

# **Thermal Mobile Printer**

# **User Manual**

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be located or operating in conjunction with any other antenna or transmitter.

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## **I Notice**

**Please read the following information carefully before using the printer!**

### **1.1 Safety Notice**

- (1) This printer can only use battery and power adapter provided by our company, or it may cause damage to the printer, battery leakage, fire or explosion.
- (2) Do not put the battery into the fire, not make it short circuit, break up or heating, otherwise it may cause the battery leakage, fire or explosion.
- (3) The battery liquid is corrosive, if the user's careless operation leads the battery leakage and the liquid viscosity to the skin or the clothes please use the clean water for washing immediately, if accidentally into the eyes, please rinse with plenty of clean water to wash the eyes then goes to the hospital.
- (4) Do not open paper cover and use hand or any part of body to touch the printer mechanism when printing or printing just end, to avoid the exorbitant temperature causes Scald.
- (5) Do not use the printer when the operation is failed because that would cause a fire or electric shock. Please turn off and unplug it, then call the dealer.

### **1.2 Usage Notice**

- (1) The printer can't be immersed into the water and not be exposed in the rain for a long time; otherwise it may lead the damage to the printer.
- (2) Do not open the paper cover when printing or it may cause the printer working improperly.
- (3) If use the serial interface to print, do not pull off the serial line when printing, otherwise it may result in incompleteness of the final print data.
- (4) The printer could work stably from -10°C to 50°C, but the higher temperature ( $\geq 45^{\circ}\text{C}$ ) or lower temperature ( $\leq 5^{\circ}\text{C}$ ) would debase the print quality. Higher humidity ( $\geq 85\%$ ) or lower humidity ( $\leq 20\%$ ) also may debase the print quality.

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- (5) Use the bad print paper or long time storage paper would affect the print quality, even damage the printer.

### **1.3 Storage Notice**

- (1) The printer should be stored in the environment where the temperature is -20°C to 70°C and relative humidity is 5% to 95%.
- (2) If the user plan to store the printer for a long time, please be sure to take out the battery and stored it separately, or it may result in the battery lose efficacy, even leakage and then damage the printer.
- (3) The storage time of common thermal paper is short, if the user need to print the long-term preservation receipt, please use long-acting thermal paper.  
Do not store the thermal paper in a high temperature or direct sunlight environment, if it has been sealed off, please store it in dark place.

### **1.4 Battery Safety Notice**

Please read this user manual carefully before using the printer. Ignoring the followings may cause overheating, burning, explosion, damage of the battery and/or debase the lifespan of the printer.

