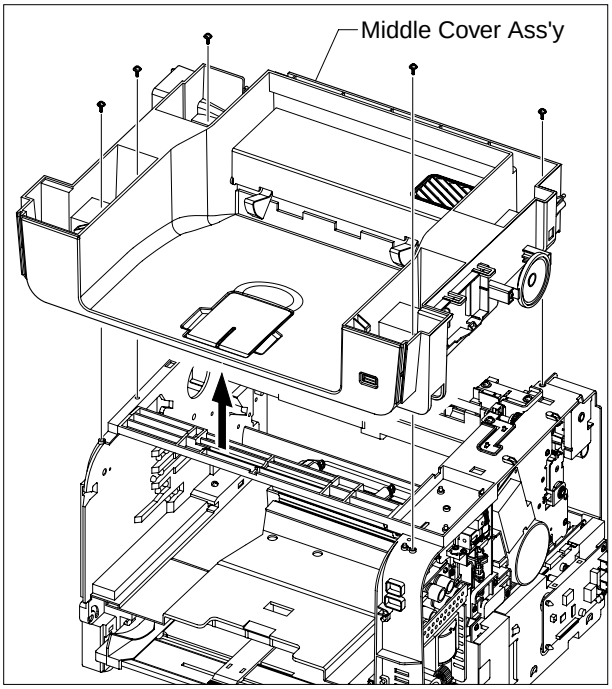
1. Remove the following:

   - Covers 5.4.1 and OPE 5.4.1.1
   - Scanner 5.11

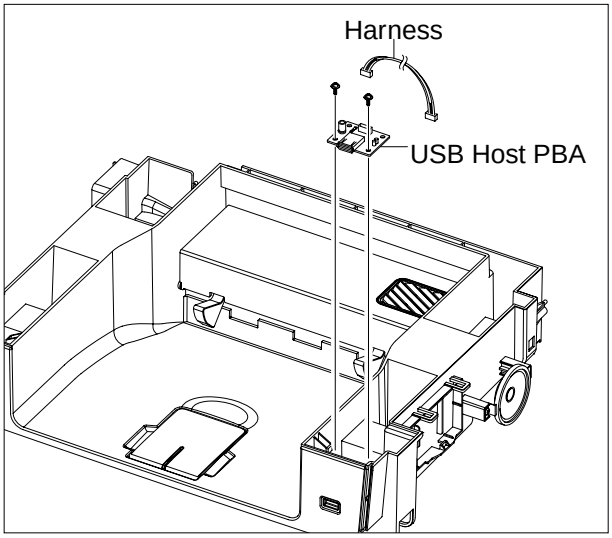
2. Unplug the three connectors(USB, Speaker, Fan), as shown below.



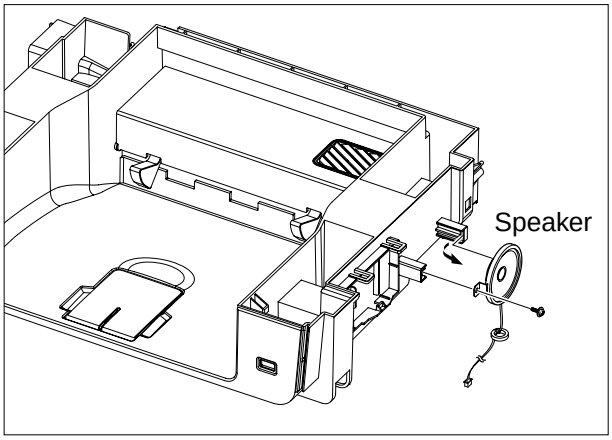
3. Remove the five screws securing the Middle Cover Ass'y and then lift the Middle Cover Ass'y, as shown below.



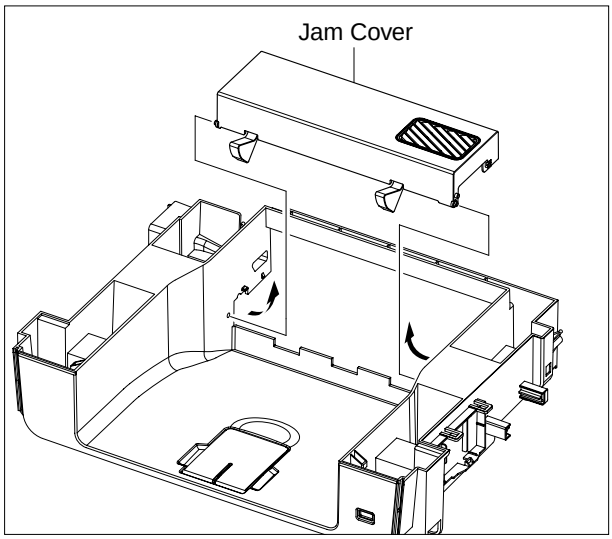
4. Remove the two screws securing the USB Host PBA and remove it.



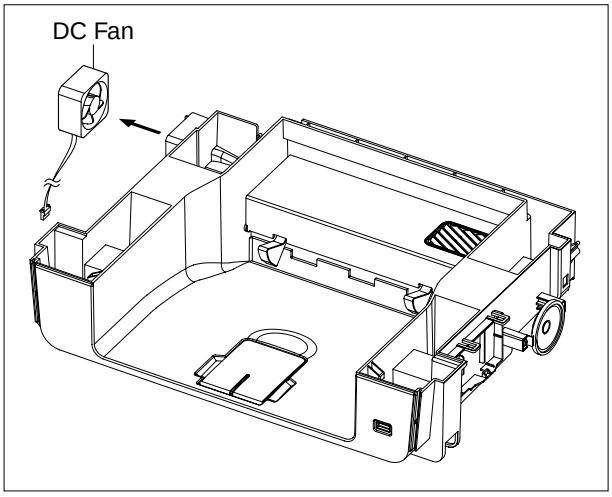
5. Remove the one screw securing the Speaker and then release the Speaker, as shown below.



6. If necessary, apply light pressure to the both side of the Jam Cover and pull it in the direction of arrow, as shown below.



7. Pull the DC Fan from the Middle Cover Ass'y, as shown below.

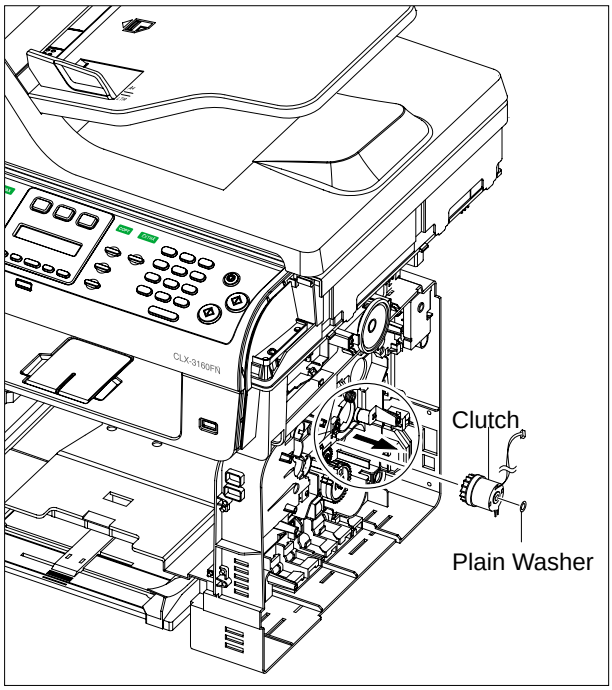


5.19 Registration Roller

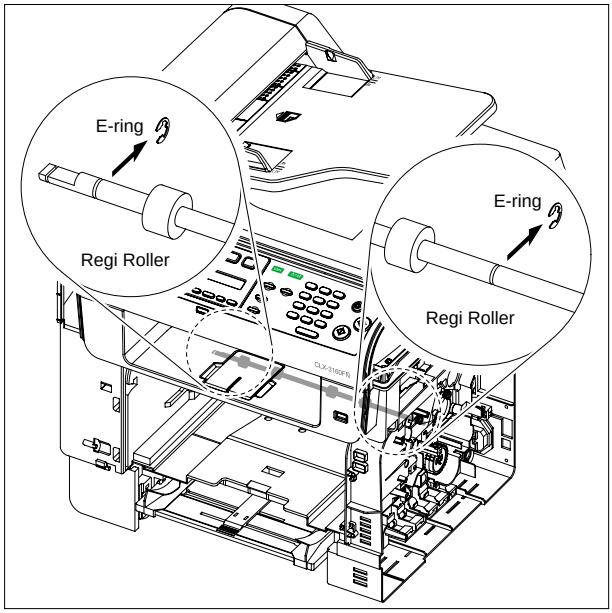
1. Remove the following:

   - HVPS 5.4.4
   - Laser Scan Unit 5.4.3
   - Main PBA 5.4.5.5
   - Drive Unit 5.4.7

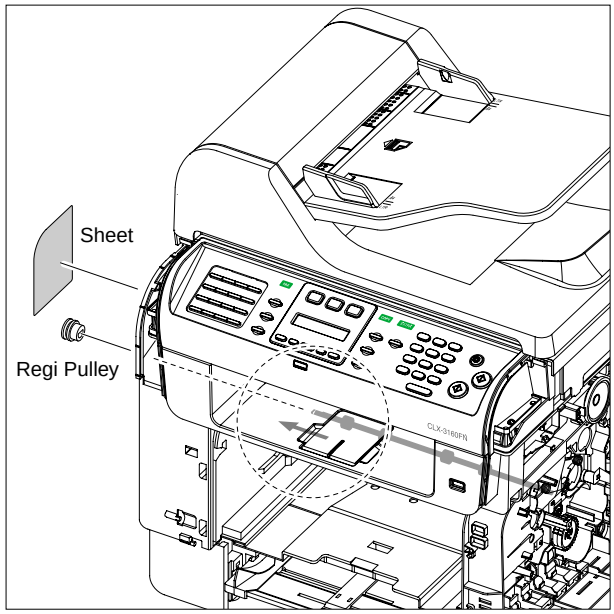
2. First remove the Plan Washer securing the Regi Clutch and then pull the Regi Clutch, as shown below.



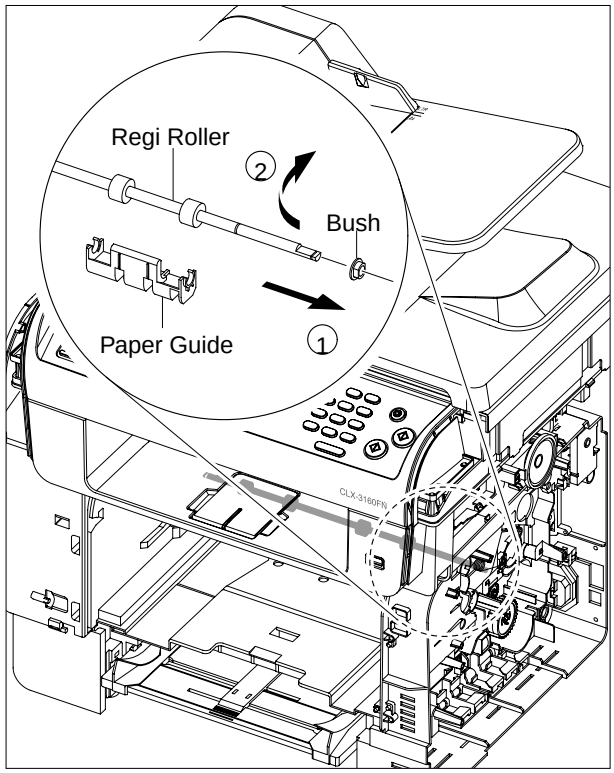
3. Remove the E-ring below the both side of the Regi Roller, as shown below.



4. Take off the Sheet and then remove the Regi Pulley, as shown below.

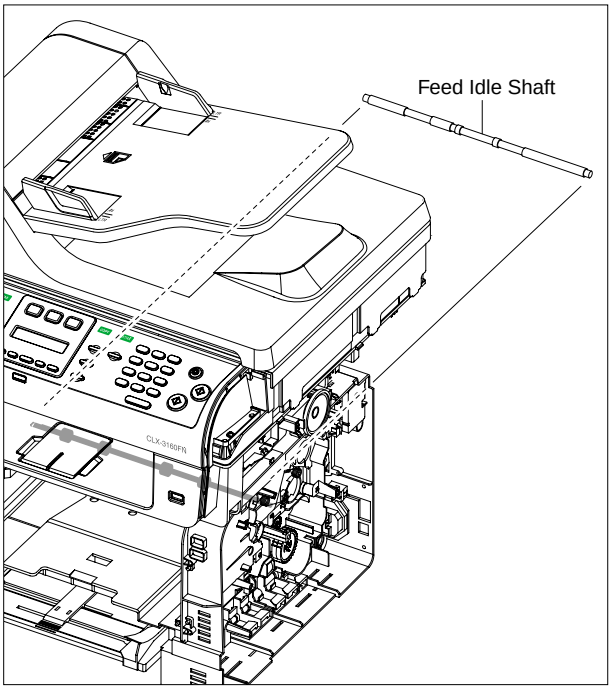


5. To remove the Regi Roller, first slide the left side to right side and then take out the left side, as shown below.



Notice : Do not grab the rubber part of the Regi Roller, it may cause a malfunction due to a foreigen object.

6. Pull the Feed Idle Shaft.

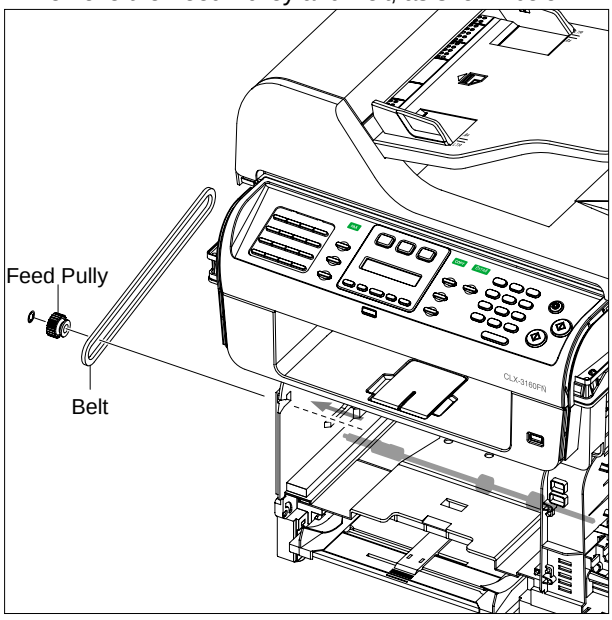


5.20 Bypass Feed Roller

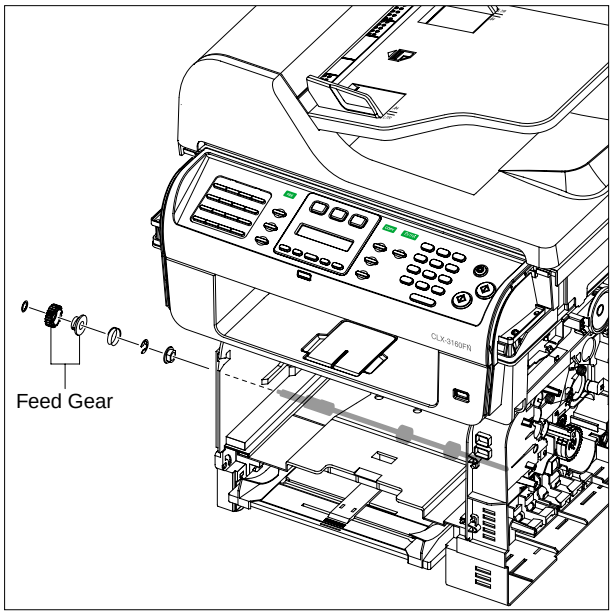
1. Remove the following:

   - HVPS 5.14

2. Remove the Feed Pulley and Belt, as shown below.

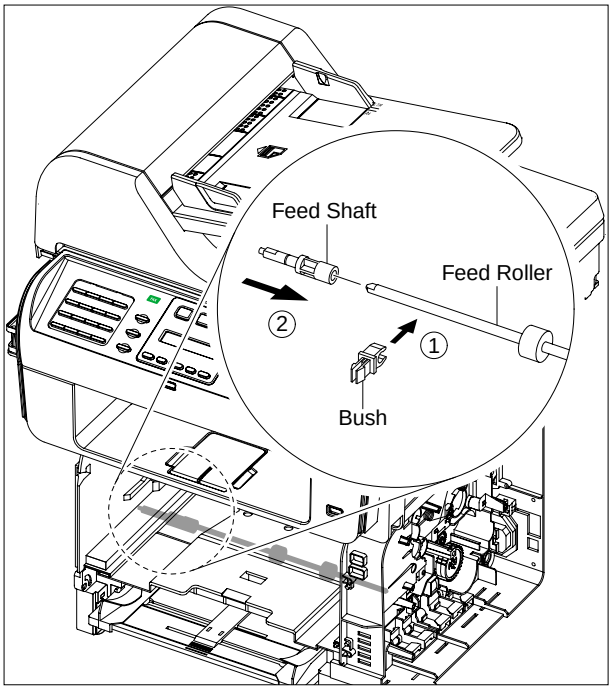


3. Remove the Feed Gear and then remove the E-ring from the Feed Shaft, as shown below.



Notice: Be aware of the E-ring and Spring to ensure they are not lost.

4. To remove the Feed Roller, first pull the Feed Roller from the Bush and then take out the Feed Roller and Feed Shaft, as shown below.



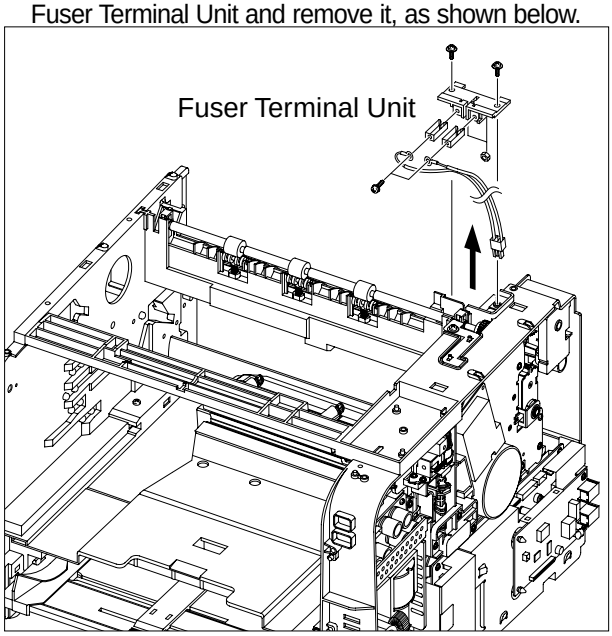
Notice : Do not grab the rubber part of the Feed Roller, it may cause a malfunction due to a foreigen object.

5.22 Exit Roller

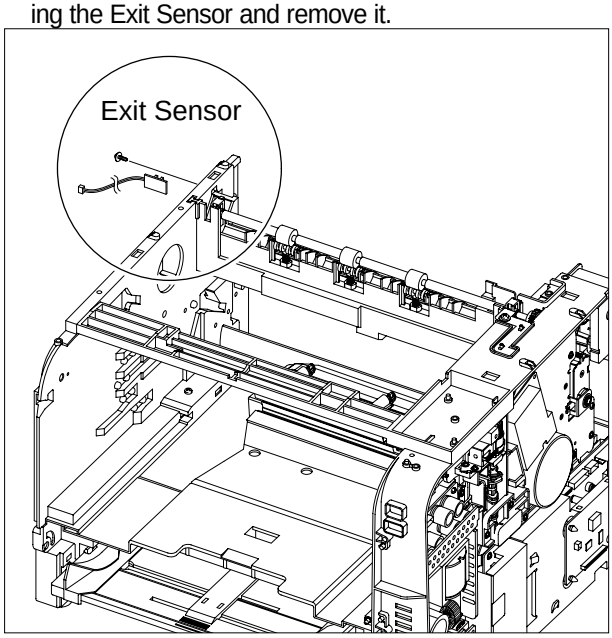
1. Remove the following:

   - Middle Cover 5.12

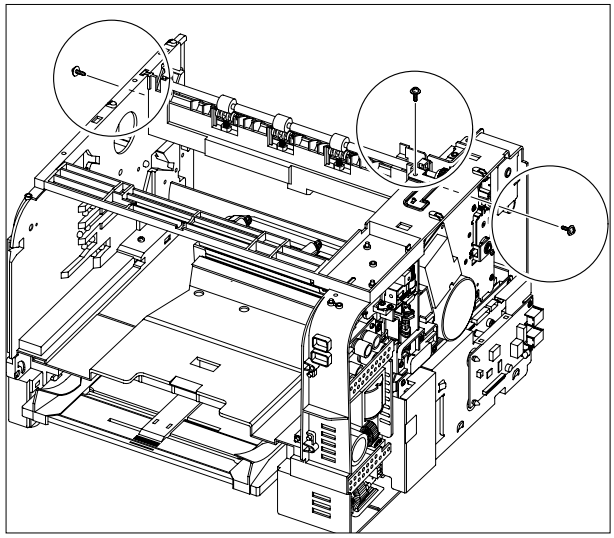
2. Remove the four screws and two nuts securing the Fuser Terminal Unit and remove it, as shown below.



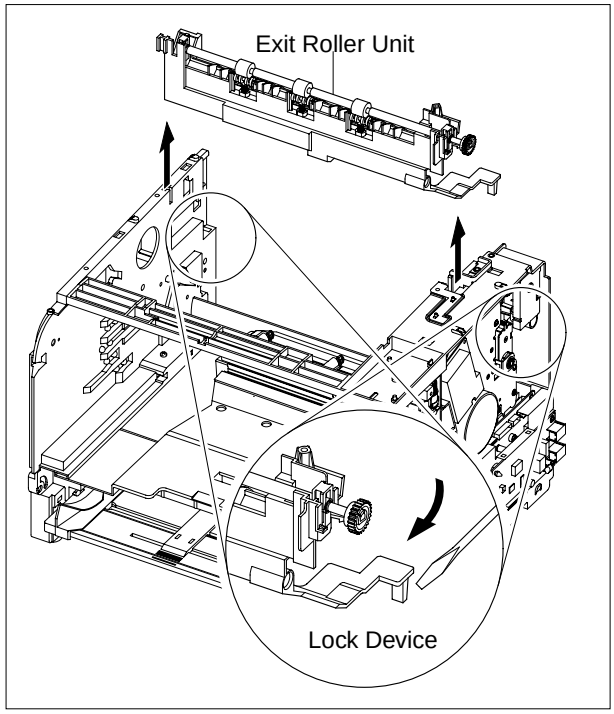
3. For easy disassembly, remove the one screw securing the Exit Sensor and remove it.



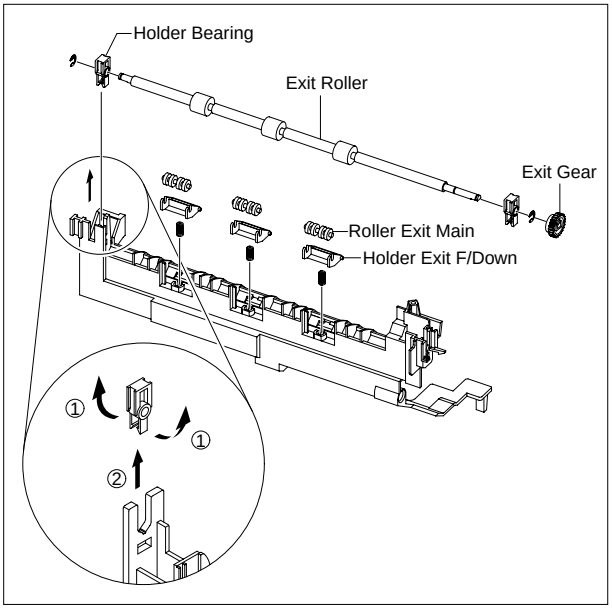
4. Remove the three screws securing the Exit Roller Unit.



5. First unlatch the lock device below the both side of the Exit Frame using a flat-blade screwdriver and then pull the Exit Roller Unit, as shown below.



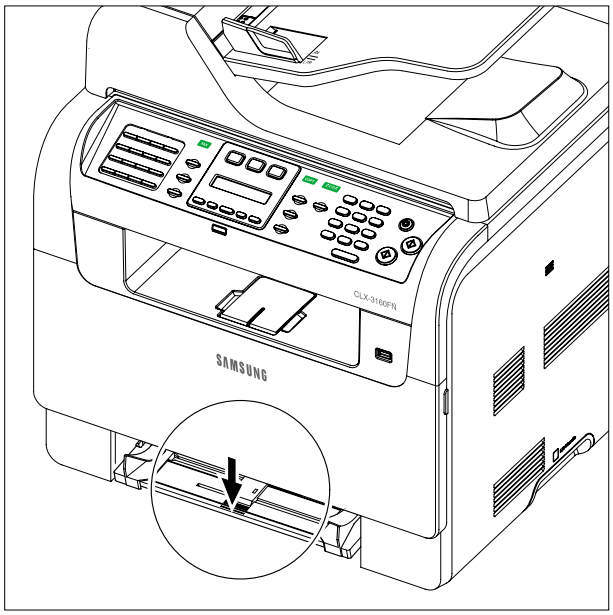
6. Remove the Holder Bearing(with Roller Exit F/Down) from the both side of the Exit Frame, as shown below and then remove the Roller Exit Main and Holder Exit F/Down.



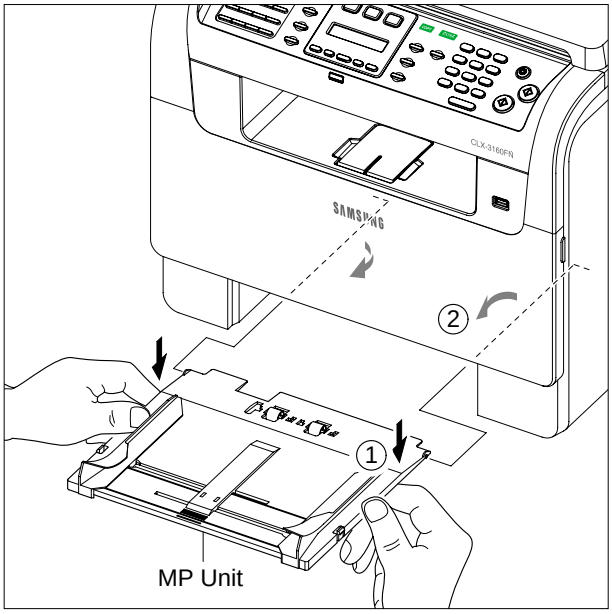
5.24 Bypass/Auxiliary Tray

1. Remove the Cassette:
 -

2. Push Down the MP Unit, as shown below.



3. Apply light pressure to the both side of the MP Unit and pull it in the direction of arrow, as shown below.

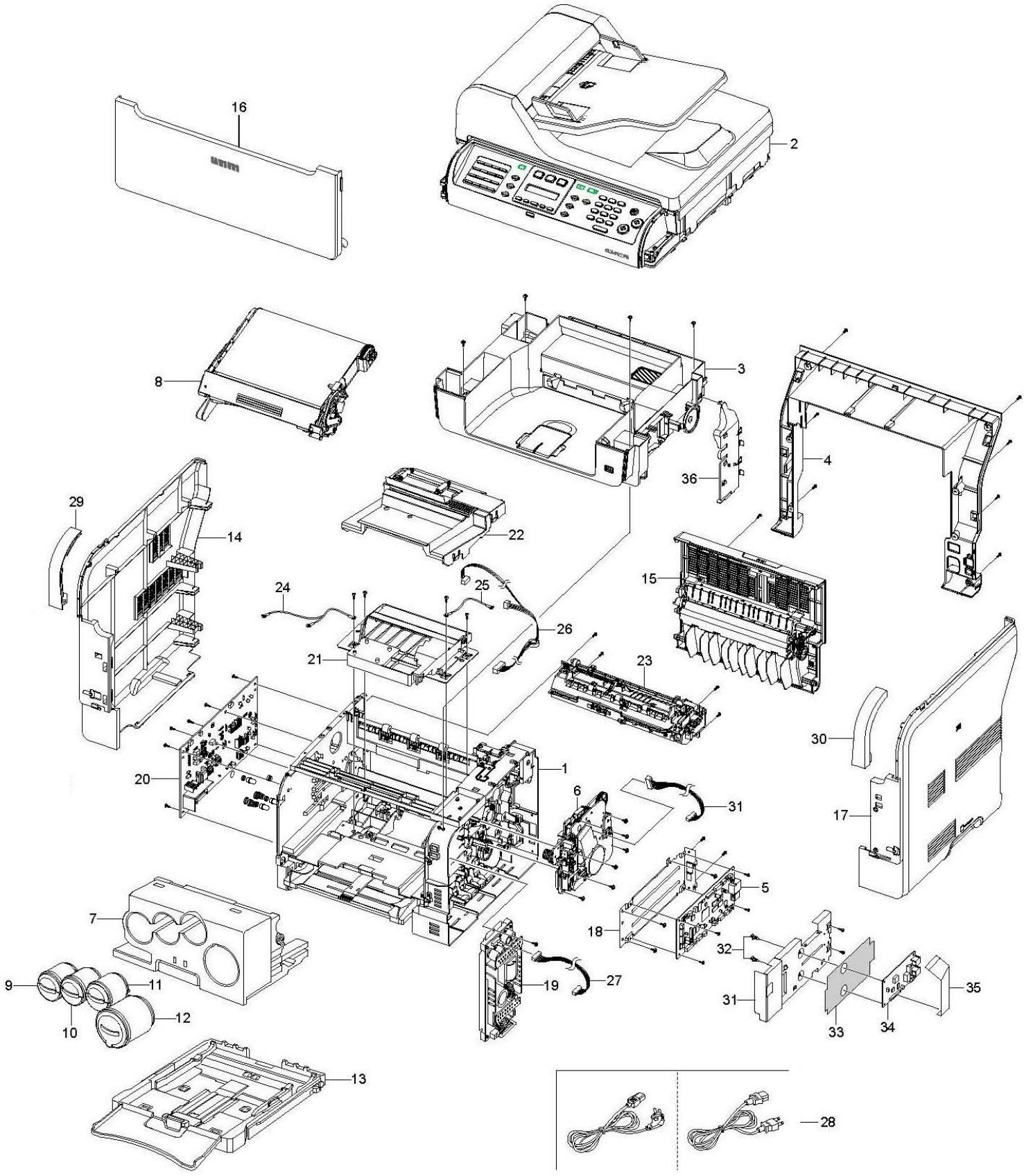


Adjustments

There are no adjustments in the Phaser 6110 MFP.

