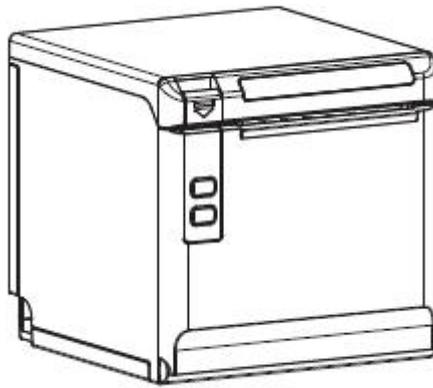


**Desktop POS Printer**  
**POS80D**  
**User Manual**





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# Statement

## Copyright

This manual is printed in 2020.

Version 1.4 .

## 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.



### Note:

**Due to continuous update of product, please take in kind of real machine, such as accessories, programs etc.**

# Important Safety Instructions

## 1. Safety Warning



Warnings: The print head will become very hot during printing; avoid contact with the print head after printing has finished.



Warnings: Do not touch the printer head and connector in case static damage the printer head.

## 2. Instructions

Carefully read the installation and operating instructions provided with the printer before starting up your printer.

- 1) Place the printer on a flat and stable surface.
- 2) Leave enough space around printer for operation and maintenance.
- 3) Do not place the printer on or near a heat source.
- 4) Do not use the printer near water. Never spill liquid into the printer.
- 5) Do not expose the printer to high temperatures, direct sunlight or dust.
- 6) Protect the printer from shock, impact and vibration.
- 7) Be certain the power source is within the voltage rating and frequency listed for the printer.
- 8) Switch off the printer power supply when won't use it for a long time.
- 9) Do not place the power cord where it can be stepped on. If the power cord becomes damaged or frayed, replace it immediately.
- 10) To ensure the print quality and reliability, you are suggested to use the recommended paper or the same quality paper.
- 11) Please switch off the power supply when connect/disconnect all the ports or it will cause damage to the printer control circuit.
- 12) Never carry out maintenance or repair work yourself. Always contact a qualified service technician.
- 13) Keep this User Manual in a place which is easily accessible at all times.

# 1 OVERVIEW

## 1.1 Introductions

POS80D is a thermal receipt printer, featured by high print quality, high print speed, high stability, etc. It can be used in commercial POS system, food industry and occasions which need real-time field print receipts.

POS80D can connect with other equipment through serial/USB/Ethernet/Wi-Fi/Bluetooth interfaces. And the printer drivers are available for the WINDOWS XP/WINDOWS 7/WINDOWS 8/WINDOWS 10/Linux operating system.

## 1.2 The Main Features

- 1) Low noise
- 2) High print speed
- 3) Easy paper loading
- 4) Support page mode printing
- 5) Compatible with various width paper
- 6) Cash drawer interface
- 7) Communication interfaces optional

## 2 GETTING STARTED

### 2.1 Packing List

After receiving your printer, please check for possible shipping damage:

- 1) Inspect the outside of both the box and the printer for possible damage.
- 2) Check whether you have received the following accessories together with the printer, if there is any items missing, please contact your local dealer.



Printer



USB Cable



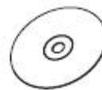
Power Cord



Power Adapter



Paper Roll

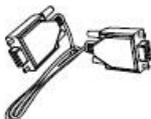


CD



Quick Start Guide

#### ■ Optional Accessories



Serial Cable

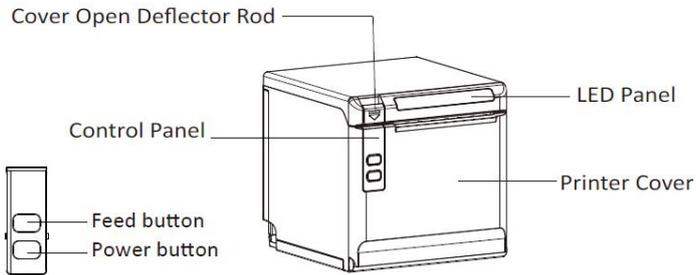


#### Notes:

- 1) The Power adapter and power cord vary by region.
- 2) Items in the package are dependent on the actual order.

