

# Maintenance maual

**PANTUM**

WWW.PANTUM.COM

Pantum P3010-3060、P3300、BP4200 maintenance manual

Monochrome laser printer



# **Pantum Laser Duplex Printer Maintenance Manual**

**Model: P3010-3060 series/ P3300 series/BP4200 series**



### Change History

| Version | Time      | Content                               |
|---------|-----------|---------------------------------------|
| V1.0    | 2019.4.22 | New service manual                    |
| V1.1    | 2023.8.16 | Update spare parts name               |
| V1.2    | 2023.9.8  | Update disassembly steps (fuser unit) |
| V1.3    | 2024.4.10 | Add BP4200 series                     |

## Legal Notice

### Trademark

Pantum and Pantum logos are registered trademarks of Zhuhai Pantum Electronics Co., Ltd.

Microsoft, Windows, Windows server and Windows Vista are trademarks registered by Microsoft Corporation in the United States or other countries.

The ownership of the names of the software in this manual belongs to their respective companies in accordance with corresponding license agreement.

All other products and brand names in this manual may be the registered trademarks, trademarks or service marks of their respective owners.

### Copyright

The copyright of this manual is owned by Zhuhai Seine Technology Co., Ltd.

Any copy, translation, modification and transmission of this manual by any means or in any form without the prior written consent of Zhuhai Pantum Electronics Co., Ltd is prohibited.

### Disclaimer

For a better user experience, Zhuhai Pantum Electronics Co., Ltd. reserves the right to make changes to the User Guide without notice.

Users are responsible for any damage arising from failing to follow this User Guide. Meanwhile, except the express warranty made in the product maintenance manual or service commitment, Zhuhai Pantum Electronics Co., Ltd. does not make any express or implied warranty or guarantee to this User Guide (including composing or words).

Using this product to copy, print, scan certain documents or images or make other forms of operations may be prohibited by the local laws. If you are uncertain about the legality of using this product, you should consult your legal advisor in advance.

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:

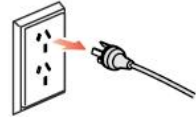
- \*Please follow the warnings to avoid personal injury.
- \* Please follow the warnings for proper maintenance of the printer, in order to avoid damage.
- \* Please pay attention to relevant prompts in maintenance of the printer.
- \* “Warnings” are listed below:



## Warning



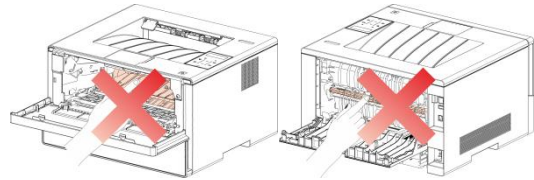
There is high-voltage electrode inside the printer. Before cleaning the printer, make sure the power is turned off!



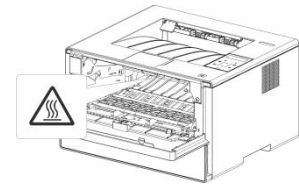
Plugging and unplugging the power cord plug with a wet hand can result in an electric shock.



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

The laser radiation is harmful to the human body. Since laser components are completely sealed in the printer, laser radiation will not leak. To avoid laser radiation, please do not randomly disassemble the printer!

Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

The printer follows the provisions of Class 1 laser products under CFR standard.



The printer has a Class 3B laser diode, which has no laser radiation leakage among laser components.

The laser components shall comply with the requirements of: U.S. Code of Federal Regulations, 21 CFR 1040, IEC 60825-1.

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



or



## 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) directives conformity

This product complies with the protection requirements of EC directives 2004/108/EC and 2006/95/EC on the approximation and harmonization of the laws of the Member States relating to electromagnetic compatibility and safety of electrical equipment (designed for use within certain voltage limits).

The manufacturer of this product is: Zhuhai Pantum Electronics Co., Ltd., Central Area A, 3F, 01# Building, No. 3883, Zhuhai Avenue, Zhuhai, Guangdong, China

A declaration of conformity to the requirements of the Directives is available upon request from the Authorized Representative.

This product satisfies the Class B limits of EN 55022 and 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.

RoHS

Esta impresora es totalmente compatible con RoHS Directive 2011/65/EU para la gestión de sustancias tóxicas y peligrosas.

## Table of Contents

|                                                                     |           |
|---------------------------------------------------------------------|-----------|
| <b>1. Product Introduction.....</b>                                 | <b>1</b>  |
| <b>2. Driver Installation and Uninstallation.....</b>               | <b>3</b>  |
| 2.1 Driver Installation based on Windows System.....                | 3         |
| 2.1.1 Installation via USB connection.....                          | 3         |
| 2.1.2 Installation via wired network connection.....                | 3         |
| 2.1.3 Installation by wireless network connection mode (Wi-Fi)..... | 5         |
| 2.1.3.1 Installation in basic structure mode.....                   | 5         |
| 2.1.3.2 Installation in Wi-Fi Direct mode.....                      | 7         |
| 2.1.4 Driver uninstallation.....                                    | 9         |
| 2.2 Driver Installation based on Mac System.....                    | 10        |
| 2.2.1 Driver installation.....                                      | 10        |
| 2.2.2 Add printer to Mac system.....                                | 11        |
| 2.2.2.1 Add in USB connection mode.....                             | 11        |
| 2.2.2.2 Add in wired network connection mode.....                   | 12        |
| 2.2.2.3 Add in wireless network connection mode.....                | 12        |
| 2.2.2.4 Add AirPrint printer.....                                   | 13        |
| <b>3. Printer Information Report.....</b>                           | <b>15</b> |
| 3.1 LED Panel Type.....                                             | 15        |
| 3.2 LCD Panel Type.....                                             | 15        |
| 3.3 Information Page.....                                           | 15        |
| <b>4. Restoration of Factory Settings.....</b>                      | <b>17</b> |
| 4.1 LED Panel Type.....                                             | 17        |
| 4.2 LCD Panel Type.....                                             | 17        |
| 4.3 Restoration of Factory Settings via Embedded Web Server.....    | 17        |
| <b>5. Operating Principle.....</b>                                  | <b>18</b> |
| 5.1 Overall Structural Diagram.....                                 | 18        |
| 5.2 Component Structure Diagrams.....                               | 19        |
| 5.3 Mechanical Devices.....                                         | 20        |
| 5.4 Paper Path.....                                                 | 21        |
| <b>6. Disassembly and Installation.....</b>                         | <b>21</b> |
| 6.1 Disassembly Flowchart.....                                      | 21        |
| 6.2 Disassembly Steps.....                                          | 22        |
| 6.2.1 Before disassembly.....                                       | 22        |
| 6.2.2 Front cover.....                                              | 23        |
| 6.2.3 Rear cover.....                                               | 23        |
| 6.2.4 Left cover.....                                               | 24        |
| 6.2.5 Right cover.....                                              | 24        |
| 6.2.6 Top cover.....                                                | 24        |
| 6.2.7 Transfer roll.....                                            | 25        |

|                                                              |           |
|--------------------------------------------------------------|-----------|
| 6.2.8 Paper-feeding roll assembly.....                       | 25        |
| 6.2.9 Control panel board and power switch board.....        | 26        |
| 6.2.10 Paper feed sensor.....                                | 26        |
| 6.2.11 Chip adapter substrate.....                           | 26        |
| 6.2.12 Front-end sensor(transfer sensor).....                | 27        |
| 6.2.13 Data board.....                                       | 27        |
| 6.2.14 Engine board.....                                     | 28        |
| 6.2.15 Power board.....                                      | 28        |
| 6.2.16 Laser unit.....                                       | 29        |
| 6.2.17 Driver unit.....                                      | 29        |
| 6.2.18 Fuser unit.....                                       | 29        |
| 6.2.19 Fan.....                                              | 31        |
| 6.2.20 Electromagnet.....                                    | 32        |
| 6.2.21 Motor.....                                            | 32        |
| 6.2.22 Clutch assembly.....                                  | 33        |
| <b>7. Maintenance.....</b>                                   | <b>34</b> |
| 7.1 Printer cleaning.....                                    | 34        |
| 7.2 Use and Maintenance of Consumables.....                  | 36        |
| 7.2.1 About toner cartridge and drum component.....          | 36        |
| 7.2.2 Replacement of toner cartridge and drum component..... | 36        |
| <b>8. Error Message and Troubleshooting.....</b>             | <b>37</b> |
| 8.1 Check before maintenance.....                            | 37        |
| 8.2 Error Message.....                                       | 39        |
| 8.3 Software Failure.....                                    | 40        |
| 8.4 Error Code.....                                          | 41        |
| 8.5 Removal of Jammed Paper.....                             | 47        |
| 8.5.1 Jammed paper in auto feed tray.....                    | 47        |
| 8.5.2 Jammed paper in manual feed tray.....                  | 48        |
| 8.5.3 Middle jam.....                                        | 48        |
| 8.5.4 Jammed paper in fuser unit.....                        | 50        |
| 8.5.5 Jammed paper in duplex printing unit.....              | 51        |
| 8.6 Troubleshooting.....                                     | 53        |
| 8.6.1 Paper feeding problems.....                            | 53        |
| 8.6.2 Common faults.....                                     | 54        |
| 8.6.2.1 Printing fault.....                                  | 54        |
| 8.7 Image Defects.....                                       | 58        |
| <b>Appendix 1 Perimeters of Printer Rolls.....</b>           | <b>63</b> |
| <b>Appendix 2 Description of Product Series Number.....</b>  | <b>64</b> |
| Appendix 3 Explanation of Special Terms in the Manual        | 1         |

## 1. Product Introduction

| Product Parameters           |        |       | P3010D<br>series | P3010DW<br>series | P3300<br>series | P3300DN<br>series | P3300DW<br>series |
|------------------------------|--------|-------|------------------|-------------------|-----------------|-------------------|-------------------|
| Interface type               | USB    |       | ●                | ●                 | ●               | ●                 | ●                 |
|                              | NET    |       |                  | ●                 |                 | ●                 | ●                 |
|                              | Wi-Fi  |       |                  | ●                 |                 |                   | ●                 |
| Print Language               | GDI    |       | ●                | ●                 |                 |                   |                   |
|                              | PDL    |       |                  |                   | ●               | ●                 | ●                 |
| Control panel                | LED    |       | ●                |                   |                 |                   |                   |
|                              | LCD    |       |                  | ●                 | ●               | ●                 | ●                 |
| Print speed                  | A4     | 30ppm | ●                | ●                 |                 |                   |                   |
|                              |        | 33ppm |                  |                   | ●               | ●                 | ●                 |
|                              | Letter | 32ppm | ●                | ●                 |                 |                   |                   |
|                              |        | 35ppm |                  |                   | ●               | ●                 | ●                 |
| Automatic two-sided printing |        |       | ●                | ●                 |                 | ●                 | ●                 |
| NFC function                 |        |       |                  | ●                 |                 |                   | ●                 |
| Mute printing                |        |       | ●                | ●                 | ●               | ●                 | ●                 |

(●: support; Blank: unsupport)

The product series may be increased or changed without notice.

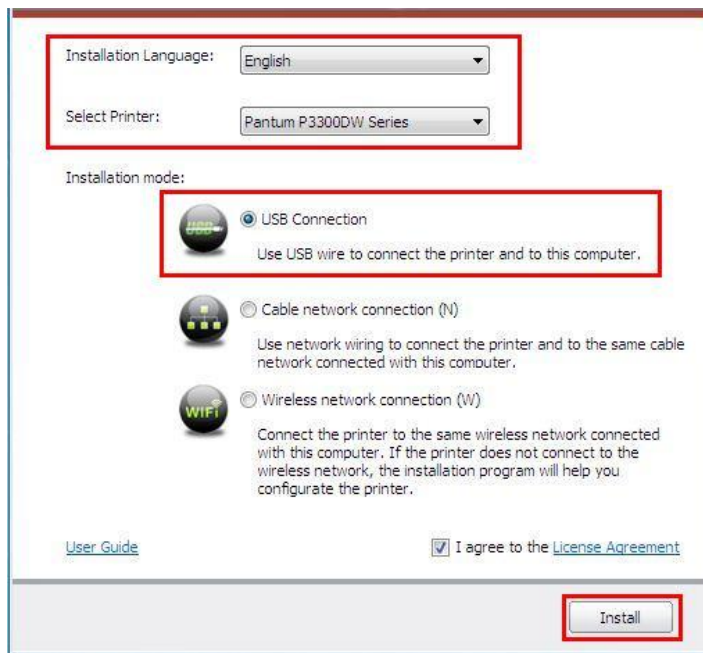
| Product Parameters           |            |       | BP4200D | BP4200DN | BP4200DW |
|------------------------------|------------|-------|---------|----------|----------|
| Interface type               | USB        |       | ●       | ●        | ●        |
|                              | NET        |       |         | ●        |          |
|                              | Wi-Fi      |       |         |          | ●        |
| Print Language               | PCL、PS、PDF |       | ●       | ●        | ●        |
| Control panel                | LCD        |       | ●       | ●        | ●        |
| Print speed                  | A4         | 33ppm | ●       | ●        | ●        |
|                              | Letter     | 35ppm | ●       | ●        | ●        |
| Automatic two-sided printing |            |       | ●       | ●        | ●        |
| NFC function                 |            |       |         |          | ●        |
| Mute printing                |            |       | ●       | ●        | ●        |

