



HIKVISION

Portable Video Recorder

User Manual

UD.6L0204D1155A01

User Manual

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About this Manual

This Manual is applicable to Portable Video Recorder (PVR).

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (<http://overseas.hikvision.com/en/>).

Please use this user manual under the guidance of professionals.

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FCC information

FCC compliance: Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This product 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 product 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 product 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.

This equipment should be installed and operated with a minimum distance 20cm between the radiator and your body.

FCC conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with



the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the R&TTE Directive 1999/5/EC, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (B)/NMB-3(B) standards requirements.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- 1) this device may not cause interference, and
- 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil ne doit pas produire de brouillage, et
- 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.



Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into “Warnings” and “Cautions”

Warnings: Serious injury or death may occur if any of the warnings are neglected.

Cautions: Injury or equipment damage may occur if any of the cautions are neglected.

	
Warnings Follow these safeguards to prevent serious injury or death.	Cautions Follow these precautions to prevent potential injury or material damage.



Warnings

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100~240 VAC, 48 VDC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.

Preventive and Cautionary Tips

Before connecting and operating your device, please be advised of the following tips:

- Make sure that all the related equipment is power-off during the installation.
- Do not place the product in high-temperature or damp environment, and do not expose it to high electromagnetic radiation.
- If the product does not function properly, please contact your dealer or the nearest service center. Do not disassemble the product for repair or maintenance by yourself.
- Only use the battery, power adapter and assembly parts specified by the manufacturer.
- Consult the authorized dealer or technician from Hikvision for any question and request for product using.



Applicable Models

This manual is applicable to the models listed in the following table.

Series	Model
DS-6102 Series	DS-6102HLI-T
	DS-6102HLI
	DS-6102HLI-SE

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
	Provides additional information to emphasize or supplement important points of the main text.



CHANGE THE DEFAULT PASSWORD

*The default password (12345) for the Admin account is for first-time log-in purposes only. You **must** change this default password to better protect against security risks, such as the unauthorized access by others to the product that may prevent the product from functioning properly and/or lead to other undesirable consequences.*

For your privacy, we strongly recommend changing the password to something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

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Chapter 1 Introduction

1.1 Overview

The portable video recorder (PVR) is operated by wireless control and transmits video and audio stream via 3G/4G mobile networks or Wi-Fi networks. With the built-in GNSS module, Bluetooth module, high-definition internal camera, it provides the functionalities of locating the device, capturing the picture, recording the video, etc. The fingerprint identification is also supported by the device and it has various extension ports to meet the actual needs.

Thanks to these features, PVR is widely applied to the surveillance projects of crime scene investigations, remote depositions, etc.

1.2 Main Functions

- **Network Settings:** Supporting TCP/IP protocols. Transmitting video, audio and alarm data via network.
- **Wireless Settings:** Built-in 3G/4G and Wi-Fi (2.4G/5.8G) communication module connectable to platform for centralized monitoring.
- **Dual-stream Transmission:** One for local high-definition storage and one for network transmission.
- **Dual SIM Card Design:** Single card mode and double card mode are both available. Both 3G and 4G SIM card are supported in single card mode; two 3G SIM cards are supported in double card mode.
- **Two-way Audio:** Supporting full-duplex two-way audio between device and platform.
- **Group Intercom:** Supporting one-to-all or one-to-one intercom between members in the group.
- **Analog Intercom:** Supporting analog intercom which is developed basing on the radio propagation. (Only available for DS-6102HLI-T series.)
- **Location Service:** Built-in GNSS module precisely positioning the device and uploading location information to surveillance center.
- **Bluetooth:** Built-in Bluetooth module supporting two-way audio and file printout using Bluetooth headset or printer.
- **Biometric Authentication:** Fingerprint identification technology providing high security for access control.
- **User Management:** User accounts assigned with different permissions in favor of central management and maintenance.
- **Tethering and Portable Hotspot:** Sharing Internet connection with other devices; working as a portable Wi-Fi hotspot.
- For DS-6102HLI-T series, built-in 13 megapixels camera taking high definition pictures.
For DS-6102HLI(-SE) series, built-in 5 megapixels camera taking high definition pictures.
- Supporting external camera to realize simultaneous work of internal & external cameras.
- Supporting one-touch capture.
- Messages can be sent from platform to devices to release notification.
- One-touch manual alarm can be uploaded to the platform.
- Supporting acceleration alarm in special case such as device fall off.
- Temperature alarm avoiding heat damage from the device.
- Built-in LED flash lamp working as the flashlight of internal camera or electric torch.
- Automatically switch to power saving mode to extend the life of battery.
- Supporting date and time settings.
- Supporting on screen display (OSD) of time, camera name and positioning information.

- Supporting the connection of RF card reader (NFC / RFID).
- Supporting the switch of input method.
- Supporting common tools including Calculator, Clock, Torch and Compass.
- Installing and uninstalling applications.
- Supporting NTP synchronization with the platform.
- Supporting GPS upload interval settings on the platform side.

1.3 Product Features

- Easy to carry the mobile terminal, meeting the actual needs of individual work.
- For DS-6102HLI-T series, both internal camera and external camera (1080p, 720p, D1, VGA and QVGA) are supported.
For DS-6102HLI(-SE) series, both internal camera (1080P, 720P, D1, VGA and QVGA) and external camera (D1 and CIF) are supported.
- Adopt H.264 digital coding technology to reduce the storage pressure of the storage medium in the device.
- Built-in 3G/4G and Wi-Fi module transmit audio and video data stably in mobile conditions, using optimization algorithm.
- Built-in GPS positioning module records the locations of the event.
- Central platform software provides functionalities of live view, two-way audio, data storage, device positioning, etc.
- For DS-6102HLI-T series, 32G internal storage space is available and up to 32G external SD card can be installed.
For DS-6102HLI(-SE) series, 16G internal storage space is available and up to 32G external SD card can be installed.
- Different permissions can be assigned to the users.
- The monitoring host provides the LCD monitor and buttons, supporting the touch operations.
- Three-proofing technology (water-proofing, dust-proofing, shock resistance).
- Lithium battery supporting at least 4 hours continuous work.
- SDK of smart operation system can be provided for custom development.

1.4 Conventions

The DS-6102HLI-T and DS-6102HLI(-SE) series Portable Video Recorder will be briefed as *PVR* or *device*.

Chapter 2 System Start-up

2.1 Package Contents

Unpack and check the package contents carefully. The following assembly parts are supplied:

- Portable Video Recorder (1)
- Battery (1; 7.4V/2000mAh)
- Charger (1; AC Input: 100-240V 50/60Hz 0.8A; DC Output: 12V 2A)
- DVD/CD (with user manual supplied) (1)

2.2 Panel Description

2.2.1 DS-6102HLI(-SE) Series



Figure 2. 1 Panel View

Table 2. 1 Interface Description

No.	Name	Function Description
1	Menu	Show the hidden menu on the screen.
2	Home page	Return to the Home Page.
3	Return	Return to the previous menu.
4	Record	Long press it to enable/disable the recording.
5	Fingerprint area	Swipe the finger across the fingerprint area for fingerprint registration.

No.	Name	Function Description
6	Headset interface	Use for the headset.
7	Micro HDMI port	HDMI video output connector.
8	PTT	Use for the group intercom.
9	Audio+, Audio-	Increase or decrease the audio volume
		Zoom in or zoom out on the Camera interface
10	Power supply	Supply the power for the device.
11	USB interface	Universal Serial Bus (USB) port for connecting to the computer.
12	Power	Long press it to turn on/off the device
		Press it to lock/unlock the screen
13	Alarm	Press it to send the manual alarm.
14	Capture	Capture the picture.
15	External camera interface	Install the external camera if needed.
16	External antenna interface	Install the external 3G/4G antenna when the 3G slave SIM card/4G SIM card is used.
17	Camera	5 mega-pixel internal camera (with Flashlight built-in)
18	Extension base interface	Connect to the device extension base

2.2.2 DS-6102HLI-T Series



Figure 2.2 Panel View

Table 2. 2 Interface Description

No.	Name	Function Description
1	Menu	Show the hidden menu on the screen.
2	Home page	Return to the Home Page.
3	Return	Return to the previous menu.
4	Record	Long press it to enable/disable the recording.
5	Fingerprint area	Swipe the finger across the fingerprint area for fingerprint registration.
6	Headset interface	Use for the headset.
7	Micro HDMI port	HDMI video output connector.
8	PTT	Use for the group intercom and analog intercom.
9	Audio+, Audio-	Increase or decrease the audio volume
		Zoom in or zoom out on the Camera interface
10	Power supply	Supply the power for the device.
11	USB interface	Universal Serial Bus (USB) port for connecting to the computer.
12	Power	Long press it to turn on/off the device
		Press it to lock/unlock the screen
13	Alarm	Press it to send the manual alarm.
14	Capture	Capture the picture.
15	External camera interface	Install the external camera if needed.
16	External antenna interface	Install the external 3G/4G antenna when the 3G slave SIM card/4G SIM card is used.
17	Camera	13 megapixels internal camera (with Flashlight built-in)
18	Extension base interface	Connect to the device extension base

2.3 Installation

2.3.1 Installing and Uninstalling the Battery

The PVR is equipped with one battery to ensure the device normal working.

Perform the following steps to install or uninstall the battery:



Turn off the power of all the related equipment when you install or uninstall the battery.

1. Remove back cover

Loosen the 4 set screws on the rear panel of the device using a straight screwdriver, and then remove the back cover.



2. Install the battery

Insert the battery into the opening on the back of the device, making sure the gold contacts on the battery align that on the device. And then gently press down to secure the battery.



3. Uninstall the battery

Lift the battery up from the device bottom side and then remove it away from the device.



2.3.2 Installing the SIM Card

Two card sockets are provided, one for the main SIM card with a built-in 3G antenna and the other one for the slave SIM card requiring an external antenna. When the device is working in the single card mode, insert the SIM card into the Main Card Socket.

Perform the following steps to install the SIM card:



- When the 3G slave SIM card is adopted, install an external 3G antenna at the top of the device.
- When the 4G SIM card is adopted, insert the 4G SIM card into the main card socket and then install an external 4G antenna.

- The pictures below are for reference only.

Steps:

1. Remove the battery

Loosen the 4 set screws on the rear panel of the device using a straight screwdriver, and then remove the back cover and battery.



2. Install the SIM card

Carefully slide the SIM card into the SIM card socket until the card locks into place. Make sure that the card's gold contacts face into the device and that the upper-left angled corner of the card is positioned correctly. The upper one is Main Card Socket 1 and the lower one is Slave Card Socket 2.



For DS-6102HLI-SE, only one SIM card socket is supported.

3. Install the antenna

Install the 3G or 4G antenna at the top of the device if the Slave Card Socket 2 is equipped with a 3G SIM card or the 4G SIM card is adopted.



2.3.3 Installing the Micro SD Card

The device supports 32G memory itself. And you can also extend its storage capacity using a micro secure digital (SD) card. The SD card socket locates under the rear panel of the device.

Perform the following steps to install the micro SD card:

1. Remove the battery

Loosen the 4 set screws on the rear panel of the device using a straight screwdriver, and then remove the back cover and battery.



2. Lift the sheet metal

Push the sheet metal above the SD card socket along the opening direction (marked on the sheet metal), and then lift it up.



3. Fix the micro SD card

Slide the micro SD card into the socket provided, with the gold contacts facing down, until the card locks into the place. By default, the device should mount the micro SD card automatically.



2.3.4 Installing and Uninstalling the External Camera

There is a 13 megapixels camera built in the device, which can be used to record videos or capture pictures. You can also install an external camera onto the device if needed.

Perform the following steps to install or uninstall the external camera:



Do not rotate or bend the connector of the external camera.

1. Installing the external camera

Align the white arrow on the external camera with the white label on the device port, and then insert it.



2. Uninstalling the external camera

Press the root of the interface, lift it up, and pull out the external camera after the snap joint is opened.



2.4 Charging the Battery



Use the authentic original Hikvision battery and charger to ensure the safe operations of the device.

Rechargeable Lithium-Ion battery is adopted for the device and you can check the battery level from the battery icon displayed in the upper-right corner of the screen. When the battery level is lower than 15%, the status light at the top of the device will turn to red and flash rapidly. Charge the battery timely to ensure the normal operations of the device.

Pull up the cover on the right-side of the device, and then insert the end of charger into the jack. The status light is red in the charging process and it will turn to steady green when the battery is fully charged.

2.5 Status Light

The status light at the top indicates the current working status of the device. For details, see the table below:

Table 2. 3 Status Light Description

Status Light	Function Description	Priority
Red and steady	Battery is charging.	4
Green and steady	Battery is full.	4
Red and fast flashing (200ms open, 100ms close)	Device is exceptional (e.g., battery level is lower than 15%).	3
Green and normal flashing (800ms open, 400ms close)	Network transmission is in process.	2
Red and slow flashing (1200ms open, 600ms close)	The device is in recording.	1



The larger the numeric is, the higher the priority is.

2.6 Startup and Shutdown

2.6.1 Startup

Insert the power adapter or install the battery into the device, and then long press the **POWER** button on the right-side to start up the device. The Login interface will be displayed on the screen after the startup process is complete.

2.6.2 Shutdown



Do not uninstall the battery to shut down the device.

To shut down or reboot the device, long press the **POWER** button on the right-side of the PVR to enter the Shutdown interface, shown as below:

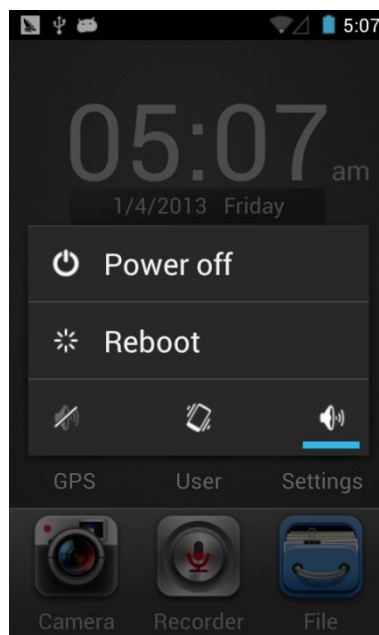



Figure 2. 3 Shutdown

Tap **Power off**, and tap **OK** to shut down the device.

Tap **Reboot**, and tap **OK** to reboot the device.

Tap the icon  to enable the silent mode; Tap the icon  to enable the vibrate mode; Tap the icon  to enable the ring mode.

Chapter 3 Basic Operations

3.1 Using the Touchscreen

You can operate the PVR by using the touchscreen.

Tap

To act on items on the screen, such as application and settings icons, to type letters and symbols using the onscreen keyboard, or to press onscreen icons, you simply tap them with your finger.

Swipe

Touch the target region on the screen, and then move your finger across the surface of the screen, to reach the desired position. For example, you swipe left or right to view the next or previous picture.

Pinch

When viewing pictures, you can zoom in and out by placing two fingers on the screen at once and pinching them together (to zoom out) or spreading them apart (to zoom in).

3.2 Login

Purpose:

Two login methods are provided, including inputting user name and password and swiping registered fingerprint.

3.2.1 Password Login

Step:

1. Input the **User Name** and **Password** in the corresponding text fields to log into the device.
2. Tap **Login** to log in.



The default password (12345) for the Admin account is for first-time log-in purposes only. You must change this default password to better protect against security risks, such as the unauthorized access by others to the product that may prevent the product from functioning properly and/or lead to other undesirable consequences.

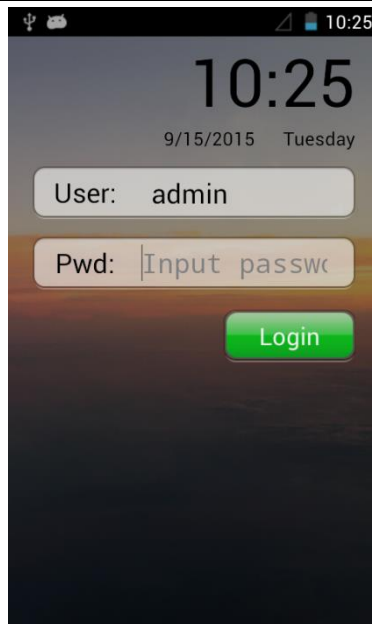


Figure 3. 1 Login




If you have entered the wrong password for 5 times, the current user account will be locked for 30 seconds.

3.2.2 Fingerprint Login



Fingerprint login is only supported by DS-6102HLI-T series.

Before you start:

1. Register your fingerprint. Please refer to the *section 13.1.3 Fingerprint Management* for detailed steps.
2. Enable fingerprint login by tapping the  icon on the home page and checking the checkboxes of **Login mode 1** and **Login mode 2**.

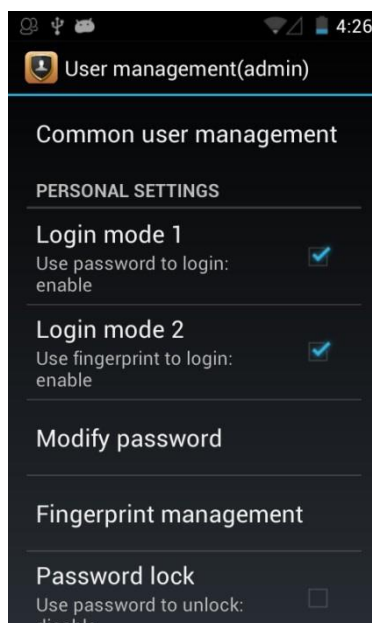


Figure 3. 2 User Management

Step:

Place your registered finger on the fingerprint area to log in.

3.3 Modify Default Password

Purpose:

You must change the default password to better protect against security risks.

Steps:

1. After your first login, the password change notice pops up. Tap **Settings** to modify default password.

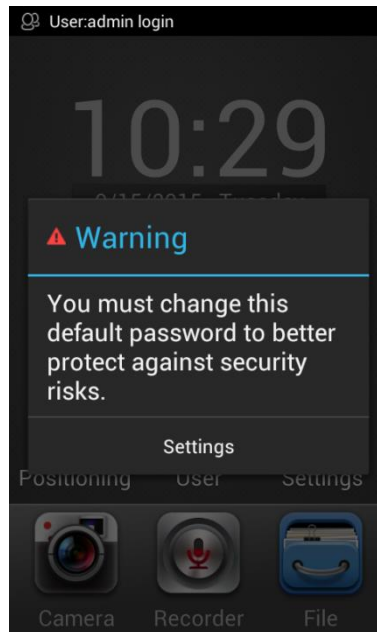


Figure 3. 3 Warning

2. Input password in **New** text field and **Confirm** the new password.



STRONG PASSWORD RECOMMENDED—WE HIGHLY RECOMMEND YOU CREATE A STRONG PASSWORD OF YOUR OWN CHOOSING (USING A MINIMUM OF 8 CHARACTERS, INCLUDING AT LEAST THREE OF THE FOLLOWING CATEGORIES: UPPER CASE LETTERS, LOWER CASE LETTERS, NUMBERS, AND SPECIAL CHARACTERS.) IN ORDER TO INCREASE THE SECURITY OF YOUR PRODUCT. AND WE RECOMMEND YOU RESET YOUR PASSWORD REGULARLY, ESPECIALLY IN THE HIGH SECURITY SYSTEM, RESETTNG THE PASSWORD MONTHLY OR WEEKLY CAN BETTER PROTECT YOUR PRODUCT.

3. Tap **OK** to save the new password.

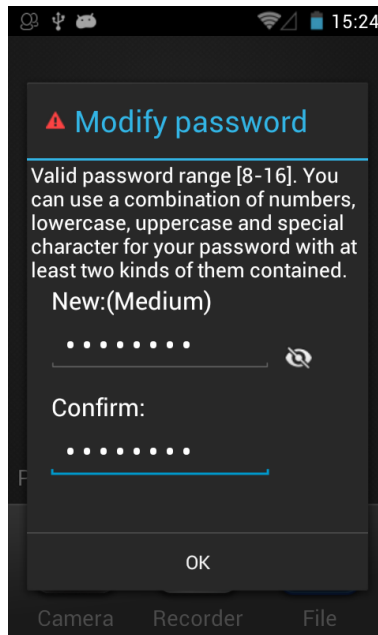


Figure 3. 4 Modify Password

3.4 Restore Default Password

Purpose:

If you forget your password and have input wrong password 5 times, you can restore the default password by importing an encryption file that gotten from technical support.

Before you start:

Insert an SD card. For detailed steps, refer to section 2.3.3 *Installing the Micro SD Card*.

