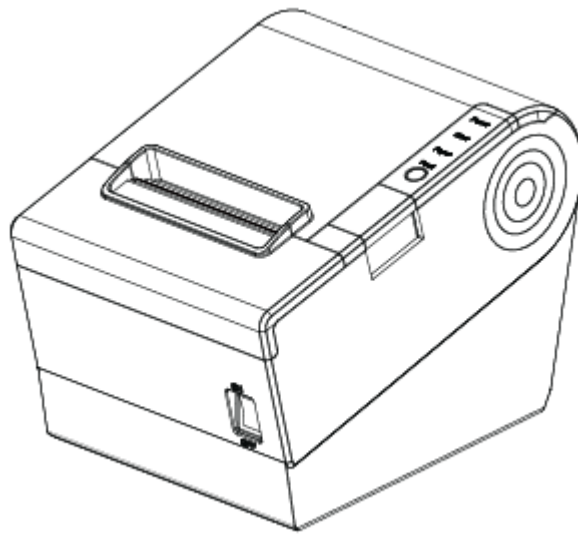


WINTEC

Desktop POS Printer ***PP-82***



User Manual

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CAUTIONS

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.

Note: We will keep efforts to enhance and upgrade the functions and quality of all our products. The specifications, accessories and procedures described in the manual are based on actual machines. And it may be changed without prior notice.

IMPORTANT SAFETY INSTRUCTIONS

1. Safety warnings

- 1) The print head will become very hot during printing, please do not touch the printhead and peripheral parts during printing and printing just finished.
- 2) Please do not touch the printhead and connectors, in case that static damages the printer head.

2. Instructions

Before using the printer, please carefully read the following safety consideration in case of bodily injury or equipment damage.

- 1) Place the printer on a solid and even base.
- 2) Leave enough space around printer for operation and maintenance.
- 3) Keep all liquids away from the printer.
- 4) Do not expose the printer to high temperatures, direct sunlight or dust.
- 5) Protect the printer from shock, impact and vibration.
- 6) Ensure the printer is connected to a socket with the correct mains voltage.
- 7) Switch off the power supply when it is not used for a long time.
- 8) Do not printing when there is no paper, or it will damage printer head.
- 9) To ensure the printing quality and product life, suggest use the equivalent quality paper.

- 10) Please switch off the power supply when connect/disconnect all the ports or it will cause damage to the printer control circuit.
- 11) Never carry out maintenance or repair work by yourself. Always contact a qualified service technician.



Caution: This is a Class A product. In a domestic environment this product may cause radio interference in which the user may be required to take adequate measures.

1 OVERVIEW

1.1 Introductions

PP-82 is a thermal receipt printer with auto-cutter, 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.

PP-82 can connect to other equipment through serial, USB, and Ethernet interfaces. And the printer drivers are available for the WINDOWS XP/7/ 8/10/Vista operating system.

1.2 The Main Features

- 1) Patent design of unique vertical double auto cutter
- 2) Low noise
- 3) High print speed
- 4) Easy paper loading
- 5) Support page mode printing
- 6) Compatible with various width paper
- 7) Cash drawer interface
- 8) Communication interfaces optional

2 GETTING STARTED

2.1 Packing List

Please check the packing list:

- 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 are any items missing, please contact your local dealer.

■ Standard Accessories



Printer



Power Adapter



Power Cord



CD



Quick Start Guide



USB Cable



Roll Paper

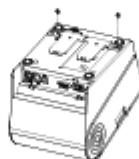


Serial Cable

■ Optional Accessories



Beam Cover



Wall Hanging Loading

Note:

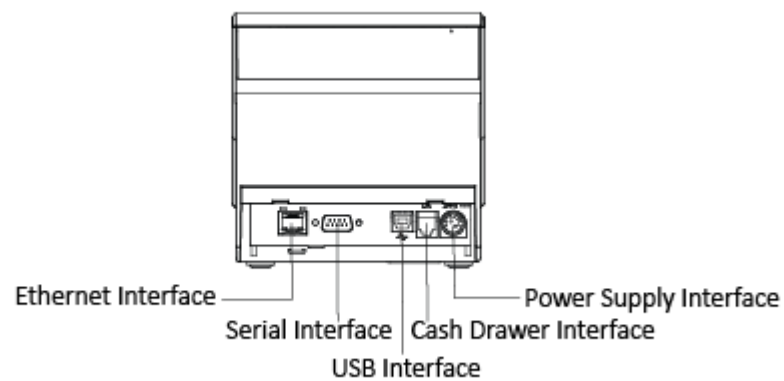
- a. The AC adapter and power cord vary by local or region.
- b. The packing materials are actually dependent on the order.

2.2 Appearance and Components

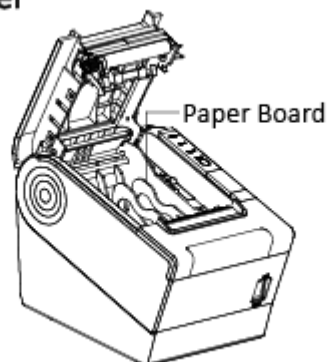
■ Front View



■ Rear View



■ Open the Top Cover



3 SPECIFICATION

3.1 Printer Specification

Item		Parameters
Printing	Printing method	Direct thermal line printing
	Resolution	Default 203 dpi, 180 dpi can be emulated
	Printing width	72mm (576dots)
	Printing speed	Max. 250mm/s
	Print density	Adjustable from degree 1 to degree 4
	Printing Direction	Vertical and horizontal
Interface	Default	Built-in USB, RS232, LAN
Auto cutter		Partial Cut
Page mode		YES
Memory	RAM	2MB
	Flash	4MB
Character set	Font	Font A:12*24 Font B:9*17 CHN: 24*24
	Number of Columns	48/64
	Alphanumeric	95
	Expanded Character	128*47
	Code page	47
Graphics		Support bitmap printing with different density and user defined bitmap printing (Max. 64K for per bitmap, and Max. 256K for total)
Barcode	1D	UPC-A, UPC-E, EAN8, EAN13, CODE39, ITF, CODEBAR, CODE128, CODE93
	2D	PDF417, QR code
Detection	Sensor	Paper out, Cover Open

Power supply	Input	AC100V-240V 50-60HZ
	Output	DC 24V±5%, 2.5A
Paper	Paper Loading	Front loading, Up loading, Easy loading
	Paper Type	Standard thermal paper
	Paper Width	79.5±0.5mm/57.5±0.5mm (with 1" spacer)
	Paper Thickness	0.056~0.1mm
	Paper Roll Diameter	83mm Max.
Emulation		ESC/POS
Condition	Operating	0~40°C/20~85%RH
	Storage	-20~70°C/5~95%RH
Reliability	TPH Life	150km
	Cutter Life	2,000,000 times
	Motor Life	360, 000 hours
Packing Information	Dimensions (W*D*H)	145*197*146mm
	Accessories	Power adaptor, cables, cable cover(optional), CD, Quick Guide, paper guide for 58mm, paper roll
Driver		Windows (POSReady/Win8/Win7/Vista/XP/2000), Linux CUPS, JavaPOS, OPOS.net, OPOS
Certifications		CE/FCC/CCC/RoHS/Energy Star
Eco Features		Paper saving mode, Energy Star qualified
Optional		Kitchen Bell
Detect Function	Sensors	Cover open sensor, lack of paper sensor, over-temperature sensor, high/low pressure sensor

3.2 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. 81 mm
- Roll Paper Core : 13mm(Internal Diameter)
18mm(Outer Diameter)
- Paper Thickness : 0.050 ~ 0.090mm

