Mobile Portable Terminal

User's Manual



V2.0.0

Foreword

General

This manual introduces the installation and operations of the Mobile Portable Terminal (hereinafter referred to as "the Terminal"). Read carefully before using the Terminal, and keep the manual safe for future reference.

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 EIS. • Added app management. • Add platform configuration.	March 2022
V1.0.0	First release.	May 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

The section introduces the proper way of using the Terminal, and danger and property damage preventions. Read carefully before using the Terminal, and comply with the guidelines when using it.

Transportation Requirements



Transport the Terminal under allowed humidity and temperature conditions.

Storage Requirements



- Store the Terminal under allowed humidity and temperature conditions.
- To avoid short circuits caused by metal objects touching the battery anode and cathode, do not store the battery with other metals.
- If the Terminal will not be used for a week or longer, charge it to 60%, take the battery out of the Terminal, and store it in a clean, dry and ventilated room with an ambient temperature of 20 ± 5 °C.
- Charge the battery once every four months during storage.

Installation Requirements

 **WARNING**

Do not expose the battery to environments with extremely low air pressure, or extremely high or low temperatures. Also, it is strictly prohibited to throw the battery into a fire or furnace, and to cut or put mechanical pressure on the battery. This is to avoid the risk of fire and explosion.

Operation Requirements

 **WARNING**

Use the power adapter and cables provided with the Terminal. We assume no responsibility for injuries or damage caused by using the incorrect power adapter and cables.



- To prevent possible hearing damage, do not listen at high volume levels for long periods.
- Use the Terminal under allowed humidity and temperature conditions.
- Do not continuously charge the battery for 24 hours or longer. When it is finished charging or it no longer needs charging, disconnect the adapter from the Terminal, and unplug it from the power socket.
- Please be advised that your configurations will be lost after performing a factory reset.

Maintenance Requirements



Make sure to use the same model when replacing the battery to avoid fire or explosion. Dispose the battery strictly according to the instructions on it.



The battery is a consumable accessory. We recommend replacing it after it has been used for a year.

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1 Product Overview

1.1 Introduction

The Terminal integrates high-performance mobile phone chip, ergonomic design, industry application, and AI video technology. It is ideal for public security, energy, corporation, transportation, justice, electricity, insurance and other industries. With functions such as video communication, teleconference, audio and video acquisition, group talk, and voice call, the Terminal is suitable for the following application scenarios: Law enforcement and evidence obtaining, security and patrol, and process control. Therefore, it can meet the customers' needs for mobile business application.

1.2 Packing List

When you receive the product, check whether there is obvious damage to the packing box. Unpack the box and check whether the components are complete against the packing list.

Table 1-1 Packing list

Name	Quantity
Main device	1
Power adapter	1
4600 mAh battery	1
Quick Start Guide	1
USB cable	1

1.3 Product Structure

1.3.1 Structure

Figure 1-1 Structure (1)

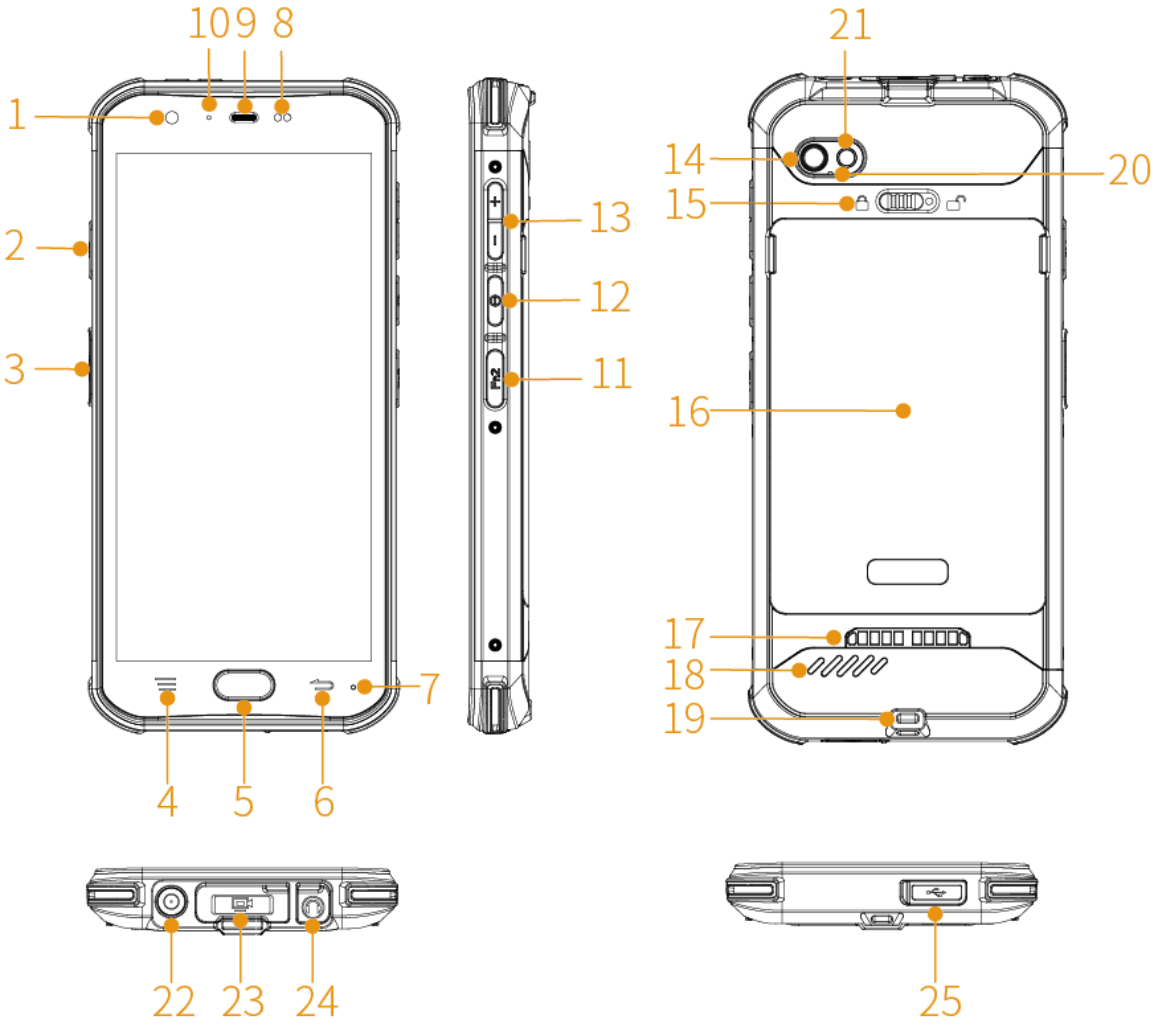


Table 1-2 Structure description

No.	Description	No.	Description
1	Front camera.	2	Fn1 button. It is a programmable button. You can set the function of the button to recording or capturing in > **Device** > **Customized Button**.
3	PTT (Push to Talk) button. Press and hold the button to start talk if the Terminal is in a POC group.	4	Menu button. After unlocking the Terminal, whatever screen you are on, tap the button to see the tasks running in the background.

No.	Description	No.	Description
5	Fingerprint sensor. ● After adding the fingerprint, you can tap the button to unlock the Device with your fingerprint. ● When the Terminal is powered on, the button serves as the Home button.	6	Back button. Tap the button to go back to the previous screen.
7	Main microphone.	8	Photosensitive proximity sensor.
9	Sound pickup.	10	Indicator light. ● Alarm: Flashes red quickly. ● Low battery: Flashes red slowly. ● Charging: Solid red when the battery level is lower than 90%; solid green when the battery level is 90% or higher. ● Acquiring stream: Flashes green slowly. ● Video recording: Flashes blue quickly. ● Audio recording: Flashes blue slowly.
11	Fn2 button. It is a programmable button. You can set the function of the button to recording or capturing in > **Device** > **Customized Button**.	12	Power button. ● Press and hold the button to turn on or off the Terminal, restart the Terminal, or take screenshots. ● Short press the button to turn off or wake up the screen.
13	Volume button. Press the + or – button to adjust the volume.	14	Rear button.
15	Battery cover lock. Slide to the left or right side to lock or unlock the battery cover.	16	Battery cover.
17	Pogpin port. Connect to the base and back clip.	18	Speaker.
19	Lanyard hole.	20	Back microphone.

No.	Description	No.	Description
21	Flashing light.	22	SOS button. Press the button to ask for help in emergency. Use this function with the corresponding platform software.
23	Port for external camera.	24	Earphone jack.
25	USB charging port.	—	

Open the battery cover, and then you can see the internal structure of the Terminal.

Figure 1-2 Structure (2)

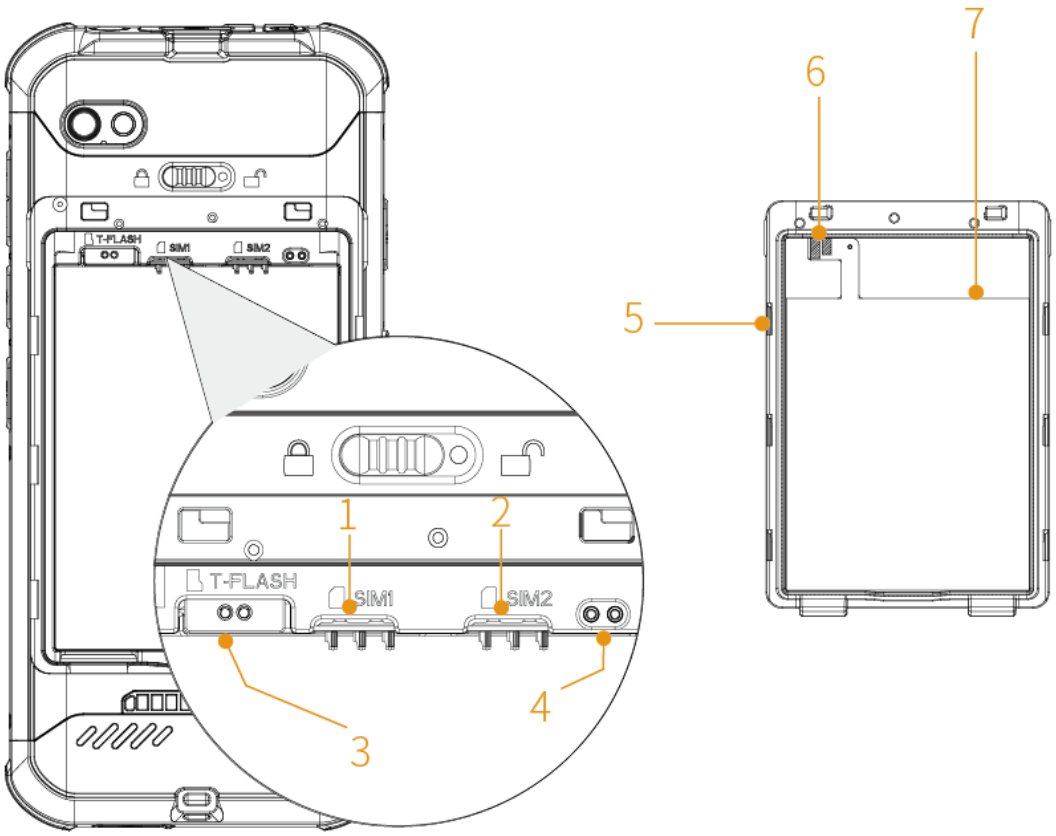
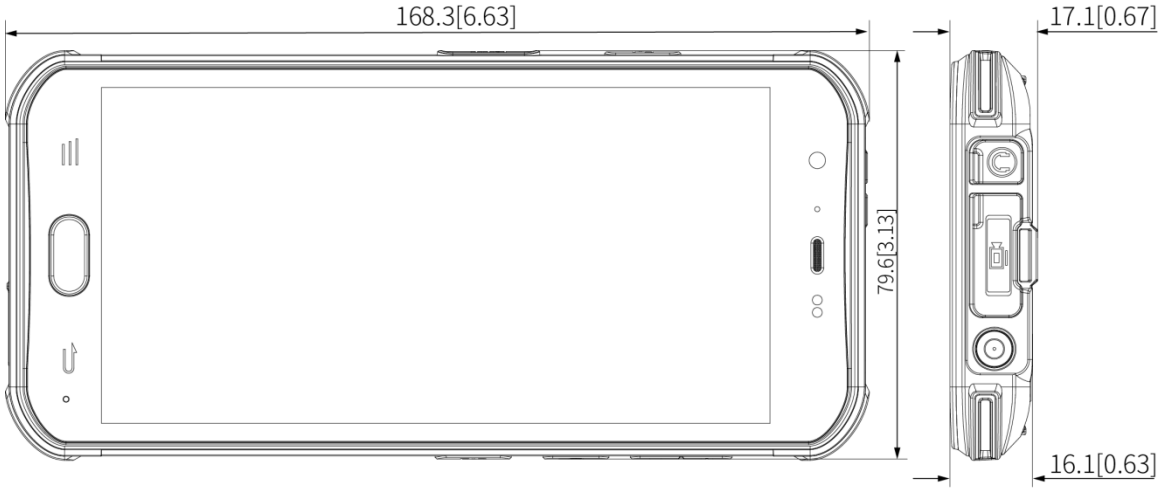


Table 1-3 Structure description (2)

No.	Description
1	SIM card slot 1
2	SIM card slot 2
3	Micro SD card slot
4	NFC contact
5	Battery cover buckle
6	NFC antenna contact
7	NFC antenna

1.3.2 Dimensions

Figure 1-3 Dimensions (mm[inch])



2 Installation

2.1 Installing the Terminal

After unpacking the box, first install the SIM card, micro SD card (optional) and battery. For details, see Figure 2-1.

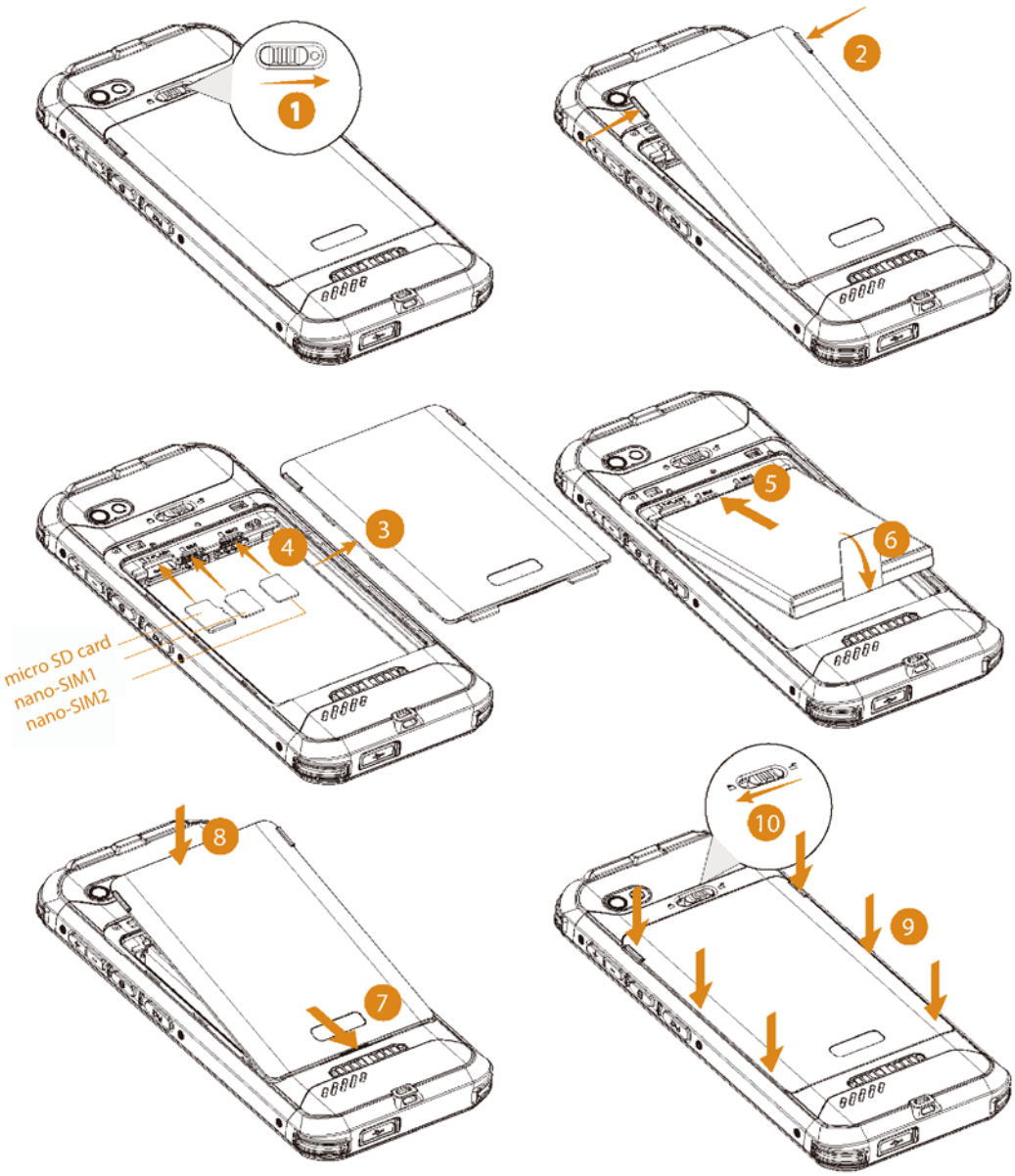
Follow the instructions below.

- Before opening the battery cover, slide the battery cover lock to unlock the battery cover; before closing the battery cover, insert the battery cover from the bottom (do not press the battery handle), press 6 buckles on both sides to make the battery cover flat, and then slide the battery cover lock to the left to lock the battery cover.
- When installing the SIM card and micro SD card, insert them into the card slots with the metal side facing downwards. After inserting the card, you will hear a "click" sound.
- Use the standard nano-SIM card (small card). The Terminal might fail to recognize a non-standard card. If the SIM card you use does not match the Terminal, contact the carrier.
- To ensure good reading and writing speed, use a micro SD card that conforms to UHS-I U1 specification.
- Both SIM card 1 and SIM card 2 support 2G/3G/4G, but you need to confirm whether the local band is supported by the Terminal.

Table 2-1 Supported band

Network	Band
2G	GSM B2/B3/B5/B8 CDMA BC0
3G	WCDMA B1/B2/B4/B5/B8 TD-SCDMA B34/B39
4G	FDD-LTE B1/B2/B3/B4/B5/B7/B8/B12/B17/B19/B20/B28 TDD-LTE B34/B38/B39/B40/B41

Figure 2-1 Install SIM card, micro SD card, and battery



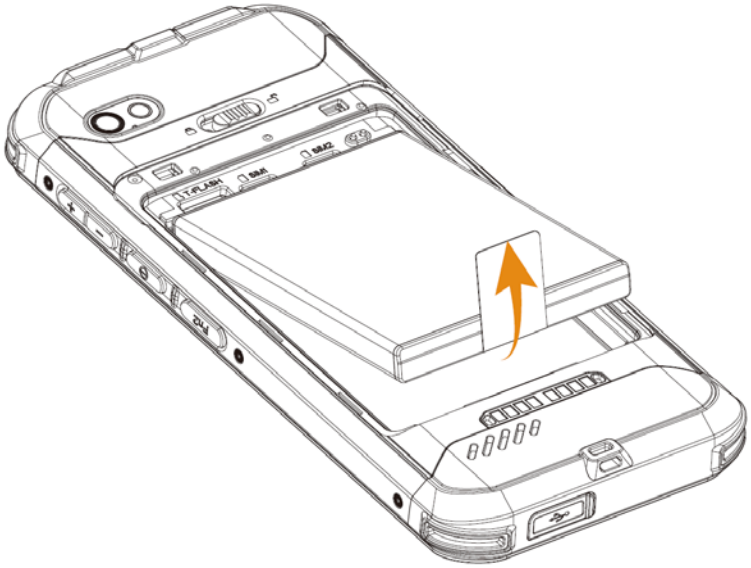
2.2 Removing the Battery

Before removing the battery, power off the Terminal, slide the battery cover lock to unlock the cover, open the battery cover, and then take out of the battery.

⚠

Do not change the battery when the Terminal is powered on; otherwise the data (videos, audios and snapshots) that needs to be written into ROM might be lost, and there might be other exceptions.

Figure 2-2 Remove the battery



3 Basic Operations

3.1 Turning on or off the Terminal

Press the power button on the right side of the Terminal to turn on, turn off, restart or hibernate the Terminal.

- When the Terminal has been turned off, press and hold the power button to start it.
- When the Terminal has been turned on, press and hold the power button, tap . **Shutting down...** is displayed, and the Terminal will be turned off.
- When the Terminal has been turned on, press and hold the Power button, tap . **Restarting...** is displayed, and the Terminal will be restarted.
- When the Terminal has been turned on, press the power button once, and the Terminal will be hibernated; press the Power button again to wake up the Terminal.

When the Terminal has been turned on, press and hold the power button, tap , and you can take a screenshot of the current screen. You can also press and hold the power button and Volume – button at the same time to take screenshots.

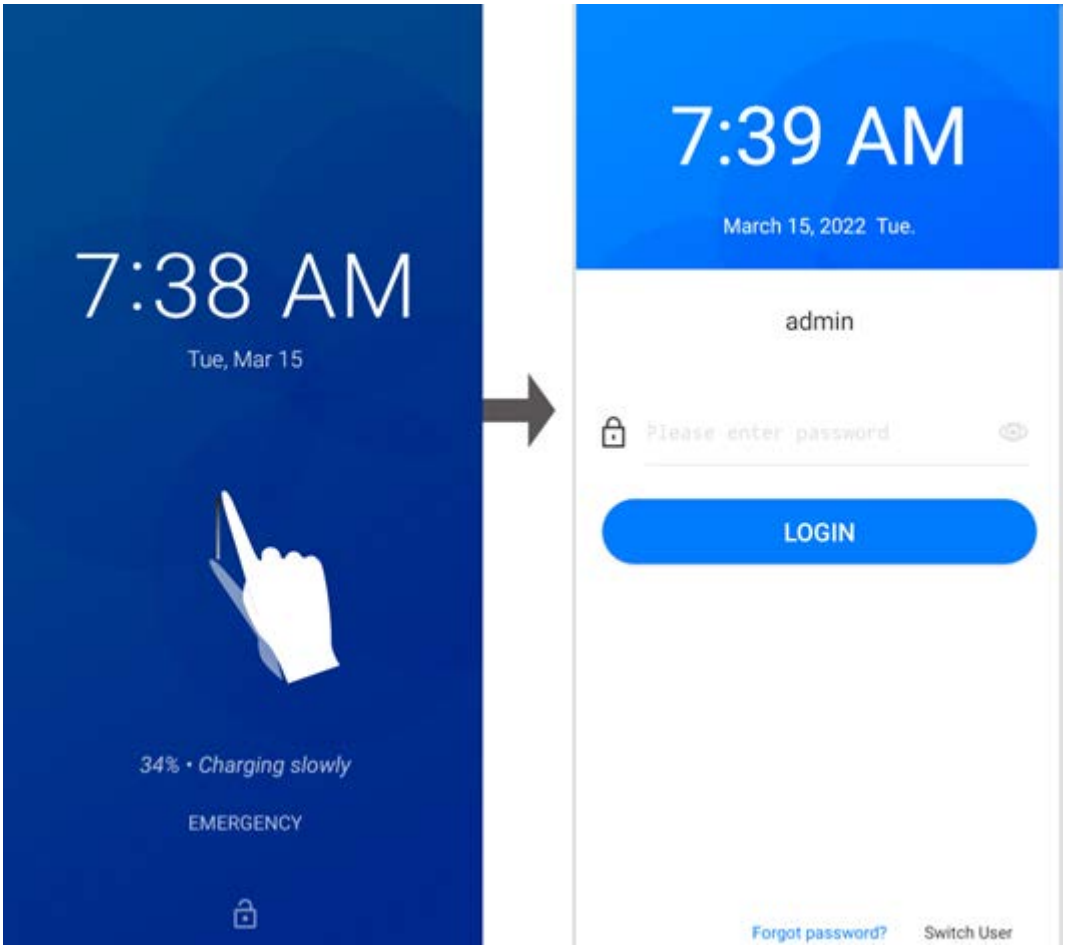
3.2 Login

You can log in to the system with a password, pattern, or fingerprint.

3.2.1 Login with a Password

Step 1 Power on the Terminal.
Step 2 Swipe up on the lock screen.
Step 3 Enter the password.

Figure 3-1 Login



- Tap to show the password.
- The username is admin by default, and the password is the login password set at the first startup of the Terminal. If you forget the login password, tap **Forgot password?**, answer the security questions correctly, and then reset the password.
- Tap **Switch User** to log in with another account.

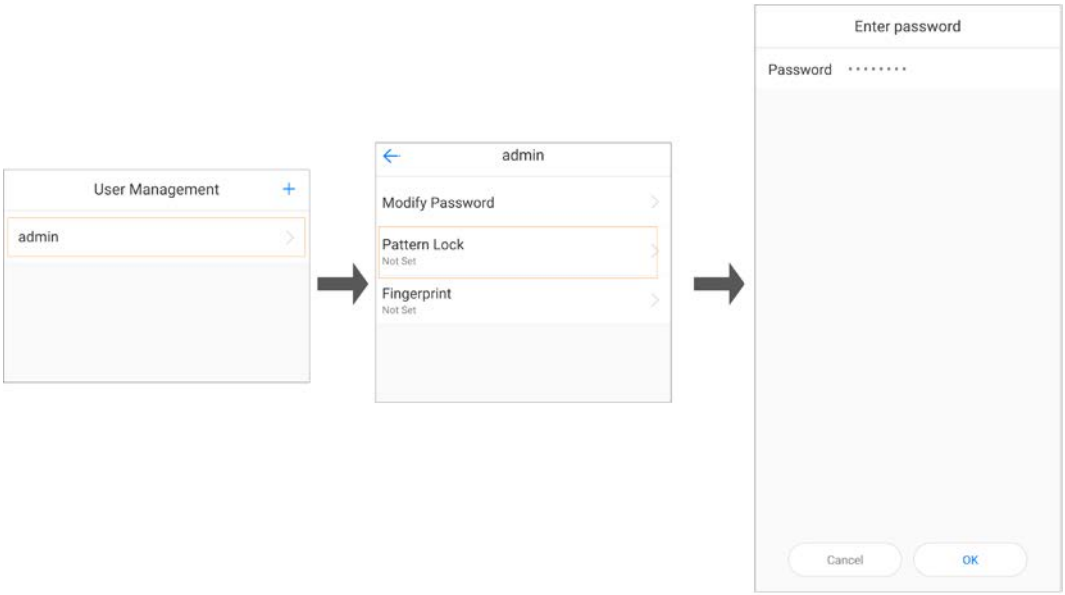
- For first-time use, you need to set the login password. You can set three security questions. If you forget the password, you can answer the questions to reset the password.
- The password must consist of 8–32 non-blank characters and contain at least two types of the following characters: uppercase, lowercase, numbers, and special characters (excluding ' " ; : &).
- To ensure the security of the Terminal, change your password regularly. For details on how to change the password, see "3.11.2 Changing Password".

Step 4 Tap **LOGIN**.

