

Maintenance Manual

PANTUM

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Maintenance Manual of Pantum Multi-functional Laser Printer

Product model: M7300 Series



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Version: V 1.0

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The product can only be used safely in the non-tropical areas at an altitude no higher than 2,000 meters.

Safety Information

Please carefully read and understand the following safety and precautions prior to maintenance.



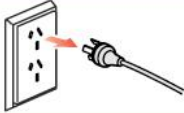



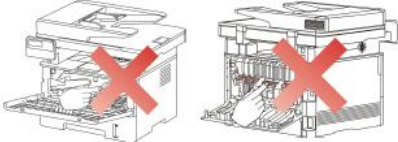


Key Precautions

As the product may be damaged by the maintenance of non-professionals, the Company strongly recommends the maintenance by technical staff trained by the company. The user must bear the risks of personal injury and damage to the product while repairing the product or parts in this manual. Please carefully read this manual prior to maintenance, to ensure correct operation and maintenance.

Please keep this manual properly for future maintenance.

Warnings, notes and explanations:

- * Please follow the warnings to avoid personal injury.
- * Please follow the warnings for proper maintenance of the printer, in order to avoid damage.
- * Please pay attention to relevant prompts in maintenance of the printer.
- * “Warnings” are listed below:

 Warning	
 There is high-voltage electrode inside the printer. Before cleaning the printer, make sure the power is turned off!	
 Plugging and unplugging the power cord plug with a wet hand can result in an electric shock.	
 The fuser unit is hot when and after printing. Touching the fuser unit (the shaded area as shown) may cause burns!	
 The fuser unit is attached with a high temperature warning label. Please do not remove or damage this label.	

Where to Install

Install the printer on a flat and secure surface where vibration and impact does not occur easily, such as the tabletop. Keep the printer near the standard and grounded power socket. In addition, the temperature of the installation location should be 10°C to 35°C, and the relative humidity should be 20% to 80%.

Note:

- Do not install the printer in a place of large pedestrian volume.
- Do not put the equipment near the heater, refrigerator, air conditioner, fluid or chemical product.
- Do not make the printer exposed to the sunlight or install it in a too hot, humid or dusty place.
- Do not connect the printer to the socket with a wall-mounted switch or automatic timer.
- The information in the memory of the printer may be lost in the case of power failure.
- Do not connect the printer to the socket in the circuit with high-power household appliances or other devices that may result in power failure.
- Keep the printer away from interference sources such as the loudspeaker or cordless telephone base.
- Pay attention to indoor air circulation in the case of long-time operation or printing of a large number of documents in the poorly ventilated room.

Laser Safety

Laser radiation is harmful to the human body. To avoid laser radiation, please do not randomly disassemble the printer!

The printer follows the provisions of Class 1 laser products under CFR standard. It has a Class IIIB laser diode, which has no laser radiation leakage among laser components.

The following label is attached to the laser components inside the printer:



Legal Information



This symbol indicates that the product cannot be discarded with other wastes. Instead, you should dispose of the used equipment at a designated collection point for the recycling of waste electrical and electronic equipment.



This product is suitable for indoor use only.



European Community (EC) Directive Compliance

This product complies with the Member State Approximation and Coordination Act of the EC Council Directive 2014/35/EU and 2014/30/EU.

These directives cover the protection requirements of the electromagnetic compatibility and electrical equipment safety (used within the specific voltage range).

Manufacturer: Zhuhai Pantum Electronics Co., Ltd., Central Zone A, 3rd Floor, Building 01, 3883#, Zhuhai Road, Zhuhai City, P.R.C.

For the statements of compliance with these directives, please contact the authorized representative.

This product complies with the Class B requirements of EN 55032 and the safety requirements of EN 60950.



This product is fully compliant with the ROHS Directive 2009/95/EC and the requirements of the revised Directive 2011/65/EU for managing toxic and hazardous substances.



This product can only be used safely in the non-tropical areas.



This product can only be used safely in the areas at an altitude no higher than 2,000 meters.

Properly dispose of the battery in this project.

This product contains the battery. To protect natural resources and promote recycling, please separate the battery from other wastes and recycle it through the local battery recycling system.

Warning: 1. Improper replacement may result in fire, burns, charging or removal

failure, crushing, heating or incineration.

2. Keep the battery out of reach of children to prevent swallowing.

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1. Product Introduction

Product Parameters			M7300FDN series	M7300FDW series
Interface type	USB		●	●
	NET		●	●
	Wi-Fi			●
Print Language	GDI			
	PDL		●	●
Control panel	LCD		●	●
Print speed	A4	30ppm		
		33ppm	●	●
	Letter	32ppm		
		35ppm	●	●
Automatic two-sided printing			●	●
Auto Duplex Scan			●	●
NFC function				●
Mute printing			●	●
Copy function			●	●
Scanning function			●	●
Fax function			●	●
Scan to USB flash disk			●	●
ADF			●	●

(●: support; Blank: unsupport)

Note: The product series will be increased or changed without prior notice.

If the printer has the fax function, conduct language setting, system setting and fax setting as per the prompts on the panel after initial startup or restoration of default settings.

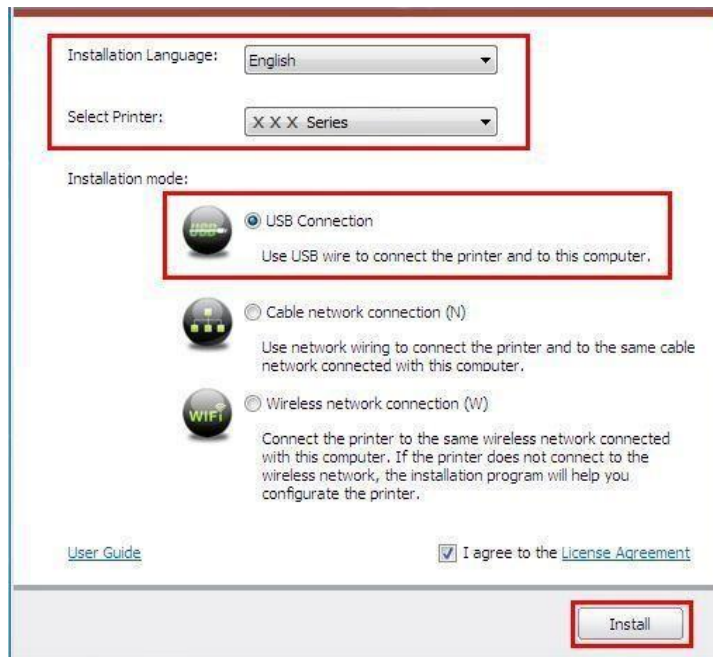
In this manual, “ADF” is short for the document feeder.

2. Driver Installation and Uninstallation

2.1 Driver Installation based on Windows System

2.1.1 Installation via USB connection

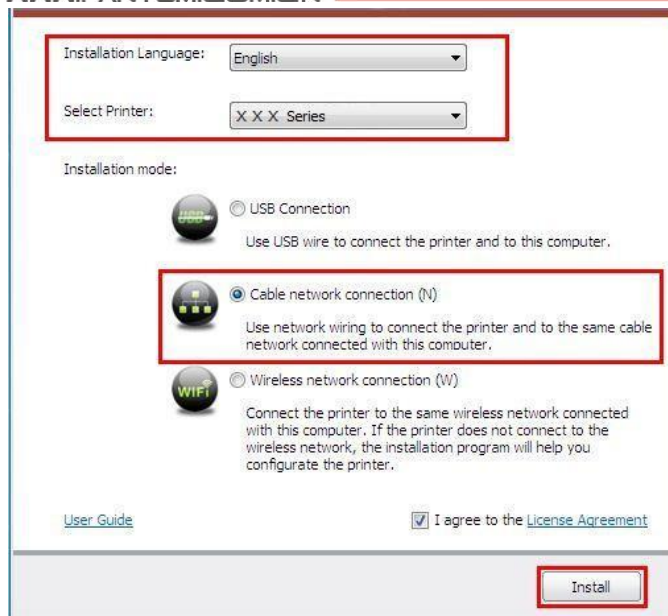
1. Connect the printer to a computer with USB cable, and then turn power on.
2. Insert the enclosed CD in the CD driver of computer, and operate Autorun.exe installation program. Read and agree to the licensing agreement, select the installation language and printer model, select “USB Connection”, and then click “Install”.



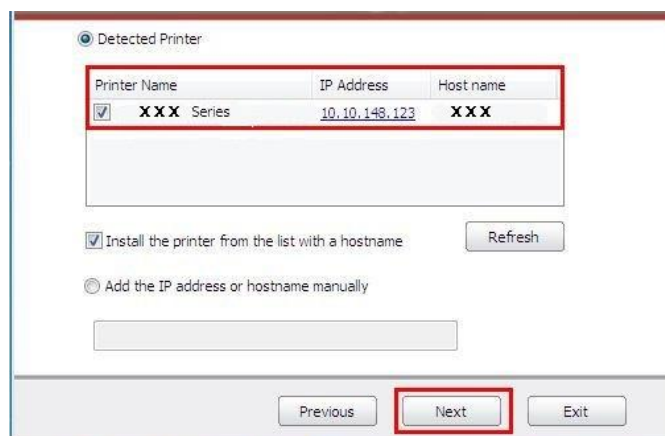
3. The system starts to install the driver, and it may take several minutes. After installation is finished, “Installation Complete” interface will pop out, and it will be closed automatically in about 3s.

2.1.2 Installation via wired network connection

1. Turn on the power of printer and computer, and connect the computer to wired network.
2. Insert the enclosed CD in the CD driver of computer, and operate Autorun.exe installation program. Read and agree to the licensing agreement, select the installation language and printer model, select “Cable network connection (N)”, and then click “Install”.



- The installation program starts to search for the printer automatically, and it may take a while. After searching is finished, select the printer to be connected, and click “Next”.



Note:

- If the printer you need to connect is not in the list of printers searched, please click “Refresh” to search again.
- If you want to install the printer driver in the name of host, please tick the “Printer Name” you need to connect and “Install the printer from the list with a hostname”.
- If the IP address or host name is added manually, you need to know the IP address of the printer connected or host name. If they are not made clear, please print the “NetConf Pg” and view “IP Address” and “Host name”.

- The system starts to install the driver and it may take several minutes. After installation is finished, the “Installation Complete” interface will pop out, and it will be closed automatically

in about 3s.

2.1.3 Installation by wireless network connection mode (Wi-Fi)

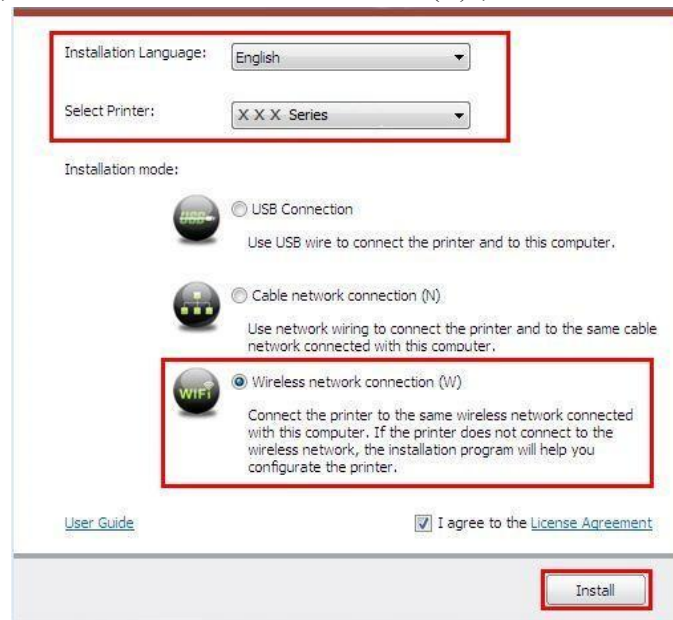
The wireless network connection type is divided into basic structure mode and Wi-Fi Direct mode.

2.1.3.1 Installation in basic structure mode

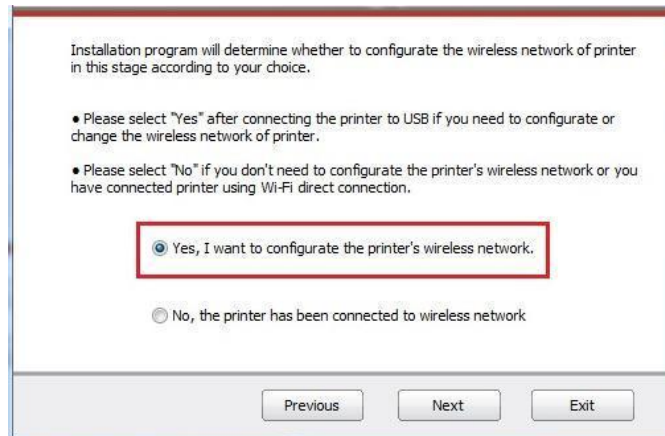
1. Connect the computer to access point (wireless router). Connect the printer to computer with USB cable, and then turn power on.

Note: Connect the printer to computer with USB cable before installation; otherwise, the prompt of connecting USB cable will pop up in the installation process. If the installation with USB cable is not required, select [2.1.3.2 Wi-Fi Direct mode](#).

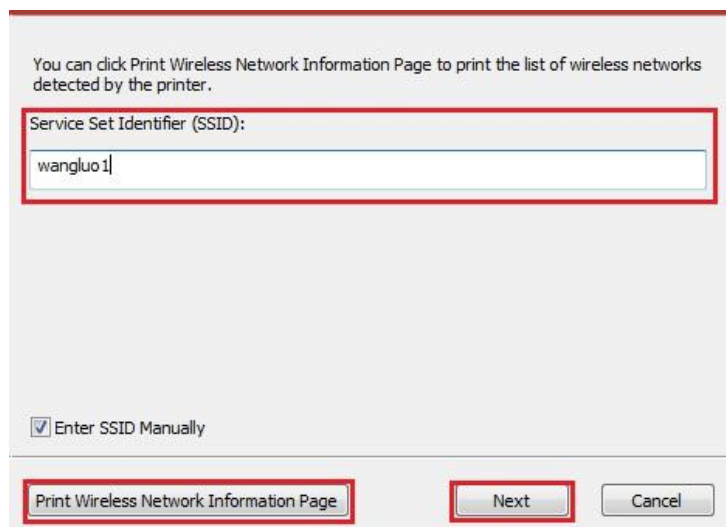
2. Insert the enclosed CD in the CD driver of computer, and operate Autorun.exe installation program. Read and agree to the licensing agreement, select the installation language and printer model, select “Wireless network connection (N)”, and then click “Install”.



3. Select “Yes, I want to configure the printer’s wireless network” on the wireless setup window popping out, and operate according to the prompts to set the printer into wireless network.



4. Input the network name SSID (distinguish the upper and lower cases of SSID) of the access point (wireless router), and click "Next".



Notes: If you do not know the network name (SSID) of the access point (wireless router), click "Print Wireless Network Information Page" to view the network name (SSID) of the access point (wireless router).

5. Input the password of the access point (wireless router), and click "Next".

Verify the wireless credential and click Next.

Service Set Identifier (SSID):

wangluo1

Safe Mode:

WPA/WPA2

Password:

.....

☐ Show Password

Previous Next Cancel

6. After wireless network setup succeeds, the installation program will search for printer automatically, and it may take a while.
7. Select the printer to be connected, and click “Next”.

Detected Printer

Printer Name	IP Address	Host name
<input checked="" type="checkbox"/> XXX Series	10.10.148.123	XXX

☒ Install the printer from the list with a hostname Refresh

☐ Add the IP address or hostname manually

Previous Next Exit

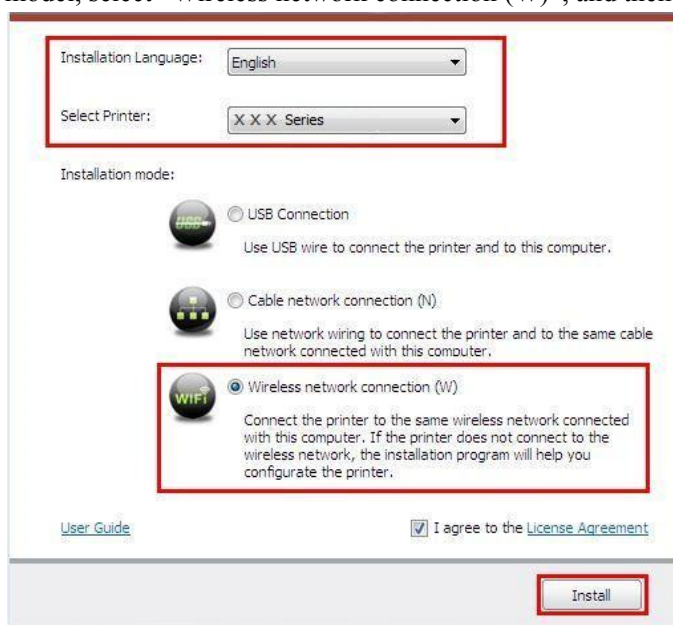
Notes:

- If the printer you need to connect is not in the list of printers searched, please click “Refresh” to search again.
- If you want to install the printer driver in the name of host, please tick the “Printer Name” you need to connect and “Install the printer from the list with a hostname”.
- If the IP address or host name is added manually, you need to know the IP address of the printer connected or host name. If they are not made clear, please print the “NetConf Pg” and view “IP address” and “Host name”.

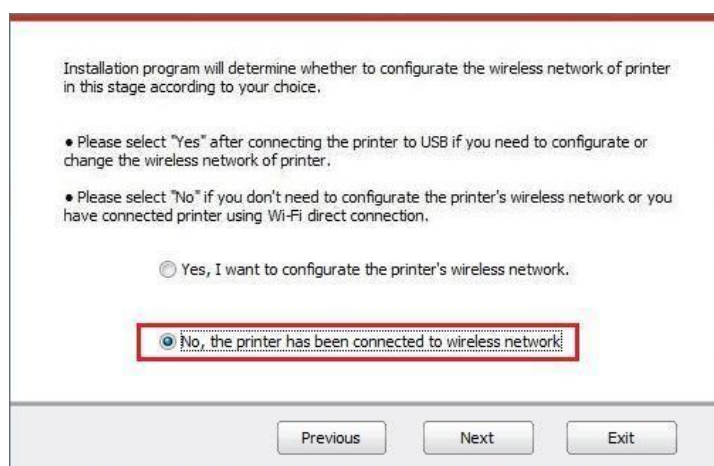
8. The system starts to install the driver, and it may take several minutes. After installation is finished, the “Installation Complete” interface will pop out, and it will be closed automatically in about 3s.

2.1.3.2 Installation in Wi-Fi Direct mode

1. Press “Menu” - “Network Information” - “Wi-Fi Direct Information” on the control panel of the printer, and view the network name and password. Turn on the power of the printer.
2. Turn on computer or mobile device with the wireless network function, select the name of Wi-Fi direct network of the printer, input the password, and connect the Wi-Fi direct network of the printer.
3. Insert the enclosed CD in the CD driver of computer, and operate Autorun.exe installation program. Read and agree to the licensing agreement, select the installation language and printer model, select “Wireless network connection (W)”, and then click “Install”.



