



ST308

Mobile IPDA

User Manual

V1.0

mobilatorTM.pl

Brief Introduction

First and foremost, thanks for buying Senter brand ST308.

This user manual includes module introduction, maintenance, wiring and operation as well as the solutions to module problems. In order to guarantee the proper operation of ST308, please read this manual in detail before using; keep the manual in a safe and convenient place for quick response when problems appear.

Note:

- Ø Due to the continuous improvement and refinement of the tester, please kindly forgive us not to inform you of the modified manual.
- Ø Guaranteeing the accuracy, we will try to update the manual. If you find any mistakes, please inform us via the contact information in the back cover.
- Ø Without permission from Senter in writing, it is forbidden to copy all or part of the manual.

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Chapter I

Summary and System Structure

1. Summary

ST308 Mobile iPDA is portable and digital data acquisition equipment with the functions of 1D /2D bar-code scanning, RFID label, GPS positioning and PDA mobile. It can be widely used in the area of fashion industrial, industrial manufacturing, logistics management, assets management and routing inspection, etc.

ST308 MOBILE IPDA has the wireless voice and communication module, which can logon internet through wireless network, and help you finish the work more quickly. According to different module, user can acquire the information of 1D bar-code, 2D bar-code, and RFID information, and at the same time, transfer the information through LAN, GPRS, 3G, WIFI, Bluetooth, and such wireless more quickly and efficiently. This portable, one hand operation ST308 can be used under any environment; it can help simplify the working process, improve working efficiency, and reduce the business operating cost.

ST308 adopts 480*800 TFT IPS true color LCD resistive touch screen, and embedded with Android 4.1.2 JB

operating system. With the features of user friendly, easy to operation, visual scanning and recognizing result, it can meet your different needs, and transfer the data at real time, as well as improve your working efficiency. It is really your powerful working assist.

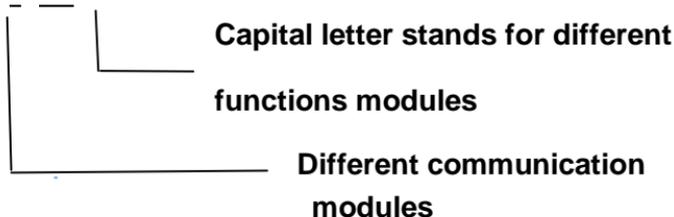
2. Checking the Package

Please open the packing box to make sure the accessories are correct before operation. Once there are some incorrect items or any need of optional accessories, please contact with us.

Essential Components:

According to the following table, please check the model name and suffix code of the name plate on the back of the ST308.

Model ST308 * - ***



Communication Module	E	EVDO/CDMA
	W	WCDMA/GSM

Function modules of ST308:

Function module	Module code	Module classification
Bar code	R	1D infrared bar code scanner module
	J	1D laser bar code scanner module
	2	2D bar code scanner module
RFID	L	Low frequency 125khz RFID Module
	H	High frequency 13.56Mhz RFID module
	U	Ultrahigh frequency 900Mhz RFID module
GPS	G	GPS positioning module

For example, ST308E-RHG: EVDO module, has the functions of 1D infrared bar code scanner, High frequency 13.56Mhz RFID, GPS positioning modules.

Standard Accessories:

Please make sure all the following accessories are in good condition:



Charger



USB Line



Touch Pen



User Manual



Carrying Bag



Earphone

Other optional Accessories:

(Users can choose according to different modules.)



Touch Pen Rope



Belt

3. Safety Warning and Attentions

In order to use the tester safely and efficiently, please read the following information before using.

- Ø Please use the tester according to the rules when you in the hospital.
- Ø Please keep far away from the precision instrument
- Ø Do not use chemical solvent to clean the equipment.
- Ø Do not throw away the waste battery. Put it into the battery recycling bins.

- Ø Please do not use or store the equipment as well as its accessories under the environment of high temperature, low temperature, high humidity or dust.
- Ø Please put the equipment and its battery in a safety place and avoid strong shake and impact.
- Ø When use the equipment for the first time, please charge the battery completely.
- Ø Don't disassemble the equipment by yourself. If you need, please go to the appointed professional organization to mend it.
- Ø Please put the equipment and its accessories in the place out of children's reach.
- Ø Please take care of the UIM card and avoid static, scratch, as well as bending.
- Ø Please use the original accessories of the product.
- Ø Please use the standard battery, charger and other accessories. We will not be responsible for anything if you use the accessories from the third party.
- Ø Same as other mobile equipment, with built-in antenna on the bottom of the product, there is some radiation and interface of this product. If you want to operate the product in light-hearted, as well as take of your personal safety, any part of your body do not too close to the antenna.
- Ø Please use the equipment within network coverage range.
- Ø The LCD display effect will change a little in the temperature severely-changed and long-time conversation environment.

4. General Operation Standards and

Attentions

4.1. Operation Standards

Ø Test Interface

Please firstly connect the test cord to test interface and then connect to the test line. Please don't touch the metal parts of clamps to avoid the high dangerous voltage.

Ø USB port

Please do not short the port with metal; otherwise the internal circuit will be damaged.

Ø Cleaning

The shell of this instrument is mainly made of plastic, when cleaning, use dry and soft cloth, and do not use volatile chemicals, otherwise, it will cause discoloring and deformation.

Ø Protecting the case and operating panel

Do not pour volatile agents on the case or operation panel, and avoid prolonged contacting with rubber and PVC; otherwise, it may result malfunctioning.

Ø When moving the instrument

Please make sure the power cord and connection cables are removed before shift the instrument. And unplug all the connecting cables from socket after using.

Ø When the instrument is unused for a long time

If the instrument is unused for a long time, the battery

characteristics may have deteriorated. And it will also take a longer time to charge. If it take a very short time to charge and the operating time is extremely short, please replace the battery.

Ø **Faults**

If there are strange sound, smell, or smock coming from the instrument, please turn off the instrument and unplug of the power, and then contact with us immediately.

4.2. Attentions

Ø Please charge the battery full when using it for the first time as well as each time.

Ø Please use touch pen and click the screen gently to operate function keys, do not click it roughly, otherwise, the LCD may be damaged.

Ø If there is any abnormal phenomenon during the process of operating, please turn off and restart it.

Ø Please don't put the instrument under the strong direct sunlight or put it near the origin of heat. Or else, there will be bad effect to internal circuit as well as the shell.

Ø Condensation may occur if the instrument is moved to another place where the temperature is higher or the room temperature change rapidly. In such situation, let the instrument adjust to the new environment for at least one hour before using the instrument.

Ø Using the instrument near strong magnetic field sources will have adverse affects on the internal circuit of the instrument. That because the electromagnetic wave from the mobile may effect the normal identification. If you

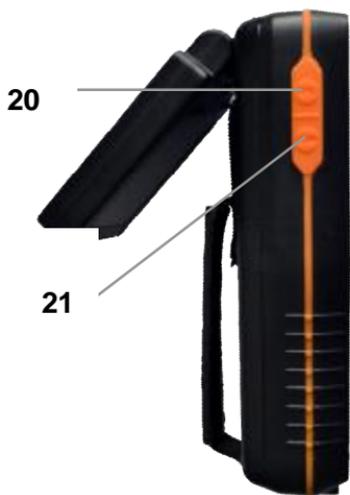
are using a portable phone to transmit measured data, move the portable phone at least 1m away from the instrument.

5. Structures and Functions

High Frequency Equipment Parts



Ultrahigh Frequency Equipment Parts



NO	Name	Functions
1	Scanning Head	Window of bar code scanning engine, which is used to scan the bar codes.
2	Ethernet port	The port to connect with Ethernet
3	Dust-proof cap of Ethernet port	Protect the Ethernet port from dust and water
4	Headphone Jack	Connect the headphone
5	USB Port	It is used to connect with PC or for charging
6	Indicator	It is used to indicate the conditions of the equipment
7	Receiver	Receiver of the equipment
8	Display screen	Display of the screen
9	Keyboard	Please refer to the following instructions for more details.
10	Reset	Reset operation
11	MIC	MIC Hole
12	Touch pen	Touch pen of the equipment
13	Fixed groove of the hand belt	It is used to fix the hand belt.
14	Hand Belt	It is used for holding the equipment.
15	Battery Cover	It is used to fix the battery

16	Battery Cover Screw	It is used for fix or loose the battery cover
17	Loudspeaker	Loudspeaker hole
18	Camera	Make a photo or video.
19	LED light	LED light also can be used as flashlight.
20	RFID side key	RFID hotkey
21	Scan side key	Scan hot key
22	Volume key	Adjust volume of phone call or the loud speaker.
23	Antenna	RFID Ultrahigh Antenna

Buttons:

Buttons	Name	Functions
	Power button	Under power-on state, shortly pressing the button can close or light the screen; long pressing the button can pop up an operating menu of "Device Options". Under power-on state, long pressing the button can close the tester.
	Return Button	Return back to the previous page.

