

Body Camera

User's Manual



Foreword

General

This manual introduces the functions and operations of the body camera (hereinafter referred to as "the Device").

Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 TIPS	Provides methods to help you solve a problem or save time.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V2.0.0	Added platform operations.	December 2021
V1.0.0	First release.	November 2020

Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.

- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

Important Safeguards and Warnings

This section introduces content covering the proper handling of the Device, hazard prevention, and prevention of property damage. Read carefully before using the Device, comply with the guidelines when using it, and keep the manual safe for future reference.

Operation Requirements

- Do not place or install the Device in a place exposed to sunlight or near the heat source.
- Operate the device within the rated range of power input and output.
- Do not disassemble the Device.
- Transport, use and store the Device under the allowed humidity and temperature conditions.

Electrical Safety

- Use the battery of specified manufacturer; otherwise there might result in explosion. When replacing battery, make sure the same type is used. Improper battery use might result in fire, explosion, or inflammation.
- Follow the instructions to dispose of the used battery.
- Use the recommended power cables in the region and conform to the rated power specification.
- Use the power adapter provided with the Device; otherwise, it might result in people injury and device damage.
- The power supply must conform to the requirements of ES1 in IEC 62368-1 standard and be no higher than PS2. Note that the power supply requirements are subject to the device label.
- Connect the device (I-type structure) to the power socket with protective earthing.
- The appliance coupler is a disconnection device. When using the coupler, keep the angle for easy operation.

General Precautions for Battery

- The Device and battery must be used within the specified temperature and humidity range; otherwise the Terminal and battery might be damaged.
- Charge with the provided power adapter or acquisition device. Mixed use might cause damage to the battery.
- If any abnormality is found in use, such as serious heat, bulge, deformation and strange smell, stop using the battery immediately.
- Do not store the battery with other metals to avoid metal objects touching the battery anode and cathode, thus resulting in short circuit.
- Do not decompose the battery in any way.
- Do not charge the battery continuously for more than 24 hours.

Battery Maintenance

- If the Device will not be used for a week or more, charge it to 60%, take the battery out of the Device, and store it in a clean, dry and ventilated room with ambient temperature of 20 ± 5 °C.
- The battery is a consumable accessory. It is recommended to replace it after one year of use.

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1 Product Introduction

This product is a mobile portable terminal for persons of public security, insurance, traffic police and more. It integrates audio/video record and snapshot together.

This product can record the data during the whole law enforcement process. It is light and has small compact design, easy to install. It is waterproof and shockproof. The built-in IR light can guarantee clear video at night. The recorded video supports onsite playback and prevents the file from being tampered. The recorded data is fair and can be recognized by the authorities to solve a case and provide as the evidence on the court.

2 Structure and Installation

2.1 Packing List

Table 2-1 Packing list

Name	Quantity
Device	1
Shoulder clip	1
USB cable	1
Micro USB-to-mini USB adapter	1
Battery	1
Power adapter	1
Quick Start Guide	1

2.2 Device Structure

Figure 2-1 Front and rear panels

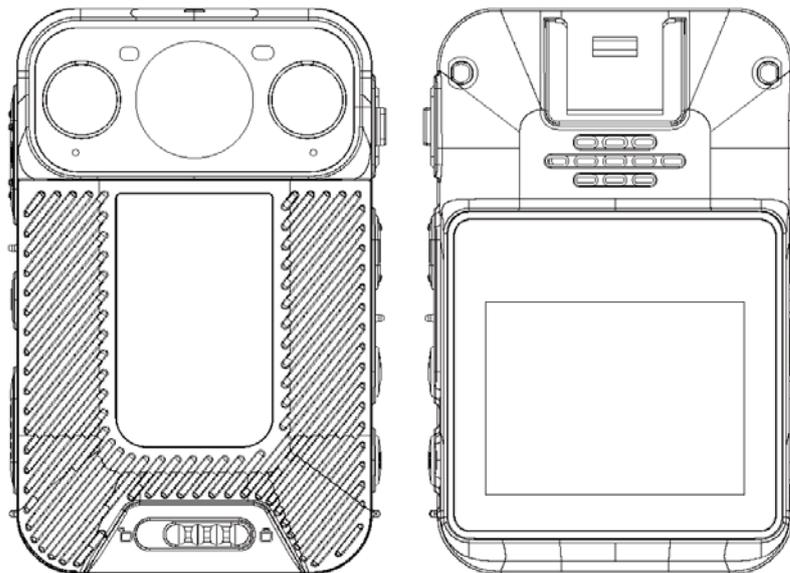


Figure 2-2 Sides

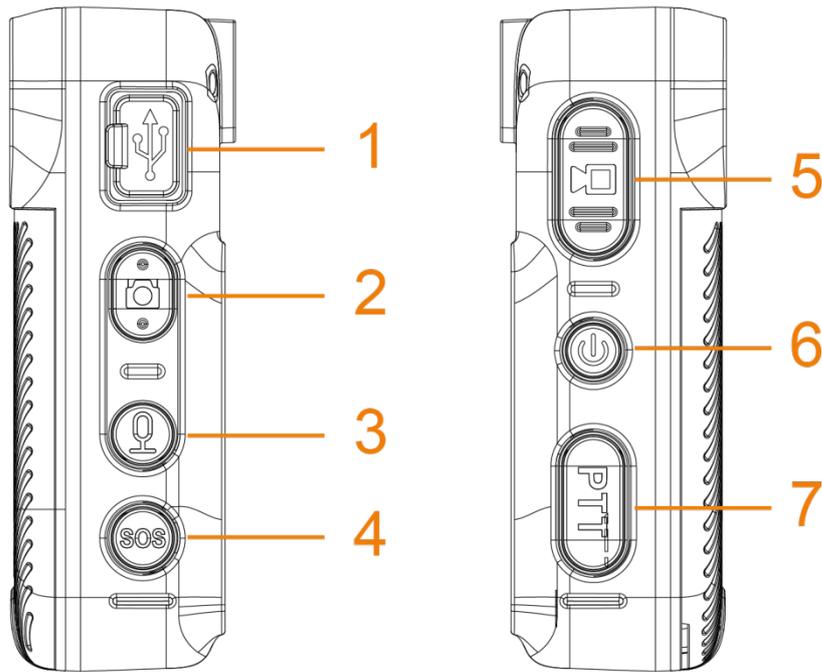


Table 2-2 Structure introduction

No.	Name	No.	Name
1	USB port/Power input	5	Record video
2	Capture button	6	Power button
3	Record audio	7	Voice talk
4	Alarm	—	—

2.3 Indicator Lights

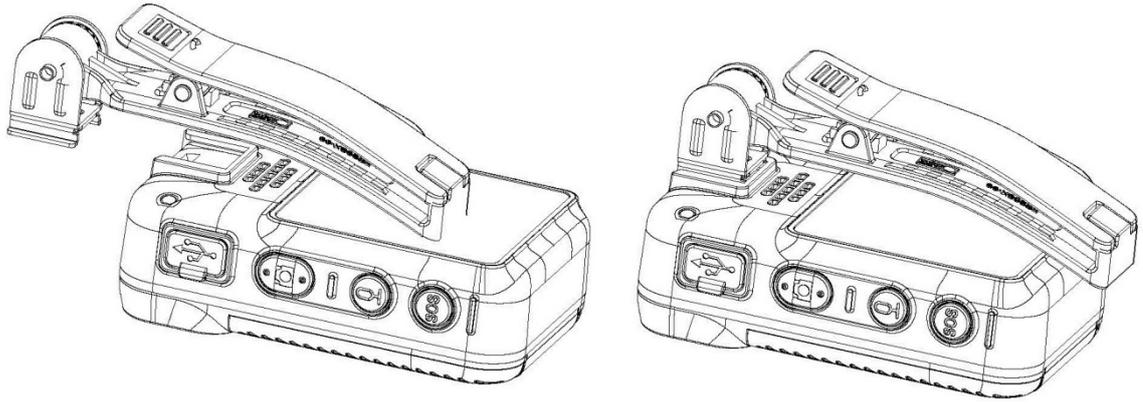
Table 2-3 Indicator lights

Working Status	Indicator Light	Working Status	Indicator Light
Standby	Green light is on.	Recording audio	Yellow light flashes.
Standby (battery level ≤ 5%)	Red light is on.	Recharging	Red light is on.
Recording video	Red light flashes.	Battery is full when recharging	Green light is on.
Snapshot	Red light flashes.	Platform is pulling stream	Blue light flashes.

2.4 Installing Shoulder Clip

Slide the shoulder clip down.

Figure 2-1 Install shoulder clip



3 Basic Operations

3.1 Starting/Shutting Down

Press  on the right side to start, shut down, restart or let the Device sleep.



In this manual, unless otherwise specified, "press" means pressing once briefly and "press and hold" means pressing and holding for two to three seconds.

- When the Device is shut down, press and hold  to start the Device.
- When the Device is running, press and hold , and then tap **Power off** to shut down the Device.
- When the Device is running, press and hold , and then tap **Restart** to restart the Device.
- When the Device is running, press and hold  for 10 s to shut down the Device forcibly.
- When the Device is running, press  to let the Device sleep; press again to activate the Device.

3.2 Initialization

For the first-time use, set device login password and at least three security questions. If you forget the password, tap **Forgot Password**, and then answer the security questions to reset login password.



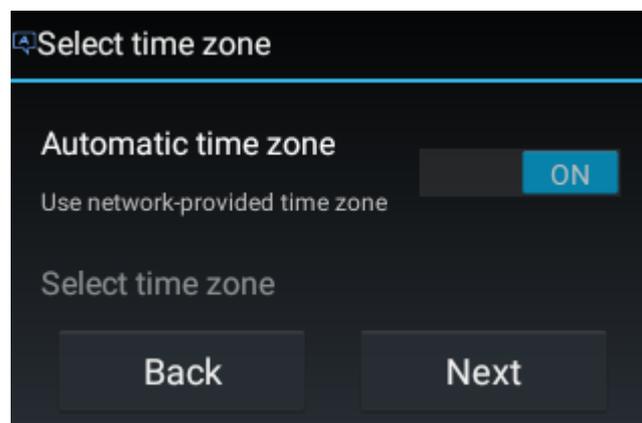
- Password resetting function is only available for admin user.
- Password resetting will delete the pattern lock. You need to set it again after resetting password.

Step 1 When the Device is shut down, press and hold  to start the Device.

Step 2 Select a language and the checkbox of software license agreement, and then tap **Next**.

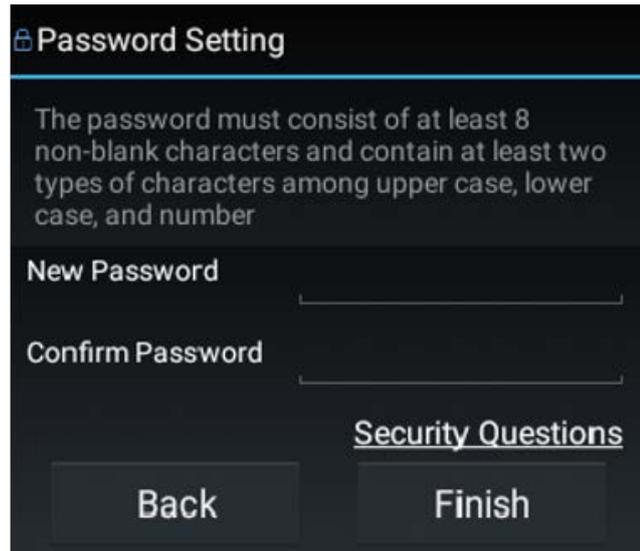
Step 3 Select time zone.

Figure 3-1 Set time zone



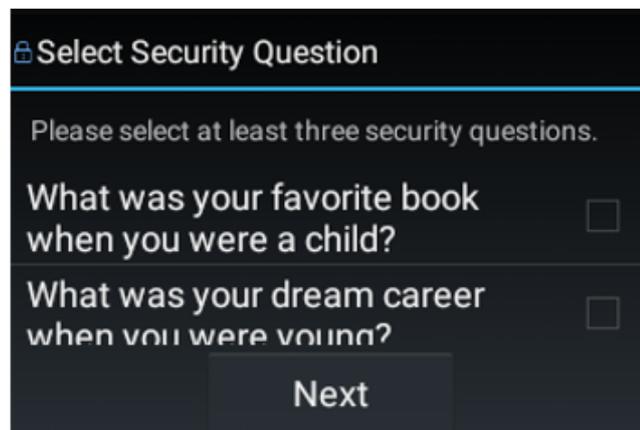
Step 4 Enter the new password and then confirm.

Figure 3-2 Set password



Step 5 Tap **Security Questions** to set security questions.

Figure 3-3 Select security question



Step 6 Select at least three security questions and then tap **Next**.