#### ***Warnings:***

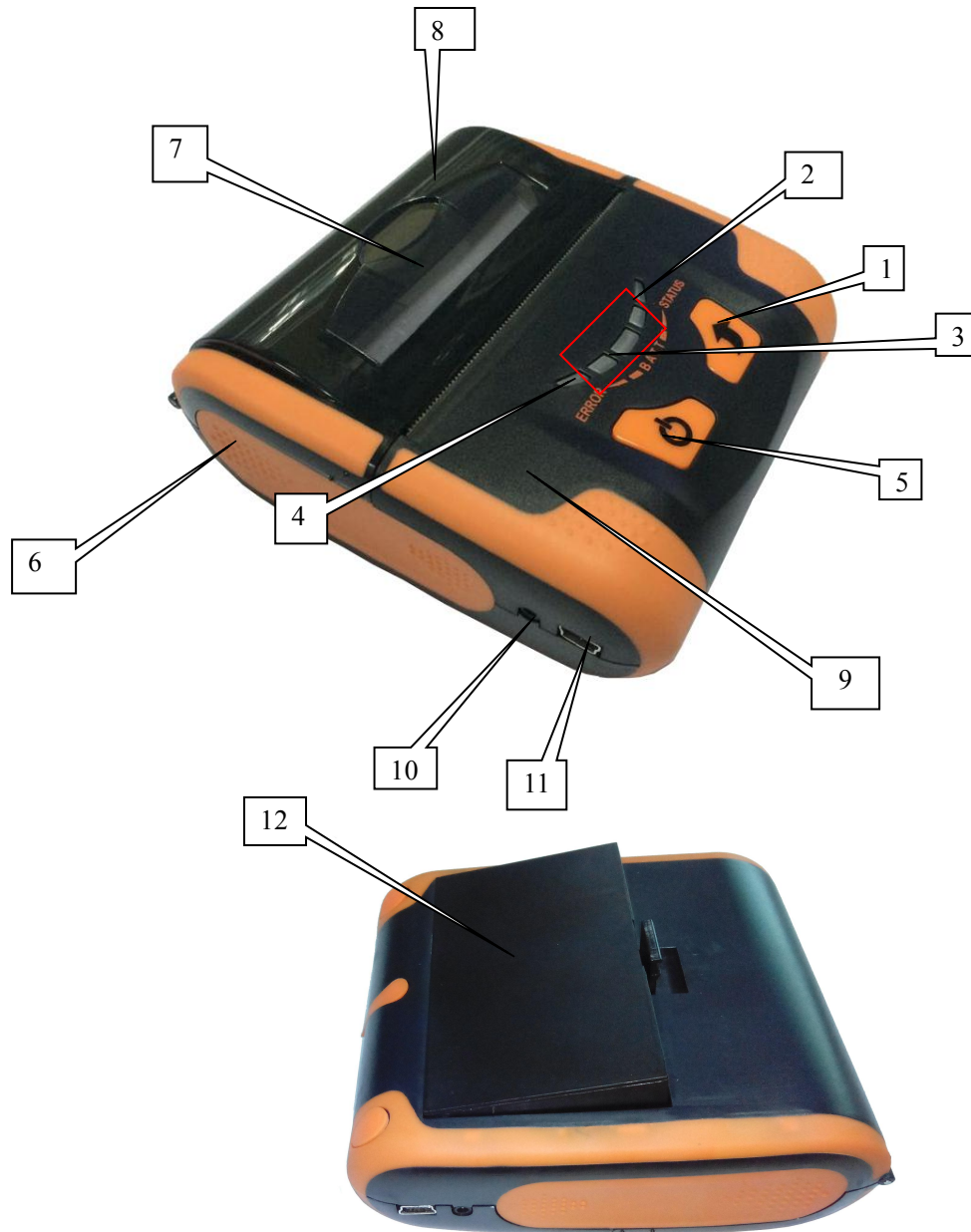
- (1) Do not let water or sea water in or leak into the battery. If the safety device in it is burned out, any charge of it would lead abnormality current and or voltage and bring unusual chemistry reaction, then cause the overheating, burning and/ or explosion of it.
- (2) Do not use or place the battery near burner or high temperature environment. Overheating may cause the damage to the resin shell and/or heat insulation material, and bring the short circuit in the battery then lead the overheating, burning and/ or explosion of it.
- (3) Please use dedicated charger when charging. When charging under the excluded conditions (such as high temperature, high voltage/current or using modified charger) may cause excessive battery charging, abnormal

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- current and/ or voltage, bring unusual chemistry reaction and then may result in overheating, burning and or explosion of it.
- (4) Positive and negative poles are marked clearly on the battery. The user should make sure the battery position is correct when inserting it in the charger or product. Reverse insertion would lead reverse charging, may bring unusual chemistry reaction and then cause overheating, burning and/or explosion of the battery.
  - (5) Do not make the battery contact to power socket and/or car cigarette lighting socket, which may lead high voltage, bring excessive current and result in overheating, burning and/or explosion of it.
  - (6) Do not make the battery contact to power socket or car cigarette lighting socket, which may lead high voltage, bring excessive current and result in overheating, burning or explosion of it.
  - (7) Do not heat the battery or put it into the fire that may melt the heat insulation material or damage the safety device or equipment and make the electrolytic ignited, then bring overheating, burning and/or explosion of it.
  - (8) Do not make the battery poles ((+) and (-)) contact to any metal. In addition, do not take or store it with metal materials, such as necklace, hairpin etc. Short circuit in the battery may cause excessive current, then bring overheating, burning and/or explosion of it and overheating of neighboring metal materials.
  - (9) Do not throw the battery or make it damaged. If the safety device in it is burned out, any charging of it would bring abnormal current and/or voltage, bring unusual chemistry reaction, then may lead to overheating, burning and/or explosion of it.
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## II Product Introduction