	Main Screen Button	Pressing this button to return back to the main screen window.
	Menu Button	Under main screen interface and application program interface, pressing this button can pop up the operating menu.
	Light Button	It is used to open the flashlight.
	Camera Button	Long pressing the button to enter into camera interface, and shortly pressing enter into photo interface
	Hang up Button	When a call is coming, it can hang up the call.
	Dial/Answer Button	Dial or answer the phone; under standby condition, pressing this button to enter into call records.
	Delete Button	When input text, it is used to delete words before the cursor.
	Number Button	It is used to input the numbers.

	Bar Code Scan Button	Shortly pressing the button can start to scan the bar code.
	RFID Scan Button	Shortly pressing the button can start to scan the RFID label.
	Volume Adjust Button	Can adjust the volume for calling and louder speaker; up is louder and down is lower.

Indicator lights:

The meaning of the 4 indicator lights from left to right is as following:

Indicator light 1: Mobile phone light, indicating the mobile state, which have 3 glittering state.

- 1) Normal state: 0.5s on, 4.5s off
- 2) Incoming call state: 0.5s on, 0.5s off
- 3) Receive the message or missed call: 0.5s on, 1.5s

Indicator light 2: Unused

Indicator light 3: Unused

Indicator light 4: Unused

Standby shortcut icon is as following:



: Click to enter into main menu interface.

: Click to enter into dialing plate interface.

: Click to enter into message interface.

: Click to enter into browser interface.

: Click to enter into contacts

6. Instructions of Fixed Icon Display Area

	Display the current signal intensity of CDMA network and EVDO: the more column bar is, the better the signal intensity will be;  means there is no signal;  mean the 3G signal is strong.
	Display the current signal intensity under roaming

	condition: the more column bar is, the better the signal intensity will be; × means there is no signal.
	Means that there is unread multimedia message
	Means the signal intensity of the WLAN.
	Means Bluetooth function has been opened.
	Means uploading or downloading documents
	Means that there is unread short message.
	Means that there is unread short message.
	Means it is in the flight mode.
	Means the USB connection
	Means that the alarm clock has been set.
	Means that TF card has been inserted into the equipment.
	Means that TF card hasn't been inserted into the equipment.
	Means the current battery power. .
	Means the battery is charging
	Means it is on the phone
	Means there is missed call.
	Means it is using data service currently.
	Means it is under silent mode.
	Means the network card is open.
	Means the PPPoE link has been built.
	Means GPS is open.

7. Charging Battery Icon



: The battery is in low power and needs to charge.



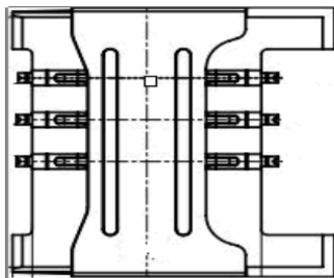
: The battery is charging and displays in motion.



: The battery has already been full.

8. Install TF Card

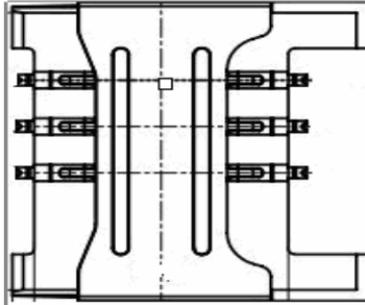
Open the battery cover, take down the battery, and insert the TF card into the slot, when there is a slight sound of clicks, the buckle will seize up the card automatically, and installation work is finished, please see the following:



Uninstall TF card: Push the TF card, when there is a slight sound of clicks, the card buckle has loosed, and the TF card will pop up automatically.

9. Install UIM/SIM Card

Open the battery cover, take down the battery, put the UIM/SIM card into the top slot, make sure the chip side down, and push it into the bottom of slot, as following:



Notice:

Insert CDMA/EVDO UIM card for EVDO edition; and the GSM/WCDMA SIM card for WCDMA, Please insert the corresponding card for different mode to keep the phone function.

10. Battery Usage

Install battery

Firstly, unscrewed the two screws, remove the battery cover;

Insert the battery and make the battery metal sheet well connected with the contact point, and then press the lower end of the battery.

When remove the battery, pull the scotch tape on the battery upward, the battery can be removed easily.

Then cover the battery cover and tighten the screw with corn or screwdriver at clockwise. The installation is finished. Please make sure the installation of battery is right before start the equipment.

- n Notice:** Please close the tester before removing the battery.
- n** Please follow the above procedures.
- n** Please tighten the screws for the battery cover, in case the battery fall out when the equipment is dropped.

Battery performance

The standby time will be affected by system environment, system setting, service test, taking photos and using data service.

Calling or opening a backlight will consume more power than standby and standby time will shorten.

The standby time of no service area will be short than the normal standby time.

The battery performance will change with the charging status, temperature, local network as well as the background light status.

	6000mAh(Standard Battery)
Standby Time*	About 600 hours
Talking Time*	About 9 hours

More accurate time will depend on the local network

status, using conditions and equipment card.

Charging:

Insert the charger into the charger port of the equipment.

Insert the charger into the power socket with 100~240V, 50/60Hz. When it is charging, the battery power icon on the screen will shine; after charging finished, the battery power icon on the screen will stop shining.

After charging finished, pull the charger out of the equipment and then pull the charger out of the power socket.

Charging time

If the AC voltage is very low, you should charge the battery in a long time.

The charging time is about 7~9 hours. (More accurate time will depend on the battery condition.)

The environment temperature of normally charging should be 0°C~40°C. Charging under below 0°C or above 40°C, the battery performance will descend and the battery life will shorten. When charging under too high or too low temperature for a long time, it will cause damage to the battery. For example, the battery can't charge fully and cause the battery inflation.

It will lengthen the charging time to use nonstandard charger.

It will also lengthen the charging time to operate the tester when charging.

Note:

- You should fully charge the tester before the first usage; please disconnect the charger in time after charging finished because the long-time charging will damage the battery performance.
- Please guarantee that the battery is inside of the tester.
- When it is not charging, please take the charger from the outlet.
- When it is charging in very low battery, the tester will not start immediately and will display low battery prompt if you do booting operation. After charging for a while, the tester will start normally.
- Charger is safety device, please use our specialized charger. Meanwhile, please be careful during the usage.

11. Main Specification of the Equipment

- Ø It adopts 480×800 TFT IPS true color touch screen
- Ø It adopts the built-in Android 4.1.2 JB operation system.
- Ø It supports CDMA 1x, EVDO Rev.A 800MHz/1900MHz; also supports voice and data service. (ST308E)
- Ø It supports WCDMA/HSDPA/HSUPA 850/1900/2100 MHz and GSM/GPRS EDGE 850/900/1800/1900MHz, supports voice and data service. (ST308W)
- Ø Rechargeable 3.7V 6000mAh polymer battery and the max power is 3W.
- Ø Can make a phone call in earphone and listen to music. (needs earphone)
- Ø Support 1D/2D infrared/laser bar code scan (optional)

- Ø Support HF RFID 13.56MHz
- Ø Support UHF RFID 840-960MHz (optional)
- Ø Camera with 5 million pixels and support auto focus and flash function.
- Ø Support flash light function
- Ø Dimension: 174*84*39mm
- Ø Weight: 430g, 605g(with UHF antenna)

Chapter II

Specifications and Functions

1. Technical Specifications

1.1 RF (radio frequency) Performance Index

ST308E

- Ø Frequency range: 800MHz/1900MHz
- Ø Maximum transmitting power of transmission:
23dBm-30dBm
- Ø Network type: EVDO Rev. A\CDMA 1X

ST308W

- Ø Frequency Range:
WCDMA/HSDPA/HSUPA 850/1900/2100MHz and
GSM/GPRS/EDGE 850/900/1800/1900MHz
- Ø Maximum transmitting power of transmission:
21dBm-24dBm
- Ø Network type:
WCDMA/HSDPA/HSUPA\GSM/GPRS/EDGE

1.2 RFID High Frequency Index(Optional)

- Ø Working frequency:13.56MHZ
- Ø Profile: Support ISO/IEC 15693, ISO/IEC 14443A profile,
- Ø Support Cards:SR176, SRIX4K(TYPE-B) , I- Code2, TI RFID Tag-it HF-I, EM4034, Mifare Classic ETC

