



# Multi-Sensor Panoramic Network Camera + PTZ Camera Quick Start Guide

V1.0.0

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# Foreword

## General

This manual introduces the functions and operations of the functions, installation and operations of the camera.

## Safety Instructions

The following categorized signal words with defined meaning might appear in the manual.

Signal Words	Meaning
 <b>WARNING</b>	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 <b>CAUTION</b>	Indicates a potential risk which, if not avoided, may result in property damage, data loss, lower performance, or unpredictable result.
 <b>NOTE</b>	Provides additional information as the emphasis and supplement to the text.

## Revision History

Version	Revision Content	Release Date
V1.0.0	First release.	2019.03

## Privacy Protection Notice

As the device user or data controller, you might collect personal data of others such as face, fingerprints, car plate number, Email address, phone number, GPS and so on. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures include but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area and providing related contact.

## About the Manual

- The manual is for reference only. If there is inconsistency between the manual and the actual product, the actual product shall prevail.
- We are not liable for any loss caused by the operations that do not comply with the manual.
- The manual would be updated according to the latest laws and regulations of related regions. For detailed information, see the paper manual, CD-ROM, QR code or our official website. If there is inconsistency between paper manual and the electronic version, the electronic version shall prevail.
- All the designs and software are subject to change without prior written notice. The product

updates might cause some differences between the actual product and the manual. Please contact the customer service for the latest program and supplementary documentation.

- There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, please refer to our final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and the company names in the manual are the properties of their respective owners.
- Please visit our website, contact the supplier or customer service if there is any problem occurred when using the device.
- If there is any uncertainty or controversy, please refer to our final explanation.

# 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 Safety Extra Low Voltage (SELV) standard, and supply power with rated voltage which conforms to Limited power Source requirement according to 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.

## 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 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 device away from any liquid to avoid damage 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.
- Install the device in the location where only the professional staff with relevant knowledge of safety guards and warnings can access. The accidental injury might happen to the non-professionals who enter the installation area when the device is operating normally.

## Operation and Daily Maintenance

- Do not touch the heat dissipation component of the device to avoid scald.
- Carefully follow the instructions in the manual when performing any disassembly operation about the device; otherwise, it might cause water leakage or poor image quality due to unprofessional disassemble. Please contact after-sale service for desiccant replacement if there is condensed fog found on the lens after unpacking or when the desiccant turns green. (Not all models are included with the desiccant).

- It is recommended to use the device together with lightning arrester to improve lightning protection effect.
- It is recommended connect the grounding hole to the ground to enhance the reliability of the device.
- Do not touch the image sensor (CMOS) directly. Dust and dirt could be removed with air blower, or you can wipe the lens gently with soft cloth that moistened with alcohol.
- Device body can be cleaned with soft dry cloth, which can also be used to remove stubborn stains when moistened with mild detergent. To avoid possible damage on device body coating which could cause performance decrease, do not use volatile solvent such as alcohol, benzene, diluent and so on to clean the device body, nor can strong, abrasive detergent be used.
- Dome cover is an optical component, do not touch or wipe the cover with your hands directly during installation or operation. For removing dust, grease or fingerprints, wipe gently with moisten oil-free cotton with diethyl or moisten soft cloth. You can also air blower to remove dust.



## WARNING

- Please strengthen the protection of network, device data and personal information by adopting measures which include but not limited to using strong password, modifying password regularly, upgrading firmware to the latest version, and isolating computer network. For some device with old firmware versions, the ONVIF password will not be modified automatically along with the modification of the system password, and you need to upgrade the firmware or manually update the ONVIF password.
- Use standard components or accessories provided by manufacturer and make sure the device is installed and maintained 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 unless otherwise specified. A failure to follow this instruction might cause damage to the device.

# Regulatory Information

## FCC Information



Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **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.

### **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. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the guide, may cause harmful interference to radio communication.

- For class A device, these limits are designed to provide reasonable protection against harmful interference in a commercial environment. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- For class B device, these limits are designed to provide reasonable protection against harmful interference in a residential installation. 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.

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# 1 Introduction

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This product is a type of integrated camera which consists of panoramic camera and tracking PTZ dome camera. It provides monitoring effect of both panoramic and details. Panoramic camera can provide real-time HD surveillance of 180°/225°/270°/315°/360° view coverage. Besides, it is convenient to recognize and exclude abnormality via quick positioning and zoom in of tracking PTZ dome camera when abnormality happens.



# 2 Cables



- Cable type might vary with different devices, and the actual product shall prevail.
- Waterproof all the cable joints with insulating tape and waterproof tape to avoid short circuit and water damage. For the detailed operation, see the *FAQ Manual*.