4. Select “No, the printer has been connected to wireless network” on the wireless setup window popping out, and then click “Next”.



5. The printer will be searched automatically in the installation process, and some time is needed for search.

6. Select the printer to be connected, and click “Next”.



Note:

- If the printer you need to connect is not in the list of printers searched, please click “Refresh” to search again.
- If you want to install the printer driver in the name of host, please tick the “Printer Name” you need to connect and “Install the printer from the list with a hostname”.
- If the IP address or host name is added manually, you need to know the IP address of the printer connected or host name. If they are not made clear, please print the “NetConf Pg” and view “IP Address” and “Host name”.

7. The system starts to install the driver, and it may take several minutes.
8. After installation is finished, the “Installation Complete” interface will pop out, and it will be closed automatically in about 3s.

2.1.4 Driver uninstallation

Windows 7 is taken as the example in the following operation. The information on your computer screen may differ because of multiple operating systems.

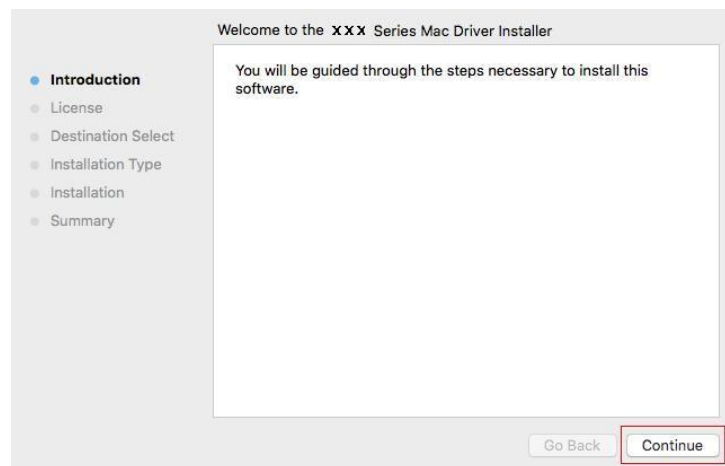
1. Click the “Start” menu of the computer and then “All programs”.
 2. Click “Pantum” and then “Pantum X Series”.
- “X” in Pantum X Series represents the product model.
3. Click “Uninstall” and delete the driver according to the instructions on the uninstalling window.
 4. Restart the computer after uninstalling.

2.2 Driver Installation based on Mac System

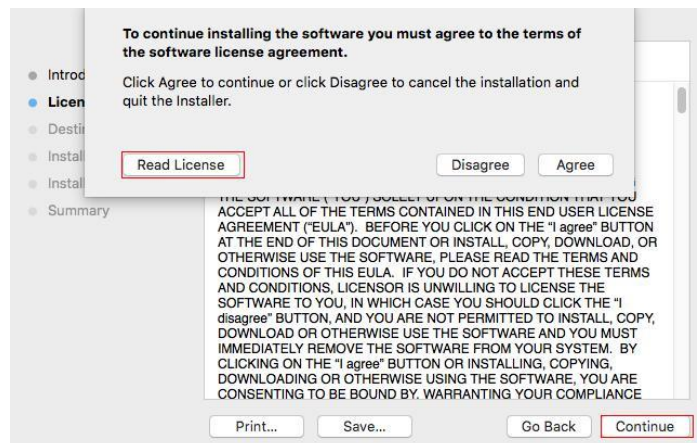
2.2.1 Driver installation

Mac 10.11 is taken as the example in the following operation. The information on your computer screen may differ because of multiple operating systems.

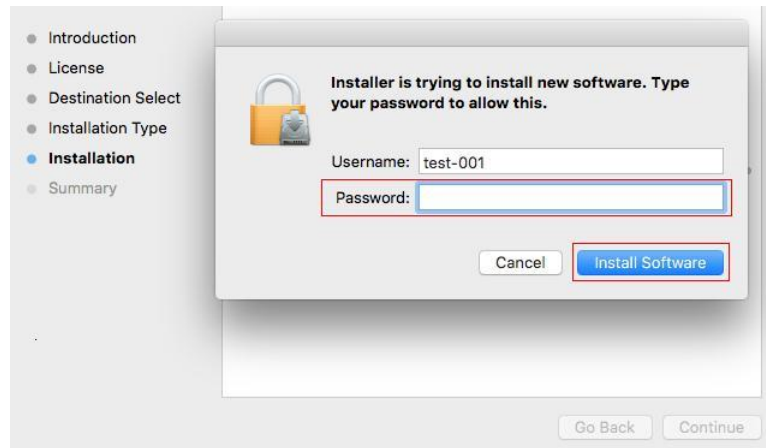
1. Turn on the power of printer and computer.
2. Insert the CD accompanying with the printer in the CD driver of your computer, and double click the “Pantum X Series” installation package (X in Pantum X Series represents the product model)



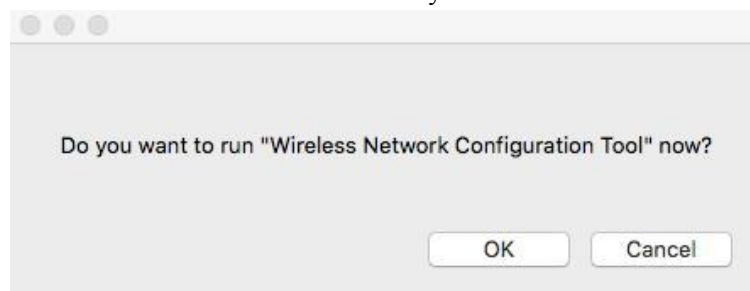
3. Click “Continue”.
4. Read the licensing agreement and then click “Continue”.



5. Click “Agree” on the prompt window popping out to accept the licensing agreement.
6. Click “Install”.
7. Input the computer password and click “Install Software”.




8. Click “Continue Installation” on the prompt window popping out.
9. The system will finish driver installation automatically.



- If the USB cable is used to connect the computer and Wi-Fi model, the window to prompt wireless network setup will pop out during the driver installation process, as shown in the diagram above. Click “Yes” to set up the wireless network of printer with wireless network setup tool.

- If the USB cable is not used to connect the computer with Wi-Fi model or non Wi-Fi model, the prompt window of wireless network setup will not pop out.

10. Click “Restart” and wait for computer restart to finish installation.

 **Note:** If the printer and computer have been connected with the USB cable, the USB connection mode will be added to the printer automatically after the computer is restarted.

2.2.2 Add printer to Mac system

2.2.2.1 Add in USB connection mode


1. Turn on the power of the printer and computer.
2. Connect the printer to computer with USB cable. The system starts to recognize and add the printer automatically.
3. Enter “System Preferences” – “Printers & Scanners” of the computer, and check whether the printer is added successfully in the printer list.

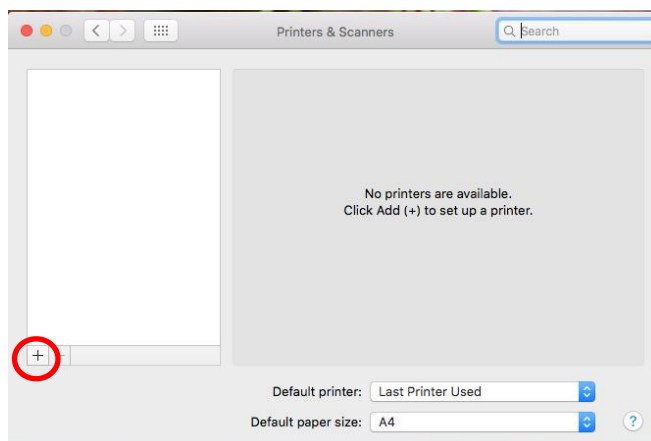
If the added printer is displayed in the printer list and ready for printing, it means that the printer has been added successfully.

If the added printer is not displayed in the printer list, the USB cable may not be connected

properly. Reconnect it.

2.2.2.2 Add in wired network connection mode

1. Turn on the power of the printer and computer.
2. Connect the computer to wired network.
3. Connect the network cable to the network interface of the printer, and make sure that the printer is connected to the computer network.
4. Enter the “System Preferences” – “Printers & Scanners” of the computer.
5. Click the  button and select “Add Printer or Scanner”.



6. Select the printer. Then select the corresponding printer model from the “Use” menu popping out.


7. Click “Add”.

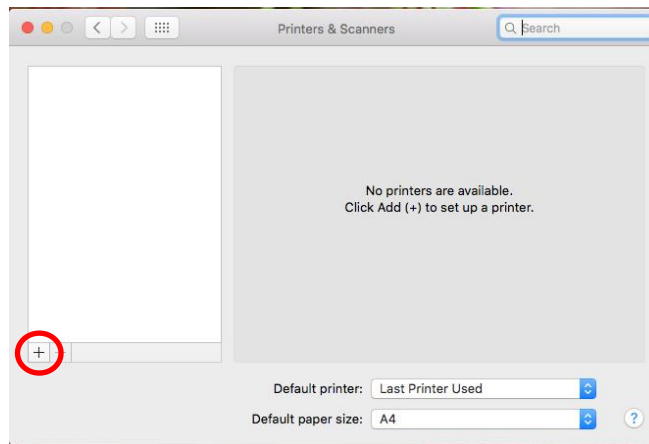
2.2.2.3 Add in wireless network connection mode

1. Turn on the power of the printer and computer.
2. Make sure that the wireless network connection between the computer and printer is set up.

Note:

- In case of basic structure mode, connect the wireless network printer to access point (wireless router).
Select the Wi-Fi configuration tool connection: click “Go to” – “Application Programs” “Pantum” - “Utilities” – “Wireless Network Configuration Tool” of the computer.
- In case of Wi-Fi Direct mode, connect the wireless client to wireless network printer directly (refer to [Article 1 and 2 of 2.1.3.2 Wi-Fi Direct mode](#)).

3. Enter the “System Preferences” – “Printers & Scanners” of the computer.
4. Click , and select “Add Printer or Scanner”.



5. Select the printer. Then select the corresponding printer model from the “Use” menu popping out.


6. Click “Add”.

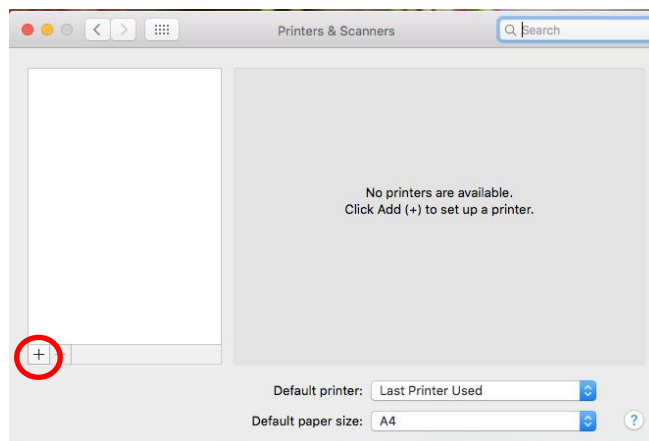
2.2.2.4 Add AirPrint printer

1. Turn on the power of the printer and computer.

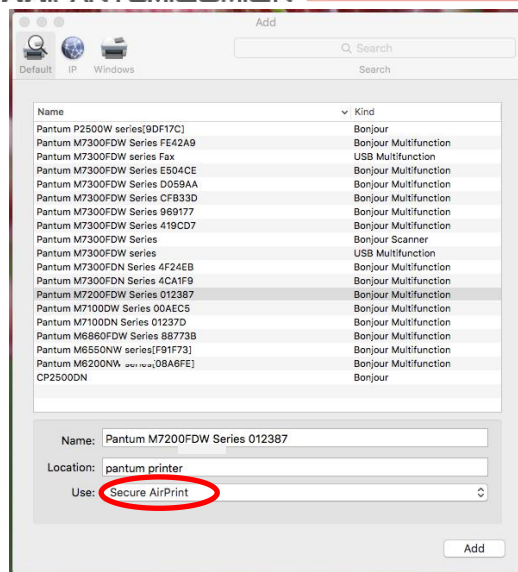
2. Make sure that the connection between the printer and computer is set up (USB connection or network connection).

3. Enter the “System Preferences” – “Printers & Scanners” of the computer.

4. Click , and select “Add Printer or Scanner”.



5. Select the printer (according to the actual model). Then select “Secure AirPrint” (data encryption) or “AirPrint” (no encryption) in the “Use” option box.




6. Click “Add”

Note: • If the printer is connected to computer with USB cable, the system will recognize and add AirPrint printer automatically.

• If AirPrint printer of network connection is added, the connecting USB cable should be disconnected first before adding the printer.

3. Printer Information Report

3.1 Information Report Printing

1. Click “

Product reports that could be printed include Demo page, information page, menu structure page, network configuration, e-mail address, group e-mail, FT address and Wi-Fi hotspot.

注Note: The product report above is the most complete version, and may be different from that of the model you actually use.

3.2 Information Page

1. Printer Information Page

[Printer Information Page]

[Page 1]

Product Information

Product Name : P3010D Series
 USB Vender ID : 0x232B
 Firmware Version : 3. 2. 2. 3
 Engine Version : 3. 2. 2. 3
 Memory Size : 128MB
 Print Language : GDI
 Serial Number : CC6N000009

System Settings

Sleep Time : 1 minute
 Toner Saving Mode : Close
 Mute printing : Close

Consumables information

Ink cartridge type : TL420E
 Remaining Amount of Toner : 0%
 Ink cartridge has been printed pages : 1414
 Drum unit type : DL420HF
 Drum unit remainder : 89%
 Drum unit has been printed pages : 1414

Toner cartridge and drum unit information (the printed pages are the actually printed pages instead of theoretical pages within the calculated service life)

Print Information

Total pages printed : 0
 Pages printed with automatic duplex : 0
 Pages printed with different paper specification
 A5 : 0
 A4/Letter : 0
 Legal/Folio : 0
 B5/Executive : 0

Print Settings

: Plain
 : A4
 : Auto Select
 Duplex : Close
 Resolution : 1200DPI
 Density : Normal

Total pages printed
actually

2. Network Configuration Information Page

[Network Configuration Information Page]

[Page 1]

Wired Network Configuration

Connection Status : Connected
Wired Hardware Address : A0:EF:84:01:16:9B
Host Name : Pantum-01169B
Device Location :

Wireless Network Configuration

Connection Status : Not Connected
Wireless Hardware Address : 00:11:F6:AB:49:C0
Communication Mode :
Network Name (SSID) :
BSSID :
Authentication Method :

Wired Network IPv4 Information

Status : Open
Configuration Method : Auto
IP Address : 169.254.22.155
Subnet Mask : 255.255.0.0
Default Gateway :
Bonjour Name : Pantum P3500DW SERIES 0
1169B

Wireless Network IPv4 Information

Status : Open
Configuration Method : Auto
IP Address :
Subnet Mask :
Default Gateway :
Bonjour Name :

IP information

Wired Network IPv6 Information

Status : Open
Link-Local Address : fe80::a2ef:84ff:fe01:169b
Stateless Address : ::
Stateful Address : ::

Wireless Network IPv6 Information

Status : Open
Link-Local Address :
Stateless Address :
Stateful Address :

E-mail Notification

Out of paper : Close


Wireless Hotspot Information

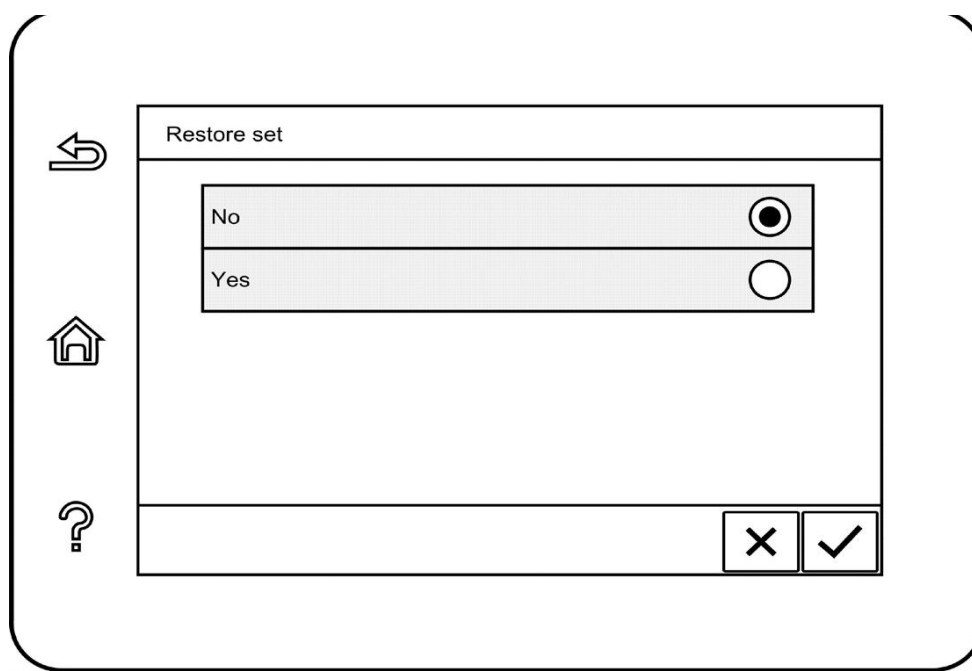
Status : Open

4. Restoration of Factory Settings

“Restore default settings” is applied to restore the default settings of the printer. After the default settings are restored, the printer will be automatically restarted.

4.1 Restore factory settings with menu

1. Click “” button in control panel to enter “Menu setting” interface.
2. Click and select “System Setting”-“Restore set” to reset to defaults.



4.2 Restoration of Factory Settings via Embedded Web Server

For the network type printer, the factory settings can be restored via the embedded Web server.

