

# POSITION

## USER GUIDE



[www.mpos.net](http://www.mpos.net)

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## Disclaimer

M.POS assumes no liability for loss or damages arising directly or indirect from any misuse of Terminal and accessories or non-compliance with the instructions set out in this user guide.

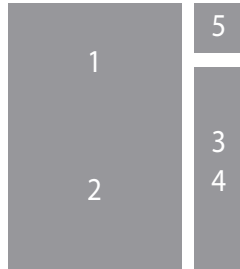
Specifications and external appearance are subject to change with out prior notice.

## 1. Contents of Positron Package

Positron is a highly secure all-in-one Point of Sale terminal equipped with both magnetic strip and Smart Card readers. It is a rugged, robust and durable handheld terminal offering optimal performance suitable for heavy duty merchants indoor and outdoor.

The Positron package contains:

- ◆ 1 Positron terminal 1
- ◆ 1 User Guide
- ◆ 1 Li-ion Battery 2
- ◆ 1 Power Adapter 3
- ◆ 1 Power Cable 4
- ◆ 1 Thermal Paper 5



Optional Accessories:

- ◆ Privacy Shield
- ◆ Handsfree kit
- ◆ Handset kit
- ◆ Durable leather case
- ◆ In-vehicle cigarette lighter charger
- ◆ RS-232 cable
- ◆ USB cable
- ◆ Landline telephone cable (This is only used when the firmware need be updated)
- ◆ Separated Charger
- ◆ Wall mount
- ◆ Barcode scanner
- ◆ Optical mark reader
- ◆ External impact printer
- ◆ Communication Module:
  - GSM/GPRS: 850 / 1900 MHz
  - PSTN: V.21, V.22 bis, V.22, V.32, Bell 212A
  - LAN

2. Layout and Description

2.1 Overview of Positron



Terminal Front

Printing Paper  
Indicator

Communication  
Module

Power Supply  
Connector

Power Key

Li-ion Battery

Communication  
Module

Earphone Inlet

USB Port

RS232 Serial Port

Li-ion Battery

(Left)

(Right)

Terminal Sides



Terminal Back

## 2.2 Terminal Front

### Thermal Printer

- A fast, quiet, easy-loading thermal printer is built in to the Positron. See section 3 for procedure for loading thermal paper.

### Printing Paper Indicator

- inspect the remaining printer paper through the window.

### LCD Screen

- 240 x 160 pixel large graphical LCD
- White LED backlit

### Backlit Keypad

### Magnetic Card Reader

- Swipe the magnetic card from left to right or from right to left, with the strip facing you.

### Smart Card Reader

- Indicates the position to insert the Smart Card.
- Insert the smart card horizontally with the chip facing upwards and leave in position during the transaction.

### Navigation Key

- Easy-to-use 4-way navigation key. Scroll Up and Down, Left and Right.

### Red Key

- Cancels the procedure in progress

### Yellow Key

- Cancels the last character

### Green Key

- Validates the input selections and information

### Function Keys

- Programmable Function keys above the keypad, labeled F1, \*, #, F2.

### Alpha-numeric Keys

- High security Pin Pad

## Indicator LED

- Green (slow flashing): Power on.
- Green (fast flashing): Connecting to network.
- Green (steady): Battery is fully charged.
- Orange (fast flashing): Out of paper.
- Orange (steady): Battery charging.
- Red (slow flashing): Low battery level.
- Red (fast flashing): Hacker attack.
- Red (steady): Operating system disorder.

## 2.3 Terminal Side

### Power Key

- Press Power Key to turn the terminal on or off.

### USB Port

- Indicates the position to plug in the USB cable for connecting to different peripheral.

### RS232 Serial Port

- Indicates the position to plug in the RS232 cable for connecting to different peripheral.

### Power Supply Connector

- Indicates the socket position to plug in the Power Cable.



Caution

Use Power Supply Cable and Adapter supplied by M.POS which specifically designed for the terminal and has complied with applicable standards.

### Earphone Inlet

- Indicates the position to plug in the earphone.

