

# **Dahua Network Multi-sensor Panoramic Bullet Camera**

## **Quick Start Guide**

**Version 1.0.0**

**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 rated voltage which conforms to Limited power Source requirement according 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.
- The device needs to be installed in the location where professional staff can cover (professionals need to know the attentions of using the device), non-professionals are not allowed to enter device installation area when the device is operating normally, which may cause accidental damage.

### 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. (The desiccant is not provided by default)
- 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.
- The dome cover is a kind of optical component, please do not touch or wipe the cover surface during installation and application, it may stain dust, grease or fingerprint, you can use absorbent cotton to dip some diethyl ether or use soft cloth to dip some water and then wipe gently. You can also use air gun to remove the dust if the cover is stained with dust.

## Warnings

- Please strengthen the protection of network, device data and personal information, adopt necessary measures of guarantee device network security, including but not limited to using strong password, modifying password regularly, upgrading firmware to the latest version, isolating computer network and so on. For the IP camera firmware of some old version, the ONVIF password won't be modified automatically after the main password of the system is modified. You need to upgrade the camera firmware or upgrade the ONVIF password manually.
- 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.

Accessory Name	Amount	Accessory Name	Amount
Network Camera	1	Installation Position Map	1
Quick Start Guide	1	Waterproof Connector	1
Screw Package	1	Inner Hex Wrench	1
Waterproof Plug	1	Safety Rope	1

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# 1 Device Structure

## 1.1 Device External Cable

### Note

- The following figure is for reference only, which is used to know the function of cable port.
- You can refer to the following figure for cable information. See Figure 1-1.

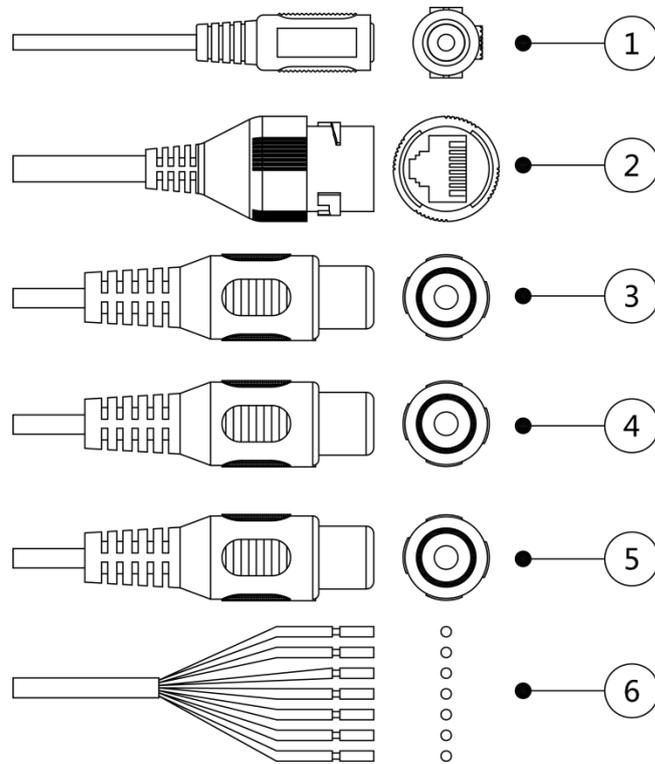


Figure 1-1

Please refer to Table 1-1 for detailed information.

No.	Port Name	Connector	Note
1	POWER	Power input port	Power port. Input DC 36V. Please power the device according to the label instruction. <b>Caution</b> It may cause damage to the device if it fails to power the device according to the label instruction.
2	LAN	Network port	Connect to standard Ethernet cable.
3	AUDIO IN	Audio input port	Input audio signal, receive analog audio signal from pickup and etc.
4			
5	AUDIO OUT	Audio output port	Output audio signal to speaker and etc.
6	I/O	I/O port	It includes alarm input/output. Please refer to Table 1-2 for more details.

Table 1-1

Please refer to Table 1-2 for details about I/O port.

Port Name	SN	Name	Note
I/O Port	1	ALARM_OUT1	Alarm output port. It is to output alarm signal to the alarm device.
	2	ALARM_OUT_GND1	<b>Note</b> ALARM_OUT1 can only be used together with ALM_OUT_GND1 when connecting to alarm device.
	3	ALARM_IN1	Alarm input port 1. It is to receive the on-off signal from the external alarm source.
	4	ALARM_IN2	Alarm input port 2. It is to receive the on-off signal from the external alarm source.
	5	ALARM_IN_GND	Ground terminal
	6	ALARM_OUT2	Alarm output port. It is to output alarm signal to the alarm device.
	7	ALARM_OUT_GND2	<b>Note</b> ALARM_OUT2 can only be used together with ALM_OUT_GND2 when connecting to alarm device.

Table 1-2

## 1.2 Framework and Dimension

### Note

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

Please refer to Figure 1-2 for dimension information. The unit is mm (inch).

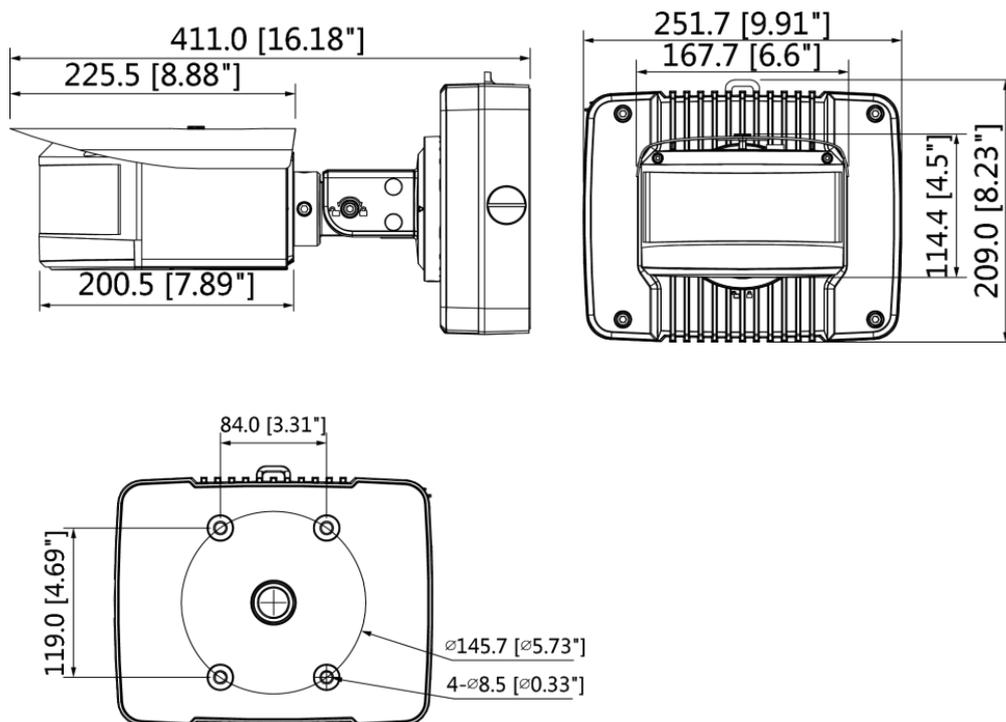


Figure 1-2

## 2 Device Installation

### 2.1 Install SD Card (Optional)

#### Note

- Please do not keep the lower cover open for a long time in humid environment, in case of water mist risk.
- Please implement this step when it needs to use SD card and there is a SD card slot for the device.
- Please cut off the device power before installing SD card.

#### Step 1

Loosen the screw on the lower cover.

You can see SD card slot and reset button after opening the lower cover.

#### Step 2

Insert the SD card into the slot which is shown in Figure 2-1, the card slot is elastic; you only need to press slightly to make the SD card inserted.

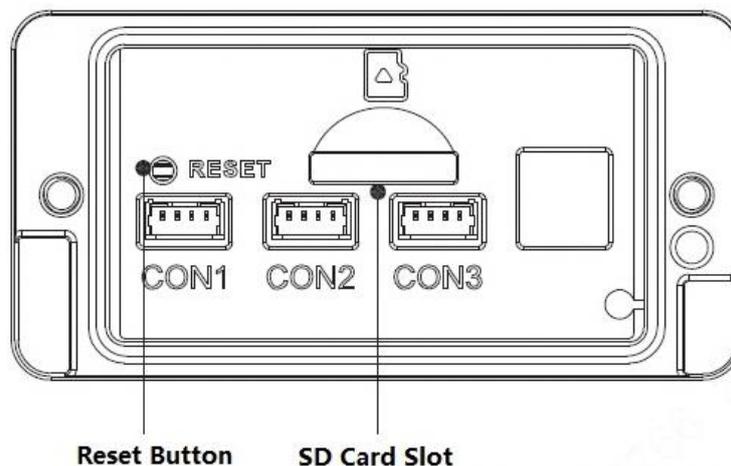


Figure 2-1

#### Note

Press the reset button for 10 seconds to realize device reset.

#### Step 3

Install the lower cover back in place.

### 2.2 Fix Device

#### Note

- Please make sure the mounting surface can support at least 3X weight of the camera and the bracket.
- Please take off two decoration covers before installation, and confirm if the two screws are firmly tightened.

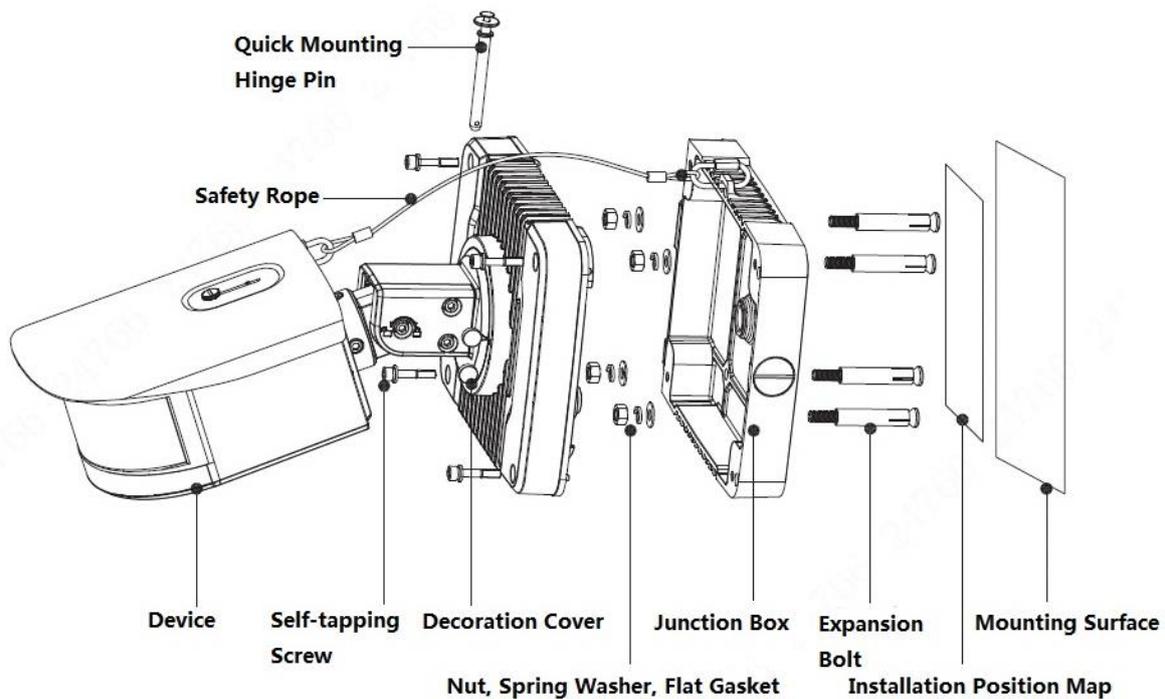


Figure 2-2

**Step 1**

Take out the installation position map and stick it on the mounting surface (wall or ceiling) according to monitoring area.

**Step 2**

Dig bottom holes for expansion bolts on the installation position map, and then insert the expansion bolts into the mounting holes and lock them firmly.

Open the accessories bag, take out expansion bolts and insert them into the hole you just dug.

**Step 3**

Lay the cable into the junction box and fix the junction box on the mounting surface via nut, spring washer and flat gasket.

**Caution**

The distance between the front end of screw stem (inside expansion bolt) and pedestal inner wall has to be less than 20mm, otherwise the pedestal cannot be fixed properly, which is shown in Figure 2-3.

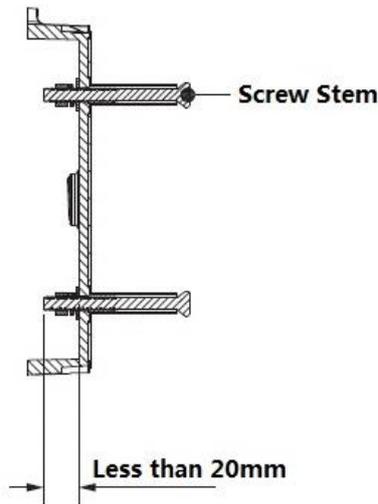


Figure 2-3

**Step 4**

First it is to fix the pedestal and one side of the junction box via quick mounting hinge pin.

**Step 5**

Pull the device cable out from the pedestal and make it cross the waterproof plug, and then connect it to the cable inside the junction box, which will be laid inside the junction box together. Tighten the waterproof plug firmly onto the junction box.

**Step 6**

Fix the device on the junction box via self-tapping screws.

**Step 7**

Use safety rope to connect device to junction box, which is to avoid device falling.

**2.3 Connect Device Cable**

- Connect device corresponding power and audio cable well according to requirement, and then use insulated tape to twine the connection respectively to make it waterproof.
- Connect alarm input and output terminal to external cable according to “Connect Alarm Input/output Port”, and use insulated tape to twine connection to make it waterproof.
- Connect network cable to corresponding network port of the device cable according to “Install Waterproof Connector (Optional)”.

**2.4 Connect Alarm Input / Output Port**

**Note**

Some models do not support alarm function, which cannot be applied to this chapter.

**Step 1**

Connect alarm input device to the alarm input of I/O port.

When the input signal is idle or grounded, the device can collect the 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”.

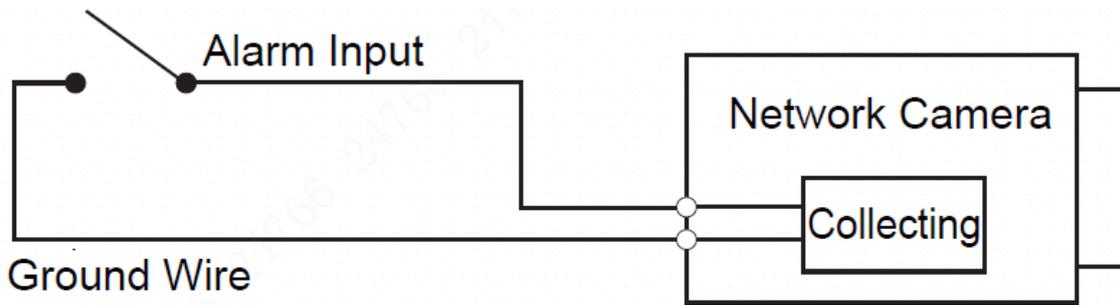


Figure 2-4

**Step 2**

Connect alarm output device to the alarm output port of I/O port cable.

Alarm output is relay switch output; alarm output port can only be connected to NO alarm device. Port ALARM\_OUT and ALM\_OUT\_GND form a switch, which is shown in Figure 2-5, the switch is used to provide alarm output. Generally the switch is opened; the switch will be closed when there is alarm output.

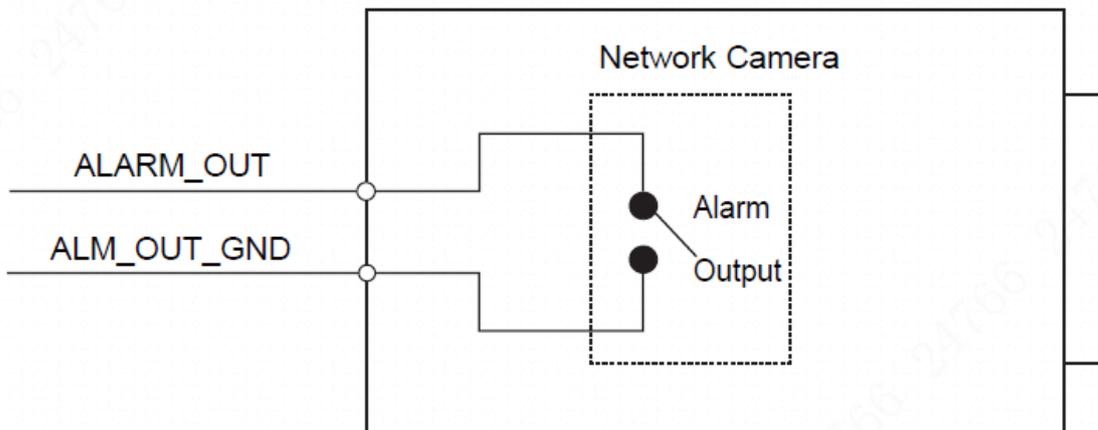


Figure 2-5

**Step 3**

Log in WEB interface, make corresponding settings upon alarm input and output on the interface of alarm setup.

- Alarm input of WEB is corresponding to the alarm input of I/O port cable. It is to set corresponding NO, NC input according to the high and low level signal generated when alarm happens for alarm input device.
- Set alarm output on the WEB, alarm output is corresponding to the alarm output end, which is the alarm output port of the I/O port cable.

**Install Waterproof Connector (Optional)**

The installation process of waterproof connector for network port is shown in Figure 2-6.

**Note**

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

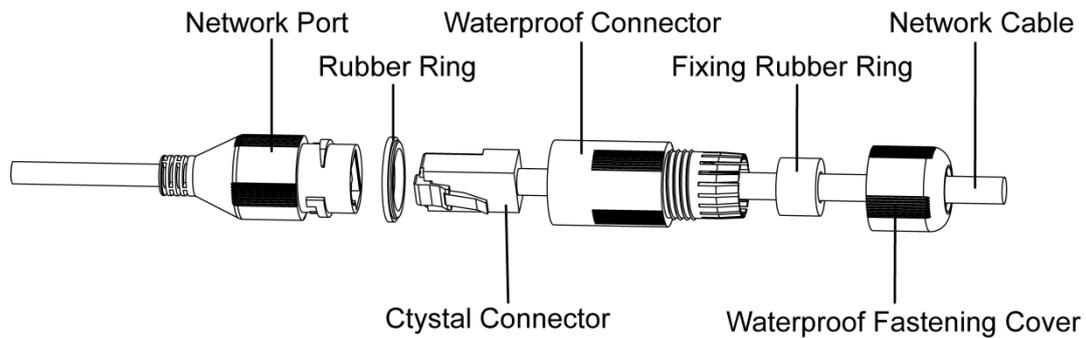


Figure 2-6

**Step 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.

**Step 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.

**Step 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.

**Step 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.

## 2.5 Adjust Device Angle

**Note**

- Please be sure to loosen the adjusting screws when adjusting the device position and angle, tighten the adjusting screws after adjustment.
- It is recommended to twist 1.5 circles anti-clockwise when loosening device adjusting screw; it is recommended to twist 2 circles anti-clockwise when loosening vertical adjusting screw.

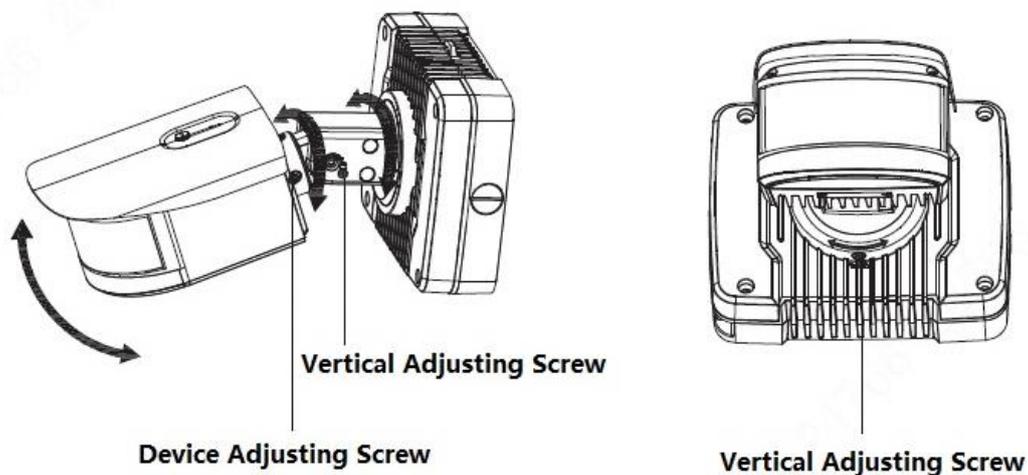


Figure 2-7

**Step 1**

Use screwdriver to loosen adjusting screws.

**Step 2**

Adjust the device UDLR, and set its monitoring direction according to the requirement.

**Step 3**

Use screwdriver to tighten the adjusting screws firmly.

## 3 Network Configuration

You can initialize the device and modify IP address via "Quick Configuration Tool"; you can also initialize device and modify IP address on the WEB interface. Please refer to the *WEB Operation Manual* in the disk for more details.

### Note

- It needs to implement initialization if it is the first time use device or the device is restored to factory default. Only some device support initialization function.
- It can implement initialization only when the device IP address (192.168.1.108 by default) and the IP address of PC are in the same network segment.
- In order to make the camera have access to network smoothly, please plan available IP segment according to the actual network environment.
- The following figures are for reference only; different models may have different interfaces.

### 3.1 Device Initialization

#### Step 1

Double click "ConfigTool.exe" and open quick config tool.

#### Step 2

Click  to enter the interface where you can modify IP address, click **Search Setting**, the system will display the **Setting** dialog box.

#### 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.

#### Step 4

Select the devices which need initialization and click **Initialization**. The system will display the interface of **Device Initialization**, which is shown in Figure 3-1.

Figure 3-1

### **Step 5**

Set new password and confirm password, select **Email Address** and input email address.

### **Note**

The password can be set as 8 to 32 characters; it can be a combination of number(s), letter(s) and symbol(s) with at least two kinds of them (excluding “”, “()”, “,””, “:”, “&”). Please set password with high security according to the password strong and weak prompt.

### **Step 6**

Click **Initialization**, the system begins to initialize the device.

✓ means initialization succeeded; ⚠ means initialization failed. Click the icon to check more details.

### **Step 7**

Click **OK** to complete device initialization.

## **3.2 Modify IP Address**

### **Step 1**

Double click "ConfigTool.exe" and open quick config tool.

### **Step 2**

Click  to enter the interface where you can modify IP address, click **Search Setting**, the system will display the **Setting** dialog box.

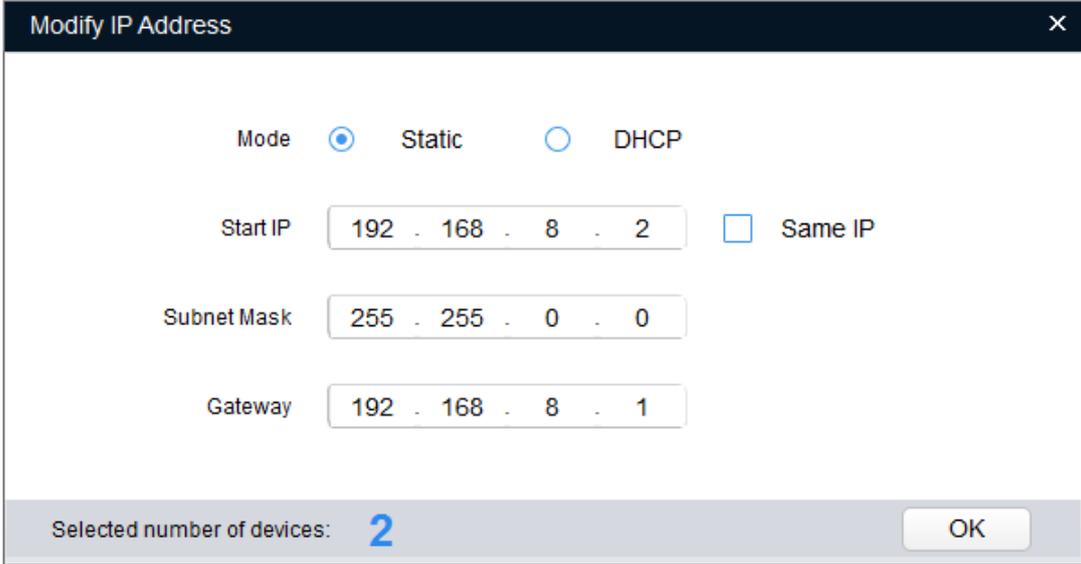
### **Step 3**

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

#### **Step 4**

Select the devices whose IP addresses need to be modified, and then click .

The system will display the dialog box of Modify IP Address, which is shown in Figure 3-2.



The screenshot shows a dialog box titled "Modify IP Address". It features a "Mode" section with two radio buttons: "Static" (selected) and "DHCP". Below this are three input fields: "Start IP" with the value "192 . 168 . 8 . 2", "Subnet Mask" with "255 . 255 . 0 . 0", and "Gateway" with "192 . 168 . 8 . 1". To the right of the "Start IP" field is an unchecked checkbox labeled "Same IP". At the bottom left, it indicates "Selected number of devices: 2". An "OK" button is located at the bottom right.

Figure 3-2

#### **Step 5**

Set the mode as **Static**, and enter 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.
- Click **Same IP**, and it will set the selected device as the same IP address.

#### **Step 6**

Click **OK** to complete modification of device IP address.

### **3.3 Login WEB Interface**

#### **Step 1**

Open IE browser, enter the modified camera IP address into the address bar and then press **Enter** button. Please operate according to the interface prompt if the interface displays guide of **Software License Agreement** and **Online Upgrade**.

#### **Step 2**

Enter username and password, click **Login**.

#### **Step 3**

For the first login, select **Click Here to Download Plug-in**, install controls according to system prompt. The main interface will be shown in Figure 3-3 after control installation is completed.

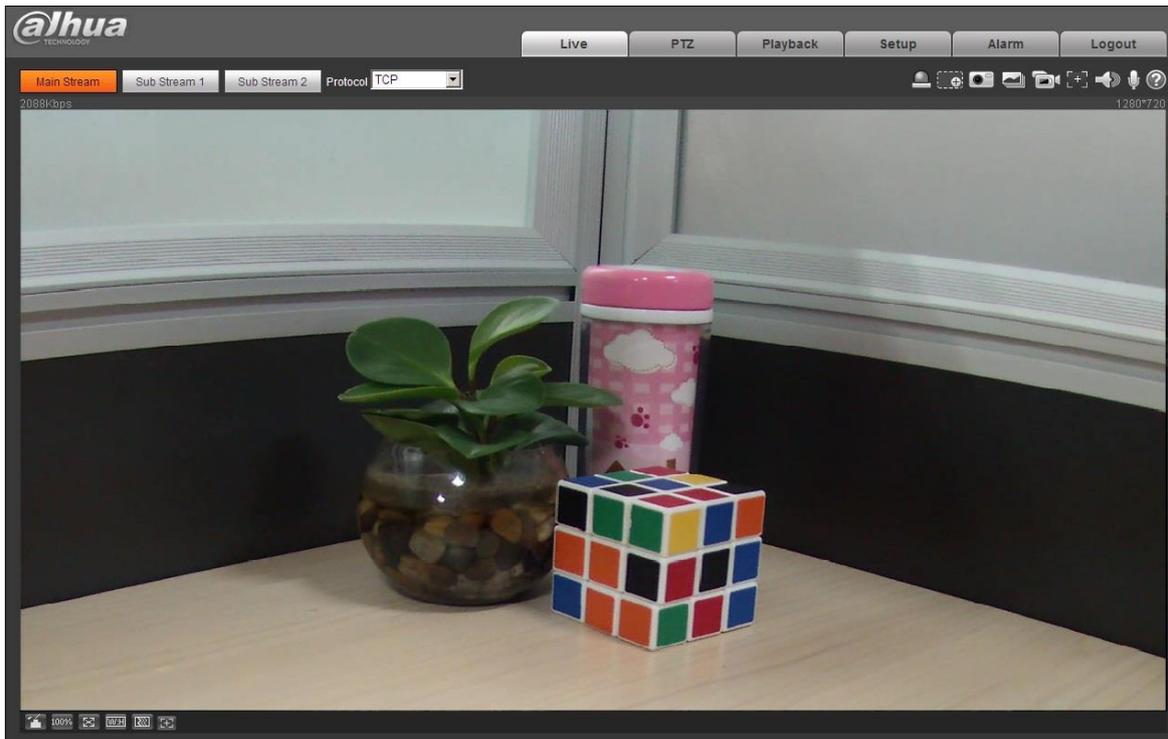


Figure 3-3



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