## 2. Driver Installation and Uninstallation

### 2.1 Driver Installation based on Windows System

#### 2.1.1 Installation via USB connection

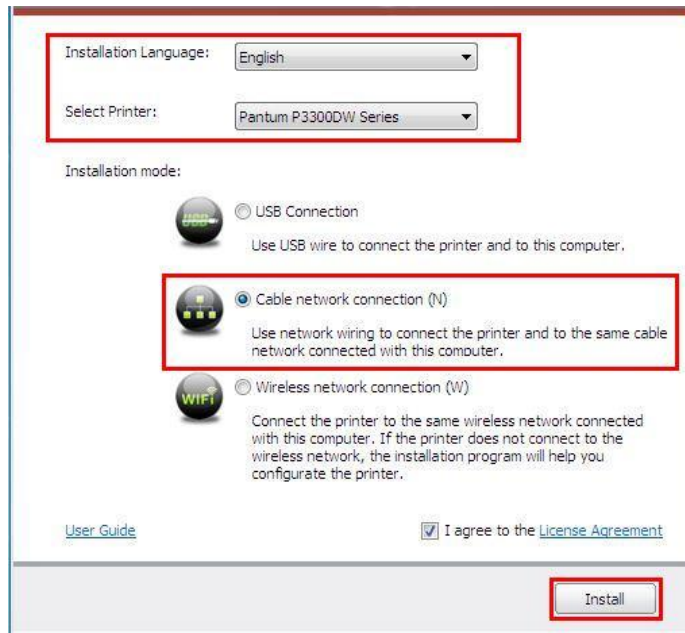
1. Connect the printer to a computer with USB cable, and then turn power on.
2. Insert the enclosed CD in the CD driver of computer, and operate Autorun.exe installation program. Read and agree to the licensing agreement, select the installation language and printer model, select “USB Connection”, and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



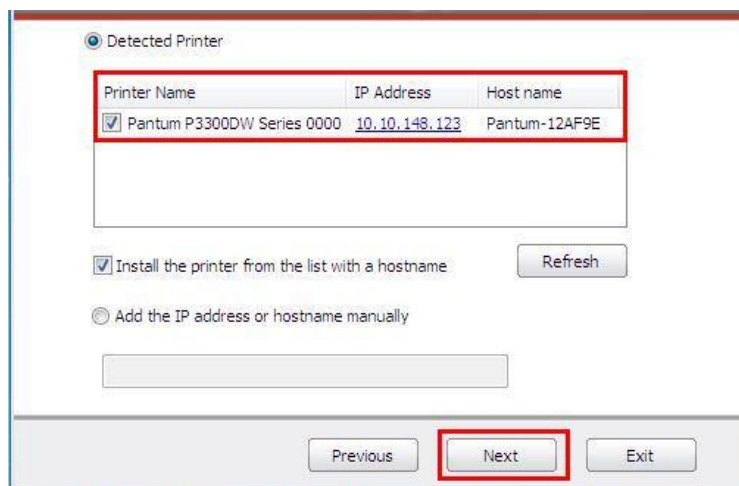
3. The system starts to install the driver, and it may take several minutes. After installation is finished, “Installation Complete” interface will pop out, and it will be closed automatically in about 3s.

#### 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”.



3. 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”.

4. 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)

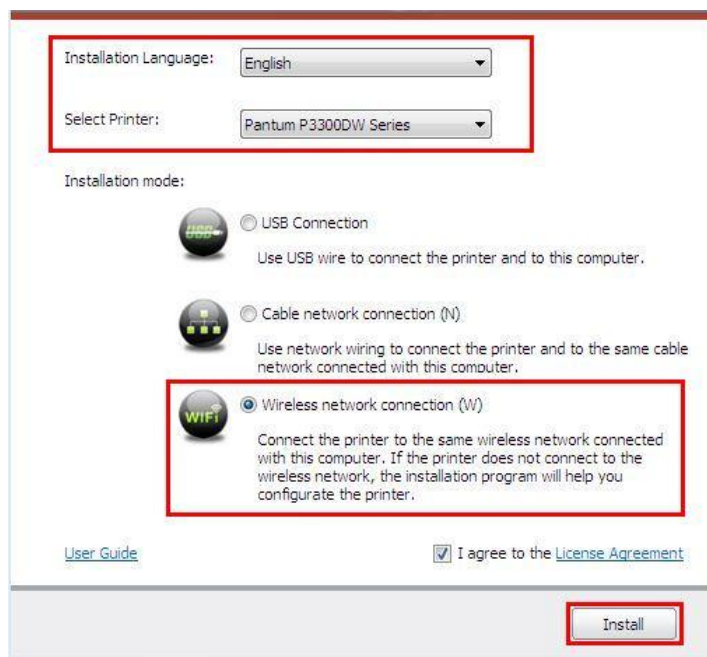
The wireless network connection type is divided into basic structure mode and Wi-Fi Direct mode.

#### 2.1.3.1 Installation in basic structure mode

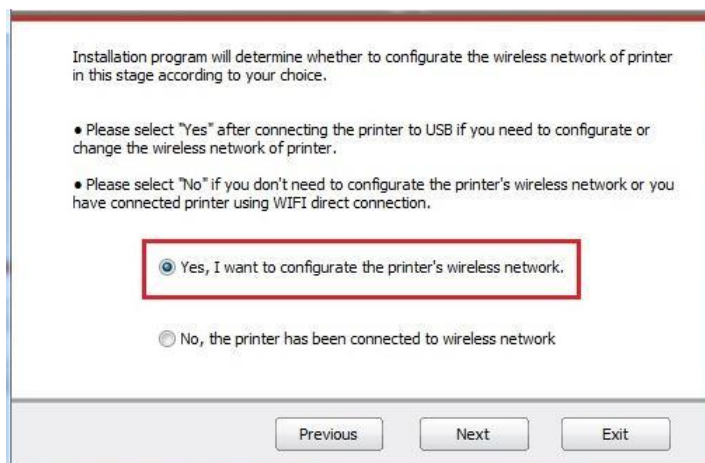
1. Connect the computer to access point (wireless router). Connect the printer to computer with USB cable, and then turn power on.

**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”.

You can click Print Wireless Network Information Page to print the list of wireless networks detected by the printer.

Service Set Identifier (SSID):  
wangluo1

☒ Enter SSID Manually

Print Wireless Network Information Page    Next    Cancel

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

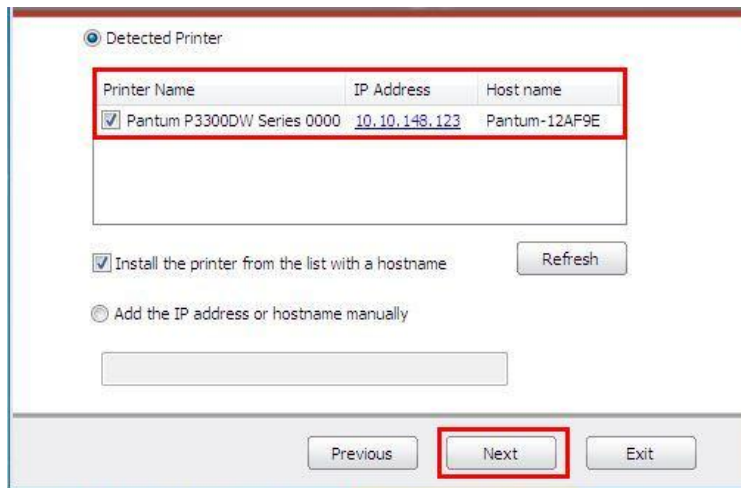
Safe Mode:  
WPA/WPA2

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”.

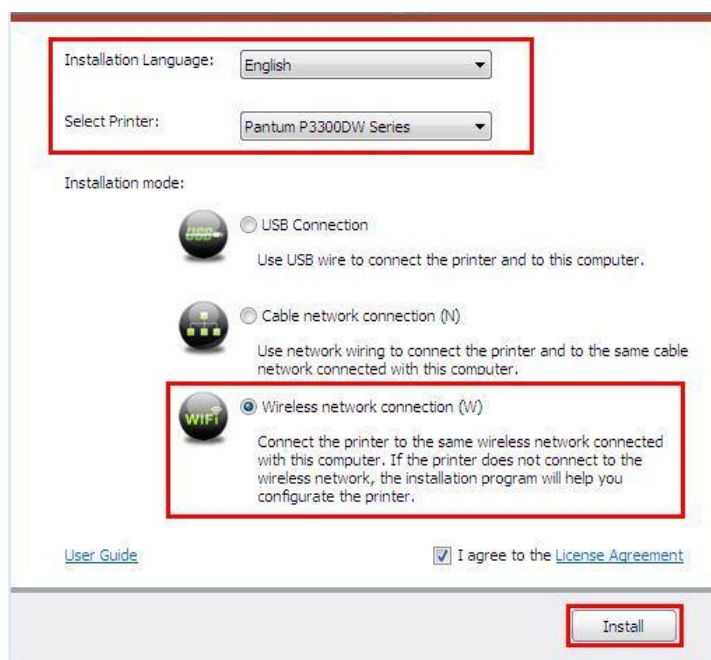
**Notes:**

- 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”.

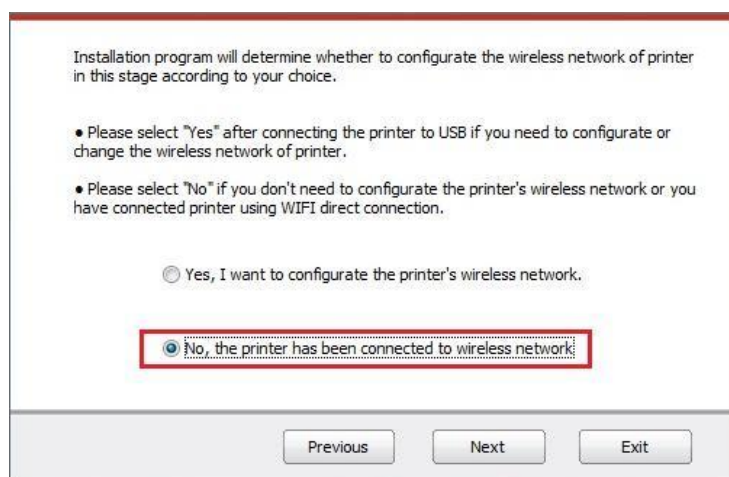
8. The system starts to install the driver, and it may take several minutes. After installation is finished, the “Installation Complete” interface will pop out, and it will be closed automatically in about 3s.

**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 installation program starts to search for printer automatically, and it may take a while.
6. Select the printer to be connected, and click “Next”.

| Printer Name                                                   | IP Address    | Host name     |
|----------------------------------------------------------------|---------------|---------------|
| <input checked="" type="checkbox"/> Pantum P3300DW Series 0000 | 192.168.223.1 | Pantum-F6569E |

☒ Install the printer from the list with a hostname

☐ Add the IP address or hostname manually

**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.

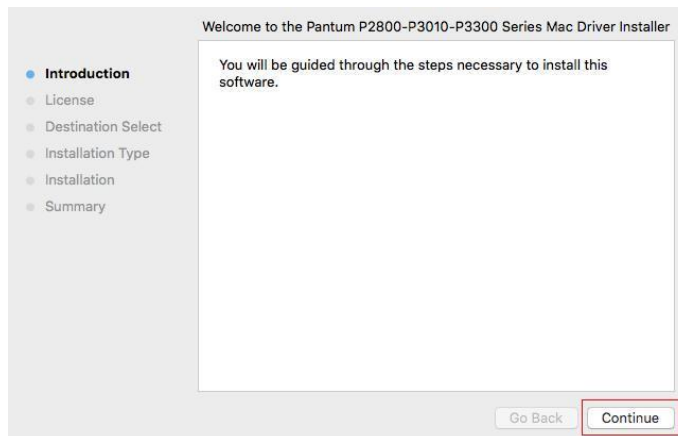
4. Restart the computer after uninstalling.

## 2.2 Driver Installation based on Mac System

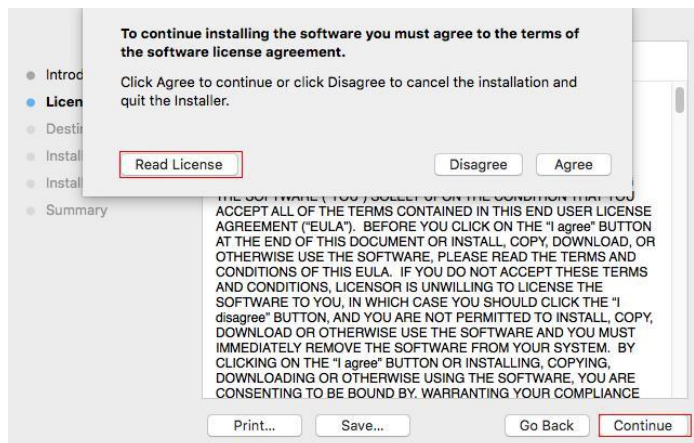
### 2.2.1 Driver installation

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.

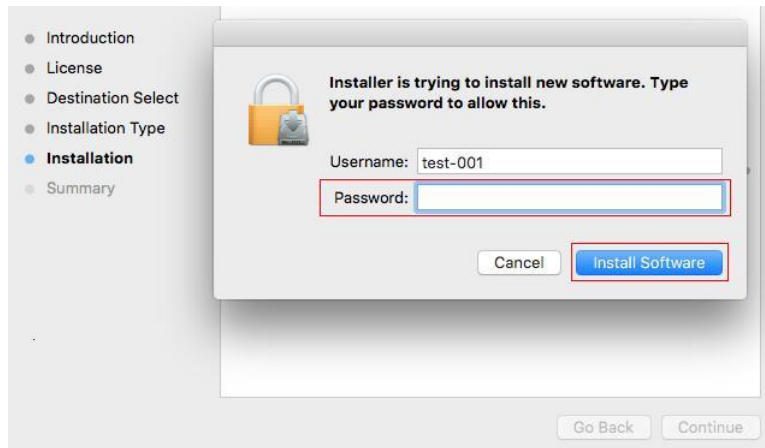
1. Turn on the power of printer and computer.
2. Insert the CD accompanying with the printer in the CD driver of your computer, and double click the “Pantum X Series” installation package (X in Pantum X Series represents the product model).



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

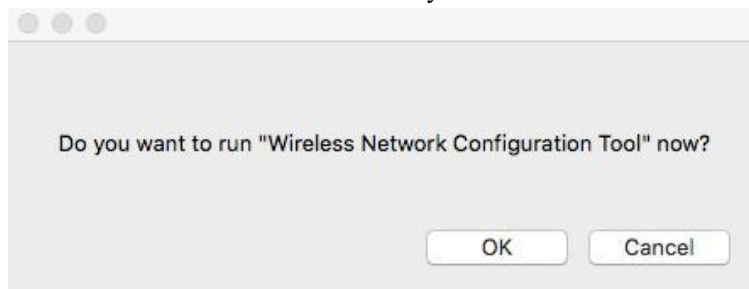


5. Click “Agree” on the prompt window popping out to accept the licensing agreement.
6. Click “Install”.
7. Input the computer password and click “Install Software”.



