

# **200 Series 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) When using IR to print, the user should aim the IR windows of main equipment at the IR windows of printer, the distance between them should be not more than 50 centimeters, and the angle should not exceed 30 degrees, or it may lead to print garbled or unable to print.

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- (5) The printer could work stably from -10 °C to 50 °C, but the higher temperature ( $\geq 45$  °C) or lower temperature ( $\leq 5$  °C) would debase the print quality. Higher humidity ( $\geq 85\%$ ) or lower humidity ( $\leq 20\%$ ) also may debase the print quality.
  - (6) Use the bad print paper or long time storage paper would affect the print quality, even damage the printer.
  - (7) When the printer is working in black mark detection mode (when printing the pre-print receipt with black mark), it requires the black mark that on the pre-print paper is accord with black mark printing standard (as details in 4.2 Pre-print Black Mark Instruction), otherwise it may lead the printer disable to detect the black mark accurately. The battery of the printer is better running out before charging, which could effectively ensure the lifespan of it.

### **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 abnormity current and or

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- 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 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.
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- (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.

## II PRODUCT INTRODUCTION

### 2.1 Printer outer design



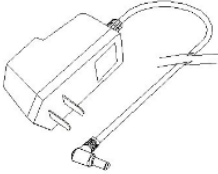
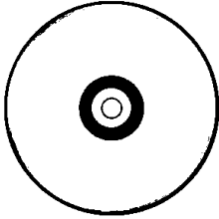

1. Feed Key

2. Status Indicator

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3. Battery indicator
  4. Error indicator
  5. Power Key
  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
		
CD-ROM	Leather Sheath	
		

### Optional Accessories

Leather Sheath		



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## III Performance

### 3.1 Print Performance

Printing way: Direct thermal print

Paper width: 58mm

Printing width: 48mm

Resolution: 8dots/mm (203dpi)

Dot/line: 384dots

Printing speed: 80mm/s (Max)

Paper thickness: 60-80 $\mu$ m

Printing Contents: Support all GB 18030 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 112\*79\*45mm

Gross weight: 260g (Battery and Paper roll included)

Roll Diameter:  $\leq$ 38mm

Interface: USB, Bluetooth, RS232 (custom-made); Interfaces varied with different models. See the model description.

### 3.3 Environment Parameter

Working temperature: -10  $^{\circ}$ C $\sim$ 50  $^{\circ}$ C

Working humidity: 20% $\sim$ 85%

Storing temperature: -20  $^{\circ}$ C $\sim$ 70  $^{\circ}$ C

Storing humidity: 5% $\sim$ 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.

Printing Command: ESC/POS compatible with commands set (see “200 Command Set”), the user could get it from the supplier;

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Power: 1400mAH 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 with in 3 hours.

USB to recharge: battery can be filled with in 6 hours.

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

A charging time available: Normally, The battery could be used for printing 100 meters or 3 hours. The parameter is only for reference; the capacity of the battery would be decreased after a long time using and could not ensure the actual print time.

## IV Introduction

### 4.1 Preparing before usage

#### 4.1.1 Battery Installation



1. Pull up the buckle, open battery cover;
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 closed the battery cover.

#### 4.1.2 Paper Roll Installation



#### 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.

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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.

### **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.

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Charging method as follows: The printer is charging by USB port. 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**

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WPA2-PSK in Wifitool. The setting data of wifitool should keep the same to route.

4. If the encryption type for route is “WEP”, the setting of wifitool 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 wifitool, 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**

200 portable 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”

Finish the matching

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

During matching, 200 portable mini printer must be power on.

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 200

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portable mini printer for printing. If the PC doesn't have virtual bluetooth serial port, and you want to drive the 200 portable mini 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
Long lighting	Long lighting (based on electric quantity)	Long lighting	Abnormal
off	off	off	Power off