- Ø Identification distance: 5cm

1.3 RFID Ultrahigh Frequency Index(Optional)

- Ø Working frequency:840-960MHZ(May custom-made according to different frequency range)
- Ø Profile: Support EPC C1 GEN2/ISO 18000-6C
- Ø Output power:10dBm-30dBm
- Ø Identification distance:80cm/200cm

1.4 1D Laser Scanner Index(Optional)

- Ø Light Source: visual laser diode
- Ø Identification ability:1D
- Ø Scanning speed: 104t/s±12t/s(two way scanning)
- Ø Scanning distance:2.5cm-114.3cm
- Ø Scanning angle:47±3° (default) /35±3°

1.5 1D Infrared Scanner Index (Optional)

- Ø Scanning mode: CCD
- Ø Optical resolution: 5mil
- Ø Scanning speed: 50times/second
- Ø Scanning distance: 5.7cm-61cm
- Ø Scanning angle: 53.3° ± 3°
- Ø Turning Angle from right to left: ±30°
- Ø Turning Angle from front to back: ±65°
- Ø Horizontal Angle: ±25°

1.6 2D Infrared Light Scanner Index (Optional)

- Ø Identification ability:1D,2D.OCR

- Ø Image sensor:752×480 CMOS
- Ø Scanning precision:≥ 5mil
- Ø Scanning angle: rotate 360°,incline±50°,deflection,±50°
- Ø Field of View: Horizontal 36°,vertical 23°
- Ø Depth of field: 4cm-23.5cm
- Ø Exercise tolerance ability: horizontal speed 12.7cm/s
- Ø Light intensity: LED 350LUX(13cm)
- Ø Environmental illuminance:0 ~100,000 LUX

2. General Functions

2.1. On/Off

Open the tester

Under the "off "condition and there is electricity in the battery, long press the power key to start the equipment.

Close the tester

Under standby interface and there is electricity in the battery, long press the power key to pop up an option menu and then choose "Power Off" to close the tester.

2.2. Standby and Wake up

Under the "on" condition, the system will enter into standby state or shortly press on/off key to enter into standby state. Under standby condition, shortly press on/off key to wake up the system. (The time entering into standby is relevant with the backlight time setting in setup options. If the setting is "Light Forever", the system will not standby automatically. But you still can realize the standby by

pressing on/off key.)

After waking up, the system will restore to the interface before the standby and the program will restore to the state before the standby.

2.3. Table Management

There are five default pages of the table screen and it can display different screens by sliding with finger.

Lock or Unlock

If there is no equipment operation, after some time the keypad will automatically locked. Press the power button to wake up the screen, click the lock icon, you can slide in different directions respectively, into different functional, as shown below



In main menu "Settings> Display> Sleep" can set time delay before the device sleep.

Add Desktop Icons

Click  to enter menu interface, find out the program which you want to create a desktop shortcut. Keep pressing the icon, when icon vibrate, you can move, and then drag the icon to where you want to let go on desktop (note please keep pressing the icon during the operate)

Delete the desktop icon

Keep pressing the desktop icon, after icon vibrate, the top of the screen appears "× Remove", move the icon to "× Remove" place, release after the icon turns red, the target can be deleted.

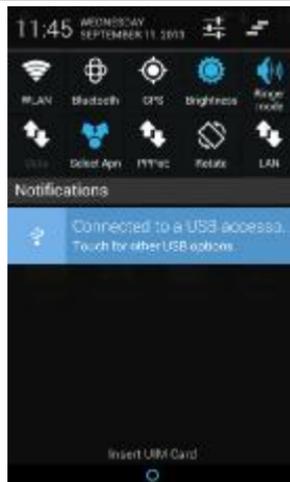
Change Wallpaper

Keep pressing the desktop space will pop up the following menu: Wallpaper, Live wallpaper and Gallery, you can also set a picture as wallpaper when you browse the pictures.

System prompt bar

System prompt bar (the top row of the screen) displays the current notification system (such as unread messages or missed calls, etc.).

Open the prompt bar: press the screen with a finger drag down the status bar.



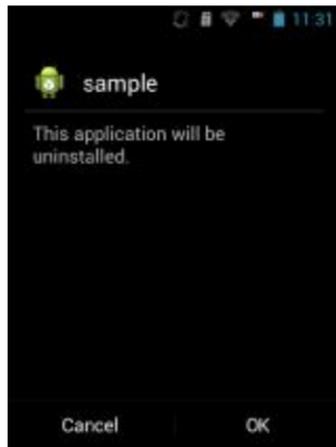
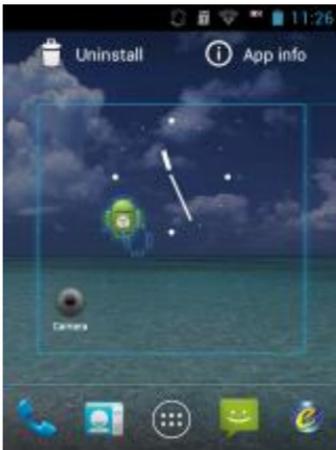
Add /Remove desktop plug

To add desktop clock and other desktop plug, you need to enter the menu, and then click on the widgets, Keep pressing the icon of plug-ins, plug-in icon vibrate, you can move, and then drag the icon to your plugin want placement can let go (note that during the operation to hold the plug-in icon do not put). As shown below:



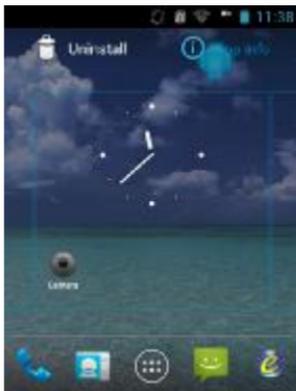
Quick Uninstall Installed Programs

Enter the menu screen, select the program icon you want to uninstall, keep pressing the icon, icons vibrate, you can move, move to the desktop uninstall icon will pop uninstall interface, click OK to start the uninstall program, and then click OK to uninstall complete.



View program information

Enter the menu screen, select the icon for the program you want to view, keep pressing the icon, icons vibrate, you can move, move to the desktop App info, the application will pop up the relevant information. As shown below:



2.4 Open / Close net card

To open the device's net card, pull down the prompt bar and click the LAN icon (the icon is blue card means turned on, the icon is white means closed), the system pop-up card properties window, as shown below:



Select Using LAN, you can choose to open DHCP or fixed IP mode, the DHCP mode, you can click again to

reacquire to make the device to obtain an IP address from a DHCP server. In the static IP status, you can modify the NIC's IP address, subnet mask, gateway, and DNS, DNS is divided into two, namely DNS1 and DNS2, should first set the DNS1.

2.5 PPPoE dial

To make the network port PPPoE dial, pull-down prompt bar, select PPPoE icon  (the icon is blue means PPPoE dial is connected, the icon is white means PPPoE dial not connected), PPPoE Properties window pops up, as shown below:

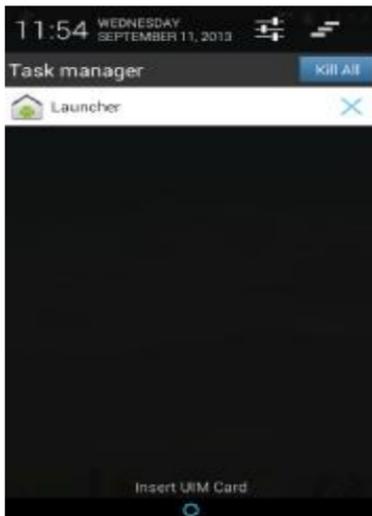


In the dial-up interface to enter a user name and password, click CONNECT can be established PPPoE link.

2.6 Task Manager

Equipment systems have Task Manager, you can close opened programs to release program memory, improve system efficiency.

Pull down prompt bar, single click , Task Manager will appear, as shown below:



Enter into a running program menu; click on the Stop button corresponding to the task, which can close the current task and free the occupied memory space. (The Launcher is desktop manager, so it can not be turned off)

2.7 Dialer

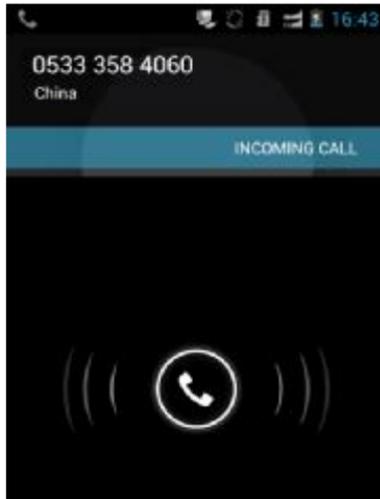
In the main menu interface or standby desktop, click the

 or  enter the phone number, press the call button or dial button, you can call the number; To end the call, click the  button or press  hook key to hang up. As shown below:



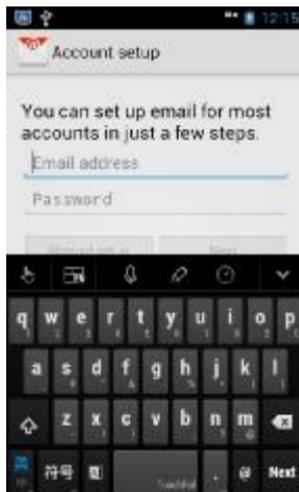
2.8 Answer the phone

The system call interface pops up in the caller interface, slide right to the green icon to answer the call; slid left to red icon can reject an incoming call; slide up to SMS icon can send text messages.