3.2.2 Login with a Pattern

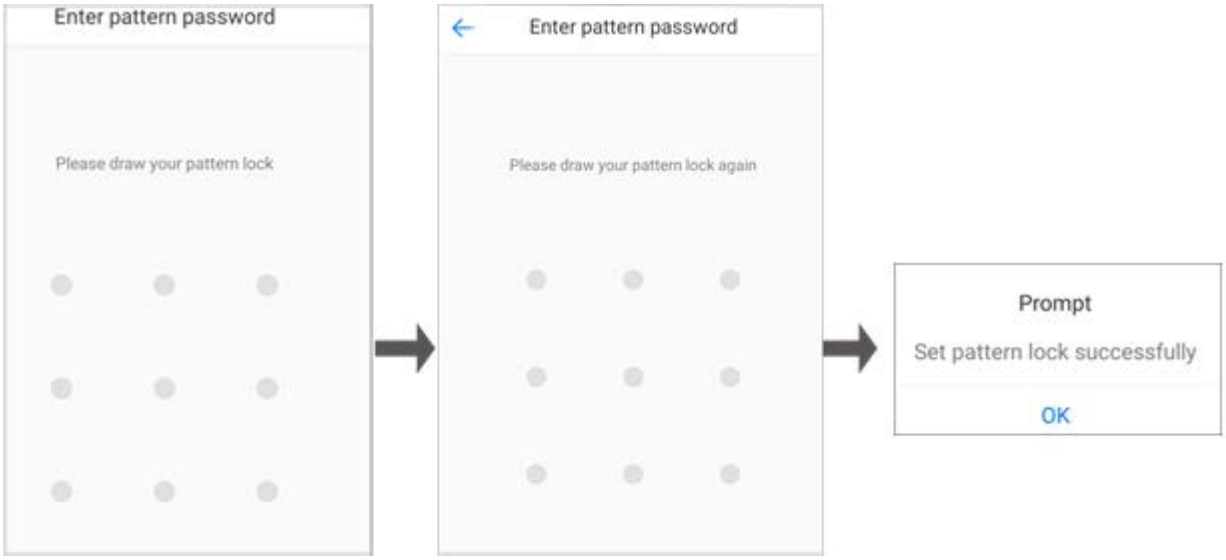
Step 1 After login, tap **User Management** on the home screen, select the user, and then tap **Pattern Lock**.

Figure 3-2 Enter password (1)



Step 2 Draw the pattern lock twice, and then tap **OK**.

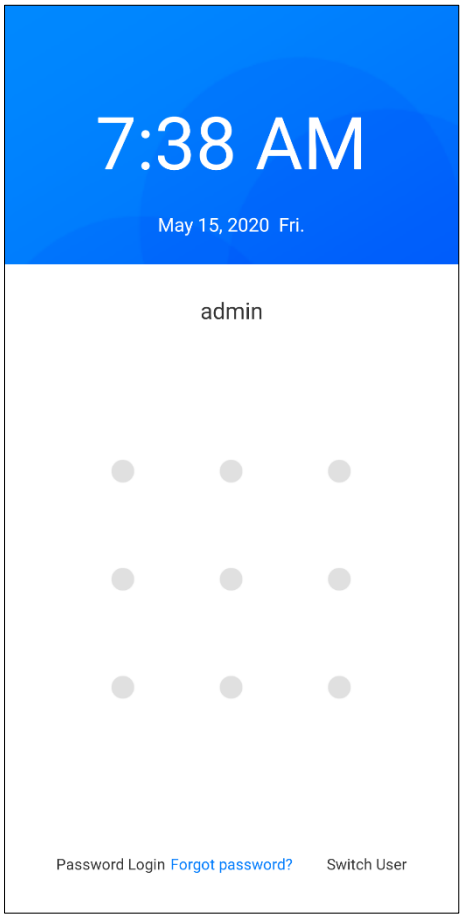
Figure 3-3 Set pattern lock



Step 3 Swipe up on the lock screen.

- If you forget the pattern lock, tap **Password Login** to log in with a password.
- If you forget both the pattern and password, tap **Forgot password?** to reset the password after answering the security questions.

Figure 3-4 Pattern login



Step 4 Draw the pattern lock.

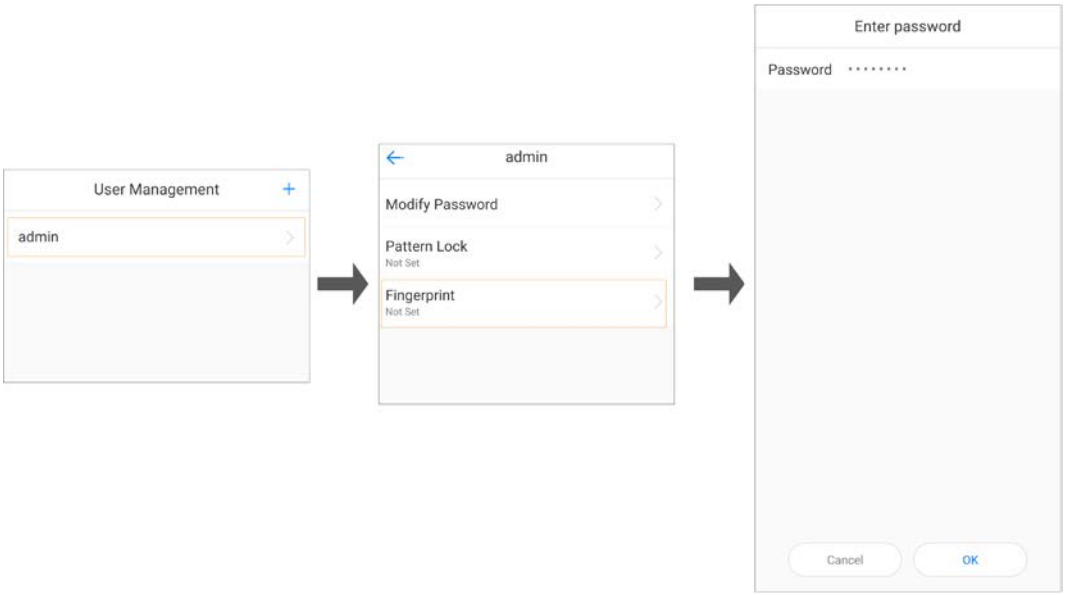
The home screen is displayed.

Tap **User Management** on the home screen, select the user, tap **Pattern Lock**, enter the password, and then tap **Disable Pattern Lock** on the **Enter pattern password** interface. The **Are you sure to disable pattern lock** prompt is displayed. Tap **Delete** to disable pattern lock.

3.2.3 Login with a Fingerprint

Step 1 After login, tap **User Management** on the home screen, select the user, and then tap **Fingerprint**.

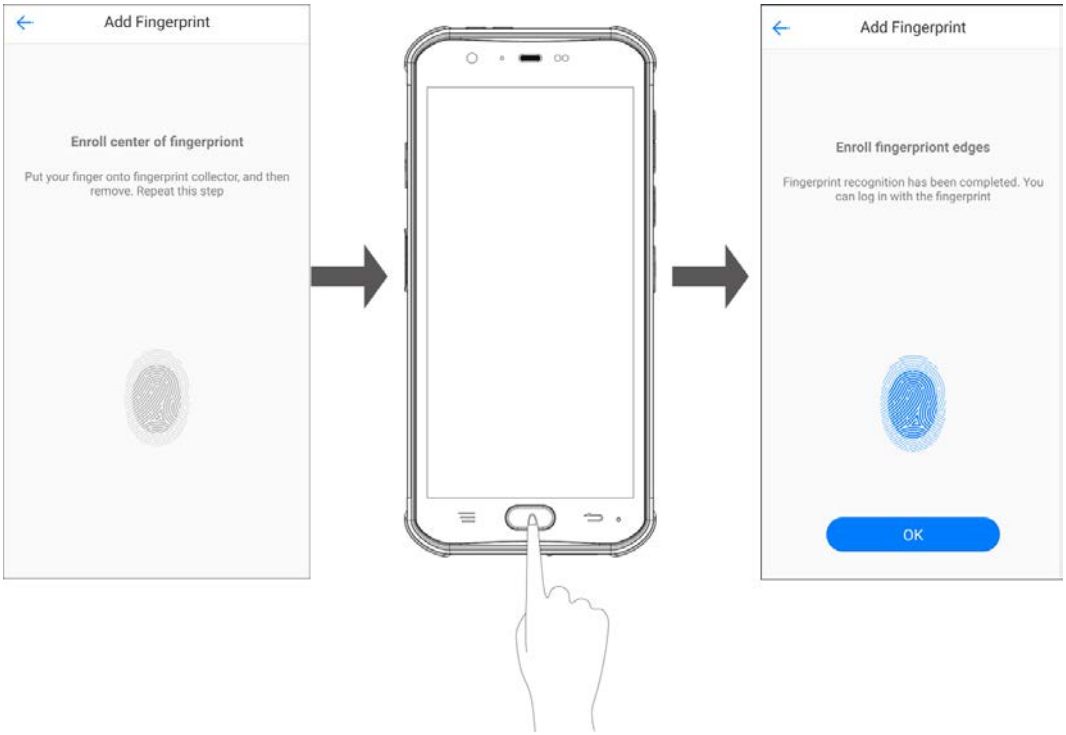
Figure 3-5 Enter password (2)



Step 2 Enter the password, tap **OK**, and then tap **Add Fingerprint**.

Step 3 Put your finger onto the fingerprint sensor, and then remove the finger. Repeat this step until the collection is complete, and then tap **OK**.

Figure 3-6 Add the fingerprint



Step 4 Swipe up on the lock screen.

Step 5 Put your finger onto the fingerprint sensor until the fingerprint is recognized.

- Up to 2 fingerprints can be added for each user.
- After adding the fingerprint, you can modify the fingerprint name or delete it on the **Fingerprint** screen.

3.3 Initialization

For first-time use, you need to configure the login password and set at least 3 security questions. When you forget the password, tap **Forgot password** on the login screen and then answer the security questions to reset the password.

- **Forgot password** is available only for the admin account. Other users cannot reset the password in this way.
- After you tap **Forgot password** and reset the password, the pattern and fingerprint of the admin account will be deleted. You need to configure the pattern and fingerprint again.

Step 1 When the Terminal is turned off, press and hold the power button to turn on the Terminal.

Step 2 Select the language, and then tap **Next**.

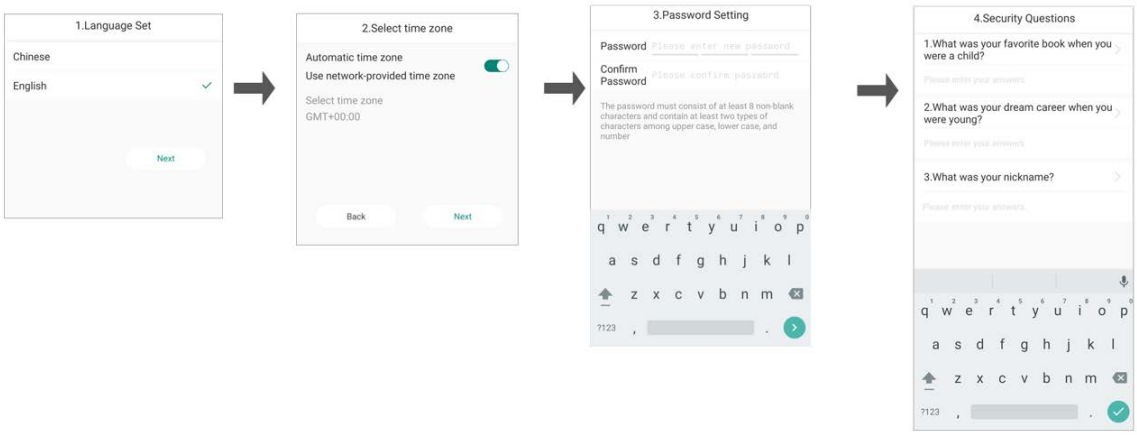
Step 3 Select the time zone, and then tap **Next**.

Step 4 Enter the password and confirm it, and then tap **Next**.

Step 5 Set the security questions and answers, and then tap **Finish**.

The Terminal is initialized.

Figure 3-7 Initialization



3.4 Home Screen

After login, the home screen is displayed.

- Swipe down at the top of the screen to quickly enable Wi-Fi, Bluetooth, mobile data, and other functions.
- Swipe left or right to switch the screen.
- Tap and hold an icon, and then drag it to the **Remove** area to uninstall the application.
- Tap and hold an icon and then drag it to move the application.

- Tap the menu button to see the tasks running in the background. Tap to close all tasks running in the background.

Figure 3-8 Home screen



Table 3-1 Home screen description

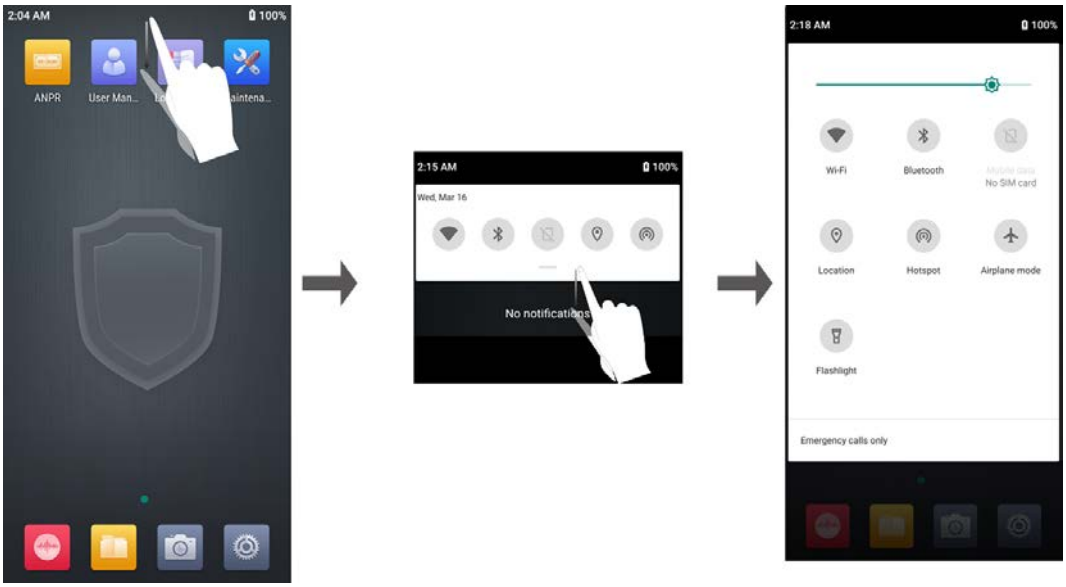
No.	Description
1	Notification section. The system information, messages, network connection, platform connection, and other icons are displayed.
2	Menu section.
3	Audio recording.
4	File management.
5	Camera.
6	Settings.

3.5 Shortcut Menu

On the shortcut menu, you can quickly enable Wi-Fi, Bluetooth, mobile data, location, hotspot, airplane mode and flashlight. You can also adjust the screen brightness.

After login, swipe down at the top of the home screen. The shortcut menu bar is displayed. Swipe down again to show the complete shortcut menu.

Figure 3-9 Shortcut menu



3.6 Camera

3.6.1 Taking Pictures

You can use the front or rear camera to take pictures. You can adjust capturing modes and parameters to improve the picture quality.

The rear camera supports High-Dynamic Range (HDR), which helps to provide more dynamic range and details in backlight environments.

On the home screen, tap .

Table 3-2 Picture taking icon description

Icon	Description
	Take pictures.
	Switch between the front camera and rear camera.
HDR	Enable or disable HDR.

Icon	Description
	Switch flashing light mode among **Automatic**, **Enable**, and **Disable**.
	View the taken picture.
	Delete the picture.

Figure 3-10 Taking pictures



3.6.2 Recording Videos

Tap  on the home screen. Tap **Video** to switch to video recording mode.

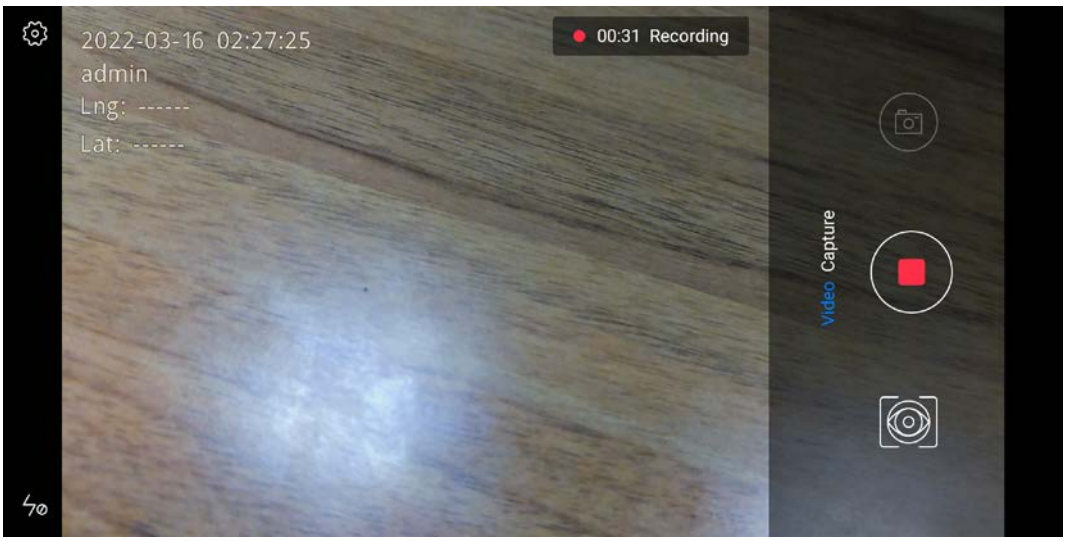


Before connecting the Terminal to the data collection station, stop recording audio and video to avoid incomplete file acquisition.

Table 3-3 Video recording icon description

Icon	Description
	Start or stop video recording.
	Switch between the front camera and rear camera.
	Enable or disable flashing light.
	Take a snapshot.
	Displays the duration of the current video recording.

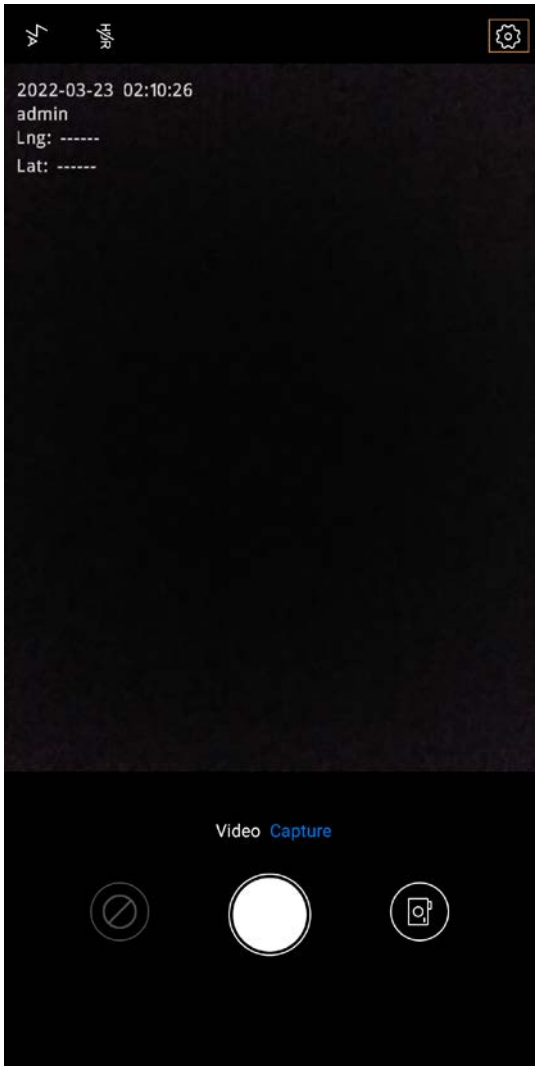
Figure 3-11 Recording videos



3.6.3 Camera Settings

Tap on the home screen and then tap on the upper-right corner , or tap on the home screen and then select **Device** > **Camera Settings** to configure the camera parameters. For details, see "3.7.2.2 Camera Settings".

Figure 3-12 Camera settings



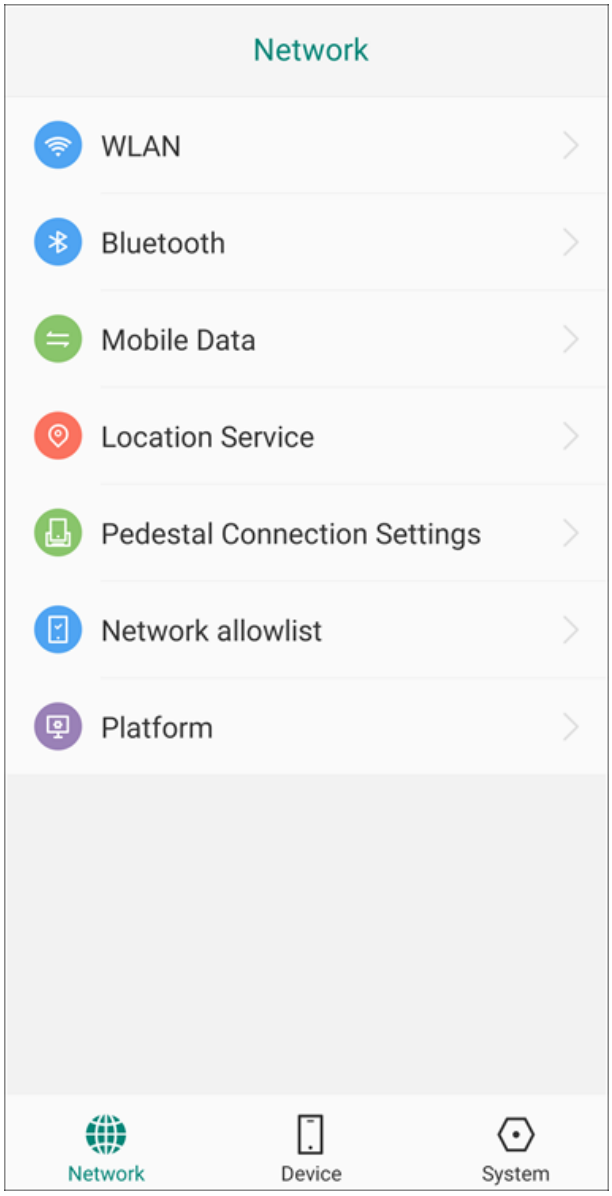
3.7 Settings

On the home screen, tap , and then you can set the network, audio recording, camera, volume, and other parameters. You can also view system information.

3.7.1 Network

Tap on the home screen. On the **Network** tab, you can set WLAN, Bluetooth, mobile data, location service, network allowlist, platform protocol, and more.

Figure 3-13 Network

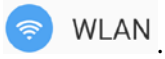


Tap each icon to configure the corresponding network parameters.

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

3.7.1.2 WLAN

After enabling WLAN, you can search for and add wireless network, and view or modify network information.

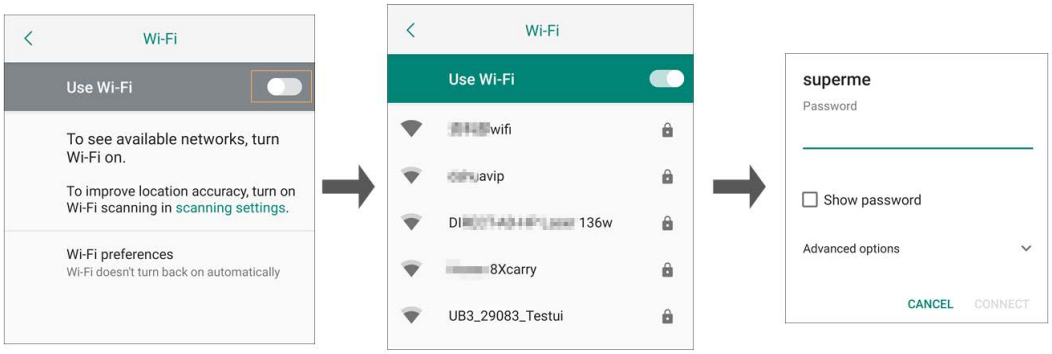
Step 1 Tap  on the home screen, and then select .

Step 2 Connect WLAN network.

- Auto search

Tap , and the system automatically searches for the nearby wireless network. Select the network as needed, enter the password, and then tap **CONNECT**.

Figure 3-14 Auto search

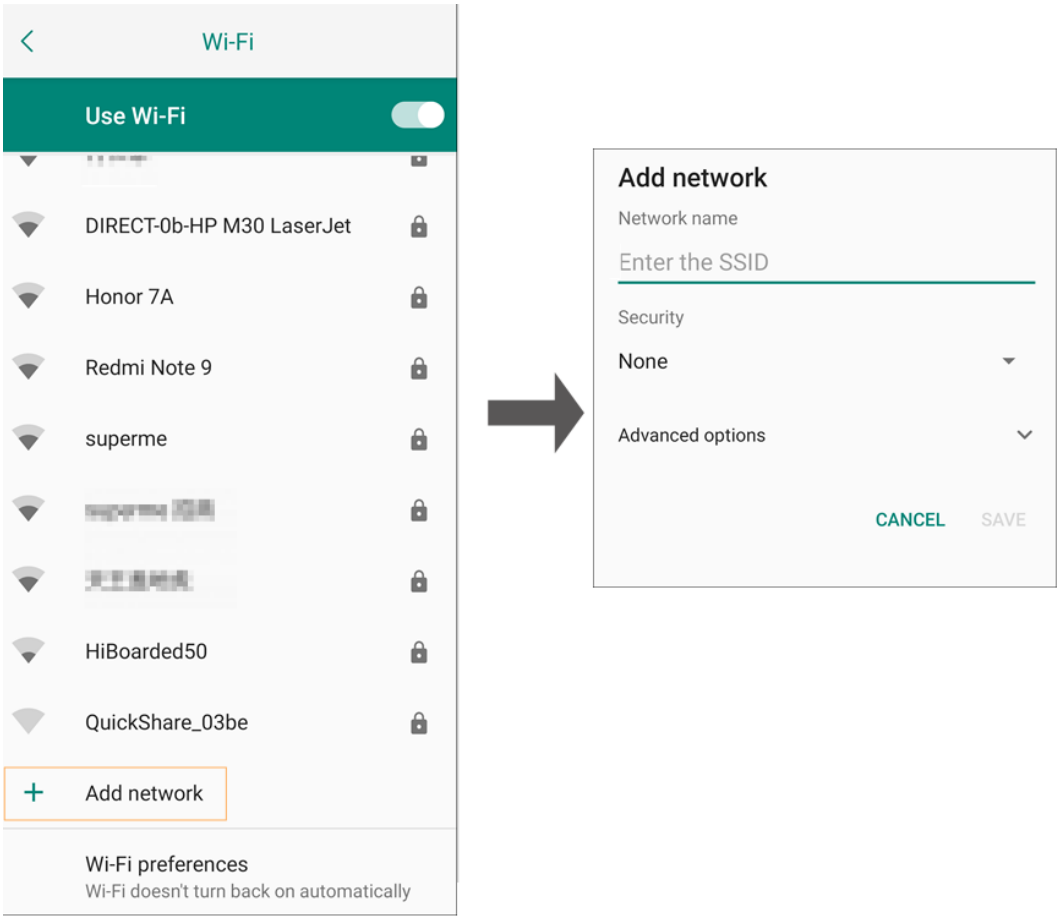


- Add manually

  1. Tap  to enable the WLAN function.
  2. Tap **Add network**, and then enter the SSID (wireless network name).
  3. Select the security of the connected network.
     - ◇ If selecting **None**, you do not need to enter a password when logging in to the network.
     - ◇ If selecting other options, you need to enter a password or certificate.
  4. (Optional) Enter the password.
  5. Tap **SAVE**.

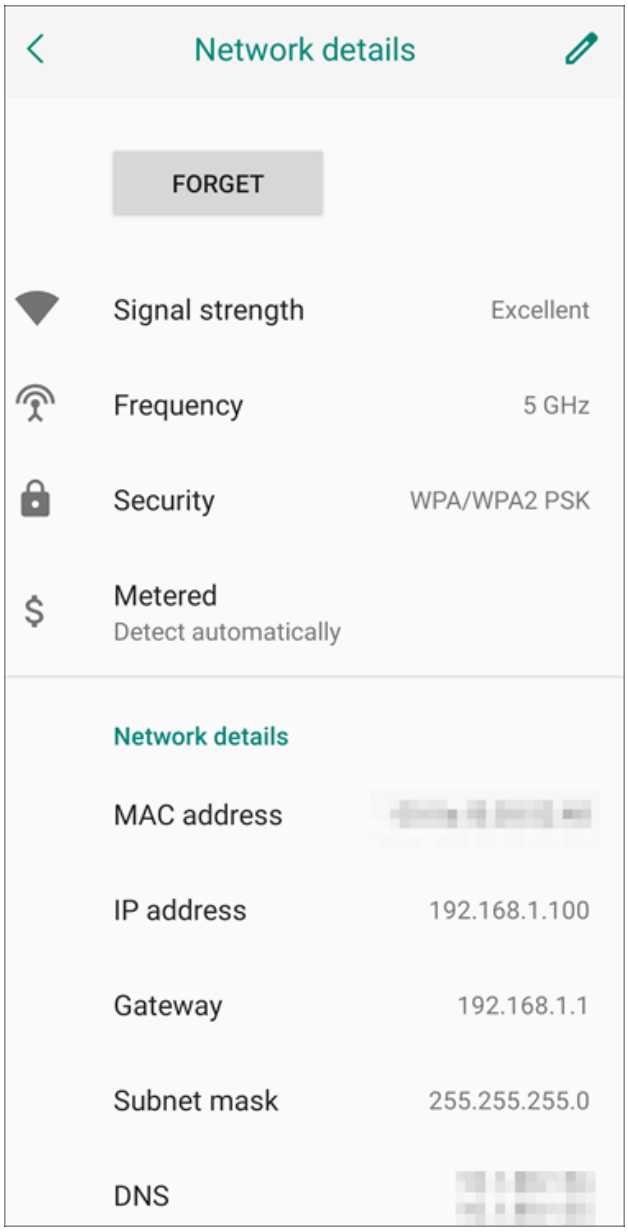
- Select **Show password** to display the password.
- Tap **Advanced options** to set proxy, data metering method, IP address of the wireless network, and more.
- Tap **Advanced options**, and then select **Yes** for **Hidden network** to connect to hidden wireless network.
- Tap **CANCEL** if you do not want to add the network.

Figure 3-15 Add manually



- After connecting the wireless network successfully, tap  to view and modify network information.
- Tap **Saved networks** to forget the network or add other networks manually.

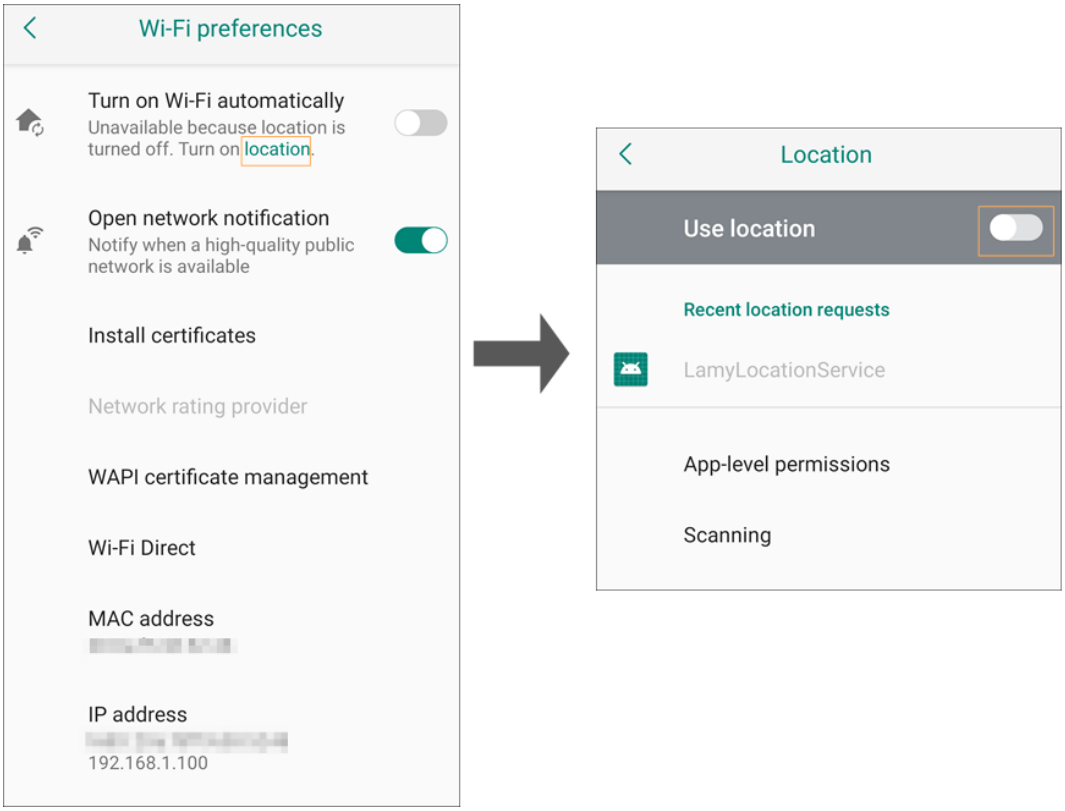
Figure 3-16 Network details



Step 3 (Optional) Select **Wi-Fi preferences** to enable or disable **Turn on Wi-Fi automatically** and **Open network notification**, and view the MAC address and IP address of the Terminal.

If you cannot enable **Turn on Wi-Fi automatically**, check whether location is turned on. Tap **location**, and then tap to enable **Use location**. Tap to go back to the **Wi-Fi preferences** interface, and then enable **Turn on Wi-Fi automatically**.

Figure 3-17 Turn on Wi-Fi automatically



3.7.1.3 Bluetooth

The Terminal can receive files from other devices through Bluetooth.

Step 1 Tap on the home screen, and then select **Network** > **Bluetooth**.

Step 2 Tap to enable the function.

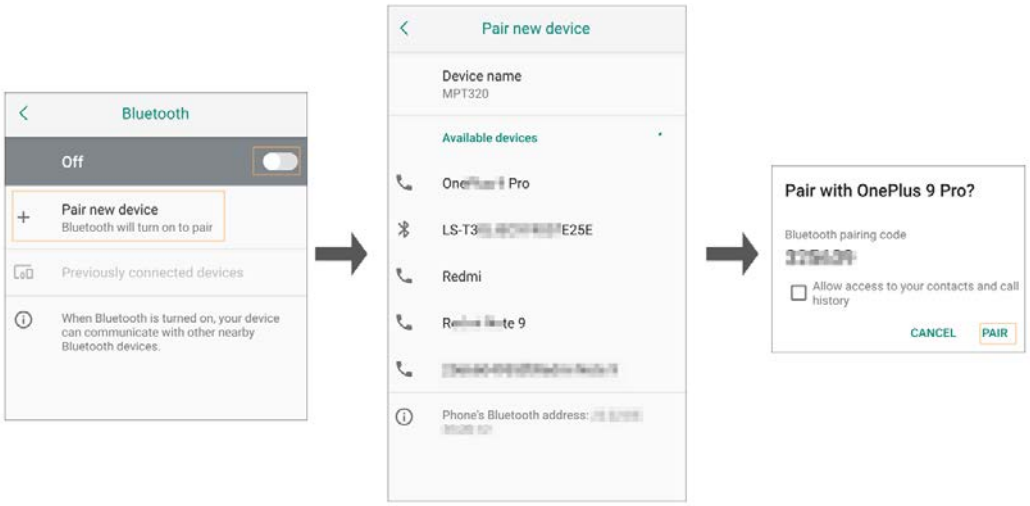
Step 3 (Optional) Tap **Device name** to rename the Terminal.

Step 4 Pair with other devices through Bluetooth.

- Pair with new devices.

  Tap **Pair new device**, and then the system automatically searches for nearby Bluetooth devices. Select a device, and then tap **PAIR**.

Figure 3-18 Pair with a new device



- Pair with previously connected devices.

  Tap **Previously connected devices**, select a device, and then the system connects to the device automatically. Tap  to view device details, enable or disable **Contact sharing**, forget the device, and more

  Figure 3-19 Pair with previously connected devices

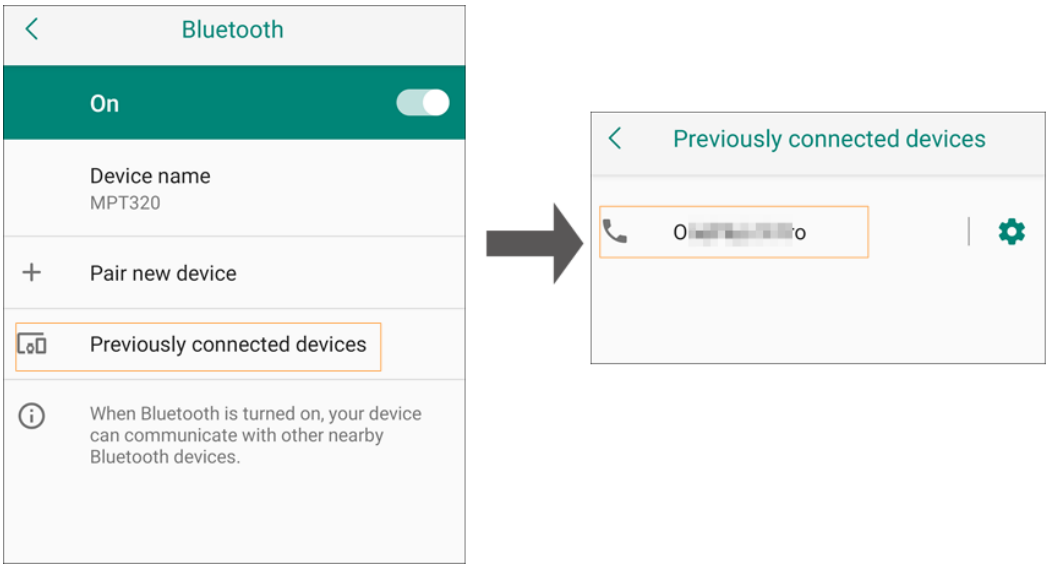
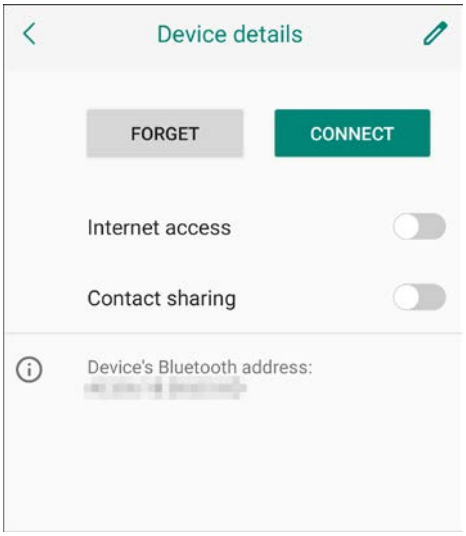


Figure 3-20 Device details



3.7.1.4 Mobile Data

3.7.1.4.1 Mobile Network

Tap on the home screen, select **Network** > **Mobile Data** > **Mobile network**, select a SIM card, and then you can enable or disable mobile data and roaming. You can also see the data usage.

- Tap **Advanced** on the **Network settings** screen, and then you can select preferred network type and access point names.
- The parameters might be different depending on the SIM card you insert.

Figure 3-21 Mobile network

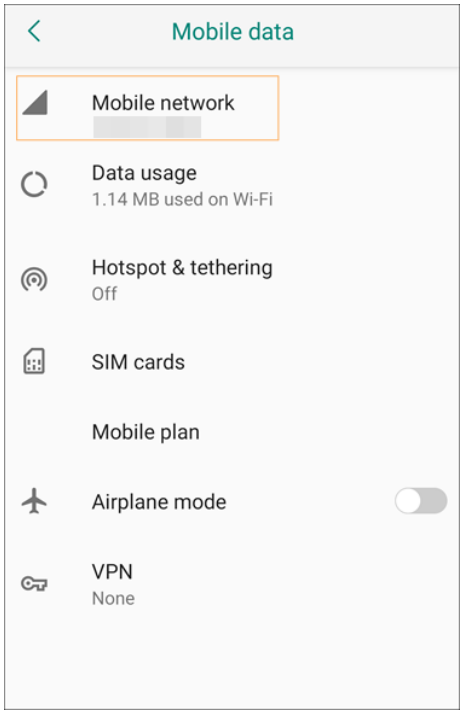
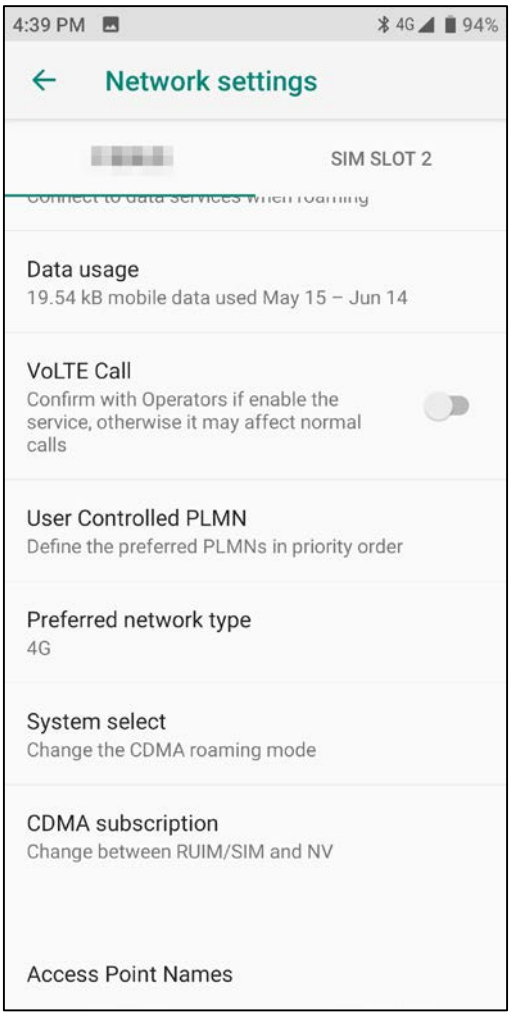


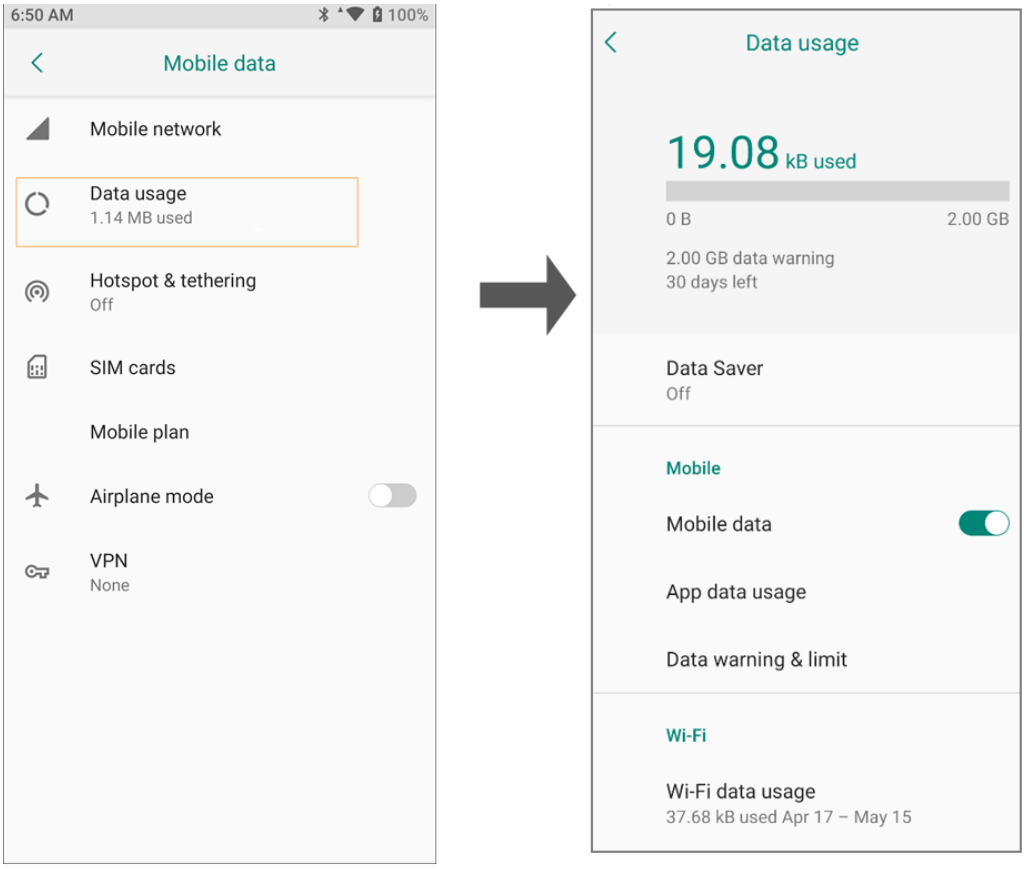
Figure 3-22 Advanced parameters



3.7.1.4.2 Data Usage

Tap  on the home screen, select **Network** > **Mobile Data** > **Data usage**, and then you can see the data usage, and set data warning and limit.

Figure 3-23 Data usage

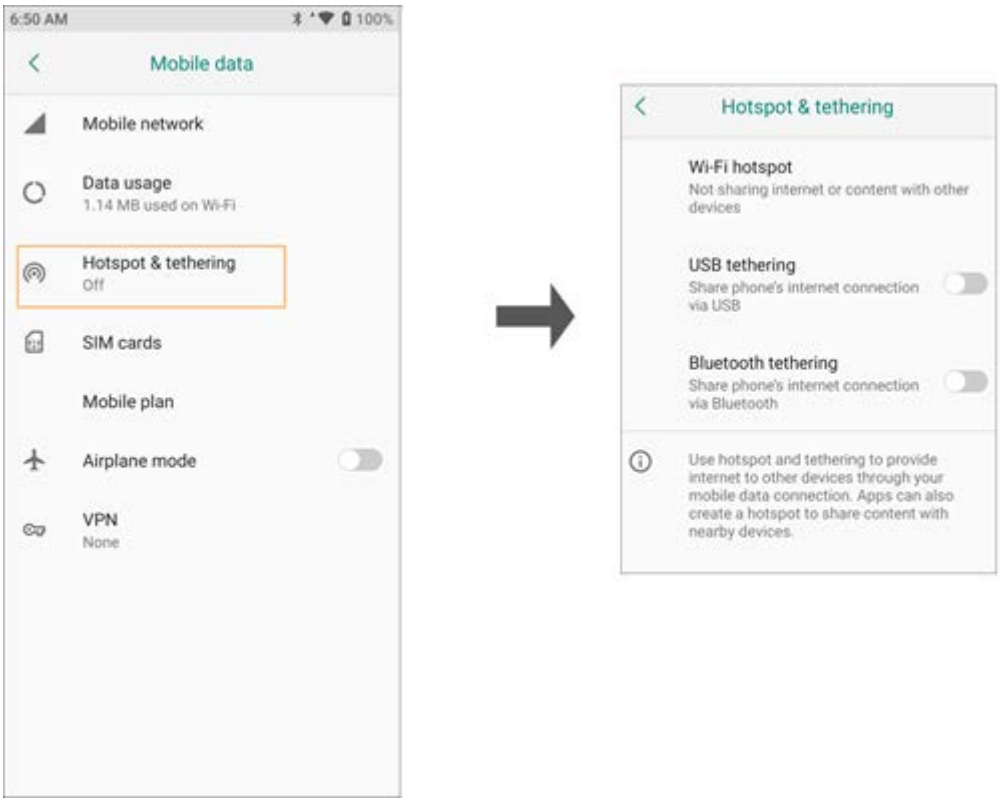


3.7.1.4.3 Hotspot and Tethering

You can connect the Terminal to nearby devices through Wi-Fi hotspot, USB tethering and Bluetooth tethering, and share data with these devices.

Step 1 Tap  on the home screen, and then select **Network** > **Mobile Data** > **Hotspot & tethering**

Figure 3-24 Hotspot and tethering



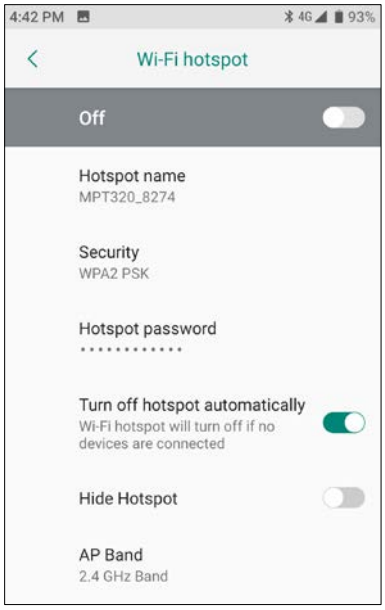
Step 2 Set network sharing mode.

- Wi-Fi hotspot

  After Wi-Fi hotspot is enabled, the Terminal can be used as a wireless router. Nearby devices that support WLAN can access the WLAN of the Terminal.

  Tap **Wi-Fi hotspot** and then tap  to enable the function, set the **Hotspot name**, **Security** and **Hotspot password**, enable or disable **Turn off hotspot automatically** and **Hide Hotspot**. You can also select the **AP Band**.

Figure 3-25 Wi-Fi hotspot



- USB tethering.

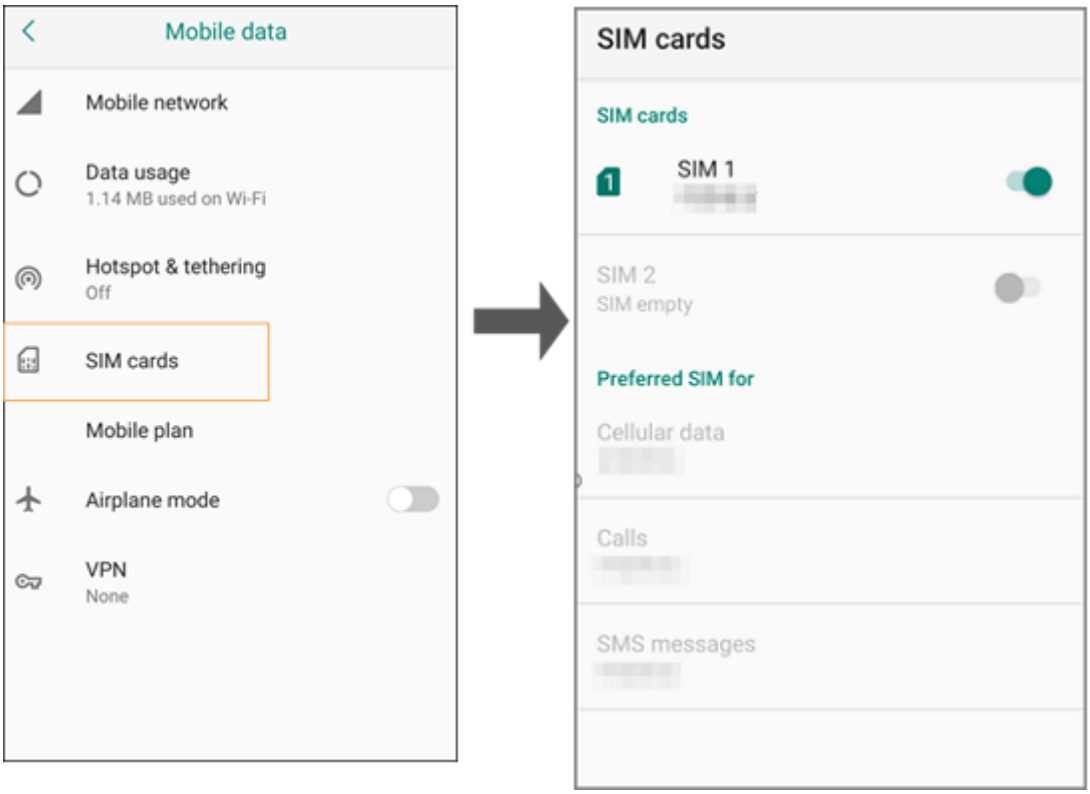
You can enable **USB tethering** after connecting a USB cable to the Terminal to share network.

- Bluetooth tethering
  After **Bluetooth tethering** is enabled, the Terminal can connect to nearby Bluetooth devices to realize network connection and data sharing.

3.7.1.4.4 SIM Cards

Tap  on the home screen, select **Network > Mobile Data > SIM cards**, enable the SIM card to be used, and then set the preferred SIM card for mobile data.

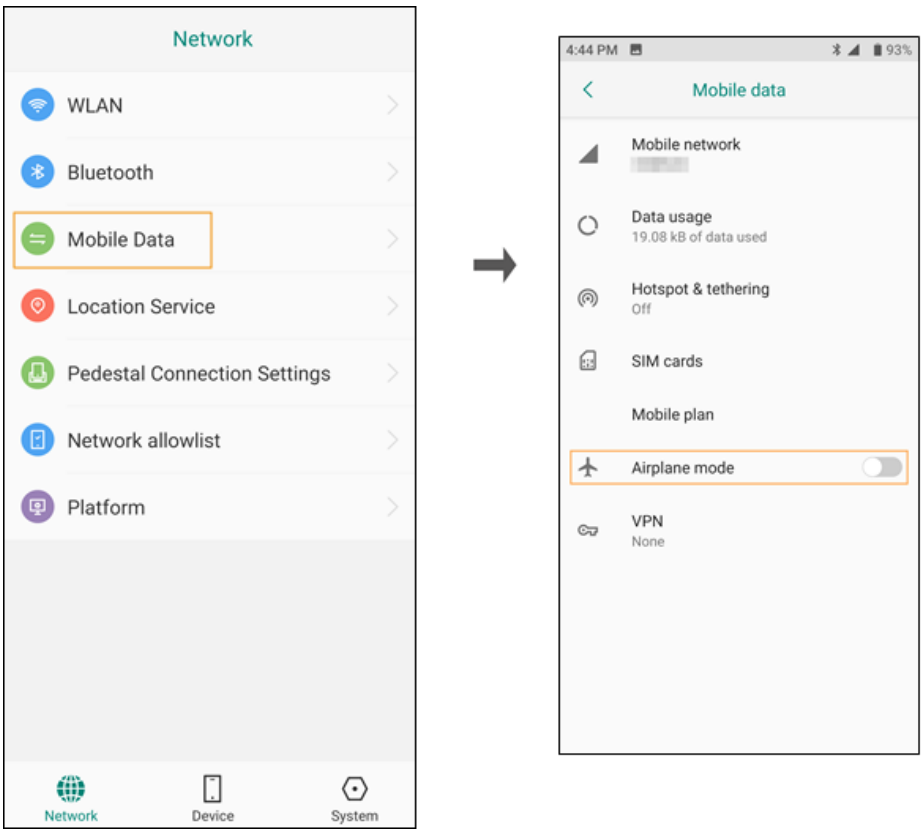
Figure 3-26 SIM cards



3.7.1.4.5 Airplane Mode

Tap  on the home screen, select **Network > Mobile Data > Airplane mode** to enable or disable the airplane mode. You can also swipe down at the top of the screen, and then enable or disable the mode on the shortcut menu.

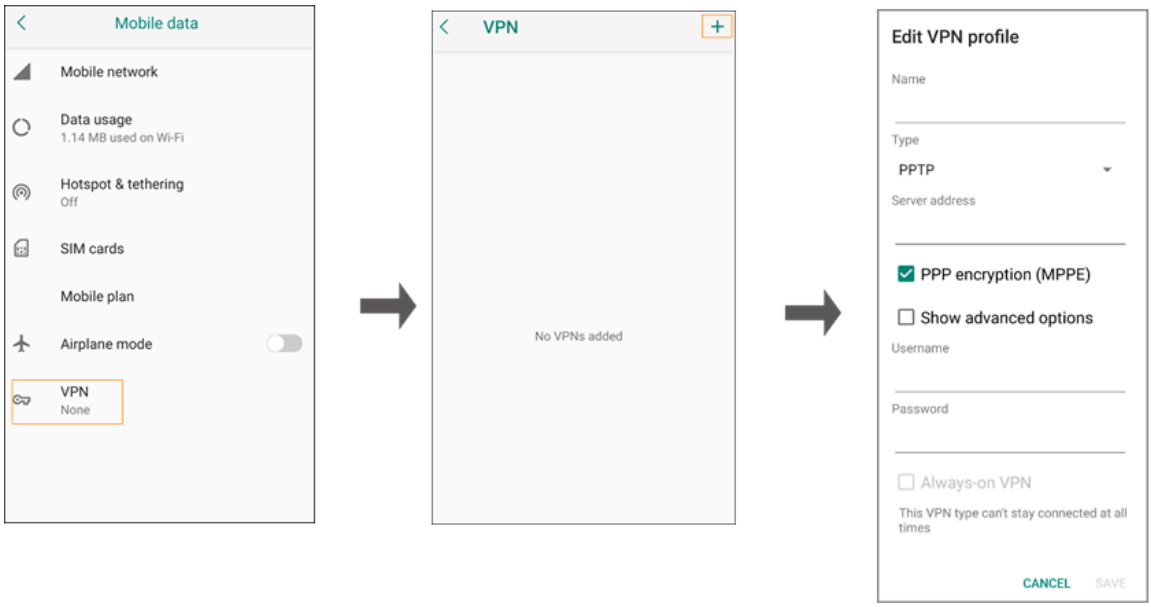
Figure 3-27 Airplane mode



3.7.1.4.6 VPN

Tap  on the home screen, select **Network > Mobile Data > VPN**, and then add VPN network, or see the added network. Tap , and then set relevant information such as the VPN username, password, and server address.

Figure 3-28 Add VPN

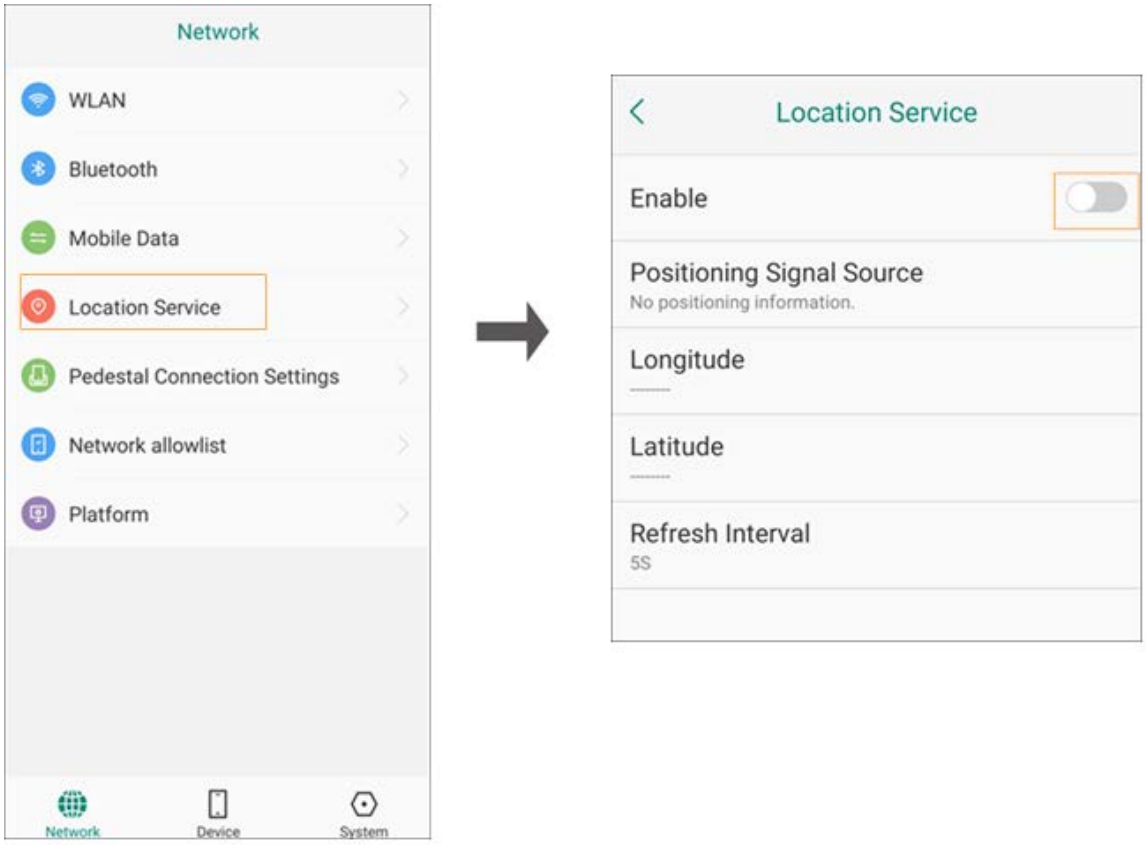


3.7.1.5 Location Service

After enabling the location service, you can locate the Terminal with GPS satellites. If the Terminal connects to the platform, the location can be reported.

Tap  on the home screen, select **Positioning**, and then tap  to enable the location service.

Figure 3-29 Location service

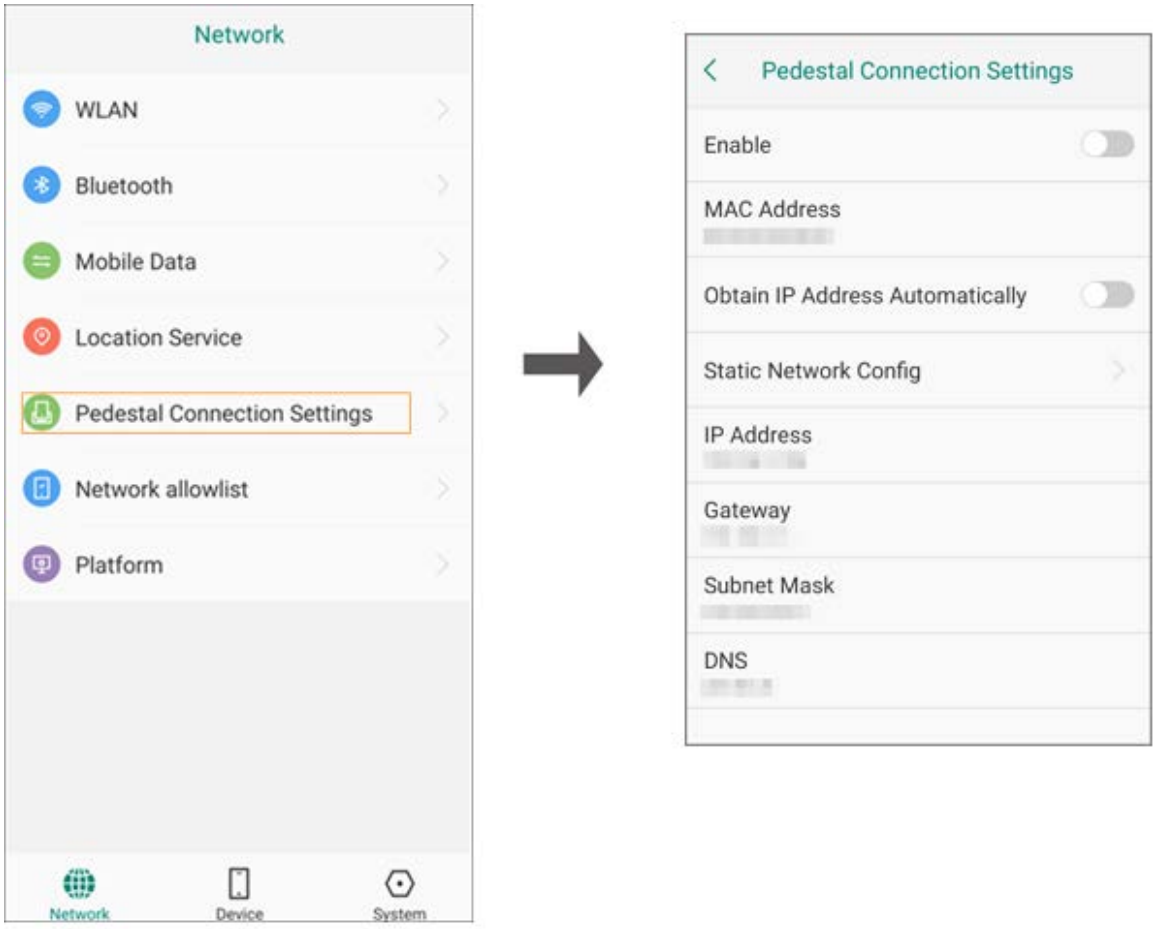


3.7.1.6 Pedestal Connection Settings

You can connect the Terminal to the charging and transmission base to transfer data and charge it.

Tap  on the home screen, select **Network > Pedestal Connection Settings**, tap **Enable**, and then set the IP address which can be obtained automatically or entered manually.

Figure 3-30 Pedestal connection settings



3.7.1.7 Network Allowlist

To ensure network security and protect the device data, you can set the IP/MAC address that can access the Terminal by adding allowlist.

Step 1 Tap on the home screen, select **Network > Network allowlist**, and then tap to enable network allowlist.

Step 2 Tap ADD ALLOWLIST.

Step 3 Enter the IP or MAC address of the device that needs to access the Terminal.

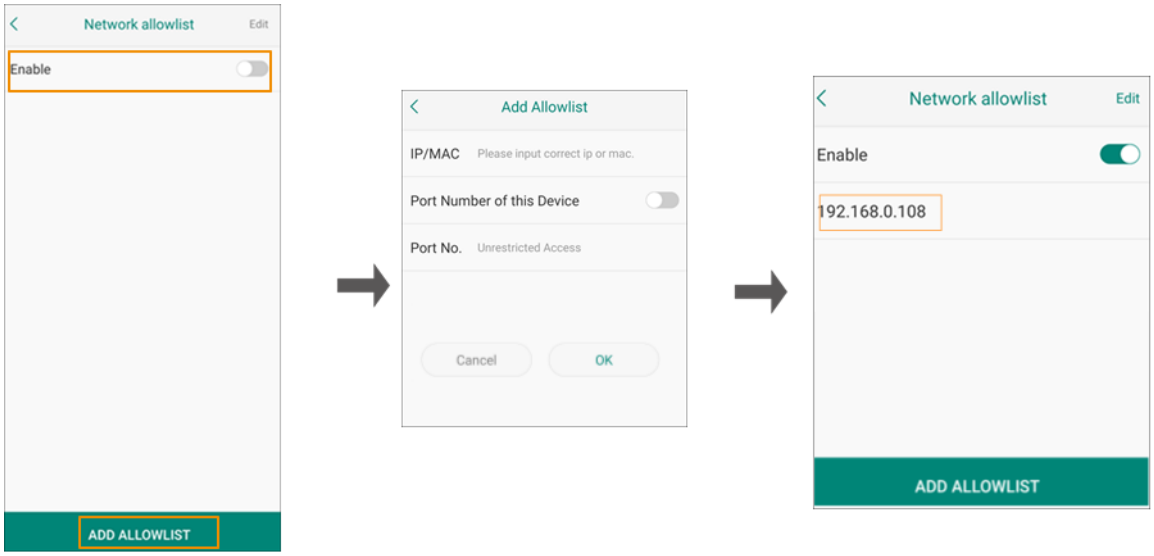
Step 4 (Optional) Tap next to **Port Number of this Device**, and then enter the port number.

Only devices whose IP or MAC addresses are on the allowlist can access the Terminal. If you set the port number, only the defined port can be accessed.

Step 5 Tap **OK**.

The system goes back to the **Network Allowlist** screen. The information of the device added in the trusted list is displayed. You can tap **Edit** to delete the device.

Figure 3-31 Add network allowlist



3.7.1.8 Platform Settings

You can connect the Terminal to the platform with the corresponding protocol, and control and manage the Terminal through the platform. The supported platform protocols include **Private Platform**, **ONVIF**, **RTSP**, and **GPS Config**.

3.7.1.8.1 Register

Register the Terminal on the designated proxy server, and the client software visits the device through the proxy server.

Step 1 Tap  on the home screen, and then select **Network > Platform > Register**.

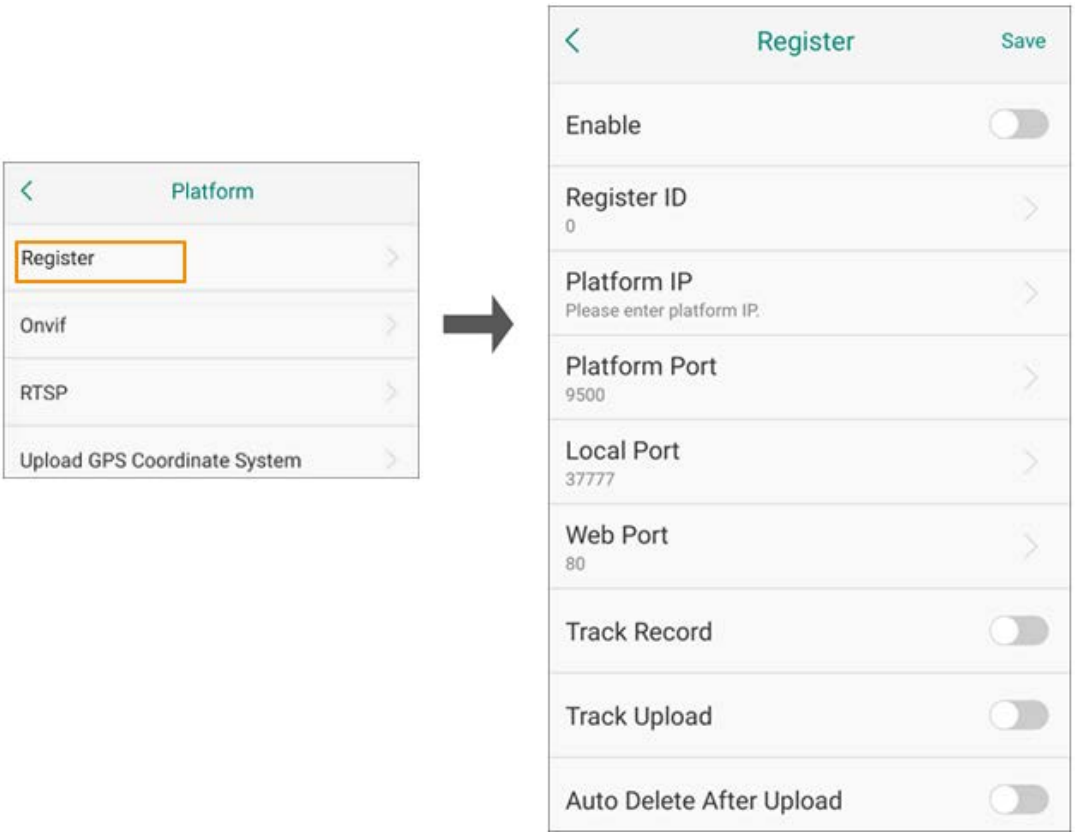
Step 2 Tap next to **Enable** and then configure the parameters.

Table 3-4 Register parameter description

Parameter	Description
Register ID	You can customize it. Make sure that the device ID on the Terminal is the same as that on the platform.
Platform IP	Enter the IP address of the platform server.
Platform Port	Enter the port number of the platform ARS (Active Register Server) service.
Local Port	Enter the registration port number of the Terminal. It is 37777 by default.
Web Port	Enter the registration port of the platform server.
Track Record	Enable the Terminal to keep track of its historical locations.
Track Upload	Enable the Terminal to upload the track recorded during network failure.
Auto Delete After Delete	Enable the Terminal to automatically delete the files that have been uploaded to the platform.

Step 3 Tap **Save**.

Figure 3-32 Private platform



3.7.1.8.2 ONVIF

You can connect the Terminal to platforms through ONVIF (Open Network Video Interface Forum) protocol.

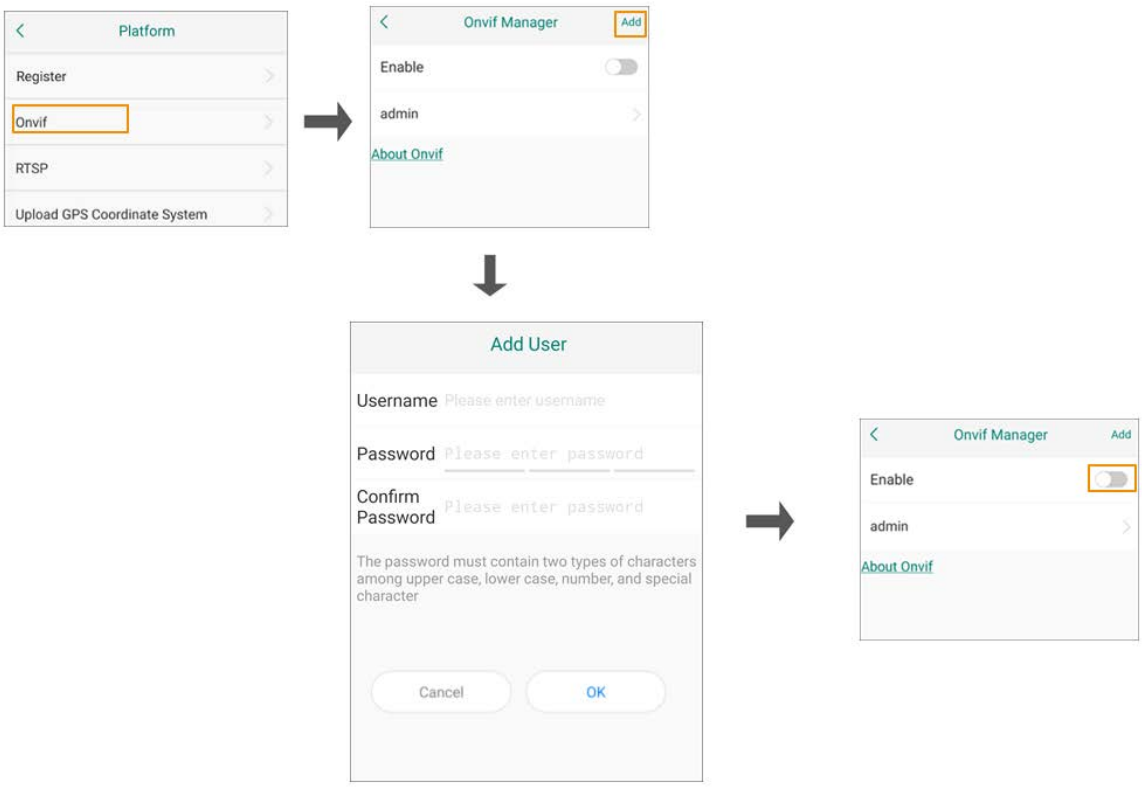
Step 1 Tap on the home screen, and then select **Network > Platform > Onvif**.

Step 2 (Optional) Add an ONVIF account.

1) Tap **Add**.
2) Enter the username and password, and then confirm the password.
3) Tap **OK**.

Step 3 Tap .

Figure 3-33 Add ONVIF user



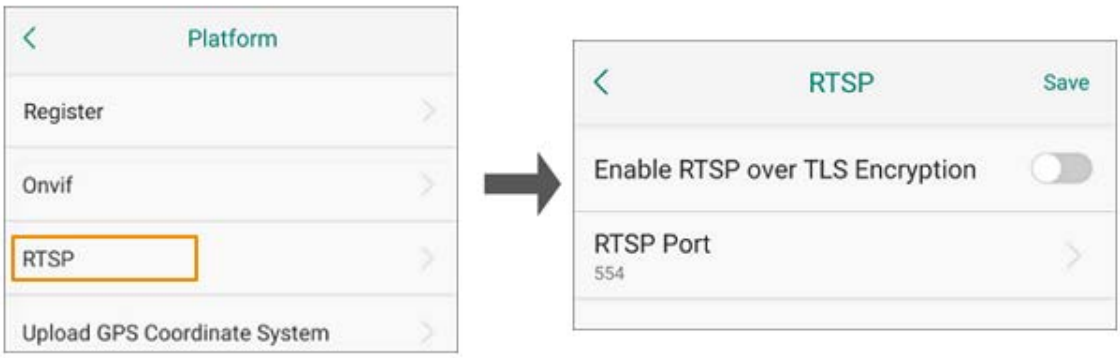
3.7.1.8.3 RTSP

You can connect the Terminal to platforms through RTSP (Real Time Streaming Protocol).

Tap  on the home screen, select **Network > Platform > RTSP**, tap next to **Enable RTSP over TLS Encryption**, and then tap **Save**.

The RTSP port number is 554 by default. You can tap **RTSP Port** to modify it.

Figure 3-34 RTSP



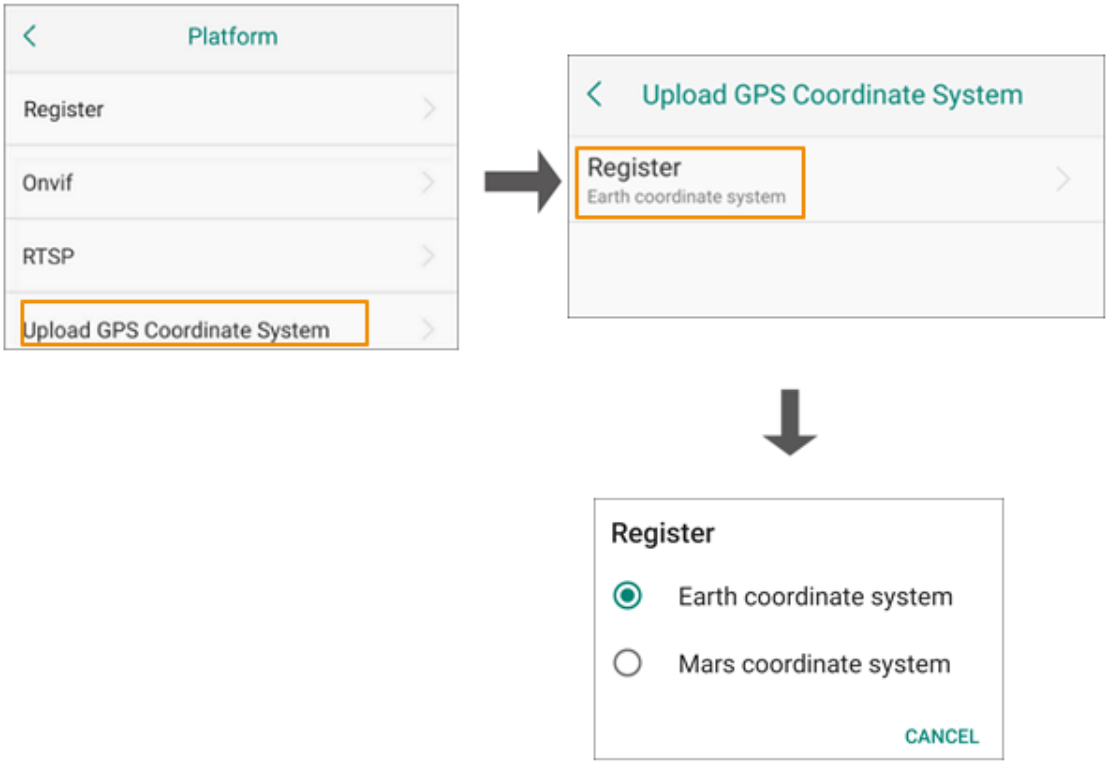
3.7.1.8.4 GPS Config

To ensure the accuracy of the GPS information uploaded to the platform, select the coordinate system according to the GPS coordinate system of the platform.

Tap on the home screen, select **Network > Platform > Upload GPS Coordinate System**, tap **Register** and then select the coordinate system.

- Earth coordinate system: World Geodetic System or WGS84. It is the international coordinate system.
- Mars coordinate system: GCJ02 coordinate system formulated by the Chinese State Bureau of Surveying and Mapping.

Figure 3-35 GPS config



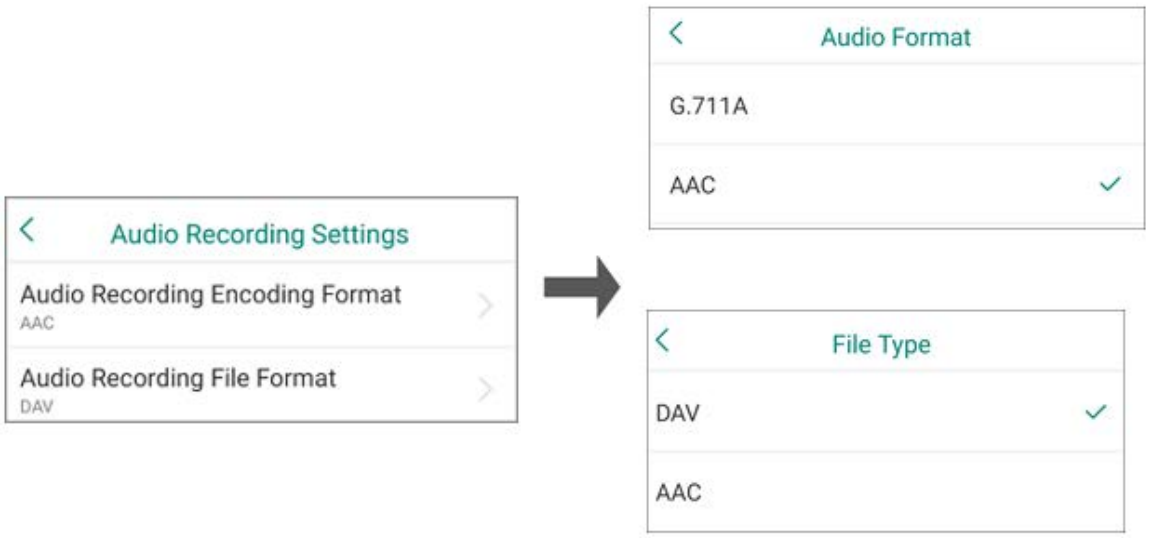
3.7.2 Device

You can set audio recordings, camera parameters, volume, customized button, NFC, and data overwriting.

3.7.2.1 Audio Recording Settings

Tap , select **Device** > **Audio Recording Settings** to set the audio recording encoding format, and audio recording file format.

Figure 3-36 Audio recording settings

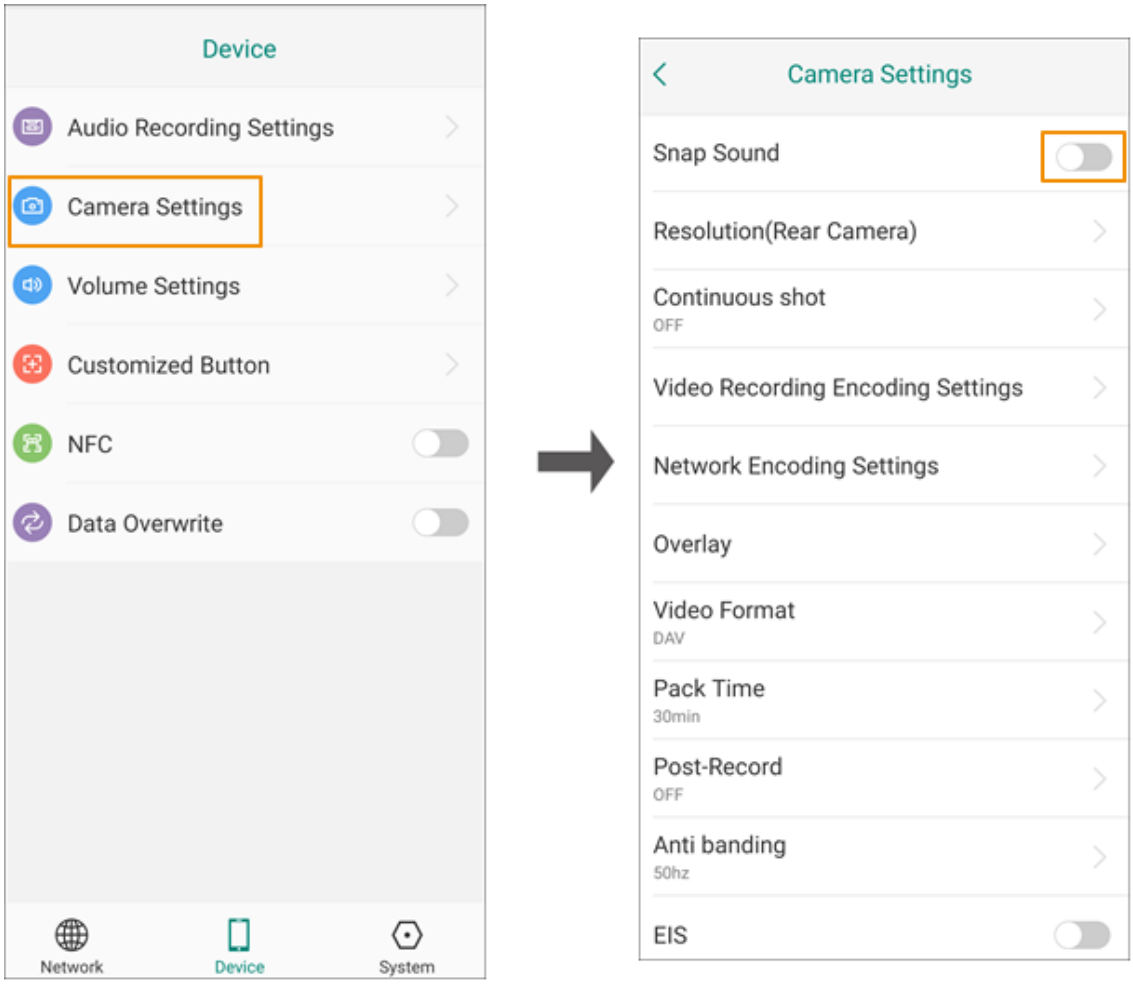


3.7.2.2 Camera Settings

3.7.2.2.1 Snap Sound

Tap , select **Device > Camera Settings**, and then tap to enable snap sound.

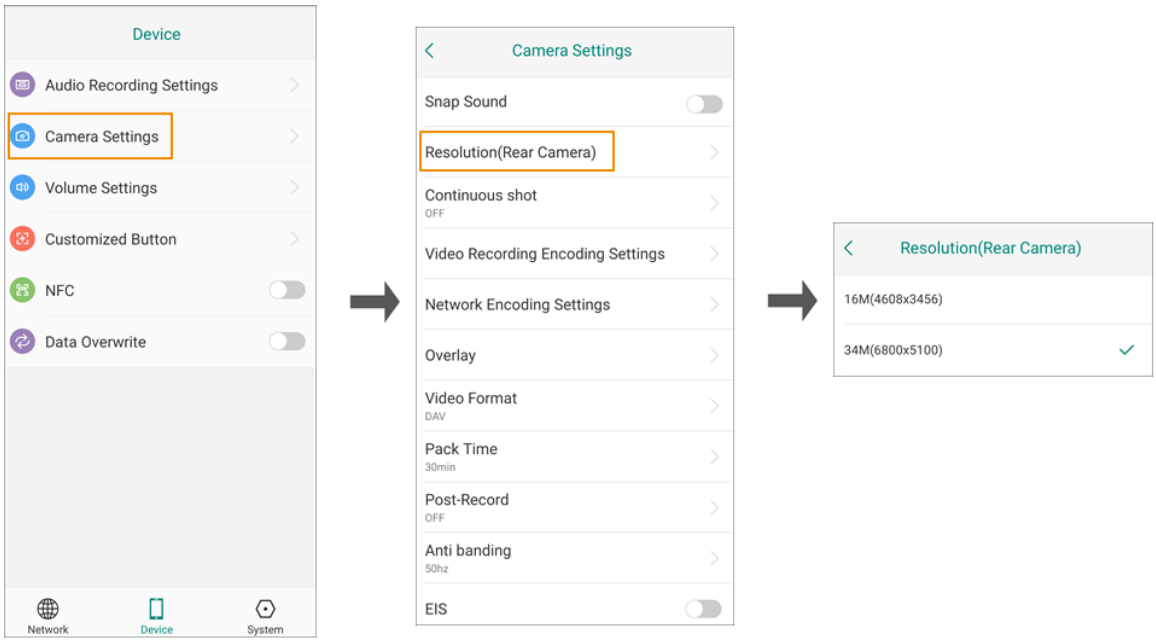
Figure 3-37 Snap sound



3.7.2.2.2 Rear Camera Photo Resolution

Tap , select **Device** > **Camera Settings > Resolution(Rear Camera)** and then select the photo resolution of the rear camera.

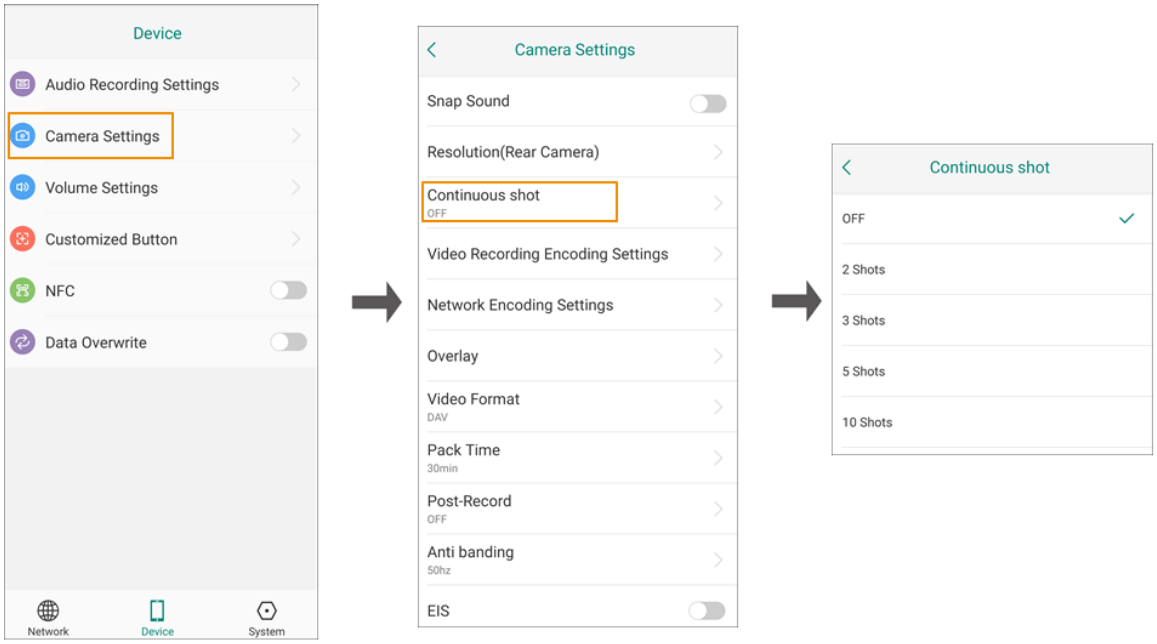
Figure 3-38 Set rear camera photo resolution



3.7.2.2.3 Continuous Shot

Tap , select **Device** > **Camera Settings > Continuous shot** and then select the number of continuous shots.

Figure 3-39 Continuous shot



3.7.2.2.4 Video Recording Encoding Settings

Tap , select **Device** > **Camera Settings > Video Recording Encoding Settings**, and then set the encoding parameters of front camera, rear camera, and external camera.

Figure 3-40 Video recording encoding settings

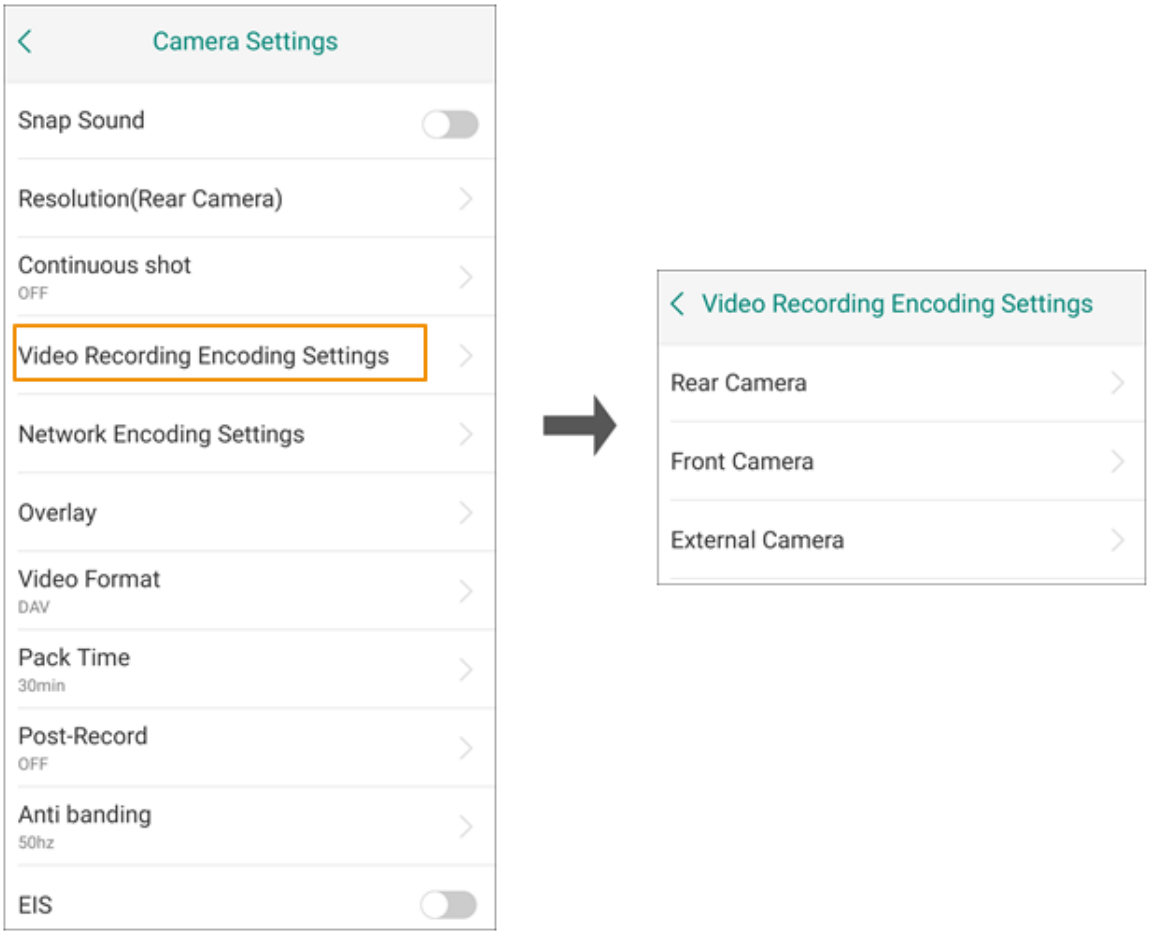


Table 3-5 Video recording encoding parameters

Parameter	Description
Video Encoding	Video encoding type. Includes **H.265** and **H.264**.
Resolution	Select the resolution and frame rate of the video from **1080P@30**, **720P@60**, and **720P@30**.
Bitrate	Select the video quality from **Best**, **Good** and **Ordinary**.

3.7.2.2.5 Network Encoding Settings

Tap  on the home screen, select the **Device** tab, select **Camera Settings** > **Network Encoding Settings**, and then set the encoding type, resolution, frame rate and bit rate. You can also enable network self-adaptation to adjust the frame rate and bit rate according to the network condition.

Figure 3-41 Network encoding settings

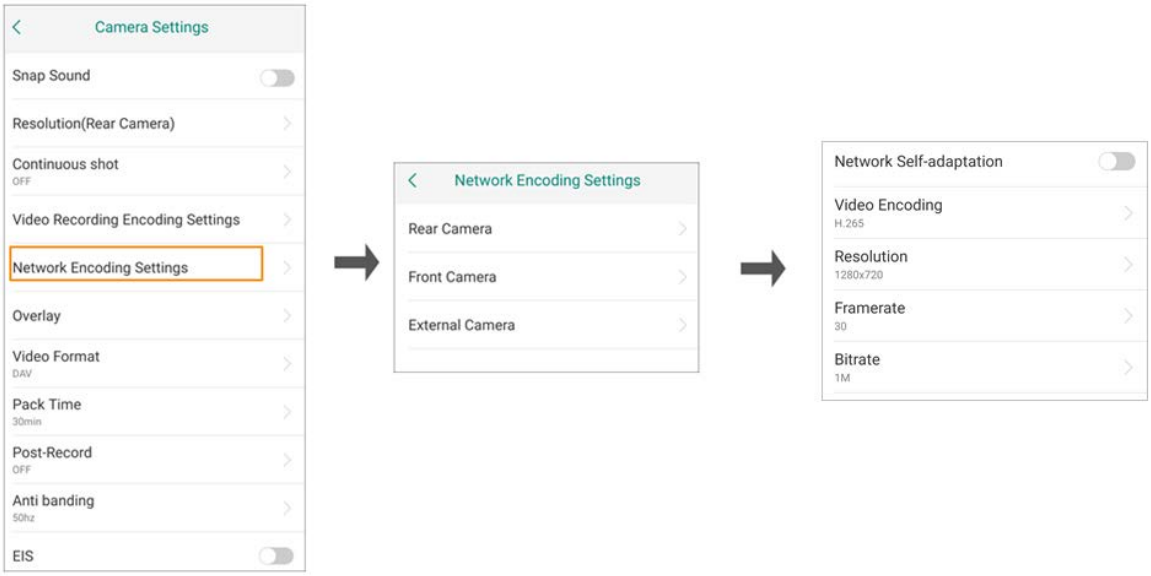


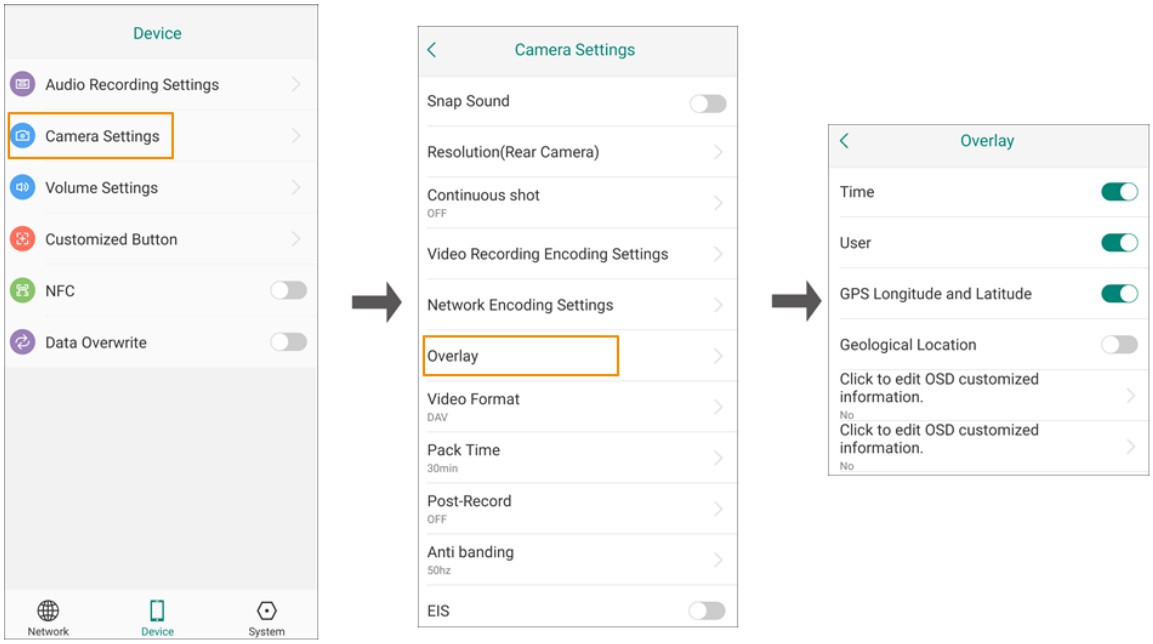
Table 3-6 Network encoding parameters

Parameter	Description
Network Self-adaptation	Enable the system to adjust the bit rate according to the network condition.
Video Encoding	Video encoding type. Includes **H.265** and **H.264**.
Resolution	Select the video resolution. The higher the resolution, the better the iamge quality.
Framerate	Select the frame rate. The higher the frame rate, the smoother the video, but the more network bandwidth consumption.
Bitrate	Select the bit rate.

3.7.2.2.6 Overlay

Tap  on the home screen, select the **Device** tab, and then select **Camera Settings > Overlay**. After the corresponding OSD information is enabled, it will be displayed on the images and videos. The OSD information includes time, user, GPS longitude and latitude, and geological location. You can also add customized OSD information.

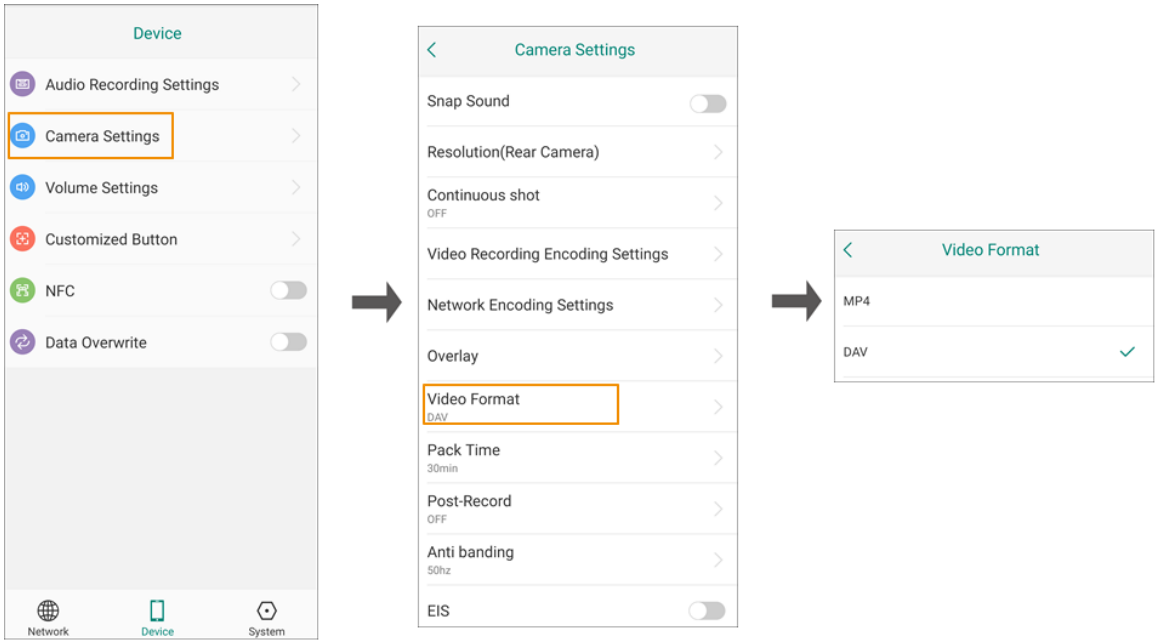
Figure 3-42 Overlay



3.7.2.2.7 Video Format

Tap , select **Device** > **Camera Settings** > **Video Format**, and then select a video format.

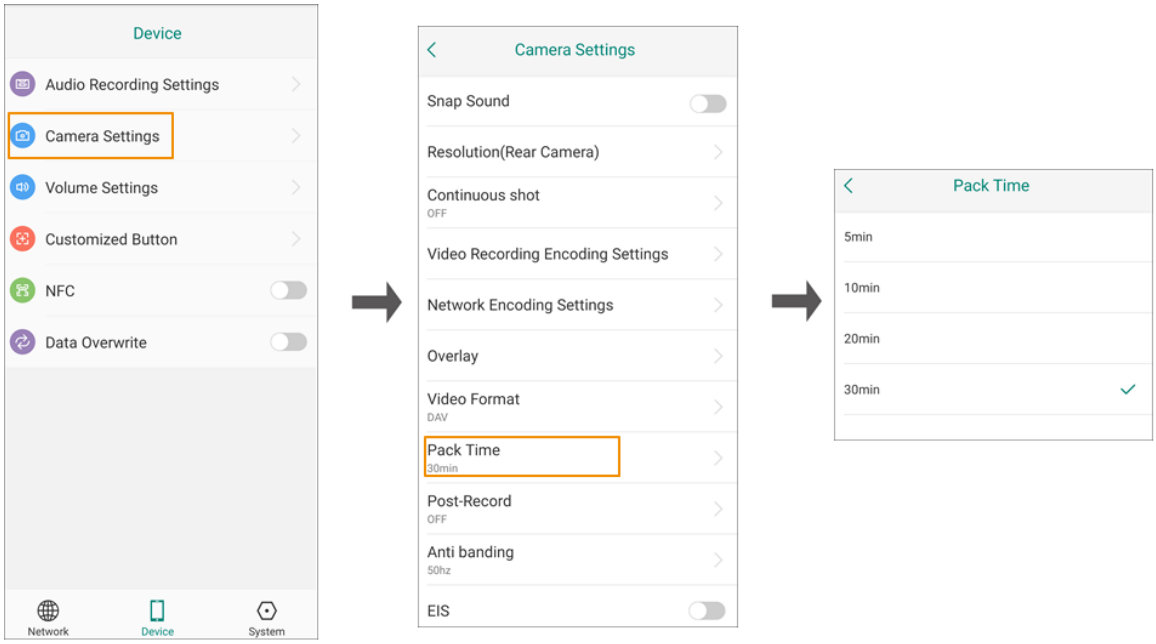
Figure 3-43 Overlay



3.7.2.2.8 Pack Time

Tap , select **Device** > **Camera Settings** > **Pack Time**, and then set the interval at which the recorded video is saved as a file.

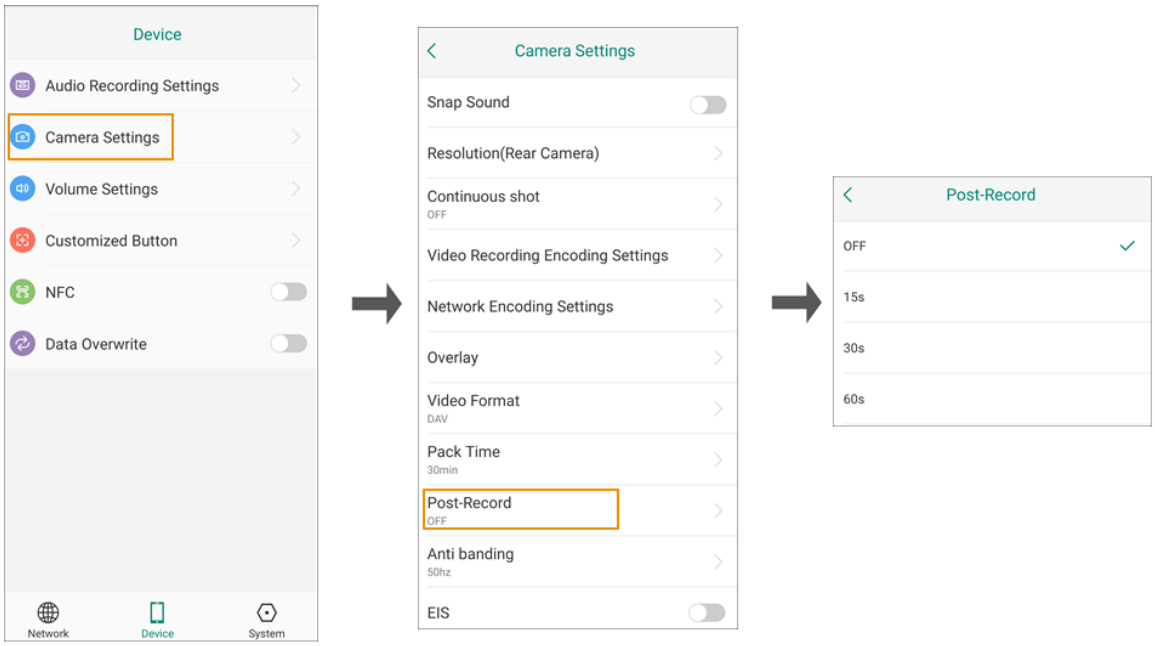
Figure 3-44 Pack time



3.7.2.2.9 Post-record

Tap , select **Device** > **Camera Settings > Post-Record**, and then set the post-record time. For example, if you select 15 s, 15 s video after the recording ends will be saved automatically.

Figure 3-45 Post-record

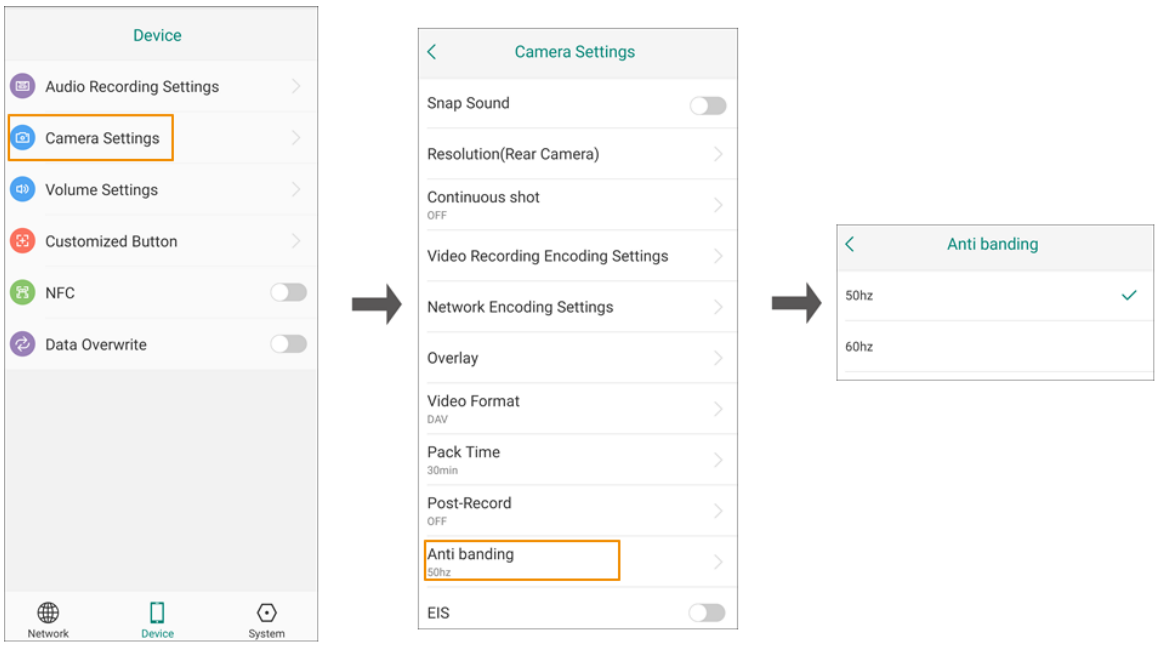


3.7.2.2.10 Anti-banding

Tap , select **Device** > **Camera Settings > Anti banding**, and then select an appropriate anti-banding frequency to avoid flashing lines of the target during video recording.

- 50 Hz is the frequency of alternating current in China.
- 60 Hz is the frequency of the alternating current in Japan, US, and some other countries.

Figure 3-46 Anti-banding



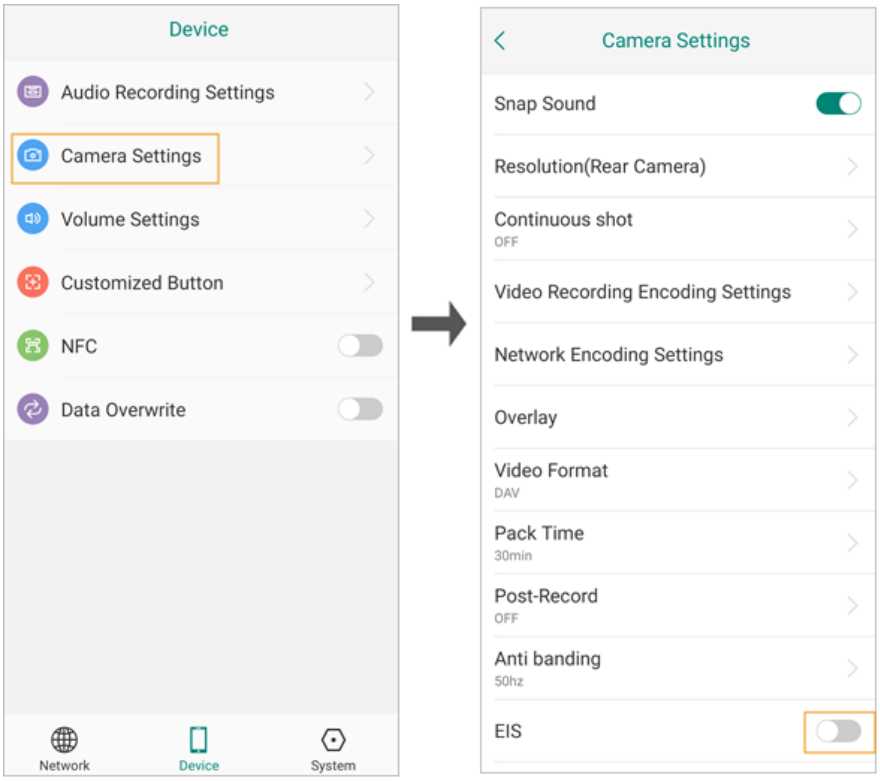
3.7.2.2.11 EIS

Electronic Image Stabilization (EIS) corrects the device shaking with difference comparison algorithm to make images clearer.

Tap , select **Device** > **Camera Setting**, and then tap next to EIS to enable the function.

- This function is only available for the video recording of the rear camera.
- This function might affect the CPU performance.

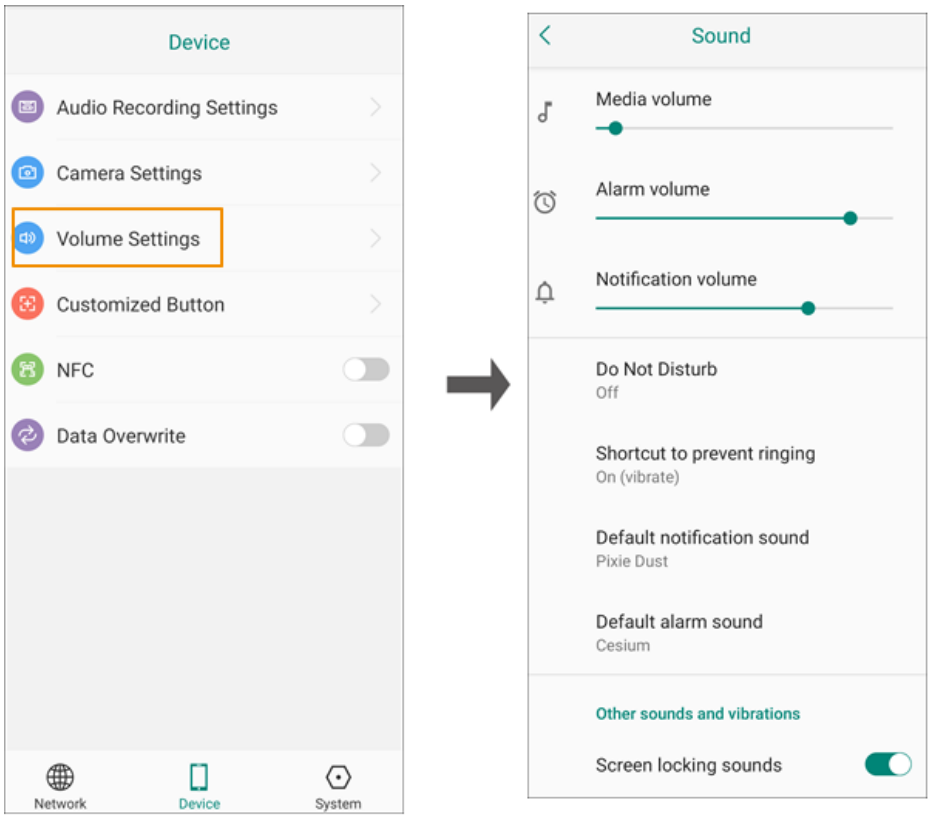
Figure 3-47 EIS



3.7.2.3 Volume Settings

Tap  on the home screen, select the **Device** tab, select **Volume Settings**, and then set the volume (media, ring and alarm), vibrating, "do not disturb" mode, and more.

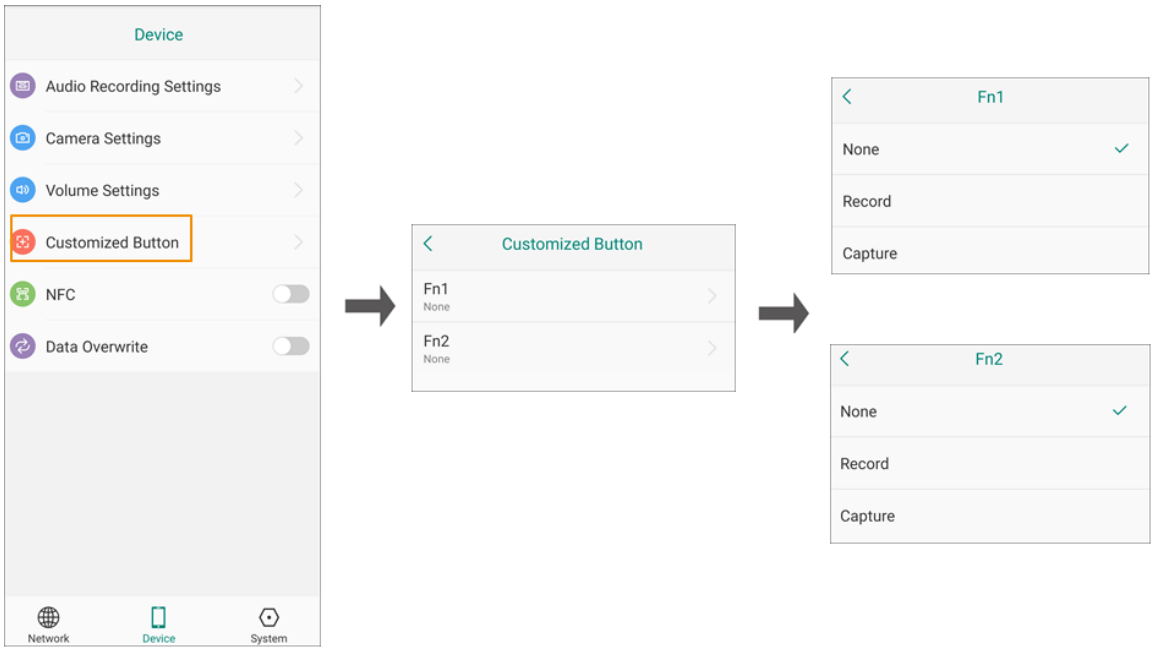
Figure 3-48 Volume settings



3.7.2.4 Customized Button

Tap  on the home screen, select the **Device** tab, select **Customized Button**, and then set the Fn1 button and Fn2 button as recording button, capturing button, or none.

Figure 3-49 Customized button



3.7.2.5 NFC

After NFC (Near Field Communication) is enabled, the Terminal can exchange data with other devices when touching them.

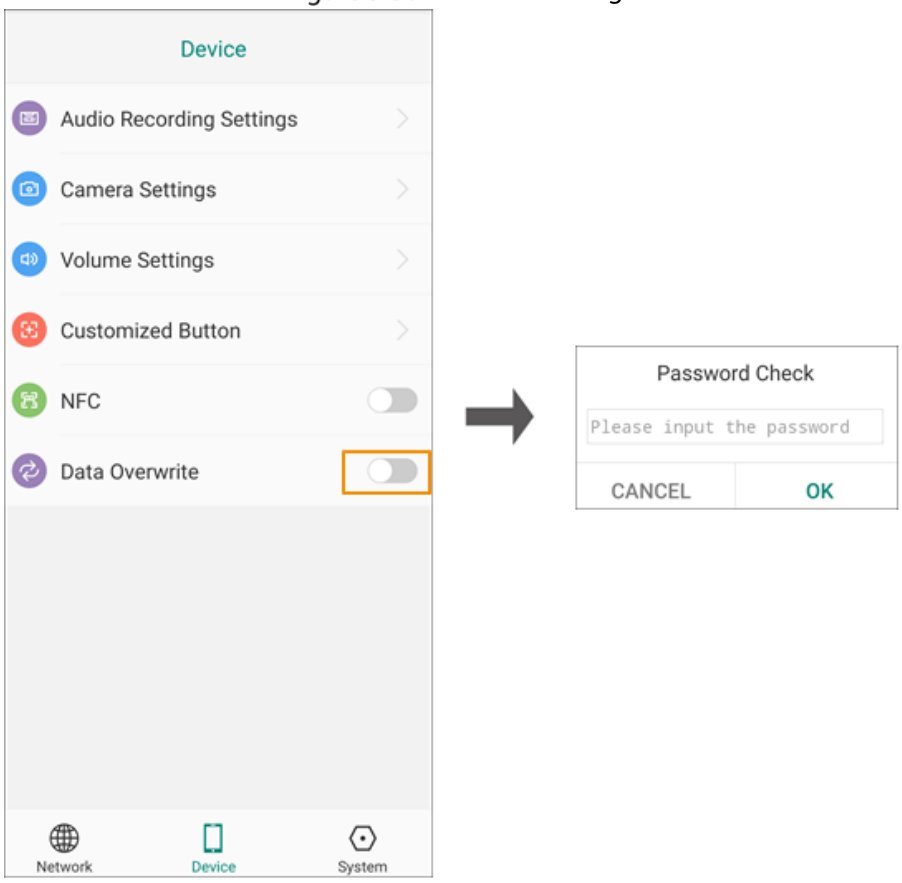
Before enabling NFC, you need to install the third-party software that supports NFC.

3.7.2.6 Data Overwriting

After Data Overwrite is enabled, the oldest files will be overwritten when the storage space is used up.

This function is available only for the admin account. You need to enter the password of the admin account to enable or disable the function.

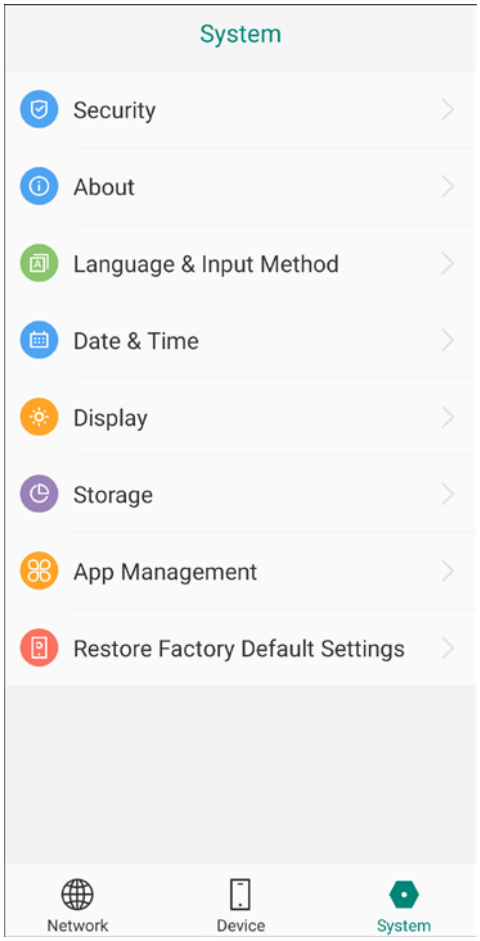
Figure 3-50 Date overwriting



3.7.3 System

Tap  on the home screen, select the **System** tab, and then you can view the device information, and set the security protection, language, input method, date and time, display, and storage. You can also restore the Terminal to factory settings.

Figure 3-51 System



3.7.3.1 Security

Tap  on the home screen, and then select **System** > **Security**, to configure the security parameters.

Figure 3-54 Security



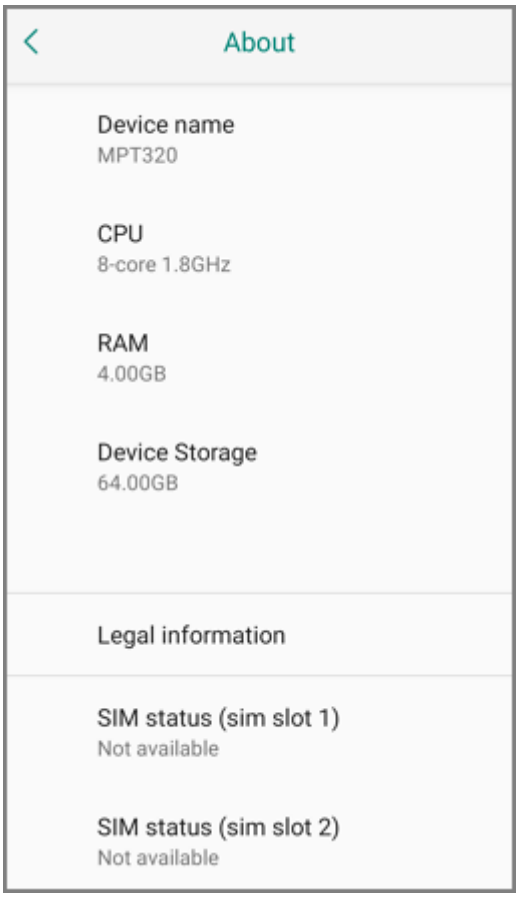
Table 3-6 Security parameters

Parameter	Description
Security Exception Alarm	Display 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.
Dynamic link	Enable it to set an independent link for each request. It is used during live view video, voice talk and playback.

3.7.3.2 About

Tap  on the home screen, select the **System** tab, and then tap **About** to view the device information such as device name, CPU, RAM, storage, legal information and MAC address.

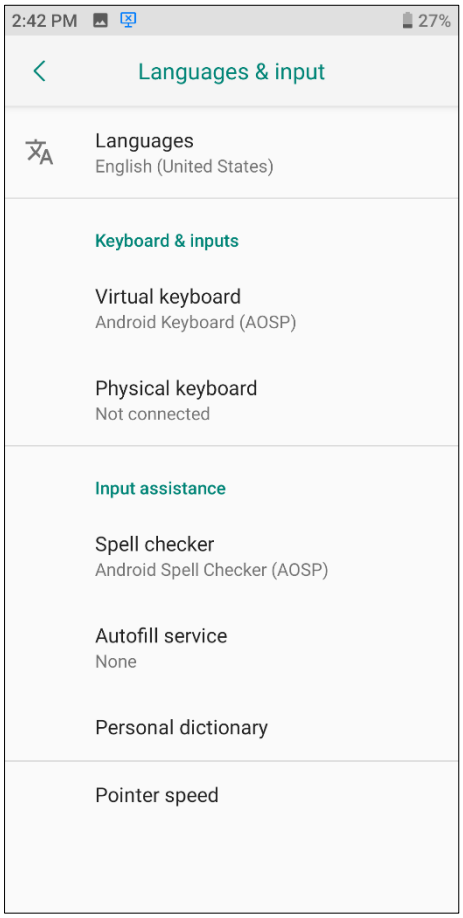
Figure 3-52 About



3.7.3.3 Language & Input Method

Tap  on the home screen, select the **System** tab, and then tap **Language & Input Method** to select the language and keyboard.

Figure 3-53 Language and input method

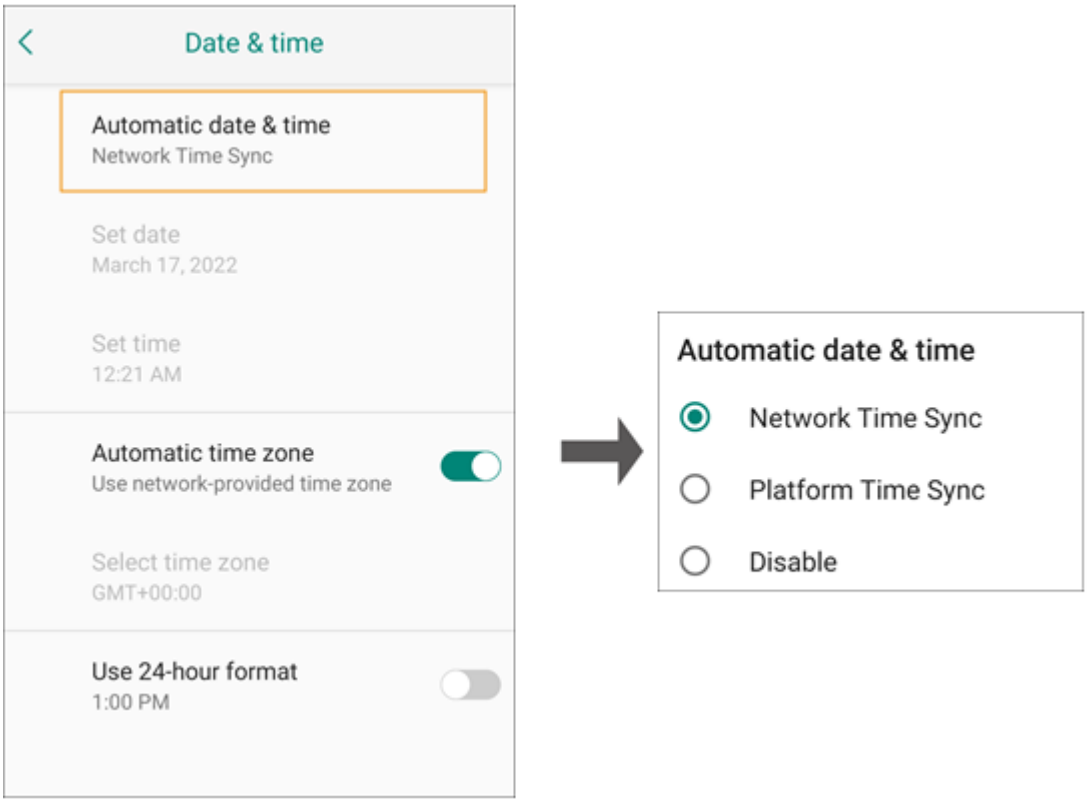


3.7.3.4 Date & Time

Tap  on the home screen, select the **System** tab, and then tap **Date & Time** to select the time synchronization mode. You can also set the date, time, and time zone manually.

- Tap **Automatic date & time**.
  - ◇ If you need to synchronize time automatically, select **Network Time Sync** or **Platform Time Sync.**
  - ◇ If you need to set time manually, select **Disable**, and then set date and time manually.

Figure 3-54 Automatic date & time

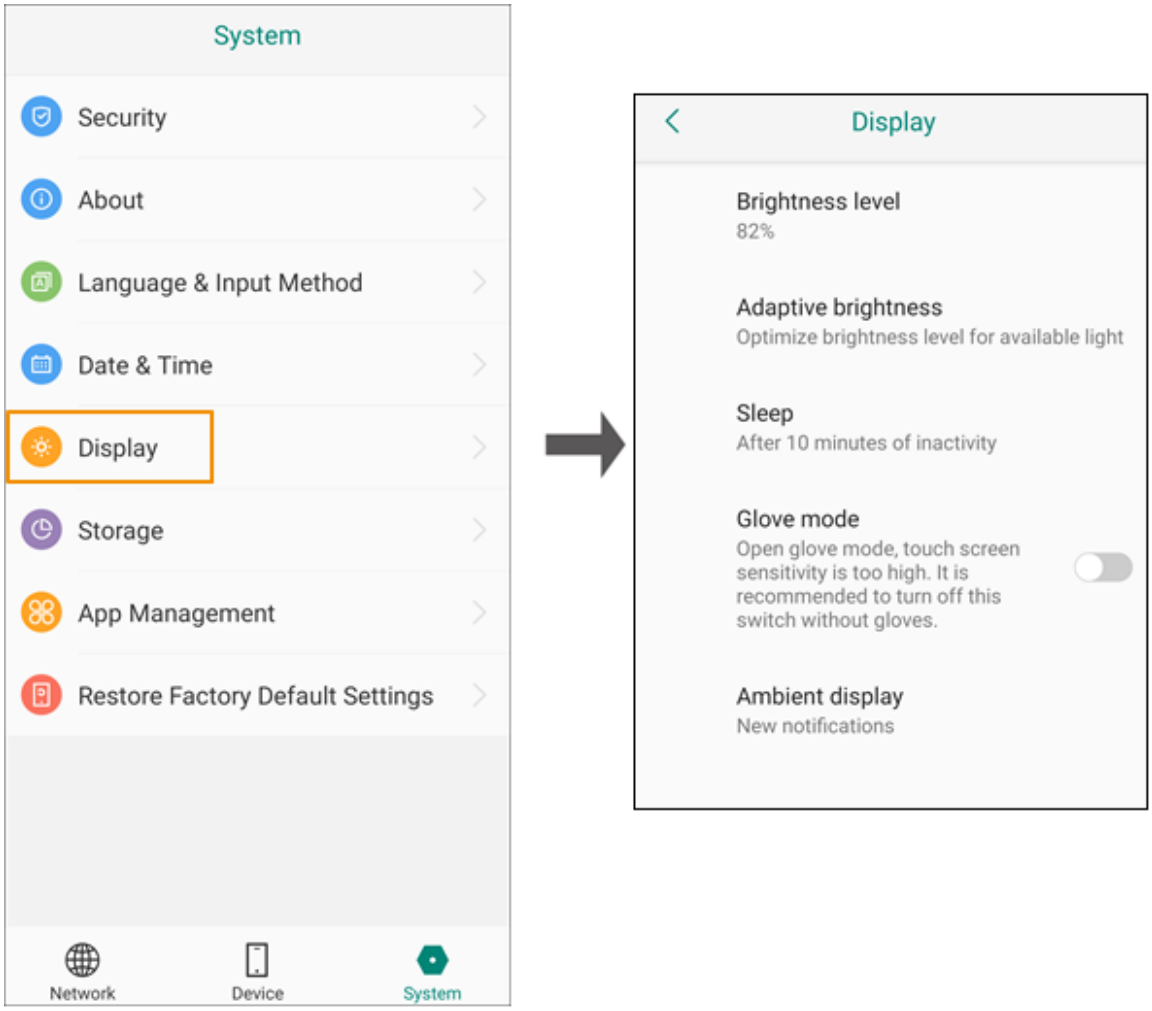


- Tap **Automatic time zone** to enable or disable the function. After you disable automatic time zone, set the time zone manually.
- Tap **Use 24-hour format** to switch between 24-hour and 12-hour format.

3.7.3.5 Display

Tap  on the home screen, select the **System** tab, and then tap **Display** to adjust screen brightness and sleep time, enable or disable glove mode, and set ambient display.

Figure 3-55 Display



Brightness Level

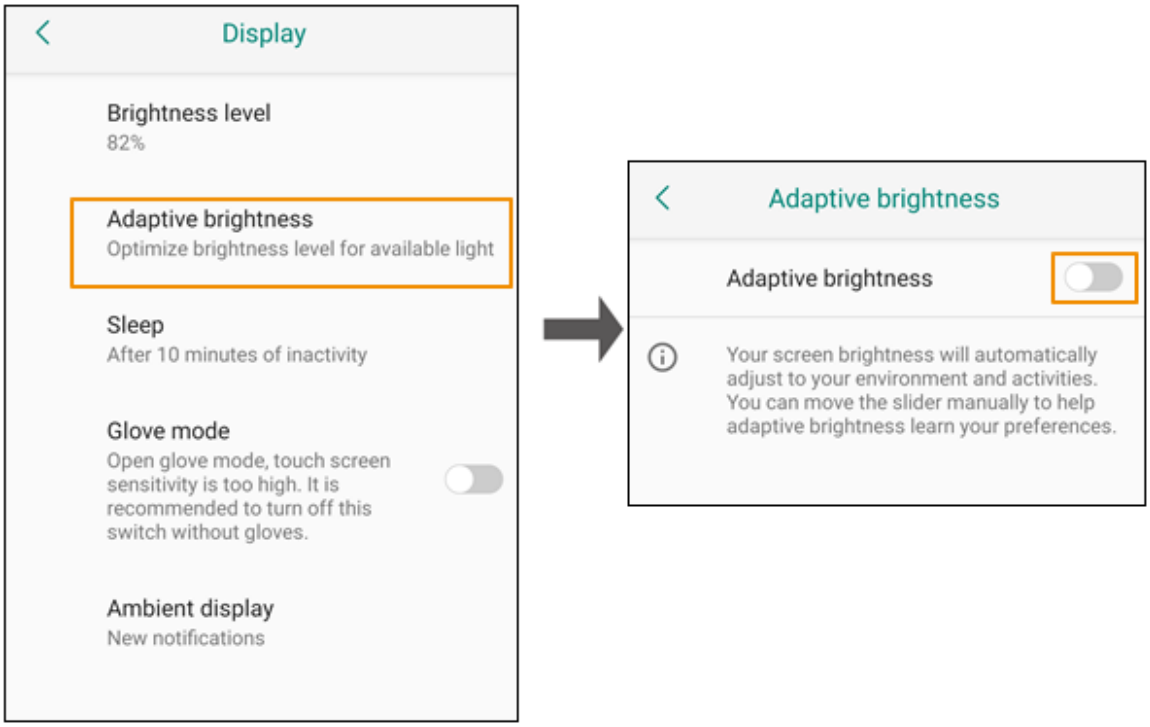
- Adjust brightness manually.

  Tap **Brightness level** on the **Display** screen, and then drag on  to adjust the brightness.

- Adjust brightness automatically.

  Tap **Adaptive brightness** on the **Display** screen, and then tap to enable adaptive brightness. The system will adjust screen brightness automatically according to ambient light.

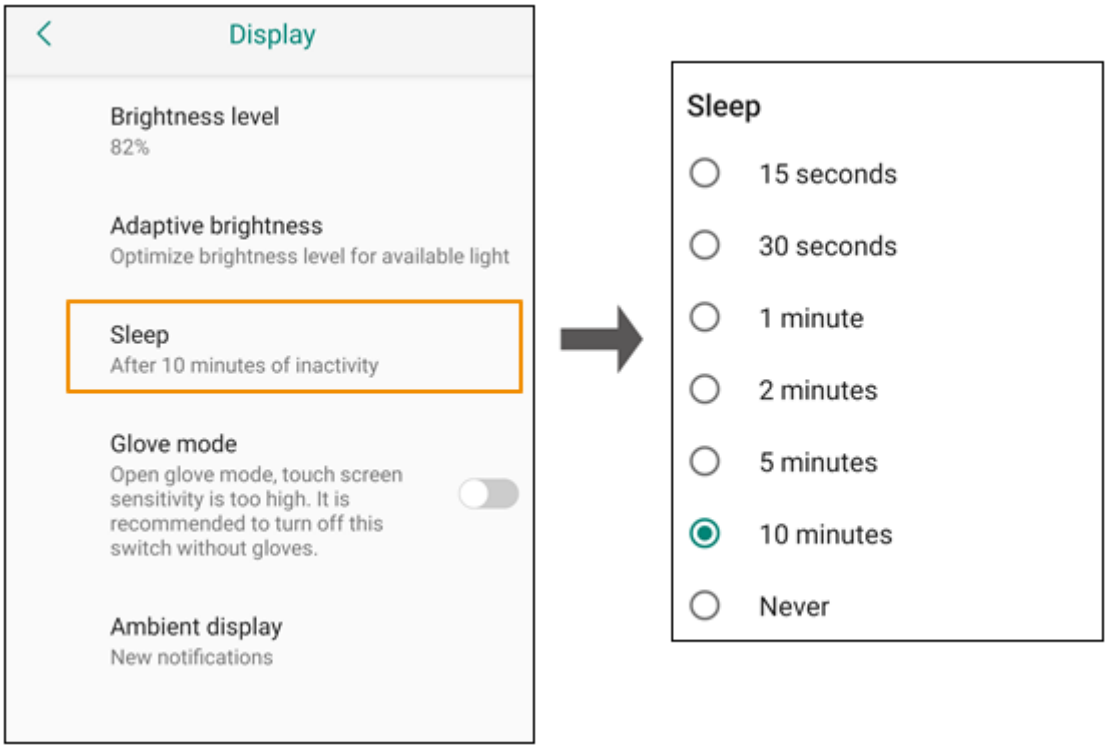
Figure 3-56 Adjust brightness automatically



Sleep

You can set the sleep time for the Terminal to sleep automatically if no operation is performed within the period.

Figure 3-57 Sleep



Glove Mode

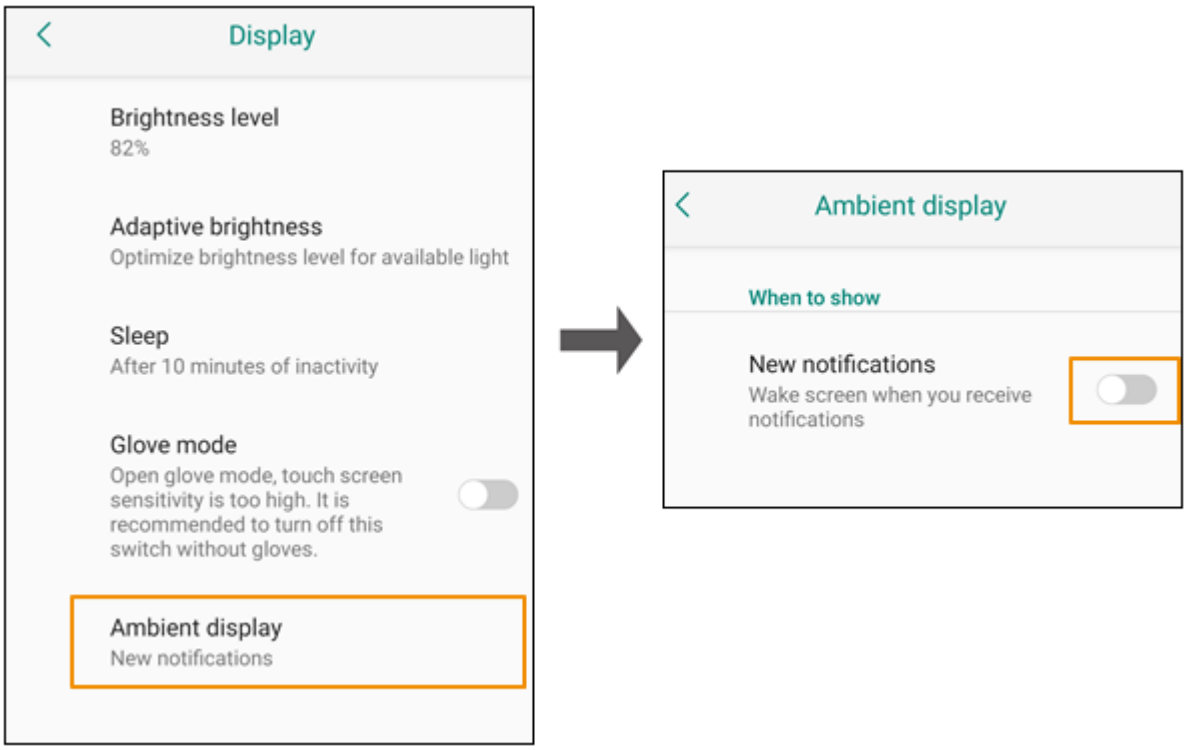
Tap to enable the glove mode to increase the touch sensitivity.

If you do not wear gloves, disable the mode.

Ambient Display

Tap **Ambient Display** and then tap next to **New notifications**. The screen wakes up automatically when you receive notifications.

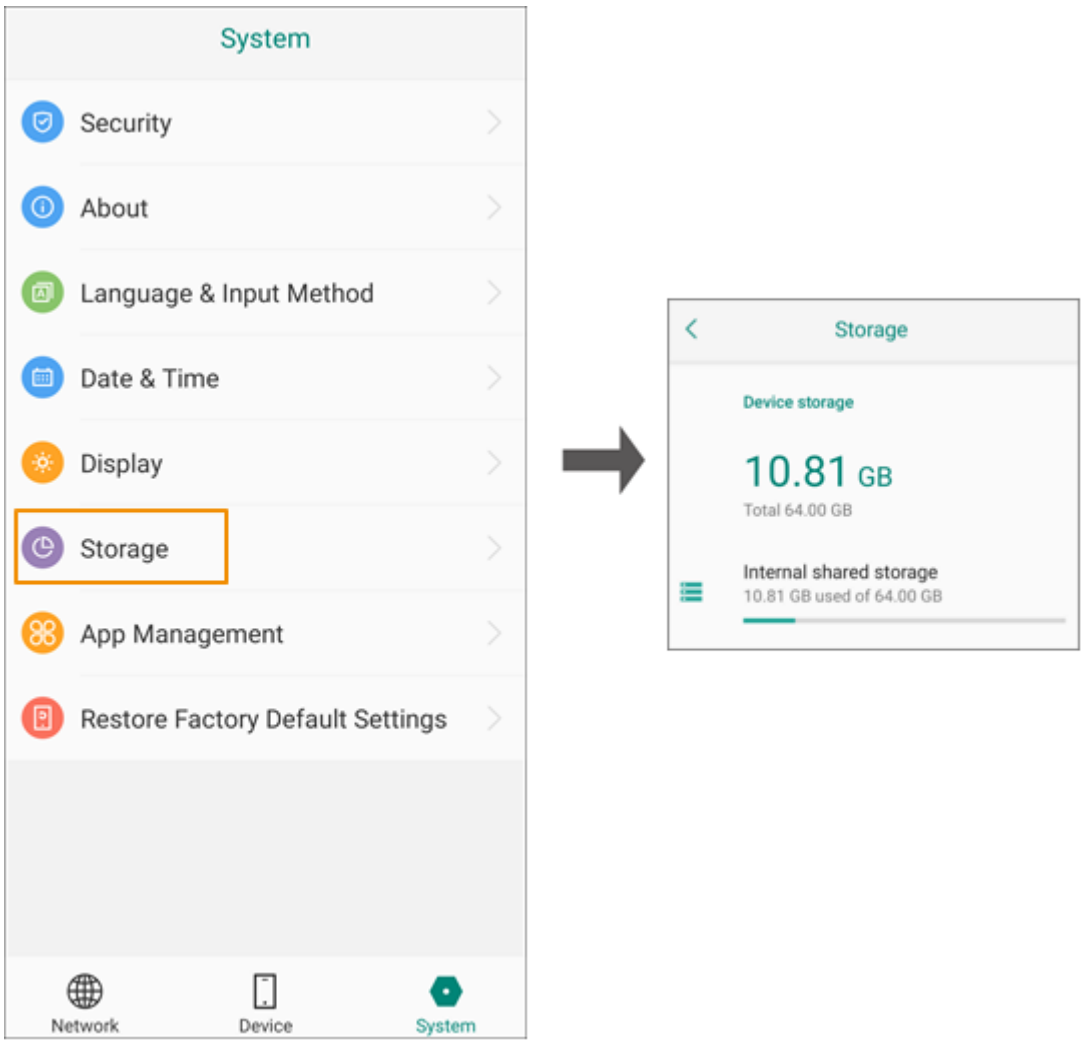
Figure 3-58 Ambient display



3.7.3.6 Storage

Tap  on the home screen, select the **System** tab, and then tap **Storage** to see the used space and available space.

Figure 3-59 Storage

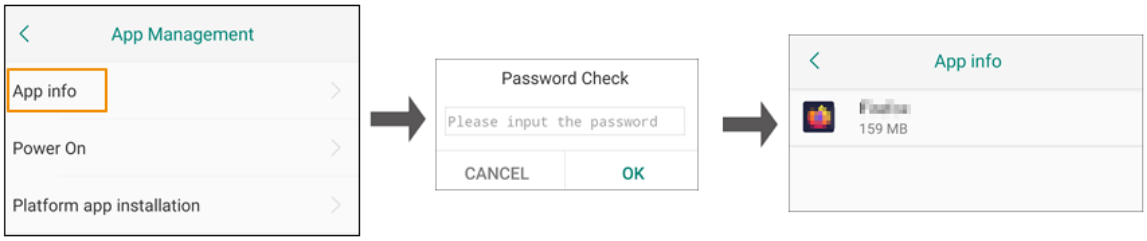


3.7.3.7 App Management

3.7.3.7.1 Viewing App Information

Tap on the home screen, select **System > App Management > App info**, enter the password, and then you can view the information on the apps.

Figure 3-60 App information

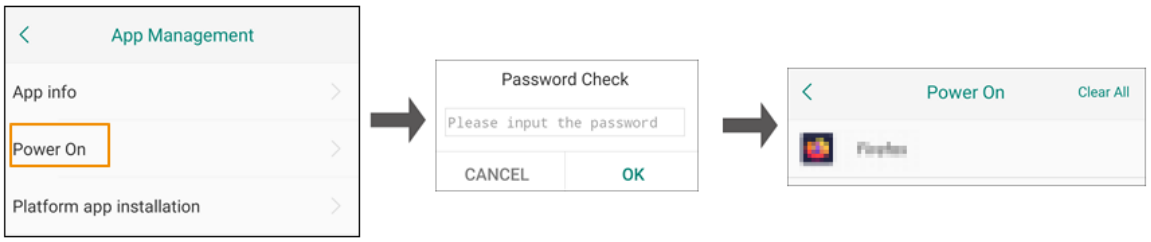


3.7.3.7.2 Configuring Startup App

Tap on the home screen, select **System > App Management > Power On**, enter the password, and then you can set the startup app that runs automatically after the system starts up.

- Tap **Clear All** to remove all the startup settings.
- You can set only one startup app.

Figure 3-61 Set startup app



3.7.3.7.3 Installing Platform Apps

Install the platforms apps that have been configured in advance.

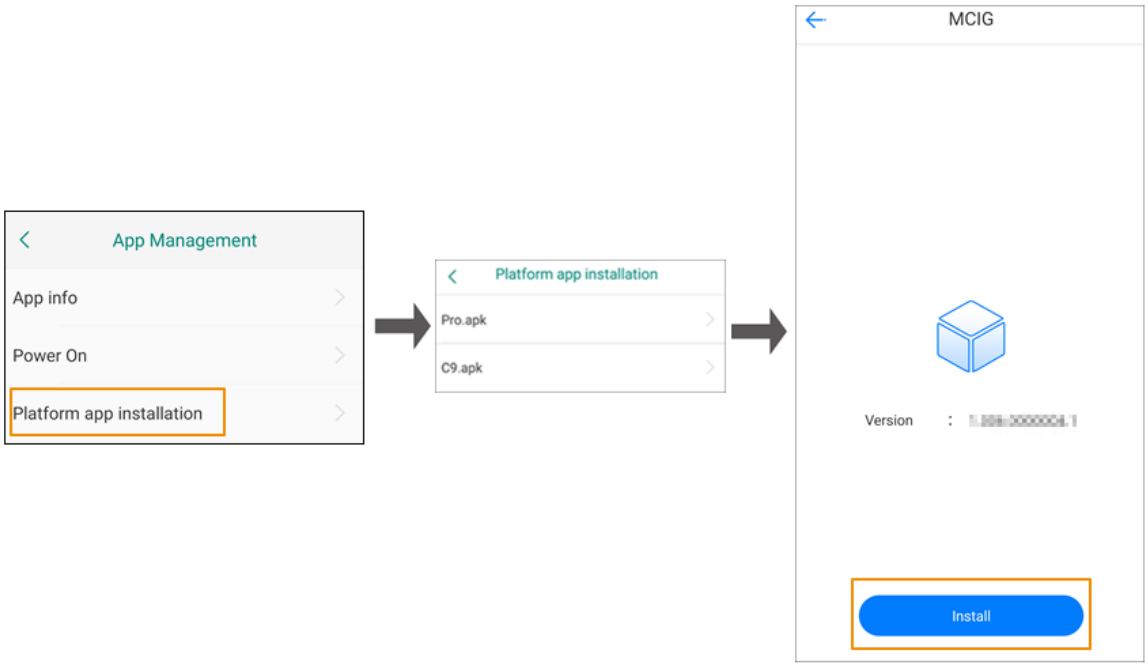
Step 1 Tap on the home screen, and then select **System > App Management > Platform app installation**.

Step 2 Select a pre-configured platform apk file.

The apk files are configured before the Terminal leaves the factory. Contact the technical support to get other apk files.

Step 3 Follow the on-screen instructions to install the app. The installed app will appear on the home screen.

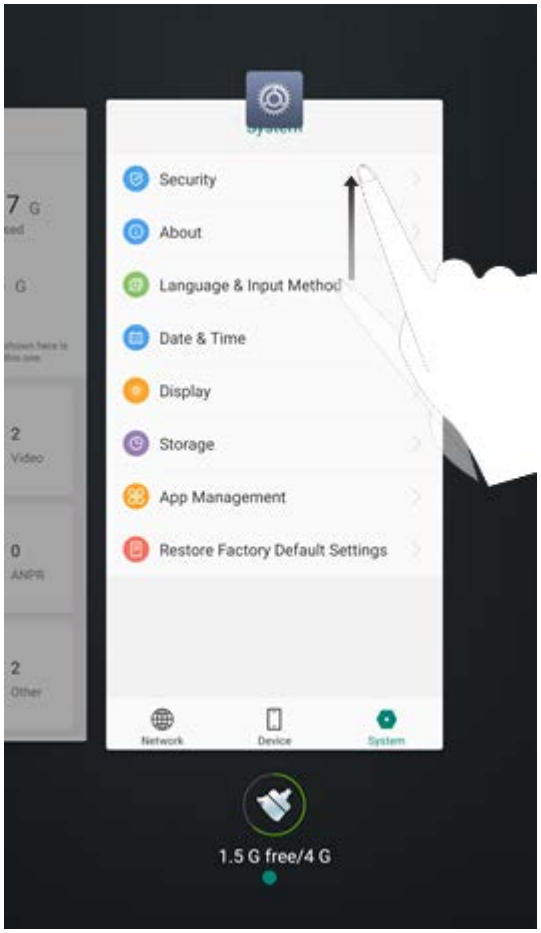
Figure 3-62 Install platform app



3.7.3.7.4 Managing Background Apps

Tap the menu button on the home screen to view the apps running in the background. Tap an app and then swipe up to close the background app. Tap  to close all background apps.

Figure 3-65 Close background app



3.7.3.8 Restoring to Factory Default Settings

Please be advised that if you restore the Terminal to factory default settings, all data in the internal storage and micro SD card will be erased, and the operation cannot be undone.

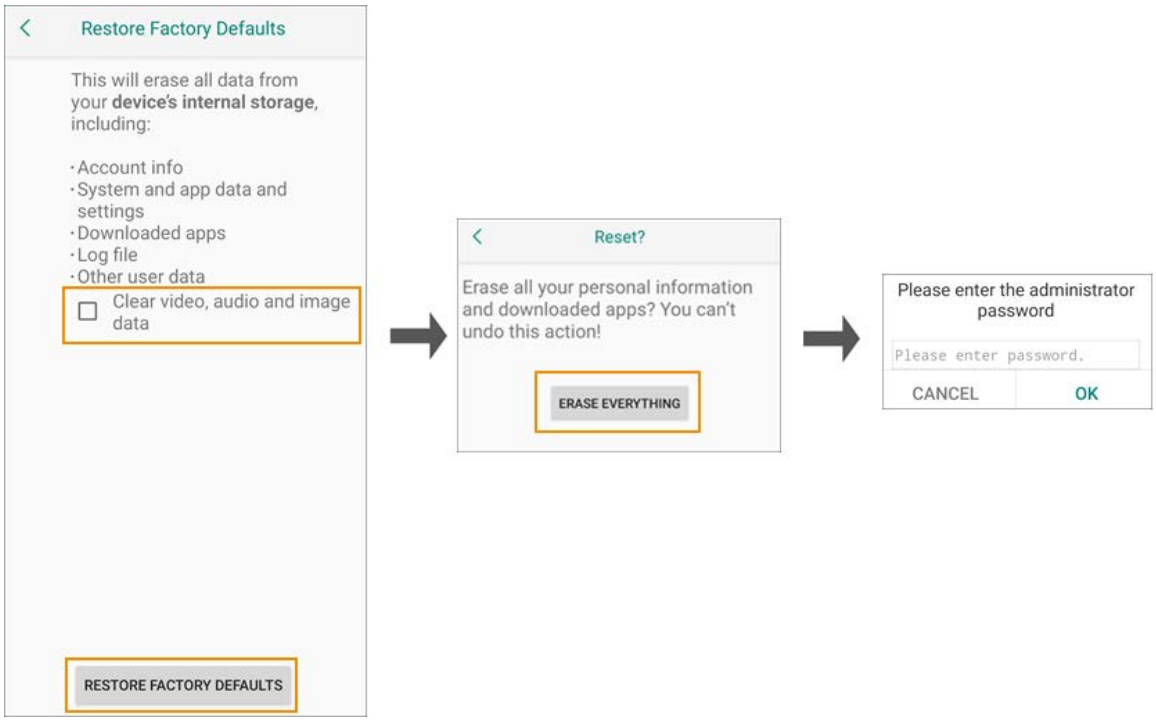
Step 1 Tap on the home screen, and then select **System > Restore Factory Default Settings**.

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

Step 3 Tap **RESTORE FACTORY DEFAULTS**.

Step 4 Tap **ERASE EVERYTHING**, enter the password of the admin account, and then tap **OK**.

Figure 3-63 Restore to factory default settings



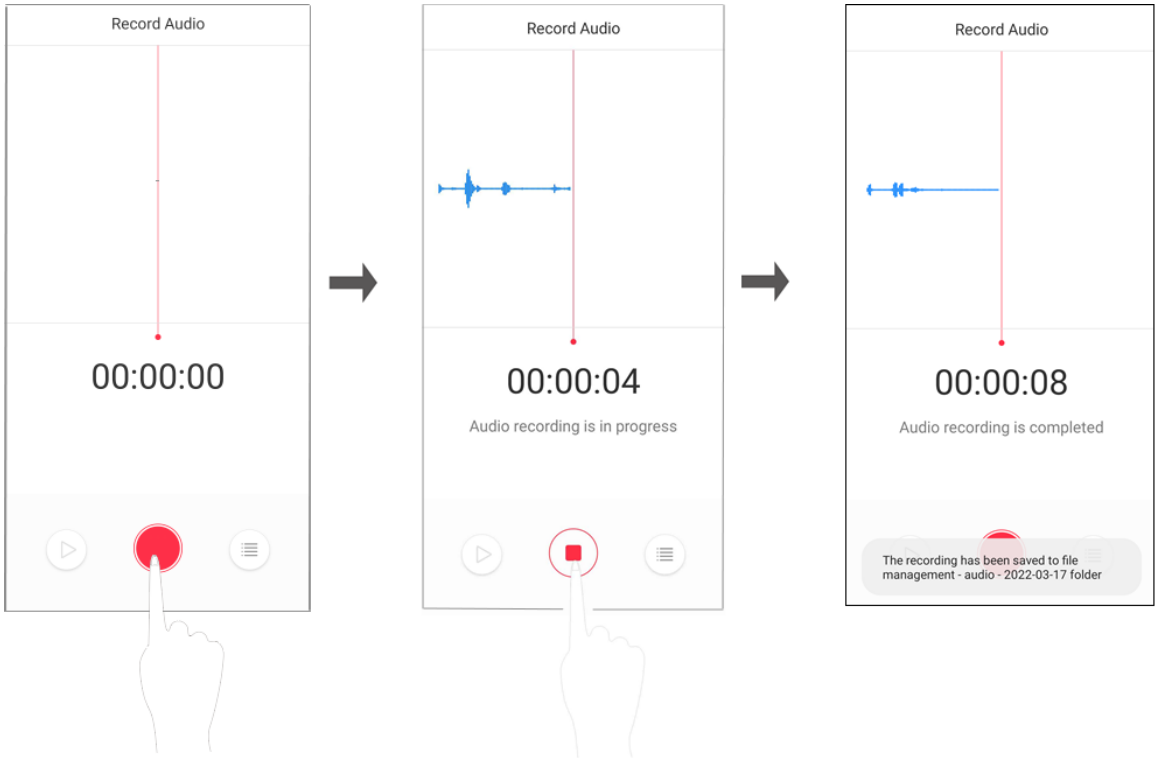
3.8 Recording Audios

Tap on the home screen, and then tap to start recording. The **Audio recording is in progress** prompt and the audio duration are displayed. Tap , and the **Audio recording is completed** prompt is displayed.

Before connecting the Terminal to the data collection station, stop recording audios and videos to avoid incomplete file acquisition.

- Tap to view audio files.
- After the audio recording is complete, tap to play the audio.

Figure 3-64 Record audios



3.9 ANPR

The Terminal can recognize license plate information.

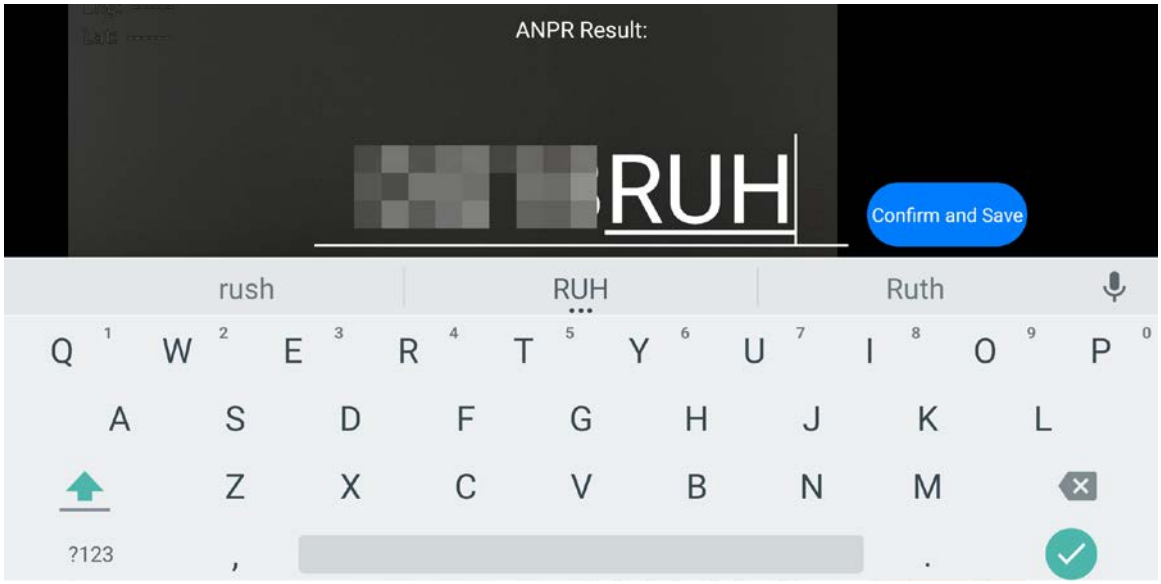
Step 1 Tap  on the home screen.

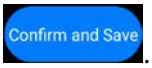
Figure 3-65 ANPR



Step 2 Tap .

Figure 3-66 Plate number confirmation



Step 3 Check the plate number, and then tap 

.

The picture is saved.

The pictures are saved in the folder with the capturing date under **File Management > ANPR**.

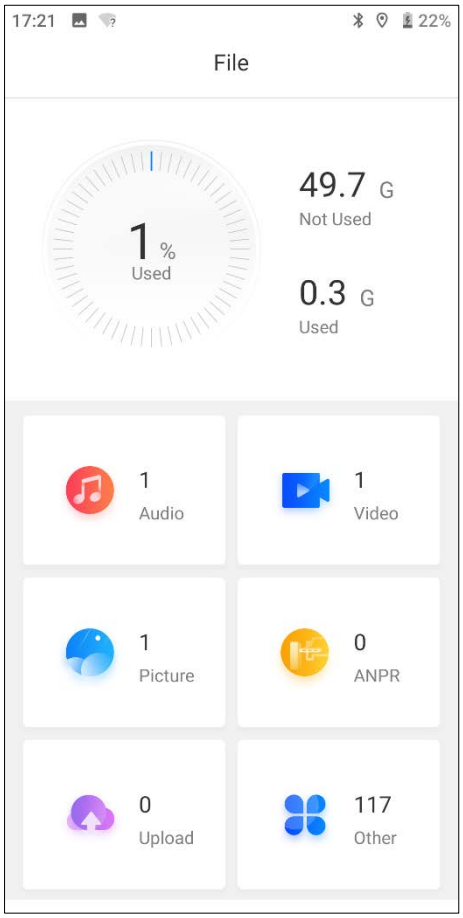
3.10 File Management

Tap  on the home screen, and then you can view the available space, audio, video, picture, ANPR, file uploading status, and other information. You can also delete and upload files.

The admin account has the permission to view, upload, and edit files of all users. Other accounts can only view files of the corresponding user. This section uses the operation of the admin account as an example.

If you tap **Select All**, only loaded files can be selected, which is to avoid accidental deletion. If you want to delete all files, delete the corresponding folders.

Figure 3-67 File management



Audio

Step 1 Tap on the home screen.

Step 2 Tap and then select a folder.

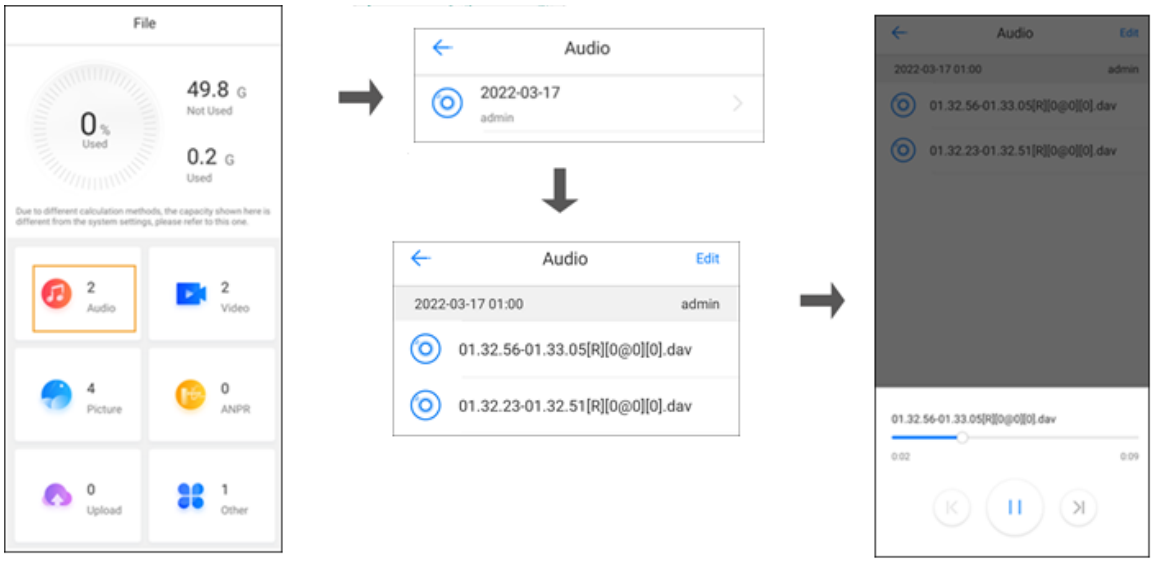
The audio folder list is displayed.

- The folder is named with the recording date and username. The earliest folder is listed at the bottom, and the folders of admin are displayed above tho of other users.
- The audio files are named with the recording time and displayed in chronological order, with the earliest at the bottom.

Step 3 Select an audio file to play it.

- Tap **Edit** to upload or delete files.
- Select a file and then swipe left to delete it.

Figure 3-68 Audio



Video

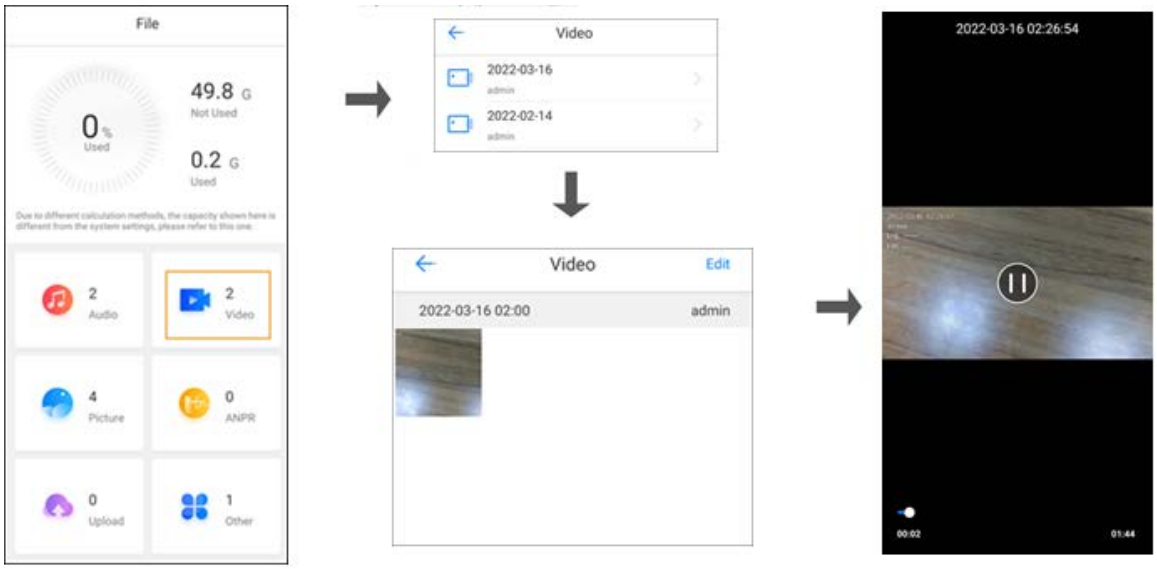
Tap  on the home screen, select , and then select a folder.

- Tap a video file to play it.
  - ◇ Tap  to pause the video play.
  - ◇ Drag  to adjust the video play progress.
- Tap **Edit** to upload or delete the files.



- The folder is named with the recording date and username. The earliest folder is listed at the bottom, and the folders of admin are displayed above that of other users.
- The video files are named with the recording time and displayed in chronological order, with the earliest at the bottom.

Figure 3-69 Video

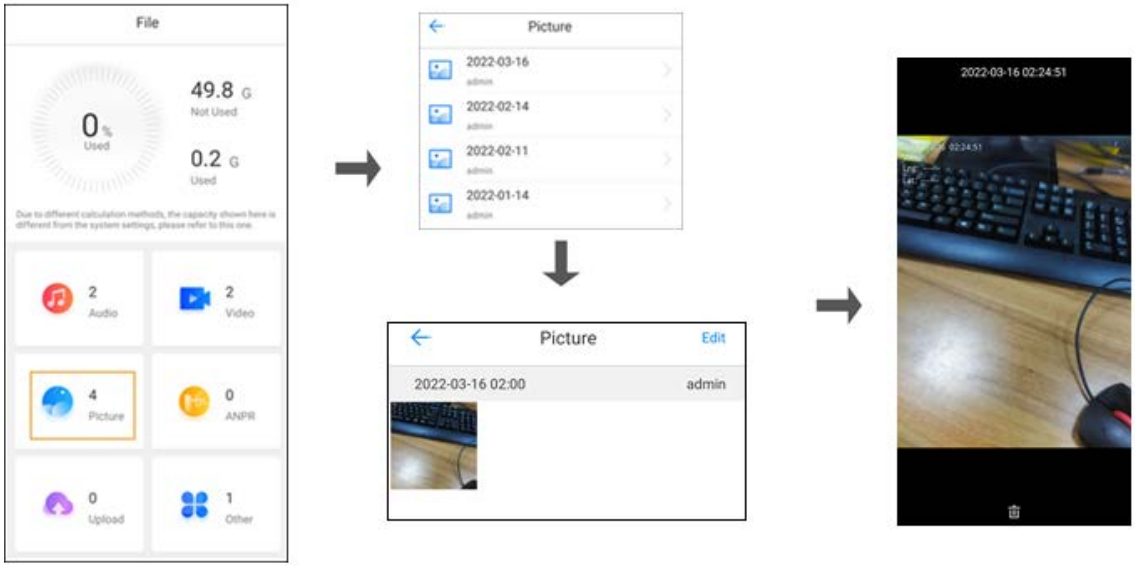


Picture

Tap on the home screen, select , select a folder and then then select a picture to view it.

- Tap **Edit** to upload or delete the files.
- While you are viewing a picture, tap to delete this picture.

Figure 3-70 Picture



ANPR

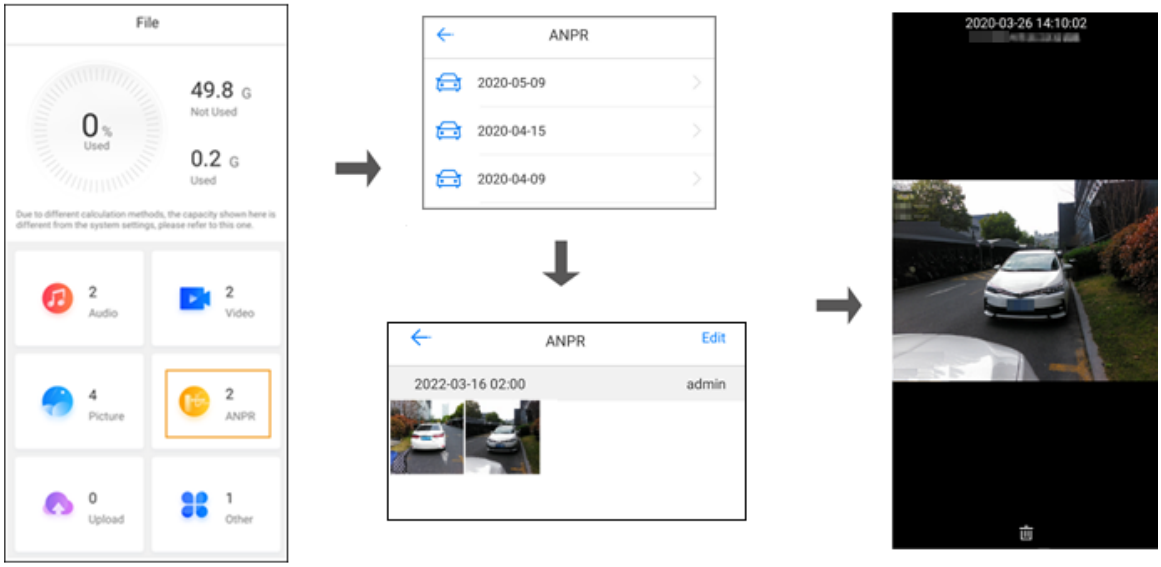
Step 1 Tap on the home screen, and then select .

Step 2 Select the folder with the corresponding date, and then select the picture with the specific time you need to view it.

Location, longitude and latitude, time, and license plate information are displayed on the picture if you have enabled the corresponding OSD information.

- Tap **Edit** to upload or delete the files.
- While you are viewing a picture, tap to delete this picture.

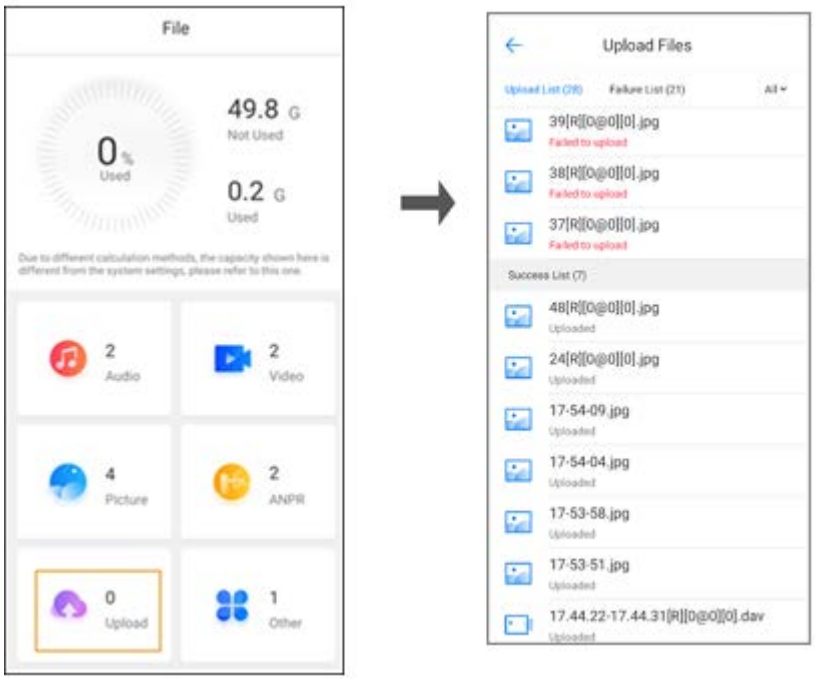
Figure 3-71 ANPR



Uploading Files

Tap  on the home screen, and then select  to view the file uploading status, and upload files again.

Figure 3-72 Uploading files



Others

Tap  on the home screen, select , and then select **Others** to view the audios, videos and pictures of third-party apps. The screenshots of the Terminal are also stored here.

Figure 3-73 Others



3.11 User Management

Tap  on the home screen.

Figure 3-74 User management (admin user)

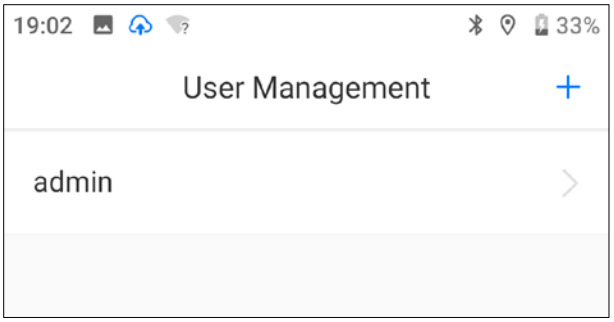
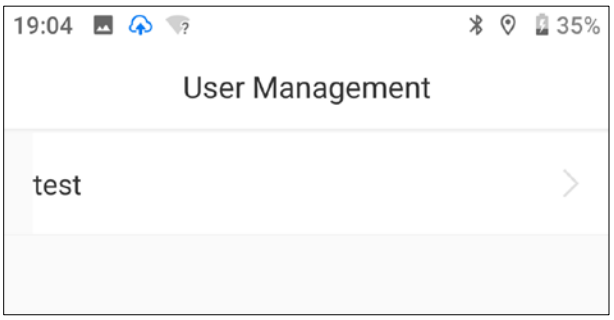


Figure 3-75 User management (other users)



3.11.1 Adding Users

Step 1 Tap  on the home screen .

Step 2 Tap + at the upper-right corner.

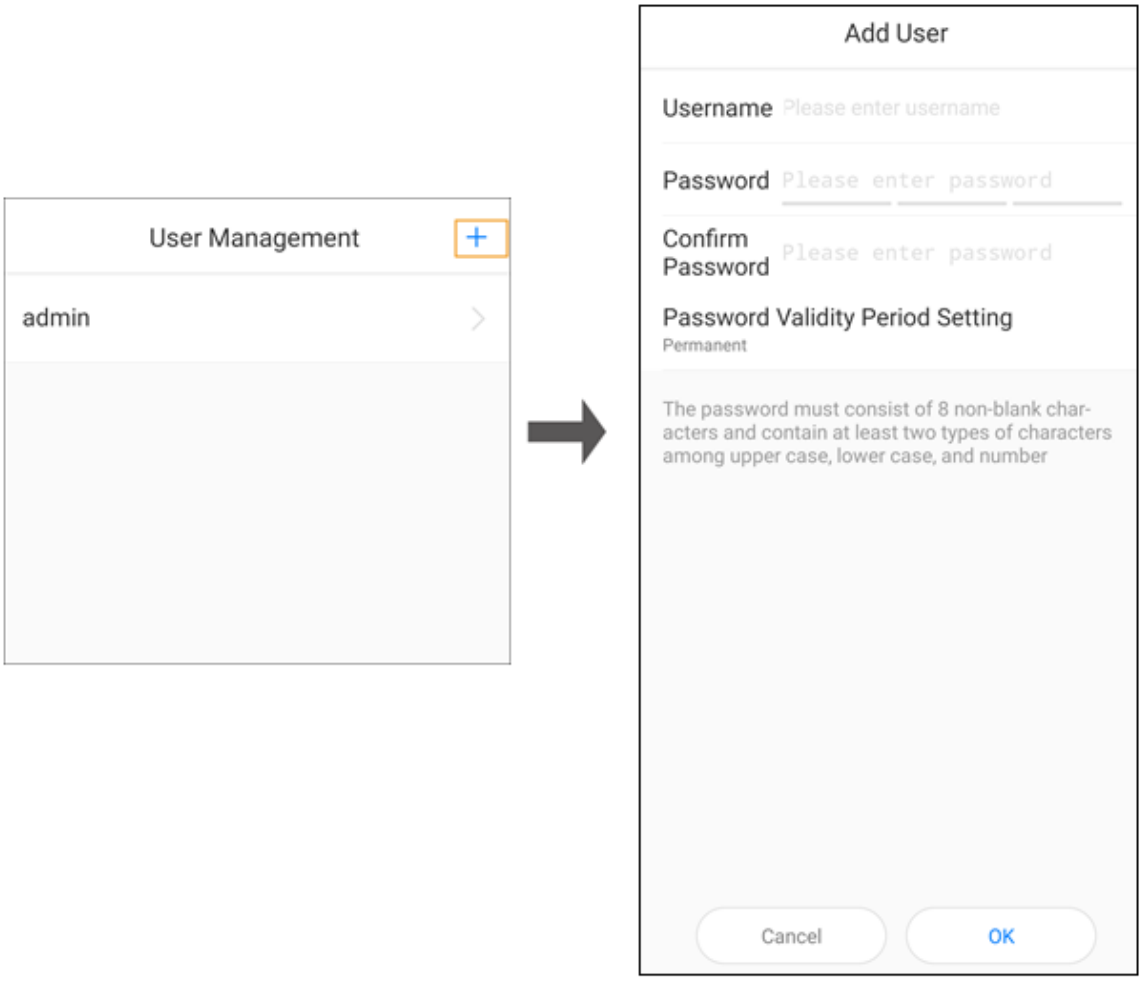
Step 3 Enter the username and password, confirm the password, and set the password validity period.

Step 4 Tap **OK**.

The **Added the user successfully** prompt is displayed, and the system goes back to the **User Management** screen. The added user is displayed.

Only the admin user can add other users.

Figure 3-76 Add users

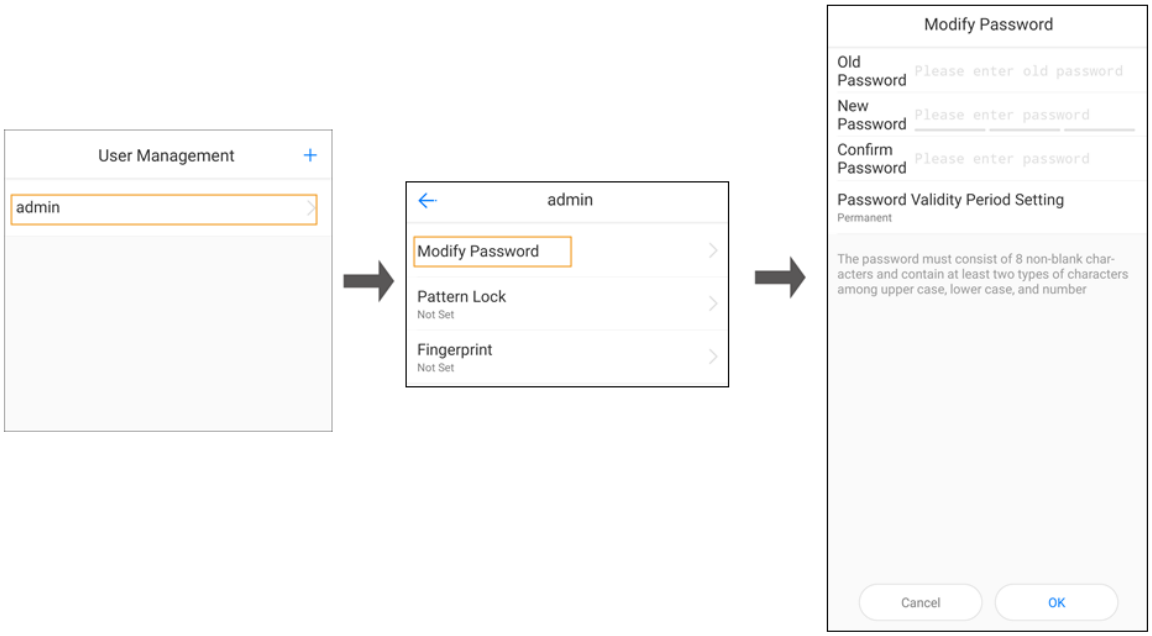


3.11.2 Changing Password

Tap on the home screen, and the **User Management** screen is displayed. Select a user, tap **Modify Password**, enter the old password and new password, confirm the new password, and then tap **OK**. The **Modified the password successfully** prompt is displayed.

After selecting the user on the **User Management** screen, you can also set pattern lock and fingerprint. For details, see "3.2.2 Login with a Pattern" and "3.2.3 Login with a Fingerprint".

Figure 3-77 Change password

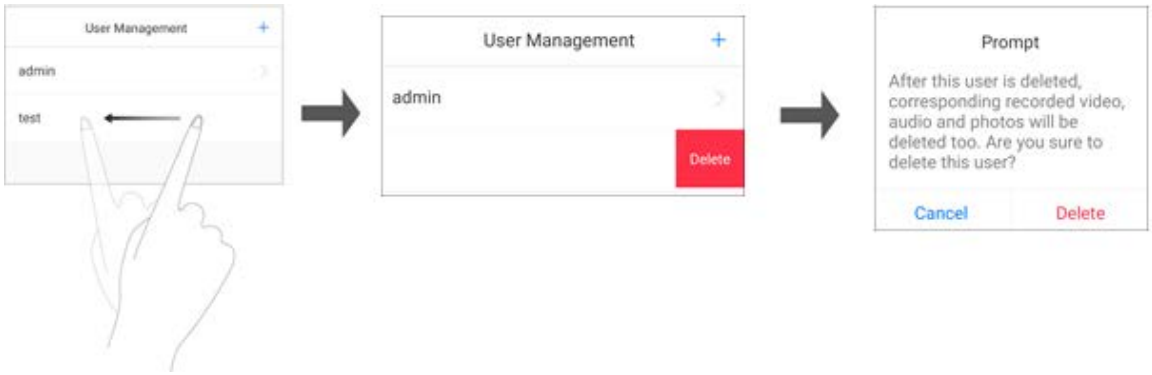


3.11.3 Deleting Users

Tap  on the home screen, swipe left on the user, tap **Delete**, and a prompt is displayed. Tap **Delete**.

You cannot delete the admin account.

Figure 3-78 Delete users



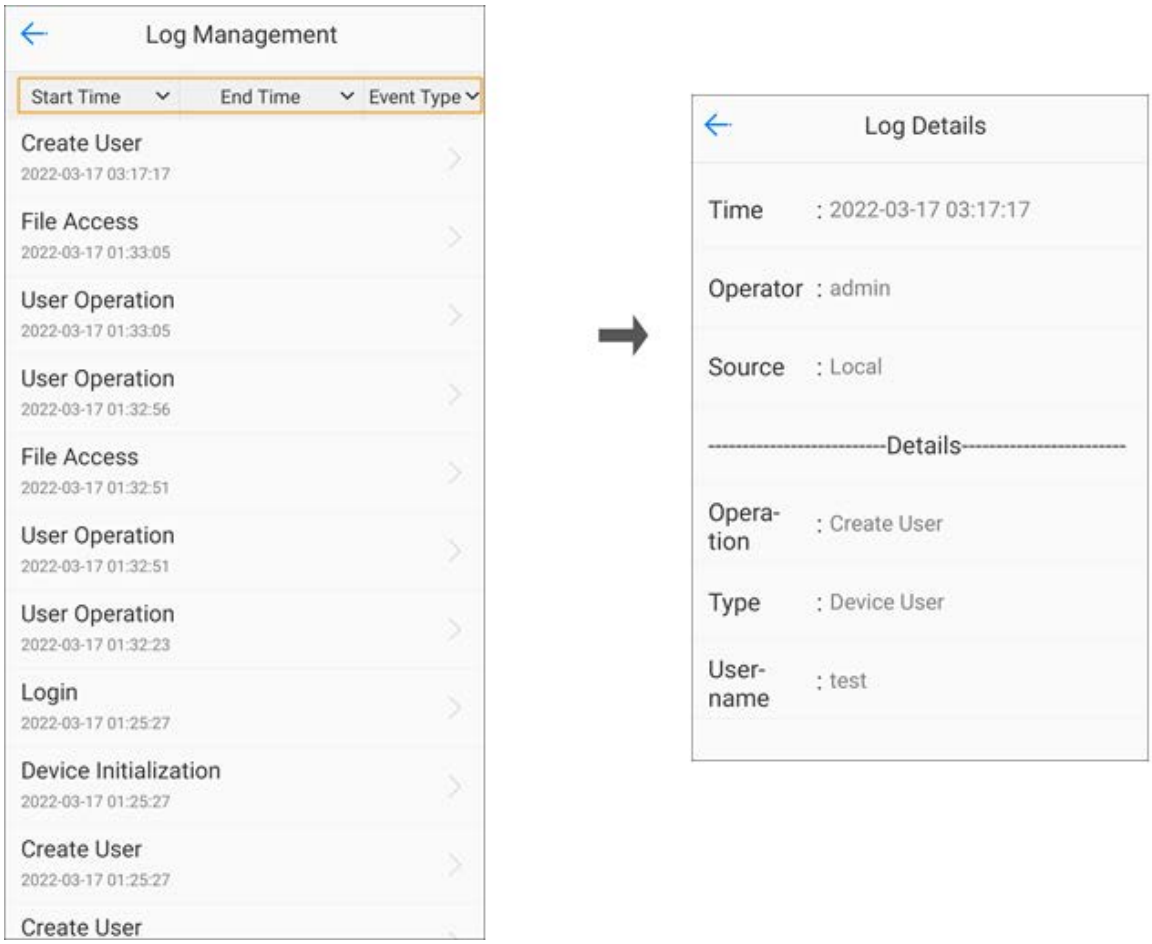
3.12 Log Management

Tap  on the home screen, and the **Log Management** screen is displayed. Select the start time, end time and event type as needed to search for logs.

Tap the log you want to view, and the **Log Details** screen is displayed.

The event type includes **All**, **System Log**, **User Log**, and **Alarm Log**.

Figure 3-79 Log management



3.13 System Maintenance

Tap  on the home screen, and the **Maintenance** interface is displayed.

- Local Application Installation

Step 1 Format a micro SD card to the FAT32 format with DiskGenius on the PC.

DiskGenius can format micro SD cards with storage space up to 256 GB.

Step 2 Copy the application with the suffi.apk to the root directory of the micro SD card.

Step 3 Insert the micro SD card to the Terminal.

Step 4 Log in to the Terminal, tap  on the home screen, select **Local Application Installation**, select an application, and then install the application according to the prompts.

- External Camera Update

Step 1 Format a micro SD card to the FAT32 format with DiskGenius on the PC.

Step 2 Copy the update package of the external camera to the root directory of the micro SD card.

Step 3 Insert the micro SD card to the Terminal.

Step 4 Log in to the Terminal, tap  on the home screen, select **External Camera Update**, select the update file to update the external camera.

- Local System Upgrade

Step 1 Format a micro SD card with DiskGenius on the PC.

Step 2 Copy the update package of the Terminal to the Micro SD card.

Step 3 Insert the micro SD card to the Terminal.

Step 4 Log in to the Terminal, tap  on the home screen, select **Local System Upgrade**, and then select the update file to update the system.

- Ping Test

  Select **Ping Test**, enter an IP address, and then tap **Start**. The test result is displayed.

- Network Capture

  To share the capture packet, you need to turn on Bluetooth.

Step 1 On the home screen, tap , and then select **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.

- Log Package

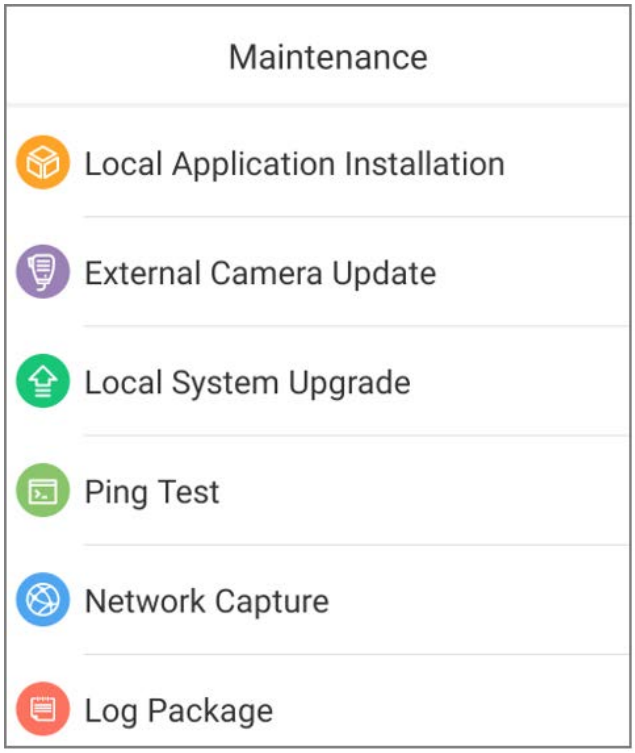
  To share the capture packet, you need to turn on Bluetooth.

Step 1 On the home screen, tap , and then select **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.

Figure 3-80 System maintenance



4 Platform Operations

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

4.1 Connecting to the Platform

Register the Device to the platform. For details, see "3.7.1.8.1 Register".

4.2 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 "3.7.1.8.1 Register".

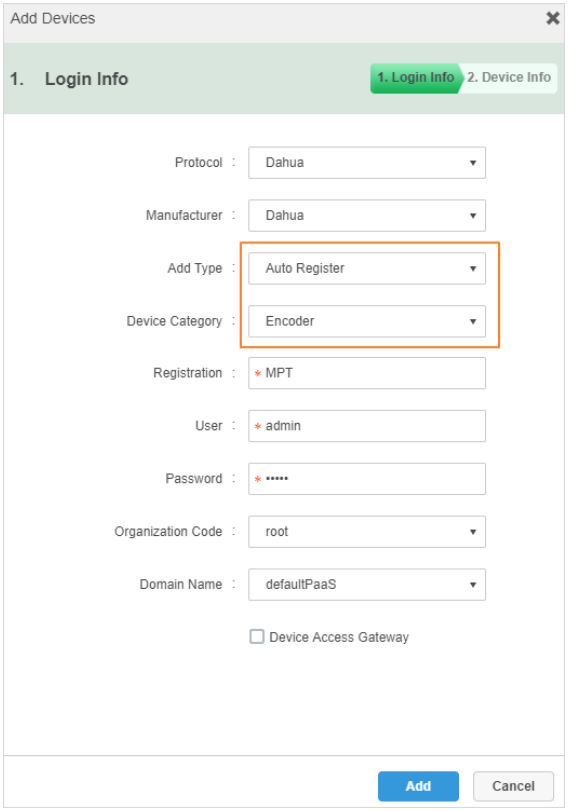
Procedure

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 3 On the **Devices** page, click **Add**.

Figure 4-1 Add MPT (1)



Step 4 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 5 Click **Add**.

Figure 4-2 Add MPT (2)

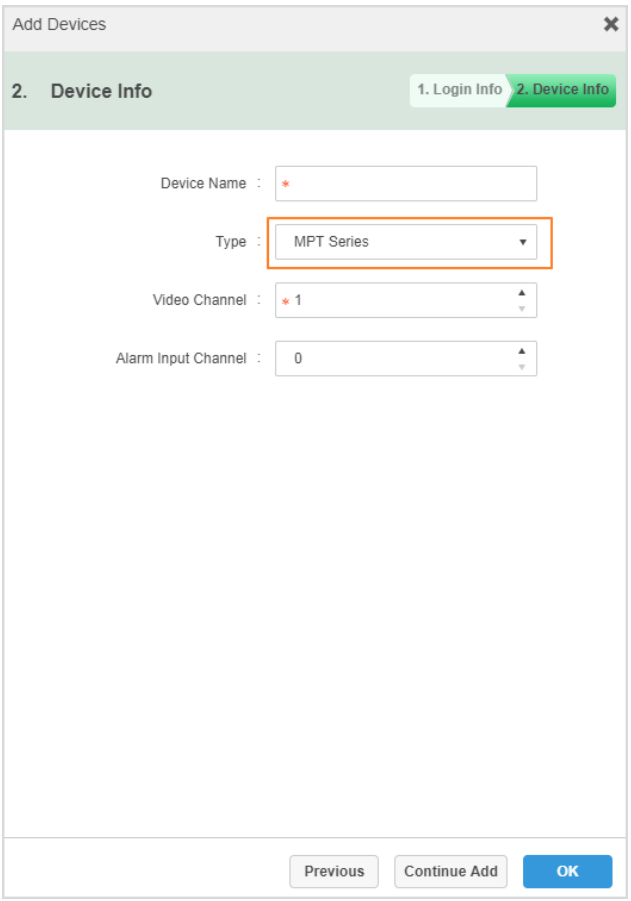


Table 4-1 Device information parameters

Parameter	Description
Device Name	Customize a device name.
Type	Select **MPT Series.**
Video Channel	3 is recommended.
Alarm Input Channel	1 is recommended

Step 6 Click **OK**.

Step 7 Click of the added device, select **Basic Info**, and then get device SN information. Otherwise, you might fail to add the device.

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.