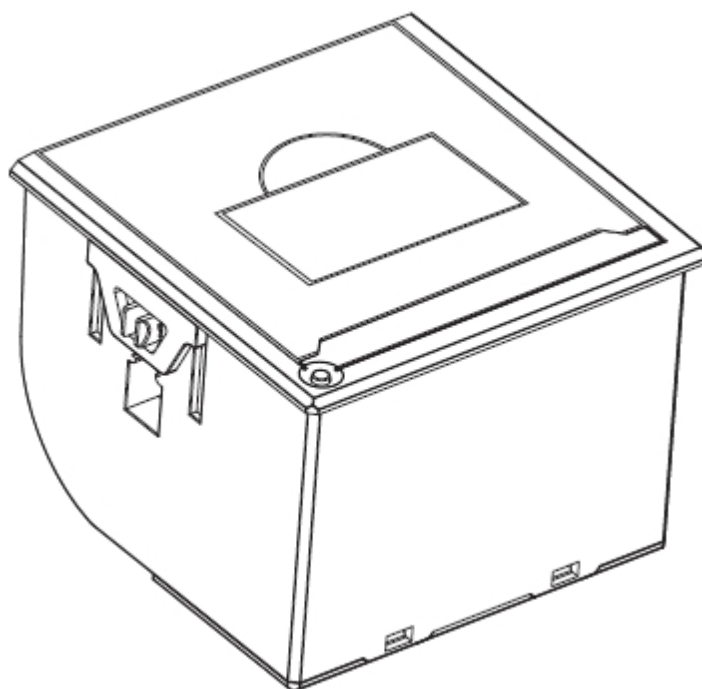


Thermal Panel Printer PNP-5850



MAXIM PERIPHERALS PVT. LTD.

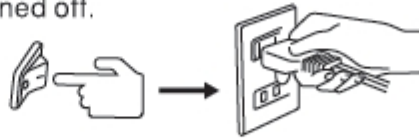
101, Pradhan Bldg., Aarey Road (Near Subway), Goregaon (East), Mumbai 400 063. (India).

Ph. : +91-22-29275039 Fax : +91-22-29275041 E-mail : support@maximppl.com Website : www.maximppl.com

NOTICE



When plugging cable, make sure the printer power is turned off.



Do not place the printer in humid or dusty place. Excessive moisture and dust can damage the printer.



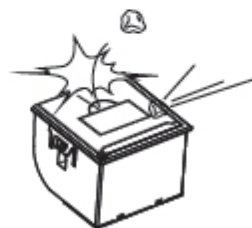
Do not leave food or drink on the printer. If the food or water accidentally is turned over, it may damage the printer.



Printhead is of temperature. When printing is completed, do not touch the print head or the motor housing to avoid burns.

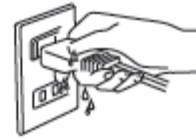


During operation, do not make it fall or suffer vigorous impact





Do not pull out the power plug with wet hands to avoid the danger of electric shock



Do not place the printer near the strong magnetic object.



Do not use tweezers, blade or screwdriver to direct contact the heating element of the print head to avoid permanent damage to it.



Do not place the printer in the unsteady object.



⚠ WARNING

If abnormal noise, smell, smoke, etc. are found, immediately turn off the machine power and pull out the plug. The continued use could result in fire. Immediately contact your dealer or the after-sale service department.

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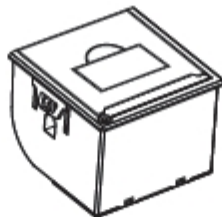
Chapter 1 : Unpacking

After unpacking your printer package should contain the following components :

1. Printer
2. Paper Roll.
3. Manual
4. Driver Disk.
5. AC Power Cord
6. USB Interface
7. RS 232 Serial Interface/TTL Interface
8. Fixing Structure



Manual



Printer



Paper rolls



Driver disk



AC Power cord



USB interface



RS 232 serial interface
/TTL interface



Transparent triangle fixtures

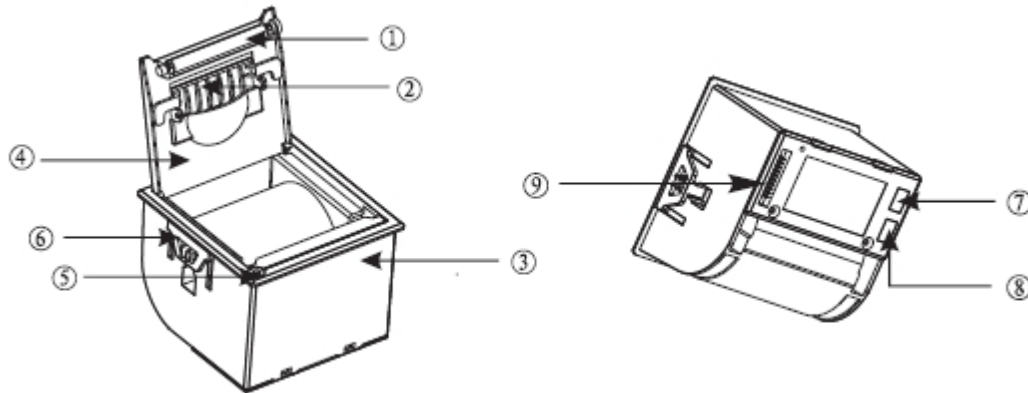
Actual products prevail and pictures are for reference only.

