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# **Thermal Hybrid Dome Camera Quick Start Guide**

**Version 1.0.0**

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## Welcome

Thank you for purchasing our thermal hybrid dome!

**Please read the following safeguards and warnings carefully before you install or use the product!**

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# Important Safeguards and Warnings

## Safety Measures

### 1. Qualified Engineer Needed

- The installation engineer or maintenance engineer shall have corresponding CCTV system installation certificate or maintenance qualification certificate.
- The installation engineer or maintenance engineer shall have qualification certificate for work at height.
- The installation engineer or maintenance engineer shall have the basic knowledge and operation technique for low-voltage cable layout and low-voltage electronic cable connection.
- Please read the installation manual carefully and keep it well for future reference,
- We are not liable for any problems caused by unauthorized modifications or attempted repair.

### 2. Lifting Appliance Requirement

- Please select the proper thermal hybrid dome installation mode and use the lifting appliances at the safety environment.
- The lifting appliances shall have the enough capacity to reach the installation height.
- The lifting appliances shall have safe performance.

**The precaution measures include two types: Warning and Note.**

- **Warning:** It is to alert you there is an optional risk of death or series injury!
- **Note:** It is to alert you there is an optional risk of damage or property loss!

## Warning

1. All installation and operation here should conform to your local electrical safety codes. We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.
2. Be sure to use all the accessories (such as power adapter) recommended by manufacturer.
3. Do not connect several thermal hybrid domes to one power adapter. It may result in overheat or fire if it exceeds the rated load.
4. Avoid aiming the lens at the strong radiation source directly (such as sun, laser, molten steel etc); in case it may cause unrecoverable damage to the thermal imaging detector. What's worse, it may cause severe damage to the detector.
5. Avoid oil stain and kinds of chemicals tarnishing and damaging the lens surface.
6. Store the device in a cool and dry place where there is ventilation but no intense

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electromagnetic field.

7. Violent vibration or crash is not allowed during transportation and application.
8. Before you connect the cable, install or uninstall, or begin the daily maintenance work, please turn off the power and unplug the power cable.
9. Please make sure the produce is secure firmly on the wall or the ceiling.
10. Please turn off the power and unplug the power cable, If there is any smoke, disgusting smell, or noise. Please contact your local retailer or customer service centre for help.
11. All the examination and repair work should be done by the qualified service engineers. We are not liable for any problems caused by unauthorized modifications or attempted repair.

## Note

### 1. Safety Transportation

- Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.
- This series product must use split type package during the transportation.
- We are not liable for any damage or problem resulting from the integrated package during the transportation.

### 2. When device is malfunction

Shut down the device and disconnect the power cable immediately if there is smoke, abnormal smell or abnormal function. Please contact your local retailer ASAP.

### 3. Do not try to dismantle or modify the device

- There is risk of personal injury or device damage resulting from opening the shell.
- Please contact your local retailer if there is internal setup or maintenance requirement.
- We are not liable for any problems caused by unauthorized modifications or attempted repair.

### 4. Do not allow other object falling into the device

- Please make sure there is no metal or inflammable, explosive substance in the thermal hybrid dome.
- The above mentioned objects in the device may result in fire, short-circuit or damage.
- Please shut down the device and disconnect the power cable if there is water or liquid falling into the camera. Please contact your local retailer ASAP.
- Please pay attention to the camera. Avoid the sea water or rain to erode the camera.

### 5. Handle carefully

Do not allow this series product fall down to the ground.  
Avoid heavy vibration.

### 6. Installation Environment Requirement

- This series thermal hybrid dome should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

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- This series product shall be away from the strong electromagnetism radiant, please keep it away from wireless power, TV transmitter, transformer and etc.

## **7. Daily Maintenance**

- Please use the soft cloth to clean dust on the shell, or you can use soft cloth with cleaning liquid to clean the shell and then use soft cloth to make it dry.
- Do not use gasoline, dope thinner or other chemical material to clean the shell. It may result in shell transfiguration or paint flake.
- Do not allow the plastic or rubber material to touch the shell for a long time. It may result in paint flake.

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# 1 DEVICE INSTALLATION

## 1.1 Installation Preparation

### 1.1.1 Check installation space and intension

Please make sure the installation environment has enough space to install the thermal hybrid dome and its corresponding bracket.

Please make sure the ceiling, wall and the bracket can support the thermal hybrid dome and its corresponding installation component. It shall sustain the 8X weight of the thermal hybrid dome.

### 1.1.2 About cable

- Select required video cable
  - 75 ohm impedance
  - Full cable with copper conductor
  - 95% knitted copper shield

International Model	Max Transmission Distance (FtM)
RG59/U	750Ft (229M)
RG6/U	1,000Ft (305M)
RG11/U	1,500Ft (457M)

- Select required service cable

#### Attention:

It is recommended to install the matched power within 5m from the device if it is allowed; but if not, then it needs to extend the power supply cable, but it has to guarantee the voltage of the device input port (thermal hybrid dome output cable) is no lower than AC24V±20%.

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## 2 SETUP BEFORE INSTALLATION

### 2.1 Check Accessories

Before the installation, please check the accessories one by one according to the packing list. Please make sure all the components listed are included.

### 2.2 Cable Description

There is one multi-functional composite cable by default for the thermal hybrid dome, please refer to Figure 2-1 for more details.

