



Dahua HD Fisheye Panorama Network Camera Quick Start Guide

Version 1.0.1

ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.

Welcome

Thank you for purchasing our network cameras.

This user's manual is designed to be a reference tool for using your product.

Please read the following safeguards and warnings carefully before you use this series product.

Please keep this user's manual well for future reference.

Important Safeguards and Warnings

Electrical safety

- All installation and operation should conform to your local electrical safety codes.
- The power source shall conform to the requirement of the Safety Extra Low Voltage (SELV) standard, and supply power with voltage rated by DC 12 V or AC 24 V according to the Limited Power Source requirement of IEC60950-1. Please note that the power supply requirement is subject to the device label.
- Make sure the power supply is correct before operating the device.
- A readily accessible disconnect device shall be incorporated in the building installation wiring
- Prevent the power cable from being trampled or pressed, especially the plug, power socket and the junction extruded from the device.
- We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

Environment

- Do not aim the device at strong light to focus, such as lamp light and sun light, otherwise it might cause over brightness or light marks, which are not the device malfunction, and affect the longevity of Charge Coupled Device (CCD) or Complementary Metal-Oxide Semiconductor (CMOS).
- Do not place the device in a damp or dusty environment, extremely hot or cold temperatures, or the locations with strong electromagnetic radiation or unstable lighting.
- Keep the camera away from water or other liquid to avoid damages to the internal components.
- Keep the indoor device away from rain or damp to avoid fire or lightning.
- Keep sound ventilation to avoid heat accumulation.
- Transport, use and store the device within the range of allowed humidity and temperature.
- Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.
- Pack the device with standard factory packaging or the equivalent material when transporting the device.

Operation and Daily Maintenance

- Do not directly touch the heat dissipation component of the device to avoid scald.

- Do not dismantle the device because there is no component that can be fixed by users themselves. Otherwise, it might cause water leakage or bad image due to unprofessional dismantling.
- Please contact after-sale service to replace desiccant when it becomes green.
- It is recommended to use the device together with lightning arrester to improve lightning protection effect.
- It is recommended to get the grounding holes to be grounded to enhance the reliability of the device.
- Do not directly touch the optic component CCD or CMOS. You can use the air blower to blow away the dust or dirt on the lens surface. Please use a dry cloth wetted by alcohol to wipe away the dust gently if necessary.
- Use the dry soft cloth to clean the device. If the dust is difficult to be removed, please wipe it away with a clean cloth wetted slightly by the mild detergent, and then use the dry cloth to clean the device. Do not use volatile solvents like alcohol, benzene, thinner, or strong detergent with abrasiveness, otherwise it will damage the surface coating or reduce the working performance of the device.
- When installing or using the device, do not directly touch or wipe the surface of the dome cover because it is an optical device. If stained with dirt, use oil-free soft brush or air blower to gently wipe it away. If stained with grease or fingerprint, use soft cloth to gently wipe the water drop or oil and wait till it is dry, and then use oil-free cotton cloth or lens cleaning paper soaked with alcohol or detergent to wipe from the lens center outward till it is clean.
- We are not liable for any problems caused by unauthorized modification or attempted repair.

Warnings

- Please modify the default password after login to avoid being stolen.
- Use the standard components provided by manufacturer and make sure the device is installed and fixed by professional engineers.
- The surface of the image sensor should not be exposed to laser beam radiation in an environment where a laser beam device is used.
- Do not provide two or more power supply sources for the device, otherwise it might damage the device.

Disclaimer

- This manual is for reference only. Please refer to the actual product for more details.
- Minor differences might be found in user interface, and there might be deviation between the actual value of some data and the value provided in the manual due to the reasons such as the real environment is not stable. Please refer to the final explanation of the company if there is any doubt or dispute.
- All the designs and software are subject to change without prior written notice. The manual will be regularly updated according to the product upgrade without prior announcement.
- Please contact the supplier or customer service if there is any problem occurred when using the device.
- Please contact the customer service for the latest procedure and supplementary documentation.
- Please visit our website or contact your local service engineer for more information.



- The company is not liable for any loss caused by the operation that does not comply with the manual.
- If there is any uncertainty or controversy, please refer to our final explanation.

Regulatory Information

FCC Information

1.1 FCC conditions:

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

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

1.2 FCC compliance:

This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference. This equipment generate, 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 communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note

- Please refer to the disk for more details, check and download the corresponding user's manual and tool.
- Before installation, please open the package and check all the components are included.
- Contact your local retailer as soon as possible if something is broken in your package.

| Component list | Quantity |
|------------------------------|----------|
| Network Camera Unit | 1 |
| Quick Start Guide | 1 |
| Installation Accessories Bag | 1 |
| CD | 1 |

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1 Device Framework

1.1 Structure and dimension

Note

- The following structure figure is for reference only. It is only used to know the functions of device external ports.
- There might be some minor differences between different devices, so please refer to the actual products you purchased.