Steps:

1. Tap **Restore** to restore default password.

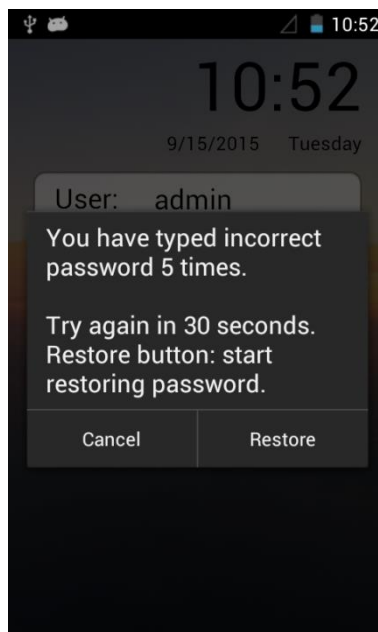


Figure 3. 5 Attention Box

2. Tap **Restore** to following interface.

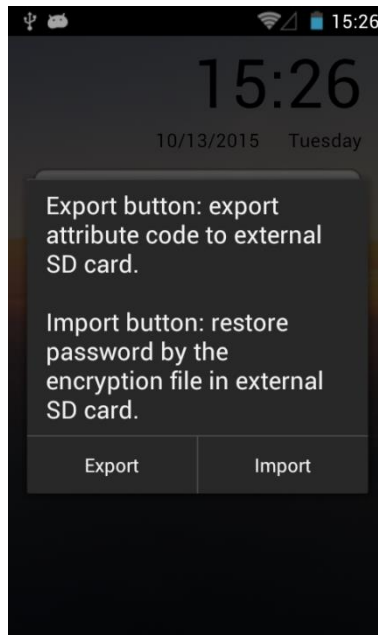


Figure 3. 6 Export/Import Interface

3. Tap **Export** to export attribute code to external SD card.
4. Send the attribute code to technical support for an encryption file.
5. Import the encryption file into the external SD card of PVR.



Encryption file must be input in the root directory of SD card.

6. Enter the Export/Import interface and tap **Import** to import it.
7. After importing succeeded, it will turn back to login interface. Input default password (12345) to log in and modify default password.

3.5 Home Page

You enter the Home page after log into the PVR.

- **Status Bar**

At the top of the screen, the status bar indicates the current status of PVR, including recording status, positioning status, USB connection status, Bluetooth status, Wi-Fi status and battery status.

- **Date & Time**

The current date and time of the system are displayed.

- **Menu Item**

The application icons are displayed in the Menu Item area, including Camera, Recorder, File, Settings, etc.

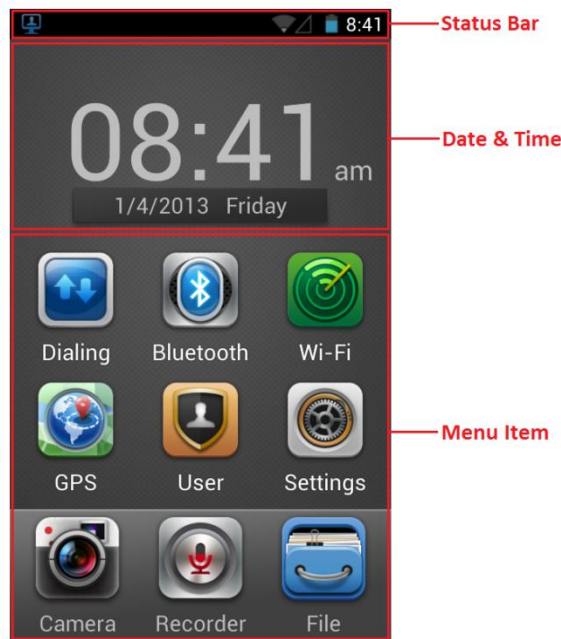


Figure 3. 7 Home Pages

3.6 Notification Center

Swipe down from the top of the screen to view the Notification Center.

- **Quick Start Icons**

5 application icons are displayed in the Notification Center: Bluetooth, Positioning, Wi-Fi, Data communication of SIM Card and Platform. Tap the icon to enable/disable the corresponding functionality. The icons are color-coded with blue / white / light-blue to indicate that the applications are on / off / in process of opening or closing.

- **Detailed Information**

The detailed information of the applications, including USB connection status, platform registration status, positioning status, etc., will be displayed in a list under the quick start icons.

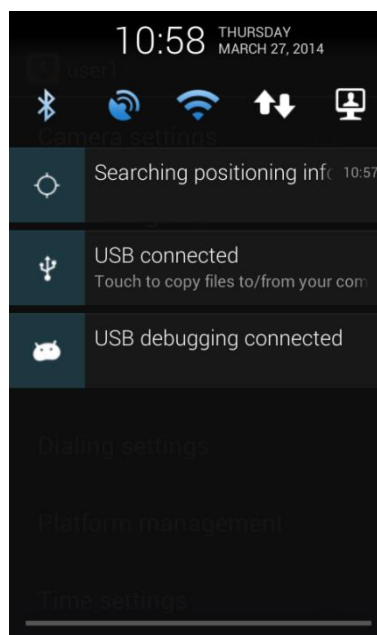


Figure 3. 8 Notification Center

3.7 Connecting PVR to Computer

Purpose:

Connect PVR to a computer using the USB cable, and then you can copy files from PVR to the computer or copy files from the computer to PVR.

Steps:

1. Start the PVR, and then connect it to the computer using a USB cable.
2. Enter the Notification Center, and the message “USB connected” will be displayed on the list.

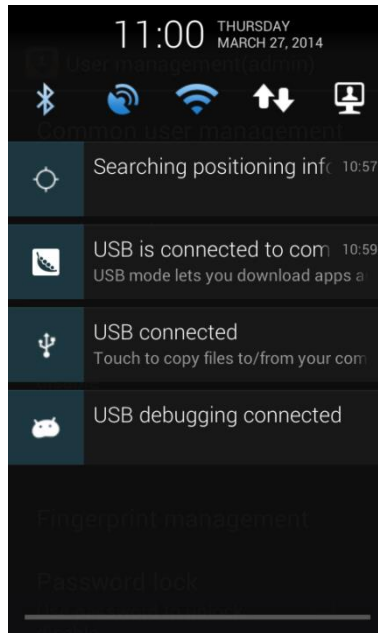


Figure 3.9 Notification Center

3. Tap the item to enter the USB Mass Storage Settings interface.

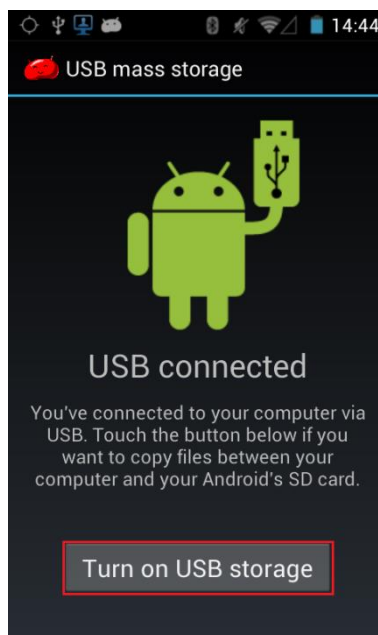


Figure 3.10 USB Mass Storage Settings

4. Tap **Turn on USB storage** on the screen. Then the color of android turns from green to yellow, and the message “USB storage in use” appears, indicating that the PVR is successfully connected to the computer via USB interface.



Figure 3. 11 USB Mass Storage Settings

5. After connected successfully, the PVR works as a storage device.
Enter "My Computer→Removable Disk" on the computer, and you can view and operate the files stored on the PVR.



When the external micro SD card is mounted to the PVR, two removable disks will be displayed on the computer.

6. To exit from the storage mode of PVR, eject the device from the computer, and then tap Turn off USB storage on the screen.

Chapter 4 Record and Capture

Purpose:

The internal and external cameras can both record video files and capture pictures.



In this section, we take the internal camera as an example.

Step:


Tap the camera application icon  on the Home Page to enter the Camera interface.




Figure 4. 1 Camera

4.1 Record Video Files

Two recording methods are provided for PVR: quick recording mode and recording on the Camera interface.

Option 1: Quick Recording Mode

Long press the button  on the front panel of PVR to start / stop the recording. The recording parameters can be set on the Camera interface.

Option 2: Recording on Camera Interface

Steps:

1. Tap the Parameter Settings icon and configure the recording parameters to meet the actual needs.
 - **Resolution:** the size of the image, namely, the number of pixels.
 - **Frame rate:** the frequency of the unique consecutive images (called frames) produced by PVR.
 - **Bitrate:** the number of bits that are conveyed or processed per unit of time.
 - **Flashlight:** the dwell time of the flashlight.

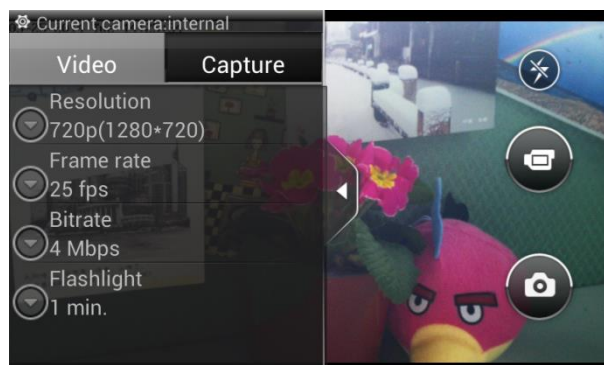




Table 4. 1 Video Settings




The external camera does not support the flashlight.

2. Tap the Record icon  to start recording. The Record icon turns to . You can view the record time in the upper-left corner of the screen.



The duration time of the continuous recording is configurable. For details, see *Section 10.5.1 Recording Parameters Settings*.

3. Tap the icon  to stop recording.
4. Tap the Video/Picture icon in the lower-left corner of the screen to view the record files. For details, see *Section 7.1 Video Files Management*.

4.2 Capture Pictures

Two capture methods are provided for PVR: quick capture mode and capture on the Camera interface.

Option 1: Quick Recording Mode

Tap the Camera button on the right-side panel of PVR capture pictures.

Option 2: Capture on Camera Interface

Steps:

1. Tap the Parameter Settings icon and configure the capture parameters to meet the actual needs.
 - **Auto upload:** upload the captured picture to the platform automatically.
 - **Capture sound:** turn on/off the capture sound.
 - **Resolution:** the size of the captured picture.
 - **Image quality:** the quality of the captured picture.
 - **Continuous:** capture pictures continuously. Up to 8 pictures can be captured at a time.

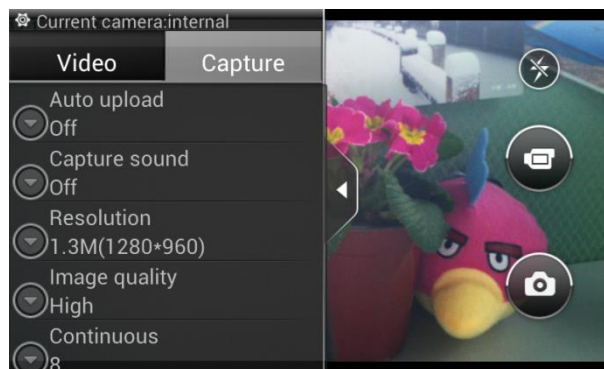



Figure 4. 2 Capture Settings


2. Tap the Capture icon  to capture the picture. You can enable/disable the flashlight according to the external circumstances, to increase the clarity of captured picture.
3. Tap the Video/Picture icon in the lower-left corner of the screen to view the captured pictures. For details, see *Section 7.2 Picture Files Management*.

Chapter 5 Audio Recording

Purpose:

You can also record the audio files separately if needed.

Step:

1. Tap the recorder application icon  on the Home Page to enter the Recorder interface.

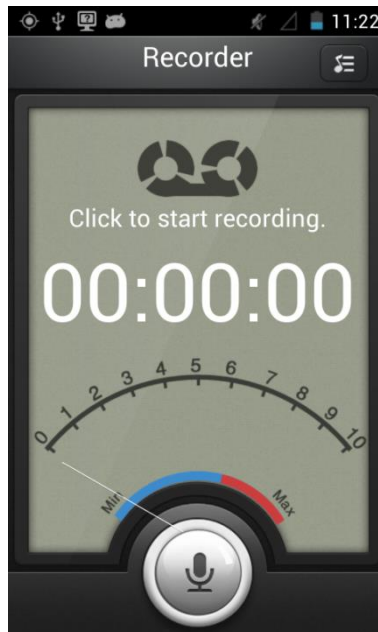




Figure 5. 1 Recorder

2. Tap the icon  to start the audio recording. The icon turns to . The audio file name and audio recording time are displayed on the screen. You can also view the real-time sound intensity from the pointer position on the index dial.

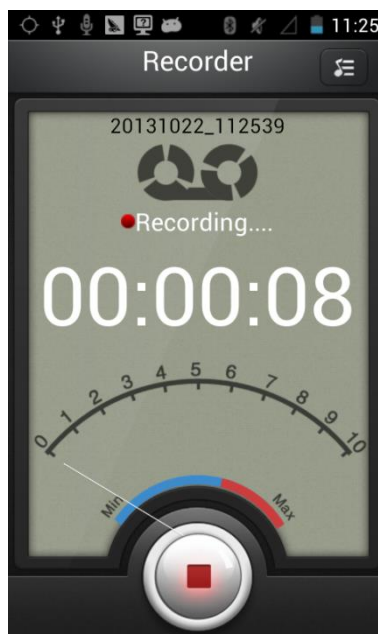



Figure 5. 2 Recorder

3. Tap the icon  during the audio recording and a message box pops up. Tap **OK**, and you can stop the current audio recording; tap **Cancel**, and you can continue the audio recording. The audio

recording does not pause during this period.

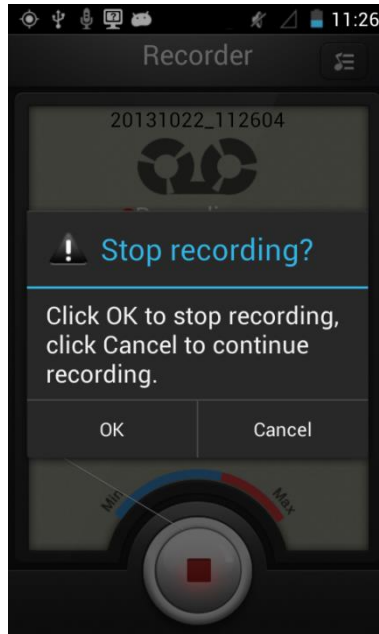



Figure 5. 3 Recorder

4. Tap the icon  in the upper-right corner of the screen to view the recorded audio files. For details, see *Section 8.3 Audio Files Management*.

Chapter 6 Two-way Audio and Group Intercom

6.1 Two-way Audio

Before you start:

Register the PVR on the platform to realize the central management of devices. For details, see *Section 10.4 Platform*.

With the built-in speaker and pick-up, the PVR supports the two-way audio with the platform after the registration is complete, in no need of other associated equipment (including headset and so on).



The two-way audio is initiated by the platform, and the PVR cannot send the two-way audio request.

6.2 Audio Settings

You can record the two-way audio (between device and platform) or voice talk (between members in the group) in the audio recorder or video stream.

Steps:

1. Tap **Settings > MED > Additional Settings > Audio settings** to enter the Audio Settings interface.
2. Check the checkbox of **Intercom Mix**.

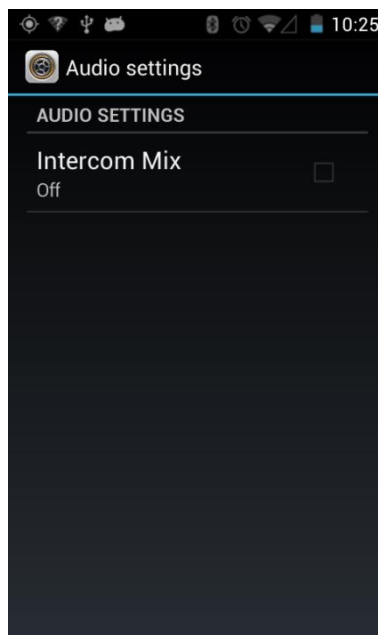


Figure 6. 1 Audio Settings

Chapter 7 Analog Intercom Module (Optional)

Purpose:

Within a specified distance, you can send the real-time voice messages to others via the analog intercom. The difference between group intercom and analog intercom: group intercom sends message basing on the wireless network and analog intercom sends message via radio propagation instead.



Only the device with the build-in analog intercom module supports the function.

Steps:

1. Tap the icon to enter Intercom settings interface.

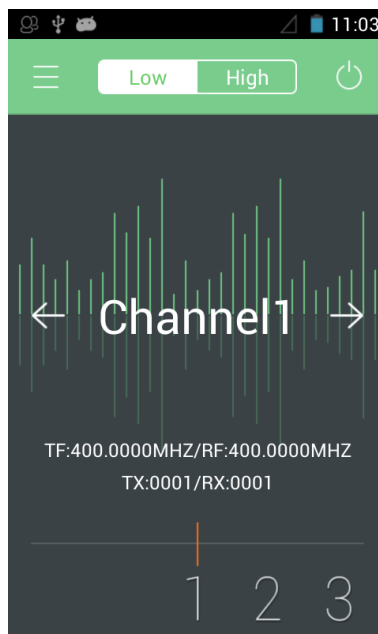


Figure 7. 1 Intercom

2. Select the power consumption of the intercom as **Low** or **High**.
 - **Low**: ensure you can communicate with intercoms within 1 kilometer in low consumption.
 - **High**: ensure you can communicate with intercoms within 3 kilometers in high consumption.



The distance of the **Low** and **High** power consumption above is effective in the open space.

3. Tap the button to switch to the channel you want to talk to.



Up to 8 channels are provided.

4. Tap the icon in the top left corner and tap to select a channel to configure.
5. Tap the **Send**, **Rec Subsonic**, **Out Freq**, **In Freq** or **Bandwidth** to edit the parameters of them.
 - **Send**: set subsonic type and subsonic value of the sending subsonic.
 - **Rec Subsonic**: set subsonic type and subsonic value of the receiving subsonic.
 - **Out Freq**: sending frequency of the current channel.
 - **In Freq**: receiving frequency of the current channel.


- **Bandwidth:** the fluctuating range for **Out Freq** and **In Freq**.



Intercoms with the same above parameters can send and receive the voice messages.

6. Press-and-hold the **PTT** button to speak. And all the intercoms with the same parameters can receive your voice message.

To stop the voice talk service, release the **PTT** button.

7. Tap the  button and tap **OK** to exit the intercom application.




If you press the  or  button instead of , the intercom application will run in background.

Chapter 8 File Management and Uploading

Purpose:

Three types of files are supported, including video files, picture files and audio files. The files created on the same date are stored in one folder which is named by the date, such as 20131106. The device provides a 32G memory, and you can insert an external SD card to extend the storage capacity of the device.

Steps:

1. Tap the file application icon  on the Home Page to enter the File Management interface.
2. You can tap the admin to select account as admin or other user.



The admin user account has the permission to view and manage the files of all users; while the normal user account only has the permission to view and manage its own files.

3. Tap Video, Image, or Audio tab to manage video files, picture files, and audio files.

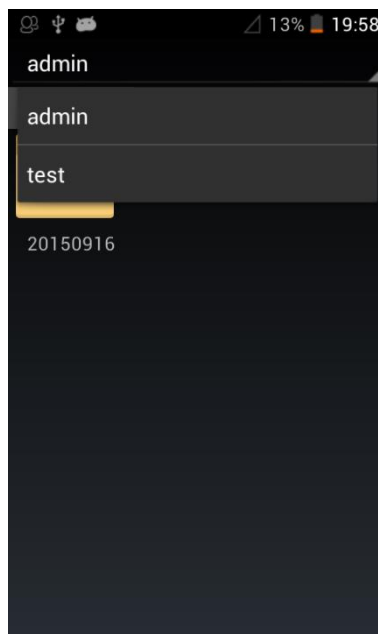


Figure 8. 1 Video

8.1 Video Files Management

Purpose:

You can view and delete the video files.

Step:

Tap the **Video** tab on the File Management interface to enter the Video File Management interface.

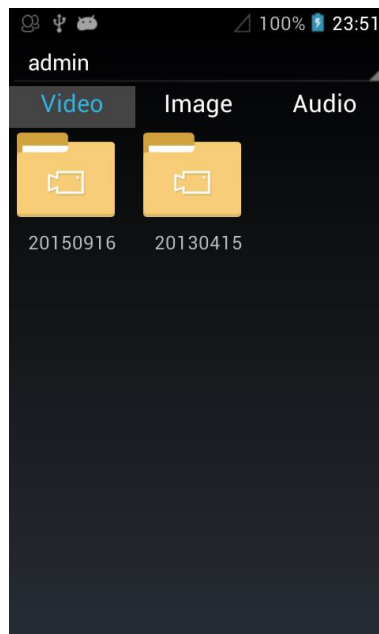


Figure 8. 2 Video

8.1.1 Viewing the Video File

Steps:

1. In Video File Management interface, tap the date folder you want to view. The videos are sorted by date. Videos recorded in the same date belong to the same folder.
2. Tap a video file to start playing it.