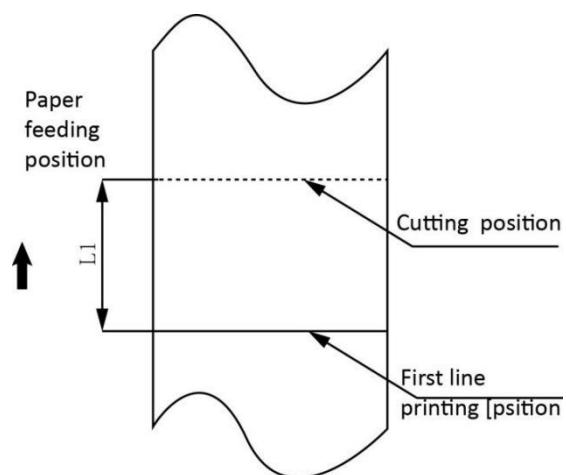
Paper Type	Manufacturer
FD210,PD150R,PD160R	OJI Paper CO.,LTD.



Notes:

- Pls. use the recommended thermal paper or same quality paper, otherwise it will influence the print quality and decrease the life of thermal printer head.
- Don't stick the paper on the roll paper mandrel.
- If the thermal paper is polluted by chemical or oil that will cause the thermal paper heat sensibility decreases and influence the print quality.
- Don't use finger to touch the surface of thermal paper, otherwise it will cause color fading.
- When the environment temperature is higher than 70°C, the thermal paper color will fade. Please pay attention to the influence of temperature, humidity and sunlight.

3.2.2 Cutting Position



Type	Paper Cutting Position(L1)
PP-82	14.5mm

4 INSTALLATION AND USAGE

4.1 Open Packing

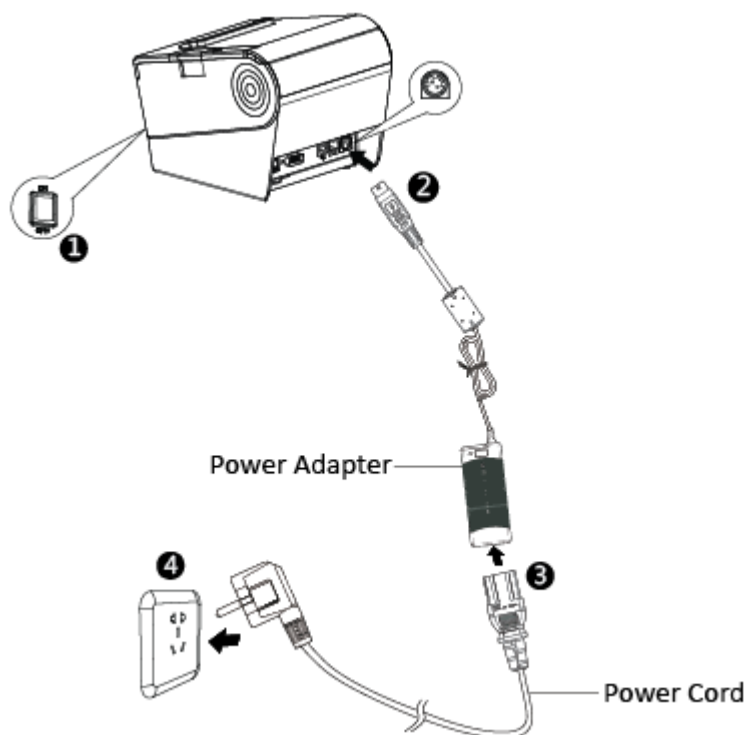
After opening the package, please check if any items are missing or damaged. If there are any questions, please consult the local dealer or manufacturer.

4.2 Installation Site and Direction of Printer

- 1) Install the printer on a flat and stable place; recommend to install it at horizontal line, angle of inclination should not exceed $\pm 10^\circ$ (paper feed direction) if tilt install printer, it does not allow to tilt by other direction.
- 2) Keep printer far away from liquids.
- 3) Avoid placing the printer on place where is shock.
- 4) Ensure printer ground connect is safe.
- 5) When the printer is at operation and maintenance, it is recommended to leave enough space to ensure the printer can work in reliability and ease of operation.

