



Mobile Video Recorder

Quick Start Guide

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FCC Compliance


This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.


FCC Conditions


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

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

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Symbol Conventions

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

| Symbol | Description |
|--|---|
|  Note | Provides additional information to emphasize or supplement important points of the main text. |
|  Caution | Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results. |
|  Danger | Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury. |

Safety Instructions

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 9 to 36 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.

Note

It is recommended to use either 12 V or 24 V adapter when testing the device.

- Do not connect several devices to one power adapter as adapter overload may cause overheating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.

Preventive and Cautionary Tips

- Before connecting and operating your device, please be advised of the following tips:
- Ensure unit is installed in a well-ventilated, dust-free environment.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.

- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the unit.
- Use the device in conjunction with an UPS if possible.
- Power down the unit before connecting and disconnecting accessories and peripherals.
- A factory recommended HDD should be used for this device.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

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Chapter 1 Installation and Connection

 **Note**

Device pictures in this section are only for reference. In condition that device pictures conflict with the real devices, the later prevails.

Before You Start

Take out the device from the package. Check the device and accessories. Contact us if something is missing or damaged.

1.1 Environment

Consider the following environment conditions when installing the device.

Anti-vibration

Install the device on the part with weak vibration (such as the part behind the driver’s seat, the part behind the passenger’s seat, etc.) and far away from the engine.

Heat dissipation

Install the device in the position far away from heat and with good ventilation for good heat dissipation.

Enough space

Leave enough space for ventilation, heat dissipation, plugging or unplugging dummy HDD, etc.

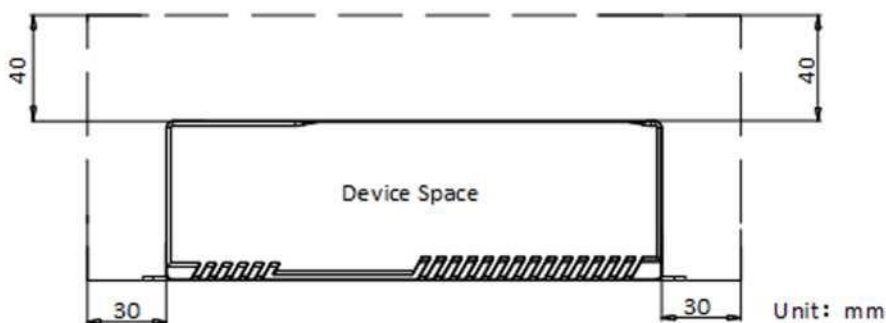


Figure 1-1 Recommended Installation Space

Placing angle

Place the device horizontally. The other placing angles may damage the device.

Fixing position

All the screws in the fixing positions must be fastened tightly to avoid device falling during the vibration in driving.

1.2 Install SIM Card

Pluggable 3G/4G wireless communication module is designed for the device. Install SIM card to realize wireless communication.

Before You Start

Prepare SIM card and wrench.

- SIM card
- Wrench

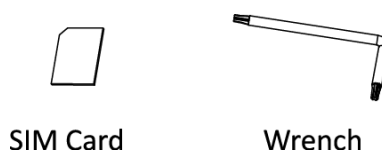


Figure 1-2 Tools



Note

This section is only applicable to the device supporting 3G/4G and Wi-Fi.

Step 1 Wear antistatic gloves.

Step 2 Use wrench to unfasten and remove the two screws fixing the 3G/4G and Wi-Fi module.

Step 3 Pull out the 3G/4G and Wi-Fi module.

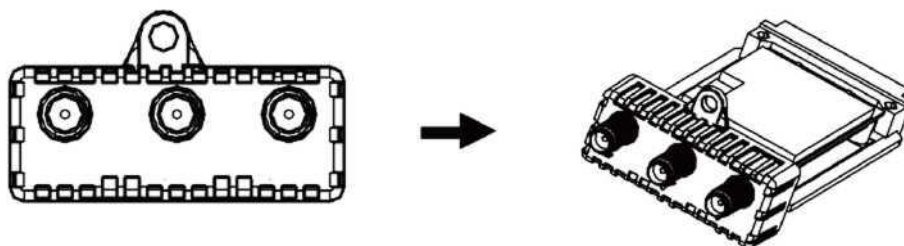


Figure 1-3 Pull out Module

Step 4 Press the yellow button on SIM card slot and then pull the SIM card tray out.

Step 5 Place the SIM card on SIM card tray with the metal side facing upwards.

Step 6 Insert the SIM card tray back to SIM card slot.

Step 7 Install the 3G/4G and Wi-Fi module back to the device and fasten the screws.

1.3 Install Antenna




Note

This section is only applicable to the device supporting 3G/4G and Wi-Fi.

Outside Installation

Step 1 Connect antennas to corresponding antenna interfaces.

Table 1-1 Antenna Interface

| Interface | Corresponding Antenna |
|--|-----------------------|
| M-ANT/  | Main 3G/4G antenna |
| AUX | Aux Wi-Fi antenna |
| WIFI/  | Main Wi-Fi antenna |
| GNSS/  | Positioning antenna |

Step 2 Place antenna vertically with its signal receiving end facing upward.

Note

If the cable is too long, you can roll them up to prevent signal receiving from being affected.

Step 3 Install 3G/4G antenna in car windshield, seat backrest, or other non-metallic objects. Keep away from metal objects for at least 50 cm.

Step 4 Vertically install positioning antenna on the automobile roof with no shelter.

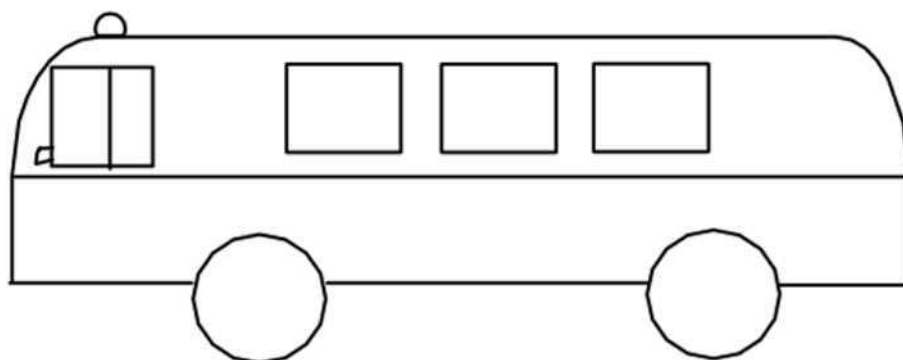


Figure 1-4 Install Positioning Antenna on Automobile Roof

Inside Installation

Follow the instructions below in case that you need to install positioning antenna inside your automobile.

Step 1 Install antenna on platform under the front windshield.

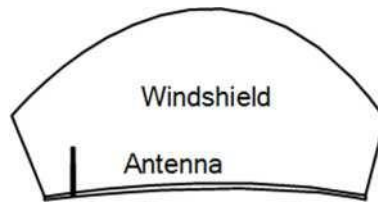


Figure 1-5 Install Positioning Antenna Inside Automobile

Step 2 Fix antenna with neutral silica gel.

Step 3 When adjusting the antenna position, ensure that at least 4 satellites have a signal strength above 35 dB. You can go to **Location Status** interface to view positioning signal status.

1.4 Install SD Card

SD card is used for temporary video storage in the condition that HDDs are not installed or failed.

Before You Start

Prepare the key to dummy HDD (delivered with device) and SD card.

- Key to dummy HDD (delivered with device)
- SD card



Figure 1-6 Tools

Step 1 Wear antistatic gloves.

Step 2 Insert the key and turn counterclockwise to unlock dummy HDD.

Step 3 Unfasten the two screws of dummy HDD and pull it out of device.

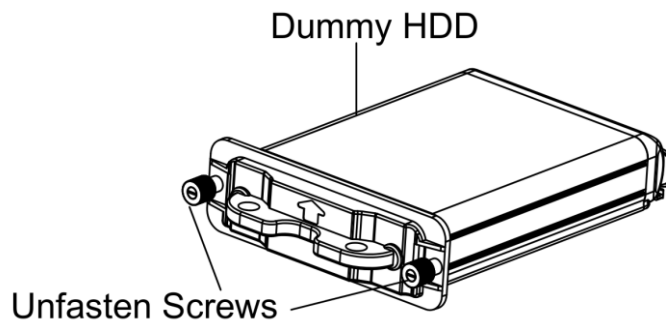


Figure 1-7 Pull Dummy HDD out

Step 4 Open the cover of SD card slot.

Step 5 Insert SD card into SD card slot with gold contacts facing down till you hear a click.

Step 6 Plug the dummy HDD back to the device, close the cover of SD card slot, and then tighten the screws clockwise.

Step 7 Turn the key clockwise to lock dummy HDD.

Chapter 2 Device Wiring

2.1 Power Cord Wiring

Warning

In order to ensure the safety of your automobile and device, a fuse is required for wiring of automobile power and device power.

Do not connect the power cord to the device before all the cables are connected.

2.1.1 Shutdown Delay

The device starts up when your automobile ignites and shuts down after automobile is off. Automobile ignition startup and shutdown are realized by positive pole ignition switch (providing high level signal when the switch closes). Ignition switch is connected to the positive pole of automobile batteries.



The wire connection of the device varies with the automobile ignition models.

Make sure the connection of ignition switch is correct.

Step 1 Connect **DC IN +** of the device to the positive pole of automobile batteries, jumping over the switch of normal automobile power.

Step 2 Connect **DC IN -** of the device to the negative pole of automobile batteries.

Step 3 Connect **ACC** of the device to the automobile ignition switch.

Step 4 Place fuse into the fuse holder.

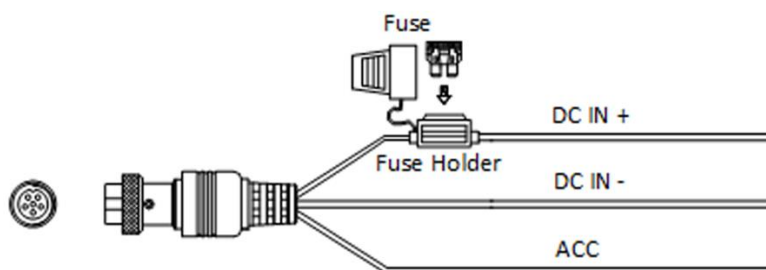


Figure 2-1 Power Cord

Result

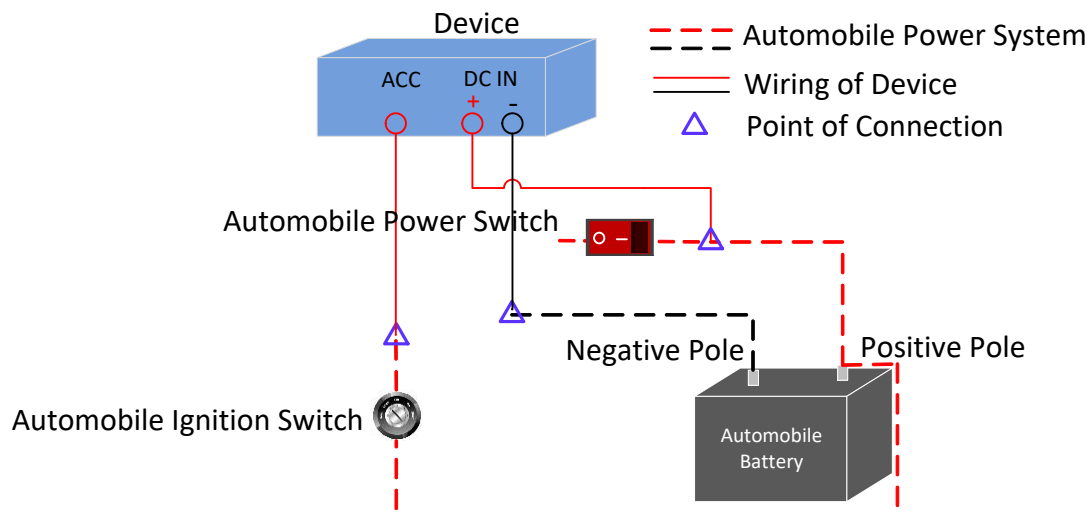


Figure 2-2 Shutdown Delay

Note

- Contact the automobile manufacturer for the connection information of starting switch.
- The automobile ignition switch, also called car key, controls the startup and shutdown of your automobile. Most of automobiles adopt positive pole ignition switch currently.
- The normal automobile power refers to the main power of the automobile power supply system. After the automobile is off, the normal automobile power still provides direct-current source for the other devices inside and generally a main switch is used to turn on/off it.

What to do next

Configure parameters of the function. Refer to User Manual for details.

2.1.2 Scheduled Shutdown

Step 1 Connect DC IN + and ACC of the device to the positive pole of automobile batteries.

Step 2 Connect DC IN - of the device to the negative pole of automobile batteries.

Step 3 Place fuse into the fuse holder.

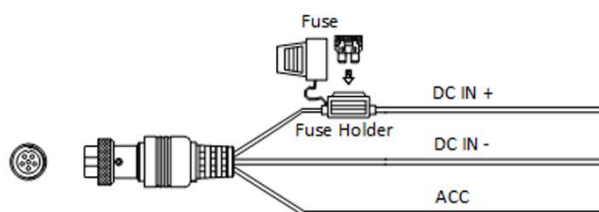


Figure 2-3 Power Cord

Result

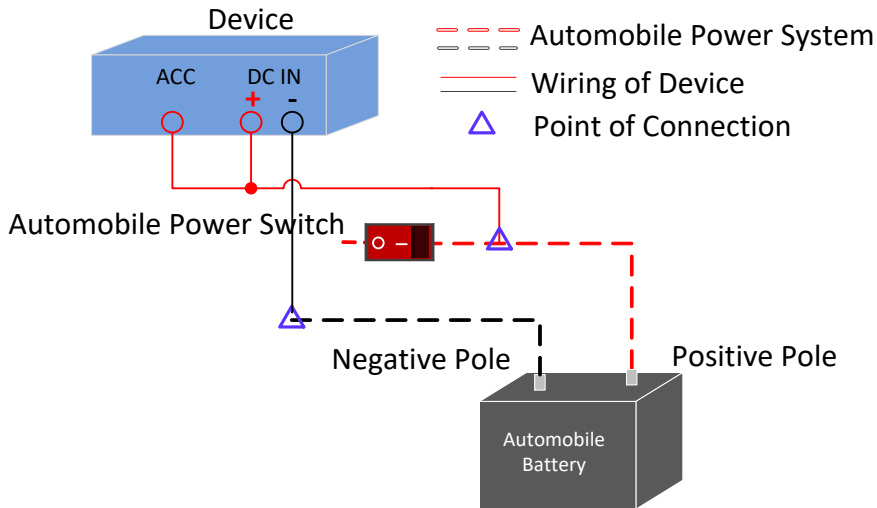


Figure 2-4 Shutdown Delay

What to do next

Configure parameters of the function. Refer to User Manual for details.

2.2 Alarm Input Connection

The device adopts the high/low-level electrical signals triggering (high level: 6 to 32 VDC; low level: 0 to 5 VDC) to realize alarm input. And in order to avoid error report caused by voltage fluctuation, no alarm will be triggered by voltage ranging of 5 to 6 VDC.

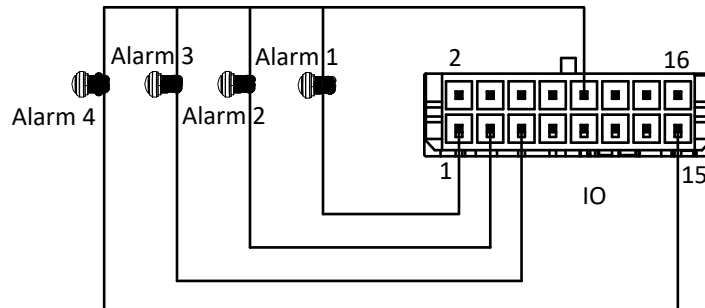


Figure 2-5 Alarm Input Connection

2.3 Alarm Output Connection

Follow the figure bellow to wire alarm output.

n and n# are a pair of alarm output. You can connect them with a relay alarm device. When the voltage of connected alarm device exceeds the valid alarm output range, you need to connect a relay to protect alarm output.

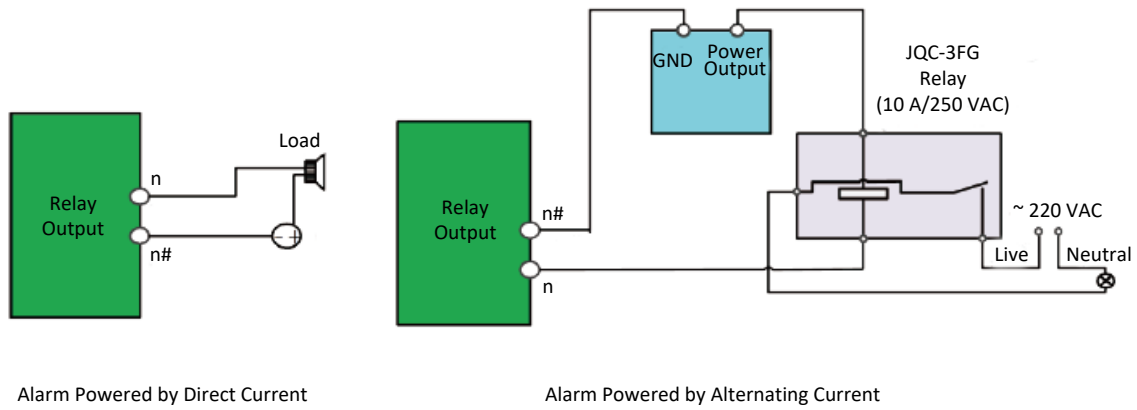


Figure 2-6 Alarm Output Connection

2.4 Sensor-In Wiring

Step 1 Connect the delivered extension cable to I/O interface.

Step 2 Connect the automobile braking, reversing, left-turn, and right-turn signals to sensor-in interface.

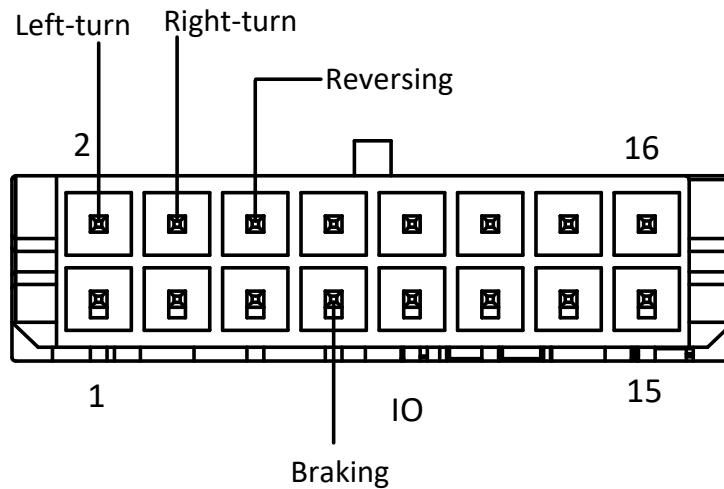


Figure 2-7 Sensor-In Wiring

2.5 Power on Device

Connect the device to power supply after all the installations above are finished. You can view the indicators to get knowledge of the device status

 **Note**

The indicator types vary with different models. Here the most comprehensive indicators are introduced.