Section 5 Parts Lists

Item	Description	Part Number or PL
1	FRAME, XRX, XRH	001N00491
2	ADF	ADF
2	CONTROL CONSOLE (OPE)	CONTROL CONSOLE
2	SCANNER/PLATEN	SCANNER/PLATEN
3	MIDDLE COVER	MIDDLE COVER
5	MAIN PWB w/FAX	140N63238
5	MAIN PWB w/o FAX	140N63245
6	MAIN DRIVE	007N01563
7	IMAGER UNIT	IMAGER UNIT
8	INTERTRANSFER BELT MODULE	023N01169
9	CYAN TONER (C)	NA
10	MAGENTA TONER (M)	NA
11	YELLOW TONER (Y)	NA
12	BLACK TONER (K)	NA
13	CASSETTE TRAY	050N00506
14	LEFT COVER	002N02642
15	REAR COVER	REAR COVER
16	FRONT COVER	002N02645
17	RIGHT COVER w/FAX	002N02643
17	RIGHT COVER w/o FAX	002N02666
19	SMPS 220V XRH	105N02118
19	SMPS 110V XRX	105N02119
20	HVPS	105N02136
21	LSU	122N00263
22	LSU COVER	002N02634
23	FUSER 110V	126N00279
23	FUSER 220V	126N00280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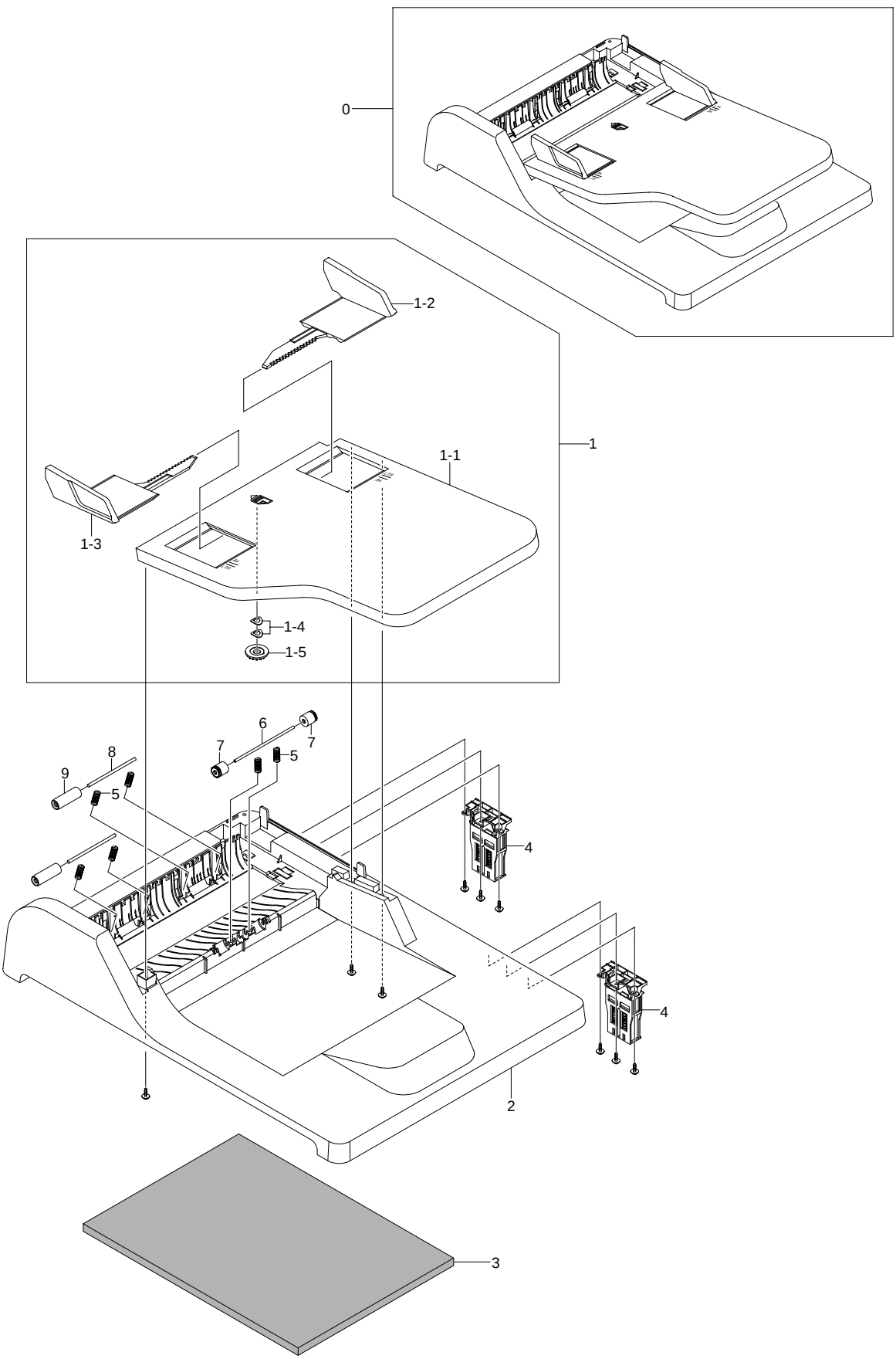
Item	Description	Part Number
1	DOCUMENT INPUT TRAY	022N02311
2	LOWER FRAME	002N02651
3	PLATEN PAD	095N00274
4	COUNTERBALANCE	003N01018
5	PINCH ROLL SPRING	009N01489
6	PINCH ROLL AXLE	006N01218
7	PINCH ROLL	022N02014
8	PINCH ROLL AXLE	006N01302
9	PINCH ROLL	022N02312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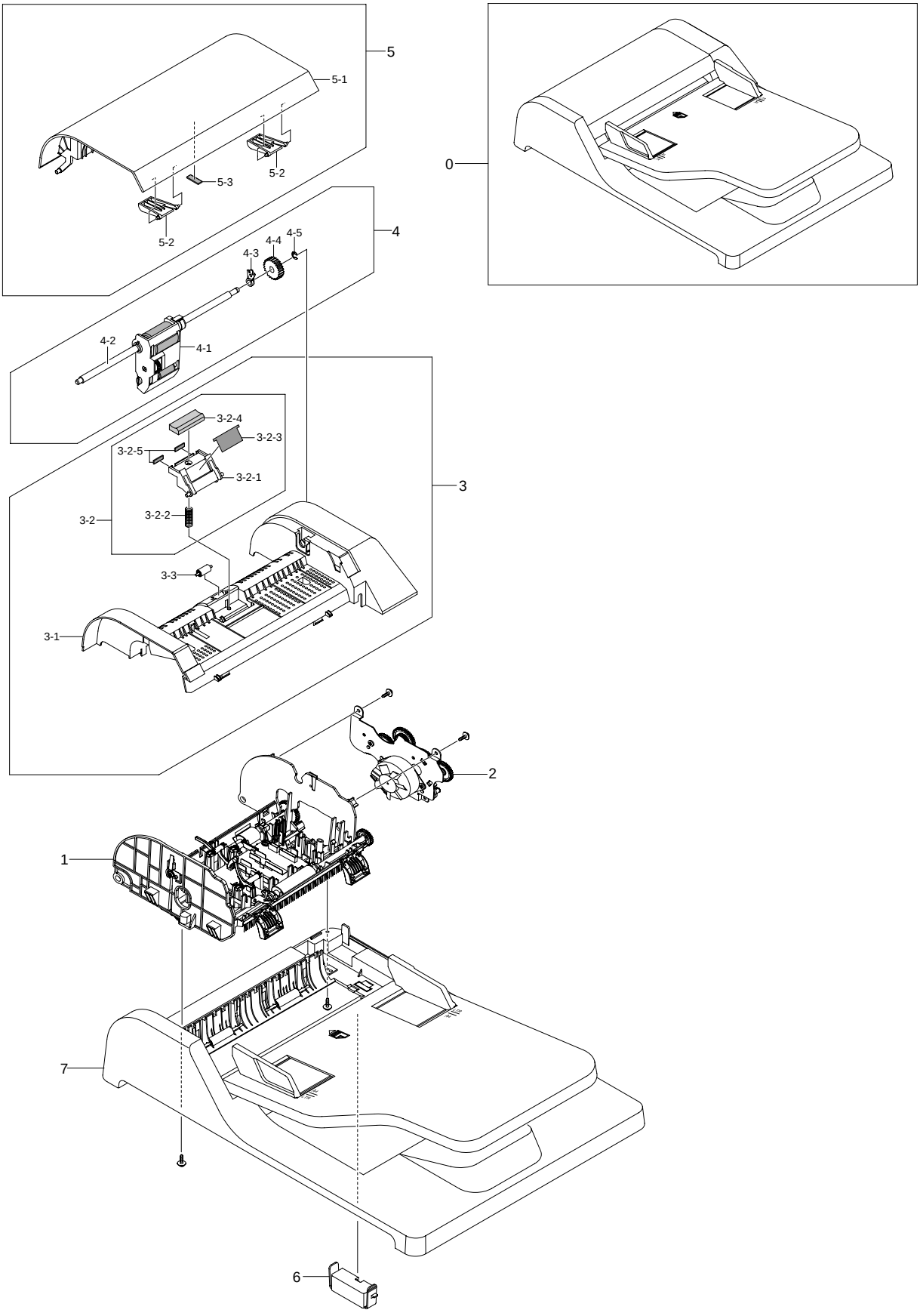
Item	Description	Part Number
0	ADF HOUSING	002N02650
3	RETARD HOUSING	002N02647
3-2	RETARD ASSEMBLY	019N00298
3-2-4	RETARD PAD	019N00566
4	FEED ASSEMBLY	130N01500
5	ACCESS COVER	002N02646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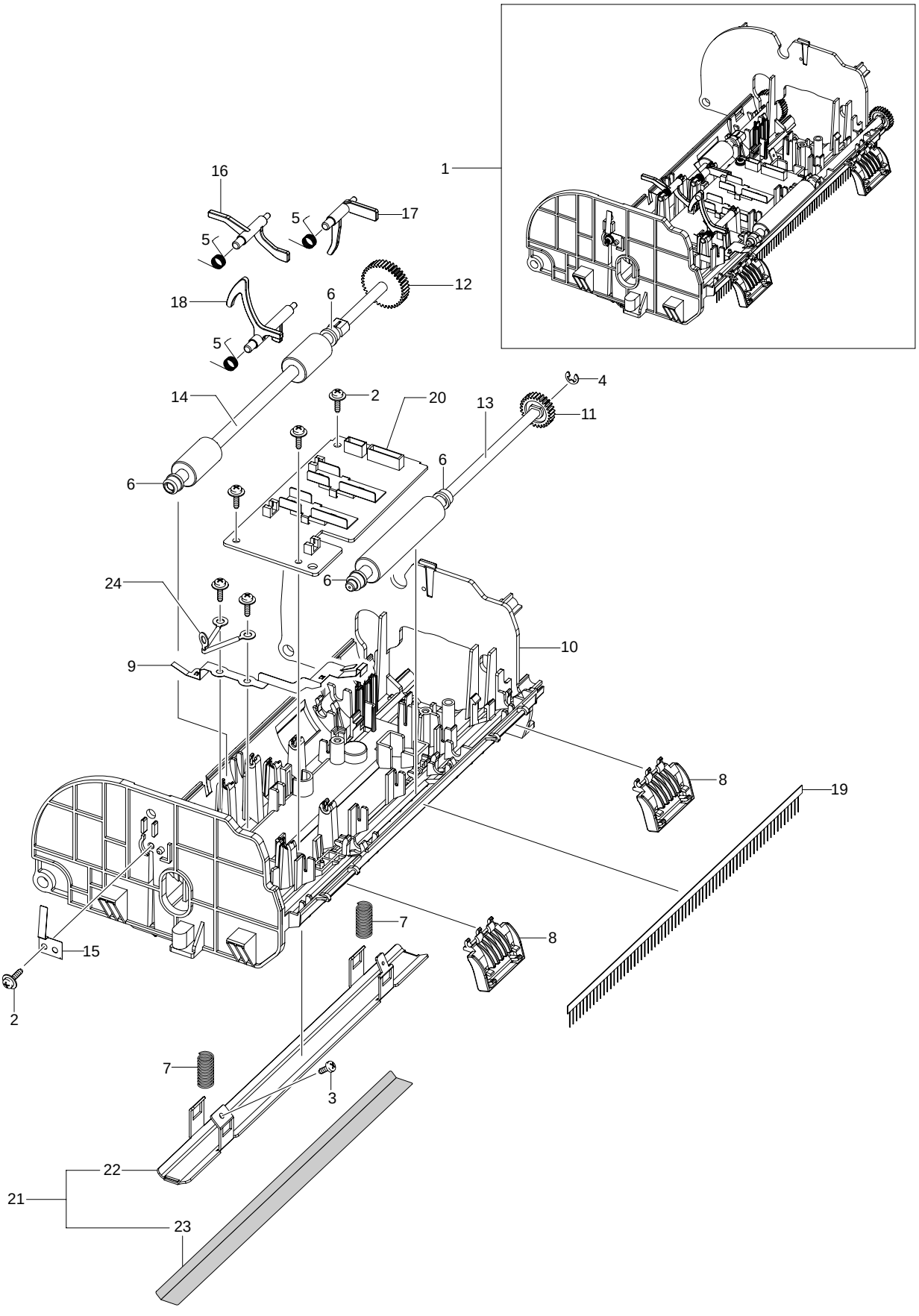
1	LOWER TRANSPORT	002N02649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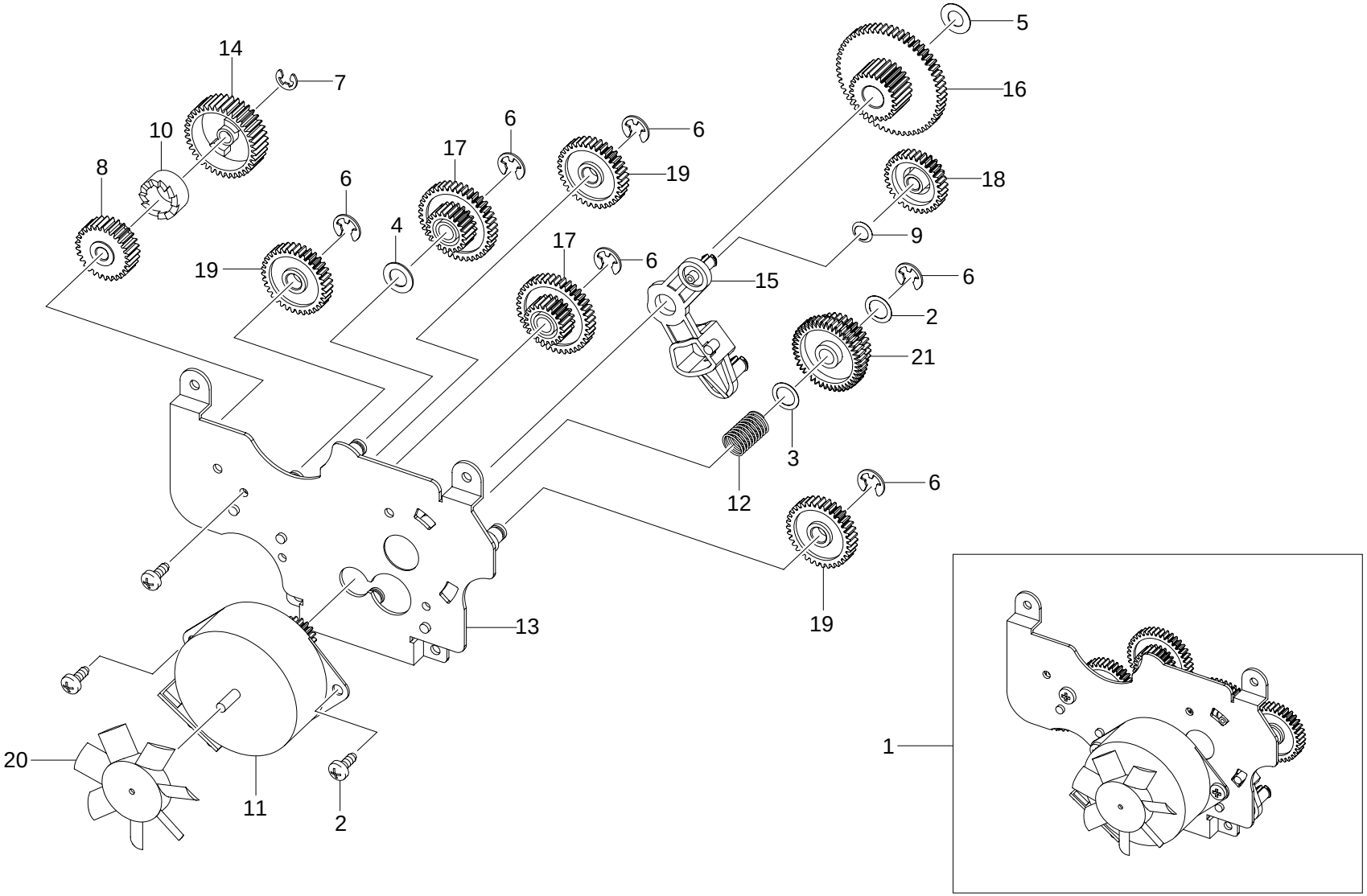
Item	Description	Part Number
1	ADF MOTOR	127N07531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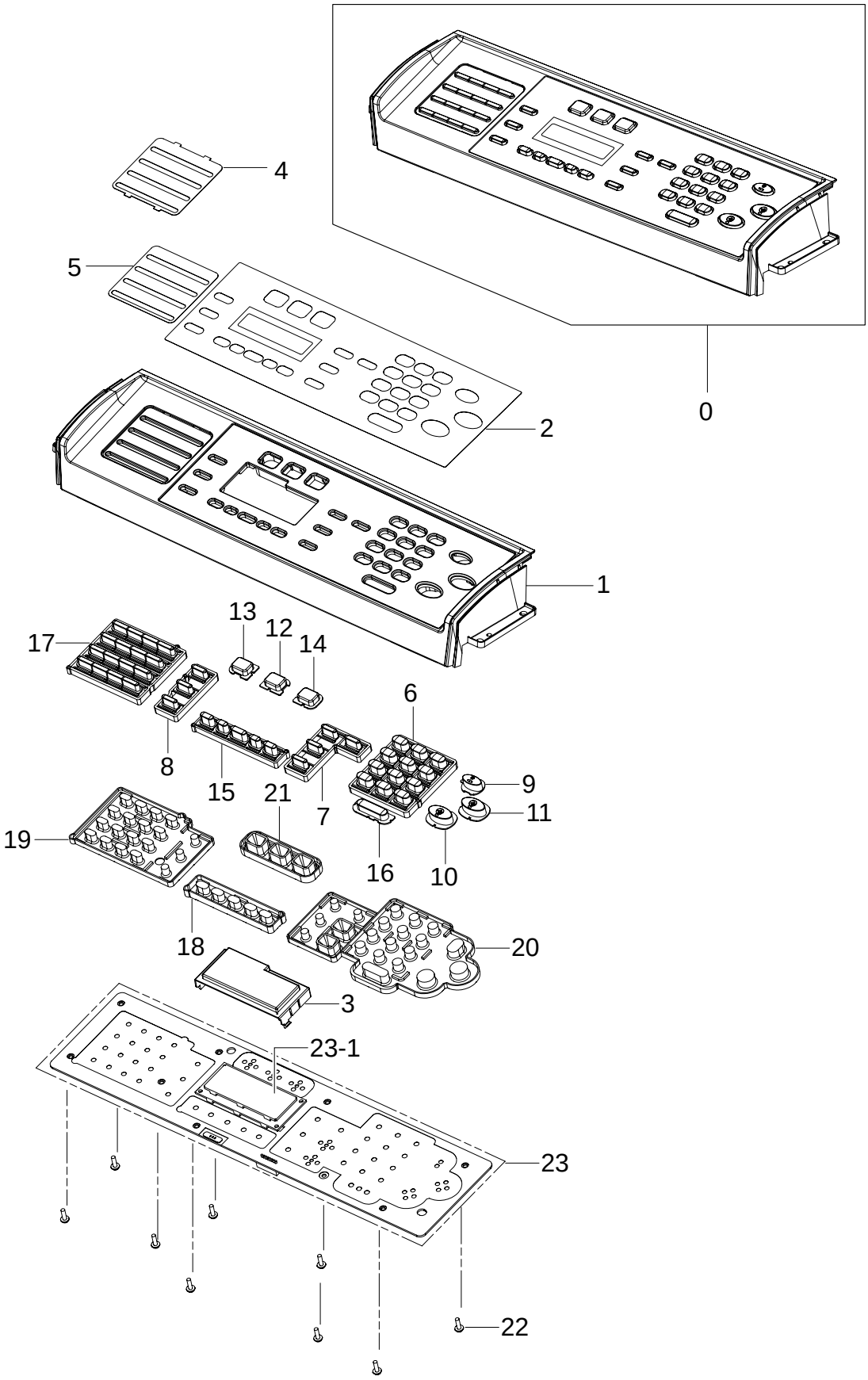
Item	Description	Part Number
0	CONTROL CONSOLE w/FAX	002N02648
0	CONTROL CONSOLE w/o FAX	002N02668
23	CONTROL CONSOLE PWB w/FAX	140N63239
66	CONTROL CONSOLE TO MAIN PWB HARNESS	101N01411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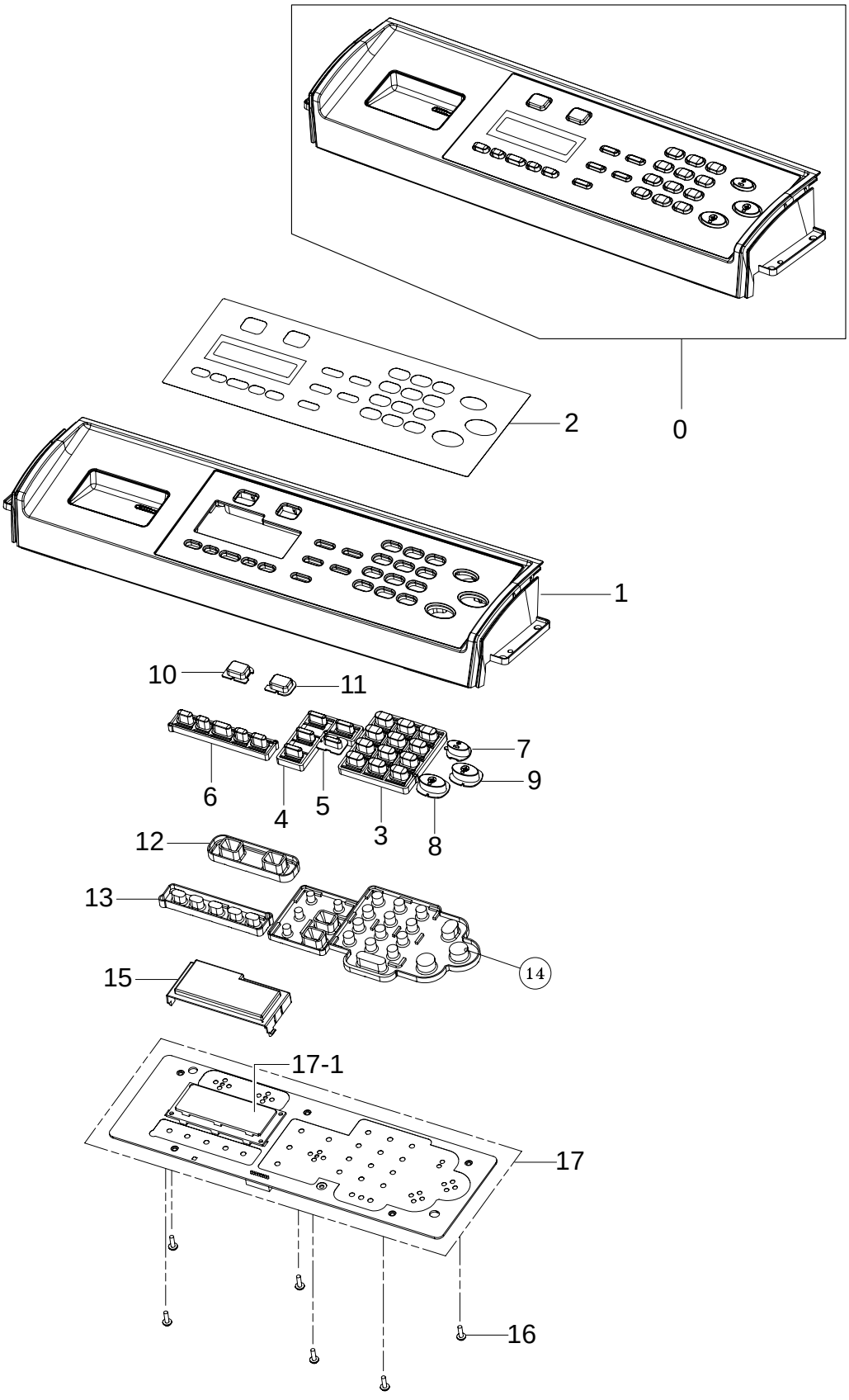
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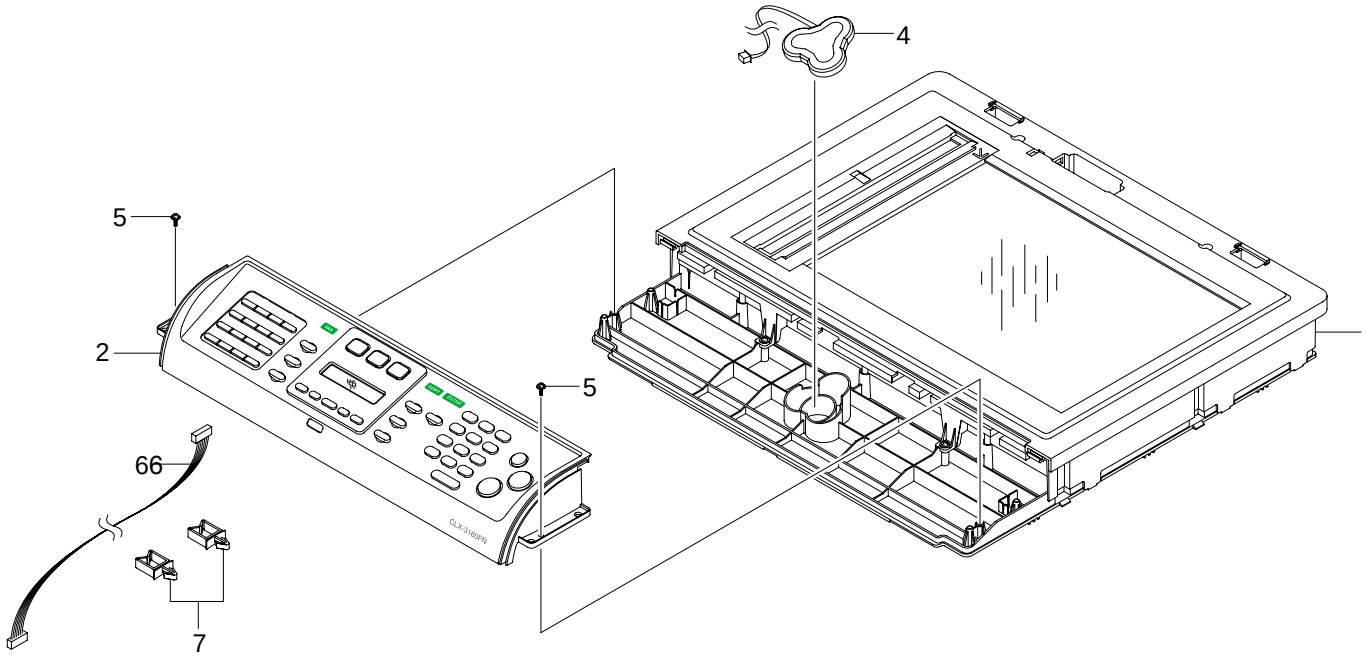
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Item	Description	Part Number
0	SCANNER ASSEMBLY	090N00163
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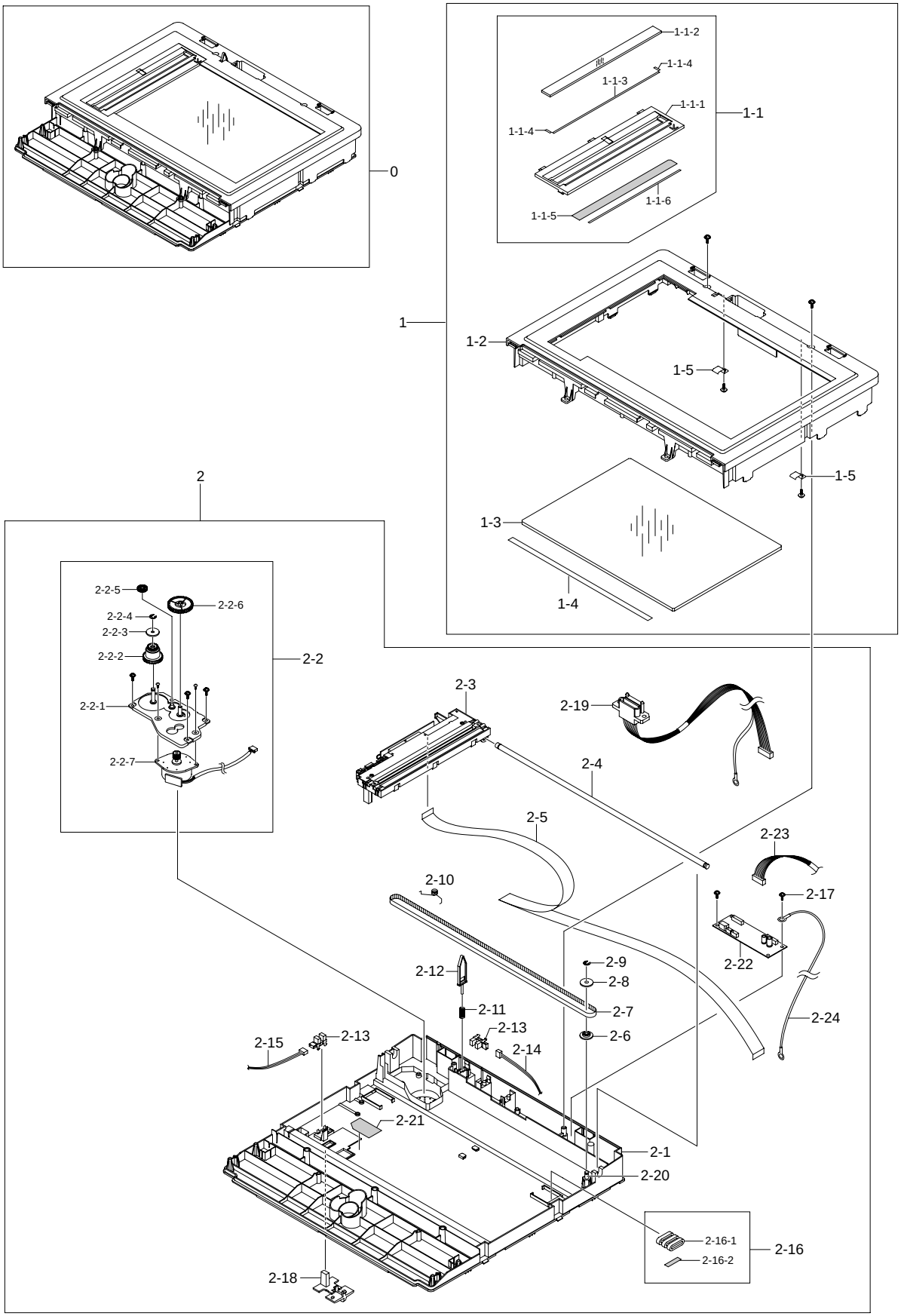
1-2	UPPER HOUSING	101N01410
1-3	PLATEN GLASS	057N00156
2	LOWER HOUSING ASSEMBLY	109N00662
2-2	SCAN DRIVE MOTOR	127N07530
2-3	SCAN CARRIAGE	101N01409
2-5	RIBBON CABLE	117N01772
2-7	DRIVE BELT	109N00542
2-12	SENSOR ACTUATOR	011N00473
2-13	SENSOR	130N01274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Item	Description	Part Number
0	MIDDLE COVER w/FAX	002N02644
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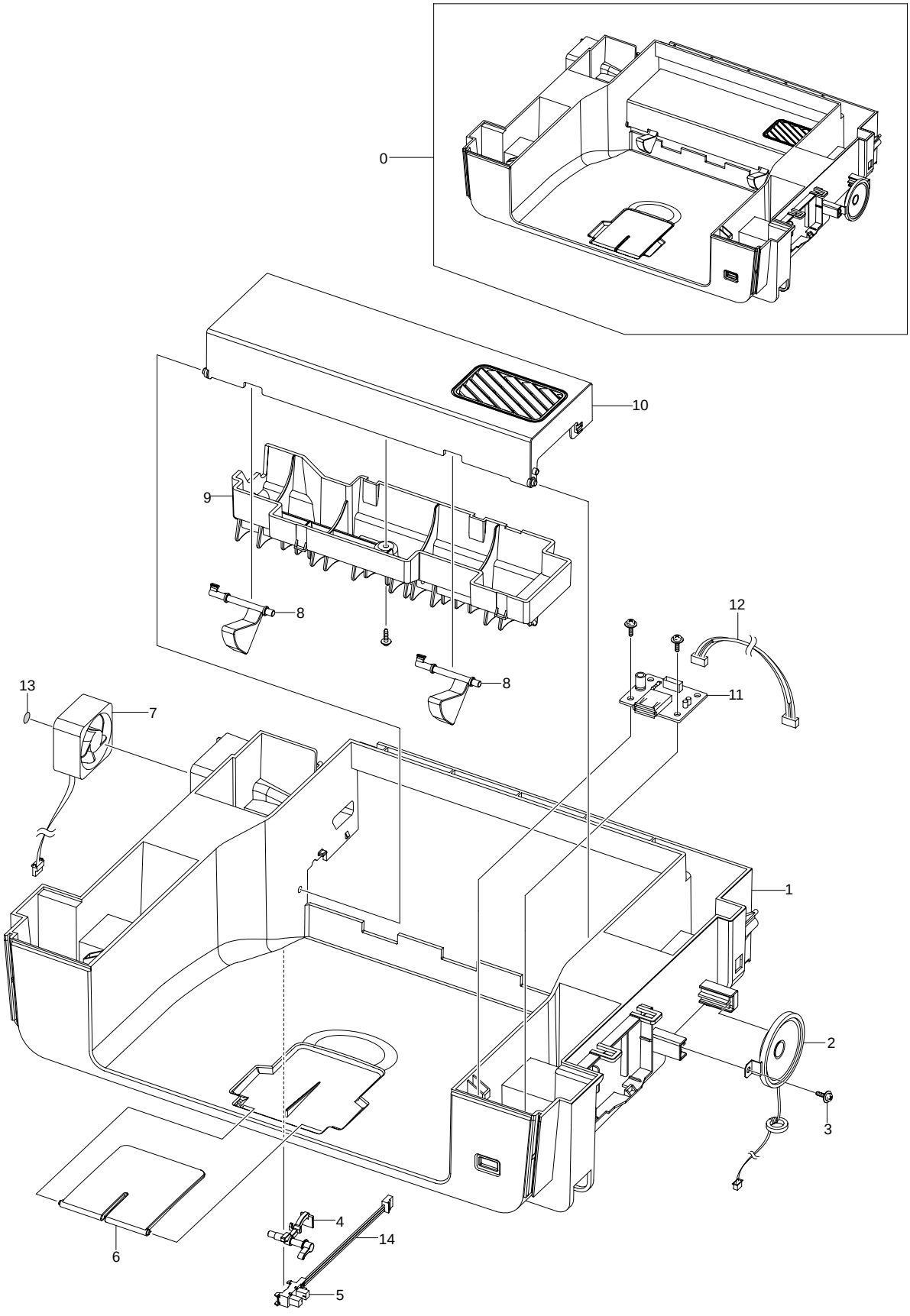
11	USB PWB	140N63106
13	FAN	127N07529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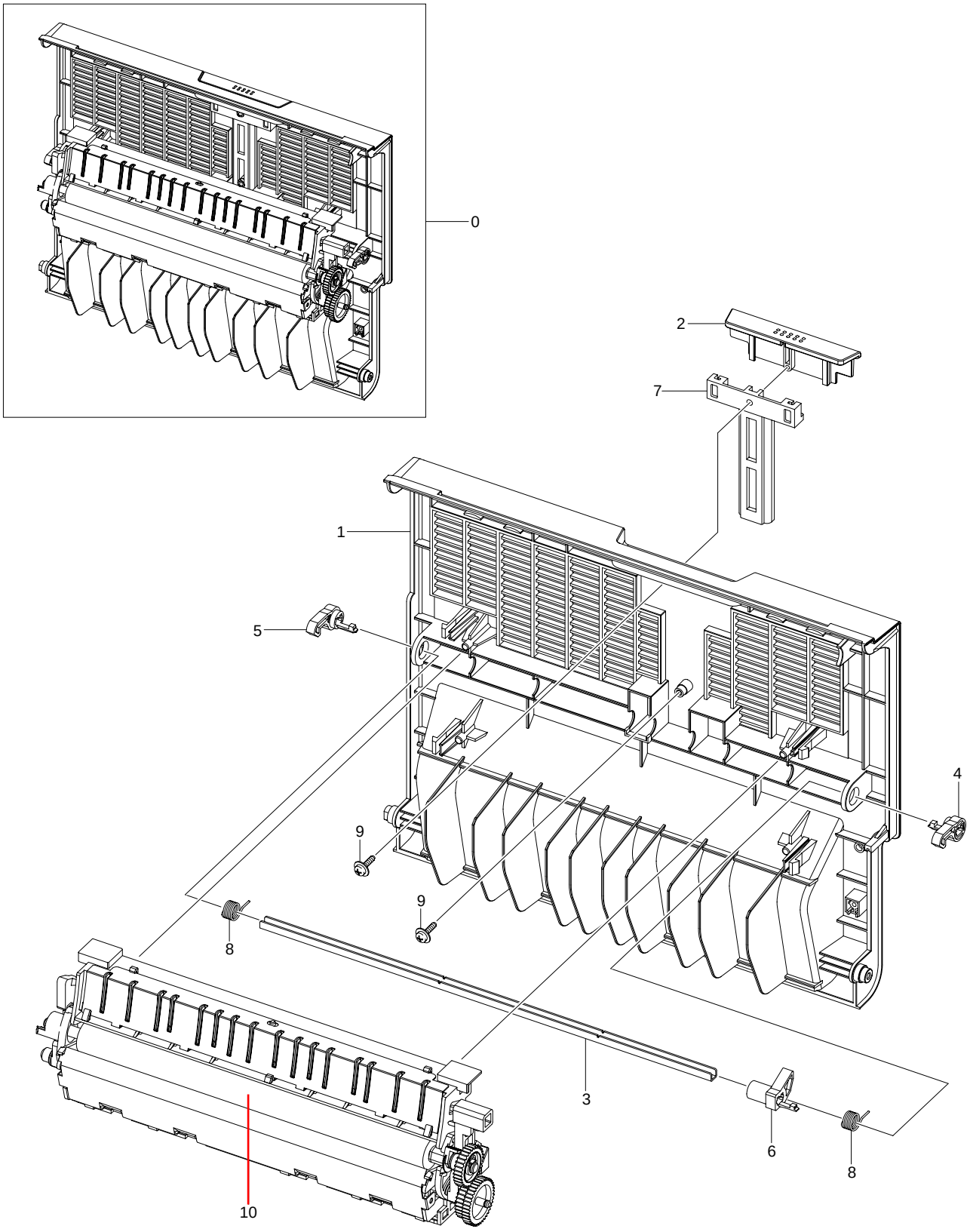
10	T2 ROLLER	022N02299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0	FUSER 110V	126N00279