4.3 Connect the Printer Power Adapter

- 1) Make sure the printer's power switch is turned off.
- 2) Put the cable plug of power adapter facing up at flat side, insert the rear of the printer power connector.
- 3) Pay attention about disconnecting or connect the AC adapter at right method, or likely to cause damage.



- The plug of power adapter is designed in a switch type, when accessing power adapter and uttered the voice "click", it means the connected socket switch is locked the adapter connect well, otherwise please connect again.
- When pull out the adapter, please pinch the shell of power adapter and pull the switch up, when the switch is fully opened then pull out the power adapter.



Notes:

- ▶ Please only use the power adapter are recommended by supplied or equivalent products;
- ▶ When disconnecting the AC adapter plug, handhold plug connector housing to avoid the pulling on the cable in force.
- ▶ Avoid dragging the power adapter cable, otherwise it will damage the cables, causing fire and shock.
- ▶ Avoid putting power adapter around a heating device, otherwise the cable may melt, causing fire and shock.
- ▶ If you do not use the printer in a long time, please turn off the power supply of printer power adapter.

4.4 Connecting the Interface Cable

- 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.

4.5 Connecting the Cash Drawer

- 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 side 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 Paper Roll Installation

4.6.1 Confirmation of Printing Paper

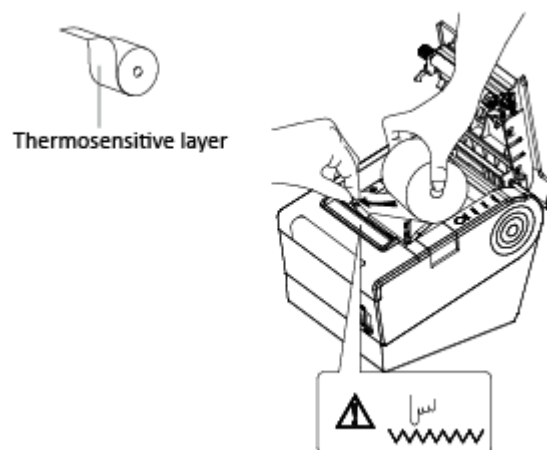
After connecting the power adapter and interface cable, you can install media for printing. Confirm the type of paper used by the printer before printing. The default paper type is continuous paper. If you need to set the marked paper, please contact your dealer or manufacturer.

4.6.2 Installation/Change Paper

- 1) Turn off printer power supply;
- 2) Press the cover open button to open the front cover of printer;

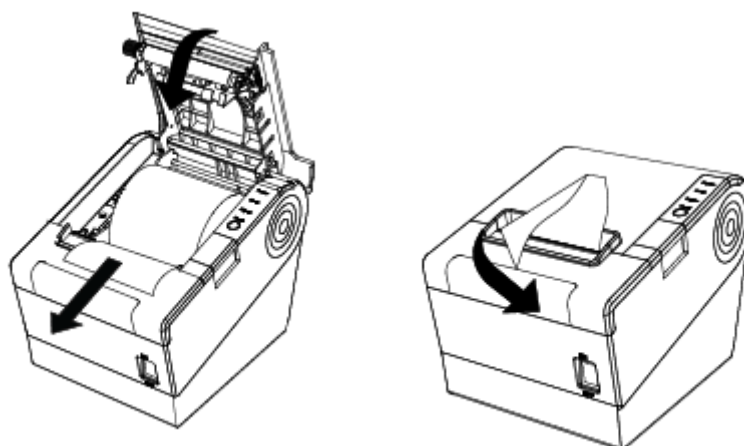


- 3) Remove the used roll paper core, if any;
- 4) In the correct direction of the roll paper, install the roll paper;



5) Pull out some roll paper, and close the printer cover;

6) Tear off the extra roll paper.



Notes:

- ▶ According to the paper size to adjust the paper guide.
- ▶ Make sure the paper inside is at tight status, or it will cause paper jam or others obstacle.