Figure 2-1 Cable list

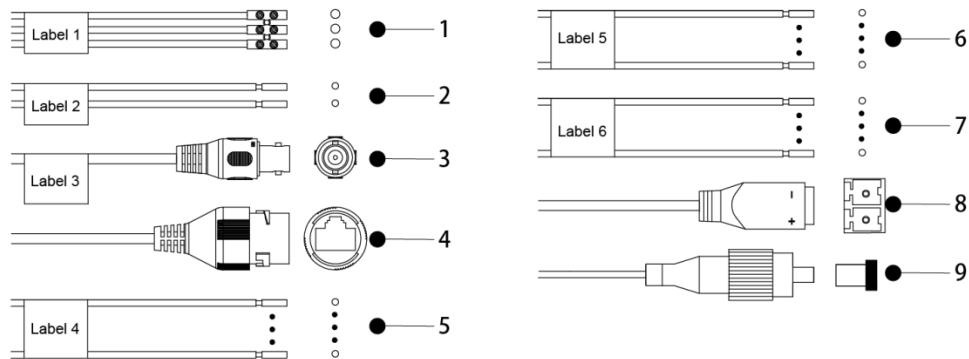


Table 2-1 Cables


No.	Cable	Port Name	Description
1	POWER	Power input	<ul style="list-style-type: none"> <li>• Red: 36V DC power input.</li> <li>• Black: Ground connection.</li> <li>• Yellow and green: Ground connection.</li> </ul>  <p>Device abnormality or damage could occur if power is not supplied correctly.</p>
2	RS-485	RS-485	Reserved port. <ul style="list-style-type: none"> <li>• Yellow: RS-485 A+.</li> <li>• Orange: RS-485 B-.</li> </ul>
3	VIDEO_OUT	Video output	BNC port. Connects to TV monitor to check image when outputting analog video signal.
4	LAN	Ethernet	Connects to Ethernet port.
5	AUDIO	Audio	Includes audio input and output ports. For detailed information, see Table 2-2.
6	I/O	I/O	Includes alarm signal input and output ports, the number of I/O ports might vary on different devices. For detailed information, see Table 2-3 and Table 2-4.
7			
8	DC 12V Out	12V DC power output	Supplies 12V DC (2W) power for external devices.
9	OPT	OPT	Connects to network with optical fiber.

Table 2-2 Audio I/O

Port	Color	Port Name	Description
Audio	Red	AUDIO_OUT 1	Connects to speaker to output audio signal.
	White and brown	AUDIO_OUT 2	
	White	AUDIO_IN 1	Connects to sound-pick-up device to receive audio signal.
	White and red	AUDIO_IN 2	
	Black	AUDIO_GND	

Table 2-3 Alarm in port

Port	Color	Port Name	Description
Alarm in	Red	ALARM_IN 1	Alarm input port. Receives the switch signal of external alarm source.
	Brown	ALARM_IN 2	
	Gray	ALARM_IN 3	
	Light green	ALARM_IN 4	
	Purple	ALARM_IN 5	
	White	ALARM_IN 6	
	Yellow and black	ALARM_IN 7	

Table 2-4 Alarm out port

Port	Color	Port Name	F Description
Alarm out	Blue	ALARM_OUT 1	Alarm output port. Outputs alarm signal to alarm device.
	Black	ALARM_OUT 2	
	White and blue	ALARM_OUT 3	
	Green	ALARM_COM 1	When connecting to alarm device, only the ALARM_OUT port and ALARM_COM port with the same number can be used together.
	Pink	ALARM_COM 2	
	White and Orange	ALARM_COM 3	
	Yellow and green	ALARM_GND	Ground connection.

# 3 Network Configuration

Device initialization and IP setting can be finished with the "ConfigTool" or in web interface. For more information, see the *Web Operation Manual*.



- Device initialization is available on select models, and it is required at first use and after device is being reset.
- Device initialization is available only when the IP addresses of the device (192.168.1.108 by default) and the PC stays in the same network segment.
- Planning useable network segment properly to connect the device to the network.
- The following figures and interfaces are for reference only, and the actual product shall prevail.

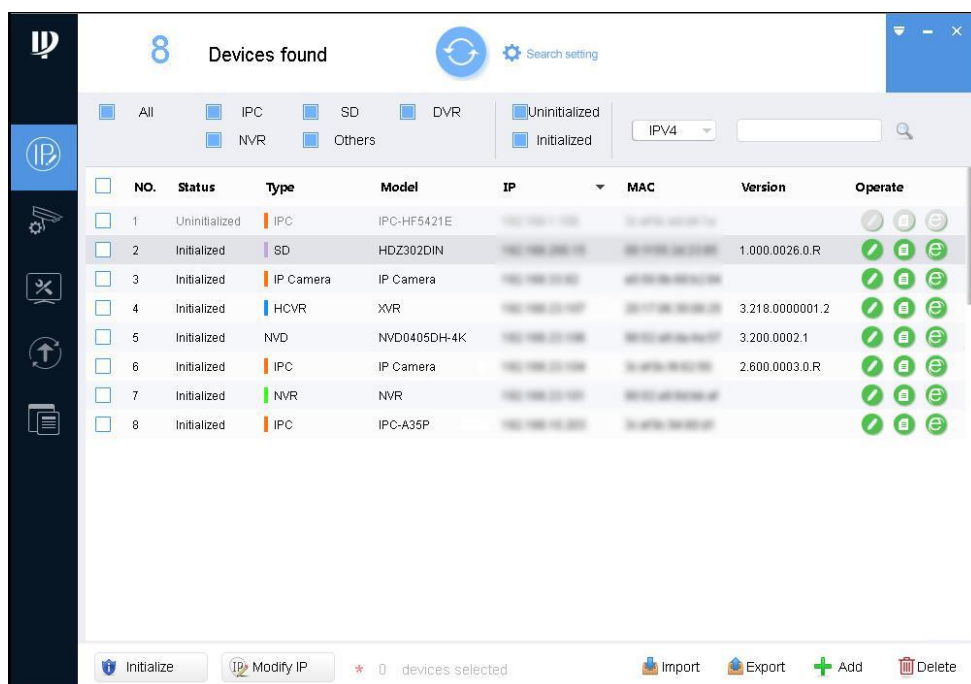
## 3.1 Initializing Device

Step 1 Double-click "ConfigTool.exe" to open the tool.

Step 2 Click .

The **Modify IP** interface is displayed. See Figure 3-1.

Figure 3-1 Modify IP interface



Step 1 Click **Search setting**.

The **Setting** interface is displayed.

Step 2 Enter the start IP and end IP of the network segment in which you want to search devices, and then click **OK**.

All the devices found in the network segment are listed.

Step 3 Select one or several devices which **Status** are **Uninitialized**, and then click **Initialize**. The **Device initialization** interface is displayed.

**Step 4** Select the devices that need initialization, and then click **Initialize**.  
The password setting interface is displayed. See Figure 3-2.

