

Android Multi-function Intelligent Terminal User Manual

T508AC



Chapter V Trouble removal

When product suffers troubles, users can voluntarily make some simple examinations to the machine. If simple examinations cannot still solve questions, please don't voluntarily dismount the machine. After recording the bar code and model number on machine body in the product and filling in warranty card, users should contact with local agents or the customer service personnel.

Trouble	Examination	Simple solution
Failing to start the machine up	Whether the power line is connected well	To examine the external power supply and power line
	Whether the base power is connected well with host	Whether the base power is connected well with host
Failing to log in the system/suffering computer crash	External equipment with problems possibly causes influence to the host or software BUG reduces system into drop-dead halt	To disconnect all the peripheral equipments and attempt to make the product for independent operation with the purpose of excluding interference from peripheral equipments before restarting the machine
Messy code in printer or failing to print	To check whether the COM interface parameters in system setting are appropriate or not with comparison in application software	To compare the instructions and reset customer display parameters or to adjust the product output COM interface parameters: 115200.
Mini USB line Interface computer no response	Mini USB Line connection machine and computer	Check the line. The best desktop computer connected to the back of the U port
	Check the power module is closed	Power off the module
	The USB driver is installed already	Install 360 or pea pods to the computer, connect the device, install the driver

Chapter VI Statements

In terms of warranty/after service or when clients encounter unsolvable quality problems, please don't voluntarily dismount the machine, so as to avoid causing more serious problems before contacting with local agents or the customer service personnel for solutions. Our company reserves the final interpretation power for product appearance and function, and the company is also entitled to update and change products.

Chapter VII Product maintenance and warranty

In terms of all clients who have purchased T508AC multifunctional intelligent terminal product from our company within a year after the company delivers the product, the machine damage or trouble caused by manufacture or component quality belong to the warranty category affirmed by this company, with the detailed warranty period as follows:

Warranty period for the host machine: one year;

Warranty or maintenance methods:

When maintenance is needed to solve troubles occurring in users' products, users can contact with agents or the customer service personnel in our company for maintenance operation.

When contacting with the customer service personnel in our company, you can firstly dial the service hot-line telephone in our company to report situations to customer service engineers there and then these engineers put forward solutions before deciding whether it is necessary to mail the products to the company for maintenance.

Please contact with our company to handle these problems according to the contact information provided by the company.

Chapter VIII Matters needing attention about warranty

Maintenance time

Maintenance time covers three parts: time to take delivery, maintenance time and transportation time for products being delivered back to clients.

Time to take delivery: it refers to the time it takes for our company to take delivery of goods after the products from clients needing maintenance are delivered to Guangzhou; according to different delivery methods taken by clients, it usually lasts for 1 to 3 days.

Maintenance time: it is no more than 5 workdays.

Transportation time for products being delivered back to clients: it depends on the method of delivering products back to clients as well as the distance from clients.

Charging standards

If product exceeds warranty period, the company will charge maintenance costs.

In terms of troubles caused by such human factors from clients as improper uses or voluntary dismounting for maintenance, the company will charge maintenance costs.

Except the above two situations, the company won't charge maintenance costs.

Maintenance cost is only charged for the basic fees in replacing components.

Means and fees for delivering products back to customers after (product) maintenance

Means for delivering products back to clients after maintenance: in terms of 1 to 2 machines, to deliver them with express; in terms of 3 and more, to deliver them with postal express, China Railway Express or bus transportation (transporting expenses of the above means are paid by our company).

Note: if clients require taking special means, the excessive fees are paid by clients.

Chapter VIII Appendix

Warranty Card

Model		Device No.	
User	Name of organization:		
	Name of contact:		
	Phone No.:		
	Address:		
	Postal code:		
Warranty period	Starting from purchase date:		
Maintenance record			
Maintenance record			
Maintenance record			

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Preface

I express sincere thanks to you for using T508AC terminal product developed by our company!

As the intelligent terminal device to support Android system, T508AC terminal product is a kind of intelligent terminal device to integrate such functions as various cards (magnetic card, contact-type IC card, contactless IC card and PSAM card), camera (supporting two-dimensional code identification), fingerprint encryption, 58MM thermal printing technology, standby battery and transmission technology (LAN network,).