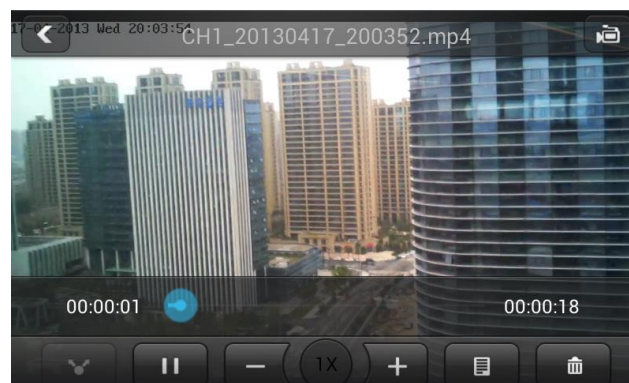


Figure 8. 3 Video File

Table 8. 1 Icon Description

Icon	Name	Description
	Pause/Play	Pause/Play the video.
	Speed up/down	Increase/Decrease the play speed of video. 1x, 2x and 3x are supported.
	Details	View the details of the video, including file name, time, size, etc.
	Delete	Delete the video file.
	Return	Go back to the video file list interface.
	Record	Go to the record interface of camera.

8.1.2 Deleting the Video File

Purpose:

You can delete one video at a time or delete the video files in batches on the File Management interface.

Steps:

- To delete video folder, do following steps:
 1. In Video File Management interface, tap down the folder you want to delete for 2 seconds.
 2. Tap **Delete** and tap **OK** in pop-up dialog box to delete it.

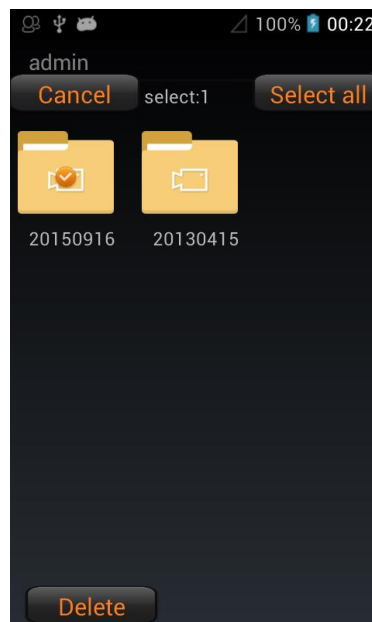


Figure 8. 4 Delete Folder

- To delete a video, do following steps:
 1. In Video File Management interface, tap a folder who contains the video you want to delete.
 2. Tap down the video you want to delete for 2 seconds.
 3. Tap **Delete** and tap **OK** in pop-up dialog box to delete it.

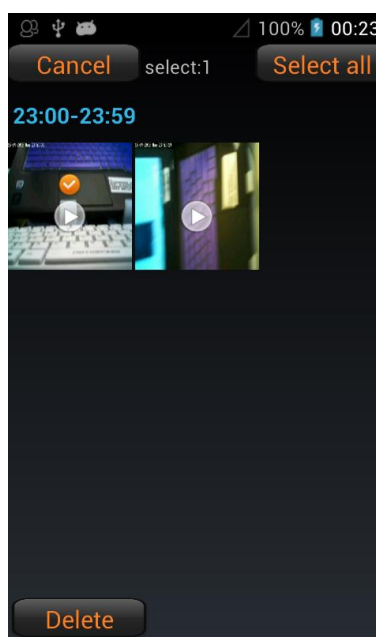


Table 8. 2 Delete Video

8.2 Image Files Management

Purpose:

You can view, upload, and delete the image files.

Step:

Tap the **Image** tab on the File Management interface to enter the Image File Management interface.

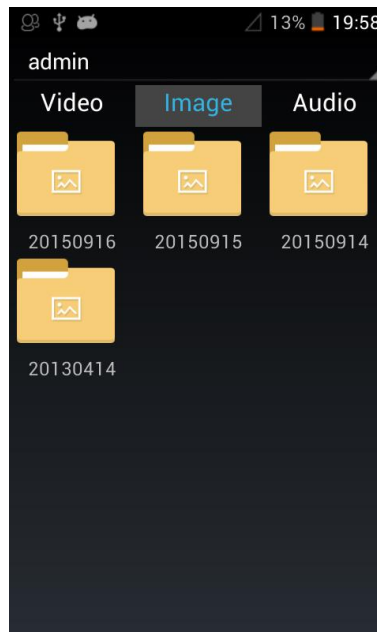


Figure 8. 5 Image

8.2.1 Viewing the Image File

Steps:

1. In Image File Management interface, tap the date folder you want to view. The images are sorted by date. Images taken in the same date belong to the same folder.
2. Tap the image file to view it.
3. You can swipe left or right to view previous or next image.

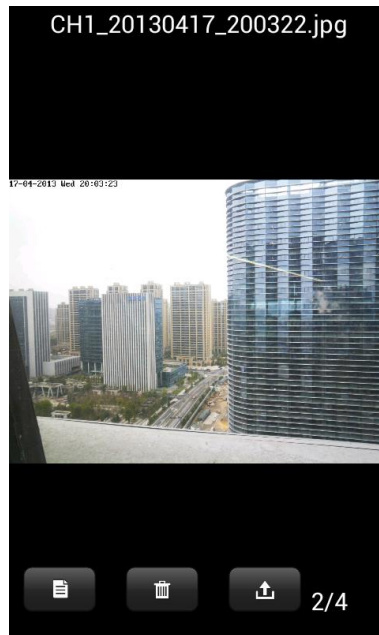


Figure 8. 6 Picture

Table 8. 3 Icon Description

Icon	Name	Description
	Details	View the details of the image, including file name, time, size, etc.
	Delete	Delete the image file.
	Upload	Upload the image file to the platform.


8.2.2 Uploading Image to Platform

Before you start:


The device should be registered on the platform.

Steps:


- To upload one image, do following step:

In image playback interface, tap  and tap **OK** in pop-up dialog box to upload it.

- To upload images in batch, do following steps:

1. Enter a date folder.
2. Tap down an image for 2 seconds to pop up menus.
3. Tap to select images you want to upload.
4. Tap  and tap **OK** in pop-up dialog box to upload them.



The image that has been uploaded to the platform will be marked with the icon .

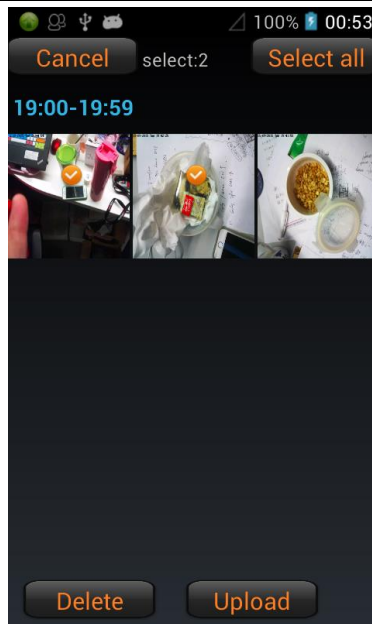



Figure 8. 7 Upload Image

8.2.3 Deleting the Image File

You can delete one image at a time or delete image in batches on the File Management interface.

Steps:

- To delete one image at a time, do following step:

In image playback interface, tap the  button and tap **OK** in pop-up dialog box to delete it.

- To delete images in batch, do following steps:
 1. Enter a date folder.
 2. Tap down an image for 2 seconds to pop up menus.
 3. Tap to select images you want to delete.
 4. Tap **Delete** and tap **OK** in pop-up dialog box to delete them.

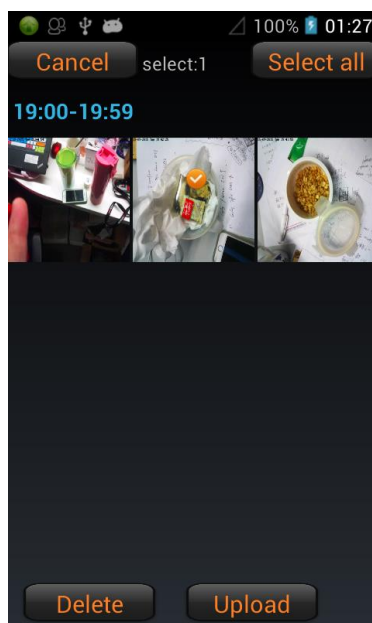


Figure 8. 8 Delete Picture

8.3 Audio Files Management

Purpose:

You can view and delete the audio files.

Step:

Tap the **Audio** tab on the File Management interface to enter the Audio File Management interface.

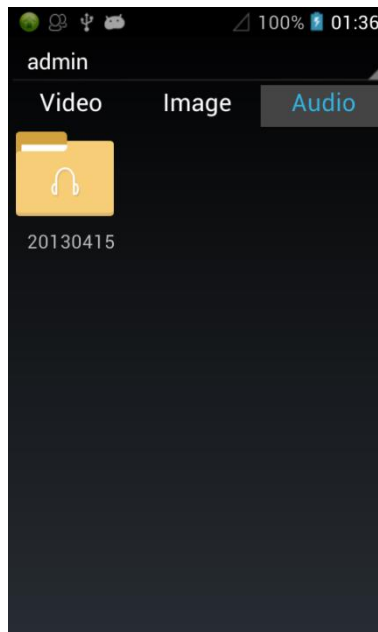


Figure 8. 9 Audio

8.3.1 Viewing the Audio File

Steps:

1. In Audio File Management interface, tap the date folder you want to view. The audios are sorted by date. Audios recorded in the same date belong to the same folder.
2. Tap the audio file to play it.
3. You can drag the blue slider on the process bar to adjust the audio play process.



Figure 8. 10 Audio File

Table 8. 4 Icon Description

Icon	Name	Description
	Pause/Play	Pause/Play the audio.
	Details	View the details of the audio file, including the name, time, size, etc.
	Delete	Delete the audio file.


8.3.2 Deleting the Audio File

Purpose:

You can delete the audio files in batches on the File Management interface.

Steps:

- To delete one audio at a time, do following step:

In audio playback interface, tap  and tap **OK** in pop-up dialog box to delete it.

- To delete audios in batch, do following steps:
 1. Enter a date folder.
 2. Tap down an audio for 2 seconds to pop up menus.
 3. Tap to select audios you want to delete.
 4. Tap **Delete** and tap **OK** in pop-up dialog box to delete them.

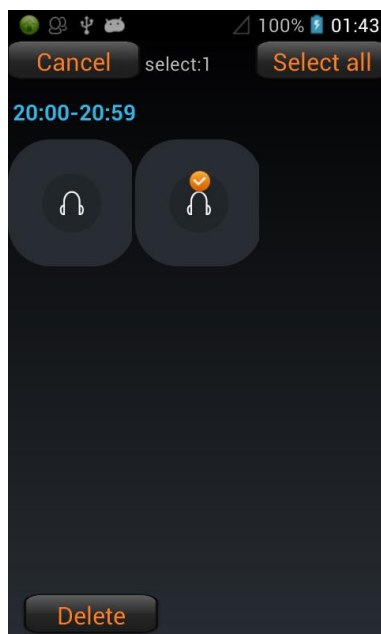


Figure 8. 11 Delete Audio

Chapter 9 Alarm

9.1 Acceleration Alarm



Acceleration Alarm function is not supported by DS-6102HLI-SE series PVR.

When the PVR drops down at a fast speed, it will generate acceleration alarm and then upload the acceleration alarm to the platform. Meanwhile, the PVR will vibrate to send a notification, with the message “Acceleration alarm” displayed on the interface.



Figure 9. 1 Acceleration Alarm

9.2 Manual Alarm

In emergency conditions, press the Alarm button on the side of PVR manually. Then, the manual alarm information will be uploaded to the platform, and the PVR will vibrate to send a notification, with the message “Manual alarm” displayed on the interface.

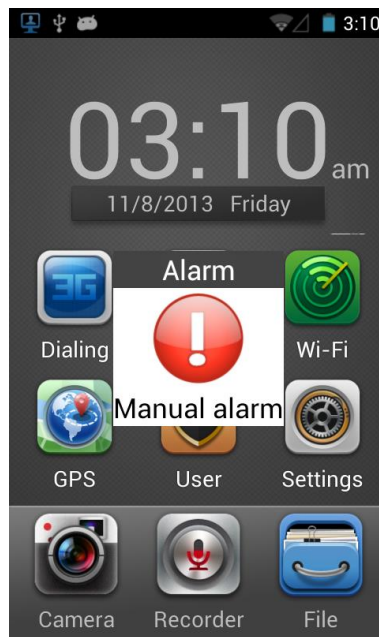


Figure 9. 2 Manual Alarm

9.3 Temperature Alarm

With the built-in temperature sensor, the PVR will send alarm signal when the body temperature exceeds the upper limit (75° C), to avoid the heat damage to the device.

Chapter 10 Message

Before you start:


Register the PVR on the platform to realize the central management of devices. For details, see *Section 11.4 Platform*.

Purpose:

You can send message from the platform to the mobile terminal, to release notification to the users of the device.



You can only use the iVMS-7200 platform to send message to PVR. For other platforms, this function can be custom-made to meet the actual needs.

Tap the message application icon  on the Home Page to enter the Message interface.
The messages received from the platform will be displayed on a list.

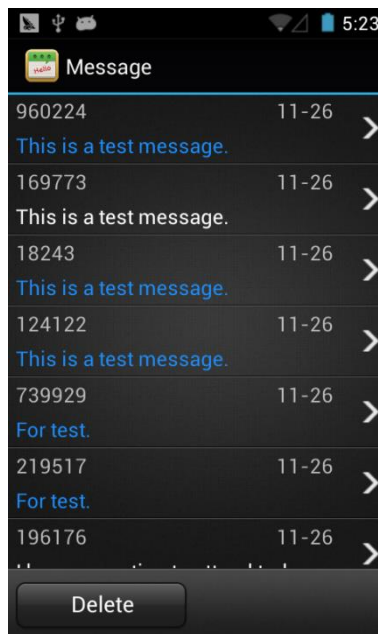


Figure 10. 1 Message

The message that has been checked is marked as blue; otherwise, it is marked as white.

The PVR can receive up to 1000 items of messages, and the new messages will cover the old ones when the number exceeds the limit.

To view the message:

Tap the item on the list, and you can view the detailed information of the selected message,

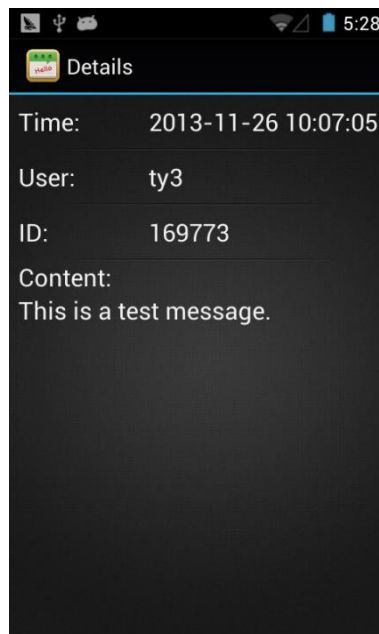


Figure 10. 2 Details

To delete the message:

Tap **Delete** under the list, select the messages, and then tap **OK** to delete the selected messages.

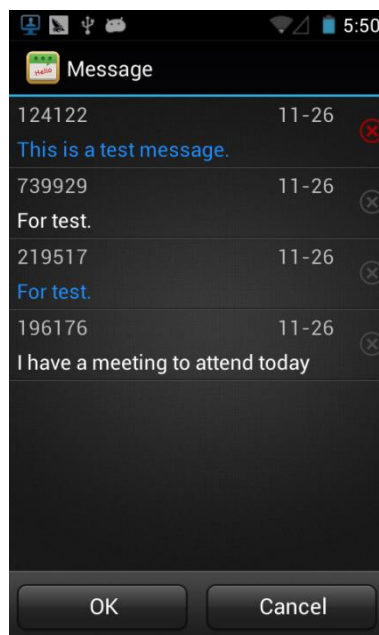


Figure 10. 3 Message

You can also press the **Menu** button on the front panel to show the hidden menu, and tap **Delete all messages** to remove all the messages.

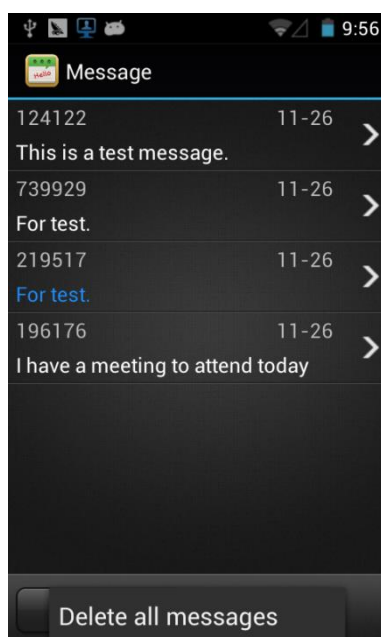


Figure 10. 4 Message

Chapter 11 General Configuration


11.1 Network

11.1.1 Dialing Settings

2 SIM cards can be installed on the PVR, including Main SIM Card and Slave SIM Card. You can configure the dialing settings for each SIM card.

Take the Main SIM Card as an example:

Steps:

1. Tap the icon  on the home page, or tap **Settings** > **NET** > **Dial settings** to enter the Dialing Settings interface.
2. Select the Main SIM Card.

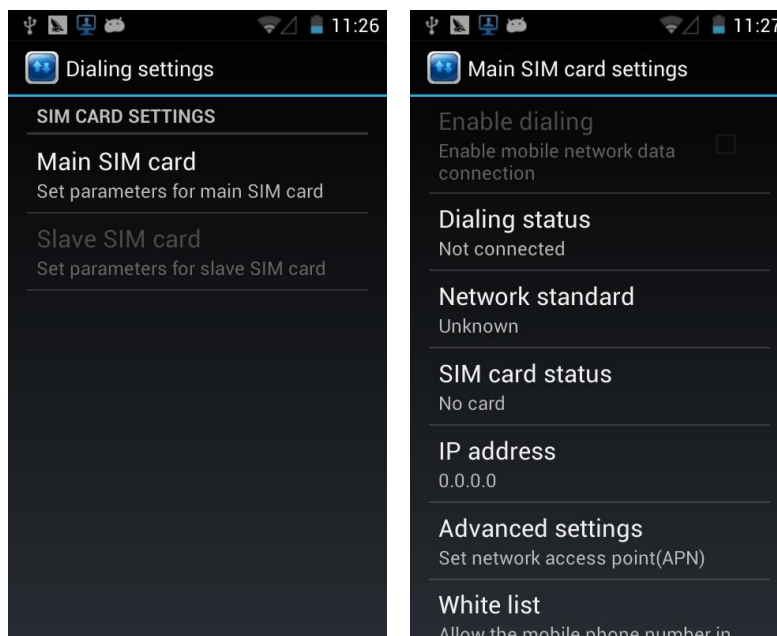


Figure 11. 1 Dialing Settings

Enable Dialing



When 3G dialing and Wi-Fi networks are both available, give priority selection to the Wi-Fi networks.

Tap **Enable dialing** on the main SIM card settings interface after installing the Main SIM Card. Then, the device will connect to the mobile networks and the information including the dialing status, SIM card status, network standard and IP address will be displayed automatically.

3 types of SIM card status are provided: No card, Normal and Abnormal.

Advanced Settings

You can configure the advanced settings for 3G VPDN (Virtual Private Dialup Network).

Steps:

1. Tap **Advanced settings** to enter the APN Settings interface.

The default 3G VPDN account will be displayed on the page.