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7	THERMOSTAT	130N01491
29	THERMISTOR	130N01492
3	HEAT ROLLER	022N02300
28	HEAT LAMP 110V	122N00271
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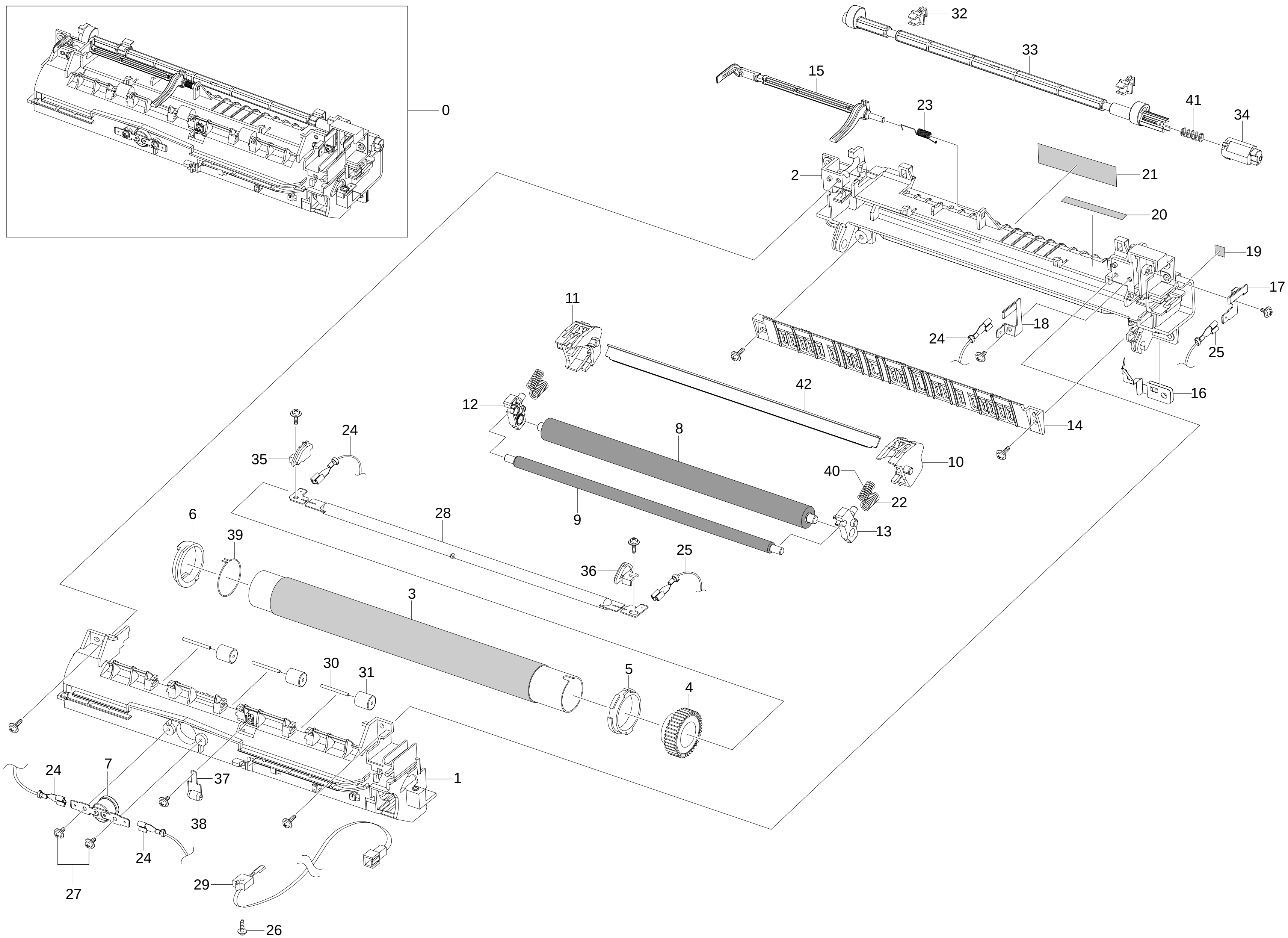
8	PRESSURE ROLLER	022N02301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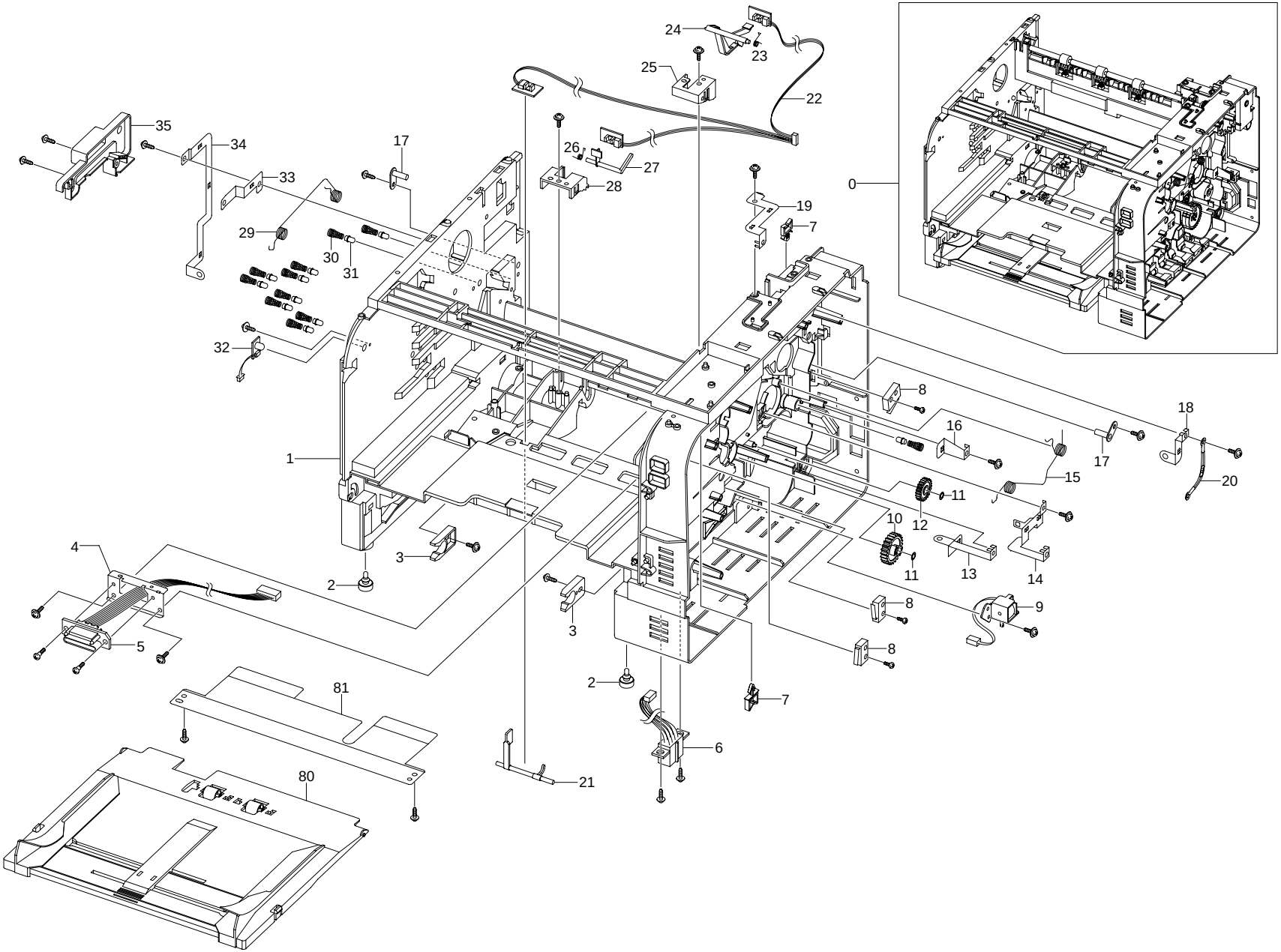
Item	Description	Part Number
21	EMPTY ACTUATOR	120N00503
30, 31	HVPS TERMINAL	116N00251
80	AUXILIARY PAPER TRAY	130N01501
67-5	RUBBER PICK UP	130N01409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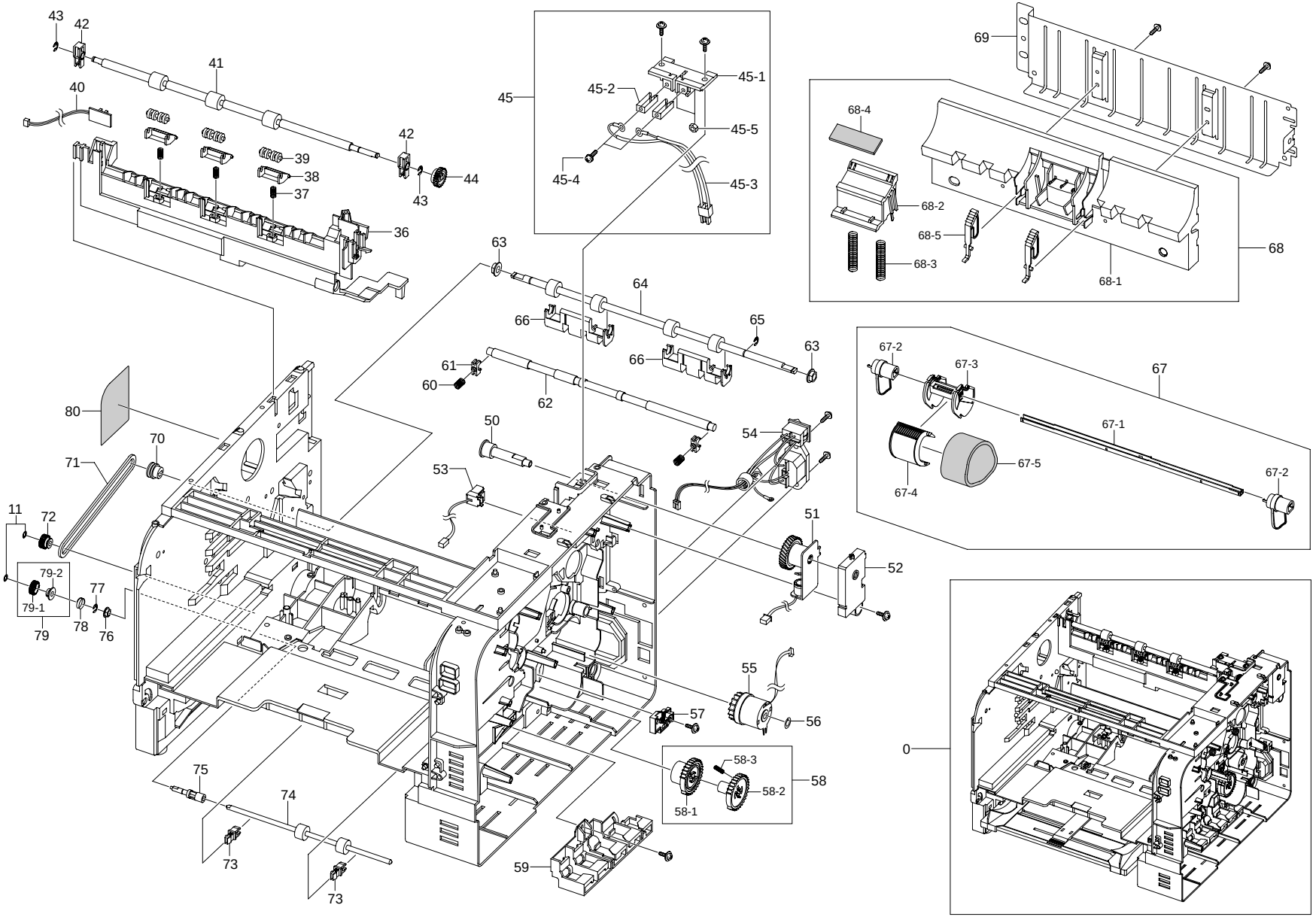
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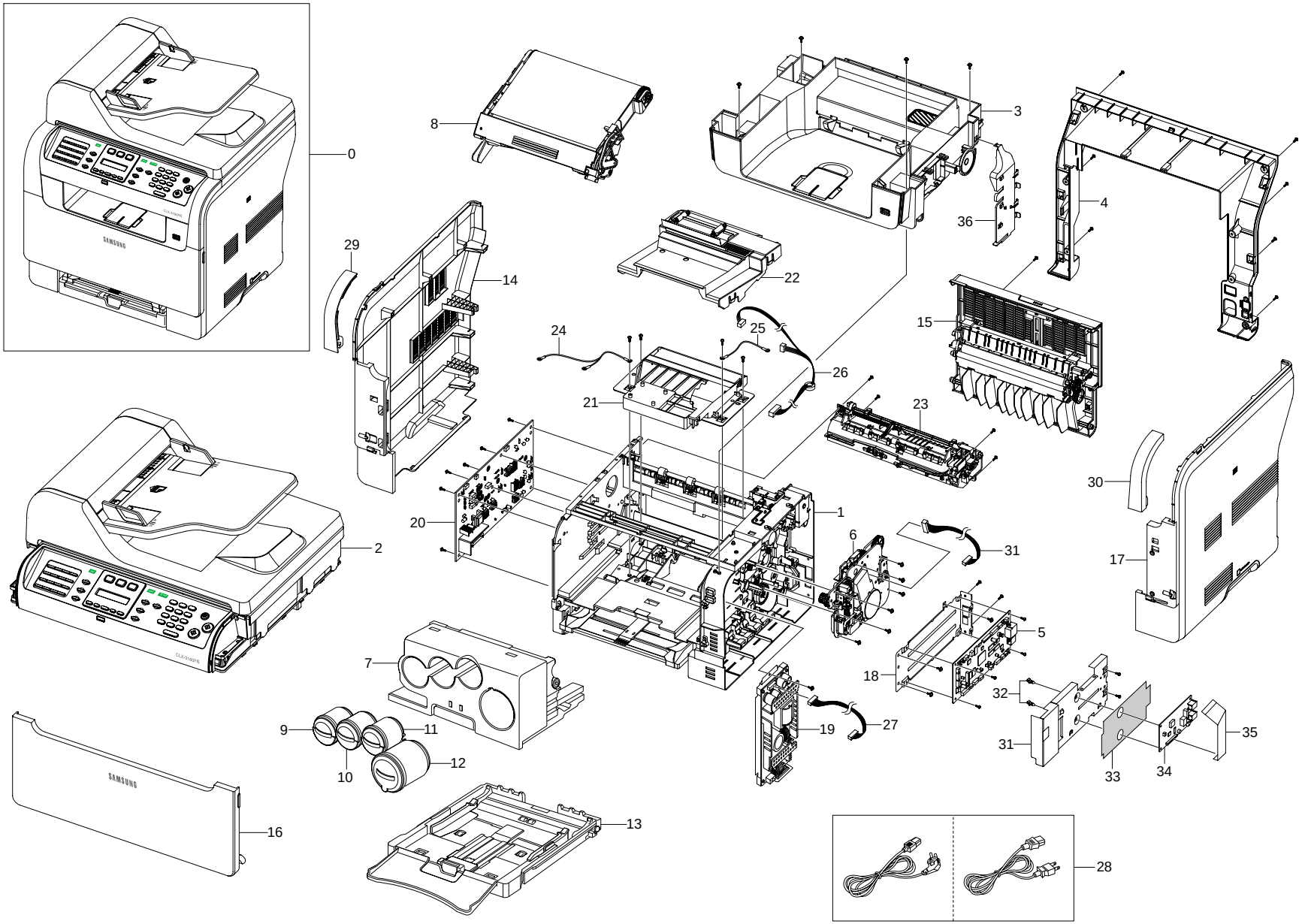
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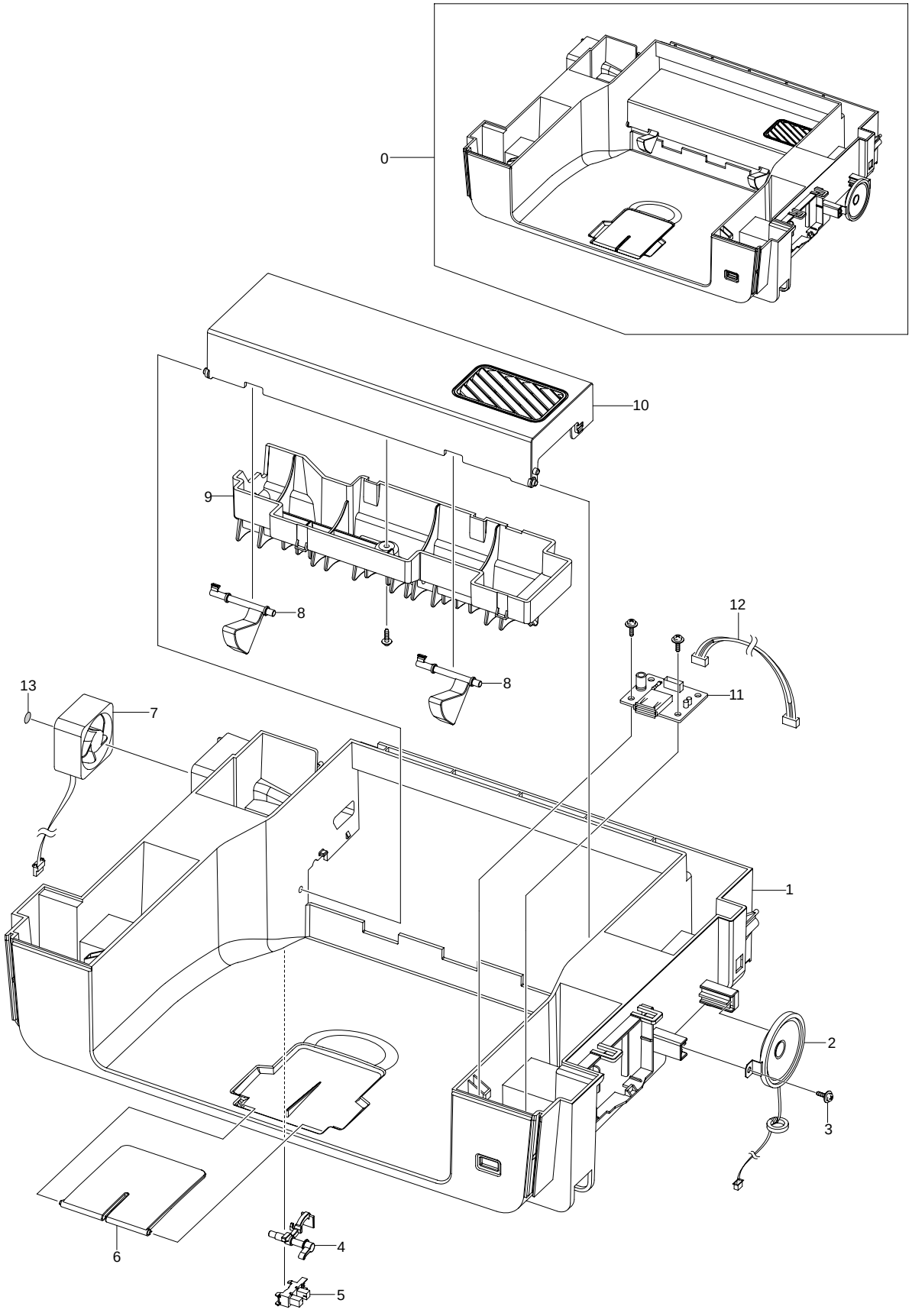
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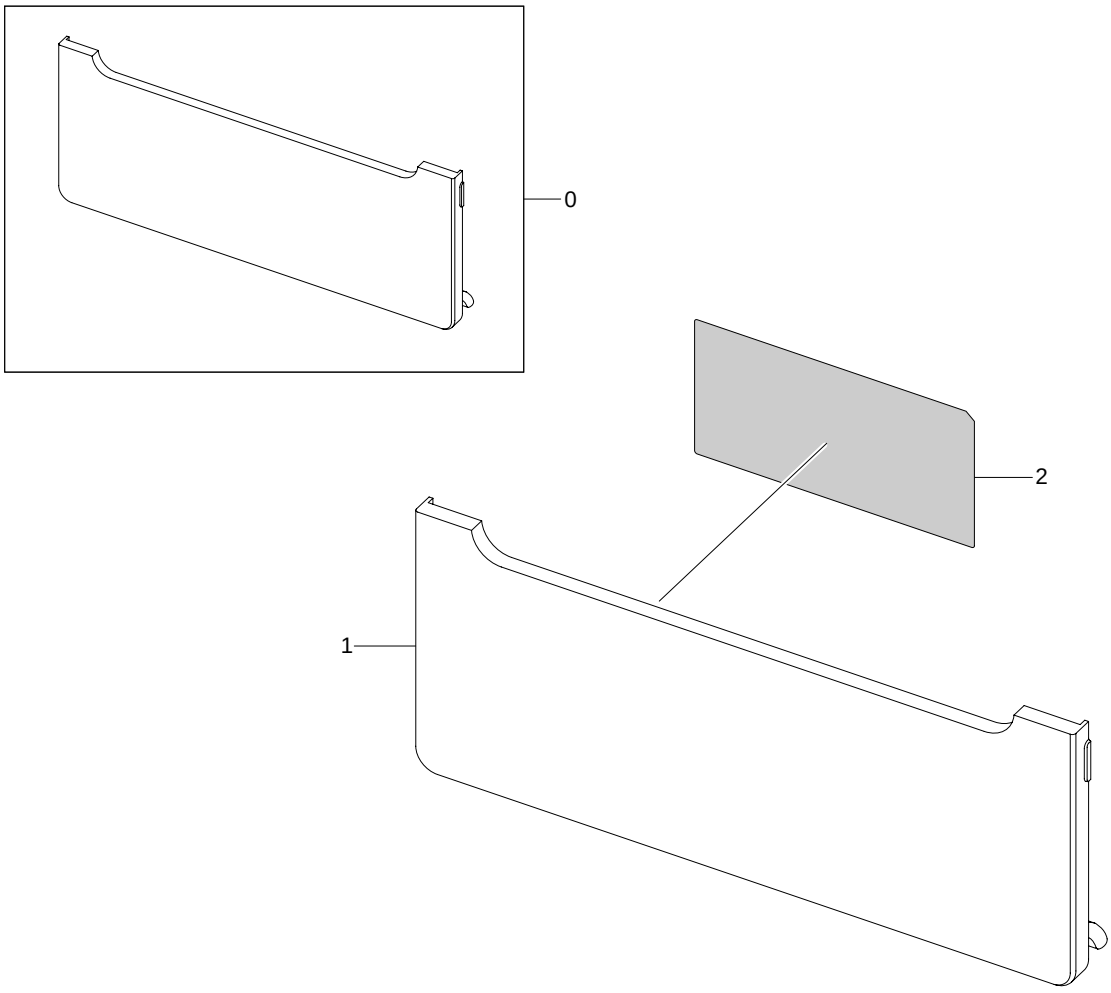
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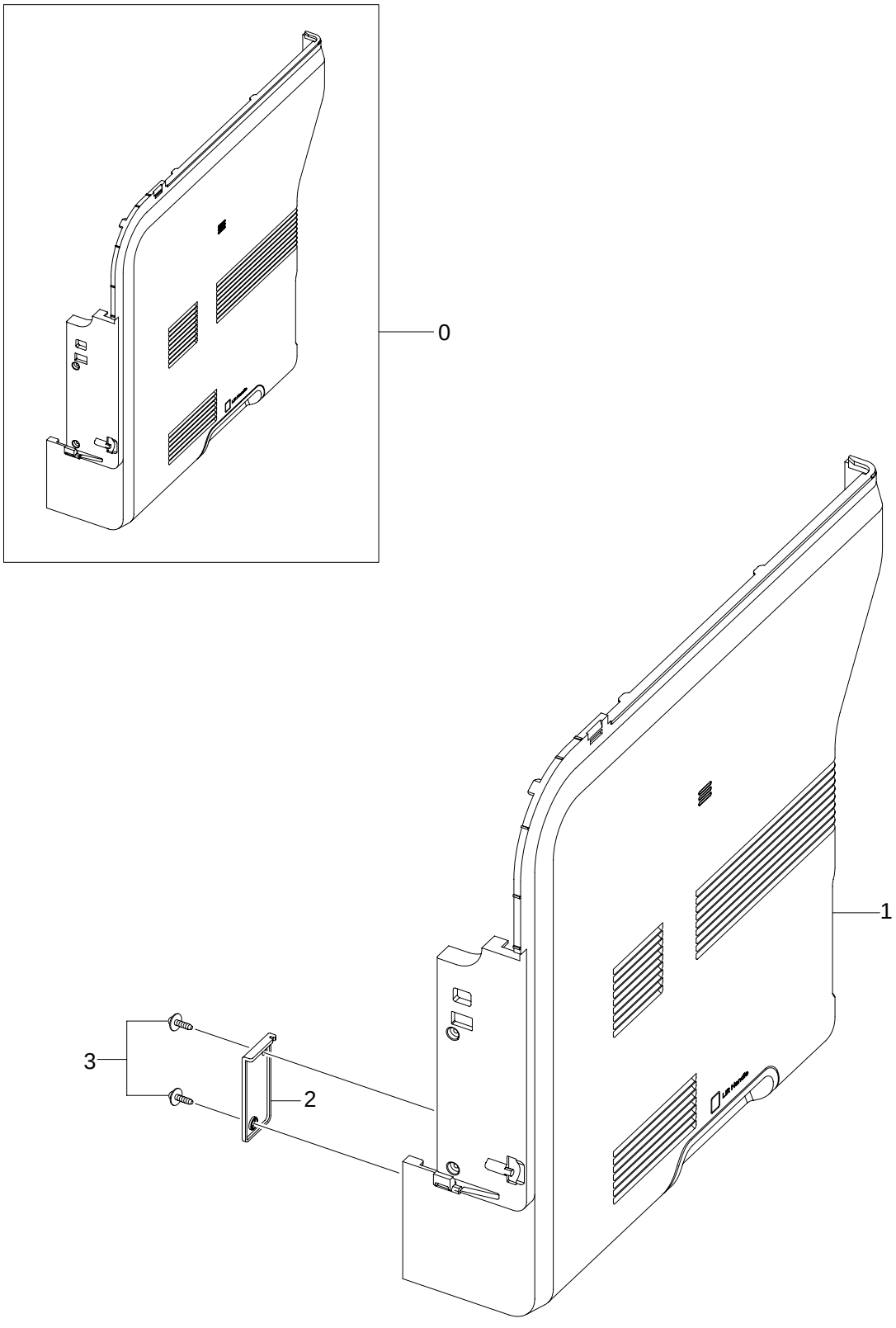
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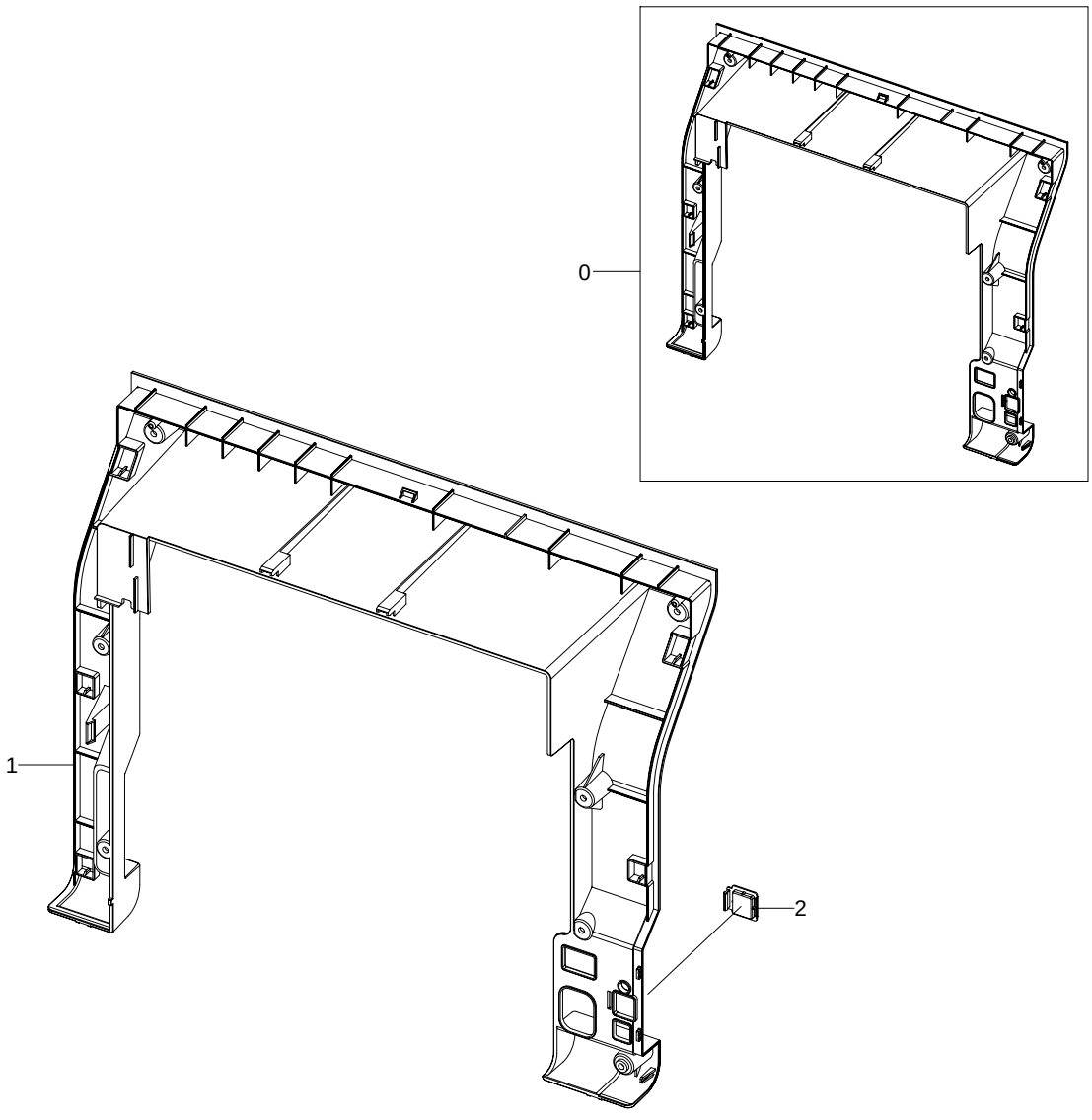
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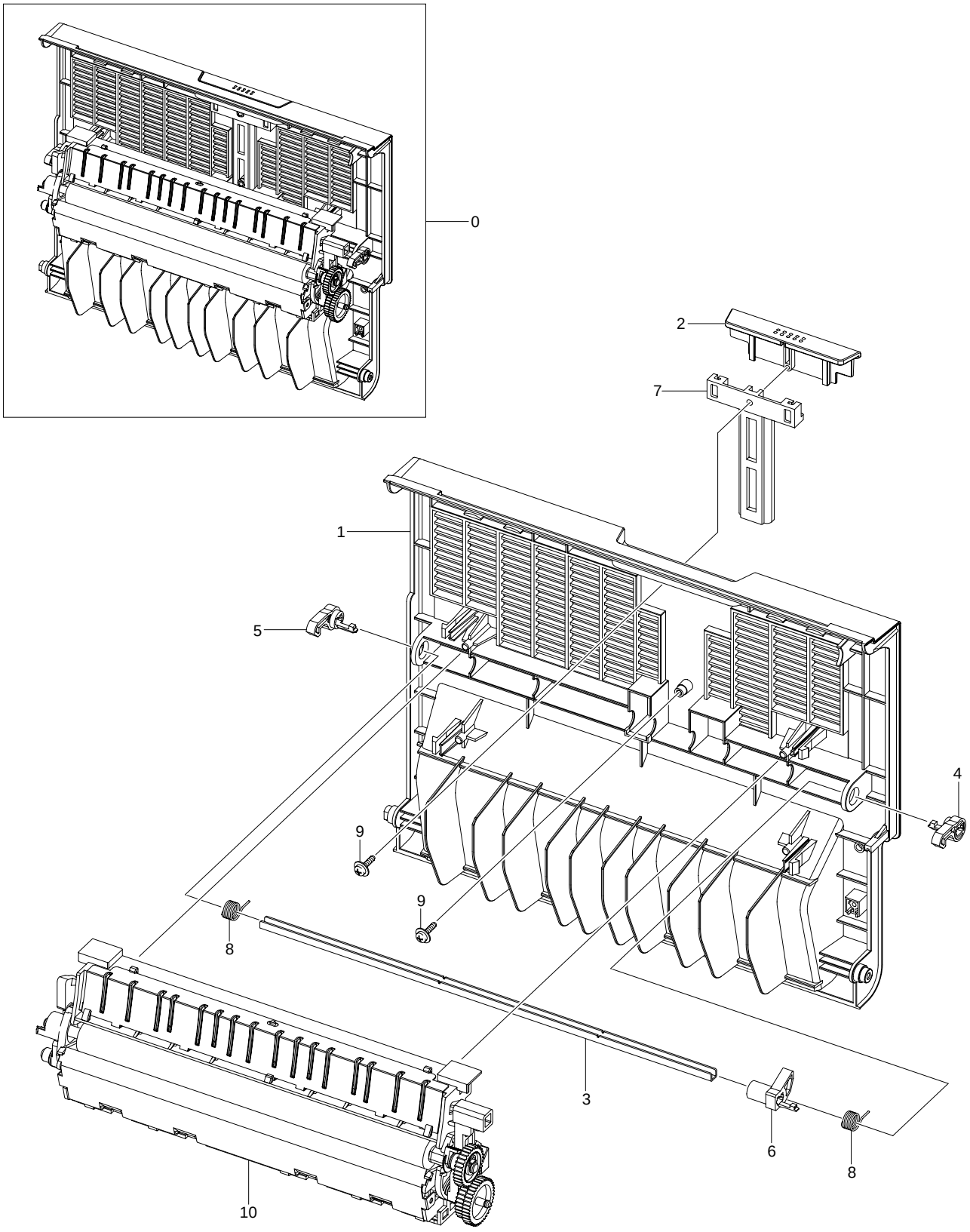
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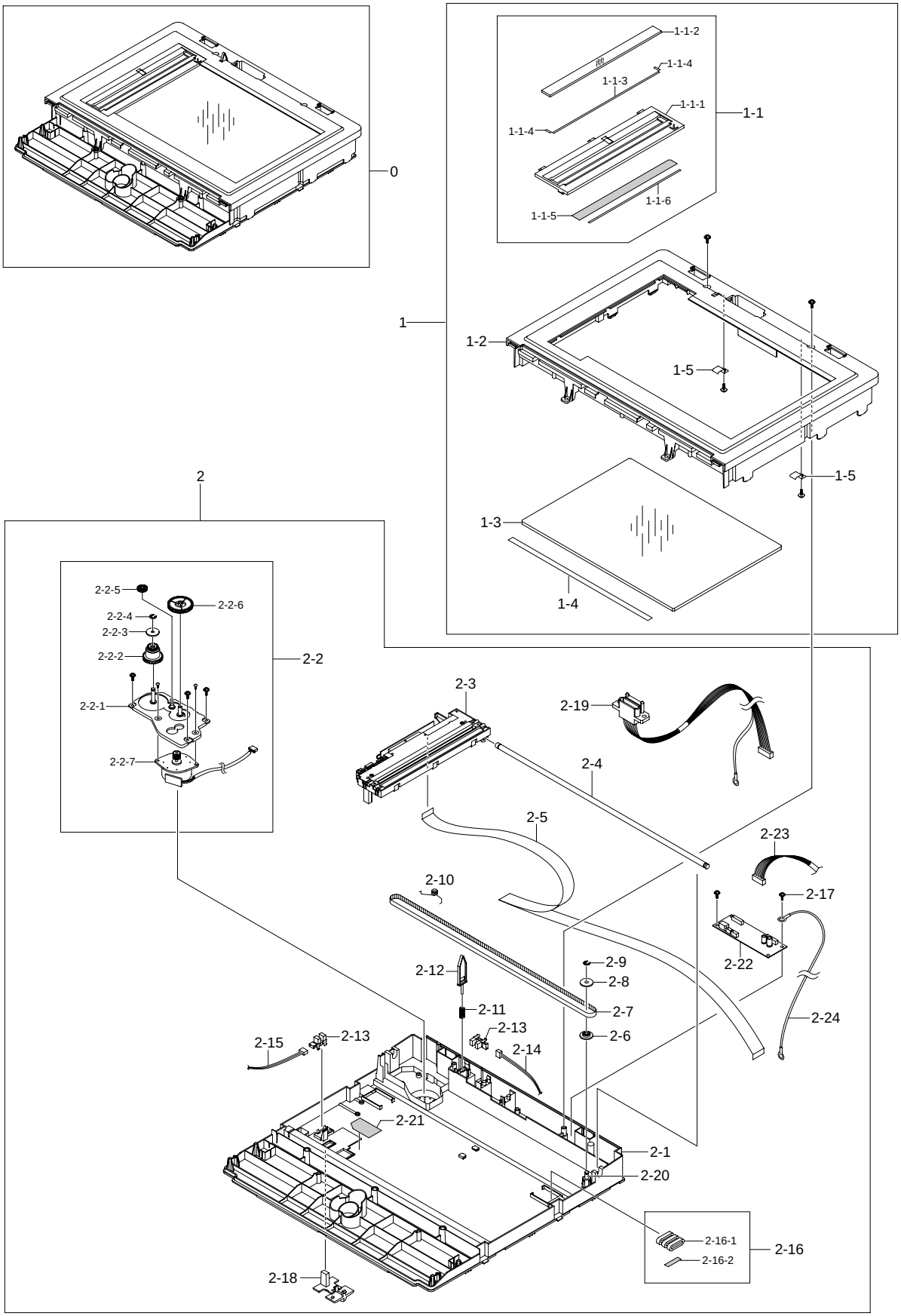
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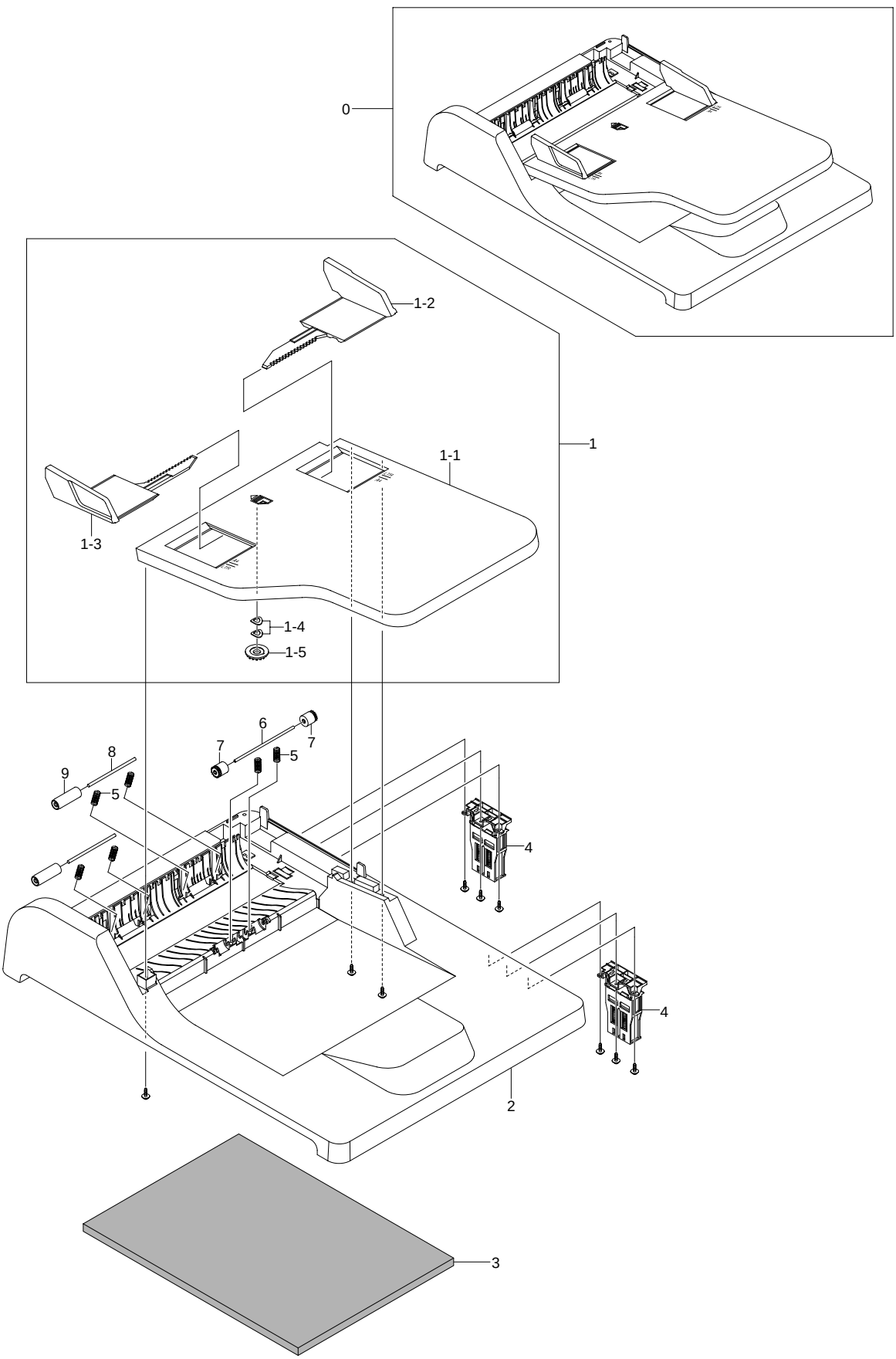
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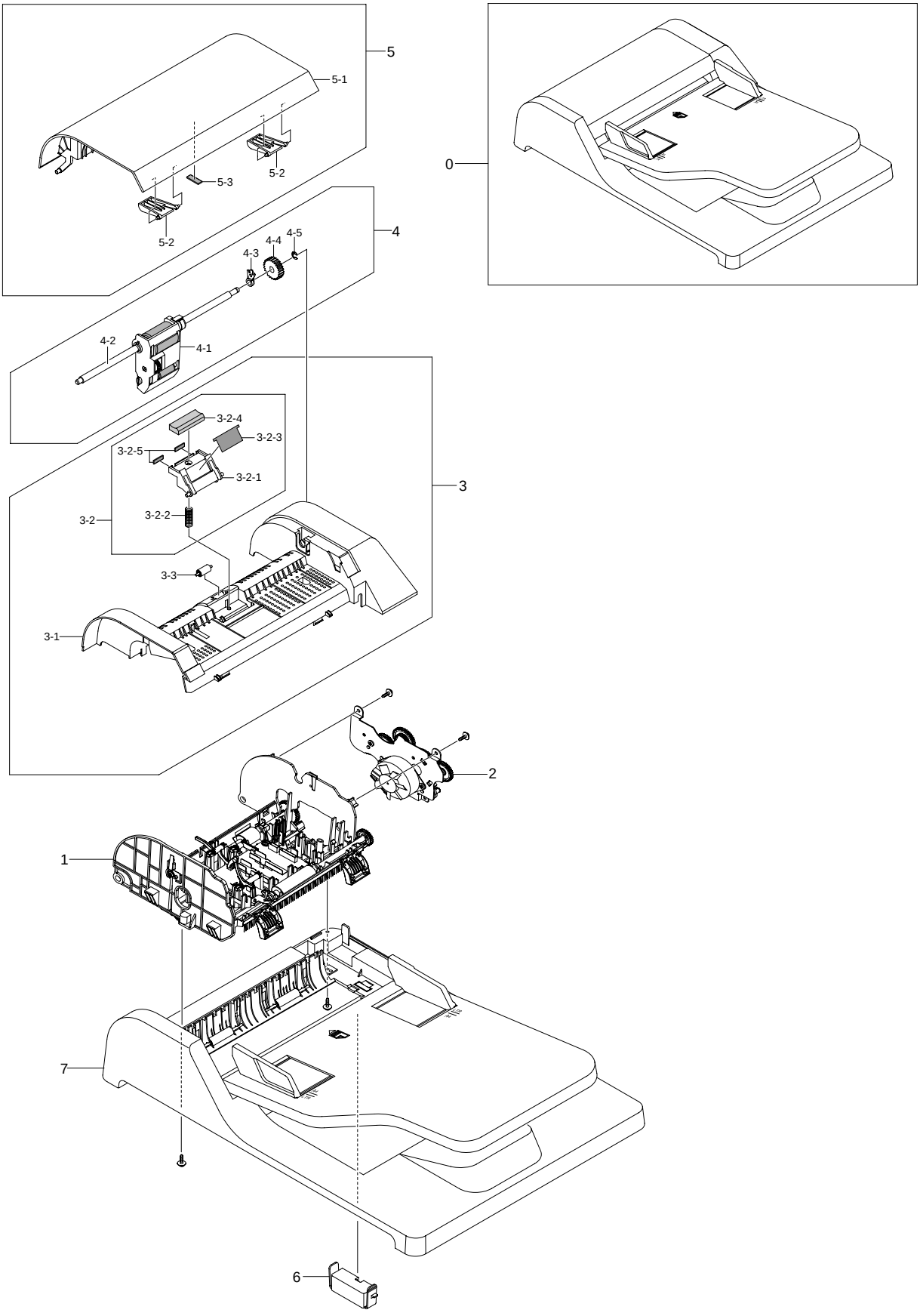
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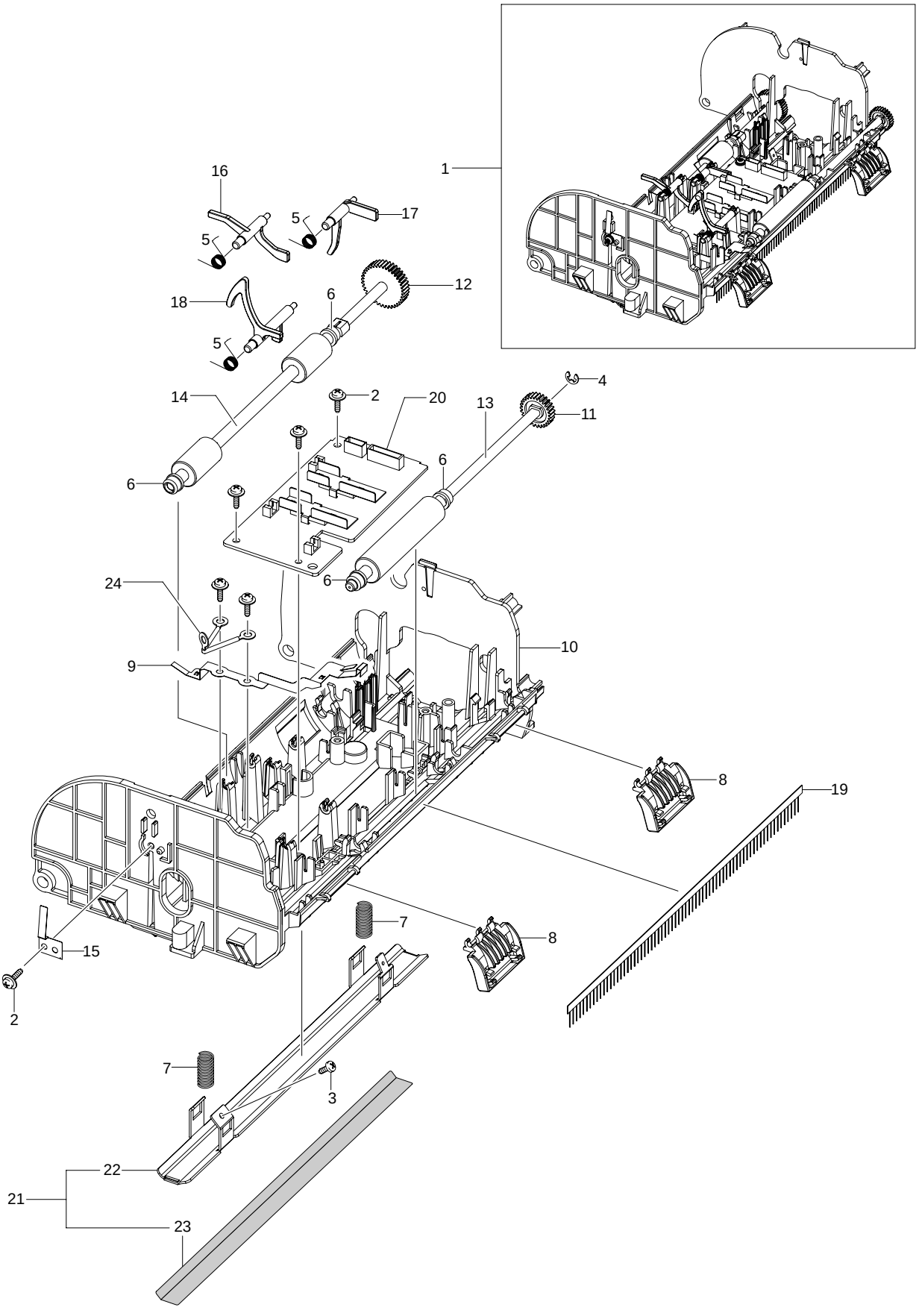
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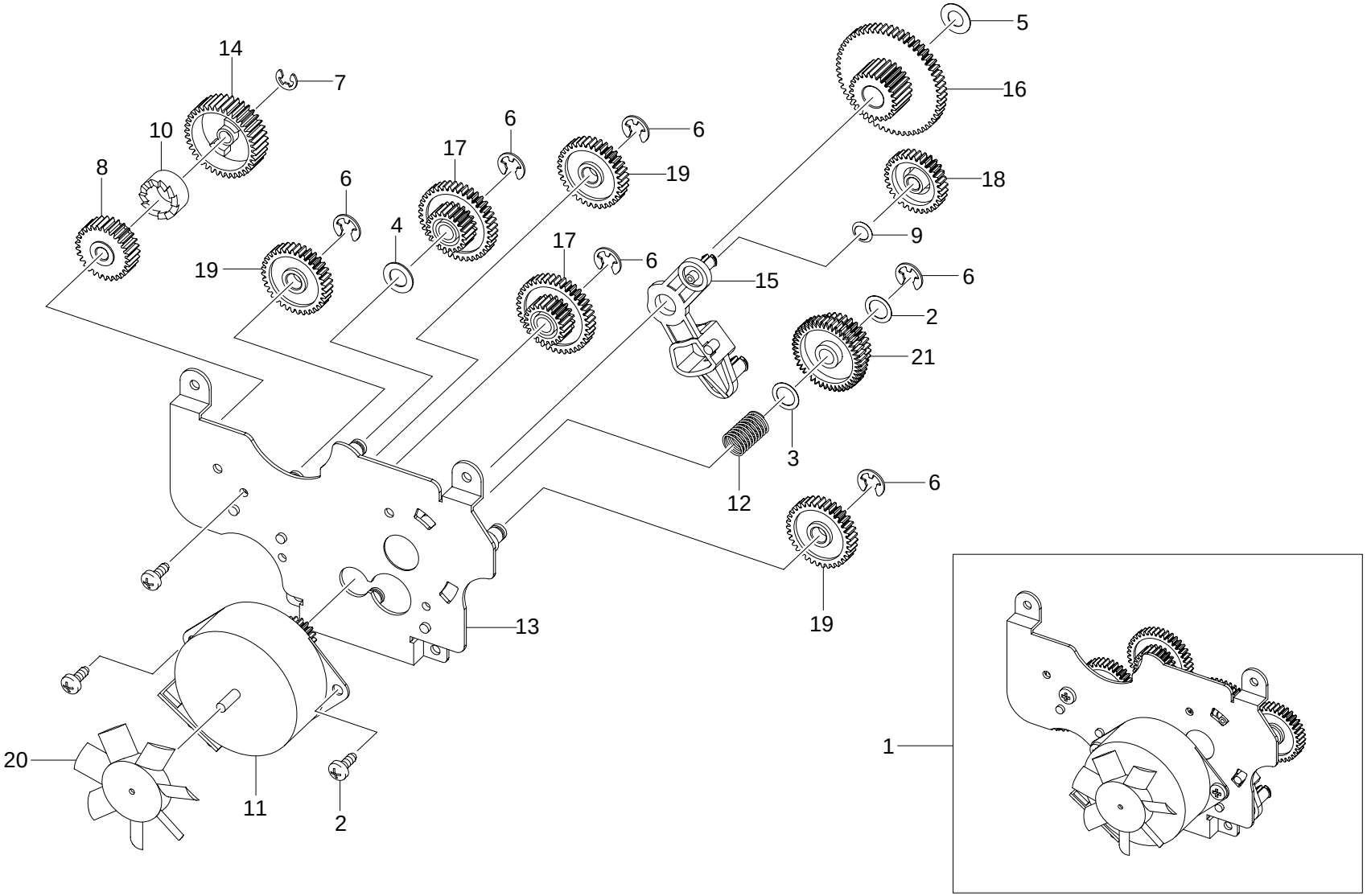
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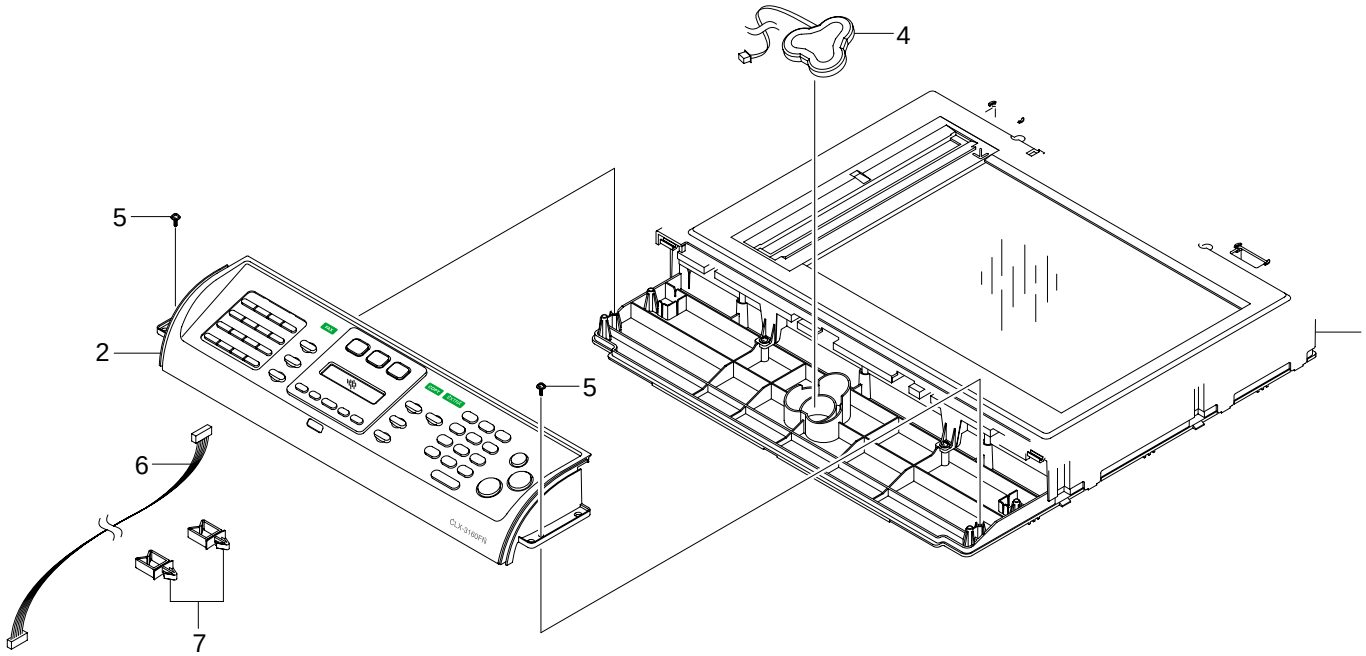
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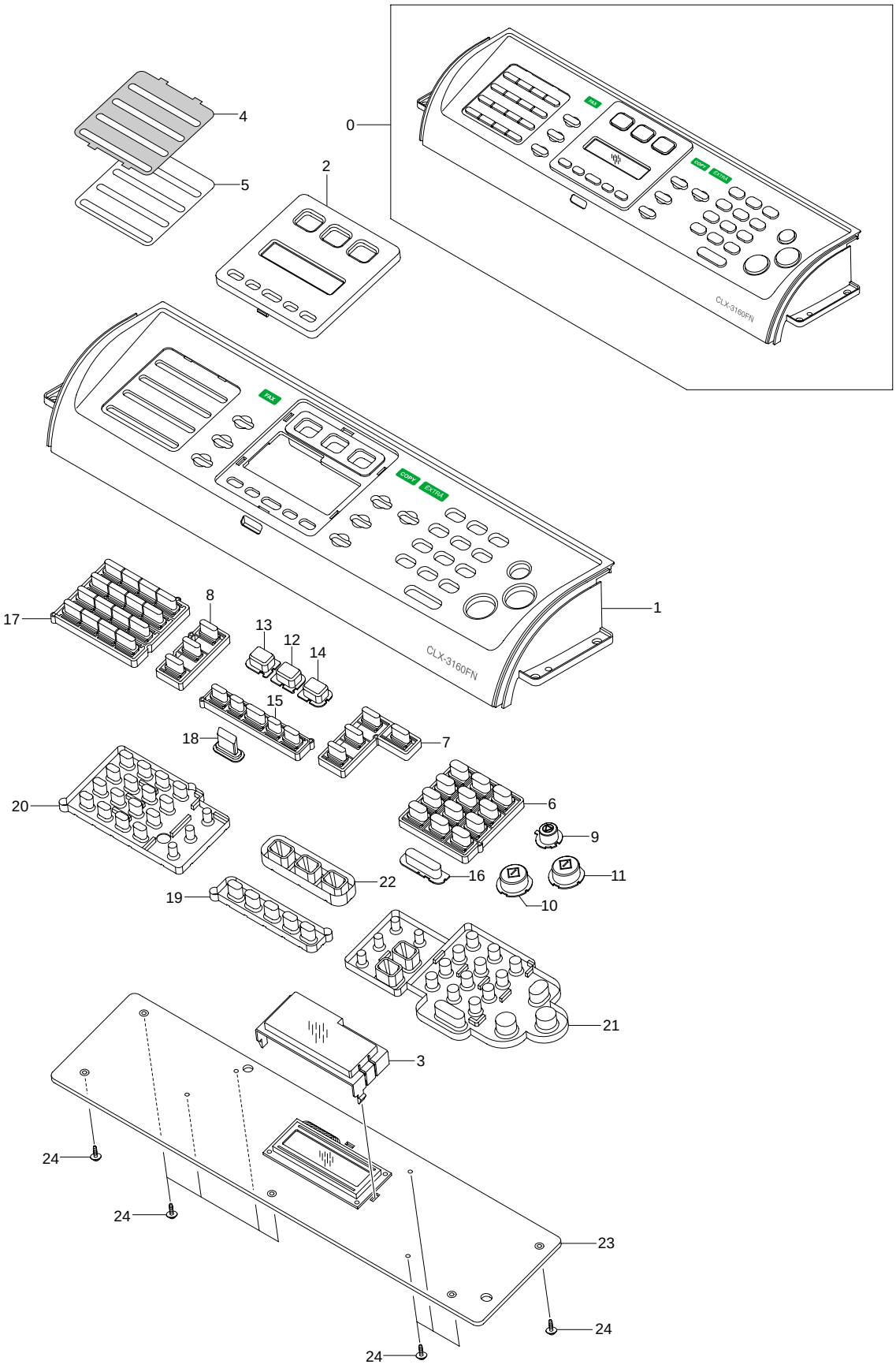
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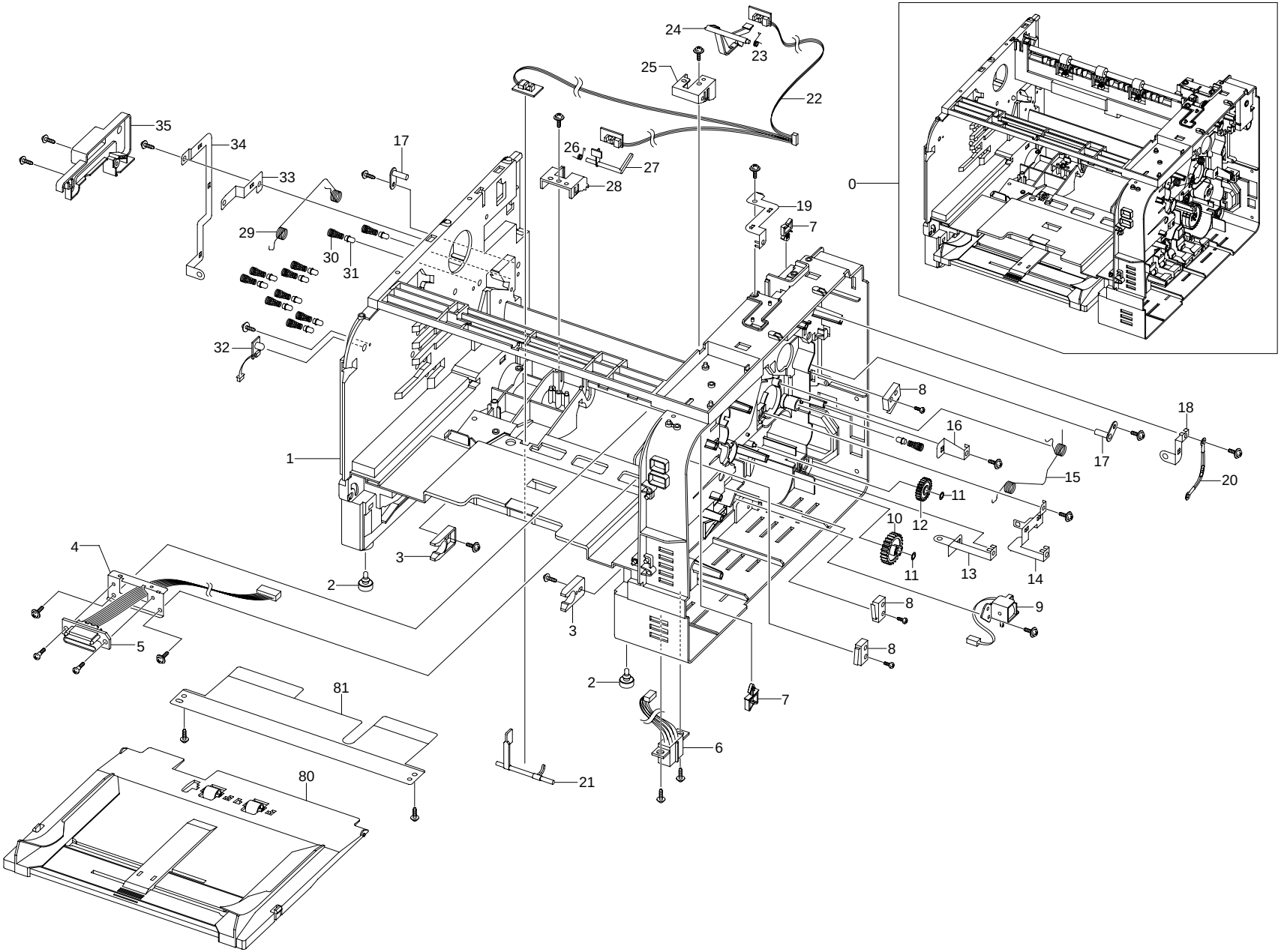
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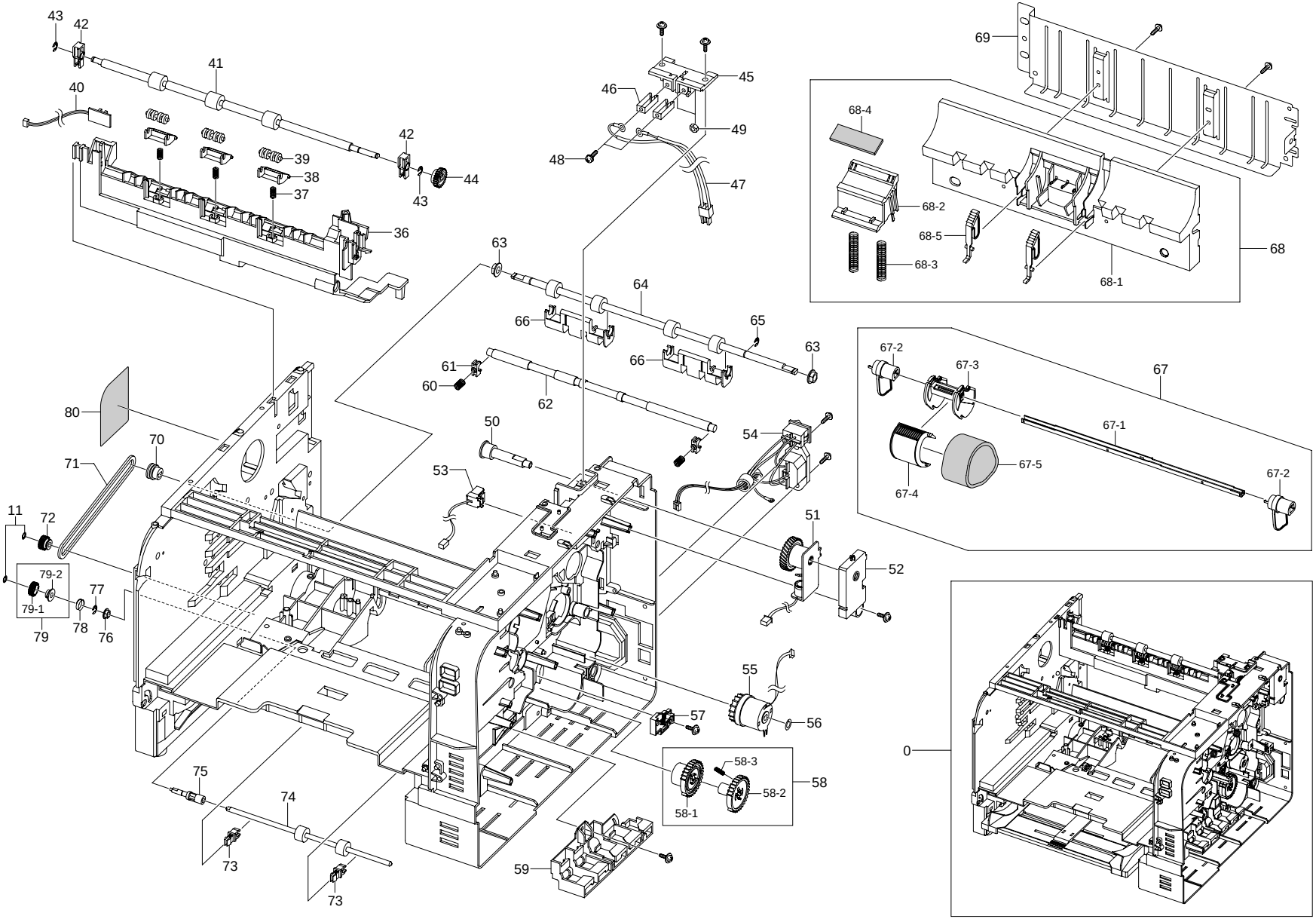
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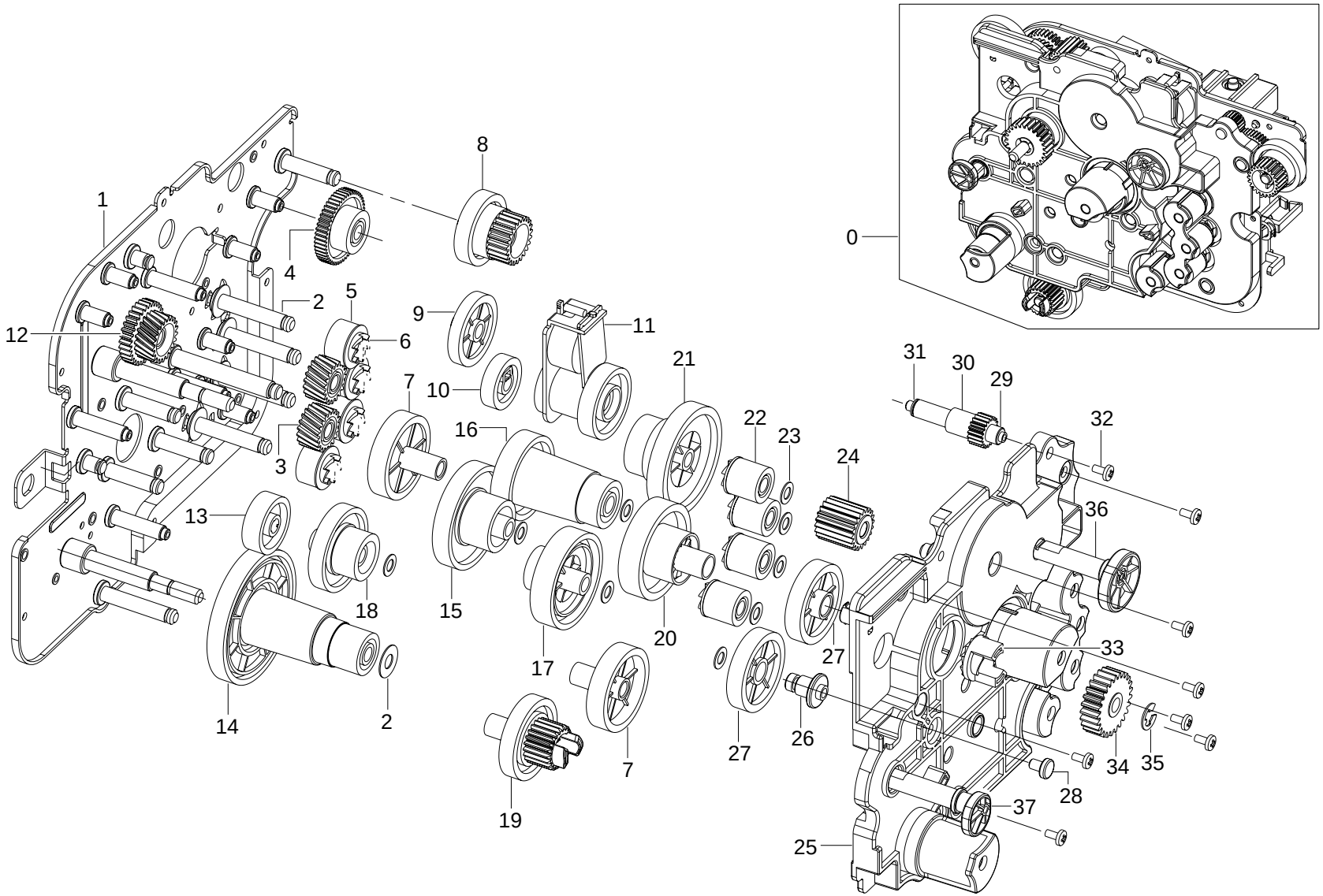
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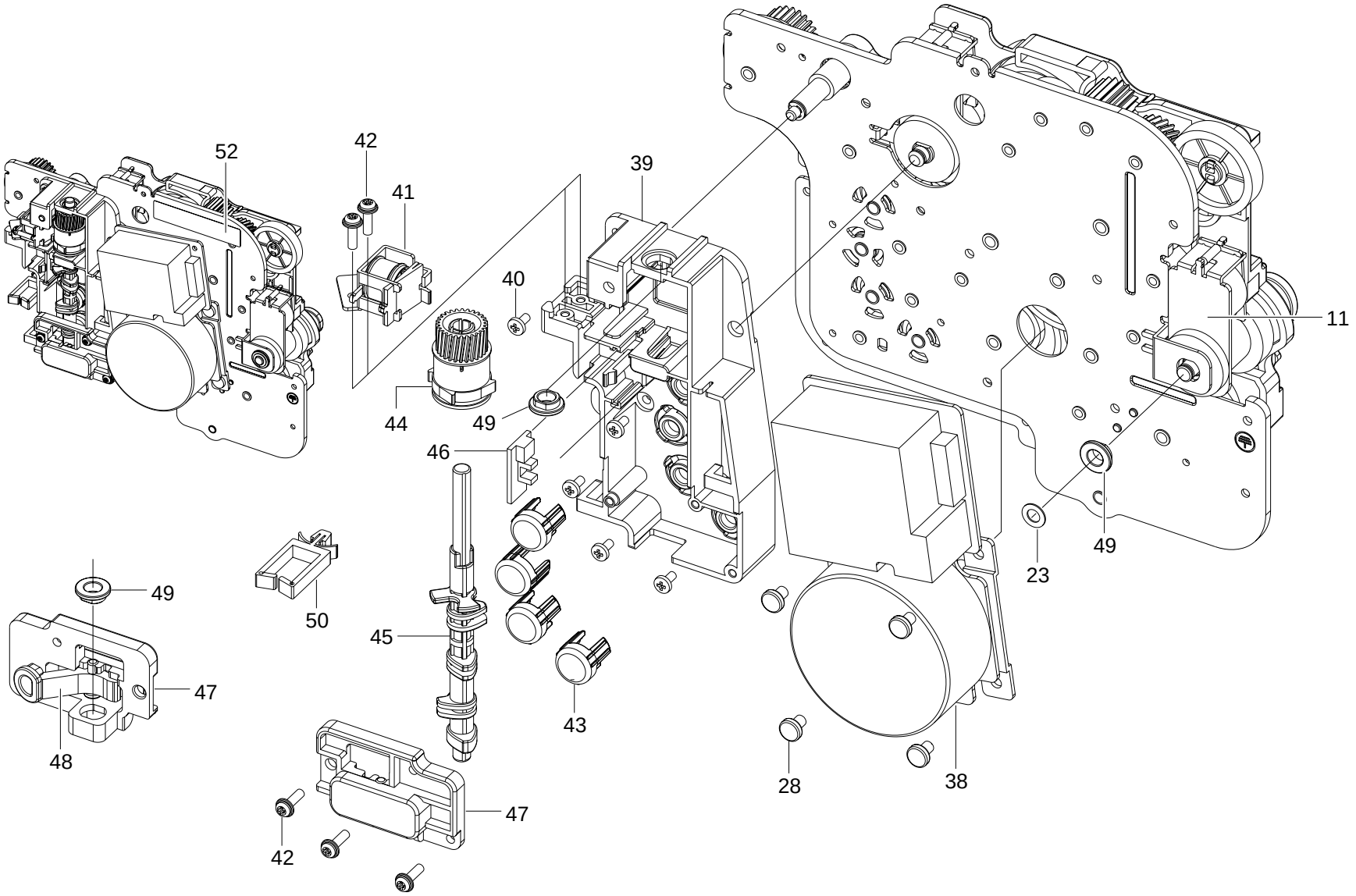
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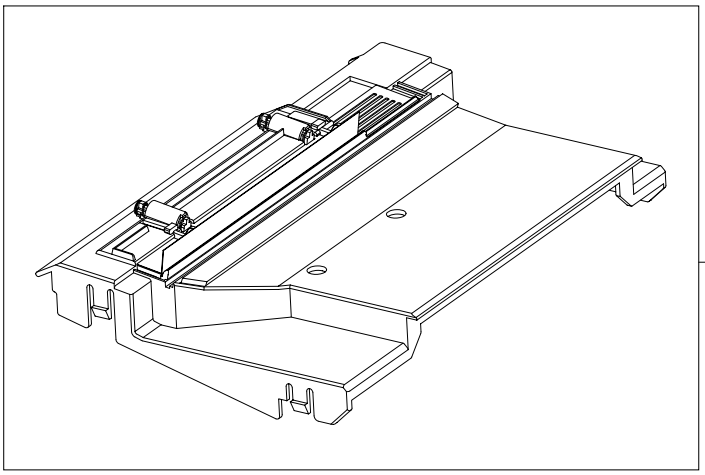
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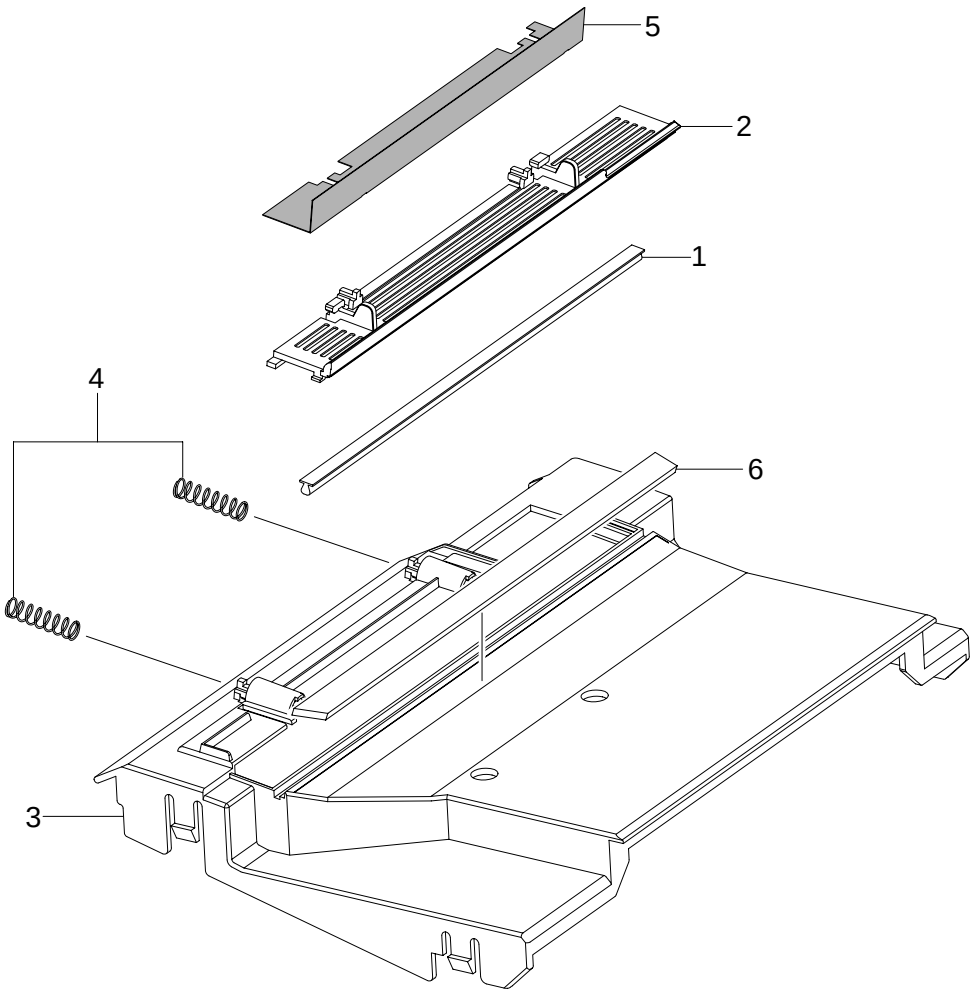
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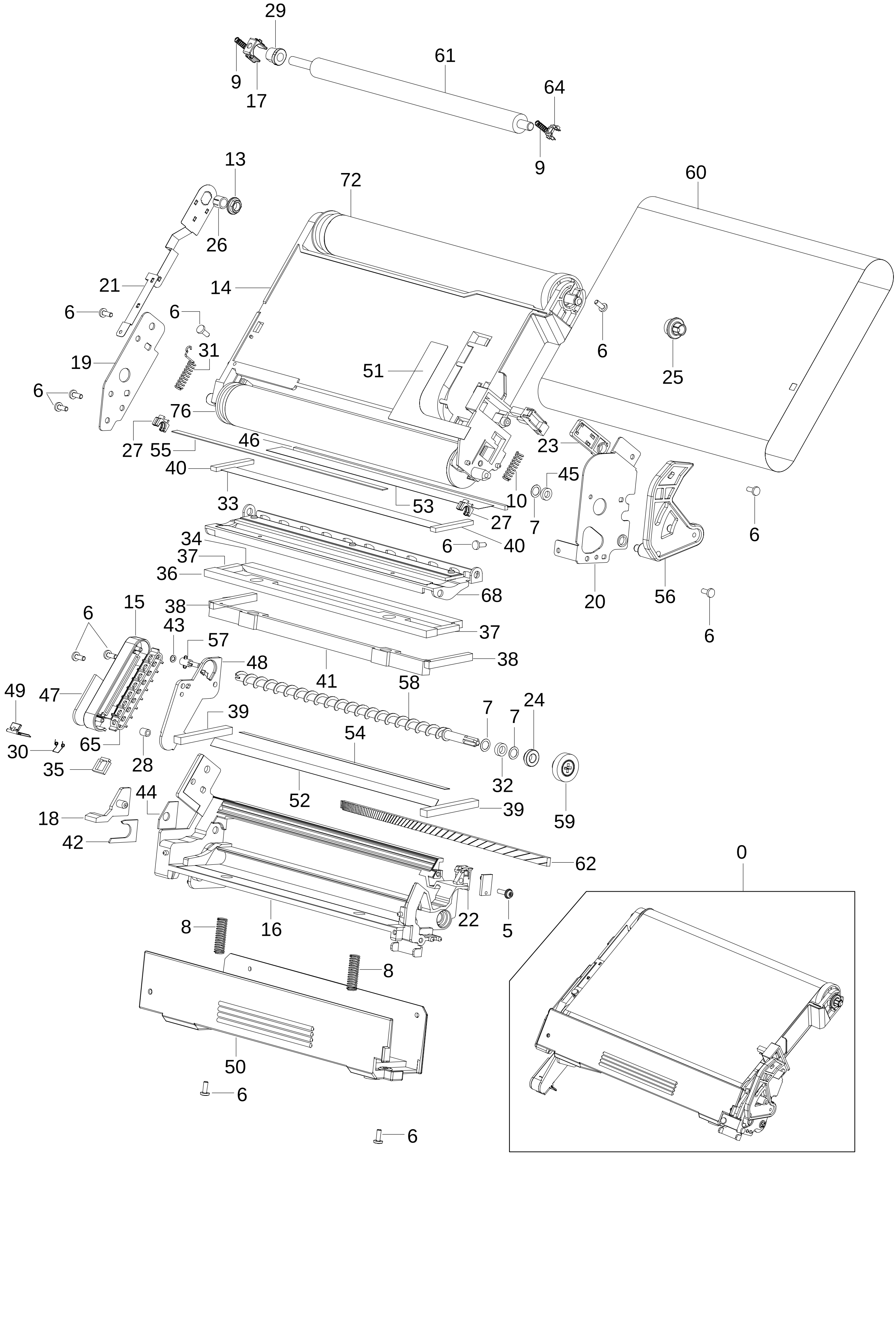
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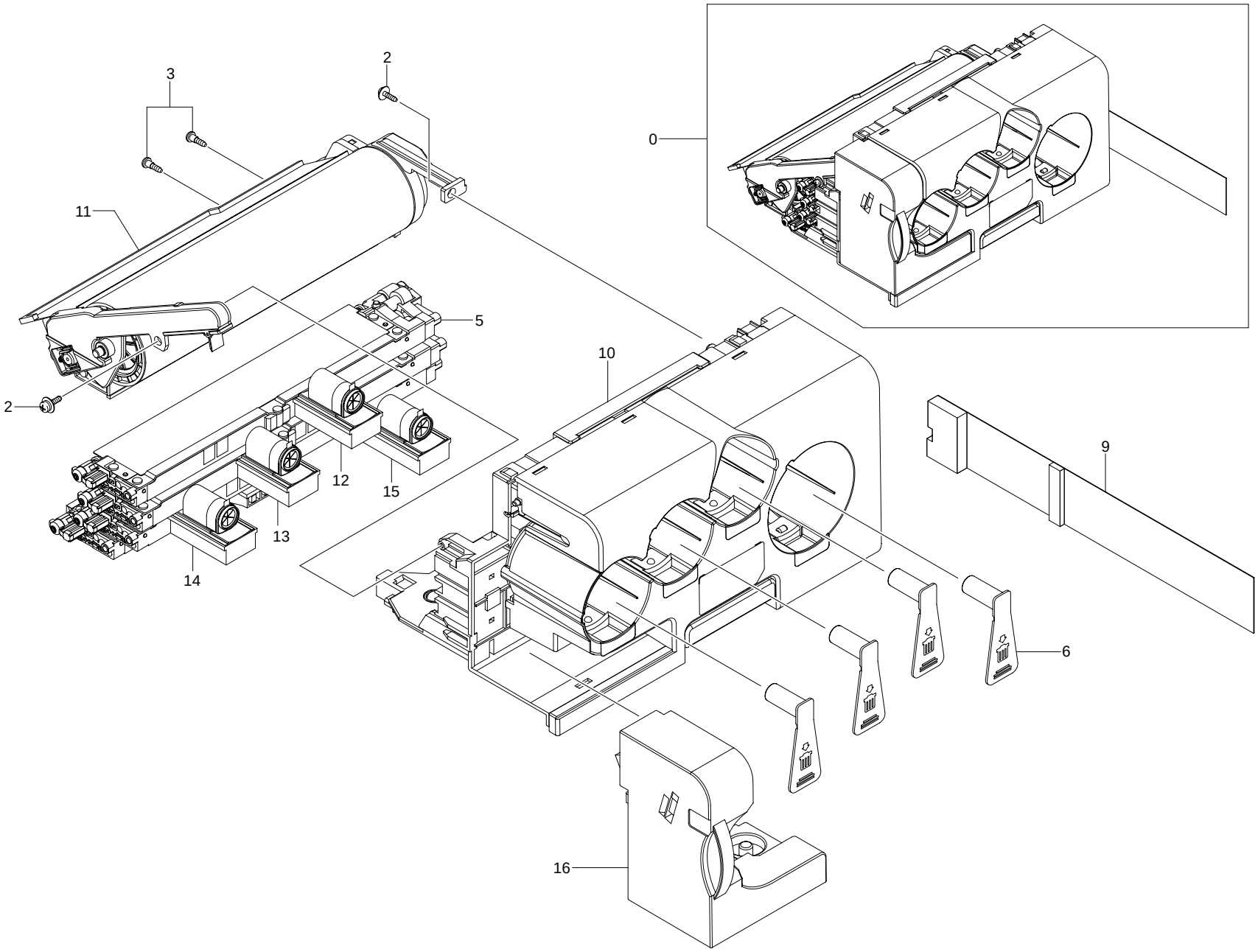
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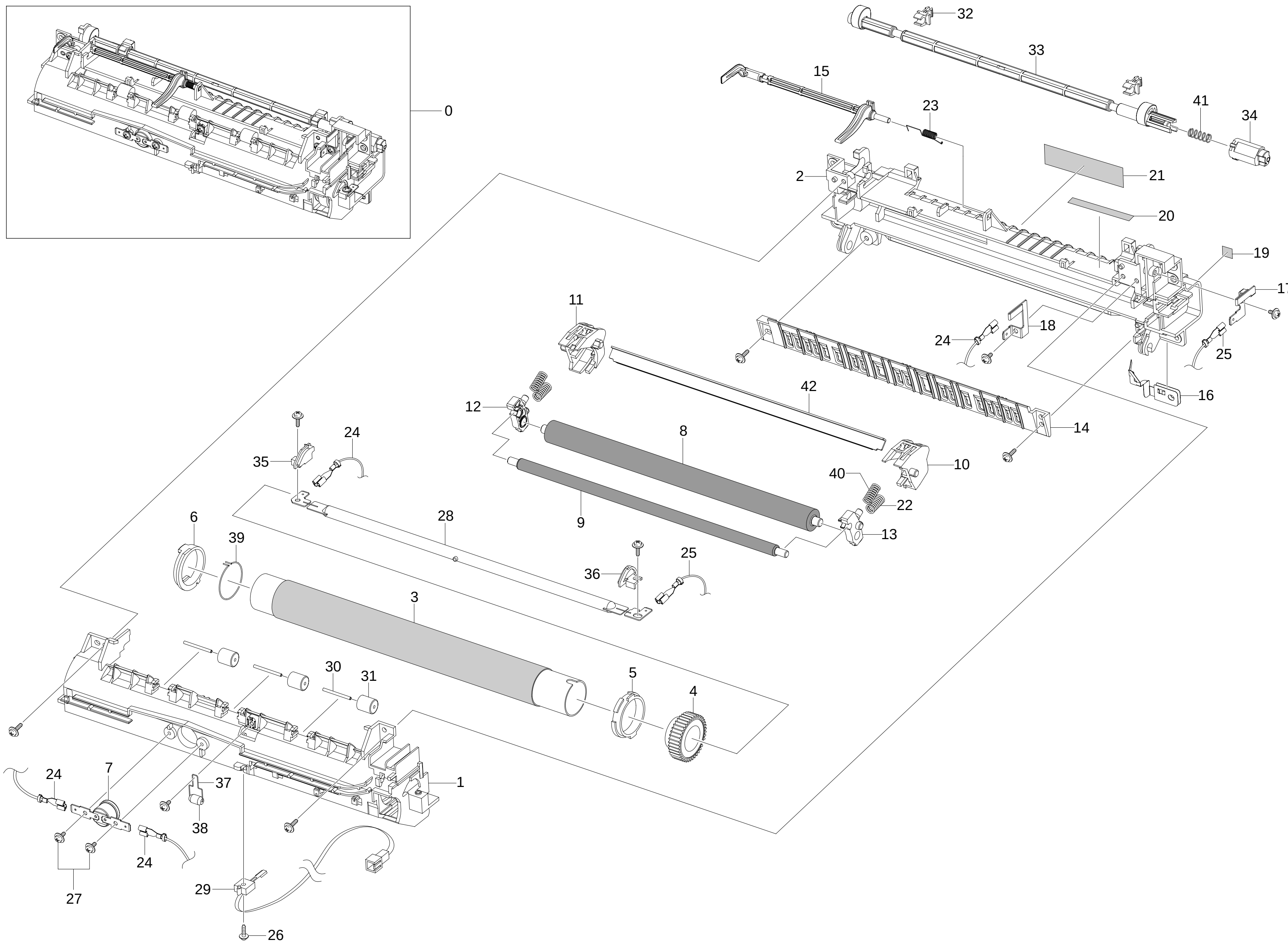
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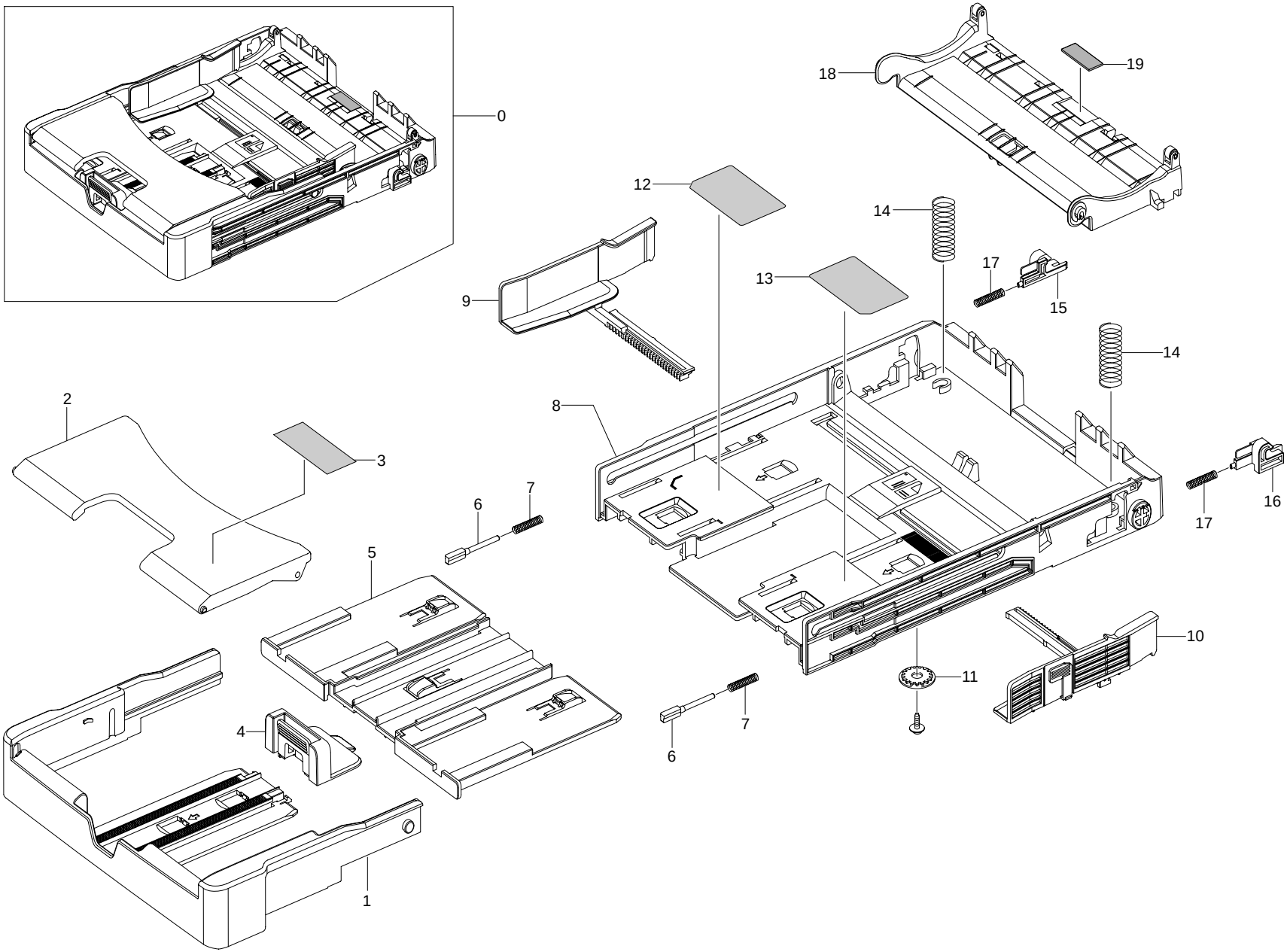
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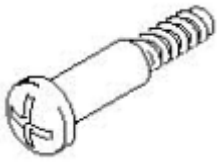
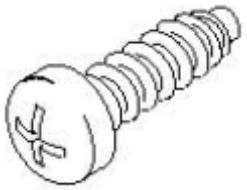
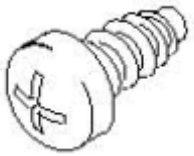
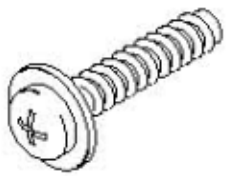
1