4.7 Setting DIP Switch

4.7.1 Specification of LED Indication and Beeper

4.7.1 Specification of LED Indication

Name	Status	Specification
POWER LED	ON	The printer work well
(Green)	OFF	The printer powers off.
ERROR LED	Flash	The printer in an error state
(Red)	OFF	The printer in a normal state
PAPER LED	ON	The printer in paper end state
(Red)	OFF	The printer in a normal state

4.7.2 Beeper

Description	POWER LED	ERROR LED	PAPER LED	Beeper
Cover Open	ON	ON	ON	"Beep ,Beep-,Beep"
Full of paper	ON	OFF	OFF	Silent
No Paper	ON	ON	ON	"Beep Beep Beep".
Paper Near End	ON	OFF	ON	Silent
Cutter Jam	ON	Flash	OFF	"Beep-, Beep--"
Over-temperature warning before stop printing	ON	Flash	OFF	"Beep--,Beep,Beep--"
Over-temperature alarm when stop printing	ON	Flash	OFF	"Beep--,Beep,Beep--"
Low pressure alarm	ON	Flash	OFF	"Beep, Beep, Beep--"
High pressure alarm	ON	Flash	OFF	"Beep, Beep, Beep--"



Notes:

The printer uses a thermistor to detect the temperature of the print head. If the temperature of print head is more than 65° C, the printer will send a warning. If the temperature of print head is more than 80° C, printer will stop working until the temperature is in the normal range.

4.8 Print Self Testing

- 1) Make sure the printer has been installed the roll paper and turn off the top cover.
- 2) Make sure the printer has linked to power.
- 3) Make sure the printer power off.
- 4) Press and hold FEED button, then turn on power switch, the printer will print out self-test page.

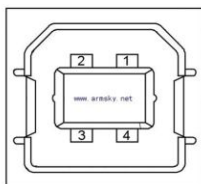
4.9 Printing of Windows Driver Program

- 1) Install the Windows Driver program. (Please refer to the Windows Driver Manual)
- 2) Choose the "Interface".
- 3) Use the Windows Driver Program to print out the "Self-test page".

5 INTERFACES SIGNAL

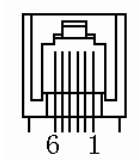
The printer pp-82 supports cash drawer interface and many other various communicate interfaces, such as serial interface, USB interface, Ethernet interface. The printer has the communication board with the default USB interface and cash drawer interface.

5.1 USB



PIN NO.	Signal Name
1	VBUS
2	D-
3	D+
4	GND

5.2 Cash Drawer

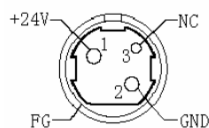


PIN NO.	Signal Name
1	FG
2	Drawer 1
3	DRSW
4	VDR
5	Drawer 2
6	GND

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

5.3 Power Port Definition



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



Note:

- Strictly prohibit unplug the cable while the printer is power on.
- Avoid paralleling with the strong current.
- you have to use the shielded communication line.

5.4 Serial Interface

Printer PP-82 serial interface is compatible with RS 232 standard, with 9 pin sockets.

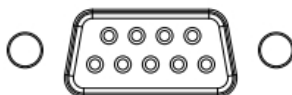
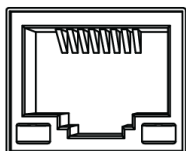


Figure 5-2

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

5.5 Ethernet Interface



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

6 TROUBLESHOOTING

The 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 by yourself, please contact your dealer for assistance.

6.1 Printer Not Working

Description	Reason	Solution
LED does not light Printer does not work	No power	Connecting the power supply
	Not power on	Turn on the printer
	Circuit board broken	Contact with the dealer

6.2 LED Indicator on The Control Panel and Beeper Alarm

Description	Reason	Solution
LED always on	Paper is going to run out	Reload a new paper
Error LED always on and beeper alarms	Printer Cover open	Close the printer cover
Paper Error LED always on and beeper alarms	Paper end	Reload the roll paper
Error LED blinks and beeper alarms	Thermal print head overheat	Turn the printer off and resume when it cools
	overvoltage	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 a new roll paper
Blurred printing or spot	Install the roll paper incorrectly	Check if the roll paper is installed
	Unqualified roll paper	Use recommended thermal roll paper
	The thermal head or print roller is dirty	Clean the thermal head or print roller
	Low print density	Increase the print density level
Paper Jam	Paper strike	Open the printer cover, check the paper path and remove jammed paper
Vertical print words missing	The thermal head or print roller is dirty	Clean the thermal head or print roller
	Thermal head damaged	Contact your dealer for assistance