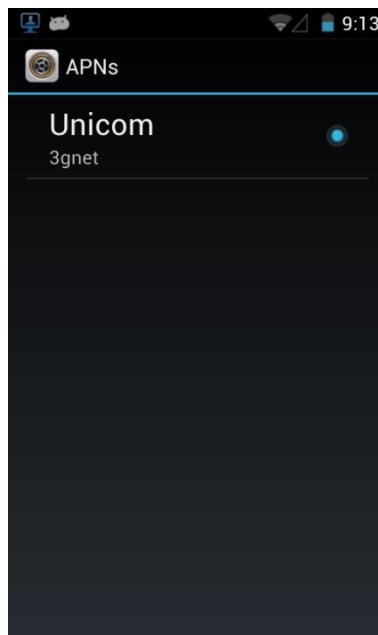



Figure 11. 2 Advanced Settings

2. Tap the button  on the front panel to shown the hidden menu.

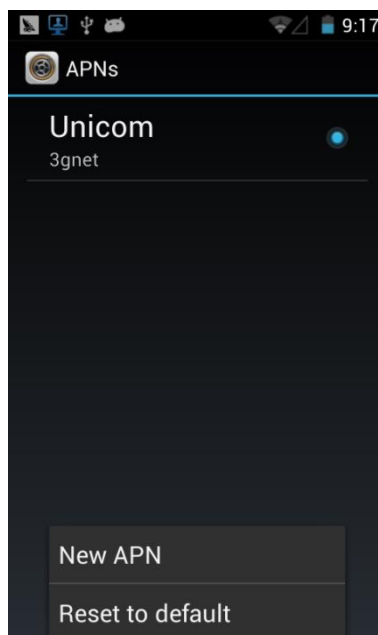


Figure 11. 3 Advanced Settings

3. Select **New APN** to create a new access point for the 3G SIM card.
You can select **Reset** to default to restore the default settings of the current APN.

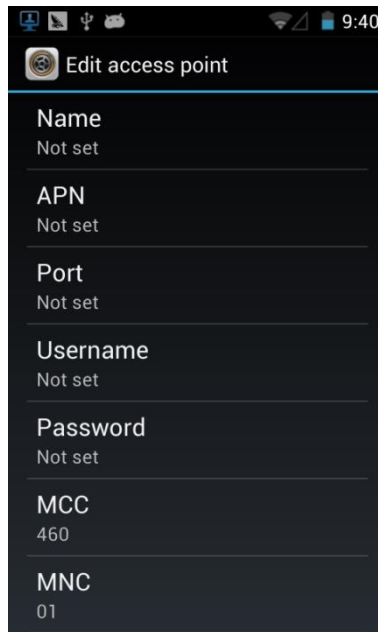



Figure 11. 4 New APN Settings

4. Input the service provider's name, access point name (APN), username, password, Mobile Country Code (MCC), Mobile Network Code (MNC) and then select the authentication type.



To configure the 3G VPDN settings, please contact the local operator and consult the network parameters.

5. Tap the button  again, and tap **Save** to save the parameters.

White List Settings

With the white list settings, the device will get online / offline (log in / out the platform) according to the remote command message. Up to 8 groups mobile number can be added to the white list. You can send text with authorized mobile number to the SIM card No. of device to operate the device remotely. Text "on", and the device will get online (log in the platform); text "off", and the device will get offline (log out the platform).

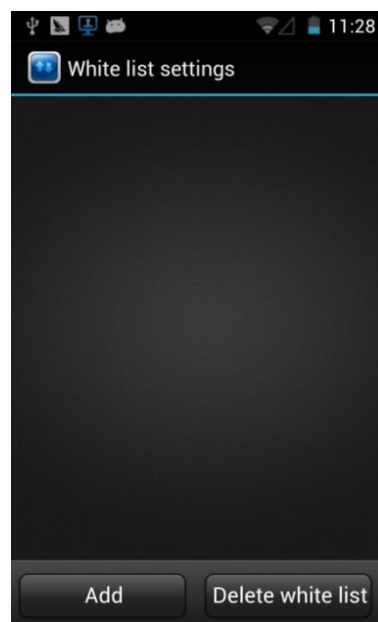


Figure 11. 5 White List Settings

To add mobile number to white list:

Tap the **Add** button, input the mobile number on the text field, and then tap **OK** to save the settings.

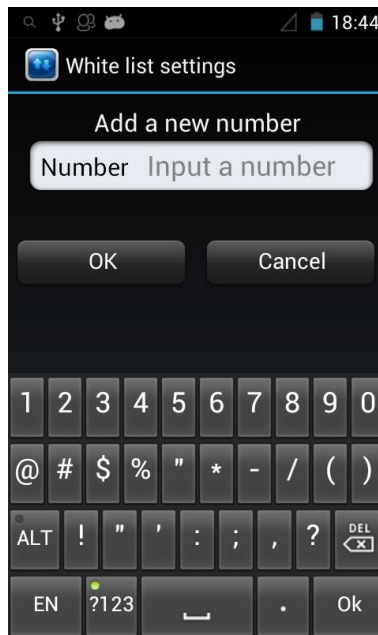


Figure 11. 6 Add a New Number

To delete mobile number from the white list:

Tap the **Delete white list** button, select the mobile number on the white list, and tap **Delete** to delete the selected mobile number from the white list.

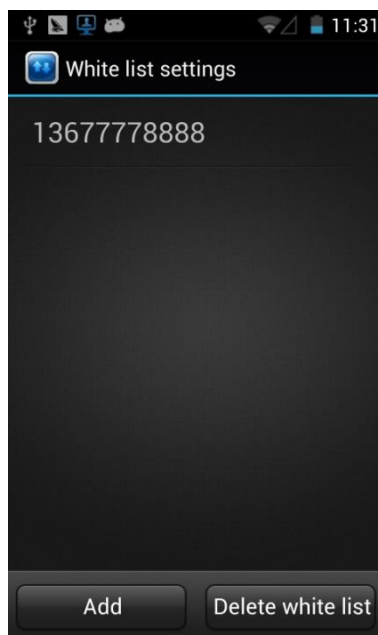


Figure 11. 7 Delete a While List

Module Format

The module format has been set when the device is delivered, such as CDMA, WCDMA or LTE.




The standard format of the installed SIM card should be the same with that of the device.

11.1.2 Wi-Fi Settings

You can connect the device to the Wi-Fi networks and transmit the data via the Wi-Fi.

Steps:

1. Tap the icon  on the home page, or tap **Settings > NET > Wi-Fi settings** to enter the Wi-Fi Settings interface.
2. Swipe the slider of Search network to the right side to enable the Wi-Fi settings.

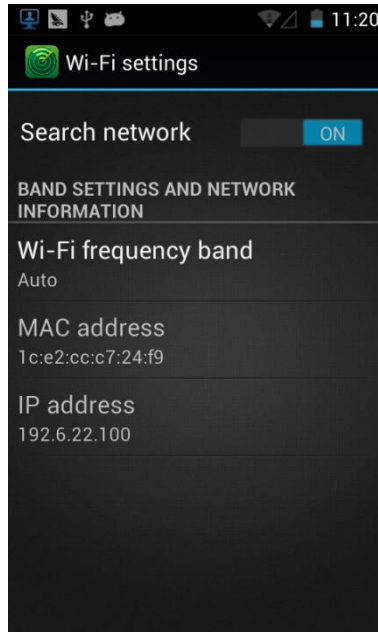


Figure 11. 8 Wi-Fi Settings

3. Tap the **Search network** item, and then the Wi-Fi networks available will be searched and displayed on a list automatically. You can view the signal strength, connection status, security mode and other information of the networks.

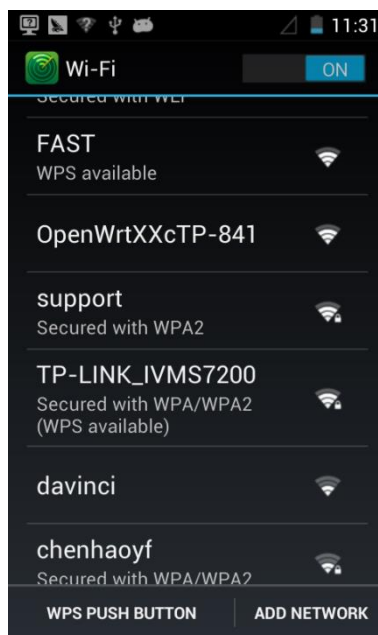


Figure 11. 9 Network List

4. You can also tap **ADD NETWORK** to add the access point manually.

- 1) Input the network SSID and then select the security mode.
- 2) Optionally, you can check the checkbox of **Show advanced options**, and then input to configure the information including proxy settings, IP address, gateway, etc.
- 3) Tap **Save** to save the settings. The new access point will be displayed on the Wi-Fi networks list.

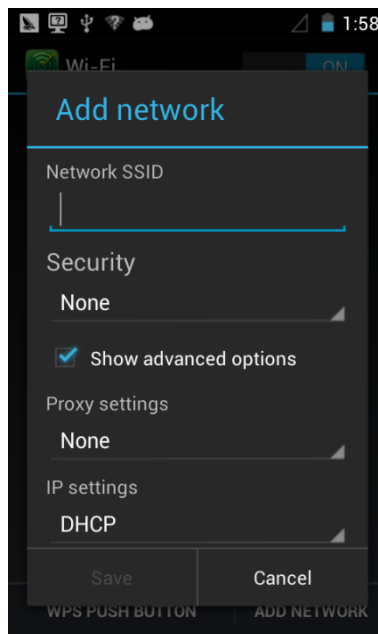


Figure 11. 10 Join a Network

5. Select the access point on the list, input the password, and then tap the **Connect** button to connect the device to the Wi-Fi networks.

You can also check the checkbox of **Show password** to display the password in plaintext, or check the checkbox of **Show advanced options** to configure the proxy settings or IP settings.

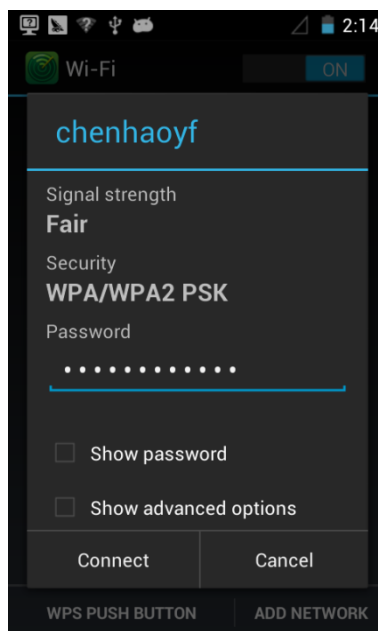


Figure 11. 11 Join a Network

6. Tap the connected access point of Wi-Fi networks, and you can view the detailed information of the access point, including status, signal strength, link speed, and so on. You can tap **Forget** to disconnect the device from the Wi-Fi networks.

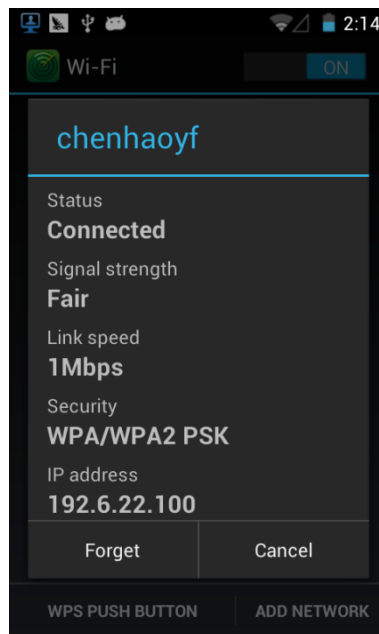


Figure 11. 12 Forget a Network

7. Wi-Fi Protected Setup (WPS)

Wi-Fi Protected Setup (WPS) is a computing standard that attempts to allow easy establishment of a secure wireless network. With the WPS function, the device can be connected to the Wi-Fi networks, with no need of password. Press the WPS push button on the router, and tap **WPS PUSH BUTTON** on the device interface to search the WPS networks. Then, the device will be connected to the available WPS networks automatically without the password.

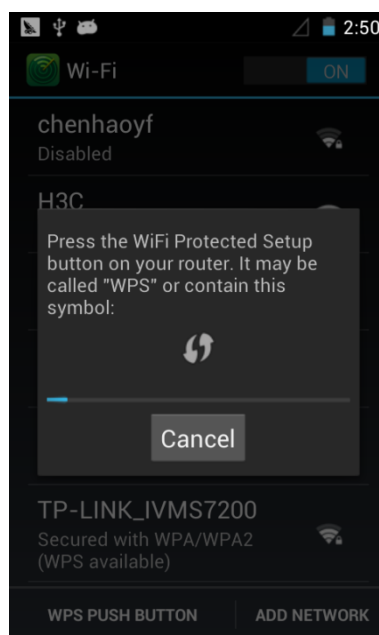


Figure 11. 13 Wi-Fi Protected Setup

11.1.3 Wired Network Settings

The device can be connected to the wired networks and transmit the data via the network cables.



This function requires for the support of device extension base.

Steps:

1. Tap **Settings > NET > Wired network** to enter the Wired Network Settings interface.

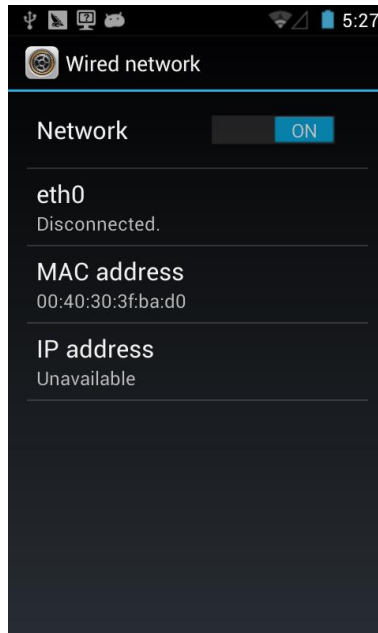


Figure 11. 14 Wired Network

2. Swipe the slider of network to the right side to enable the wired network settings.
3. Connect the device extension base to the network, and thus the PVR will be connected to the network.


11.2 Bluetooth

Purpose:

You can use the PVR with Bluetooth devices, such as Bluetooth headsets, Bluetooth printer, etc.

Before using the PVR with Bluetooth devices, you should pair them first.

Steps:

1. Tap the icon  on the home page, or tap **Settings > NET > Bluetooth** to enter the Bluetooth Settings interface.
2. Swipe the slider of Bluetooth to the right side to enable the Bluetooth settings.

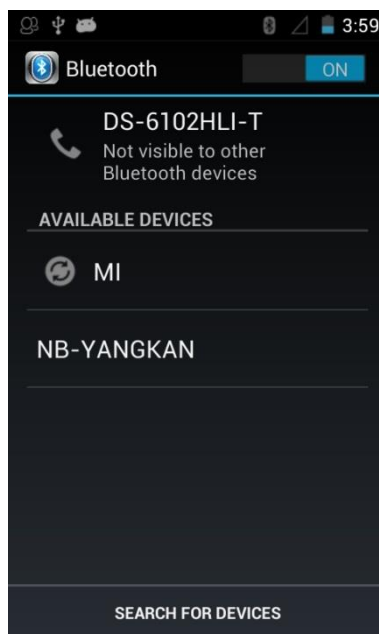


Figure 11. 15 Bluetooth

3. Tap the “**DS-6102HLI-T**” item, and the PVR becomes visible to other Bluetooth devices nearby for 2 minutes and it will stop in 2 minutes. To disable the function immediately, tap the “**DS-6102HLI-T**” item again.



The name of “**DS-6102HLI-T**” item varies according to the PVR model.

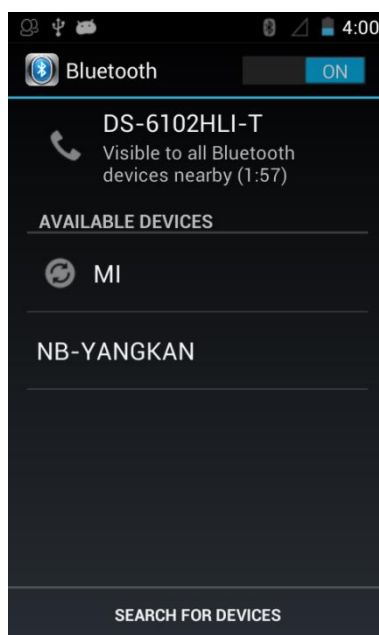


Figure 11. 16 Bluetooth Settings

4. The available Bluetooth devices nearby will be searched and displayed on a list.
Tap the **SEARCH FOR DEVICES** button, and you can refresh the information of the devices on the list.

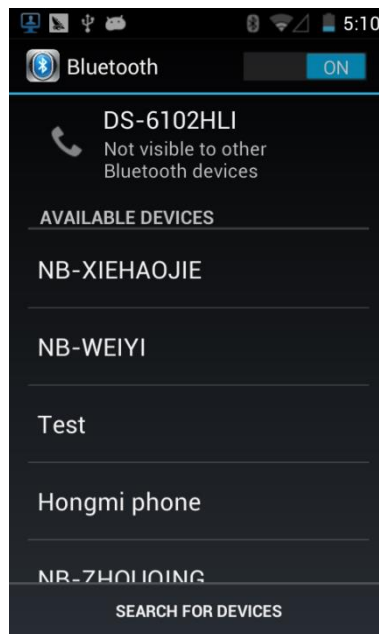


Figure 11. 17 Search Devices

5. Tap the Bluetooth device item on the list to pair it with the PVR.



If prompted, input the passkey on the Bluetooth device side. See the instructions about the passkey that came with the Bluetooth device

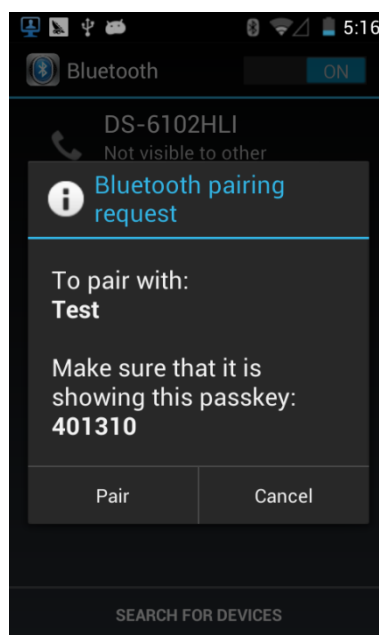


Figure 11. 18 Pairing

6. Tap the **Pair** button, and the Bluetooth device will be displayed on the Paired Devices list after the pairing process is complete.

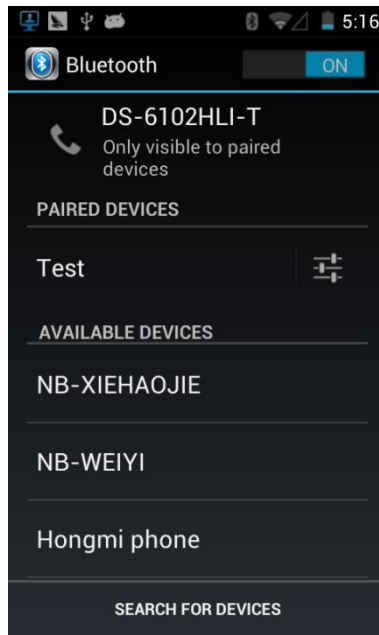



Figure 11. 19 Pairing

7. To disconnect the Bluetooth device, tap the icon  of the paired device, tap the **Unpair** button, and then confirm the pop-up message box.

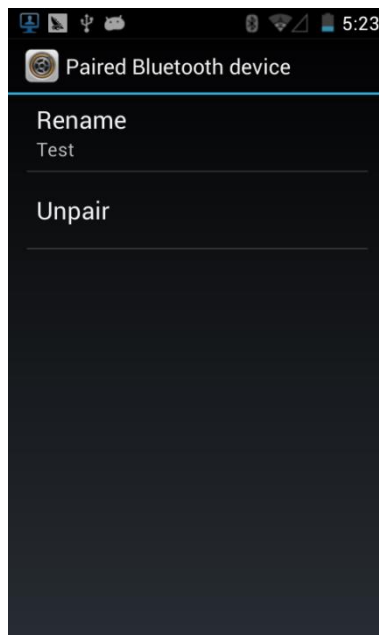



Figure 11. 20 Unpair

11.3 Positioning

With the built-in GPS/BDS (optional) positioning module, the current longitude, latitude and speed of the device will be detected and displayed.

Steps:

1. Tap the positioning icon  on the home page, or tap **Settings > NET > Positioning settings** to enter the Positioning Settings interface.

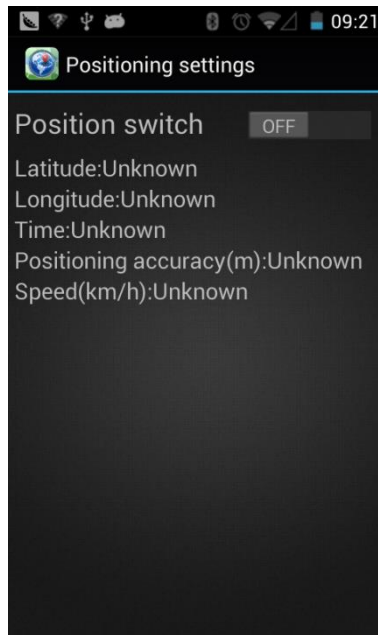


Figure 11. 21 Positioning

2. Swipe the slider of position switch to the right side to enable the positioning settings.
The longitude, latitude, time, positioning accuracy and speed of the device will be displayed automatically when the positioning signal is available.