Hardware (Screws)

Type/Style	Size/ Length (mm)
	M3 x 10
	M3 x 6
	M3 x 10
	M3 x 12
	M3 x 6
	M3 x 8

Type/Style	Size/ Length (mm)
	M4 x 10
	M4 x 6
	M2 x 6
	M3 x 10
	M3 x 6

Section 6 General Procedures and Information

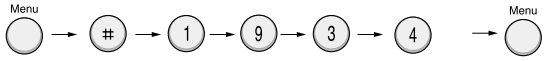
Tech Mode

How to Enter Tech Mode

In service (tech) mode, the technician can check the machine and perform various tests.

While in Tech mode, the machine still performs all normal operations.

Enter Tech Mode

To enter the Tech mode, press 

in sequence, and the LCD displays **'Tech Mode',** the machine has entered service (tech) mode. If no keys are pressed in 30 seconds a 'Ready to Copy' screen appears, but the machine is still in Tech Mode. Press Menu to return to Tech Mode screen. If no keys are pressed within 2 minutes the machine returns to customer mode.

Setting-up System in Tech Mode

Tech Mode	1	Data Setup	Send Level	-9~-15	-12	
			DTMF Level	[Hi]=xx,[Lo]=xx		
			Pause Time	0~9		Depending on the country selected. For details refer the config table. Default value will be based on the country selected.
◀ Data Setup ▶			Dial Mode	Tone,Pulse	Tone	
			Modem Speed	33.6, 28.8, 14.4, 12.0, 9.6, 4.8	33.6	
			Error Rate	5%, 10%	10%	
			Notify Toner	Customer No.		
				Customer Name		
				Service No.		
				Serial No.		
			Clear All Mem.			
			Clear Count	Total Page Count	Enter Password	
				CRU Print CNT		
				FLT Scan Count		
				ADF Scan Count		
				Used Toner CNT		
				Edit Toner Dot		
			Flash Upgrade	Local		
				Remote		
			Silence Time	Off/ 12 Sec/Unlimit	Off	
	2	Machine Test	Switch Test	REDUCE_PANEL		
				COMPLETE_PANEL		
			Modem Test			
			Dram Test			
			Rom Test			
			Pattern Test			
			Shading Test	Adjust Shading ?	Shading & Print	
					Print Data	
	3	Report	All Report			
			Protocol			
			Configuration			
			Key History			
			Event History			
			Error Info			
			Usage Page			
			Component Check			
			Service Support (ex) Test Page, Usage Profile, Online Support			
	4	New Cartridge	Yes		Yes	
			No			

Machine Test

SWITCH TEST

Use this feature to test all keys on the operation control panel. The result is displayed on the LCD window each time you press a key.

MODEM TEST

Use this feature to hear various transmission signals to the telephone line from the modem and to check the modem. If no transmission signal sound is heard, it means the modem part of the main board malfunctioned.

DRAM TEST

Use this feature to test the machine's DRAM. The result appears in the LCD display.
If all memory is working normally, the LCD shows << O K >>

ROM TEST

Use this feature to test the machine'S ROM. The result and the software version appear in the LCD display.

- FLASH VER : 1.00 V
- ENGINE VER :1.00V

PATTERN TEST

Using this pattern printout, you can check if the printer mechanism is functioning properly.
It is needed in the production progress. Service person doesn't need to use it.

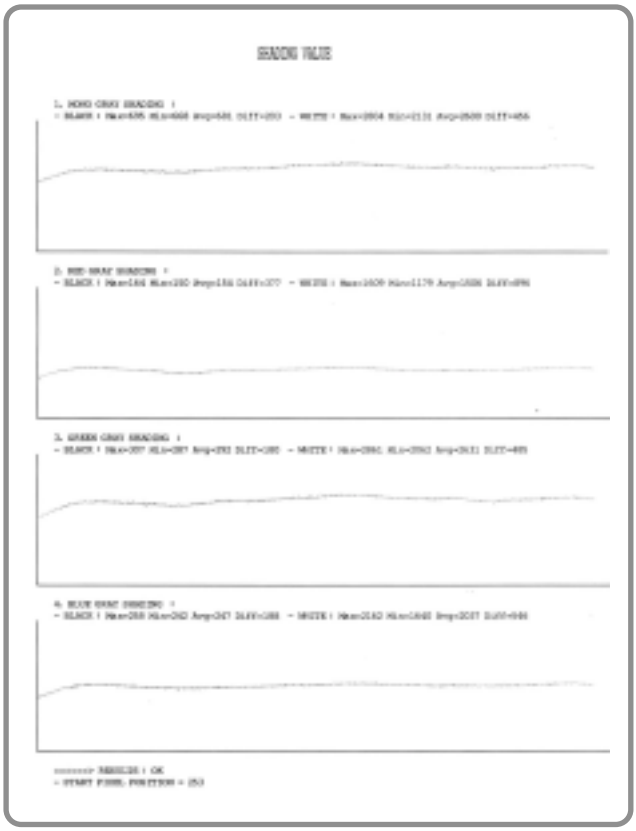
SHADING TEST

The function is to get the optimum scan quality by the specific character of the CCD(Charge Coupled Device). If the copy image quality is poor, perform this function to check the condition CCD unit.

< Method >

1. Select the [ADJUST SHADING] at the TECH MODE.
2. Push the SET UP button then an image will be scanned.
3. After the scan, CCD SHADING PROFILE will be print out.
4. If the printed image is different to the image, the CCD is defect.

NOTICE : *When you test CCD, make sure that the cover is closed.*



Report

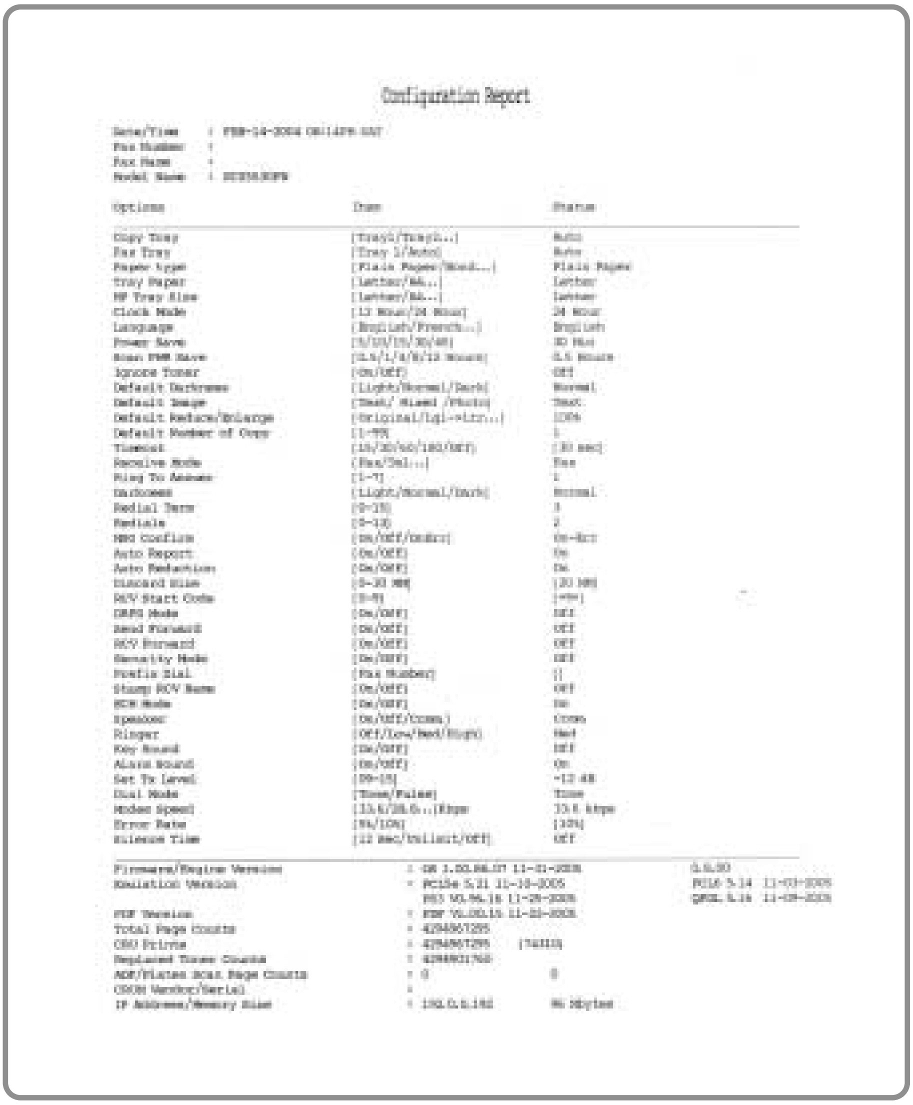
PROTOCOL LIST

This list shows the sequence of the CCITT group 3 T.30 protocol during the most recent sending or receiving operation. Use this list to check for send and receive errors. If a communication error occurs while the machine is in TECH mode, the protocol list will print automatically.

OTHER ITEM

This list provides a list of the user system data settings and tech mode settings.

Component Check



Configuration Report

Date/Time : FEB-14-2004 08:14PM SAT
Fax Number :
Fax Name :
Model Name : [illegible]

Options	Item	Status
Copy Tray	[Tray1/Tray2...]	Auto
Fax Tray	[Tray 1/Auto]	Auto
Paper type	[Plain Paper/Bond...]	Plain Paper
Tray Paper	[Letter/A4..]	Letter
MP Tray Size	[Letter/A4..]	Letter
Clock Mode	[12 Hour/24 Hour]	24 Hour
Language	[English/French...]	English
Power Save	[5/10/15/30/45]	30 Min
Scan PWR Save	[0.5/1/4/8/12 Hours]	0.5 Hours
Ignore Toner	[On/Off]	Off
Default Darkness	[Light/Normal/Dark]	Normal
Default Image	[Text/ Mixed /Photo]	Text
Default Reduce/Enlarge	[Original/Lgl->Ltr...]	100%
Default Number of Copy	[1-99]	1
Timeout	[15/30/60/180/Off]	[30 sec]
Receive Mode	[Fax/Tel...]	Fax
Ring To Answer	[1-7]	1
Darkness	[Light/Normal/Dark]	Normal
Redial Term	[0-15]	3
Redials	[0-13]	2
MSG Confirm	[On/Off/OnErr]	On-Err
Auto Report	[On/Off]	On
Auto Reduction	[On/Off]	On
Discard Size	[0-30 MM]	[20 MM]
RCV Start Code	[0-9]	[*9*]
DRPD Mode	[On/Off]	Off
Send Forward	[On/Off]	Off
RCV Forward	[On/Off]	Off
Security Mode	[On/Off]	Off
Prefix Dial	[Fax Number]	[]
Stamp RCV Name	[On/Off]	Off
ECM Mode	[On/Off]	On
Speaker	[On/Off/Comm.]	Comm.
Ringer	[Off/Low/Med/High]	Med
Key Sound	[On/Off]	Off
Alarm Sound	[On/Off]	On
Set Tx Level	[09-15]	-12 dB
Dial Mode	[Tone/Pulse]	Tone
Modem Speed	[33.6/28.8...]Kbps	33.6 kbps
Error Rate	[5%/10%]	[10%]
Silence Time	[12 sec/Unlimit/Off]	Off

Firmware/Engine Version	: OS 1.00.86.07 11-01-2005	0.0.30
Emulation Version	: PCL5e 5.21 11-10-2005	PCL6 5.14 11-03-2005
	PS3 V0.96.18 11-29-2005	QPDL 5.16 11-09-2005
PDF Version	: PDF V1.00.15 11-22-2005	
Total Page Counts	: 4294967295	
CRU Prints	: 4294967295 (74313)	
Replaced Toner Counts	: 4294901760	
ADF/Platen Scan Page Counts	: 0 0	
CRUM Vendor/Serial	:	
IP Address/Memory Size	: 192.0.0.192 96 Mbytes	

Detail Description

Function Name	Description	Display
01.Motor Test	The main motor keeps running after the execution key is chosen and stops when the stop key is chosen.	Main Motor On(Off)
02.Pick Up Test	automatically stops, when the execution is chosen.	Tray 1,2 Solenoid On/Off
03.Fan Test	The fan keeps running after the execution key is chosen and stops when the stop key is chosen.	Fan On(Off)
04.Manual Clutch Test	The tray2,3 clutch is on for 1sec and then it automatically stops, when the execution is chosen.On this function, the main motor runs before 2sec from the point of the clutch on in order to check the clutch state.	Tray 2,3 Clutch On/Off
11.LSU Motor	Test The laser motor keeps running after the execution key is chosen and stops when the stop key is chosen.	Laser Motor On(Off)
12.LSU Hsync Test	“Laser Leady” is displayed, When the Laser Scanning Unit is ready to print. On the other case “Laser Error”	Laser Leady On(Off)
13.LD Test	“Diode On” is displayed, when the laser diode is on. On the other case “Diode Off” is displayed.	Diode On(Off)
21.Feed Sen Test	These Functions are considered to check the present state (normal or not)of the Sensors.	"Sensor Off"to “ Sensor On ”
22.Exit Sen Test		
23.Cover Sen Test	After the cover is open, touch the sensor and confirm the message changed “Cover Open” to “ Cover Close”	"Cover Open" to "Cover Close"
24.Empty Sen Test	These Functions are considered to check the present state (normal or not)of the Sensors.	"Sensor Off"to “ Sensor On ”
25.Manual Sen Test		
31.Them ADC 180	“current value"is displayed on the upper line of the panel, and “target value"on the bottom line. Target value is limited from “191˚C” to “80˚C”	Input and output value are ADC value.(refer to the ADC table)
32.Them ADC 140		
33.Them ADC 120		
34.Them ADC 100		
41.MHV Test	These Functions are considered to check whether the control for HVPS is normal or not.	MHV On(Off)
42.Dev Bias Test		Dev Bias On(Off)
43.THV EN/NEG Test		THV EN/NEG On(Off)
44.THV ON(1300V)		THV On(Off)
45.THV ADC 1300V		ADC value displayed.
46.THV ADC 600V~3500		ADC value displayed.

Sample Pattern

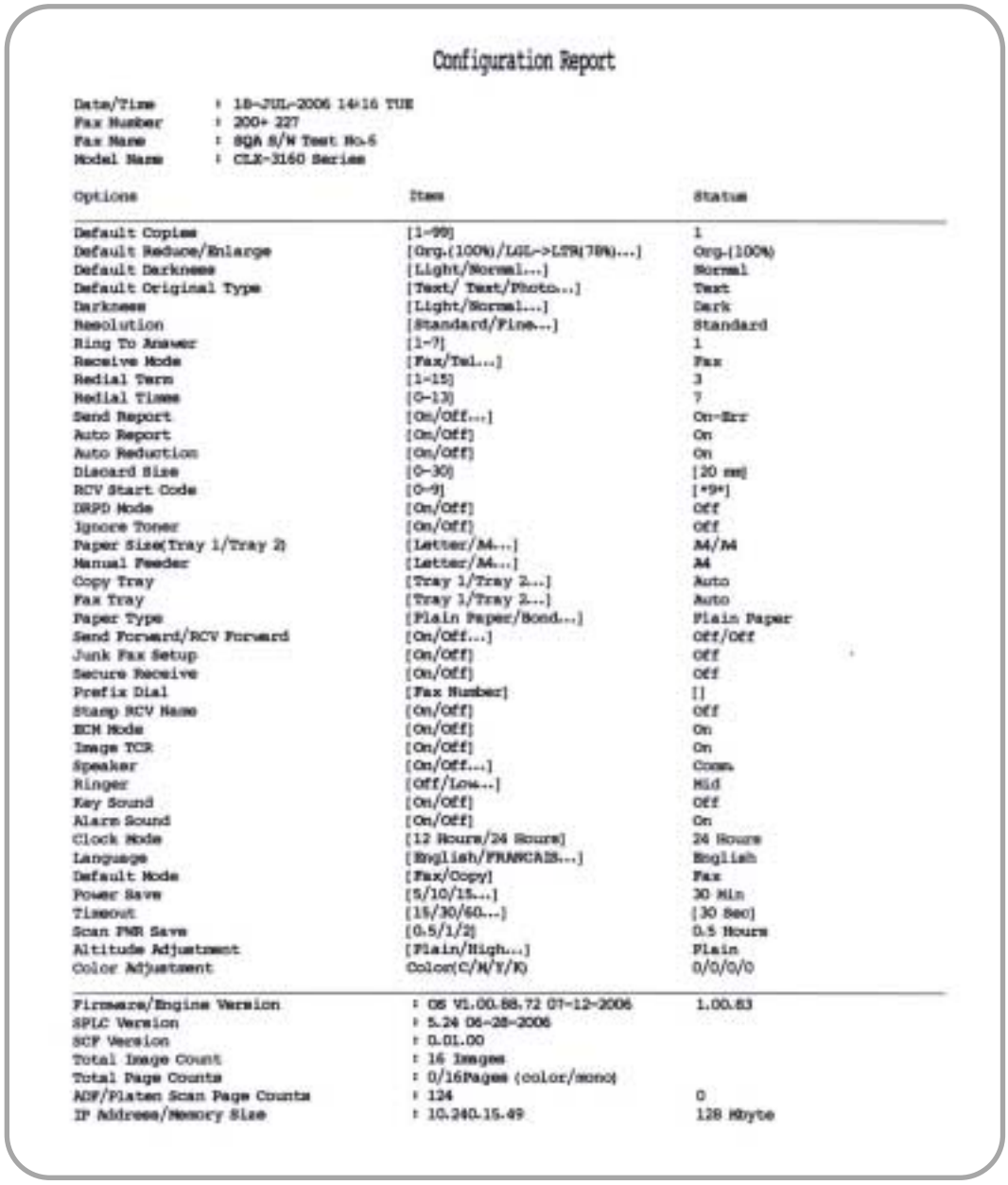
This product provides several printable test patterns for maintenance purposes. These patterns can be used to aid the diagnosis of print quality problems.

Printing a Demo Page

Print a demo page to make sure that the printer is operating correctly.
To print a demo page: In ready mode, press and hold the Stop button for 2 seconds.
A demo page showing the printer's features and capabilities is printed.

Printing a Configuration Page

1. Enter Diagnostics (press Menu, #, 1, 9, 3, 4, Menu).
2. With Tech Mode Tech Menu displayed press Enter, press arrow button to get to Report and press Enter, press arrow button to get to Configuration and press Enter twice.



Configuration Report

Date/Time : 18-JUL-2006 14:16 TUE
Fax Number : 200+ 227
Fax Name : SQA S/W Test No.6
Model Name : CLX-3160 Series

Options	Item	Status
Default Copies	[1-99]	1
Default Reduce/Enlarge	[Org.(100%)/LGL->LTR(78%)...]	Org.(100%)
Default Darkness	[Light/Normal...]	Normal
Default Original Type	[Text/ Text/Photo...]	Text
Darkness	[Light/Normal...]	Dark
Resolution	[Standard/Fine...]	Standard
Ring To Answer	[1-7]	1
Receive Mode	[Fax/Tel...]	Fax
Redial Term	[1-15]	3
Redial Times	[0-13]	7
Send Report	[On/Off...]	On-Err
Auto Report	[On/Off]	On
Auto Reduction	[On/Off]	On
Discard Size	[0-30]	[20 mm]
RCV Start Code	[0-9]	[*9*]
DRPD Mode	[On/Off]	Off
Ignore Toner	[On/Off]	Off
Paper Size(Tray 1/Tray 2)	[Letter/A4...]	A4/A4
Manual Feeder	[Letter/A4...]	A4
Copy Tray	[Tray 1/Tray 2...]	Auto
Fax Tray	[Tray 1/Tray 2...]	Auto
Paper Type	[Plain Paper/Bond...]	Plain Paper
Send Forward/RCV Forward	[On/Off...]	Off/Off
Junk Fax Setup	[On/Off]	Off
Secure Receive	[On/Off]	Off
Prefix Dial	[Fax Number]	[]
Stamp RCV Name	[On/Off]	Off
ECM Mode	[On/Off]	On
Image TCR	[On/Off]	On
Speaker	[On/Off...]	Comm
Ringer	[Off/Low...]	Mid
Key Sound	[On/Off]	Off
Alarm Sound	[On/Off]	On
Clock Mode	[12 Hours/24 Hours]	24 Hours
Language	[English/FRANCAIS...]	English
Default Mode	[Fax/Copy]	Fax
Power Save	[5/10/15...]	30 Min
Timeout	[15/30/60...]	[30 Sec]
Scan PWR Save	[0.5/1/2]	0.5 Hours
Altitude Adjustment	[Plain/High...]	Plain
Color Adjustment	Color(C/M/Y/K)	0/0/0/0

Firmware/Engine Version	: OS V1.00.88.72 07-12-2006	1.00.83
SPLC Version	: 5.24 06-28-2006	
SCF Version	: 0.01.00	
Total Image Count	: 16 Images	
Total Page Counts	: 0/16Pages (color/mono)	
ADF/Platen Scan Page Counts	: 124	0
IP Address/Memory Size	: 10.240.15.49	128 MByte

Identify Sale Date

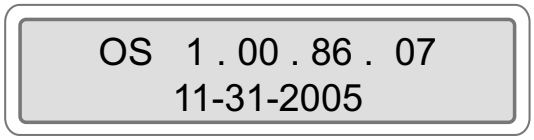
This function confirms the date that consumer bought product and used the product for the first time.
When the consumer first operate the machine, it will start a scan and page count.
The time the machine was first used is remembered.

These settings are are remembered after memory delete (Clear All Memory).

< Method >

Press MENU, #, 1, 9, 3, # in sequence.Firmware version is displayed on LCD.
Press 1(in the number keypad) : The LCD display shows "Updated date"
Press 2(in the number keypad) : The LCD display shows "Product first use date"

< Display >



Firmware Upgrade

This procedure is used to upgrade Firnware. It requires a Firmware File and an Upgrade Tool in a folder on a PWS.
A USB cable is required to connect the machine to the PWS.
Check that a Configuration Report is available. If not perform following to print a Configuration Report.

Print Configuration Report

1. Enter Diagnostics (press Menu, #, 1, 9, 3, 4, Menu).
2. Print Configuration Report (with Tech Mode Tech Menu displayed press Enter, press arrow button to get to Report and press Enter, press arrow button to get to Configuration and press Enter twice).

PROCEDURE

Upgrade Firmware

1. Connect PC and Printer with USB Cable.
2. Navigate to the folder on PWS that contains the Firmware File and the USBLIST2.EXE Firmware Upgrade Tool.
3. Drag and drop the Firmware File over the USBLIST.EXE file and the upgrade will execute.
4. When the LCD UI display indicates Ready go to Clear Memory.

Clear Memory

1. Enter Diagnostics (press Menu, #, 1, 9, 3, 4, Menu).
2. Enter DataSetup (with Tech Mode Tech Menu displayed press Enter twice).
3. Clear the Memory (press Arrow button to get to Clear All Mem, press Enter, with USA displayed (or appropriate country) press Enter and memory will clear and machine will exit diagnostics. A Configuration Report will print. Go to Clear N/W Memory.

Clear N/W Memory

1. Enter 4 Network (press Menu, press Arrow button to scroll to 4 Network and press Enter)
2. Clear N/W Memory (press Arrow button to get to Clear Setting and press Enter twice to execute)
3. Switch power off then on to reboot machine.

Restore Configuration

Refer to original Configuration Report, compare to Configuration Report printed during Clear Memory step, and restore original Configuration Report settings.

· The Firmware Upgrade function and has two methods, Local and Remote.

3.1 Local Machine

• RCP (Remote Control Panel) mode

This method is for Parallel Port.or USB Port Connect to PC and activate RCP(Remote Control Panel) to upgrade the Firmware.

< Method >

How to Update Firmware using RCP

1. Connect PC and Printer with Parallel Cable or USB Cable.
2. Execute RCP and select Firmware Update.
3. Search Firmware file to update with Browse Icon.
4. Click Update icon, firmware file is transmitted to Printer automatically and printer is initialized when it finished.
5. Click Refresh icon and check what is updated.

• DOS Command mode

This method is just for Parallel Port. Connect to PC with Parallel cable and enter DOS Command to upgrade the Firmware

< Method >

1. The first of all, need the files : down.bat, down_com.bin, fprt.exe, and Rom File: file name for upgrade.Save the files in the same folder.
2. In the DOS, input as below and push the enter key. Then, it will be automatically upgraded.
3. There are two commands for the conditions of product.

* When the product is in idle condition down "rom file"
* When the product is in Ready condition (TECH MODE →DATA SETUP→FLASH UPGRADE→LOCAL) copy/b "rom file “lpt1

4. Do not turn off the power while upgrading process.

3.2 Remote Upgrade

This is a function that a fax with the latest firmware sends files to a fax in long distance through telephone line.

< Method >

1. Before remote upgrade, the latest firmware should be loaded into the machine.(TECH MODE →DATA SETUP→ FLASH UPGRADE→REMOTE)
2. Input the fax number, which needs to be upgraded. (Several faxes can be upgraded at the same time. In this case, enter the each fax number.)
3. After push the enter button, send the firmware file by calling to the appointed number. (Around 10~15 minutes needs to send the file.)

< Caution >

1. sending and receiving fax must be the same model.
2. A sending fax must be set up as ECM mode, and a receiving memory must be set up as 100%. If not, the function operates abnormally

Product Specifications

Specfications are correct at the time of printing. Product specifications are subject to change without notice. See below for product specifications.

Product Overview

1) Key Feature

○ Speed
- 16ppm B&W, 4ppm color print / copy

○ Consumables
- Black toner (2K sheet)
- CMY toner (1K sheet)

○ Paper handling
- 1sheet Manual slot, 150 sheet Semi-cassette, 250 sheet cassette option

○ Interface
- USB 2.0, Ethernet 10/100 Base TX, USB host (PictBridge)

2) Concept

○ Small size Color laser MFP(A4 Color laser MFP)

○ Target user
- Small office & small business

Black only printing function

○ Auto warning sheet

○ USB host function
- PictBridge

○- Scan to USB memory, direct printing

Product General Specifications

General Print Engine

Characteristic		Phaser 6110 MFP	
Engine Speed	Simplex	Up to 16 ppm in A4 black (17 ppm in Letter) Up to 4 ppm in A4 color (4 ppm in Letter)	
	Duplex	N/A	
Warmup time		Less than 35 sec	
FPOT (B&W)	From Ready	Less than 14 sec	
	From Idle	Less than 45 sec	
	From Coldboot	Less than 45 sec	
FPOT (Color)	From Ready	Less than 26 sec	
	From Idle	Less than 57 sec	
	From Coldboot	Less than 57 sec	
Resolution	Optical	600 x 600 dpi	
	Support	MAX: 2400 x 600 dpi class, 1200 x 600 dpi (default), 600 x 600 dpi(Color & B&W)	

Controller & S/W

Characteristic		Phaser 6110 MFP	
MPU		Proprietary CHORUSm 300MHz	
Memory	Std.	128 MB	
	Max.	128 MB	
Memory Expansion		N/A	
Printer Languages		SPL-C (Printer Language Color)	
Fonts		N/A	
Printer driver	Supporting OS	[Windows] - Windows 98/Me/NT4.0/2000/XP(include 64bit)/2003/Longhorn - In box N/A -	
		[Linux] - RedHat 7.3 ~ 9.0 0 - Fedora Core 1,2,3 - Madrake 8.2 ~ 10 - SuSE 8.2 ~ 9.2 -	
		[Mac] - Mac OS 10.3 or higher - (Mac OS 9 N/A) -	

Characteristic		Phaser 6110 MFP	
	Default Driver	SPL-C (Printer Language Color)	
	WHQL	Windows 2000/XP/2003/Longhorn	
	Language Localization	[Windows] : English, French, German, Italian, Spanish, Russian, Dutch, B.Portuguese, Finish, Swedish, Norwegian, Danish, Polish, Hungarian, Czech, Turkish [Mac] : English, French, German, Italian, Spanish [Linux] : English only	
Scan driver	TWAIN	Yes	
	WIA	Yes	
Application	Network Scan (Client)	Yes (multi-folder), N/W scan Driver CD	
	PC-FAX	N/A	
	RCP	USB only, NW SWS	
	Status Monitor	USB / Network, Install ㅅ|Default	
	Network Management	Set IP, SAS & SWS(Linux, Mac SWAS SWS Iexplorer 5.0 or higher)	
Interface			
Parallel		N/A	
USB		USB 2.0, USB host (Scan to USB, Direct print)	
Network		Ethernet 10/100 Base TX	
Wireless		External (only option)	
Network Interface			
Protocol		TCP/IP, IPP, SNMP	
User Interface			
LCD		2 line LCD (Graphic LCD)	
OP UI		OP UI Guide 2.0	

Scan

Characteristic		Phaser 6110 MFP	
Scan method		Color CCD	
Scan Speed	Linearity, Halftone	15 Sec (300dpi,USB2.0,P4 3.0GHz,512M)/Ltr	
	Gray	20 Sec (300dpi,USB2.0,P4 3.0GHz,512M)/Ltr	
	Color	30 Sec (300dpi,USB2.0,P4 3.0GHz,512M)/Ltr	
Resolution	Optical	600 x 1200dpi	
	Enhanced	4800 dpi x 4800 dpi	
Halftone		256 levels	
Scan Size	Max. Document Width	Max.216 mm(8.5)	
	Effiective Scan Width	Max 208 mm(8.2inch)	
Scan Depth	Color	24bits	
	Mono	- 1bit for Linearity & Halftone - 8Bits for Gray scale	
Compatibility		[Windows] - Windows 98/Me/NT4.0/2000/XP [Mac] - Mac OS 10.3 or higher [Linux] - RedHat 7.3 ~ 9.0 - Fedora Core 1,2,3 - Madrake 8.2 ~ 10 - SuSE 8.2 ~ 9.2	

Copy

Characteristic		Phaser 6110 MFP	
Copy Speed	Simplex Copy Speed	@SDMC up to 16 cpm in A4 black (17 cpm in Letter)Up to 4 cpm in A4 color (4 cpm in Letter)	
	Duplex Copy Speed	N/A	
FCOT (B&W)	From Ready	Less than 14 sec	
	From Idle	Less than 45 sec	
	From Coldboot	Less than 45 sec	
FCOT (Color)	From Ready	Less than 26 sec	
	From Idle	Less than 57 sec	
	From Coldboot	Less than 57 sec	
Zoom Range		25% to 400% for Platen 25% to 100% for ADF	
Multi Copy		1~99	
Preset		[Original(100%)] [A4 →A5(75%)] [LGL →LTR(78%)] [LGL →A4(83%)] [A4 →LTR(94%)] [EXE →LTR(104%)] [A5 →A4(133%)] 50%, 150%, 200% [Custom: 50-400%)]	
Original Type	Text	Scan: 600x300dpi , Printing : 600x600dpi	
	Text/Photo	Scan: 600x300dpi , Printing : 600x600dpi	
	Photo	Scan : 600x600dpi @ Platen & ADF, Printing : 600x600dpi	
Automatic Background Suppression		No	
Darkness Control		3 level	
Collation Copy		Yes(ADF only), flushing if mmory full	
Special Copy	ID Card Copy	Yes(Platen Only)	
	Auto fit	Yes(Platen Only)	
	Margin Shift	No	
	Book Copy	No	
	Auto Suppression	No	
	Covers	No	
	Transparencies	No	
	Create Booklet	No	
	N-up copy	2-up, 4-up (ADF only)	
	Clone	Yes (Platen Only)	
	Poster	Yes(Platen Only)	

Fax

Characteristic		Phaser 6110 MFP	
Compatibility		ITU-TG3	
Communication System		PSTN/PABX	
Modem Speed		33.6Kbps	
TX Speed		3 sec	
Compression		MH/MR/MMR/JBIG/JPEG	
Color Fax		Default (But Memory Transmission & Any Reserved Transmission are not supported.)	
ECM		Yes	
Resolution	Std	203x98 dpi	
	Fine	203x196 dpi	
	S.Fine	300x300 dpi	
Scan speed	Std	1.5 sec/LTR	
	Fine	4 sec/LTR	
	S.Fine	N/A	
Multiple page scan speed		20 ppm/LTR	
Telephone Features	Handset	No	
	On hook Dial	Yes	
	Search	Yes (Phone Book)	
	1-Touch Dial	N/A	
	Speed Dial	200 locations	
	TAD I/F	Yes	
	Tone/Pulse	Selectable in Tech Mode	
	Pause	Yes	
	Auto Redial	Yes	
	Last Number Redial	Yes	
	Distinctive Ring	Yes	
	Caller ID	No	
	External Phone Interface	Yes	
Functions	Mail Box	No	
	Voice Request	No	
	TTI	Yes	
	RTI	Yes	
	Polling	No	
	Earth/Recall	No	
	Auto Reduction	Yes	
	SMS	No	
	RDC	Yes	

Characteristic		Phaser 6110 MFP	
Report & List Print out	Tx/Rx Journal	Yes	
	Confirmation	2 types available (w/wo Image TCR)	
	Auto Dial List	Yes	
	System Data List	List all user setting	
Sound Control	Ring Volume	Yes(Off,Low,MED,HIGH)	
	Key Volume	Yes(On,Off)	
	Speaker	Yes(On,Off)	
	Alarm Volume	Yes(On,Off)	
Junk Fax barrier		Yes	
Security		Yes	
Battery Backup		Yes (Up to 43 hours target)	
Rx fax duplex print out		No	
Receive Mode		Fax, TEL, Ans/Fax	
Capacity		4MB(320 Pages)	
Optional Memory		No	
Max locations to store to 1 Group Dial		199 locations	
Fax Forward to FAX		Yes(On/Off), both Sent and Received	
Fax Forward to e-mail		No	
Broadcasting		Up to 209 locations	
Cover page		No	
Delayed fax		Yes (Tx only)	
Memory RX		Yes	
Mail Box (Electronic)		No	
Voice Request		No	
TTI		Yes	
RTI		Yes	
Polling		No	
Earth/Recall		No	
Auto Reduction		Yes (On,Off)	

Paper Handling

Characteristic		Phaser 6110 MFP	
Standard Capa.		150-sheet Semi Cassette Tray	
Max. Capa.		150 sheets @75g/㎡	
Printing	Max. Size	216 x 356mm (8.5" x 14")	
	Min. Size	76 x 127 mm (3" x 5")	
	Margin(T/B/L/R)	4 mm, 4 mm, 4 mm, 4 mm	
Multi-purpose tray			
Capacity		1 sheet	
Media sizes		76 x 127 mm (3" x 5") ~ 216 x 356 mm (8.5" x 14")	
Media type		Envelopes, Labels, Card stock, Transparency (mono only) Papers (Pre-printed,Glossy,punched,recycled)	
Media weight		16~43lb (60 to 163g/㎡)	
Sensing		Paper empty sensor	
Standard Cassette Tray - Semi cassette type			
Capacity		150 sheets @ 75g/㎡	
Media sizes		76 x 127 mm (3" x 5") ~ 216 x 356 mm (8.5" x 14")	
Media types		Envelopes, Labels, Card stock, Transparency(mono only) Papers (Pre-printed,Glossy,punched,recycled)	
Media weight		16~43lb (60 to 163g/㎡)	
Size sensor		N/A	
User Interface		No indicator	
Sensing		Paper empty sensor	
Optional Cassette Tray			
Capacity		250 sheets	
Media sizes		A4,Letter,Legal, Folio, Executive, A5, B5,	
Media types		Plain Paper	
Media weight		16~24lb (60 to 90g/㎡, ,)	
Size sensor		N/A	
User Interface		Indicator	
Sensing		Paper empty sensor	
Output Stacking			
Capacity	FaceUp	N/A	
	FaceDown	100sheets @ 75g/㎡	
Output Full sensing		Yes	

Characteristic	Phaser 6110 MFP	
Duplex		
Supporting	Manual	
Throughput	N/A	
Media sizes	N/A	
Media types	N/A	
Media weight	N/A	
ADF		
Paper Weight	12.5~28lb (,)	
Capacity	50 sheets (20lb, 75 g/㎡)	
Document Size	Width: 174 ~ 216mm (6.9"~8.5") Length : 128 ~ 356mm (5" ~ 14.0") for Single page scan 128 ~ 400mm (5" ~ 15.7") for Multi pages scan	
Dimension	460(W)x 3430(D) x 95(H) mm	
Weight	5.6kg (,)	

Consumables

Characteristic		Phaser 6110 MFP	
CRU			
No. of CRUs		6 (C/M/Y/K toner, Imaging Unit, Waste toner box) K toner: 106R01203 C toner: 106R01206 M toner : 106R01205 Y toner: 106R01204	
Toner	Black	2,000 A4/Letter pages, at ISO-19752 5% Coverage, Semi glossy	
	Colour	1,000 A4/Letter pages, at ISO-19752 5% Coverage, Semi glossy	
	Key	Unique, Electronic key(CRUM)	
	Life detect	No sensor Remain % method 90% : warning 100% : empty 120% : hardstop	
	Replace method	CMY key 3 step for install/replacing	
Imaging Kit (OPC+Deve)	Yield	Approx. 20K black pages (or 12.5K color pages)	
	Key	Unique, Electronic key(CRUM)	
	Sensor	None, that would be traced via software	
	Replace method	6 steps for install/replacing	
Waste Toner Bottle	Yield	1,250 sheets (Full Color 5% Image) or 5,000 images	
	Key	N/A	
FRU			
No. of FRUs		4 (ITB, Fuser, T2 roller, Pick-up roller)	
ITB	Yield	Approx. 60K black pages (or 15K color pages)	
	Key	None	
	Sensor	None	
Fuser	Yield	100,000 sheets B&W or 50,000 sheets Color	
	Key	None	
T2 Roller	Yield	100,000 sheets, Replacable	
	Key	None	
Pick-up Roller	Yield	100,000 sheets, Replacable	
	Key	None	

Reliability & Service

Characteristic		Phaser 6110 MFP
Printing Volume(AMPV)		240 page / B&W,160 page / Color
Max Monthly Duty		24,200 images
MPBF		25,200 pages (color 10,080 Mono 15,120 Total 55,440 image)
MTTR		< 30 min.
SET Life Cycle		200,000 image or 5 years
Real-time Clock		None
System-record		Total image count Total page count (color/mono) Imaging unit life Fuser lifeTransfer roller life Transfer belt life Toner image count (CMYK) Tray roller life Event log list (Error & replace List)
Test Print		Configuration Sheet Demo Sheet Network Configuration Sheet
RDC	Comm. Mode	N/A
	Operation	N/A
Temperature	Operating	15 ~ 32.5 (59 ~ 90.5F)
	Storage	-20 ~ 40 (-4 ~ 104F)
Humidity	Operating	-10 ~ 80RH
	Storage	0 ~ 95RH

Environment

Characteristic		Phaser 6110 MFP	
Acoustic Noise Level(Sound Power/Pressure)	Printing	Less than 48.0 dBA (Color printing) Less than 49.0 dBA (B/W printing)	
	Copying		
	Standby	Less than 35 dBA	
	Sleep	Background noise level	
Input Voltages		90-140 VAC, 50/60Hz	
		189-264 VAC, 50/60Hz	
		Power Switch	
Power Consumption	Ready	Less than 160w	
	AVG.	Less than 450W	
	Max/Peak	700W/1KW	
	Sleep/Power Off	Less than 17W /Less than	
Certification	Telecommunication	N/A	
	Environmental	Energy star, TCO99 or TCO03/Swan/ Blue Angel, PTS (BAM)	
	Safety	Europe : TUV(GS), SEMKO(IEC950/ EN60950), CB	
	EMC/EMI	FCC Class B	
		CE	
Emission	Ozone	0	
	Dust	0	
	Styrene	0	
	VOC	0	
Dimension (W x D x H)	Set(mm)	460(W)x432(D)x484(H) :	
	Set Packing		
	Consumable Packing		
Weight	Set (with consumables)	19.5 Kg	
	Set Packing		
	Consumable		
	Consumable Packing		

Packing & Accessory

In-Box	Set C/M/Y/K to be installed Power cord USB cable (DMO) Set-up CD (Driver, manual) Nuanc (Application, manual) Quick installation Guide sheet Warranty book	

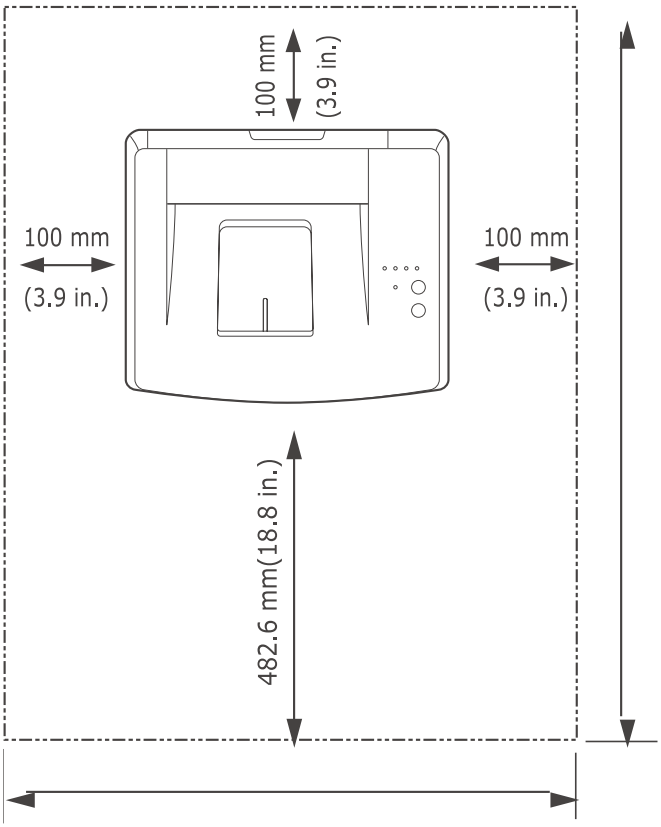
Options

Option	Phaser 6110 MFP
Second Cassette	250-sheet SCF
Memory	N/A
PostScript	N/A
Network	Default
Wireless Network	N/A
Hard Disk	N/A
Duplex Unit	N/A

Space Requirements

- Leave enough room to open the printer trays, covers, and allow for proper ventilation. (see diagram below)

- Provide the proper environment :
  - A firm, level surface
  - Away from the direct airflow of air conditioners, heaters, or ventilators
  - Free of extreme fluctuations of temperature, sunlight, or humidity
  - Clean, dry, and free of dust



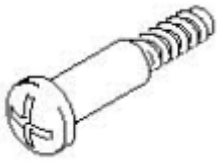
Periodic Replacing Parts

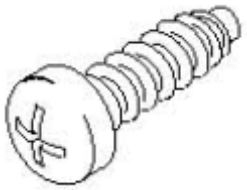
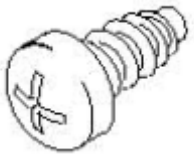
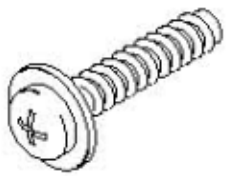
Xerox shall specify parts requiring replacement and the frequency of replacement. The parts identified may be deemed customer replaceable parts. Periodic replacement parts shall be recommended as follows:

Item(s)	Pages Printed
Black Toner Cartridge	Approx. 2,000 pages*
Color Toner Cartridge	Approx. 1,000 pages
Imaging unit	Approx. 10,000 black pages or Approx. 12,500 color pages
Waste Toner Container	Approx. 5,000 images** Approx. 1,250 (full color 5% images)
Pick up roll	Approx. 50,000 pages
Fuser Unit	Approx. 10,000 black pages or Approx. 50,000 color pages
T2 Roller	Approx. 100,000 pages
ITB	Approx. 60,000 black pages or 15,000 color pages

* Average A4-/letter-sized page count based on 5% coverage of individual colors on each page. Usage conditions and print patterns may cause results to vary.
** Image counts based on one color on each page. If you print documents in full color (Cyan, Magenta, Yellow, Black), the life of this item will be reduced by 25%.

Hardware (Screws)

Type/Style	Size/ Length (mm)
	M3 x 10
	M3 x 6
	M3 x 10
	M3 x 12
	M3 x 6
	M3 x 8

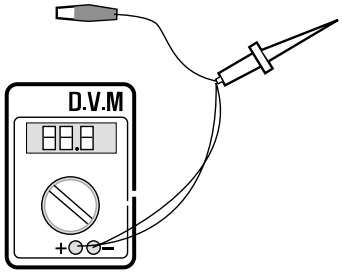
Type/Style	Size/ Length (mm)
	M4 x 10
	M4 x 6
	M2 x 6
	M3 x 10
	M3 x 6

This chapter contains the tools list, list of abbreviations used in this manual, and a guide to the location space required when installing the printer. A definition of tests pages and Wireless Network information definition is also included.

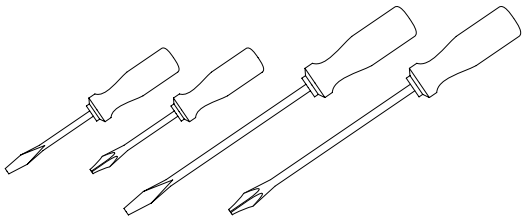
Tools

The following tools are recommended safe and easy troubleshooting as described in this service manual.

- **DVM(Digital Volt Meter)**
  Standard : Indicates more than 3 digits.



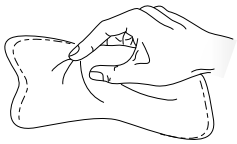
- **Driver**
  Standard : "-" type, "+" type (M3 long, M3 short, M2 long, M2 short).