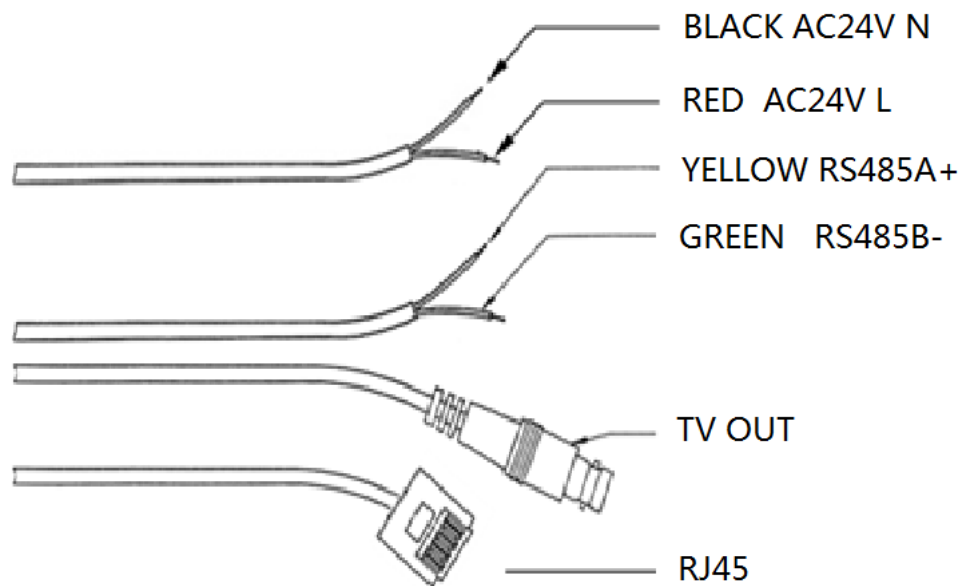


Figure 2-1

### 2.3 Reset and SD Card Installation

You can see the reset button and Micro-SD card slot on the PTZ motherboard after opening the window cover of the thermal hybrid dome (see Figure 2-2). The reset button is used for network system rest and the Micro-SD card is used for data storage.



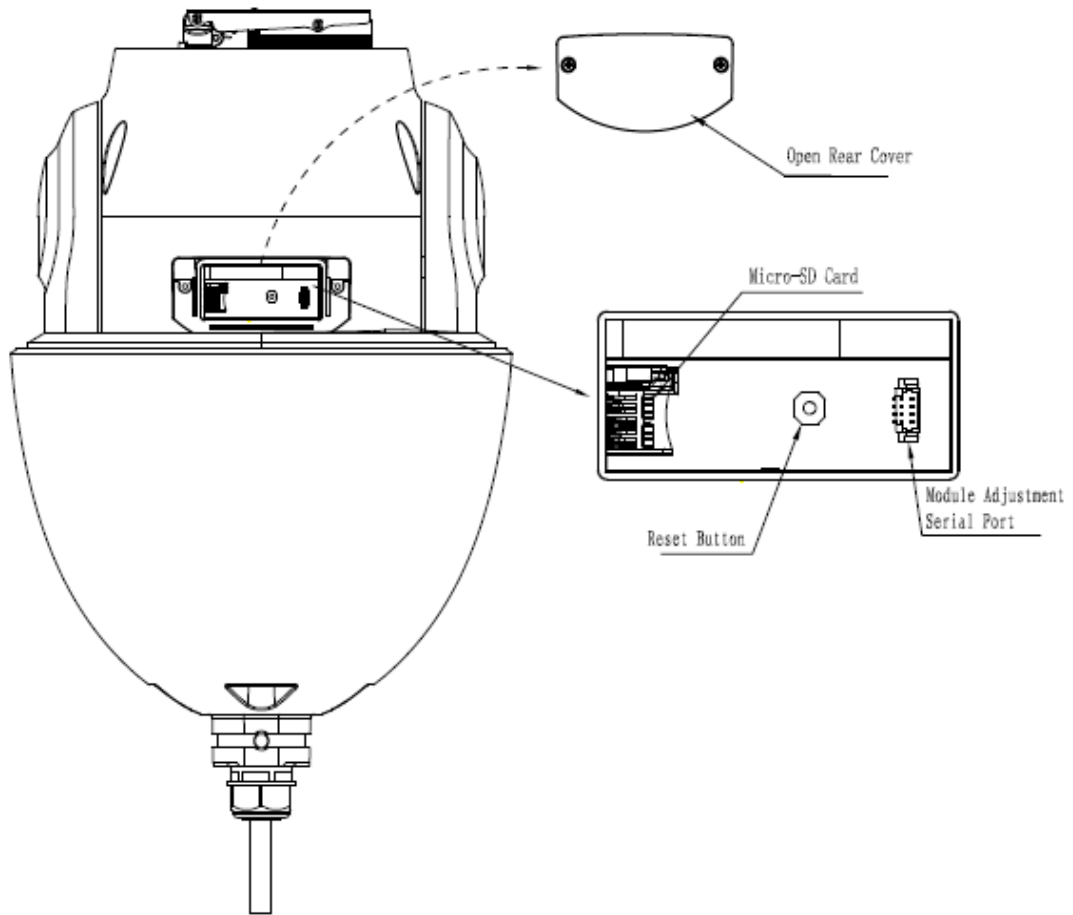


Figure 2-2

### 3 INSTALLATION

The intelligent thermal imaging thermal hybrid dome adopts four installation modes which are wall mount, hang mount, corner mount and pole mount.

**Attention:**

The installation surface should meet the following installation conditions:

- The installation surface is thick enough to install expansion bolt.
- The installation surface should sustain at least 8X weight of the thermal hybrid dome.