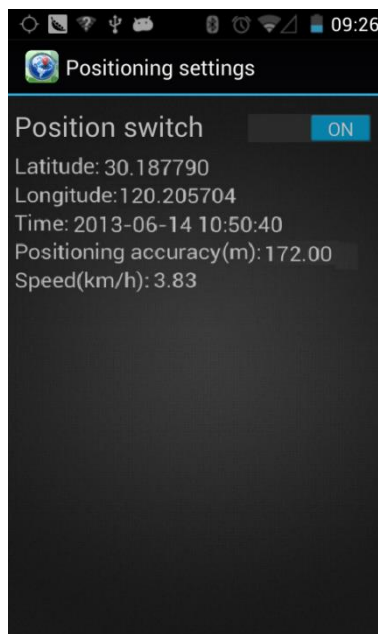


Figure 11. 22 Turn on Positioning



- To realize the BDS function, plug the additional BDS module into the device, select BDS as the positioning working mode, and then reboot the device to activate the new settings.
- Locate the device in open space to receive the positioning signal if no data is displayed.
- Once positioning succeeded, system time will be synchronized with the time gotten from GPS/BDS satellite. And the priority of positioning time synchronization is higher than time set manually or automatically.

11.4 Platform

The PVR can be connected to iVMS-7200 series platform, providing functions including live view, two-way audio, alarm, etc.

Steps:

1. Tap **Settings > NET > Platform settings** to enter the Platform Settings interface.

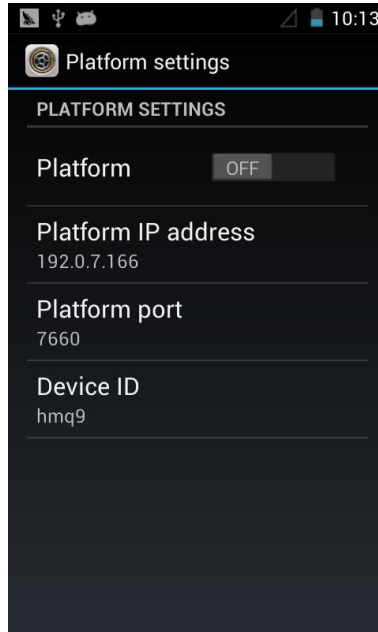


Figure 11. 23 Platform Settings

2. Swipe the slider of Platform to the right side to enable the platform settings, and then input the required information.
 - **Platform IP Address:** the IP address of the computer running the platform server.
 - **Platform Port:** the network communication port of the platform. The default value is 7660.
 - **Device ID:** the identification name of the device. The device ID should be registered on the platform first.

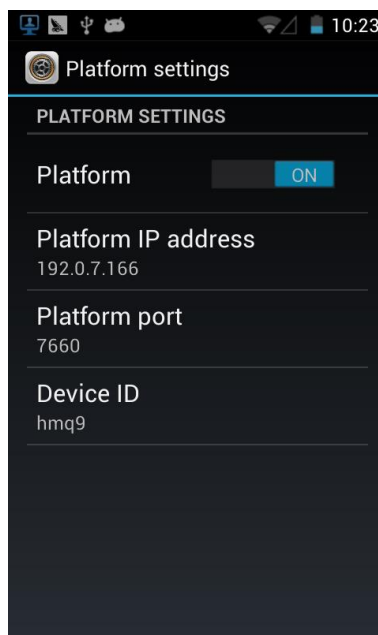


Figure 11. 24 Platform Settings

11.5 Tethering & Portable Hotspot

The PVR supports Internet connection sharing with PVRs, PCs or mobile phones via network cable, USB interface or Bluetooth, and you can also set it as a Wi-Fi hotspot to provide Wi-Fi signal for devices nearby.

Steps:

1. Tap **Settings > NET > Portable hotspot settings** to enter the Tethering & Portable Hotspot Settings interface.

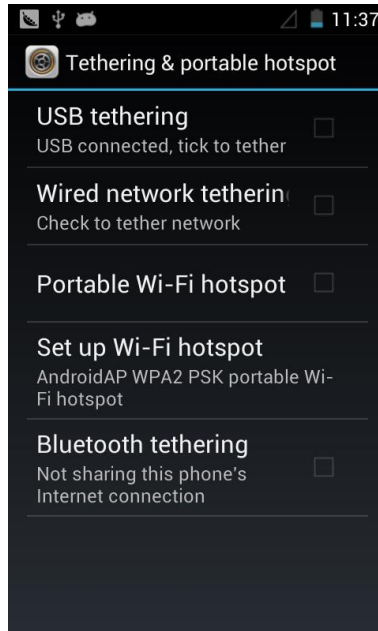


Figure 11. 25 Portable Hotspot Settings

2. Connect the PVR to a computer or other available device via the USB interface, check the checkbox of **USB tethering**, and then the PVR will share the Internet connection with the connected computer or other devices.
3. Connect the PVR to another PVR or a computer or other available device via the network cable, check the checkbox of **Wired network tethering**, and then the PVR will share the Internet connection with the connected PVR, computer, or other devices.



The wired network tethering requires for the support of device extension base.

4. Connect the PVR to another PVR or other available device via Bluetooth function, check the checkbox of **Bluetooth tethering**, and then the PVR will share the Internet connection with the connected PVR or other devices.
5. Check the checkbox of **Portable Wi-Fi hotspot** and then tap the **Set up Wi-Fi hotspot** item to configure the network parameters including SSID, security type and password.

11.6 ONVIF Protocol

The device can be connected to NVR via ONVIF protocol, and you can configure the ONVIF protocol parameters according to the actual needs.

Steps:

1. Tap **Settings > NET > ONVIF settings** to enter the ONVIF Settings interface.

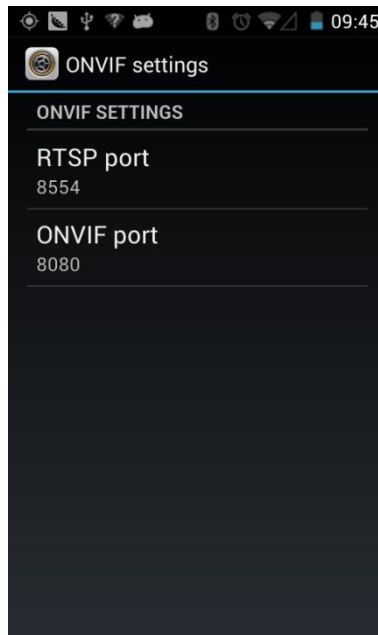


Figure 11. 26 ONVIF Settings

2. Input the RTSP port and ONVIF port to meet the actual needs.
The RTSP port is 8554 by default and the ONVIF port is 8080 by default.



Due to the limit of NVR, only 1-ch video stream can be gotten from the device.

11.7 LAN Connection

Purpose:

The device supports LAN connection and you can access it via the iVMS-4200 client software.

Steps:

1. Tap **Settings > NET > LAN Connection** to enter the HIKVISION Protocol Settings interface.

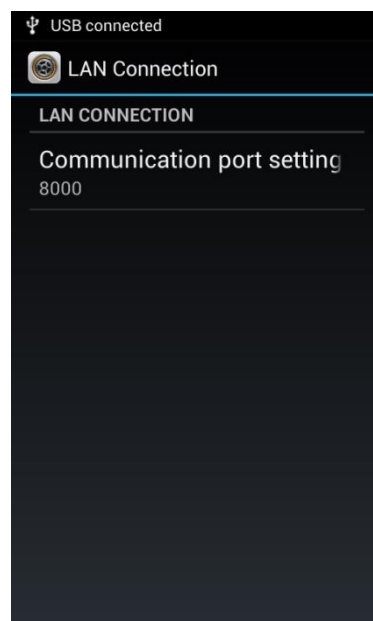


Figure 11. 27 LAN Connection

2. Edit the communication port.
The communication port is 8000 by default.
3. Reboot the device to activate the new settings.

11.8 Ping Test

Purpose:

Test the network connection between PVR and target host.

Steps:

1. Tap **Settings > NET Ping > Test**.

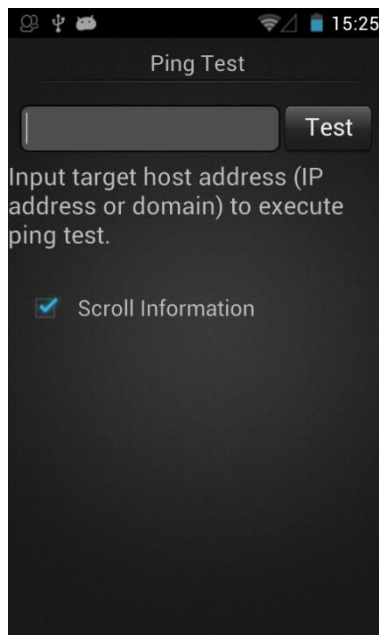


Figure 11. 28 Ping Test

2. Input target host address (IP address or domain) in the text field.
3. Optionally, check **Enable Information Scrolling** checkbox to start scrolling ping test result.
4. Tap **Execute** to start ping test.
5. Tap **Stop** to stop ping test.

Chapter 12 Configuration

12.1 Audio and Video Parameters

12.1.1 Recording Parameters Settings

The recording parameters of the internal and external camera can be configured, including the recording stream type, resolution, frame rate, duration and maximum bitrate. You can also configure the basic parameters on the Camera interface. The new recording settings will be activated the next time the camera started.

Steps:

1. Tap **Settings > MED > Recording parameter settings**.



Figure 12. 1 Recording Settings

2. Select the internal camera or external camera to set the corresponding recording parameters.
 - **Recording Stream:** Video stream and composite stream are selectable. The video stream contains only the video information, and the composite stream contains both the video and audio information.
 - **Resolution:** For DS-6102HLI-T series, 1080P, 720P, D1, VGA and QVGA are selectable for both internal camera and external camera. For DS-6102HLI(-SE) series, 1080P, 720P, D1, VGA and QVGA are selectable for the internal camera; and only the D1 and CIF are selectable for the external camera..
 - **Frame Rate:** the number of unique consecutive images (called frame) per second. Full frame rate (25 fps), 22fps, 20 fps, 18fps, 16fps, 15 fps, 12 fps, 10 fps, 8fps, 6fps, 4fps, 2fps and 1 fps are selectable.
 - **Continuous Recording Duration:** indicates the size of the record file. Continuous, 15 min., 30min., 45min, 1h, and 2h are selectable. No time limit is set when Continuous is selected, and the record file size cannot be larger than 1.99G.
 - **Max. Bitrate:** The greater the resolution and frame rate of the recordings are, the greater the required bitrate is. The maximum bitrate ranges from 64Kbps to 8Mbps.

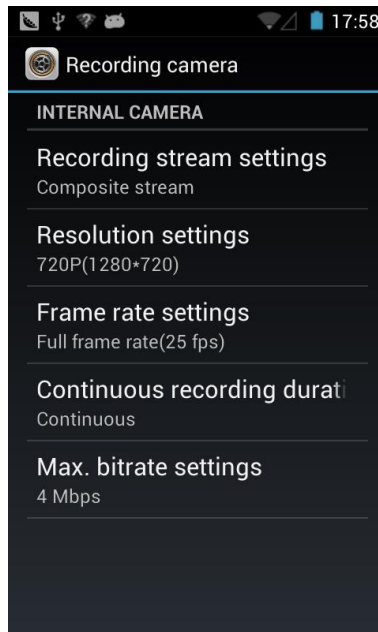


Figure 12. 2 Recording Camera

12.1.2 Network Transmission Settings

The network transmission parameters of the internal camera and external camera can be configured, including the stream type, resolution, frame rate, maximum bitrate and encoding type. The new network transmission settings will be activated the next time the platform gets stream.

Steps:

1. Tap **Settings > MED > Network transmission settings**.

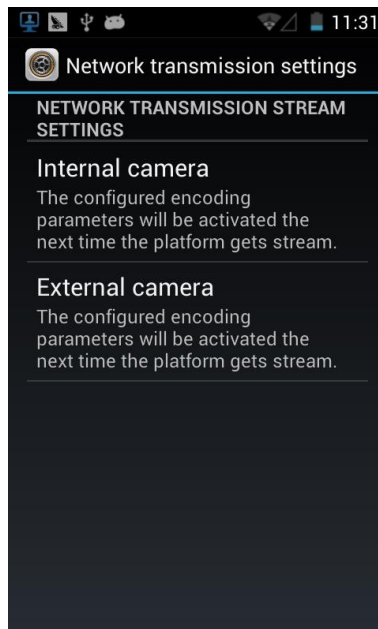


Figure 12. 3 Network Transmission Settings

2. Select the internal camera or external camera to set the corresponding transmission parameters.
 - **Stream Type:** Video stream and composite stream are selectable. The video stream contains only the video information, and the composite stream contains both the video and audio information.

- **Resolution:** For DS-6102HLI-T series, 1080P, 720P, D1, VGA and QVGA are selectable for both internal camera and external camera. For DS-6102HLI(-SE) series, 1080P, 720P, D1, VGA and QVGA are selectable for the internal camera; and only the D1 and CIF are selectable for the external camera.
- **Frame Rate:** the number of unique consecutive images (called frame) per second. Full frame rate (25 fps), 22fps, 20 fps, 18fps, 16fps, 15 fps, 12 fps, 10 fps, 8fps, 6fps, 4fps, 2fps and 1 fps are selectable.
- **Max. Bitrate:** The greater the resolution and frame rate of the transmitted video are, the greater the required bitrate is. The maximum bitrate ranges from 64Kbps to 4Mbps.
- **Encoding Type:** VBR (Variable Bit Rate) and CBR (Constant Bit Rate) are selectable. The value of selected CBR is the same with that of Max. Bitrate; and the value of VBR adjusts automatically under the Max. Bitrate.

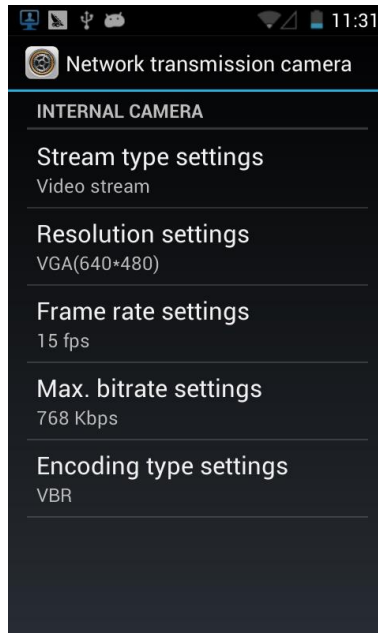


Figure 12. 4 Network Transmission Camera

12.1.3 Capture and OSD Settings

Capture Settings

Steps:

1. Tap **Settings > MED > Camera settings**.

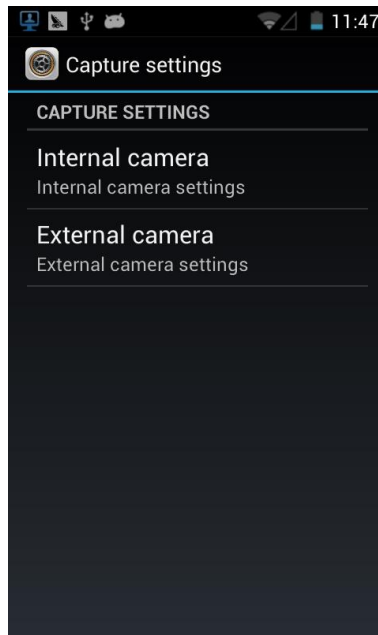


Figure 12. 5 Capture Settings

2. Select the internal camera or external camera to set the corresponding capture parameters.
 - **Auto Upload Images:** Check the checkbox to upload the captured pictures to the platform automatically.
 - **Camera Sound:** Check the checkbox to open the camera sound.
 - **Image Quality:** High, Middle and Low are selectable.
 - **Image Resolution:** For DS-6102HLI-Tseries, the size of the captured picture. For the internal camera, VGA, 1.3M, 3M, 5M, 8M, 10M and 13M are selectable; for the external camera, VGA, 1.3M and 2M are selectable. For DS-6102HLI(-SE) series, the size of the captured picture. For the internal camera, VGA, 1.3M, 3M and 5M are selectable; for the external camera, CIF and D1 are selectable.

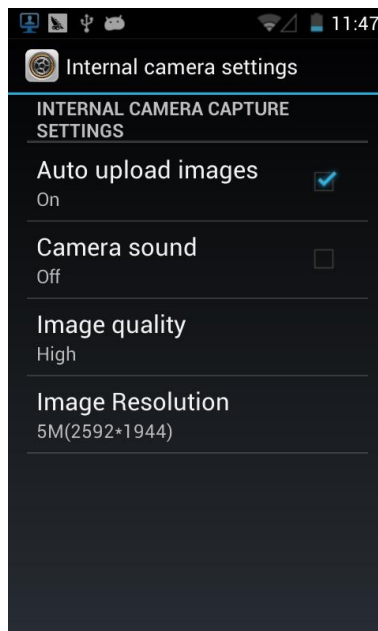


Figure 12. 6 Internal Camera Settings

OSD (On Screen Display) Settings

Steps:

1. Tap **Settings > MED > OSD settings**.

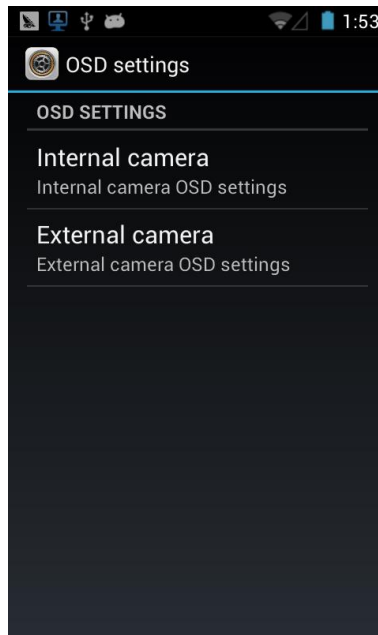


Figure 12. 7 OSD Settings

2. Select the internal camera or external camera to set the corresponding OSD parameters.
 - **OSD:** Check the checkbox to enable the OSD settings.
 - **OSD Content:** Select the OSD content for display, including time, Positioning information and camera No..
 - **OSD Display Position:** You can tap-and-drag the slider on the left-right / up-down bar to locate the OSD on the display window.
 - **Camera Id Tag:** Edit the camera name in the text field.

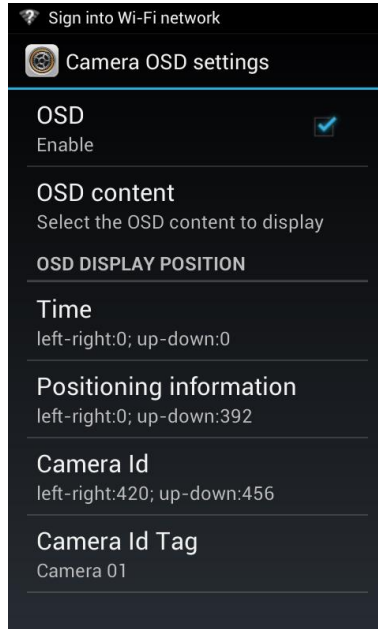


Figure 12. 8 Camera OSD Settings

12.2 Pre-Record Settings

Purpose:

The time you set to record before the recording. For example, if you set the pre-record time as 5 seconds, and you manually

started the recording at 10:00, the camera recorded it at 9:59:55.

Steps:

1. Tap **Settings > MED > Additional Settings > Pre-record Settings**.
2. Check the checkbox of **Pre-record (Reboot to Activate)** to turn on the pre-record function.
3. Tap **Pre-record Time** to select the time.
4. Reboot the PVR to activate the settings.

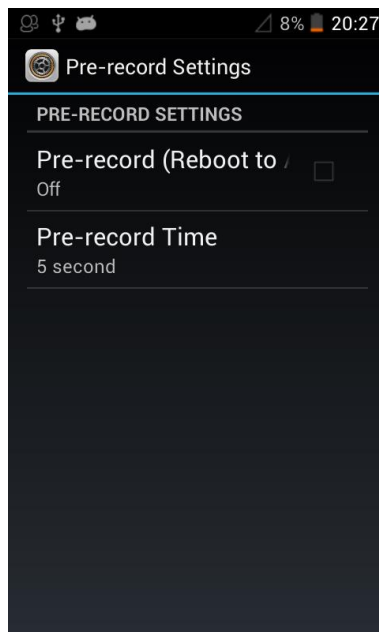


Figure 12. 9 Pre-Record Settings

12.3 Overwrite Settings

Purpose:

If you turn on the overwrite function, when storage is full, the data would keep writing into the storage by replacing the former data.