2.9 Input Method

Click the application's text box; the system will automatically bring up the built-in input method. As shown below:



System using TouchPal input method, tap  on the keyboard to switch the input character case. Click  on the keyboard hidden input method. Click  will switch the input method to Pinyin input method, and then click becomes English input method. Keep pressing the on-screen keyboard to the left or right button; it will switch the input keyboard layout. Click  on your keyboard to switch to digital / character input method, which includes English characters, facial expressions, network, digital, Greek, Latin, mathematics and other options, as shown below:



Keep pressing the  bottom left corner to switch the input method window pops up as shown below:



Where you can select the desired input mode, (You can also install other input methods, such as stroke, etc.) devices also support install other input methods, such as, Sogou input method, Baidu input method.

Change the text input method



In the system settings have language & input options. Contains all installed input method, as shown above, you can click the check box in front to set the default input method.

2.10 Flashlight

This device supports flashlight, camera fill light can be used as lighting in the boot state. Keep pressing  (2 seconds or so) can be turned on or off flashlight. (Flashlight will remain in the standby System standby state before, please note the close flashlight to save power)

2.11 Camera

This device has a camera shortcut key , in the normal state, press the camera button that can pop up camera interface, the camera screen, press the button for the camera operation.

2.12 Breathing indicator

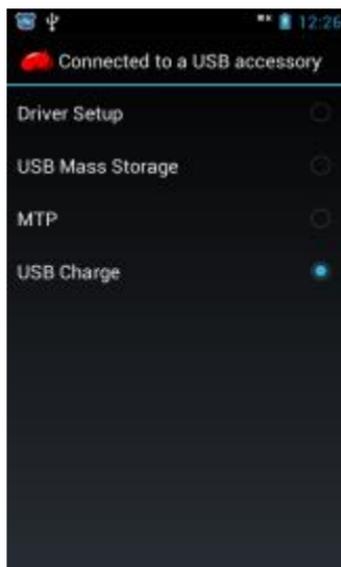
When device in the boot and standby state, breathing light gap flashes to indicate that the device is in working condition, in calls or missed calls, received messages have different breathing light blinking to alert customers.

2.13 Mass storage mode

Mass storage mode is USB data cable connect with the

PC, the device will be a virtual mass storage U disk, via a PC can be copied or deleted U disk file.

Through Mini USB data cable to connect the device with the PC, the device prompts bar prompts a USB connection, pull down the prompt bar, click the USB connection, select USB Mass storage, PC machine will find U disk, which can be operated via a PC U disk content. As shown below:



If there is no TF card, will virtual a U disk, if have TF card, will virtual 2 U disk. (Drive letter will vary on how many different devices) as shown below:



2.14 Headset

Device supports headset, listening to music, the device's headphones as an ordinary hole, the device is equipped with a headset plugged into the headphone jack, that is to meet the needs of calls and listening to music, the headset supports off-hook and on-hook operation. (Dedicated headphone headset, other headphones may not be used)



No	Name	Specification
1	plug	3.5mm
2	Hook button	ABS Black
3	horn	$\varnothing 10$ 32 Ω
4	shell	ABS black sequins plating

2.15 Vibration

Device supports two vibration modes, one is only vibration, the other is added ringing vibrations. Vibration mode requires only pull down prompt bar, click  until

changes in the  vibration mode only. You can also press the power button on the pop-up screen; click the  icon to enter the vibration modes

Ring & vibration modes need to enter the Setting>Sound to select Vibrate and ring.

2.16 GPSone Passive positioning

Device supports GPSone passive positioning, you can through the machine's positioning software to check latitude and longitude information, passive positioning feature requires phone cards opened passive location services, and will produce a certain passive localization data traffic. Only need to open the GPS device side support GPSone passive position, when the GPS is turned off, the device does not support GPSone passive location query.

2.17 WIFI hotspot

Portable devices support WIFI hotspot, providing 3G network links WIFI connection to other devices.

Connect 3G data connection, and then enter Settings>more, click Tethering & portable hotspot, the interface as shown below:



Select the Portable WLAN hotspot, which you can open WIFI portable hotspot, through other devices with WIFI hotspot that can search the AP and connect Login networks. Click the set up WLAN hotspot; you can set up WIFI hotspot SSID, security, passwords and other content, as shown below:



Chapter III

Usage of Main Functions

Click on the bottom  of the standby screen, pop up the main menu. As shown below:

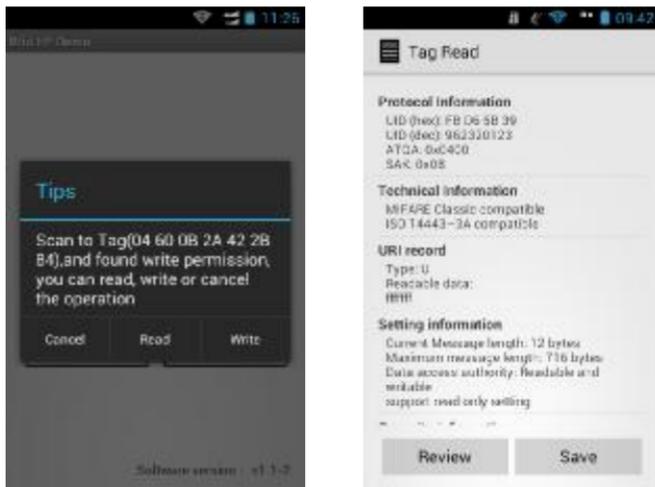


Slide left or right to view more menu items, press the Back button to close the main menu, you can directly click the application or widget to switch applications and widgets options. You can also put your own favorite features onto the desktop, keep pressing the icon you want to move and hold, after a brief vibration to move, drag it to where you want the icon placement can let go (Note: during operation to keep pressing the icon and not loose).

1. RFID HF (High Frequency) card Identification (Demo Program)

Reading recognizable RFID HF card, support for common standards such as: ISO 14443-3A, ISO 15693. Can write to the card, and provides a convenient data storage function, can be used for future viewing.

Tag Read: After installing RFID HF demo equipment and in the System Settings> Wireless & networks> More, you have opened the NFC feature, the card must be placed above the keyboard device. If the device recognizes the card, reader option will automatically pop up; select the read and write button, Interface as shown below:



Click on "Review" to visit the software all card

information current scanned; clicking "Save" will permanently save the current scan results to the database for viewing the record.

Tag Write: In the main menu, click on HF demo program, enter the Rfid HF Demo presentation interface, and then click on the "Tag Write" into the tag write interface or click on the Tag write button in above picture. Tag Write interface is shown below:



After entering the interface, the user can choose to write URI or MIME. URI type only needs to fill specific data to support Chinese and English, in writing, please use English URI specified protocol name such as: <http://www.vim.org>. Click the Write button to complete input; there will be a corresponding message.

Write MIME needs to indicate the MIME type name; name should not exceed 255 bytes; content supports in

Chinese and English, you can also directly edit the raw bytes to facilitate the input, the decimal value of each byte is marked with minus sign segmentation, numerical overflow section will automatically discarded.

Raw bytes: When editing the right box, you can input audio and other information at the bottom hexadecimal code. Then click write to.

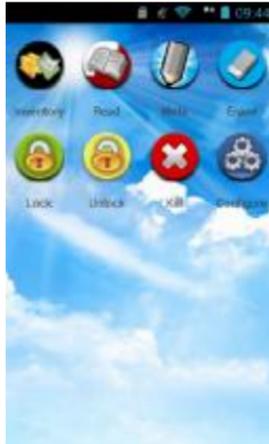
When the device according to the card when the card contacts within the URI and MIME start different functions, such as phone calls, open web pages, etc.

Note: URI is the uniform resource descriptor; MIME is Multipurpose Internet Mail Extensions.