#### 3.1 Wall Mount Installation

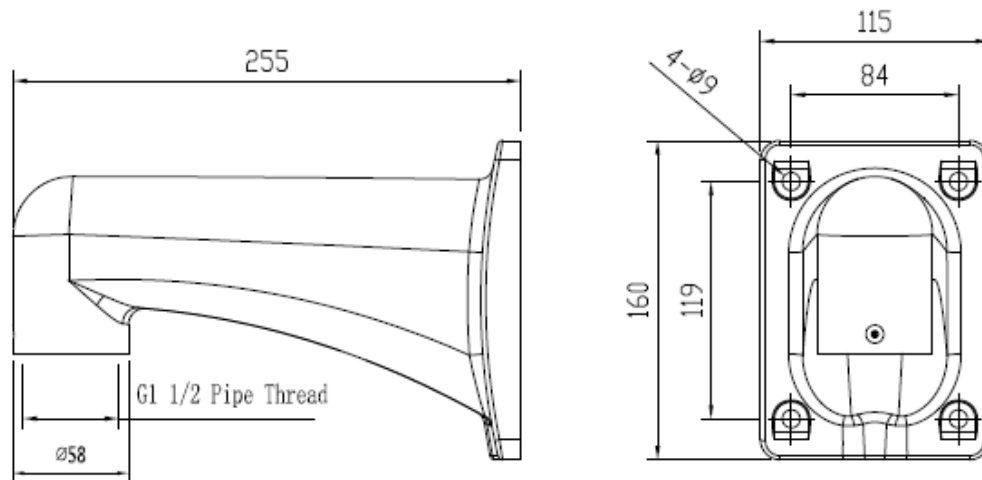


Figure 3-1

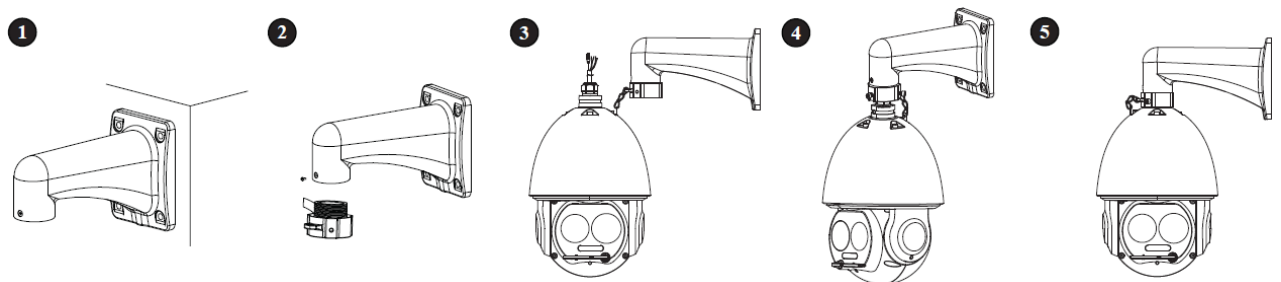


Figure 3-2

**Step 1**

Dig holes on the installation wall, fix the expansion bolt, and tighten the hex nut, as it is shown in Figure 3-2 (1).

**Step 2**

Screw the quick installation connector into the wall mount bracket and fix it with stainless screws, as it is shown in Figure 3-2 (2).

**Step 3**

Buckle it into the safety hook, connect to cable and use insulated rubber tape to make the device waterproof, as it is shown in Figure 3-2 (3).

**Attention:**

- Please make sure the safety hook is installed, otherwise the thermal hybrid dome may fall and cause accident due to instability! Please refer to the safety hook installation instruction in the accessories bag for more details.

- It has to heat and shrink the heat-shrinkable tube on both sides after the video head is well connected, which is to guarantee the video head is moistureproof and waterproof.

#### Step 4

Put the cable into the wall-mounted bracket and fix the thermal hybrid dome on the bracket by using stainless screws, as it is shown in Figure 3-2 (4).

#### Step 5

Check if the thermal hybrid dome is fixed firmly, and complete the installation of the unit device, as it is shown in Figure 3-2 (5).

## 3.2 Hang Mount Installation

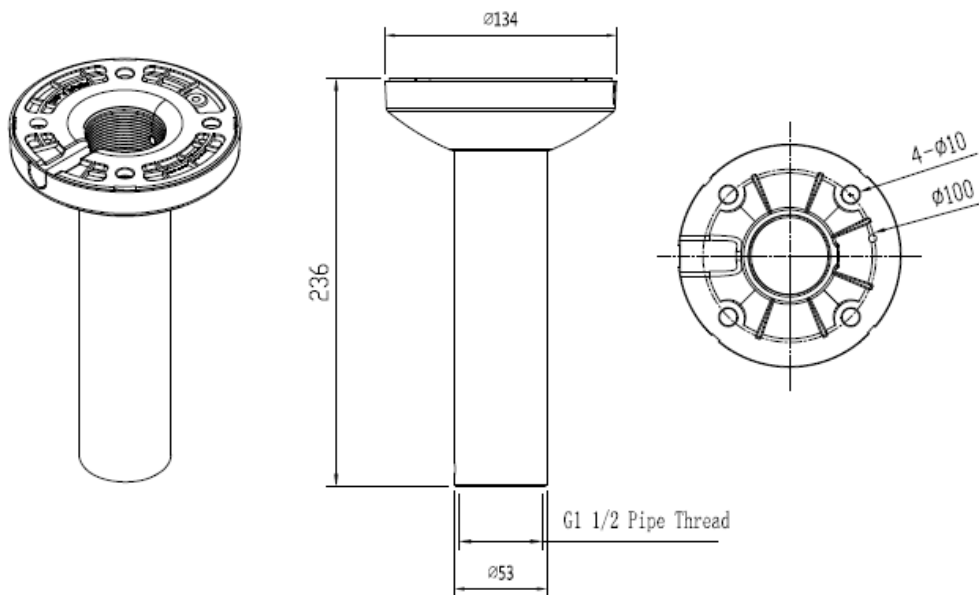


Figure 3-3

#### Note:

The adjustable range of the bracket length is: default 200mm, optional 400mm; it only needs to change the connecting rod.