Chapter 2 : Technical Specifications

Item	Description
	Paper roll diameter maximum support 50mm
Printing Method	Thermal line printing.
Printing Density	8 dots/mm
Printing Speed	50mm/s (max)
Valid Printing Width	48mm, 384 dots
Printing Paper Type	57.5 ± 0.5 thermal paper scroll
Character Size	A : 12 x 24/24 x 24 (English/Chinese) B : 9 x 17
Printing Characters	ANK Character set, national standard Chinese character library grade one and grade two
Character Per Line	A : 32/16 (EPSON) B : 42
Buffer Memory	4KB
Printing Bar Code	JAN13 (EAN13), JAN8 (EAN8), CODE39, CODE128
System Platform	Windows 98/2000/XP/2003 Server/VISTA/7
Sensing	Lack of paper
Interface	USB Interface, RS 232 Serial Interface/TTL Interface
Power	DC5V ~8.5V 2A
Life Service of the Print Head	100 000 000 times of pulse
Environment	Work Temperature & Humidity : 0~45°C, 35~85%RH Storage Temperature & Humidity : 10~50 °C, 10~90%RH
Overall Dimensions	84.6 x 84.6 x 62.5mm
Weight	0.150k.g.

Chapter 3 : Product Illustration

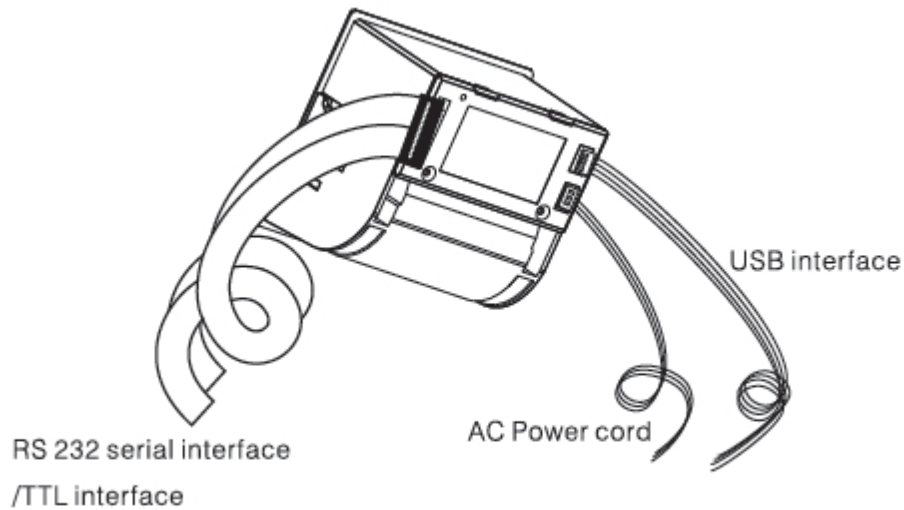
Paper roll diameter maximum support 50mm



- 1) Roller
- 2) Cover opening plate
- 3) Main body case
- 4) Upper cover of the paper box
- 5) Indicator light and paper feeding button
- 6) Fixing structure
- 7) USB Interface
- 8) Power Interface
- 9) RS 232 Serial Interface / TTL Interface

Chapter 4 : Instructions

4.1 Cable Connection

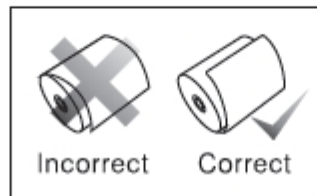
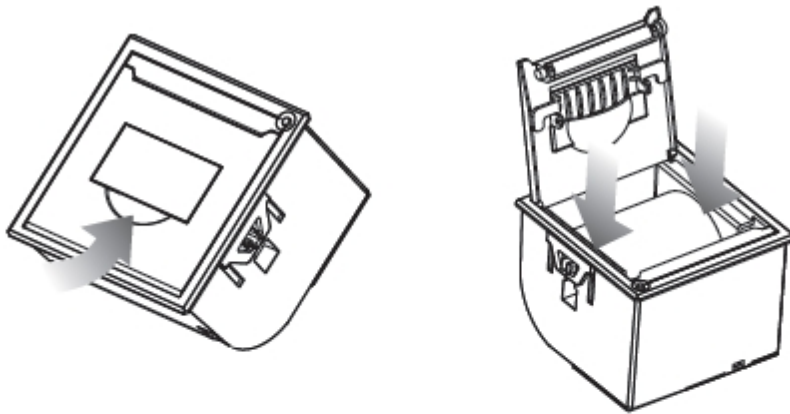