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

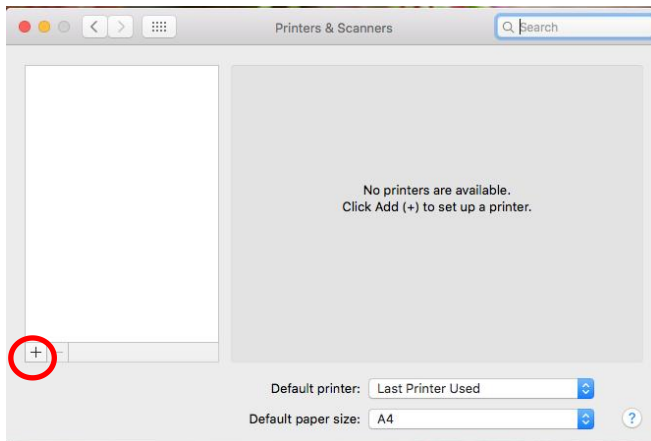
1. Turn on the power of the printer and computer.
2. Connect the printer to computer with USB cable. The system starts to recognize and add the printer automatically.
3. Enter “System Preferences” – “Printers & Scanners” of the computer, and check whether the printer is added successfully in the printer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

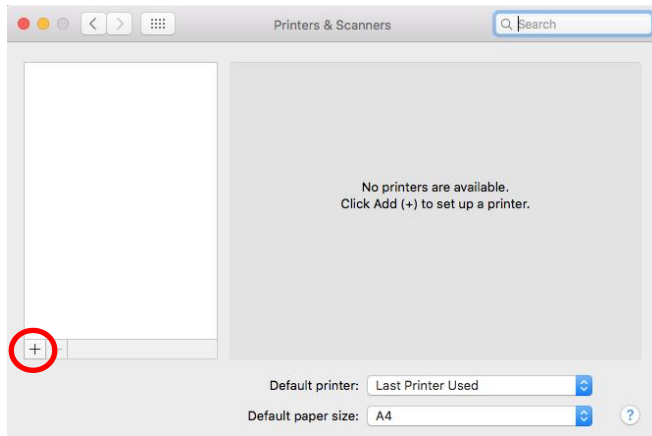
### 2.2.2.3 Add in wireless network connection mode

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”.

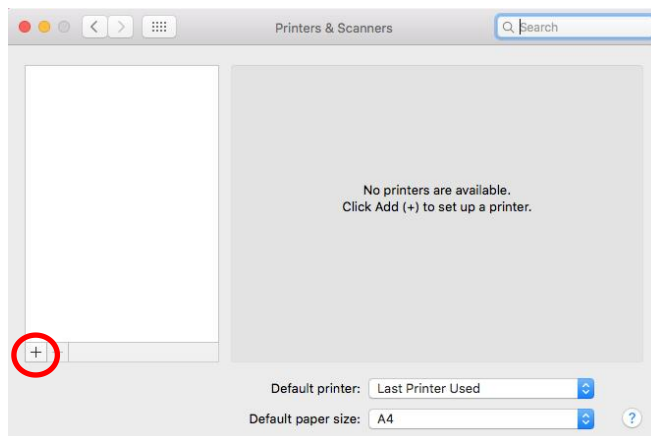


5. Select the printer. Then select the corresponding printer model from the “Use” menu popping out.

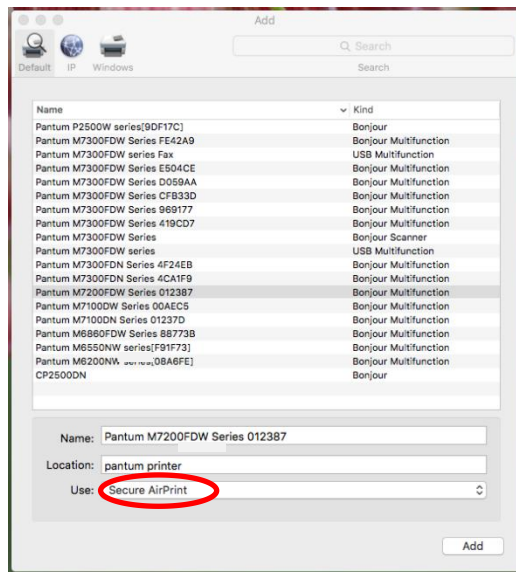
6. Click “Add”.

#### 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 LED Panel Type

1. Turn on the power, and check whether the indicators are ready.
2. Press the printer information report key on the operation panel for 3s.

#### 3.2 LCD Panel Type

1. Press “Menu” to enter the menu setting interface.
  2. Press “▲” or “▼”, and select “5. Info. report”.
  3. Press “OK” to enter the printer information report. You can print the product report according to the needs.
- Product reports that could be printed include the Demo page, information page, menu structure page, network configuration page, WiFi hotspot list page, PCL typeface list page and PS typeface list page.

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

#### 3.3 Information Page

1. Printer Information Page

| [ Printer Information Page ]                     |                 | [ Page 1 ]                                                                                                                                                            |            |
|--------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Product Information</b>                       |                 | <b>System Settings</b>                                                                                                                                                |            |
| Product Name                                     | : P3010D Series | Sleep Time                                                                                                                                                            | : 1 minute |
| USB Vender ID                                    | : 0x232B        | Toner Saving Mode                                                                                                                                                     | : Close    |
| Firmware Version                                 | : 3. 2. 2. 3    | Mute printing                                                                                                                                                         | : Close    |
| Engine Version                                   | : 3. 2. 2. 3    |                                                                                                                                                                       |            |
| Memory Size                                      | : 128MB         |                                                                                                                                                                       |            |
| Print Language                                   | : GDI           |                                                                                                                                                                       |            |
| Serial Number                                    | : CC6N000009    |                                                                                                                                                                       |            |
| <b>Consumables information</b>                   |                 | <b>Print Settings</b>                                                                                                                                                 |            |
| Ink cartridge type                               | : TL420E        | Toner cartridge and drum unit information<br>(the printed pages are the actually printed<br>pages instead of theoretical pages within the<br>calculated service life) |            |
| 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          |                                                                                                                                                                       |            |
| <b>Print Information</b>                         |                 | <b>Print Settings</b>                                                                                                                                                 |            |
| Total pages printed                              | : 0             | Total pages<br>printed actually                                                                                                                                       |            |
| Pages printed with automatic duplex              | : 0             |                                                                                                                                                                       |            |
| Pages printed with different paper specification |                 |                                                                                                                                                                       |            |
| A5                                               | : 0             |                                                                                                                                                                       |            |
| A4/Letter                                        | : 0             |                                                                                                                                                                       |            |
| Legal/Folio                                      | : 0             | Paper source : Auto Select                                                                                                                                            |            |
| Resolution                                       | : 1200DPI       | Duplex : Close                                                                                                                                                        |            |
| Density                                          | : Normal        |                                                                                                                                                                       |            |

## 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**

### **4.1 LED Panel Type**

Press the power key to turn on the printer. Then press the Cancel/Continue key for more than 2s, until two state indicators on the panel become green and flicker (at intervals of 100ms) at the same time. The printer will be restarted after factory settings are restored.

### **4.2 LCD Panel Type**

1. Press “Menu” to enter the menu setting interface.
2. Press “OK” and select “1. System Settings”.
3. Press “▲” or “▼”, select “5. Restore Factory Settings”, and then press “OK”.

### **4.3 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” and “Restore Factory Settings”. The printer will be restarted automatically after factory settings are restored.

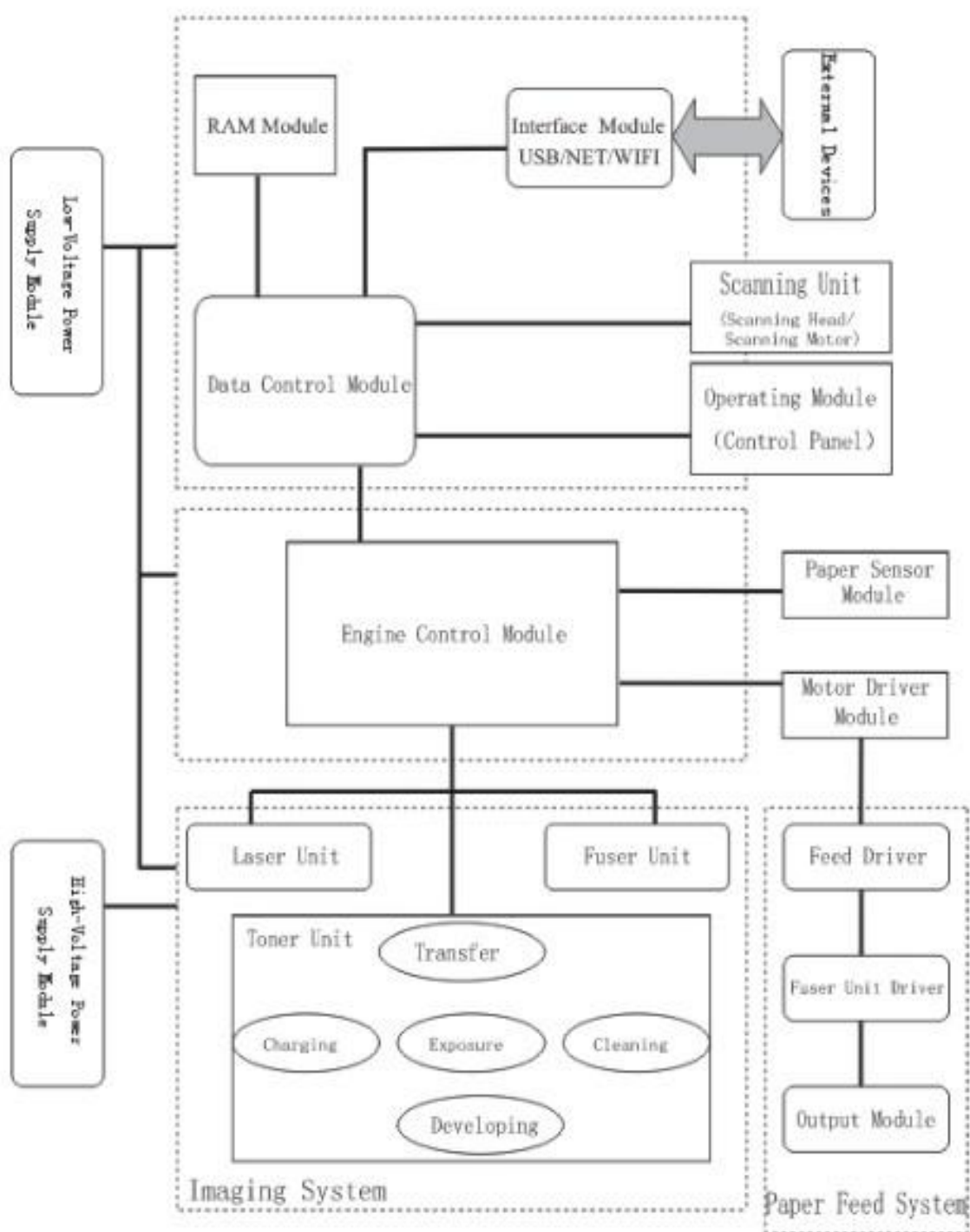
---

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.