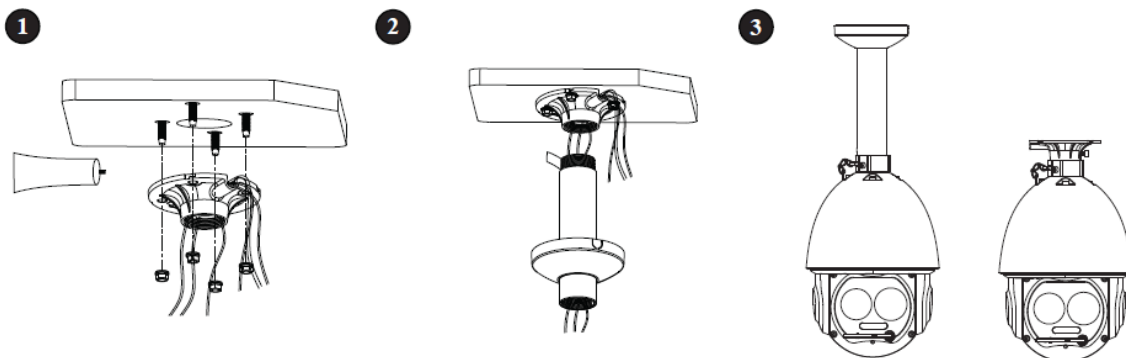


Figure 3-4

#### Step 1

Split the connection tray and the connection rod, dig holes on the installation surface, insert expansion bolts and paste glass cement on it to make it sealed and waterproof, as it is shown in Figure 3-4 (1).

#### Step 2

Pull the cable through the connecting pole, twine the Teflon tape around the connecting pole and fix it on the connection tray, as it is shown in Figure 3-4 (2).

**Step 3**

Refer to the step 2 to 4 in “3.1 Wall Mount Installation” and install the thermal hybrid dome on the bracket.

**Step 4**

Check if the thermal hybrid dome is installed firmly and complete the installation of the unit device, as it is shown in Figure 3-4 (3).

### 3.3 Corner Mount Installation

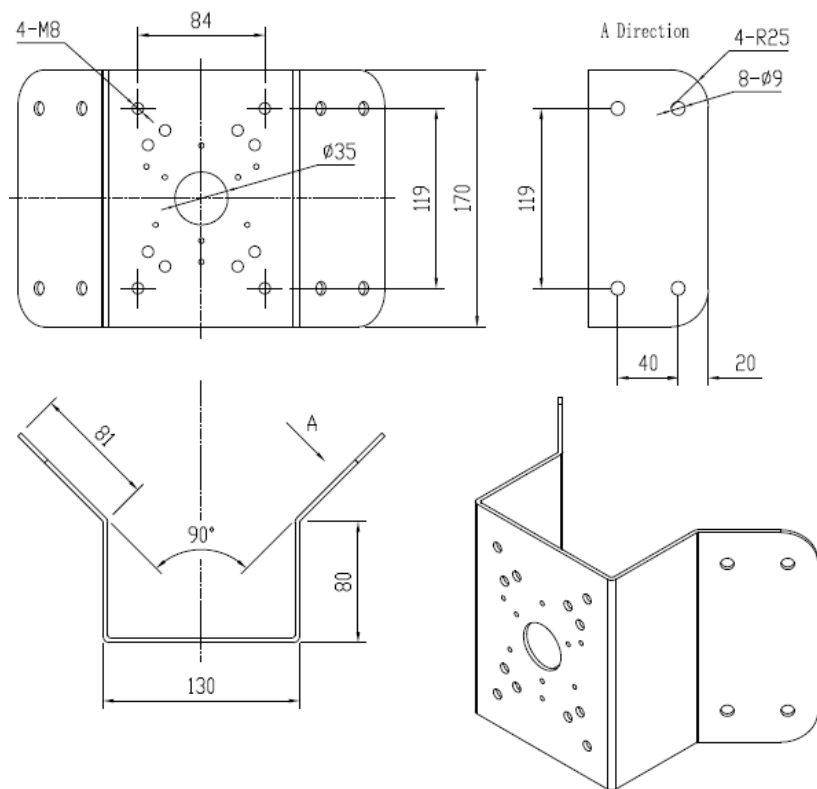


Figure 3-5

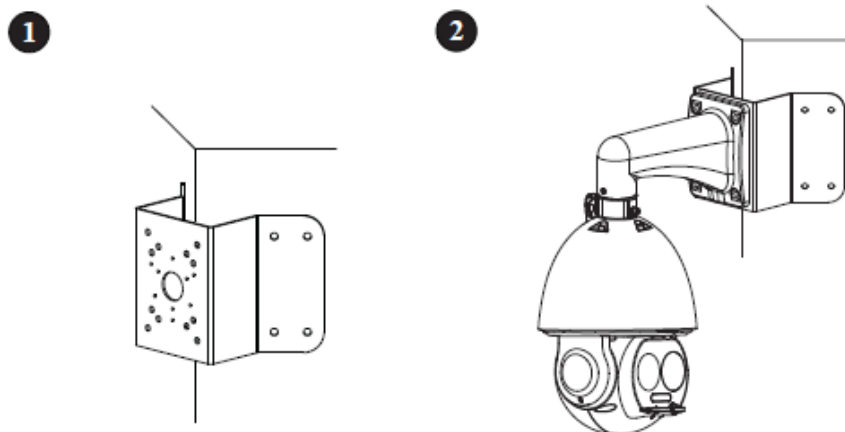


Figure 3-6

### Step 1

Dig holes on the installation wall, insert expansion bolts, fix with nut and paste glass cement to make it sealed and waterproof, as it is shown in Figure 3-6 (1).

### Step 2

Refer to the step 2 to 4 in “3.1 Wall Mount Installation” and install the thermal hybrid dome on the bracket.

### Step 3

Check if the thermal hybrid dome is installed firmly and complete the installation of the unit device, as it is shown in Figure 3-6 (2).

