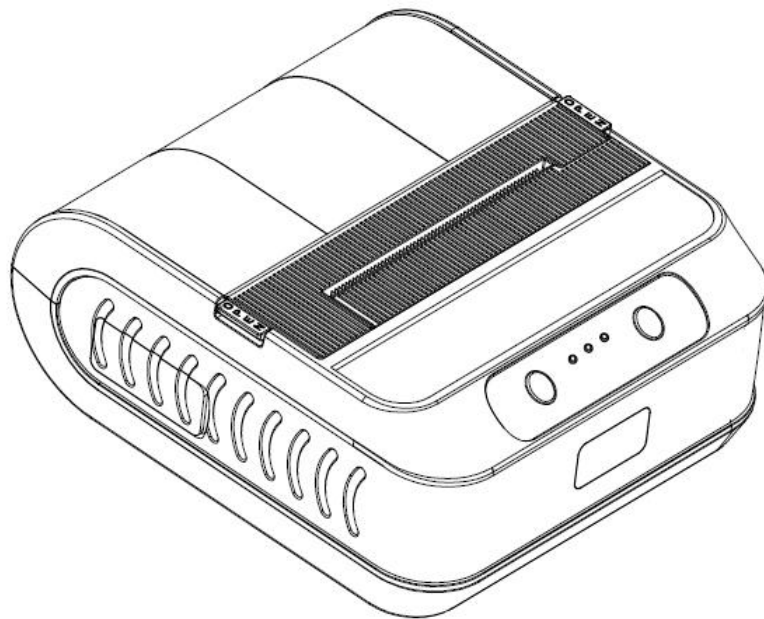


# USER MANUAL

## MOBILE IMPACT DOT MATRIX PRINTER

**Model: PDM-02**



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# Precautions

## ◆ Safety Precautions

In using the present appliance, please keep the following safety regulations in order to Prevent any hazard or material damage.



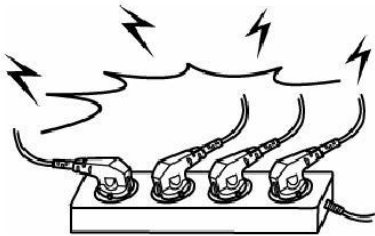
### WARNING

Violating following instructions can cause serious injury or death.

#### Do not plug several products in one multi-outlet.

- This can provoke over-heating and a fire.
- If the plug is wet or dirty, dry or wipe it before usage.
- If the plug does not fit perfectly with the outlet, do not plug in.
- Be sure to use only standardized multi-outlets.

PROHIBIT



#### You must use only the supplied adapter.

- It is dangerous to use other adapters.

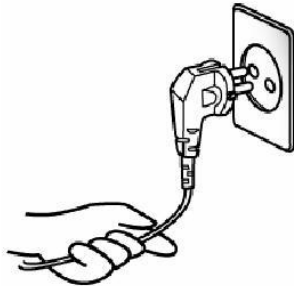
PROHIBIT



#### Do not pull the cable to unplug.

- This can damage the cable, which is the origin of a fire or a breakdown of the printer.

PROHIBIT



#### Keep the plastic bag out of children's reach.

- If not, a child may put the bag on his head.

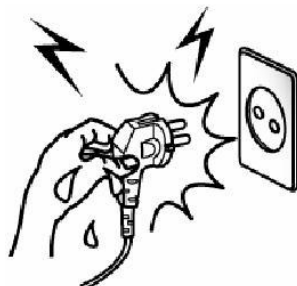
PROHIBIT



#### Do not plug in or unplug with your hands wet.

- You can be electrocuted.

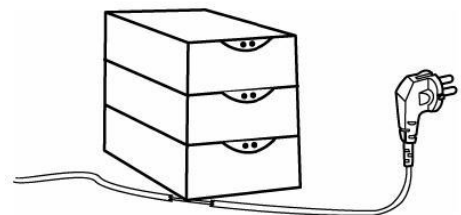
PROHIBIT



#### Do not bend the cable by force or leave it under any heavy object.

- A damaged cable can cause a fire.

PROHIBIT





## CAUTION

Violating following instructions can cause slight wound or damage the appliance.

**If you observe a strange smoke, odor or noise from the printer, unplug it before taking following measures.**

- Switch off the printer and unplug the set from the mains.
- After the disappearance of the smoke, call your dealer to repair it.