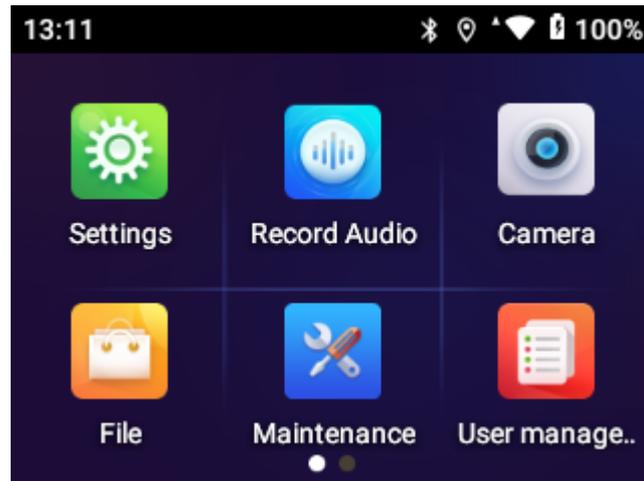
Step 7 Enter the answers and then tap **Save**.

Step 8 On the **Password Setting** screen, tap **Finish**.

Step 9 Follow the on-screen instructions to learn gestures.
The Device is initialized successfully.

3.3 Home Screen

Figure 3-4 Menu



- The notification bar displays message, working status, and operator status. Swipe down to view time and date, and select the white light or IR light.
- Swipe left or right on the home screen to turn the page.

3.4 User Management

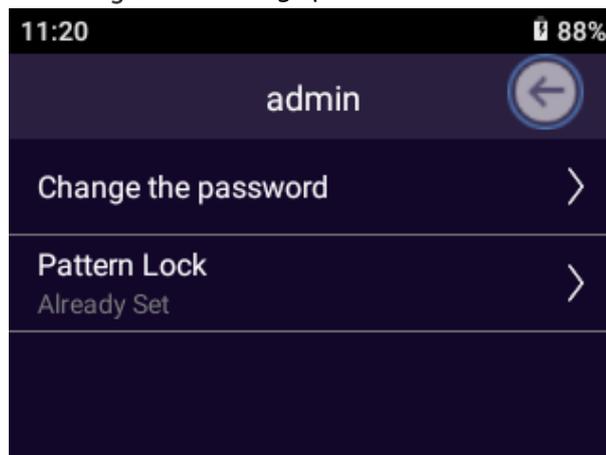
3.4.1 Changing Password

We recommend you change the password regularly to enhance the device security.

Step 1 On the home screen, tap .

Step 2 Select the account whose password you want to change, and then tap **Change the password**.

Figure 3-5 Change password



Step 3 Enter the old password, new password and confirm password.

The password must contain at least two character types (number, uppercase letters, and lowercase letters).

Step 4 Tap OK.

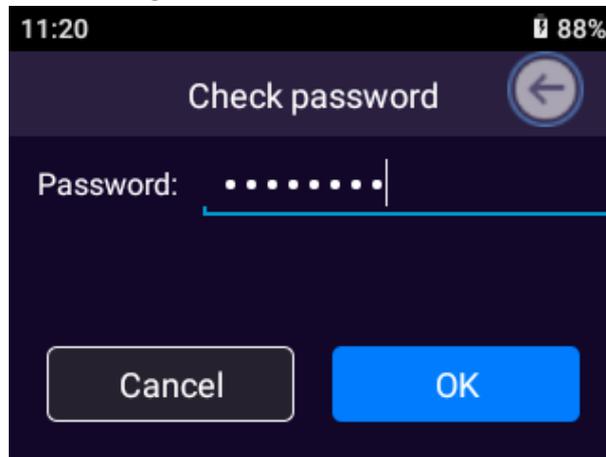
3.4.2 Setting Pattern Lock

Step 1 On the home screen, tap 

Step 2 Select the account whose password you want to change, and then tap **Pattern Lock**.

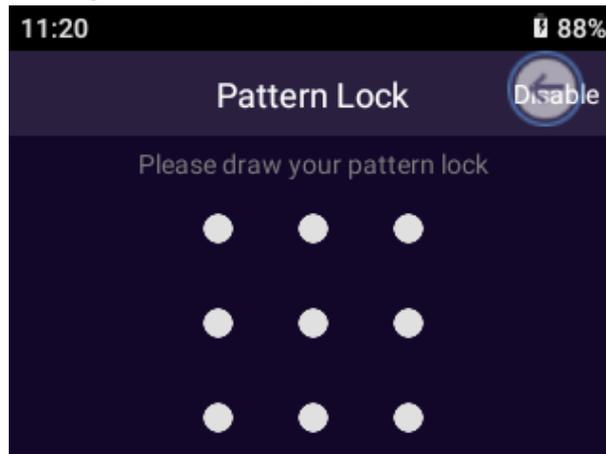
Step 3 Enter the login password.

Figure 3-6 Verification



Step 4 Draw the pattern lock.

Figure 3-7 Draw the pattern lock



- A pattern lock must contain at least 4 points.
- Tap **Disable** to disable the pattern lock.



- After you set the pattern lock, the pattern lock will be required on the login screen by default, and you can tap **Password** to log in with password.
- If you have not set pattern lock, password is required on the login screen by default.

3.5 Configuring the Device

Before using the Device, configure recording parameters, camera parameters, network mode, and more.

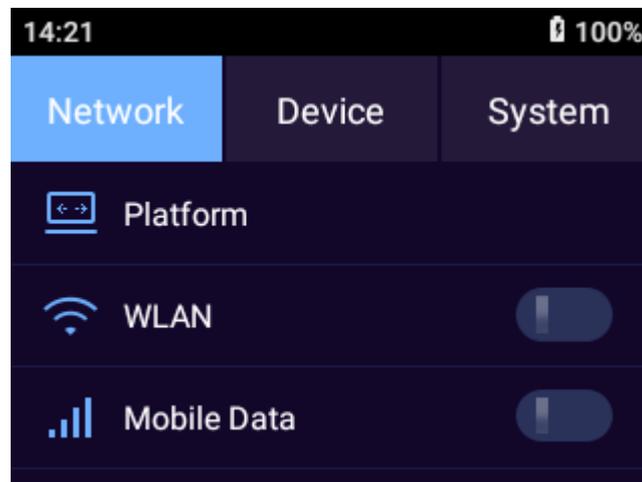
3.5.1 Network

On the home screen, tap  to go to the **Network** screen.



When the Device does not have a SIM card, the **Mobile Data** switch appears dimmed.

Figure 3-8 Network



Tap an icon to go to the corresponding screen for configuration.

-  means that the function is disabled.
-  means that the function is enabled.

3.5.1.1 Platform

You can add the Device to platform for remote management. You can configure platform connection, WLAN, location service and more.

3.5.1.1.1 Auto Register

Step 1 On the home screen, select  > **Network** > **Platform** > **Register**.

Step 2 Tap  to enable the Auto Register function.

Step 3 Configure the parameters.

Figure 3-9 Register

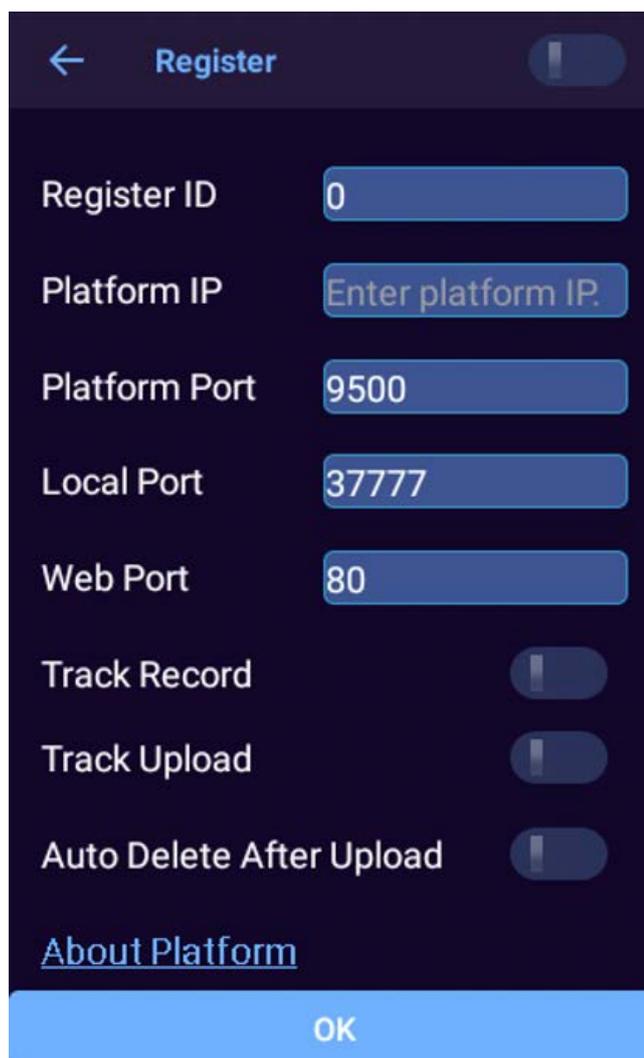


Table 3-1 Register parameters

Parameter	Description
Register ID	Enter an ID for registration. Make sure that the same ID is used when you add the Device to the platform.
Platform IP	Enter the IP address of the platform server.
Platform Port	Enter the ARS (Active Register Server) port number of the platform.
Local Port	Enter the registration port of the Device. By default, the port is 37777.
Web Port	Enter the registration port of the platform server.
Track Record	Enable the Device to keep track of its historical locations.
Track Upload	Enable the Device to upload the track recorded during network failure.
Auto Delete After Upload	Enable the Device to automatically delete the files that have been uploaded to the platform.

Step 4 Tap OK.

3.5.1.1.2 ONVIF

When a remote device is connecting with the Device through ONVIF protocol, use the verified ONVIF account.

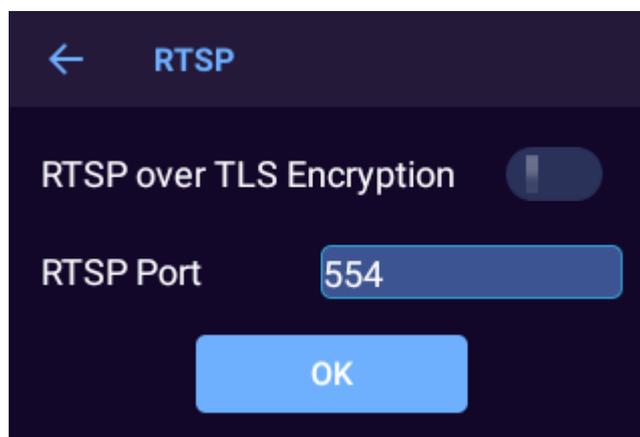
Step 1 On the home screen, select  > **Network** > **Platform** > **Onvif**.

- Step 2 Tap  to enable the ONVIF function.
- Step 3 Tap Add User.
- Step 4 Enter username and password, and then confirm the password.
- Step 5 Tap **OK**.

3.5.1.1.3 RTSP

- Step 1 On the home screen, select  > **Network** > **Platform** > **RTSP**.
- Step 2 Tap  to enable RTSP over TLS encryption.
- Step 3 On the pop-up window, tap **OK**.
- Step 4 Enter the RTSP port and then tap **OK**.

Figure 3-10 RTSP



3.5.1.1.4 GPS Config

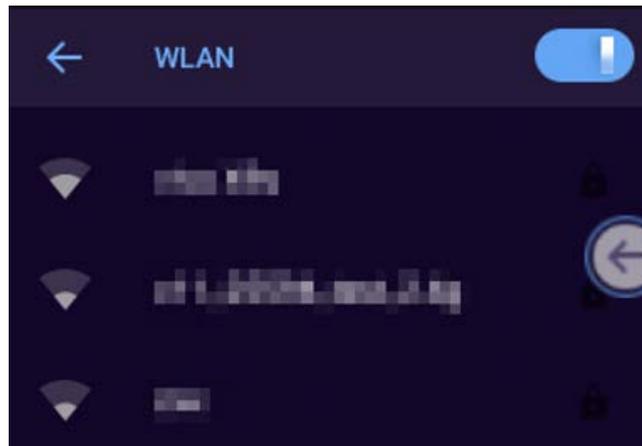
On the home screen, select  > **Network** > **Platform** > **Upload GPS Coordinate System** > **Register**, and then select a coordinate system.

3.5.1.2 WLAN

When WLAN is turned on, you can search for or add WLAN networks.

- Step 1 On the home screen, select  > **Network** > **WLAN**.
- Step 2 Tap  to enable the WLAN function.
- Step 3 Select the Wi-Fi that you want to connect to, and then enter the password.