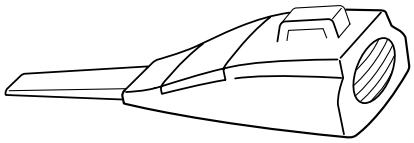
- **Tweezers**
  Standard : For general home use, small type.

- **Cotton Swab**
  Standard : For general home use, for medical service.

- **Cleaning Equipments**
  Standard : An IPA(Isopropyl Alcohol)dry wipe tissue or a gentle neutral detergent and lint-free cloth.

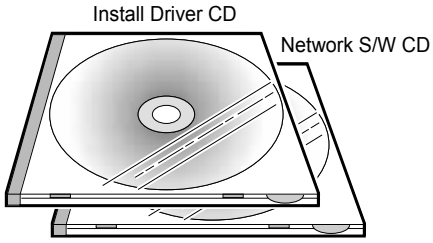


- **Vacuum Cleaner**



- **Brush**

- **Software (Driver) installation CD ROM**



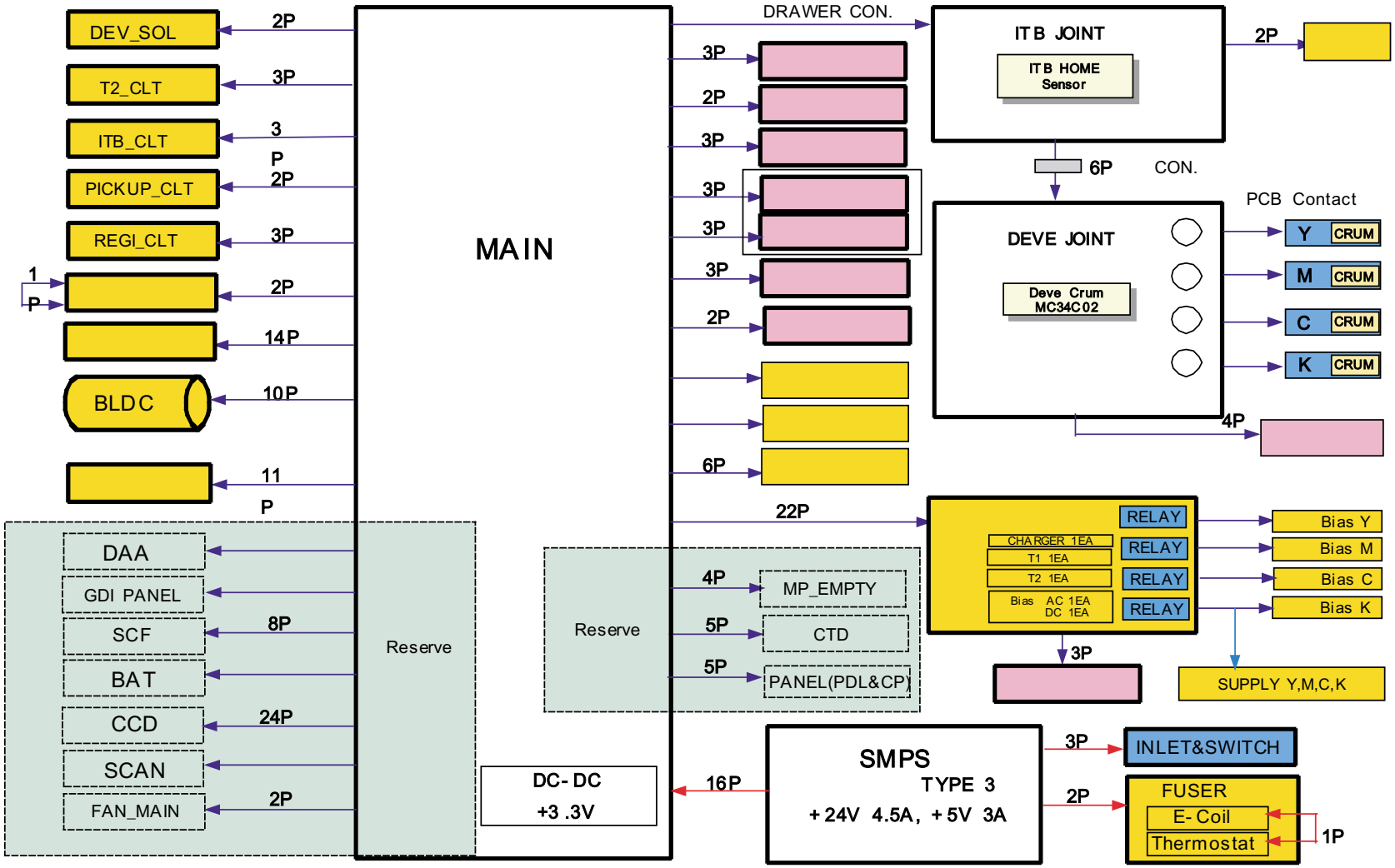
Terminology

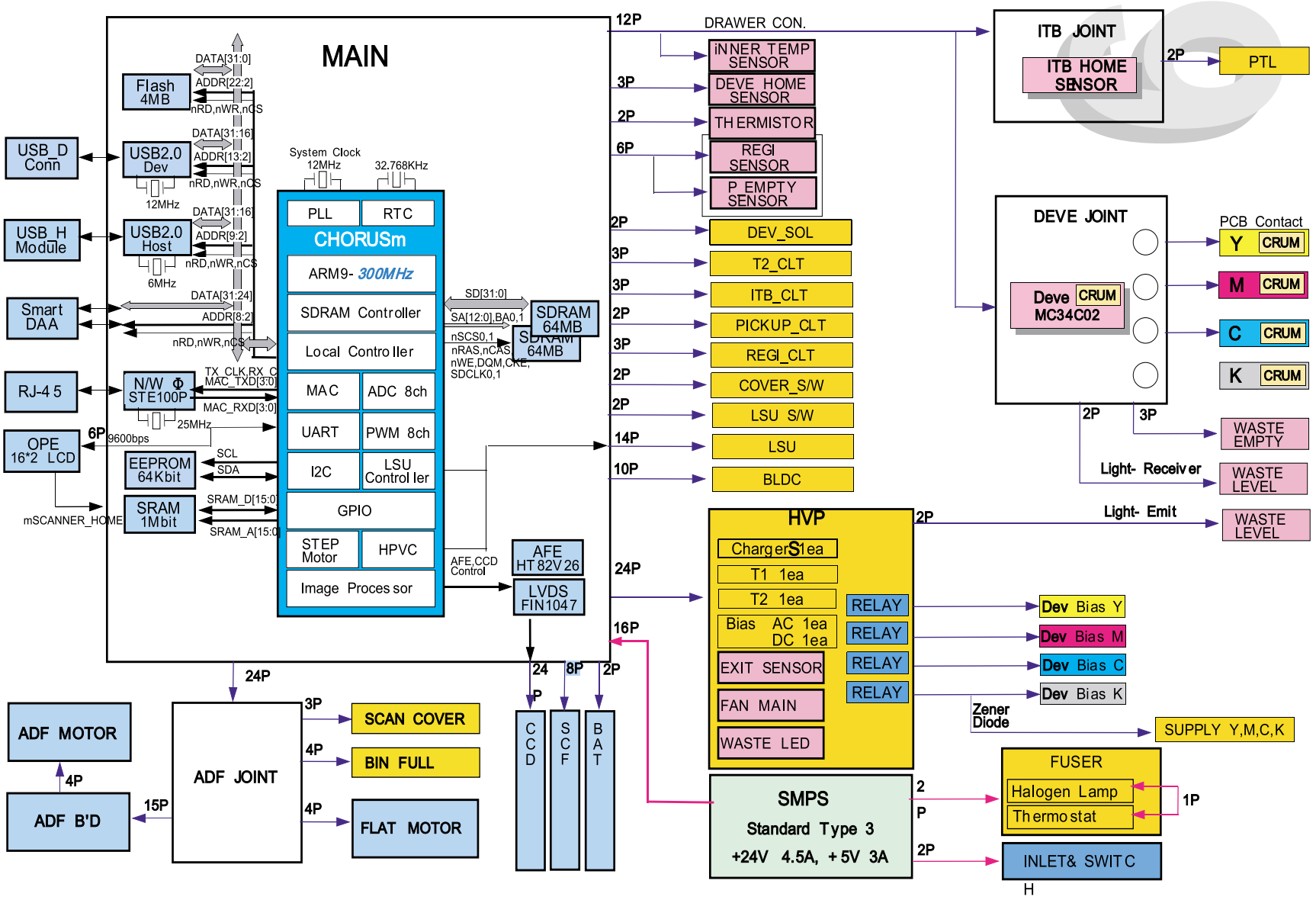
The table below explains the abbreviations and acronyms used in this service manual. Where abbreviations or acronyms are used in the text please refer to this table.

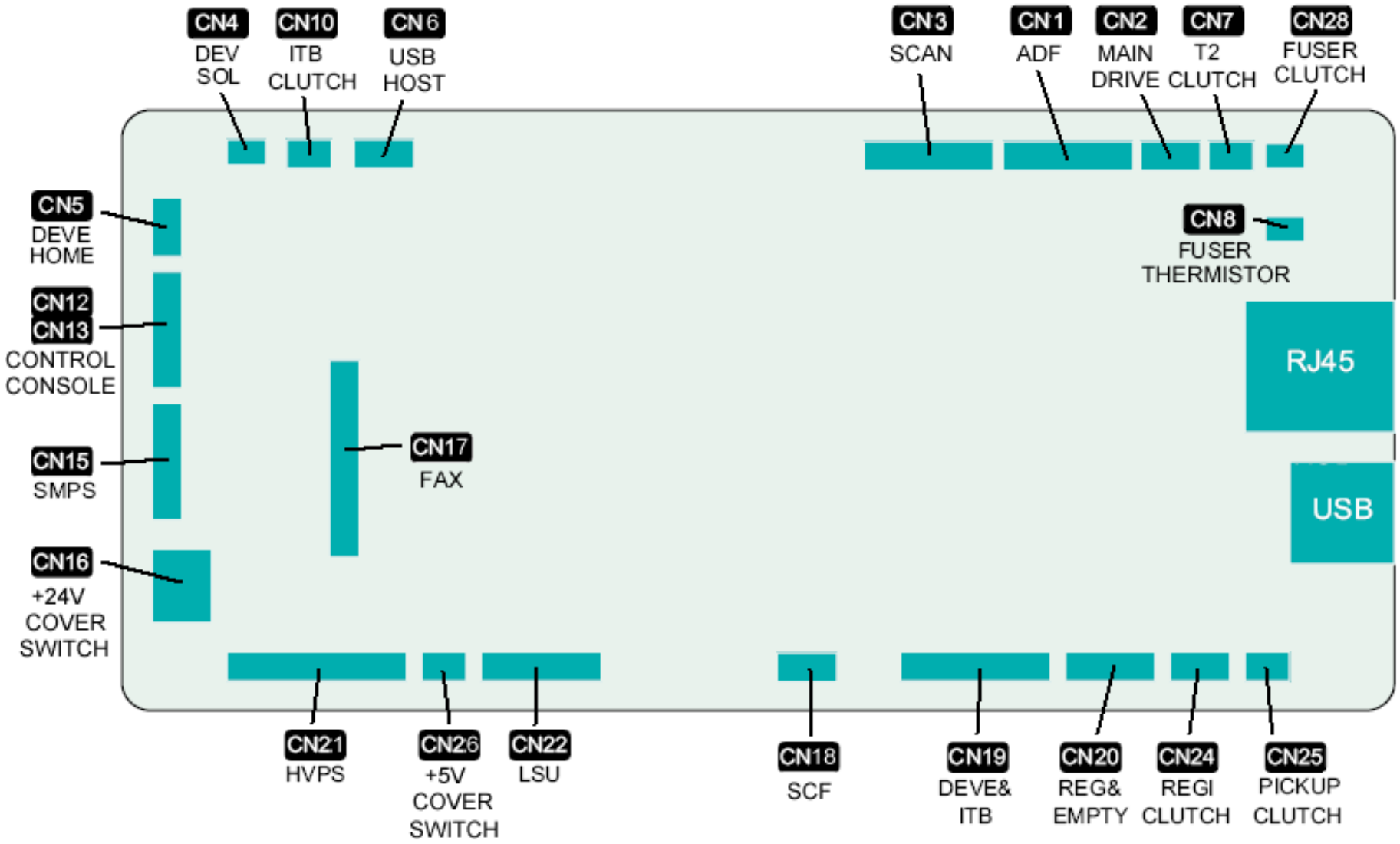
ADC	Analog-to-Digital-Conversion
AP	Access Point
AC	Alternating Current
ASIC Circuit	Application Specific Integrated
ASSY	Assembly
BIOS	Basic Input Output System
BLDC Motor	Brushless DC Motor
CLBP	Color Laser Beam Printer
CMOS	Complementary Metal Oxide Semiconductor
CMYK	Cyan, Magenta, Yellow, Black
CN	Connector
CON	Connector
CPU	Central Processing Unit
CTD Sensor	Color Toner Density Sensor
dB	Decibel
dBA	A-Weighted decibel
dBm	Decibel milliwatt
DC	Direct Current
DCU	Diagnostic Control Unit
DIMM	Dual In-line Memory Module
DPI	Dot Per Inch
DRAM	Dynamic Random Access Memory
DVM	Digital Voltmeter
ECP	Enhanced Capability Port
ECU	Engine Control Unit
EEPROM	Electronically Erasable Programmable Read Only Memory
EMI	Electro Magnetic Interference
EP	Electro photographic
EPP	Enhanced Parallel Port
F/W	Firmware
FCF/FCT	First Cassette Feeder/First Cassette Tray
FISO	Front-In, Side-Out
FPOT	First Print out Time
GDI	Windows Graphic Device Interface
GIF	Graphic Interchange Format
GND	Ground
HBP	Host Based Printing
HDD	Hard Disk Drive
HTML	Hyper Text Transfer Protocol
HV	High Voltage
HVPS	High Voltage Power Supply
I/F	Interface
I/O	Input and Output
lb	Pound(s)
IC	Integrated Circuit
ICC	International Color Consortium
IDE	Intelligent Drive Electronics or Integrated Drive Electronics
IEEE	Institute of Electrical and Electronics Engineers. Inc
IOT	Image Output Terminal (Color printer, Copier)
IPA	Isopropy Alcohol
IPC	Inter Process CommunicationEPP Enhanced parallel Port
IPM	Images Per Minute
ITB	Image Transfer Belt
LAN	local area network
LBP	Laser Beam Printer

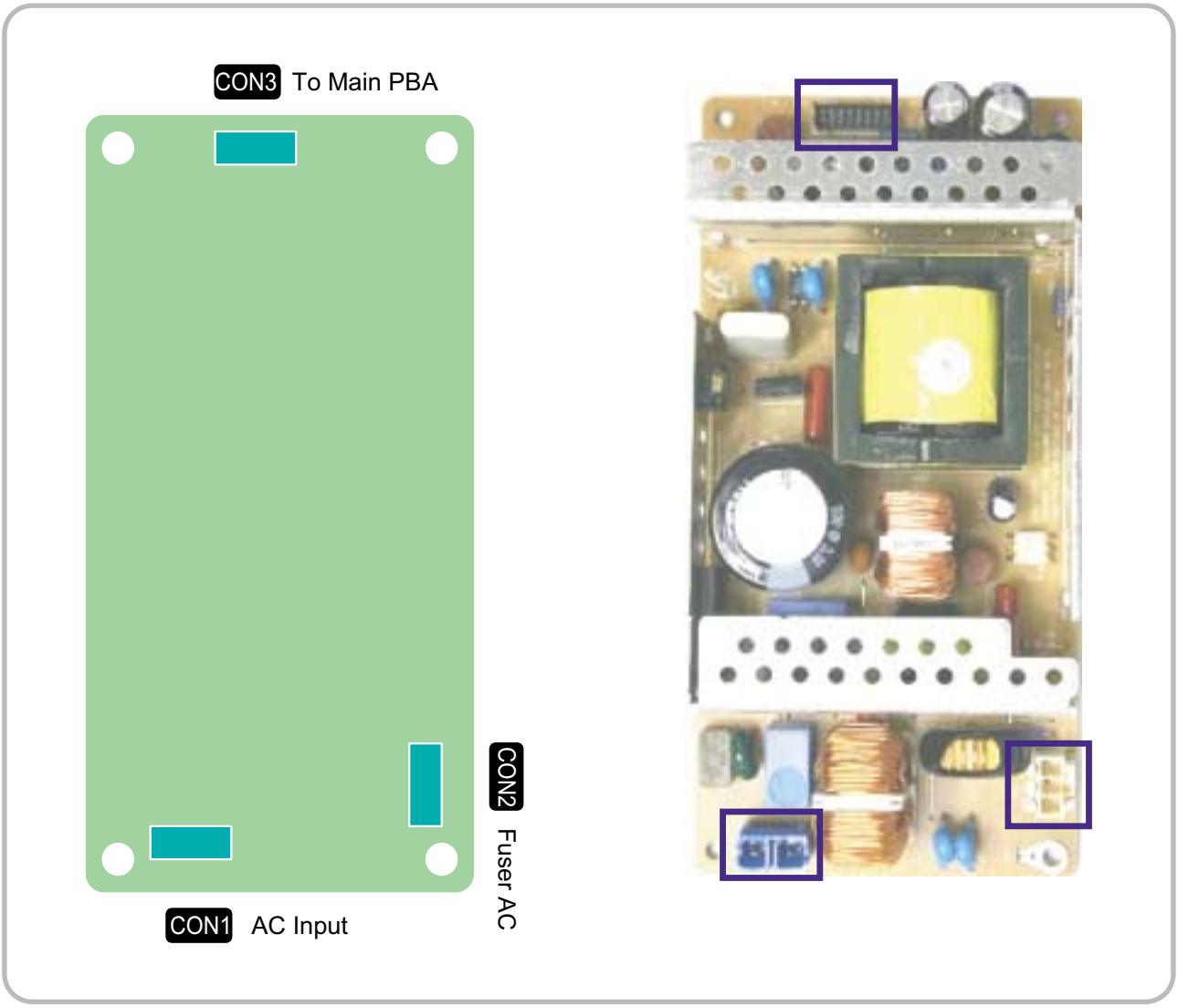
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LSU	Laser Scanning Unit
MB	Megabyte
MHz	Megahertz
MPBF	Mean Prints Between Failure
MPF/MPT	Multi Purpose Feeder/Multi Purpose Tray
NIC	Network Interface Card
NPC	Network Printer Card
NVRAM	Nonvolatile Random Access Memory
OPC	Organic Photo Conductor
PBA	Printed Board Assembly
PCL	Printer Command Language , Printer Control Language
PCI	Peripheral Component Interconnect by Intel 1992/6/22, is a local bus standard developed by Intel and introduced in April, 1993 : A60, B60 Pins
PCL5Ce	Printer Command Language 5Ce-Color
PCL6	Printer Command Language 6
PDF	Portable Document Format
PDL	Page Description Language
Ping	Packet internet or Inter-Network Groper
PPD	Postscript Printer Discription
PPM	Page Per Minute
PS	Post Script
PS3	Post Script Level3
PTL	Pre-Transfer Lamp
PTB	Paper-Transfer Belt
PWM	Pulse Width Moduration
Q'ty	Quantity
RAM	Random Access Memory
RCP	Remote Control Panel
ROM	Read Only Memory
SCF/SCT	Second Cassette Feeder/Second Cassette Tray
SMPS	Switching Mode Power Supply
SPGP	Samsung Printer Graphic Processor
SPL	Samsung Printer Language
SPL-C	Samsung Printer Language-Color
Spool	Simultaneous Peripheral Operation Online
SRS	Software Requirment Specification
SURF	Surface Rapid Fusing
SW	Switch
sync	Synchronous or Synchronization
T1	ITB
T2	Transfer Roller
TRC	Toner Reproduction Curve
PnP	Universal Plug and Play
U.I.	User Interface
URL	Uniform Resource Locator
USB	Universal Serial Bus
VCCI	Voluntary Control Council for Interference Information Technology Equipment
WECA Alliance	Wireless Ethernet Compatibility
Wi-Fi	Wireless Fidelity

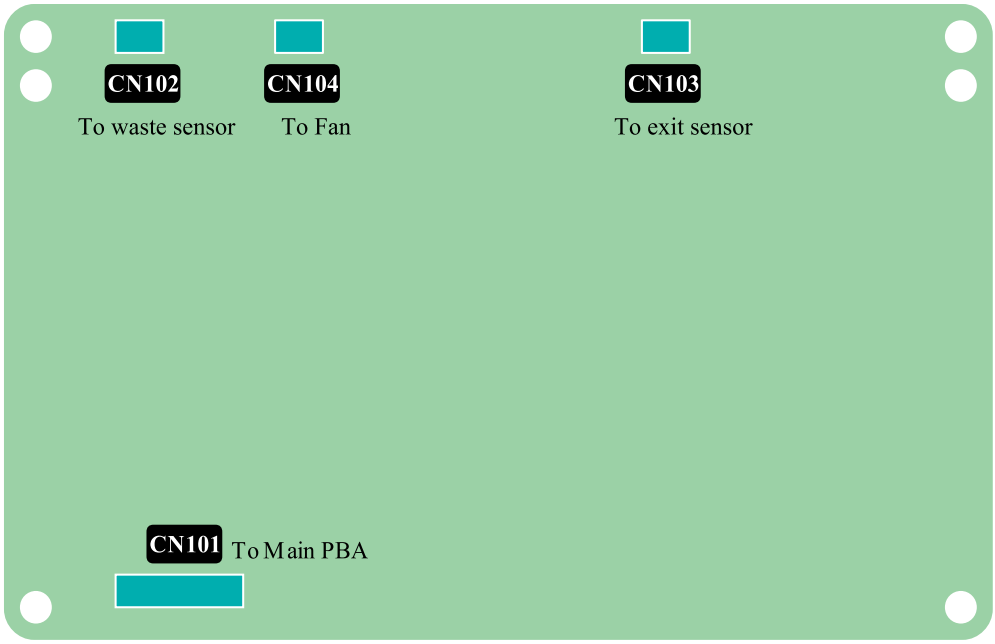
Section 7 Wiring Data

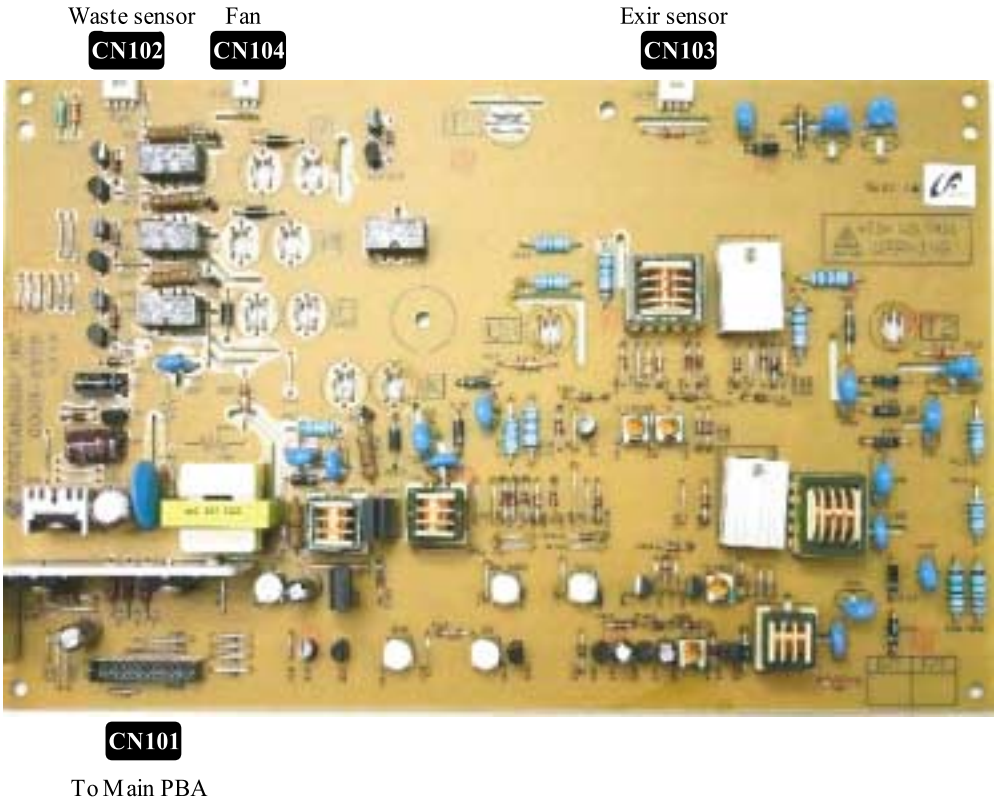

DEV_SOL
2P
T2_CLT
3P
ITB_CLT
3
P
PICKUP_CLT
2P
REGI_CLT
3P
1
P
2P
14P
BLDC
10P
11
P
DAA
GDI PANEL
SCF
8P
BAT
CCD
24P
SCAN
FAN_MAIN
2P
Reserve
MAIN
DRAWER CON.
3P
2P
3P
3P
3P
3P
2P
6P
22P
Reserve
4P
MP_EMPTY
5P
CTD
5P
PANEL(PDL&CP)
DC- DC
+3 .3V
16P
SMPS
TYPE 3
+24V 4.5A, +5V 3A
3P
INLET&SWITCH
2P
FUSER
E- Coil
Thermostat
1P
ITB JOINT
ITB HOME
Sensor
2P
6P
CON.
DEVE JOINT
Deve Crum
MC34C02
PCB Contact
Y
CRUM
M
CRUM
C
CRUM
K
CRUM
4P
RELAY
CHARGER 1EA
RELAY
T1 1EA
RELAY
T2 1EA
RELAY
Bias AC 1EA
DC 1EA
Bias Y
Bias M
Bias C
Bias K
3P
SUPPLY Y,M,C,K

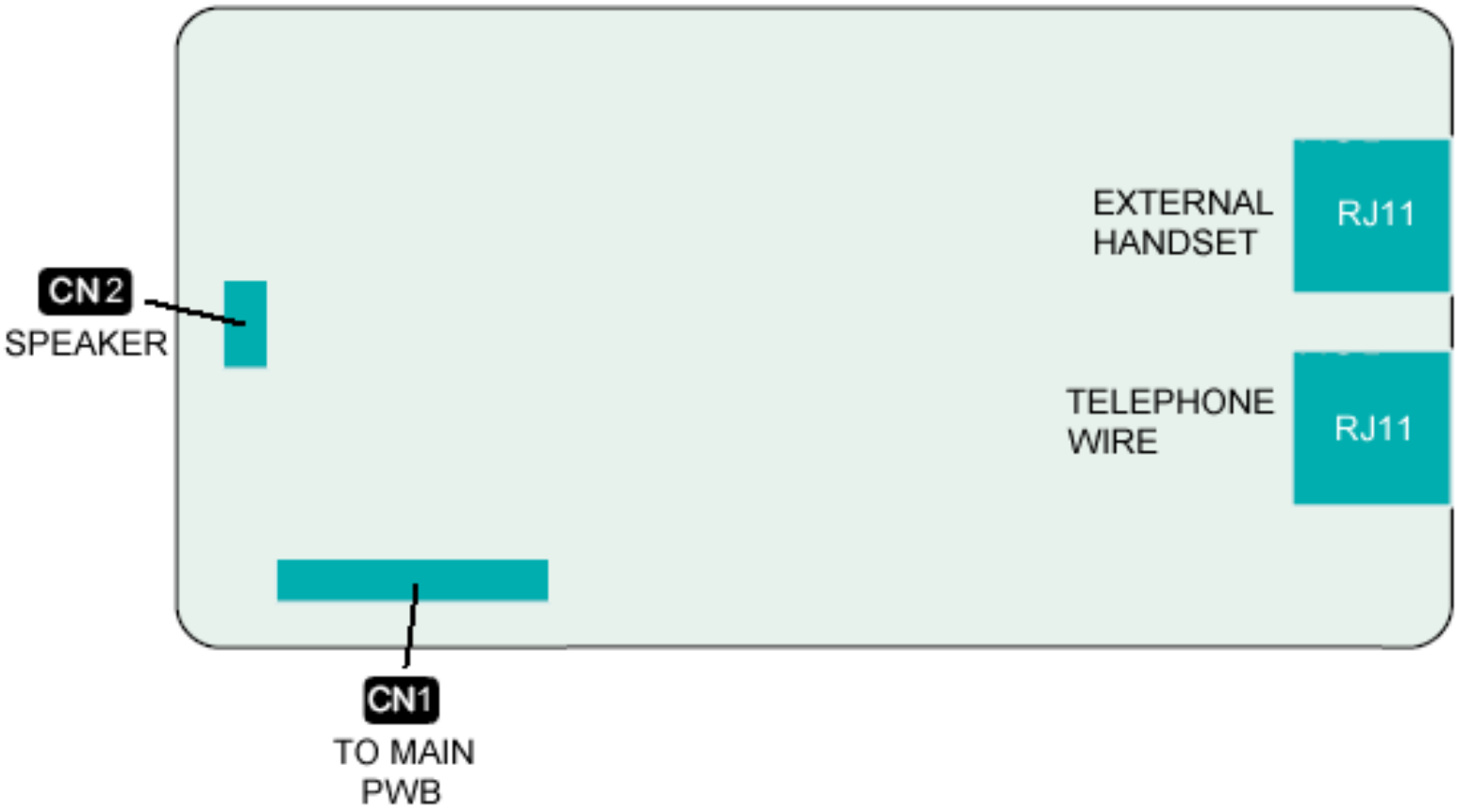

MAIN
Flash 4MB
USB_D Conn
USB2.0 Dev
USB_H Module
USB2.0 Host
Smart DAA
RJ-45
N/W Φ STE100P
OPE 16*2 LCD
EEPROM 64Kbit
SRAM 1Mbit
mSCANNER_HOME
DATA[31:0]
ADDR[22:2]
nRD,nWR,nCS
DATA[31:16]
ADDR[13:2]
12MHz
DATA[31:16]
ADDR[9:2]
6MHz
DATA[31:24]
ADDR[8:2]
TX_CLK,RX_C
MAC_TXD[3:0]
MAC_RXD[3:0]
25MHz
9600bps
SCL
SDA
SRAM_D[15:0]
SRAM_A[15:0]
System Clock
12MHz
32.768KHz
PLL
RTC
CHORUSm
ARM9- 300MHz
SDRAM Controller
Local Controller
MAC
ADC 8ch
UART
PWM 8ch
I2C
LSU Controller
GPIO
STEP Motor
HPVC
Image Processor
SD[31:0]
SA[12:0],BA0,1
SDRAM 64MB
nSCS0,1
nRAS,nCAS
nWE,DQM,CKE,
SDCLK0,1
AFE HT82V26
AFE,CCD Control
LVDS FIN1047
12P
DRAWER CON.
iNNER TEMP SENSOR
3P
DEVE HOME SENSOR
2P
THERMISTOR
6P
REGI SENSOR
P EMPTY SENSOR
2P
DEV_SOL
3P
T2_CLT
3P
ITB_CLT
2P
PICKUP_CLT
3P
REGI_CLT
2P
COVER_S/W
2P
LSU S/W
14P
LSU
10P
BLDC
24P
16P
24
8P
2P
P
ITB JOINT
ITB HOME SENSOR
2P
PTL
DEVE JOINT
Deve MC34C02
CRUM
PCB Contact
Y
CRUM
M
CRUM
C
CRUM
K
CRUM
2P
3P
WASTE EMPTY
Light- Receiver
WASTE LEVEL
Light- Emit
WASTE LEVEL
HVP
Charger S1ea
T1 1ea
T2 1ea
Bias AC 1ea
DC 1ea
EXIT SENSOR
FAN MAIN
WASTE LED
RELAY
RELAY
RELAY
RELAY
2P
Dev Bias Y
Dev Bias M
Dev Bias C
Dev Bias K
Zener Diode
SUPPLY Y,M,C,K
SMPS
Standard Type 3
+24V 4.5A, +5V 3A
2
P
2P
FUSER
Halogen Lamp
Thermostat
1P
INLET& SWITCH
24P
ADF MOTOR
4P
ADF B'D
15P
ADF JOINT
3P
SCAN COVER
4P
BIN FULL
4P
FLAT MOTOR
CCD
SCF
BAT


CN4
DEV SOL
CN10
ITB CLUTCH
CN6
USB HOST
CN3
SCAN
CN1
ADF
CN2
MAIN DRIVE
CN7
T2 CLUTCH
CN28
FUSER CLUTCH
CN5
DEVE HOME
CN8
FUSER THERMISTOR
CN12
CN13
CONTROL CONSOLE
RJ45
CN17
FAX
CN15
SMPS
USB
CN16
+24V COVER SWITCH
CN21
HVPS
CN26
+5V COVER SWITCH
CN22
LSU
CN18
SCF
CN19
DEVE& ITB
CN20
REG& EMPTY
CN24
REGI CLUTCH
CN25
PICKUP CLUTCH


CON3 To Main PBA
CON2 Fuser AC
CON1 AC Input


CN102
To waste sensor
CN104
To Fan
CN103
To exit sensor
CN101
To Main PBA


Waste sensor
CN102
Fan
CN104
Exir sensor
CN103
CN101
To Main PBA


CN2
SPEAKER
EXTERNAL
HANDSET
RJ11
TELEPHONE
WIRE
RJ11
CN1
TO MAIN
PWB

Section 8 Top Problems

Vapour may be seen emanating from the Fuser area. This may occur with paper with a higher moisture content or in environments with higher humidity. SURF, or Surface Rapid Fusing technology is used to optimize image quality while reducing toner consumption. The rapid temperature change during fusing may release moisture in the form of a visible vapour.

There are no problems reported at this time.

Section 9 Installation and Kits

Quick Install Guide

FR Guide d'installation rapide
IT Guida di installazione rapida
DE Kurzinstallationsanleitung
ES Guía rápida de instalación
BR Manual de Instalação Rápida
NL Beknopte installatiehandleiding
RU Краткое руководство по установке
CZ Stručná instalační příručka
PL Skrócona instrukcja instalacji
HU Gyors telepítési útmutató
TR Hızlı Kurulum Kılavuzu

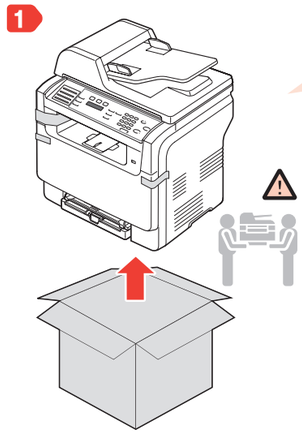
Xerox Colour Laser MFP
Phaser® 6110 MFP

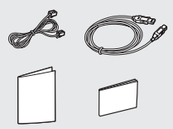
JC68-01809AV100

700N00146

1 Unpack

FR Déballage
IT Rimozione dell'imballaggio
DE Packen Sie das Gerät aus
ES Desembalaje
BR Retire da embalagem
NL Uitpakken
RU Распаковка
CZ Vybalte zařízení
PL Rozpakowanie
HU Csomagolja ki a készüléket
TR Paketi Açma





Depending on your model and country, the item(s) in the gray box may not be supplied.

FR Selon le pays, il est possible que les câbles de connexion ne soient pas fournis avec votre appareil.

IT A seconda del paese d'appartenenza, i cavi della stampante potrebbero non essere forniti con la stampante.

DE Je nach Land sind die Teile aus dem grauen Kasten nicht im Lieferumfang enthalten.

ES Dependiendo del país, los cables de la impresora pueden no venir incluidos con la impresora.

BR Dependendo do modelo e do país, os itens na caixa cinza podem não ser fornecidos.

NL Bij sommige modellen en in bepaalde landen worden de items in het grijze vak niet meegeleverd.

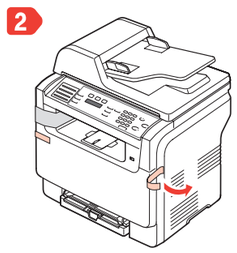
RU В некоторых странах принтер может поставляться без компонентов, изображенных на сером фоне.

CZ V některých zemích nemusí být spolu s tiskárnou dodávány díly v šedém rámečku.

PL W niektórych krajach kable drukarkowe nie są dołączane do drukarek.

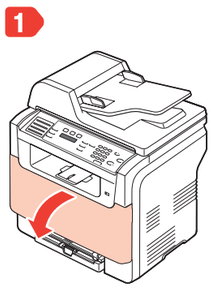
HU Egyes típusok és országok esetén a nyomtatóhoz nem adják tartozékként a szürke dobozban található tartozékokat.

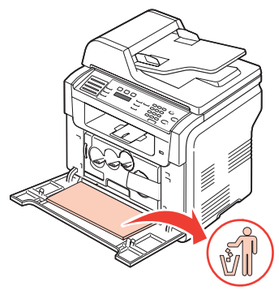
TR Bulunduğunuz ülkeye bağlı olarak gri kutudaki öğe(ler) yazıcıyla birlikte verilmeyebilir.

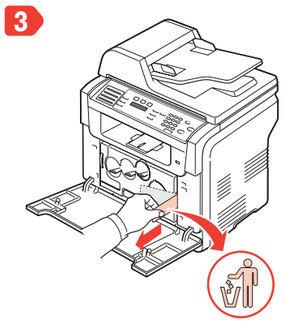


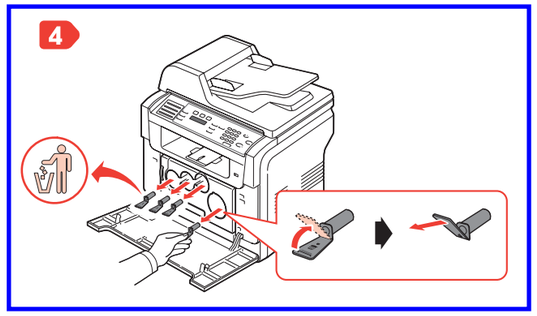
2 Install the toner cartridge

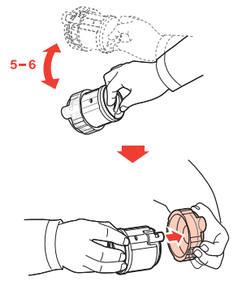
FR Installation des cartouches d'encre
IT Installazione della cartuccia del toner
DE Installieren Sie die Tonerkartusche
ES Instalación del cartucho de tóner
BR Instale o cartucho de toner
NL Tonercassette plaatsen
RU Установка картриджа с тонером
CZ Nainstalujte kazetu s tonerem
PL Instalowanie kasety z tonerem
HU Helyezze be a festékkazettát
TR Toner kartuşunun takılması

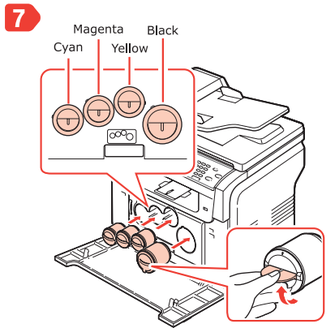


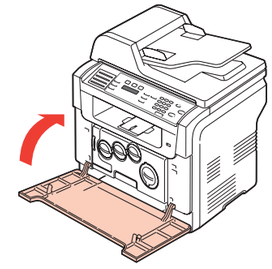






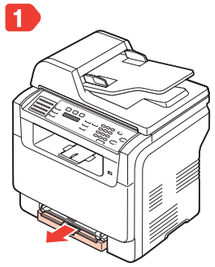


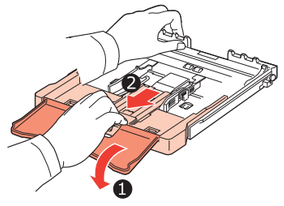


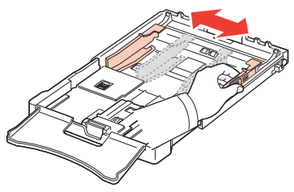


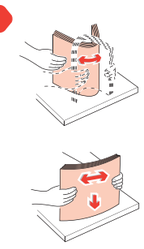
3 Load paper

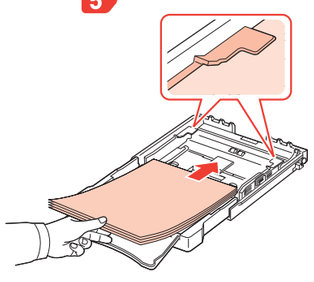
FR Chargement du papier
IT Caricamento della carta
DE Legen Sie Papier ein
ES Carga de papel
BR Coloque papel
NL Papier plaatsen
RU Загрузка бумаги
CZ Založte papír
PL Ładowanie papieru
HU Helyezzen be papírt
TR Kağıt yerleştirme

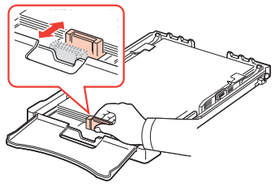


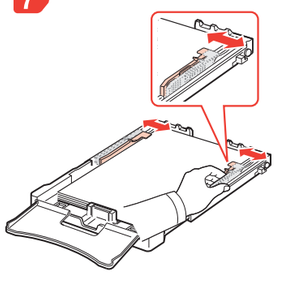


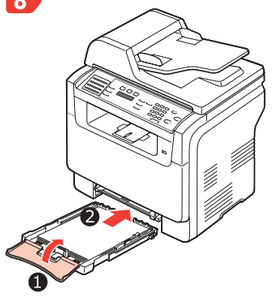












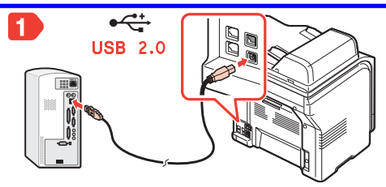
Quick Install Guide

Xerox Colour Laser MFP

4 Make connections

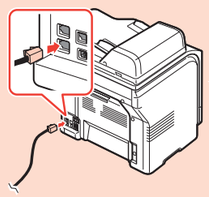
FR Branchements
IT Effettuazione dei collegamenti
DE Schließen Sie den Drucker an
ES Conexiones
BR Faça as conexões
NL Aansluitingen
RU Подключение
CZ Připojte zařízení
PL Połączenie
HU Csatlakoztassa a vezetékeket
TR Bağlantı yapma

1

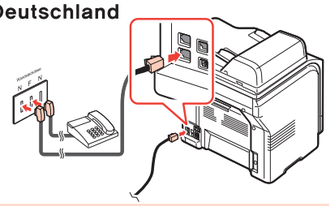


Phaser 6110MFP/XN

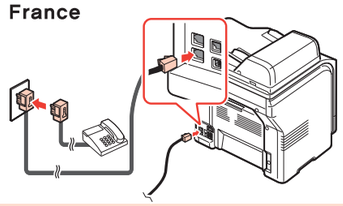
2



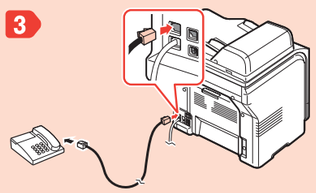
Deutschland



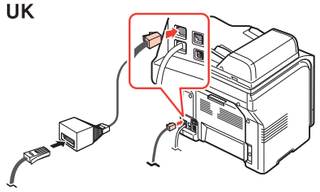
France



3

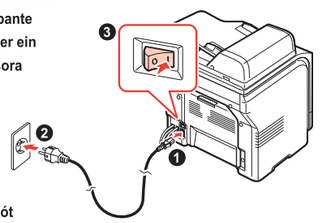


UK



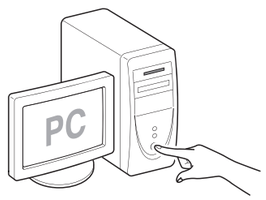
5 Turn the printer on

FR Mise en marche de l'imprimante
IT Accensione della stampante
DE Schalten Sie den Drucker ein
ES Encendido de la impresora
BR Ligue a impressora
NL Printer aanzetten
RU Включение принтера
CZ Zapněte tiskárnu
PL Włączenie drukarki
HU Kapcsolja be a nyomtatót
TR Yazıcının açılması



6 Turn the computer on

FR Mise en marche de l'ordinateur
IT Accensione del computer
DE Schalten Sie den Computer ein
ES Encendido del ordenador
BR Ligue o computador
NL Computer aanzetten
RU Включение компьютера
CZ Zapněte počítač
PL Włączenie komputera
HU Kapcsolja be a számítógépet
TR Bilgisayarın açılması



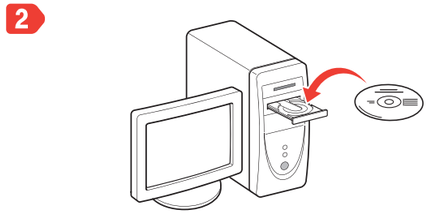
7 Install software

FR Installation du logiciel
IT Installazione del software
DE Installieren Sie die Software
ES Instalación del software
BR Instale o software
NL Software installeren
RU Установка программного обеспечения
CZ Nainstalujte software
PL Instalacja oprogramowania
HU Telepítse a szoftvert
TR Yazılımın yüklenmesi

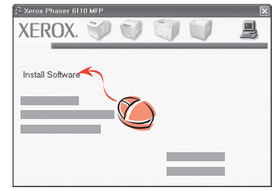
1 If the New Hardware Found window appears, click **Cancel.**

FR En cas d'affichage de la fenêtre « nouveau matériel détecté », appuyez sur la touche **Annuler**.
IT Se appare la finestra Nuovo componente hardware individuato, fare clic su **Annulla**.
DE Wenn das Fenster „Neue Hardware-Komponente gefunden" angezeigt wird, klicken Sie auf **Abbrechen**.
ES Si aparece la ventana "Se ha encontrado nuevo hardware", haga clic en **Cancelar**.
BR Se a janela de mensagem "Novo hardware encontrado" for exibida, clique em **Cancelar**.
NL Wanneer het venster Nieuwe hardware gevonden verschijnt, klikt u op **Annuleren**.
RU Если во время установки появится окно «Обнаружено новое устройство», нажмите на кнопку «**Отмена**».
CZ Objeví-li se na obrazovce hlášení „Nalezen nový hardware" klepněte na **Storno**.
PL Jeżeli zostanie wyświetlone okno Znaleziono nowy sprzęt, kliknij przycisk **Anuluj**.
HU Ha megjelenik az "Új hardver" ablak, kattintson a **Mégse** gombra.
TR "Yeni Donanım Bulundu" penceresi açılırsa **İptal**'i tıklatın.

2



3



4

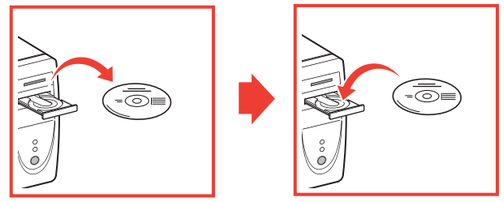
5 Follow the instructions on the screen to complete the installations.

FR Suivez les instructions qui s'affichent à l'écran pour terminer l'installation.
IT Per completare l'installazione, seguire le istruzioni visualizzate nella finestra.
DE Folgen Sie den Anweisungen des Installationsprogramms, um die Installation abzuschließen.
ES Siga las instrucciones que aparecen en la ventana para completar la instalación.
BR Siga as instruções na tela para concluir a instalação.
NL Volg de instructies op het scherm om de installatie te voltooien.
RU Для завершения установки следуйте инструкциям на экране.
CZ Podle pokynů na obrazovce dokončete instalaci.
PL Postępuj zgodnie z instrukcjami wyświetlanymi w oknie, aby zakończyć instalację.
HU Kövesse a képernyőn megjelenő utasításokat a telepítés befejezéséhez.
TR Kurulumu tamamlamak için ekranda verilen talimatları izleyin.

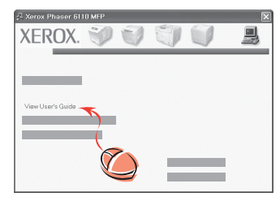
8 View User's Guide

FR Afficher le guide d'utilisateur
IT Visualizzazione della Guida dell'utente
DE Lesen Sie das Benutzerhandbuch
ES Ver el Manual de Usuario
BR Exiba o Manual do Usuário
NL Gebruikershandleiding weergeven
RU Просмотр руководства пользователя
CZ Prostudujte si uživatelskou příručku
PL Przeglądanie podręcznika użytkownika
HU Olvassa el a Felhasználói útmutatót
TR Kullanıcı Kılavuzunu Göster

1



2



Be sure to read the safety guidelines in the User's Guide on the supplied CD-ROM before using this product.

FR Avant d'utiliser ce produit, lisez attentivement les normes de sécurité indiquées dans le Guide de l'utilisateur disponible sur le CD-ROM inclus.
IT Prima di utilizzare questo prodotto, leggere attentamente le linee guida sulla sicurezza riportate nel Manuale dell'utente nel CD-ROM in dotazione.
DE Lesen Sie unbedingt in der Bedienungsanleitung, die Sie auf der CD-ROM finden, die Sicherheitsrichtlinien, bevor Sie dieses Gerät benutzen.
ES Antes de utilizar este producto, asegúrese de que ha leído las directrices sobre seguridad de la Guía del usuario que se encuentra en el CD-ROM suministrado.
BR Leia as diretrizes de segurança fornecidas no Manual do Usuário localizado no CD-ROM antes de utilizar este produto.
NL Lees de veiligheidsrichtlijnen in de gebruikershandleiding op de meegeleverde cd-rom voordat u de printer in gebruik neemt.
RU Перед использованием этого устройства обязательно прочитайте инструкции по безопасности в Руководстве пользователя, содержащемся на компакт-диске, поставляемом с устройством.
CZ Před použitím výrobku si přečtěte bezpečnostní pokyny uvedené v uživatelské příručce na přiloženém disku CD-ROM.
PL Przed użyciem tego produktu należy koniecznie przeczytać wytyczne bezpieczeństwa w Przewodniku użytkownika na załączonej płycie CD-ROM.
HU A termék használata előtt mindenképpen olvassa el a készülékhez adott CD-ROM-on található Felhasználói útmutatóban leírt biztonsági óvintézkedéseket.
TR Bu ürünü kullanmadan önce verilen CD'deki Kullanıcı Kılavuzunda güvenlik talimatlarını okuduğunuzdan emin olun.

www.xerox.com/office/support

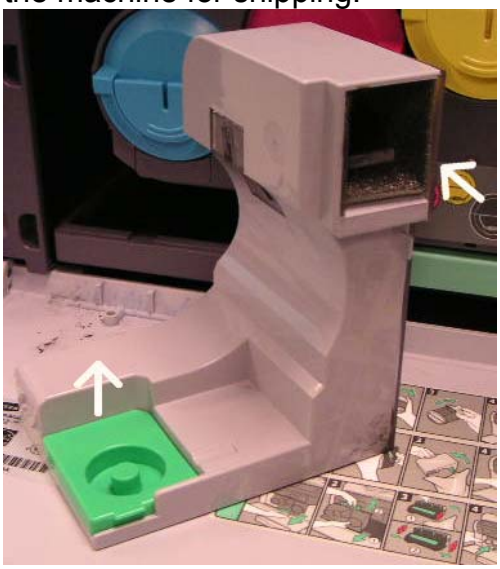
Repack Procedure

WARNING: Observe safe working practices. Click Warnings/Cautions for Safety button on Repairs and Adjustments menu if unsure about safe working practices.

CAUTION: The purpose of Repack is to prevent toner from migrating throughout the machine during the return shipment to a service center.

1. Remove the Waste Toner Cartridge.

2. Remove the Waste Toner Retainer Cap from the storage position and install the cap on the return port. Secure the Waste Toner Cartridge into the top of the machine for shipping.

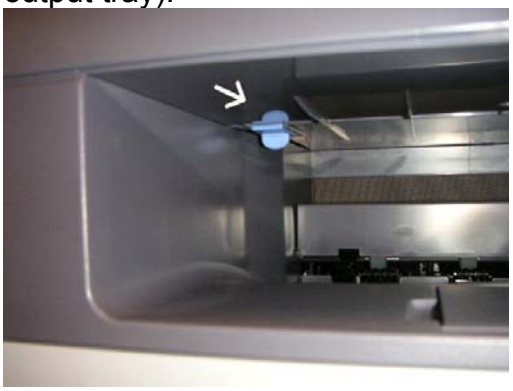


3. Remove the toner cartridges and install the clear plastic shipping cover (shipping cover is installed on all new cartridges). Secure the Cartridges into the output tray or top of the machine for shipping.

4. Close the Toner Ports by installing the Shipping Plugs into the Toner Ports. If the plugs are not available close the ports with tape, or wadded tissue or wadded paper.