As this manual makes detailed descriptions about such contents in T508AC intelligent terminal product as various functional characteristics, operation methods, precautions for use and product maintenance, please carefully read through this handbook before using this product, so as to ensure your proper usage and high work efficiency; in the meanwhile, please pay attention to properly keeping this manual for future consultation and reference.

Suitable models for this manual: T508AC series products

To dear users:

If you happen to have any question or good opinions and suggestions in the process of using our product, please make feedback about them to our company. Thanks very much for that kindness!

Safety precautions

Firstly, thank you very much for using T508AC terminal product. Before using this product for the first time, please carefully read the following safety precautions:



Dangerous!

This symbol signifies that: if users neglect the specified requirements or use this product improperly, there is a danger for causing fatal death or severe damage.



Warning!

This symbol signifies that: if users neglect the specified requirements or use this product improperly, there is a possibility for causing fatal death or severe damage.



Be Careful!

This symbol signifies that: if users neglect the specified requirements or use this product improperly, there is a possibility for causing personal injuries or property losses.



Dangerous!

Lithium ion battery

- ◆ Be sure not to get this battery wet for water can possibly engender the danger of battery releasing heat, exploding and catching fire;
- ◆ Be sure not to use or place this battery near open fire or close to other places exposed to high temperature;
- ◆ Be sure not to use the battery for other devices except this one; otherwise, this may engender the danger of battery releasing heat, exploding and catching fire;
- ◆ Be sure not to misplace the positive (+) and negative (-) electrode of battery when putting it into equipment or charging it; otherwise, this may engender the danger of battery releasing heat, exploding and catching fire;
- ◆ Be sure not to make incineration disposal towards used batteries or heat them up; otherwise, this may engender the danger of battery releasing heat, exploding and catching fire;
- ◆ Be sure not to connect the positive and negative poles of battery together inside the recharger or instrument;
- ◆ Be sure not to transport or store the battery with such articles as hairpin and necklace; otherwise, this may cause short circuit between positive and negative poles of battery, hence engendering the danger of battery releasing heat, exploding and catching fire. When transporting and storing it, please put the battery into a box.
- ◆ Be sure not to beat, strike or to pierce the battery with nails or other edged tools; otherwise, this may engender the danger of battery releasing heat, exploding and catching fire;
- ◆ Be sure not to disassemble and directly weld the battery or refit it by any means; otherwise, this may engender the danger of battery releasing heat, exploding and catching fire;
- ◆ This battery can only be charged with the specified recharger; if other rechargers are used, it may engender the danger of battery releasing heat, exploding and catching fire;



Warning!

Dismounting and refitting

- ◆ Be sure not to attempt to dismount or refit the battery by any means for the high voltage inside it may cause electric shock hazard;

Internal components and parts

- ◆ Be sure not to touch internal high-voltage components or parts; otherwise this may cause electric shock hazard;

Abnormal conditions

- ◆ If the desktop payment terminal emits heat or begins to smoke with peculiar smell; then users should instantly turn the power off and contact with the dealer as soon as possible. If continuing to use it, users will possibly face the hazard of catching fire or electric shock.

Foreign matters

- ◆ If foreign matters enter the desktop payment terminal, users should instantly turn the power supply off and contact with the dealer as soon as possible. If continuing to use it, users will possibly face the hazard of catching fire or electric shock.

Dropout and damage

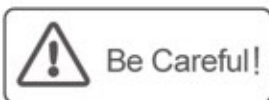
- ◆ If the desktop payment terminal suffers dropout or damage, users should instantly turn off the power and contact with the dealer as soon as possible. If continuing to use it, users will possibly face the hazard of catching fire or electric shock.

Humidity

- ◆ The desktop payment terminal should be kept far from vase, flowerpot, tea china, glass and other water containers as well as metal for it may cause the hazard of catching fire or electric shock if water and metal enter this payment terminal.

Lithium ion battery

- ◆ Be sure not to put the battery in microwave oven or pressure cookers; otherwise, this may cause battery to release heat, explode or burn;
- ◆ Be sure not to use batteries with peculiar smell, overheating temperature, abnormal colors or shapes; otherwise, this may cause the battery to release heat, explode or burn;
- ◆ After normal charging, the battery can only be used for a short time and at that time please instantly stop using it. If users continue to charge it when abnormality happens, the battery may explode or burn;
- ◆ If the battery leaks liquid or engenders peculiar smell, users should instantly remove it from neighboring heat source or fire source for high heat can cause battery to explode or burn;
- ◆ If the liquid exuding from the battery accidentally enters eyes, there is a danger for blindness; at that time, users should not rub the eyes; instead, they should instantly washing them with clean tap water before seeing doctors.