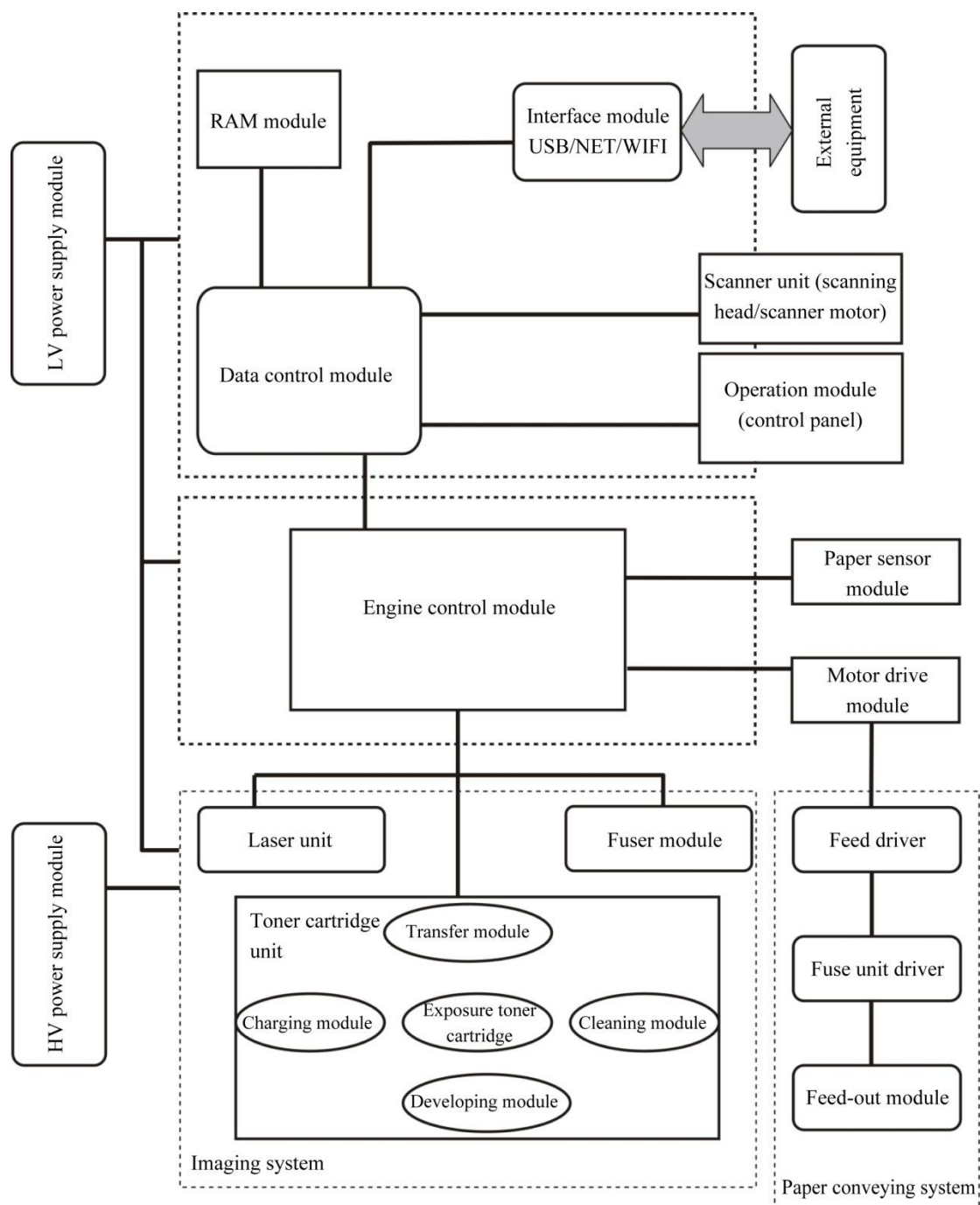
1. Connect the printer with the network. Enter the IP address of the printer in the address bar of the Web browser for access to the embedded Web server of the printer.
2. Click “User Management”, enter the correct "username" and "password", then “Restore Factory Settings”. The printer will be restarted automatically after factory settings are restored.

Note: After the factory settings of the printer are restored, the username of the administrator will be restored into admin, and the login password into 000000.

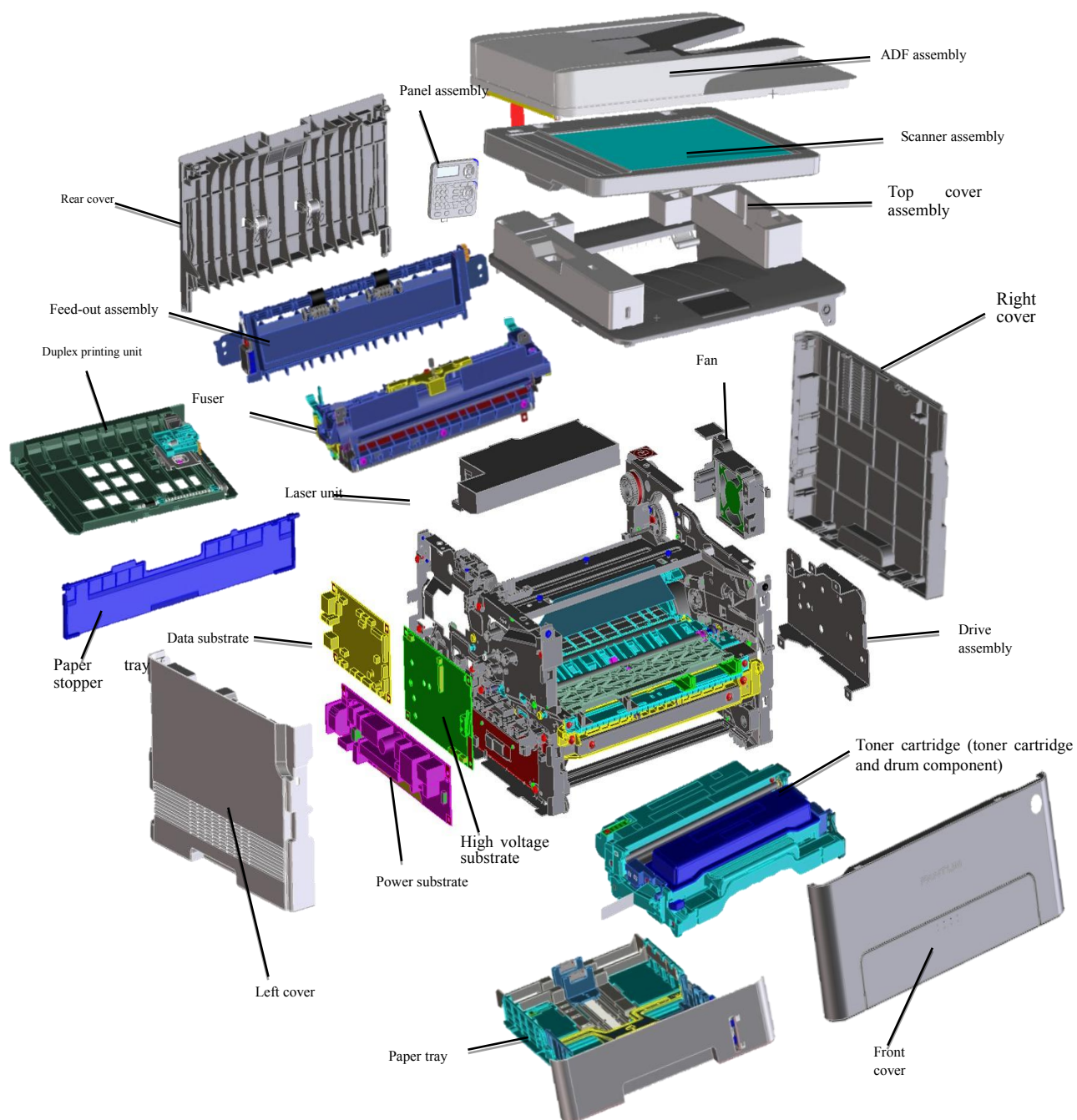
- If factory settings of your printer are recovered, the sleep time will be recovered to 5min automatically.
-

5. Operating Principle

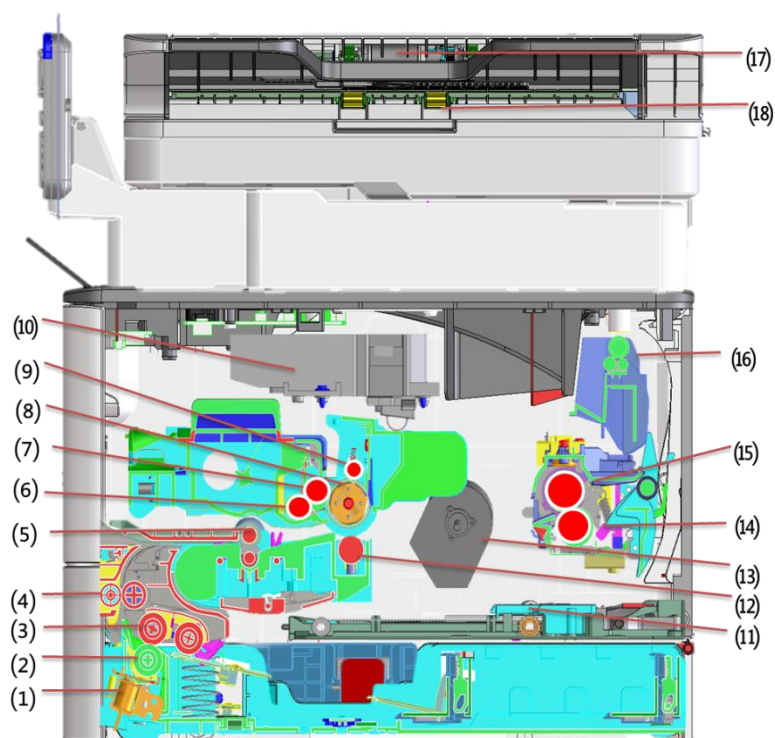
5.1 Overall Structural Diagram



5.2 Component Structure Diagrams



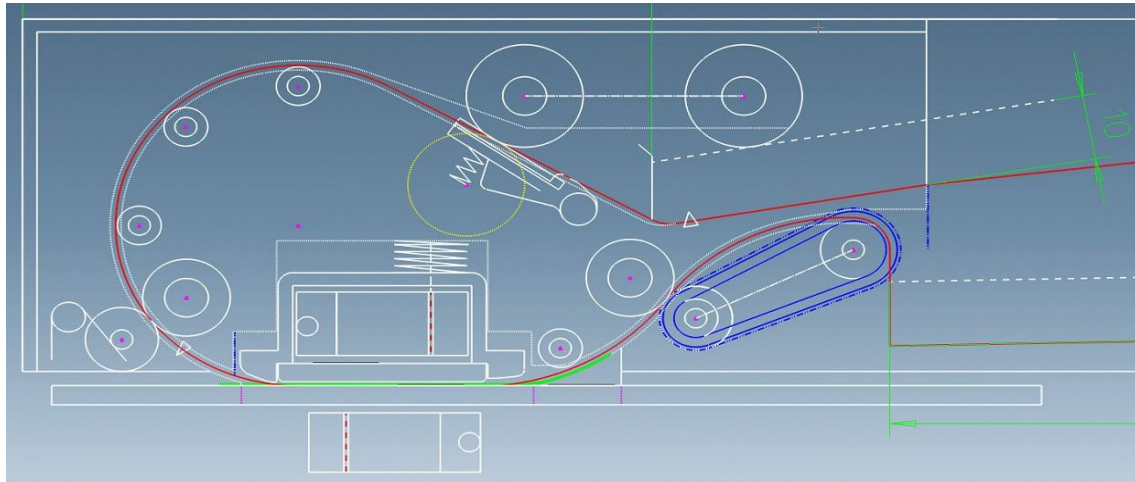
5.3 Mechanical Devices



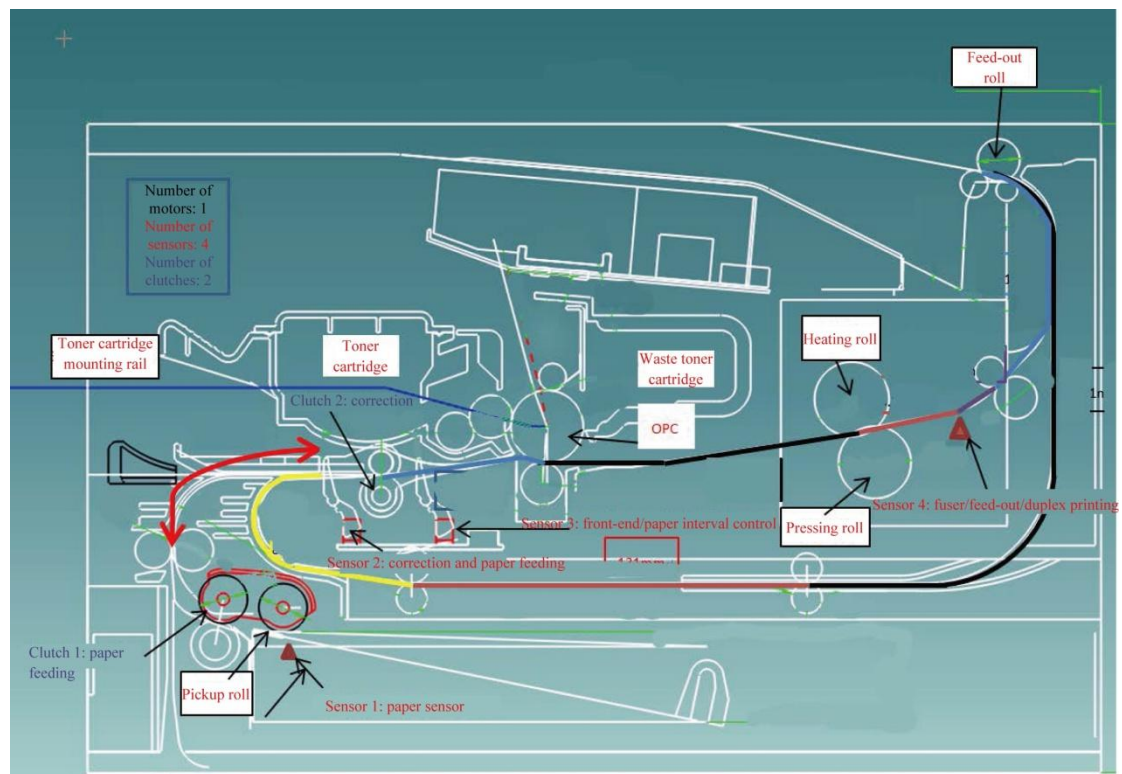
S/N	Name
1	Electromagnet
2	Separating roll
3	Paper-feeding roll assembly
4	Secondary conveying roll
5	Guide roll
6	Toner-feeding roll
7	Developing roll
8	OPC photosensitive drum
9	Charging roll
10	LSU laser unit
11	Conveying roll of duplex printing unit
12	Transfer roll
13	Motor assembly
14	Pressing roll
15	Heating roll
16	Feed-out roll
17	ADF paper-feeding roll
18	ADF feed-out guide wheel

5.4 Paper Path

5.4.1 ADF Paper Routine Diagram



5.4.2 Paper Routine Diagram of Printer



6. Disassembly and Installation

6.1 Disassembly Flowchart



6.2 Disassembly Steps

6.2.1 Before disassembly

1. Before disassembly, shut down the power of the printer, and pull out the power cord, USB

cable and network cable.

2. Remove the toner cartridge.



Note: Package the toner cartridge with black tapes to prevent the photosensitive drum from being damage as a result of exposure.



3. Remove the paper tray.



4. Remove the duplex printing unit.



6.2.2 Front cover

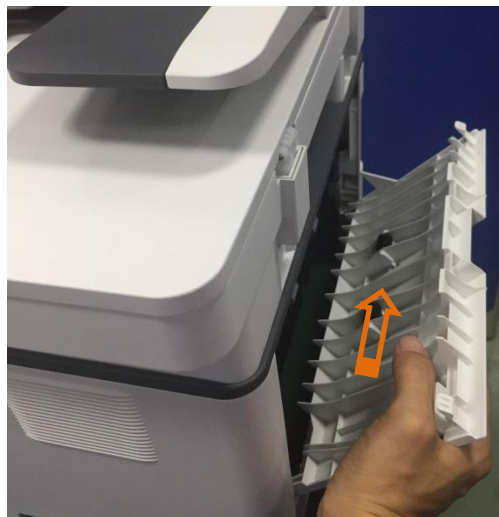
Remove the front cover connecting rod with forceps, and push the front cover out of the buckle, using the palm.



Connecting rod

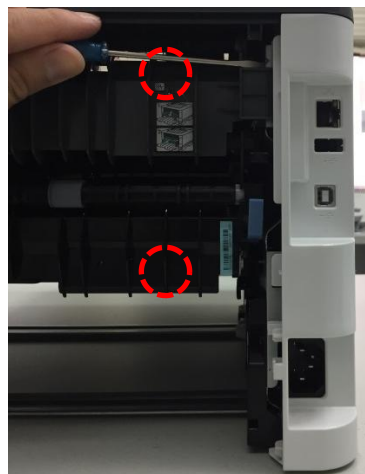
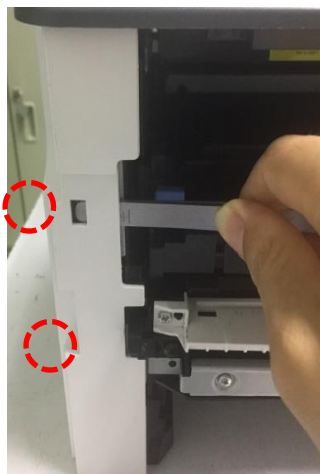
6.2.3 Rear cover

Open the rear cover, and push it out of the buckle, using the palm.



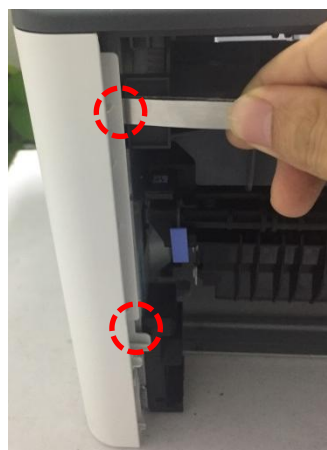
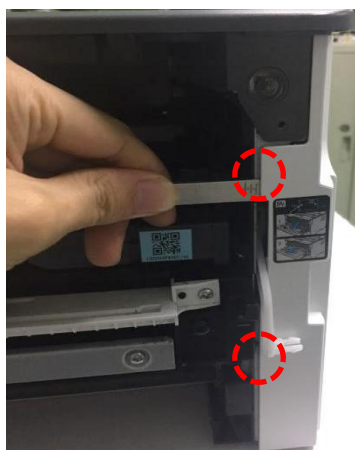
6.2.4 Left cover

Remove the front cover and rear cover, pry four buckles of the left cover, and remove the left cover.



6.2.5 Right cover

Remove the front cover and rear cover, pry four buckles of the right cover, and remove the right cover.

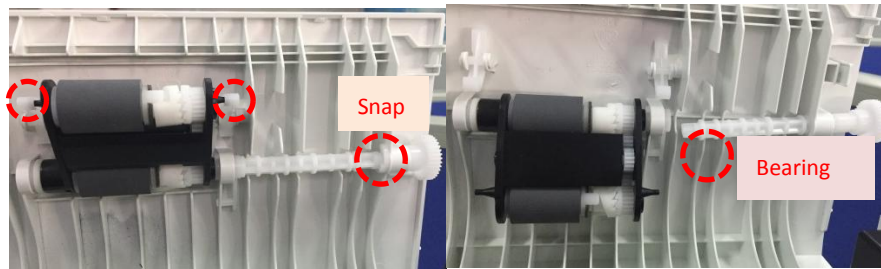


6.2.6 ADF pickup and separation assembly

1. Open the upper ADF cover, press the buckler of the separation assembly with the tweezers, and take out the separation assembly.



2. Open the upper ADF cover, take the paper-feeding assembly from the area between two baffles, remove the snap spring and gear shaft, and pull out the bearing buckle and bearing.

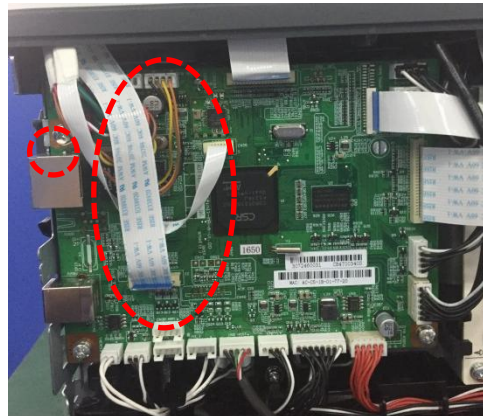


3. Push the paper-feeding roll sleeve right with the slotted screwdriver and take out the paper-feeding roll assembly.



6.2.7 ADF/scanner assembly

1. Remove the front cover, back cover, left cover and right cover, pull out five harnesses of the left data board connected to the scanner assembly, and remove one ground screw.