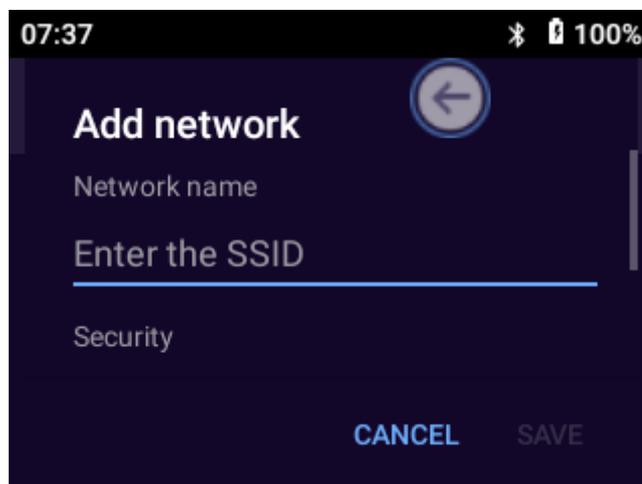
Figure 3-11 WLAN



3.5.1.2.2 Adding Network

Step 1 On the Wi-Fi screen, tap **Add network**.

Figure 3-12 Adding network



Step 2 Configure the parameters.

Table 3-2 Adding network description

Parameter		Description
Network name		Enter the router SSID (the name of the WLAN) that needs to be connected.
Security		Set security settings. <ul style="list-style-type: none"> If you select None, you do not need to enter a password to log in to the WLAN. If you select a different type, you need to enter a password or certificate.
Advanced Options	Metered	Select Detect automatically , Treat as metered and Treat as unmetered .
	Proxy	<ul style="list-style-type: none"> None: Do not need proxy. Manual: Set the proxy server parameters manually. Proxy Auto-Config: The Device will automatically set proxy server parameters.

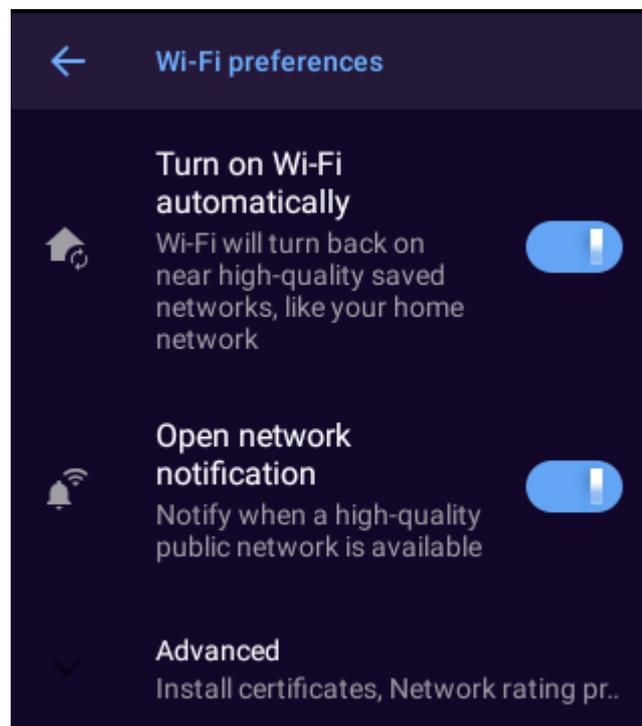
Parameter		Description
	IP settings	<ul style="list-style-type: none"> ● DHCP: The Device automatically searches for WLAN IP. ● Static: You need to manually configure the IP address, Gateway, Network prefix length, DNS 1, and DNS 2. <ul style="list-style-type: none"> ◇ IP address must be on the same segment as the router. ◇ Other parameters must be consistent with those on the router.
	Hidden network	Select Yes if you want to hide the current Wi-Fi.

Step 3 Tap **SAVE**.

3.5.1.2.3 Configuring Wi-Fi Preferences

Step 1 On the **Wi-Fi** screen, tap **Wi-Fi preferences**.

Figure 3-13 Wi-Fi preferences



Step 2 Configure the parameters.

Table 3-3 Parameters of Wi-Fi preferences

Parameter		Description
	Turn on Wi-Fi automatically	Automatically enables Wi-Fi when the Device is on a saved high-quality Wi-Fi network.  To use the function, you need to enable the location service. For details, see "3.5.1.4 Positioning".
	Open network notification	Sends notifications when a high-quality public network is available.
Advanced	Install certificates	After upload the security certificate to your device, tap Install certificates to select and install the certificate.
	Wi-Fi Direct	Transfers files over Wi-Fi.
	MAC address	Displays the MAC address and IP address of the network adapter.

Parameter	Description
IP address	

3.5.1.2.4 Managing Saved Networks

Step 1 On the **Wi-Fi** screen, tap **Saved networks**.

You can view the networks that were connected or added.

Step 2 (Optional) Select a network, and then tap **Forget** to remove the network.

3.5.1.3 Mobile Data

The Device can connect to network through mobile data.

Step 1 On the home screen, select  > **Network** > **Mobile Data**.

Step 2 Tap  to enable **Mobile Data**.

Step 3 Configure the parameters.

Figure 3-14 Mobile data

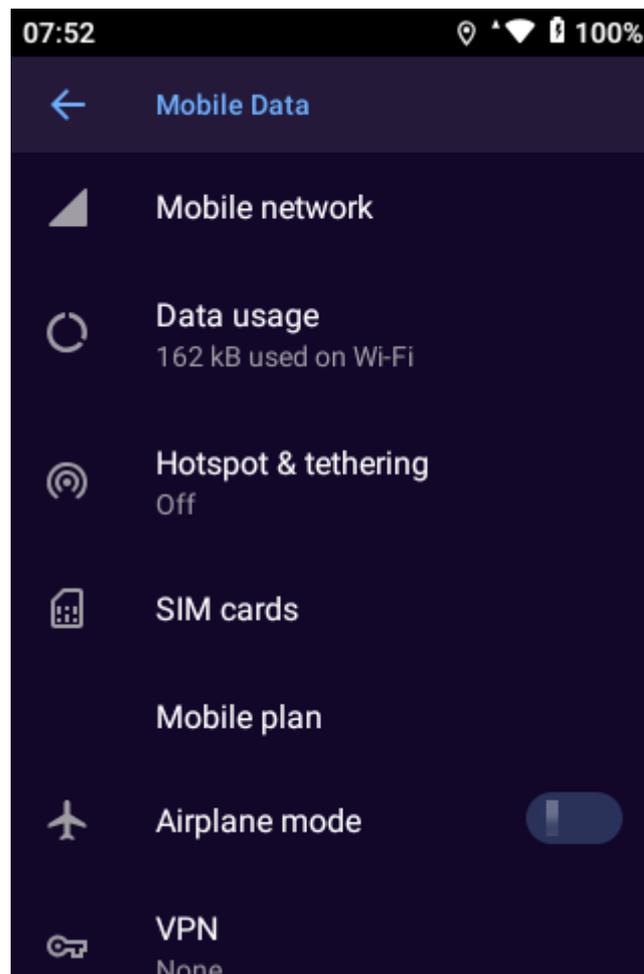


Table 3-4 Mobile data description

Parameter	Description
Mobile network	Mobile data
	Enable mobile network.

Parameter		Description
	Roaming	Enable the Device to connect to the mobile network service while roaming.
	User Controlled PLMN	Define the preferred order of the PLMN.
	Preferred network type	Configure the preferred network mode.
	Network	Enable the Device to select the network operator automatically.
	Access Point Names	APN determines how the Device accesses the network.
Data usage		Check data usage.
Hotspot and & tethering	Wi-Fi hotspot	Share Internet connection or content with other devices. The hotspot can be accessed by entering a password.
	USB tethering	Share your mobile Internet connection over USB.
	Bluetooth tethering	Share your mobile Internet connection through Bluetooth.
SIM cards		After inserting SIM cards, select preferred SIM card for cellular data, calls, and SMS messages.
Airplane mode		In airplane mode, cellular, WiFi, and Bluetooth functions are disabled.
VPN		Add the appropriate VPN as needed.

3.5.1.4 Positioning

You can enable the satellite-based positioning service for the Device. After connecting the Device to the platform and enabling track record in **Network > Platform > Register**, the Device reports its location information to the platform.

Step 1 On the home screen, select  > **Network > Location Service**.

Step 2 Tap  to enable the location service.

Step 3 Configure the parameters.

Figure 3-15 Positioning

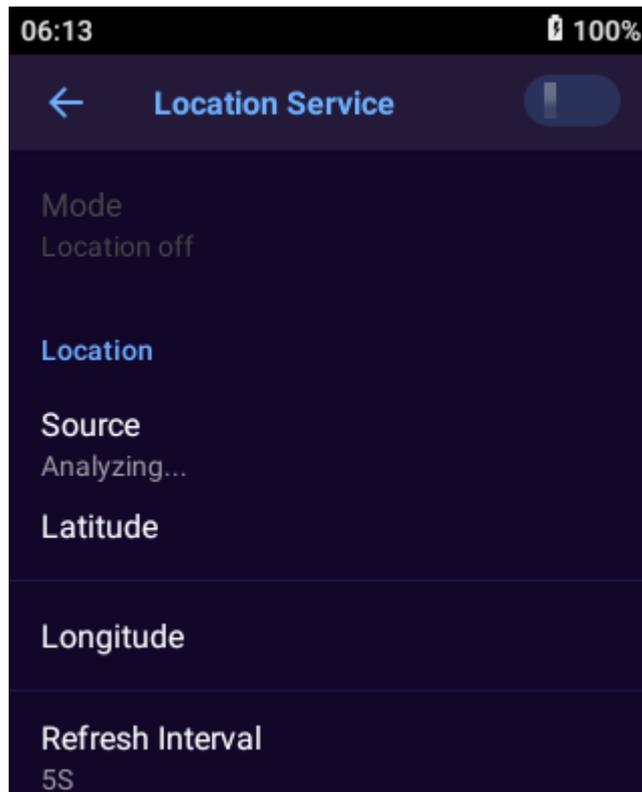


Table 3-5 Positioning description

Parameter	Description
Mode	Configure device positioning mode. <ul style="list-style-type: none"> ● High accuracy: Locate through satellite, Wi-Fi, Bluetooth, or mobile network. ● Battery saving: Locate through Wi-Fi, Bluetooth, or mobile network. ● Device only: Locate through satellite.
Location	Displays the current location source, latitude, and longitude.
Refresh Interval	Select the interval at which the Device reports location information to the platform.

3.5.1.5 Bluetooth

When Bluetooth is enabled, a nearby device will be able to detect the Device, and then you can receive and share files through Bluetooth.

Procedure

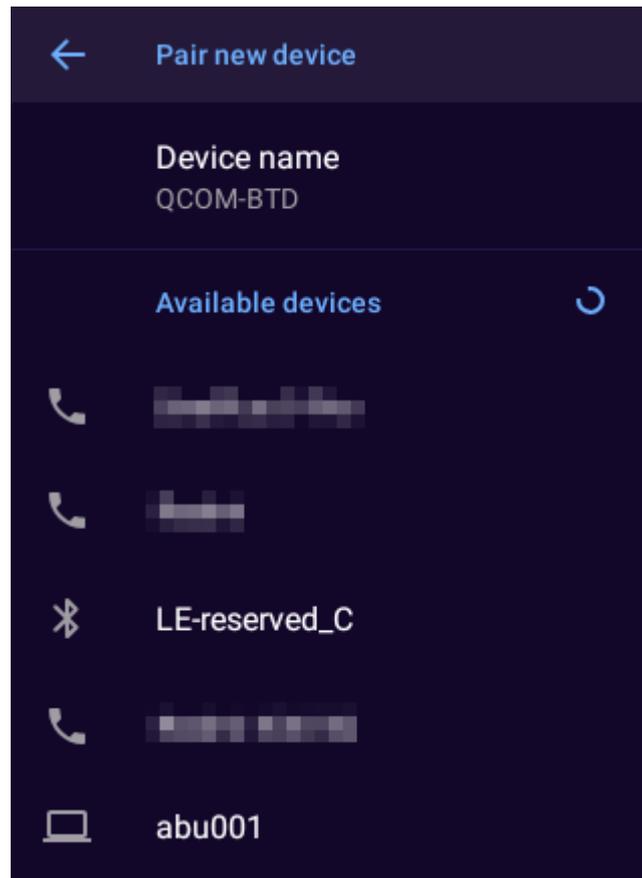
Step 1 On the home screen, select  > **Network** > **Bluetooth**.

Step 2 Tap  to enable Bluetooth.

Step 3 Tap **Pair new device**.

Step 4 Select the Bluetooth device to pair with, and then tap **Pair**.
After confirmation on both devices, pairing is successful.