TO UNPLUG



**Keep the desiccant out of children's reach.**

- If not, they may eat it.

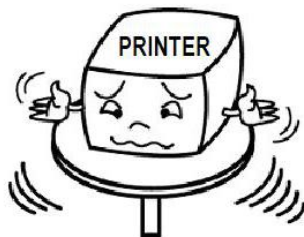
PROHIBIT



**Install the printer on the stable surface.**

- If the printer falls down, it can be broken and you can hurt yourself.

PROHIBIT



**Use only approved accessories and do not try to disassemble, repair or remodel it for yourself.**

- Call your dealer when you need these services.
- Do not touch the blade of auto cutter.

DISASSEMBLING  
PROHIBITED



**Do not let water or other foreign objects in the printer.**

- If this happened, switch off and unplug the printer before calling your dealer.

PROHIBIT



**Do not use the printer when it is out of order. This can cause a fire or an electrocution.**

- Switch off and unplug the printer before calling your dealer.

TO UNPLUG



### ◆ Operation Precautions

Be sure not to print continuously over 1meter, otherwise may cause damage to the printer head.

Water or other liquid should not spill into the printer, also the printer should not be appeared in the rain, or else may cause printer damage.

Please do not open the paper case cover when printing; otherwise the printer may work improperly.

If print with serial interface, should not unplug the interface cable in the course of printing, or else some printing data may be lost.

When print in Ir or IrDA mode, bus sure the Ir window of the host equipment face rightly the Ir window of the printer, the distance should be within the range of 50cm, and the angle should be within the range of 30°.

When print with Bluetooth interface, the communication distance should be within10 meters, otherwise the printer doesn't print or prints rubbish codes.

Too high(50℃) or too low(-10℃)temperature and too high(80%) or too low (20%) relative humidity both effect the quality.

The print paper in poor quality or stored for too long time also may reduce the print quality even damage the printer.

In the black mark detecting mode, the printer requires that the preprinted black mark is accordant with the black mark specifications (details please refer to 4.2); otherwise the black mark can not be detected correctly.

Be sure to use up the power of the battery before charge it, as it can ensure the using life of the battery.

### ◆ Storage Precautions

The printer should be placed in such an environment that the temperature is between -20℃ and 60℃, and the relative humidity is between 5% and 95%.

If the printer will be stored for a long time, please be sure to take out the battery, otherwise may damage the battery and printer.

Normal thermal paper can't be kept too long time. If you need to keep the receipt for a long period, please choose long term effective thermal paper.

The paper should be keep away from high temperature environment and point-blank sunshine.

### ◆ Battery Safety Precautions.

Be sure to carefully read the user manual before using the produce.

Ignore the following instructions may cause battery overheating, fire, explosion, damage and/or performance, and reduced product life.

- 1) Risk of explosion if battery is replaced by an incorrect type.
- 2) Dispose of used batteries according to the instructions.
- 3) Do not allow water, sea water from entering or leaking into the battery inside. If the batteries internal safety device burn, when changing it, it may produce any abnormal current and/or voltage, and cause any abnormal chemical reaction, then may cause the battery overheating, fire and/or explosion.

- 4) Do not use or place the battery nearby the stove or other high temperature places. Excessive heat may damage the resin shell and/or the insulation materials, and then the battery may be caused overheating, burning and/or explosion.
- 5) When charging, use a specified charger. Other conditions (high temperature, high pressure/high current, using the modified battery charger, etc) excluded here may result in over-charging the battery and abnormal current and/or voltage, cause abnormal chemical reaction, and may cause the battery overheat, light and/or explosion.
- 6) Battery clearly marks with positive and negative. When connect the battery with the charger and/or printer, be sure to verify the correct battery orientation. Reverse insertion will cause the reverse charging and may cause abnormal chemical reaction, and then may cause the battery overheat, ignite, and/or explosion.
- 7) Do not make the battery contact with the power outlet and/or car cigarette lighter socket. This may cause high pressure and excessive current, and lead to the battery overheat, burning and/or explosion.
- 8) Do not heat the battery or put the battery into fire. This may melt insulation material and/or damage safety devices or safety equipment, then ignite electrolytic solution, and cause the battery overheat, burning and/or explosion.
- 9) Do not use the battery with contrary (+) and (-) Location. In the charging process, this will cause the reverse charging and may cause abnormal chemical reaction. During use, may appear unpredictable current exception, and cause the battery overheat, ignite, and/or explosion.
- 10) Do not make the battery (+) and (-) contact with any metal. Also, do not carry along or store batteries with metal objects, such as necklaces, hair clips and so on. Battery internal short circuit may cause excessive current, and lead to the battery overheats, ignite, and/or explosion and the adjacent metal objects (necklaces, hairpins, etc.) may be overheating.
- 11) Do not throw or heavy attack the battery. If internal safety device of the batteries burn, the battery charging may cause any abnormal current and/or voltage, and abnormal chemical reaction, and lead to the battery overheat, ignite, and/or explosion.