6.4 Problems Emerge During the Paper Cutting Processes

Problem description	Probable reason	Resolution
Cutter jam, the movable cutter cannot back	Cutter abrasion, insufficient cutting	replace the cutter
	Worm gear and worm wheel abrasion	Replace the worm gear and worm wheel
	Motor burnt	Replace the motor
	Paper scraps	Clean the paper scraps on the transmission system
Insufficient cutting	Cutter edge abrasion, paper too thick	Replace the cutter
Paper jam	Thermal printer head over heat	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

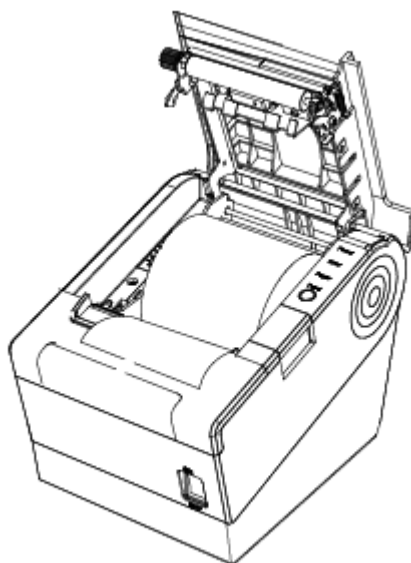
6.5 Remove Jammed Paper



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

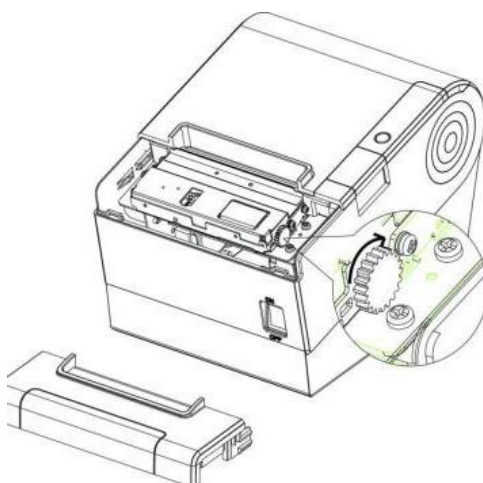
If the top cover can be opened, operate it according to the next steps.

- ▶ Turn off the printer and press the open cover button.
- ▶ Remove the jammed paper, reinstall the roll, and close the cover.



If the auto cutter jam and you cannot open the printer cover, please open the cutter cover as shown on the below.

- ▶ Turn the printer off and open the front cover.
- ▶ Turn the knob until cutter return to the normal position (tip tag).
- ▶ Close the front cover.
- ▶ Open the top cover and remove jammed paper.



7 PRINTER CLEANING AND MAINTENANCE

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

※ CAUTION

- ▶ Make sure to turn off the printer prior to cleaning.
- ▶ As the print head gets hot during printing, intending to clean the print head. Please turn the printer off and wait approximately 2~3 minutes before commencement.
- ▶ When cleaning the print head, do not touch the heated portion of the print head.

Print Head is susceptible to damage from static electricity, etc.

- ▶ Do not to make the print head become scratched and/or damaged in any way.

7.1 Cleaning Head

- ▶ 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.
- ▶ 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.

7.2 Cleaning Sensors, Roller and/or Paper Path

- ▶ Open the printer cover and then remove the paper.
- ▶ Remove any dust or foreign substance by using dry cloth or cotton swab.
- ▶ Soak the cloth or cotton swab in alcohol for medical use and use it to remove adhesive foreign substances or other pollution materials.
- ▶ 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 whenever print quality or paper detection degraded.