Figure 3-16 Bluetooth



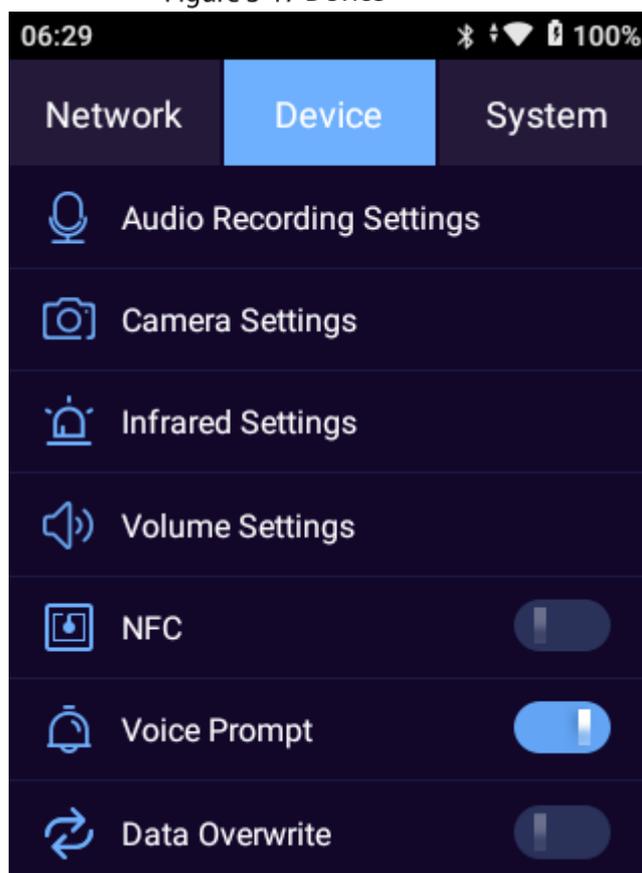
Related Operations

- To rename the Device, tap **Device Name**.
- To connect with devices that had been paired, tap **Previously connected devices** and then tap the device. The Device will connect with the previously paired device automatically.

3.5.2 Device

On the home screen, tap , and then tap the **Device** tab to configure audio recording settings, camera settings, and more.

Figure 3-17 Device



3.5.2.2 Audio Recording Settings

Select **Device > Audio Recording Settings** to configure audio recording parameters.

Figure 3-18 Audio recording

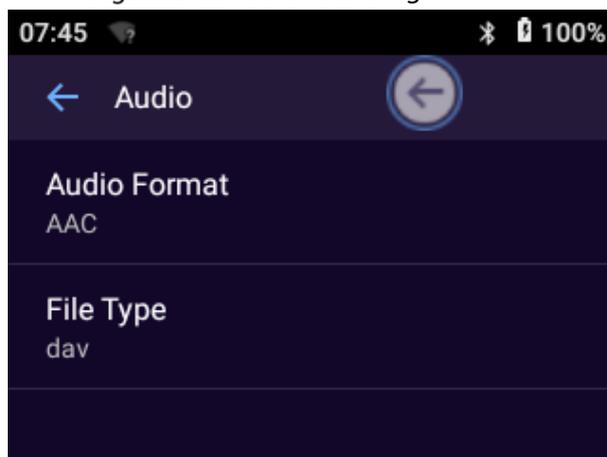


Table 3-6 Audio recording parameter description

Parameter	Description
Audio Format	Select an audio format from G.711A and AAC .
File Type	<ul style="list-style-type: none"> • If the Audio Format is AAC, both dav (default) and aac are available • If the Audio Format is G.711A, only dav is available.

3.5.2.3 Camera Settings

Select **Device > Camera Settings** to configure camera settings.

Figure 3-19 Camera settings

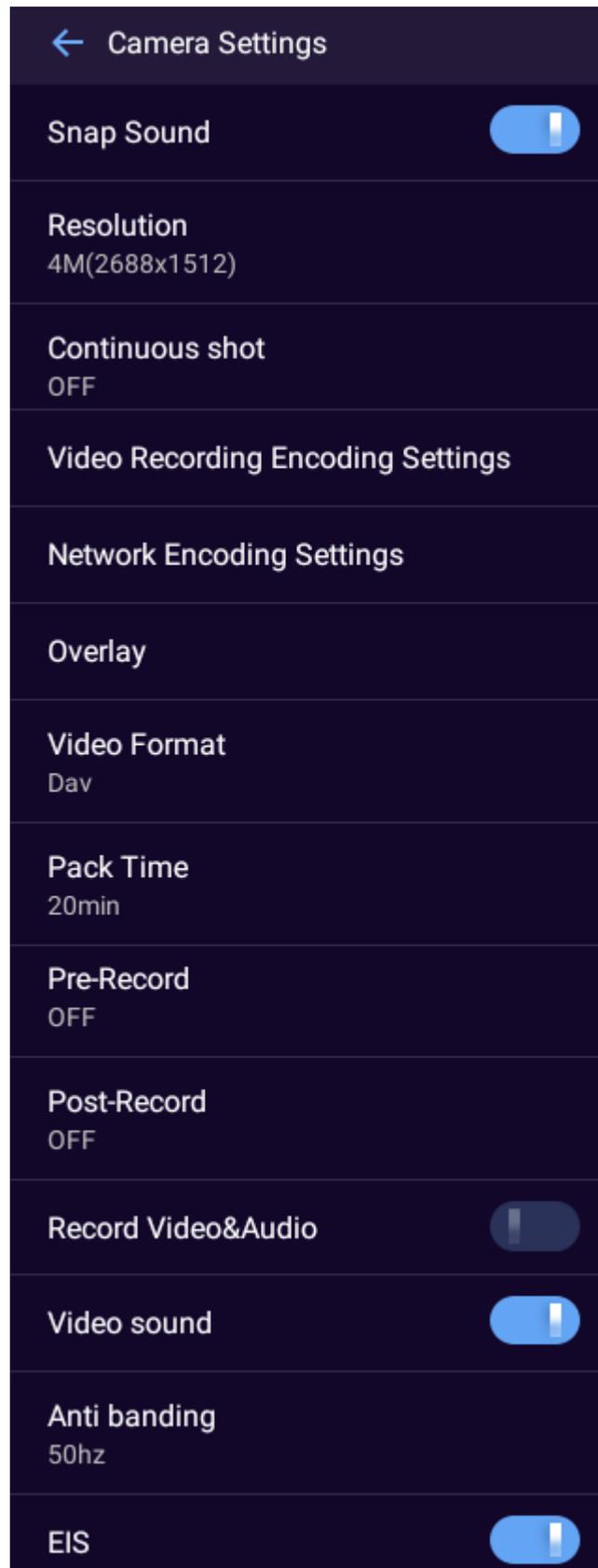


Table 3-7 Camera settings description

Parameter		Description
Snap Sound		Turn on or off the sound for shooting.
Resolution		Configure image size.
Continuous shot		Configure the number of continuous shooting.
Video Recording Encoding Settings	Video Encoding	Configure the encoding type of video.
	Resolution	Configure the video resolution. The higher the resolution, the higher the video quality, but meanwhile the more the storage space consumption.
	Bit Rate	Configure the bit rate of video.
Network Encoding Settings	Network Self-adaptation	Enable network adaptation so that the device can adjust the video quality automatically according to the actual situation.
	Video Encoding	Configure the encoding type of video for network transmission.
	Resolution	Configure the video resolution for network transmission. The higher the resolution, the higher the video quality, but the more network bandwidth consumption..
	Frame Rate	Configure the frame rate of video for network transmission. The higher the frame rate, the smoother the video.
	Bit Rate	Configure the bit rate of video for network transmission. The options available are different depending on the selected resolution and frame rate.
Overlay		Configure whether to display device ID, police ID, time information, GPS information, and custom information on the live video image.
Video Format		Select the video format from MP4 or dav.  MP4 is not compatible with G.711A. If the audio format is G.711A, you can only select dav as the video format.
Pack Time		Configure the interval at which the recorded video is saved as a file.  <ul style="list-style-type: none"> To avoid small files, the packaging time will fluctuate. For example, when you select 30 min, if the start time of recording is 10:26, the stop time will be 11:00; if the start time of recording is 10:14, the stop time will be 10:30. A single recorded video file cannot exceed 2 GB in size and is automatically repackaged if beyond the limit.
Pre-Record		Configure the pre-record time. For example, if you select 15 s, the 15 s video prior to recording will be saved automatically.

Parameter	Description
Post-Record	Configure the post-record time. For example, if you select 15 s, 15 s video after the recording ends will be saved automatically.
Record Video & Audio	When it is enabled, the Device records both video and audio after you press  or  .
Video sound	Enable it to acquire sound.
Anti banding	Avoids flashing lines of the target during video recording. <ul style="list-style-type: none"> ● 50 Hz (AC frequency in China). ● 60 Hz (AC frequency in countries such as Japan and United States).
EIS	Enable the function to reduce the effect from vibration and shaking on video quality.

3.5.2.4 Infrared Settings

Turn on infrared mode as needed.

Select **Device > Infrared Settings**.

Figure 3-20 Infrared settings

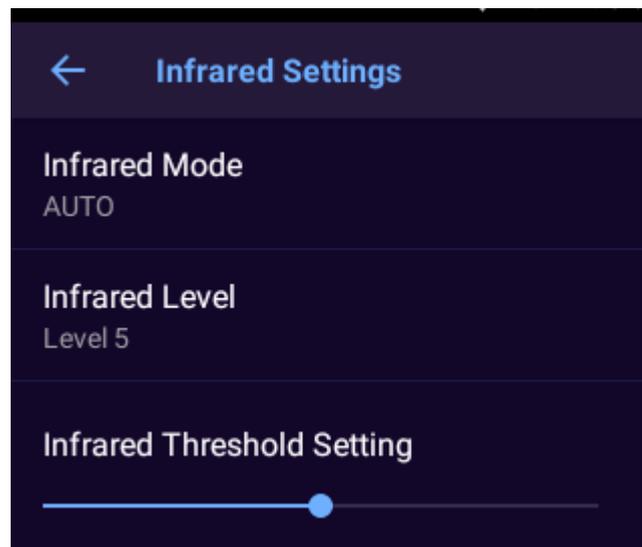


Table 3-8 Infrared settings

Parameter	Description
Infrared Mode	Night vision mode. Select the mode from AUTO , OPEN , and CLOSE . AUTO is selected by default.
Infrared Level	Configure the brightness of the infrared light. You can set the level to Level 1, Level 2, Level 3, Level 4, Level 5, and Level 6, and it is Level 5 by default.
Infrared Threshold Setting	In the AUTO mode, the lower the value is, the easier the infrared mode will switch.

3.5.2.5 Volume

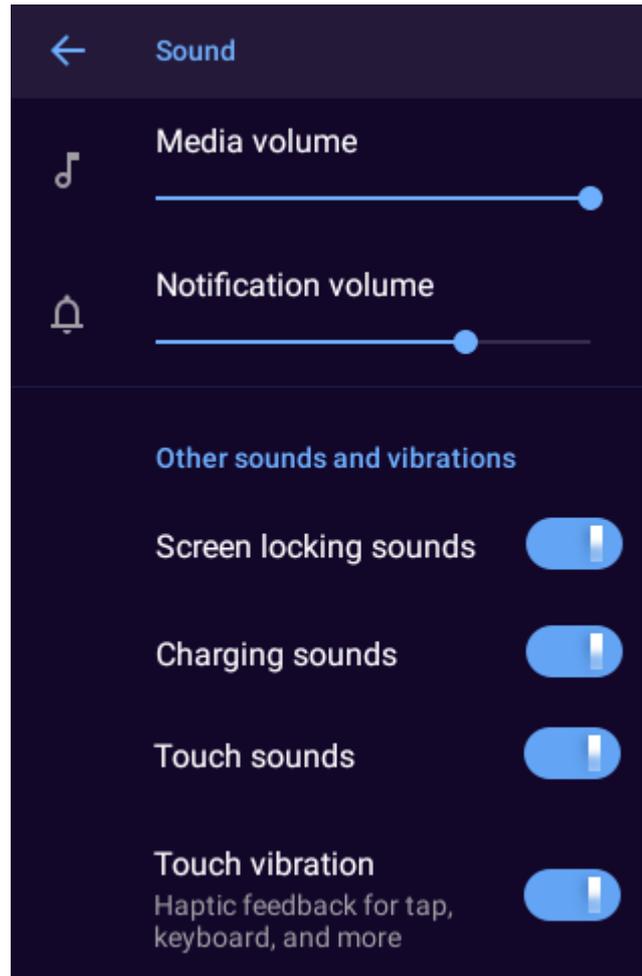
You can configure media and notification volume, enable or disable other sounds and vibrations.

Step 1 Select **Device > Volume**, and then drag the slider to adjust the media and notification volume.

- Media volume involves video and audio playback.
- Notification volume includes key tones, capture success sound, and more.

Step 2 Tap  to enable other sounds and vibrations, including screen locking sounds, charging sounds, touch sounds, and touch vibration.

Figure 3-21 Adjust volume



3.5.2.6 NFC

Select **Device > NFC**, and then enable **NFC**. The Device exchanges data with other nearby devices.



- The NFC can read data from TypeA and TypeB.
- Before using NFC, install third-party software that supports NFC. If there is no third-party software, there will be a sound prompt when the card is close to the Device.

3.5.2.7 Voice Prompt

Select **Device > Voice Prompt** to enable or disable voice prompt.

3.5.2.8 Data Overwrite

Select **Device > Data Overwrite**, and then enter the password of the admin account to enable or disable data overwriting. After the function is enabled, the oldest non-key files will be overwritten when the storage space is used up.