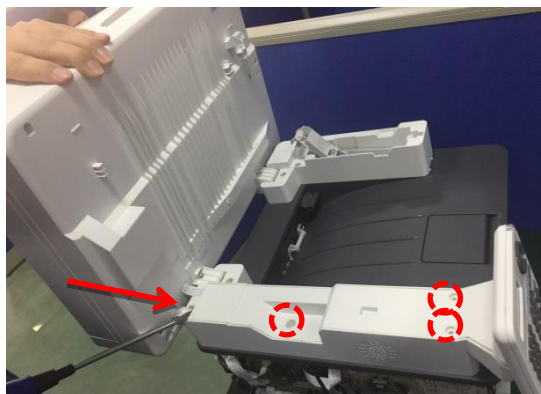


2. Remove two screws of the hinge support rod and then the hinge support rod (hold the scanner assembly by hand).



3. Hold the scanner/ADF assembly by hand, remove three screws of the upper side cover, and

pry out the upper side cover with the slotted screwdriver.



4. Hold the scanner/ADF assembly by hand, remove the scanner harness, and vertically pull out the scanning assembly.

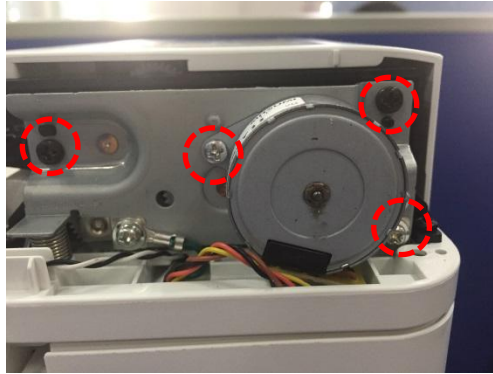


6.2.8 ADF motor

1. Remove the ADF/scanner assembly and four screws at the bottom of ADF. Then remove the ADF tray assembly by means of pulling it up.

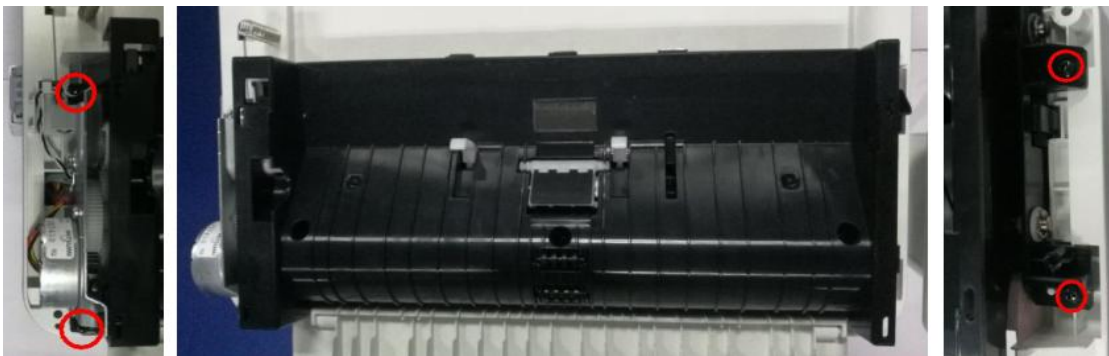


2. Remove four sheet metal screws, sheet metal assembly and then ADF motor.



6.2.9 ADF component CIS

1. Remove the ADF transport unit and remove the 4 screws on both ends of the ADF.

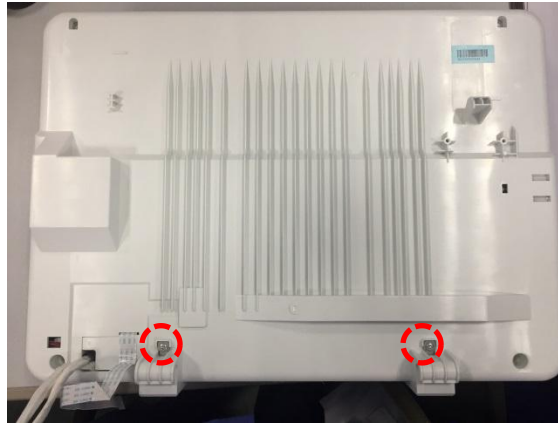


2. Remove the ADF assembly CIS (1.Disengage the side jaws; 2.Disengage the other side cable; 3.Remove the CIS)

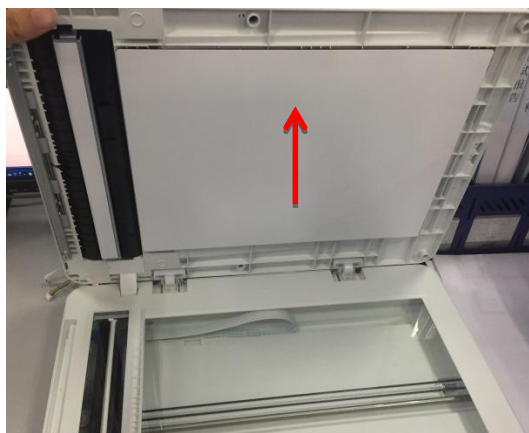


6.2.10 Scanner cover assembly

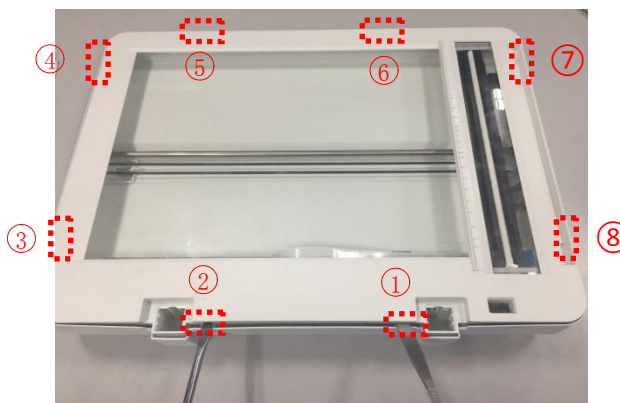
3. Remove the ADF/scanner assembly, two bottom screws of the scanner assembly, and then the iron baffles.



5. Remove ADF by pulling it up.

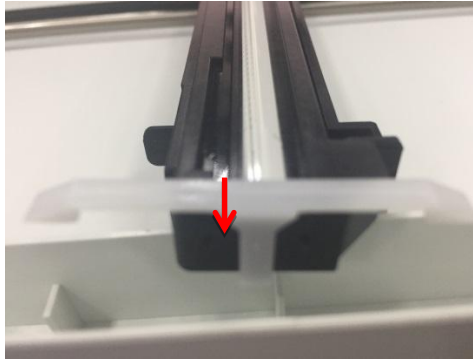


6. Pry out the bucklers (just into the corresponding holes of the jaws, and keep the tweezers in the first position while conduct prying in other positions) with two slotted screwdrivers or tweezers, and remove the scanner cover assembly.

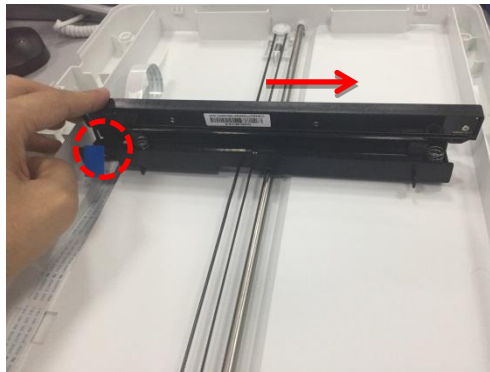


6.2.11 CIS

1. Remove the scanner cover assembly. Then pull out the CIS friction pads (one respectively on the left and right).

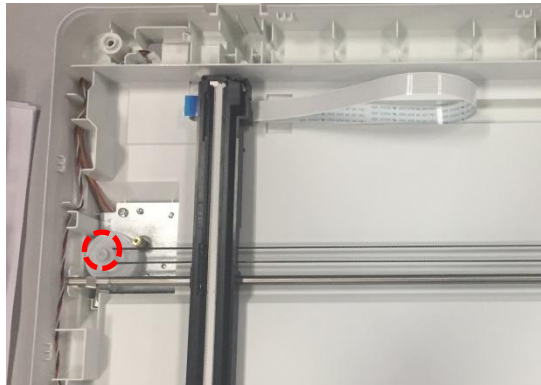


2. Pull out the CIS harness. Make CIS upright and take it out through the right side (do not directly touch the CIS luminous tube while replacing CIS, in order to avoid abnormality of the scanned image).

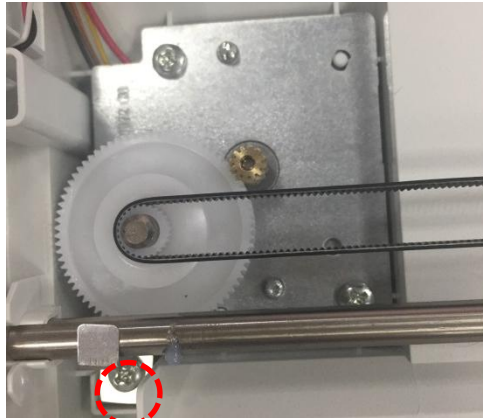


6.2.12 Scanner motor

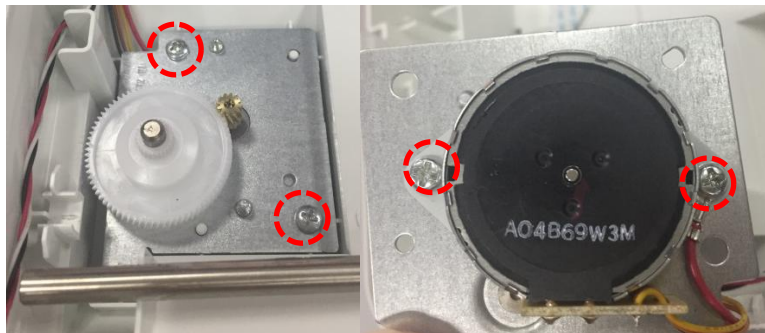
1. Remove the scanner cover assembly, pry out the gear cap, and then remove the scanner belt.



2. Remove the screws and the conductive sheet of the steel shaft. Then pry out the left end of the steel shaft.



3. Remove the two screws and take out the motor assembly. Then remove two motor screws and scanner motor.



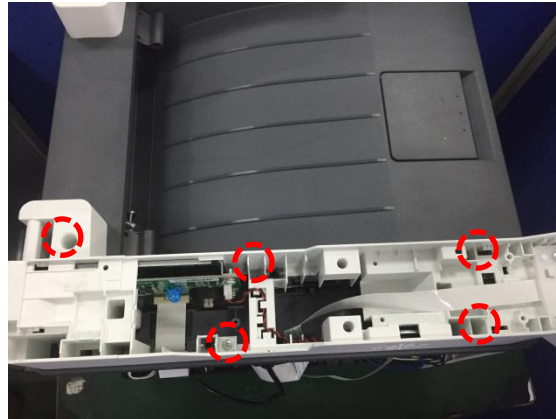
6.2.13 Control panel assembly

Remove the upper side cover of the scanner. Unplug the control panel harness, remove two screws, and take out the control panel.

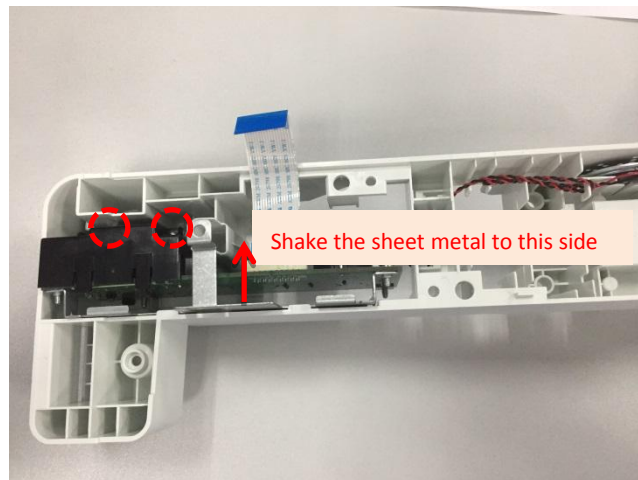


6.2.14 Fax substrate

1. Remove the ADF/scanner assembly, five screws and left boss.



2. Make the left boss inverted, remove the two screws, and take out the fax substrate assembly.



6.2.15 Upper cover component

Pull out the left and right harnesses in Figure I. Remove two screws in Figure II and take out the upper cover component.

Figure I:

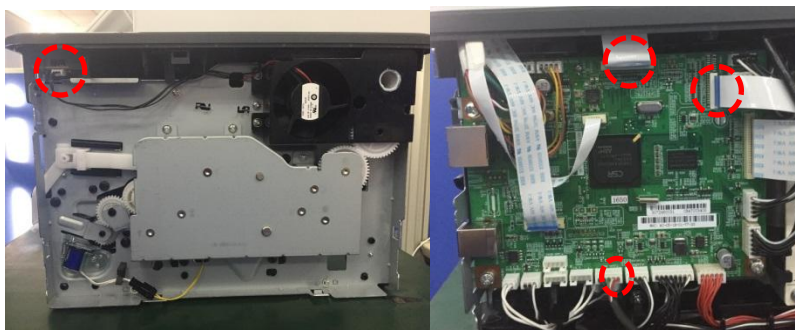
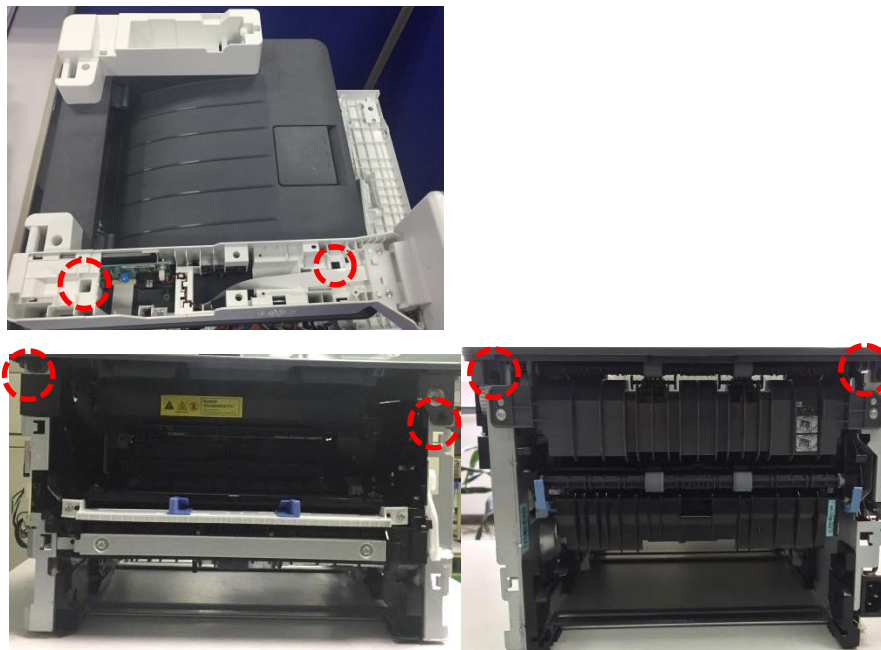
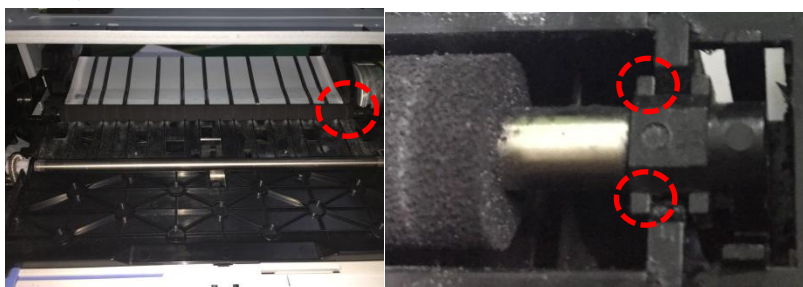


Figure II:



6.2.16 Transfer roll

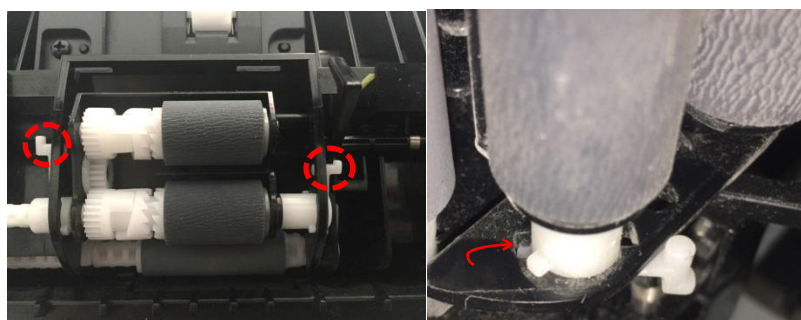
Open the front cover, pull out the clamping jaw at the right end of the transfer roll, remove the bushing at the right end of the transfer roll, and then remove the transfer roll.



Note: Do not directly touch the sponge of the transfer roll by handle while removing the transfer roll, in order to avoid printing abnormality.

6.2.17 Paper-feeding roll assembly

Pry up 2 clamping jaws, rotate the shaft pins via the clamping jaws until the pins are located in holes, and remove the paper-feeding roll assembly.



6.2.18 Paper sensor substrate

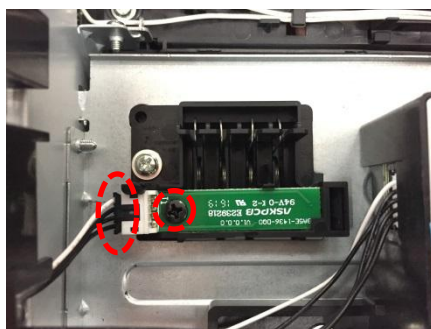
Pull out the paper tray and duplex printing unit, remove the screw and plug of the sensor

substrate, and then remove the paper sensor substrate.



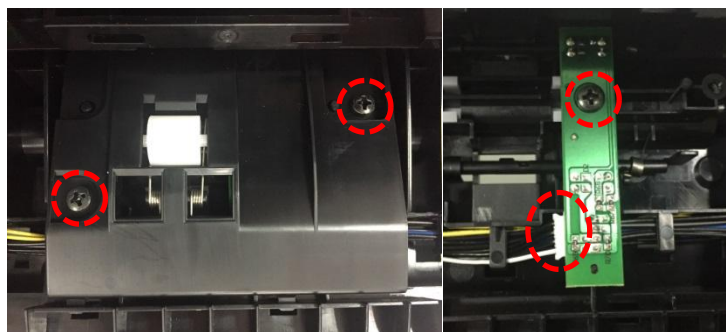
6.2.19 Chip adapter substrate

After removing the top cover, remove the substrate screw and plug, and take out the chip adapter substrate.