Repack

5. On the Phaser 6110MFP lock the Scanner in the shipping position by moving the lock tab to the rear (top of output tray).



6. Remove the Paper Tray and secure it on the top of the machine for shipping.

7. Remove the Power Cord and secure it on the top of the machine for shipping.

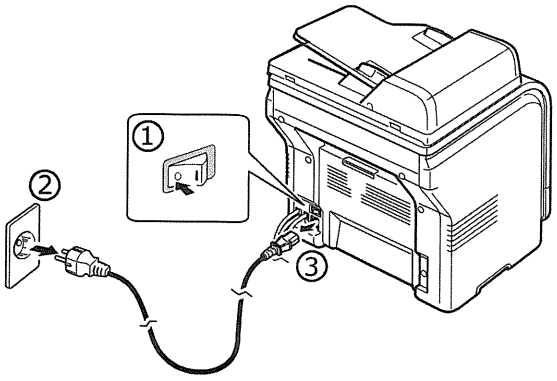
NOTE: The machine is now ready for shipping.

Repack Materials

A box and cushion material is available for shipment.

Part Number	Description
095N00308	Box for 6110MFP w/o Fax
095N00309	Box for 6110MFP w/Fax
095N00310	Top Cushion for either config.
095N00311	Bottom Cushion for either config.

1



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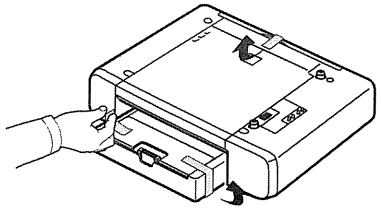

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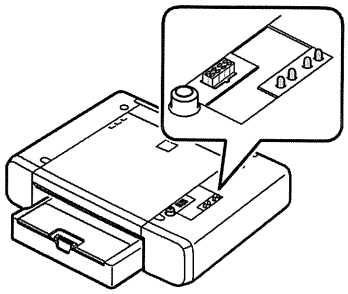

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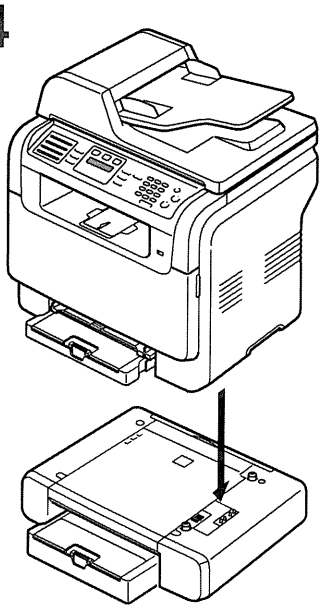

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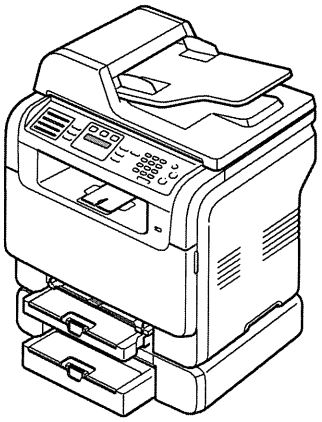

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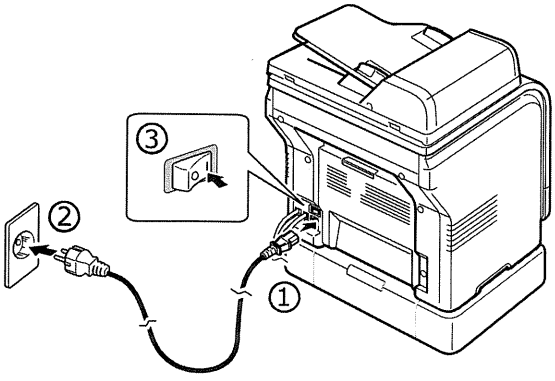

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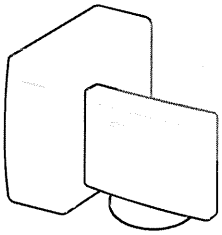
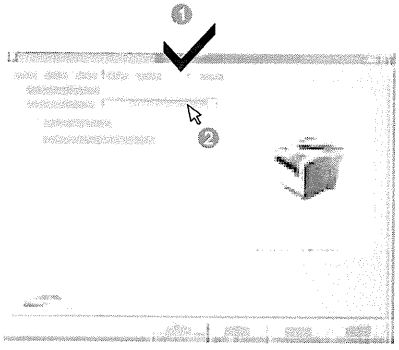




XEROX

Section 10 Product Technical Overview

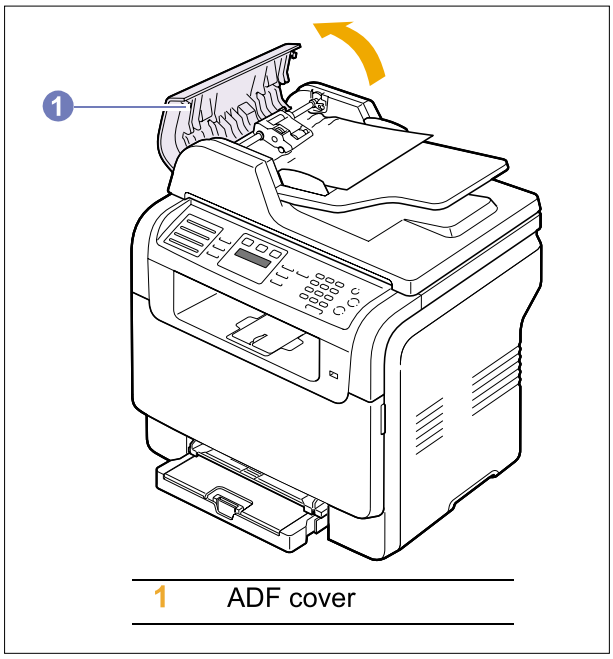
Jam Removal

Clearing document jams

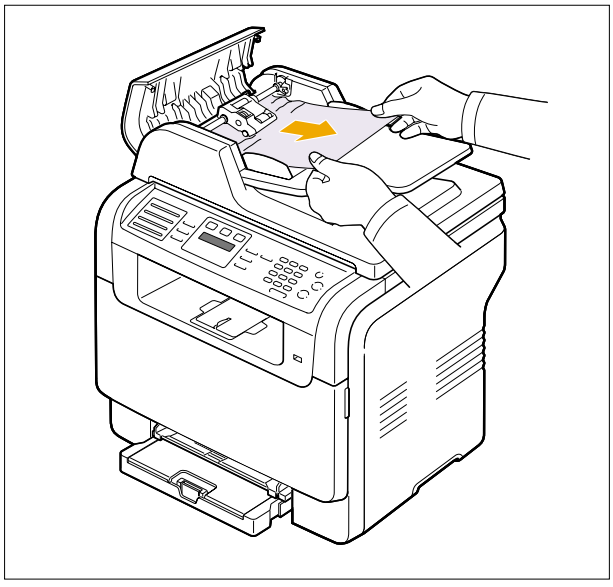
When an original jams while passing through the ADF, Document Jam appears on the display.

1. Remove any remaining pages from the ADF.

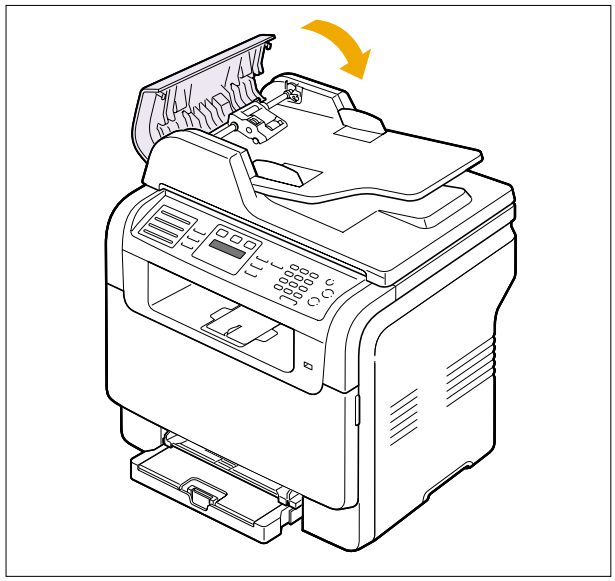
2. Open the ADF cover.



3. Pull the jammed paper gently out of the ADF.



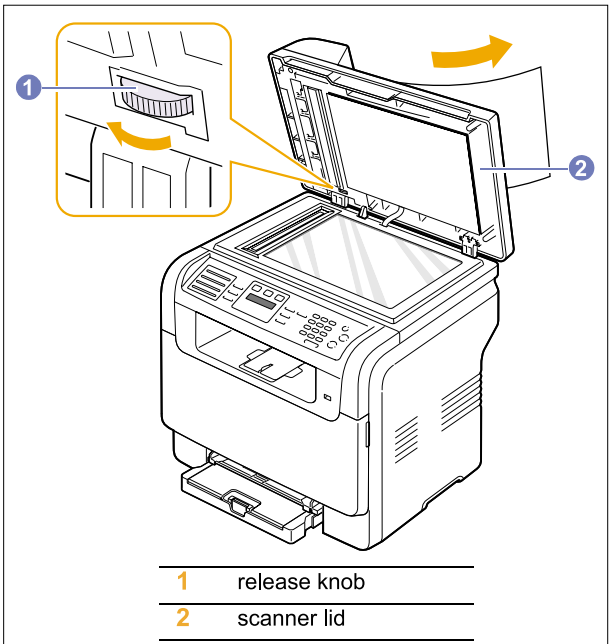
4. Close the ADF cover. Then load the removed pages, if any, back into the ADF.



6Exit misfeed

1. Open the scanner lid.

2. Turn the release knob to the direction as shown to remove the misfed paper from the document output tray.



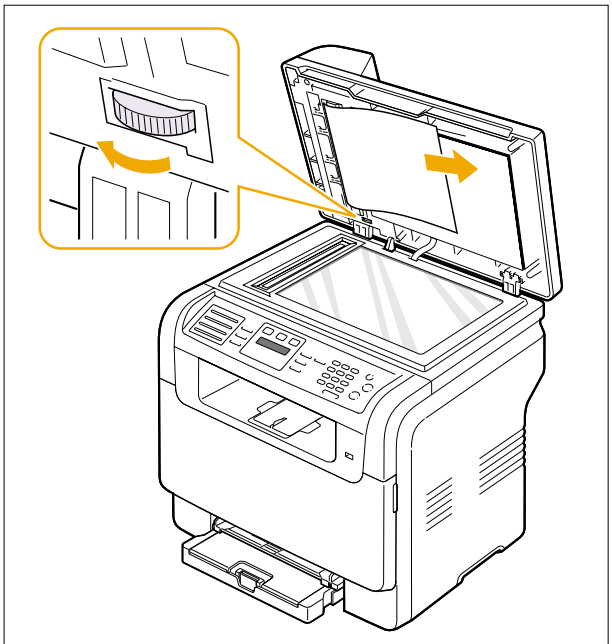
1	release knob
2	scanner lid

3. Close the scanner lid. Then load the removed pages back into the ADF.

Roller misfeed

1. Open the scanner lid.

2. Seize the misfed paper, and remove the paper from the feed area by carefully pulling it to the right using both hands.



3. Close the scanner lid. Then load the removed pages back into the ADF.

Clearing printer jams

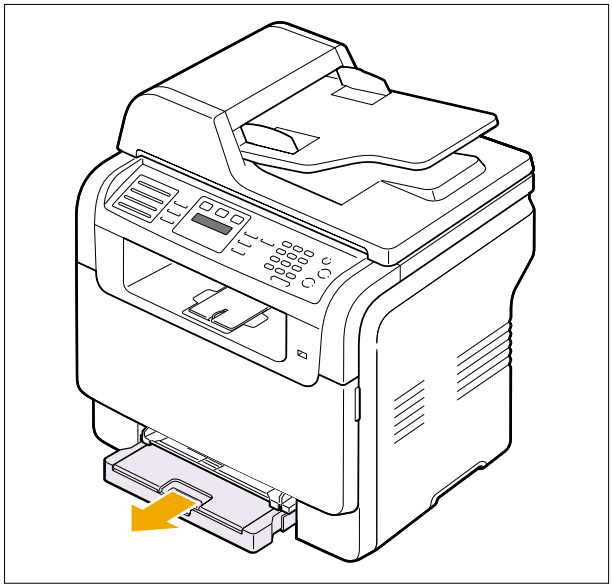
When a paper jam occurs, Paper Jam appears on the display. Refer to the table below to locate and clear the paper jam.

Message	Location of jam	Go to
Paper Jam 0 **Open/Close Door**	In the paper feed area (tray 1, optional tray 2, or mamual tray)	the next colume, 14.3, and 14.4
Paper Jam 1 **Open/Close Door**	In the paper exit area	14.4

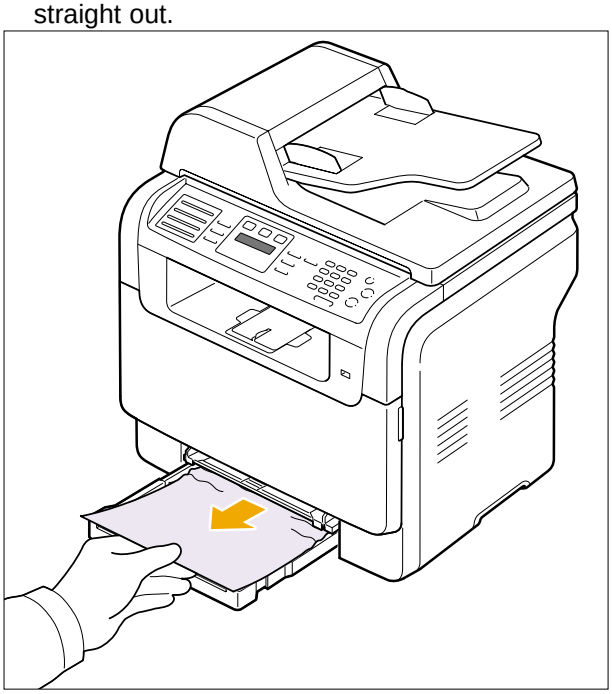
Tray 1

1. Open and close the front cover. The jammed paper is automatically ejected from the machine.
   If the paper does not exit, go to the next step.

2. Pull the tray 1 open.



3. Remove the jammed paper by gently pulling it straight out.

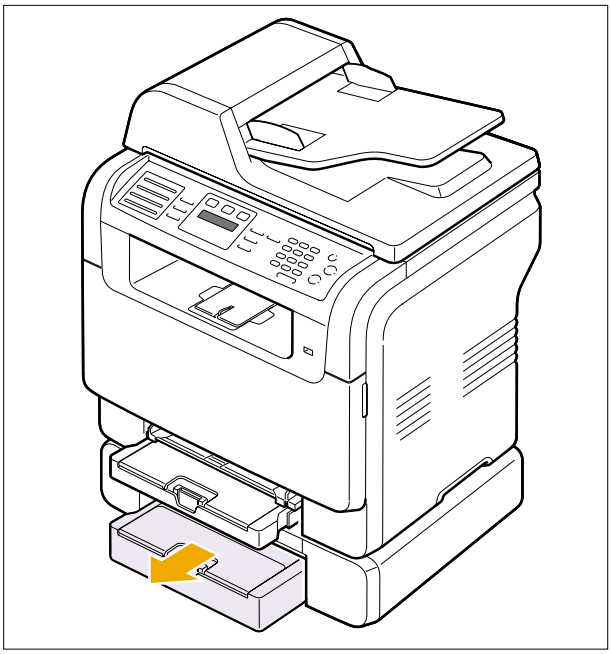


   If the paper does not move when you pull, or if you do not see the paper in this area, check the paper exit area.

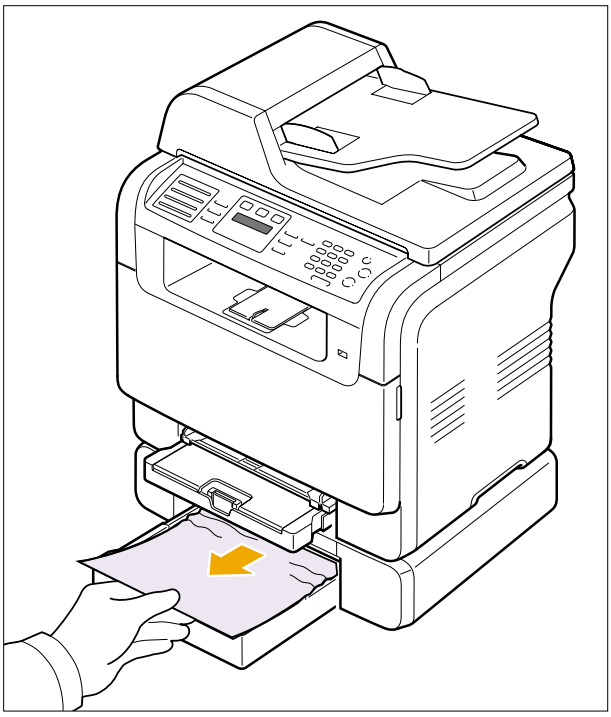
4. Insert the tray 1 into the machine until it snaps into place. Printing automatically resumes.

Tray 2

1. Pull the optional tray 2 open.

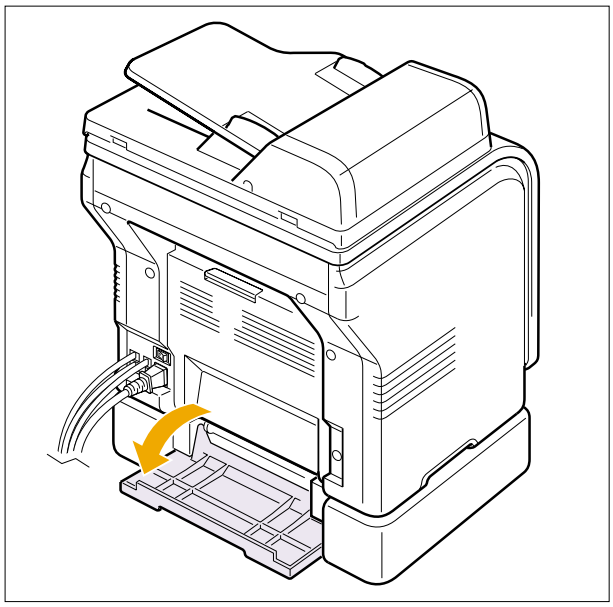


2. Remove the jammed paper from the machine.

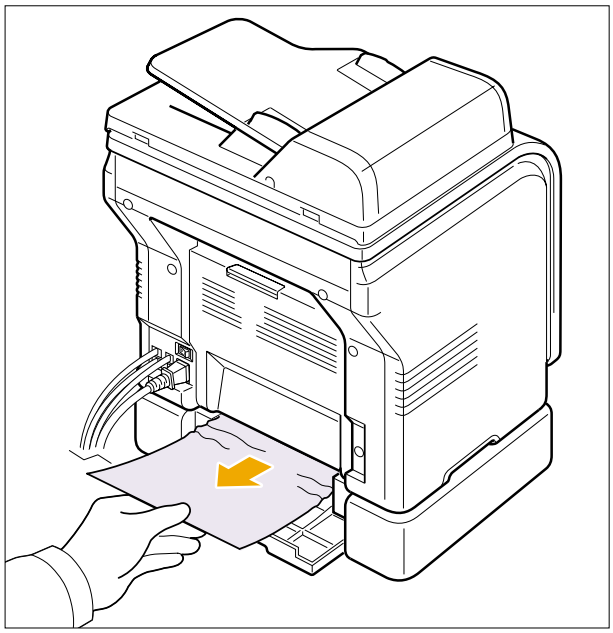


If the paper does not move when you pull, or if you do not see the paper in this area, go to the next step.

3. Open the jam cover in the optional tray 2.



4. Pull the jammed paper out in the direction shown.

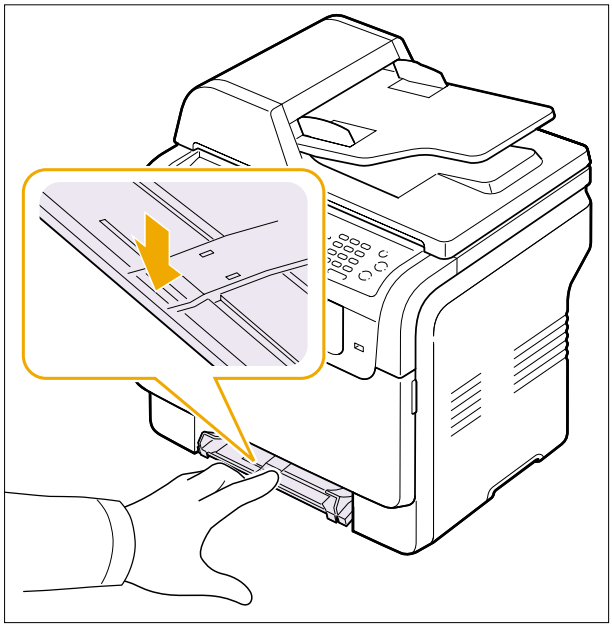


5. Close the jam cover. Printing automatically resumes.

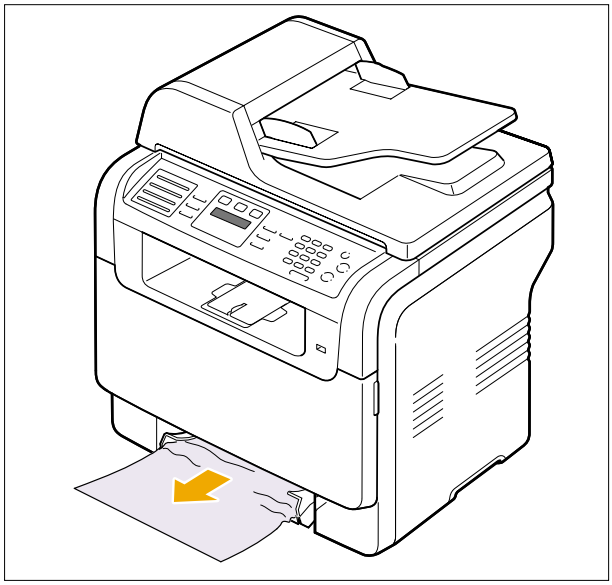
Mamual tray

1. Pull the tray 1 out.

2. Push the manual tray tab down.



3. Pull the Jammed paper out of the manual tray.

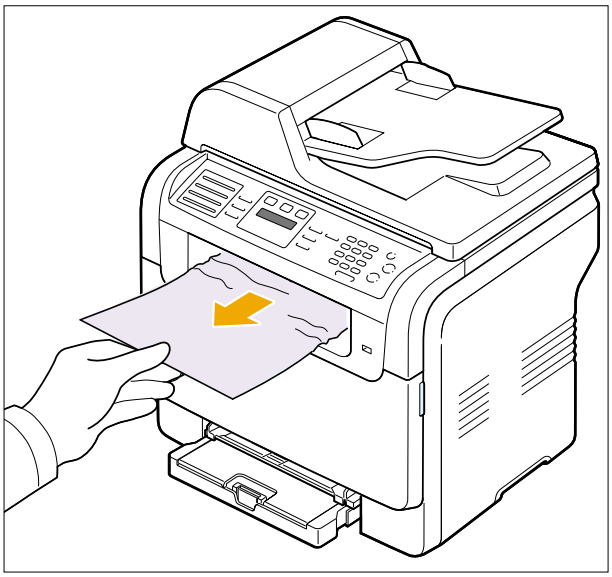


4. Insert the tray 1 into the machine until it snaps into place. Printing automatically resumes.

Print exit area

1. Open and close the front cover. The jammed paper is automatically ejected from the machine.

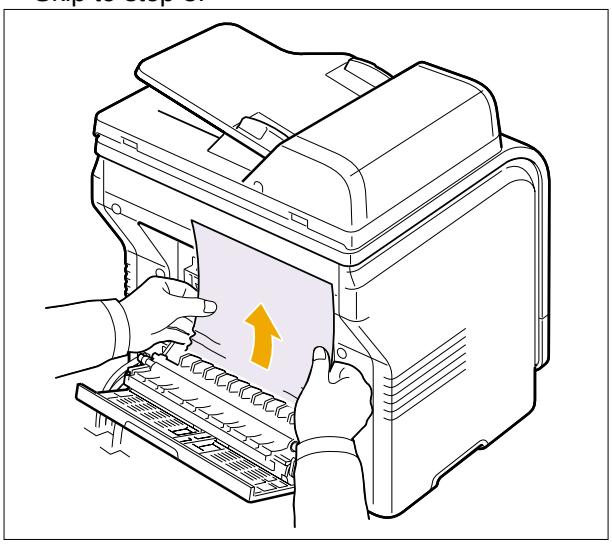
2. Gently pull the paper out of the output tray.



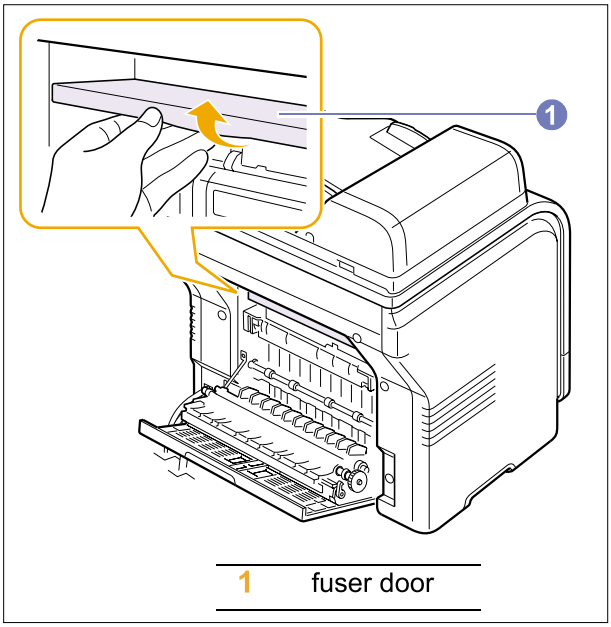
If you do not see the jammed paper or if there is any resistance when you pull, stop and go to the next step.

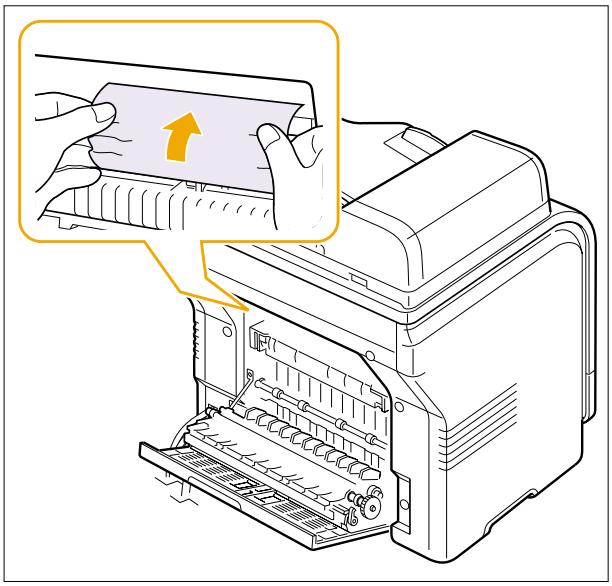
3. Open the rear cover.

4. If you see the jammed paper, pull it straight up. Skip to step 8.



If you still do not see the paper, go to the next step.


1
1 fuser door

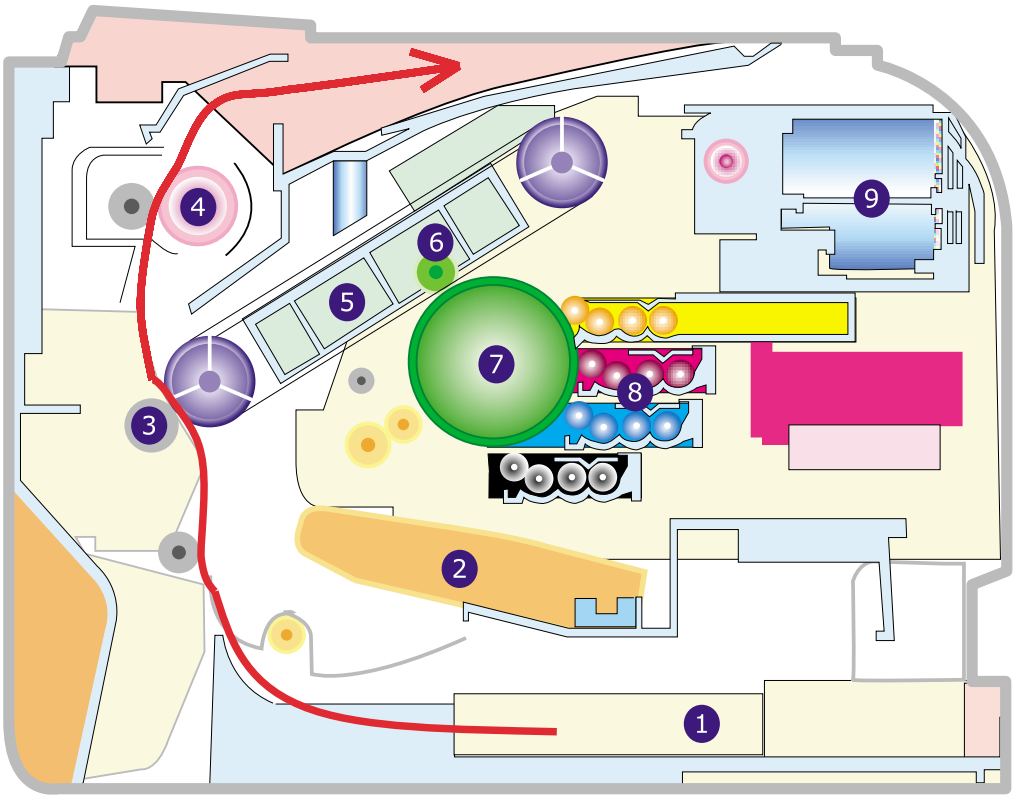


3 System Overview

This chapter describes the functions and operating principles of the main components.

System Structure

Main Parts of System



1. Paper Input (Cassette)
2. LSU (Laser Scanning Unit)
3. 2nd Transfer Roller
4. Fuser
5. ITB (Intermediate Transfer Belt)
6. 1st Transfer Roller
7. OPC (Organic Photo Conductor)
8. Developers (Y, M, C, & K)
9. Toner Kits (Y, M, C, & K)

❶ Cassette

· Feeding Method : Cassette Type
· Feeding Standard : Center Loading
· Feeding Capacity : Cassette 150 Sheets(75g/㎡, 20lb Paper Standard)
No Manual Feeder
· Paper Detecting Sensor : Photo Sensor (Empty, Registration, Exit)
· Paper Size Sensor : None

❷ LSU(Laser Scan Unit)

· Consisted of LD(Laser Diode) and Polygon Motor Control.

Error	Phenomenon
Polygon Motor Error	The Rotation of Polygon Motor can not reach stable
Hsync Error	Though the rotation of Polygon Motor reach stable, the signal of Hsync is not occurred

❸ 2nd Transfer Ass'y

· The life span: Print over 100,000 sheets (in 15~30 ℃)
·

❹ Fuser Ass'y

· Heat Lamp : New Part - Knuckle Type
· Heat Roller :
· 2 Pressure Roller
Thermistor - Temperature-Measuring Device
· Thermostat - Critical Temperature-Detecting Device
· Fusing Temp. (180)
· H/W Protection Temp. (185)
· ℃

& **ITB(Intermediate Transfer Belt) & 1st Transfer Roller**

❺ ❻The life span: Print over 100,000 Images
· The ITB unit includes 1st Transfer Roller
·

& **OPC(Organic Photo-Conductor) & Developer**

❼ ❽The life span: Print over 44,000 Images (Both)
· Imagine Unit consists of 4 kinds of Developer , OPC, and Deve. Main Frame
·

Toner Kits

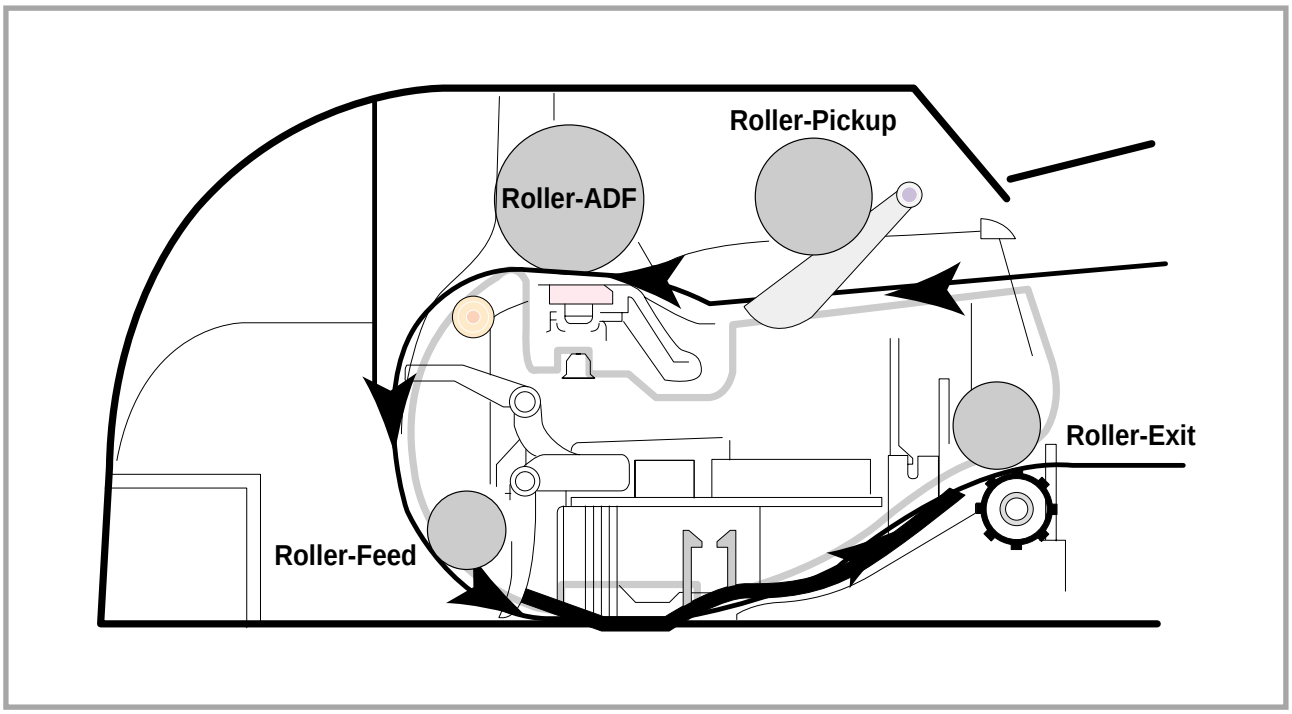
❾ The life span: Color -> 1000 images (5% Coverage Print-Out)
· Black -> 2000 images (5% Coverage Print-Out)

Driver Ass y

It is a power delivery unit by gearing
· By driving the motor, it supplies the power to the feeding unit, the fusing unit, and the distributing unit.
·
·

Scanner(ADF)

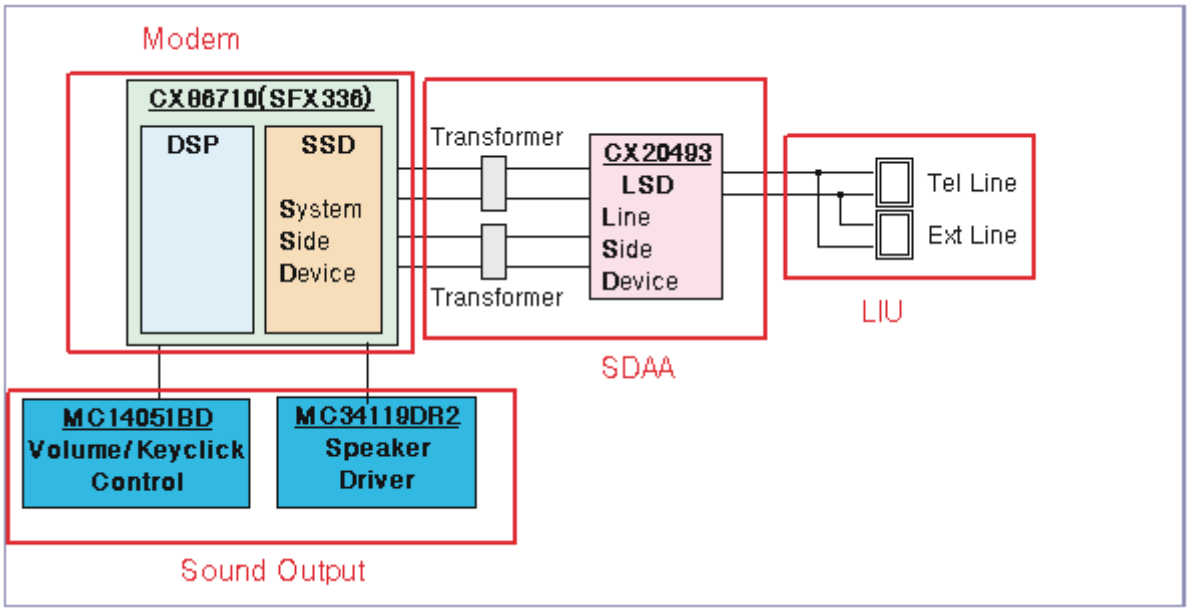
- Scanning Method: Color CCD(600 x 1200 dpi)
- Scan speed : SDMP 28cpm/MDSP 20cpm



FAX Section

Modem Part

BLOCK DIAGRAM



Implemented by based on Conexant DAA (Data Access Arrangement) Solution, and is roughly composed of two kinds Chip Solution

- CX86710 (SFX336): Existing Modem Chip which adds SSD (System Side Device) for interfacing between LSD and DIB of FM336Plus Core

- CX20493 (LSD) : LIU (Line Interface Unit) Chip which is controlled by SSD and satisfies each PSTN Requirements by modulating internal Configuration with connecting Tel Line.

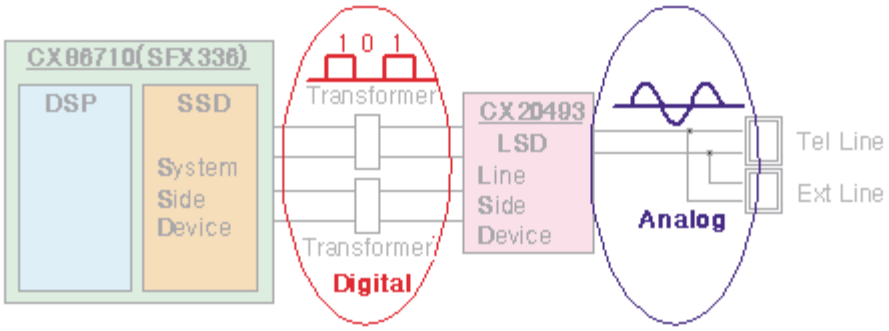
Modem (SFX336) specification.

- 2-wire half-duplex fax modem modes with send and receive data rates up to 33,600 bps
- V.17, V.34, V.29, V.27 ter, and V.21 Channel 2
- Short train option in V.17 and V.27 ter
- PSTN session starting
- V.8 and V.8bis signaling
- HDLC support at all speeds
- Flag generation, 0-bit stuffing, ITU CRC-16 or CRC-32 calculation and generation
- Flag detection, 0-bit deletion, ITU CRC-16 or CRC-32 check sum error detection
- FSK flag pattern detection during high-speed receiving
- Tone modes and features
- Programmable single or dual tone generation
- DTMF receiver
- Tone detection with three programmable tone detectors
- Receive dynamic range:
- 0 dBm to -43 dBm for V.17, V.29, V.27 ter and V.21 Channel 2
- 9dBm to -43 dBm for V.34 half-duplex
- Digital speaker output to monitor received signal
- Two16-byte FIFO data buffers for burst data transfer with extension up to 255 bytes
- V.21 Channel 1Flag detect
- V.21 Channel 1Flag detect
- +3.3V only operation
- Typical power consumption
- Normal mode: 264 mW

Signal Transition of DAA Solution

Line Interface Signal of Tel Line and LSD is Analog Signal.

2) there is A/D, D/A Converter in LSD, so Analog Signal from Tel Line is converted in Digital through A/D Converter in DAA and transfer to SSD by DIB Capacitor
Digital Signal from SSD is converted to Analog by D/A Converter in DAA and transfer to Tel Line



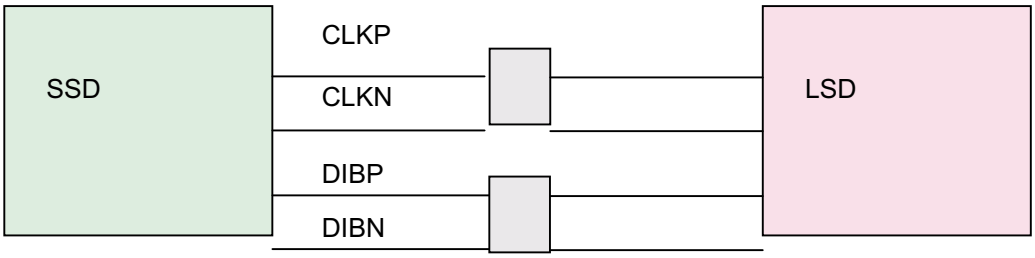
Transformer transfer Clock from SSD to LSD and Clock Frequency is 4.032MHz.

LSD full wave rectifies Clock to use as inner Power supply and also use as Main Clock for DIB Protocol Sync between LSD and SSD. Transformer transfer Clock by separating Primary and Secondary, and
amplifies Clock Level to LSD by Coil Turns Ratio 1:1.16.

■ Clock

- Clock is supplied by transformer from SSD to LSD, and there is PWROUT to adjust output impedance of Clock

Out Driver is inside SSD and CLKSHIGH Resistor to adjust duty of HLPWR Resistor and Clock.



Clock from SSD to LSD has Differential structure of 180 phase difference for Noise Robustness

DIB Data transfer Data from SSD to LSD by Transformer, and also transfer specific data from LSD to SSD.

After transferring data from SSD, RSP is transferred and LSD recognizes RSP and change LSD to output Driver transfer Data to SSD.

DIB Data form SSD to LSD by Transformer has Differential structure of 180 phase difference between DIBP and DIBN for Noise Robustness

Line Interface

This is Connection Part between system and PSTN(Public Switched Telephone Network), and primary circuit is usually located. Main functions are Line Interface, Telephone Connection and Line Condition Monitoring.

1 Telephone Line Connection

① Modular Plug : RJ-11C

② LIU PBA Modular Type : 623 PCB4-4

③ Line Code Length : 2500 ± 50mm

④ Line Code Color : Black

ON HOOK state Characteristic

1) DC Resistance

① DP Dial Mode (Direct Current 30mA) : 50 ~ 300ohm

② DTMF Dial Mode (Direct Current 20mA) : 50 ~ 540ohm

2) Ring Sensitivity

① Ring detection Voltage : 40Vrms ~150Vrms (condition : Current = 25mA, Frequency = 15Hz)
product Margin : 30Vrms ~150Vrms

② Ring detection Frequency : 15.3Hz ~68Hz (condition : Voltage = 45Vrms, Current = 25mA)
product Margin : 15Hz ~70Hz

③ Ring detection Current : 20mA ~ 100mA (condition : Voltage = 40Vrms, Frequency = 20Hz)
product Margin : over 15mA

3) False Ring Sound

① Ring Frequency : 750 Hz + 1020 Hz

② Ring interrupt Cycle : On/Off depending on input Ring Signal Cycle.

Scan

Pictorial signal input part: output signal of CCD passes through Bypass Cap change to ADC at HT82V26, and defined signal between HT82V26 and CHORUSm processes the Image signal. When AFE accept each pixel, CDS(Correlated Double Sampling) technique which samples arm-level twice is used on each pixel by using CIP4e signal.

2) Pictorial image processing part: read CCD Pixel data in terms of 600dpi Line and process Error Diffusion Algorithm on Text mode and Photo mode, and then store Data at Scan Buffer on PC Scan mode without algorithm.

On every mode Shading Correction and Gamma Correction are executed ahead, then processing is executed later.

* Scan Image Control Specification

① Minimum Scan Line Time : 0.7062ms

② Scan Resolution : Max. 600DPI

③ Scan Width : 216mm

④ main function

- Internal 12bit ADC
- White Shading Correction
- Gamma Correction
- CCD Interface
- 256 Gray Scale

3) CCD Operating Part : CCD Image sensor use +5V and Inverter uses +24V

- CCD Maximum Operating Frequency : 10MHz
- CCD Line time : 0.7062ms
- White Data output Voltage : 0.7V ±0.5V (Mono Copy, 0.75ms/line)
- Maximum Inverter Current : 600 mA Max.(+24V)

OPE Pannel

(1) Configuration

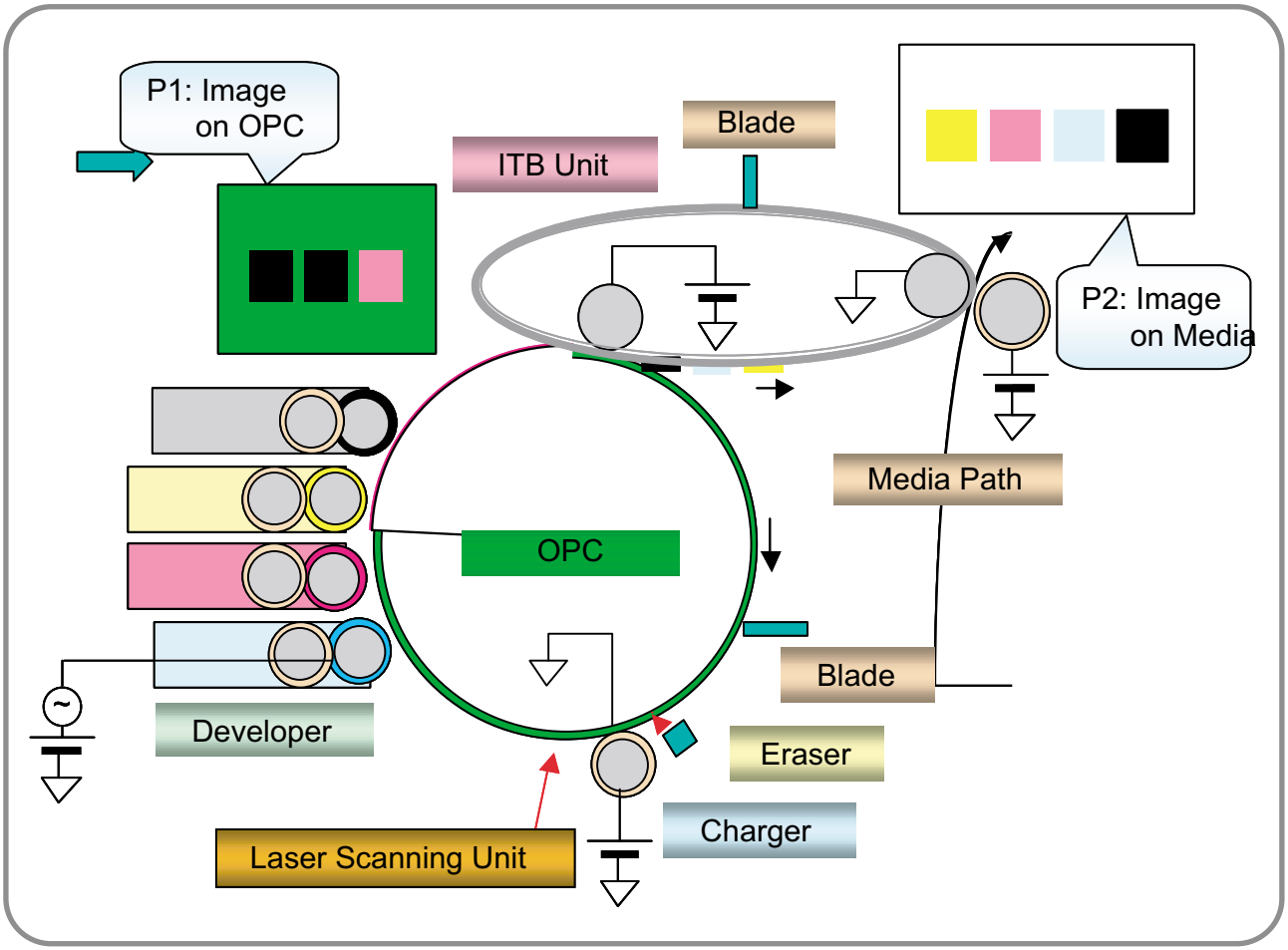
Operations Panel uses Main Control and separated OPE Chip Micom and work as inner program,
systemic operation is serial system which exchange Date with SIO Port of Main Control. OPE Panel is approximately composed of Micom part, Matrix part and LCD.

(2) Micom controller

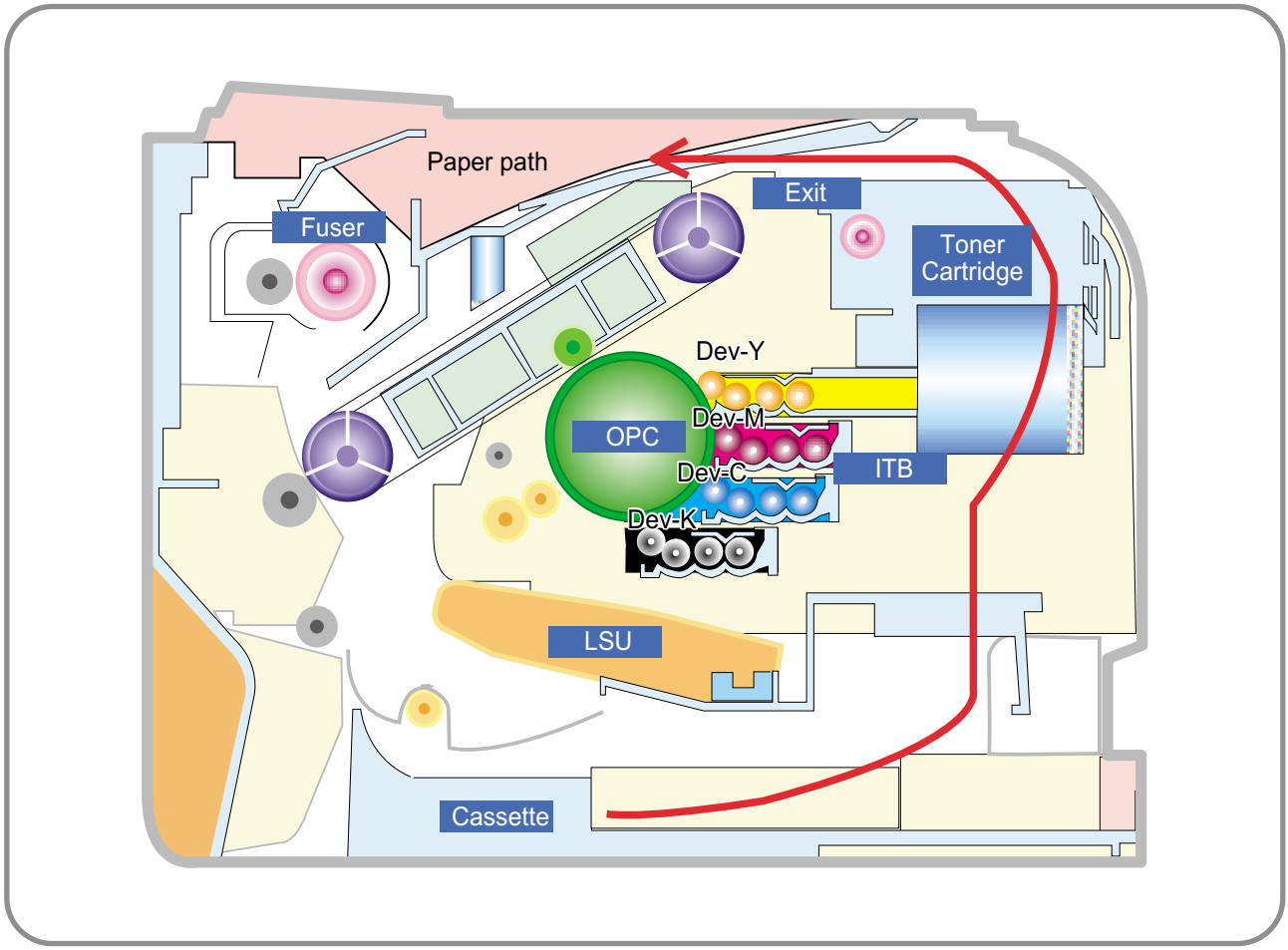
Micom has ROM, RAM, I/O Port built-in and displays and lights LCD by CPU command of Main Control Part and report Key recognition Data to Main Control Board.