This function is only available for admin account.

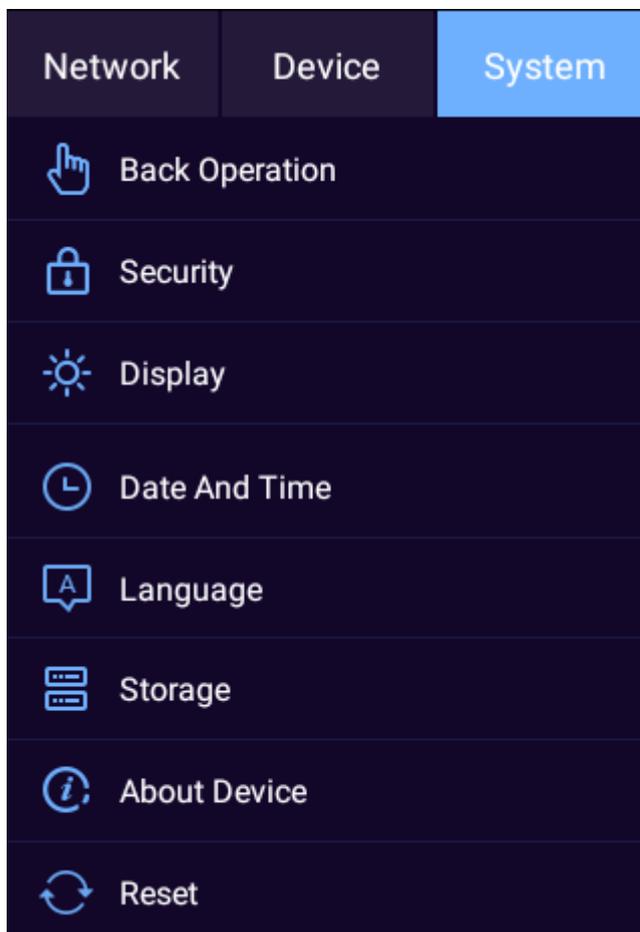
3.5.3 System



When the over temperature protection is triggered, the Device will prompt you to handle the temperature anomaly to avoid slow screen response, system failure or data exception.

On the main screen, tap , and then select **System**. You can configure security, display, date and time, language, and more.

Figure 3-22 System



3.5.3.1 Back Operation

You can select a mode for back operation.

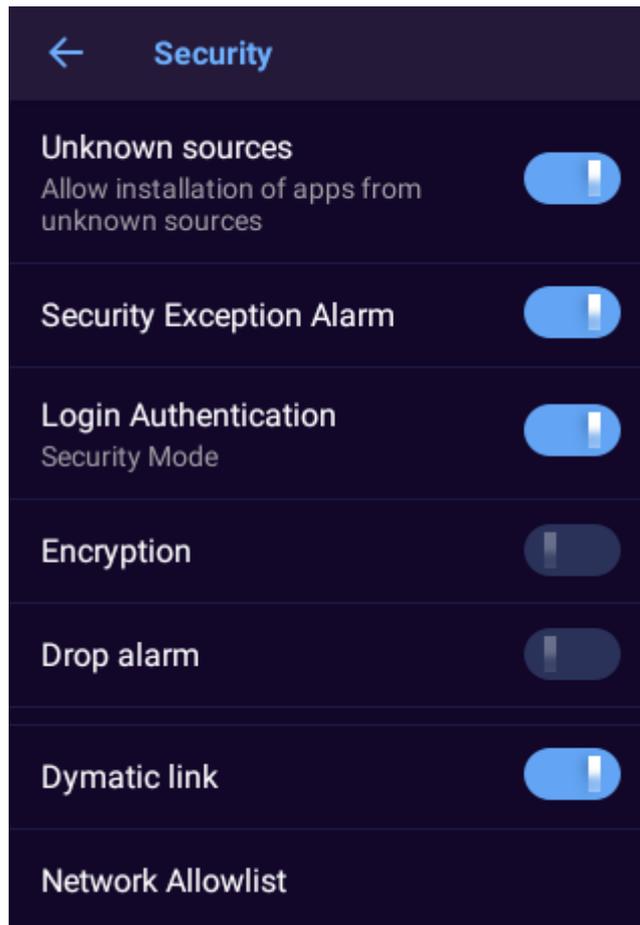
Select **System > Back Operation**, and then select a mode from **Gesture** and **Floating Button**.

3.5.3.2 Security

You can allow apps from unknown sources to be installed.

Step 1 Select **System > Security**.

Figure 3-23 Security



Step 2 Configure the parameters.

Table 3-9 Security parameters

Parameter	Description
Unknown sources	Allow apps from unknown sources to be installed.
Security Exception Alarm	Displays alarm information when an exception occurs.
Login Authentication	Configure login mode. We recommend you turn on security mode to avoid security risks.
Encryption	Enable encryption for the pairing devices.  Make sure that the pairing devices or software supports video decryption.

Parameter	Description
Drop alarm	When Drop alarm is enabled, the Device triggers an alarm message when dropping from 30 cm or higher.
Dynamic link	Enable it to set an independent link for each request. It is used during live view video, voice talk and playback.
Network Allowlist	To allow access of only trusted IPs, MACs and ports, enable Network Allowlist and then add the trusted IPs, MACs and ports.

3.5.3.3 Display

Select **System > Display** to adjust the screen brightness and device hibernation time.

Figure 3-24 Display

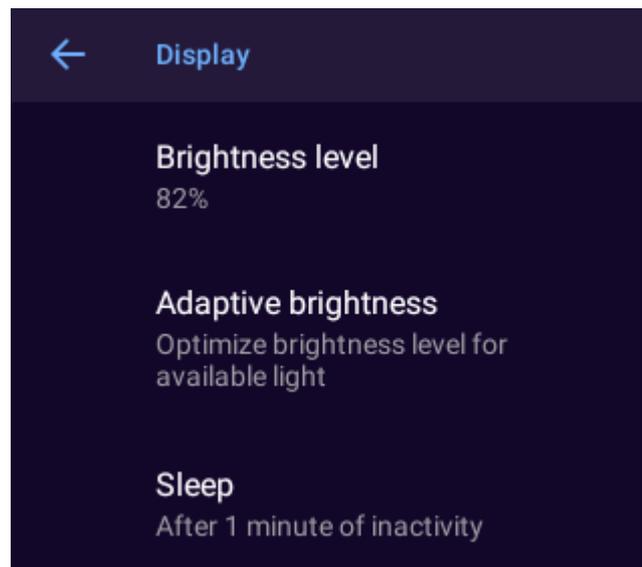


Table 3-10 Display parameters

Parameter	Description
Brightness level	Adjust the screen brightness.
Adaptive brightness	Automatically adjusts the screen brightness according to the environment and activity.
Sleep	Configure the hibernation time. The Device automatically hibernates after the predefined time of inactivity.

3.5.3.4 Date and Time

Select **System > Date And Time** to configure date and time settings.

Figure 3-25 Date and time

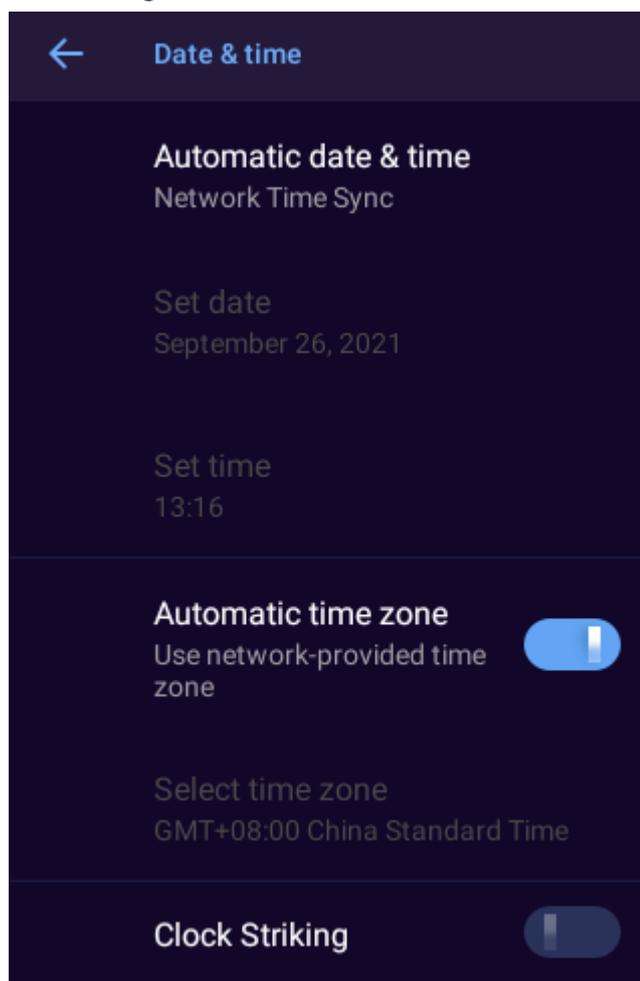


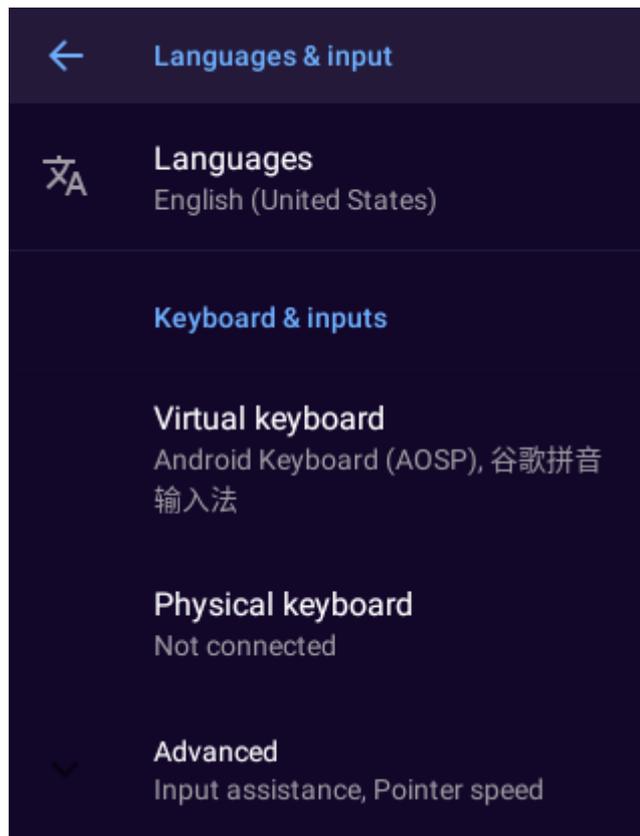
Table 3-11 Date and time parameters

Parameter	Description
Automatic date & time	<p>Sync device time with the network or platform.</p> <p></p> <ul style="list-style-type: none"> To sync with the network time, ensure that the Device is connected to the network, such as a 4G or Wi-Fi. To sync with platform time, ensure that the Device is connected to the platform. The Device can also sync time through MPT Manager.
Set date	After selecting Disable for Automatic date & time , you can set date and time manually.
Set time	
Automatic time zone	Enable it to use network-provided time zone.
Select time zone	To select time zone, disable Automatic time zone , and then tap select time zone .
Clock Striking	When Clock Striking is enabled, the Device strikes the hour.

3.5.3.5 Language

Select **System > Language** to configure device language.

Figure 3-26 Configure language



3.5.3.6 Storage

Select **System** > **Storage** to view the used and total storage space.

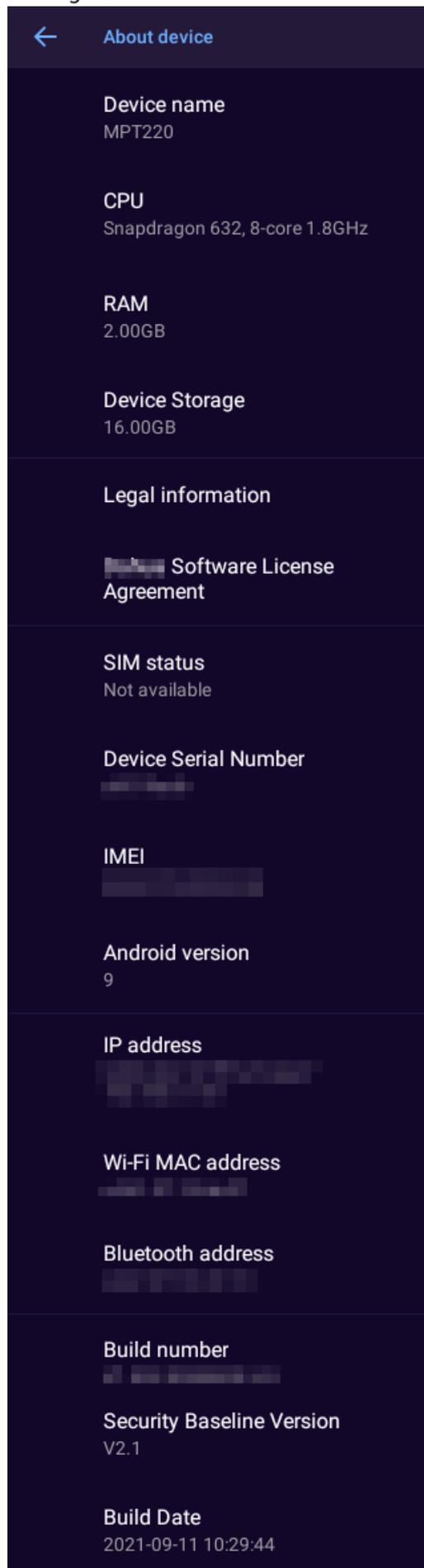


- **External storage:** The checkbox appears after the Device reads the inserted TF card. For TF card with memory larger than 32 GB, format it to FAT32 through DiskGenus before use.
- **Overwrite:** After it is enabled, the Device will delete some non-key files to release 1 GB to 2 GB storage space when the internal storage space is used up. If the storage space in both the Device and TF card runs out, some non-key files will be deleted to free up part of the internal and external storage space.