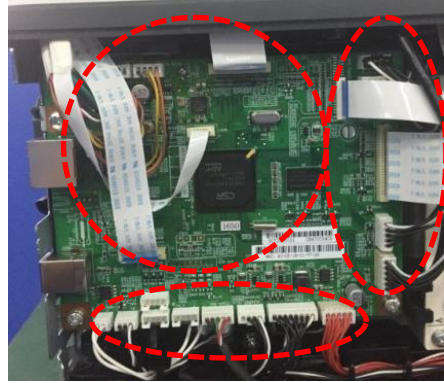
6.2.20 Front-end sensor substrate

Pull out the paper tray and duplex printing unit, remove two screws of the cover (at the bottom of the printer), and take out the cover. Remove the screw and plug of the sensor substrate, and take out the front-end sensor substrate.

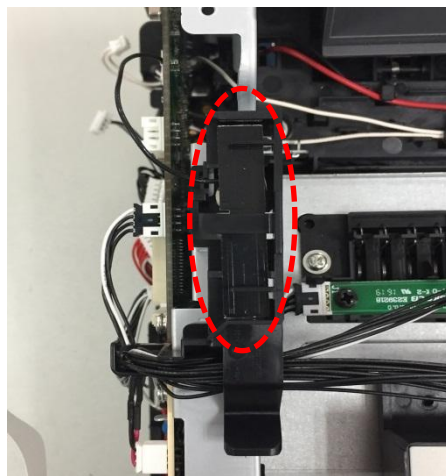


6.2.21 Data substrate

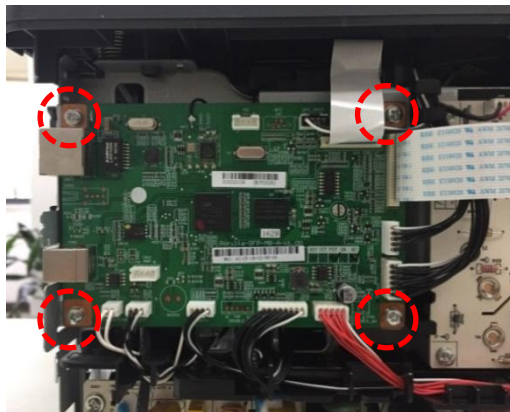
1. Remove the front cover and back cover, and pull out the harness plug on the data board.



Note: For the WiFi type printer, remove the top cover, lift the buckle of WiFi antenna, and take out the WiFi antenna.

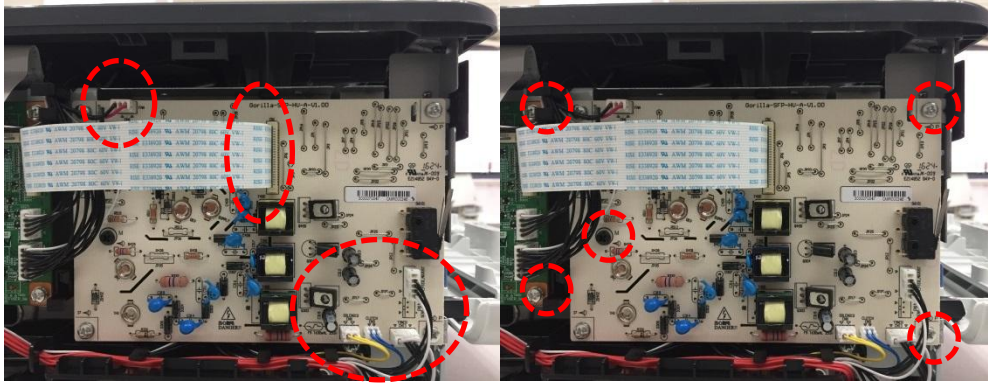


2. Remove the four screws and data substrate.



6.2.22 High voltage substrate

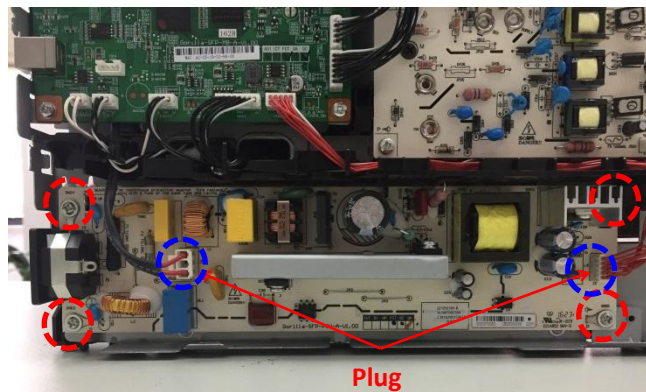
Remove the front cover and rear cover, and pull out six harness plugs of the high-voltage substrate (Figure 1). Remove the five screws (Figure 2) and then high-voltage substrate.



Note: You can see four conductive springs (easy to fall) after removing the engine substrate. Keep them properly, and install them in the correct positions. Among the four conductive springs, the one at the bottom is different from the other three.

6.2.23 Power substrate

Remove the front cover and rear cover, and pull out two plugs of the power substrate. Remove the four screws and then power substrate.

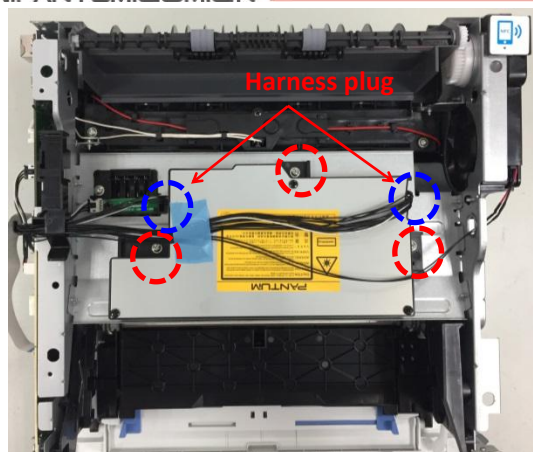


Note:

- The large capacitor of the substrate is still energized immediately after shutdown of the printer. It should be discharged before disassembly, to avoid electric shock.

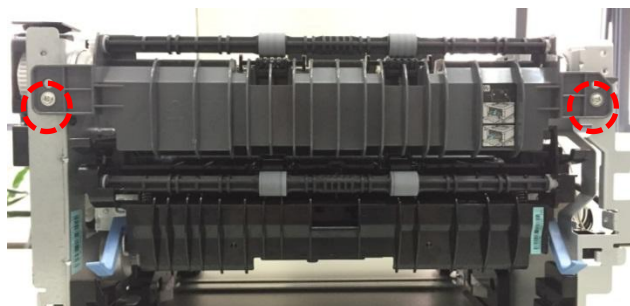
6.2.24 Laser unit

Remove the front cover, rear cover, left cover, right cover and top cover, and pull out two plugs of the laser unit. Remove the three screws and then laser unit.

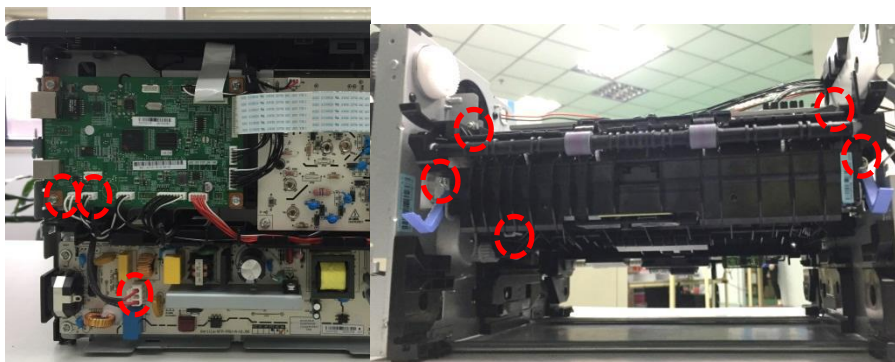


6.2.25 Fuser

1. Remove the front cover, rear cover, left cover and right cover. Then remove two screws of the feed-out assembly, and take out the feed-out assembly.

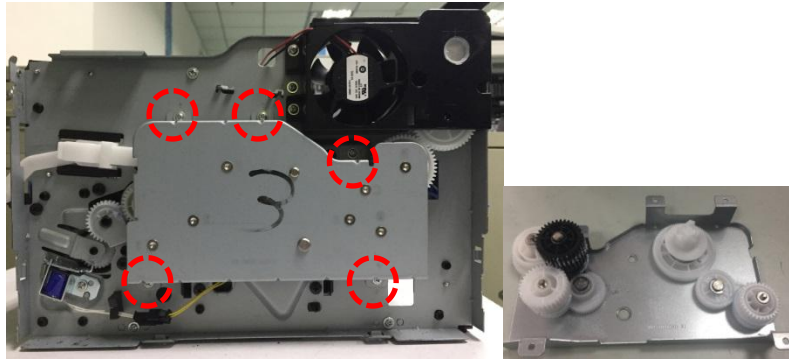


2. Remove the three plugs of the data substrate and power substrate, and five screws of the fuser. Then remove the fuser.



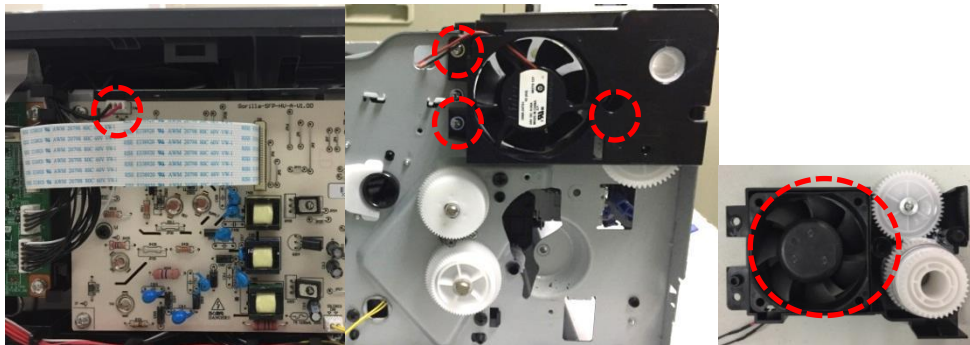
6.2.26 Driver unit

Remove the right cover and five screws of the driver unit. Then remove the driver unit (Note: pay attention to gear protection in the disassembly process, in order to prevent the gear from damage caused by falling down).



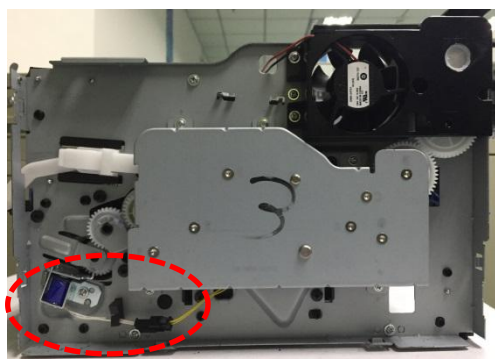
6.2.27 Fan

Remove the front cover, rear cover, left cover, right cover and top cover, and pull out the fan plug from the high voltage substrate. Remove the three screws of fan assembly. Then remove the fan assembly and take out the fan (Note: pay attention to gear protection in the disassembly process, in order to prevent the gear from damage caused by falling down).



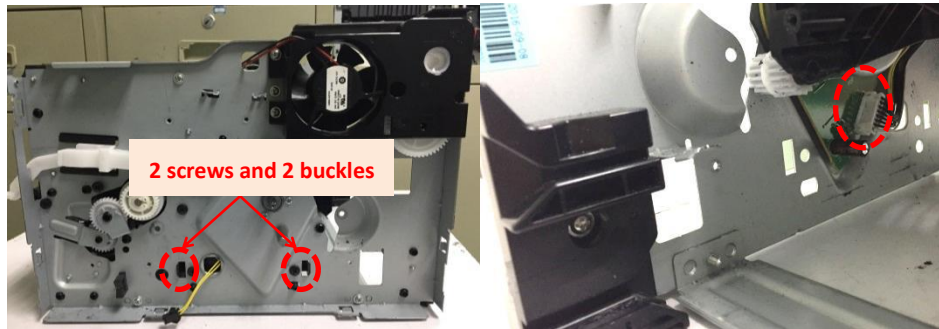
6.2.28 Electromagnet

Remove the right cover, and pull out the electromagnet plug. Remove one screw of the electromagnet, and take out the electromagnet.

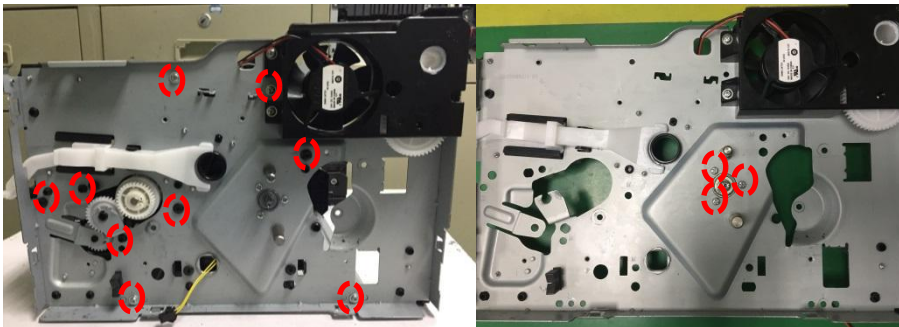


6.2.29 Motor

1. Remove the driver unit, two screws of the right frame and two buckles of the slide rail of the paper tray. Take out the slide rail of the paper tray, and pull out the harness plug of the motor.

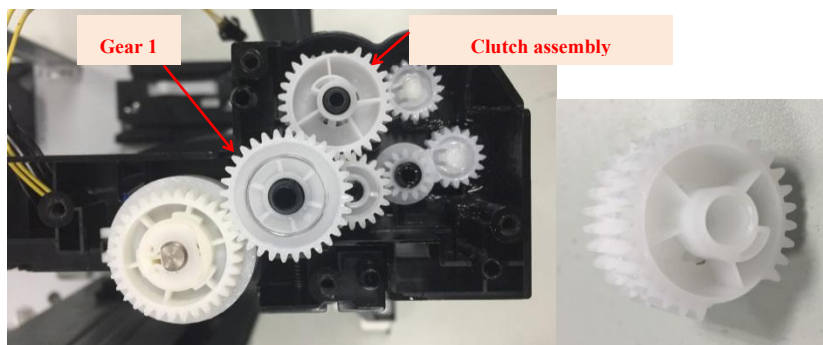


2. Remove the five screws of the right frame, the right frame and the three screws of the motor in sequence. Then remove the motor.



6.2.30 Clutch assembly

1. Remove the right frame and gear 1, and take out the clutch assembly.



7. Maintenance

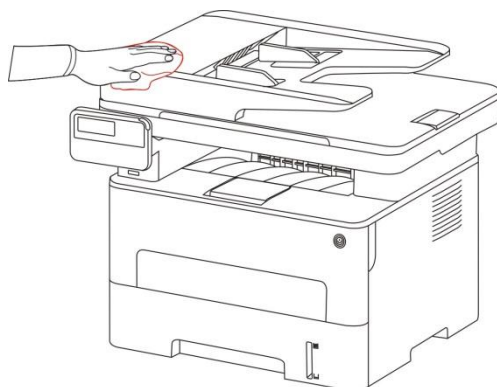
Note: The printer appearance varies depending on the model and function. The schematic diagram is for reference only.

7.1 Printer cleaning

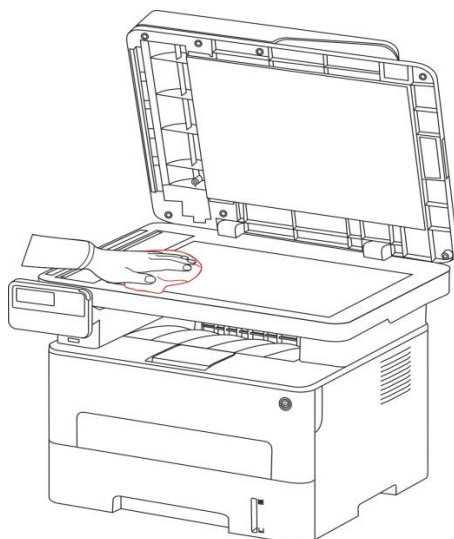
Note: Please use mild detergents.

Some parts are still hot in a short time after the printer is shut down. After opening the front cover or back cover, do not directly touch the internal parts with high temperature warning labels, in order to avoid scalding.

1. Turn off the main power switch, and unplug the power cord and other connecting wires.
2. Use soft cloth to wipe the outside of the printer, to remove dust.



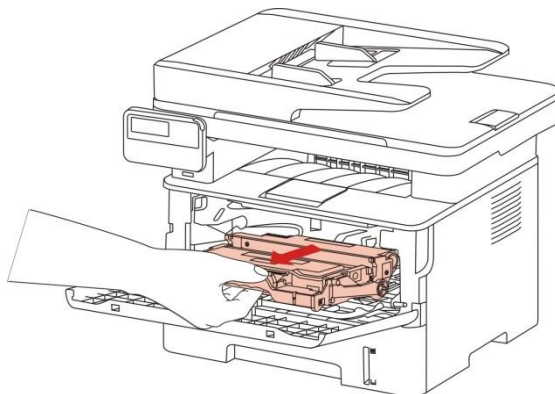
3. Lift the scanner cover and gently wipe the glass platen with soft cloth.



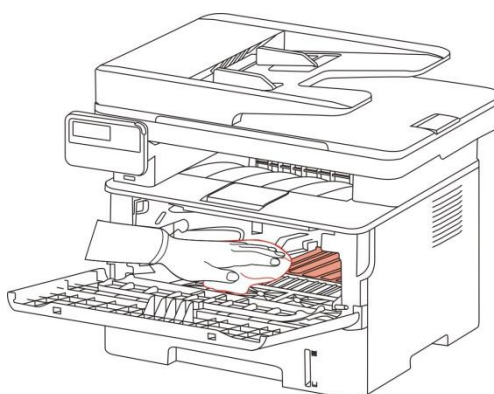
4. Open the front cover, and take out the laser toner cartridge out along the guide rail.

Note:

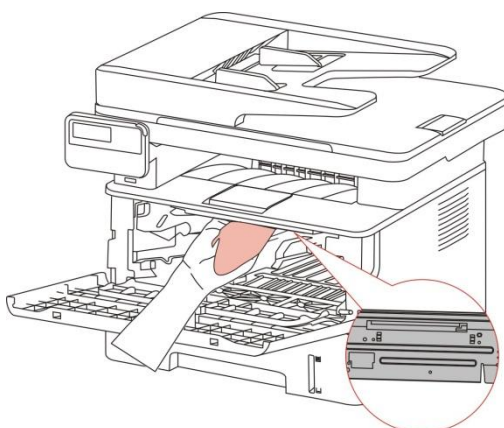
- Remove metal articles such as the watch and bracelet before removing the toner cartridge, as internal components may be damaged in the case of contact.
- After removing the toner cartridge, put it into a protective bag or wrap it with thick paper, to prevent damage caused by direct light.