**Statement:**

This is A statement level product, in the living environment, the product may cause radio interference, in this case, and may require the user to take practical measures to the interference.

# 1. Overview

PDM-02 is a high efficient portable printer,with light weight,high endurance,long time in continue printing,widely used in POS,retail,parking ticket,logistics,warehouse stock,on board transportation,utility billing and so on.

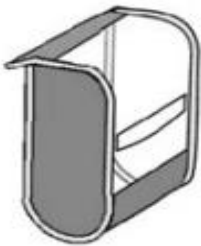
## 1.1 Feature

- ※ Compact design,battery powered,easy to carry out
- ※ Voice announce mode,anytime to know if printer out of paper and power
- ※ Anti-throw capacity reach 1.2m(in cement floor)
- ※ Printing double non-carbon paper,can save longer.
- ※ 7.4V/2000mAh large capacity battery with power save design,auto power off and wake-up function, longer in working hours
- ※ RS232,USB,Bluetooth as optional
- ※ Support Windows driver printing,developing in Android and IOS connection

# 2. Accessories

## 2.1 Standard accessories

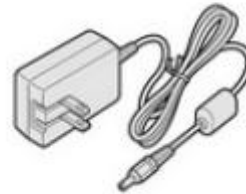
Leather cover



battery



power adapter



Paper roll



user manual



USB cable



## 2.2 Optional accessories

CD



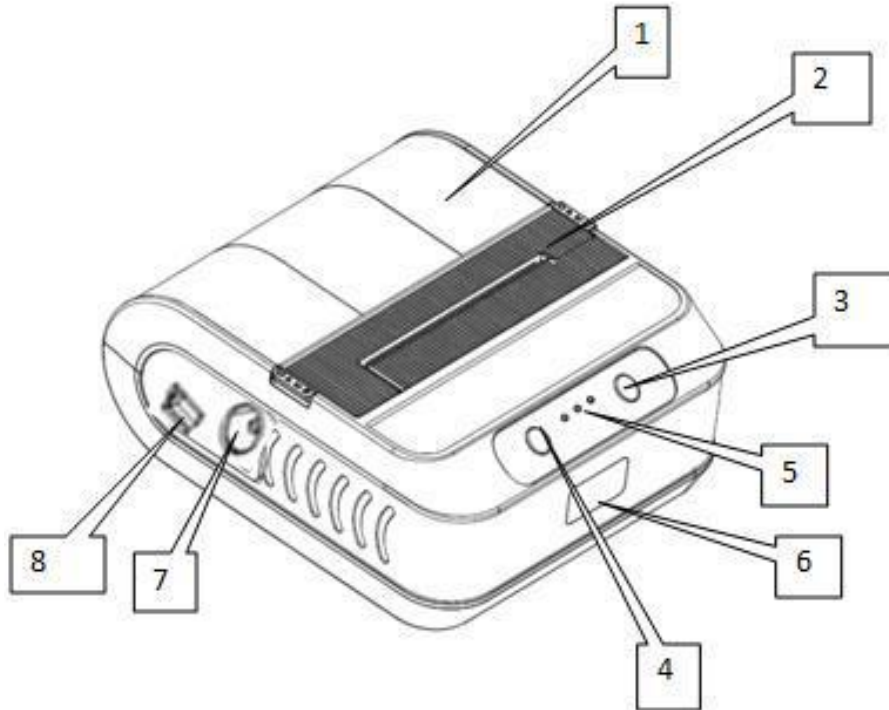
Car charger



serial cable



### 3. Printer spare parts details



1.Paper cover	2.Paper put mouth	3.POWER	4.FEED
5.Indicator	6.IR window	7.Power port	8.Mini USB