Foreign matters

- ◆ Pay attention to guaranteeing that there are no metal or inflammable particles entering the opening of desktop payment terminal for these foreign matters may cause the hazard of catching fire or electric shock;

Location

- ◆ Be sure not to put the desktop payment terminal on unstable or uneven surface; otherwise, this may engender the danger of falling off, thus causing casualties;
- ◆ Be sure not to put it in places with huge humidity and much dust;
- ◆ Be sure not to place it inside the automobile under direct sunlight for a long time.

Liquid crystal display/displayer (LCD)

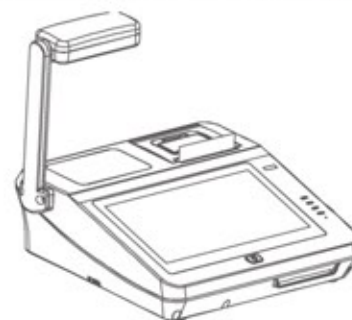
- ◆ Be sure not to impose too much pressure on LCD or make it suffer powerful impact; otherwise, it may make LCD splinter, hence causing injuries;
- ◆ If LCD splinters, be sure not to touch the liquid inside; otherwise, this may cause skin irritation or cause inflammation.
If the liquid from LCD panel accidentally enters the mouth, users should immediately rinse it and then see doctors;
If the liquid accidentally rubs off on eyes or skin, please instantly wash the part with clean tap water for 15 minutes before seeing doctors.

<Caution>: in terms of those people who don't follow the above suggestions or improperly use the desktop payment terminal and in light of any consequences caused by ineligible maintenance personnel or by those people who use repairable parts not provided and specified by this company for maintenance, the company is not legally duty-bound to undertake any responsibility.

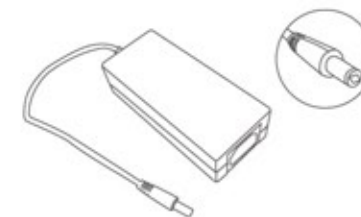
※If there are any changes in manual content, there are no prior notices.※

Chapter I Unpacking list

1. When unpacking the packaging box, please check and affirm whether the following parts are complete. If there are missing or damaged parts, please contact with the supplier.



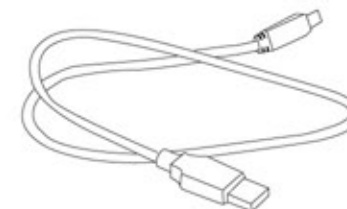
one Terminal host



one Power adapter



one Power line



one Data communication cable



one Light disk(With the manual and warranty card)



one 58 MM printer paper



one camera frame (optional)

2. The instruction of camera frame installation.

Open the package, if the machine has the feature of taking picture with the camera frame, we can see the camera , just as shown in the figure 1. What we need to do is that fix the frame on its interface. just as shown in the figure 2

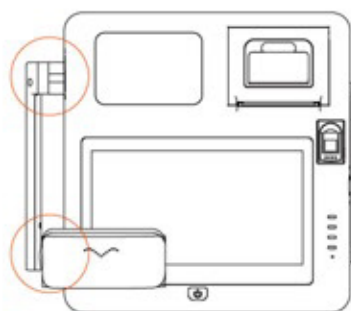


Figure 1

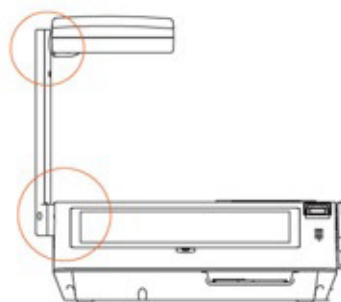


Figure 2

3. The instruction of Built-in camera

When the identity card info need to be recognised, the inside-bowl camera need to be chosen, beside the component box.As shown in the figure 3:

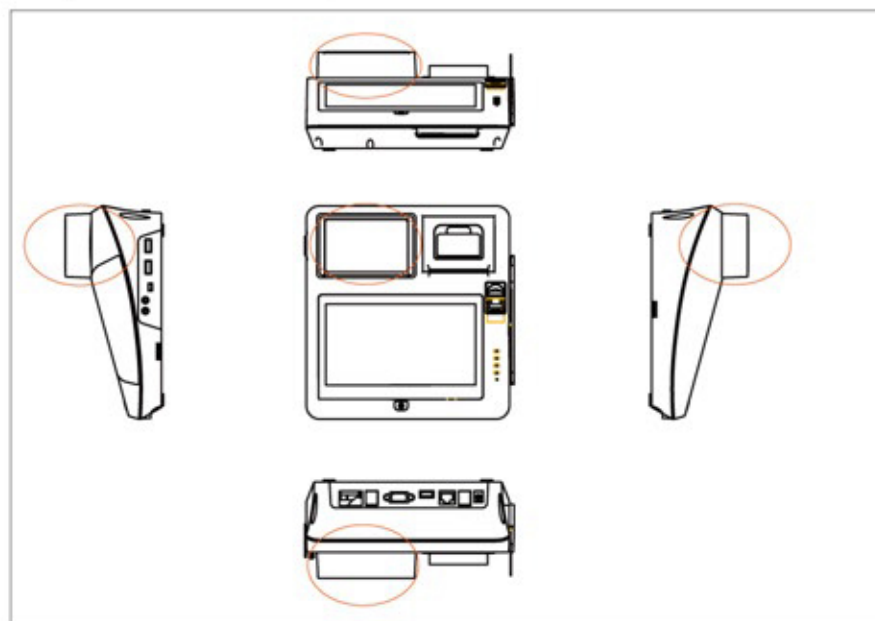
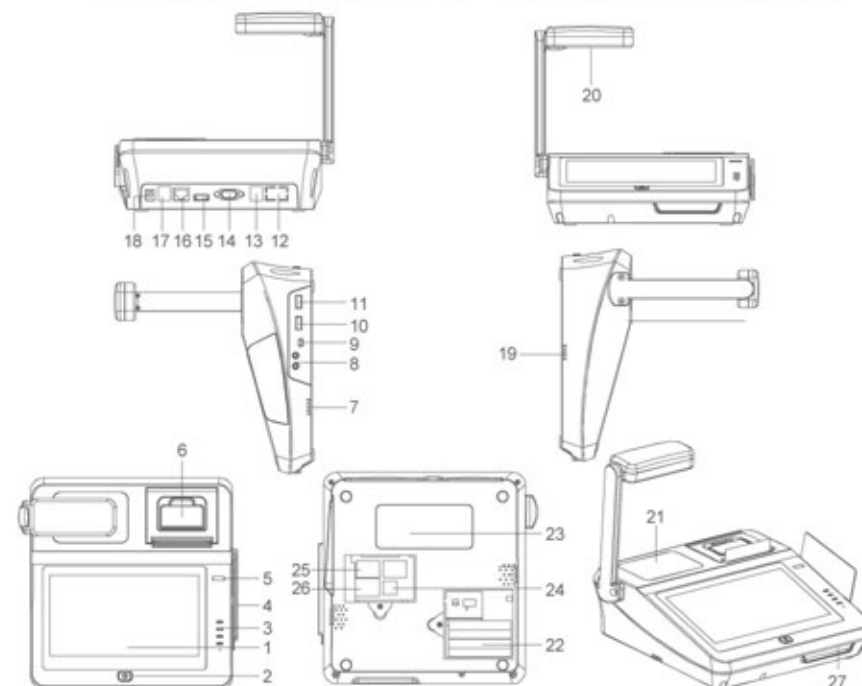