4.2 Control Panel

- **FEED Button**
Press the FEED button once to feed paper one line. You also can hold down the FEED button to feed paper continuously.
- **FEED LIGHT**
The light is red light. When the power is switched on, the long bright light, error out of paper or over temperature protection, the flashing lights.

4.3 Install Paper Roll

1. Pull off cover from the groove position on the cover of the fingers.
2. Open cover, the upper cover up, into the paper, put the paper should pay attention to the direction, the paper direction in a paper, after installed, close the upper cover.



4.4 Install Paper Roll

- When the printer is powered off, press down the paper feed button and then get it powered on. Release the paper feed button within 5 seconds. Then the printer will start self-test program.
- When the printer is powered off, press down the online button and then get it powered on, the printer will get into DUMP mode. After getting into DUMP mode, all the received data will be printed out in the hexadecimal code. (You can use the debugging software to send hexadecimal number 1D 28 41 02 00 00 01 to get in)

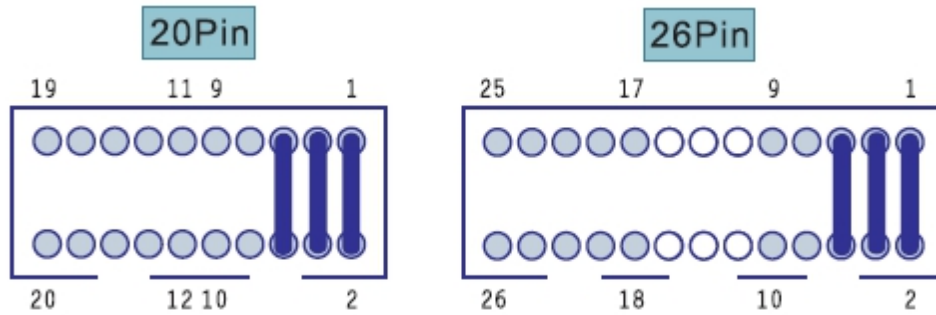
Return to normal mode : restart the printer to return to the normal printing mode.

4.5 Interface Explanation

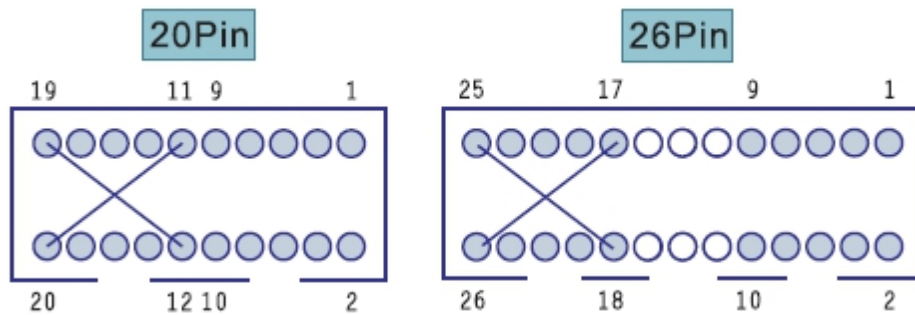
4.5.1 RS 232 serial interface/TTL interface

The electrical level standards for the printer serial interface are divided into two kinds. TTL level and 232 level. When the level is set to 232, its serial interface is compatible with the standard RS-232 interface. Its interface are as follows :

1. 232 level interface



2. TTL level interface



20Pin 232, TTL interface pins are defined as follows:

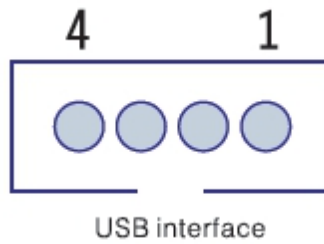
TTL Pins	232 Pins	Signal	Direction	Description
5	15	RXD	Input	Printer receives data from the host computer. Pin 5 is used for TTL level and pin 15 is used for 232 level.
3	13	TXD	Output	Printer sends. Pin 3 is used for TTL level and pin 13 is used for 232 level.
2		BUSY	Output	It is used for TTL level. When the signal is at high level, it indicates that the printer is "busy" and it can not receive the data. When the signal is at low level, it indicates that the printer is "Ready" and it can receive data
	12,16	DSR	Output	It is used for 232 level. When the signal is at high level, it indicates that the printer is "busy" and it can not receive the data. When the signal is at low level, it indicates that the printer is "Ready" and it can receive data Note: 232 level is negative logic level
9	19	GND	—	Signal ground