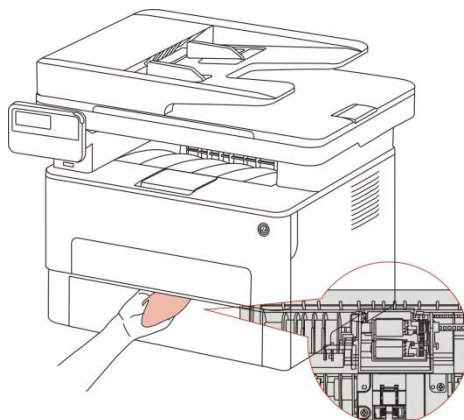
5. As shown below, clean the inside of the printer by gently wiping the shaded area with dry and lint-free cloth.



6. Wipe the LSU lens of the printer gently with dry and lint-free cloth.

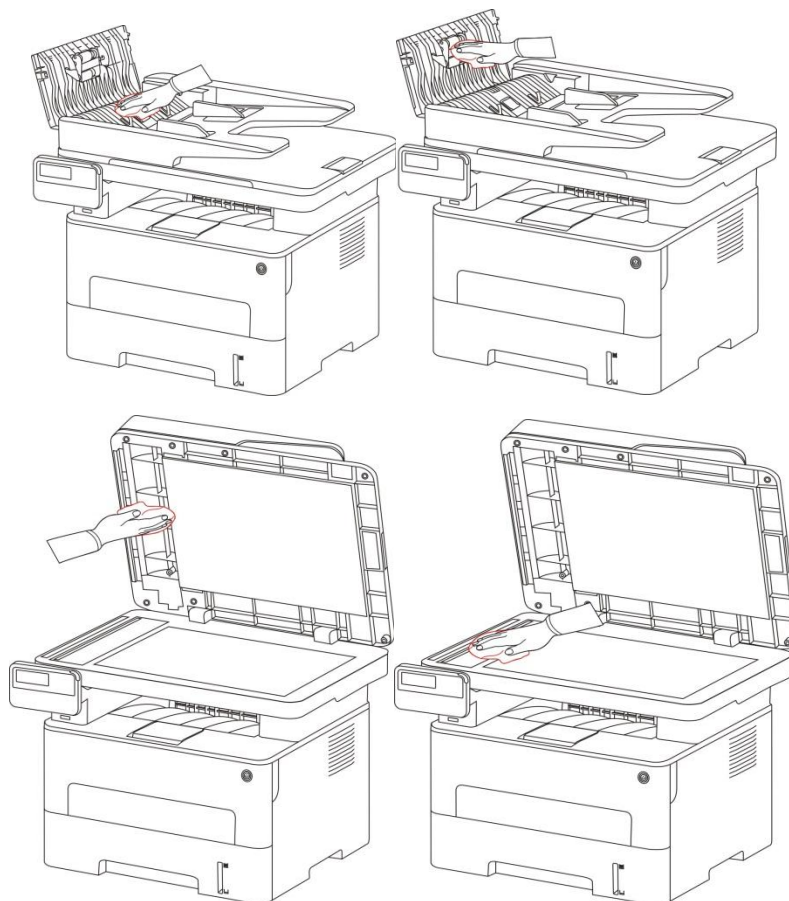


7. Open the automatic feeder tray of the printer, and gently wipe the paper-feeding roll with dry lint-free cloth.



Note: If the printer is provided with the document feeder, the document feeder cover should be cleaned regularly by means of wiping with soft cloth.

Wipe the part shown in the figure.



7.2 Use and Maintenance of Consumables

7.2.1 About toner cartridge and drum component

1. Use and maintenance of toner cartridge.

Use the original toner cartridge for better printing quality. Pay attention to the following items while using the toner cartridge.

- Do not take the toner cartridge out of the package, unless required immediately.
- Do not refill the toner cartridge without permission; otherwise, the damages caused will be excluded in the scope of warranty of the printer.
- Keep the toner cartridge in a cool and dry place.
- Keep the toner cartridge away from ignition sources, as the toner inside is flammable and may cause fire.
- Pay attention to toner leakage while taking out or removing the toner cartridge. In case of skin contact with toner or spattering into the eyes or mouth as a result of toner leakage, immediately wash them with clean water, or see a doctor if feeling unwell.
- Keep the toner cartridge away from the area accessible to children.

2. Service life of toner cartridge.

- The service life of the toner cartridge depends on the toner quantity needed for printing.
- If the LCD screen displays “The Toner Cartridge Life Expired”, it means that the service life of the toner cartridge is expired. Replace the toner cartridge.

3. Service life of drum component

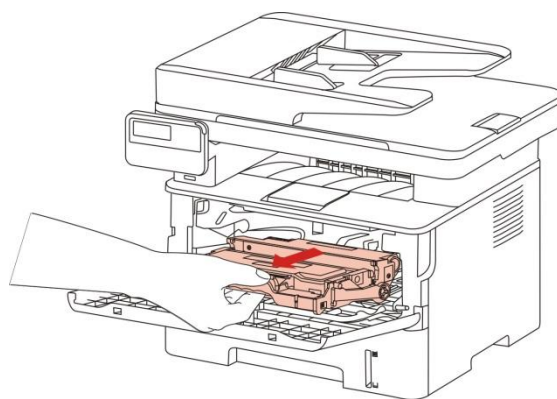
- If the LCD screen displays “The Drum Component Life Expired”, it means that the service life of the drum component is expired. Replace the drum component.

7.2.2 Replacement of toner cartridge and drum component

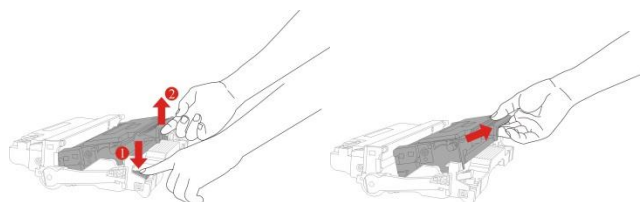
Note: Before replacing the toner cartridge, pay attention to the following items:

- There may be toner on the surface of the toner cartridge. Be careful to take out the toner cartridge in order to avoid spillage.
- Place the toner cartridge onto paper, to avoid toner spillage within a large area.
- Do not touch the drum surface during installation in order to prevent the drum from scratching.

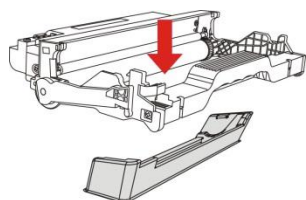
1. Turn off the power of the printer. Open the front cover, and take out the laser toner cartridge along the guide rail.



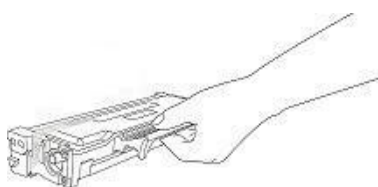
2. Press the blue button on the left side of the drum component with the left hand, lift the toner cartridge handle with the right hand, and take out the toner cartridge.



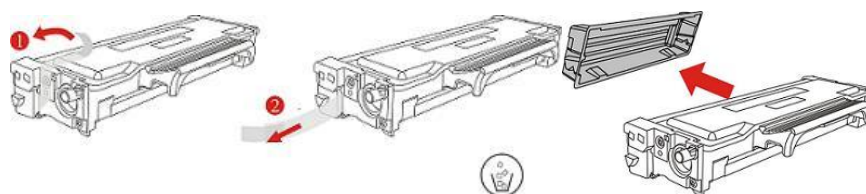
3. Open the package of new drum component, remove the protective device, and place the drum component onto a horizontal table.



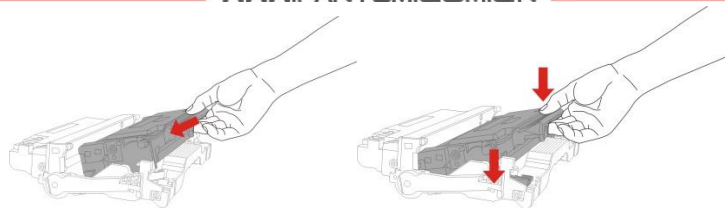
4. Open the new cartridge package, hold the cartridge handle, and gently shake the cartridge right and left 5-6 times to make toner dispersed evenly.



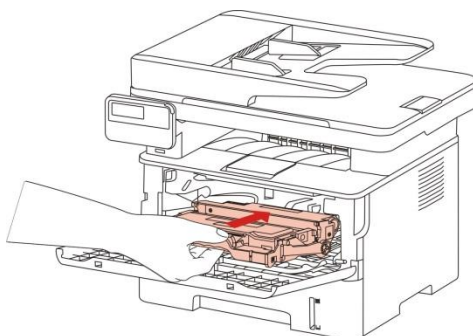
5. Pull out the seal and remove the protective cover of the toner cartridge.



6. Install the toner cartridge into the drum component along the guide rail of the drum component.



7. Install the drum component with toner cartridge along the guide rail of the printer, and close the front cover.



8. Error Message and Troubleshooting

8.1 Check before maintenance

I. Operating environment

- d) Keep the power voltage at the rated voltage AC220-240V on the nameplate.
- e) Install the printer on the secure and horizontal surface.
- f) Keep the indoor temperature of 10°C to 35°C and relative humidity of 20% to 80%.
- g) Do not install the printer in a dusty place.
- h) Do not expose the printer to ammonia or other harmful gases.
- i) Do not install the printer in a hot or humid area (such as beside the water or humidifier).
- j) Do not make the printer exposed to the direct sunlight.
- k) Keep good ventilation of the room where the printer is installed.
- l) Do not install the printer in a place where the vent may be blocked.

II. Print paper

- m) Check whether the print paper type complies with the specifications. [If the paper is too thick or thin or easy to roll, jamming or feeding problems may occur or the printed image may be blurring.]
- n) Check whether the print paper is wet. [If the paper is wet, use dry paper and check whether the printing quality is improved.]
- o) Check whether the print paper is short-texture or acidic. [In this case, the printing quality problem may be caused.]

III. Consumables

- p) If the indicator on the control panel of the printer flickers in yellow or the LCD screen displays that toner is used up, replace the toner cartridge promptly.
- q) Check whether the applied toner cartridge is designated by Pantum.

8.2 Error Status Prompts

Error Message	Cause	Solution
The printer is not connected.	<ol style="list-style-type: none"> 1. The USB cable or power cord is not connected. 2. The main control board fails. 	<ol style="list-style-type: none"> 1. Properly connect the USB cable and power cord. 2. Replace the main control board.
The front cover is open.	The front cover is not fully closed.	Close the front cover.
No paper is provided or paper feeding fails.	<ol style="list-style-type: none"> 1. Check whether there is paper. 2. The print paper is not installed properly. 3. The pickup roll is dirty or aged. 	<ol style="list-style-type: none"> 1. Make sure that there is paper in the paper tray. 2. Properly install the print paper. 3. Clean or replace the pickup roll.
Paper is jammed.	<ol style="list-style-type: none"> 1. The print paper is not installed properly. 2. The paper is damp. 3. The pickup roll is dirty. 4. The front-end sensor fails. 5. The fuser unit is damaged. 	<ol style="list-style-type: none"> 1. Install the print paper properly. 2. Use dry paper. 3. Clean the pickup roll. 4. Check or replace the front-end sensor. 5. Replace the fuser unit.
The drum component and carbon cartridge are not detected.	<ol style="list-style-type: none"> 1. The drum component and toner cartridge are not installed or installed improperly. 2. The chip contact of the drum component or toner cartridge is dirty or damaged. 3. The chip of the drum 	<ol style="list-style-type: none"> 1. Install the drum component and toner cartridge properly. 2. Replace the high voltage substrate. 3. Use new drum component and toner cartridge.

	component or toner cartridge is damaged.	
The drum component and toner cartridge are not matching.	The models of the drum component and toner cartridge are not matching.	Replace the drum component and toner cartridge.
The life of the drum component and toner cartridge is expired.	The print pages of the drum component and toner cartridge are used up.	Replace the drum component and toner cartridge.
Please close the ADF cover.	The ADF cover is not installed in place.	Close the ADF cover.
ADF jamming	<ol style="list-style-type: none"> 1. The original is not installed properly or the original size or medium does not meet the requirements. 2. ADF paper-feeding roll is dirty. 	<ol style="list-style-type: none"> 1. Replace the original. 2. Clean the paper-feeding roll.

8.3 Warning and Prompt Status

Function	Prompt Status	Notes
Warning	The status indicator is ON in orange.	<p>Little toner (LED does not shown the status of little toner during operation) and no display on LCD.</p> <p>After the sleep mode is disabled, the status indicator will not turn orange and the LED will be normally green as the status of little toner is not detected in the wake-up action (such as sweeping and ADF cover opening) with the engine not working.</p>
Sleep	The power indicator is in the breathing indicator mode.	The light intensity gradually decrease (tentatively 2s, to be adjusted according to the test results) and then increase (with the same time as above) in a cyclic manner.
Tip	<p>Communication error xx</p> <p>Cancel: OK</p>	<p>This is the scanning communication error prompt. Once this error occurs, the current scanning will be automatically terminated by the system. This will not affect the subsequent functions of the printer. Scanning, sweeping and fax reception or low voltage enabling can be performed normally in this status.</p> <p>You can exit this status in three ways: enabling the automatic sleep, update the scanning status or press "OK" on the panel.</p>

		<p>xx: Error code</p> <p>21 Communication failed (WSD communication error [the wired network connection and wifi connection cannot be distinguished in this communication error])</p> <p>22 Invalid instruction (reserved)</p> <p>23 Invalid parameter (reserved)</p> <p>24 (Reserved)</p> <p>25 USB connection error</p> <p>26 Network connection error</p> <p>27 wifi connection error</p> <p>The status LED indicator is normally ON in red.</p>
	<p>The memory does not have enough capacity. Press OK. Cancel the operation!</p>	<p>This is the prompt of insufficient capacity of the email and ftp memory. Once this error occurs, the current scanning will be automatically terminated by the system. This will not affect the subsequent functions of the printer. Printing, sweeping or low voltage enabling can be performed normally in this status.</p> <p>The current status of LED will not change.</p>
	<p>Insufficient memory capacity</p>	<p>This is the prompt of insufficient capacity of the ADF copy memory. Once this error occurs, scanning of the current copying process will be suspended. Press “Cancel” to cancel copying. The other keys are invalid in this status. If the memory has the enough capacity in the follow-up waiting process, the scanning job will continue. Printing, sweeping or low voltage enabling will be invalid in this status.</p> <p>The current status of LED will not change.</p>
	<p>Insufficient memory capacity</p> <p>Cancel: OK</p>	<p>This is the prompt of insufficient capacity of the memory for ADF duplex-to-duplex copying. As the matching duplex scanning data are not available, the memory will not be released. Copying will be canceled automatically, and the user will be informed of this status.</p> <p>You can exit this status in two ways: enabling the automatic sleep or pressing OK on the panel.</p> <p>The status LED indicator is normally ON in red.</p>
	<p>Email beyond server restrictions: OK</p>	<p>This is the prompt of the Email attachment beyond server restrictions, and the email will</p>

		<p>not be sent. Once this error occurs, the current scanning will be automatically terminated by the system. This will not affect the subsequent functions of the printer. Printing, sweeping or low voltage enabling can be performed normally in this status.</p> <p>The status LED indicator is normally ON in red.</p>
	<p>Cancel the failure of sending the scanned file: OK</p>	<p>If the address of the Email or FTP scanned in network connection is correct but does not exist; or the SMTP server is configured incorrectly; or the scanned data are not sent correctly in the scanning process, the LCD will display this error and LED will be normally ON in red.</p> <p>Once this error occurs, the current scanning will be automatically terminated by the system. This will not affect the subsequent functions of the printer. Printing, sweeping or low voltage enabling can be performed normally in this status.</p> <p>The status LED indicator is normally ON in red.</p>
	<p>Please set it in the webpage. xx address</p>	<p>This error message appears if the group Emails under “Scan to Email” are empty.</p> <p>This error message appears if the group Emails under “Scan to Email” are empty.</p> <p>This error message appears if the FTP address book is empty after “Scan to FTP” is selected.</p> <p>It will be displayed for 3 seconds. Then the system will automatically return to the original menu. If any key is pressed or the printer status is changed within three seconds, the error display will be canceled immediately and the system will return to the original menu.</p> <p>The status LED indicator is normally ON in green but the amount of toner is not small.</p>
	<p>Group members are empty.</p> <p>Please set it in the webpage.</p>	<p>This message appears if the group Email members are empty.</p> <p>It will be displayed for 3 seconds. Then the system will automatically return to the original menu. If any key is pressed or the printer status is changed within three seconds, the error display will be canceled immediately and the system will return to the original menu.</p> <p>The status LED indicator is normally ON in green but the amount of toner is not small.</p>
	<p>Network connection failed</p>	<p>The wired or wifi connection is not available when the email and ftp are swept.</p> <p>It will be displayed for 3 seconds. Then the system will automatically return to the</p>

		<p>original menu. If any key is pressed or the printer status is changed within three seconds, the error display will be canceled immediately and the system will return to the original menu.</p> <p>The status LED indicator is normally ON in green but the amount of toner is not small.</p>
	No response is made to USB communication.	<p>This message appears if no response is made to USB when PC is swept. It will be displayed for 3s. Then the system will automatically return to the previous menu.</p> <p>It will be displayed for 3 seconds. Then the system will automatically return to the original menu. If any key is pressed or the printer status is changed within three seconds, the error display will be canceled immediately and the system will return to the original menu.</p> <p>The status LED indicator is normally ON in green but the amount of toner is not small.</p>
	No response is made by PC. Cancel: OK	<p>The sweep command is successfully sent to the host, but the host fails to send the scanning job to the printer. This status will be shown on the panel after 10s (change range: 8-12s).</p> <p>The status LED indicator is normally ON in red.</p>
	Connecting WPS... WPS PIN: XXXXXXXX	<p>This message is displayed when the WPS PIN mode is enabled in the menu.</p> <ol style="list-style-type: none"> 1. If any error (such as cover opening) occurs in this status, the error will be displayed. After the error is recovered, the above message will be displayed again. 2. If any job is performed, the panel will display the job status, and the WPS PIN code status will be displayed through the wifi LED. After the job is completed, the above message will be displayed again. 3. The WPS PIN connection can be canceled by long-pressing the wifi button or short-pressing CANCEL, and the previous menu will appear on the panel. 4. The sleep mode will not be enabled if the hotspot is connected in the station in the PIN and PBC mode. <p>The wifi LED will flicker according to the WPS connection status.</p>
	WPS connection succeeds. OK-Back/OK	<p>This message appears if the WPS PIN code mode is connected successfully. If printing or scanning job is performed in the connection process, the panel will display the job status, the WPS connection status will be displayed by the wifi LED, and the above message</p>