Figure 3-2 Password setting interface

Device initialization

1 device(s) have not been initialized

Username

New Password

Weak Medium Strong

Confirm Password

Use a password that has 8 to 32 characters, it can be a combination of letter(s), number(s) and symbol(s) with at least two kinds of them. (excluding " ' , ; ' ; & ' )

Email Address  (for password reset)

\*After you have set new password, please set password again in Search Setup.

Next

**Step 5** Set and confirm the password of the devices, and then enter a valid email address.  
Click **Next**.

The final setting interface is displayed.



Password can be modified or reset in **System Settings**.

**Step 6** Select the options according to your needs and then click **OK**.  
The **Initialization** interface is displayed after initializing is completed. Click the success icon (✓) or the failure icon (⚠) for the details.

**Step 7** Click **Finish**.

The device status in the **Modify IP** interface (Figure 3-1) turns to **Initialized**.

## 3.2 Modifying Device IP Address



- You can modify IP address of one or multiple devices in one time. This section is based on modifying IP addresses in batch.
- Modifying IP addresses in batch is available only when the corresponding devices have the same login password.

**Step 1** Do Step 1 to Step 4 in "3.1 Initializing Device" to search devices in your network segment.



After clicking **Search setting**, please make sure the **username** and **password** are the same as what you set during initialization, otherwise there will be "wrong password" notice.

**Step 2** Select the devices which IP addresses need to be modified, and then click **Modify IP**.  
The **Modify IP Address** interface is displayed. See Figure 3-3.

Figure 3-3 Modify IP Address interface

Modify IP Address

Mode  Static  DHCP

Start IP   Same IP

Subnet Mask

Gateway

Selected number of devices: 11

OK

**Step 3** Select **Static** mode and enter start IP, subnet mask and gateway.



- IP addresses of multiple devices will be set to the same if you select **Same IP**.
- If DHCP server is available in the network, devices will automatically obtain IP addresses from DHCP server when you select **DHCP**.

**Step 4** Click **OK**.

## 3.3 Logging in Web Interface

**Step 1** Open IE browser, enter the IP address of the device in the address bar and press Enter.

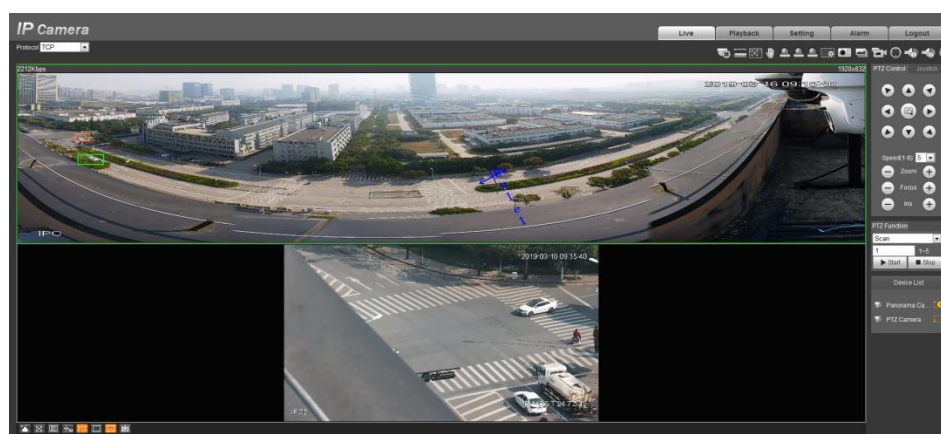
If the setup wizard is displayed, follow the instructions to finish the settings.

**Step 2** Enter user name and password in the login box, and then click **Login**.

**Step 3** For first time login, click **Click Here to Download Plugin** and install the plugin as instructed.

The main interface is displayed when the installation is finished. See Figure 3-4.

Figure 3-4 Main interface



# 4 Smart Track Setting

Enable smart track, and then configure the tracking parameters. And when any anomaly is detected, the speed dome would track the target until it gets out of the surveillance range.

## Precondition

You already configured heat map, intrusion, or tripwire on the panoramic camera.

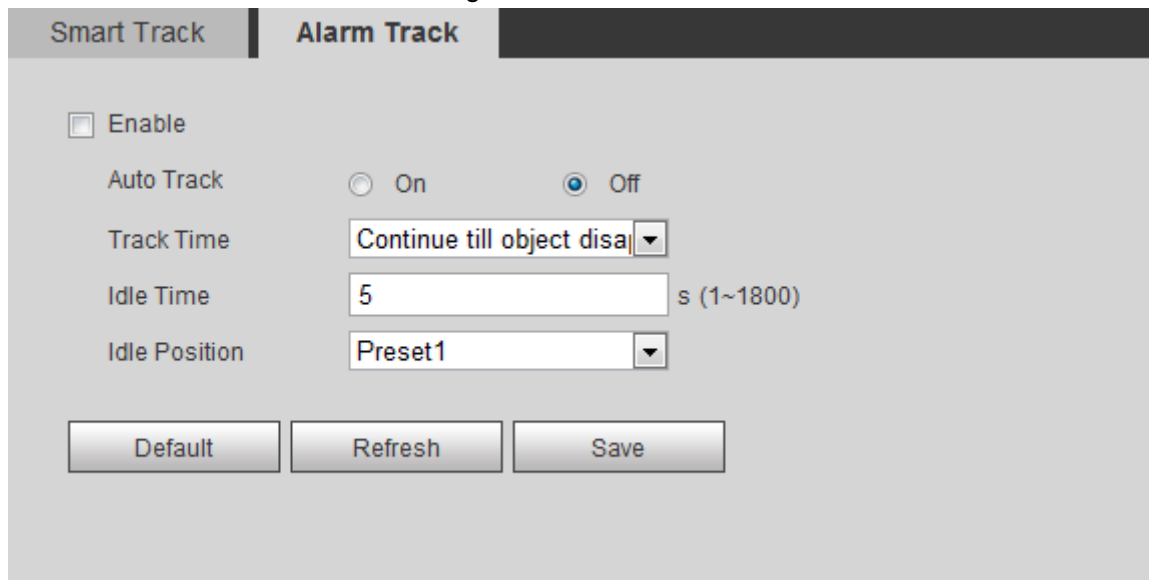
## 4.1 Enabling Alarm Track

Alarm track is disabled by default; and you need to enable it manually.

**Step 1** Select **Setting > Event > Smart Track > Alarm Track**.

The **Alarm Track** interface is displayed. See Figure 4-1.

Figure 4-1 Alarm track



**Step 2** Click **On** to enable **Alarm Track**. For details, see *Web Operation Manual*.

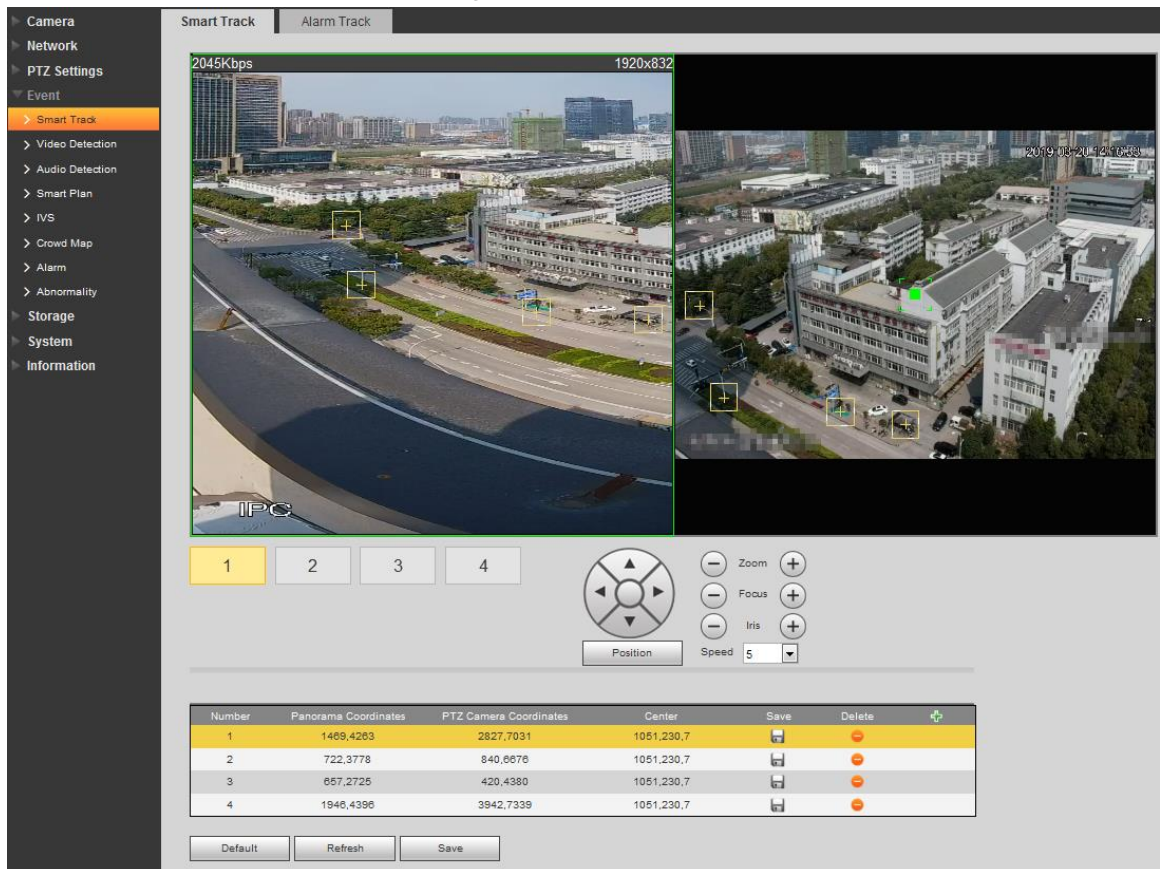
## 4.2 Configuring Tracking Parameters

The device is equipped with calibration parameter by default, and you can modify them manually as needed.

**Step 1** Select **Setting > Event > Smart Track > Smart Track**.

The **Smart Track** interface is displayed. See Figure 4-2.

Figure 4-2 Smart track



**Step 2** Select the lens you need, and then add calibration point for it in the live image.

Figure 4-3 Lens number



- 1) Adjust the speed dome lens and turn it to the same view as the chosen lens, and then click

The calibration boxes are displayed in both images.

- 2) Pair each box in the two images, and keep the paired boxes at the same spot of the live view.
- 3) Click .

You need at least 4 pairs of calibration boxes to ensure the views of the speed dome and the panoramic camera as similar as possible.

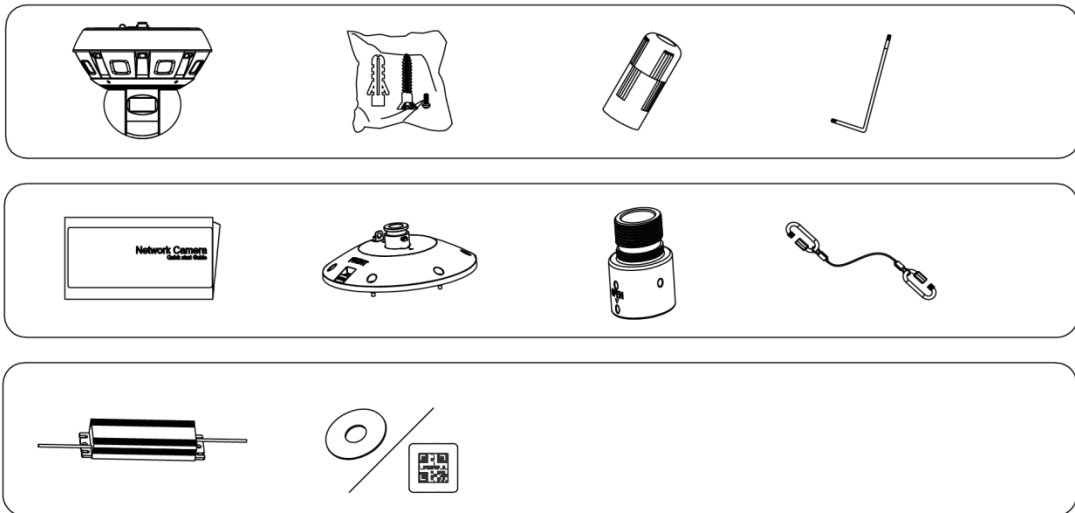
**Step 3** Click **Save**.

# 5 Installation

## 5.1 Packing List



- The tool required for the installation such as electric drill is not provided in the packing.
- The operation manual and related tool are contained in the disk or the QR code, and the actual packing shall prevail.

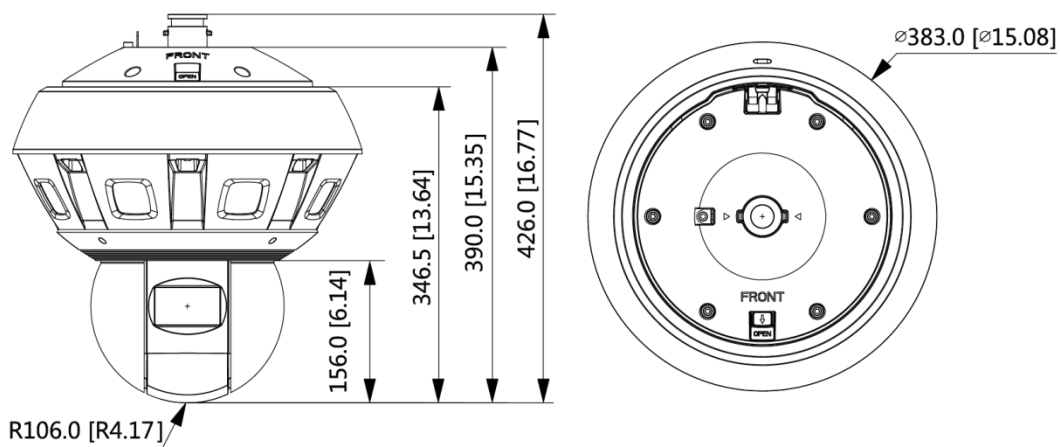


## 5.2 Dimension



Following figures are for reference only, the actual product shall prevail.

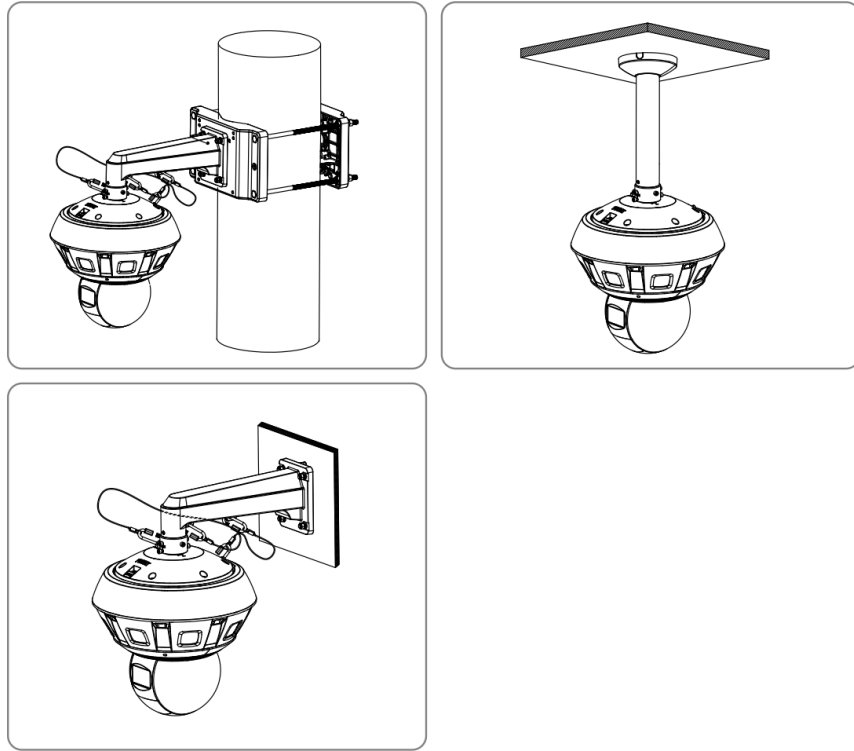
(Unit: mm [in])





## 5.3 Installing Device

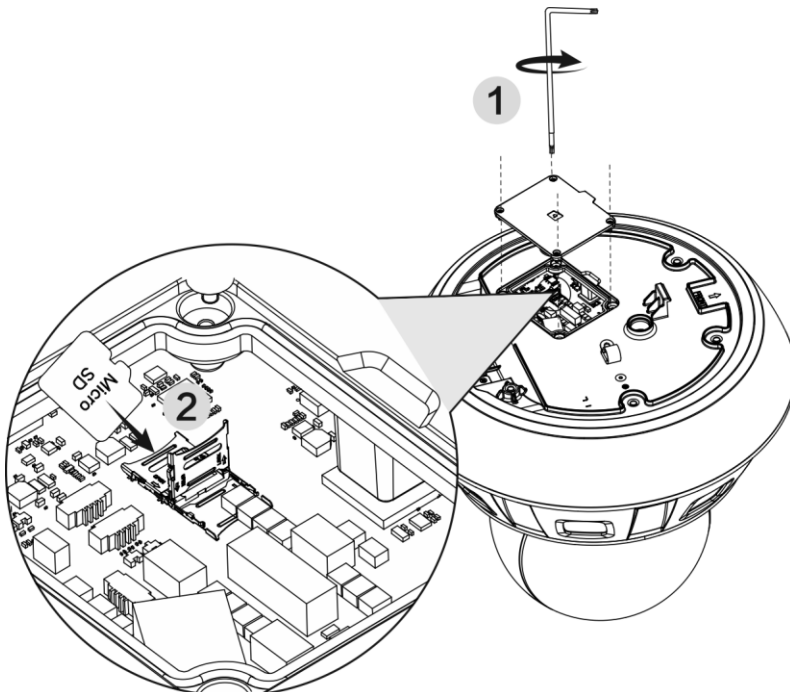
### 5.3.1 Installation method



### 5.3.2 Installing SD Card (Optional)



- Pull the power plug off before installing or removing the SD card.
- Press and hold the RESET button for 10 s to reset the camera.

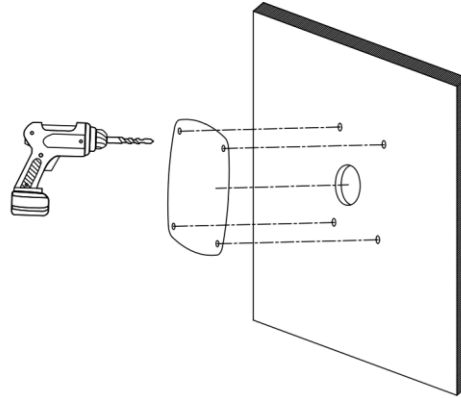


### 5.3.3 Attaching Device

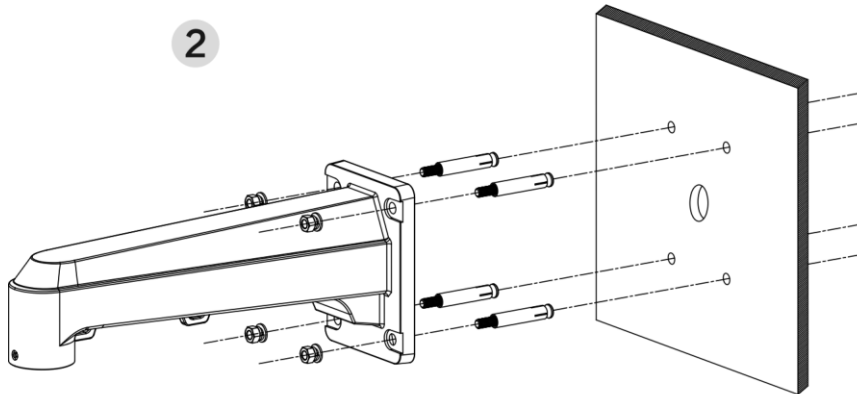


Make sure the mounting surface is strong enough to hold at least three times of the device weight.

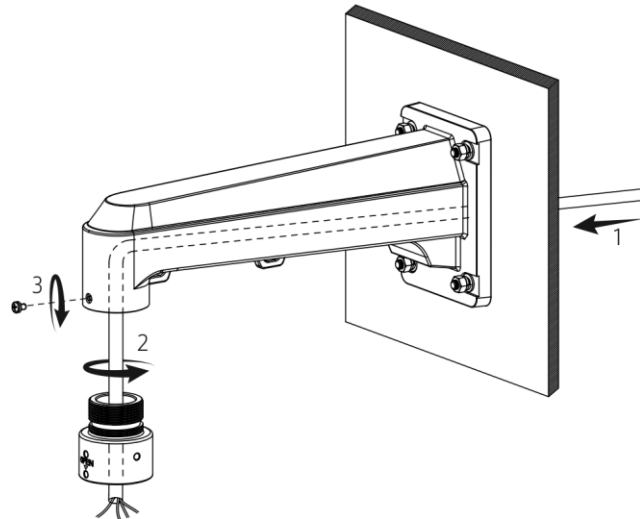
1

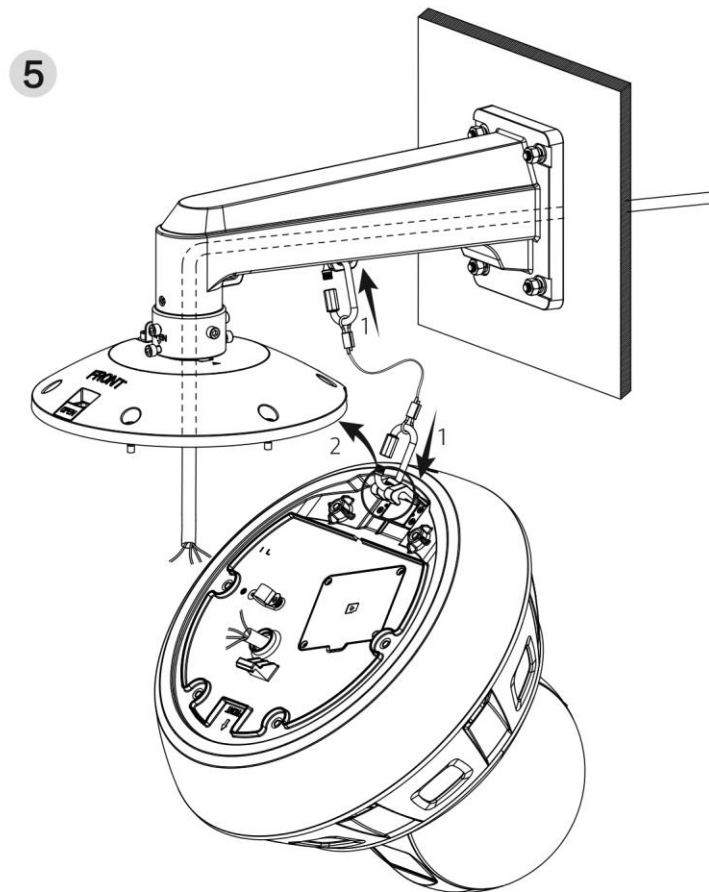
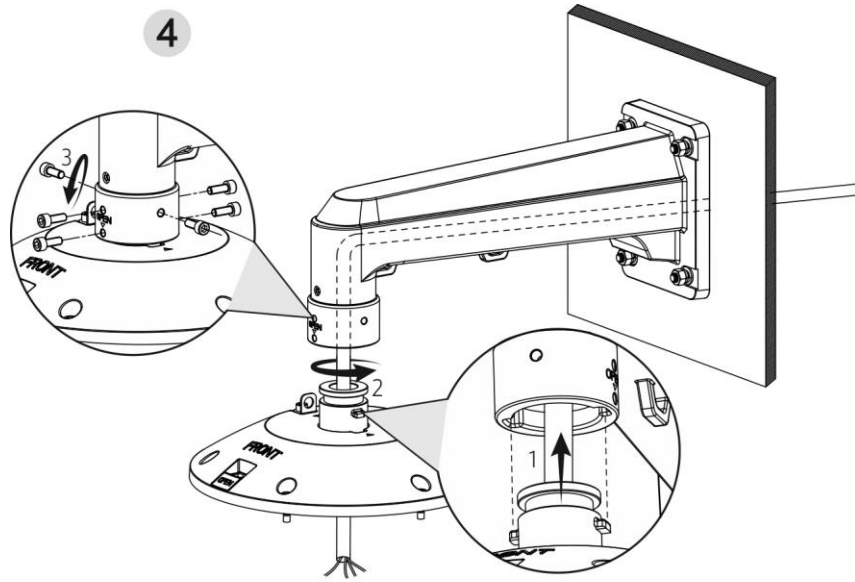


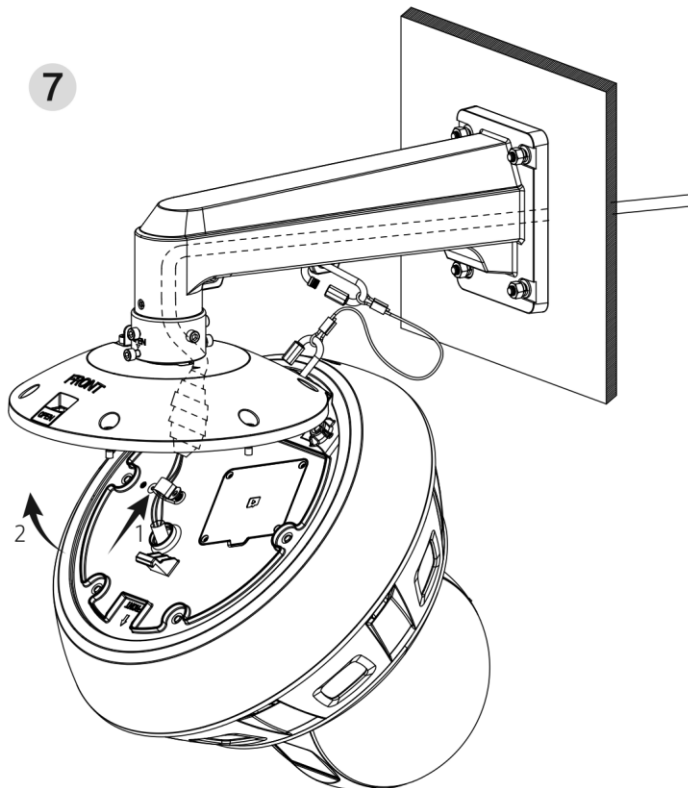
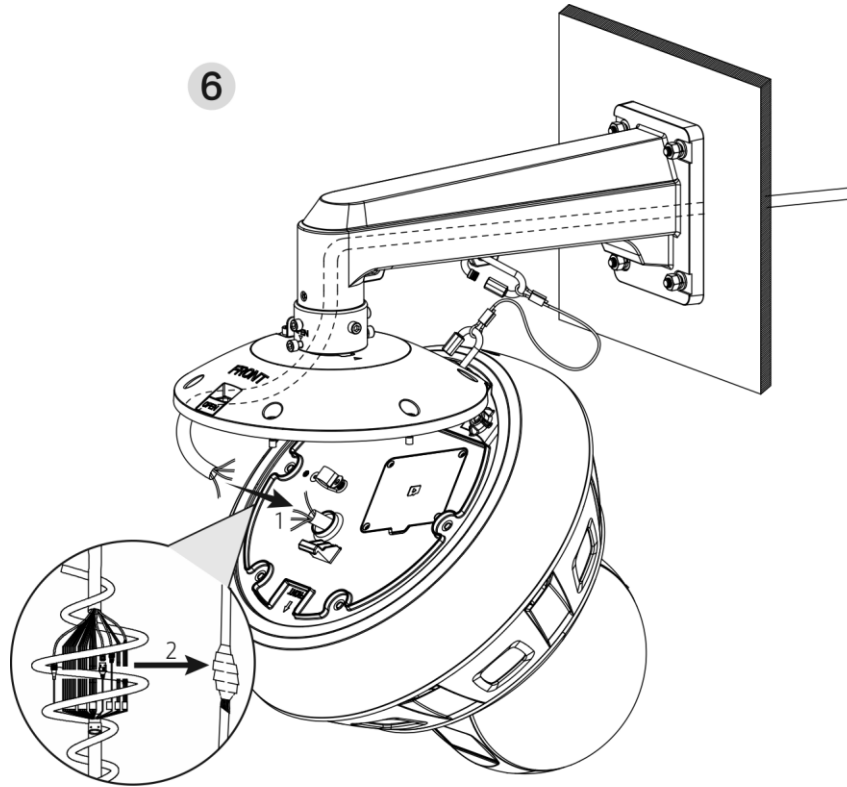
2

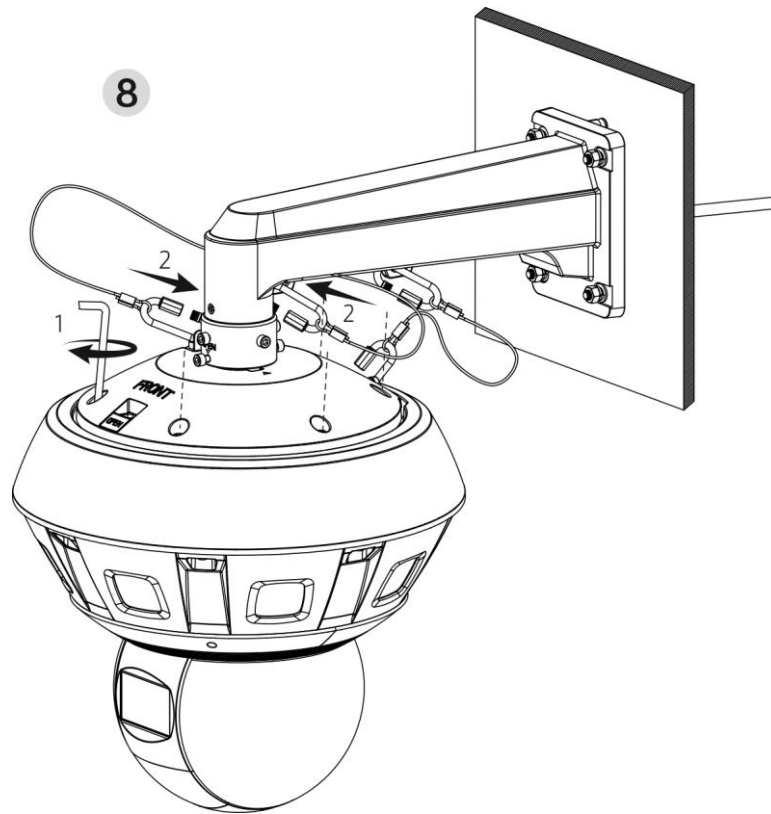


3



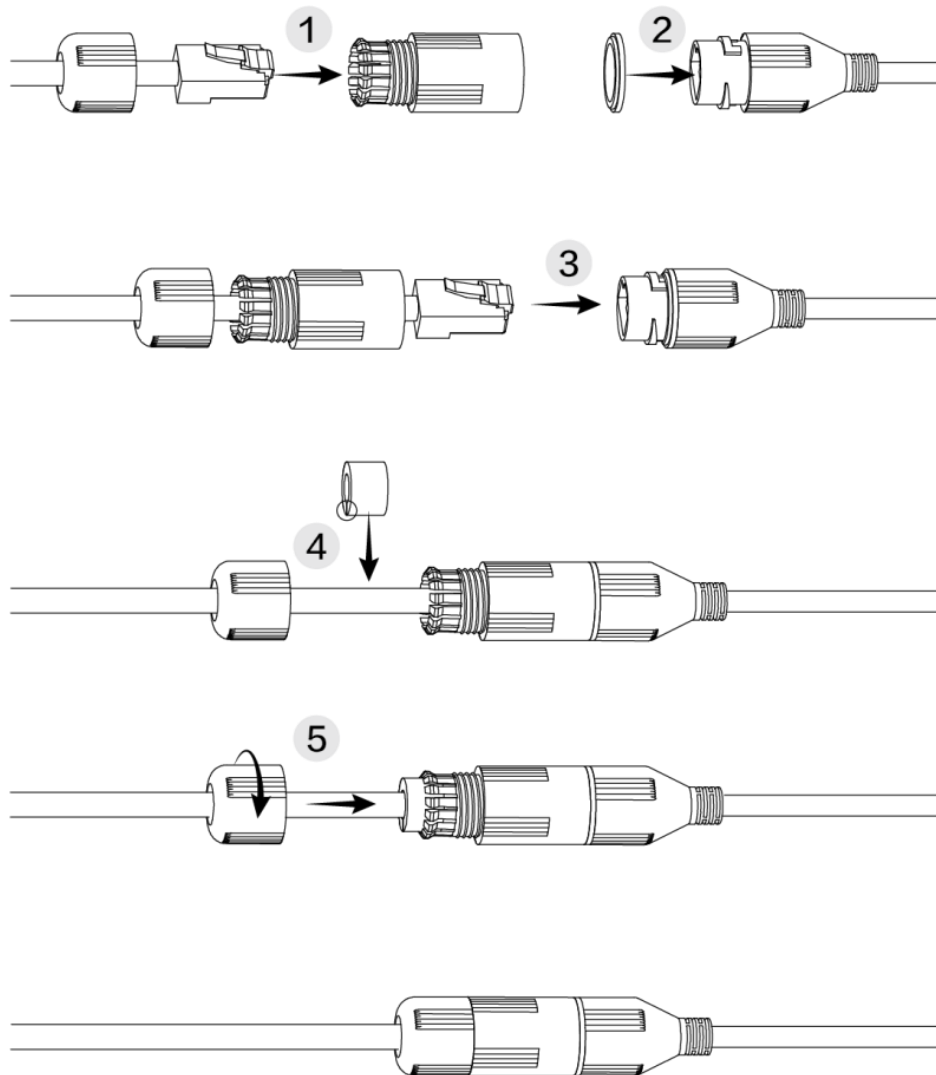






### 5.3.4 Installing Waterproof Connector (Optional)

This part is needed only when there is waterproof connector come with the device and the device is used outdoor.



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