EP Process

- Structure of EP Process



- System Outline



❶ Charging

- · Conductive Roller charging
- · Roller resistivity : ~ 10^5 ohm-cm
- · Applied voltage : -1.1kV
- · Charge acceptance : -520V
- · OPC coating thickness : 21um
- · OPC diameter : ⌀60mm
- · Non eraser system

1. Organic Photoconductor is charged to uniform voltage by conductive roll charging method
2. No ozone is produced because corona is not used
3. Charger roll is cleaned with cleaning roll
4. Toner remained on OPC after T1 process is cleaned by cleaning blade and retrieved into waste toner box by auger and belt driving mechanism

❷ Exposing

· One polygon motor (6 facet)
· Single beam LD (1ea)
· LD wavelength : 785nm
· Polygon motor rpm : 23747.5
· LSU energy : 0.25uJ/cm^2
· OPC exposed potential : -50V

1. Exposing is implemented by laser striking on to OPC with uniform potential
2. Laser beam is modulated according to image to be printed that is from PC
3. Latent Image is formed on OPC, which is developed with toner

❸ Developing

· Non-magnetic, mono component
· Non-contact development
· Developing bias : DC + AC
· AC peak to peak : 1.5 ~ 2.0kV
· Mass on developing roller : 550 ~ 600ug/cm^2
· Toner coulomb : 15 ~ 20uC/g
· Roller diameter : ϕ10mm
· Roller resistivity : 10^5 ~ 10^6 ohm-cm
· Process speed ratio : 1.2 (OPC=1.0)
· Color order : Y -> M -> C -> K

1. Only latent image formed by exposing process is developed with toner
2. AC + DC Voltage is being used to develop toner into latent image on OPC because non-contact developing method is adopted
3. Y, M, C, and K Images are sequentially developed onto OPC and transferred onto Intermediate Transfer Belt (hereafter ITB) to form a color image on ITB
4. Toner Bottles are used to supply toner into developer compartment
5. Toner level is being sensed to control toner supply from toner bottle to developer

❹ Transfer 1

· Multi-pass transfer
· Indirect transfer
· Transfer voltage : 0.5 ~ 2.0kV (controllable)
· Roller diameter : ϕ14mm
· Roller resistivity : ~ 10^7 ohm-cm
· Belt resistivity : 10^9 ~ 10^11 ohm-cm
· Environment sensing by Y-transfer roller
· Transfer unit life : 50K images

1. Developed Image on OPC is transferred onto ITB by T1 Process
2. T1 Voltage is positive which attract toner to ITB
3. 4 times of T1 process is required to make a color image on ITB, which means multi-pass process
4. ITB has a hole as a fiducial mark for timing. Engine control for color image is synchronous with it, ITB Home Sensing Signal

❺ Transfer 2

· Indirect transfer
· Transfer voltage : 1 ~ 4.0kV (controllable)
· Roller diameter : ϕ18.6mm
· Roller resistivity : ~ 10^7 ohm-cm
· Belt resistivity : 10^9 ~ 10^11 ohm-cm
· Transfer unit life : 50 K images

1. Color image formed on ITB is transferred onto media by T2 process
2. T2 voltage is also positive to get color image moved onto media
3. Toner remained on ITB after T2 process is cleaning by ITB cleaning blade and collected and
4. Transported and retrieved into waste toner box by auger and belt driving system
5. T2 Roll is engaged when color image is being transferred onto media. Otherwise it is disengaged. Clutch is used for driving T2 Roll engagement and disengagement

❻ Fusing

· 3 Roll system
  -> short warm-up time (45sec)
· Post Pressure Roll

1. Color Image on media is melted down and fixed into media by fusing process

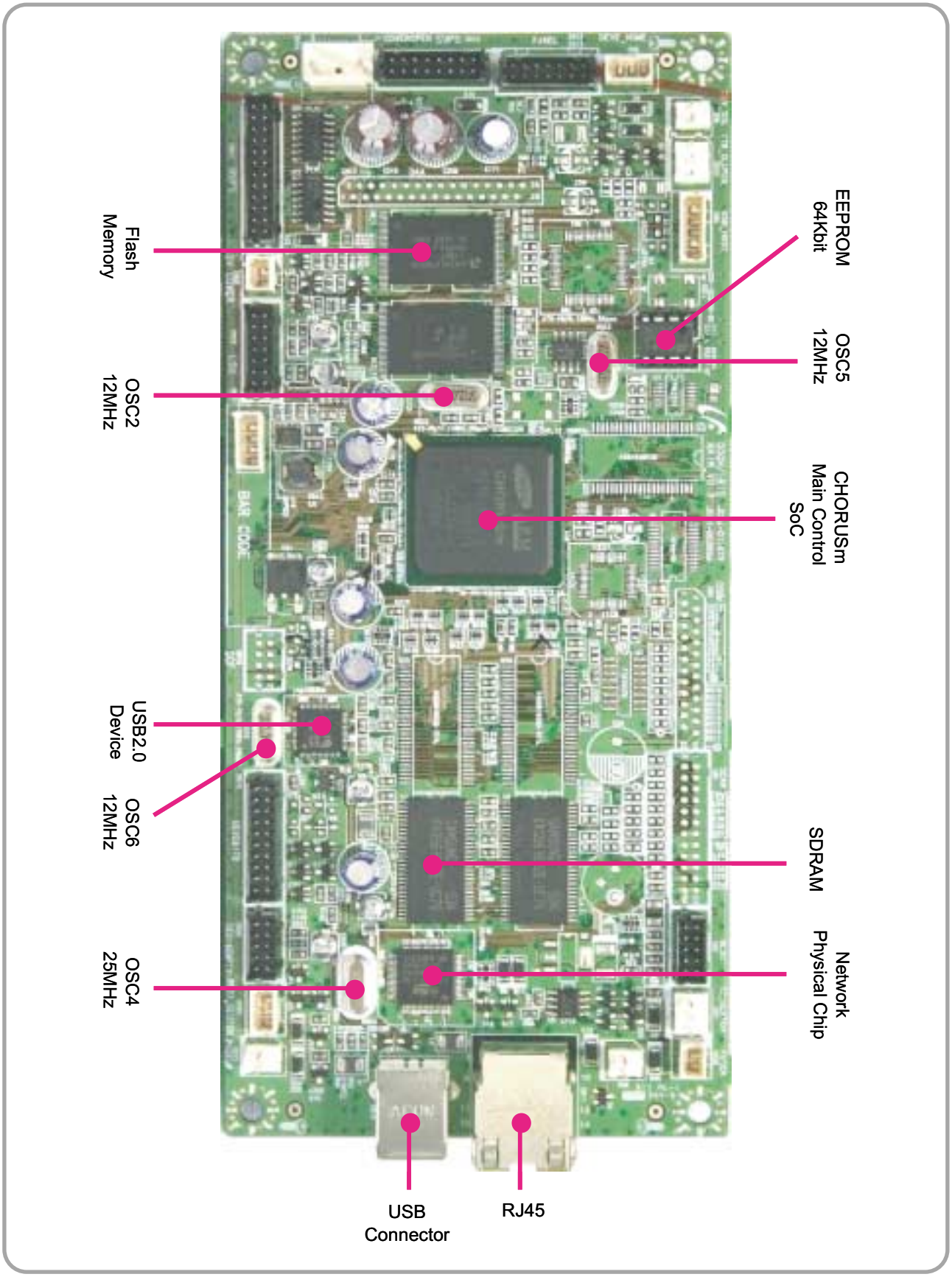
Copier Section

Copy Mode:	Black and White
Scanner Type; Maximum Size of Original: (max. width = 218 mm, max length = 400 mm)	CCD with Flatbed/Platen and ADF -Platen: 216 x 297 mm -ADF: Legal (216 x 356 mm)
Optical Resolution:	600 x 600 dpi
Copy Quality - H x V: (User selectable via Content button)	-Text : 600 x 300 dpi (default) -Text/Photo : 600 x 300 dpi -Photo : 600 x 600 dpi
Supported Media Types: Copy Speed: (SDMP = Single Document, Multiple Printout, MDSP = Multiple Document, Single Printout)	Plain, Label, Cardstock, Transparency -Platen, SDMP: 30cpm (Letter) -ADF, SDMP: 30cpm (Letter) -ADF, MDSP: 20cpm (A4, Text or Text/Photo) 10cpm (A4, Photo)
Reduce/Enlarge:	-Platen: 25% - 400% (1% increments) -ADF: 25% - 100% (1% increments)
Non-printable Area:	4 mm (Top, Bottom, and each Side)
Copy Count: (Page count displayed on LCD during copy operation)	1 to 199
Copy Modes:	Text, Text/Photo, Photo
Fixed R/E Setting:	100%, Auto-fit, 2(4)-Up
Darkness Control:	3 levels
First Copy Output Time (FCOT):	-Platen: 8.5 sec. (600 x 300 dpi) -ADF: 15 sec. (600 x 300 dpi)
Duplex Copy	-Manual from MP Tray for SCX-5330N model -Automatic Duplex Copy for SCX-5530FN model

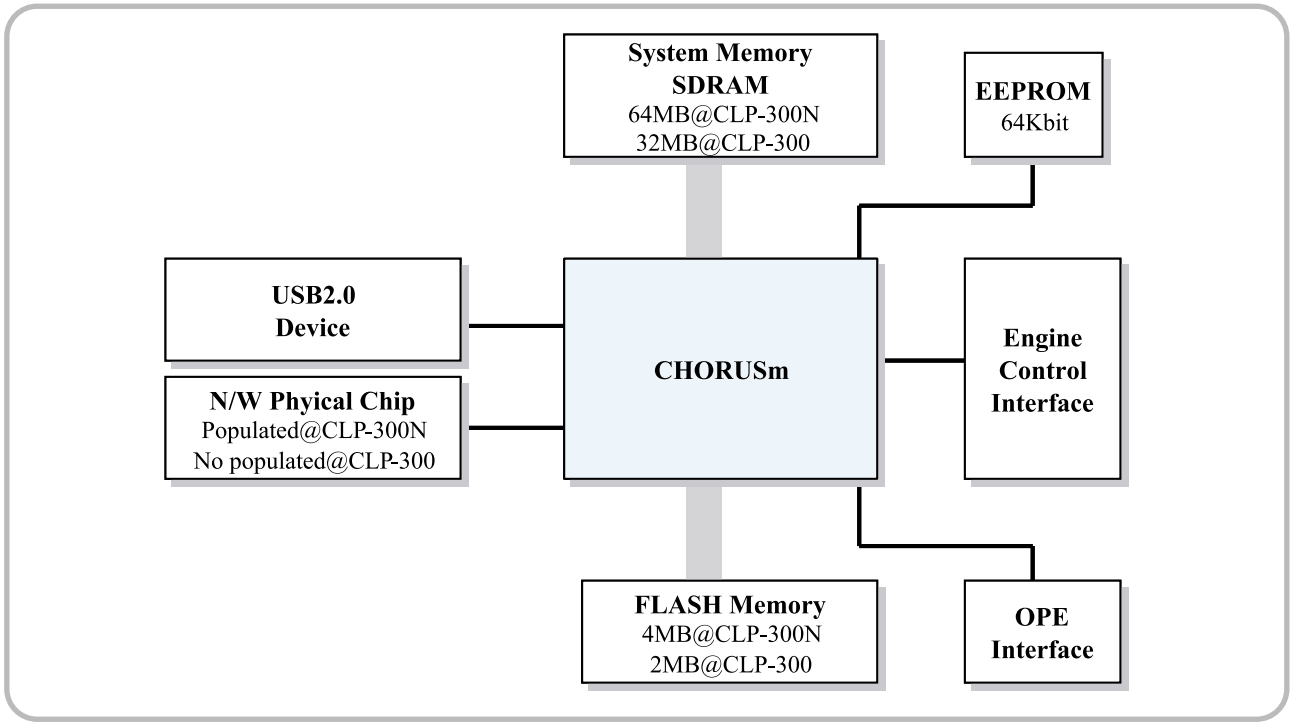
3.1.9 Telephone Section

Speed Dial:	400 Locations (46 digits maximum per location)
On-hook Dial (manual fax):	Yes
Last Number Redial:	Yes
Automatic Redial:	Yes
Pause:	Yes (using Redial key)
Ringer Volume:	Off, Low, Medium, High
Tone/Pulse:	Selectable (Tech Mode Only no Telecom certification for Pulse mode)

Main PBA


Flash Memory
OSC2 12MHz
USB2.0 Device
OSC6 12MHz
OSC4 25MHz
USB Connector
RJ45
EEPROM 64Kbit
OSC5 12MHz
CHORUSm Main Control SoC
SDRAM
Network Physical Chip

Main PBA Description



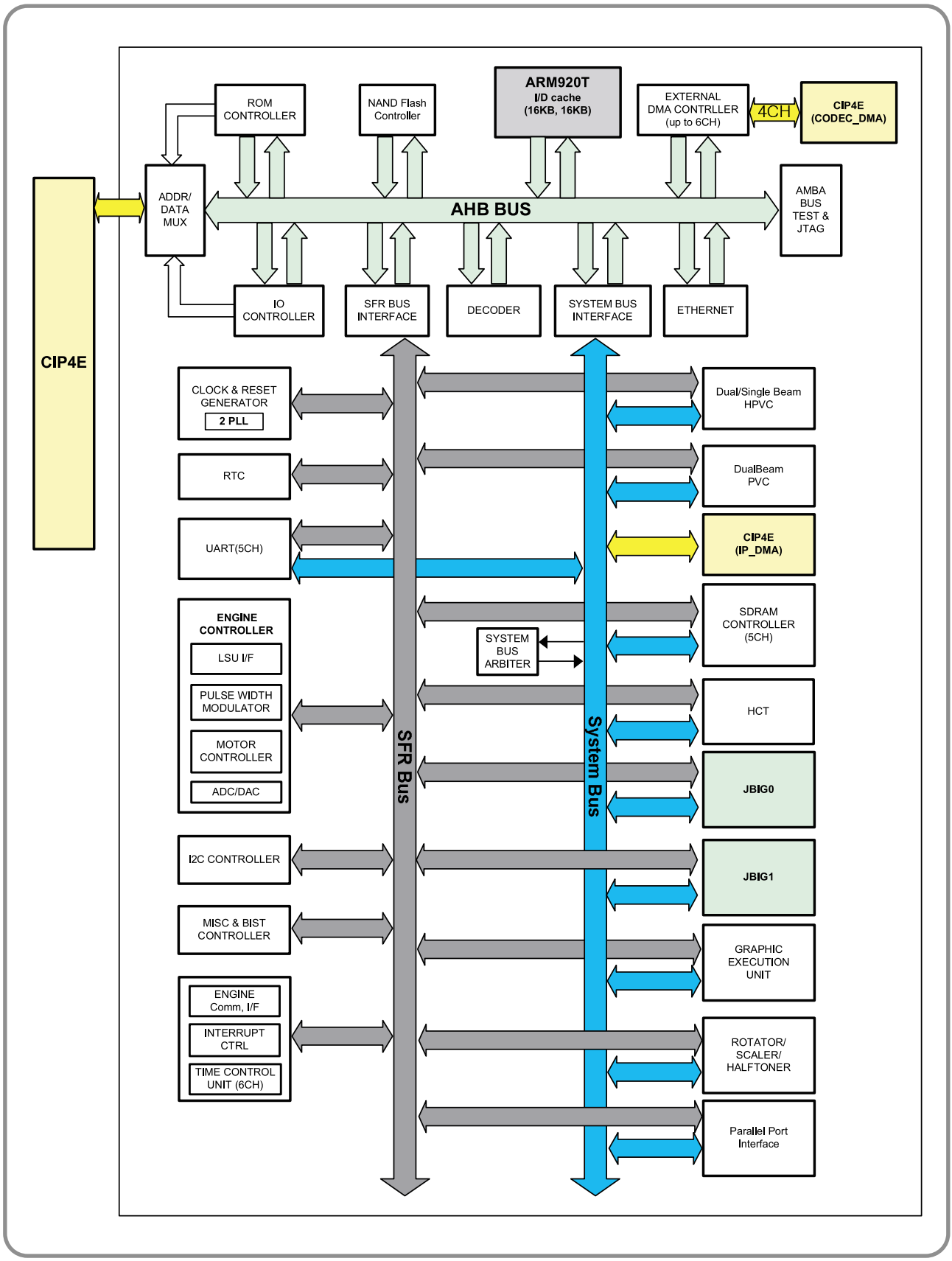
CHORUSm involves in itself the functions to control ARM Processor Core and various H/W devices. CHORUSm, therefore, controls Main PBA and all engine mechanism, processing the print job received from host and enabling the engine to print image.

≫ Function

- ▶ Process
  - · 0.13um Technology
- ▶ Package
  - · 496 PBGA
- ▶ CPU Core
  - · ARM 920T - 300MHz
  - · Cache : I-Cache 16KB, D-Cache 16KB
- ▶ System Bus
  - · 32-bit width, 100MHz
- ▶ SDRAM Controller
  - · 32-bit width, 100MHz operation
  - · 5 Banks, Up to 128MB Address space per Bank
  - · Programmable Timing to Control SDRAM A.C Characteristics
  - · Support Self Refresh for Data Retention
- ▶ ROM Controller
  - · 32-bit width, 4 Banks, Up to 16MB Address space per Bank
  - · Burst Capability
  - · Programmable Timing per Bank

- IO Controller
  - 6 Channels, Up to 16MB Address space per Bank
  - Programmable Timing per Bank
- DMA Controller
  - 6 Channels General Purpose DMA
- HPVC Controller
  - Hyper Printer Video Controller
  - High Performance DMA-based Interface to Printer Engine
  - Support Dual/Single Beam LSU, LVDS Video Output
  - Support A3, 1200dpi
- UART Controller
  - 5 Channels Indepenent Full Duplex UART
- Interrupt Controller
  - Support 6 External Interrupts
  - Support 26 Internal Interrupts
- Timer Controller
  - 6 System Timers and Watch Dog Timer for S/W Trap
- Scanner Controller
  - 300/400/600/1200dpi CIS/CCD Interface
  - Color/Mono grey image, Binary image scan support
  - 600dpi Color/Mono Copy support
  - Image Processing for High-End MFP,Digital Copier
  - MH/MR/MMR CODEC for Fax
  - Scan image : A4 1200dpi processing
  - Copy image : A4 600dpi processing
- MAC Controller
  - 10/100Mbps
  - Full IEEE 802.3 compatibility
- PPI Controller
  - IEEE1284 compliant parallel port interface
  - DMA-Based or Interrupt-Based operation
- GEU Controller
  - Graphic Engine Unit for Banding support of Printer Language
  - Scan Line Buffer, Polygon Filling
- CODEC Controller
  - 2 Channels JBIG Encoding and Decoding
- I2C Controller
  - 1 Channel, Operated at max frequency 400kHz
- RTC Controller
- Engine Controller
  - LSU Control and Interface Unit
  - 2 Channels STEP Motor Control Unit
  - 8 Channels PWM Control Unit
  - 8 Channels ADC Control Unit
  - 2 Channels DAC Control Unit

■ CHORUSm (Internal Block Diagram)



2) System Memory Block

Memory saves program and video data and print jobs received from host. Its volume is 64MB with network function and 32MB without network function. It has no separate device for extension. SDRAM is used, driven at width of 32-bit and 100MHz, and controlled by memory controller built in CHORUSm.

3) Flash Memory Block

Flash memory is the space used for saving program. Its volume is 4MB with network function and 2MB without network function. It has no separate device for extension. NOR type flash memory is used and accessed at 32-bit width burst, being controlled by the ROM controller built in CHORUSm.

4) USB2.0 Device Block

This block supports USB2.0 high speed (480Mbps). ISP1582 of Philips company is used and connected to the IO Bus of CHORUSm at 16-bit, controlled by IO controller built in CHORUSm. Through this I/O port it receives print job from host.

5) Network Block

This block has 10/100Mbps wired network function and is controlled by MAC controller built in CHORUSm. It is connected to host through physical layer chip outside, and thus receives print job from host. STE100P is used for physical layer chip.

6) EEPROM Block

System EEPROM is controlled by the I2C controller built in CHORUSm, connected to the other non-volatile memory on I2C bus. It works at the speed of 400KHz. This system EEPROM contains all drive information and production information necessary for the operation of printer. Its size is 16k-bit.

7) OPE Control

The panel is driven in the form of PIO by GPIO controller built in CHORUSm. OPE consists of one key and four monochrome LED, and one dual LED.

8) LSU Control

Laser Scanning Unit is controlled by LSU controller built in CHORUSm. It makes use of all functions such as Polygon Mirror Motor Control necessary for driving LSU and Synchronized Signal Generation Control, and helps to scan laser beam on the photosensitive drum to form latent image.

9) BLDC Control

It is controlled by BLDC controller built in CHORUSm. It controls the drive of printer mechanism and helps it to be driven at an equal speed.

10) Sensors Control

GPIO controller built in CHORUSm collects the status of all sensors. According to this status of sensors, it controls printer mechanism to help normal printing. There are sensors such as Paper Empty Sensor, Registration Sensor and Developer Home Sensor, etc.

GPIO Controller built in CHORUSm controls all clutches, which help printer to do print job normally. There are clutches such as Paper Pick-up Clutch, Registration Clutch, Developer Home Clutch, ITB Clutch, T2 Clutch, Fuser Clutch, Developer Toner Supply Clutch, etc.

12) PWM Control

PWM Controller built in CHORUSm controls the parts that require PWM for normal printing, such as BLDC drive speed and HVPS high voltage level, etc.

13) ADC Control

It is controlled by ADC Controller built in CHORUSm, and is used for perception of charged voltage and current, 1st and 2nd transfer voltage and current, fusing temperature, used-up toner and toner amount, and interior temperature, etc.

14) DAC Control

It is controlled by DAC Controller built in CHORUSm and used to set standard level of light amount of LSU Laser Diode.

SMPS(Switching Mode Power Supply) PBA

SMPS is consisted of SMPS part which supplies DC power for driving system and AC Heat Control part which supplies power to Fuser. Standard TYPE III is used.

1) DC Output

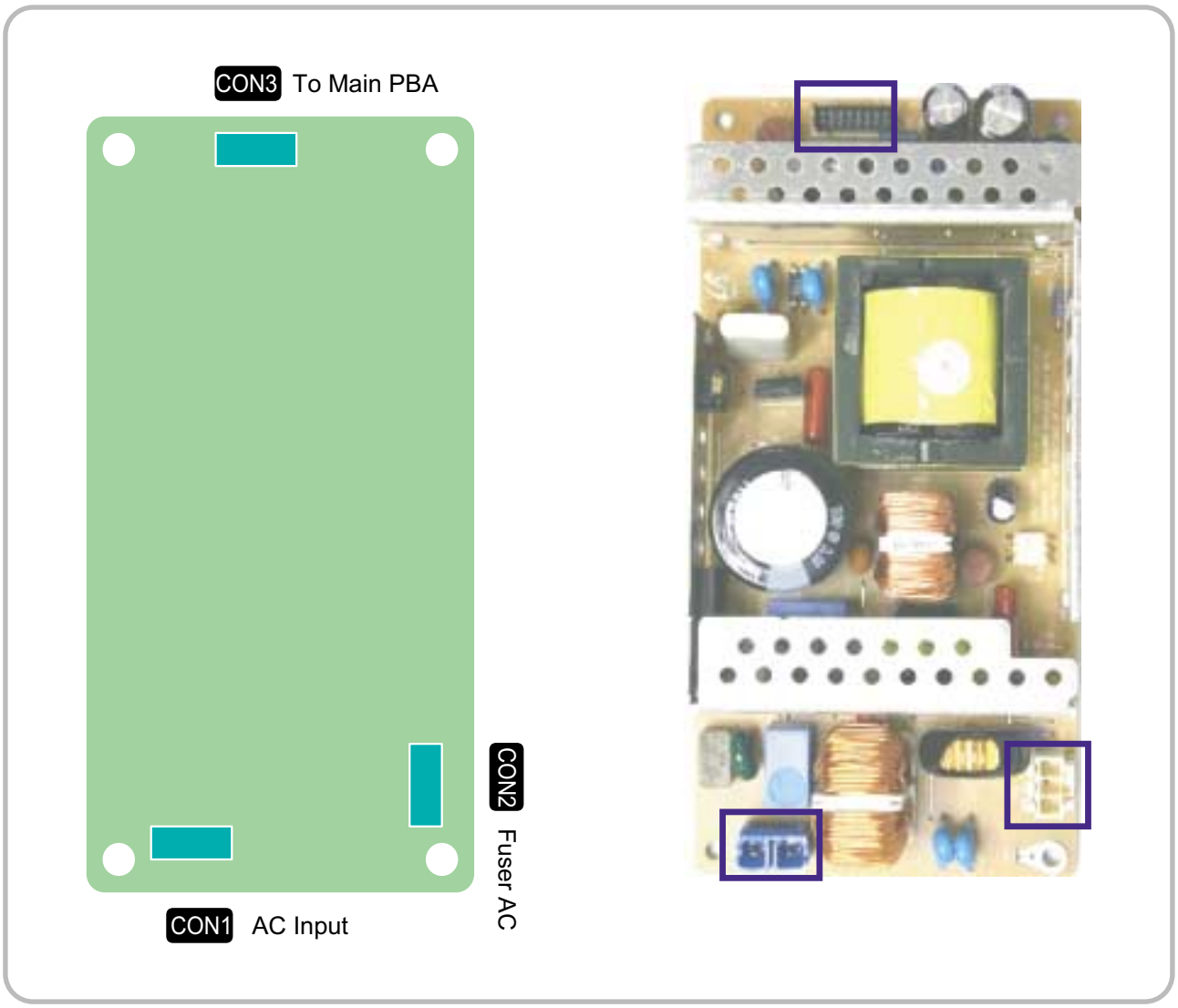
· Main Controller PBA, OP Panel, BLDC, Sensors, Clutches, Other PBAs

2) AC Output

· Fuser Unit(Heat Lamp, Thermostat)

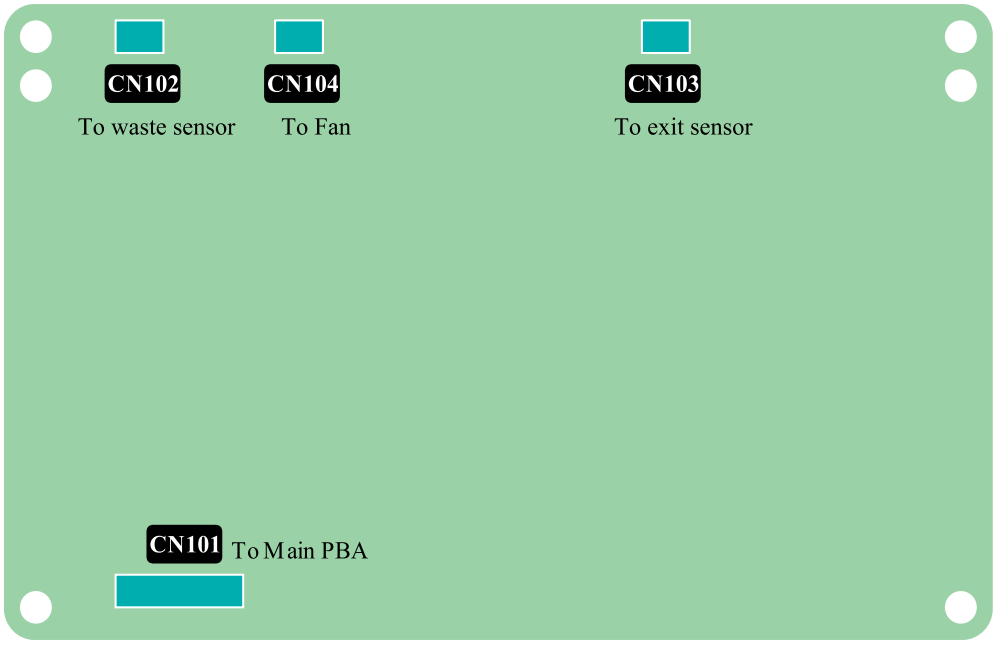
3) Output Voltage

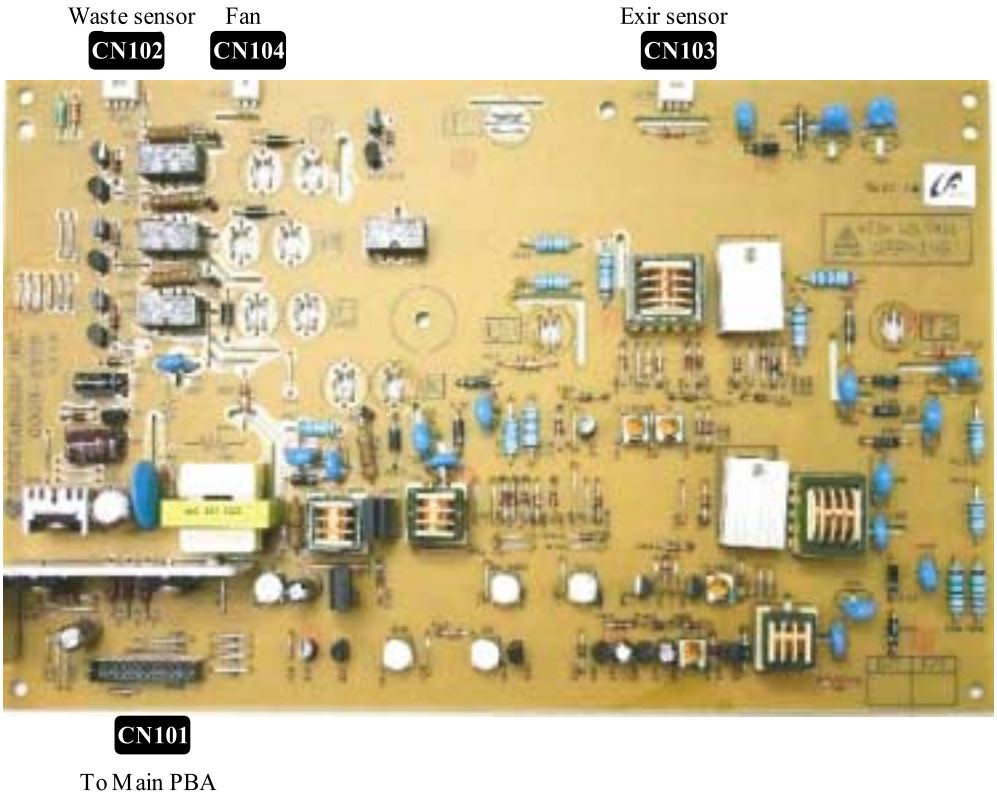
CHANNEL	+5.0V	+24V	+24VF
V_out	+5.0V +/-5%	+24.0V +15%/-10%	+24.0V +15%/-10%
Load	MicroController, CMOS, LOGIC	LSU	MOTOR, CLUTCH, HVPS



HVPS(High Voltage Power Supply) PBA

HVPS PBA generates high voltage of charger, supply, T1 and T2 which is supplied to Developer, ensuring optimum condition for image formation. HVPS receives input of 24V and generates high voltage, supplying it to Toner, OPC, Cartridge, ITB Unit and Transfer Roller.





1) Charger Voltage : Charger

- Function: voltage that charges OPC surface up to ?500V~ -800V.
- Output voltage: -1.0KV ~ -2.0KV DC ± 3%
- Error type: if the voltage fails to be output to Charger Roll, OPC surface will not be charged, and the toner on the developer roller will be transferred to OPC Drum, printing black paper.

2) 1st Transfer High Voltage : T1(+)

- Function: voltage necessary for transferring toner developed on OPC Drum surface onto ITB.
- Output voltage: Max +2.0KV ± 3%(Duty variable, no load)
- ERROR type: if T1(+) output fails, the toner on OPC drum will not be transferred to ITB normally and the image will be blurred.

3) 2nd Transfer High Voltage : T2(+)

- Function: voltage used to transfer the toner primarily transferred on ITB again onto paper.
- Output voltage: Max +5.0KV ± 3%(Duty variable, no load)
- ERROR type: if T2(+) output fails, the toner on ITB will not be transferred to paper normally and the image will be blurred.

4) T2 Cleaning Voltage : Clean : T2(-)

- Function: prevent reverse side of paper from being dirtied, by recovering the negatively charged toner remaining at Transfer Roller and sending it onto ITB.
- Output voltage: with no feedback control, output fixed voltage(-1300V +/- 15%)
- ERROR type: reverse side of paper will be dirtied.

5) Supplying Voltage : Supply AC+DC(-)

- Function: voltage that makes toner to develop on the area exposed by LSU by means of potential difference, output will be the voltage of AC+DC overlapped form.
- Output voltage: AC 600V ~ 2000V p-p +/-1.5%
  DC -50V ~ -600V DC +/- 3%
- ERROR type: 1. if supply is GND, density will be extremely low.
  2. if supply is floating (for insecure terminal contact), density will be down so slightly that it is impossible to make out with naked eyes.

6) Developing Voltage : Deve AC+DC(-)

- Function: voltage that supplies toner to Developing Roller
- Output voltage: AC 300V ~ 1700Vp-p ± 1.5% (supply voltage is connected to ZENER Diode 300V)
  DC -50V ~ -600V DC +/- 3%
- ERROR type: 1. if Deve is GND, density will be extremely down.
  2. if Deve is floating (for insecure terminal contact), density will be extremely down.

CRUM

■ In the case of Refill Toner Install

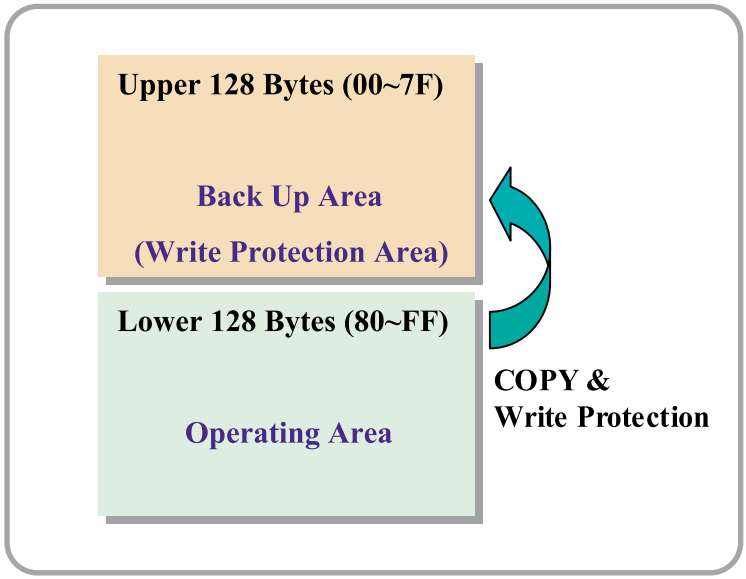
1) Perception of Refill Cartridge (when power is on or the cover is closed)
End of Life / life span data initialization -> judge to be Refill Cartridge
End of Life / life exhausted (simple refill) -> stop printing caused by life exhaustion

2) Operating

It is impossible to control appropriate development parameters, for there's no toner specification data.
It runs with the setting of default development parameter. (Image quality will be degraded, for the lack of appropriate respond to the change of time and environment.)

3) Service Response

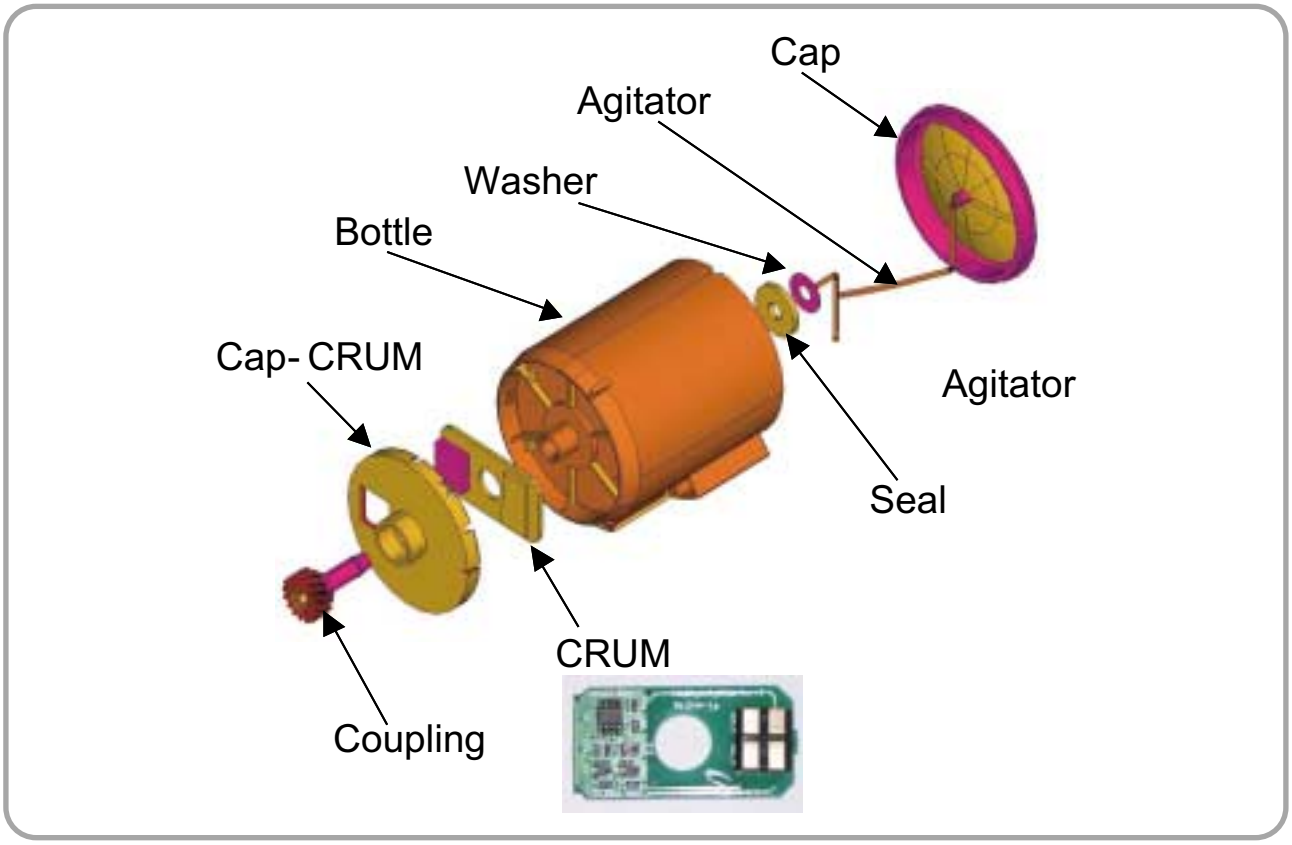
It is possible to response appropriately, for the information of cartridge life is saved at Back Up Area.



■ Process after CRU life expiration

1) Record the information of End of Life.
2) Copy the information of Operating Area into Back up Area.
3) Write-Protect Back up Area.
4) Clear some information of Operation Area.
-> Supplier/Model Name/MFC date/Serial Number (Manufacture Information)
-> Let cartridge refiller initialize manufacture information and life span information.

■ CRUM Position



General Description

This chapter is the product specification for the Phaser 6110 MFP. The Phaser 6110 MFP is a Color Laser MFP. The Phaser 6110 MFP is a full feature multi functional printer (MFP). Phaser 6110 MFP is developed for two target users. Those are small office users who sometimes need color printouts, and medium business users who mainly use B/W printouts. The main product concept is “the world smallest and lightest color laser printer”. This model has 16ppm B/W print-speed and 4ppm color print-speed, 2400 x 600 dpi class (optical 600 x 600 dpi) color laser printer.

Controller

-The video controller board is located on the right side of the printer.

-Basic Memory is 32 Mbytes SDRAM.

-Field F/W upgradeable FLASH ROM firmware for controller, 1024 byte EEPROM

-Printing Resolution :

Native 600 x 600 dpi standard

Resolution can be enhanced up to 2400 x 600 dpi class, 1200 x 600 dpi (default), 600 x 600 dpi

Processor

CHORUSm (300Mhz), Proprietary SOC

Printer Language Emulations

SPL-Color

Memory

The controller has 32 MB SDRAM and 4 MB flash ROM on Board.

Interfaces

The system supports the following standard interfaces:

-One USB port

- USB v.2.0 compliant

- Color-coded to meet WHQL requirements, connector must be Pantone 426C

One 10/100 BaseT network connector

- The printer supports an internal Network Interface that can be installed pre-configured on the video controller board at the factory. This supports all of the major Network Operating Systems such as the Novell NetWare, TCP/IP, etc. Details of the network specification will be provided separately.

OP Panel

-4in1 OP panel : FAX + COPY+ SCAN + PRINTER

-3in1 OP panel : COPY+ SCAN + PRINTER

-16 x 2 LINE CHARACTER LCD

-MODE (FAX, COPY, SCAN)

-KEYTYPE: CARBON COATING S/W

Periodic Replacing Parts

Xerox shall specify parts requiring replacement and the frequency of replacement. The parts identified may be deemed customer replaceable parts. Periodic replacement parts shall be recommended as follows:

Item(s)	**Pages Printed**
Black Toner Cartridge	Approx. 2,000 pages*
Color Toner Cartridge	Approx. 1,000 pages
Imaging unit	Approx. 10,000 black pages or Approx. 12,500 color pages
Waste Toner Container	Approx. 5,000 images** Approx. 1,250 (full color 5% images)
Pick up roll	Approx. 50,000 pages
Fuser Unit	Approx. 10,000 black pages or Approx. 50,000 color pages
T2 Roller	Approx. 100,000 pages
ITB	Approx. 60,000 black pages or 15,000 color pages

* Average A4-/letter-sized page count based on 5% coverage of individual colors on each page. Usage conditions and print patterns may cause results to vary.
** Image counts based on one color on each page. If you print documents in full color (Cyan, Magenta, Yellow, Black), the life of this item will be reduced by 25%.

Power Switch

The Switch is located at rear-side of printer and must be marked to indicate on and off.

Sensor

Paper empty (Cassette)

CRUMS

The Phaser 6110 MFP engine will be equipped with electronics that can read and write data into NVRAMs otherwise known as CRUMs that reside within 1) C, M, Y, K Toner cartridges and 2) Imaging kit (Developer, OPC, ITB). The CRUM has a company ID, and Xerox electronics logo.

The toner CRUM also identifies the type of toner cartridge (Standard or High Capacity). The CRUMs contain fixed data such as the low warning point, specified life point, and hard stop point (on toner, not on IBT unit) and also store the current life count (pages count, pixels count, images count) and % of usage (gas gauge) data.

LOW / OUT Behavior for consumables

The consumable low and out behavior on Phaser 6110 MFP engine is specified by SEC.

FP message	Device for life end detection	Law(90%)	Life(100%)	Hard stop	Reset to 0
Toner	CRUM	Yes	Yes	Yes(115%)	No
Imaging Kit	CRUM	Yes	Yes	No	No
Fuser	No	Yes	Yes	No	Yes
T2 Roller	No	Yes	Yes	No	Yes
Pick-up	No	No	No	No	No

S/W Structure and Descriptions

Overview

The software of Dove system is constructed with

1) Host Software part that the application software operated in Window and Web Environment, and

2) Firmware parts that is a Embedded software controls printing job.

Architecture

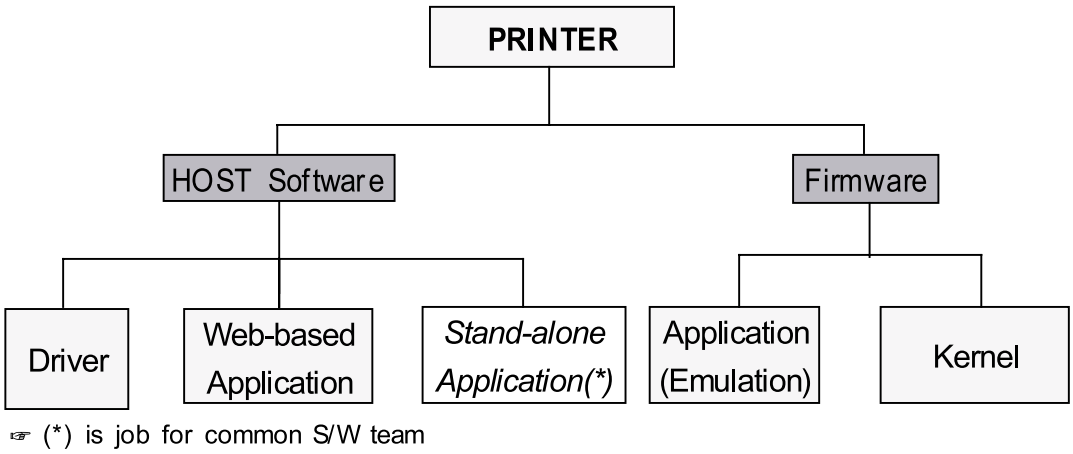


Fig. 3.4-1 SW Tree Structure

Host Software is made up of

1. Graphic User Interface that offers the various editing functions to user in Host,
2. Driver that translates the received document to a Printing Command language which printer can understand and transfers data to spooler,
3. Stand-alone Application that offers the various printing application, DMS(Document Management System), RCP(Remote Control Panel), Printer Status Monitor, Network Management in Window system,
4. Web-based-Application that offers the same functions as Stand-alone Application and RDC(Remote Diagnosis Control) in Web environment.

Firmware is made up of

1. Application (Emulation) that is a interpreter translate data received from Host to a printing language (GDI, etc.) to be able to make the user to take same output as originally one what composed in Host.
2. Kernel that control and management the whole procedure include of Control flow and Printing Job before transfer to

Data and Control Flow

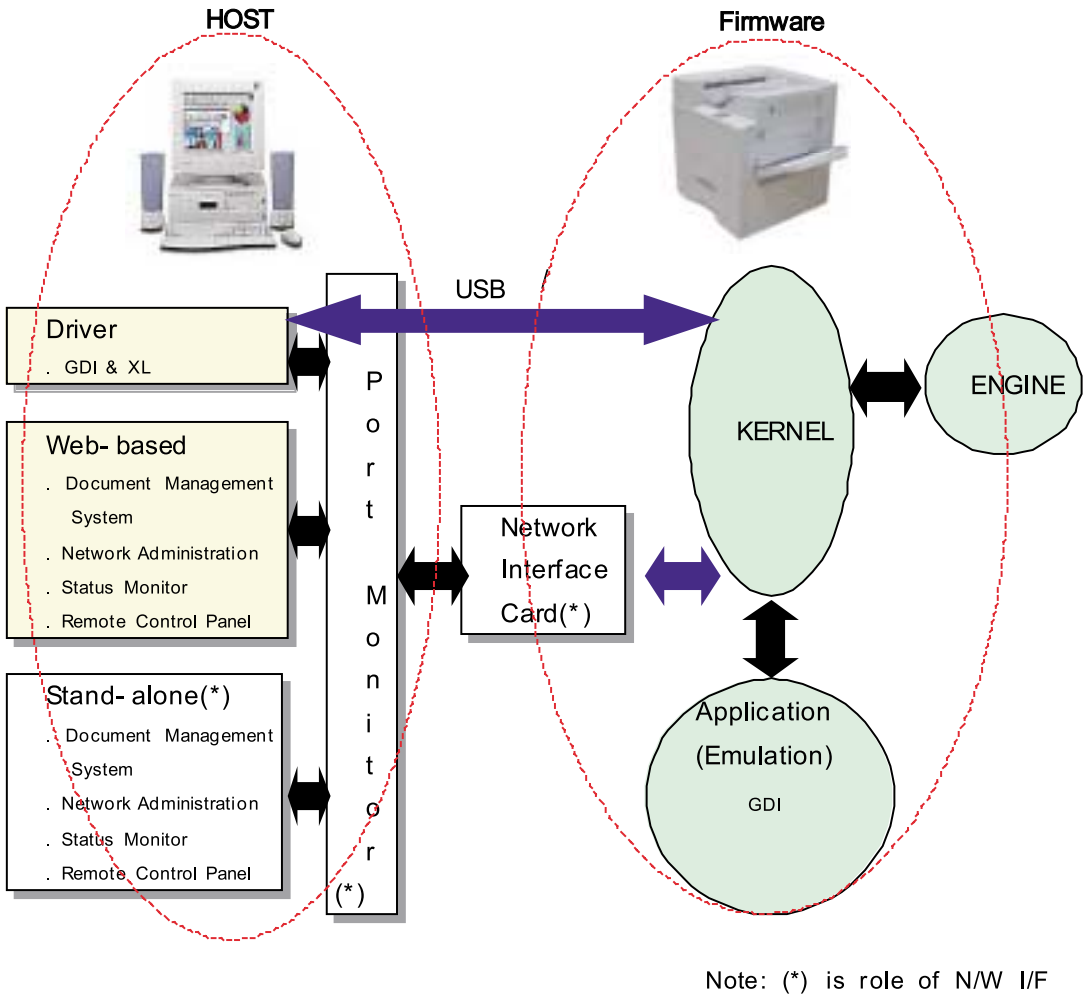


Fig. 3.4-2 Data and Control Flow

The above Block Diagram is explained that:

Host Side is made up of

1. Driver that is Windows application software translate printed data to one of printer language and create spooler file,
2. Web-based Application that offer a various printer additional functions, management of printing job, printer administration, Status monitor to monitoring the printer status by real time in Web, independent environment on OS.
3. Stand-alone Application that is a similar Window software as same as above 2,
4. Port Monitor that manages the network communication between spooler and Network Interface Card, or various additional application and Network Interface Card,(this is, at first, make communication logical port, manage the data, transfer them from spooler to network port, and offer the result of printing).

Firmware Side is made up of

1. Network Interface Card is that relay the communication between Host and kernel using various network protocol,
2. Kernel is that manages the flow control of emulation procedure, receiving data from Host or Network card and printing with engine & rendering job,
3. Emulation is that interprets the various output data from selected emulation,
4. Engine is that prints rendered bit-map data to paper with required size and type by Kernel.

And then, for Job Spooling function for Multi-User, Multi-Printing that is occurred in Network printing and various additional printing functions, this Kernel use max. 10 Queuing systems in a memory.

In Printing, the two procedures are

(1) Case of using USB Port

① After user start to print the wanted document to compressed GDI bit-map data, Driver translate the all graphic data of it and send data to host spooler. And then the spooler sends the data stream to the printer via parallel port or USB port.

② Kernel receives this data from Host, and then select emulation fit to data and start selected one. After emulation job end, Kernel sends the output bit-map data to Engine using Printer Video Controller (by clock type for LSU).

③ Engine print the received data to required paper with the sequential developing process.

(2) Case of using Network Interface Card

① After user start to print the wanted document to compressed GDI bit-map data, Driver translate the all graphic data of it and send data to host spooler.

② If so, Port monitor managing network port receives data from spooler and sends a data stream to the Network Interface Card.

③ Network interface card receives it and send to Kernel part,

④ Kernel receives this data from Host, and then select emulation fit to data and start selected one. After emulation job end, Kernel sends the output bit-map data to Engine using Printer Video Controller (by clock type for LSU).

⑤ Engine print the received data to required paper with the sequential developing process.

The additional printing function are realized in

(1) Web environment

(2) Window environment.

On addition, Kernel informs a status of printing status and printer status to user made printing job with the Status Monitor.

Alarm Shortage

	90 ~ 100 %	100 ~ 110 %	110 %~
Toner (C,M,Y,K)	Ready Yellow Toner Low	Replace Yellow Toner	Yellow Toner Empty
Transfer Belt	Replace Transfer Belt Soon	Replace Transfer Belt	
Fuser	Replace Fuser Soon	Replace Fuser	
Pickup Rollers (MP/Tray1/Tray2)		Replace MP Pick-Roller	

Error status

1. Missing/Invalid Consumables
   · Install Cyan (Magenta, Yellow, Black) Toner
   · Install Transfer Belt
   · Invalid Cyan (Magenta, Yellow, Black) Toner
   · Invalid Transfer Belt

2. Paper Empty/Mismatch
   · Paper Empty In MP(Tray1, Tray2)
   · Load A4 In MP(Tray1, Tray2)

3. Paper JAM
   · Jam 0 In MP(Tray1, Tray2)
   · Jam Inside Printer
   · Jam In Exit Area

4. Cover
   · Cover Open : Message toggles between
   "Cover Open" and "Install Transfer Belt"
   · SCF Cove Open

5. Service Call : Unrecoverable Error
   · Engine LSU Error
   · Main Motor Error / Dev. Motor Error
   · Engine Fuser Over(Low) Heat Error
   · Rear Fan Error / Left Fan Error / SMPS Fan Error

6. Others
   · Memory Overflow Error
   · Ready IP Conflict

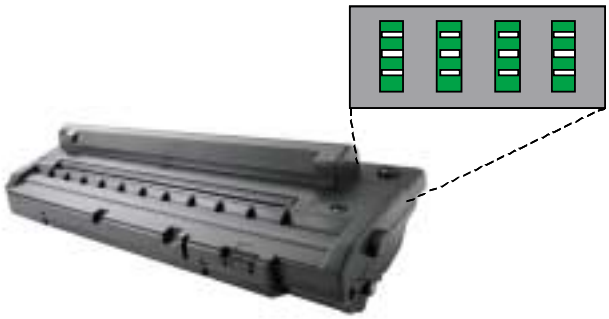
CRUM Overview

- Stands for “Customer Replaceable Unit Monitor”

- EEPROM is used for CRUM Memory.