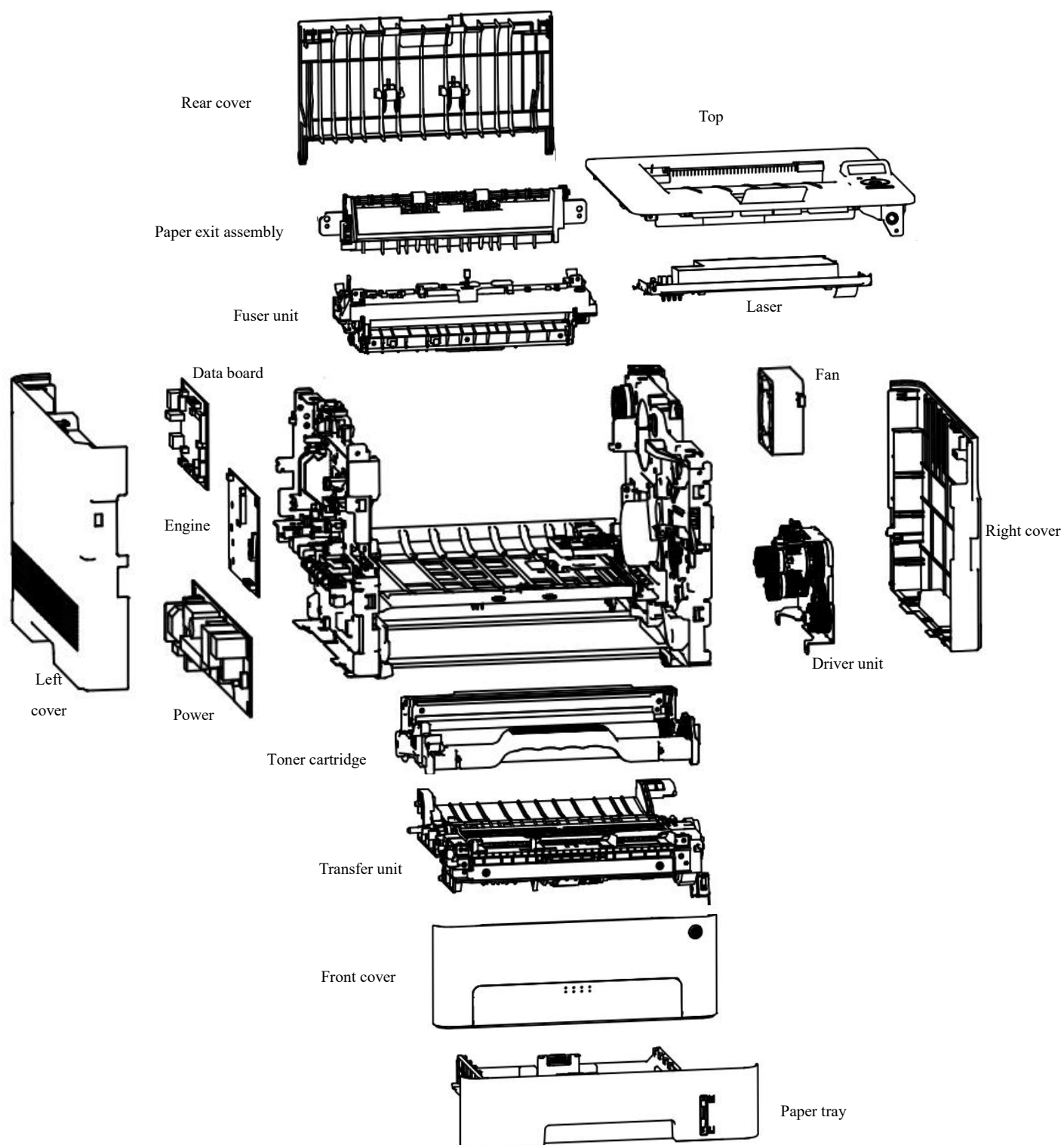
---

## 5. Operating Principle

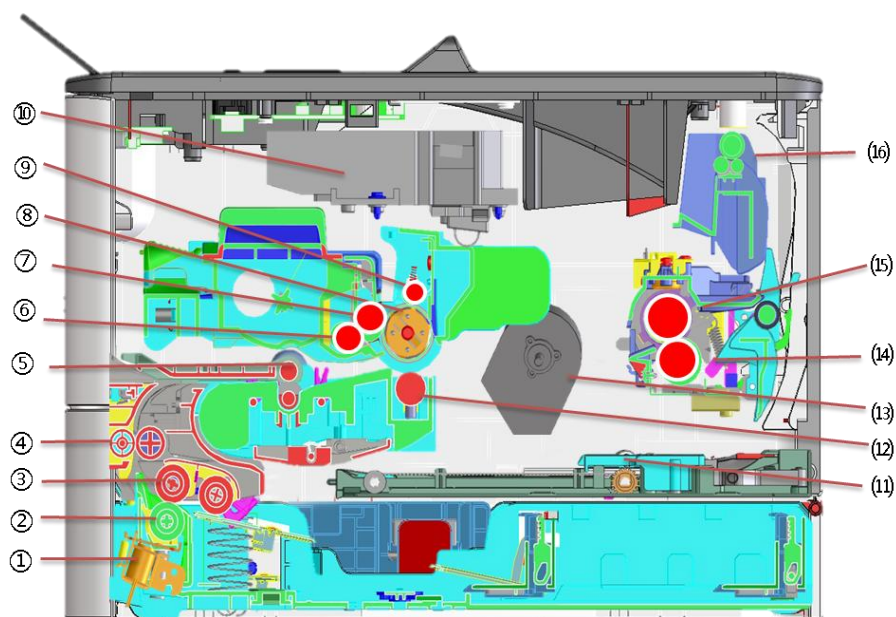
### 5.1 Overall Structural Diagram



## 5.2 Component Structure Diagrams

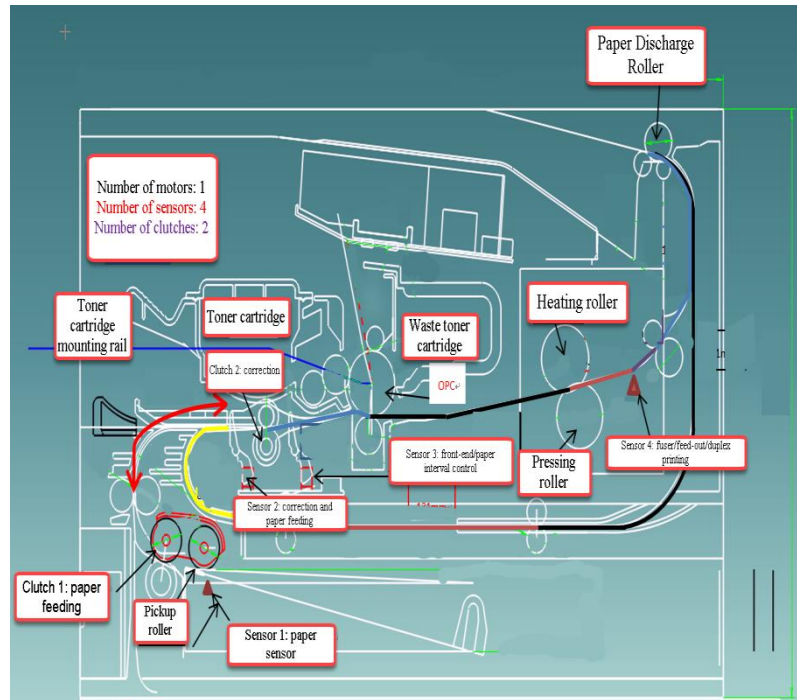


### 5.3 Mechanical Devices



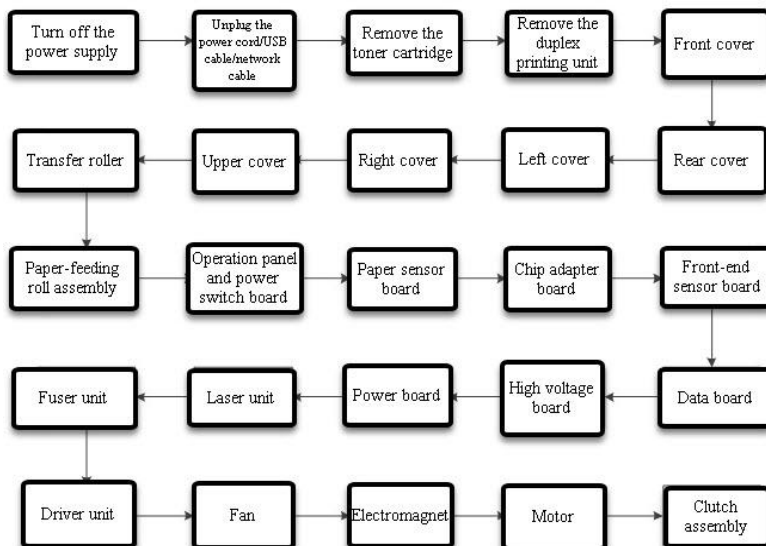
| S/N | Name                                   |
|-----|----------------------------------------|
| 1   | Electromagnet                          |
| 2   | Separating roll                        |
| 3   | Paper-feeding roll assembly            |
| 4   | Secondary conveying roll               |
| 5   | 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                          |

## 5.4 Paper Path



## 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

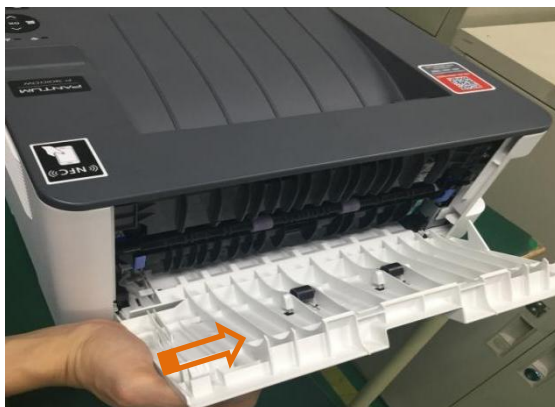
Remove the front cover connecting rod with forceps, and push the front cover out of the buckle, using the palm.



Connecting rod

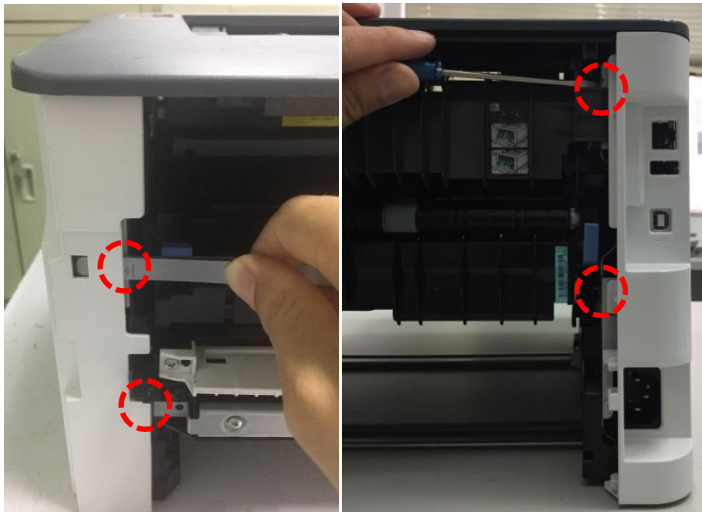
#### 6.2.3 Rear cover

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



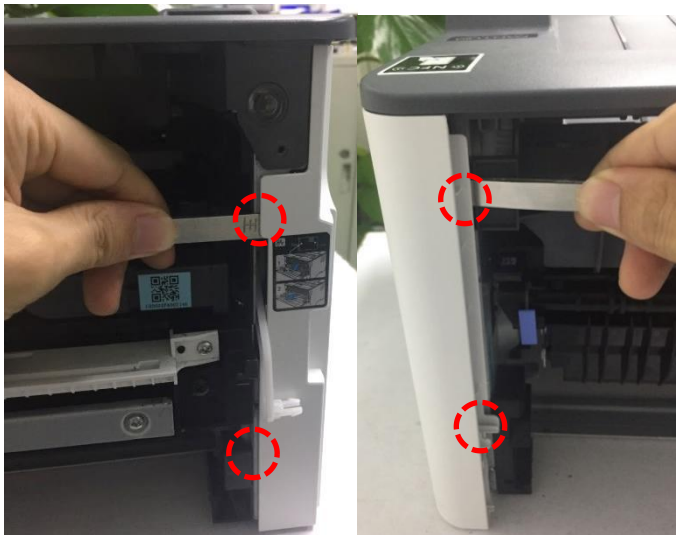
#### 6.2.4 Left cover

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 Top cover

1. Remove the front cover, rear cover, left cover and right cover, and pull out the wire connected with the top cover on the left Data board.

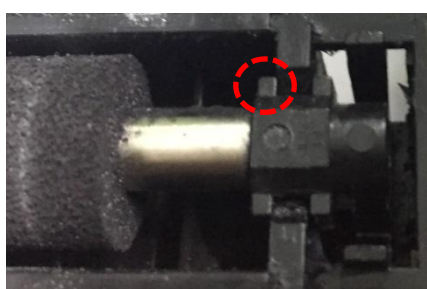


2. Remove four screws of the top cover. Then remove the top cover.



### 6.2.7 Transfer roll

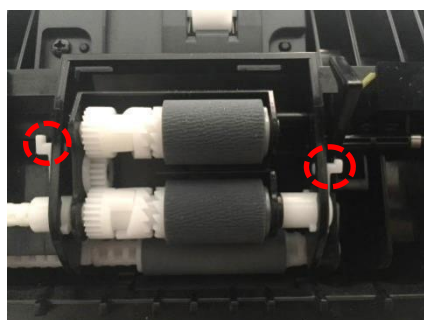
Open the front cover, pull out the clamping jaw at the right end of the transfer roll, remove the bushing at the right end of the transfer roll, and then remove the transfer roll.



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

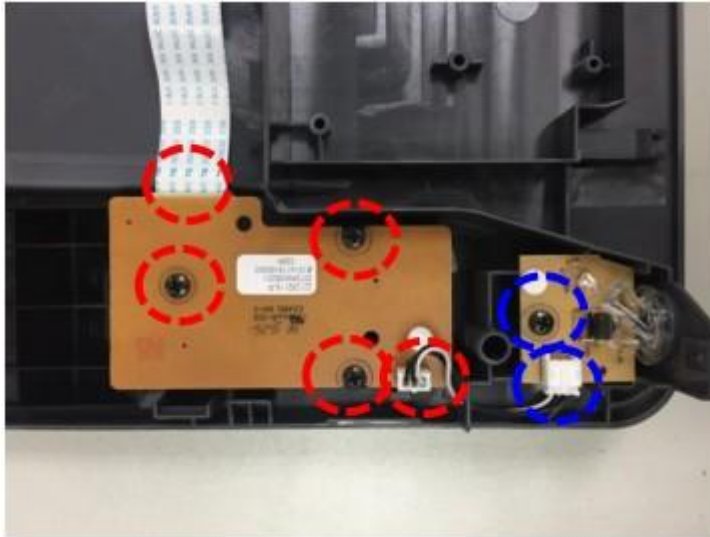
### 6.2.8 Paper-feeding roll assembly

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.



### 6.2.9 Control panel board and power switch board

After removing the top cover, remove the screws and plugs of the top cover, and take out the control panel board and power switch board.



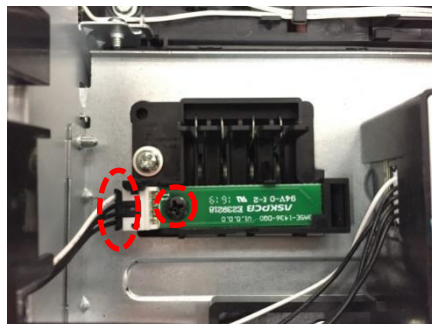
### 6.2.10 Paper feed sensor

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



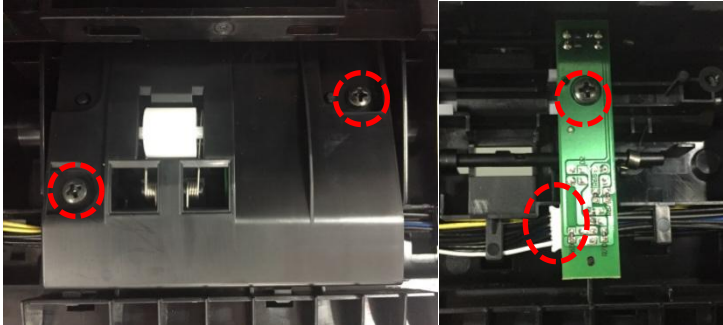
### 6.2.11 Chip adapter substrate

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



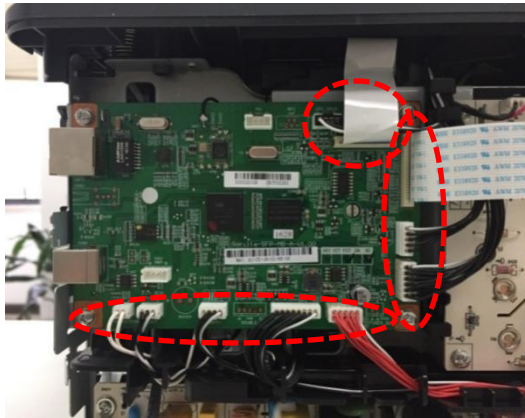
### 6.2.12 Front-end sensor(transfer sensor)

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.