### 4. Technical parameter

Physical data	Ext-Dimension	110×112.3×46(W×D×H)mm
	Weight	345 grams (including Li-ion batteries, excluding paper roll)
	Paper roll diameter	≤ 40mm
Print performance	Printing method	Shuttle lattice
	Paper width	57.5±0.5 mm
	Paper thickness	0.06-0.085 mm
	Effective print width	48 mm
	Resolution	203DPI 8dots/mm
	printing speed	5.5 mm/LINE/SEC (12 bitmap fonts)
	Ability to copy	1 originals+1 copy
	Black mark	support
	Lift span	1500000 lines
	Print character	ANK: 6x12,9X17, 8X16 GBK:12x12
	Bar code type	1D:UPC-A,UPC-E,EAN-13,EAN-8,CODE39, CODE93,CODE128,CODEBAR,ITF25 2D: QR CODE

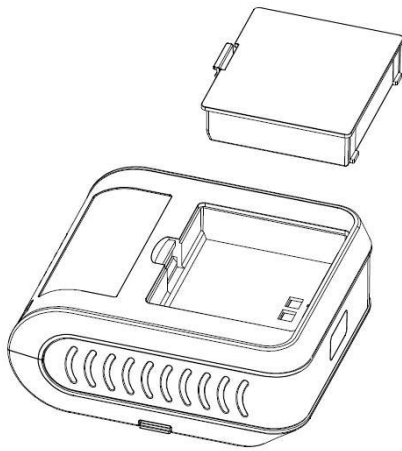


	Print sequence	24columns:144dots/line; 40 columns:240 dots/line
Interface Parameters	Wired	USB/RS232 serial port (2 choose 1)
	Wireless	Bluetooth V2.0/V4.0 , infrared
Power supply	Battery	DC7.4 V / 2000 mAh rechargeable lithium batteries
	Adapter	DC12V/0.8A~1A
	A charge can print length	15 meters (25% print density) / 18 meters (12.5% print density)
Environmental parameter	Operating Temp/Hum	0 °C to 50 °C / 10% 80% (relative humidity)
	Storage Temp/Hum	- 20 °C to 70 °C / 90% - 10% (relative humidity)

Please note: you are using a wireless printer interface types ( bluetooth or infrared depending on the model)

## 5.Before using

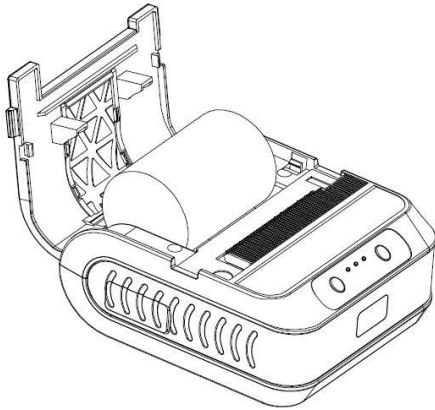
### 5.1 Battery installation



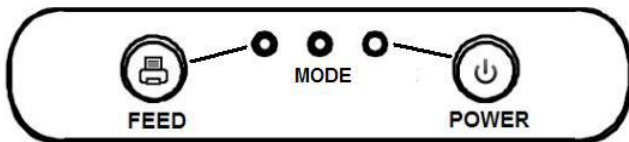
Printer and battery are separated in box.Put battery into battery hole.

Note:Please charge fully when you use battery at the first time.And please also charge fully if you haven't used the battery for a long time.To keep battery in best status.

## 5.2 Paper installation



## 6. Basic use



### 6.1 Power on

Press Power button 2 seconds, printer power-on.

### 6.2 Power off

Press Power button 3 seconds, printer power-on.

### 6.3 Feed paper

Printer under normal working state, press the paper feed button, paper will feed

### 6.4 LED Indicator and beep signal

There is a buzzer PDM02 and three LED light is used to indicate the printer status. LED indicator light indicates the current state, buzzer indicating state changes.

charging indicator (blue)	Status indicator (red)	power indicator (green)	print status	Buzzer
Slowly flash	light off	Light keep on	Charging	
light off	light off	Flash quickly	Low power	Beep 3 times PM
Light keep on	light off	Light keep on	Charge end	Beep once
light off	light off	Light keep on	working	
light off	Slowly flash	Light keep on	Paper Out	Keep beep
light off	light off	Slowly	Sleep/standby	

## 6.5 Printer self-inspection

After obtaining printer users, can at any time to self-inspection of printer, to detect the current printer Settings and status. Self-checking method is as follows: turn it off, if printing machine was on, and then hold the paper feed button, then boot (press the power button), and then walk paper release button, and a printer that prints out the current status and printer setup.