Figure 3

Chapter II Names of each product part



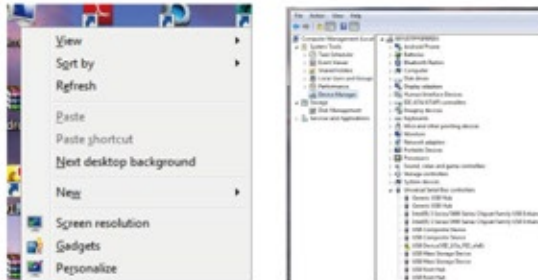
1. LCD	9.7-inch TFT LCD (optional configuration);
2. Switch button	Switch button;
3. Indicator light	Print indicator light;
4. MSR	To support high and low resistance cards; three-orbit data reading (optional configuration);
5. Fingerprint identification	The communicate interface is UART(TTL). Capacitance type: The specific software need to be used so that such a type can be implemented.
6. Printer	58mm thermal printer;
7. Loudspeaker	Loudspeaker;
8. Earphone and microphone sockets	Earphone and microphone sockets;
9. MINI USB	MINI and USB interface;
10. USB1	USB interface;
11. USB2	USB interface;
12. Standby interface	To be defined (TBD);
13. Code keyboard interface	Code keyboard interface;
14. COM interface	COM interface;
15. HDMI High-definition interface	HDMI High-definition interface;
16. LAN network interface	LAN network interface;
17. Cashbox interface	Cashbox interface;
18. DC power connector	With external connection to 12V/5A DC power;
19. Loudspeaker	Loudspeaker;
20. Camera	5-million-pixel camera with laser positioning function;
21. NFC reader or The second-generation identity card certification reader or GPS or Built-in camera	optional function, please confirm the machine in advance itself whether contain these parts or not.
22. Update button plus battery compartment	One update button and beside it are a battery socket and a battery compartment;
23. Label	Label and packaging sticker;
24. TF card slot	TF card slot, with the maximum capacity to support 32GB TF card;
25. PSAM 2 card slot	PSAM 2 card slot.
26. PSAM 1 card slot	PSAM 1 card slot;
27. contact-type IC card	It supports reading and writing the intelligent card

Chapter III Driver Installation Instructions

T508AC driver has "offline Driver Installation" and "Online Driver Installation" two kinds of ways. If you can not access your personal PC Ethernet, you can choose to manually "offline Driver Installation" mode. If your personal PC can access the Ethernet, you can select the "off-line drive to install" or "Online Driver Installation" mode.

OK, we first introduce the "offline drive installed" Tutorial:

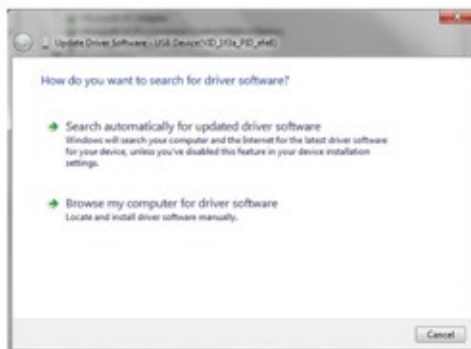
1. Please connect the computer via a USB
2. Click on Properties Enter Device Manager cable and T508AC. Right-click on My Computer



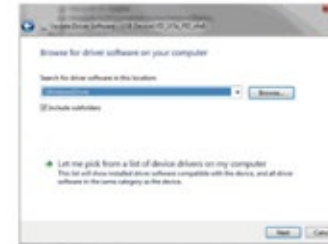
3. Click the yellow dot icon ,Select Update Driver



4. Select Browse my computer for driver software



5. Click Browse, select the CD-ROM in the usb_driver folder, click Next to begin the installation.



6. Installation is complete

Online Driver Installation" of using the tutorial:
Installation:

1. Double click



SnapPee-snappea.exe

2. Prompt a dialog box ,select Install.



3. Prompt a box which display that the program is installing.

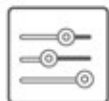


4. Once installed, Prompt a dialog box ,select Finish.



Data transmission

1. Connect T508AC to computer through the OTG interface.
2. To select the "Setting" option in application interface;



Settings

3. To select the option of "Mobile Networks" in the expanding directory of the "More";



4. Remove "✓" of the Modem power in the expanding directory.



5. Select Setting — {}Developer options, click 【USB debugging】 on the right box; selecting the item "USB debugging",



6. Open SnapPea, and T508AC will connect to the computer automatically.



7. We can install ,uninstall and export the apps ,we can also move them to SD card.

Chapter IV Matters needing attention about product usage

4.1. General description about product usage

As the start-up mode is to press switch button for 3 seconds, T508AC terminal product carries Android 4.1 and operating system above that, and it also supports a huge number of applications in Android platform. Therefore, you can be good at playing this product as you do with other Android flat products. However, we make the following suggestions to you when you use this product:

- ◆ Please select applications facing flat panel. If it is an application facing mobile phone, the whole display frame will reverse 90°, which is a phenomenon caused by length-width ratio definition in application, hence engendering inconvenience to your usage;
- ◆ This product doesn't carry the gravity sensor and gyroscope; therefore, various applications needing gravity sensor and gyroscope cannot be normally operated (in terms of such games as Temple Run);
- ◆ The requirement for TF card in this product is the same to that in ordinary flat panels. As the file system is FAT32, please format your TF card into FAT32 before using it.
- ◆ When the system installs software, the product needs typing in password, with the out-of-factory password being "888888". Moreover, clients can change the password and the software to do this is "ChangePass", which has been installed in the system;
- ◆ When you use the inner UPS to drive the machine. There is a wrong electric reading. The reading is not representative for the actual quantity of electricity. But such a situation has not any effect on the machine use.
- ◆ If you use the inner UPS to drive the machine. In the case of the UPS is a state of low power, it will cause two problems of breezing printing effect and the machine maybe power off automatically. Once you meet such a situation. The external electricity adapter need to be used to avoid it.
- ◆ When you use Google store function, limitation of APK installed on this machine function will fail, this belongs to normal phenomenon.

The way to power off the machine is: press the button under the touch screen for a little long time (about 3 seconds) until the message box pop up, and then press the button "OK", then the machine will execute the process of powering off, and finally the machine will be powered off successfully!

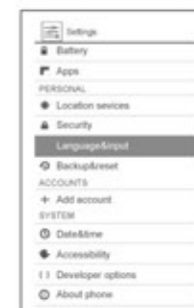
If you are foreign users, you need to use other languages except Chinese as your system language, and please make this setting according to the following steps:

1. To select the "Setting" option in application interface;

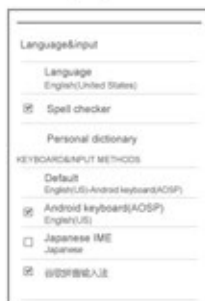


Settings

2. To select the option of "Language and Input Method" in the expanding directory;



3. To continue selecting the first item of "Language" from the expanding directory;



4. Here, you can select that language as your system language:



The Android system loaded in our product possesses a complete language package, and you can slide up and down the mouse to select the system language you need according to the interfaces shown in the above figures, in terms of languages such as American English, Japanese and French.

4.2. Printing description

JP762AC terminal carries its own 58mm printer which use the UART (TTL) serial port to transfer the data with the core board, and it supports such regular functions in printer as Unicode Arabic and Persian character set (which is subject to order requirements), ASCII code, double height and width, concentration adjustment and point diagram printing. As the printer head is produced by Seiko, its quality is assured.

Brief functional parameters of that printer are listed as follows:

- ◆ Printing speed of printing module is 60mm/s;
- ◆ Service life of printer head is more than 50 kilometers;
- ◆ Unicode Arabic and Persian character set;
- ◆ To support point diagram and LOGO printing;
- ◆ To support font, double height and width, chart, line spacing, concentration, Baud rate and adjustment of line spacing;
- ◆ To support customization of foreign language characters (to customize foreign language character set according to the need);
- ◆ To support that the printing paper is as wide as 58mm and the maximum diameter of paper scroll is 60mm.

4.3. Camera description

JP762AC terminal product is equipped with 5-million pixel autofocus camera as well as laser head for positioning shoot, which is convenient to scan 2-dimensional code.

There are two kinds of camera for choosing, one is the camera on the frame, and another one is camera inside-bowl the machine.

Camera on the frame.

For the safety reason, the customer need to put the frame in the position 90 degree with the machine main body while using the machine.

Camera inside-bowl

It can be used to both QR_Code and barcode recognize with OCR Tech

- ◆ Use the inside camera to get the data of barcode and QR_Code with the corresponding apk.
- ◆ Base on the inside-bowl structure, and with OCR tech. Put the Identity card on the corresponding position and fix it in the slot of cover. It can get the data like person ID, address, and name info from the Identity card.

Note: as camera function is optional function, please check whether there is such function in the machine;

4.4. LCD description

Display space

- ◆ LCD is 7-inch TFT LCD screen, and its resolution is 1024*600, which is convenient for display.

Character type

- ◆ Letter characters, digits, symbols, Chinese characters and other foreign characters.