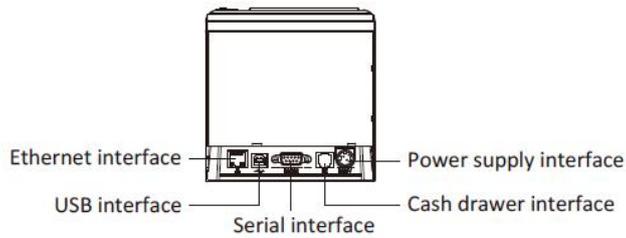
## 2.2 Appearance and Components

### ■ Front

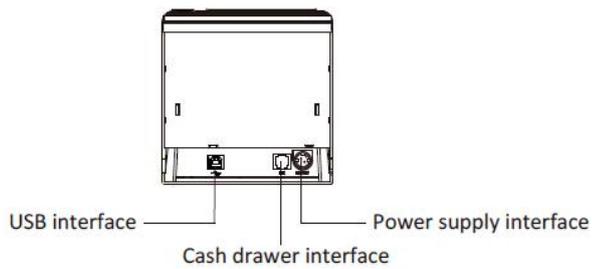


### ■ Rear

Model 1: The printer without Bluetooth/Wi-Fi module



Model 2: The printer with Bluetooth/Wi-Fi module



### ■ Inside



## 3 SPECIFICATION

### 3.1 Printer Specification

**Table3-1 General Specification**

(1/2)

Item		Parameter
Printing Parameter	Printing Method	Direct thermal line printing
	Resolution	203DPI, 8dots/mm
	Printing Width	72mm
	Print Speed	Max. 260mm/s
	Interface	Default: USB, Cash drawer, Optional: Serial, Ethernet, Wi-Fi & Bluetooth
	Print density	Adjustable from level 1 to level 4
Page Mode		Support
Memory	RAM	2MB
	Flash	4MB
Fonts	Chinese	GBK 24×24
	Alphanumeric	ASC II 9×17,12×24.
	User-defined	Support
	Code page	PC437(std.Europe), Katakana, PC850(Multilingual), PC860(Portuguese), PC863(Canadian), PC865(Nordic), PC857(Turkish), PC737(Greek), ISO08859-7(Greek), WPC1252, PC866(Cyrillic #2), PC852(Latin 2), PC858(Euro), KU42(Thai), TIS11(Thai), TIS18(Thai), PC720(Arabic), WPC775(Baltic Rim), PC855(Cyrillic), PC862(Hebrew), PC864(Arabic), ISO8859-2(Latin2), ISO8859-15(Latin9), WPC1250(Latin 2), WPC1251(Cyrillic), WPC1253(Greek), WPC1254(Turkish), WPC1255(Hebrew), WPC1256(Arabic), WPC1257(Baltic Rim), WPC1258(Vietnamese), MIK(Cyrillic), PC755(Latin 2), Iran, Iran II, Latvian, ISO-8859-1(WestEur), ISO-8859-3(Latin 3), ISO-8859-4(Baltic), ISO-8859-5(Cyrillic), ISO-8859-6(Arabic), ISO-8859-8(Hebrew), ISO-8859-9(Turkish), PC856, PC3848(ABICOMP), MONGOLIAN, VISCII
Barcode	1D	UPC-A, UPC-E, EAN8, EAN13, CODE39, ITF, CODEBAR, CODE128, CODE93
	2D	PDF417, QR code
Graphics		Support varied density bitmap and download bitmap printing Max size of each bitmap is 40K, the total size of bitmap is 256k.
Detection	Sensors	Paper out detection, Cover open detection
LED Indicator	Power LED	Blue
	Error LED	Red
	Paper LED	Orange

Table3-1 General Specification(Continued)

(2/2)

Item		Parameter
Power Supply	Input	AC100V-240V
	Output	DC24V, 2.5A
Paper	Paper type	Thermal Paper
	Paper width	58 <sup>+0</sup> <sub>-1</sub> mm/80 <sup>+0</sup> <sub>-1</sub> mm
	Paper thickness	0.056 ~ 0.13mm
	Roll paper diameter	Max. OD $\phi$ 83mm
	Paper load	Easy-loading structure of forward open cover or upward open cover
	Paper cut	Partial cut / full cut
Physical Spec.	Operating condition	0°C ~ 50°C , 20% ~ 85%RH
	Storage condition	-20°C ~ 70°C , 5% ~ 95%RH
	Dimensions	137.3(L)*132(W)*130.5(H)mm
	Weight	1.33kg
Command		ESC/POS
Software	Driver	Windows2000/XP/Vista/Win7/Win8/Win10/POSReady/Linux CUPS/OPOS/JavaPOS
	SDK	WinCE, Win Mobile, Android, iOS

## 3.2 Printing Media Specification

### 3.2.1 Continuous Thermal Paper Specification

Paper Type : Specified Thermal Paper  
 Paper Width :  $58^{+0}_{-1}$  mm /  $80^{+0}_{-1}$  mm  
 Paper Outer Diameter : Max. 83 mm  
 Paper Thickness : 0.056 ~ 0.13m

Paper Type	Manufacturer
FD210, PD150R, PD160R	OJI Paper CO.,LTD.