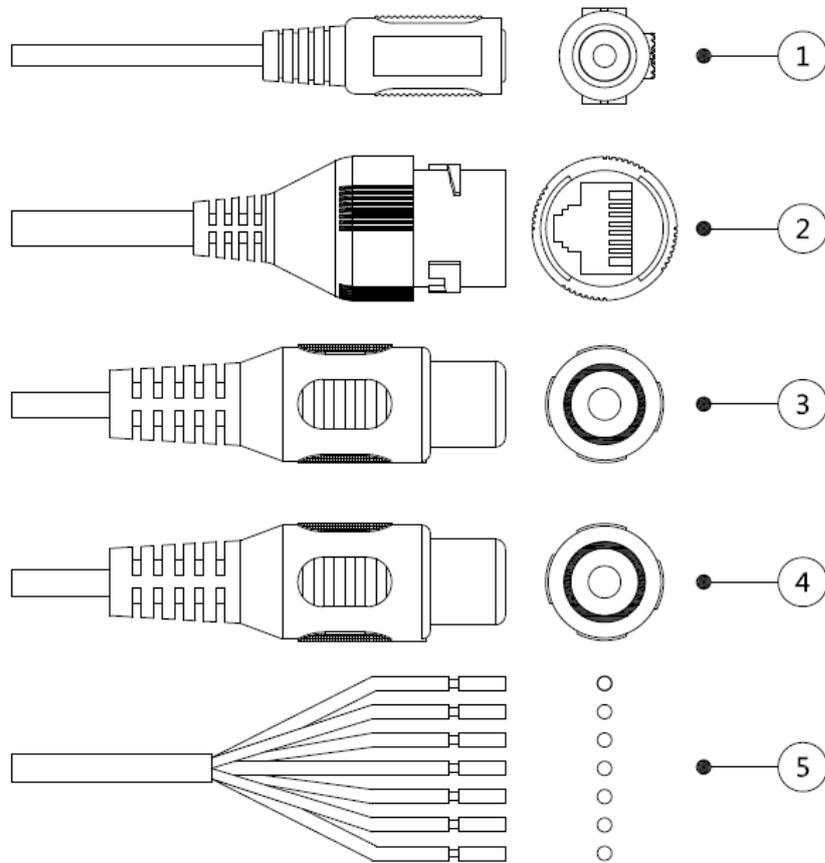


Figure 1-1

Please refer to Table 1-1 and Table 1-2 for more details about external cable functions and I/O port functions.

| No. | Port | Port name | Connector | Function description |
|-----|-------|------------------|-----------|--|
| 1 | Power | Power input port | - | Input power, connect to DC12V power. Note Power supply requirement shall conform to the device label. |

| No. | Port | Port name | Connector | Function description |
|-----|-----------|-------------------|---------------|--|
| 2 | LAN | Network port | Ethernet port | Connect to standard Ethernet cable, provide PoE power supply function. Note Some devices do not support PoE power supply. |
| 3 | AUDIO IN | Audio input port | RCA | Input audio signal, receive analog audio signal from pickup and so on. |
| 4 | AUDIO OUT | Audio output port | RCA | Output audio signal to speaker and some other devices. |
| 5 | I/O | I/O port | - | Include alarm input and output. Refer to Table 1-2 for more details. |

Table 1-1

| Port name | Cable sequence | Cable port name | Function description |
|-----------|----------------|-----------------|---|
| I/O port | 1 | ALARM_OUT1 | Alarm output port 1, outputs alarm signal to alarm device. |
| | 2 | ALM_OUT_GND1 | Note ALARM_OUT1 can only be used with ALM_OUT_GND1 cooperatively when connecting to alarm device. |
| | 3 | ALARM_IN1 | Alarm input port 1, receives on-off signal of external alarm source. |
| | 4 | ALARM_IN2 | Alarm input port 2, receives on-off signal from external alarm source. |
| | 5 | ALM_IN_GND | Alarm input GND terminal. |
| | 6 | ALARM_OUT2 | Alarm output port 2, outputs alarm signal to alarm device. |
| | 7 | ALM_OUT_GND2 | Note ALARM_OUT2 can only be used with ALM_OUT_GND2 cooperatively when connecting alarm device. |

Table 1-2

1.2 Dimension

Note

- There are two specifications for side dimension of the device: one is 33.7mm and 47.7mm, and the other is 36.6mm and 50.7mm. Refer to the actual product model for more details.
- You can refer to the following figures for dimension information. The Unit is mm. See Figure 1-2 and Figure 1-3.