2. RFID UHF card record Identification

(Demo program)

RFID UHF module supports operating frequency 840-960MHZ, support for international common UHF RFID standards, including all rate and encoding options. Users can choose the desired configuration. Demo program interface is as follows:



Configure Description: Card access password is eight hexadecimal digits and letters, the program defaults to 8 0, if the relevant area of the test label has been set read protection, shall be provided to the measured actual label access password. In the absence of a read-write protected card, no real access password can also read and write data. In addition to read and write the same password and lock password, use the following functions, you need to specify an arbitrary matching cards or after operational. Starting address for the selected four BANK any address within the read is not greater than the number of the remaining space of the BANK. Read data word (2 bytes) for the unit.

Click read button to read the read configuration in accordance with the information in each BANK, Reserved in the first two bytes for the destruction of passwords, access codes after two bytes; EPC area store EPC number; TID area store identification label number, each TID number is

unique; User zone is a user-defined data area. Moreover module can also be equipped with a high reading and writing data in a BANK.

Note: Tid area can be read only, write and unlock functions can not be operated.

Main features are described as below:

Recognition:

Click the "recognition", enter recognition interface, and then click counts. When the device correctly identify the card will display the card data. Recognition interface is as follows:



Single Tag identify and inventory one tag every time. Single Tag Cycle identifies continuous identify labels, Anti Collision Cycle suit for continuously inventory of more than one label. After the user selects superimposed display, the display area will be combined display the same information, and gives the number of times it appears.

Data Read:

Read specified label or any label, In addition to high distribution module can also specify the matching conditions. Click Find, and can automatically find identification card within the region, access password is eight hexadecimal random numbers and combinations of numbers and letters, initially eight zero (do not rule out a special white card with other values). Read data in word units, set to be read Bank, the starting position and the number of reads, you can click the Read button to read. Data read interface as shown below:



Data Write:

Input the access password after choosing the BANK to write in. Set the starting address as the written starting word address, the written data is the actual data to be written,

word is the units. After completing the setting, you can click “write” button to write. After writing successfully, the interface is shown as below:



Data Erase:

After finding the tags, users can erase the data in designated area. Generally, it can only operate in user area. Data erasing interface as below:



Data Lock:

The user can only specify a label to be locked. Entering the user password to click the lock button, the lock interface shows as below:



The user can lock one or several related areas at one time, if a permanent lock is chosen, it will not be able to unlock. R/W are required to provide real access password for both read and write. Perma lock indicates permanent lock. In the back of the check box, select 1 to click lock, then the Bank will be locked; there will be corresponding information after lock successfully.

Unlock:

The user enters the data unlock interface, specify the label and enter the real access password, click on complete unlock, you can unlock a locked area. This demo provides all presentations include Kill Password, Access Password, Epc, User Area. If either of these areas has been permanently locked, the operation will fail. The unlock interface is shown as below:



Kill:

Kill function is to destroy discarded cards or inapplicable

cards. Also specify a label or clicking the Find function to find the read card. Kill password is eight hexadecimal numbers and letters, the program defaults to eight zero. In actual operation, set to the actual kill password of the measured label password. Enter kill password and click Kill button you can destroy cards. Label kill interface is shown below:



Note: The card can not be restored after destruction!

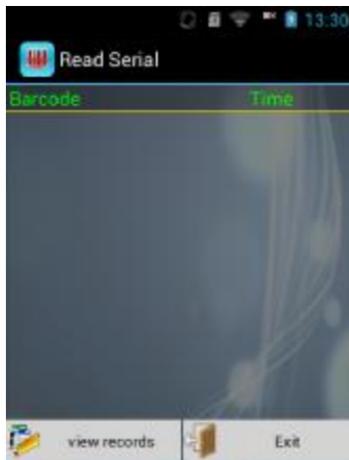
Configure options:

Power can be configured to 10-27, including high model up to 30, working frequency should be set to match with the operating label. Currently, it supports four standard frequency settings and custom settings. Configure interface is shown as below:



3. Read Serial

Barcode scan test interface is shown as below:



In the "Read Serial" interface, after pressing "SCAN" key on the side, it can work. The red light just aim at bar code, the test result will show on screen. Tester can scan continuously

and show the scan result in table, and record the scan time. A prompt box about whether store will be pop up when exit.

4. Control of the Electric Quality and Wireless Dial

Control of the electric quality and wireless dial is in setting, and the tester provides the quick way to control. Pulling down the prompt column, system will display the shortcut control icon; click the shortcut icon can open or close the corresponding option, white is close and blue is open. Please see the following picture:



Description of the control item is as follows:

 **Settings:** shortcut icon of setting open, click it can open the setting quickly.

 **Task Manager:** Shortcut icon of task manager and click it can open the task manager quickly.

 **WLAN icon:** the switch for WIFI, if use a router for the first time, user need to enter into setting, searching WIFI router at first, and enter the password to connect with the router.  icon will be shown in the prompt bar after connection.

 **Bluetooth icon:** the switch for Bluetooth, user should search and pair with it when searching other Bluetooth user.

 **GPS icon:** the switch for GPS

 **Brightness icon:** Adjust the brightness of the screen, click it to adjust the brightness, which includes low, middle, high, user can adjust the brightness continuously in setting.

 **Voice icon:** adjust the voice mode, which includes voice mode, silent mode and vibration mode.

 **Data:** switch for 3G wireless. SIM/UIM card is needed, flow and cost will be generated after clicking, and please close the link when do not use.

 **PPPoE icon:** switch for PPPoE.



Rotate Icon: open or close the auto Screen revolve mode.



LAN icon: switch for the LAN network card.

5. Web

Click web to enter into the browser interface for all functions, and user can login the common site under the main menu. As follows:



Enter into the website or IP address in the address bar to login the webpage.

Internet setting menu will pop up when clicking the menu key which includes refresh, forward, bookmarks, save to bookmarks, share page, find on page and so on.

Click "Save to bookmark" to store the current page into the bookmark, and then user can open the webpage quickly.

Click "Settings", the setting interface will pop up which includes General, Privacy & Security, Accessibility, Advanced and so on.

User can set the homepage of the browser in "General", the tester will connect with it automatically when login.

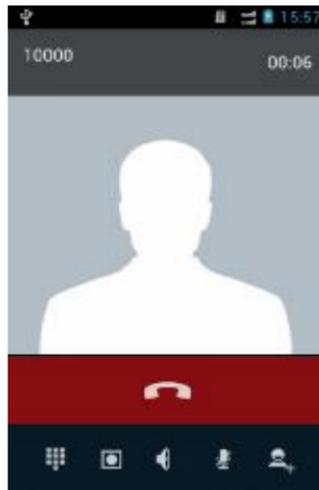
"Settings--Advanced---Save Location" can set the storage position of the download files, and user can store it in the inner memorizer or SD card.

6. Dialer

Click dialing key or the number key to enter into the dial interface. As follows:



Dial interface



Call interface

Press  call or  dial key after input the phone

number to make a phone call; click  or  key to hang up the phone. Under phone interface, user can adjust the volume by pressing the volume key.

Click  to show the call records, and click the corresponding phone icon to dial the number.

Click  to display the address, and click the contact to dial the number.

Click  to show the stored contacts.

Click  to conceal the dialing keyboard.

7. Contacts

Contacts are the storage information about personal and business.



Press menu key in "Contacts" interface, can display the contacts information and Import/Export contacts.

Note: The Import/Export contacts are in the catalogue of TF card mnt/sdcard.

Find contacts

Input the name of the contact person in the right textbox until you find the person you want.

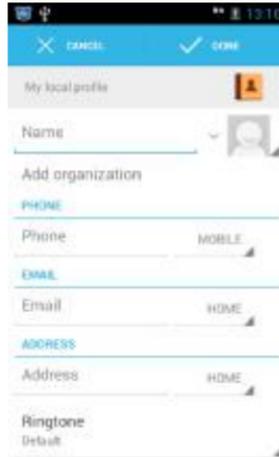
Create new contact

In Contacts list interface, click "Add" , can add contact person into device.

Note: More contact persons will affect the system running speed.

The operation for each contact person

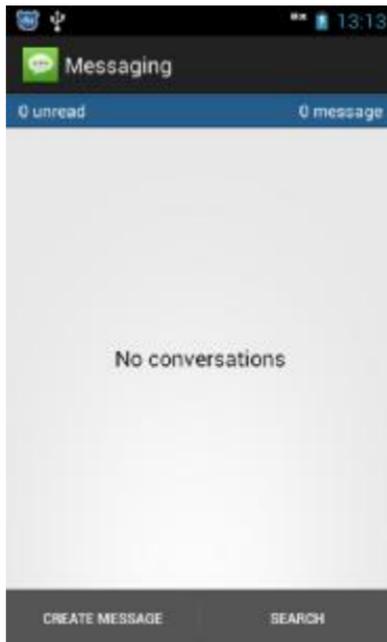
Press the contact person shortly to enter into the interface with detailed info of the contact person.



Press menu again can edit or delete the contact person and also can set the corresponding ring. Click the pen icon below can edit the contact person.

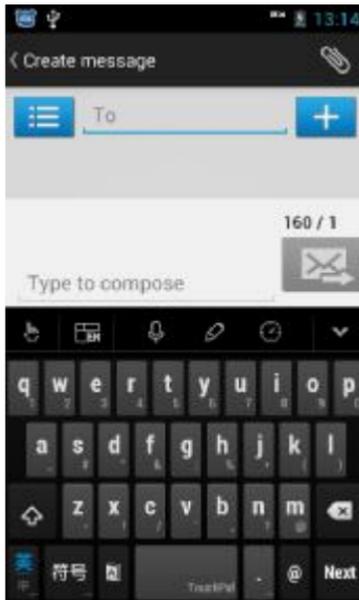
8. Messaging

In main menu interface, click "Messaging" to enter into message list interface. Press menu key to show setting item, delete old messages, and click "settings" can set the content of the message. Clicking "delete " can delete all the messages.



New message

In messaging interface, click **CREATE MESSAGE** to enter into the new message interface and it will show as follows:



Click "Receiver" to type into the number of receipts and then type the content need to be sent in "Type Message".

Clicking number edit box can type number.

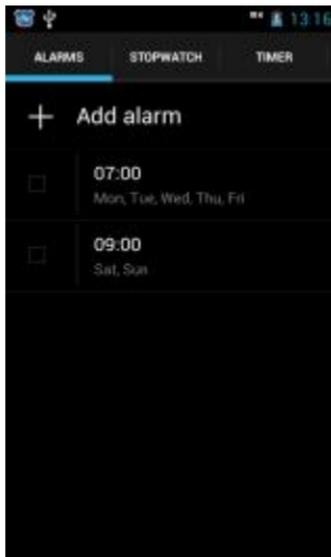
Click  to add the attachment.

Click  to add the attachment.

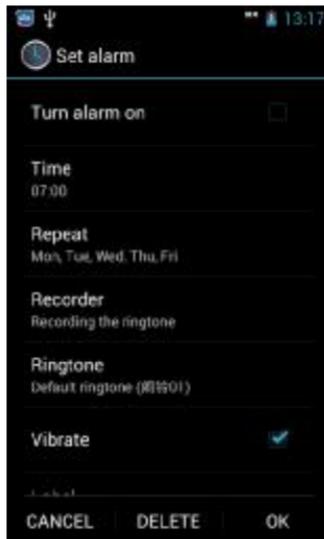
Click  to send message.

9. Clock

Click clock icon, the clock interface will pop up as follows:



Click alarm, and then tester will enter into the alarm add interface. As follows:



Setting: you can turn on/off the alarm, set time, repeat, ring tone, vibrate and so on.

Open alarm

Click  on the top right corner of the alarm interface and bright display means the function is open.

Note:

In the off state, the system will automatically open and then start the alarm service.

In order to ensure the alarm effect, please do not set mute mode.

Please change the battery in 1 minute if needed, otherwise the alarm, automatic switch, time and date information may be inaccurate or missing.

10. Calendar

Click calendar to look up the calendar as follows:



11. Settings

"Settings" includes all the content needed to be set, detail see the following:

11.1 Wireless & Networks

WLAN

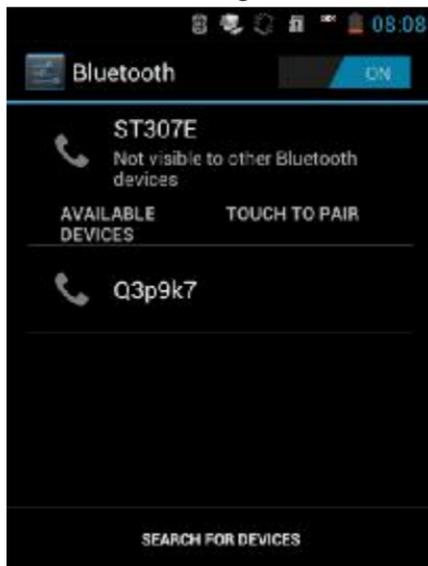
Slide the switch from left to right to open or close WLAN and click the icon into WLAN setting, as follows:



Tester will search WLAN router automatically after entering into WLAN setting, and the result will be shown in list. Click the router can connect with it and some of the connection needs password. Click "WPS Push Button" or "Add Network" to search other internet.

Bluetooth

Slide switch from left or right to open or close Bluetooth and click the icon into Bluetooth setting, as follows:



When open Bluetooth, click "device name" can make the device be found, and detect all the equipments around. Click "Search for Devices", the device will search and show Bluetooth list. Press to rename device, set visibility timeout, show received files.

Data usage

Open or close the data usage function; check the usage of data.

More:

Do the operation of airplane mode, VPN, tethering &

portable hotspot, WLAN direct, WLAN direct setting and mobile networks.

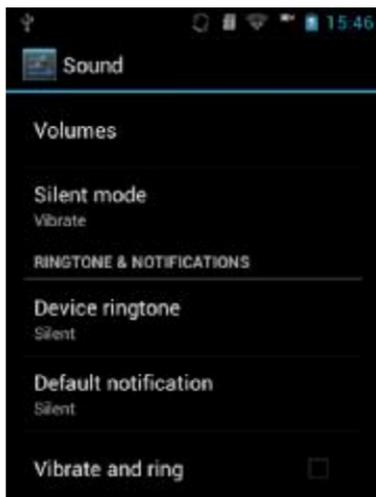
11.2 Device

Sound

Open or close the silent mode.

Set the volume, ring tone, default notification and so on.

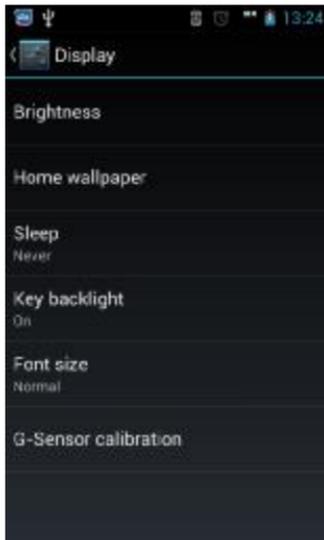
Open or close the vibration and ring, dial pad touch tones, touch sound, screen lock sound, vibrate on touch and emergency tone. As follows:



Note: Adjust the volume of the loudspeaker through the up and down key.

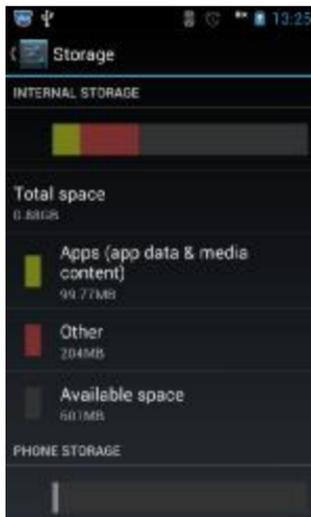
Display

Adjust screen brightness, wallpaper, sleep time and font size. As follows:



Storage

Check TF card space capacity and available system space as follows:



Battery

Check the quantity of the electricity.



Application program

You can manage the application program.

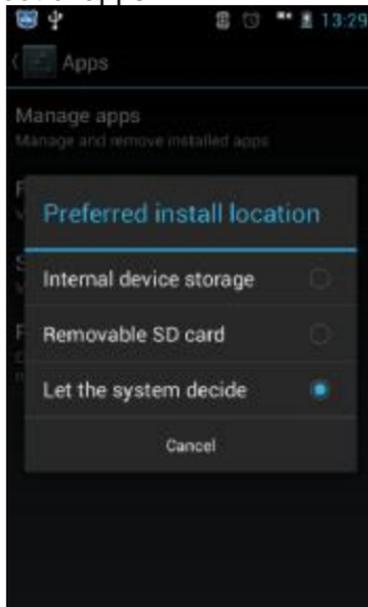
Application management: used in managing the installed applications including display application program storage, permissions and other information as well as clear data, clear default settings and forced stop.

Running service: view and control the currently running services.

Storage: check the storage space of the application program. As follows:



Preferred install location: it can be used to set the default installation root of apps



11.3 Personal

Includes the settings related to personal:

Location Services:

Click to choose the different location modes such as GPS satellite.

Security:

- Choose the screen lock mode;
- Owner info;
- Open or close the password visible function;
- Choose the device administrators;
- Set application password and the default password is 1234;
- Install the unknown sources with default password 1234 and you can change the password in "Application Password".
- Choose the trusted evidence.
- Install from the SD card;
- Clear credentials

Language and input

- Select the display language
- Open or close the spelling correction
- Choose different input method

Factory data reset

Factory reset function will clear all the information. Please copy the important information such as: Contacts and message etc.