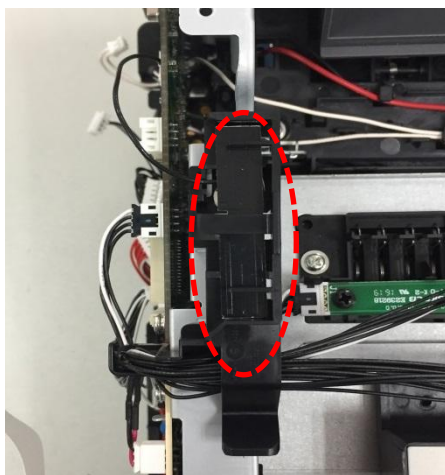


### 6.2.13 Data board

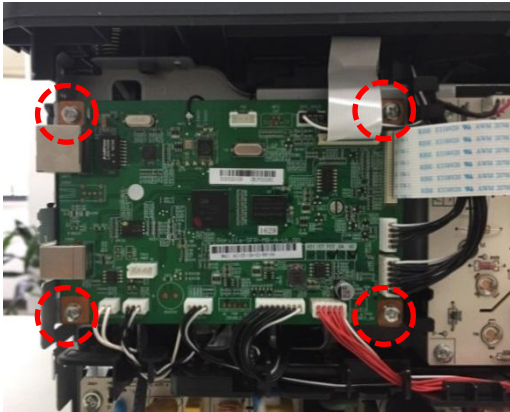
1. Remove the front cover and rear cover, and pull out 10 harness plugs of the Data board.



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

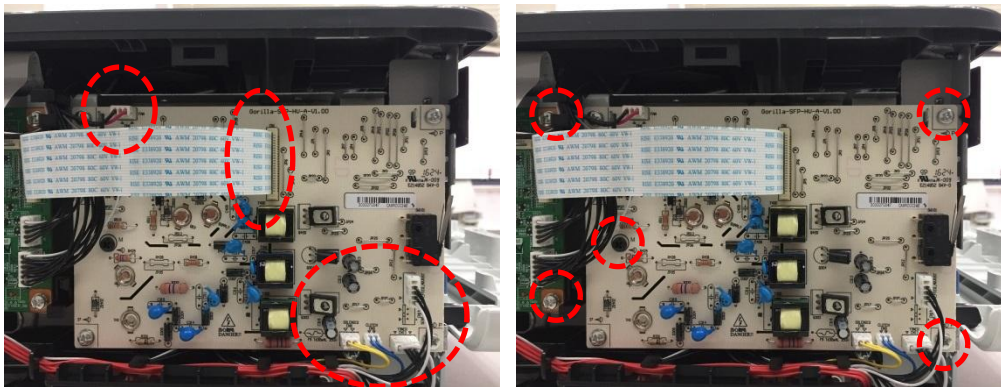


2. Remove the four screws and Data board.



### 6.2.14 Engine board

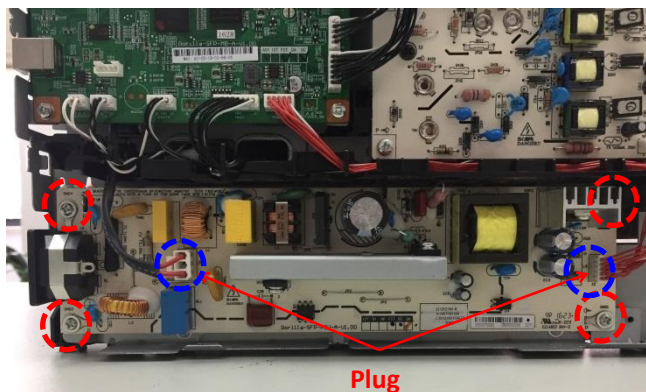
Remove the front cover and rear cover, and pull out six harness plugs of the engine board (Figure 1). Remove the five screws (Figure 2) and then engine board.



**Note:** You can see four conductive springs (easy to fall) after removing the engine board. 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.

### 6.2.15 Power board

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



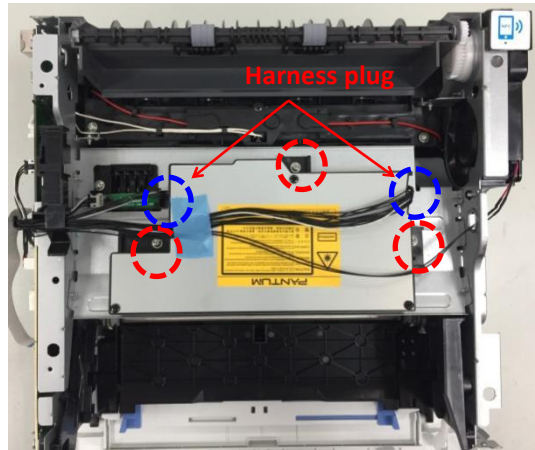
Note:

- 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.

#### 6.2.16 Laser unit

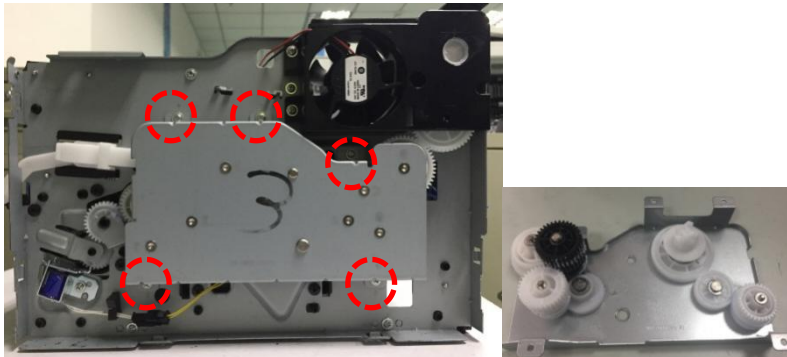
Remove the front cover, rear cover, left cover, right cover and top cover, and pull out two plugs of the laser unit.

Remove the three screws and then laser unit.



#### 6.2.17 Driver unit

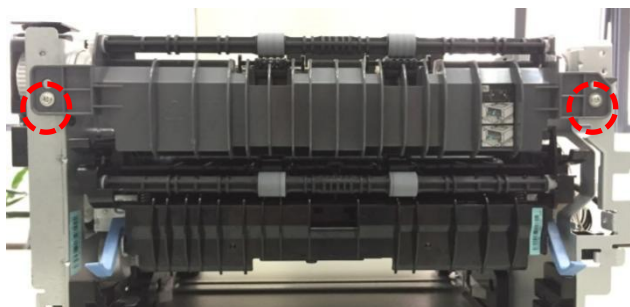
Remove the right cover and five screws of the driver unit. Then remove the driver unit (Note: pay attention to gear protection in the disassembly process, in order to prevent the gear from damage caused by falling down).



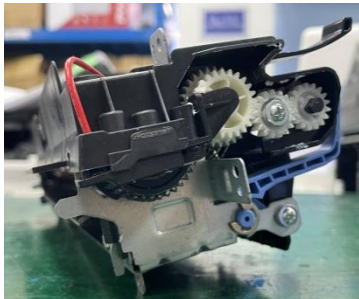
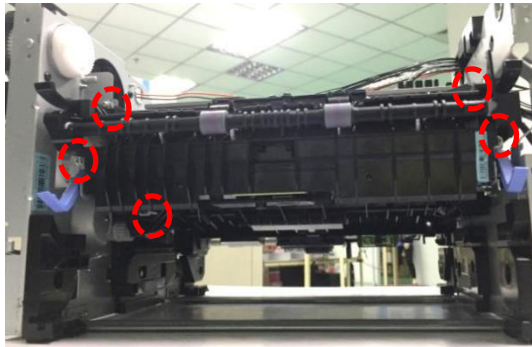
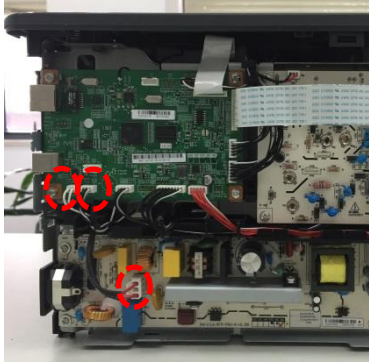
#### 6.2.18 Fuser unit

Old structure:

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.

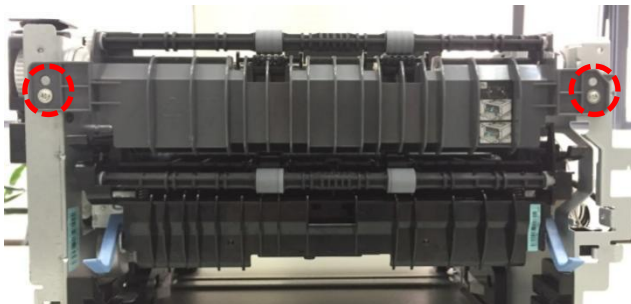


2. Remove the three plugs of the Data board and power board, and five screws of the fuser. Then remove the fuser.

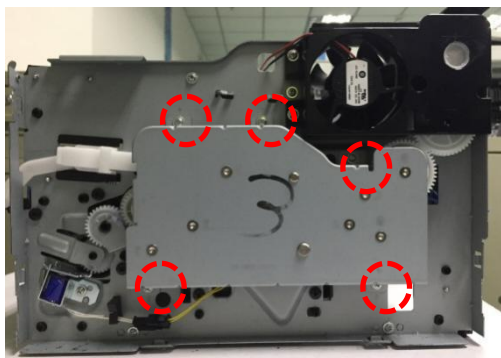


New structure:

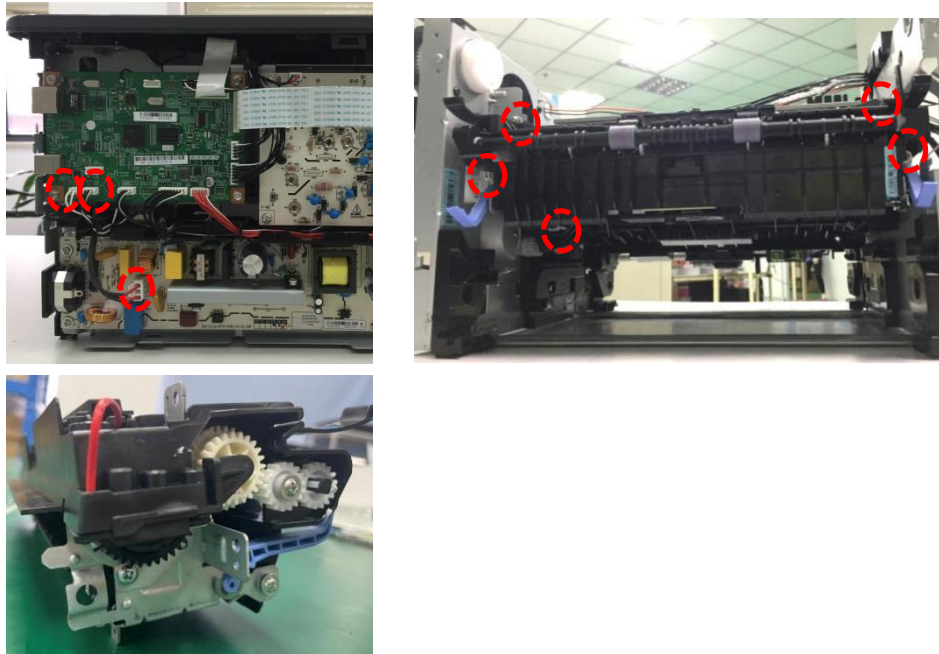
1. Remove the front cover, rear cover, left cover and right cover. Then remove two screws of the feed-out assembly, and take out the feed-out assembly.



2. Remove the 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).



3.Remove the three plugs of the Data board and power board, and five screws of the fuser. Then remove the fuser.



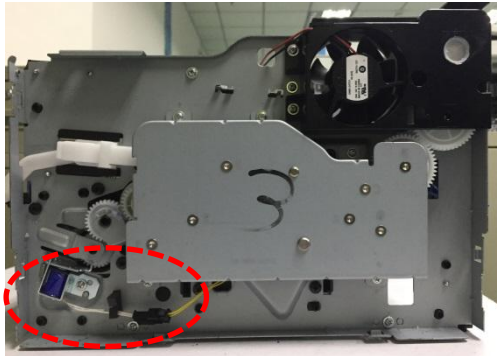
## 6.2.19 Fan

Remove the front cover, rear cover, left cover, right cover and top cover, and pull out the fan plug from the Engine board. 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).



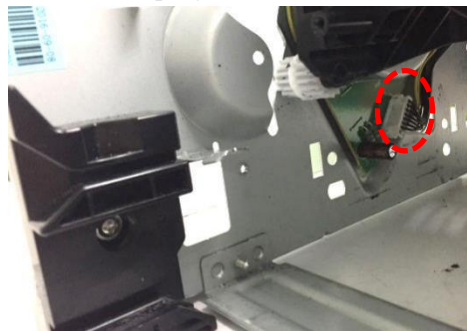
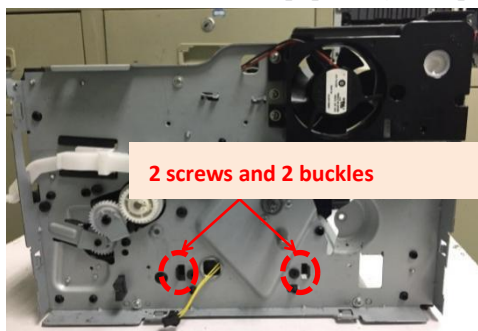
### 6.2.20 Electromagnet

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

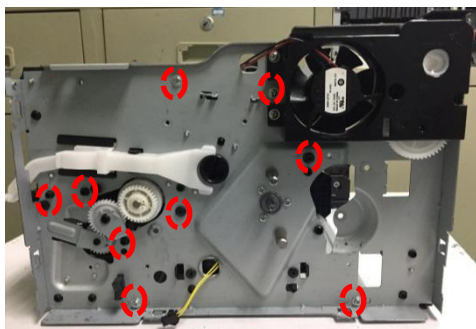


### 6.2.21 Motor

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.