26Pin 232, TTL interface pins are defined as follows:

TTL Pins	232 Pins	Signal	Direction	Description
5	21	RXD	Input	Printer receives data from the host computer. Pin 5 is used for TTL level and pin 15 is used for 232 level.
3	19	TXD	Output	Printer sends. Pin 3 is used for TTL level and pin 13 is used for 232 level.
2		BUSY	Output	It is used for TTL level. When the signal is at high level, it indicates that the printer is "busy" and it can not receive the data. When the signal is at low level, it indicates that the printer is "Ready" and it can receive data
	18,22	DSR	Output	It is used for 232 level. When the signal is at high level, it indicates that the printer is "busy" and it can not receive the data. When the signal is at low level, it indicates that the printer is "Ready" and it can receive data Note: 232 level is negative logic level
9	25	GND	—	Signal ground

4.5.2 RS 232 serial interface/TTL interface

USB interface pins' definitions are shown as below :

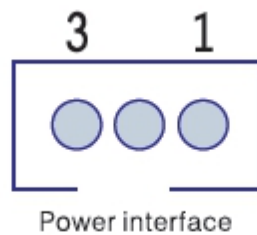


USB interface pins are defined as follows :

USB Pins	Signal	Description
1	---	Undefined
2	D -	Data -
3	D +	Data +
4	GND	Signal ground

4.5.3 RS 232 serial interface/TTL interface

Power interface pins' definitions are shown as below :

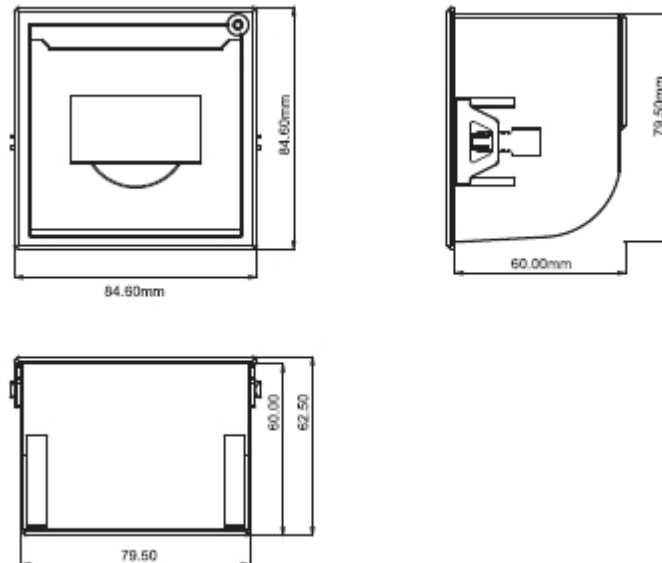


Power interface pins are defined as follows :

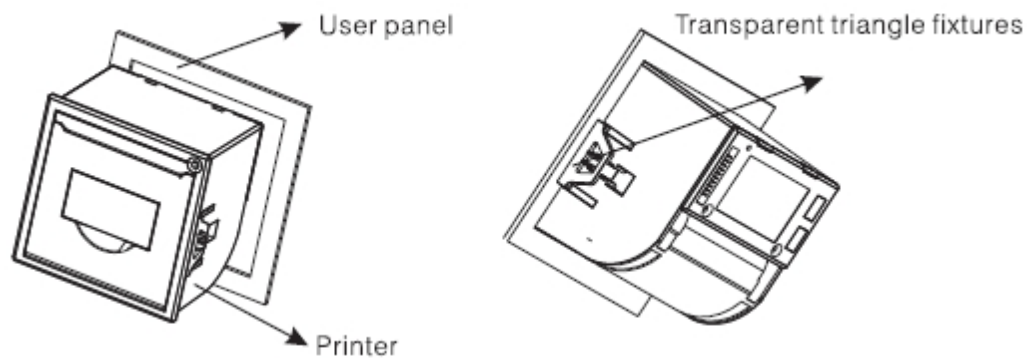
Power interface pin	Signal	Description
1	P +	DC Power : DC 5V~8.5V 30W
2	---	Undefined
3	GND	Power ground

Chapter 5 : The guide of assemble

Paper roll diameter maximum support 50mm Printer size



The guide of assemble



The step of assembling

Step 1 : Put the printer insert the panel.

Step 2 : Carry out the Transparent triangle fixtures from the printer, insert the printer to the user panel, then pinch the two plastic shrapnel of Transparent triangle fixtures, insert the fixtures to the printer's slot, till to the top of slot for fixing the printer and user panel.