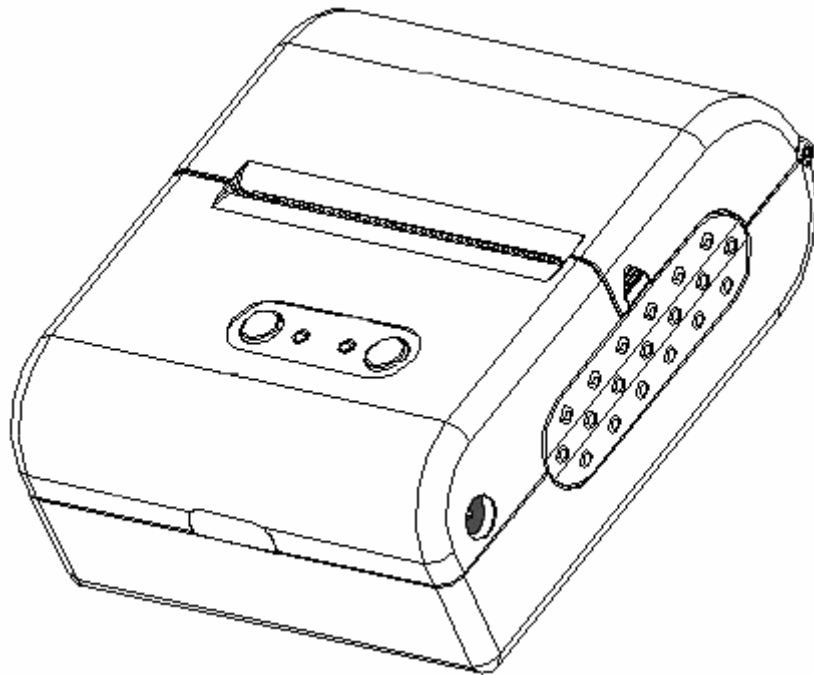


SUP58M1

Portable Thermal Printer

User's Manual



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Operating Precautions

This section presents important information intended to ensure safe and effective use of the printer. Please read the following carefully.

Notes on Safety

Be sure to use the specified battery and power source provided by our company. Connection to an improper power source may cause fire, explosion or damage to the printer.

Don't put the battery into the fire or water, don't disassemble or modify the battery, don't be short circuit, otherwise may result in injury or fire even explosion.

Please do not open the paper case cover when it is printing or just when printing is over, do not touch the print head with hand or body, overheat may cause scald.

If improper operation causes battery leak, and the liquid is spattered on the skin or clothes, please wash it with water, if spattered in the eyes, please rinse them with water thoroughly and see a doctor.

Notes on Using

Be sure not to print continuously over 1 meter, otherwise may cause damage to the print 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 it is 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 mode, be sure the Ir window of the host equipment face rightly the Ir window of the printer, the distance should be within the range of 30mm, and the angle should be within the range of 30°. When print with Bluetooth interface, the communication distance should be within 10 meters, otherwise the printer doesn't print or prints rubbish codes.

Too high (45°C) or too low (5°C) temperature and too high (85%) or too low (20%) relative humidity both effect the print 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 ready-print black mark is accordant with the black mark printing rules (details please refer to Chapter 4), otherwise the black mark can not be detected correctly.

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

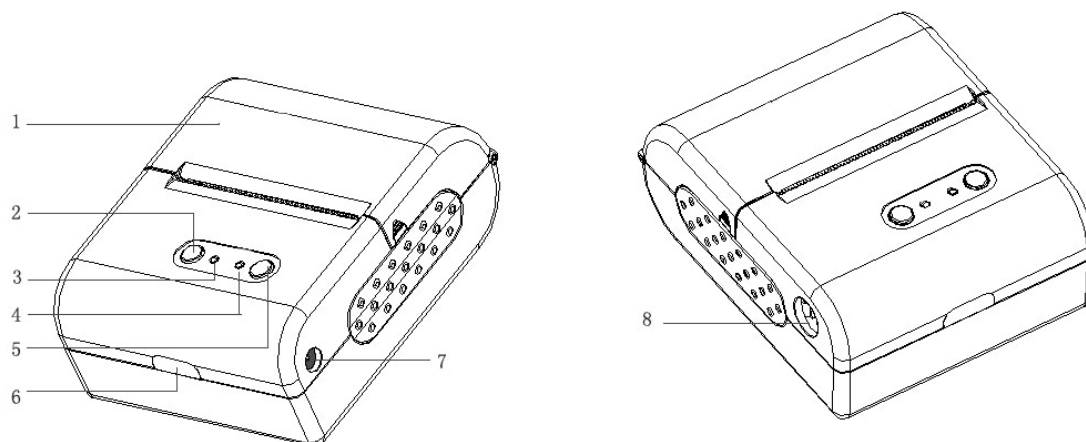
Notes on Handling

The printer should be placed in such an environment that the temperature is between -20°C and 70°C, 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, if you need to keep the receipt for a long period, please choose long term effective thermal paper. The print paper should be keep away from high temperature environment and point-blank sunshine.