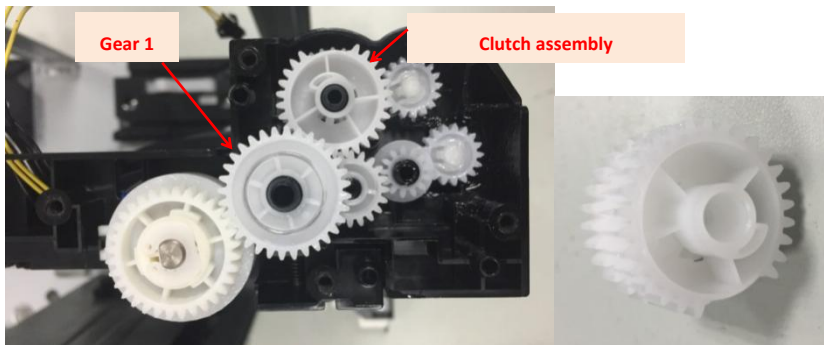


2. Remove the five screws of the right frame, the right frame and the three screws of the motor in sequence. Then remove the motor.



### 6.2.22 Clutch assembly

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

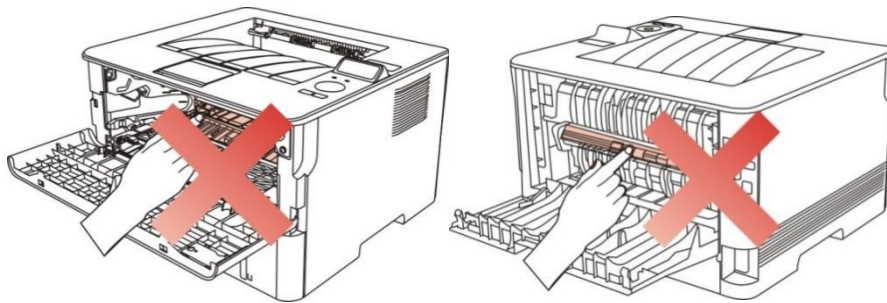


## 7. Maintenance

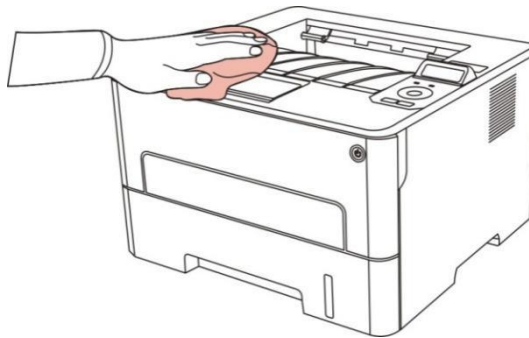
### 7.1 Printer cleaning

**Note:**

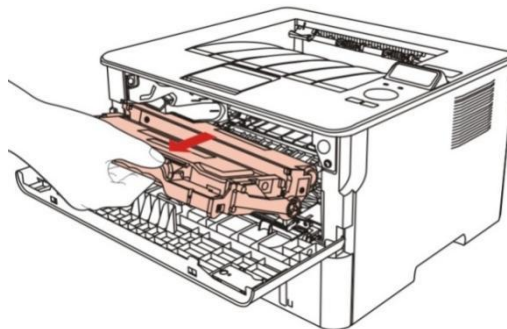
- Please use mild detergents.
- Do not clean the printer with highly corrosive liquid such as diluents or benzene. Otherwise, the surface may be damaged.
- Do not use the cleaning material containing ammonium hydroxide.
- Do not use isopropyl alcohol to wipe dust on the control panel. Otherwise, the panel may be cracking.
- Some parts of the printer are still at high temperature within a short time after use. Do not directly touch the parts in the shaded areas of the figures below, in case of contact with internal components after opening the front or rear cover of the printer.



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.



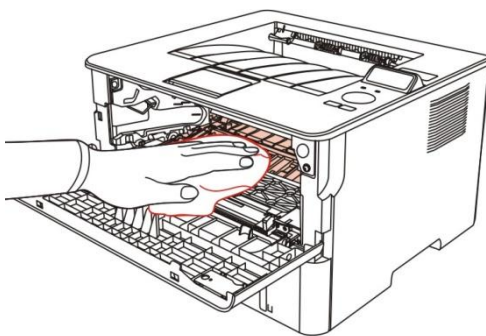
3. Open the front cover, and take out the laser toner cartridge out along the guide rail.



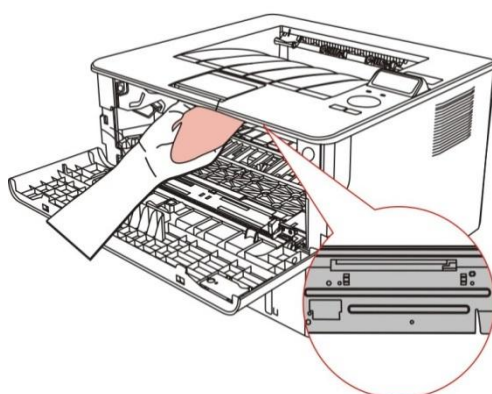
**Note:**

- 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.

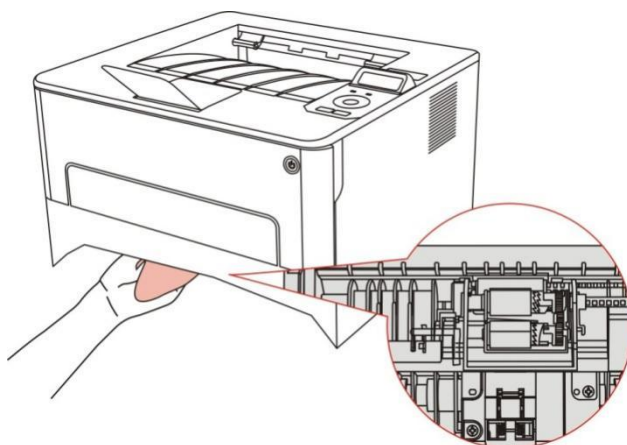
4. As shown below, clean the inside of the printer by gently wiping the shaded area with dry and lint-free cloth.



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



6. Open the auto feed tray of the printer, and gently wipe the pickup roller with dry and lint-free cloth.



## **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**

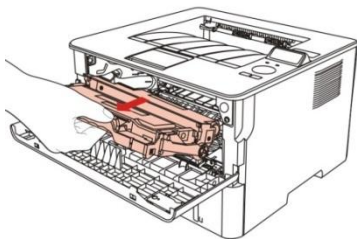
- The service life of the toner cartridge depends on the toner quantity needed for printing.
- For the printer with LED control panel, if the toner cartridge indicator is normally ON in orange, it means that the service life of the toner cartridge is expired. Replace the toner cartridge.
- For the printer with LCD control panel, if the toner cartridge indicator is normally ON in orange or the LCD screens 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**

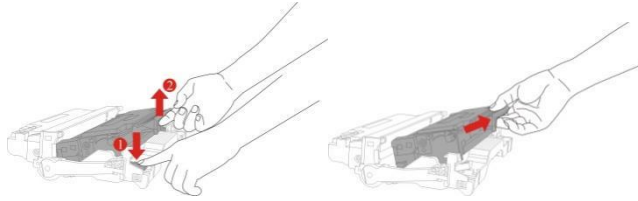
- For the printer with LED control panel, if the drum component indicator is normally ON in red, it means that the service life of the drum component is expired. Replace the drum component.
- For the printer with LCD control panel, if the LCD screen displays “The Drum Component Life Expired”, it means that the service life of the drum component is expired. Replace the drum component.

### **7.2.2 Replacement of toner cartridge and drum component**

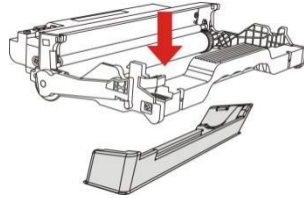
1. Turn off the power of the printer. Open the front cover, and take out the laser toner cartridge along the guide rail.



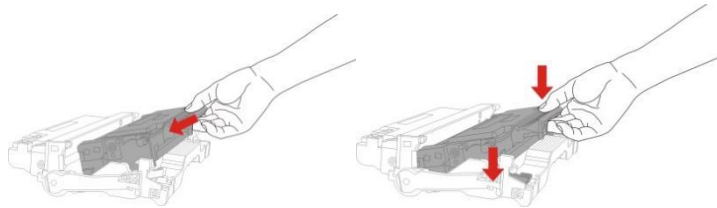
2. Press the blue button on the left side of the drum component with the left hand, lift the toner cartridge handle with the right hand, and take out the toner cartridge.



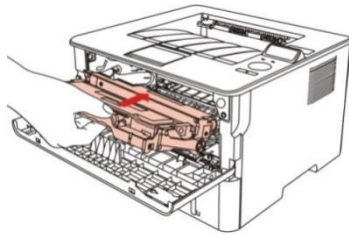
3. Open the package of new drum component, remove the protective device, and place the drum component onto a horizontal table.



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



5. 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

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

i) Do not install the printer in a place where the vent may be blocked.

## II. Print paper

a) 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.]

b) Check whether the print paper is wet. [If the paper is wet, use dry paper and check whether the printing quality is improved.]

c) Check whether the print paper is short-texture or acidic. [In this case, the printing quality problem may be caused.]

## III. Consumables

d) 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.

e) Check whether the applied toner cartridge is designated by Pantum.

## 8.2 Error Message

| Error Message                                             | Cause                                                                                                                                                                                                                                                                                                       | Solution                                                                                                                                                                                                                                    |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The printer is not connected.                             | <ol style="list-style-type: none"> <li>1. The USB cable or power cord is not connected.</li> <li>2. The main control board fails.</li> </ol>                                                                                                                                                                | <ol style="list-style-type: none"> <li>1. Properly connect the USB cable and power cord.</li> <li>2. Replace the main control board.</li> </ol>                                                                                             |
| 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"> <li>1. Check whether there is paper.</li> <li>2. The print paper is not installed properly.</li> <li>3. The pickup roll is dirty or aged.</li> </ol>                                                                                                                     | <ol style="list-style-type: none"> <li>1. Make sure that there is paper in the paper tray.</li> <li>2. Properly install the print paper.</li> <li>3. Clean or replace the pickup roll.</li> </ol>                                           |
| Paper is jammed.                                          | <ol style="list-style-type: none"> <li>1. The print paper is not installed properly.</li> <li>2. The paper is damp.</li> <li>3. The pickup roll is dirty.</li> <li>4. The front-end sensor fails.</li> <li>5. The fuser unit is damaged.</li> </ol>                                                         | <ol style="list-style-type: none"> <li>1. Install the print paper properly.</li> <li>2. Use dry paper.</li> <li>3. Clean the pickup roll.</li> <li>4. Check or replace the front-end sensor.</li> <li>5. Replace the fuser unit.</li> </ol> |
| The drum component and carbon cartridge are not detected. | <ol style="list-style-type: none"> <li>1. The drum component and toner cartridge are not installed or installed improperly.</li> <li>2. The chip contact of the drum component or toner cartridge is dirty or damaged.</li> <li>3. The chip of the drum component or toner cartridge is damaged.</li> </ol> | <ol style="list-style-type: none"> <li>1. Install the drum component and toner cartridge properly.</li> <li>2. Replace the Engine board.</li> <li>3. Use new drum component and toner cartridge.</li> </ol>                                 |
| 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                  | The print pages of the drum component and toner cartridge are                                                                                                                                                                                                                                               | Replace the drum component and toner cartridge.                                                                                                                                                                                             |

|                       |          |  |
|-----------------------|----------|--|
| cartridge is expired. | used up. |  |
|-----------------------|----------|--|

### 8.3 Software Failure

| Problem                                                                     | Solution                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The printer icon is not displayed in the “Device and Printer” folder.       | Reinstall the printer driver.<br>Ensure that the USB interface cable and the power cord are properly connected.                                                                                                                                                                                                       |
| The printer is in Ready mode but it will not perform any print job.         | If the failure still exists after restarting the printer, please reinstall the printer driver.<br>Make sure the network cable of USB cable is connected correctly.                                                                                                                                                    |
| Failed to install the driver                                                | Check whether the print spooler service is enabled.<br>Check the power supply and the connection of the printer.                                                                                                                                                                                                      |
| The driver cannot be used if the IP address of the printer has been changed | Modify the port IP address of the printer driver.<br>If the above method does not work, please reinstall the printer driver.<br>It is recommended that a fixed IP address should be set to the network printer.<br>In the DHCP network, it is recommended to bind the IP address with the Mac address of the printer. |