Steps:

1. Tap **Settings > MED > Additional Settings > Overwrite Settings**.
2. Check the checkbox of **Overwrite** to turn on the overwrite function.

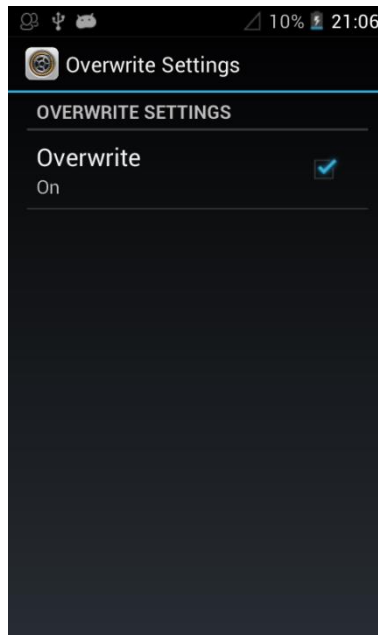


Figure 12. 10 Overwrite Settings

12.4 Focus Mode

You can enable the auto focus mode, and then the device will automatically focus if the monitoring scene changes during the live view.

Steps:

1. Tap **Settings > MED > Additional Settings > Focus Mode**.
2. Check the checkbox of **auto_mode** to enable the auto focus mode.

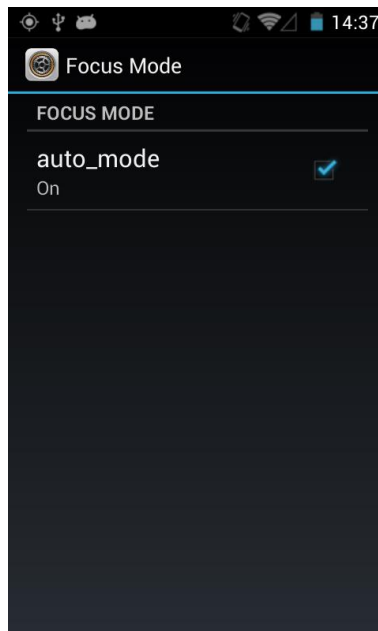


Figure 12. 11 Focus Mode

12.5 Power Saver

The power saver settings help to stretch the battery life, to ensure the long operation time of the device.

Steps:

1. Tap **Settings > DEV > Power saver**.
2. Set the corresponding parameters for the power saving mode.
 - **Brightness:** Tap-and-drag the slider to adjust the brightness of the screen.
 - **Time:** The device will lock the screen automatically if no operations occur during the selected power saving time. 15s, 30s, 1min., 2min., 5min., 10min., 30min. and Never sleep are selectable.
 - **Disconnect the Network in Power Saving Mode:** Select **Yes** to disconnect the device from the network (such as 3G/4G mobile networks, Wi-Fi networks, etc.) in power saving mode; and select **No** to always connect the device to the network.

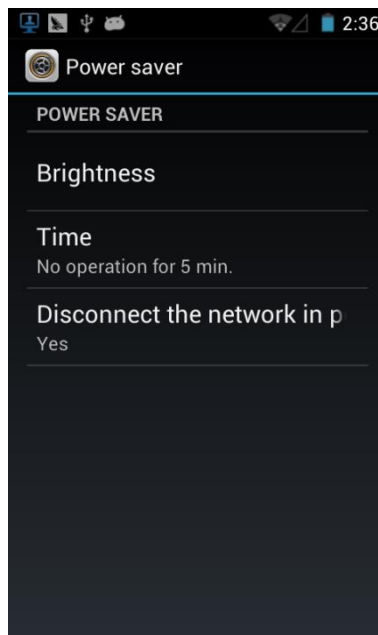


Figure 12. 12 Power Saver

12.6 Sound

The volume of media and system notifications can be set as desired. And you can also configure the sound mode of the device if needed.

Steps:

1. Tap **Settings > DEV > Sound**.

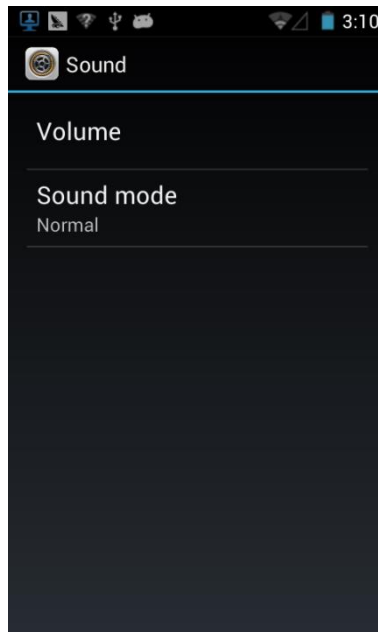


Figure 12. 13 Sound

2. Set the corresponding sound parameters for the device.

- **Volume:** Tap-and-drag the slider to adjust the volume of the media and system notifications. The media volume refers to the sound of two-way audio with platform and record file playback. The system notifications refer to the sound of button touch during the device operations.
- **Sound Mode:** The sound mode can be set for the system notifications. Normal, Vibration and Mute are selectable.

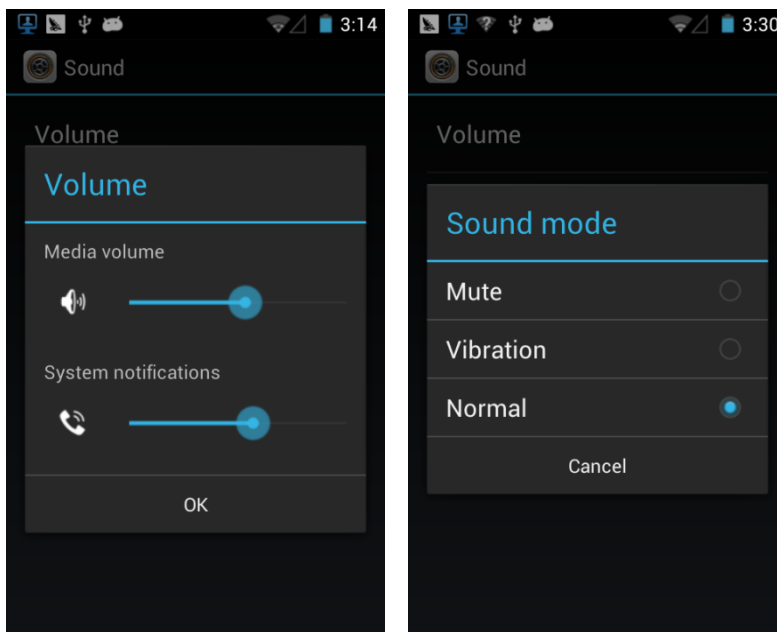


Figure 12. 14 Sound

12.7 Storage

12.7.1 Switch Storage Space

For DS-6102HLI-T series, the PVR provides a built-in 32G storage space (internal). For DS-6102HLI(-SE) series, the PVR provides a built-in 16G storage space (internal). And a micro SD card can also be installed on the device (external). Priority storage space can be set, and the files will be saved on the other storage space until the priority storage space is full. When both the storage spaces are full, a message will be displayed to send a notification.

Steps:

1. Tap **Settings > MED > Additional Settings > Storage settings**.

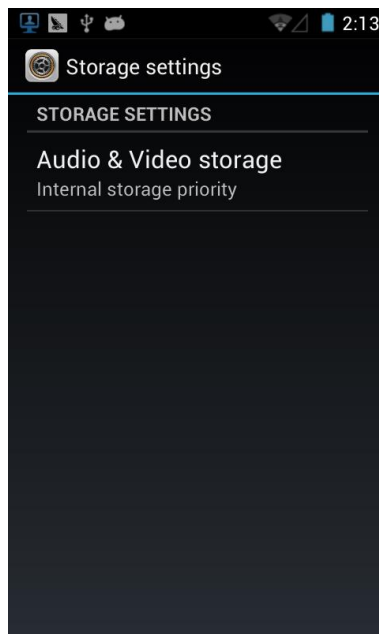


Figure 12. 15 Storage Settings

2. Tap the **Audio & Video storage** item, and select the storage priority for the audio & video stream.
 - **Internal Storage Priority:** Give the storage priority to the internal storage space.
 - **External Storage Priority:** Give the storage priority to the external storage space.

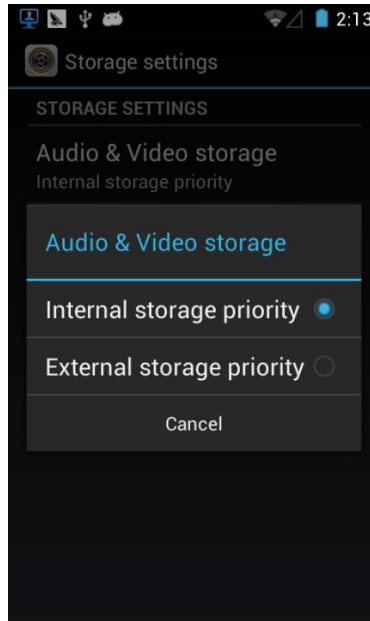


Figure 12. 16 Audio & Video Storage

12.7.2 Storage Space Management

You can view the status of the internal and external storage space and format the storage space if needed.

Steps:

1. Tap **Settings > DEV > Storage**.
2. You can view the storage status of the internal storage and external storage.
 - **Total Space:** the total capacity of the internal or external storage.
 - **Available:** the free space of the internal or external storage.
 - **Internal Memory Formatting:** Format the internal storage, and then the video files, audio files and picture files stored on the internal storage will be erased, except the operating system data.
 - **Unmount SD Card:** Tap the **Unmount SD card** item before you remove the external SD card from the PVR.
 - **Erase SD Card:** Format the external SD card and you will lose all the data stored on the SD card.

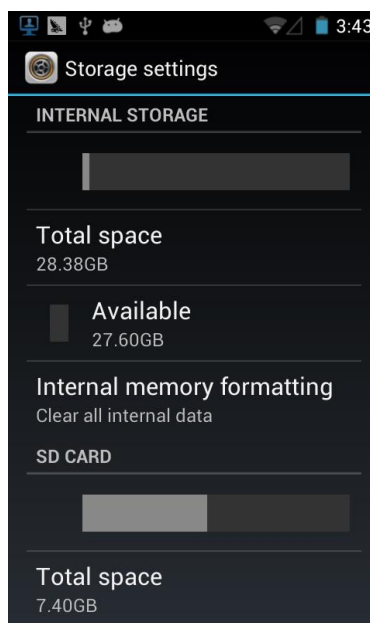


Figure 12. 17 Storage Settings

12.8 Applications

You can install applications according to your needs.



Only admin has the permission to install and uninstall applications.

12.8.1 Install an Application

Before you start:

Import or download an application installation package into PVR.

- **Option 1:** Download the application installation package need to install via the web browser.
- **Option 2:** Connect PVR to computer. For detailed steps, refer to section 3.7 *Connecting PVR to Computer*. And then import the application installation package into internal or external storage.

Steps:

1. Tap **Settings > SYS > Maintenance > Software Installation**.

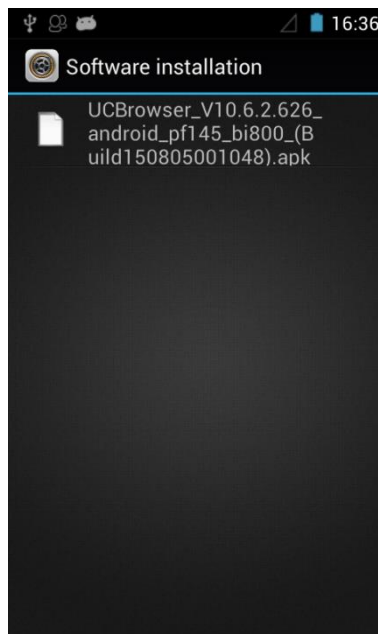


Figure 12. 18 Software Installation

2. Tap the application installation package to start installing.
3. Following the wizard to finish installation.
4. After installing succeeded, the installed application will be listed in Home Page. Tap the icon to run it.

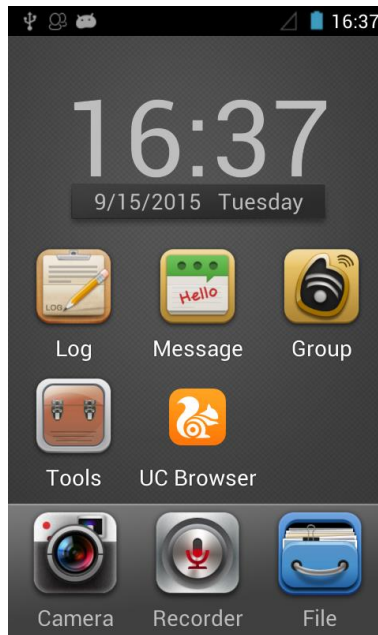


Figure 12. 19 Home Page

12.8.2 View Installed Applications

Purpose:

You can view the downloaded, running, and all applications.

1. Tap **Settings > DEV > Applications**.
2. Swipe left or right, and you can view the detailed information of the applications.
 - **DOWNLOADED:** The downloaded applications will be displayed. You can also view the used space and free space of internal storage at the bottom of the interface.
 - **RUNNING:** The current running applications will be displayed. You can also view the used space of RAM and free space of RAM at the bottom of the interface.
 - **ALL:** All the applications on the device will be displayed. You can also view the used space and free space of internal storage at the bottom of the interface.



Do not delete or uninstall the default programs at will, for it may cause damage to the system.

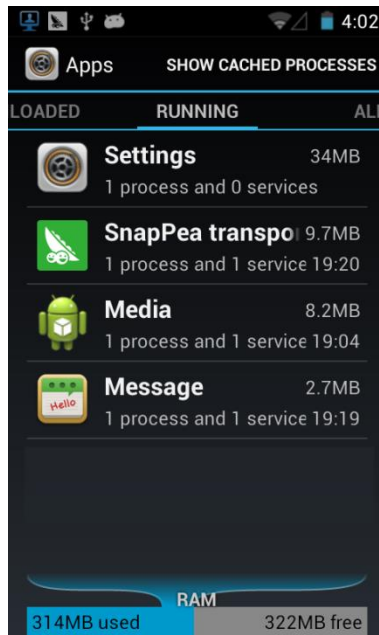


Figure 12. 20 Apps

12.9 Peripheral

Before you start:

Connect the RF card reader to the device.

Purpose:

The RF card reader in type of NFC or RFID can be connected to the device, and thus the device and RF card can exchange the data with each other.

Steps:

1. Tap **Settings > DEV > Peripheral**.
2. The peripheral device will be detected and displayed on the screen automatically.
3. For the RF card reader of NFC, check the checkbox to enable the data exchange function.

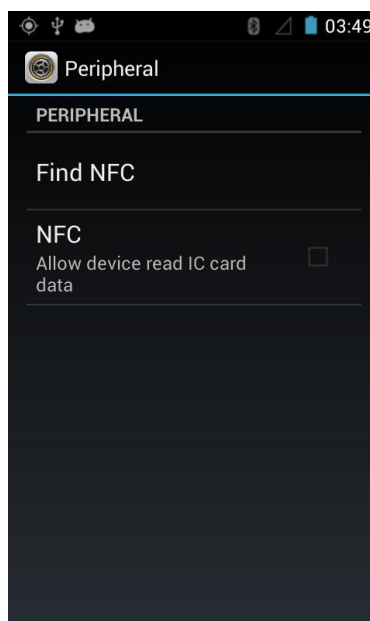


Figure 12. 21 Peripheral

12.10 Battery

Steps:

1. Tap **Settings > DEV > Battery**.
2. You can view the information including remaining capacity of battery, elapsed time since battery has been charged, and the battery usage percentage of the components.

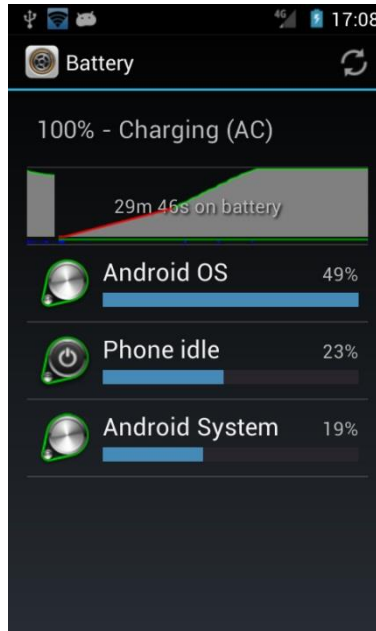


Figure 12. 22 Battery

12.11 System Time and Language

12.11.1 Date and Time

You can configure the system data and time to meet the actual needs.

Steps:

1. Tap **Setting > SYS > Date and time**.
2. Set the corresponding date and time parameters for the system.
 - **Automatic Date & Time:** Check the checkbox and the system will use the network-provided time automatically.
 - **Automatic Time Zone:** Check the checkbox and the system will use the network-provided time zone automatically.
 - **Set Date:** Set the system date manually (only available when Automatic Date & Time is not enabled).
 - **Set Time:** Set the system time manually (only available when Automatic Date & Time is not enabled).
 - **Use 24-hour Format:** Check the checkbox and the system time will be displayed in 24-hour format.
 - **Choose Date Format:** Select the date format for display.



The priority of positioning time synchronization is higher than time set manually or automatically.

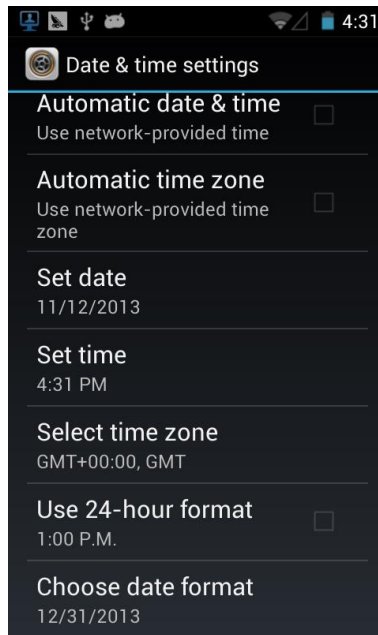


Figure 12. 23 Date & Time Settings

12.11.2 Language & Input

Steps:

1. Tap **Setting > SYS > Language & input**.
2. Tap the **Language settings** item, and then select the system language.
3. Tap the **Input method**, and then you can select the input method for the system. You can also set the default input method according to the actual needs.

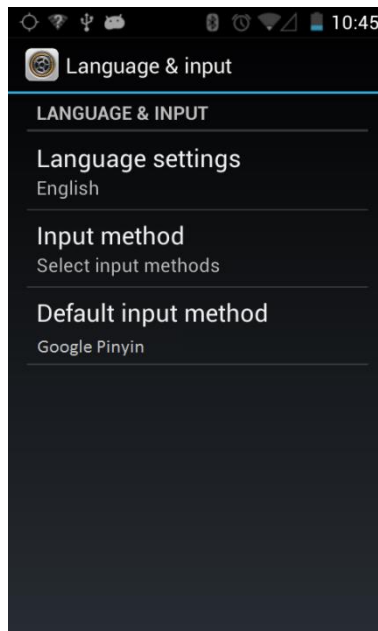


Figure 12. 24 Language & Input

Chapter 13 Management

13.1 User

Only the *admin* (called administrator) account has the permission to add the new normal user and edit the information of other users. The created normal user can only edit the information of itself, and cannot view the files recorded by other users.

Tap the icon  on the Home page;

or tap Settings > SYS > User management to enter the User Management interface.

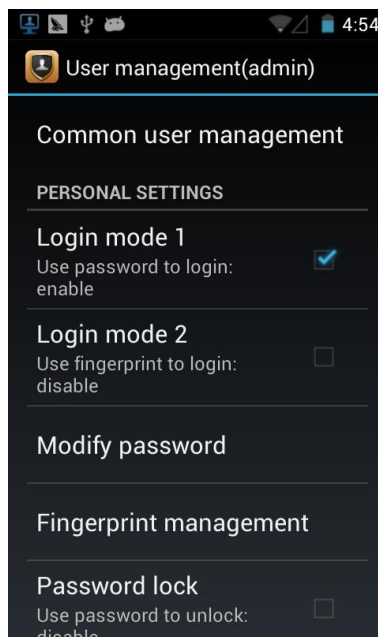


Figure 13. 1 User Management

13.1.1 Normal User Management

You can add, edit and delete the normal users after logging into the system as the administrator.