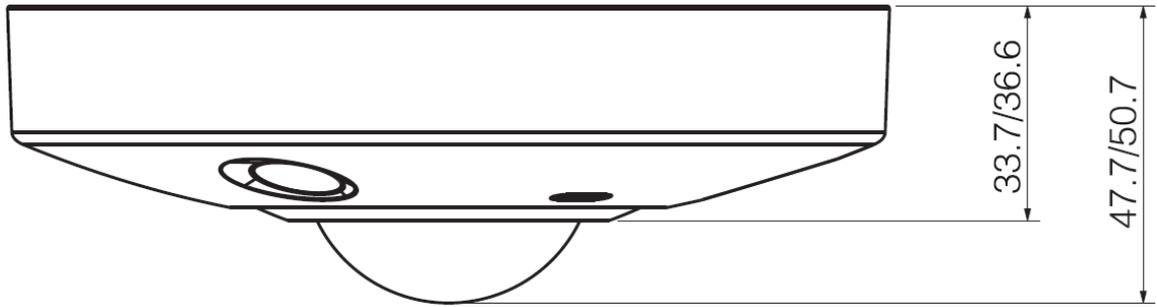


Figure 1-2

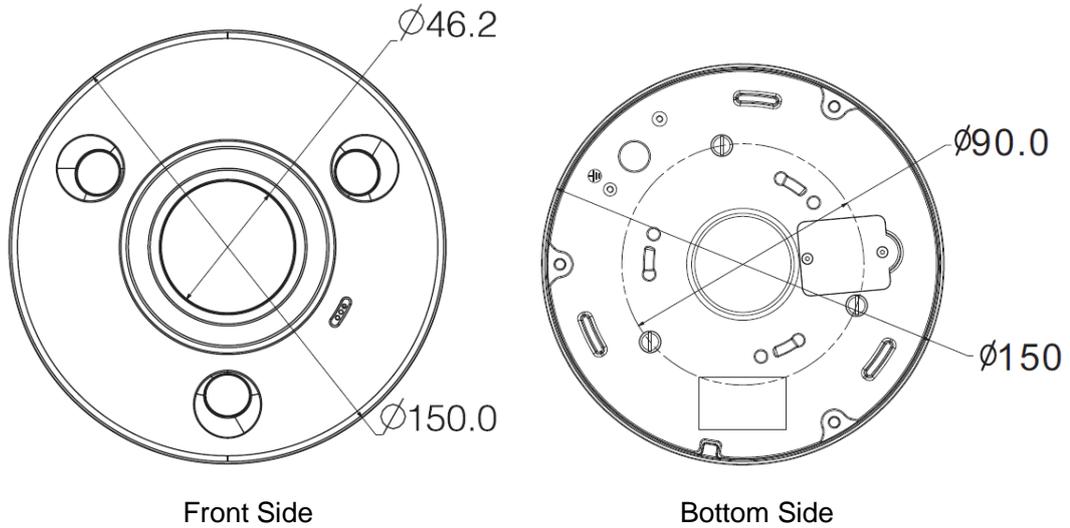


Figure 1-3

1.3 Bidirectional Talk

Note

This function is only supported by HD modular pinhole network camera.

To set up the bidirectional talk function, do the following:

Step 1 Connect the MIC or speaker to the audio input port of the device and PC respectively. Then connect the earphone to the audio output port of the device and PC respectively.

Step 2 Login the Web and then click the Talk button to enable the bidirectional talk function, the button becomes orange. Click Talk button again to disable the bidirectional talk function.

Step 3 Input audio into the speaker or MIC from the device and PC respectively, and receive the audio via earphone from the device and PC respectively.

1.4 Alarm Setup

Note

This function is only supported by some models.

The following figure shows the Alarm setup screen.

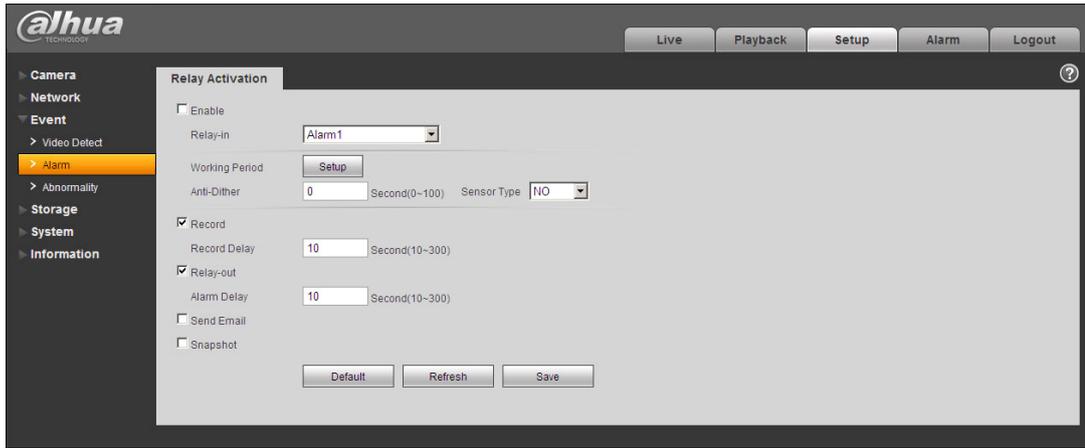


Figure 1-4

To set up the Alarm input and output, do the following:

- Step 1** Connect alarm input device to the alarm input port of I/O cable.
- Step 2** Connect alarm output device to the ALARM_OUT and ALM_OUT_GND of I/O cable, the alarm output is the relay switch output, and the alarm output port can only be connected to NO alarm device.
- Step 3** Open the WEB, and then make corresponding settings for alarm input and output on the interface of Alarm. Alarm input on WEB corresponds to the alarm input of I/O cable. It is to set corresponding NO and NC input according to the high and low level generated by alarm input device when alarm happens.
- Step 4** Set alarm output on the WEB, alarm output corresponds to the alarm output port of the device, which is the alarm output port of I/O port cable.

Refer to Figure 1-5 for alarm input and output.

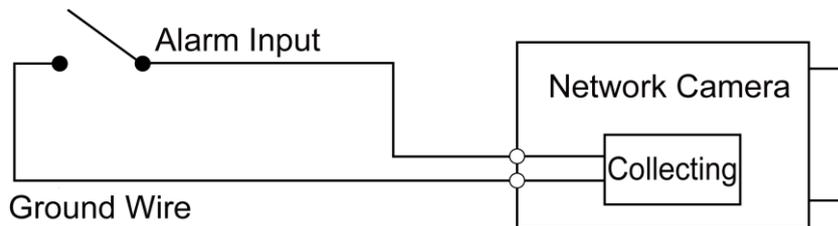


Figure 1-5

Alarm input: When the input signal is idle or grounded, the device can collect different statuses of the alarm input port. When the input signal is connected to +3.3V or it is idle, the device collects the logic “1”. When the input signal is grounded, the device collects the logic “0”.

Refer to Figure 1-6 for alarm output.

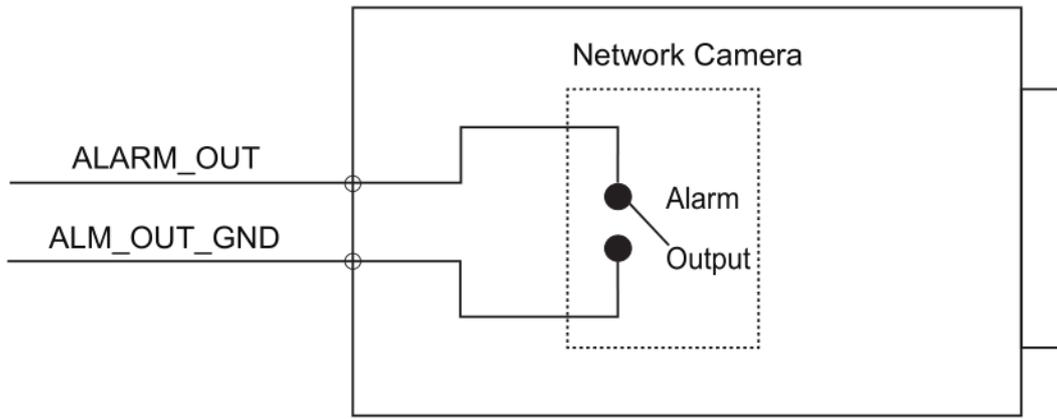


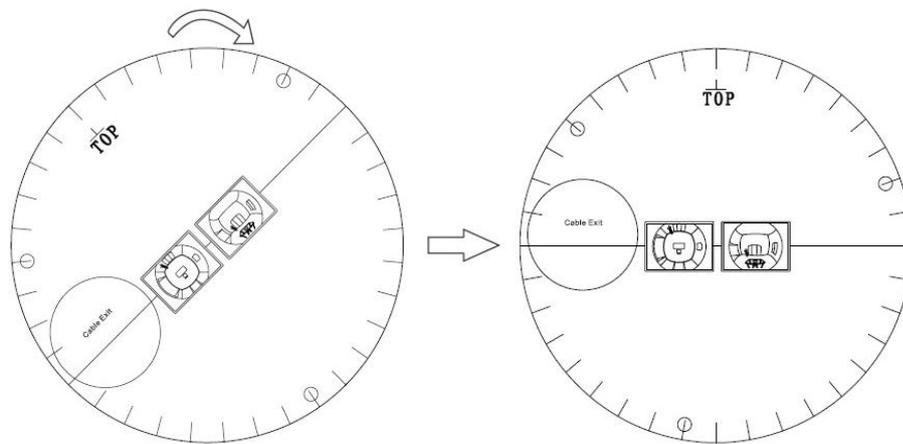
Figure 1-6

Alarm output: The port ALARM_OUT and ALM_OUT_GND form a switch to provide alarm output. Normally the switch is on; it will be off when there is alarm output.

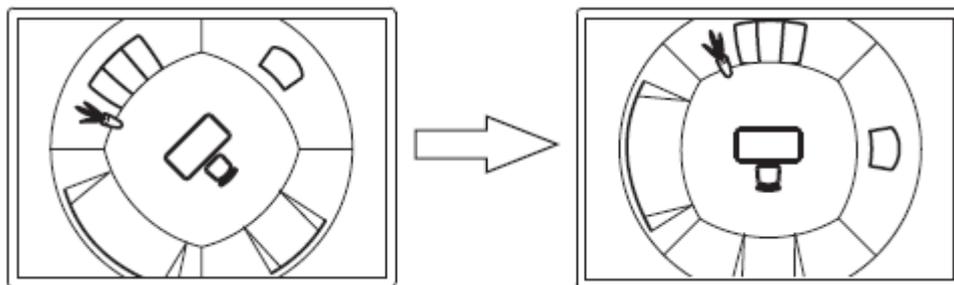
2 Installation

Network camera can be directly placed on the desktop for monitoring, it can also use bracket to install the device on the ceiling, which means there are three types of installation modes which are ground mount, ceiling mount and wall mount. The following chapter is an example of ceiling mount.

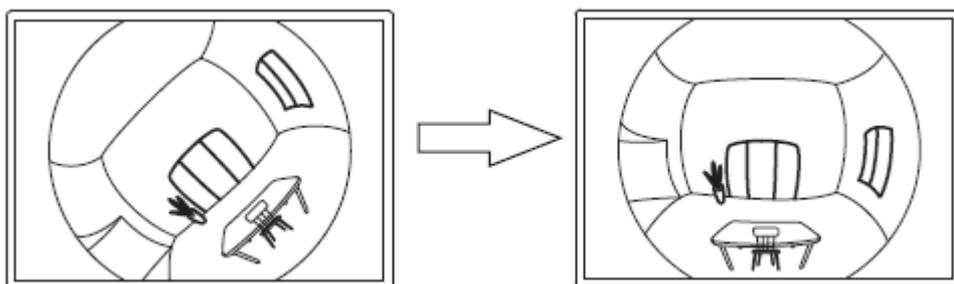
Before you complete the installation and debugging, do not remove the electrostatic attraction film on the transparent enclosure. Otherwise it may result in injury. After removing the electrostatic attraction film, don't touch dome enclosure in case it may leave stain.



Installation Position Map



Ceiling Mount Effect



Wall Mount Effect

Figure 2-1

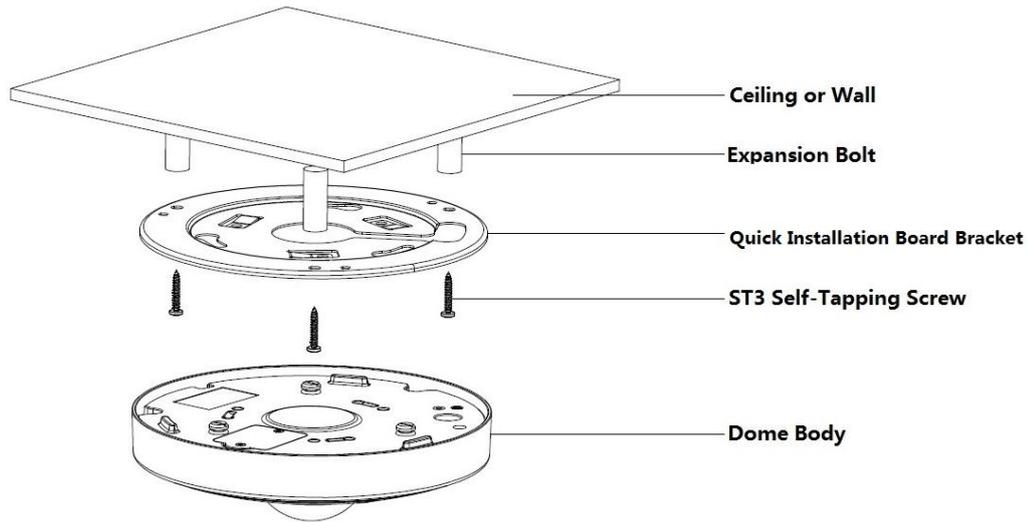


Figure 2-2

Note

- Cut off the device power when installing Micro SD card.
- Micro SD card installation mode might vary according to different devices, please refer to the actual product for more details.
- The bracket installation wall needs to sustain at least 3X weight of the bracket and camera.

Step 1 Install Micro SD card (Optional).**Note**

- It needs to implement the step when the device is equipped with Micro SD card slot and it needs to use Micro SD card.
 - The Micro SD card cover is related to the device waterproof performance, please be sure to put the silica gel ring of the SD card cover back to the waterproof groove after the Micro SD card is installation completely.
 - The Micro SD card shall be replaced within 4 hours; otherwise it will cause desiccant failure and abnormalities such as water mist and etc.
- 1) Find Micro SD card slot in the location shown in Figure 2-3, use cross screwdriver to take down two screws on the cover of Micro SD card.
 - 2) Adjust the direction of Micro SD card, insert it into the slot and install the Micro SD card properly.

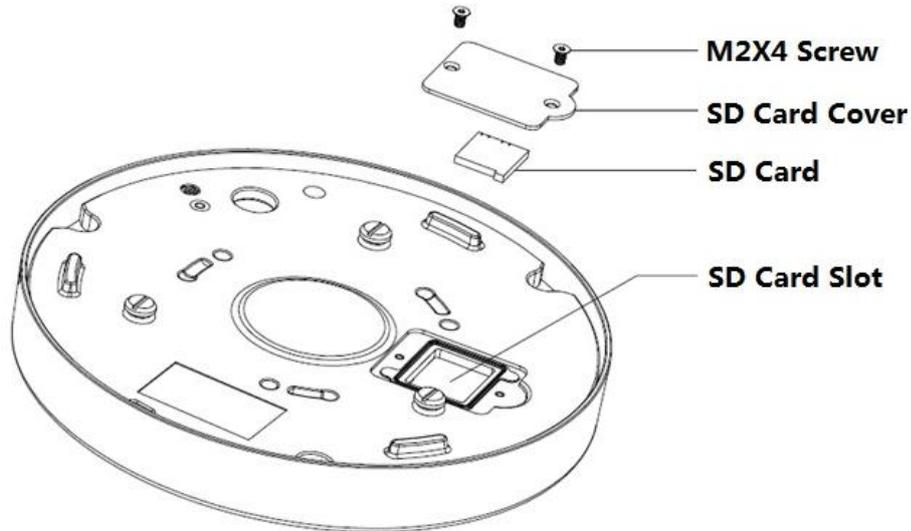


Figure 2-3

3) Tighten back the two screws on the cover of Micro SD card.

- Step 2** Take out the installation position map (shown in Figure 3-1) from the accessories bag, adjust the installation angle of the installation position map according to the needed monitoring angle, and then paste it on the installation surface such as ceiling or wall and so on.
- Step 3** Please dig three bottom holes on the installation surface according to the location shown in the installation position map. It needs to dig a cable exit hole whose diameter is no less than 28mm on the installation surface according to the location on the installation position map if the device adopts cable wiring from the top, which makes the cable go through.
- Step 4** Insert 3 expansion bolts from the accessories bag into the bottom holes and lock them firmly, adjust the position of device installation pedestal and pull the cable through the cable exit hole on the installation surface.
- Step 5** Align 3 fixed holes of screw on the bracket with 3 plastic expansion bolt fixed holes on the installation surface, then tighten 3 ST3 self-tapping screws into 3 plastic expansion bolts and fasten them firmly, fix the installation chassis on the installation surface.
- Step 6** When installing dome body, find the little gap on the dome body and make it align with the “TOP” direction on the installation chassis, rotate the dome body in clockwise direction and secure it firmly. So far, installation is completed.

If it is to connect the host grounding hole () to ground lead, it may improve device reliability. The grounding hole locates next to exit hole on the rear side of the chassis and the GND screw is M2.5.

- Step 7** Install waterproof connector of network port (optional), which is shown in Figure 2-4.

Note

It needs to implement the step when the device is equipped with waterproof connector and it is used outdoors.

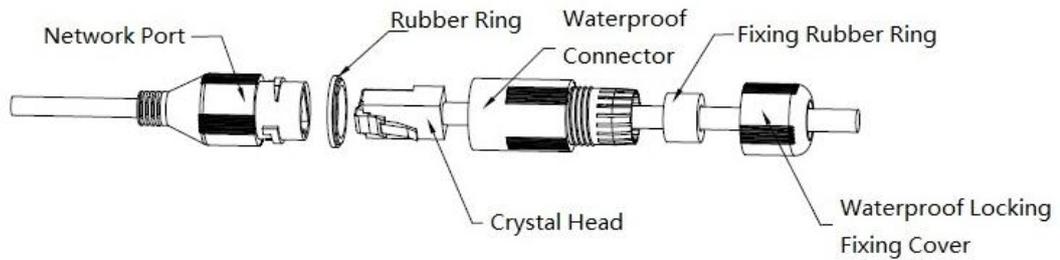


Figure 2-4

- 1) Keep the convex groove outward and install the rubber ring into the network port, keep the smaller hole of the rubber ring outward and install the fixing rubber ring into the main body of the waterproof connector.
- 2) Pull the network cable without crystal head through main body of waterproof connector, fixing rubber ring and waterproof locking cover, make the crystal head of network cable, and then insert it into the network cable.
- 3) Put the main body of waterproof connector on the network port and rotate it clockwise to lock the network port and waterproof connector firmly.
- 4) Put the waterproof locking cover on the main body of waterproof connector and rotate it clockwise to lock the waterproof connector and waterproof locking cover firmly

3 Network Configuration

The IP address of all the cameras is the same when leaving factory (default IP 192.168.1.108). To make the camera access to the network smoothly, please plan the available IP segment reasonably according to the actual network environment.

3.1 Modify IP Address

The cameras which are accessed via wired network can acquire and modify the IP address through “Quick Configuration Tool”. This section introduces the approach of modifying IP address via “Quick Configuration Tool”. You can also modify the IP address in the network parameters of the WEB interface. Please refer to the document WEB Operation Manual in the disk for more details.

Note

You can search out all the cameras within the LAN via “Quick Configuration Tool”. The camera can be configured only when the IP addresses of the camera and the computer are in the same network segment.

To modify IP address, do the following:

Step 1 Double-click “ConfigTool.exe” to open the “Quick Configuration Tool”.

Step 2 Click  to enter the interface where you can modify IP address, and then click Search setting.

The system pops up the **Setting** dialog box, see Figure 3-1.

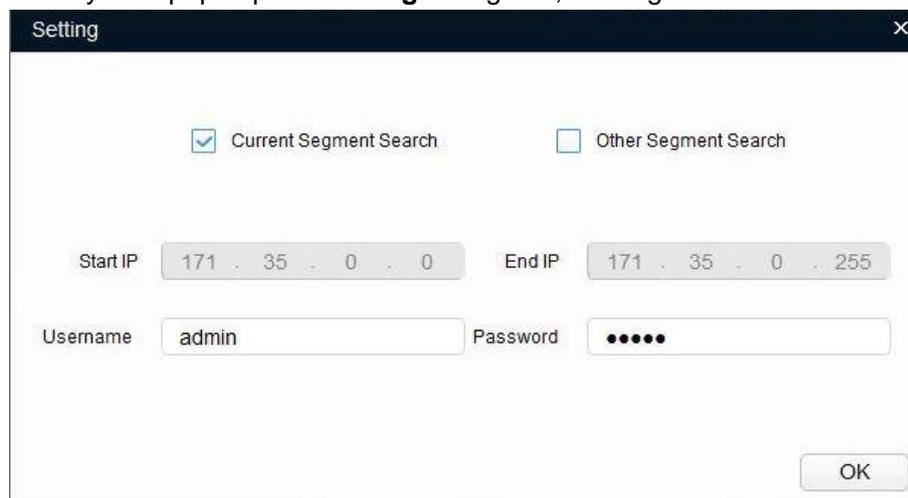


Figure 3-1

Step 3 Set the device network segment, login user name and password, and then click OK. The system will display the searched devices after searching completes.