## 2.4 Terminal Back

### Communication Module

- Swap for different communication module for different communication option.



### 3. Procedure for Loading of Thermal Paper

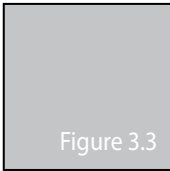


1. Place your thumb and index finger as shown in Figure 3.1.



Ensure your thumb is positioned on the “@pos”.

2. Lift up the printer cover lever with your index finger.



3. Open the printer cover. (Remove the empty roll of thermal paper from tray, if any.)

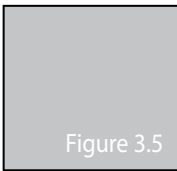


Do not touch the printer mechanism.

4. Insert a new roll of thermal paper into the empty tray.



Ensure the paper end facing upward at your direction.



5. Place the paper end on the cutter. Then, close the printer cover.

6. Thermal paper loading is completed



Do not put your finger on the paper cutter.



## 4. Battery

### 4.1 Installation



1. Hold the M.POS Li-ion battery with the battery contact facing downwards.



2. Position the battery ends in the two terminal housings.



3. Press the Li-ion battery to close. A "click" appears when the cover is fully closed.

### 4.2 Charging a New Battery



Important

A new rechargeable battery is supplied in a totally uncharged state. To ensure the optimum performance, a new battery (or a battery that has not been used for a period) should be charged at least 12 hours before use.

### 4.3 Charging the Battery



1. Connect the lead from the charger to the Power Supply Connector.



2. Connect the charger to an AC wall socket.



NOTE

Charging time: 3 hours



Important

- Recharge your battery through the terminal or with M.POS approved chargers designated for the terminal.
- Use only M.POS approved batteries.
- Do not use the battery for other purpose.
- Do not use damaged or non-functional battery.
- Do not expose the battery to any extremely high temperature (over 60° C).
- Do not use the battery at an extremely low temperature.
- To maintain the lifetime of battery, charge the battery at or near room temperature.
- To maintain the lifetime of battery, do not overcharge the battery.
- Always try to keep the battery between 15°C and 25°C.
- Dispose of used batteries according to local regulations. Please recycle when possible. Do not dispose as household waste.
- Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery and its ability to charge.



warning

- To protect against such unwanted current drain, care should be exercised in handling any charging battery. DO NOT PUT your battery inside any container with metal objects.
- DO NOT short-circuit the battery. Accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the positive (+) and negative (-) contacts of the battery (metal strips on the battery).

## 4.4 Removing the Battery



Important

- Switch off the terminal before removing the battery. Failure to do so may damage the terminal memory of the terminal

## 4.5 Warranty

- Warranty shall be void, if the battery label is damaged or removed.
- Six (6)-month Warranty from the date shown on the battery label.

## 5. Accessories

The following accessories are designed to work with your Positron Terminal, which are available for sale and packed individually. Please refer to your local service provider or retail outlet for information.

### Power Adapter

The Power Adapter allows you to connect to the Separated Charger or directly to Positron Terminal. When connecting to the terminal directly, the terminal is still in operation even the battery has run out.

- Power input: AC (100V ~ 240V) 50-60Hz
- Power output: DC (15-17V) 65W Max
- Power plug type: Australia (with SAA approval); China (with CCC approval); Europe (with IEC approval); North America (with UL/CSA approval); South Africa (with SABS approval)



Caution

The Power Adapter must work with an appropriate Power Cord.

### Power Cable

The Power Cable allows you to connect the Power Adapter to AC power socket.

### Car Charger

The Car Charger allows you to connect to the terminal where you can charge the battery via in-vehicle cigarette lighter whilst driving. It also allows the terminal to operate even the battery has run out.

- Input: DC12V
- Output: DC12V

### RS232 Cable

The RS232 Cable allows you to connect the terminal to PC for download or upload program from / to PC. It also allows you to connect the terminal to accessories or peripherals.