## 6.6 tear-off

Each document after printing, need to tear documents from the paper roll off, printer designed the teeth for tearing, Please do not force a degree to tear the paper, excessive force may cause printing paper is pulled out from the paper space.

## 6.7 The use of the battery and charging

Printer in use after a period of time, the printer battery power of the light, when the printer battery power has been nearly finished, if some of the printer to print data, a printer is given by means of power light red power alarm, with will send three ring; If the printer in a dormant state, the printer automatically shut off the power after send three ring. Users need to printer recharged at this time. Charging method is as follows: insert the plug in the printer power socket, then insert the plug of the ac input power adapter into 220 v, 50 hz power supply plug, printers start charging. Charging process, the printer rechargeable lights up, when the battery is full, rechargeable lights. The time needed for charging in three hours. In the process of charging, such as using the printer to print data will extend the charging time.

## 6.8 Preprinted black mark specification

If user wants to locate receipt by detecting preprinted black mark, shall accord to the following specification for the black mark. Otherwise it may cause printer can't recognize the black mark.

Printing position: black mark shall preprint at the left side of receipt.

Width rang:  $\geq 7\text{mm}$

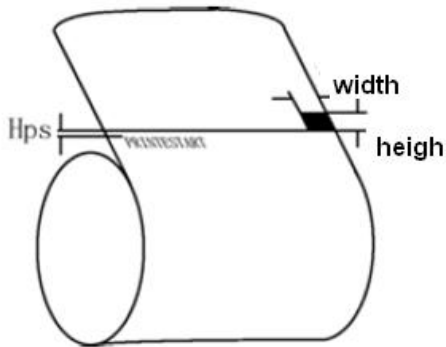
Height:  $4\text{mm} \leq \text{height} \leq 6\text{mm}$

Reflection rate to IR:  $< 10\%$  (reflection rate to the black mark on paper  $> 65\%$  )

Hps: Hps indicates the distance from down edge of detecting mark from beginning line.

$0\text{mm} \leq \text{Hps} \leq 1\text{mm}$

Black mark preliminary printing standard



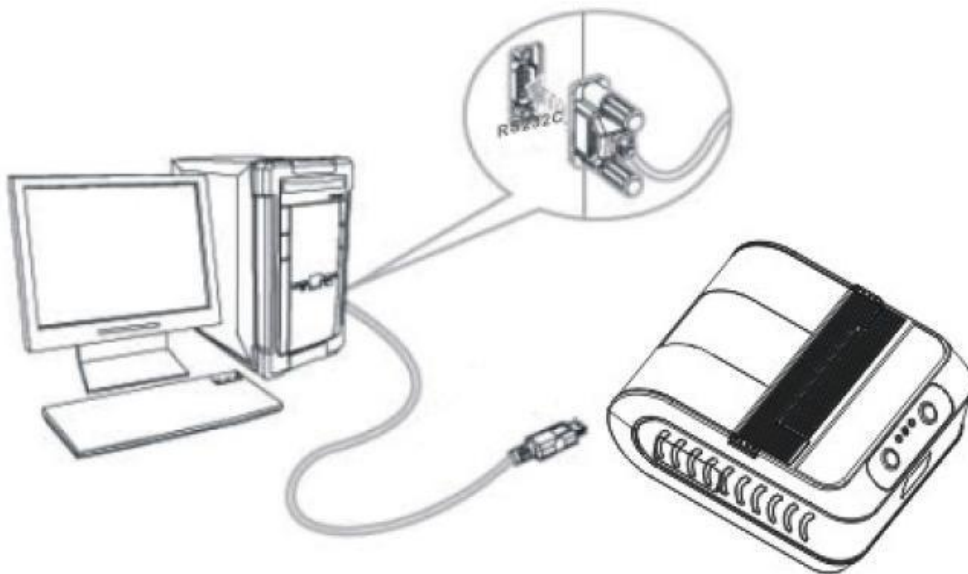
## 7.Communication

**PDM-02 has two communication ways:**

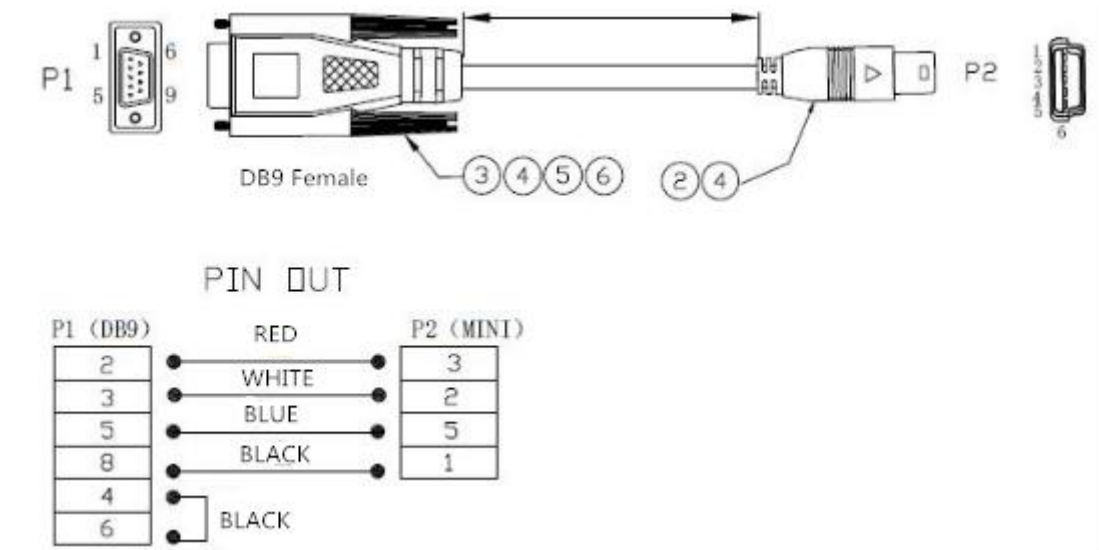
- ①Wired: USB/RS232C
- ②Wireless: Bluetooth/Ir

### 7.1Serial communication (RS232)

The printer have RS232 Wired serial port,connect by 5 Pin Mini USB.

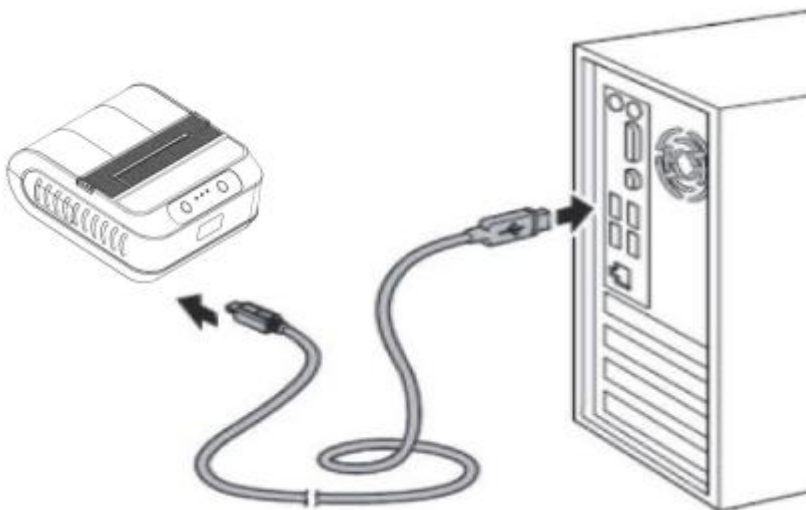


**The cable connect definition as below:**

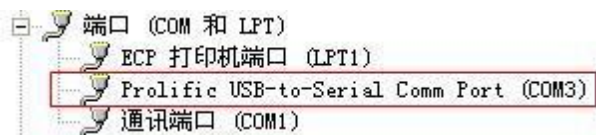


## 7.2 USB communication

PDM-02 printer has a mini USB interface, to achieve it through the mini USB USB2.0 interface.