### 3.2.2 Notices

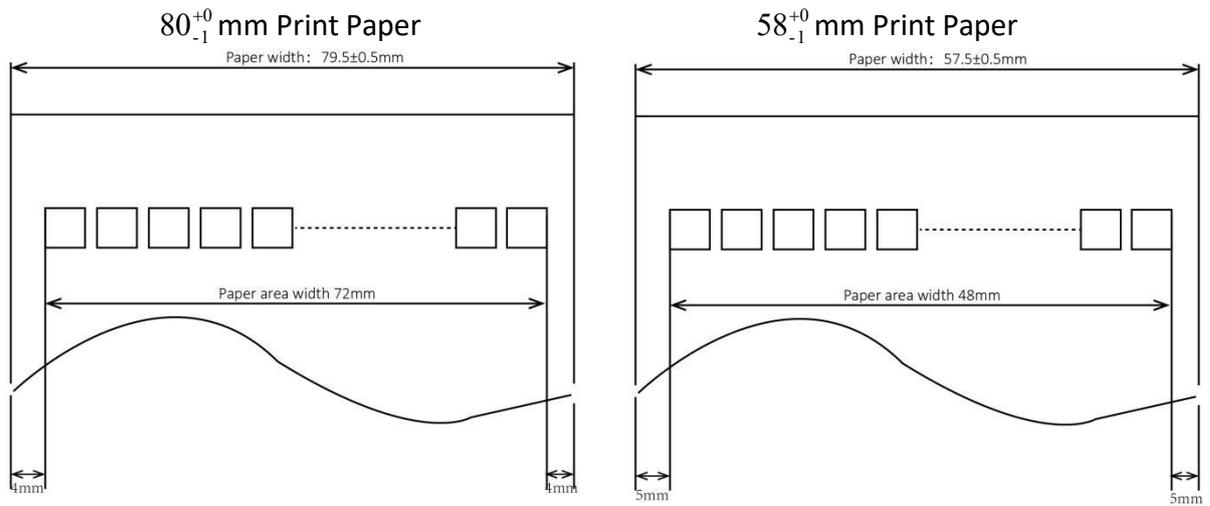


Notes:

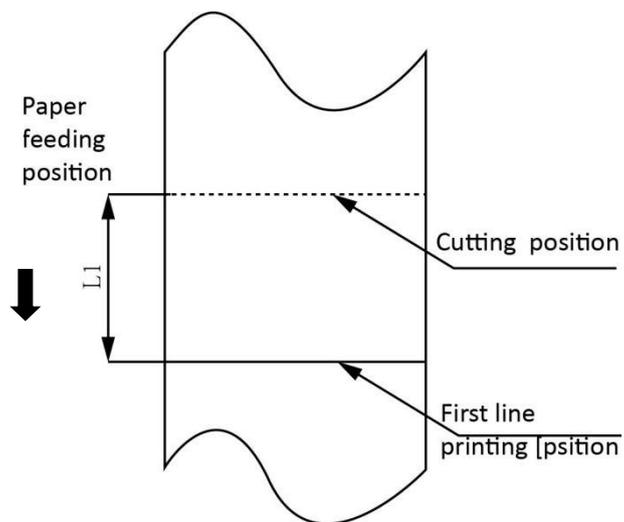
- 1) Please use the recommended thermal paper or same quality paper, otherwise it will influence the printing quality and decrease the thermal printer head life;
- 2) Don't stick the paper on the roll paper mandril;
- 3) If the thermal paper is polluted by chemical or oil, the thermal paper heat sensibility decreases, which will influence the printing quality;
- 4) Don't use finger nail or hard articles to touch the surface of thermal paper, otherwise it will cause color fading;
- 5) When the environment temperature is higher than 70°C, the thermal paper color will fade, so pay attention to the influence of temperature, humidity and sunlight.