## 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                                                                                                                         |
|-------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Internal error 01 of printer<br>Please call the customer service staff. | Abnormality of main motor                         | 1. Check the connecting wire of the motor;<br>2. Replace the motor;<br>3. Restart the printer;<br>4. Replace the Data board.               |
| Internal error 02 of printer<br>Please call the customer service staff. | Abnormality of synchronization of laser unit      | 1. Check the connecting wire of the laser unit;<br>2. Replace the laser unit;<br>3. Restart the printer;<br>4. Replace the Data board.     |
| Internal error 03 of printer<br>Please call the customer service staff. | Abnormality of motor of laser unit                | 1. Check the connecting wire of the laser unit;<br>2. Replace the laser unit;<br>3. Restart the printer;<br>4. Replace the Data board.     |
| Internal error 04 of printer<br>Please call the customer service staff. | Too long heating of heating roll under full power | 1. Check the connecting wire of the fuser unit;<br>2. Replace the fuser unit;<br>3. Replace the power board;<br>4. Replace the Data board. |
| Internal error 05 of printer<br>Please call the customer service staff. | Too slow temperature rise of heating roll         |                                                                                                                                            |
| Internal error 06 of printer<br>Please call the customer service staff. | Abnormality of thermistor of heating roll         |                                                                                                                                            |
| Internal error 07 of printer<br>Please call the customer service staff. | Too slow cooling of heating roll                  |                                                                                                                                            |

|                                                                         |                                                                                |                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Internal error 08 of printer<br>Please call the customer service staff. | Abnormal temperature of heating roll                                           |                                                                                                                                                                                                                                                                                                              |
| Internal error 09 of printer<br>Please call the customer service staff. | Failure of heating roll to reach the start temperature of laser unit           |                                                                                                                                                                                                                                                                                                              |
| Internal error 10 of printer<br>Please call the customer service staff. | Failure of heating roll to reach the pickup temperature                        |                                                                                                                                                                                                                                                                                                              |
| Internal error 11 of printer<br>Please call the customer service staff. | Fault of engine system                                                         | <ol style="list-style-type: none"> <li>1. Restart the printer;</li> <li>2. Replace the Data board.</li> </ol>                                                                                                                                                                                                |
| Internal error 12 of printer<br>Please call the customer service staff. | Abnormality of image output unit or video module                               | <ol style="list-style-type: none"> <li>1. Restart the printer;</li> <li>2. Replace the Data board.</li> </ol>                                                                                                                                                                                                |
| Internal error 13 of printer<br>Please call the customer service staff. | Failure of fan connection                                                      | <ol style="list-style-type: none"> <li>1. Check the connecting wire of the fan;</li> <li>2. Replace the fan;</li> <li>3. Restart the printer;</li> <li>4. Replace the Data board.</li> </ol>                                                                                                                 |
| Internal error 14 of printer<br>Please call the customer service staff. | Temperature out of control                                                     | <ol style="list-style-type: none"> <li>1. Make sure that the cable between the fuser unit and base board is connected correctly.</li> <li>2. Replace the fuser unit if it is failure.</li> <li>3. Replace the Engine board if it is failure.</li> <li>4. Replace the data board if it is failure.</li> </ol> |
| Internal error 15 of printer<br>Please call the customer service staff. | The rated heating within 16 seconds does not reached the specified temperature | <ol style="list-style-type: none"> <li>1. Make sure that the cable between the fuser unit and base board is connected correctly.</li> <li>2. Replace the fuser unit if it is failure.</li> <li>3. Replace the data board if it is failure.</li> <li>4. Replace the Engine board if it is failure.</li> </ol> |

|                                                                         |                                                                                                                            |                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Internal error 16 of printer<br>Please call the customer service staff. | Thyristor short circuit                                                                                                    | <ol style="list-style-type: none"> <li>1. Restart the printer;</li> <li>2. Replace the power board;</li> <li>3. Replace the data board.</li> </ol>                                                                                                                |
| Internal error 17 of printer<br>Please call the customer service staff. | The AC input voltage is too low.                                                                                           | <ol style="list-style-type: none"> <li>1. Restart the printer;</li> <li>2. Replace the power board;</li> </ol>                                                                                                                                                    |
| Internal error 18 of printer<br>Please call the customer service staff. | The AC input voltage is too high.                                                                                          |                                                                                                                                                                                                                                                                   |
| Internal error 19 of printer<br>Please call the customer service staff. | Too long heating of heating roll under full power                                                                          | <ol style="list-style-type: none"> <li>1. Check the connecting wire of the fuser unit;</li> <li>2. Replace the fuser unit;</li> <li>3. Replace the power board;</li> <li>4. Replace the Data board.</li> </ol>                                                    |
| Internal error 20 of printer<br>Please call the customer service staff. | Hibernation mode<br>Abnormal heating                                                                                       | <ol style="list-style-type: none"> <li>1. Restart the printer;</li> <li>2. Replace the data board.</li> </ol>                                                                                                                                                     |
| Internal error 21 of printer<br>Please call the customer service staff. | Communication failure (WSD communication error [the wired network connection and wifi connection cannot be distinguished]) | <ol style="list-style-type: none"> <li>1. Check whether network connection is normal (the same as the internal error 26);</li> <li>2. Check whether wifi connection is normal (the same as the internal error 27);</li> <li>3. Replace the Data board.</li> </ol> |
| Internal error 22 of printer<br>Please call the customer service staff. | The fuser temperature difference is too large                                                                              | <ol style="list-style-type: none"> <li>1. Restart the printer;</li> <li>2. Replace the data board.</li> </ol>                                                                                                                                                     |
| Internal error 23 of printer<br>Please call the customer service staff. | The communication with the secure MCU is abnormal                                                                          | <ol style="list-style-type: none"> <li>1. Restart the printer;</li> <li>2. Replace the data board.</li> </ol>                                                                                                                                                     |
| Internal error 24 of printer                                            | Too long heating of heating roll under full                                                                                | <ol style="list-style-type: none"> <li>1. Check the connecting wire of the fuser unit;</li> <li>2. Replace the fuser unit;</li> </ol>                                                                                                                             |

|                                                                         |                                            |                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| printer<br>Please call the customer service staff.                      | power                                      | 3. Replace the power board;<br>Replace the Data board.                                                                                                                                                                                                                                                                          |
| Internal error 25 of printer<br>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.<br>2. Replace the Data board.                                                                                                                                           |
| Internal error 26 of printer<br>Please call the customer service staff. | Network connection error                   | 1. Check whether the network cable is connected properly;<br>2. Restart the printer;<br>3. Replace the Data board.                                                                                                                                                                                                              |
| Internal error 27 of printer<br>Please call the customer service staff. | wifi connection error                      | 1. Check whether the wireless connection of the printer is enabled;<br>2. Check the network environment, and make sure that the wireless network is normal;<br>3. Check whether the connecting wire between the internal antenna and Data board is connected properly;<br>4. Restart the printer;<br>5. Replace the Data board. |
| Internal error 32 of printer<br>Please call the customer service staff. | Data transfer error                        | 1. Check the cable between the engine board and the data board, and make sure that the connection is normal.<br>2. Replace the engine board if there is a fault.<br>3. Replace the data board if there is a fault                                                                                                               |
| Internal error 33 of printer<br>Please call the customer service staff. | The full power heating time is too long    | 1. Replace the fuser component if there is a fault.<br>2. Replace the engine board if there is a fault.                                                                                                                                                                                                                         |
| Internal error 34 of printer<br>Please call the customer                | The heating roller is too slow to heat up. | 3. Replace the power board if there is a fault.                                                                                                                                                                                                                                                                                 |

|                                                                         |                                                                          |                                                                                                                                                                                 |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| service staff.                                                          |                                                                          |                                                                                                                                                                                 |
| Internal error 35 of printer<br>Please call the customer service staff. | Abnormal thermistor of heating roller                                    |                                                                                                                                                                                 |
| Internal error 36 of printer<br>Please call the customer service staff. | The heating roller is too slow to cool down.                             |                                                                                                                                                                                 |
| Internal error 37 of printer<br>Please call the customer service staff. | Abnormal temperature of heating roller                                   |                                                                                                                                                                                 |
| Internal error 38 of printer<br>Please call the customer service staff. | The heating roller does not reach the starting temperature of the laser. | 1. Replace the laser if there is a fault in the LSU laser motor.<br>2. Replace the engine board if there is a fault in the LSU laser motor control gear.                        |
| Internal error 39 of printer<br>Please call the customer service staff. | Heating roll does not reach the temperature of paper rubbing             | 3. Faulty connection of the motor cable. Make sure that the motor cable is connected correctly.<br>4. Replace the engine board if there is a fault.                             |
| Internal error 40 of printer<br>Please call the customer service staff. | Main motor fault                                                         | 1. Faulty main motor cable. Make sure that the main motor cable is connected correctly. Replace the main motor if it is faulty.<br>2. Replace the engine board if it is faulty. |
| Internal error 41 of printer<br>Please call the customer service staff. | EC-system failure                                                        | 1. Make sure that the cable between the engine board and the data board is connected correctly.                                                                                 |
| Internal error 42 of printer<br>Please call the customer                | External memory failure                                                  | 2. Replace the data board if it is faulty.<br>3. Replace the engine board if it is faulty.                                                                                      |

|                                                                         |                                                    |                                                                                                     |
|-------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| service staff.                                                          |                                                    |                                                                                                     |
| Internal error 43 of printer<br>Please call the customer service staff. | The print command is not match with format version |                                                                                                     |
| Internal error 44 of printer<br>Please call the customer service staff. | External memory failure                            |                                                                                                     |
| Internal error 45 of printer<br>Please call the customer service staff. | LSU failure-HSYNC                                  | 1. Check the LSU cable;<br>2. Replace the LSU;                                                      |
| Internal error 46 of printer<br>Please call the customer service staff. | LSU failure-MT                                     | 3. Restart the printer;<br>4. Replace the Data board.                                               |
| Internal error 47 of printer<br>Please call the customer service staff. | Fan failure                                        | 1.Restart the printer;<br>2.Check the fan cable;<br>3.Replace the fan;<br>4.Replace the Data board. |

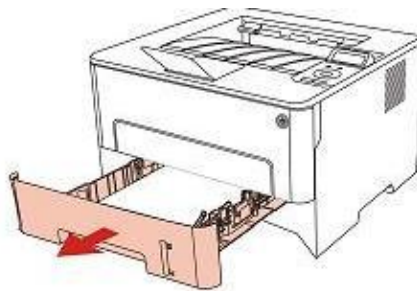
## 8.5 Removal of Jammed Paper

### 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 Jammed paper in auto feed tray

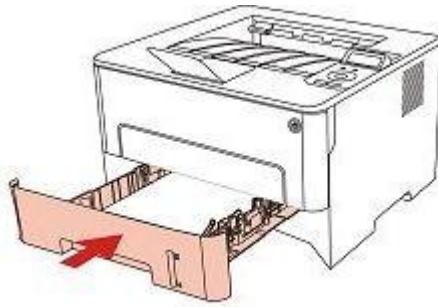
1. Pull out the paper tray.



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.

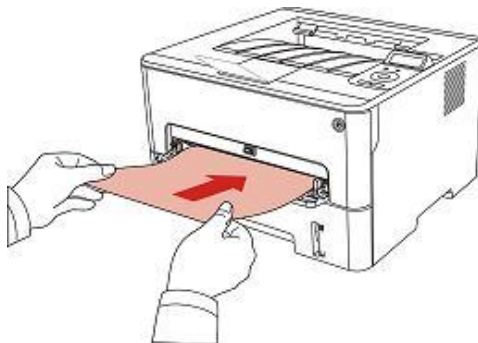


### 8.5.2 Jammed paper in manual feed tray

1. Gently pull out the jammed paper.



2. Place the paper again, close the front cover, and the printer will recover printing.

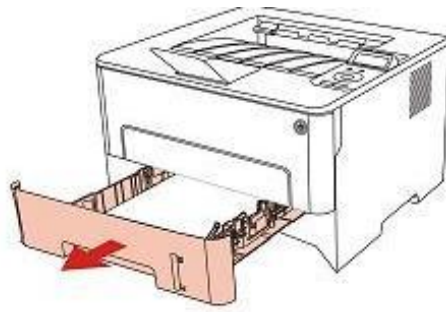


### 8.5.3 Middle jam

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



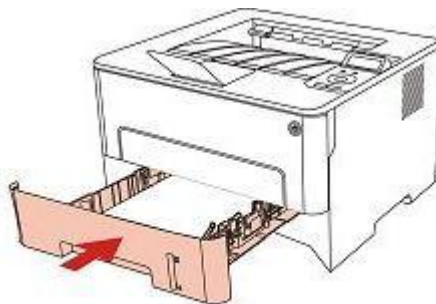
1. Pull out the paper tray.



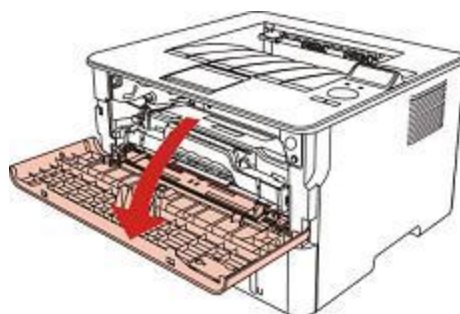
2. Gently pull out the jammed paper.



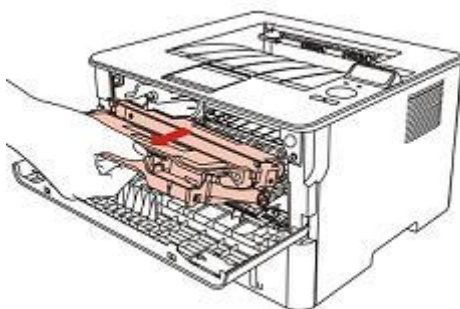
3. Install the paper tray.



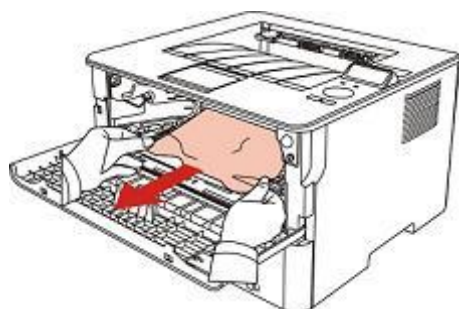
4. Open the front cover.



5. Take out the laser toner cartridge along the guide rail. (In order to prevent the printing quality from being affected by the exposure of the photosensitive drum, put the laser toner cartridge inside a protective bag or wrap it with thick paper.)



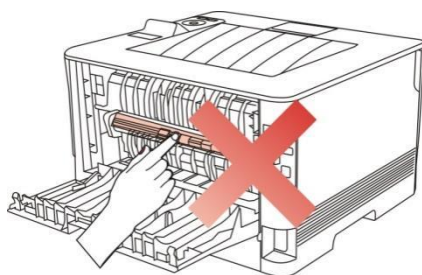
6. Gently pull out the jammed paper.



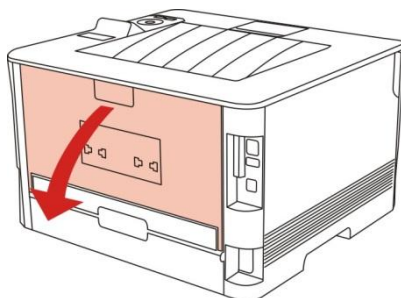
7. After taking out the jammed paper, reinstall the laser toner cartridge, close the front cover, and the printer will recover printing.

#### 8.5.4 Jammed paper in fuser unit

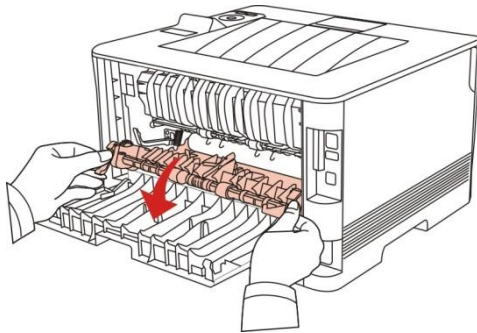
**Note:** While removing the jammed paper in the fuser unit, do not touch the shaded area shown below to avoid burns.



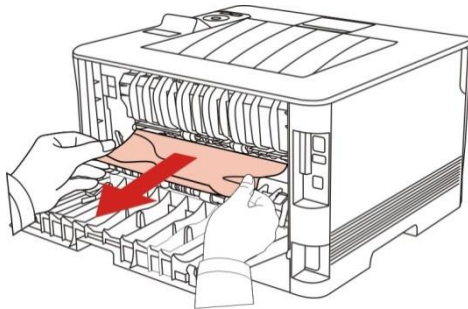
1. Open the rear cover.



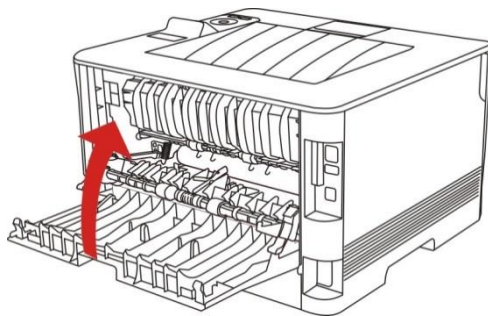
2. Open the fuser door using the handles on both sides.



3. Gently pull out the jammed paper.

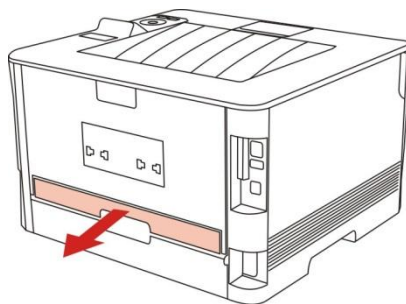


4. After removing the jammed paper, close the rear cover, open the front cover, and the printer will automatically recover printing.

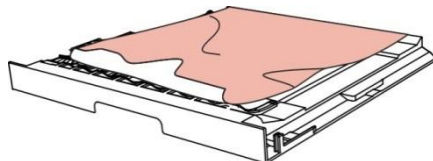


#### 8.5.5 Jammed paper in duplex printing unit

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

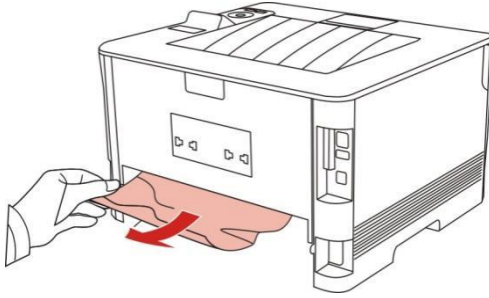


2. Pull the jammed paper out of the duplex printing unit.



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. After pulling out the jammed paper, install the duplex printing unit, check other parts of the printer for jammed paper, and close the front cover. The printer will automatically recover to print.

## 8.6 Troubleshooting

### 8.6.1 Paper feeding problems

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 cord 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 board is faulty.                                 | Replace the engine board.                                                                          |

### 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 board fails.                                                              | Replace the engine board.                                                      |
| 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 board is faulty. | Replace the engine board. |

#### 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.<br>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 board is faulty.                                         | Replace the engine board.                                                                                 |

#### P8 High-voltage output abnormality

| Possible Cause                          | Solution                                             |
|-----------------------------------------|------------------------------------------------------|
| The power cord 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 contact or damaged. | Make sure that the power cord is connected properly. |
| The plug of the USB cable is in poor contact or damaged.         | Make sure that the USB cable is connected properly.  |
| The Data board is faulty.                                        | Replace the Data board.                              |

#### 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 board and Data board is in poor contact or not reliable. | Replace the connecting wire.                                     |
| The Data board is faulty.                                                                   | Replace the Data board.                                          |
| The engine board is damaged.                                                                | Replace the engine board.                                        |

#### 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 board and Data board is in poor contact or not reliable. | Replace the connecting wire.                                                        |
| The high-voltage power board is damaged.                                                    | Replace the engine board.                                                           |
| The Data board is abnormal.                                                                 | Replace the Data board.                                                             |
| The toner cartridge is abnormal.                                                            | Replace the toner cartridge.                                                        |
| The laser unit is abnormal.                                                                 | Replace the laser unit.                                                             |

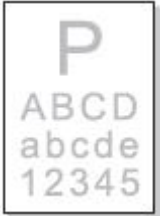
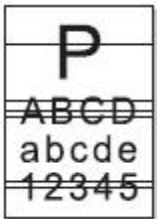
#### P12 No response of keys on operation panel

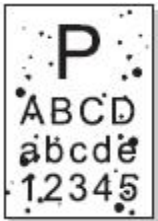
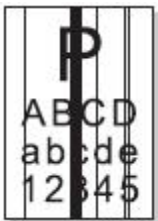
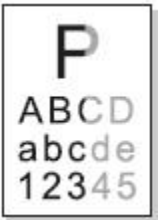
| Possible Cause                           | Solution                               |
|------------------------------------------|----------------------------------------|
| The connecting wire is damaged.          | Replace the connecting wire.           |
| Keys are damaged.                       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

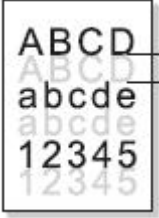
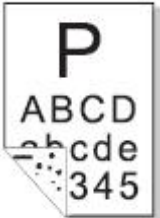
#### P13 Failure in identification of toner cartridge

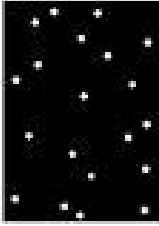
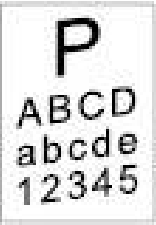
| Possible Cause                                 | Solution                                                  |
|------------------------------------------------|-----------------------------------------------------------|
| The toner cartridge is not installed properly. | Make sure that the toner cartridge is installed properly. |
| The chip of the toner cartridge is faulty.     | Replace the toner cartridge.                              |
| The Data board is faulty.                      | Replace the Data board.                                   |

## 8.7 Image Defects

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

|                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>There are black/white spots.</p>                 | <ul style="list-style-type: none"> <li>Some components of the toner cartridge are contaminated or OPC is damaged.</li> <li>If there are 45.2mm periodic black spots on the image, the high voltage of the transfer roll is abnormal or the transfer roll is damaged.</li> </ul>                                                           | <ul style="list-style-type: none"> <li>1. Replace the toner cartridge.</li> <li>2. Clean the high-voltage contact of the transfer roll or replace the transfer roll.</li> <li>3. Regularly clean the inside of the printer, and remove paper scraps and dirty.</li> </ul> |
| <p>There are vertical black lines or stripes.</p>  | <ul style="list-style-type: none"> <li>The cleaning scraper has a gap or is deformed.</li> <li>OPC is damaged.</li> <li>There are foreign matters between the developing roll and toner scraper.</li> </ul>                                                                                                                               | <ul style="list-style-type: none"> <li>Replace the toner cartridge.</li> </ul>                                                                                                                                                                                            |
| <p>There are vertical white stripes.</p>          | <ul style="list-style-type: none"> <li>The window glass of the laser unit is contaminated.</li> <li>There are foreign matters or toner particulates between the developing roll and toner scraper.</li> <li>The fuser unit is abnormal.</li> </ul>                                                                                        | <ul style="list-style-type: none"> <li>Clean the laser window glass of the laser unit.</li> <li>Replace the toner cartridge.</li> <li>Clean or replace the fuser unit.</li> </ul>                                                                                         |
| <p>The printing color is light.</p>               | <ul style="list-style-type: none"> <li>The toner scraper is damaged.</li> <li>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.</li> <li>The laser unit is faulty.</li> </ul> | <ul style="list-style-type: none"> <li>Replace the toner cartridge.</li> <li>Replace the bushing of the transfer roll.</li> <li>Replace the laser unit.</li> </ul>                                                                                                        |

|                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The background is gray.</p>                | <ul style="list-style-type: none"> <li>● The printing medium does not conform to the specifications.</li> <li>● The life of the toner cartridge is expired.</li> <li>● The high-voltage output of the high-voltage power board is abnormal.</li> </ul>                                                                                                                            | <ul style="list-style-type: none"> <li>● Use the printing medium according to the specifications.</li> <li>● Replace the toner cartridge.</li> <li>● Clean the high-voltage contact or replace the high-voltage power board.</li> </ul>   |
| <p>The images are doubled periodically.</p>  | <ul style="list-style-type: none"> <li>● If the images are doubled periodically at intervals of 75.4mm, it indicates that OPC is damaged.</li> <li>● If the images are doubled periodically at intervals of 62.3mm, it indicates that the surface of the heating roll is contaminated.</li> <li>● The high-voltage output of the high-voltage power board is abnormal.</li> </ul> | <ul style="list-style-type: none"> <li>● Replace the toner cartridge.</li> <li>● Clean the surface of the heating roll. If the problem still exists, replace the fuser unit.</li> <li>● Replace the high-voltage heating roll.</li> </ul> |
| <p>The back is dirty.</p>                   | <ul style="list-style-type: none"> <li>● The transfer roll is contaminated.</li> <li>● The pressing roll of the fuser unit is contaminated.</li> </ul>                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>● Clean or replace the transfer roll.</li> <li>● Clean the pressing roll of the fuser unit or replace the fuser unit.</li> </ul>                                                                   |
| <p>The image is fully white.</p>            | <ul style="list-style-type: none"> <li>● OPC discharge is poor.</li> <li>● The laser unit is damaged.</li> </ul>                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>● Clean the high-voltage contact or replace the engine board. If the problem still exists, replace the toner cartridge.</li> <li>● Replace the laser unit.</li> </ul>                              |

|                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>White spots</p>       | <ul style="list-style-type: none"> <li>● The print media does not meet the usage specifications, for example the media is damp or too rough, or has been used previously.</li> <li>● The paper path is dirty.</li> <li>● The drum inside toner cartridge is damaged.</li> </ul>                                                                                                                                      | <ul style="list-style-type: none"> <li>● Please use the print media within the specification range.</li> <li>● Clean the paper path.</li> <li>● It is suggested to replace the original toner cartridge.</li> </ul>                                                                                                                                      |
| <p>Toner comes off</p>  | <ul style="list-style-type: none"> <li>● The print media does not meet the usage specifications, for example the media is damp or too rough, or has been used previously.</li> <li>● The printing paper medium set and paper medium placed are not consistent.</li> <li>● The inside of the printer is dirty.</li> <li>● Toner cartridge is damaged.</li> <li>● The parts inside the printer are damaged.</li> </ul> | <ul style="list-style-type: none"> <li>● Please use printing medium within the specification scope, and use manual feed tray for printing in case of special medium.</li> <li>● Please print with corresponding paper medium.</li> <li>● Clean the inside of the printer.</li> <li>● It is suggested to replace the original toner cartridge.</li> </ul> |
| <p>Skewed pages</p>    | <ul style="list-style-type: none"> <li>● The print media has been loaded incorrectly.</li> <li>● The paper path of the printer is dirty.</li> </ul>                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>● Ensure the correct loading of the print media.</li> <li>● Clean the paper path inside the printer.</li> </ul>                                                                                                                                                                                                   |
| <p>Wrinkled paper</p>  | <ul style="list-style-type: none"> <li>● The print media has been loaded incorrectly.</li> <li>● The print media does not meet the usage specifications.</li> <li>● The paper path of the printer is dirty.</li> <li>● The fuser component is damaged.</li> </ul>                                                                                                                                                    | <ul style="list-style-type: none"> <li>● Ensure the correct loading of the print media.</li> <li>● Please use print media within the specification range.</li> <li>● Clean the paper path inside the printer.</li> <li>● Please contact customer services center to replace to a new fuser assembly.</li> </ul>                                          |

The toner does not adhere to the paper



- The print media does not meet the usage specifications, for example the media is damp or too rough, or has been used previously.
- The inside of the printer is dirty.
- Toner cartridge is damaged.
- The parts inside the printer are damaged.
- Please use printing medium within the specification scope, and use manual feed tray for printing in case of special medium.
- Clean the inside of the printer.
- It is suggested to replace the original toner cartridge.

**Appendix 1 Perimeters of Printer Rolls**

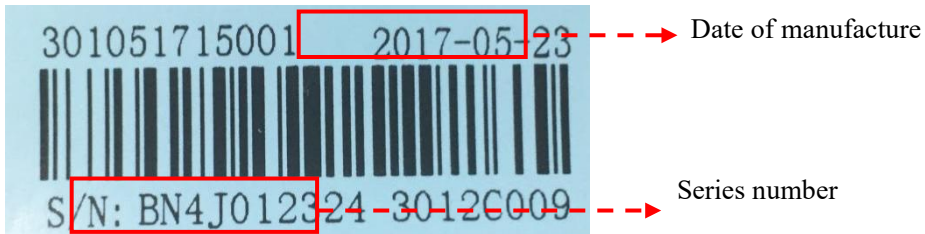
| <b>Name</b>               | <b>Image Period mm</b> |
|---------------------------|------------------------|
| Transfer roll             | 44.0                   |
| Heating roll              | 77.5                   |
| Pressing roll             | 75.4                   |
| OPC (photosensitive drum) | 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

### 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 board         |