Add a Normal User

Steps:

1. Tap the **Common user management** item, and then tap the **Add** button to open the Add User page.

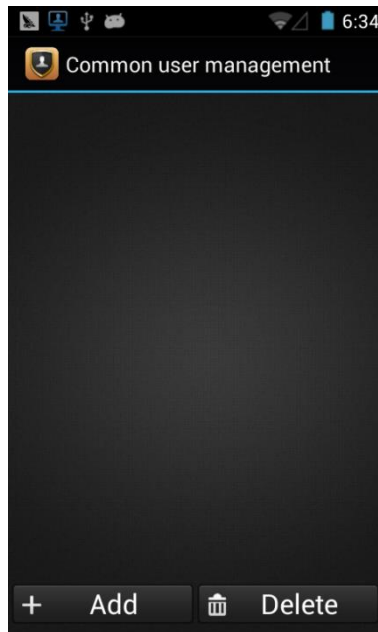


Figure 13. 2 Add a User

2. Input the user name, password and confirm password in the corresponding text fields.



- The user name and password can only contain the English alphabets, numeric and “_”.
- The user name cannot be longer than 20 characters; and the password cannot be longer than 16 characters.



STRONG PASSWORD RECOMMENDED—We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

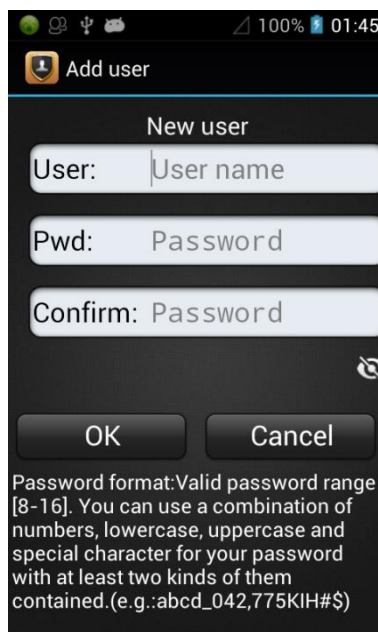


Figure 13. 3 New User

3. Tap **OK** to confirm the settings. The created users will be displayed on a list.



Figure 13. 4 User List

Delete a Normal User

Steps:

1. Tap the **Common user management** item, and then tap the **Delete** button to enter Verify Password interface.

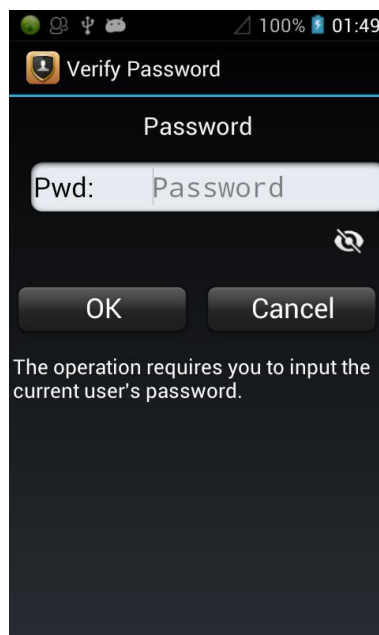




Figure 13. 5 Delete a User

2. Type in the Password of current user.
3. Select the user to be deleted on the list. The icon  of the selected user turns to .

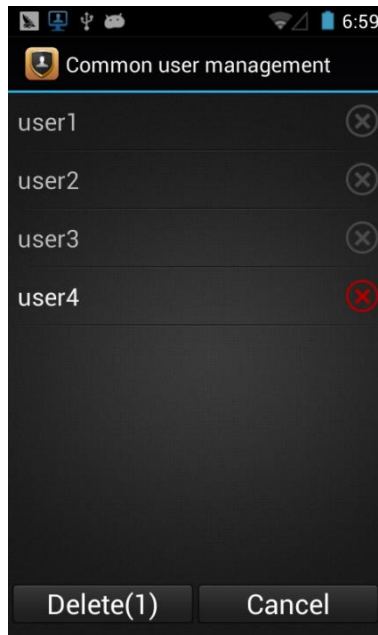


Figure 13. 6 Delete a User

4. Tap the **Delete** button and confirm the pop-up dialog box. The selected user will be deleted.

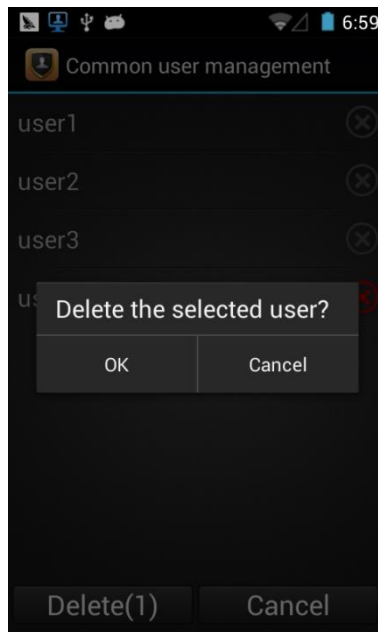


Figure 13. 7 Confirm

Assign Permissions for Normal User

Steps:

1. Tap the **Common user management** item, and then select the user on the list.
2. Check the checkboxes to assign the permissions for the selected user.
 10 permissions are selectable: camera settings, file management, positioning settings, Wi-Fi settings, dialing settings, platform management, time settings, maintenance, storage management and network sharing.

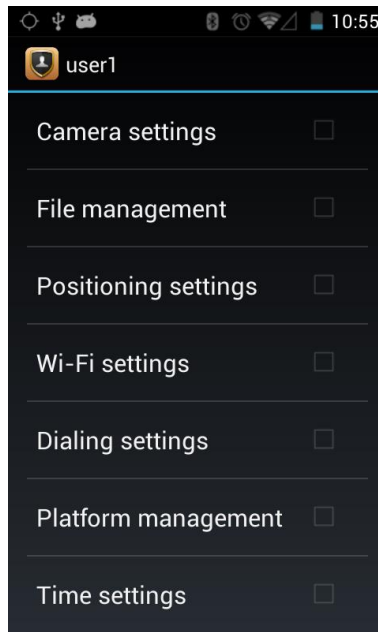


Figure 13. 8 User Permission

13.1.2 Personal Settings

You can configure the personal settings for the current user account to meet the actual needs, including the login mode, password, fingerprint, etc.

- **Login Mode 1:** Check the checkbox and the password is required for the system login.



It is highly recommended to enable the Login Mode 1 to ensure the system security.

- **Login Mode 2:** Check the checkbox and the fingerprint is required for the system login.



The Login Mode 2 is configurable only when the Login Mode 1 is enabled. You can use either the password or fingerprint to log into the system when both the modes are enabled.

- **Modify Password:** Modify the password of the current user account if needed.



For your privacy, we strongly recommend changing the password to something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product.

- **Fingerprint Management:** Register or delete the fingerprint information.
- **Password Lock:** Check the checkbox and the password is required to unlock the system.
- **Logout:** Log out the system and you can log into the system with another user account.

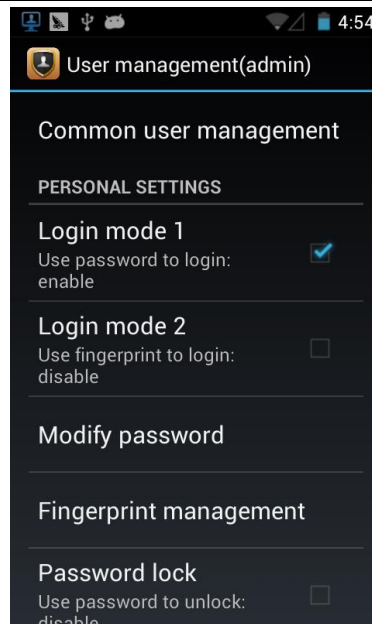


Figure 13. 9 Personal Settings

13.1.3 Fingerprint Management



- Fingerprint management function is not supported by DS-6102HLI-SE series PVR.
- Fingerprint management function varies between DS-6102HLI-T and DS-6102HLI series. We take the example of DS-6102HLI-T to describe the operations.

Register the Fingerprint

Purpose:

The fingerprint login and management are available for both administrator and custom accounts. You should register the fingerprint in the system before using the fingerprint login function. For DS-6102HLI-T series, each user can register up to 5 pieces of fingerprint. For DS-6102HLI series, only admin can register up to 10 pieces of fingerprint.

Steps:

1. Tap the  icon in the home page and tap the **Fingerprint management** to enter the Fingerprint management interface.

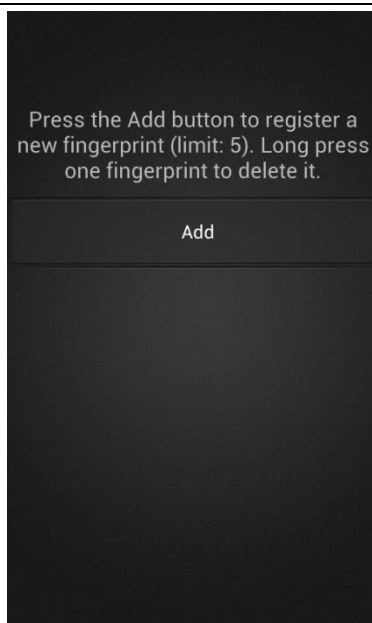


Figure 13. 10 Add a Fingerprint

2. Tap the **Add** button and follow the wizard to register your fingerprint.
After registering successfully, it will automatically turn back to Fingerprint management interface, and the registered fingerprint will be listed here.

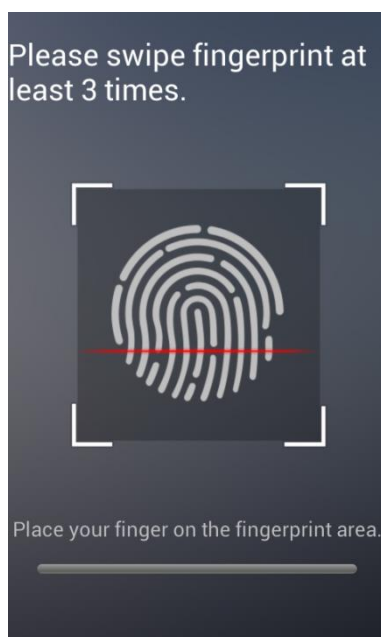


Figure 13. 11 Swipe Fingerprint

3. You can select another finger and repeat the above steps to register the new fingerprint information.



For each account, up to 5 fingerprints can be registered.

4. To delete the registered fingerprint, tap-and-hold a fingerprint and tap the **Delete** button.

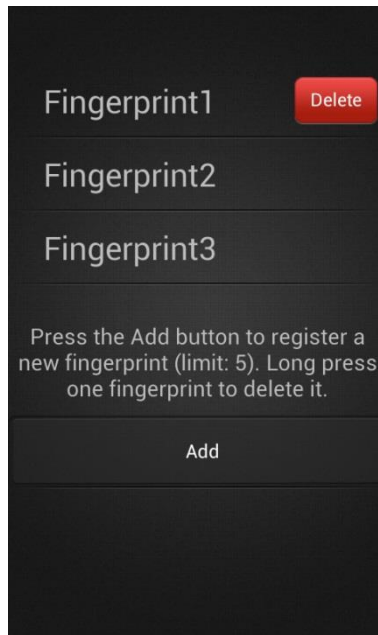


Figure 13. 12 Fingerprint List



If there is fingerprint registered in the system, the registered fingerprint is required to enter the Fingerprint Database Management interface.

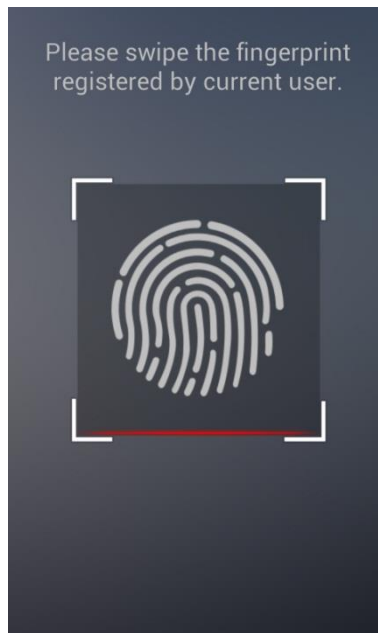



Figure 13. 13 Swipe Fingerprint

13.2 Log

You can search the logs by the type or time according to the actual needs.

Steps:

1. Tap the icon  on the Home Page to enter the Log Management interface.

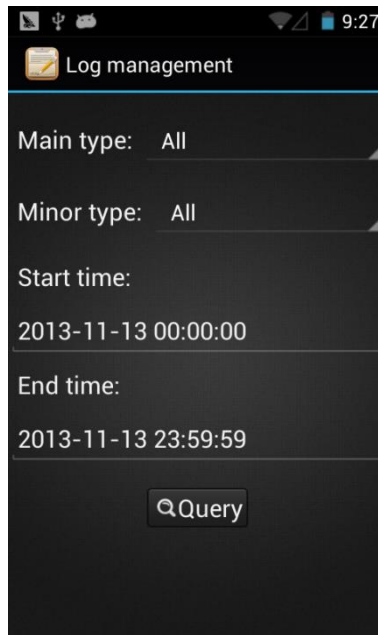


Figure 13. 14 Log Management

2. Select the main type of the logs from the drop-down list, including Alarm, Exception, Operation and Information. You can also select All as the main type to search all the logs.
3. Select the minor type of the logs under the selected main type.
4. Specify the start time and end time for the log search.
5. Tap the **Query** button. The logs matching the search conditions will be displayed on a list, and you can tap the log item to view the detailed information.

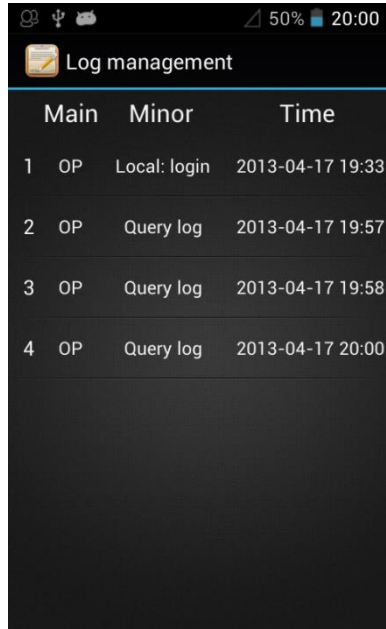


Figure 13. 15 Log Query

13.3 Maintenance

Tap **Settings > SYS > Maintenance**, and you can maintain and upgrade the device.

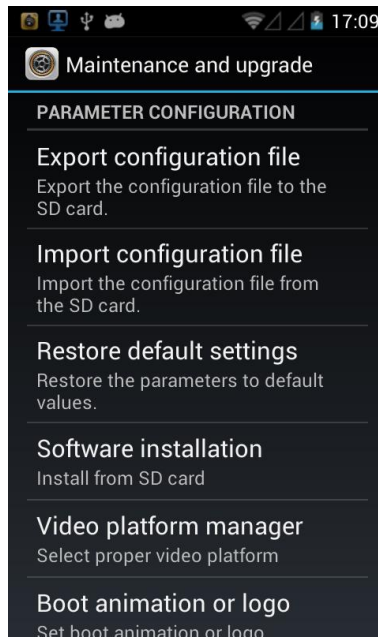


Figure 13. 16 Maintenance and Upgrade

13.3.1 Export Configuration File

The configuration file of the device can be exported to the SD card, and thus you can configure other devices with the same settings.

Steps:

1. Tap the **Export configuration file** item.
2. Select the external SD card or internal SD card for export.
3. Select the saving path for the configuration file.
4. Tap the **Export** button to export the configuration file to the SD card.



The exported configuration file is formatted as *PVR_version_date.CFG*.

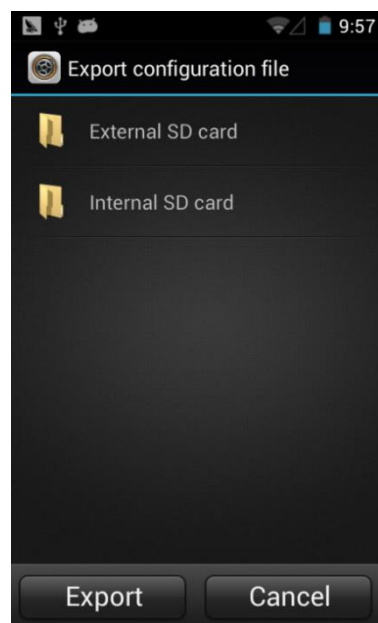


Figure 13. 17 Export Configuration File

13.3.2 Import Configuration File

The configuration file can be imported to the device from the SD card, and the imported configuration file should match the device.

Steps:

1. Tap the **Import configuration file** item.
2. Select the external SD card or internal SD card for import.
3. Select the configuration file from the SD card.
4. Tap the **Import** button to import the configuration file to the device.
5. Reboot the device to activate the new settings after the importing process is complete.

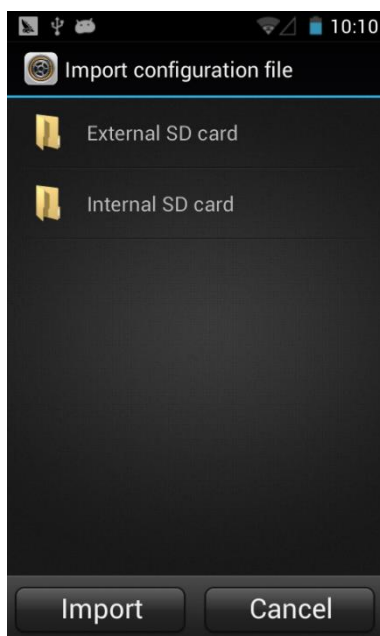


Figure 13. 18 Import Configuration File

13.3.3 Restore Default Settings

Purpose:

You can restore the default parameters of the device.

Steps:

1. Tap the **Restore default settings** item
2. Type in **Password** of current user.
3. Tap **OK** and reboot the device to restore the default settings.

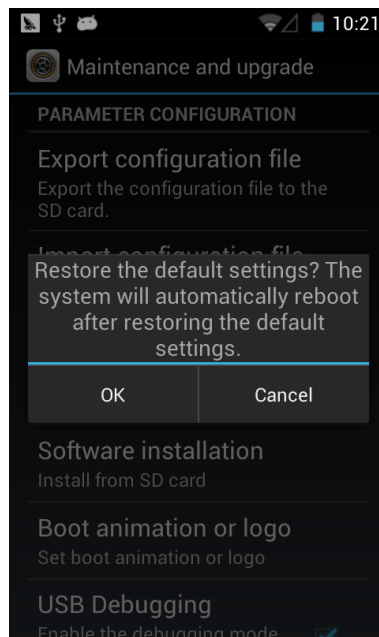


Figure 13. 19 Restore Default Settings

13.3.4 Software Installation

Tap the **Software installation** item, and you can install the application files downloaded on the SD card.



The application program should be stored on the root directory of the internal or external SD card, and the license of the application is required for the installation.

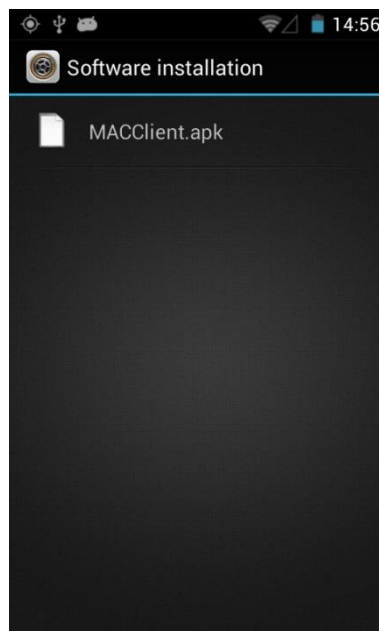


Figure 13. 20 Software Installation

13.3.5 Video Platform Manager

Steps:

1. Tap the **Video platform manager** item.
2. Select the proper video platform from the list.
3. Reboot the device to activate the new settings.
4. Go to Settings > NET > Platform settings, and configure the platform parameters. For details, see *Section 11.4 Platform*.

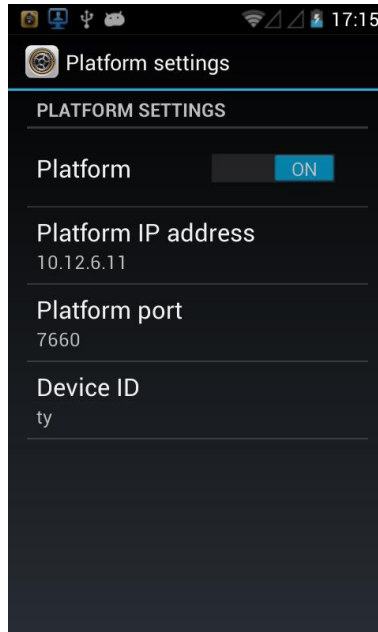


Figure 13. 21 Platform Settings

13.3.6 Boot Animation and Logo

Steps:

1. Tap the **Boot animation or logo** item.
2. Select the boot animation or boot logo for set.
3. Select the package file or picture file from the SD card, and you can set the boot animation and logo for the device as desired.