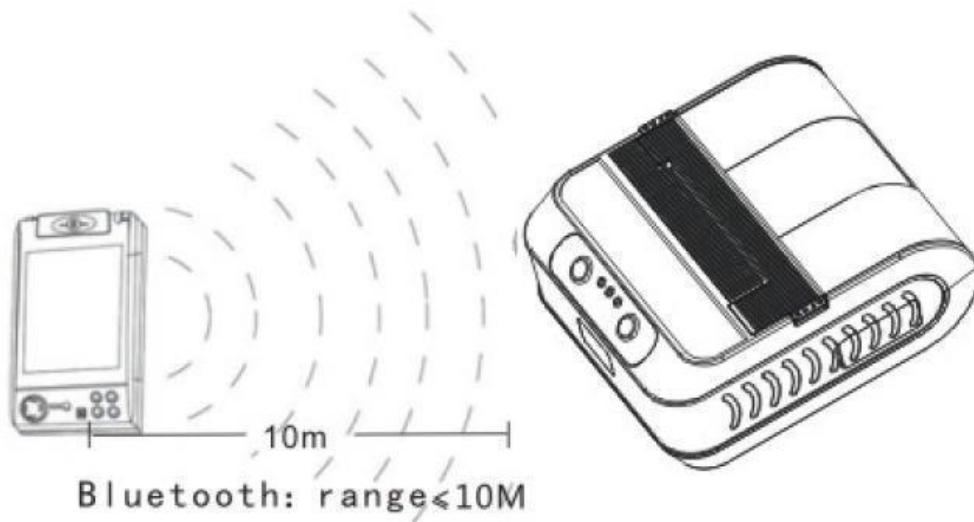


**Note:** Printer using USB communication, need to install PL2303 driver first. Printer contact computer USB, then open "my printer"--"device manager"--"combo", will see this icon, illustrate that successfully install driver, and use normally.



eg: For instance: If you pull up USB cable, the icon disappears, and it appears again after reconnection. That shows COM3 is the port connected to the printer with the computer.

## 7.3 Bluetooth Communication



Matching method is as follows:

1. Power on,
2. The main equipment for external bluetooth devices,
3. If you have more external bluetooth devices, selected inhibits PDM-02 printer,
4. Enter the default password is "0000" or obtained bluetooth password by printer self-test page
5. Complete the matching.

## 7.4 RAW-IR Communication

PDM-02 can use IR to communicate with the host for transmitting the data.

Printer can't work at the same time in a state, the original infrared VIR or IrCOMM condition, if the printer is not working in the condition of what you need, must be to use the printer to reset.

When PDM-02 communicates with the host devices by (RAW-IR) and IrDA(COMM) interfaces ( from both PDM-02 and the host device ) right towards to each other ( angle shall not be more than  $30^\circ$  ), without any obstacles between them, the distance shall be less than 0.5M.

# 8. Maintenance and maintenance

## 8.1 Daily maintenance

1. Please use cloth to clean inside and outside of the printer.
2. Please clean printer mechanism regularly. Especially the clean method when print quality turns bad. Please use absorbent cotton with absolute alcohol to clean printer mechanism.
3. Please take the battery out when the printer is bilging, and airing printer.
4. Please take the battery out and keep it separated with printer if won't use it for a

long time.

## 8.2 usage and preservation of print paper

1. Please avoid to preserve printer paper in high temperature and direct sunlight places. And please do not tear off the package when preserve.
2. Please preserve printed paper about 20 degrees Celsius places after printing, to lengthen life-span of printed paper.
3. Please choose good quality thermal paper if you want to keep it for long time.

## 9. Fault diagnosis

Fault phenomenon	Fault cause	Solutions
It beeps two times continuously .	Paper out	Please install paper roll correctly.
It beeps two times discontinuously,	Low battery	Please charge
It doesn't print when feeding.	Install paper roll in opposite direction.	Please re-install.
It prints hazily.	Printer mechanism is dirty.	Please clean printer mechanism.
	bad quality of printer paper.	Please set print density and print quality or use better quality paper.
It beeps three times continuously.	Printer cover is open when printing.	Close printer cover
Receipt are blurry in a short time.	Print paper quality is not good.	Please use good quality paper.
	Preservation temperature is too high.	Please preserve in about 20 degrees temperature.
Power off automatic	Out of power	Please charge.

Note: It can make words blurry in short time if use bad quality paper.