- CRUM stores various information on consumables (including consumables’ life).

- In Phaser 6110 MFP total five CRUM’s are used (four on toner cartridges and one on transfer belt)



CRUM stores the following information

· Model Name
· Supplier ID
· Serial Number
· Company ID
· MFG Date
· Capacity
· Page Count
  - Toner Cartridge and Transfer Belt
  - Indicates how many pages are printed by using the consumable

· Dot Count
  - Toner Cartridge Only
  - Indicates how many dots are printed by using the toner cartridge

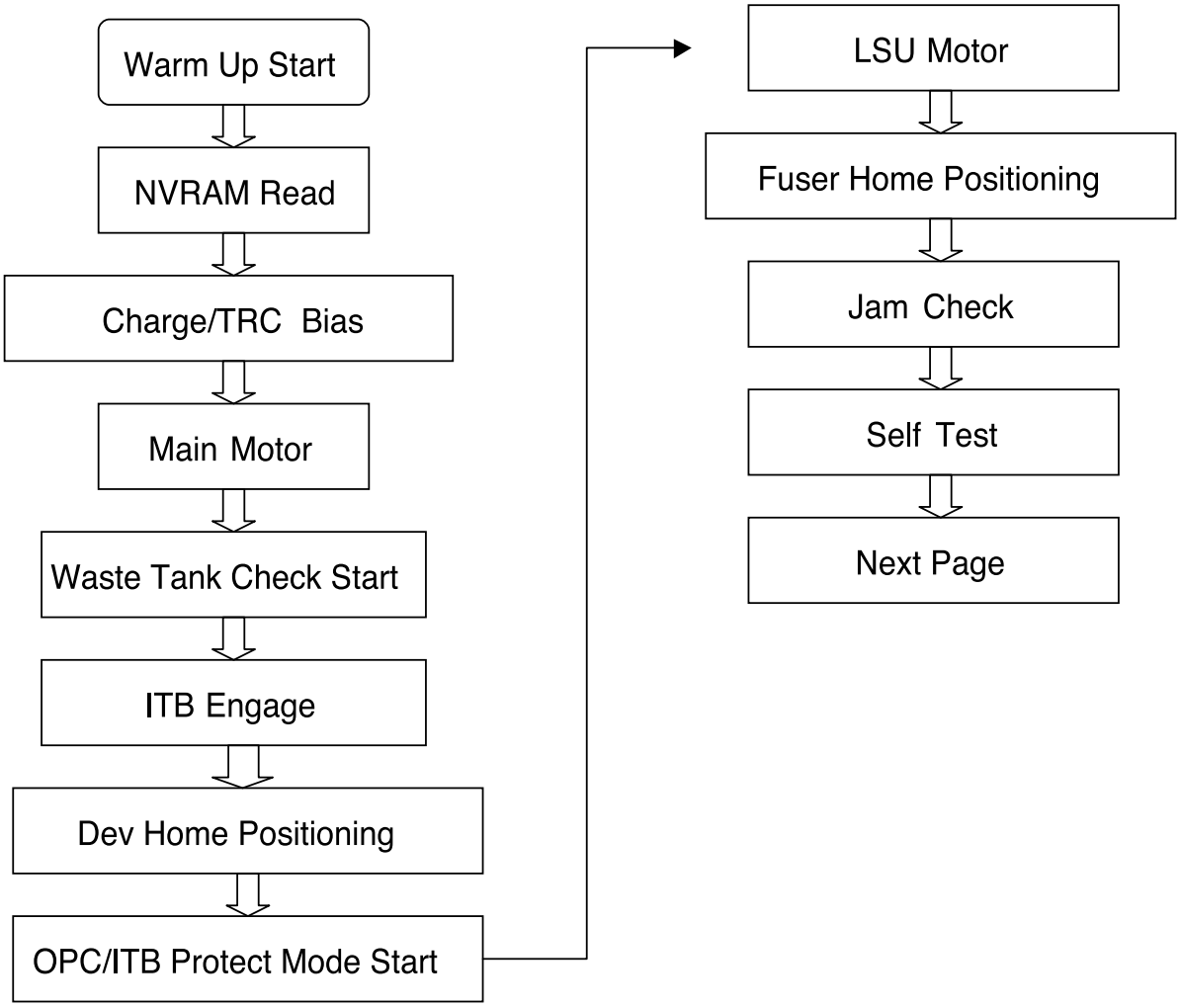
FW Upgrade

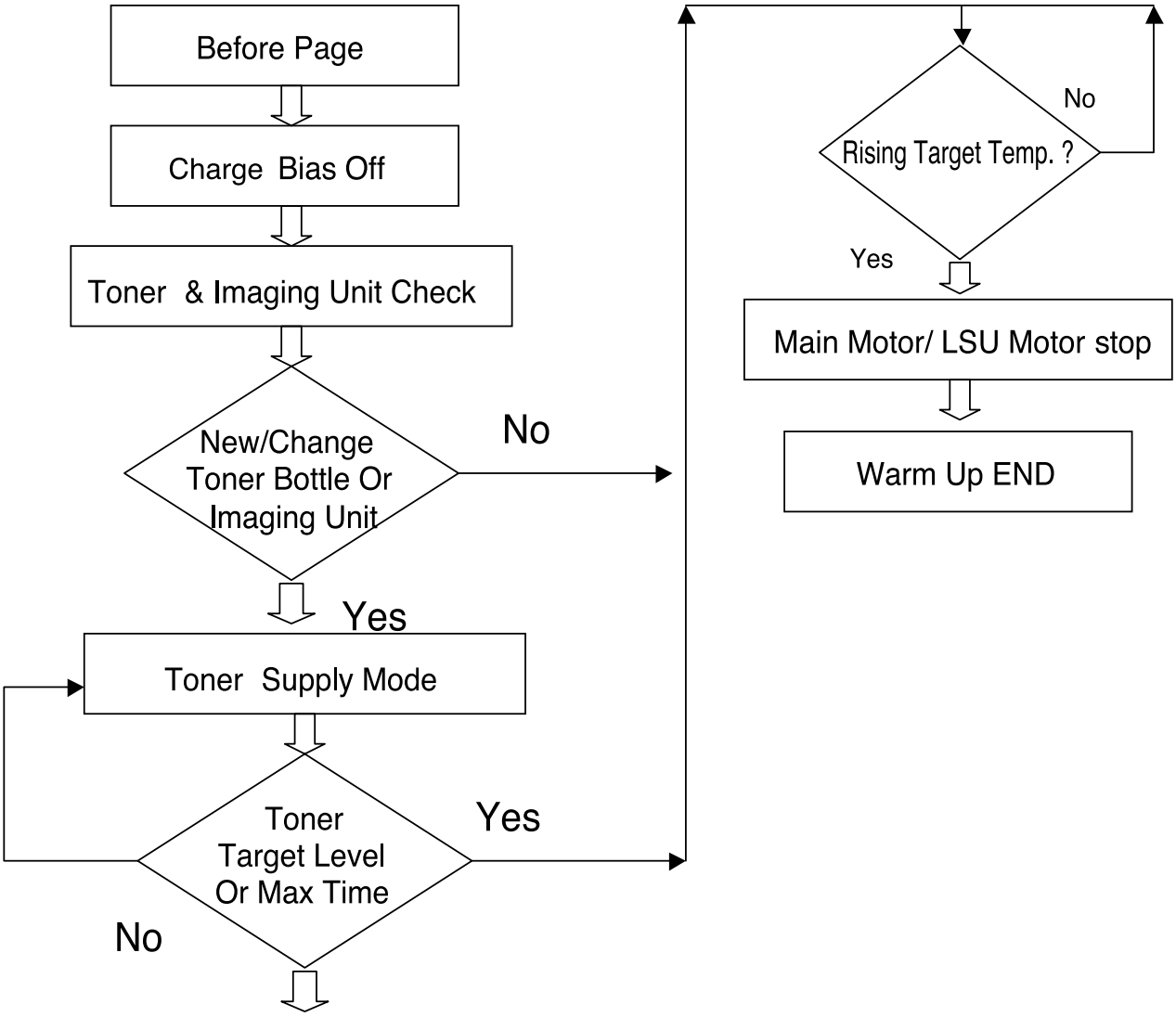
· Via USB or Network (SWS/SWAS)

· You can upgrade F/W via USB or Network whenever the printer is “Ready”

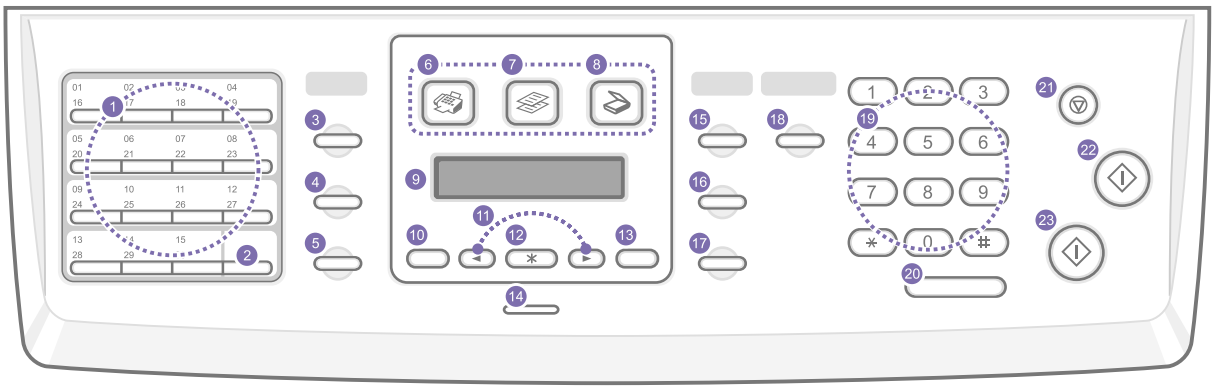
· Via Using F/W Download Mode :
  Step 1) Power on while pressing the Online Key
  Step 2) Press Online Key one more time if “Press Key Again” is displayed on LCD
  Step 3) Download F/W via USB

Initailize Flow




Before Page
Charge Bias Off
Toner & Imaging Unit Check
New/Change Toner Bottle Or Imaging Unit
No
Yes
Toner Supply Mode
Toner Target Level Or Max Time
Yes
No
Rising Target Temp. ?
No
Yes
Main Motor/ LSU Motor stop
Warm Up END

Control Panel



1	**Speed buttons:** Allows you to store frequently-dialed fax numbers and enter them with the touch of a few buttons.
2	**Shift:** Allows you to shift the speed buttons to access numbers 16 through 30.
3	**Phone Book:** Allows you to store frequently used fax numbers in memory or search for stored fax numbers. Also allows you to print an Phone Book list.
4	**Resolution:** Adjusts the document resolution for the current fax job.
5	**Redial/Pause:** In Standby mode, redials the last number, or in Edit mode, inserts a pause into a fax number.
6	**Fax:** Activates Fax mode.
7	**Copy:** Activates Copy mode.
8	**Scan:** Activates Scan mode.
9	**Display:** Shows the current status and prompts during an operation.
10	**Menu:** Enters Menu mode and scrolls through the available menus.
11	**Scroll buttons:** Scroll through the options available in the selected menu, and increase or decrease values.

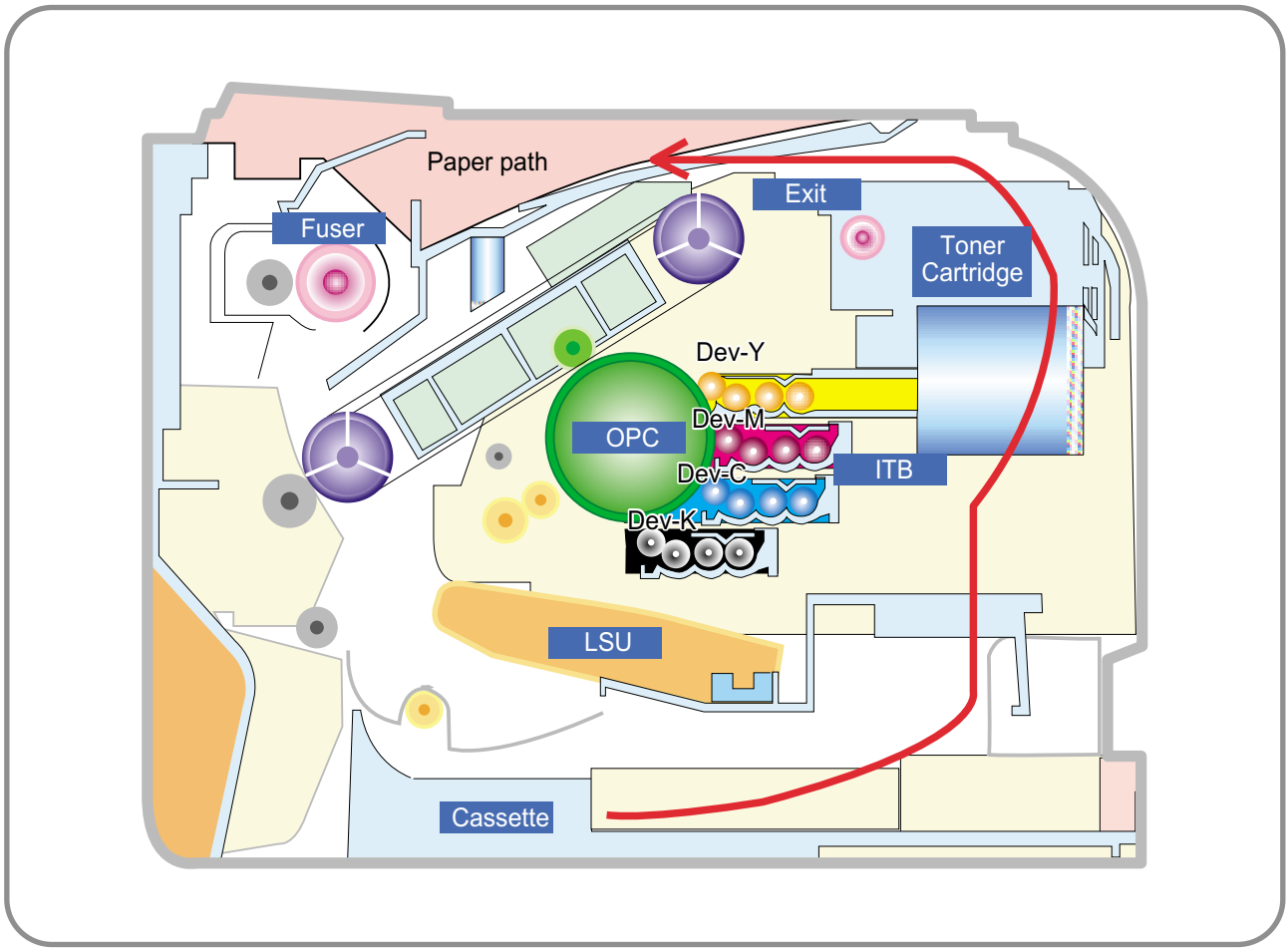
12	**OK:** Confirms the selection on the screen.
13	**Back:** Sends you back to the upper menu level.
14	**Status:** Shows the status of your machine.
15	**Darkness:** Adjusts the document brightness for the current copy job.
16	**Original Type:** Selects the document type for the current copy job.
17	**Reduce/Enlarge:** Makes a copy smaller or larger than the original.
18	**USB Print:** Allows you to directly print files stored on a USB Memory device when it is inserted into the USB memory port on the front of your machine.
19	**Number keypad:** dials a number or enters alphanumeric characters.
20	**On Hook Dial:** Engages the telephone line.
21	**Stop/Clear:** Stops an operation at any time. In Standby mode, clears/cancels the copy options, such as the darkness, the document type setting, the copy size, and the number of copies.
22	**Color Start:** Starts a job in Color mode.
23	**Black Start:** Starts a job in Black and White mode.

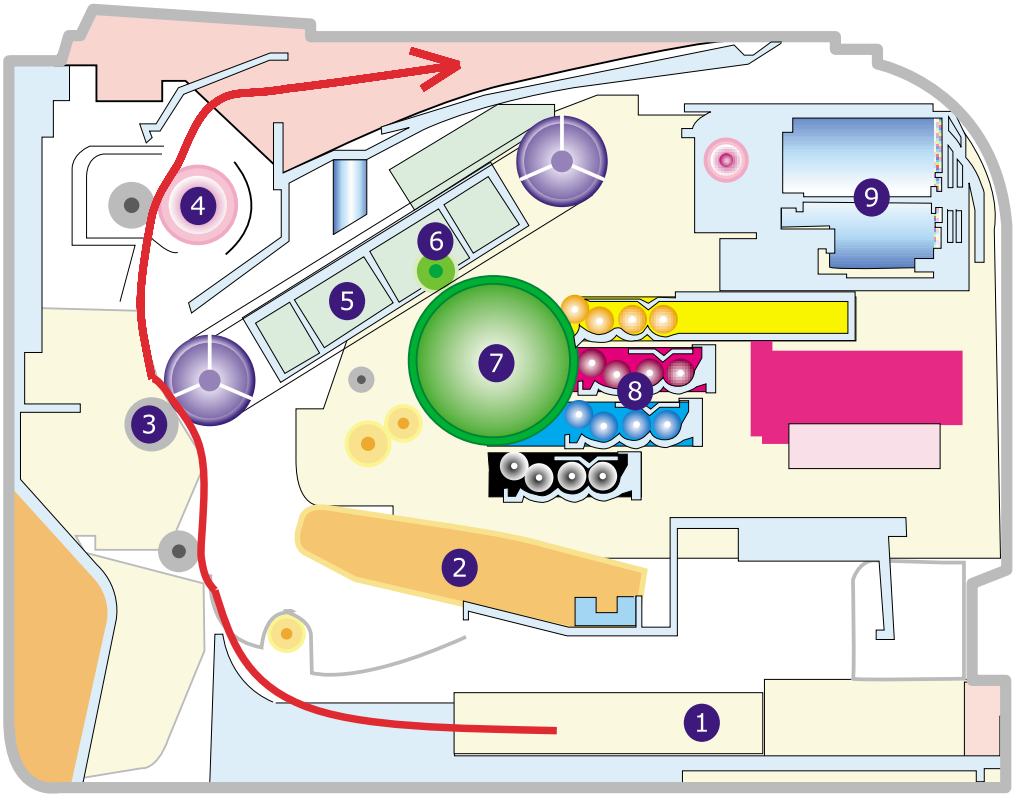
LED Function

The Status LED on the control panel shows the status of your machine.
See the table below to know your machine's status.

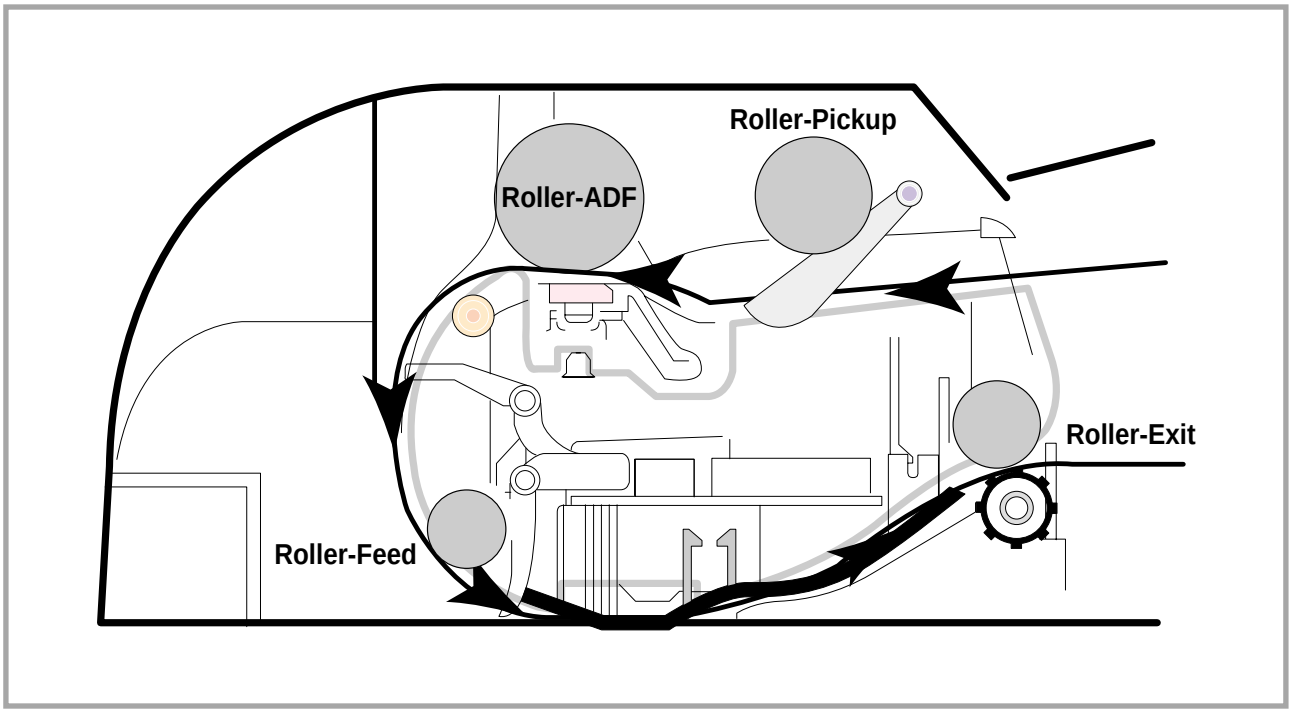
Status" LED		Description
Off		· The machine is off-line. · The machine is in Power Save mode. When data is received, or any button is pressed, it switches to on-line automatically.
Green	On	The machine is on-line and can be used.
	Blink	· When the backlight slowly blinks, the machine is receiving data from the computer. · When the backlight fast blinks, the machine is printing data.
Red	On	· The toner cartridge is totally exhausted. Remove the old toner cartridge and install a new one. · A paper jam has occurred. To solve the problem. · The front cover is open. Close the front cover. · There is no paper in the tray. Load paper in the tray. · The machine has stopped due to a major error. Check the display message.
	Blink	· A minor error occurs and the machine is waiting an error to be cleared. Check the display message. When the problem is cleared, the machine resumes. · The toner cartridge is low. Order a new toner cartridge. You can temporarily improve print quality by redistributing the toner.

Section 11 Component Location


Paper path
Exit
Fuser
Toner Cartridge
Dev-Y
Dev-M
OPC
Dev-C
ITB
Dev-K
LSU
Cassette



1. Paper Input (Cassette)
2. LSU (Laser Scanning Unit)
3. 2nd Transfer Roller
4. Fuser
5. ITB (Intermediate Transfer Belt)
6. 1st Transfer Roller
7. OPC (Organic Photo Conductor)
8. Developers (Y, M, C, & K)
9. Toner Kits (Y, M, C, & K)


Roller-Pickup
Roller-ADF
Roller-Exit
Roller-Feed

Section 12 Reference Library

About this Service Documentation

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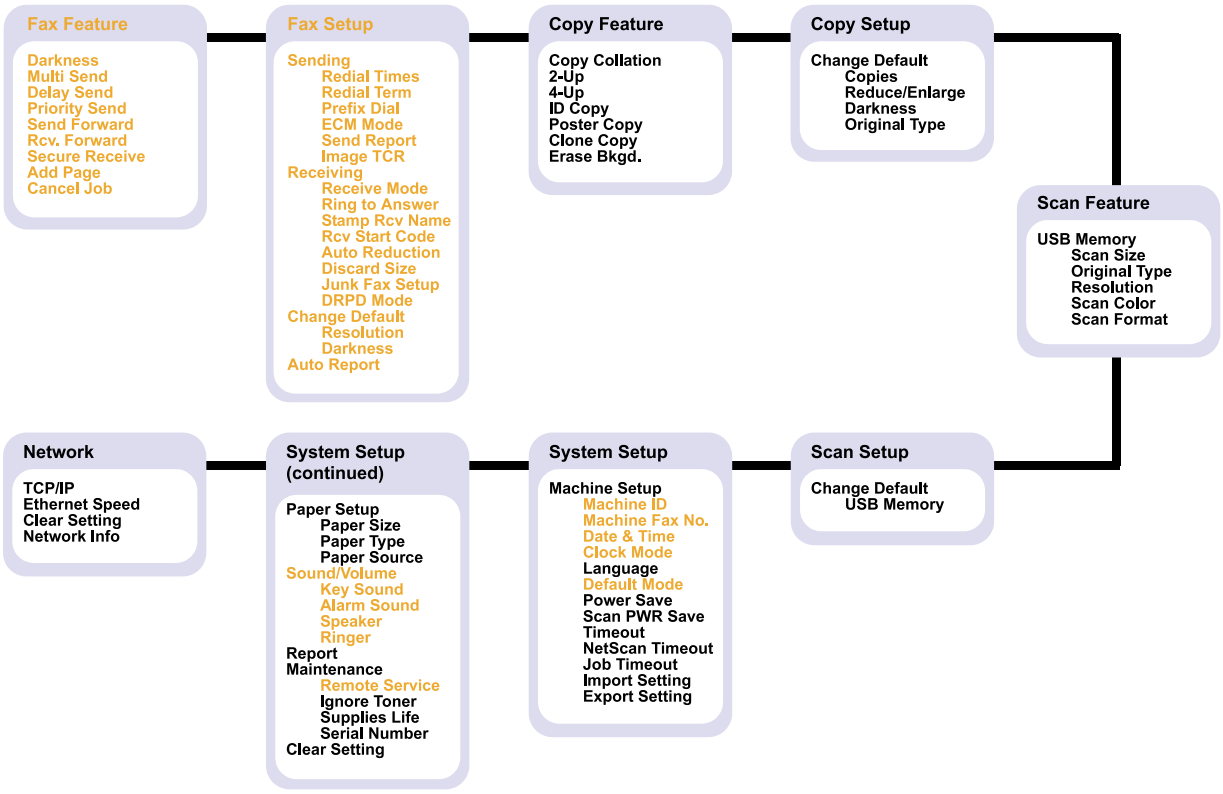
System setup

Menu overview

The control panel provides access to various menus to set up the machine or use the machine's functions. These menus can be accessed by pressing Menu. Refer to the following diagram. Menus available in Fax, Copy, or Scan mode vary.



Changing the display language

To change the language that appears on the control panel, follow these steps:

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Language appears and press OK.
4. Press the Scroll buttons until the language you want appears and press OK.
5. Press Stop/Clear to return to Standby mode.

Setting the date and time

The current date and time are shown on the display when your machine is on and ready to work. For the Phaser 6110 MFP, all of your faxes will have the date and time printed on them.

Note : *If power to the machine is cut off, you need to reset the correct time and date once the power has been restored.*

1. Press Menu until System Setup appears on the bottom line of the display and press OK.

2. Press OK when Machine Setup appears.

3. Press the Scroll buttons until Date & Time appears and press OK.

4. Enter the correct time and date using the number keypad.

   Month = 01 to 12
   Day = 01 to 31
   Year = requires four digits
   Hour = 01 to 12 (12-hour mode)
   00 to 23 (24-hour mode)
   Minute = 00 to 59

Note : *The date format may differ from country to country*

You can also use the Scroll buttons to move the cursor under the digit you want to correct and enter a new number.

5. To select AM or PM for 12-hour format, press the * or # button or any number button.
   When the cursor is not under the AM or PM indicator, pressing the * or # button immediately moves the cursor to the indicator.
   You can change the clock mode to 24-hour format (e.g. 01:00 PM as 13:00). For details, see the next section.

6. Press OK to save the time and date.
   When you enter a wrong number, Out of Range appears and the machine does not proceed to the next step. If this happens, simply reenter the correct number.

7. Press Stop/Clear to return to Standby mode.

Changing the clock mode

You can set your machine to display the current time using either a 12-hour or 24-hour format.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Clock Mode appears and press OK.
4. Press the Scroll buttons to select the other mode and press OK.
5. Press Stop/Clear to return to Standby mode.

Changing the default mode (Phaser 6110 MFP)

Your machine is preset to Fax mode. You can switch this default mode between Fax mode and Copy mode.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Default Mode appears and press OK.
4. Press the Scroll buttons until the default mode you want appears and press OK.
5. Press Stop/Clear to return to Standby mode.

Setting sounds

You can control the following sounds:

- Key Sound: Turns the key sound on or off. With this option set to On, a tone sounds each time a key is pressed.
- Alarm Sound: Turns the alarm sound on or off. With this option set to On, an alarm tone sounds when an error occurs or fax communication ends.
- Speaker (Phaser 6110 MFP): Turns on or off the sounds from the telephone line through the speaker, such as a dial tone or a fax tone.
  With this option set to Comm. which means "Common," the speaker is on until the remote machine answers.

You can adjust the volume level using On Hook Dial.

- Ringer (Phaser 6110 MFP): Adjusts the ringer volume. For the ringer volume, you can select Off, Low, Mid, and High.

Speaker, ringer, key sound, and alarm sound

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press the Scroll buttons until Sound/Volume appears and press OK.
3. Press the Scroll buttons until the sound option you want appears and press OK.
4. Press the Scroll buttons until the desired status or volume for the sound you have selected appears and press OK.
5. If necessary, repeat steps 3 through 5 to set other sounds.
6. Press Stop/Clear to return to Standby mode.

Speaker volume

1. Press On Hook Dial. A dial tone sounds from the speaker.
2. Press the Scroll buttons until you hear the volume you want.
3. Press On Hook Dial to save the change and return to Standby mode.

Note : *You can adjust the speaker volume only when the telephone line is connected.*

Entering characters using the number keypad

As you perform various tasks, you may need to enter names and numbers. For example, when you set up your machine, you enter your name or your company's name, and the fax number. When you store fax numbers in memory, you may also enter the corresponding names.

Entering alphanumeric characters

1. When you are prompted to enter a letter, locate the button labeled with the character you want. Press the button until the correct letter appears on the display.
   For example, to enter the letter O, press 6, labeled with MNO.
   Each time you press 6, the display shows a different letter, M, N, O, and finally 6.
   You can enter special characters, such as space, plus sign, and etc. For details, see the below section.

2. To enter additional letters, repeat step 1.
   If the next letter is printed on the same button, move the cursor by pressing the right Scroll button and then press the button labeled with the letter you want. The cursor will move to the right and the next letter will appear on the display.
   You can enter a space by pressing 1 twice.

3. When you have finished entering letters, press OK.

Keypad letters and numbers

Key	Assigned numbers, letters, or characters
1	1 Space
2	A B C 2
3	D E F 3
4	G H I 4
5	J K L 5
6	M N O 6
7	P Q R S 7
8	T U V 8
9	W X Y Z 9
0	+ - , . ‘ / * # & @ 0

Correcting numbers or names

If you make a mistake while entering a number or name, press the left Scroll button to delete the last digit or character. Then enter the correct number or character.

Using the save modes

Power Save mode

Power Save mode allows your machine to reduce power consumption when it is not in actual use. You can turn this mode on and select a length of time for which the machine waits after a job is printed before it switches to a reduced power state.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Power Save appears and press OK.
4. Press the Scroll buttons until On appears and press OK.
5. Press the Scroll buttons until the time setting you want appears and press OK.
6. Press Stop/Clear to return to Standby mode.

Scan Power Save mode

Scan Power Save mode allows you to save power by turning off the scan lamp. The scan lamp under the scanner glass automatically turns off when it is not in actual use to reduce power consumption and extend the life of the lamp. The lamp automatically wakes up after some warm-up time when you start scanning.

You can set the length of time for which the scan lamp waits after a scan job is completed before it switches to the power save mode.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Scan PWR Save appears and press OK.
4. Press the Scroll buttons until the time setting you want appears and press OK.
5. Press Stop/Clear to return to Standby mode.

Setting print job timeout

You can set the amount of time a single print job is active before it must print.

The machine handles incoming data as a single job if it comes in within the specified time. When an error occurs while processing data from the computer and the data flow stops, the machine waits the specified time and then cancels printing if data flow does not resume.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Job Timeout appears and press OK.
4. Press the Scroll buttons until the time setting you want appears and press OK.
5. Press Stop/Clear to return to Standby mode.

Network setup

This chapter gives you step-by-step instructions for setting up your machine for network connections.

This chapter includes:
- Introduction
- Supported operating systems
- Configuring TCP/IP
- Setting Ethernet speed
- Restoring the network configuration
- Printing a network configuration page

Introduction

Once you have connected your machine to a network with an RJ-45 Ethernet cable, you can share the machine with other network users.

You need to set up the network protocols on the machine to use it as your network printer. Protocols can be set up by the following two methods:

Via network administration programs

You can configure your machine's print server settings and manage the machine via the following programs that came with your machine:

- SyncThru™ Web Admin Service: A web-based printer management solution for network administrators. SyncThru™ Web Admin Service provides you with an efficient way of managing network devices and lets you remotely monitor and troubleshoot network printers from any site with corporate intranet access.

- SyncThru™ Web Service: A web server embedded to your network print server, which allows you to:
  - Configure the network parameters necessary for the machine to connect to various network environments.
  - Customize printer, copy, and fax settings.

- SetIP: A utility program allowing you to select a network interface and manually configure the addresses for use with the TCP/IP protocol.

For further details, refer to the user's guide on the network utilities CD that came with your machine.

Via the control panel

You can set up the following basic network parameters through the machine's control panel:
- Configure TCP/IP
- Configure EtherTalk

Supported operating systems

The following table shows the network environments supported by the machine:

Item	Requirements
Network interface	• Ethernet 10/100 Base-TX • External Wireless 802.11b
Network operating system	• Windows 98/Me/2000/XP/2003 • Various Linux OS • Macintosh OS 10.3 ~ 10.4
Network protocols	• TCP/IP on Windows • IPP, SNMP
Dynamic addressing server	• DHCP, BOOTP

- TCP/IP: Transmission Control Protocol/Internet Protocol
- IPP: Internet Printing Protocol
- SNMP: Simple Network Management Protocol
- DHCP: Dynamic Host Configuration Protocol
- BOOTP: Bootstrap Protocol

Configuring TCP/IP

Your machine can be set up with a variety of TCP/IP network information, such as an IP address, a subnet mask, a gateway, and DNS addresses.
There are several ways in which your machine can be assigned a TCP/IP address, depending on your network.

- Static addressing: A TCP/IP address is assigned manually by the system administrator.
- Dynamic addressing via BOOTP/DHCP (default): A TCP/IP address is assigned automatically by the server.

***Note** : Before configuring TCP/IP, you need to set the network protocol to TCP/IP.*

Static addressing

To enter a TCP/IP address from your machine's control panel, take the following steps:

1. Press Menu until Network appears on the bottom line of the display and press OK.
2. Press OK when TCP/IP appears.
3. Press the Scroll buttons until Static appears and press OK.
4. Press OK when IP Address appears.
5. Enter a byte between 0 and 255 using the number keypad and press the Scroll buttons to move between bytes.
   Repeat this to complete the address from the 1st byte to the 4th byte.
6. When you have finished, press OK.
7. Repeat steps 5 and 6 to configure the other TCP/IP parameters:
   subnet mask and gateway address.
8. Press the Scroll buttons until Primary DNS appears and press OK.

9. Enter each byte of the address and press OK.
10. Press the Scroll buttons until Secondary DNS appears and press OK.
11. Enter each byte of the address and press OK.
12. Press Stop/Clear to return to Standby mode.

Dynamic addressing (BOOTP/DHCP)

To have a TCP/IP address assigned automatically by the server, take the following steps:

1. Press Menu until Network appears on the bottom line of the display.
2. Press OK when TCP/IP appears.
3. Press the Scroll buttons until DHCP or BOOTP appears and press OK.
4. Press Stop/Clear to return to Standby mode.

Setting Ethernet speed

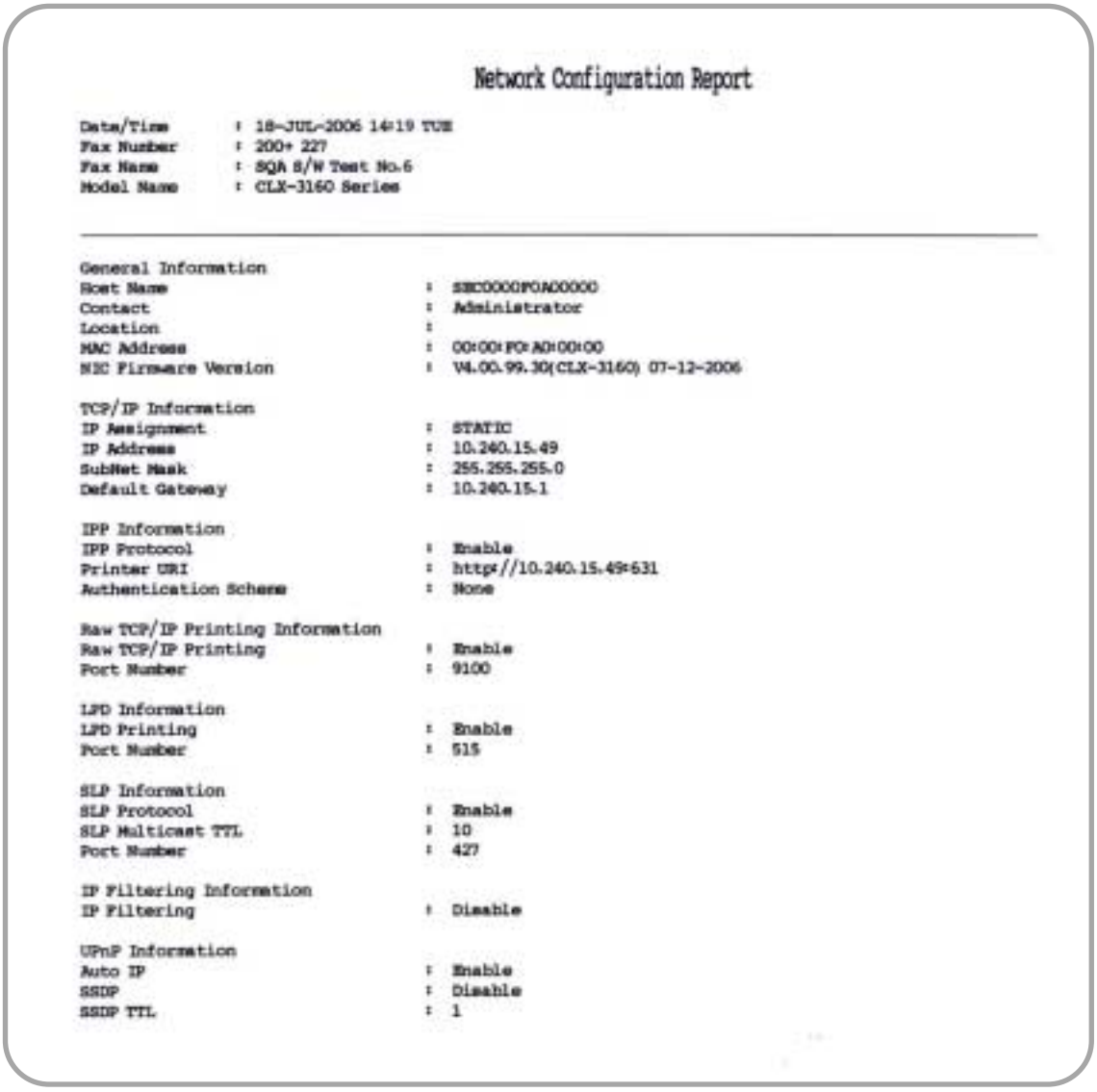
You can select the communication speed for Ethernet connections.

1. Press Menu until Network appears on the bottom line of the display and press OK.
2. Press the Scroll buttons until Ethernet Speed appears and press OK.
3. Press the Scroll buttons until the speed you want appears and press OK.
4. Press Stop/Clear to return to Standby mode.

Restoring the network configuration

You can return the network configuration to its default settings.

1. Press Menu until Network appears on the bottom line of the display and press OK.
2. Press the Scroll buttons until Clear Setting appears and press OK.
3. Press OK when Yes appears to restore the network configuration.
4. Power the machine off and back on.



Network Configuration Report

Data/Time : 18-JUL-2006 14:19 TUE
Fax Number : 200+ 227
Fax Name : SQA S/W Test No.6
Model Name : CLX-3160 Series

General Information
Host Name : SECOOOOFOAOOOOO
Contact : Administrator
Location :
MAC Address : 00:00:F0:AD:00:00
NIC Firmware Version : V4.00.99.30(CLX-3160) 07-12-2006

TCP/IP Information
IP Assignment : STATIC
IP Address : 10.240.15.49
SubNet Mask : 255.255.255.0
Default Gateway : 10.240.15.1

IPP Information
IPP Protocol : Enable
Printer URI : http://10.240.15.49:631
Authentication Schema : None

Raw TCP/IP Printing Information
Raw TCP/IP Printing : Enable
Port Number : 9100

LPD Information
LPD Printing : Enable
Port Number : 515

SLP Information
SLP Protocol : Enable
SLP Multicast TTL : 10
Port Number : 427

IP Filtering Information
IP Filtering : Disable

UPnP Information
Auto IP : Enable
SSDP : Disable
SSDP TTL : 1

Printing a network configuration page

The Network Configuration page shows how the network interface card on your machine is configured.

1. Press Menu until Network appears on the bottom line of the display and press OK.
2. Press the Scroll buttons until Network Info appears and press OK.
3. Press OK when Yes appears.
   The Network Configuration page prints out.

Sample Pattern

This product provides several printable test patterns for maintenance purposes. These patterns can be used to aid the diagnosis of print quality problems.

Printing a report

[Printing a Document in Windows]

1. Click the Windows Start menu.
2. For Windows 95/98/Me/NT 4.0/2000, select Settings and then Printers.
   For Windows XP, select Printers and Faxes.
3. Select the Xerox MFP SCX-5x30 Series printer.
4. Click the right mouse button on the printer icon and:
   - For Windows 95/98/Me, select Properties.
   - For Windows 2000/XP, select Printing Preferences.
   - For Windows NT 4.0, select Document Default.
5. Change the settings on each tab and click OK.
6. Now “PRINTING”

ESD Precautions

Certain semiconductor devices can be easily damaged by static electricity. Such components are commonly called “Electrostatically Sensitive (ES) Devices”, or ESDs. Examples of typical ESDs are: integrated circuits, some field effect transistors, and semiconductor “chip” components.

The techniques outlined below should be followed to help reduce the incidence of component damage caused by static electricity.

Caution >>Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

1. Immediately before handling a semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, employ a commercially available wrist strap device, which should be removed for your personal safety reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ESDs, place the assembly on a conductive surface, such as aluminum or copper foil, or conductive foam, to prevent electrostatic charge buildup in the vicinity of the assembly.
3. Use only a grounded tip soldering iron to solder or desolder ESDs.
4. Use only an “anti-static” solder removal device. Some solder removal devices not classified as “anti-static” can generate electrical charges sufficient to damage ESDs.
5. Do not use Freon-propelled chemicals. When sprayed, these can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective packaging until immediately before installing it. Most replacement ESDs are packaged with all leads shorted together by conductive foam, aluminum foil, or a comparable conductive material.
7. Immediately before removing the protective shorting material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
8. Maintain continuous electrical contact between the ESD and the assembly into which it will be installed, until completely plugged or soldered into the circuit.
9. Minimize bodily motions when handling unpackaged replacement ESDs. Normal motions, such as the brushing together of clothing fabric and lifting one’s foot from a carpeted floor, can generate static electricity sufficient to damage an ESD.

Super Capacitor or Lithium Battery Precautions

1. Exercise caution when replacing a super capacitor or Lithium battery. There could be a danger of explosion and subsequent operator injury and/or equipment damage if incorrectly installed.

2. Be sure to replace the battery with the same or equivalent type recommended by the manufacturer.

3. Super capacitor or Lithium batteries contain toxic substances and should not be opened, crushed, or burned for disposal.

4. Dispose of used batteries according to the manufacture’s instructions.

Precautions

In order to prevent accidents and to prevent damage to the equipment please read the precautions listed below carefully before servicing the printer and follow them closely.

Safety Warning

(1) Only to be serviced by appropriately qualified service engineers.
High voltages and lasers inside this product are dangerous. This printer should only be serviced by a suitably trained and qualified service engineer.

(2) Use only Xerox replacement parts
There are no user serviceable parts inside the printer. Do not make any unauthorized changes or additions to the printer, these could cause the printer to malfunction and create electric shock or fire haz-ards.

(3) Laser Safety Statement
The Printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, chapter 1 Subchapter J for Class 1(1) laser products, and elsewhere, it is certified as a Class I laser product con-forming to the requirements of IEC 825. Class I laser products are not considered to be hazardous. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service condition.

Warning >> Never operate or service the printer with the protective cover removed from Laser/Scanner assembly. The reflected beam, although invisible, can damage your eyes. When using this product, these basic safety pre-cautions should always be followed to reduce risk of fire, electric shock, and injury to persons.

CAUTION - INVISIBLE LASER RADIATION WHEN THIS COVER OPEN. DO NOT OPEN THIS COVER.

VORSICHT - UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

ATTENTION - RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.

ATTENZIONE - RADIAZIONE LASER INVISIBILE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.

PRECAUCION - RADIACION LASER IVISIBLE CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.

ADVARSEL. - USYNLIG LASERSTRÅLNING VED ÅBNING, NÅR SIKKERHEDSBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLNING.

ADVARSEL. - USYNLIG LASERSTRÅLNING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN. STRÅLEN ÄR FARLIG.

VARO! - AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER-SÄTEILYLLE ÄLÄ KATSO SÄTEESEEN.

Caution for safety

Toxic material

This product contains toxic materials that could cause illness if ingested.

(1) If the LCD control panel is damaged it is possible for the liquid inside to leak. This liquid is toxic. Contact with the skin should be avoided, wash any splashes from eyes or skin immediately and contact your doctor. If the liquid gets into the mouth or is swallowed see a doctor immediately.

(2) Please keep toner cartridges away from children. The toner powder contained in the toner cartridge may be harmful and if swallowed you should contact a doctor.

Electric Shock and Fire Safety Precautions

Failure to follow the following instructions could cause electric shock or potentially cause a fire.

(1) Use only the correct voltage, failure to do so could damage the printer and potentially cause a fire or electric shock.

(2) Use only the power cable supplied with the printer. Use of an incorrectly specified cable could cause the cable to overheat and potentially cause a fire.

(3) Do not overload the power socket, this could lead to overheating of the cables inside the wall and could lead to a fire.

(4) Do not allow water or other liquids to spill into the printer, this can cause electric shock. Do not allow paper clips, pins or other foreign objects to fall into the printer these could cause a short circuit leading to an electric shock or fire hazard..

(5) Never touch the plugs on either end of the power cable with wet hands, this can cause electric shock. When servicing the printer remove the power plug from the wall socket.

(6) Use caution when inserting or removing the power connector. The power connector must be inserted completely otherwise a poor contact could cause overheating possibly leading to a fire. When removing the power connector grip it firmly and pull.

(7) Take care of the power cable. Do not allow it to become twisted, bent sharply round corners or other wise damaged. Do not place objects on top of the power cable. If the power cable is damaged it could overheat and cause a fire or exposed cables could cause an electric shock. Replace a damaged power cable immediately, do not reuse or repair the damaged cable. Some chemicals can attack the coating on the power cable, weakening the cover or exposing cables causing fire and shock risks.

(8) Ensure that the power sockets and plugs are not cracked or broken in any way. Any such defects should be repaired immediately. Take care not to cut or damage the power cable or plugs when moving the machine.

(9) Use caution during thunder or lightening storms. Xerox recommend that this machine be disconnected from the power source when such weather conditions are expected. Do not touch the machine or the power cord if it is still connected to the wall socket in these weather conditions.

(10) Avoid damp or dusty areas, install the printer in a clean well ventilated location. Do not position the machine near a humidifier. Damp and dust build up inside the machine can lead to overheating and cause a fire.

(11) Do not position the printer in direct sunlight. This will cause the temperature inside the printer to rise possibly leading to the printer failing to work properly and in extreme conditions could lead to a fire.

(12) Do not insert any metal objects into the machine through the ventilator fan or other part of the casing, it could make contact with a high voltage conductor inside the machine and cause an electric shock.

Handling Precautions

The following instructions are for your own personal safety, to avoid injury and so as not to damage the printer

(1) Ensure the printer is installed on a level surface, capable of supporting its weight. Failure to do so could cause the printer to tip or fall.

(2) The printer contains many rollers, gears and fans. Take great care to ensure that you do not catch your fingers, hair or clothing in any of these rotating devices.

(3) Do not place any small metal objects, containers of water, chemicals or other liquids close to the printer which if spilled could get into the machine and cause damage or a shock or fire hazard.

(4) Do not install the machine in areas with high dust or moisture levels, beside on open window or close to a humidifier or heater. Damage could be caused to the printer in such areas.

(5) Do not place candles, burning cigarettes, etc on the printer, These could cause a fire.

Assembly / Disassembly Precautions

Replace parts carefully, always use approved parts. Take care to note the exact location of parts and also cable routing before dismantling any part of the machine. Ensure all parts and cables are replaced correctly. Please carry out the following procedures before dismantling the printer or replacing any parts.

(1) Check the contents of the machine memory and make a note of any user settings. These will be erased if the mainboard or network card is replaced.

(2) Ensure that power is disconnected before servicing or replacing any electrical parts.

(3) Disconnect printer interface cables and power cables.

(4) Only use approved spare parts. Ensure that part number, product name, any voltage, current or temperature rating are correct.

(5) When removing or re-fitting any parts do not use excessive force, especially when fitting screws into plastic.

(6) Take care not to drop any small parts into the machine.

(7) Handling of the OPC Drum

- The OPC Drum can be irreparably damaged if it exposed to light.
  Take care not to expose the OPC Drum either to direct sunlight or to fluorescent or incandescent room lighting. Exposure for as little as 5 mins can damage the surface's photoconductive properties and will result in print quality degradation. Take extra care when servicing the printer. Remove the OPC Drum and store it in a black bag or other lightproof container. Take care when working with the covers(especially the top cover) open as light is admitted to the OPC area and can damage the OPC Drum.
- Take care not to scratch the green surface of OPC Drum Unit.
  If the green surface of the Drum Cartridge is scratched or touched the print quality will be compromised.

Disregarding this warning may cause bodily injury

(1) Be careful with the high temperature part.
The fuser unit works at a high temperature. Use caution when working on the printer. Wait for the fuser to cool down before disassembly.

(2) Do not put finger or hair into the rotating parts.
When operating a printer, do not put hand or hair into the rotating parts (Paper feeding entrance, motor, fan, etc.). If do, you can get harm.

(3) When you move the printer.
This printer weighs 19.95kg including toner cartridge and cassette. Use safe lifting and handling techniques. Use the lifting handles located on each side of the machine. Back injury could be caused if you do not lift carefully.

(4) Ensure the printer is installed safely.
The printer weighs 19.95Kg, ensure the printer is installed on a level surface, capable of supporting its weight. Failure to do so could cause the printer to tip or fall possibly causing personal injury or damaging the printer.

(5) Do not install the printer on a sloping or unstable surface. After installation, double check that the printer is stable.

SERVICE BULLETIN

PRODUCT: Phaser 6110, Phaser 6110MFP (1)

T6140-10-19

SUBJECT: Fuser Vapour

OPERATIONAL GROUPS: Canada, DMO-W, NARs, XE, XING

PROBLEM

SURF, or Surface Rapid Fusing technology can produce a visible vapour under certain conditions of ambient low humidity, cooler office temperatures, or with paper with higher moisture content.

SOLUTION

Inform customer that the condition is not hazardous and is a characteristic of a quick fuse operation in some circumstances.

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