



PRODUCT MANUAL



P90

Mobile Payment Terminal

Product Description

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- LCD:** 128×64 pixel, with LED backlight;
- Paper Roll Holder:** With thermal paper roll spindle, paper roll width is 58mm, inside diameter is 13mm and outside diameter is 38mm;
- Paper Roll Cover:** With paper pressing shaft, open it when loading printer paper then close and fasten it after loading the paper;
- Paper Tear Bar:** Tear off printer paper;
- Magnetic Card Reader:**When user swipes the card, the magnetic stripe faces the terminal(facing the operator), support bi-directional swipe;
- Keypad:** 20 keys, including switch key, Numeric/Alpha keys and functional keys;
- Power Switch:** Soft switch on/off technology, press for 2 seconds then power on, press for 2 seconds then power off.



- IC Card Reader:** Insert IC card with the metal chip facing upward;
- POWER:** Power port to power outlet, connected by special barrel plug of P90;
- RS232:** RS232 port, asynchronous serial communication mode;
- PHONE:** Earphone port, able to make voice communication when connecting with earphone (with MIC, optional);
- Charging Indicator Light:** With battery, red when charging and green when complete charging. Supplied power directly by AC power adapter without battery, the indicator is green.



Rubber Pad:

3 pieces, protect from slippery and shock;

General Info Label:

Show model name, related parameters and serial number;

Battery Cover:

Battery is visible when removing the cover. When installing the battery cover, insert the two tabs into the two corresponding holes above the metal spring, and press down on the other side of the battery cover(with arrow) until it becomes flat and you hear a 'ka' sound.



PSAM Cardholder:

Visible when removing the battery. Position for PSAM card, can hold two PSAM cards;

SIM/UIM Cardholder:

GSM/CDMA communication slot, use different wireless communication cards according to local wireless service.



Installing a SIM/UIM Card:

Remove the battery cover and battery, press the yellow button beside SIM card slot with small screwdriver (or other likenesses), the SIM card drawer will pop up. Put the SIM/UIM card on the drawer (the metal chip facing downward) and then push the drawer into its initial position. Attention, the direction of drawer should be parallel with the bottom of the terminal.



Installing the Battery:

Hold the battery with its label above. Insert the battery tab into the rectangle hole under SIM card slot and then press down on the other side of the battery until it snaps into its place and you hear a 'ka' sound.



Contents Checklist

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The following items should be found inside the box:

1. P90 Mobile Payment Terminal
2. AC Power Adapter
3. AC Power Cable
4. Battery
5. Product Manual
6. Q.C Passed
7. Warranty Card
8. Thermal Paper Roll
9. Cellular Headset Cable(optional)

Preparations before Installing

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1. Power outlet
2. SIM or UIM card of GPRS/CDMA radio system

Safety Instructions

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1. It is recommended to use power outlet with fuse and is well earthed;
2. Never damage power cable or AC power adapter. If there is any damage of the power cable or AC power adapter, please stop using;
3. Before connecting AC power cable with power outlet, make sure the supplied power is in the range of working voltage of the device;
4. Place the device in a stable position on a solid surface. Do not put it right under the

- sunlight, in high temperature, in humid or dusty place;
5. Keep away from the liquid;
 6. Never push any objects into any ports of the device as this may cause serious damage to it ;
 7. When the device has some trouble, please contact a qualified service representative. Do not try to repair it by yourself.

Cautions of Using the Battery

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Warning: To reduce risk of fire or burn.

1. Do not attempt to open, disassemble, or mistreat the battery;
2. Do not crush, puncture, short external contacts, or dispose of in fire or water;
3. Do not expose battery to temperature above 60°C (140°F).Store in the environment between -20°C(-4°F) and 60°C(140°F);
4. Charge with a charger designated for the product;
5. Lithium ion battery is not suitable to storage for long time. In case of long term storage, the battery must be discharged and charged with half capacity (voltage:7.6V~7.8V) every three months;
6. Risk of explosion if battery is replaced by an incorrect type;
7. Please refer to local law for dispose of used batteries.

Turning on the Terminal

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- 1 Remove the battery cover and install the battery or connect with AC power adapter for power supply;
- 2 Press the switch key and the LED backlight turns on. Stop pressing the switch key when the terminal prompts and the LCD screen enters the initialization interface. Then the application interface appears after initializing successfully.

Loading Paper in the Printer

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1. Insert your forefinger into the concave of the paper roll cover, and pull outwards, the paper roll cover can be lifted when you hear a sound ‘ka’ ;
2. Remove the paper roll spindle and insert it into the hole of the thermal paper roll, and reset the spindle in the initial position. Pay attention to make the paper stick out under the spindle;
3. Unroll the paper and put it under the paper tear bar. Press the middle part of the printer cover until you hear a ‘ka’ sound ;
4. Standard paper should be used to avoid jam and damage to the printer.

Tearing off Printer Paper

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Hold the paper edge and pull the paper along the paper tear bar from left to right in 45 degree, with steady speed.

Swiping a Magnetic Stripe Card

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1. Hold the card with the magnetic stripe facing the terminal(the magnetic stripe facing operator) and swipe it;
2. Support bi-directional swiping, but swiping the card from right to left is recommended;
3. Swipe the card with steady speed.

Specifications

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10-1 Terminal Specifications

CPU:

RISC ARM9, 32-bit, 200MHz

Memory:	4MB Bytes FLASH (up to 8MB Bytes) 8MB Bytes SDRAM
LCD Display:	128×64 pixel, with LED backlight;
Keypad:	10 alphanumerical keys, 9 functional keys and 1 switch key
Magnetic Card Reader:	ISO7812, Track 1/2/3, bi-directional swipe
IC Card Reader:	ISO7816, communication protocol: Async. T=0/T=1 or Sync. I ² C bus
PSAM Slots:	2, ISO7816, communication protocol: Async. T=0/T=1
Real Time Clock:	Year/Month/Day/Hour/Minute/Second/Week. Timing error<1 min./month
Communication:	GPRS or CDMA
Printer:	Thermal printer Paper width: 58 mm Paper diameter: 38mm Speed: 12.5 lines/sec.
Peripheral Ports:	1 RS232 port, 1 Power charger port, 1 headset port
Dimensions:	205mm x 89.5mm x 53mm (L x W x H)
Li-ion Battery:	1800mAh, 7.4V. Over 28 hours of standby time, or over 200 transactions per charger

10-2 Environmental Specifications

Power Supply :	
Input:	100~240VAC, 1.0A, 50Hz/60Hz
Output:	9.5V--- 4A
Dimensions:	99.5mm×54mm×32mm (L×W×H)
Working Environment:	
Temperature:	0℃~50℃
Humidity:	10%~95% (non-condensing)
Storage Environment:	
Temperature:	-20℃~60℃
Humidity:	5%~95% (for battery 45%~75%)



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We declare that:

※ The product is installed with battery separately in the box. The FCC ID label is placed on the mobile phone clearly visible to all persons at the time of purchase.

※ The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the 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.

※ Do not attempt to disassemble the mobile phone and battery by yourself. Non-expert handling of the devices may damage them.

※ Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed limits for exposure to radio frequency (RF) energy set by the Federal Communications

Commission (FCC) of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age or health. The exposure standard for wireless fixed phoned employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limits set by the FCC are 1.6W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the phone transmitting as its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station, the lower the output power.