



Dahua HD Panoramic Multi-sensor Network Dome 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 your system.

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

1. Electrical safety

- All installation and operation should conform to your local electrical safety codes.
- Please check if the power supply is correct before operating the device.
- The power shall conform to the requirement in the SELV (Safety Extra Low Voltage) and the Limited power source is rated DC 12V or AC 24V in the IEC60950-1. (Power supply requirement is subject to the device label).
- Please install easy-to-use device for power off before installing wiring, which is for emergent power off when necessary.
- Please prevent the line cord from being trampled or pressed, especially the plug, power socket and the junction from the device.
- Do not connect two power supplying sources to the device at the same time. Otherwise, it might result in device damage.
- We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.
- We are not liable for any problems caused by unauthorized modification or attempted repair.

2. Environment

- Do not aim the device at strong light (such as lighting, sunlight, and so on) to focus, otherwise it might cause overexposure (not the device malfunction), and affect the longevity of CCD or CMOS.
- Transport, use and store the device within the range of allowed humidity and temperature.
- 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.
- Do not allow water and other liquid falling into the camera in case of damages to the internal components.
- Do not allow rain or damp to the indoor device in case fire or lightning might occur.
- Keep sound ventilation in case of heat accumulation.
- Pack the device with standard factory packaging or material with same quality when transporting the device.
- Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3. Operation and Daily Maintenance

- Do not touch the heat dissipation component of the device directly to avoid scald.
- Do not dismantle the device as there is no component that can be fixed by users themselves in the device. Otherwise, it might cause water leakage or bad image for the device due to unprofessional

dismantling. Please contact after-sale service to replace desiccant if it becomes green.

- It is recommended to use the device with lightning arrester to improve thunder-struck protection effect.
- The grounding holes of the device are recommended to be grounded to further enhance the reliability of the device.
- Do not touch the CCD (CMOS) optic component directly. You can use the blower to clean the dust or dirt on the lens surface. Please use a dry cloth wetted by alcohol to wipe away the dust gently if it is necessary to clean.
- Always use the dry soft cloth to clean the device. If there is too much dust, please wipe away the dust 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 and etc., 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 as 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, firstly 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.

Warning

- Please modify the default password after login to avoid being stolen.
- Use the standard accessories provided by manufacturer and make sure the device is installed and fixed by professional engineers.
- Prevent the device surface from the radiation of laser beam when using laser beam device.
- Do not provide two or more power supply modes for the device, otherwise it might cause damage to the device.

Statement

- Please refer to the actual product for more details; the manual is just for reference.
- The manual will be regularly updated according to the product upgrade; the updated content will be added in the manual 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.
- 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 and so on. Please refer to the final explanation of the company if there is any doubt or dispute.
- The company is not liable for any loss caused by the operation that does not comply with the manual.

FCC Information

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.

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 corresponding user's manual and tool.
- Before installation, please open the package and check all the components are included.
- Contact your local retailer ASAP if something is broken in your package.

| Accessory Name | Amount |
|------------------------------|--------|
| Network Camera Unit | 1 |
| Quick Start Guide | 1 |
| Installation Accessories Bag | 1 |
| CD | 1 |

Table of Contents

| | | |
|-----|-----------------------------|----|
| 1 | Device Framework | 1 |
| 1.1 | Device External Cable | 1 |
| 1.2 | Dimension | 2 |
| 1.3 | Alarm Setup | 3 |
| 2 | Device Installation | 5 |
| 3 | Network Configuration | 10 |
| 3.1 | Modify IP Address | 10 |
| 3.2 | Login WEB Interface | 11 |

1 Device Framework

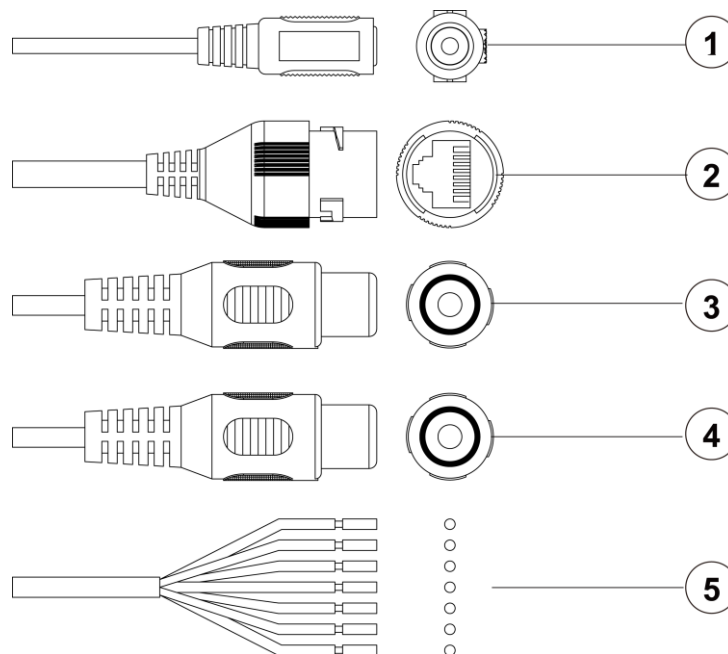
1.1 Device External Cable

Note

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

The following figure shows port information.

Figure 1-1 External cables



The following tables show more information about port function.

Table 1-1 Cable port function

| No. | Cable port | Port name | Connector | Function description |
|-----|------------|-------------------|---------------|--|
| 1 | POWER | Power input port | - | Power port, input DC12V or AC24V. Note <ul style="list-style-type: none"> It needs to connect the default DC5.5 round port to 2-pin converter cable when you are using AC 24V power. Actual use in accordance with device label instruction. |
| 2 | LAN | Network port | Ethernet port | It connects to standard Ethernet cable and provides PoE power supply. |
| 3 | AUDIO IN | Audio input port | RCA | It inputs audio signal and receives analog audio signal from the devices such as pickup and so on. |
| 4 | AUDIO OUT | Audio output port | RCA | It outputs audio signal to the devices such as speaker and so on. |
| 5 | I/O | I/O port | - | Alarm signal input/output, please refer to Table 1-2 for more details. |

Table 1-2 I/O Port function

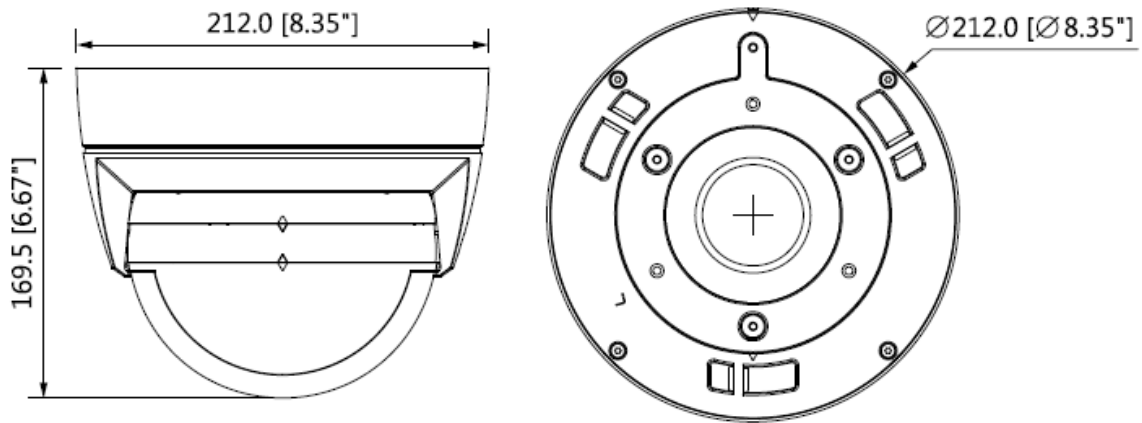
| Port name | No. | Connector name | Function description |
|-----------|-----|----------------|---|
| I/O port | 1 | ALARM_OUT1 | Alarm output port 1, output alarm signal to alarm device. |
| | 2 | ALM_OUT_GND1 | Note ALARM_OUT1 can only be used cooperatively with ALM_OUT_GND1 when connecting to alarm device. |
| | 3 | ALARM_IN1 | Alarm input port 1, it is to receive on-off signal of external alarm source. |
| | 4 | ALARM_IN2 | Alarm input port 2, it is to receive on-off signal of external alarm source. |
| | 5 | ALM_IN_GND | Alarm input GND. |
| | 6 | ALARM_OUT2 | Alarm output port 2, output alarm signal to alarm device. |
| | 7 | ALM_OUT_GND2 | Note ALARM_OUT 2 can only be used cooperatively with ALM_OUT_GND 2 when connecting to alarm device. |

1.2 Dimension

Note

The following dimension figure is only for reference and used to know the device dimension.

Figure 1-2 Device dimension (unit: mm)



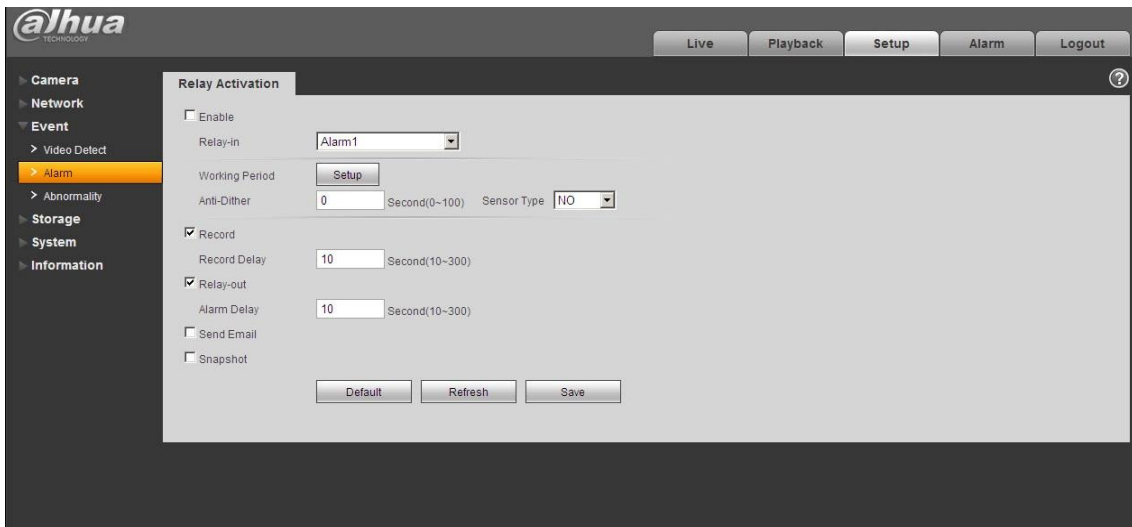
1.3 Alarm Setup

Note

This function is only supported by some models.

The following figure shows the Alarm setup screen.

Figure 1-3 Alarm setup



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

1. Connect alarm input device to the alarm input port of I/O port cable.
2. Connect alarm output device to the ALARM_OUT and ALARM_OUT_GND ports of I/O port cable.

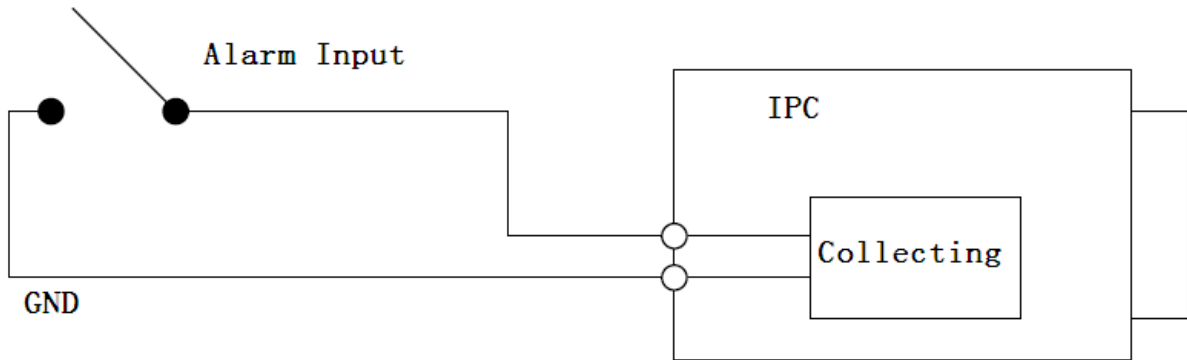
Alarm output is the relay switch output, and alarm output port can only be connected to NO (normally open) alarm device.

3. Open the WEB, set alarm input and output correspondingly in alarm setup. Alarm input on the WEB is corresponding to that of the device I/O port cable. When there is alarm, alarm input device will generate signal of high and low level. Set corresponding NO and NC inputs.

4. Set alarm output on the WEB, the alarm output is corresponding to the alarm output of the device, that is, the alarm output port of the I/O port cable.

The following figure shows Alarm input.

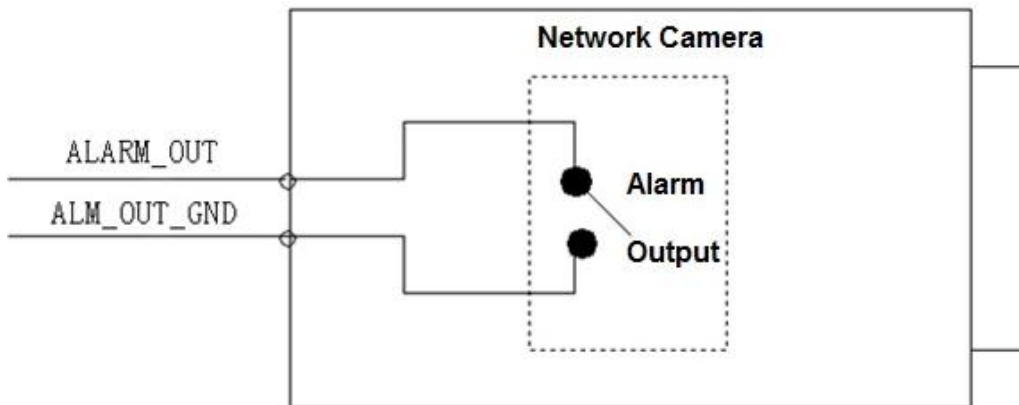
Figure 1-4 Alarm input



Alarm input: When the input signal is idle or grounded, the device can collect the different statuses of the alarm input port. 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”.

The following figure show Alarm output.

Figure 1-5 Alarm output



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

2 Device Installation

Note

- Wall-mounted dome can be installed on the hard wall structure in both indoor and outdoor environments.
- The bracket installation wall shall be thick enough to install expansion bolts and make sure it can sustain at least 8X weight of the total weight of bracket and camera.
- Please cut off the device power before installing Micro SD card.

To install the device, do the following:

Step 1

(Optional) Install the Micro SD card. Implement the step when you need to use Micro SD card.

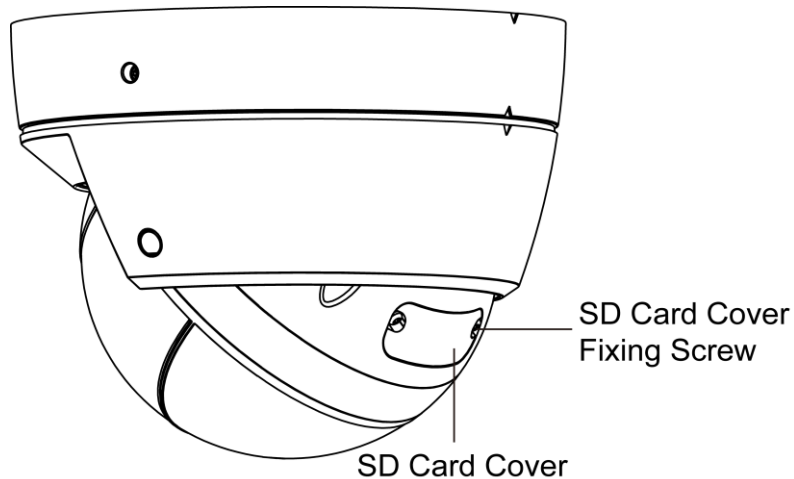
To install the Micro SD card, do the following:

1. Adjust the vertical rotation angle of the dome body, the card cover shows. See Figure 2-1.

Note

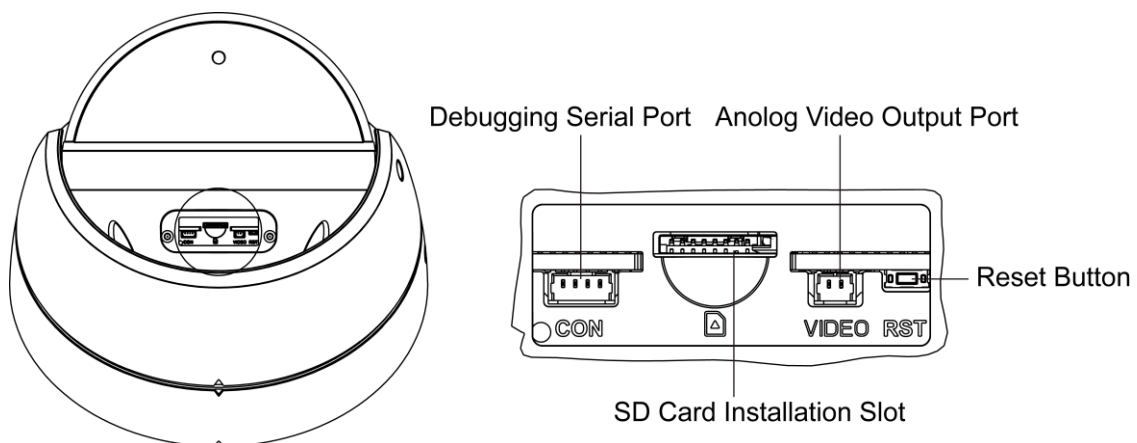
Refer to the step 3 for how to adjust the vertical rotation angle of the dome body.

Figure 2-1 SD card cover



2. Use the wrench from the accessory bag to loosen two SD card cover fixing screws, and then you can see the SD card installation slot, analog video output port, reset button and debugging serial port. See Figure 2-2.

Figure 2-2 Ports and button



3. Insert the SD card into the card slot shown in Figure 2-2. Press it gently until it locks into place.

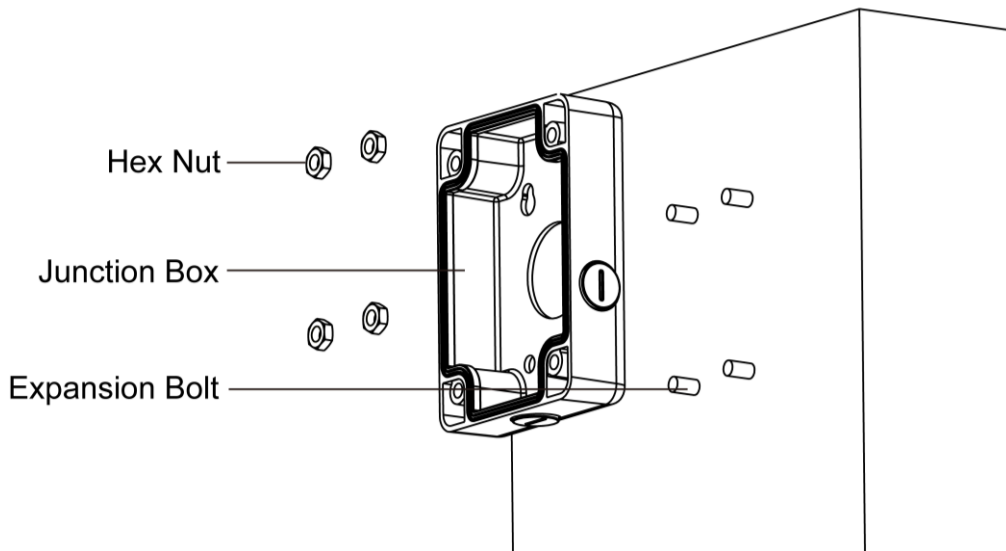
Note

- You can check video via connecting the analog video output port to the TV monitor.
- Long press the reset button for 4 to 5 seconds to realize the reset the device.

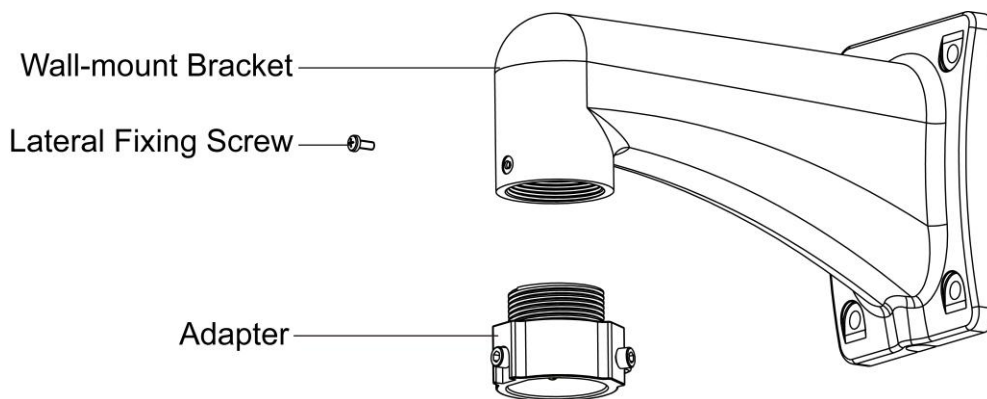
Step 2

Fix the device on the installation surface. To install the device, firstly take out the necessary accessories, and then do the following:

1. Dig holes on the installation surface (wall), and insert the expansion bolts into the holes you just dug and lock them firmly. It is recommended to use M8 metal expansion bolts and nuts to install the junction box.
2. Use 4 hex nuts to fix the junction box on the installation surface, and put the cables into the junction box. See Figure 2-3.

Figure 2-3 Installation of junction box

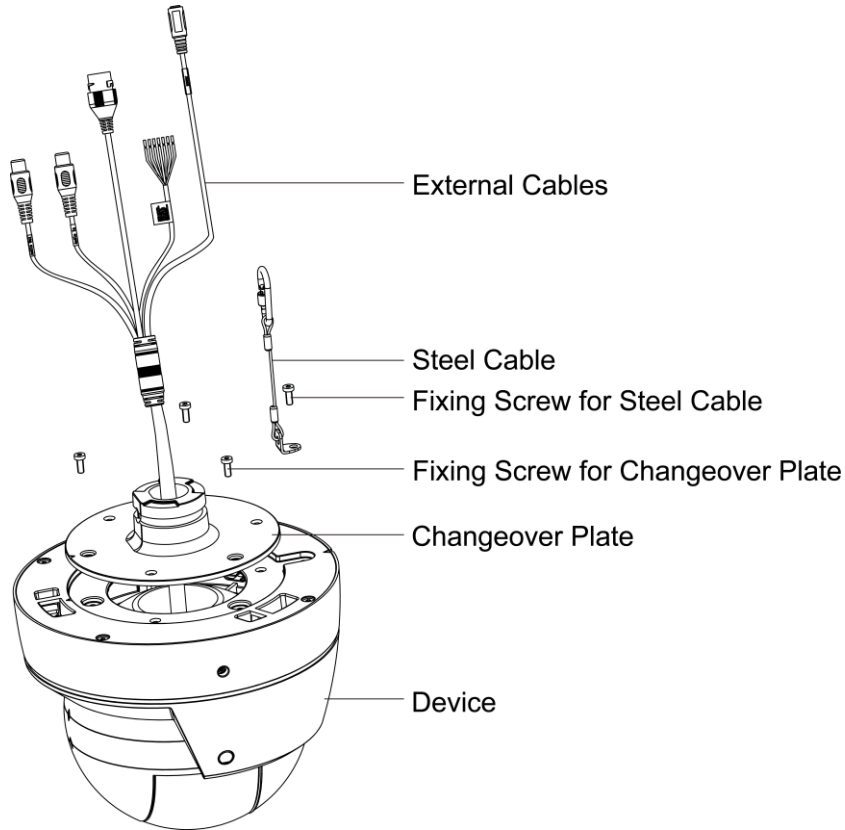
3. Install the adapter on the wall-mount bracket and lock the lateral fixing screw firmly. See Figure 2-4.

Figure 2-4 Adapter installation

4. Use 3 fixing screws to fix the changeover plate on the device, and use one fixing screw to fix the steel cable on the device. Lock all the screws firmly. See Figure 2-5. The screws used

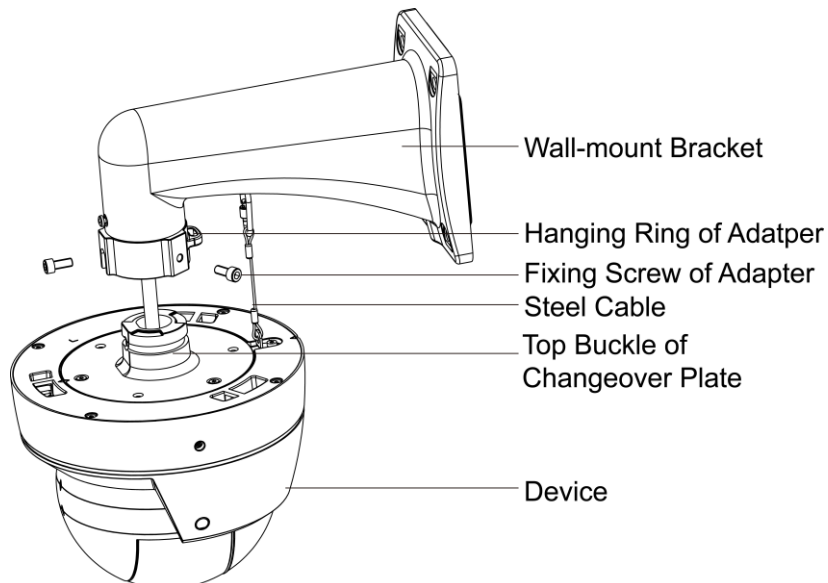
are of the same type, you can find in the accessory bag.

Figure 2-5 Fixing adapter and steel cable



5. Connect the hook of steel cable to the hanging ring of adapter, and fix the nut of the hook. Then align the top buckle of the changeover plate with the internal holes of the adapter, finally tighten the fixing screw of adapter firmly. See Figure 2-6. Note that the screws must be tightened completely; otherwise, there will be risk of dome falling due to improper installation.

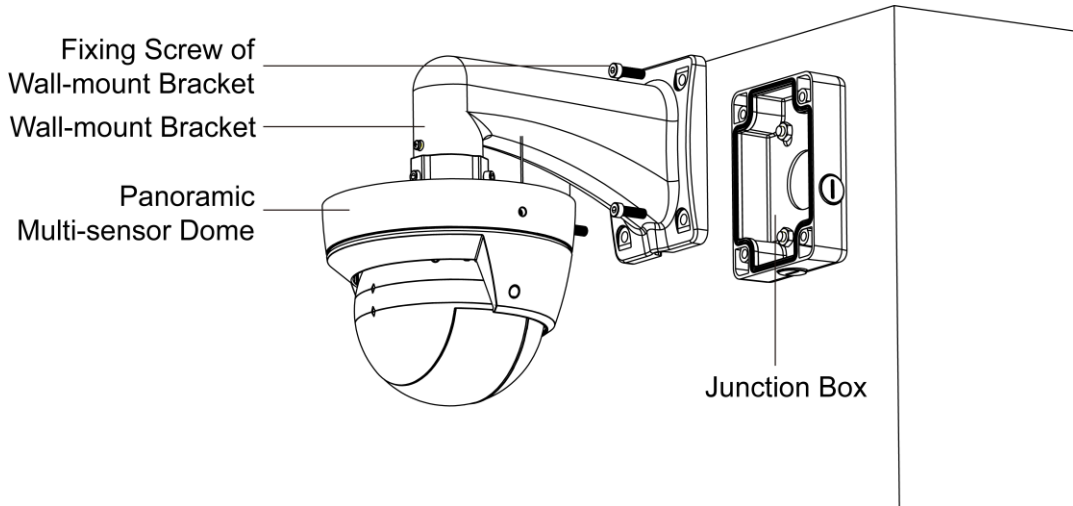
Figure 2-6 Connection between the device and wall-mount bracket



6. Pull out the device cable from the wall-mount bracket and connect it to the cable of junction

box from the wall, then put them together into the junction box. Use 4 fixing screws to fix the wall-mount bracket on the junction box. See Figure 2-7.

Figure 2-7 Device and junction box connection



Step 3

Adjust the monitoring direction of the device. See Figure 2-8.

Note

The range of angle adjustment for lens: horizontal rotation direction ($0^{\circ} \sim +355^{\circ}$), vertical rotation direction ($0^{\circ} \sim +75^{\circ}$), and image rotation direction ($-20^{\circ} \sim +20^{\circ}$).

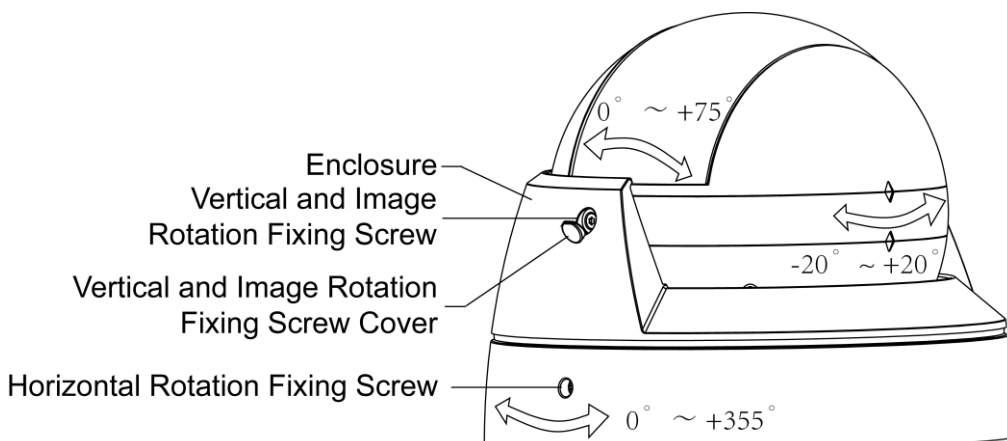
Horizontal rotation direction

Use the wrench in the accessory bag to loosen the horizontal rotation fixing screw, and rotate the device enclosure by hand, so you can adjust the horizontal rotation direction for monitoring. Do not loosen the screw too much to avoid the screw falling. Tighten the screw firmly after adjustment.

Vertical rotation direction

Open the cover of vertical and image rotation fixing screw, use the wrench to slightly loosen the fixing screw, and rotate the dome body by hand, so you can adjust the vertical rotation direction for monitoring. Do not loosen the screw too much to avoid the screw falling. Tighten the screw firmly and fasten the cover after adjustment.

Figure 2-8 Monitoring Direction Adjustment



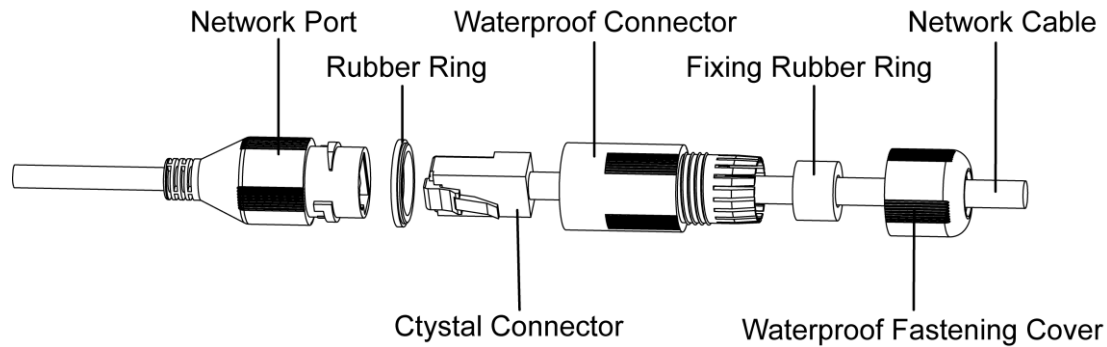
Step 4

(Optional) Waterproof connector installation for network port. See Figure 2-9.

Note

Implement this step if the device is equipped with network port waterproof connector and it is used outdoors.

Figure 2-9 Waterproof Connector Installation for Network Port



1. Keep the convex groove outward and install the rubber ring into the network port, and keep the smaller hole of the rubber ring outward and install the fixing rubber ring into the main body of the waterproof connector.
2. After pulling the network cable without crystal head through main body of waterproof connector, fixing rubber ring and waterproof fastening cover, make the crystal connector 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 fastening cover on the main body of waterproof connector and rotate it clockwise to lock the waterproof connector and waterproof fastening 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”. For the wireless network cameras, you need to connect to the wired network to configure wireless parameters before use.

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

Only when the IP addresses of the camera and the computer are in the same network segment, the camera can be configured.

To modify IP address, do the following:

1. Double-click “ConfigTools.exe” to open the “Quick Configuration Tool”.
2. Double-click the device that needs to be configured.

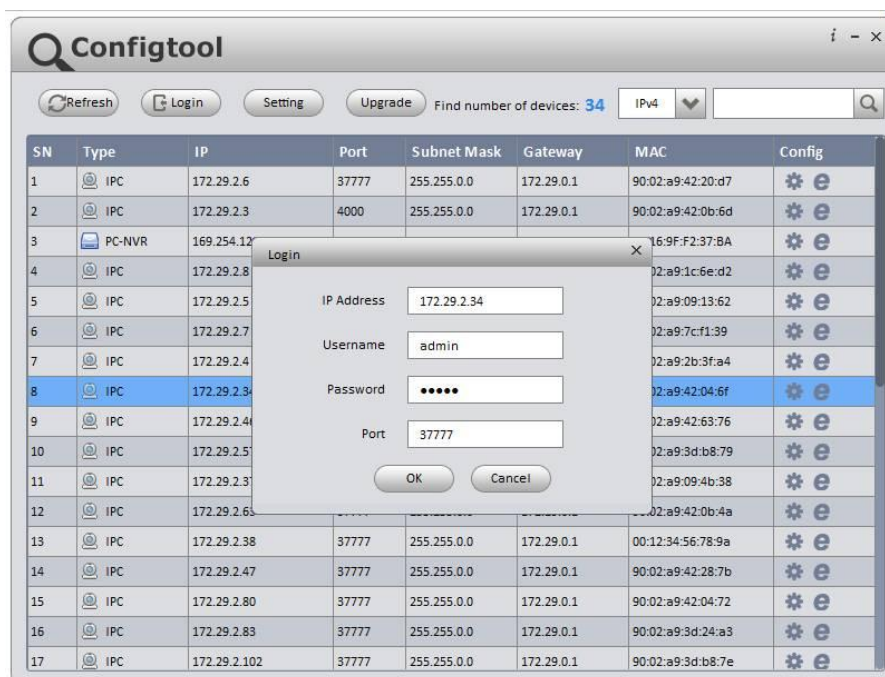
The system will pop out the **Login** dialog box. See Figure 3-1 for more details.

3. Enter the IP address, username, password and port number of the camera, and then click **OK**.

Note

The default username and password is admin and admin respectively, and the default port is 37777.

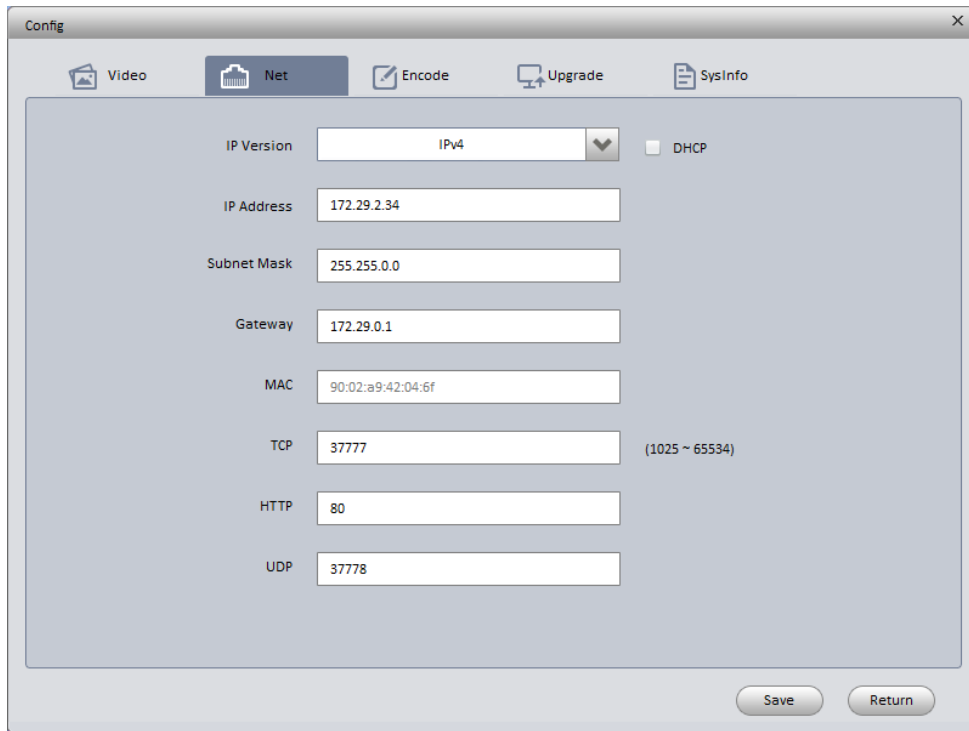
Figure 3-1 Login



4. Modify the camera IP address on the **Net** interface, and then click **Save** to finish modification.

See Figure 3-2 for more details.

Figure 3-2 Network Parameters



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:

1. Open IE and input the modified camera IP address in the address bar, and then press **Enter** key. The login interface shows. See Figure 3-3 for more details.

Figure 3-3 WEB Login



2. Input your username and password (Default username is **admin** and password is **admin**)

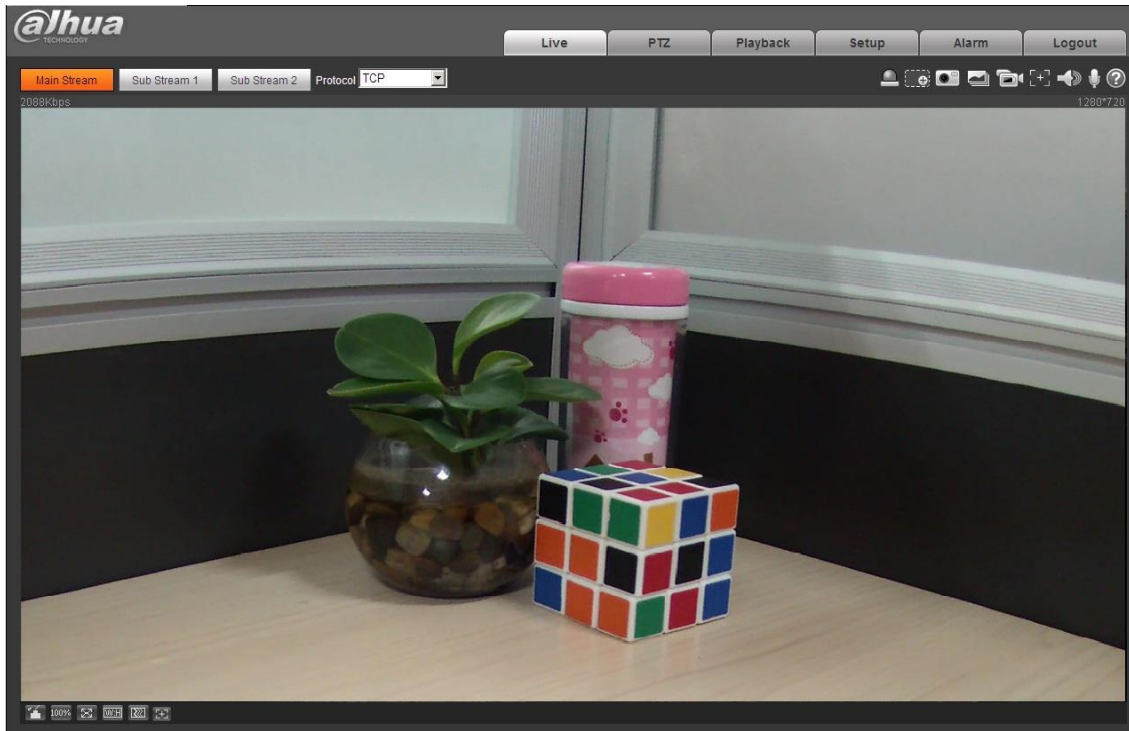
respectively), click **Login**.

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.

3. Install controls according to the system prompt. See Figure 3-4 for the WEB main interface.

Figure 3-4 WEB main interface



Note

- This quick start guide is for reference only. Minor differences might be found in user interface.
- All the designs and software are subject to change without prior written notice.
- If there is any uncertainty or controversy, please refer to our final explanation.
- Please visit our website or contact your local service engineer for more information.