- Power indicator (PWR)
 - Solid green: Device is powered on.
 - Solid red: Device is standby.
- Ready indicator (RDY)
 - Solid green: Device starts up normally.
- Recording indicator (REC)
 - Solid green: Device is recording normally.
- GNSS indicator (GNSS)
 - Unlit: Positioning module is abnormal.
 - Solid green: Device is positioning.
 - Flashing green: Positioning succeeded.
- ANT indicator (ANT)
 - Unlit: Dialing module is abnormal.
 - Solid green: Device is dialing.
 - Flashing green: Dialing up succeeded.
- Alarm indicator (ALM)
 - Red: Alarm occurs.

Chapter 3 Activation

For the first-time access, you need to activate the device by setting an admin password. No operation is allowed before activation.

3.1 Default Information

Device default IP address and user name are as follows.

- Default IP address: 192.168.1.64
- Default user name: admin.

3.2 Activate Device

Activation via local menu operation, web browser, SADP, and client software are all supported. In this section, we introduce activation via web browser.

Before You Start

Ensure your device and computer are in the same network segment.

Step 1 Visit device IP address via web browser.

Step 2 Enter **Password**.

Step 3 Confirm **Password**.

Step 4 Click **OK**.

Chapter 4 Basic Operation

4.1 Login

You can get access to the device via web browser. For camera that supports plug-in free live view, if you are using Google Chrome 57 and its above version or Mozilla Firefox 52 and its above version, plug-in installation is not required. But Picture and Playback functions are hidden. To use mentioned function via web browser, change to their lower version, or change to Internet Explorer 8.0 and above version.

Login without plug-in only supports configuration, not preview and playback.

Step 1 Visit the IP address of the device via web browser.

Step 2 Enter the user name and password.

Step 3 Click **Login**.



Follow the installation prompts to install the plug-in before other operations.

4.2 Dial

Set the dialing parameters if you want to connect the device to the network via dialing.

Before You Start

Install SIM card and 3G/4G antenna.

Step 1 Go to **Configuration > Network > Basic Settings > 3G/4G**.

Step 2 **Check Enable**.

Step 3 Click **Dial Parameters**.

Step 4 Select **Network Mode**.

Step 5 Set dial parameters.

- To connect the device to private network, enter Access Number, User Name, Password, and APN.
- To connect the device to general network, you do not need to set dial parameters.

The screenshot shows a web-based configuration interface for dial parameters. At the top, there is a dropdown menu for 'Modules Choise' set to 'Module1'. Below it is a checked 'Enable' checkbox. A navigation bar contains two tabs: 'Wireless Dial-up Status' and 'Dial Parameters', with the latter being active and highlighted in red. The main configuration area includes several fields: 'Dial Mode' (Automatic), 'Network Mode' (Automatic), 'Access Number' (111111), 'User Name' (empty), 'Password' (masked with dots), 'APN' (empty), 'MTU' (1500), and 'Verification Protocol' (Automatic). Below these fields is a blue link labeled 'The default load'. At the bottom of the form, there are two more sets of 'User Name', 'Password', 'APN', and 'Verification Protocol' fields, all currently empty. A prominent red 'Save' button is located at the very bottom of the configuration area.

Figure 4-1 Set Dial Parameters

Step 6 Optional: For the special private network needing two sets of dialing parameters, click **The default load** to set the other set of dialing parameters.

Step 7 Click **Save**.

Step 8 Optional: Click **Wireless Dial-up Status** to view dialing status.

4.3 Connect to EHome Platform

EHome is a platform access protocol. The device can be remotely accessed via EHome platform.

Before You Start

- Create the device ID on the mobile surveillance platform.
- Ensure the device can communicate with the platform normally.



- Refer to platform user manual for details of platform configuration.
 - If your device and mobile monitoring platform are not in the same network segment, the network priority of 3G/4G network is higher than Wi-Fi, and Wi-Fi priority is higher than wired network.
-

Step 1 Go to **Configuration > Network > Advanced Settings > Platform Access**.

Step 2 Check **Enable**.

Step 3 Select **Platform Access Mode** as **Ehome Platform**.

Step 4 Select **Server Address Type**.

- When the server is in extranet, and the IP address is dynamic, you can select **Domain Name**.
- When the server IP address is static, you can select **IP Address**.

Step 5 Enter **Server Address**, **Server Port**, **Access Key** and **Device ID**.

Server Address

Enter the static IP address of EHome platform.

Server Port

The default value is 7660.

Device ID

The ID of the device registered on the EHome platform. If you leave it empty, you can log in to the platform with the serial number.

Step 6 Click **Save**.

4.4 Manage IP Camera

After connecting IP camera(s) or mobile positioning system(s) to the device, if no image is displayed on the live view interface, follow the instructions below to manage IP camera(s) or mobile positioning system(s). If image can be displayed normally on the live view interface, ignore this section.



The section is only available for the device supporting IP cameras or mobile positioning systems.

4.4.1 Activate IP Camera

Before adding an IP camera, activate it by setting a password.

Step 1 Go to **Configuration > System > Camera Management > IP Camera**.

Step 2 Select an inactive IP camera.

 **Note**

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

Step 3 Click **Activation**.

Step 4 Enter **New Password**.

Step 5 Confirm password.

Step 6 Click **OK**.

4.4.2 Add IP Camera

You can add the activated IP cameras.

Before You Start

Make sure the device and camera to add are in the same network segment.

Steps

Step 1 Go to **Configuration > System > Camera Management > IP Camera**.

Step 2 Optional: If the device and the camera are in different network segment, modify IP camera address.

- 1) Check the IP camera and click **Modify**.
- 2) Enter **IP Address** and **Password**.
- 3) Click **OK**.

Step 3 Add IP camera.

– Add camera with the same password.

- 1) For the camera with the same password of the device: Check the camera.
- 2) Click Quickly Add to add it automatically.

– Add camera with different passwords.

- 1) For the camera with different passwords of the device: Click **Add**.
- 2) Enter IP camera information.
- 3) Click **OK**.

Figure 4-2 Add IP Camera

 **Note**

- Select the protocol supported by the camera.
- If no protocol is supported, click Custom Protocol to configure the main stream and sub-stream. Then select the configured custom protocol to add the IP camera.

Result

The status of the successfully added camera is online.

4.4.3 Edit IP Camera

You can visit, delete, and modify the added IP cameras.

Before You Start

If the device contains only one network card, you can visit IP camera via the device directly. If the device contains dual network cards, you need to enable virtual host function before visiting IP camera. Go to **Configuration > Network > Advanced Settings > Other** and check **Enable Virtual Host**.

Step 1 Go to **Configuration > System > Camera Management > IP Camera**.

Step 2 You can visit, edit, or delete the added IP cameras.

- Click the address of the added IP camera to get access to the camera according to the prompt.
- When the IP addresses conflict, you can edit the IP camera information.
 - 1) Check the IP camera to be edited.
 - 2) Click Modify, and edit the camera information.
 - 3) Click OK.
- Check IP camera(s) and click Delete to delete the added IP camera(s).

Chapter 5 FAQ

5.1 Why does my device fail to start up after connecting the power?

- Check power supply specification.
- If PWR indicator is unlit, check power supply and fuse installation.
- If PWR indicator is red, lock the dummy HDD.
- The manual controller is disabled. Unlock the manual controller with key.

5.2 Why does my device fail to dial?

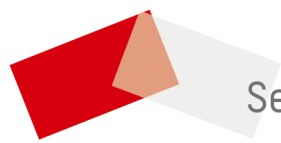
- Check 3G/4G antenna connection.
- Place 3G/4G antenna away from metal objects.
- Check your SIM card balance.
- Ensure 3G/4G dial parameters are correct.

5.3 Why does my device fail to position?

- Vertically install positioning antenna on the automobile roof with no shelter.
- Ensure your vehicle is in a place with good GPS signal. Check GPS signal in corresponding interface.

5.4 Why does my device make a beeping sound after startup?

- Install at least one HDD and format it after installation.
- Go to HDD management interface to check HDD status. Replace it with a good one when it is error.
- Go to exception settings interface to cancel the beeping sound and use the device without HDD.



See Far, Go Further