3.5.3.7 About Device

Select **System** > **About Device** to view device information such as device name, serial number, and Android version

Figure 3-27 About device



3.5.3.8 Reset

Restore the Device to default settings.



- Restoring default settings will clear all data stored in your device, including system and app data and settings. The Device still retains certain parameters, including audio, video, picture data, and the serial number. You can select whether to clear video, audio and image data. Proceed with caution.
- Only admin has the permission to reset the Device.

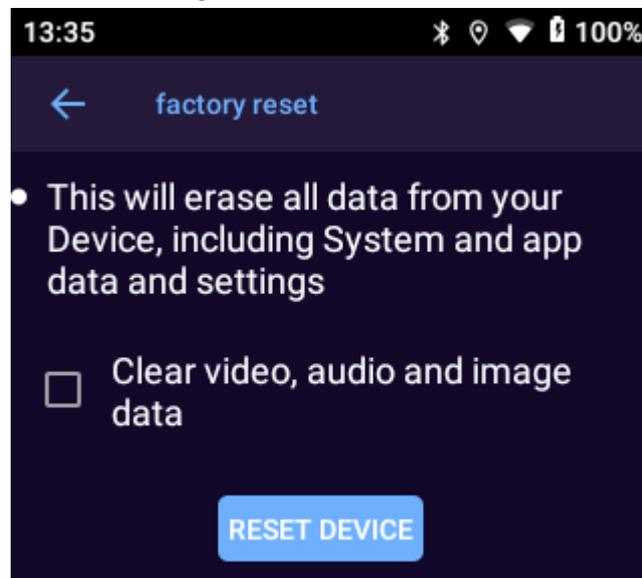
Step 1 Select **System** > **Reset**.

Step 2 (Optional) Select Clear video, audio and image data.

Step 3 Tap RESET DEVICE and then tap ERASE EVERYTHING.

Step 4 Enter password, and then tap OK.

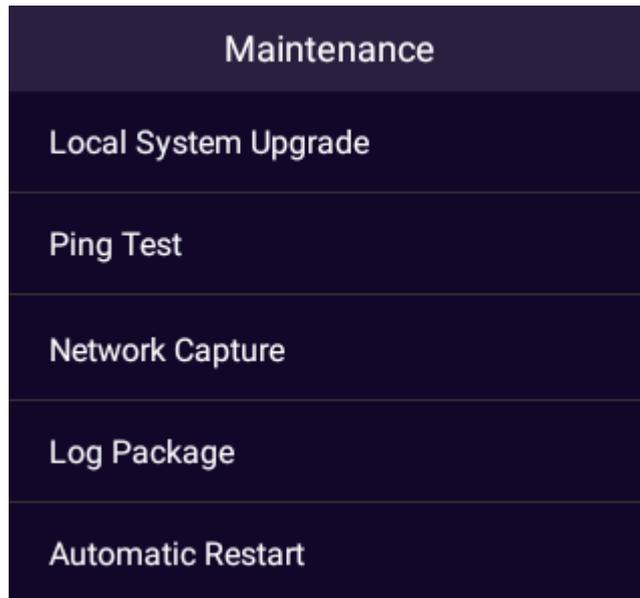
Figure 3-28 Reset



3.6 System Maintenance

On the home screen, tap **Maintenance** and then you can perform maintenance operations such as system update, and ping test.

Figure 3-29 Maintenance



3.6.2 Local System Upgrade

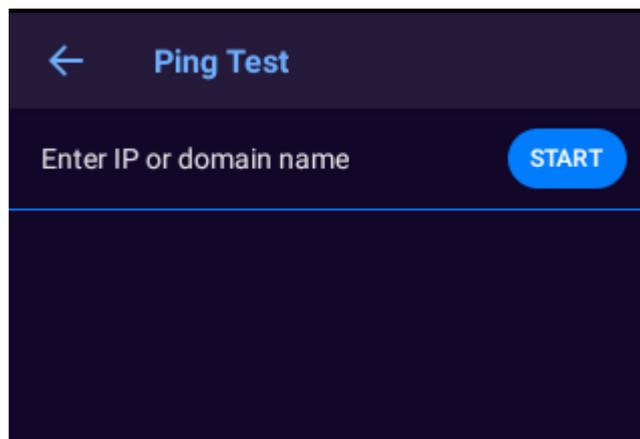
You can update the system on the local device. For details, see "4.2 Updating on Local Device".

3.6.3 Ping Test

You can test the network connection.

On the home screen, select **Maintenance** > **PING test**, enter the target IP address, and then tap **START**.

Figure 3-30 Ping test



3.6.4 Network Capture

You can capture data packets and share them through Bluetooth. The packets help to diagnose and solve network problems.

Prerequisites

To share captured packet, you need to turn on Bluetooth. For details, see "3.5.1.5 Bluetooth".

Procedure

Step 1 On the home screen, select **Maintenance > Network Capture**.

Step 2 Tap **Capture** to capture data packets. Tap **StopCap** to stop.

Step 3 Tap **SHARE** to send the captured packet to a Bluetooth device.



The shared file will be deleted automatically.

Figure 3-31 Network capture



3.6.5 Log Package

The logs record the information on the system operation, through which you can identify some abnormal operations. You can package the logs and share them through Bluetooth.

Prerequisites

To share log package, you need to turn on Bluetooth. For details, see "3.5.1.5 Bluetooth".

Procedure

Step 1 On the home screen, select **Maintenance > Log Package**.

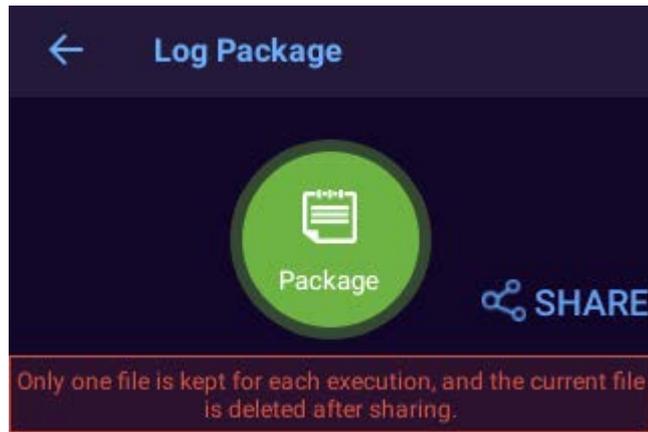
Step 2 Tap **Package** to compress logs into one package.

Step 3 Tap **SHARE** to send the log package to a Bluetooth device.



The shared file will be deleted automatically.

Figure 3-32 Network capture



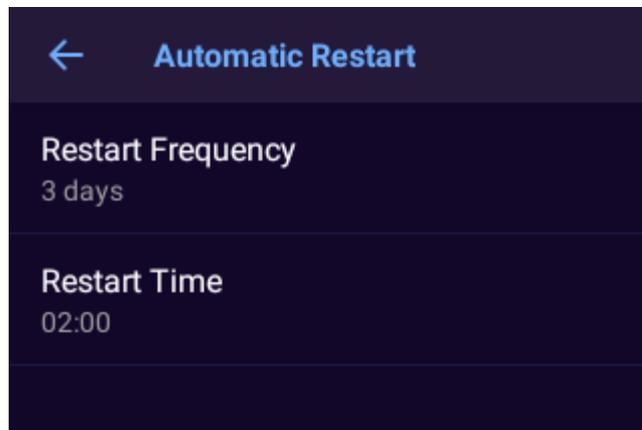
3.6.6 Automatic Restart

On the home screen, select **Maintenance > Automatic Restart**, and then you can configure the restart frequency and time.



If the Device is recording audio or video at the defined restart time, restart will not happen until one hour later. If the Device is still recording one hour later than the defined restart time, restart will be postponed another hour. If the Device is still recording at that time, the Device will be scheduled to restart at the predefined time next day.

Figure 3-33 Automatic restart



3.7 Audio Recording

3.7.1 Recording Audio

Press  on any screen to record audio, or tap  on the home screen, and then tap .

Figure 3-34 Record audio

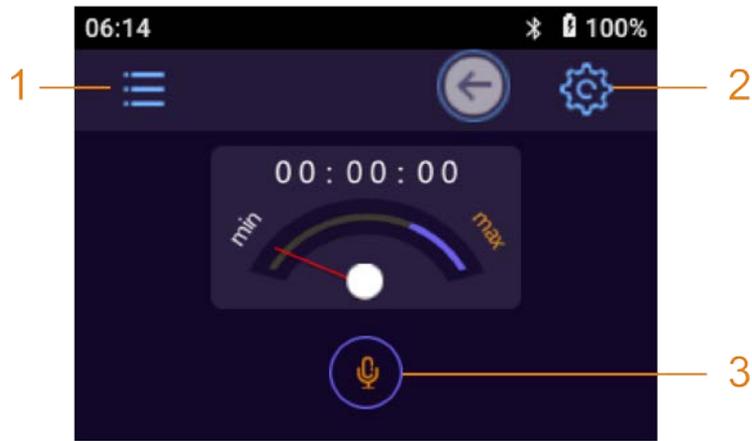


Table 3-12 Audio recording functions

SN	Function
1	Tap the icon and then enter password to view and manage audio files.
2	Tap the icon to set audio format and file format. <ul style="list-style-type: none"> • Audio format: AAC and G.711A. • File type: dav and aac.  <ul style="list-style-type: none"> • If the Audio Format is G.711A, only dav is available for file type. • During recording audio process, icon 1 and 2 are hidden.
3	Tap the icon to start recording audio. Tap  to stop. System prompts "Stop recording audio".

3.7.2 One Press to Record Audio

When the Device is sleeping, press  to start recording audio. Press  again to stop.

3.8 Video Recording

3.8.1 Recording Video

- To start recording, tap  on the home screen, tap  to start recording video, and then tap  to stop recording.
- Press  to start recording video, and press  again to stop recording.

Figure 3-35 Record video



Table 3-13 Video recording functions

No.	Description
1	<p>Date, time, serial number, police officer number, GPS information, and custom information.</p> <p></p> <ul style="list-style-type: none"> To show GPS information, make sure that location service and GPS display are enabled. Select  > Network > Location to enable positioning; select  > Device > Camera Settings > Overlay > GPS OSD to enable GPS display. To display the custom information, connect the Device to MPT Manager to configure the custom OSD information, and then enable custom information display in  > Device > Camera Settings > Overlay.
2	<p>Video quality.</p> <p></p> <p>Shows picture resolution when the Device is in capturing mode.</p>
3	<p>Remaining capacity/total capacity, and remaining recording time.</p> <p></p> <ul style="list-style-type: none"> The remaining recording time varies with video quality. Shows the remaining capacity/total capacity in capturing mode, and the remaining number of pictures that you can take.
4	<p>Camera settings. For details, see "3.5.2.3 Camera Settings".</p>
5	<ul style="list-style-type: none"> When the Device is in recording mode, tap  to start recording video and then tap  to stop. When the Device is in capturing mode, tap  to take a picture.
6	<p>Tap to switch between recording mode and capturing mode.</p>
7	<p>Tap the screen to display the zoom bar. The bar can be zoomed at 1.0 to 8.0 times by dragging the zoom bar.</p>

3.8.2 One Press to Record Video

When the Device is sleeping, press  to start recording video. The Device prompts "Start recording video" and the login screen is displayed with a recording icon in the notification bar.

Press  again to stop recording video, and you can hear a sound prompt "Stop recording video".