### USB Cable

The USB Cable allows you to connect the terminal to PC for download or upload program from / to PC. It also allows you to connect the terminal to accessories or peripherals.

## Handsfree

The Handsfree allow you to connect to the Positron Terminal for voice communications.

- 3 poles jack
- sensitivity: -40dB

## Thermal Paper

A custom-made Thermal Paper is designed for Positron thermal printer. The Paper Roll should be of a size equal to or smaller than 57mm in length and 38mm in diameter.



Caution

For best printing quality, please use Thermal Paper provided by M.POS.

## Wall Mount

The Wall Mount allows you to fix the Positron terminal to wall.

## Privacy Shield

The Privacy Shield provides additional security to protect customers' privacy during banking transaction when they enter the PIN information.

## 6. Troubleshooting

### 6.1 General

The terminal does not start or nothing is shown on LCD

- Check whether the battery is placed properly in the terminal.
- Ensure the battery is charged (see “4.3 Charging the battery”)
- Battery maybe in low capacity. Plug in AC Adapter to see whether it works.
- Check the power supply connection.

No response from the terminal

- Remove the battery and disconnect the AC Power Supply (if any) from the terminal, then reinstall the battery again.

Continuous beep sound

- Keypad is stuck. Try to press each button to release the keypad again.

The battery can only be used for a short period after charged

- Battery may suffer degradation through usage. Overcharge will shorten the battery's life. (see “4.3 Charging the battery”)

### 6.2 Modem

Cannot connect with GPRS (or GSM etc) network / Failing in GPRS initialization

- Check if SIM card has been inserted properly into the SIM slot

### 6.3 Printer

The printer does not work

- Ensure a paper roll is loaded in the terminal.
- Open and close the printer cover again tightly.

No printout is shown on receipt

- Check whether the thermal paper is placed properly. (see “3. Procedure for Loading of Thermal Paper”)

Printing speed is slow

- Check the battery level.

Printing quality is poor

- Check the battery level.
- Ensure the thermal paper is in good quality. Poor quality and expired thermal paper will affect the printing quality.

Printing paper jam

- Reload the printing paper as proper procedure (see “3. Procedure for Loading of Thermal Paper”)

Noisy during printing

- Open and close the printer cover properly again.

## 7. Care and maintenance



Caution

The suggestions below will help you to protect your warranty coverage.

- Keep the terminal dry. Precipitation, humidity and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your terminal does get wet, remove the battery and allow the terminal to dry completely before replacing it.
- Do not use or store the terminal in dusty, dirty areas. Its moving parts and electronic components can be damaged.
- Do not store the terminal in hot areas. High temperatures can shorten the life of terminals, damage batteries, and warp or melt certain plastics.
- Do not store the terminal in cold areas. When the terminal returns to its normal temperature, moisture can form inside the terminal and damage electronic circuit boards.
- Do not attempt to open the terminal.
- Do not drop, knock, or shake the terminal. Tough handling can bread internal circuit boards and fine mechanics.

## 8. FCC Compliance Statement

This device has been tested, and complies with Part 15 of the FCC Rules. This device is designed to provide reasonable protection against harmful interference. This device generates, uses, and radiates radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur under an unusual installation. In the event of the occurrence of harmful interference to radio or television reception, such harmful interference can be remedied by turning the device off and on, user is encouraged to remedy the harmful interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the distance between the device and receiver
- Connect the device 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 assistance.

FCC Warning:

Warranty to device shall no longer be applicable in case of user changing or modifying the device not expressly approved by Golden Port Technology Limited.

## **Warning**

### **FCC RF Exposure Information and Statement:**

The SAR limit of USA (FCC) is 1.6 W/Kg averaged over one gram of tissue. This product, model number: POSITRON (FCC ID: XOYPOSITRON) has been tested against FCC SAR limit. The highest SAR value reported under this standard during product certification for use when properly worn on the body is 1.08 W/Kg. The device was tested for typical body-worn operations with the back of the device keeping 1.5 cm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 1.5 cm separation distance between the user body and the back of the device. The use of belt clips, holders and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



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