The boot animation should be in the *.zip format; the boot logo (480*800) should be in the *.jpeg format.

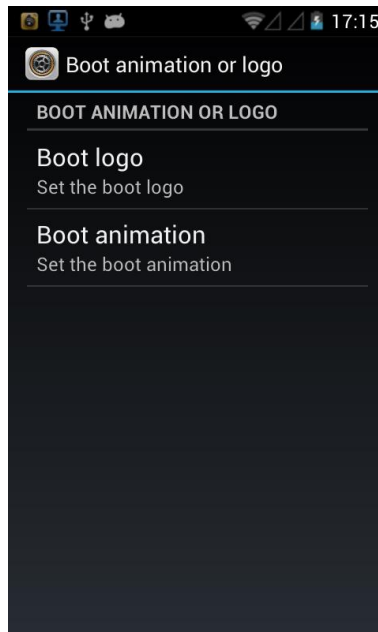


Figure 13. 22 Boot Animation or Logo

13.3.7 USB Debugging

Only for the R&D (Research & Development) engineer to debug the device.

13.3.8 Restore Factory Settings

Steps:

1. Tap the **Restore factory settings** item.
2. Type in **Password** of current user.
3. Tap **Reset device**.
4. Tap **Clear all content** to start restoring.

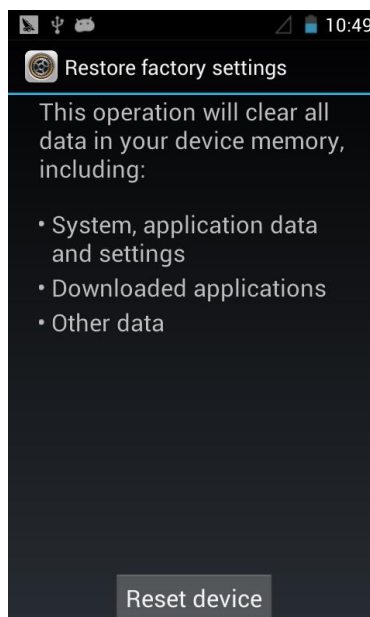


Figure 13. 23 Restore Factory Settings

13.3.9 Device Test

Tap the **Device test** item, and you can detect the running status of the device's hardware module (not recommended).

13.3.10 Running Information

Only for the R&D (Research & Development) engineer to locate and solve the system error information.

13.4 About

Tap **Settings > SYS > About**, and you can view the system information including device model, serial No., software version, and kernel version.

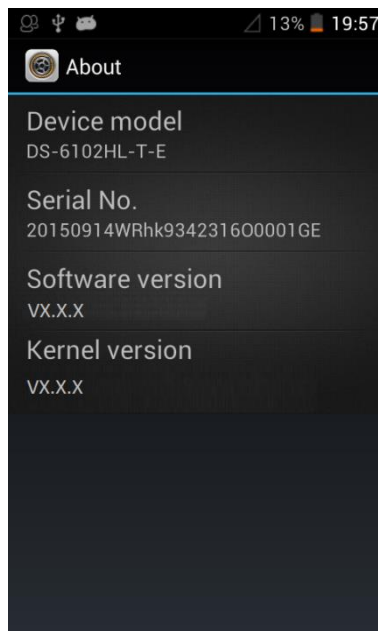


Figure 13. 24 About

Chapter 14 Tools

4 common tools are provided for the users, including Calculator, Clock, Torch and Compass.


Tap the tool application icon  on the Home Page to enter the tool management interface.



Figure 14. 1 Tools

14.1 Calculator

Tap the Calculator icon on the tool management interface to enter the Calculator page.

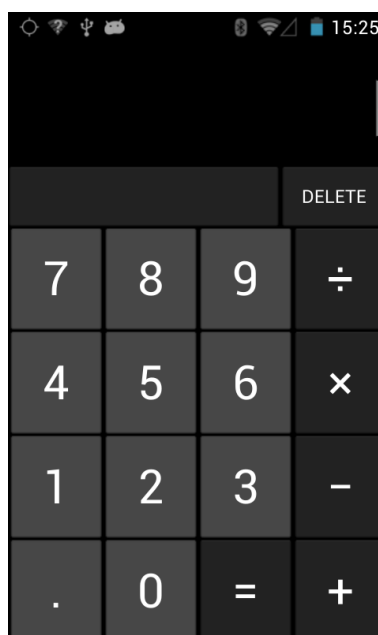


Figure 14. 2 Calculator

Tap the numbers and functional symbols in Calculator just as you would with a standard calculator.

Tap **DELETE**, and you can delete the previous inputs.

14.2 Clock

Tap the Clock icon on the tool management interface to enter the Clock page.

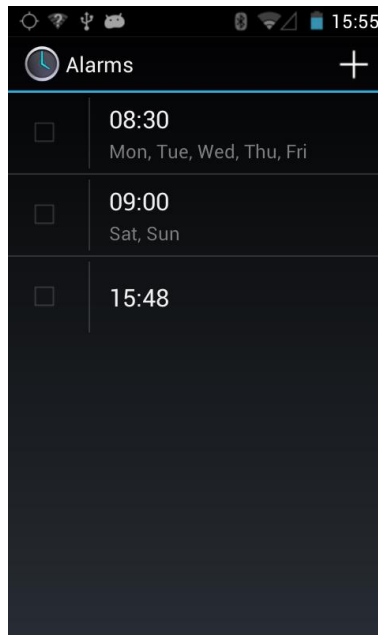


Figure 14. 3 Alarms

14.2.1 Adding the Clock

Steps:

1. Tap the icon  on the Clock page.

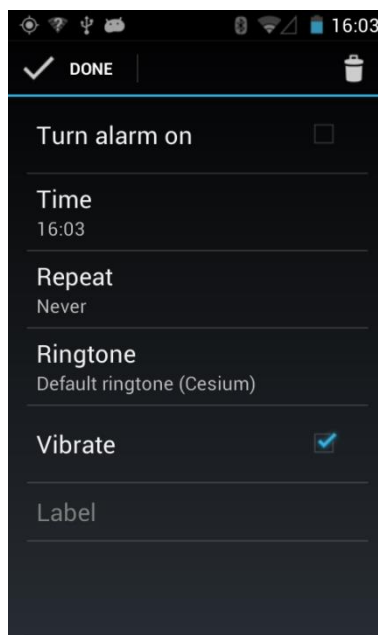


Figure 14. 4 Add a Clock

2. Check the checkbox of **Turn alarm on** to enable the alarm clock function.
3. Set the time, repeat days and ringtone for the clock.
4. Optionally, you can check the checkbox of **Vibrate** to enable device vibration when the alarm clock occurs.

5. Input the label for the clock in the text field.
6. Tap **DONE** in the upper-left corner to save the settings.


14.2.2 Editing the Clock

Steps:

1. Tap the pre-set clock on the list on the Clock page.
2. Edit the time, repeat days, ringtone and other settings for the clock.
3. Tap **DONE** in the upper-left corner to save the new settings.

14.2.3 Deleting the Clock

Steps:

1. Tap the pre-set clock on the list on the Clock page.
2. Tap the icon  in the upper-right corner to delete the selected clock.

14.3 Torch

Tap the Torch icon on the tool management interface to activate the torch function.



You can tap the icon  to disable the torch function, and the icon will turn to .



Figure 14. 5 Torch

14.4 Compass



Compass function is not supported by DS-6102HLI-SE series PVR.

Tap the Compass icon on the tool management interface to enter the Compass page.

Hold the device in your hand and level it with the ground, and the Compass will provide the basic navigation assistance to you.

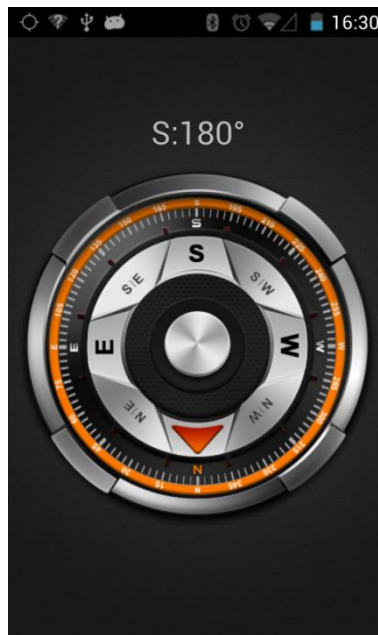


Figure 14. 6 Compass



The accuracy of the compass can be affected by magnetic or environmental interference; and do not rely on it to determine precise location.

Chapter 15 Appendix

15.1 Troubleshooting

- **The device cannot start up.**

Possible Reasons:

- a) The battery has not been installed on the device.
- b) The battery is out of power

Solutions:

- 1. Install the battery on the device.
- 2. Connect the power adapter to the device.
- 3. After connecting the device to the power adapter, wait for the icon of charging battery which will be displayed on the screen. And then long press the Power button to start up the device.

- **No signal is displayed on the screen.**

Possible Reasons:

- a) The camera is set in External Camera mode while the external camera has not been installed.
- b) The external camera is out of work.

Solutions:

- 1. Switch the camera to Internal Camera mode or install the external camera.
- 2. Check the external camera and replace it if needed.

- **There is no audio in record files.**

Possible Reason:

The recording stream is set as *Video Stream*.

Solution:

Set the recording stream as *Composite Stream*.

- **Failed to start the two-way audio with platform.**

Possible Reasons:

- a) The network signal is unstable.
- b) The two-way audio function of the device has been enabled by other client.

Solutions:

- 1. Move the device to places where the network signal is available.
- 2. Try it again after the two-way audio of the device stopped.

- **The voice heard on the device side is small.**

Possible Reasons:

- a) The volume of the audio output on the device side is low.
- b) The volume of the microphone on the platform side is low.
- c) The headset is broken.

Solutions:

- 1. Adjust the volume of the audio output on the device side.
- 2. Adjust the volume of the microphone on the platform side.

3. Replace the broken headset.

- **The SD card cannot be detected.**

Possible Reasons:

- a) The SD card is damaged.
- b) The file system in the SD card is damaged.

Solutions:

1. Insert the SD card to the card reader and then connect it to the computer. If you cannot open the storage space of SD card, replace the damaged SD card.
2. Back up the data stored on the SD card and then format it.

- **3G Dialing failure**

Possible Reasons:

- a) No 3G SIM card is installed on the device.
- b) The format of the 3G SIM card does not match that of the device.
- c) The external antenna has not been installed when the slave SIM card is used.

Solutions:

1. Install the 3G SIM card on the device.
2. Select the 3G SIM card which has the same format of the device.
3. Install the external antenna when using the slave SIM card.

- **The network transmission indicator does not light after successful dialing.**

Possible Reasons:

- a) The platform settings are incorrect.
- b) The platform account conflicted.
- c) It's in the platform registration process.
- d) Only one indicator is available for the device and there is a process with higher priority than network transmission running on the device.

Solutions:

1. Edit the platform settings to according to the actual needs.
2. Use another platform account to avoid the conflict.
3. The indicator will light after the platform registration process is complete.
4. Check the current indicator status. For details, see *Table 2.2 Status Light Description*.

- **It's too slow to transmit images.**

Possible Reasons:

- a) The current network signal is bad.
- b) The bitrate of the network transmission is too large.

Solutions:

1. If 3G dialing is adopted, check the current signal strength; if Wi-Fi networks is adopted, check that whether there is another wireless network with the same frequency band, and if yes, use a new wireless network which has the only frequency band.



Wireless networks with the same frequency band cause interference to each other, and it will decrease the network transmission bandwidth.

2. Adjust the transmission bitrate according to the actual network bandwidth.

- **The buttons of the device or the icons on the screen are out of use.**

Possible Reason:

The device crashes.

Solution:

Reboot the device and try it again.

- **The network transmission indicator does not light and the device is offline on the platform.**

Possible Reasons:

- a) 3G dialing failure.
- b) The platform settings are incorrect.

Solutions:

1. Check the 3G dialing status. Configure the 3G dialing settings again if needed.
2. Configure the platform settings again according to the actual needs.
3. Restore the device to factory settings and configure the parameters after the device reboot.

- **The network transmission indicator lights and the device is offline on the platform.**

Possible Reason:

The platform settings are incorrect or have not been configured.

Solution:

Check and configure the parameters on the platform side.

- **The fingerprint cannot be recognized.**

Possible Reason:

The fingerprint information has not been registered on the device.

Solution:

Register the fingerprint information on the device first.

15.2 Upgrade

Steps:

1. Connect the device to the computer via a USB cable after logging in to the system. And then turn on the USB storage of the device.
2. Select the disk directory of the device on the computer, and then copy the upgrade package to the storage space of device.



It is recommended to store the upgrade package under the system root directory.

3. Turn off the USB storage, disconnect the device from the computer and then power off the device.
4. Restart the device, and at the same time long press the Audio+ button on the device for 15 seconds. You will enter the System Upgrade interface. 4 options are selectable and you can select the item using the Audio+ and Audio- button.

- **Reboot System Now:** Reboot the device.
- **Apply Update from ADB:** Upgrade device by package stored on the computer (not recommended).
- **Install Package from SD Card:** Select it when the upgrade package is stored on the internal SD card.

- **Install Package from External SD Card:** Select it when the upgrade package is stored on the external SD card

Android system recovery <3e>
 Volume up/down to move highlight:
 enter button to select.
 reboot system now
 apply update from ADB
 install package from sdcard
 install package from ext sdcard

5. Press the PTT button to activate the selected item.
6. Select the upgrade package from the storage space of SD card, using the Audio+/Audio- to move up/down.
7. Press the PTT button to upgrade the device. The upgrading process will be complete after about 15 seconds.



Do not power off the device in the upgrading process.

8. Select the **reboot system now** item and tap the PTT button to reboot the device.
9. Input the user name and password to log in to the system, and the new settings will be activated.

15.3 Extension Base

15.3.1 Components

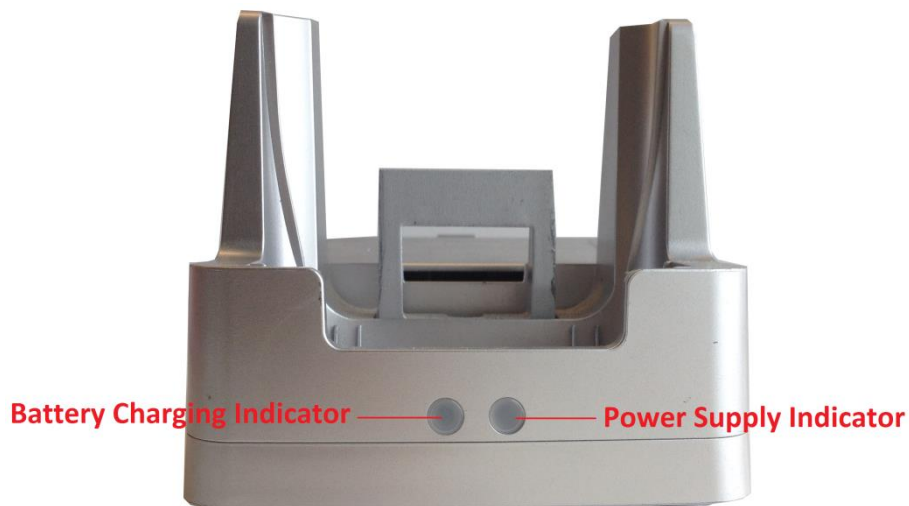


Figure 15. 1 Front View



Figure 15. 2 Rear View

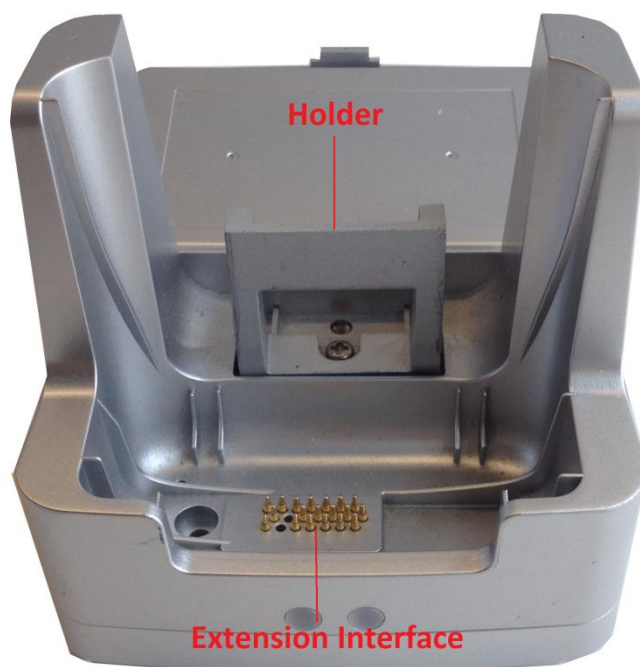


Figure 15. 3 Top View

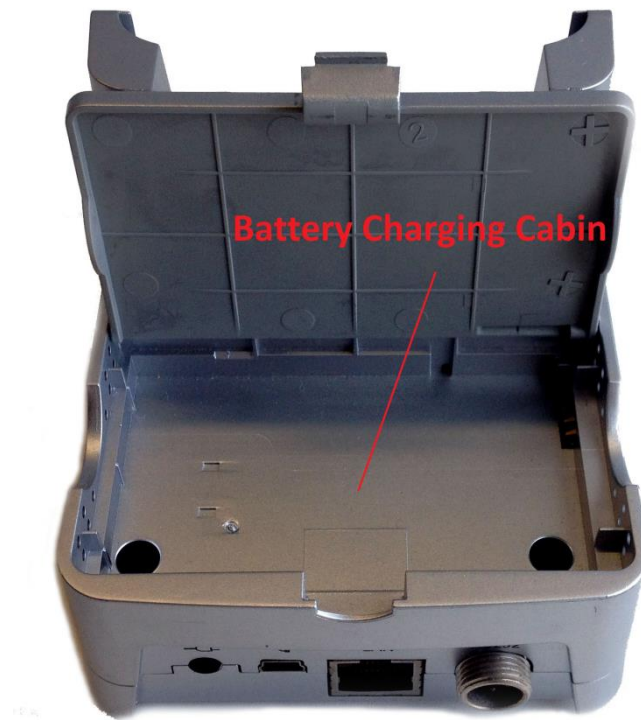


Figure 15. 4 Charging Cabin

15.3.2 Function Description

Steps:

1. Lift up the rubber strip on the bottom of PVR to expose the metallic contact.
2. Put the device into the extension base.
3. Fix the device to the extension base with the holder.



Figure 15. 5 Installation



- You can connect the PVR to computer via the USB interface on the extension base for data backup.

- The PVR can access the internet via the network interface.
- The RS-232 serial interface provides debugging functionality for the device developer.

15.3.3 Indicators

- The battery charging indicator is off when there is no battery in the battery charging cabin.
- Plug in the power adapter after the battery is put into the battery charging cabin, and the power supply indicator lights.
- The battery charging indicator lights in red during the charging process; and it turns to green when the charging is complete.

15.3.4 Cautions

- Avoid heat source and direct sunlight.
- Charging temperature ranges from 32°F (0°C) to 113°F (45°C), in voltage of 8.4V.
- Use only the battery and charger specified by the manufacturer.

15.4 Summary of Changes

Version 4.3.0

Add:

1. Modify default password after first login. (Section 3.3)
2. Restore default password if you forget your password. (Section 3.4)
3. Support GPS/BDS time synchronization. (Section 11.3 and Section 12.9.1)
4. Support Ping test. (Section 11.8)
5. Install an application in the PVR. (Section 12.6.1)

Update:

1. Combine the user manual of DS-6102HLI-T and DS-6102HLI(-SE) into one user manual.

Version 4.2.0

Added:

1. Support logging in the device via swiping registered fingerprint. (Section 3.2.2)
2. Support analog intercom module. (Section 7)

Update:

1. Update the steps of fingerprint registration. (Section 13.1.3)
2. Update the image resolution of internal camera and external camera. (Section 11.8.3)

Delete:

1. Delete the Fingerprint Database Management. (Section 13.1.3)

Version 4.1.0

Added:

1. Support power energy management for battery. (Section 11.7)

Update:

1. Support NTP synchronization with the platform and GPS upload interval settings. (Section 1.2)
2. Support continuous capture. (Section 4.2)
3. Support video call, video push and picture messages. (Section 6.2)
4. Support the selection of video platform. (Section 12.3)
5. Support FDD-LTE network for module format. (Section 10.1.1)
6. Support network sharing for user permission. (Section 12.1.1)

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