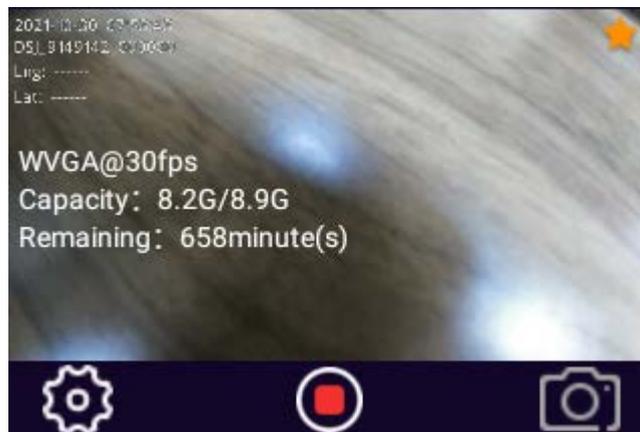
3.8.3 Focusing

On the live view screen, tap the screen, and then a focus bar appears. Drag the focus bar to zoom in or out the image at X1.0 to X8.0.

3.8.4 Marking Important Video

Press and hold  during recording, and a yellow mark  will appear at the upper-right corner of the screen, which means the video is marked as an important file. Tap  to view files. The important files are marked with , and their names end with _IMP.

Figure 3-36 Mark important video



3.9 Pictures

3.9.1 Taking a Picture

On the live view screen, press  or tap . The working indicator light flashes and system prompts success.

3.9.2 One Press to Take a Picture

When the Device is sleeping, press  to take a picture.

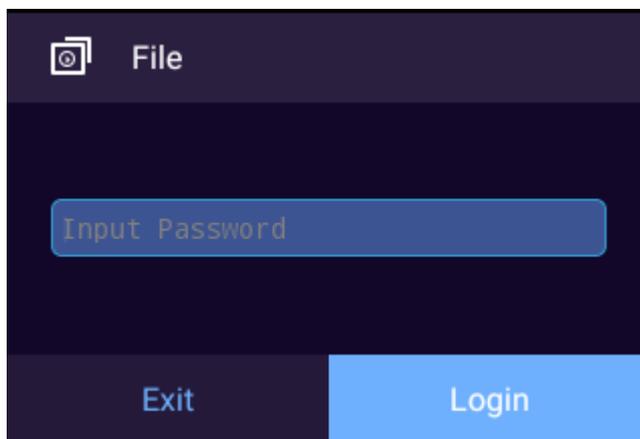
3.10 Files

You can view pictures, videos, and audio files saved in your device.

3.10.1 Viewing Pictures

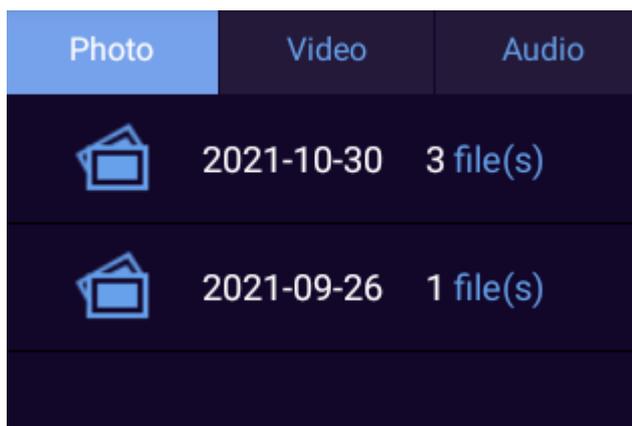
Step 1 On the home screen, tap .

Figure 3-37 Login for file management



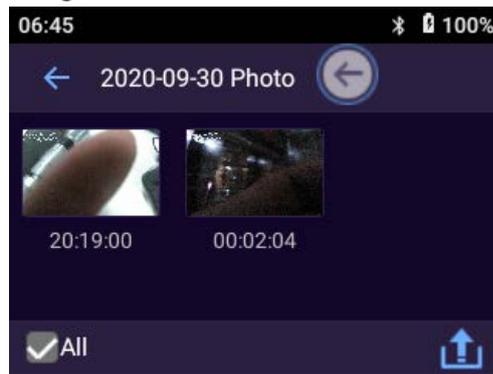
Step 2 Enter your login password, and then tap **Login**.

Figure 3-38 Files



Step 3 Select a folder, and then tap a picture to play.

Figure 3-39 Select a picture



- To select a picture, tap and hold it, and appears on the right-upper corner of the picture. means the picture has been selected.
- Tap All to select all the pictures in the current folder.
- Tap to view details of the selected picture, such as file type, size, and resolution. Tap next to **Important** to mark the picture as an important file. Tap to cancel the mark.

Figure 3-40 Details

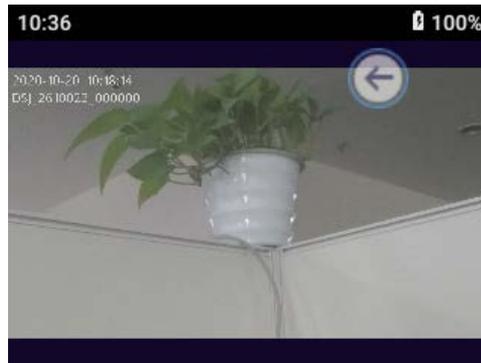


Marking important files or removing the mark will not take effect until you tap **OK**.

- Tap to upload the picture to the platform.

Step 4 Tap a picture.

Figure 3-41 View a picture



- When viewing a picture, swipe left or right on the screen to see the previous or next pictures.
- Use two finger to zoom in or out the picture.
- When floating button is used for back operation, tap  to go back to the picture list; when gesture is used, swipe left or right from the screen edge instead.
- Tap  to view picture details back operation.
- Tap  to upload the picture to platform..

3.10.2 Playing Video

Step 1 On the home screen, tap .

Step 2 Enter your login password, and then tap **Login**.

Step 3 Tap the **Video** tab.

Step 4 Select a folder.

The folders are displayed in chronological order, and the newest folder is on the top of the list.

Step 5 Tap the video file to play.

Figure 3-42 Play video



- When viewing a video, swipe left or right on the screen to play the previous or next videos.
- Drag the progress bar to fast-forward or rewind.
- Tap  to pause.
- Tap  to adjust volume.

- When floating button is used for back operation, tap  to go back to the video list; when gesture is used, swipe left or right from the screen edge instead.
- Tap  to view video details.
- Tap  to upload the current video to the platform.

3.10.3 Playing Audio

Step 1 On the home screen, tap .

Step 2 Enter your login password, and then tap **Login**.

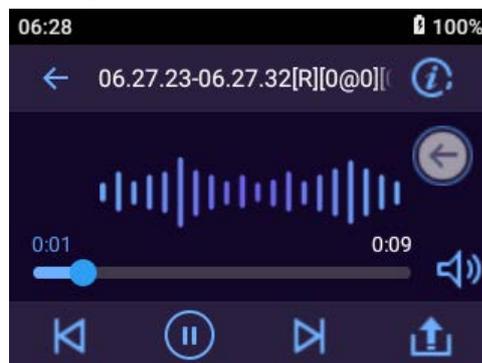
Step 3 Tap the **Audio** tab.

Step 4 Select a folder.

The folders are displayed in chronological order, and the newest folder is on the top of the list.

Step 5 Tap the audio file to play.

Figure 3-43 Play audio



- Tap  or  to play the previous or next audio in the folder.
- Drag the progress bar to fast-forward or rewind.
- Tap  to pause.
- Tap  to adjust volume.
- When floating button is used for back operation, tap  to go back to the audio list; when gesture is used, swipe left or right from the screen edge instead.
- Tap  to view audio details.
- Tap  to upload the current audio to the platform.

3.11 Switching between Video and Audio Recording



With **Record Video&Audio** disabled by default in  > **Device** > **Camera Settings**, you can switch between video and audio recording with a simple press.

- When the Device is recording video, press  to switch to audio recording.
- When the Device is recording audio, press  to switch to video recording.

3.12 Recording Audio & Video at the Same Time



Make sure that you have enabled **Record Video&Audio** in  > **Device** > **Camera Settings**.

- When the Device is recording video, press  to start recording audio at the same time.
- When the Device is recording audio, press  to start recording video at the same time.

3.13 IR Light

IR light can be used to assist in shooting at night or with low illuminance.

Swipe down the notification bar, and then tap  to enable the IR light, and the icon turns to .

Tap  to turn off the IR light.

3.14 White Light

When shooting in dark, you can use white light to illuminate.

Swipe down the notification bar, and then tap  to enable the white light, and the icon turns to

. Tap  to turn off the white light.



The white light cannot be enabled when the battery level is lower than 5%.

3.15 Data Transmission

You can upload data from the Device to MPT Manager and data acquisition station.



After the Device begins USB communication, all wireless functions will be disabled.

- After starting the Device, use USB cable to connect the Device to the PC, start MPT Manager, enter password, and then confirm to download the data.
- Start the Device, and connect it to a legal data acquisition station through the USB cable. For the first-time use, you need to enter the password, and then the data on the Device can be uploaded to data acquisition station. If the device information is not displayed on the interface, unplug USB and plug it again.

4 System Update

You can update the system on MPT Manager or on the local device.

4.1 Updating on MPT Manager

Update the system on MPT Manager.

Step 1 Install the MPT Manager.

Follow the system prompts and click **Next** until the installation is complete.

Step 2 Start the Device, and then connect it to PC through USB cable.

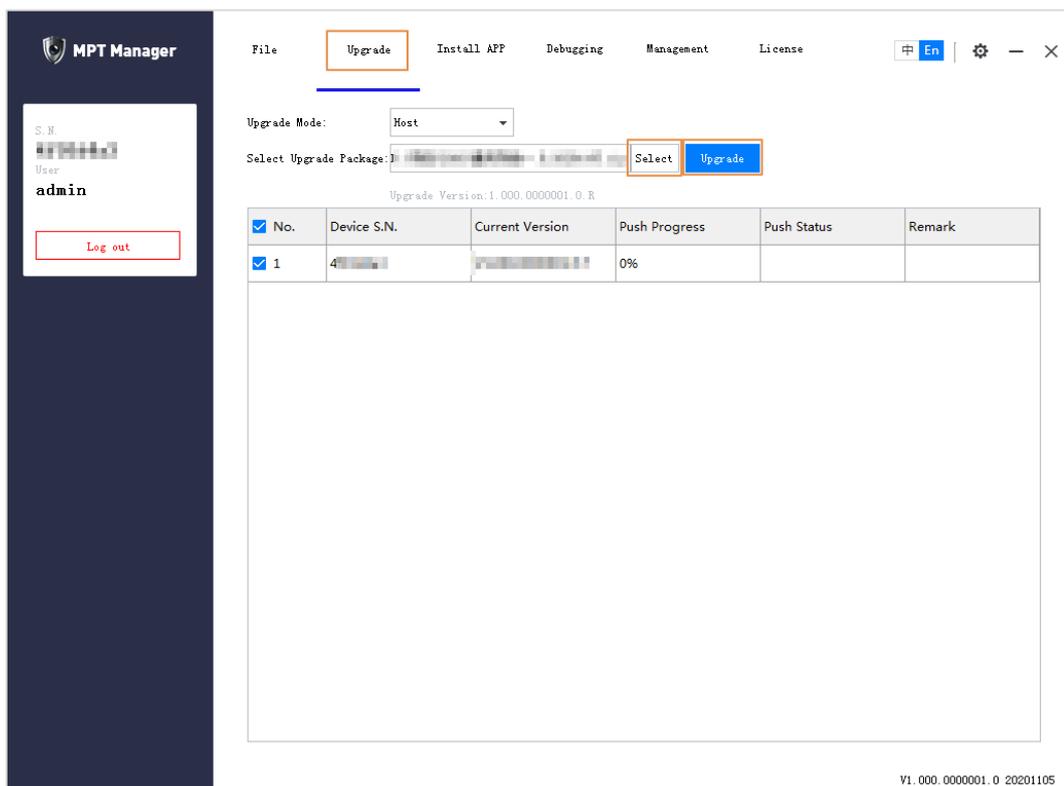
Step 3 Double-click  on the desktop, enter device password, and then click **OK**.

Step 4 Click the **Upgrade** tab.

Step 5 Select the update package, and then click **Upgrade**.

The push progress becomes 100% when the update package is successfully pushed to the Device.

Figure 4-1 Update



4.2 Updating on Local Device

On the home screen, select **Maintenance > Local System Upgrade**. The Device detects update package automatically. After local update package is detected, you can select the package to update the system.

5 Platform Operations

After connecting the Device to the platform, users with corresponding permissions can access and manage the Device on the platform.

5.1 Adding the Device to the Platform

Add the Device to the platform for remote management.



For details on platform operations, see the corresponding user's manual.

Prerequisites

- The Device and the platform are on the same network segment.
- The Device is ready for registration. For details on registration settings, see "3.5.1.1.1 Auto Register".