## 3.4 Pole Mount Installation

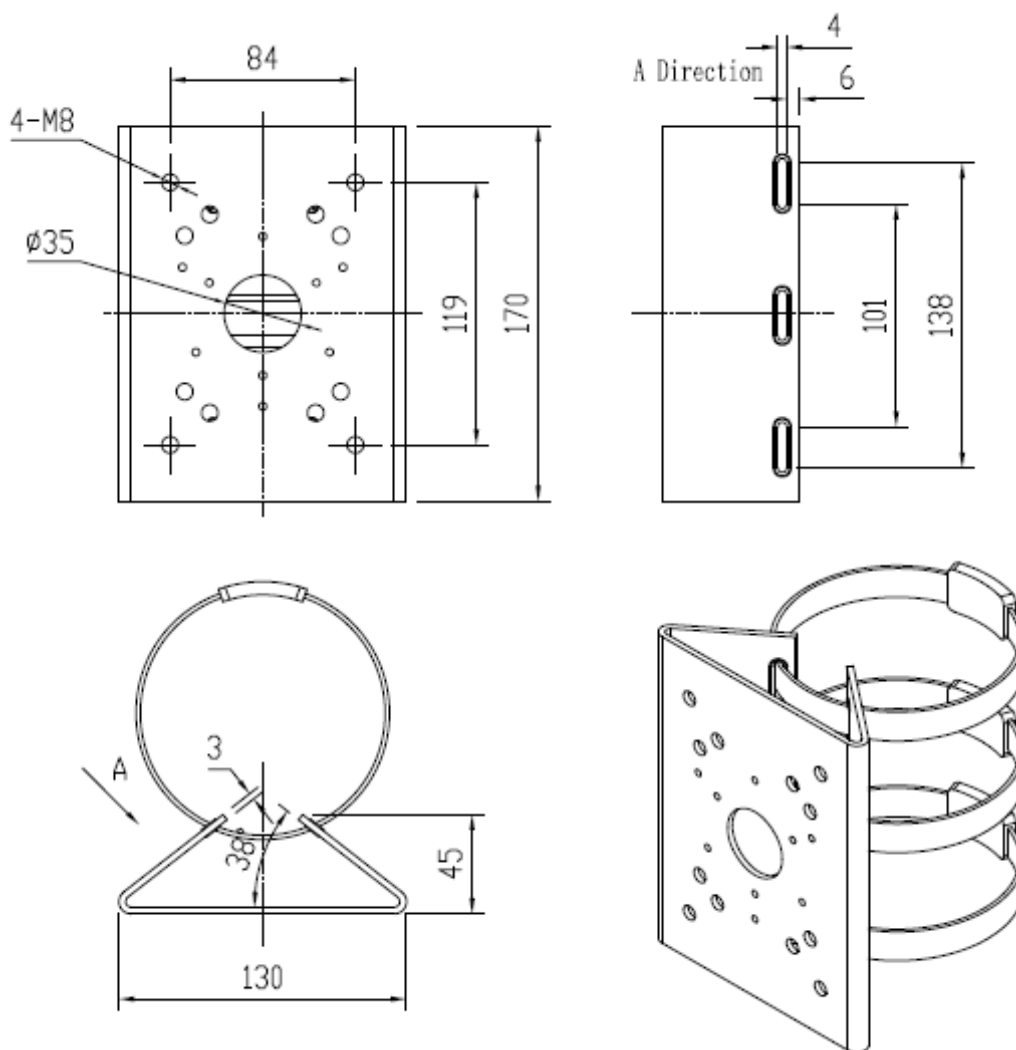


Figure 3-7

### Note:

It is equipped with 5-inch hose clamp by default (fit for  $\phi 80\text{mm} \sim 130\text{mm}$  column), which is used together with the column (pole) mount bracket, the diameter is adjustable, the adjustment range is the clamp specification (there are seven kinds of size for users to select):  $\phi 59\text{mm} \sim 82\text{mm}$ ,  $\phi$

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84mm ~ 108mm,  $\phi$ 80mm ~ 130mm,  $\phi$ 130mm ~ 152mm,  $\phi$ 155mm ~ 178mm,  $\phi$ 180mm ~ 203mm,  $\phi$ 194mm ~ 216mm; It is optional according to the users' requirements; the special size is customizable as well.

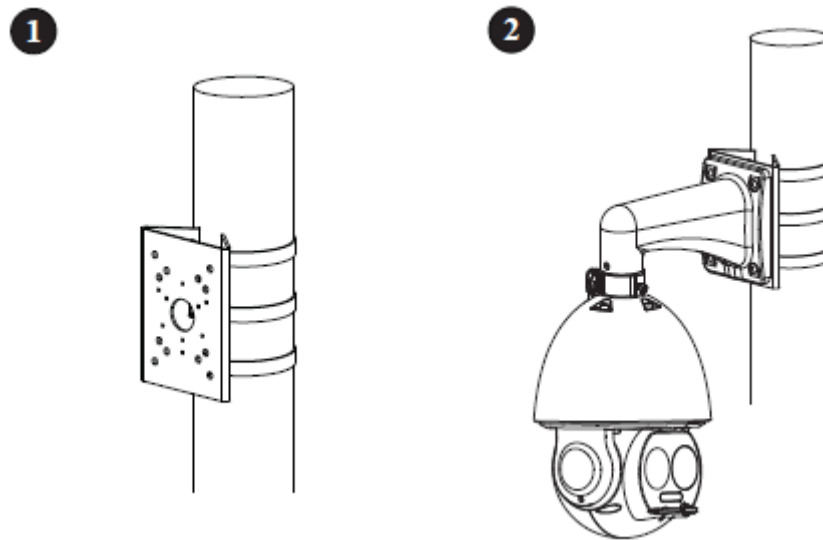


Figure 3-8

**Step 1**

Fix the installation hold hoop and the pole-mount bracket on the pole and paste glass cement to make it sealed and waterproof, as it is shown in Figure 3-8 (1).