### 2.1 Printer outer design

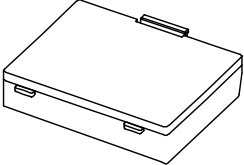
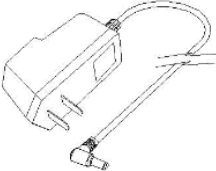
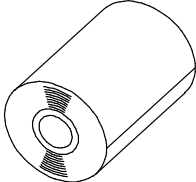

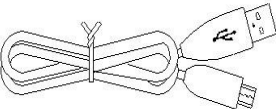


- 1. Feed Key
- 2. Status Indicator
- 3. Battery indicator
- 4. Error indicator
- 5. Power Key

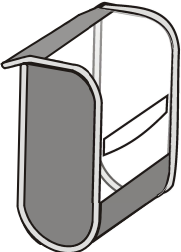
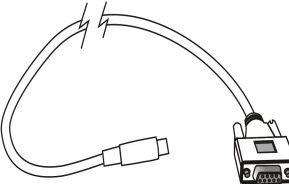
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- 6. Body
  - 7. cover opening button
  - 8. transparent cover
  - 9. Printer Top Cover
  - 10. Power supply interface
  - 11. USB interface
  - 12. Battery Cover

## 2.2 Accessories

### Standard Accessories

Battery	Power Charger	Paper Roll
		
Leather Sheath	USB Data Wire	
		

### Optional Accessories

Leather Sheath	Serial Data Wire
	

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## III Performance

### 3.1 Print Performance

Printing way: Direct thermal print

Paper width: 79.5±0.5mm

Printing width: 72mm

Resolution: 8dots/mm (203dpi)

Dot/line: 576dots

Printing speed: 80mm/s (Max)

Paper thickness: 60-80μm

Printing Contents: Support all GB18030 Chinese character,  
PC437,Katakana,PC850, PC860,PC863, PC865, WPC1252, PC866, PC852, PC858;  
Barcode:CODE39,EAN-13, EAN-8,CODABAR,CODE93,ITF; QR CODE, PDF417.

### 3.2 Physics Parameter

Outer dimension 113\*103\*45mm

Gross weight: 335g (Battery and Paper roll included)

Roll Diameter: ≤40mm

Interface: WI-FI, USB, Bluetooth, RS232 (custom-made); Interfaces varied with different models.

### 3.3 Environment Parameter

Working temperature: -10°C~50°C

Working humidity: 20%~85%

Storing temperature: -20°C~70°C

Storing humidity: 5%~95%

### 3.4 Other Performance

Paper loading way: Clamshell paper loading (as details 4.1.2 Paper Roll Installation);

Paper sensor: The red error light and Green indicator light of printer will be on when come to paper end.

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Printing Command: ESC/POS compatible with commands set (see “ Command Set”), the user could get it from the supplier;

Power: 2000mAH rechargeable li-ion battery

Power alarm: battery indicator light will be out and Error indicator light (Red) will be on when printer will run out of power.

Adapter to recharge: battery can be filled in with 5 hours.

**Notice: The battery can't recharge by using Adapter and USB at the same time.**

A charging time available: Normally, the battery could be used for printing 200 meters or 6 hours. The parameter is only for reference; the capacity of battery would be decreased after a long time and could not confirm the actual print time.