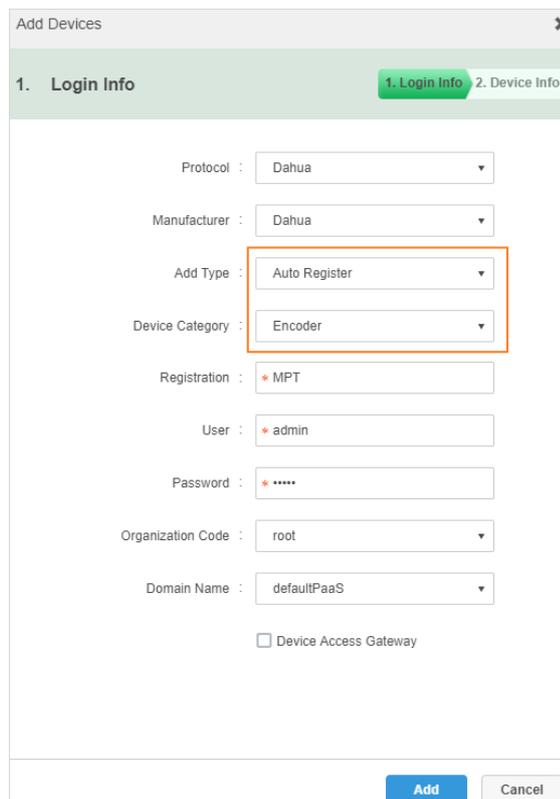
Procedure

Step 1 Log in to the platform web manager.

Step 2 On the home page, select **Devices**, or if you have opened a tab, click , and then select **Devices**.

Step 1 On the **Devices** page, click **Add**.

Figure 5-1 Add MPT (1)



Step 2 Select **Auto Register** from **Add Type**, set **Device Category** to **Encoder**, enter device registration ID in **Registration**, and set other device information.



The registration ID must be the same as the one entered on the MPT device when registering the platform.

Step 3 Click **Add**.

Step 4 Set device name and the number of video channel, and then select **MPT Series** from **Type**.

Step 5 Click **OK**.

Figure 5-2 Add MPT (2)

Device Name : *

Type : MPT Series

Video Channel : * 1

Alarm Input Channel : 0

Previous Continue Add OK

Step 6 Click  of the added device, select **Basic Info**, and then get device SN information. Otherwise, you might fail to add the device.

5.2 Connecting to the Platform

Register the Device to the platform. For details, see "3.5.1.1.1 Auto Register".

6 SIM Card and Battery Installation

The product supports 5 VDC/2 A power recharge. When the battery power is low, recharge it in time.

- When the Device has the main battery, the interface displays main battery percentage.
- If you remove the main battery, the Device will shut down.
- After installing the main battery, start the Device manually.



- Recharge the battery if the Device is not in use for a long time.
- The system triggers low battery alarm when the battery level is $\leq 5\%$.
- The Device automatically shuts down when the power runs out.
- If the Device will not be used for a week or more, charge it to 60%, take the battery out of the Device, and store it in a clean, dry and ventilated room with ambient temperature of $20\pm 5^{\circ}\text{C}$.
- Charge the battery at least once every three months during storage.
- The battery is a consumable accessory. You are recommended to replace it after one year of use.

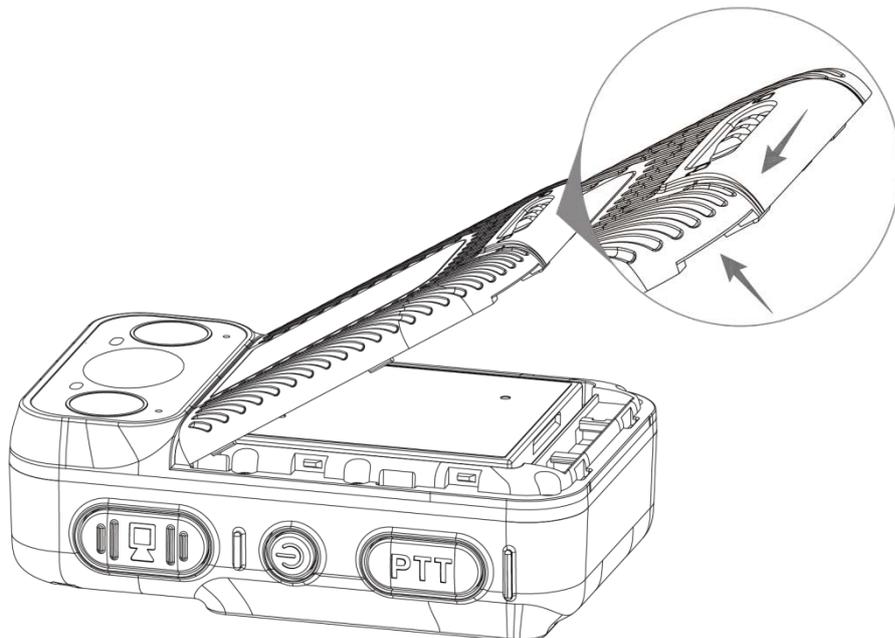
6.1 Installing SIM Card



- SIM card and the peripheral accessories do not support hot swapping. The card becomes activated after the Device restarts.
- Shut down the Device before installing the SIM card; otherwise the Device might be damaged.

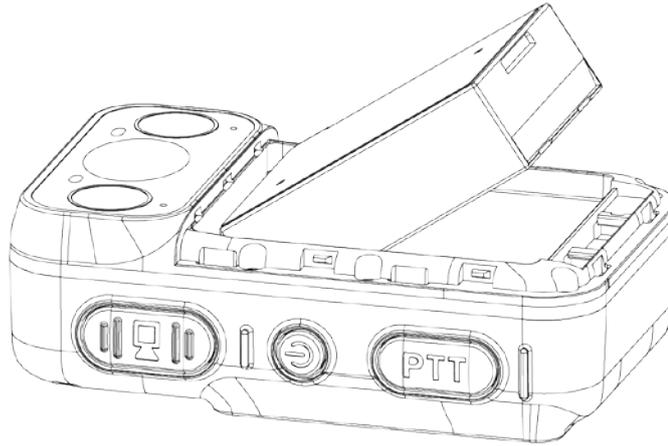
Step 1 Move the slider on the back of the Device left, and use your thumb to hold the tray on the left side of the Device.

Figure 6-1 Remove the battery cover



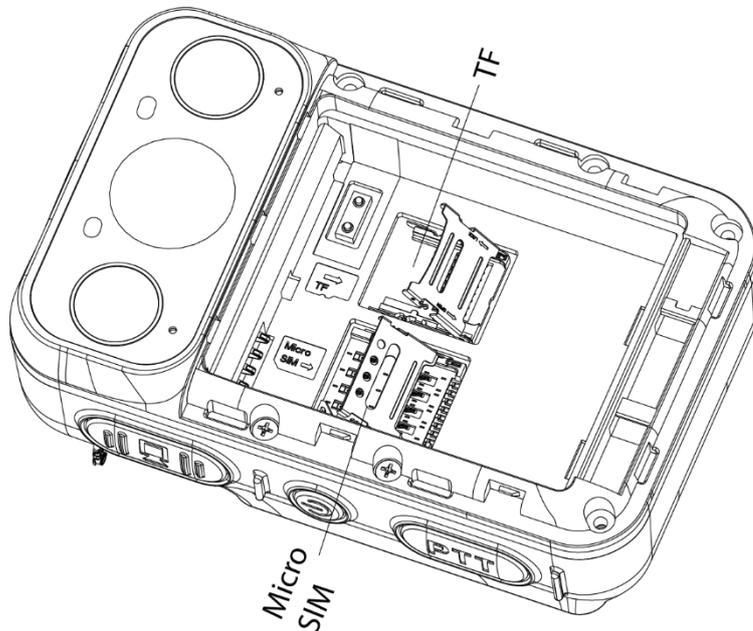
Step 2 Take out the main battery.

Figure 6-2 Take out main battery



Step 3 Make sure that the SIM card metal side is facing down. Follow the directions on Figure 7-3 to push the SIM card to the tray until SIM card is firm.

Figure 6-3 Installing SIM card



Step 4 Install the main battery.



Make sure that the SIM card installation is complete before installing the main battery in case the battery may jam the tray and result in tray damage.

Step 5 Install the battery cover, and then move the slider on the back of the Device right.

6.2 Replacing Main Battery

For details, see "7.1 Installing SIM Card."

7 FAQ

1. How can I add, delete user or change password?

- The operations might vary with the version and model. For details, see the corresponding user's manual.
- Only the admin account has the permission to add user.
- To change the password, go to  > **User management**, or tap  on the home screen, depending on the version you are using.
- Only the admin account has the permission to view and change the information of other users. Other users can only view the information and change the password of their own account.

2. How can I restore the Device to factory settings or clear the password?

Factory resetting will clear all data stored in your device, including system and app data and settings. The Device still retains certain parameters, including audio, video, picture data, and the serial number. Only the admin account can reset the Device.

3. Where can I configure VPN?

Go to  > **Network > Mobile Data > VPN**.

4. Where can I configure APN?

Select  > **Network > Mobile Data > Mobile Network**, and then tap **Access Point Names**.

5. How long can the battery last during normal use?

- With screen off, local recording turned on using the default settings, 4G used to acquire stream (main stream), and GPS enabled, the battery lasts 7–8 hours.
- With screen on for half an hour, local recording turned on using the default settings, 4G used to acquire stream (main stream), GPS enabled, and voice talk used for half an hour, the battery runs out in 6–7 hours.
- With screen on for half an hour, local recording turned on using the default settings, 4G used to acquire stream (main stream) for an hour, and GPS enabled, the battery life is 8–9 hours.



The listed battery life is for reference only. The actual battery life might vary with the operating conditions, environment, battery usage and other factors.

Appendix 1 Cybersecurity Recommendations

Mandatory actions to be taken for basic device network security:

1. Use Strong Passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters.
- Include at least two types of characters; character types include upper and lower case letters, numbers and symbols.
- Do not contain the account name or the account name in reverse order.
- Do not use continuous characters, such as 123, abc, etc.
- Do not use overlapped characters, such as 111, aaa, etc.

2. Update Firmware and Client Software in Time

- According to the standard procedure in Tech-industry, we recommend to keep your device (such as NVR, DVR, IP camera, etc.) firmware up-to-date to ensure the system is equipped with the latest security patches and fixes. When the device is connected to the public network, it is recommended to enable the "auto-check for updates" function to obtain timely information of firmware updates released by the manufacturer.
- We suggest that you download and use the latest version of client software.

"Nice to have" recommendations to improve your device network security:

1. Physical Protection

We suggest that you perform physical protection to device, especially storage devices. For example, place the device in a special computer room and cabinet, and implement well-done access control permission and key management to prevent unauthorized personnel from carrying out physical contacts such as damaging hardware, unauthorized connection of removable device (such as USB flash disk, serial port), etc.

2. Change Passwords Regularly

We suggest that you change passwords regularly to reduce the risk of being guessed or cracked.

3. Set and Update Passwords Reset Information Timely

The device supports password reset function. Please set up related information for password reset in time, including the end user's mailbox and password protection questions. If the information changes, please modify it in time. When setting password protection questions, it is suggested not to use those that can be easily guessed.

4. Enable Account Lock

The account lock feature is enabled by default, and we recommend you to keep it on to guarantee the account security. If an attacker attempts to log in with the wrong password several times, the corresponding account and the source IP address will be locked.

5. Change Default HTTP and Other Service Ports

We suggest you to change default HTTP and other service ports into any set of numbers between 1024–65535, reducing the risk of outsiders being able to guess which ports you are using.

6. Enable HTTPS

We suggest you to enable HTTPS, so that you visit Web service through a secure communication channel.

7. MAC Address Binding

We recommend you to bind the IP and MAC address of the gateway to the device, thus reducing

the risk of ARP spoofing.

8. Assign Accounts and Privileges Reasonably

According to business and management requirements, reasonably add users and assign a minimum set of permissions to them.

9. Disable Unnecessary Services and Choose Secure Modes

If not needed, it is recommended to turn off some services such as SNMP, SMTP, UPnP, etc., to reduce risks.

If necessary, it is highly recommended that you use safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption passwords and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up strong passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up strong passwords.

10. Audio and Video Encrypted Transmission

If your audio and video data contents are very important or sensitive, we recommend that you use encrypted transmission function, to reduce the risk of audio and video data being stolen during transmission.

Reminder: encrypted transmission will cause some loss in transmission efficiency.

11. Secure Auditing

- Check online users: we suggest that you check online users regularly to see if the device is logged in without authorization.
- Check device log: By viewing the logs, you can know the IP addresses that were used to log in to your devices and their key operations.

12. Network Log

Due to the limited storage capacity of the device, the stored log is limited. If you need to save the log for a long time, it is recommended that you enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

13. Construct a Safe Network Environment

In order to better ensure the safety of device and reduce potential cyber risks, we recommend:

- Disable the port mapping function of the router to avoid direct access to the intranet devices from external network.
- The network should be partitioned and isolated according to the actual network needs. If there are no communication requirements between two sub networks, it is suggested to use VLAN, network GAP and other technologies to partition the network, so as to achieve the network isolation effect.
- Establish the 802.1x access authentication system to reduce the risk of unauthorized access to private networks.
- Enable IP/MAC address filtering function to limit the range of hosts allowed to access the device.