Note

The default username and password is admin and admin respectively

Step 4 Select the devices which IP addresses need to be modified, and then

click  Batch Modify IP .

The system will pop up the **Modify IP Address** dialog box, see Figure 3-2.

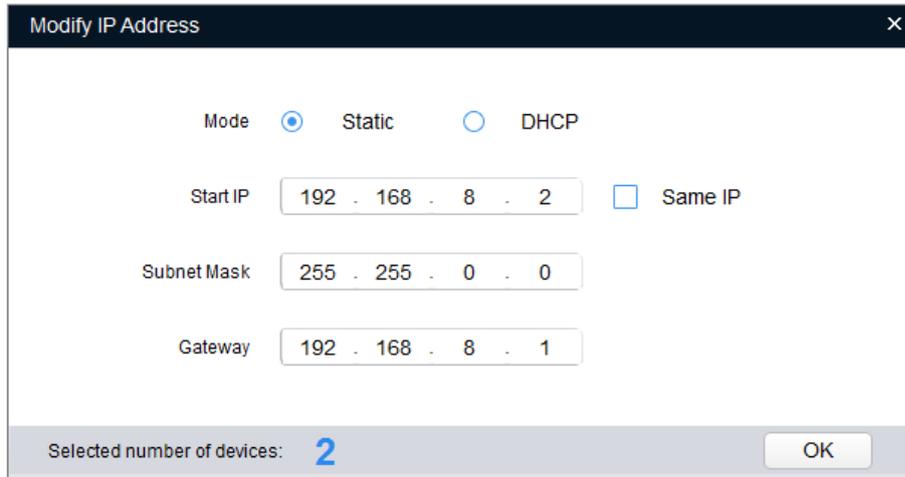


Figure 3-2

Step 5 Set the mode as Static, and input the planned Start IP, Subnet Mask and Gateway.

Note

Set the mode as DHCP when there is DHCP server in the network, the device will automatically acquire IP address from the DHCP server.

Step 6 Click OK to finish modification.

3.2 Login WEB Interface

Note

Different devices might have different WEB interfaces, the figures in this document are just for reference, please refer to the document WEB Operation Manual in the disk and the actual interface for more details.

To login WEB interface, do the following:

Step 1 Open IE browser and input the modified camera IP address in the address bar, and then press Enter key.

The login interface is displayed. See Figure 3-3.



Figure 3-3

Step 2 Input username and password, click Login. The system will pop out WEB main interface.

Note

The default username and password is admin and admin respectively, please modify the administrator password as soon as possible after you successfully logged in.

Step 3 Click Here to Download Plug-in, and then install controls according to the system prompt. See Figure 3-4 for the WEB main interface.

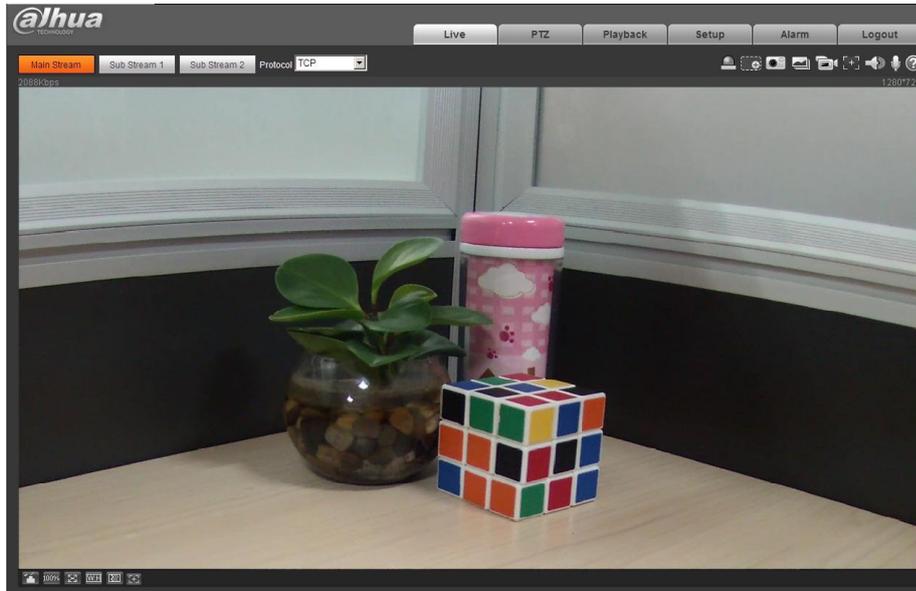


Figure 3-4