## **IV Introduction**

### **4.1 Preparing before usage**

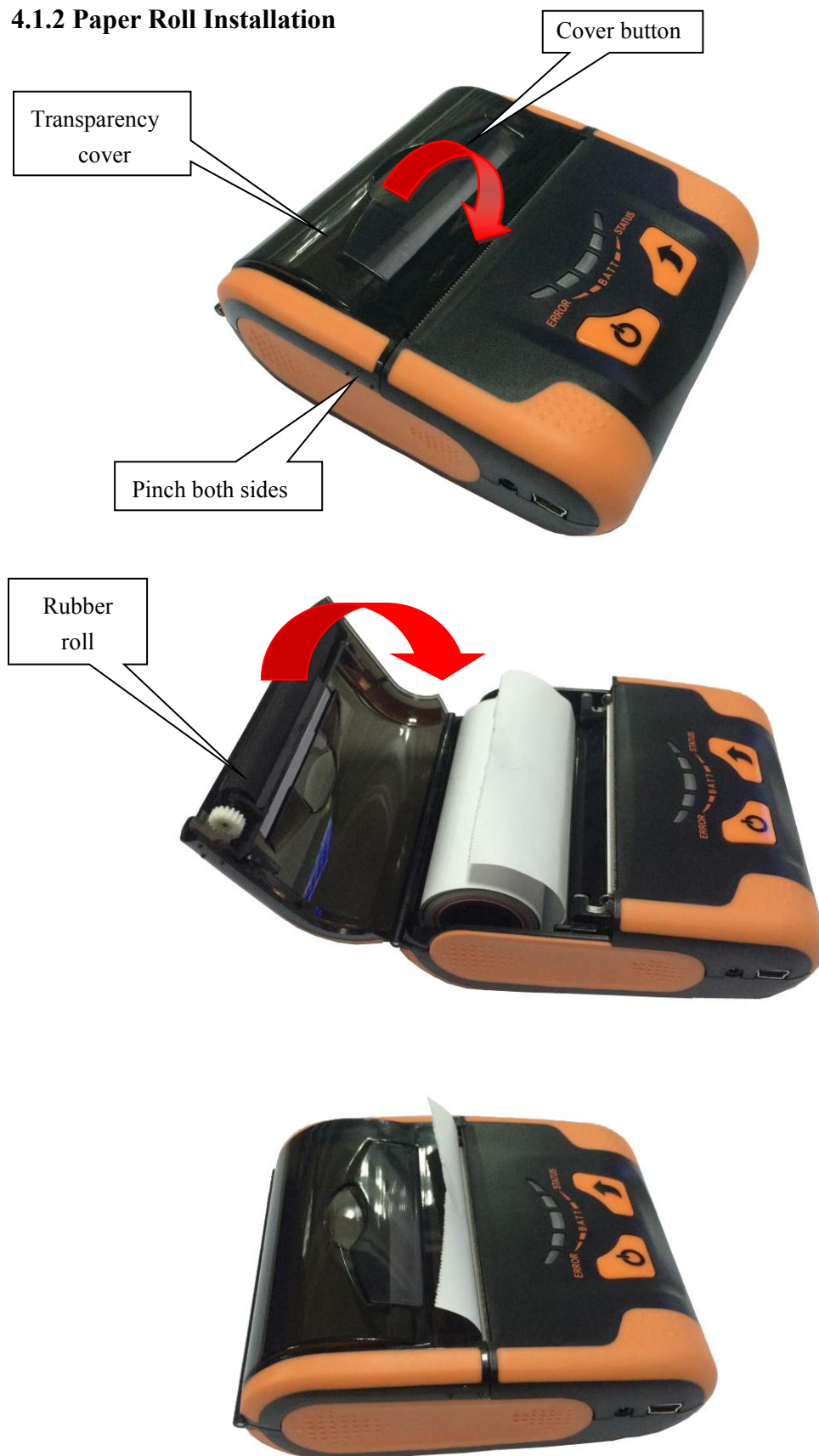
#### **4.1.1 Battery Dismounting**



1. Pull up the buckle, open battery cover, removal the battery;
2. As shown in the picture, put battery into the battery compartment. Please do not put the negative and positive poles of battery in wrong way;
3. Then close the battery cover, so success to install the battery.

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### 4.1.2 Paper Roll Installation



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## Usage Method

1. Poke up the key of opening cover or use fingers to keep pressing the sides of cover then open it.
2. As shown in picture, please put the paper roll in and do not put it in wrong direction, otherwise it would lead the printer unable to work.
3. As shown in picture, pull out part of paper; please make sure to pull the paper out of the paper roll compartment.
4. Put the paper roll in the right way and then close the cover.

## 4.2 Basic Function

### 4.2.1 Power On

Under power off status, keep pressing "POWER" key for two seconds, printer will be powered on and on working status, then power indicator (green light) lights.

Note: If printer power indicator (blue light) goes out and the error indicator (red light) lights, it means the printer is going to power off, please change the battery or charge it. Charging method please refer to (4.2.5 charging).

### 4.2.2 Power Off

Under power on status, keep pressing "POWER" key for two seconds, then the printer will be powered off and all indicator lights will be put out.

### 4.2.3 Self-Test

Once the user receives the printer could do the self-test at any time to check the setting and status of it.

Self-Test method as follows: Power off(If the printer is power on)the printer, press "FEED" key and at the same time press "POWER" key to power on it, then the printer will print out the self-test page, which contains the printer status, setting and printing sample.