Chapter 1 Outer Appearance and Model



- ①-Paper Case Cover
- ②-Feed Button
- ③-Charge Indicator
- ④-Power Indicator
- ⑤-Power Button
- ⑥-Ir Window
- ⑦-Charger Socket
- ⑧-Serial Interface Socket

Chapter 2 General Specifications

2.1 Printing Specifications

- Print method: thermal line printing
- Paper width: 58mm
- Print width: 48mm
- Resolution: 8 dots/mm (203dpi), 384 dots/line
- Print speed: 50mm / sec(max)
- Paper thickness: 60~80 μ m
- Character: Alphanumeric characters, extended graphics, international characters, EAN13, EAN8 bar codes.

2.2 Physical Specifications

- Outline dimension: 90×76×36mm
- Weight: 220g (except paper roll)
- Paper roll diameter: ≤30mm
- Interface: RS232 serial ,Bluetooth, Raw-Ir (2400bps~115200bps)

2.3 Environmental Conditions

- Operation temperature: -10~50℃
- Relative humidity: 20%~85%
- Storage temperature: -20~70℃
- Relative humidity: 5%~95%

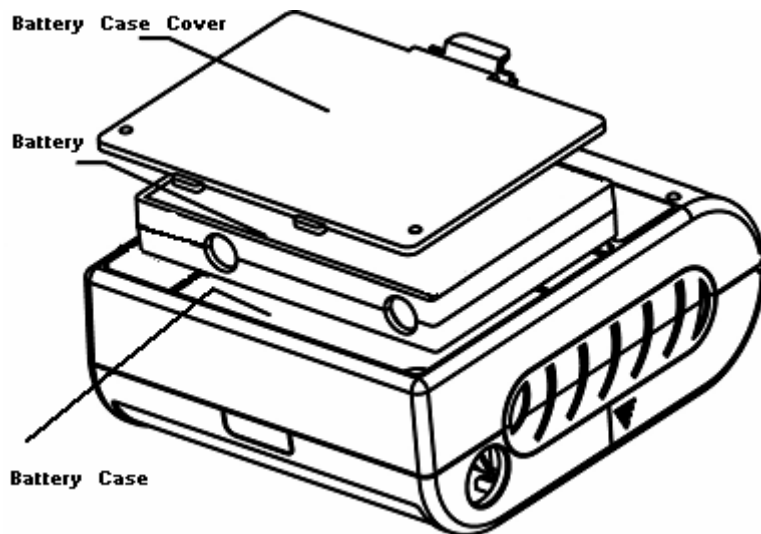
2.4 Other Features

- Paper loading method: drop-in easy loading.
- Black mark localization: available.
- Paper out detection: when paper is out, the Power indicator blinks with green color.
- Print commands: ESC/POS compatible command set.
- Power supply: 700mAh rechargeable polymer Nickel hydrogen battery.
- Low power alarm: when the battery is low, the Power indicator goes red color.
- Battery full charge time: ≤4 hours.
- Battery duration: under 12.5% print density, at least 50 meters; under 25% print density, at least 30 meters.

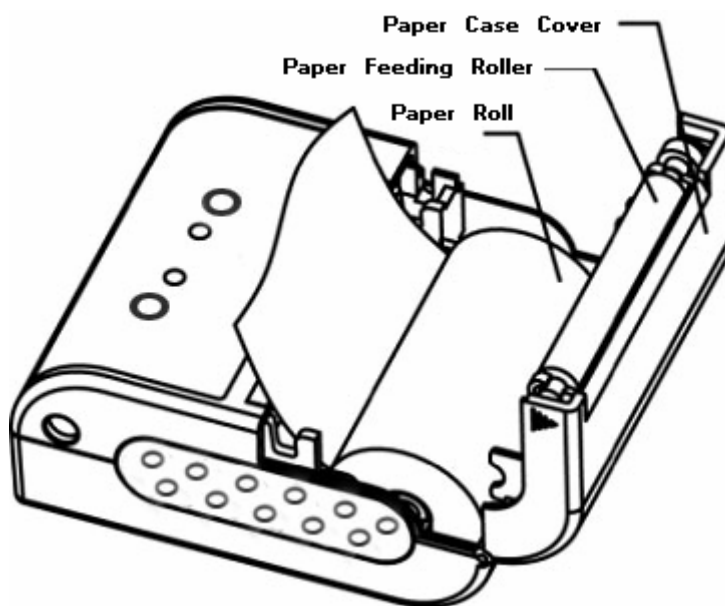
Chapter 3 Operation

3.1 Using Preparation

3.1.1 Battery Installation



3.1.2 Paper Installation



3.2 Operation Specifications

3.2.1 Printer On

The printer is powered on by pressing the power button; the power indicator is on with green color when the printer is on.