11.4 Accounts

After opening the function, add the account to keep the synchronization of the equipment and account.

11.5 System

Date and time

- Open or close the automatic date & time which is provided by network.
- When closed, you need to set the date, time zone and time.
- Choose the time or date format.

Accessibility

- Press power key to end the phone call.
- Choose the touch and hold delay time.
- Choose whether install the network script or not.

Developer Options:

Choose the options for develop person.

Auto power on/off

Set the time of auto power on/off.

About device

View basic device information such as status, legal information, model number, Android version and so on.

12 Camera

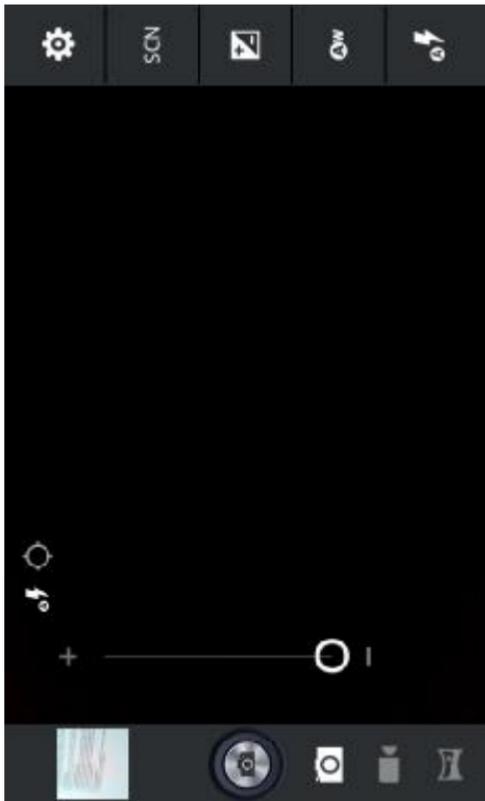
According to the camera in the device, you can easily take photographs and make video clips.

Photograph

Enter the camera preview interface through pressing

 or , and user can set the parameters by clicking the

icon on the menu as shown in the following picture:



Click  to enter into the basic setting for the camera, which includes select storage position, scene mode, picture size, picture quality and so on.

“Store location” can record the geographical location

information of camera. After opening and GPS location, the photo will have longitude and latitude information. (You can see it during browsing photos in Gallery)

Click  to enter into white balance

Click  to enter into flash mode

Click  to enter into manual adjustment setting

Click  or  to take photos

Video

In the camera preview interface, clicking  can be switched to the video. In video mode, the operation is as following shows:

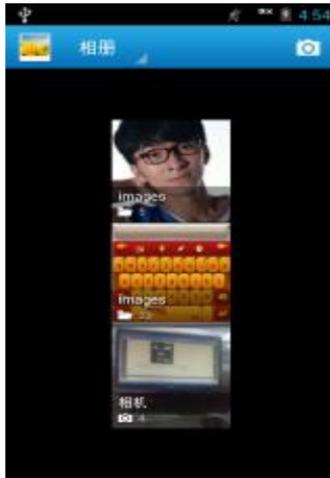
Click  to enter into the basic setting, which includes: select storage position, video size, video encoder, audio encoder and so on.

Click  to enter into white balance.

Click  or  to shoot video and pressing again to stop shoot.

13. Gallery

View the pictures and videos stored in the SD card, as shown in the following picture:

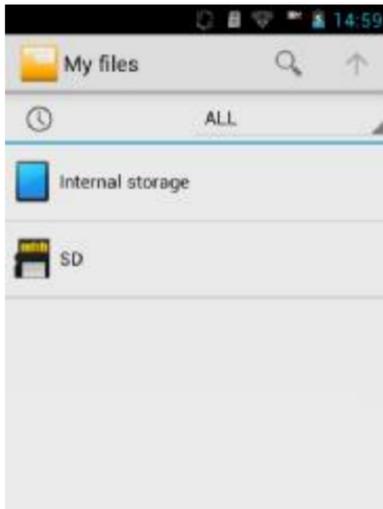


Click the folder to enter into the picture and video browsing mode; sliding from left to right can browse the pictures in the folders; and clicking the video can play it.

14. My files

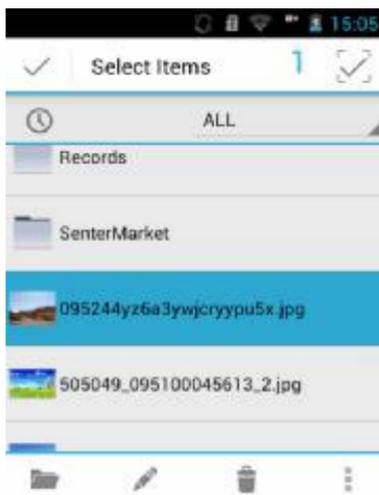
View the files stored in the device or SD card.

Click the  icon to check the recent files; click  to return to the previous interface; click  to choose locating file. Click "ALL" to pop up the file types. As the following picture:



From the "My Files", you can browse and manage the files and folders on the memory card.

Long press the selected file icon, the following picture will pop up:





is to choose all files.



is to open file.



is to rename.



is to delete.

∅ More operation: copy, cut, share and property.

Press menu key to pop up :

∅ New: Edit the folder name and save file.

∅ Paste: paste the copied files or folders.

∅ Setting: view change and sort change

Note:

The default storage path is as the following:

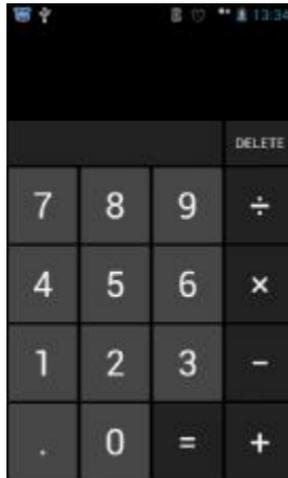
∅ Photo and video storage path is "DCIM/Camera".

∅ Download file storage path is "Download".

∅ System test record storage path is "Record".

15. Calculator

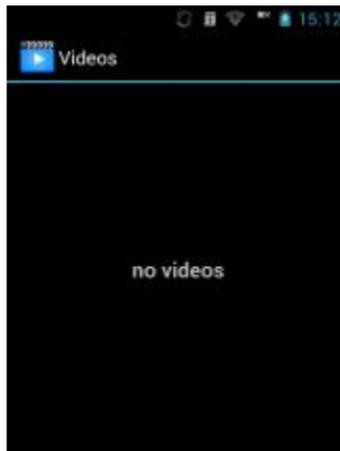
Use calculator function to make simple arithmetic. You can click the number and symbol to do corresponding calculation, as the following picture:



Press menu key and click "advanced panel" to do more calculating operation.

16. Video

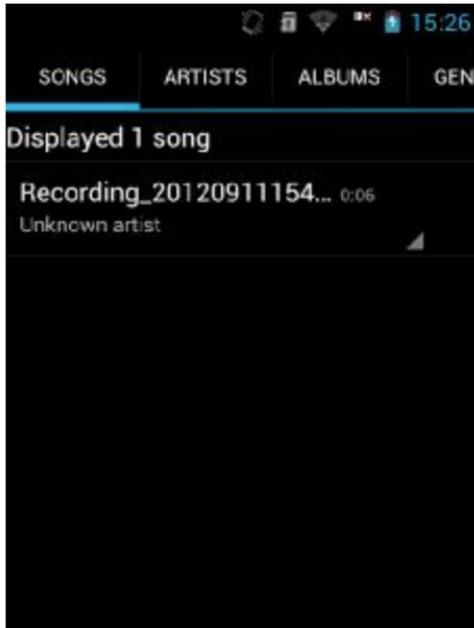
Click "Videos" to enter into video play interface. As follows:



Note: support formats: 3gp, MP4 etc.

17. Music

Click music to show all the music types and click file to play the music. As follows:



- Ø Songs: check all the music
- Ø Artist: in accordance with the artist's name to divide the type of songs.
- Ø Album: in accordance with the album name to view the songs.
- Ø Genre: check different genres
- Ø Playlist: view the current playlist and pre-existing playlist.

Press one song entered the media player interface, click menu:

- Library: check this machine music library file.
- Add to playlist: add the songs to the playlist.
- Use as ringtone: set this song as ring.
- Share: built-in many methods to share
- Remove: remove this song.

During playing the song, you can press the side keys to adjust the volume.

Note: support formats: MP3, AMR, WAV, mid, Ogg etc.

18. Recorder

The device provides a long time recording function; please make sure that your device has enough storage space. As shown in the following picture:



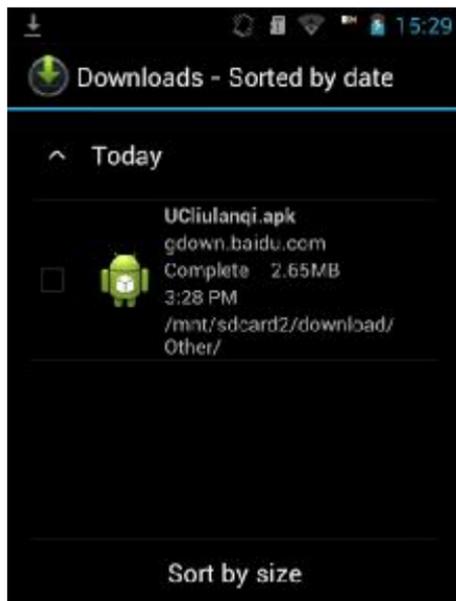
Recording method:

- ∅ Keep the microphone near the sound source.
- ∅ Click  to start recording; click  to end, and then click  pop up the record list to check the record file.
- ∅ After the recording, it will save automatically.
- ∅ Click menu key to choose the storage location and choose the file type.

Tip: Using media player can directly play the recorded file.

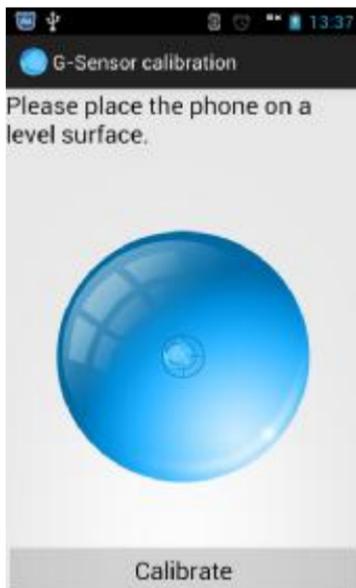
19. Downloads

The content is downloaded from the Internet. Click the downloaded file to install. As follows:



20. G-Sensor Calibration

Click Setting-Display-G-Sensor calibration to enter. Please follow the tip on the screen to calibrate. As the following picture shows:



Click “Calibrate” to start this program. When the water ball is located in the cross center, the calibration has finished and press “ok” to accomplish the calibration.

21. How to Install and Uninstall Software

Install

In the "My Files" interface, please find the downloaded installation package (apk file).

After clicking installation package, if pop “installation is

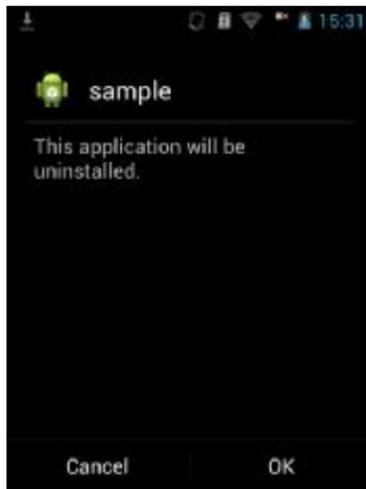
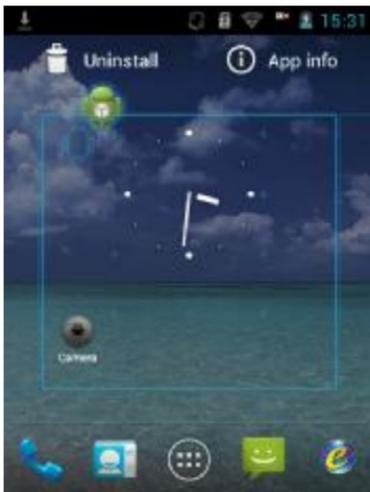
forbidden", please following up the instruction to set: open "Settings--Security--Unknown Sources" and then input password (default password is 1234); then returned to the "Settings--apps" to click "Install".

After successful installation, go back to the main menu to run the installed application.

Uninstall

Enter " Settings > apps > Manage apps".

Choose the application; click "uninstall". Or enter into the menu interface and choose the programme need to be uninstalled and keep pressing until shake, then you can move the icon to the desktop and a uninstalled interface will pop up. Click "OK" to uninstall the programme, and then click "OK" again to finish uninstall.

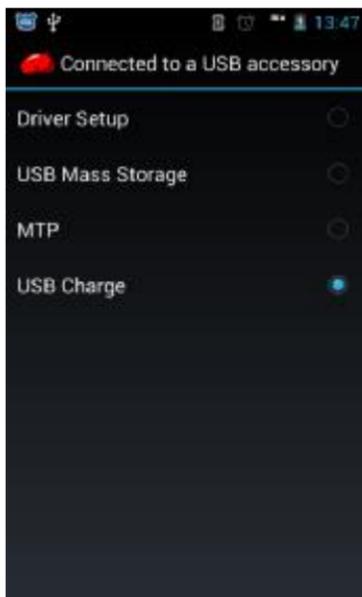


Note: The intelligent device has open application software;

this feature is only used by personal but not for commercial purposes. For commercial purposes, it must need professional adaptation and test.

22. How to Install the USB Driver

Connect the USB data cable to the tester, pull down the prompt bar and click the “Connected to a USB accessory”, as the following:



Chapter IV

Usage and Maintenance

The following suggestions are helpful for the users to use and maintain this tester.

Ø Put the tester and all the accessories in the place where the children can't reach.

Ø Please keep the equipment dry. Because there may be mineral substance in the rain, moisture and various liquids which can corrode the circuits.

Ø Please keep the tester far away from the magnetic equipments like magnetic card and floppy; don't put the tester, battery and charger in the electromagnetic field like electromagnetic oven and microwave oven.

Ø Don't put the tester in the high temperature place. Because the high temperature may shorten the lifespan of the electronic equipment, damage the battery and make the plastic accessories deform or melt.

Ø Don't put the tester in the low temperature place. Because when you move the tester from lower temperature place to the normal temperature place, there will be moisture inside of the tester, which may damage the circuits board.

Ø Please don't try to uninstall the tester because the improper operation of the nonprofessional person may lead to the damage of the tester.

Ø Please don't throw, hit or shake the tester because all rude using method break the inside main board.

Ø Please don't use the irritant chemicals, irritant cleanser or caustic cleanser to clean the tester. When cleaning the tester, please use rag with mild soap water to wipe gently.

Ø Please don't spread the pigment for the tester. Because the pigment may obstruct the usage of the active accessories.

Note: The max SAR is 2.0W/Kg, which meets the requirement of the national standard GB 21288.

Chapter V

Faults and Solutions

If you meet the following problems during the using process, please try to use the "Faults and Solutions" first to do the relative operation. If the problems still exist, please contact the professional maintenance person.

Problem	Reason	Solution
Unable to switch on the tester	The time of pressing the power key is not enough.	Press the power key for over 2 seconds and more.
	Low Battery	Charge the tester
	Poor contact of the battery	Reinstall battery or clean the battery contact point.
Some programs can't be used normally.	The storage space is not enough.	Clean the messages of built-in multimedia promptly and other application programs as well as the download application records.
The standby time is not enough.	The battery performance declines.	Change the battery.
	Play games and music for a long time.	Limit the time of playing games and music.
Charging fault	Poor contact	Check the contacts or change plug.

	Low battery voltage.	There will be no charging display. Charging for about half an hour and then unplug it to recharge.
	Battery fault	Change battery.
	Wrong charger type	Change proper charger.
	Charger fault	Change or mend the charger.
Can't connect with the net.	Weak signal	Move to a wide place and then try again.
	Not in service area.	Confirm the network coverage.
Can't make a call.	Equipment card fault	Check or change equipment card.
	Dialing error	Redial
	Reach to the cost limit.	Contact with the operator.
Invalid button operation	Get accident interference.	Remove the battery and then install 1 minute later.
Some calls can't realize.	The telephone number digits exceed the limit.	Check the telephone number.

	Setting fault	Check whether set "calling barring".
Can't find the Contacts.	The equipment card is changed.	Use the original equipment card.
There is no number in the Contacts.	Wrong setting or the battery is long time in low voltage or long time no use.	The saved data have lost due to the long time low voltage.
There is no call warning tone.	The volume is set to mute.	Reset the proper volume.
PIN code error	Input the wrong password for three times.	Contact with the operator.
Error of automatically locking password	Input the wrong password. (forget the password)	Please contact with the appointed after-sale service center.
The equipment is automatically closed	The battery electricity is severely not enough.	Please charge.
	Setting reason	Check whether setting the auto power-off or not.
	Get accident interference.	Restart