### 3.3 Printing and Cutting Position

#### 3.3.1 Printing position



#### 3.3.2 Cutting Position



Type	Paper Cutting Position(L1)
POS80D	11.6mm

## 4 INSTALLATION AND USAGE

### 4.1 Media Loading

#### 4.1.1 Paper Confirmation

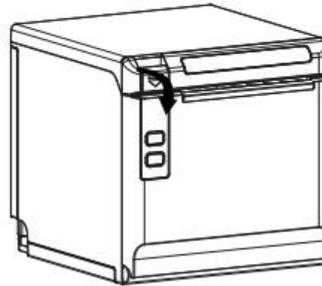
- 1) When using 80mm(width) roll paper, take down the paper guide of both sides.
- 2) When using 58mm(width) roll paper, insert the paper guide to each side.



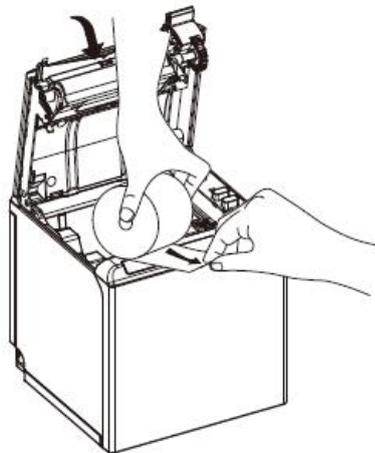
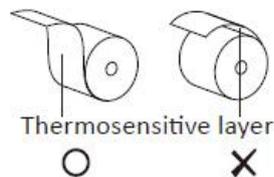
**Note:** Roll paper should be placed in the middle.

#### 4.1.2 Paper Installation (Forward Paper-out Direction)

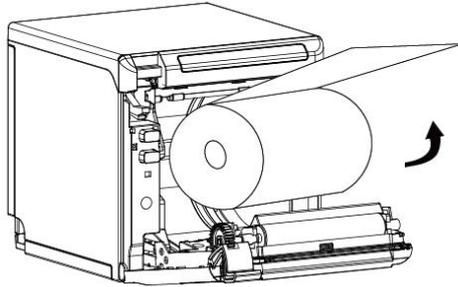
- 1) Pull the deflector rod to open the printer cover.



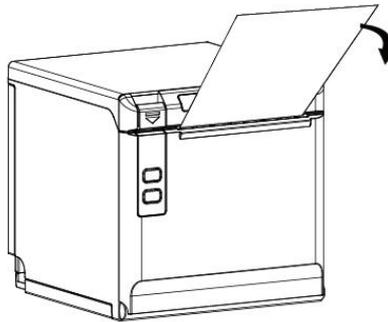
- 2) In the correct direction of the roll paper, insert the paper.



3) Pull out some roll paper, and close the printer cover.



4) Tear the extra paper in the direction of printer.



**Notes:**

- 1) According to the paper size to adjust the paper guide;
- 2) Make sure the paper inside is at tight status, or it will cause paper jam or other trouble.

## 4.2 LED Indication and Beeper

Function specification of indicated light and beeper.

Name	Status	Specification
POWER LED (Blue)	ON	The printer works well
	OFF	The printer does not work
ERROR LED (Red)	Flashing	The printer is in an error state
	OFF	The printer is in an normal state
PAPER LED (Orange)	ON	The printer is in paper end state
	OFF	The printer is in an normal state

Description	POWER LED	ERROR LED	PAPER LED	Beeper
Open the cover of printer	ON	ON	ON	"Beep, Beep—, Beep"
Full of paper	ON	OFF	OFF	Silent
No paper	ON	ON	ON	"Beep Beep Beep".
Cutter jam	ON	Flash	OFF	"Beep—, Beep—"

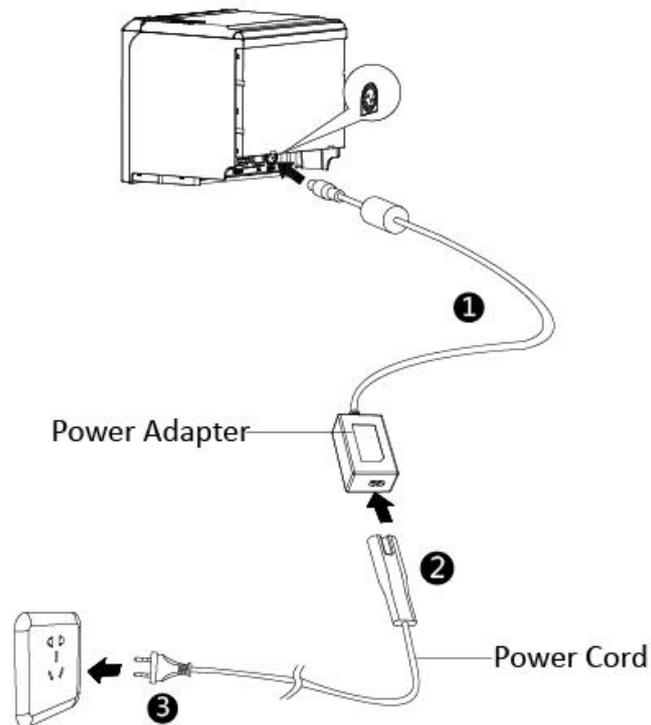


### Notes:

The printer use a thermistor to detect the temperature of the print head. If the temperature of print head is more than 65° C, printer will send a warning. If the temperature of print head is more than 80° C, printer will stop working until the temperature is less then 60° C.

### 4.3 Power Connection

- 1) Connect power adapter to printer;
- 2) Connect power adapter to power cord;
- 3) Plug the other side of power cord into the socket outlet.



Pay attention about disconnecting or connecting the power adapter at right method, or it's easy to cause damage.

When pull out the adapter, please pinch the shell of power adapter and pull the switch up, when the switch is fully open, pull out the power adapter.

Don't pull the plug hard by squeezing at any other place of power adapter. Because it is difficult to pull it out and easy to damage the cable.

**Notes:**

- 1) Please only use the power adapter recommended by supplier or equivalent products;
- 2) When disconnecting the power adapter plug, handheld plug connector housing, and avoid pulling the cable directly;
- 3) Avoid dragging the power adapter cable, otherwise it will damage the cables, causing fire and shock;
- 4) Avoid putting power adapter around a heating device, otherwise the cable may melt, causing fire and shock;
- 5) If you do not use the printer in a long time, disconnect the power supply of printer power adapter.

#### 4.4 Interface Cable Connection

- 1) Make sure the printer's power switch is turned off;
- 2) Put the interface cable into the matched interface and fixed with screws (or spring) on the plug;
- 3) Connect the other end of the interface cable to the host device.

#### 4.5 Cash Drawer Connection

- 1) Make sure the printer's power switch is turned off;
- 2) Connect the cash drawer cable into the cash drawer interface on the rear of the printer.

**Warning:**

Cash drawer interface can only be connected to a voltage of 24V cash drawer device (can't connect to the phone line, etc.)

## 4.6 Bluetooth/Wi-Fi Settings

### 4.6.1 Bluetooth Settings

Default name: BT Printer

Default password: 0000 or 1234

Please refer to the *Bluetooth Connection Manual* for details

### 4.6.2 Wi-Fi Settings

Printer factory default Wi-Fi mode is AP mode with IP address "192.168.1.1" and SSID

"POS\_WIFI" . After the PC or mobile phone is connected with printer successfully, users can set the parameters through the below link:

**Link:** <http://192.168.1.1/>

**Access password:** 12345678

Please refer to the *Wi-Fi Operation Manual* for details

## 4.7 Print Test

### 4.7.1 Print Self-Test

The self-test checks the printer's current settings, status and whether the printer has any problem.

- 1) Make sure the power is connected and paper is loaded properly.
- 2) Make sure the printer is off and top cover is closed properly.
- 3) Press the paper feed button and power button simultaneously to turn the printer on. The printer is ready to receive data as soon as it completes the self-test.

### 4.7.2 Printing of Windows Driver Program

- 1) Install the Windows Driver program. (Please refer to the *Windows Driver Manual*)
- 2) Please set the "Interface" as the type you use.
- 3) Use the Windows Driver Program to print out the "Print Test Page".

## 5 INTERFACES

POS80D supports cash drawer interface and many other various communication interfaces, such as Serial interface, USB interface, Ethernet interface, Wi-Fi and Bluetooth interfaces.

### 5.1 USB

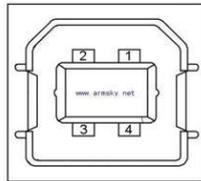


Figure 5-1

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

### 5.2 Serial Interface

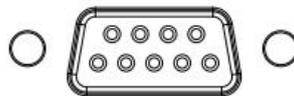
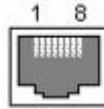


Figure 5-2

PIN	SIGNAL NAME
1	-
2	TXD
3	RXD
4	-
5	GND
6	RTS
7	CTS
8	RTS
9	-

### 5.3 Ethernet Interface



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



**Note:** The printer is equipped with an Ethernet interface, and use the network connection router, switch and other network communication equipment which meet RJ45 interface standard. When connecting directly with PC, it is suggested that the cross network line in accordance with RJ45 interface standard should be adopted.

### 5.4 Cash Drawer Interface



Figure 5-4

PIN NO.	Signal Name
1	FG
2	Drawer 1
3	DRSW
4	VDR
5	Drawer 2
6	GND

#### Electrical characteristics

- Driving voltage: DC 24 V
- Driving current: Maximum 0.8 A ( In 510 ms)

Drawer check signal: “L” = 0 ~ 0.5 V      “H” = 3 ~ 5 V

## 5.5 Power Supply Interface

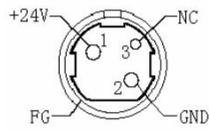


Figure 5-5

PIN No.	Signal Name
1	+24V
2	GND
3	N.C
SHELL	F.G

Printer end: Unetop DC-002 or other products of the same type.

User end: Unetop DP-002 or other products of the same type.

## 6 TROUBLESHOOTING

Your printer is very reliable, but occasionally problems may occur. This chapter provides information on some common problems you may encounter and how to solve them. If you encounter problems that you can not resolve, contact with your dealer for assistance.

### 6.1 Printer Not Working

Problem Description	Probable Reason	Solution
LED does not light, printer is not working	Printer has no power	Connect printer to the power supply
	Printer is not on	Turn on the printer
	Circuit board is broken	Contact with the dealer

### 6.2 LED Indicator and Beeper

Problem Description	Probable Reason	Solution
Paper LED is always on	Paper near end	The roll paper is near end, the printer can work normally
Error LED is always on and beeper alarms	Printer cover is open	Close the printer cover
Paper LED and Error LED are always on and beeper alarms	Paper end	Reload the roll paper
Error LED blinks and beeper alarms	Thermal print head is overheated	Turn the printer off and resume when it cools
	Over-voltage	Print with specified voltage
	Low-voltage	Print with specified voltage

### 6.3 Troubles Occur During Printing

Problem Description	Probable Reason	Solution
Coloured stripe in the paper	Paper near end	Reload the roll paper
Blurred printing or spot	Incorrect roll paper loading	Check if the roll paper is installed
	Unqualified roll paper	Use recommended thermal roll paper
	Dirty thermal head or print roller	Clean the thermal head or print roller
	Low print density	Increase the print density level
Paper is not feeding normally	Paper jam	Open the printer cover, check the paper path and remove jammed paper
Vertical print words are missing	Dirty thermal head or print roller	Clean the thermal head or print roller
	Thermal head is damaged	Contact with your dealer for assistance



**Note:** Regarding the density of setting, please refer to "Utility Tool Manual".

## 6.4 Problems Emerge During The Paper Cutting

Problem Description	Probable Reason	Resolution
Cutter jam, the movable cutter cannot go back	Cutter abrasion, insufficient cutting	Replace the cutter
	Worn gear and worn wheel abrasion	Replace the worn gear and worn wheel
	Motor is burnt	Replace the motor
	Paper scraps	Clean the paper scraps on the transmission system
Insufficient cutting	Cutter edge abrasion, paper is too thick	Replace the cutter
Paper jam	Thermal printer head is over-heated	Reduce the density of printing
	Driving too fast	Reduce the printer speed to the limit of thermal printer head
	Wrong paper feeding position	Put the paper parallel with the paper mount and insert into the space between platen roller and the thermal printer head.

## 6.5 Removing Jammed Paper



**Warning:** Do not touch the thermal print head because it becomes very hot after printing.

If the printer cover can be opened, operate it according to the next steps.

- 1) Turn off the printer and pull the deflector rod to open the print cover.
- 2) Remove jammed paper, reload the paper roll, and close the printer cover.

## 7 PRINTER CLEANING AND MAINTENANCE

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

When printer is dirty, clean the print head as follows:

### ※ CAUTION

- Make sure to turn off the printer before cleaning.
- As the print head gets hot during printing, turn the printer off and wait approximately 2~3 minutes before starting cleaning.
- When cleaning the print head, take care not to touch the heated portion of the print head. Print head may be damaged by static electricity, etc.
- Avoid the print head being scratched and/or damaged in any way.

### 7.1 Cleaning Head

- 1) Open the Printer Cover and 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 is absolutely dry.

### 7.2 Cleaning Sensors, Roller and/or Paper Path

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

※ Clean the parts whenever print quality or paper detection degraded.