		<p>will not be displayed after the job is finished.</p> <ol style="list-style-type: none"> 1. If any error (such as cover opening) occurs in this status, the error will be displayed. After the error is recovered, the above message will be displayed again. 2. If any job is performed in this status, the panel will display the job status, the WPS connection status will be displayed by the wifi LED, and the above message will not be displayed on LCD after the job is finished. 3. The original functions of functional mode buttons will be restored and such buttons can be used for switching the modes. 4. The WPS PIN can be disconnected by long-pressing the wifi button in this status. 5. It is invalid to short-press the wifi button in this status. 6. The system will return to the previous menu if Back or OK is pressed in this status. 7. The sleep mode can be enabled by short-pressing the ON/OFF button. <p>If the WPS PIN code mode is connected successfully, the wifi LED will be normally ON.</p>
	WPS connection failed OK-Back/OK	<p>This message will be displayed if the WPS PIN mode connection succeeds/fails. If the printing or scanning job is performed in the connection process, the panel will display the job status, the WPS connection status will be displayed by the wifi LED, and the above message will not be displayed after the job is finished.</p> <ol style="list-style-type: none"> 1. If any error (such as cover opening) occurs in this status, the error will be displayed. After the error is recovered, the above message will be displayed again. 2. If any job is performed in this status, the panel will display the job status, the WPS connection status will be displayed by the wifi LED, and the above message will not be displayed on LCD after the job is finished. 3. The original functions of functional mode buttons will be restored and such buttons can be used for switching the modes. 4. The WPS PB connection can be enabled by long-pressing the wifi button in this status, and the panel will display the standby interface. 5. The wifi station connection can be enabled by short-pressing the wifi button in this status, and the panel will display the standby interface. 6. The system will return to the previous menu if Back or OK is pressed in this status. 7. The sleep mode will be enabled by short-pressing the ON/OFF button in this status. <p>If the WPS PIN code connection fails, the wifi LED will be OFF.</p>
	WiFi is being connected.	<p>This message appears if the WPS PIN mode is enabled during wifi connection.</p>

	Please stop it first!	It will be displayed for 3 seconds and then the system will automatically return to the original menu. If any key (the functional mode keys cannot be used for switching modes) or printer status (such as the error and job) is changed, the above message will disappear immediately, and the system will return to the original UI or display the corresponding status.
	WiFi has been connected. Please disconnect it first!	This message will appear if the WPS PIN connection is enabled via the menu with WiFi connected. It will be displayed for 3 seconds and then the system will automatically return to the original menu. If any key (the functional mode keys cannot be used for switching modes) or printer status (such as the error and job) is changed, the above message will disappear immediately, and the system will return to the original UI or display the corresponding status.
	The ADF document has been loaded.	This message appears if paper is fed into ADF in the standby interface. It will be displayed for 3 seconds and then the system will automatically return to the original menu. If any key (the functional mode keys cannot be used for switching modes) or printer status (such as the error and job) is changed, the above message will disappear immediately, and the system will return to the original UI or display the corresponding status. The status LED indicator is normally ON in green but the amount of toner is not small.
	Place the original in the ADF.	This message appears if no paper is fed into ADF in the standby interface (not in the menu interface). It will be displayed for 3 seconds and then the system will automatically return to the original menu. If any key (the functional mode keys cannot be used for switching modes) or printer status (such as the error and job) is changed, the above message will disappear immediately, and the system will return to the original UI or display the corresponding status.
Tip	Place the original into the FB.	This message appears if the manual zoom or poster copying is enabled. It will be displayed for 3 seconds and then the system will automatically return to the original menu. If any key (the functional mode keys cannot be used for switching modes) or printer status (such as the error and job) is changed, the above message will disappear immediately, and the system will return to the original UI or display the corresponding status.
Tip	The USB flash disk has	This message appears if the USB flash disk is inserted.

been inserted.	It will be displayed for 3s, and the system will automatically return to the “Scan USB flash disk” mode. If any key (the functional mode keys cannot be used for switching modes) or printer status (such as the error and job) is changed, the above message will disappear immediately, and the system will return to the original UI interface or display the corresponding status. If the sleep mode of the panel is disabled, this message will appear. The prompt that “the USB flash disk has been inserted” will not appear if the USB flash disk is inserted when a job is performed.
Please insert a USB flash disk.	This message appears if no USB flash disk is inserted in the scanning process after “Scan to USB flash disk” is enabled. It will be displayed for 3 seconds and then the system will automatically return to the original menu. If any key (the functional mode keys cannot be used for switching modes) or printer status (such as the error and job) is changed, the above message will disappear immediately, and the system will return to the original UI or display the corresponding status.
The USB flash disk is not identified.	This message appears if the USB flash disk is inserted. This message appears if the formation of the USB flash disk is not identified in the scanning process after “Scan to USB flash disk” is enabled. It will be displayed for 3s, and the system will automatically return to the original menu. If any key (the functional mode keys cannot be used for switching modes) or printer status (such as the error and job) is changed, the above message will disappear immediately, and the system will return to the original UI interface or display the corresponding status. If the sleep mode of the panel is disabled, this message will appear.
Storage in the USB flash disk failed. Cancel: OK	This message appears if the USB flash disk is pulled out in the scanning process after “Scan to USB flash disk” is enabled. 1: The keys except OK are invalid in this status. 2: Press OK in this status to return to the standby interface. 3: The status LED indicator is normally ON in red in this status.

Notes: Printing, sweeping or low voltage enabling can be performed normally when the above message is displayed.

8.4 Error Code

Warning!

The product has the function of self-diagnosis. If any fault is detected, the error code and warning message will be displayed on the screen or computer.

Error Code		Cause	Check and Measures
Error code (on control board)	Error code (on driver)		
Internal error 01 of printer Please call the customer service staff.	Internal error 40 of printer Please call the customer service staff.	Abnormality of main motor	1. Check the connecting wire of the motor; 2. Replace the motor; 3. Restart the printer; 4. Replace the data substrate.
Internal error 02 of printer Please call the customer service staff.	Internal error 45 of printer Please call the customer service staff.	Abnormality of synchronization of laser unit	1. Check the connecting wire of the laser unit; 2. Replace the laser unit; 3. Restart the printer; 4. Replace the data substrate.
Internal error 03 of printer Please call the customer service staff.	Internal error 46 of printer Please call the customer service staff.	Abnormality of motor of laser unit	1. Check the connecting wire of the laser unit; 2. Replace the laser unit; 3. Restart the printer; 4. Replace the data substrate.
Internal error 04 of printer Please call the customer service staff.	Internal error 33 of printer Please call the customer service staff.	Too long heating of heating roll under full power	1. Check the connecting wire of the fuser unit; 2. Replace the fuser unit; 3. Replace the power substrate; 4. Replace the data substrate.
Internal error 05 of printer Please call the customer service staff.	Internal error 34 of printer Please call the customer service staff.	Too slow temperature rise of heating roll	

Internal error 06 of printer Please call the customer service staff.	Internal error 35 of printer Please call the customer service staff.	Abnormality of thermistor of heating roll	
Internal error 07 of printer Please call the customer service staff.	Internal error 36 of printer Please call the customer service staff.	Too slow cooling of heating roll	
Internal error 08 of printer Please call the customer service staff.	Internal error 37 of printer Please call the customer service staff.	Abnormal temperature of heating roll	
Internal error 09 of printer Please call the customer service staff.	Internal error 38 of printer Please call the customer service staff.	Failure of heating roll to reach the start temperature of laser unit	
Internal error 10 of printer Please call the customer service staff.	Internal error 39 of printer Please call the customer service staff.	Failure of heating roll to reach the pickup temperature	
Internal error 11 of printer Please call the customer service staff.	Internal error 32 of printer Please call the customer service staff.	Fault of engine system	1. Restart the printer; 2. Replace the data substrate.
Internal error 12 of printer Please call the customer service staff.	/	Abnormality of image output unit or video module	1. Restart the printer; 2. Replace the data substrate.
Internal error 13 of printer Please call the customer service staff.	Internal error 47 of printer Please call the customer service staff.	Failure of fan connection	1. Check the connecting wire of the fan; 2. Replace the fan; 3. Restart the printer; 4. Replace the data substrate.
Internal error 21 of	/	Communication failure	1. Check whether network connection is

printer Please call the customer service staff.		(WSD communication error [the wired network connection and wifi connection cannot be distinguished])	normal (the same as the internal error 26); 2. Check whether wifi connection is normal (the same as the internal error 27); 3. Replace the data substrate.
Internal error 22 of printer Please call the customer service staff.	/	Invalid command (reserved)	1. Restart the printer; 2. Replace the data substrate.
Internal error 23 of printer Please call the customer service staff.	/	Invalid parameter (reserved)	1. Restart the printer; 2. Replace the data substrate.
Internal error 24 of printer Please call the customer service staff.	/	(reserved)	1. Restart the printer; 2. Replace the data substrate.
Internal error 25 of printer Please call the customer service staff.	/	USB connection error	1. Check whether the USB plug is connected securely. If the USB plug is connected properly, restart the printer or the device connected to the printer. 2. Replace the data substrate.
Internal error 26 of printer Please call the customer service staff.	/	Network connection error	1. Check whether the network cable is connected properly; 2. Restart the printer; 3. Replace the data substrate.
Internal error 27 of printer Please call the customer service staff.	/	wifi connection error	1. Check whether the wireless connection of the printer is enabled; 2. Check the network environment, and make sure that the wireless network is normal; 3. Check whether the connecting wire

			<p>between the internal antenna and data substrate is connected properly;</p> <p>4. Restart the printer;</p> <p>5. Replace the data substrate.</p>
Internal error 31 of fax	/	Fax module initialization failed.	<p>1. Check the connecting cable of the fax substrate;</p> <p>2. Restart the printer;</p> <p>3. Replace the fax substrate.</p>
Internal error 11 of scanner	/	Origin check error	<p>1. Check whether the data line of the scanner is connected properly;</p> <p>2. Check whether the scanning head is damaged;</p> <p>3. Check whether the scanner motor is damaged;</p> <p>4. Check whether the connecting wire of the scanner motor is connected properly;</p> <p>5. Restart the printer;</p> <p>6. Check whether the data substrate is damaged.</p>
Internal error 12 of scanner	/	The black mark is not found.	<p>1. Check whether the data line of the scanner is connected properly;</p> <p>2. Check whether the scanning head is damaged;</p> <p>3. Check whether the scanner motor is damaged;</p> <p>4. Check whether the connecting wire of the scanner motor is connected properly;</p> <p>5. Restart the printer;</p> <p>6. Check whether the data substrate is damaged.</p>
Internal error 13 of	/	Light calibration	<p>1. Check whether the data line of the</p>

scanner		failed.	<p>scanner is connected properly;</p> <ol style="list-style-type: none"> 2. Check whether the scanning head is damaged; 3. Check whether the scanner motor is damaged; 4. Check whether the connecting wire of the scanner motor is connected properly; 5. Restart the printer; 6. Check whether the data substrate is damaged.
Internal error 14 of scanner	/	AFE calibration failed (OFFSET).	<ol style="list-style-type: none"> 1. Check whether the data line of the scanner is connected properly; 2. Check whether the scanning head is damaged; 3. Check whether the scanner motor is damaged; 4. Check whether the connecting wire of the scanner motor is connected properly; 5. Restart the printer; 6. Check whether the data substrate is damaged.
Internal error 15 of scanner	/	AFE calibration failed (GAIN)	<ol style="list-style-type: none"> 1. Check whether the data line of the scanner is connected properly; 2. Check whether the scanning head is damaged; 3. Check whether the scanner motor is damaged; 4. Check whether the connecting wire of the scanner motor is connected properly; 5. Restart the printer;

			6. Check whether the data substrate is damaged.
Internal error 16 of scanner	/	Shading failed	<ol style="list-style-type: none"> 1. Check whether the data line of the scanner is connected properly; 2. Check whether the scanning head is damaged; 3. Check whether the scanner motor is damaged; 4. Check whether the connecting wire of the scanner motor is connected properly; 5. Restart the printer; 6. Check whether the data substrate is damaged.
Wifi issue	/	Wifi issue	Replace the data board.

8.5 Removal of Jammed Paper

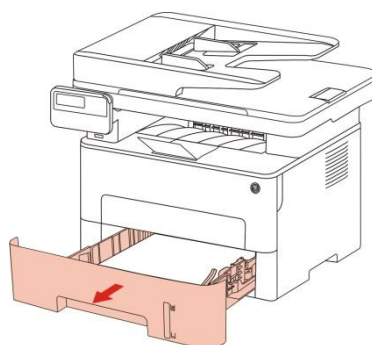
Note:

- After all pieces of paper jammed are taken out according to the following steps, close the front cover and tidy the paper in the paper tray. The printer will recover to print automatically.
- If the printer does not start printing, please check whether all the jammed paper inside the printer has been cleared.
- If you cannot remove the jammed paper by yourself, please contact local Pantum authorized repair center or send the printer to the nearest Pantum authorized service center for repair.
- The printer appearance may differ because of various models and functions, so the schematic diagram is for reference only.
- All pieces of paper inside the paper tray should be taken out before new paper is added. Make all pieces of paper tidy and place them into the paper tray, to prevent jamming caused by feeding of too much paper at a time.

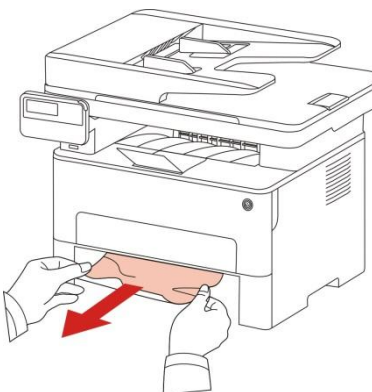
8.5.1 Middle jamming

Note: If the open cover or back cover is opened to remove the middle jammed paper, do not immediately touch the parts with high temperature warning labels, in order to avoid scalding.

1. Pull out the paper tray.

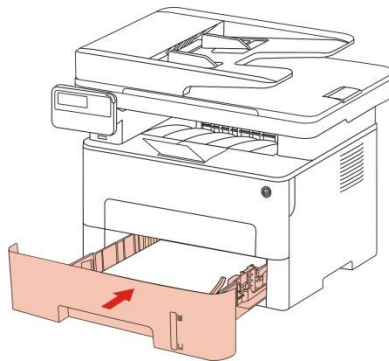


2. Gently pull out the jammed paper.

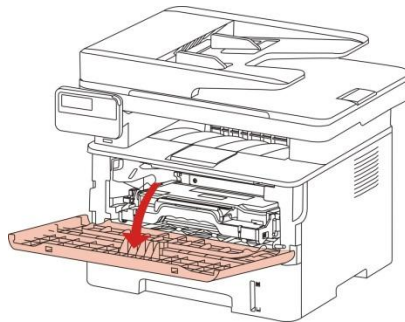


3. After pulling out the jammed paper, install the paper tray into the printer, and close the front

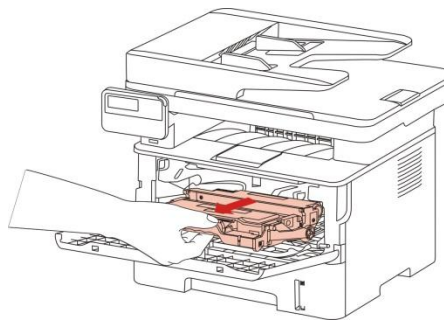
cover. The printer will automatically recover printing.



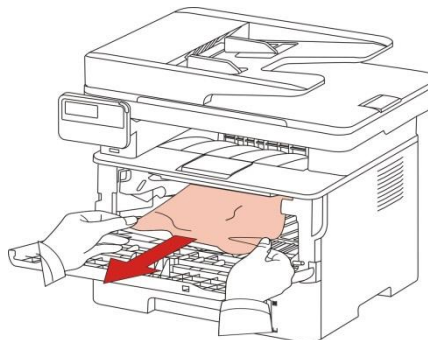
4. Open the front cover.



5. Remove the toner cartridge along the guide rail. (In order to prevent the influence of drum exposure on the printing quality, please keep the toner cartridge in the protective bag or wrap the toner cartridge with thick paper.)



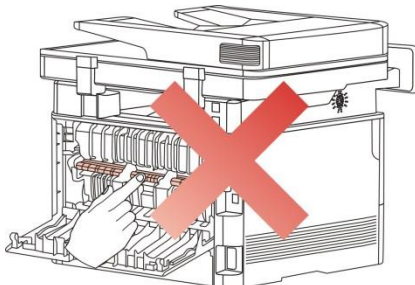
6. Gently pull out the jammed paper.



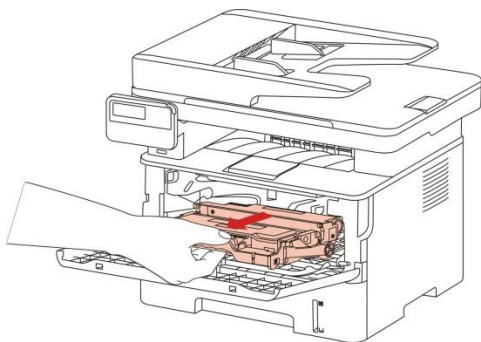
7. After removing the jammed paper, reinstall the toner cartridge and close the front cover. The printer will resume printing.

8.5.2 Jammed paper in fuser unit

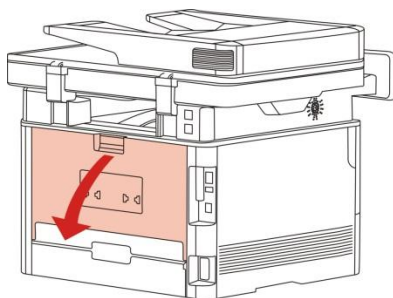
Note: While removing the jammed paper in the fuser unit, do not touch the shaded area shown below to avoid burns.



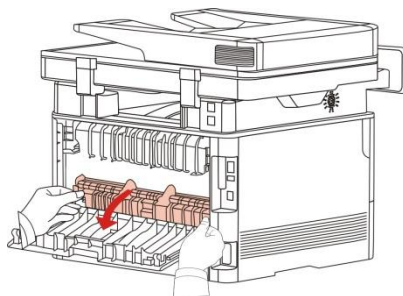
1. Open the front cover and remove the toner cartridge along the guide rail.



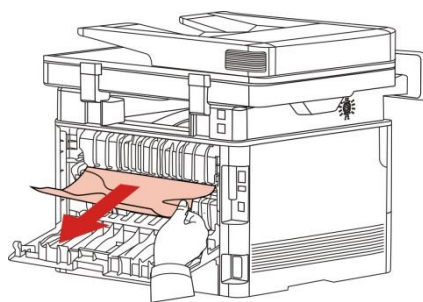
2. Open the rear cover.



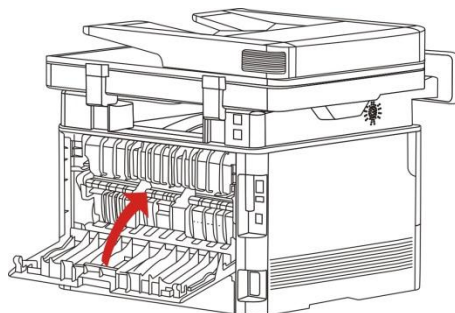
3. Open the fuser door using the handles on both sides.



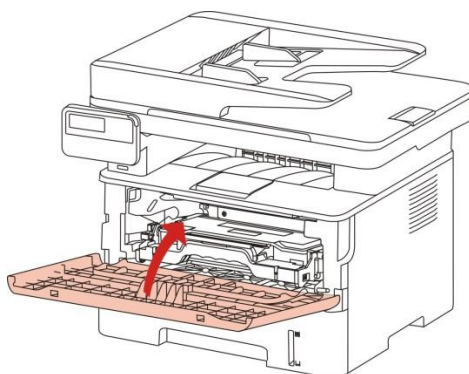
4. Gently pull out the jammed paper.



