

# **Dahua HD Box Network Camera Quick Start Guide**

**Version 1.0.1**

**Zhejiang Dahua Vision Technology Co., LTD**

# Welcome

Thank you for purchasing our Network camera!

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

Please read the following safeguard 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 here 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.
- **Note: Do not connect these two power supplying sources to the device at the same time ; it may 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

- Please don't aim the device at strong light (such as lighting, sunlight and so on) to focus; otherwise it may cause overexposure (It is not the device malfunction), which will affect the longevity of CCD or CMOS.
- Please transport, use and store the device within the range of allowed humidity and temperature.
- Please don't keep the device in a place which is wet, dusty, extremely hot, and extremely cold and with strong electromagnetic radiation or unstable lighting.
- Please do not allow water and other liquid falling into the camera in case that the internal components are damaged.
- Please do not allow rain or damp to the indoor device in case fire or lightning may occur.
- Please keep the sound ventilation in case of heat accumulation.
- Please 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

- Please do not touch the heat dissipation component of the device directly in order to avoid scald.
- Please do not dismantle the device; there is no component which can be fixed by users themselves in the machine. It may 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 thunder proof device in order to improve thunder proof effect.
- The grounding holes of the product are recommended to be grounded to further enhance the reliability of the camera.
- 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 use the water to dilute the mild detergent first and then use it to clean the device. Finally use the dry cloth to clean the device. Don't use volatile solvent 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.
- Dome cover is an optical device, please don't touch or wipe cover surface directly during installation and use, please refer to the following methods to deal with once dirt is found:
  - Stained with dirt
    - Use oil-free soft brush or hair dries to remove it gently.
  - Stained with grease or fingerprint
    - Use soft cloth to wipe the water drop or oil gently to make it dry, then use oil-free cotton cloth or paper soaked with alcohol or detergent to wipe from the lens center to outward. It is ok to change the cloth and wipe several times if it is not clean enough.

#### Warning

- Please modify the default password after login in order to avoid being stolen.
- Please use the standard accessories provided by manufacturer and make sure the device is installed and fixed by professional engineers.
- Please prevent the device surface from the radiation of laser beam when using laser beam device.
- Please do not provide two or more power supply modes for the device, otherwise it may 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 upgraded according to the product update; the upgraded 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 may 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 company's final explanation if there is any doubt or dispute.
- The company is not liable for any loss caused by the operation which is not followed by 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 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 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
CD	1

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# 1 Device Structure

## 1.1 Rear Panel

### Note:

- The figures are for reference only, which are used to know the functions of the rear panel.
- Different devices may have different structures of rear panel, please refer to the actual product for more details.

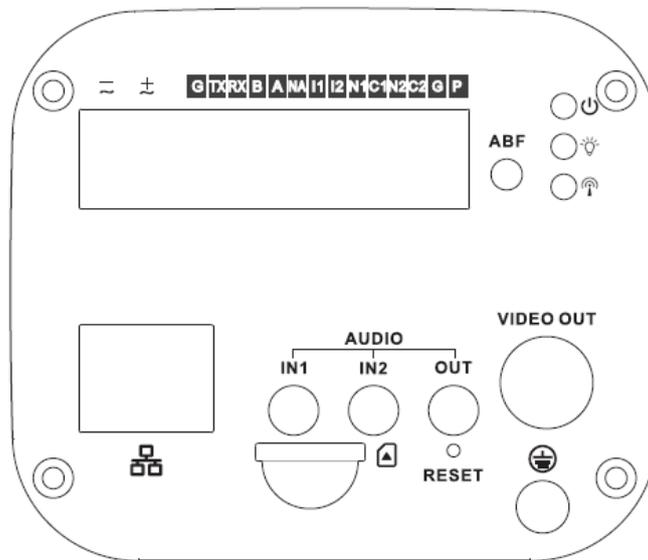


Figure 1-1

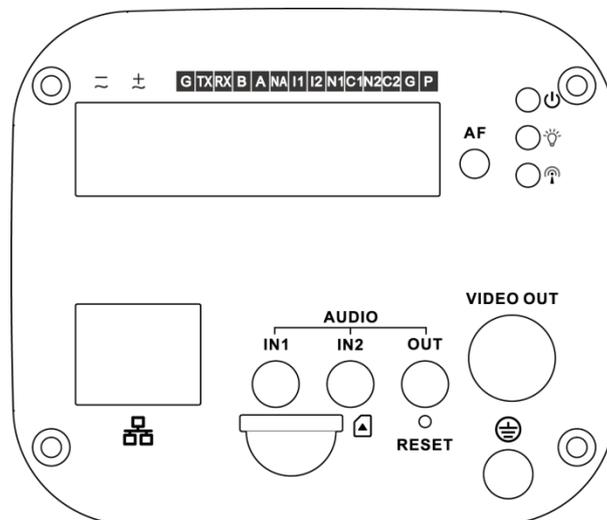


Figure 1-2

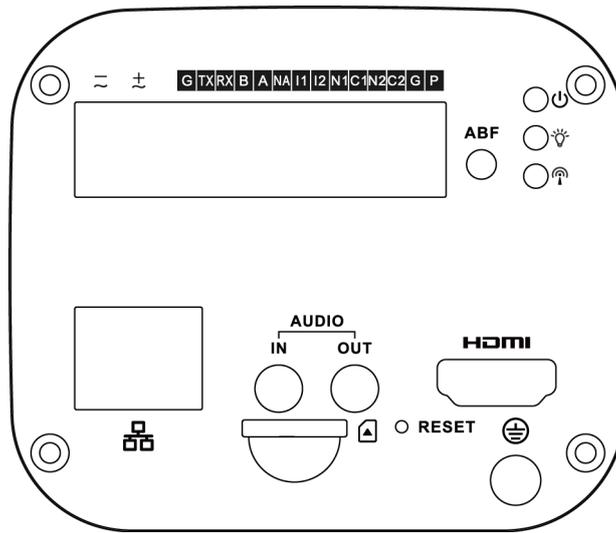


Figure 1-3

Please refer to Table 1-1 for detail information.

Port Name		Port Function
VIDEO OUT	Video output port	<ul style="list-style-type: none"> <li>● Output analog video signal. It can connect to TV monitor to check image.</li> <li>● It can preview image via the DVR which supports HDCVI when it outputs HDCVI signal.</li> </ul>
HDMI	HDMI interface	It can connect to HDMI monitor to preview image.
AC 24V/DC 12V	Power port	Able to input 12V DC or AC 24V power supply, and support power supply at the same time
Indicator Light	Red light 	<ul style="list-style-type: none"> <li>● System boots up-red light is normally on</li> <li>● System upgrades-red light flashes</li> <li>● System resets-green light is off, red light is normally on.</li> </ul>
	Green light 	<ul style="list-style-type: none"> <li>● Normal working status-green light is normally on.</li> <li>● Display record status: recording-green light flashes.</li> </ul>
	Yellow light 	<ul style="list-style-type: none"> <li>● Detect the wireless device-yellow light is normally on.</li> </ul>
G	GND	Ground end of RS232 serial port.

TX	RS232 port	Sending end of RS232 serial port
RX		Receiving end of RS232 serial port
B	RS484 port	RS485_B port, control external PTZ etc.
A		RS485_A port, control external PTZ etc.
NA	IR light port	External IR light signal control port.
I1	Alarm input port 1	It is to receive the on-off signal from the external alarm source.
I2	Alarm input port 2	It is to receive the on-off signal from the external alarm source.
N1	Alarm output port	<ul style="list-style-type: none"> <li>● Alarm output port, output alarm signal to alarm device.</li> <li>● N1/N2: Normally open alarm output end.</li> <li>● C1/C2: Alarm output public end.</li> </ul> <p><b>Note:</b> N1 can only be used with C1 while N2 can only be used with C2 when connecting alarm device.</p>
C1		
N2		
C2		
P	Power foldback output port	It outputs DC 12V power; P connects to positive pole while G connects to negative pole.
G (adjacent to P)		
RESET	RESET button	Restore device factory default setup. When system is running normally, press the RESET button for at least 5 seconds, system can restore factory default setup.
ABF	Auto back focus adjustment	Auto back focus adjustment, by adjusting Sensor board position to achieve precise back focus adjustment.
AF	Auto focus function	The device lens mount is M43 and it supports the function when installing motorized lens. It can realize accurate auto focus via one button.
AUDIO OUT	Audio output port	3.5mm JACK port, output audio signal to the passive device such as earphone and etc.
AUDIO IN1	Audio input port	3.5mm JACK, input audio signal from devices such as pick-up.  <b>Note:</b>
AUDIO IN2		

		Some devices are only equipped with 1 channel audio input port.
LAN  /OPT	Network port /MB optical fiber port	LAN: Connect to standard Ethernet cable and provide PoE power supply function. OPT: Transmit MB Ethernet data.
SD 	SD card port	Connect it to SD card.
	GND	Please make sure the device is securely earthed to prevent the thunderstorm strike when using the device.

Table 1-1

## 1.2 Dimension

### Note

The figures are for reference only, which are used to know the device dimension.

Please refer to the actual device for more details. The unit is mm (inch).

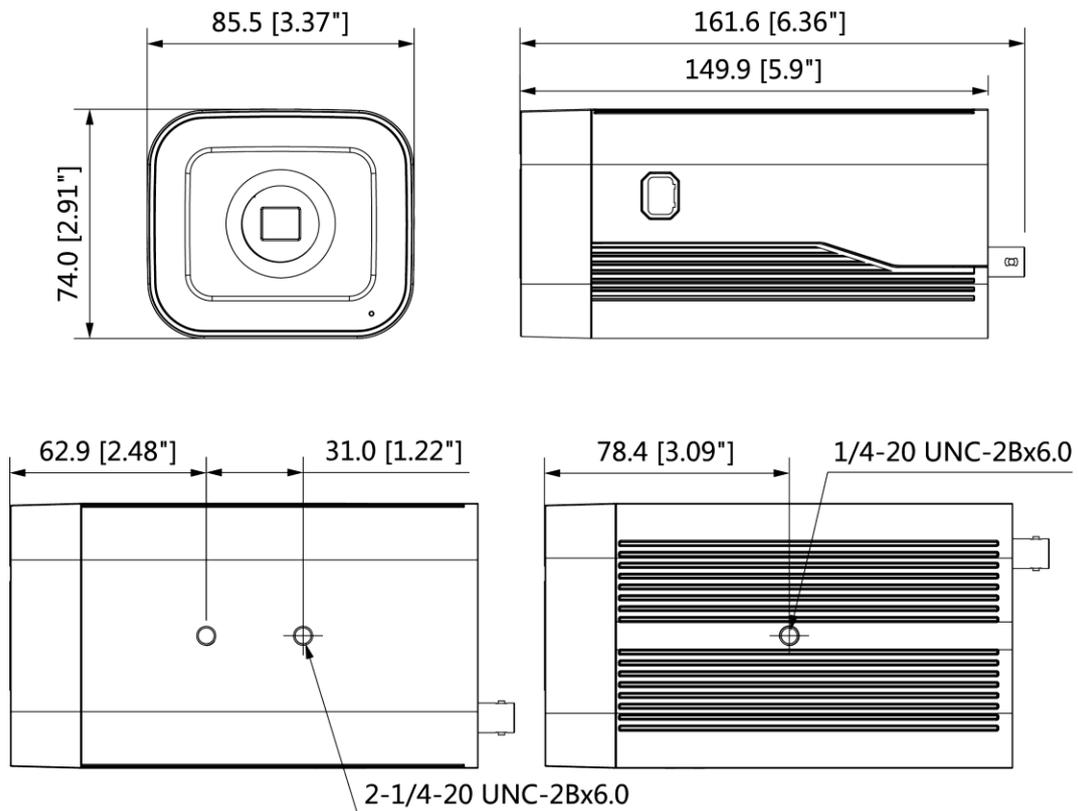


Figure 1-4

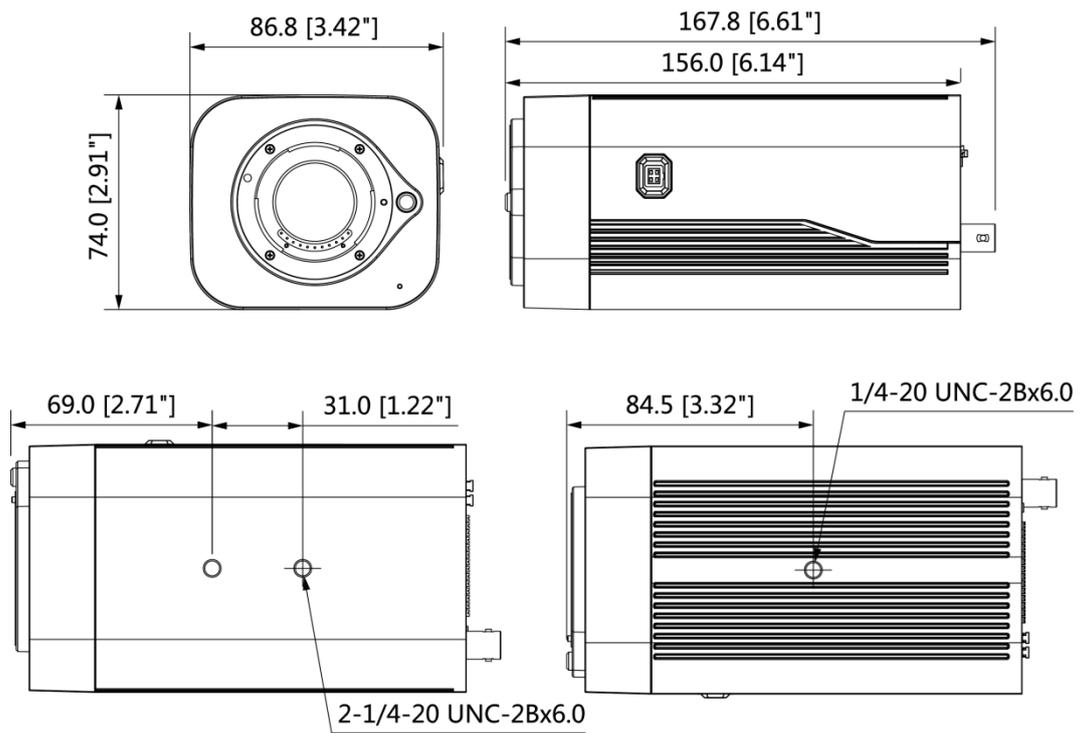
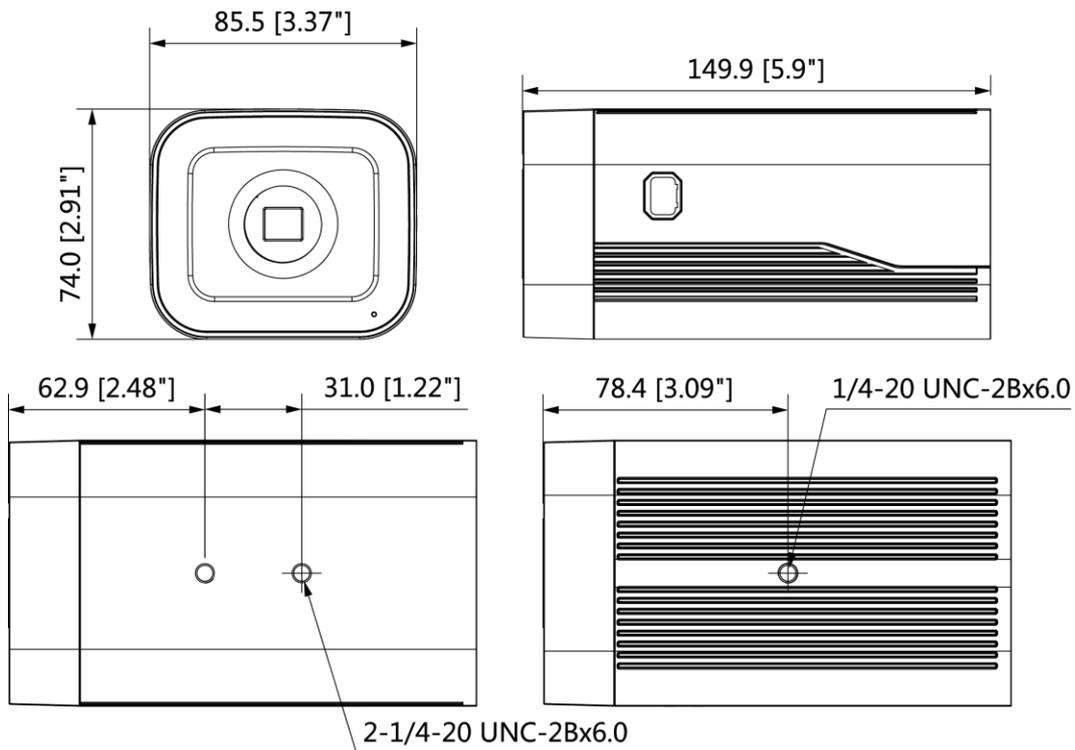


Figure 1-5



### 1.3 Bidirectional talk

**Note:**

- Some products do not support bidirectional talk, which cannot be applied to this chapter.
- It is not allowed to use on-site listening when the device is applying bidirectional talk.

**Step 1**

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

### Step 2

Log in the device WEB interface, click “Talk” button to enable bidirectional talk. You can see the button becomes orange after you enabled the audio talk function. Click “Talk” button again to stop the bidirectional talk function.

### Step 3

Input audio to speaker or MIC on the device end and PC respectively, and receive the audio via earphone on the device end and PC.

## 1.4 Alarm Setup

### Note:

Some devices don't support alarm function, which can't be applied to this chapter.

The alarm interface is shown as in Figure 1-6.

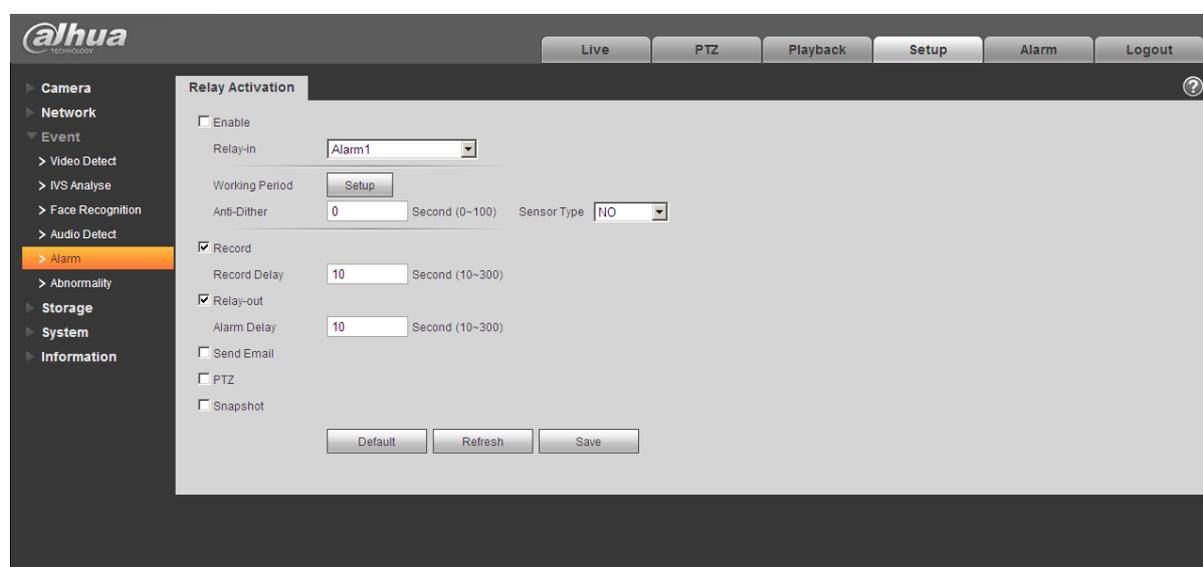


Figure 1-6

The alarm input, output connection description:

### Step 1

Connect the alarm input device to the IN alarm input port on the rear panel I/O port.

### Step 2

Connect the alarm output device to the N1 and C1 or N2 and C2 of I/O port on the rear panel. The alarm output port supports NO (normally open) alarm device only.

### Step 3

Open the Web; go to the Figure 1-3. Here you can make the alarm input setup and alarm output setup. Here the alarm input is the alarm input on the corresponding rear panel I/O port (as IN port). Then you can select the corresponding type (NO/NC) according to the high/low level type when an alarm occurs.

### Step 4

Set the WEB alarm output. The alarm output 01 is the alarm output port of the device rear panel I/O port (as the NO port).

### 1.4.1 Alarm Input and Output Connection

Please refer to the following figure for alarm input information. See Figure 1-7.

Alarm input: 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 the 3.3V or it is idle, the device collects the logic "1". When the input signal is grounded, the device collects the logic "0".

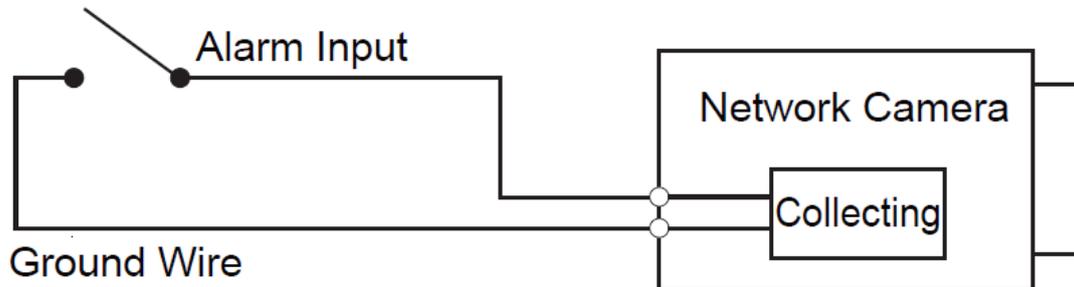


Figure 1-7

Please refer to the following figure for alarm output information. See Figure 1-8.

Alarm output: N1 and C1 or N2 and C2 make up a switch to provide the alarm output. Generally the switch is on, and it will be off when there is an alarm output.

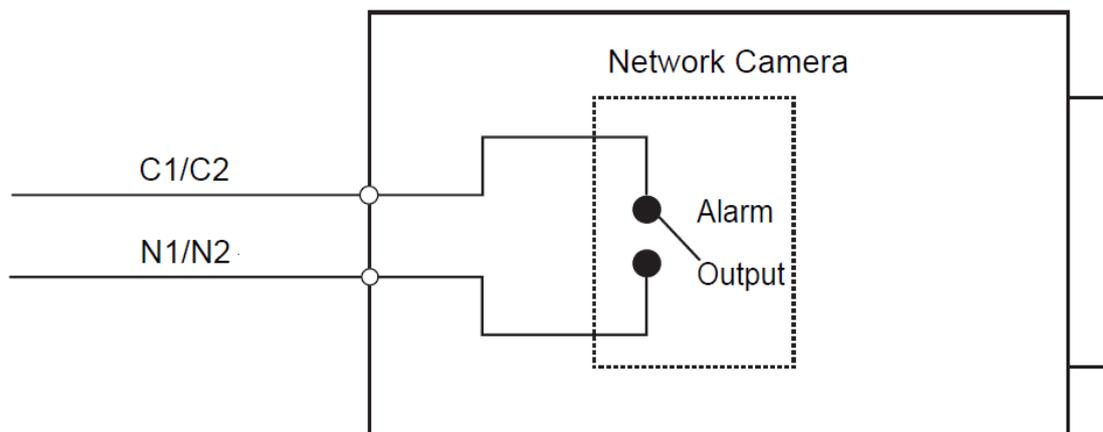


Figure 1-8

## 2 Device Installation

### Note

- The follow installation figures are for reference only, please refer to the actual product for more details.
- Lens assembly mode may be different according to different devices, please refer to the actual lens for more details.
- The bracket mounting wall needs to sustain at least 3X weight of camera and bracket.

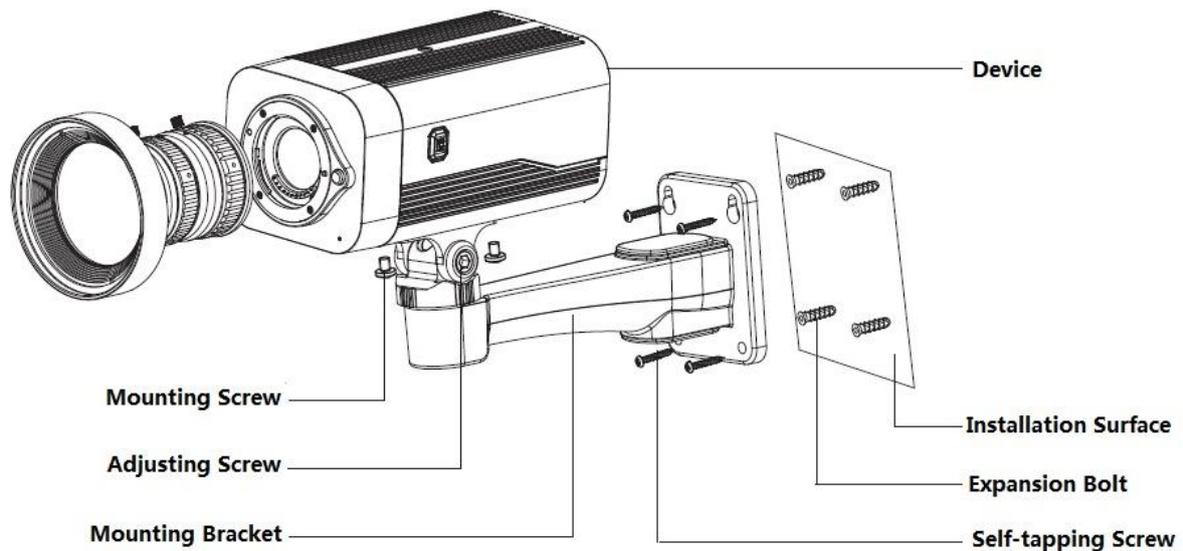


Figure 2-1

### Step 1

Fix the mounting bracket on the installation surface.

1. Mark bracket mounting hole sites on the installation surface, and dig four expansion bolt bottom holes on the hole sites marked on the installation surface, then put four expansion into the mounting holes and lock them firmly.
2. Align the four screw holes of mounting bracket bottom with four mounting hole sites on the installation surface, then put four fixing screws into four screw holes of mounting bracket bottom respectively and lock them firmly.

### Step 2

Fix the device on the mounting bracket. Align the mounting hole sites of device enclosure bottom with the mounting hole sites on the front of mounting bracket, then put the installation screws into the screw holes and lock them firmly.

### Step 3

Install lens.

- When the device lens mount is bayonet, it supports installing the lens which conforms to bayonet.  
Dismantle the protection cover on the device, align the red spot on the lens with the red spot of the lens mount, and rotate the lens clockwise till it is secured and installed properly.

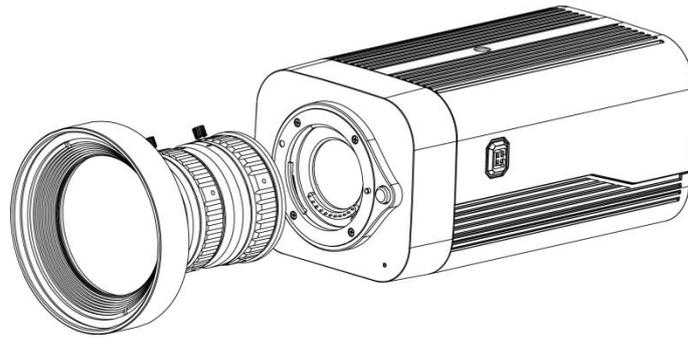


Figure 2-2

**Note**

First press the button on the upper side of lens mount, and then rotate the lens anticlockwise to dismantle the lens.

- When the lens mount is screw-threaded, different types of lens have different installation modes, please select according to the actual situation.

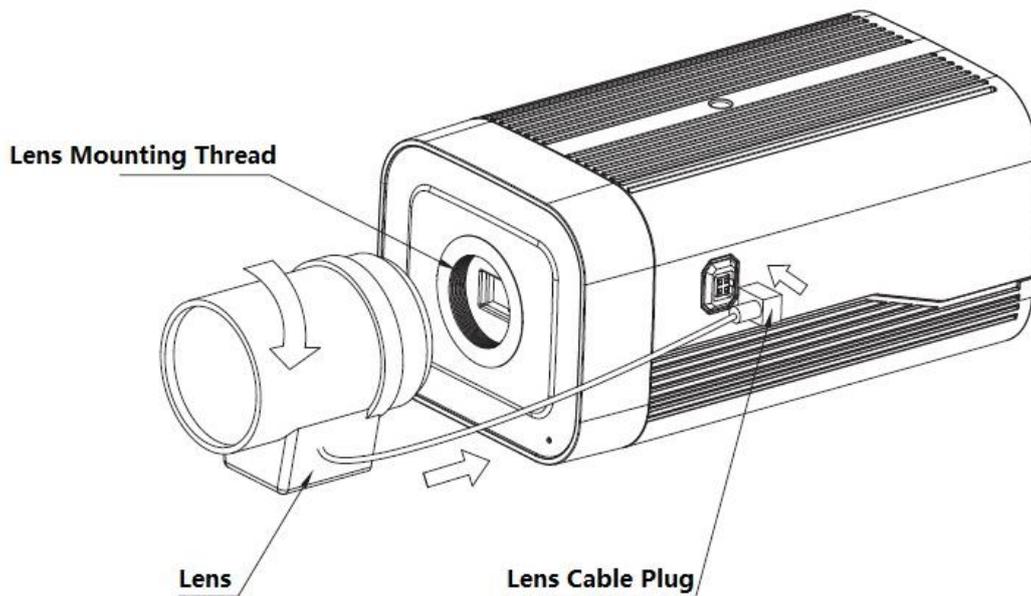


Figure 2-3

- ✧ Install auto aperture lens
  1. Dismantle the protection cover on the device, align the lens with the lens mounting location of the device, rotate the lens clockwise till it is secured and installed properly.
  2. Insert the plug of lens cable into the auto aperture lens connector of the device side panel.
- ✧ Install manual aperture lens
  1. Dismantle the protection cover on the device.
  2. Install the C/CS adapter onto the device, rotate it clockwise to the end and make it closely adhere to the focusing ring on the device. (Only type C lens needs to install adapter ring).
  3. Align C mount lens with the lens mounting location of C/CS adapter ring (CS mount lens aims at the lens mounting location on the device focusing ring), rotate the lens clockwise till it is secured and properly installed.

4. Use slotted screwdriver to loosen the screw of focusing ring, rotate the focusing ring outward anticlockwise for several millimeters and focus manually, meanwhile it needs to observe the image definition. It has to make back focus adjustment if it fails to adjust clearly.

#### Step 4

Plug the external cable well according to the application requirement.

#### Step 5

I/O port application (Optional).

#### Note

Please implement the step when it needs to use RS232 port, RS485 port, and alarm input output or power reverse output.

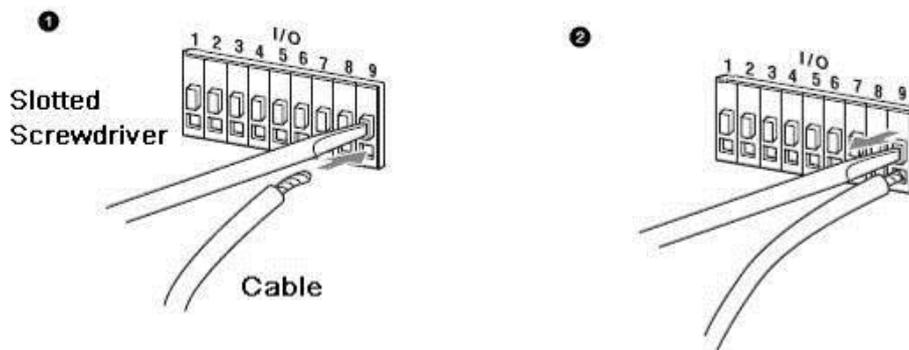


Figure 2-4

1. Use the small slotted screwdriver to press the corresponding button of cable groove.
2. Insert the cable into the groove.
3. Release the screwdriver which presses the groove button and complete cable installation.

#### Step 6

Adjust monitoring direction of the device.

1. Loosen the device adjusting screw, adjust the device up and down, set the monitoring direction of the device according to the requirement.
2. Tighten the adjusting screw 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.

To modify IP address, do the following:

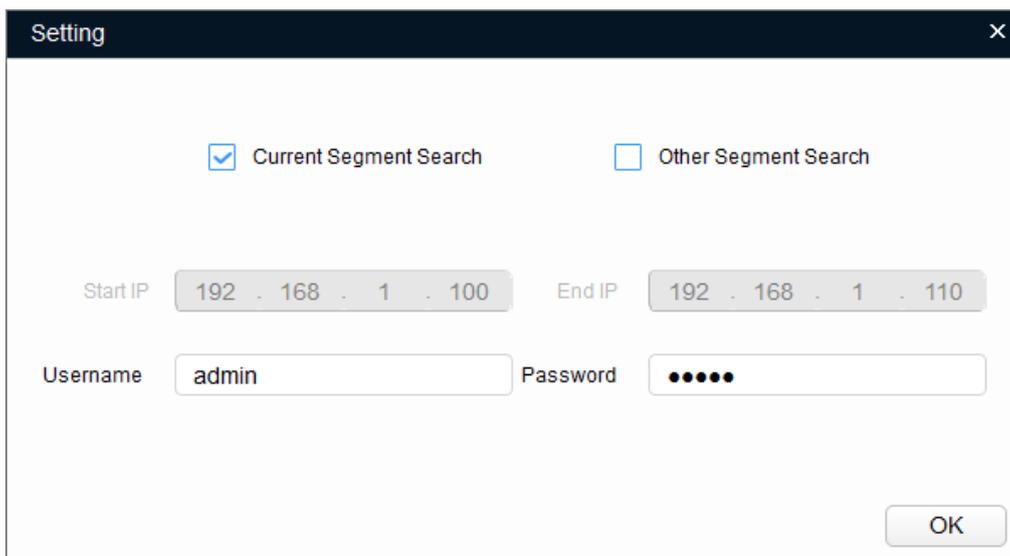
#### Step 1

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.



The image shows a "Setting" dialog box with a dark title bar and a close button (X) in the top right corner. Inside the dialog, there are two checkboxes: "Current Segment Search" (checked) and "Other Segment Search" (unchecked). Below these are two IP address input fields: "Start IP" with the value "192 . 168 . 1 . 100" and "End IP" with the value "192 . 168 . 1 . 110". Underneath are "Username" and "Password" fields. The "Username" field contains the text "admin", and the "Password" field contains six black dots. An "OK" button is located in the bottom right corner of the dialog.

Figure 3-1

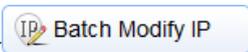
#### Step 3

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 .

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

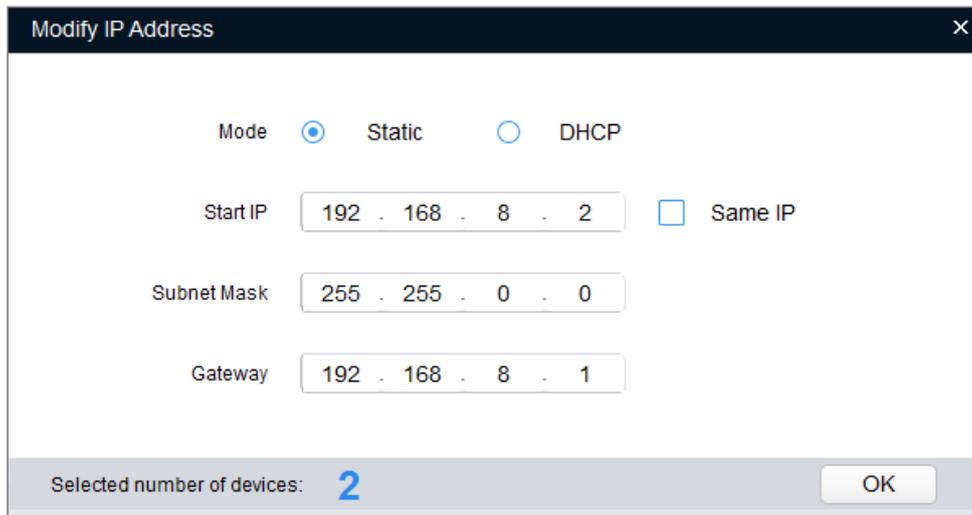


Figure 3-2

### 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 shows, 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 or the WEB main interface.

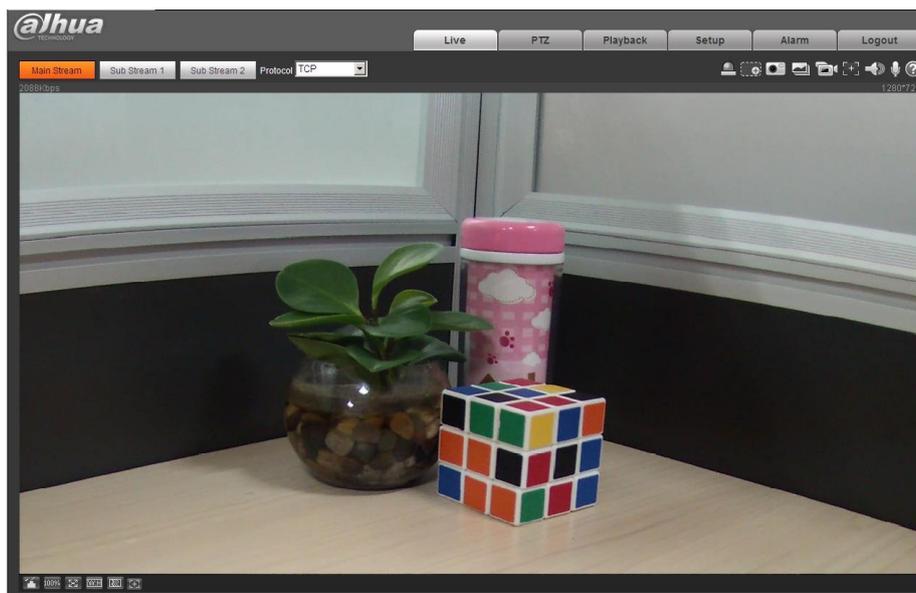


Figure 3-4

### Note:

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



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