### 4.2.4 Feed (Feed Manually)

Under printer working status, press "FEED" key, the printer will start feeding paper.

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#### **4.2.5 Charge**

When the printer has been working for a long time, the battery will be out of power, in this case, the printer power indicator (blue lights) will go out , and at the same time the error indicator (red light) will light, which means it needs charging. If the printer power off automatically while printing, the user should charge it for continue working.

Charging method as follows: The printer is charging after plugging the charger into 220V 50Hz power socket, and the other end plug to the charger socket of the printer. During the charging process, under power on status, power indicator (blue light) will keep flashing from left to right repeatedly till the charging is finished and the charge indicator is keep lighting.

### **4.3 Printer Connecting and Printing**

#### **4.3.1 USB Interface Connecting**

Printer's optional accessories contain USB Wire, Connect to PC and install the USB driver.

#### **4.3.2 WI-FI Communication**

User could use wireless network technology to connect with your equipment for date communication.

Wi-Fi, owned by Wi-Fi Alliance, is a brand of wireless network communication technology. It aims at improving the interoperability between wireless network products based on IEEE802.11 standard.

The advantages of Wi-Fi: Wi-Fi does not need cables for connection, while it connects and delivers signals by wireless electronic waves. It can be moved freely without the limitation of lines; it can be installed conveniently and easy to expand.

- (1) WIFI infrastructure: wireless device in network (computer, printer etc.) deal with all the data transmission and network flow via route or AP.
- (2) There are some advantages for using thermal mobile printer under wireless infrastructure: high reliability of network signal, better performance of network security, flexible network extension.

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- (3) Setup for thermal mobile printer Previous preparation: connect printer to PC via USB port and install USB virtual.
1. Open “Printer Tool” .
  2. Input the name of route in SSID, for example, printer.
  3. Choose the encryption type of wireless route based on the route you are using now. If you choose the encryption type as “WPA-PSK/WPA2-PSK”, authentication type as “automate”, then you can choose WPA2-PSK or WPA2-PSK in Wifil. The setting data of wifitool should keep the same to route.
  4. If the encryption type for route is “WEP”, the setting of wifi should fit to the route.
  5. After connecting printer with computer by virtual serial connection via USB port and finish all the wifi parameter, please choose the relevant serial port in wifi, for example COM8, and set up the default baud rate of printer as “19200”(if customers set up baud rate through dial switch, input the right one),then apply it.

#### **4.3.3 Bluetooth Matching and Printing**

Thermal mobile printer should match to the primary device of printer, which initiates matching.

Matching methods as follows:

Switch on power of printer

Primary device search for the external bluetooth device

If there is more than one bluetooth device around, select the printer which is corresponding to BDA address(refer to the self-test page)

Input password “0000”or “000000”

Finish the matching

About matching method details, please refer to primary bluetooth function description.

During matching, thermal mobile printer must be power on.

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After matching successfully, other PC still can be matched with the printer, and each printer can be at most matched with 8 PC, if matched with more than eight PC, the primary printer matched with PC will be deleted automatically, at this time, if this printer need the PC to drive it, then it need to be re-matched with PC.

#### **4.3.4 Using Bluetooth Interface to Print**

For the PC with virtual bluetooth serial port (such as cell phone using the SMARTPHONE, POCKET PC, PALM, laptops, etc.), after the success of the matching, you can send printing data through virtual bluetooth serial port to the thermal mobile printer for printing. If the PC doesn't have virtual bluetooth serial port, and you want to drive the thermal mobile printer, please consult your PC supplier.

#### **4.4 Indicator Light and Buzzer Signal Description**

Printer has a buzzer and two indicators light that used to prompt the user the status of the printer, the light is used to represent the current status of the printer, and buzzer used to prompt the printer status changes. Two indicator lights are respectively function indicator light and charge indicator.

Feed Paper Indicator (green)	Power Indicator 3pcs(blue)	Error Detection (red)	Printing Status
Long lighting	3 lightings blink circularly from left to right	off	On charge
Long lighting	off	Long lighting	Low level
Long lighting	Long lighting (all is on)	off	Finish charging
Long lighting	Long lighting (based on electric quantity)	off	Power on

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Long lighting	Long lighting (based on electric quantity)	Long lighting	Abnormal
off	off	off	Power off