5. Remove the jammed paper and close the back cover.

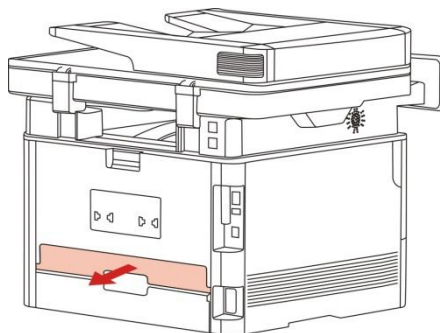


6. Install the toner cartridge and close the front cover. The printer will resume printing.

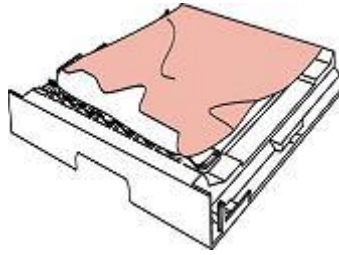


8.5.3 . Jammed paper in duplex printing unit

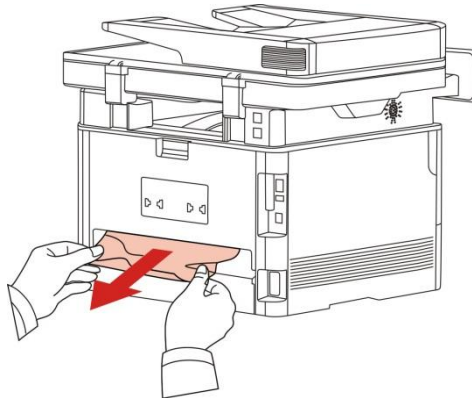
1. Take out the duplex printing unit from the rear side of the printer.



2. Pull the jammed paper out of the duplex printing unit.



3. If the jammed paper is not taken out with the duplex printing unit, open the paper tray and directly take out the jammed paper from the bottom.



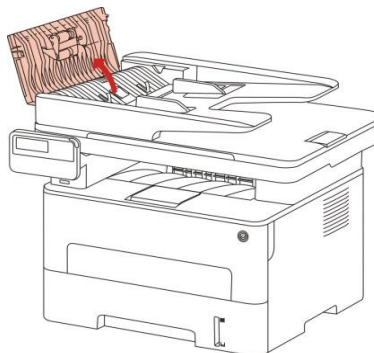
4. Remove the jammed paper, install the duplex printing unit and check the other parts for paper jamming. Open and close the front cover, and start printing.

Notes: • Remove all the jammed paper as per the above steps, close the front cover and neaten paper in the tray. The printer will automatically resume printing.

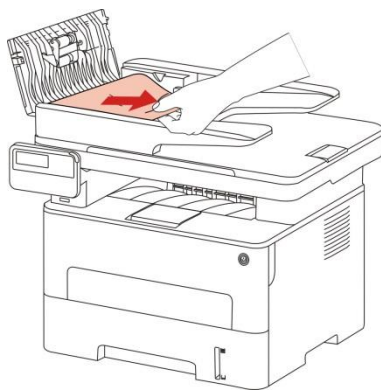
- If the printer still fails, check whether all jammed paper in the printer is removed.
- If you cannot remove the jammed paper, contact or send the product to the local service center authorized by Pantum.
- The printer appearance varies depending on the model and function. The schematic diagram is for reference only.

8.5.4 Jammed paper of document feeder (ADF)

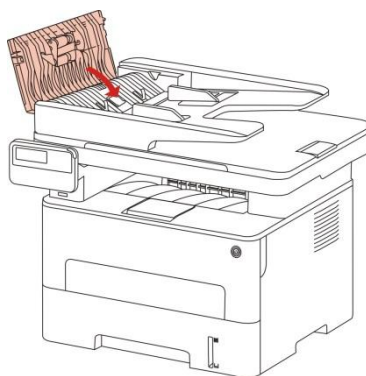
1. Open the cover of the document feeder.



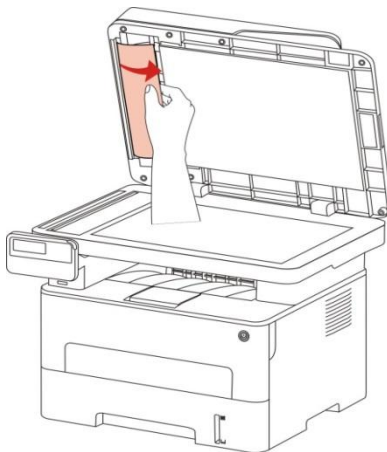
2. Remove the jammed paper from the document feeder.



3. Then close the cover of the document feeder. The printer will resume printing.



4. If it is difficult to remove the jammed paper, try opening the scanner cover and removing the jammed paper from the pressing plate.



8.6 Troubleshooting

8.6.1 Paper feeding problem

Initial check: carry out initial check at first in case of paper feeding error.

Check	Solution
Does the applied medium conform to the specifications of the printer?	Replace the medium.
Is the paper curly, wrinkling or damp?	Replace paper and tell the user how to properly save paper.
Is the paper path deformed, dirty or blocked with foreign matters?	Clean the paper path. If required, replace the related spare parts.
Is the separating jaw dirty, deformed or damaged?	Replace the fuser unit.
Are the pickup roll and separating assembly dirty, deformed or damp?	Clean the pickup roll and separating assembly. If required, replace them.
Is the clamp of the paper tray suitable for the medium?	Slide the clamp of the paper tray until it is next to the edge of the paper stack.
Does the clutch gear rotate normally?	Adjust or replace the clutch gear.
Does the electromagnet work normally?	Replace the electromagnet.

M1 Feeding failure

Possible Cause	Solution
There is no electromagnet signal.	Check the electromagnet signal input, and make sure that the electromagnet signal line is connected properly.
The pickup roll is contaminated.	Clean or replace the pickup roll.
The pickup roll is worn.	Replace the pickup roll.

M2 Continuous feeding

Possible Cause	Solution
The electromagnet signal is wrong.	Check the electromagnet signal input, and make sure that the electromagnet signal line is connected properly.
The electromagnet spring does not have enough capacity.	Replace the electromagnet.
The phases of the clutch unit are not installed correctly.	Check the clutch unit and make sure that the phases of the clutch unit are installed correctly.

M3 Paper inclination

Possible Cause	Solution
The feeding channel is contaminated.	Check the feeding channel and make sure that it is smooth.
The pickup roll is contaminated.	Clean the pickup roll.

M4 Repeated feeding

Possible Cause	Solution
Paper is not placed properly.	Place the paper properly.
The separator is contaminated or worn.	Clean or replace the separator.

8.6.2 Common faults

8.6.2.1 Printing fault

P1 No AC power

Possible Cause	Solution
The power voltage is abnormal.	Make sure that the power voltage is normal.
The power cord is not securely inserted into the socket.	Make sure that the power core is securely inserted into the power socket.
The fuse is burnt out.	Replace the high-voltage power board.

P2 No DC power

Possible Cause	Solution
No AC power is supplied.	Make sure that the AC power is supplied normally.
The low-voltage power supply is abnormal.	Replace the high-voltage power board.

P3 Motor fault

Possible Cause	Solution
The connecting wire of the motor is not connected properly.	Make sure that the connecting wire is connected properly and conforms to the quality requirements.
The main motor is abnormal.	Replace the motor. Make sure that the main motor is normal. Otherwise, replace the main motor.

The engine substrate is faulty.

Replace the engine substrate.

P4 Failure of heating lamp

Possible Cause	Solution
The plug wire of the circuit board of the high-voltage power supply is disconnected.	Reconnect the plug wire, and make sure that the AC power is supplied normally.
There is jammed paper inside the printer.	Check the printer and remove the jammed paper.
The feed-out sensor cannot be closed.	Clean or replace the feed-out sensor.
The front-end paper sensor is faulty.	Replace the front-end paper sensor.
The thermistor is faulty.	Replace the fuser unit.
The temperature relay is disconnected.	Replace the fuser unit.
The engine substrate fails.	Replace the engine substrate.
The high-voltage power board is faulty.	Replace the high-voltage power board.

P5 Fault of fuser unit

Possible Cause	Solution
The contact of the plug wire of the thermistor is poor.	Reconnect the wire.
The temperature relay is burnt out.	Replace the fuser unit.
The halogen heating lamp is faulty.	Replace the fuser unit.

P6 Fault of laser scanner

Possible Cause	Solution
The connecting wire is connected improperly or broken.	Properly connect or replace the connecting wire.
The laser unit is damaged.	Replace the laser unit.
The engine substrate is faulty.	Replace the engine substrate.

P7 Paper feeding failure

Possible Cause	Solution
The separator pad/pickup roll is faulty.	1) Clear the surface of the separator pad or pickup roll. 2) Replace the separator pad or pickup roll.
The connecting wire of the electromagnet is not connected properly.	Make sure that the connecting wire of the electromagnet is connected properly.
The electromagnet is faulty.	Replace the electromagnet.
The paper sensor is faulty.	Replace the paper sensor.
The engine substrate is faulty.	Replace the engine substrate.

P8 High-voltage output abnormality

Possible Cause	Solution
The power core is inserted or damaged.	Make sure that the power cord is connected properly.
The high-voltage contact is dirty.	Clean the high-voltage contact.
The high-voltage power board is faulty.	Replace the high-voltage power board.

P9 USB cannot be identified by PC

Possible Cause	Solution
The power cord is not inserted or is in poor	Make sure that the power cord is connected

contact or damaged.	properly.
The plug of the USB cable is in poor contact or damaged.	Make sure that the USB cable is connected properly.
The data substrate is faulty.	Replace the data substrate.

P10 Printing mess or fully black page

Possible Cause	Solution
The USB cable is connected properly or faulty.	Check the USB cable and make sure that it is connected properly.
The FFC wire connecting the engine substrate and data substrate is in poor contact or not reliable.	Replace the connecting wire.
The data substrate is faulty.	Replace the data substrate.
The engine substrate is damaged.	Replace the engine substrate.

P11 Failure of image printing

Possible Cause	Solution
The USB cable and power cord are not connected properly.	Check the USB cable and power cord, and make sure that they are connected properly.
The FFC wire connecting the engine substrate and data substrate is in poor contact or not reliable.	Replace the connecting wire.
The high-voltage power board is damaged.	Replace the engine substrate.
The data substrate is abnormal.	Replace the data substrate.
The toner cartridge is abnormal.	Replace the toner cartridge.
The laser unit is abnormal.	Replace the laser unit.

P12 No response of keys on operation panel

Possible Cause	Solution
The connecting wire is damaged.	Replace the connecting wire.
Keys are damaged.	Replace keys.
The operation panel substrate is faulty.	Replace the operation panel substrate.
The engine substrate is faulty.	Replace the engine substrate.

P13 Failure in identification of toner cartridge

Possible Cause	Solution
The toner cartridge is not installed properly.	Make sure that the toner cartridge is installed properly.
The chip of the toner cartridge is faulty.	Replace the toner cartridge.
The data substrate is faulty.	Replace the data substrate.

8.6.2.2 Scanning failure

S1 image scanning abnormality

Possible cause	Solution
The scanner cover is not installed in place, resulting in exposure.	Properly install the scanner cover.
The scanner software is not set correctly.	Check the scanner setting.
The color difference of the scanning head is abnormal.	Replace the scanning head.

S2 scanner fault

Possible cause	Solution
The internal connection is not correct.	Properly connect the cable of the scanning head.
The scanning head is faulty.	Replace the scanning head.
The data board is faulty.	Replace the data board.
The engine board is faulty.	Replace the engine board.




8.6.2.3 Copy failure

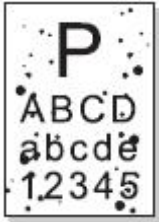
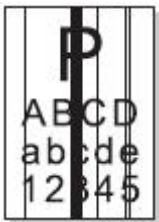
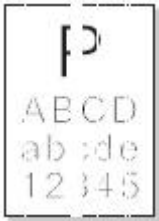
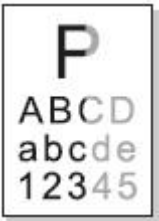
F1 copy quality abnormality

Possible cause	Solution
The scanner cover is not installed in place, resulting in exposure.	Install the scanner cover properly.
The glass platen is dirty.	Clean the glass platen.
The drum is damaged.	Replace the drum.
The high voltage is abnormal.	Clean the high-voltage contact or replace the high-voltage power board.
The scanning head is abnormal.	Replace the scanning head.
The high-voltage power board is faulty.	Replace the high-voltage power board.

8.7 Image Defects

8.7.1 Printing

State	Cause	Recommended Solution
<p>The printout is light.</p> 	<ul style="list-style-type: none"> ● The toner in the cartridge is almost used up. ● The high-voltage contact of the engine substrate is in poor contact as a result of toner contamination. ● The high-voltage output of the high-voltage power board is abnormal. 	<ul style="list-style-type: none"> ● Replace the toner cartridge. ● Clean the toner contamination area. ● Clean the high-voltage contact or replace the high-voltage power board.
<p>The whole page is dark.</p> 	<ul style="list-style-type: none"> ● The charging high-voltage output of the high-voltage power board is abnormal. ● The charging roll is abnormal. 	<ul style="list-style-type: none"> ● Clean the charging high-voltage contact or replace the high-voltage power board. ● Replace the toner cartridge.
<p>There are horizontal black lines or stripes.</p> 	<ul style="list-style-type: none"> ● The high-voltage contact and toner cartridge are in poor contact. ● The developing roll is contaminated, or the OPC or charging roll is damaged. ● The paper slips. 	<ul style="list-style-type: none"> ● Clean the high-voltage contact or replace the high-voltage power board. ● Replace the toner cartridge. ● Clean or replace the pickup roll.

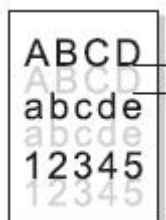
<p>There are black/white spots.</p> 	<ul style="list-style-type: none"> ● Some components of the toner cartridge are contaminated or OPC is damaged. ● If there are 44mm periodic black spots on the image, the high voltage of the transfer roll is abnormal or the transfer roll is damaged. 	<ul style="list-style-type: none"> ● 1. Replace the toner cartridge. ● 2. Clean the high-voltage contact of the transfer roll or replace the transfer roll. ● 3. Regularly clean the inside of the printer, and remove paper scraps and dirty.
<p>There are vertical black lines or stripes.</p> 	<ul style="list-style-type: none"> ● The cleaning scraper has a gap or is deformed. ● OPC is damaged. ● There are foreign matters between the developing roll and toner scraper. 	<ul style="list-style-type: none"> ● Replace the toner cartridge.
<p>There are vertical white stripes.</p> 	<ul style="list-style-type: none"> ● The window glass of the laser unit is contaminated. ● There are foreign matters or toner particulates between the developing roll and toner scraper. ● The fuser unit is abnormal. 	<ul style="list-style-type: none"> ● Clean the laser window glass of the laser unit. ● Replace the toner cartridge. ● Clean or replace the fuser unit.
<p>The printing color is light.</p> 	<ul style="list-style-type: none"> ● The toner scraper is damaged. ● The pressure of springs on the left and right side of the transfer roll is not uniform, the springs are damaged, the transfer roller is installed improperly, or the bushing of the transfer roll is damaged. ● The laser unit is faulty. 	<ul style="list-style-type: none"> ● Replace the toner cartridge. ● Replace the bushing of the transfer roll. ● Replace the laser unit.

The background is gray.



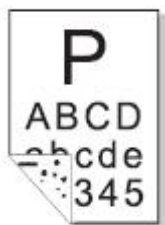
- The printing medium does not conform to the specifications.
- The life of the toner cartridge is expired.
- The high-voltage output of the high-voltage power board is abnormal.
- Use the printing medium according to the specifications.
- Replace the toner cartridge.
- Clean the high-voltage contact or replace the high-voltage power board.

The images are doubled periodically.



- If the images are doubled periodically at intervals of 75.3mm, it indicates that OPC is damaged.
- If the images are doubled periodically at intervals of 77.5mm, it indicates that the surface of the heating roll is contaminated.
- The high-voltage output of the high-voltage power board is abnormal.
- Replace the toner cartridge.
- Clean the surface of the heating roll. If the problem still exists, replace the fuser unit.
- Replace the high-voltage heating roll.

The back is dirty.



- The transfer roll is contaminated.
- The pressing roll of the fuser unit is contaminated.
- Clean or replace the transfer roll.
- Clean the pressing roll of the fuser unit or replace the fuser unit.


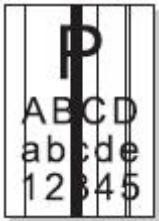

The image is fully white.



- OPC discharge is poor.
- The laser unit is damaged.

- Clean the high-voltage contact or replace the engine substrate. If the problem still exists, replace the toner cartridge.
- Replace the laser unit.

8.7.2 Scanning and copying

Status	Fault cause	Recommended Solution
<p>The whole page is dark.</p> 	<ul style="list-style-type: none"> ● The scanner is exposed. ● The scanning head is faulty. ● The data line of the scanner is abnormal. ● The data board is faulty. 	<ul style="list-style-type: none"> ● Check whether the scanner cover is installed properly. ● Replace the scanning head. ● Check whether the data line of the scanner is connected correctly. Replace the data line if damaged. ● Replace the data board.
<p>There are vertical black lines or stripes.</p> 	<ul style="list-style-type: none"> ● The glass platen is dirty. ● The scanning head is dirty. ● The scanning head is faulty. ● The data line of the scanner is abnormal. ● The data board is faulty. 	<ul style="list-style-type: none"> ● Clean the glass platen. ● Clean the scanning head. ● Replace the scanning head. ● Check whether the data line of the scanner is connected correctly. Replace the data line if damaged. ● Replace the data board.
<p>The image is fully white.</p> 	<ul style="list-style-type: none"> ● The scanning head is faulty. ● The data line of the scanner is abnormal. ● The data board is faulty. 	<ul style="list-style-type: none"> ● Replace the scanning head. ● Check whether the data line of the scanner is connected correctly. Replace the data line if damaged. ● Replace the data board.

Appendix 1 Perimeters of Printer Rolls

Name	Image Period mm
Transfer roll	44.0
Heating roll	77.5
Pressing roll	75.4
OPC (photosensitive drum)	75.3
Developing roll	44.6
Toner-feeding roll	39.3
Charging roll	28.3

In the case of periodical image abnormality, you can judge the fault cause according to the roll perimeters.

Appendix 2 Description of Product Series Number

The series number label is attached to each printer. The meaning of the series number and the attaching location of the label are described below.

Code meaning:



Label location: rear side of the printer



Series number label
-January)

Appendix 3 Explanation of Special Terms in the Manual

The special terms in this manual are explained below.

Term	Explanation
CFR	One safety standard of laser products
LCD	Liquid crystal display
CIS	Scanner
dpi	Number of dots per inch
PPM	Pages printed per minute
gsm	Paper weight per square meter
auto run	Automatic running
OPC	Photosensitive drum
PCR	Charging roll
Laser	Laser source
DR	Developing roll
TR	Transfer roll
PR	Pressing roll of fuser unit
LSU	Laser unit
FFC	Connecting wire of data substrate