**Note:**

Check if the hold hoop is tightened properly after installation, which is to avoid hoop breakage due to improper installation.

**Step 2**

Refer to the step 2 to 4 in “3.1 Wall Mount Installation” and install the thermal hybrid dome on the bracket.

**Step 3**

Check if the thermal hybrid dome is installed firmly and complete the installation of the unit device, as it is shown in Figure 3-8 (2).

## 4 Network Configuration

### 4.1 Modify IP Address

IP address can be acquired and modified through quick configuration tool for the thermal hybrid dome, please refer to the << Quick Configuration Tool Operation Manual>> for more details.

**Note:**

Currently the quick configuration tool only supports the cameras which apply to the same network segment with computer IP address.

Step 1 Double click the “ConfigTools.exe” and open the quick configuration tool.

Step 2 Double click the device to be configured, the system will pop out the “Login” dialog box.

Enter the IP address, user name, password and port number of the camera, and click “OK”.

**Note:**

The default user name and password are admin and admin respectively, the default port is 37777. See Figure 4-1 for more details.

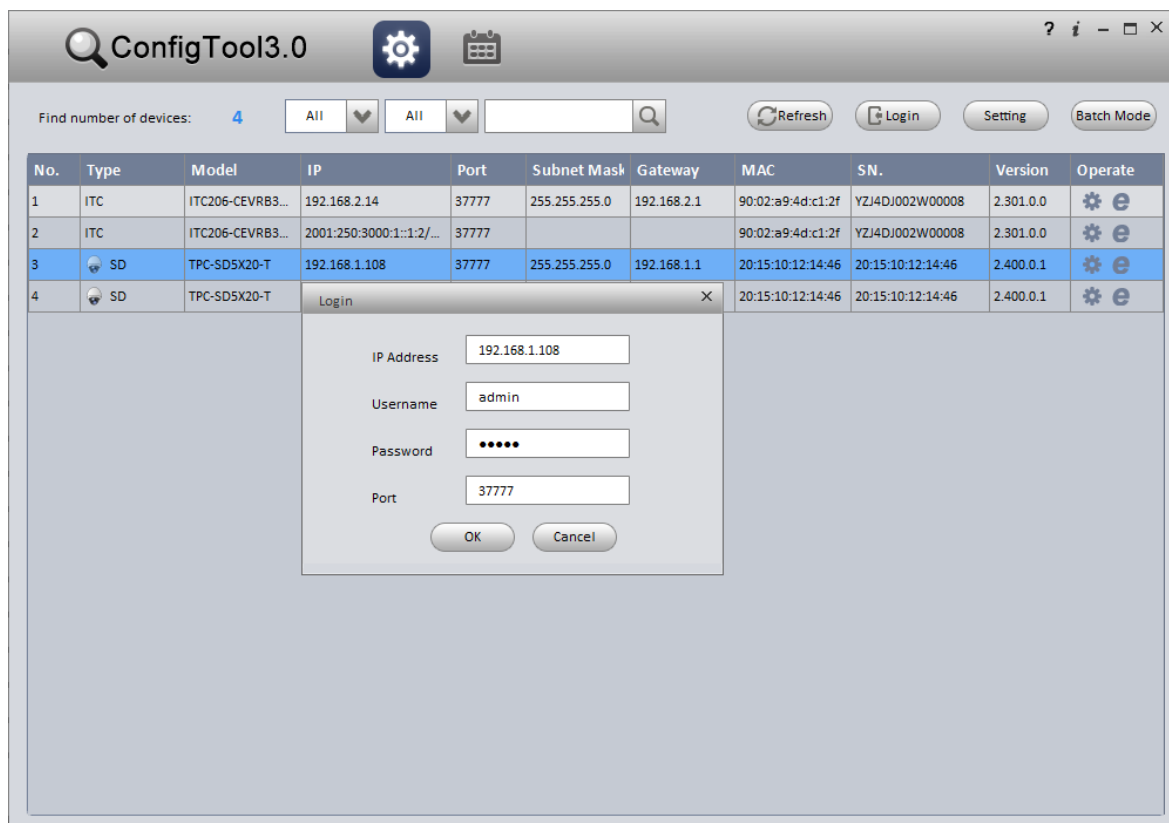


Figure 4-1

Step 3 Modify the camera IP address on the “Net” interface, click “Save” to finish modification.

See Figure 4-2 for more details.

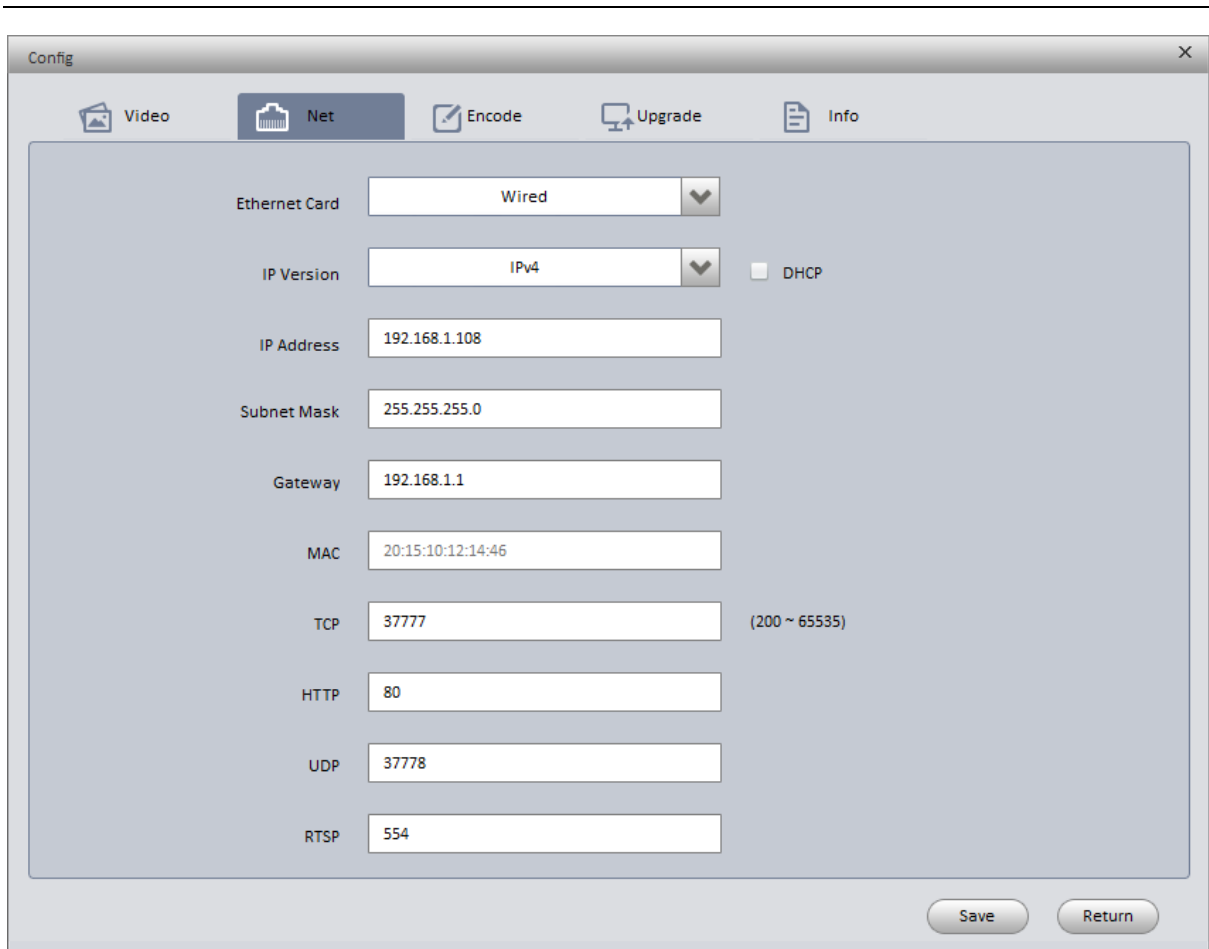


Figure 4-2

## 4.2 Login WEB Interface

### Note:

Different devices may have different WEB interfaces, the figures below are just for reference, please refer to the <<WEB Operation Manual>> in the disk and the actual interface for more details

Step 1 Open IE and input the modified camera IP address in the address bar.

Step 2 The login interface is shown below, please input your user name and password (Default user name is admin and password is admin respectively), click "login".

See Figure 4-3 for more details.





Figure 4-3

Step 3 Install controls according to the system prompt; see Figure 3-4 for the WEB main interface. Please modify the administrator password as soon as possible after you successfully logged in.

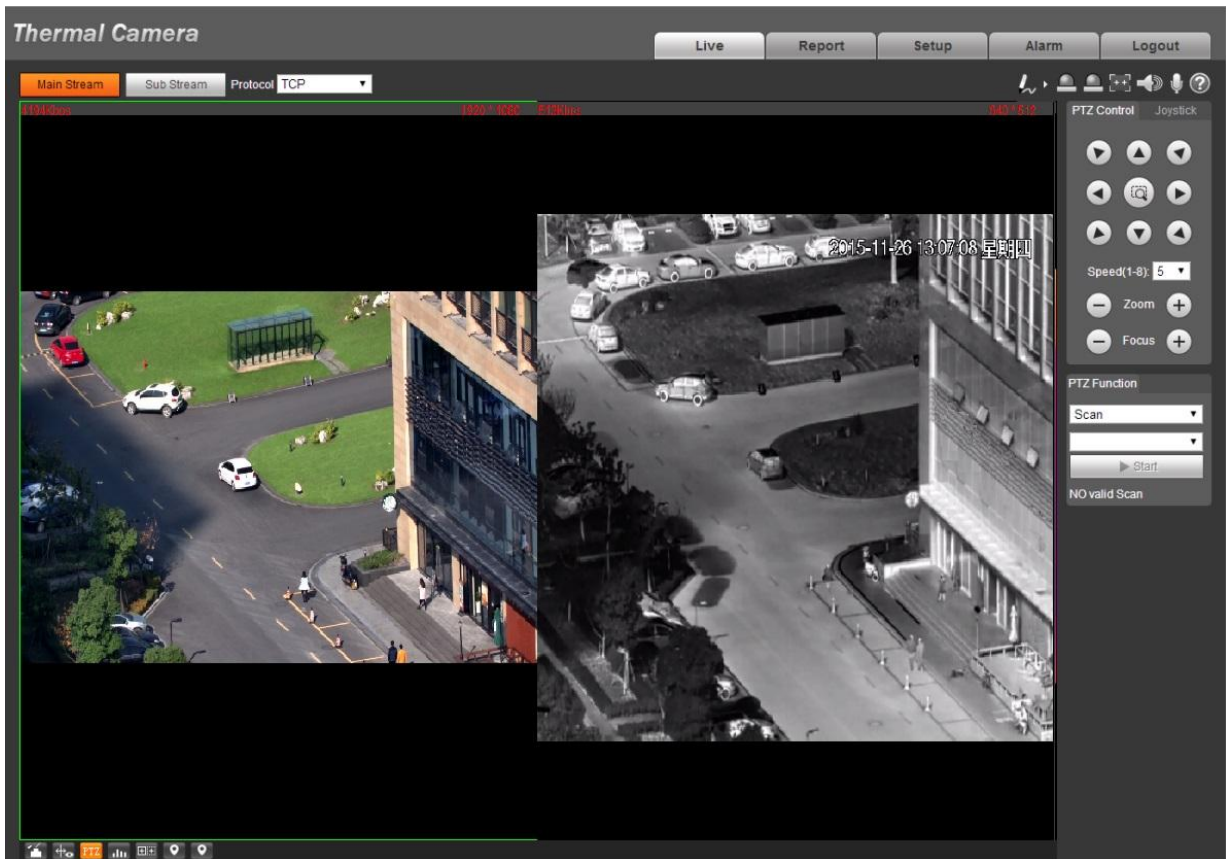


Figure 4-4

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## 5 APPENDIX I LIGHTENING PROTECTION AND SURGE PROTECTION

This series thermal hybrid dome adopts TVS lightning protection technology. It can effectively prevent damages from various pulse signals below 4000W, such as sudden lightning and surge. While maintaining your local electrical safety code, you still need to take necessary precaution measures when installing the thermal hybrid dome in the outdoor environment.

- The distance between the signal transmission cable and high-voltage device (or high-voltage cable) shall be at least 50 meters.
- Outdoor cable layout shall go under the penthouse if possible.
- For vast land, please use sealing steel tube under the land to implement cable layout and connects one point to the earth. Open floor cable layout is forbidden.
- In area of strong thunderstorm hit or near high sensitive voltage (such as near high-voltage transformer substation), you need to install additional high-power thunder protection device or lightning rod.
- The thunder protection and earth of the outdoor device and cable shall be considered in the building whole thunder protection and conform to your local national or industry standard.
- System shall adopt equal-potential wiring. The earth device shall meet anti-jamming and at the same time conforms to your local electrical safety code. The earth device shall not short circuit to N (neutral) line of high voltage power grid or mixed with other wires. When connect the system to the earth alone, the earth resistance shall not be more than  $4\Omega$  and earth cable cross-sectional area shall below  $25\text{ mm}^2$ . See Figure 5-1.

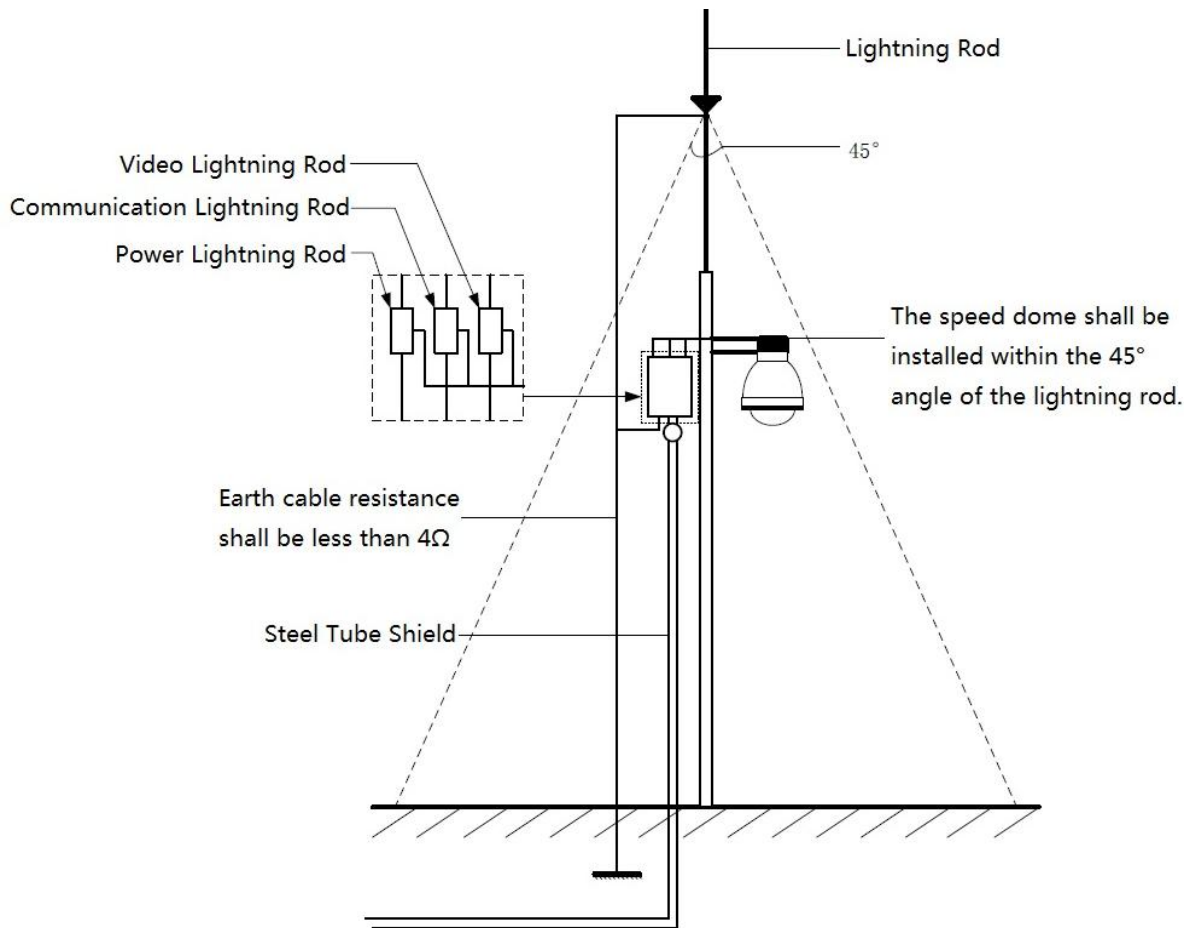


Figure 5-1

**Note**

- This manual is for reference only. Slight difference may be found in the user interface.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- 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.