Notice: when the battery is almost exhausted, the power indicator goes

red color, in this case, you must charge the battery by using the charger. The method of charging the battery, please refer to 3.2.5.

3.2.2 Printer Off

The printer is off after hold down the power button. All the indicators are off when the printer is off.

3.2.3 Self-test

The self-test checks the printer's current settings, status and whether the printer has any problems. Hold down the power button (don't loosen) while holding down the **【FEED】** button, and then loosen the **【FEED】** button, the self-test begins. The printer is ready to receive data as soon as it completes the self-test.

3.2.4 Paper Feeding

When the printer works normally, hold down the **【FEED】** button, the paper feeding begins, and stops when loosen the **【FEED】** button.

3.2.5 Battery Charging

The power indicator becomes red when the power of the battery is run out, so charging the battery is required in this situation. The charging method is as following: turn off the printer, connect the adapter to the power socket with 220V, 50HZ, then plug the power charging cable to the power socket of the printer, so the power charging begins, during the course of power charging, the charge indicator goes red, and becomes green when the charging is over.

Notice: Cannot use the printer to print when the battery is charging.

3.3 Printer Interface Connection and Printing

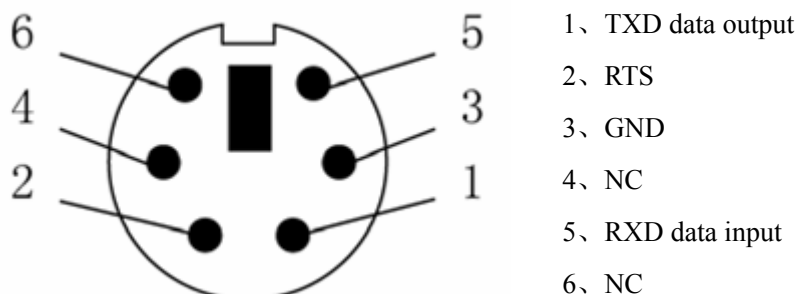
3.3.1 RS-232 Serial Interface

The standard accessories for SUP58M1 printer include: DB-9 serial interface cable (one end is D model standard serial interface socket, connected to host computer, the other end is PS/2 socket, connected to

printer).

When connect the serial interface, if it works normally, then the printer stops to receive data from Bluetooth or Ir interface. The serial interface of the printer is RS-232, the baud rate range is:

2400bps, 4800bps, 9600bps, 19200bps, 57600bps, 115200bps.



3.3.2 RAW-Ir Connection

The hardware of SUP58M1 with infrared port printer is compatible with RAW-Ir. RAW-Ir data transmission mode can be connected to the devices with raw infrared port for printing.

To use the SUP58M1's infrared port, a computer or Personal Digital Assistant (PDA) with IR port is required. Position a PDA conforming to the specifications in point not more than 30 centimeter away from the printer's infrared port. Make sure the two ports are in front of each other with an angle of not more than 30° on the four side.

3.3.3 Bluetooth Connection

PDA, Laptop and other communication devices with Bluetooth can drive SUP58M1 to print by the Bluetooth interface. SUP58M1 is compatible with Bluetooth 2.0 protocol. Power grade is CLASS 2; effective communication distance is 10 meters. The name of the printer is SUP58M1; the initial password is "1234".

The method for the pairing between SUP58M1 with the host device is:

1. Turn on the printer;
2. Host device searches for the outer Bluetooth device;
3. If there are other Bluetooth devices, please select SUP58M1 printer;
4. Put in password "1234"
5. Pairing finished.

Chapter 4 Description for Black Mark Detection

If user uses ready printing black mark to localize the receipt, please be sure to abide by the following black mark ready printing regulation when print the black mark, otherwise the black mark can't be recognized by the printer.

The black mark ready printing regulation:

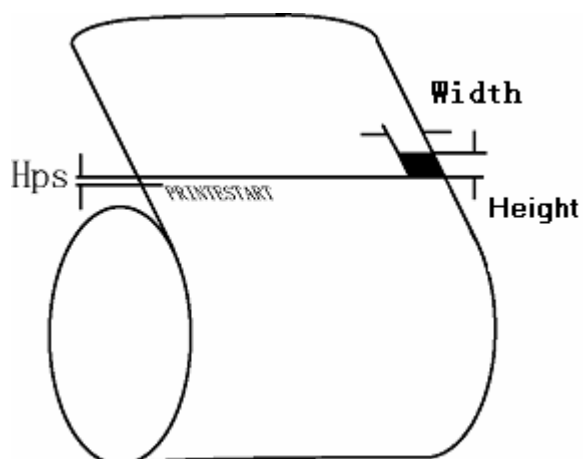
Print position: as the following figure shows, the black mark should be printed on the right of the word side.

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

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

Reflectivity to infrared ray: $< 10\%$ (the reflectivity of the other parts of the paper black mark width to infrared ray $> 65\%$)

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



FCC STATEMENT

1. 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.
 - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

RF warning statement:

The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition without restriction.