4.5 Capacitive touch screen description

Touch screen

- ◆ The touch screen is 7-inch multiple-point capacitive touch screen and it can simultaneously support 5-point touch control, which is convenient for operation;

4.6. Description about battery system, real-time clock and PSAM/SIM card description

Battery system

- ◆ The data collector employs 2,200mAh 7.4V lithium ion battery, which can be charged for cyclic use;

Removable battery

- ◆ The battery separation blade can be removed by loosening its screws and then the battery can be changed in this way.

Built-in clock

- ◆ This device possesses the function of built-in clock and it also has battery protection. When the main power source has no power, it can independently operate.

PSAM card installation

- ◆ there are 2 PSAM card slots for security encryption/important data storage, another one TF card slot for installing TF card, with the maximum capacity being 32GB.

Note: the battery, PSAM card function belong to optional modules; therefore, please check whether the machine possesses that configuration.

4.7. Terminal data communication description

The terminal makes data transmission with the outside world through wires.

- ◆ RS-232 interface: the terminal devices make data transmission with the outside world through communication interface (standard RS-232);
- ◆ USB interface: it is connected to other equipments in the machine;
- ◆ LAN network interface: it is connected with network cable.

The terminal connects with the far-end data center collector for installing wireless channel module through wireless channel and it supports the connection with far-end data center to realize the function of remote real-time transmission.

employ built-in antennae, whose sensitivity and signal gain are both better.

- ◆ WIFI network: to connect with external data channel.

4.8. Contacted IC card description

The reading and writing of IC card are supported by the reader

- ◆ It supports to read and write these cards whose standard meet ISO 7816 A, B, C (5V, 3.3V and 1.8V);
- ◆ It supports read and write these kinds of CPU IC card whose communication protocol t=0/t=1 and some other memory card;
- ◆ Built-in data encryption options: triple DES, advanced security features;
- ◆ It supports recognize these type of IC card like:
AT24C01A/24C02/24C04/24C08/24C16/AT24C64, SLE4432/4442, SLE4418/4428, ISSI 24C01A/16, ISO7816-(1-4) (T=1, T=0);
- ◆ It supports short-circuit protection.

Note: Please confirm in advance if the part is selected or not in the order.

4.9. Instruction for NFC reader

NFC reader support contactless cards and all 4 NFC tags and the correlation function of the realization of NFC mobile phone

- ◆ To support ISO 14443A, ISO14443B, Mifare, Felica cards and 4 NFC tags;
- ◆ To support NFC reader types;
- ◆ The distance of reading Intelligent card can reach more than 3cm.

Note: Please confirm in advance if the part is selected or not in the order.

4.10. The instruction of China second-generation identity card verification reader

JP762AC support China second-generation identity card verification reader.

- ◆ The information read/write of second generation id card is supported by the verification read.
- ◆ The information read/write of ISO14443B contact-less IC card is supported by the verification read;
- ◆ The recognition distance of read/write is between 1cm and 3cm;

Note: Please making sure the verification reader part is chosen in the order list.

4.11. Fingerprint identification description

It is a intelligent part which the DSP processor acted as its core and combine with the optical fingerprint sensor. The finger data record/image-processing/fingerprint comparison/ search and store template are all supported by it.

- ◆ VCC :5.0V;
- ◆ Resolution: 256*288pixel ,500DPI;
- ◆ FAR: <0.001%;
- ◆ FRR: <0.005% ;

Note: Please confirm in advance if the part is selected or not in the order.

4.12. MSR module description

The MSR reader supports recognize these cards with high/low resistance; with a three-track data reading track (optional configuration)

- ◆ Reading track: track one, track two, track three, and all the three-track;
- ◆ Read output: 28±25%mvpp;
- ◆ Insulation Resistance: 50M ohm Min;

Note: Please confirm in advance if the part is selected or not in the order.

4.13. Instruction of OS reinstalling(brushing the machine)

The OS of JP762AC can be reinstalled(brushed) by customers themselves.

- ◆ Open the battery cover with tool. There is a switch on the circuit board, push the switch to the 'boot' side, connect the machine to the pc with its MINI-USB line, after all the setting include the driver installed and switch prepared, the next step of OS reinstalling(brushing) can be processed.
- ◆ Once the os reinstalled(brushed), we need to push the switch to its original side, so that we can power the machine on;

Warning:

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.

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.

NOTE: This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter

RF Exposure Statement

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20cm the radiator your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter