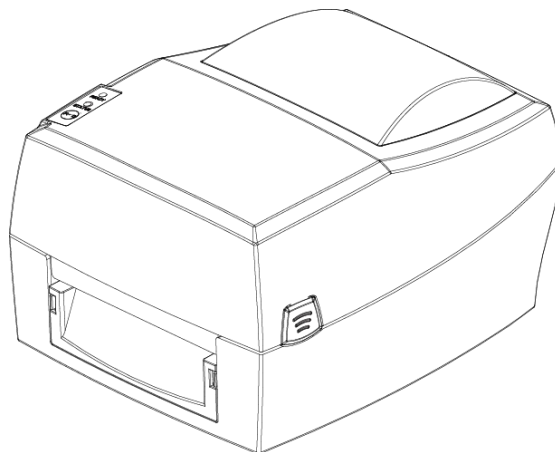# HLP106D

User Manual

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REVISION RECORDS

REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
1.0	2014.11.18	Preliminary	Cui Xiao	Yang Kaiqu	Ren Xiaowei
1.1	2015.01.04	1.Modify 3.7 Operation panel	Cui Xiao	Yang Kaiqu	Ren Xiaowei
1.2	2015.06.24	1.Update Important Safety Instruction 2.Change the structure of General Specification 3.Update the printing speed to 120mm/s; 4.Change the picture of Control Panel 5.Update Chapter 5	Dorothy	Yang Kaiqu	Ren Xiaowei

CONTENTS

Statement

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1.2 Version

Warnings :

⚠ This must be complied with in order to avoid any damage to the human body and to the equipment.

⚠ This is showing the important information and tips for the printer operating.

■ Manual Information

This user manual contains basic information for product usage as well as for emergency measures that may be required.

※ The following separate manuals provide more details on various technological issues and areas.

1.Windows Driver Manual

This manual provides information on the installation instructions and main functions of the Windows Driver.

2.Printer Utility Tool Manual

This manual provides information on the usage of software for function selection of this product, operating condition modification, etc.

3.Programming Manual

This manual provides information on label printer commands.

■ Important Safety Instructions

Before using the appliance, please carefully read the following safety regulations in order to prevent any hazard or material damage.

1.Safety Precautions

1) Be sure to use the accompanying power charger, if not, it may cause fire, explosion or damage.
2) Please do not open the printer cover when it is printing or just when printing is over, do not touch the print head with hand or body, overheat may cause

scald.

2. Operation Precautions

1) Water or other liquid should not be spilled into the printer, the printer also should not expose to the rain, or else may damage printer.
2) Please do not open the printer cover when it is printing, otherwise the printer may work improperly.
3) If printing with serial interface, do not unplug the interface cable, or else some printing data may lost.
4) Too high(40℃) or too low(0℃) temperature and too high(85%) or too low(20%) relative humidity both affect the print quality.
5) The print paper in poor quality or stored for too long time may also reduce the print quality, even damage the printer.

3. Storage Precautions

1) The printer should be placed in such an environment that the temperature ranges from -40℃ to 60℃, and the relative humidity is between 5% and 95%.
2) Normal thermal paper can't be kept for long, if you need to keep the receipt for a long period, please choose long term effective thermal paper.
3) The print paper should be keep away from high temperature environment and direct sunshine.

4. Other Precautions

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by the our company, as well as from the unauthorized alteration, repair, and/or modification of the product by the user and/or third party. Our company is not legally liable for any damages and/or issues resulting from the use of options and/or parts that are not our authentic or authorized products.

5.WEEE (Waste Electrical and Electric Equipment)

This mark shown on the product or its literature indicates that the corresponding item should not be discarded at the end of its working life with other household waste. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate marked items from other types of waste and recycle them responsibly to promote the sustained reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office for details of where and how they can conduct environmentally safe recycling of such items. Commercial users should contact their suppliers and check the terms and conditions of purchase contracts. This product should not be combined with other commercial waste for disposal.

CHAPTER 1 PRODUCT INTRODUCTION

1.1 Unpacking list

⚠ **Notes:**

   1. Unpack the printer and keep the packing material in case you need to ship the printer in the future.

   2. Make sure you own all parts as follows, if not, do contact the local dealer.

■ **Standard Accessories**

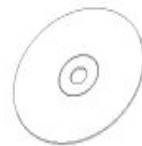|		
Printer	AC Power Adapter	Power Cord

Quick Start Guide	Empty Ribbon Cord	CD

USB Cable

■ **Optional Accessories(A or B)**
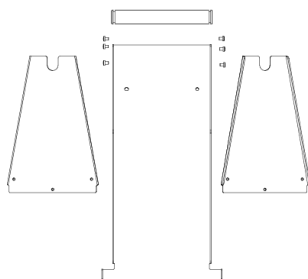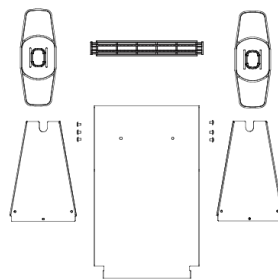
Model A	Model B
External roll mount	External roll mount

1.2 Appearance and component

Printer cover
Control panel

Front cover
Cover open button
Power switch
Power supply connector
USB connector
External roll
paper entry slot

Control panel
Ready LED — READY
Status LED — STATUS
FEED button — FEED

Paper supply shaft

Ribbon feed Mechanism
Ribbon pick-up shaft

Release latch(left)
Printing group
Ribbon supply shaft
Paper guide (left)
Platen roller
Release latch(right)

Paper sensor
Paper guide (Right)

Figure 1-2

Specification of Some Part Elements

- **READY LED and STATUS LED**

  READY LED and STATUS LED are two-color(red and yellow) LED. They can indicate the status of printer by different combination. See more information in "3.7 Operation panel".

- **External roll paper slot**

  HLP106D support external roll paper which can be fed by external roll paper entry slot.

- **Release latch**

  Press down the left and right release latch simultaneously and lift the printing group.

- **Paper guides**

  Adjust the paper guides to fix the paper according to the width of paper.

CHAPTER 2 SPECIFICATION

Table 2-1 Specification

Item		Parameter
Printing	Print method	Direct thermal and thermal transfer
	Resolution	203dpi（8dots/mm）
	Printing width	108mm
	Print speed	Max.120mm/s
	Interface	USB, Ethernet(Optional)
Page Mode		Support
Memory	RAM	2M Byte
	Flash	2M Byte
Character	Chinese	GB18030 16×16 24×24 dots
	Alphanumeric	ASCII 8×16,12×24 dots
Barcode	1D	UPC-A, UPC-E, EAN8, EAN13, CODE39, CODE128, CODE128M, CODE93
	2D	QR code
Detection	Sensors	Cover open detection, Paper out detection, label gap detection, ribbon detection
LED Indicators	READY indicator	Two colors with red and yellow
	STATUS indicator	Two colors with red and yellow
Power supply	Input	24V ⎓ 2A(External power adapter)
Paper	Paper type	Thermal receipt paper and thermal label paper
	Paper width	25.4mm(Min.); 118mm(Max)
	Paper thickness	0.06~0.25mm
	External diameter	127mm(Max.)
	Internal diameter	25.4mm,38.1mm,76.2mm
Ribbon	Material	Wax base,resin matrix,polybase
	Width	30mm(Min.); 110mm(Max.)
	Length	300m/thickness 8.5μm
	External diameter	68mm(Max.)
	Axes	25.4mm

Table 2-1 Specification(Continued)

（2/2）

Item		Parameter
Command		TSPL
Physical spec.	Operation condition	0～40℃/20～85%RH
	Storage condition	-40～60℃/5～95%RH
	Dimensions	285(L)*226(W)*171(H)mm
	Weight	2.26kg(Without roll paper and ribbon)
Reliability	TPH	30km

CHAPTER 3 Installation & Usage

3.1 Power Connection

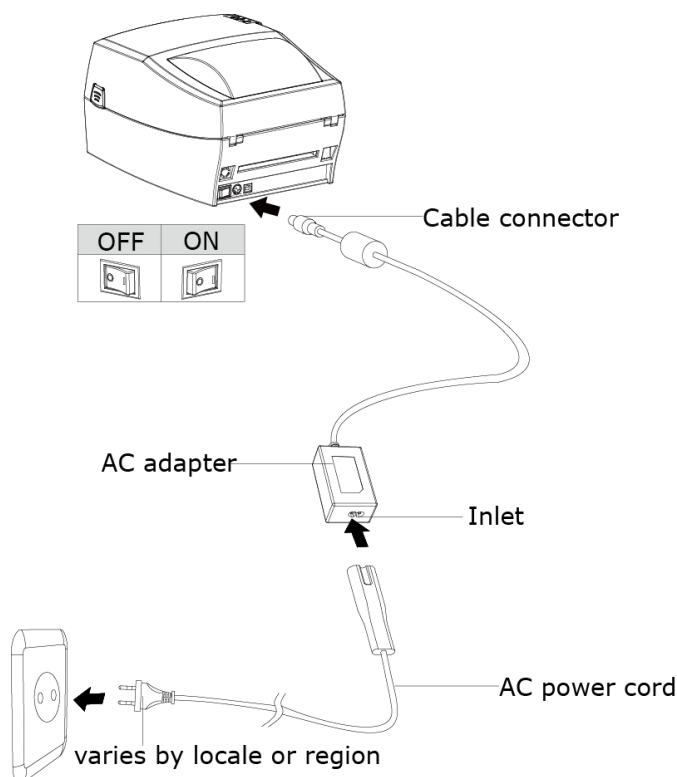Connect the power adapter of printer as shown below.

Figure 3-1

1. Turn off the printer.
2. Make sure that voltage of the power adapter is in accord with voltage of power.
3. Connect the power adapter to the printer power supply connector.
4. Connect the power cord to the power adapter.
5. Connect the other end of power cord to the socket.

⚠ **Caution:**

- Pls. use the specified AC adapter just in case of printer damages and injury.
- Pls. unplug the power cord from the socket if the printer is not use for a long time.

3.2 Opening Printer Cover

Press the left and right cover open latch with both hands simultaneously and lift the printer cover.
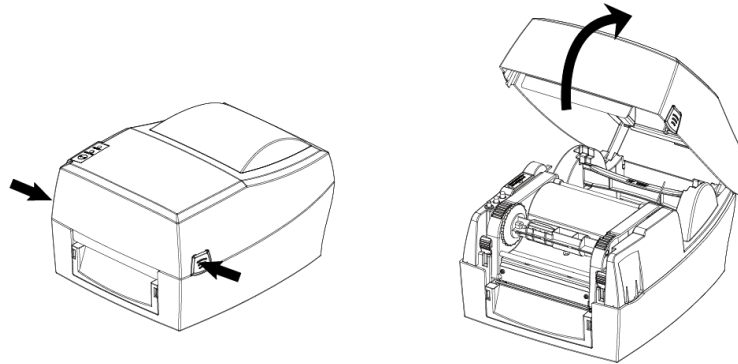

Figure 3-2

3.3 Opening Printing Group

Press the left and right release latch with both hands simultaneously and lift the printing group.
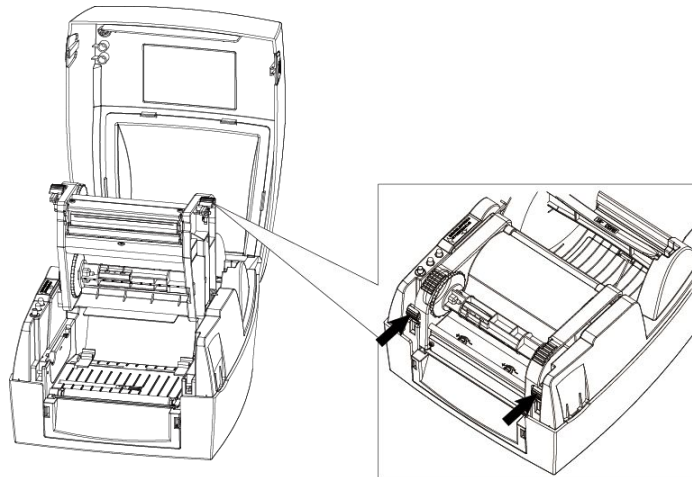

Figure 3-3

3.4 Loading Roll Paper

1.Open the printer cover.

2.According to the roll paper core size, adjust the direction of paper supply shaft. Put the roll paper into the paper supply shaft.There are instructions on the paper supply shaft.
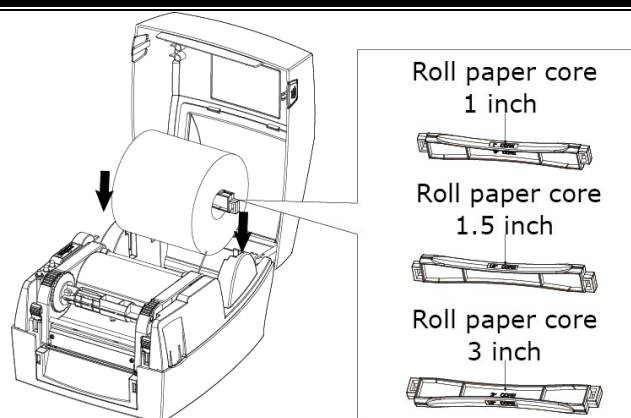
3.Install the roll paper into printer from the top down.

Figure 3-4

4.Press the left and right release latch simultaneously and lift the printing group. Pass the paper through paper guides and adjust paper guides according to the paper width.
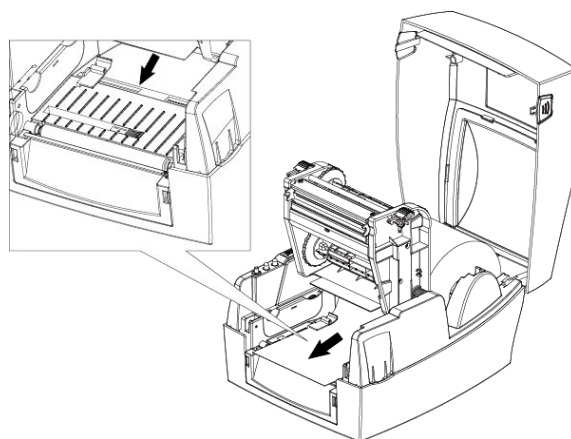

Figure 3-5

3.5 Loading Ribbon

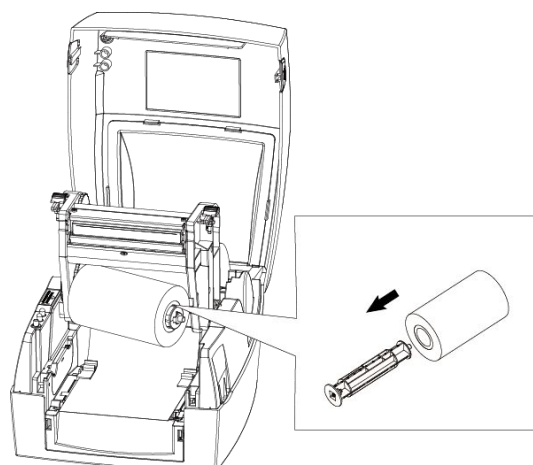1.Put the new ribbon into the ribbon supply shaft, and put ribbon supply group into the printing group.

Figure 3-6

2.Put the ribbon bare core into ribbon pick-up shaft, and put ribbon pick-up group into the printing group.
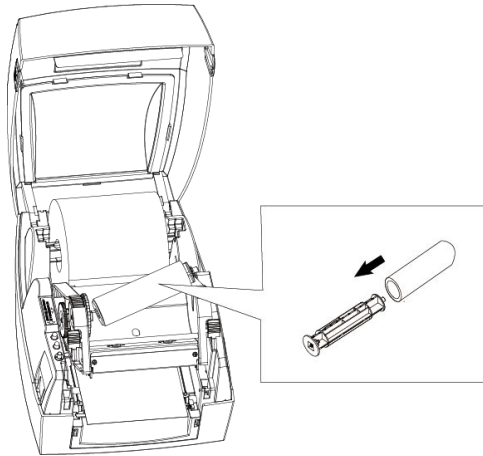

Figure 3-7

3.Pull some ribbon out and pass it through print head. Stick the front of ribbon to the ribbon bare core and wind the ribbon core 2~3 circles. Turn around the ribbon feed mechanism to make it smooth.
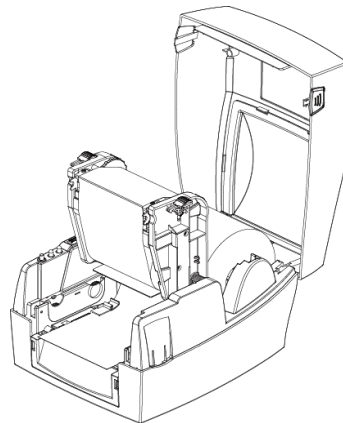

Figure 3-8

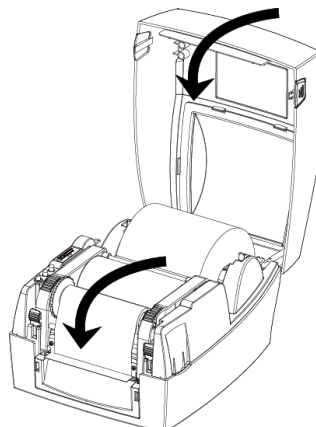4.Press down the printing group and fix it, then close the printer cover.

Figure 3-9

3.6 Label Detection
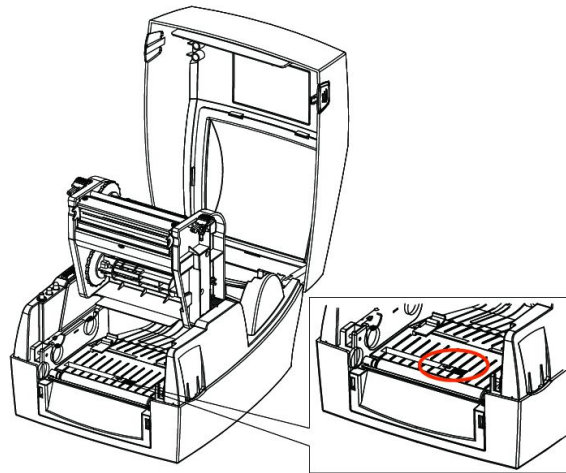
We have a movable detector to detect label paper.

Figure 3-11

3.7 Connecting Interface Cable
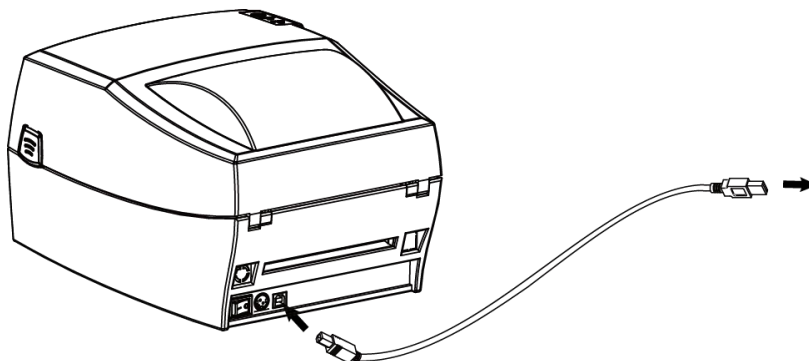
Connect interface cable as shown below.

Figure 3-12

3.8 Operation Panel

1. READY and STATUS indicators

Show the printer's information via different colors(red & kelly) and LED status(on and flash)

2. FEED button

① Feed paper

The printer will auto-feed the paper to the specified points according to the type of paper used. When use continuous paper, the printer will feed a fix distance, and while use label paper, the printer will feed the whole label.

②Pause

Press the [FEED] button when it is printing, the current printing job pauses; repress the [FEED] button, the printer continues to print.

Caution: If the printer cannot locate the label, please refer to section 3.8 for label detection detail.

LED status description:

READY		STATUS		Description	Solution
RED	KELLY	RED	KELLY	Print head is not close or close properly	Open the print head and close again
X	X	☀	X	Print head is overheat	After it cool down, it continues printing
☀	X	X	X	Paper detection fail	Print head is not close or close properly
X	X	●	X	Out of paper	Please change paper
●	X	●	X	Abnormal paper feed	Paper jam, label gap detection, paper drops in the roller etc.
X	X	X	☀	Do not pass RAM test	Contact the dealer
●	X	X	X	Ribbon use up	Change the new ribbon
X	●	X	X	Printer is ready	
X	X	X	●	Pause	

3.9 Basic operation

3.9.1 Power On/Power Off

Press "O" to power off the printer.Press "I" to power on the printer.

3.9.2 Feed Paper

Pressing FEED button, printer will feed paper to the specified position according to the paper type. When using continuous paper, pressing FEED button once will feed a fixed distance. When using label paper, pressing FEED button once will feed a whole label paper.

3.9.3 Label Learning(Calibration)

⚠️ **Note**: Before delivering the product, our tester will carry out the calibration. If the media that users use is so quite different with ours specified that the printer cannot locate the label correctly, please do carry out the label learning immediately, methods are shown below:

Label Learning Method:
1) Manual label learning
2) Auto label learning

Manual label learning

1.Please check if label roll paper is already loaded in the printer which is connected with power.

2.Please make sure printer is power off.

3.Open the printer cover(See more in chapter 3.2)

4.Open the printing group(See more in chapter 3.3)

5.Power on the printer and press the feed button 3~5 times quickly until STATUS indicator is on with yellow.

6.Close the printing group.STASUS indicator is off. READY indicator is yellow. Printer will feed six label to finish label learning.

7.After label learning printer will restart and locate automatically. READY indicator is off for a while, then it is on and printer feed one label.

⚠️ *NOTE: In order to save paper, you can reload the blank label which is used after the label learning.*

Auto label learning

Carry out label learning by printer utility tool. See more information in<HPRT Utility Tool Manual>.

3.8.4 Printing Self Page

The self-test checks the printer's current settings, status and whether the printer has any problem. The users can print out the 'self-test page' through two methods.

1. Print out 'self-test page'

a. Check whether the paper/ribbon has been installed on the printer, whether the power is connect.

b. Make sure the printer is off.

c. Pressing [FEED] button and power on, after the READY indicator is on with yellow, loosen [FEED] button and the printing process begins.

2. Printing of windows driver program

    a. Install the Windows Driver program. (Please refer to the Windows Driver Manual)

    b. Please set the "interface" as the type you use.

    c. Use the Windows Driver Program to print out the "Self-test page".
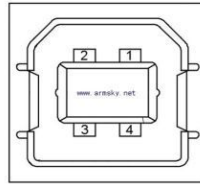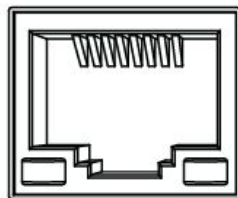
CHAPTER 4 INTERFACE

4.1 USB Interface

Figure 4-1

PIN	SIGNAL NAME
1	VBUS
2	D-
3	D+
4	GND

4.2 Other Optional Interface

■ **Ethernet Port**

PIN NO.	Signal Name
1	TX+
2	TX-
3	RX+
4	-
5	-
6	RX+
7	-
8	-

CHAPTER 5 MAINTENANCE AND ADJUSTMENT

Print quality might be degraded by dust, foreign substance, adhesive substance, or other pollution materials stuck in the printer head or inside the printer.

When dirty, clean the print head as follows:

※ **CAUTION**

- Make sure to turn the printer power off prior to cleaning.
- As the print head gets very hot during printing, if intending to clean the print head, turn the printer power off and wait approximately 2~3 minute before commencement.
- When cleaning the print head, take care not to touch the heated portion of the print head.
- → Printer Head is susceptible to damage from static electricity, etc.
- Take care not to allow the print head to become scratched and/or damaged in any way.

5.1 Cleaning Head

1) Open the Printer Cover and then use the cleaning pen to clean the head in the direction from the center of the head to the edges.
2) After cleaning the head, do not use the printer until the alcohol used for cleaning evaporates completely (1~2 min) and the printer has completely dried.

※ Perform the cleaning process each time the paper roll is replaced to prevent print quality deterioration.

5.2 Cleaning Sensors, Roller and/or Paper Path

1) Open the printer cover and then remove the paper.
2) Remove any dust or foreign substance using dry cloth or cotton swab.
3) Soak the cloth or cotton swab in alcohol for medical use and use it to remove adhesive foreign substances or other pollution materials.
4) After cleaning the parts, do not use the printer until the alcohol evaporates completely (1~2 min) and the printer has completely dried

※ Clean the parts when there is a degradation of print quality or paper detection.